UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

EARTHQUAKE DATA REPORT

JANUARY 1993

by

U.S. Geological Survey

NATIONAL EARTHQUAKE INFORMATION CENTER[1]

Open-File Report 93-601

This report is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards. Although this data file has been used by the U.S. Geological Survey, no warranty, expressed or implied, is made by the USGS as to the accuracy of this file, nor shall the fact of distribution constitute any such warranty, and no responsibility is assumed by the USGS in connection therewith.

1993

[1]USGS, Denver, Colorado

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.

EDR No. 1-93
Part 2 of 2
P. 201-402

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.

```
-----------------------------------
%  JAN  01, 1993  01h 35m 49.48± 1.11s
   39.298 N ±10.8km   28.733 E ±19.0km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                            (366)
      MD 2.7 (ISK).

DST      0 32 345 iPg   35 55.50  -0.6
                  iSg   36 00.50
KCT      0 99 343 iPg   36 08.30   0.0
KHL      1.15 147 ePg   36 11.00  -0.1
                  eSg   36 24.60
EDC      1.24 328 ePn   36 13.00   0.4
YLV      1.36  21 ePn   36 14.80   0.3
     S.D. = 0.6  on   5 of   5 obs.
-----------------------------------
%  JAN  01, 1993  02h 01m 25.31± 1.12s
   39.260 N ± 9.5km   28.708 E ±13.0km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                            (366)
      MD 2.8 (ISK).

DST      0.35 350 iPg   01 32.00  -0.5
                  iSg   01 37.00
KCT      1.02 345 iPn   01 44.70   0.0
ALT      1.11 100 ePn   01 46.00  -0.2
KHL      1.13 146 ePn   01 46.60   0.0
EDC      1.27 329 ePn   01 49.00   0.2
YLV      1.40  21 iPn   01 51.40   0.5
IZM      1.42 233 iPg   02 01.50  10.3X
                  eSg   02 08.50
     S.D. = 0.4  on   6 of   7 obs.
-----------------------------------
•  JAN  01, 1993  02h 09m 26.10± 1.02s
   35.712 N ± 8.7km    4.507 W ±10.5km
   DEPTH =  10.0km  (geophysicist)
 STRAIT OF GIBRALTAR               (385)
      mbLg 2.9 (MDD).

EJIF     1.07 314 ePg   09 47.50   1.2
                  eSg   09 59.50
EGUA     1.35  34 ePg   09 51.70   0.7
                  eSg   10 07.50
EPRU     1 38 335 ePg   09 52.00   0.6
                  eSg   10 04.50
ECOG     1.74  26 ePn   09 58.00   1.4
                  eSn   10 15.00
ELUQ     1.85   6 ePn   09 58.50   0.3
                  eSn   10 16.20
IFR      2.25 193 iPn   10 04.00  -0.1
                  iSn   10 29.50
                  i     10 30.00
EBAN     2.51  13 ePn   10 07.20  -0.5
                  eSn   10 33.50
EVAL     2.60 317 ePn   10 07.90  -0.9
EVIA     3.33  28 ePn   10 19.00  -0.4
                  eSn   10 55.00
GUD      4.93   3 ePn   10 39.80  -2.3
                  eSn   11 30.50
     S.D. = 1.2  on  10 of  10 obs.
-----------------------------------
•  JAN  01, 1993  02h 33m 07.63± 2.40s
   3.834 N ±11.3km  126.475 E ±19.0km
   DEPTH =  86.1 ± 19 3 km
   4.4mb (  3 obs.)
 TALAUD ISLANDS, INDONESIA         (263)

MNI      2.88 215 eP    33 52 30   0.0
                  eS    34 44.80
WB2     24.86 162 iPc   38 23 20  -0.6
         0.8s     7.80nm          4.2mb
MBL     25.68 194 eP    38 13 30 -18.0X
CHG     30.75 301 eP    39 17.50   0.4
MEEK    31.23 194 eP    39 21.40   0.2
COOL    34.90 188 eP    39 46 00  -6.9X
MUN     36.93 195 eP    40 10.70   0.7
BJI     37.23 347 eP    40 12.50   0.1
         1.2s    20.00nm          4.9mb
GUN     45.46 306 P     41 20.80   0.4
GKN     46.50 306 P     41 28.40  -0.1
HYB     48.84 290 eP    41 47.20   0.5
GBA     49.34 285 P     41 50.00  -0.5
POO     53.44 290 eP    42 20.00  -1.3
KAF     91.39 332 eP    46 05.10   0.2
YKA     99.51  24 eP    46 59.30  17.3X
         0.4s     0.10nm
GEC2   101.85 322 ePdiff46 54.90   2.0X
         1.0s     0.64nm          4.3mb
     S.D. = 0.7  on  12 of  16 obs.
-----------------------------------
   JAN  01, 1993  02h 54m 42.71± 0.59s
   35.196 N ± 7.4km  111.031 E ± 6.7km
   DEPTH =  10.0km  (geophysicist)
   3.9mb (  1 obs.)
 SOUTHEASTERN CHINA                (664)
      ML 4.2 (BJI).

XAN      2.09 237 iPnd  55 19.00   0.8
     N  12s      1.04um
                  Pg    55 21.70
                  Sn    55 49.50
TIY      2.75  24 ePn   55 28.50   0.7
                  Pg    55 33.60
                  Sn    56 02.80
                  Sg    56 08.80
TIA      5.06  77 ePn   56 00.30  -0.1
                  ePg   56 14.30
                  Sg    57 18.50
WHN      5.42 148 Pn    56 05.50   0.1
                  Sn    57 03.50
                  Sg    57 28.00
BTO      5.45 352 Pn    56 02.00  -4.1X
                  Pg    56 22.90
                  Sg    57 33.00
HHC      5.66   4 ePg   56 29.00  20.0X
                  Sg    57 37.40
                  Sg    57 38.00
LZH      5.92 281 Pg    56 32.50  19.8X
BJI      6.33  39 ePn   56 18.00  -0.3
                  ePg   56 37.00
                  eSn   57 26.50
                  eSg   57 55.00
NJ2      7.24 113 ePn   56 24.60  -6.5X
     N  10s      0 63um
CD2      7.45 237 Pn    56 32.60  -1.5
                  Sn    57 57.40
                  Sg    58 35.00
SSE      9.44 113 eP    57 00.50  -1.3
GYA      9.48 204 P     57 02 80   0.4
GTA      9.87 299 eP    57 07.50  -0.3
WRA     59.13 154 P     04 47.50   1.6
         0.3s     0.30nm          3.9mb
     S.D. = 1.1  on  10 of  14 obs.
-----------------------------------
%  JAN  01, 1993  02h 56m 39.98± 0.66s
   26.380 S ± 6.0km   27.651 E ± 7.6km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA          (584)
      ML 2.5 (PRE).

BPI      0.40  59 iPd   56 48.00   0.0
PRY      0.57 196 eP    56 50.80  -0.6
                  S     56 57.90
KSR      0.85 307 eP    56 57.00   0.0
SLR      0.86  42 eP    56 56.90  -0.2
                  S     57 07.20
SEK      1.94 181 eP    57 14.50   0.5
                  S     57 45.80
BLF      3.01 205 eP    57 29.60   0.2
                  S     58 04.30
     S.D. = 0.5  on   6 of   6 obs.
-----------------------------------
•  JAN  01, 1993  03h 46m 33.94± 0.71s
   31.926 S ±12.2km  178.070 W ±13.9km
   DEPTH =  33.0km  (normal)
   5.1mb ( 13 obs.)  4.8Msz (  3 obs.)
 KERMADEC ISLANDS REGION           (177)

RAO      2.67   3 P     47 15 50   0.0
                  S     47 48.10
HBZ      6.40 207 eP    48 04.70  -3.6X
PUZ      6.83 205 eP    48 08.80  -5.6X
                  eS    49 25.70
URZ      7.45 211 eP    48 16.70  -6.3X
                  eS    49 39.00
WCZ      7.47 236 eP    48 26.60   3.3X
THZ     12.18 214 eP    49 23.80  -4.3X
                  S     51 29.80
KHZ     12.42 210 eP    49 23.80  -7.3X
                  S     51 32.40
LTZ     13.27 213 eP    49 36.30  -6.2X
LMZ     15.43 217 eP    50 04.90  -5.7X
BWZ     15.72 213 eP    50 09.50  -4.9X
DZM     16.92 302 iPc   50 38.80   9.0X
ARMA    25.93 265 eP    52 10.00   4.9X
         1.1s    27.00nm          4.8mb
CNB     27.26 254 eP    52 19.00   1.8
         0.6s    16.00nm          4.8mb
                  e     55 37.00
CAN     27.56 254 e(P)  52 21.70   1.8
TOO     30.34 249 eP    52 46.00   1.2
         0.7s    17.00nm          5.0mb
                  e     55 43.70
CMS     30.63 261 eP    52 48.30   0.9
         0.4s     7.00nm          4.8mb
BFD     32.69 250 eP    53 05.70   0.3
         1.0s    24.00nm          5.0mb
STK     34.11 259 iPd   53 18.80   1.1
         0.8s     8.40nm          4.7mb
ASPA    42.99 269 eP    54 31.50  -0.5
         0.6s    23.10nm          5.1mb
     Z  19s       1.10um          4.8Msz
                  eS    00 54.90
WB2     44.10 274 iPd   54 40.30  -0.7
         0.3s    47.60nm          5.8mb
WRA     44.11 274 P     54 40.50  -0.6
         0.7s     5.00nm          4.4mb
WARB    48.24 262 eP    55 12.20  -1.5
COOL    51.27 254 eP    55 34.00  -2.9
CSY     53.77 208 eP    55 55.60   0.7
         0.5s    38.20nm          5.7mb
KLB     53.81 252 eP    55 53.00  -2.7
SPA     58.25 180 iPd   56 27.20  -0.2
         1.2s    88.03nm          5.7mb
NVL     77.35 183 eP    58 26.00  -0.5
         1.6s    29.00nm          5.1mb
     Z  18s       1.00um          5.2Msz
     N  18s       0.40um
     E  18s       0.20um
MAT     79.46 326 eP    58 38.00  -0.5
     Z  20s       0.35um          4.7Msz
                  eS    08 42.00
YSS     86.16 334 (P)   59 14.00   1.4
MEO     99.85  55 iPc   00 33.10  16.7X
TUL    102.39  55 ePdiff00 34.90   7.1X
         0.6s    14.80nm          5.8mb
                  LR    34 30.00
LNO    102.39  55 ePdiff00 34.80   7.1X
UYO    102.46  58 iPdiff00 15.20 -12.9X
PKI    109.15 291 PKP   05 00.00  -2.8X
RES    118.72  18 ePKP  05 20.00   0.9
NRI    120.82 336 ePKPc 05 25.80   2.6X
BRVK   127.51 315 ePKP  05 35.00  -1.7
         1.6s    12.00nm
MDS    145.55 324 ePKP  06 10.00   0.3
         1.0s   200.00nm
                  e     06 25.00
PYA    145.74 303 ePKP  06 11.00   0.5
         1.3s   150.00nm
                  i     06 26.00
KAF    145.96 340 iPKP  06 10.50   0.3
         0.5s    17.00nm
PUL    146.35 334 ePKP  06 13.00   2.1X
         1.7s   150.00nm
OBN    146.37 324 iPKPc 06 11.50   0.4
         1.0s    88.00nm
                  i     06 14.60
                  e     06 26.00
NUR    147.72 339 ePKP  06 16.00   2.9X
         0.6s    24.50nm
BCAO   148.53 213 iPKPd 06 19.20   3.3X
         0.5s    43.00nm
                  ic    06 25.90
UPP    150.16 344 iPKP  06 23.10   6.2X
NAO    150.50 351 PKP   06 21.90   4.5X
         0.8s     4.70nm
HFS    150.72 348 ePKP  06 21.00   3.3X
         0.4s     2.70nm
MZDA   151.65 278 ePKP  06 31.30  11.3X
PRNI   151.71 276 ePKP  06 31.80  11.6X
MML    151.72 280 ePKP  06 32.30  12.1X
KIC    153.81 165 PKP   06 32.00   8.4X
     S.D. = 1.3  on  24 of  51 obs.
-----------------------------------
?  JAN  01, 1993  04h 02m 39.53± 4.02s
   31.729 S ±26.6km   68.419 W ±40.2km
   DEPTH =  99.5 ± 34.2 km
 SAN JUAN PROVINCE, ARGENTINA      (137)

RTCV     0.17 217 iPd   02 54.00  -0.1
                  S     03 04.00
```

01d 04h

```
CFA      0.20  52 iPc * 02 54.20   0.1
                  S     03 06.00
MDZ      1.21 197 eP    03 21.60  19.0X
RTPR     2.17  50 ePc   03 14.80   0.0
                  S     03 42.00
MRA      2.40 107 ePc   03 20.00   2.1X
RFA      3.03 181 eP    03 26.60   0.0
                  S     04 01.20
TCA      3.29  84 iP    03 30.10   0.0
                  S     04 08.50
     S.D. = 0.1  on   5 of   7 obs.
-----------------------------------
&  JAN  01, 1993  04h 12m 28.96s
   60.224 N            152.721 W
   DEPTH =  10.2km
 SOUTHERN ALASKA                  (  2)
     <AEIC>. ML 3.1 (AEIC).

ILIM     0.19 220 iPc   12 32.56  -0.6
INE      0.24 226 iPc   12 33.19  -0.9
RS1      0.24 356 iPd   12 33.94  -0.2
RSO      0.24 356 iPd   12 33.93  -0.3
                  eS    12 37.85
RS2      0.24 356 iPd   12 33.99  -0.2
INW      0.26 233 ePc   12 33.52  -1.0
RDW      0.26 350 iPd   12 34.17  -0.4
REF      0.27   2 iPd   12 34.35  -0.3
                  eS    12 38.28
RDN      0.29 356 ePd   12 34.71  -0.4
                  eS    12 38.98
NCT      0.35 343 iPd   12 35.43  -0.9
                  eS    12 40.63
DFR      0.37   3 iPc   12 35.88  -0.7
RDT      0.38  24 eP    12 36.15  -0.7
OPT      0.63 204 iPc   12 40.50  -1.1
PDB      0.86 240 iPc   12 43.74  -1.7
                  eS    12 54.48
NKA      0.90  54 iPc   12 46.78   0.6
AUL      0.92 203 eP    12 45.72  -0.8
XLV      0.92 146 eP    12 44.97  -1.6
AUE      0.93 201 eP    12 45.49  -1.2
AUP      0.93 203 eP    12 46.02  -0.8
AUH      0.94 203 iPd   12 46.15  -0.7
AUW      0.94 204 iPd   12 46.13  -0.7
AUI      0.96 202 eP    12 46.14  -1.1
                  eS    12 59.29
CKL      0.99  11 iPc   12 46.28  -1.6
CKT      1.01  14 iPc   12 46.44  -1.7
                  eS    12 59.56
SPU      1.02  19 iPc   12 46.41  -1.8
                  eS    12 59.91
BRLK     1.03 116 ePc   12 46.87  -1.6
                  eS    13 00.56
CKN      1.04  15 ePc   12 47.16  -1.4
BGL      1.06   9 iPc   12 47.24  -1.7
CP2      1.07  12 ePc   12 47.51  -1.7
                  S     13 02.29
CRP      1.08  15 ePc   12 47.30  -2.1
CGLM     1.14  18 iPc   12 48.72  -1.7
SLKM     1.27  76 eP    12 50.77  -1.9
                  eS    13 07.32
MCNL     1.33 219 ePc   12 51.80  -1.6
                  eS    13 08.25
CDD      1.38 200 ePd   12 52.70  -1.5
                  eS    13 10.88
SUA      1.58  37 ePc   12 55.97  -1.1
SYI      1.63 174 eP    12 55.82  -1.9
                  eS    13 17.40
SEW      1.64  93 ePc   12 56.88  -1.0
                  eS    13 17.89
SVW      1.68 303 ePn   12 56.52  -2.0
                  eS    13 20.11
MPA      1.69  79 eP    12 57.62  -1.0
SKT      1.86  18 ePd   13 00.73  -0.3
                  eS    13 25.14
PMS      1.86  55 P     13 00.10  -1.0
PTE      1.94  69 ePc   13 01.82  -0.4
PWA      1.99  43 eP    13 02.96   0.0
PLRM     2.23  50 ePc   13 06.71   0.3
PMR      2.23  50 eP    13 05.98  -0.4
                  eS    13 29.42
KNK      2.41  58 ePc   13 09.10   0.1
GHO      2.42  48 ePc   13 09.57   0.4
LTI      2.44  92 eP    13 08.74  -0.7
KNIM     2.49  85 eP    13 08.66  -1.4
KDC      2.49 177 eP    13 09.63  -0.4
MTU      2.55  93 ePc   13 10.45  -0.5
SML      2.66  51 eP    13 12.70   0.0
GLI      2.86  74 eP    13 14.00  -1.4
SCM      3.08  56 eP    13 18.38  -0.2
TTA      3.14 331 ePn   13 17.62  -1.8
VLZ      3.27  71 eP    13 19.56  -1.7
KLU      3.56  66 ePc   13 24.26  -1.2
TOA      3.69  56 eP    13 27.36   0.1
SDG      4.15  53 P     13 33.50  -0.3
GLB      4.53  71 eP    13 36.95  -2.2
FBA      5.22  24 eP    13 47.21  -1.6
        0.8s     3.59nm          4.0mb X
        61 obs. associated
-----------------------------------
?  JAN  01, 1993  04h 18m 19.50± 8.48s
   39.498 N ±46.2km   21.775 E ±52.3km
   DEPTH =  10.0km  (geophysicist)
 GREECE                           (364)

LSK      1.12 306 ePn   18 40.00  -0.5
KBN      1.36 326 ePn   18 45.60   1.1
SRN      1.42 286 ePn   18 45.00  -0.3
VLO      2.00 300 ePn   18 54.80   1.1
TIR      2.35 322 ePn   18 58.00  -0.8
PHP      2.41 335 ePn   19 08.70   9.1X
LACI     2.65 324 ePn   19 02.50  -0.5
     S.D. = 1.1  on   6 of   7 obs.
-----------------------------------
•  JAN  01, 1993  04h 30m 08.47± 2.76s
   53.226 N ±11.0km  157.602 E ± 6.2km
   DEPTH = 169.7 ± 26.8 km
   4.2mb (  6 obs.)
 KAMCHATKA                        (217)

YAK     17.20 312 eP    34 00.00   0.3
        0.6s    84.00nm          5.3mb X
MAT     21.50 227 iPd   34 44.10  -0.3
        0.8s    18.66nm          4.6mb
TTA     25.81  50 eP    35 24.98  -0.1
        0.6s     3.26nm          4.2mb
IMA     26.95  43 eP    35 34.79  -0.8
        0.6s     1.33nm          3.8mb
CP2     27.66  53 (P)   35 42.40   0.4
FBA     29.39  45 eP    35 57.12  -0.1
        0.9s     3.92nm          4.1mb
YKA     44.07  42 eP    38 00.70   0.2
        0.4s     1.20nm          3.8mb
BGMT    55.75  59 eP    39 29.70   0.0
CHG     56.47 256 eP    39 35.20   0.5
GUN     57.39 274 P     39 41.00  -0.5
BONR    57.43  69 eP    39 42.31   0.7
KKN     57.84 274 P     39 43.80  -0.7
PKI     57.92 274 P     39 45.60   0.4
GKN     58.07 275 P     39 46.00   0.0
DMN     58.07 274 P     39 46.40   0.2
RSSD    60.57  55 eP    40 02.84  -0.2
        0.7s    10.33nm          4.8mb
SRU     60.87  63 ePc   40 05.12   0.0
WRA     75.60 203 P     41 35.50  -0.3
        0.9s     0.30nm          3.0mb X
ASPA    79.29 202 P     41 56.50   0.4
     S.D. = 0.4  on  19 of  19 obs.
-----------------------------------
•  JAN  01, 1993  04h 34m 55.88± 1.88s
   31.206 S ±19.0km  178.533 W ±20.0km
   DEPTH =  48.1 ± 13.8 km
   4.6mb (  6 obs.)  4.7Msz (  1 obs.)
 KERMADEC ISLANDS REGION          (177)

RAO      2.02  15 eP    35 28.00  -0.1
                  eS    36 01.00
PUZ      7.34 200 eP    36 26.40 -16.8X
                  eS    37 45.80
WCZ      7.59 230 eP    36 46.70   0.1
CNB     27.09 253 eP    40 36.80   0.7
        0.3s     4.00nm          4.5mb
TOO     30.23 248 eP    41 03.20  -1.0
        0.6s     7.00nm          4.6mb
CMS     30.36 260 eP    41 06.30   0.9
        0.4s     3.00nm          4.4mb
ASPA    42.62 268 iPc   42 48.50  -0.8
        0.5s    11.00nm          4.8mb
WB2     43.66 273 iPd   42 57.70  -0.1
        0.4s    29.10nm          5.4mb
WRA     43.67 273 P     42 58.00   0.1
        0.6s     1.20nm          3.8mb
KAF    145.15 340 ePKP  54 26.20  -2.7X
        0.4s     3.80nm
OBN    145.55 324 ePKP  54 28.50  -1.3
                  e     54 37.50
NUR    146.90 339 ePKP  54 32.00   0.2
        0.6s     6.40nm
BCAO   148.90 215 ePKPd 54 36.00  -0.5
        0.7s     6.00nm
                  ic    54 39.30
                  ic    55 05.90
NAO    149.73 351 PKP   54 39.00   2.7X
        0.8s     3.00nm
HFS    149.94 348 ePKP  54 38.30   1.7
        0.4s     0.70nm
LIC    154.41 165 PKP   54 48.30   3.9X
      Z  20s     0.13um          4.7Msz
     S.D. = 1.0  on  12 of  16 obs.
-----------------------------------
?  JAN  01, 1993  05h 00m 17.24± 3.57s
   7.131 S ±33.8km  128.176 E ±16.5km
   DEPTH =  33.0km  (normal)
 BANDA SEA                        (280)

SLKI     3.21 105 iPd   01 06.50   0.0
MTN      6.38 153 eP    01 51.50   0.0
        0.3s    45.00nm          5.7mb X
                  eS    02 51.00
WB2     14.08 155 iPd   03 32.60  -4.0X
                  eS    05 46.90
MBL     16.11 209 eP    04 03.00   0.0
ASPA    17.34 162 eP    04 18.40  -0.1
                  eS    07 11.40
WARB    19.00 184 eP    04 39.00   0.0
     S.D. = 0.1  on   5 of   6 obs.
-----------------------------------
&  JAN  01, 1993  05h 08m 05.34s
   35.877 N            82.090 W
   DEPTH =   3.5km
 NORTH CAROLINA                   (512)
     <TEIC>. MD 3.0 (TEIC). Felt at
     Spruce Pine. Felt in parts of
     Mitchell and Yancey Counties.

SLTN     0.57 358 iP    08 16.20  -0.5
TRYN     0.65 193 ePc   08 17.18  -1.1
                  eS    08 26.18
PKNC     0.77  77 ePc   08 20.20  -0.6
FGTN     1.05 302 ePd   08 25.00  -0.8
PLVA     1.09  43 ePc   08 25.36  -1.1
TKL      1.39 261 ePd   08 30.92  -0.6
CRTN     1.46 283 iP    08 32.09  -0.4
WMV      1.52  36 ePn   08 32.57  -1.0
                  S     08 52.78
PWV      1.68  30 ePn   08 36.20   0.5
                  eS    08 57.46
BBG      1.73 235 eP    08 37.32   0.8
JSC      1.73 157 P     08 36.53   0.1
                  iS    08 59.51
LHS      1.75 143 eP    08 36.66   0.0
                  S     09 00.11
NAV      1.78  36 ePn   08 37.00  -0.1
                  eS    09 00.09
ORT      1.80 272 eP    08 38.54   1.1
BLA      1.89  45 eP    08 39.42   0.6
                  eS    09 04.04
HWV      1.98  30 ePn   08 40.46   0.3
                  S     09 06.76
VWV      2.09  40 ePn   08 41.71  -0.1
                  eS    09 09.88
TQTN     2.18 261 P     08 45.45   2.6
                  S     09 12.69
BHT      2.32 270 eP    08 46.88   1.8
GMG      2.34 245 eP    08 46.52   1.2
CEH      2.43  89 eP    08 46.07  -0.5
ANTN     2.56 278 eP    08 50.04   1.6
       22 obs. associated
-----------------------------------
   JAN  01, 1993  05h 19m 07.18± 0.70s
   6.518 S ± 5.8km  130.520 E ± 8.2km
   DEPTH =  68.2 ±  6.5 km
   4.6mb ( 10 obs.)
 BANDA SEA                        (280)

SLKI     1.65 152 iPc   19 18.00 -16.5X
                  iS    19 57.00
AAI      3.64 320 iPd   20 05.00   2.6
MTN      6.32 175 eP    20 39.00  -0.8
       0.3s   301.00nm          6.2mb X
                  eS    21 46.00
```

```
WRA     13.85 165 P  *  22 18.00  -3.9X
        0.6s     3.90nm          4.1mb
WB2     13.86 165 iPc   22 17.00  -4.9X
        0.3s    62.30nm          5.6mb
                  eS    24 39.60
PMG     16.73 101 eP    23 00.00   1.4
ASPA    17.36 170 eP    23 03.60  -2.9
                  eS    26 02.30
TRT     17.79 265 ePc   23 12.80   1.0
MBL     17.86 214 eP    22 52.00 -20.6X
        0.3s    10.00nm
WARB    19.90 190 eP    23 36.00   0.0
CTA     20.38 133 P     23 43.70   2.8X
NANU    21.53 221 iPc   23 53.20   0.7
                  eS    26 30.00
MEEK    23.00 208 eP    24 07.00   0.0
COOL    25.79 199 eP    24 33.40  -0.2
MRWA    26.42 210 eP    24 39.00  -0.3
        0.4s     5.00nm          4.4mb
BAL     27.25 207 eP    24 47.00   0.1
STK     27.27 159 iPd   24 47.00  -0.1
        0.8s     7.80nm          4.3mb
KLB     27.65 204 eP    24 40.80  -9.8X
MUN     28.64 206 eP    24 59.30  -0.1
CMS     28.67 152 eP    25 00.20   0.4
BFD     32.43 162 eP    25 33.50   0.7
        0.6s     7.00nm          4.7mb
CAN     33.33 152 iPd   25 41.50   0.7
CNB     33.49 151 eP    25 43.80   1.6
TOO     33.78 158 iPc   25 46.40   1.8
        0.5s    12.00nm          5.1mb
CHG     40.03 310 ePd   26 37.50   0.1
        0.9s    19.33nm          5.0mb
MAT     43.43   9 eP    27 03.00  -2.0
        0.8s     6.72nm          4.5mb
BJI     48.18 345 eP    27 42.00  -0.6
        0.7s     7.00nm          4.7mb
GBA     56.36 291 P     28 42.00  -2.0
IMA     90.20  23 eP    32 04.69   3.4X
        0.9s     1.67nm          4.3mb
YKA    107.09  26 ePKP  37 25.70  -0.9
        0.4s     0.30nm
GEC2   112.38 320 ePKPc 37 36.80  -0.4
        0.4s     0.48nm
                  e     37 39.70
BSF    117.07 321 iPKPc 37 45.60  -0.6
        0.5s     1.15nm
LPG    117.94 319 iPKPc 37 48.10  -0.1
        0.7s     4.30nm
LPL    117.95 319 iPKPc 37 48.00  -0.1
        0.4s     1.80nm
LOR    119.12 321 iPKPc 37 49.80  -0.2
        0.5s     0.80nm
LBF    119.16 321 iPKPc 37 49.90  -0.2
        0.5s     0.80nm
SSF    119.42 321 iPKPc 37 50.60   0.0
        0.6s     1.80nm
AVF    119.63 321 iPKPc 37 50.60  -0.4
        0.4s     0.70nm
BGF    120.04 321 iPKPc 37 51.90   0.1
        0.7s     3.75nm
LSF    121.00 321 iPKPc 37 53.40  -0.2
        0.6s     2.55nm
MFF    121.88 322 iPKPc 37 55.40   0.2
        0.5s     3.00nm
LIC    135.83 272 PKP   38 24.00   1.1
VAO    150.56 185 ePKP  38 54.50   6.5X
ZOBO   150.77 141 iPKPd 38 56.00   6.8X
     S.D. = 1.1  on  35 of  44 obs.
-----------------------------------
%  JAN  01, 1993  05h 35m 27.50± 0.72s
   38.091 N ±11.3km   15.201 E ± 5.8km
   DEPTH =  10.0km  (geophysicist)
 SICILY                            (398)

ATN      0.22  71 Pc     35 32.60   0.4
                  eSg    35 36.00
MSI      0.30  68 P      35 33.90   0.1
                  eSg    35 38.60
MNO      0.43 248 P      35 36.40   0.1
                  eSg    35 43.10
SOI      0.67  91 Pc     35 40.30  -0.6
                  eSg    35 50.00
GIB      0.93 264 Pc     35 45.20  -0.2
                  eSg    35 58.40
MEU      1.01 192 P      35 46.90   0.2
                  eSn    36 01.80
     S.D. = 0.4  on   6 of   6 obs.
-----------------------------------
?  JAN  01, 1993  05h 36m 55.77± 3.46s
   30.565 N ±32.1km  113.989 W ± 8.5km
   DEPTH =  10.0km  (geophysicist)
   3.6mb (  1 obs.)
 GULF OF CALIFORNIA                ( 49)

GLA      2.58 344 ePn    37 37.69  -0.6
TUC      3.24  57 ePn    37 47.51  -0.3
PLM      3.70 319 ePn    37 54.33  -0.1
                  S      38 51.28
PEC      4.27 322 ePn    38 02.72   0.4
                  eS     39 11.17
SSK      4.80 320 (Pn)   38 10.71   0.7
                  eS     39 26.08
GSC      5.28 334 eP     38 15.45  -1.3
ARUT     7.22   3 eP     38 44.46   0.4
                  Lg     41 16.65
MSU      8.07  10 (P)    38 56.63   0.6
PV09     8.87  26 eP     39 07.33   0.1
                  Lg     42 07.99
LCCM    15.34   6 eP     40 44.00  10.0X
RSSD    15.66  27 eP     40 41.00   2.8X
        1.2s     4.37nm          3.6mb
ULM     23.90  30 eP     42 14.00   3.7X
     S.D. = 0.8  on   9 of  12 obs.
-----------------------------------
?  JAN  01, 1993  05h 40m 51.89± 4.20s
   43.826 N ±23.3km    6.456 E ±25.5km
   DEPTH =  10.0km  (geophysicist)
 NEAR SOUTH COAST OF FRANCE       (379)
      ML 2.4 (LDG).

FRF      0.30 152 Pg     40 58.30   0.2
                  Sg     41 02.80
LRG      0.38 191 Pg     40 59.80   0.2
                  Sg     41 06.20
LMR      0.49 176 Pg     41 01.60  -0.3
                  Sg     41 09.80
SBF      0.71  87 Pg     41 05.90   0.0
                  Sg     41 17.10
     S.D. = 0.4  on   4 of   4 obs.
-----------------------------------
%  JAN  01, 1993  05h 43m 39.97± 0.63s
   44.083 N ± 5.5km    7.821 E ± 4.4km
   DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                    (545)

IMI      0.18 164 P      43 44.10   0.0
                  S      43 46.74
ROB      0.21  10 P      43 45.01   0.3
                  S      43 48.21
FIN      0.31  66 P      43 46.34   0.0
                  S      43 50.64
ENR      0.32 297 P      43 46.66   0.0
                  S      43 51.33
STV      0.39 294 P      43 48.17   0.1
                  S      43 53.71
PZZ      0.67 309 P      43 53.20  -0.1
                  S      44 02.08
PCP      0.69  48 P      43 53.55  -0.2
                  S      44 02.71
BHB      0.86 332 P      43 56.32  -0.2
                  S      44 07.89
     S.D. = 0.2  on   8 of   8 obs.
-----------------------------------
?  JAN  01, 1993  05h 48m 40.69± 2.54s
   27.976 S ±20.5km  176.590 W ±16.4km
   DEPTH =  65.0 ± 20.5 km
   4.7mb (  6 obs.)
 KERMADEC ISLANDS REGION           (177)

RAO      1.73 222 eP     49 09.00   0.0
                  S      49 37.00
THZ     16.21 209 eP     52 21.30  -4.4X
DZM     16.46 287 iPd    52 38.10   9.2X
KHZ     16.49 207 eP     52 20.70  -8.4X
CNB     29.79 247 eP     54 44.80   1.2
        0.7s    11.00nm          4.7mb
TOO     33.10 243 eP     55 13.30   0.8
        0.9s    13.00nm          4.8mb
ASPA    44.53 264 eP     56 47.30  -0.6
        1.1s     7.20nm          4.4mb
WB2     45.29 269 iPd    56 53.10  -0.9
        0.5s     8.40nm          4.9mb
WRA     45.30 269 P      56 53.50  -0.6
        0.6s     0.80nm          3.8mb
SPA     62.18 180 iPd    58 56.70  -0.8
        0.9s    27.27nm          5.4mb
MAT     76.98 324 eP     00 28.00   0.0
LCCM    93.99  39 eP     01 52.70   0.1
NAO    146.78 353 PKP    08 15.10   0.7
        0.8s     3.60nm
BCAO   152.51 214 iPKPc 08 32.10   7.5X
        1.2s    14.00nm
     S.D. = 0.9  on  10 of  14 obs.
-----------------------------------
*  JAN  01, 1993  06h 07m 42.93± 0.90s
   19.633 N ±11.7km   64.446 W ± 7.9km
   DEPTH =  10.0km  (geophysicist)
   4.0mb (  1 obs.)
 VIRGIN ISLANDS                    ( 91)

LPR      1.88 226 iP     08 15.00  -0.5
CPD      2.11 222 iP     08 19.00   0.2
SJG      2.21 227 iP     08 20.50   0.2
APR      2.46 242 iP     08 23.80   0.1
PORP     2.60 233 iP     08 25.30  -0.5
LRS      2.63 240 iP     08 26.20   0.0
MGP      2.98 238 iP     08 30.90  -0.2
BPA      3.56 136 eP     08 38.00  -1.4
TOV     11.07 209 eP     10 18.10  -6.4X
SDV     12.25 210 eP     10 41.80   1.2
SIV     35.56 174 eP     14 46.00   3.5X
YKA     54.82 334 eP     17 14.40  -0.8
        0.7s     1.00nm          4.0mb
KIC     59.38  94 P      17 49.90   1.6
     S.D. = 1.0  on  11 of  13 obs.
-----------------------------------
*  JAN  01, 1993  06h 24m 59.86± 0.80s
   6.247 S ± 8.4km  147.484 E ± 8.8km
   DEPTH =  74.0 ±  7.8 km
   4.7mb (  5 obs.)
 EASTERN NEW GUINEA REG., P.N.G. (207)

FINC     0.52 135 iPd    25 13.00  -0.4
MDG      1.96 300 eP     25 33.00   1.3
PMG      3.15 186 eP     25 49.00   0.8
                  eS     26 34.00
RAB      5.09  67 iPc    26 14.20  -1.1
        0.5s   563.38nm          6.1mb X
WB2     18.66 222 iPc    29 12.70  -2.0
        0.2s    17.70nm          4.9mb
                  e      29 16.30
                  eS     32 33.60
ASPA    21.69 216 iPd    29 46.10  -0.2
        0.4s    20.40nm          4.9mb
      Z  20s     0.20um          3.5Msz
                  e      30 03.40
                  eS     33 44.80
DZM     24.15 133 iPd    30 11.60   1.2
ARMA    24.36 171 iPd    30 13.20   0.8
        1.2s    [illegible]5.00nm          4.9mb
CMS     25.16 183 eP     30 21.30   1.5
        1.0s     8.00nm          4.1mb
STK     26.09 191 eP     30 27.50  -0.9
        0.6s     3.10nm          4.0mb
WARB    28.08 223 eP     30 46.90   0.3
MEEK    34.16 230 eP     31 39.50  -0.7
MRWA    37.48 229 eP     32 07.50  -0.7
KLB     37.52 224 eP     32 07.50  -1.0
MAT     43.44 349 eP     32 56.00  -1.2
PKI     68.68 303 P      36 00.00   1.7
LPB    138.15 123 PKP    44 20.00   0.3
ZOBO   138.25 123 PKP    44 12.20  -7.9X
VAO    147.68 155 ePKP   44 37.10   1.6
LIC    152.68 271 PKP    44 49.00   5.8X
BAO    153.40 145 PKPc   44 44.20  -0.1
BDF    153.43 145 e(PKP)44 43.00  -1.3
     S.D. = 1.2  on  20 of  22 obs.
-----------------------------------
%  JAN  01, 1993  07h 30m 12.78± 1.07s
   39.226 N ± 8.4km   28.630 E ±12.2km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                            (366)
      MD 2.8 (ISK).

DST      0.38 360 iPg    30 20.30  -0.3
                  iSg    30 25.30
KCT      1.04 348 iPn    30 33.40   0.9
KHL      1.14 142 ePn    30 34.20   0.0
BNT      1.25 334 ePn    30 35.90  -0.2
EDC      1.27 332 ePn    30 36.00  -0.3
```

01d 07h

```
YLV      1.46  23 ePn*  30 38.90  -0.3
EYL      1.78  41 ePn   30 44.00   0.1
      S.D. = 0.5  on   7 of   7 obs.
-----------------------------------
*  JAN  01, 1993  08h 19m 41.08± 1.59s
   38.816 N ±10.3km  142.797 E ±17.5km
   DEPTH =  36.6 ± 20.6 km
   4.7mb (  3 obs.)
 NEAR EAST COAST OF HONSHU, JAPAN(228)

OFUJ     0.92 287 iPd   19 55.20  -2.4
                  S     20 05.10
YAMJ     2.26 254 iPd   20 15.90  -0.9
                  S     20 42.60
AOMJ     2.56 314 P     20 21.40   0.4
                  S     20 52.10
KAKJ     3.34 219 P     20 30.70  -1.4
                  S     21 08.70
NIIJ     3.38 243 P     20 32.20  -0.6
HOOJ     3.58   6 eP    20 35.80   0.2
                  eS    21 16.40
MRRJ     3.84 341 eP    20 39.70   0.6
                  eS    21 24.30
CHJJ     4.10 229 P     20 42.90  -0.1
MAT      4.29 239 eP    20 46.00   0.3
       0.5s    61.97nm
                  eS    21 48.00
KUSJ     4.52  18 P     20 47.70  -1.1
                  eS    21 37.80
MTMJ     4.54 242 P     20 50.70   1.4
IIDJ     5.13 231 P     20 59.30   1.7
ASAJ     5.30 359 eP    21 01.20   1.4
TSRJ     6.35 241 P     21 16.10   1.4
WB2     58.98 189 iPd   29 39.30   0.0
       0.5s     7.50nm          5.1mb
                  e     29 48.70
WRA     58.98 189 P     29 39.50   0.1
       0 6s     2.40nm          4.5mb
ASPA    62.71 189 eP    30 03.80  -0.8
       0.6s     3.00nm          4.6mb
      S D. = 1.2  on  17 of  17 obs.
-----------------------------------
?  JAN  01, 1993  08h 26m 29.61± 4.28s
   32.510 S ± 7.5km  175.968 W ±56.7km
   DEPTH =  33.0km  (normal)
   4.7mb (  7 obs.)
 SOUTH OF KERMADEC ISLANDS        (179)

RAO      3.65 332 eP    27 24.90  -0.3
                  eS    27 55.50
PUZ      7.29 219 eP    28 16.80   0.3
                  eS    29 34.10
NOZ      7.81 217 eP    28 22.70  -1.0
URZ      8.05 223 eP    28 26.60  -0.5
                  eS    29 49.60
WCZ      8.72 244 eP    28 38.40   2.0X
KHZ     12.92 217 eP    29 33.50   0.0
                  eS    31 40.00
DZM     18.75 299 iPc   30 47.90  -0.3
ARMA    27.66 266 eP    32 19.70   3.1X
       1.2s    20.00nm          4.7mb
CNB     28.82 255 eP    32 30.00   3.1X
RMO     31.19 272 eP    32 48.70   0.7
       1.1s    33.00nm          5.1mb
TOO     31.80 250 eP    32 53.50   0.2
       0.7s     6 00nm          4.6mb
                  e     35 54.00
BFD     34.17 250 eP    33 15.70   1.9
       1.0s    22.00nm          5.0mb
                  e     36 24.50
STK     35.75 259 eP    33 28.30   0.9
       0.9s     3.80nm          4.3mb
ASPA    44.76 268 iPc   34 41.40  -0.6
       0.6s    13.30nm          5.0mb
WB2     45.92 273 iPc   34 50.30  -0.8
WRA     45.93 273 P     34 50.70  -0.5
       0.5s     2.40nm          4.4mb
SPA     57.66 180 iPd   36 39.30  20.3X
       1.0s    10.50nm
NVL     76.87 183 eP    38 32.00  12.6X
KAF    147.11 341 ePKP  46 18.90  11.2X
       0.4s     3.80nm
OBN    147.88 324 iPKPd 46 22.50  13.3X
       1.2s    44.00nm
                  i     46 34.80
NUR    148.88 340 ePKP  46 25.00  14.4X
       0.7s     9.80nm
BCAO   148.94 209 iPKPd 46 29.80  17.6X
       0.7s    15.00nm
                  id    46 46.20
NAO    151.33 353 PKP   46 31.30  17.0X
       1.0s     5.30nm
HFS    151.64 350 ePKP  46 33.10  18.3X
       0.4s     1.20nm
KIC    152.73 161 PKP   46 41.00  23.3X
HRI    153.41 280 ePKP  46 37.00  18.7X
HMDT   153.45 278 ePKP  46 37.00  18.8X
MBH    153.50 272 ePKP  46 37.00  18.5X
      S.D. = 0.9  on  13 of  28 obs.
-----------------------------------
   JAN  01, 1993  08h 58m 50.48± 0.20s
    6.749 S ± 3.5km  143.993 E ± 5.5km
   DEPTH =  22.9km  (  6 depth phases)
   5.2mb ( 28 obs.)  4.4Msz (  4 obs.)
 NEW GUINEA, PAPUA NEW GUINEA     (202)

MDG      2.32  50 eP    59 29.50   1.5
PMG      4.10 130 eP    59 50.00  -3.3X
                  eS    00 36.00
CTA     13.44 171 eP    02 04.00   1.6
MTN     14.05 243 eP    02 08.00  -2.4
       0.5s   140.00nm          5.9mb
                  eS    04 34.00
WB2     16.11 215 eP    02 30.80  -6.5X
                  i     02 43.90
                  eS    05 23.10
WRA     16.12 215 P     02 37.20  -0.2
ASPA    19.42 209 iPc   03 18.40   0.1
       0.8s   106.10nm          5.2mb
      Z  18s     2.20um
                  eS    06 43.50
RMO     20.15 168 iPc   03 26.20   0.1
       0.8s    91.00nm          5.2mb
                  i     03 36.70  44kmX
GUA     20.18   3 eP    03 26.50   0.1
PJG     20.22   2 eP    03 27.00   0.1
ARMA    24.62 164 iPd   04 11.50   0.9
       1.0s    25.00nm          4.8mb
CMS     24.67 176 eP    04 11.00   0.0
       0.7s     5.00nm          4.2mb
STK     25.11 185 eP    04 14.60  -0.5
       0.7s     1.80nm          3.8mb X
                  eS    11 20.40
WARB    25.44 219 iPd   04 18.00  -0.4
DZM     26.49 127 iPc   04 29.10   0.9
ADE     28.50 189 eP    04 46.80   0.5
CNB     28.86 171 eP    04 50.20   0.7
       1.0s    20.00nm          4.8mb
BFD     30.32 182 eP    05 07.70   5.2X
TOO     30.71 178 eP    05 05.80  -0.2
       0.8s    10.00nm          4.7mb
KUMJ    41.03 343 eP    06 34.00   0.3
SHNJ    42.44 344 eP    06 45.30   0.0
MAT     43.40 353 iPd   06 52.20  -0.9
       1.0s    14.00nm          4.7mb
SSE     43.50 331 Pc    06 55.00   1.1
       1.0s    21.00nm          4.9mb
      Z  20s     5.00um          5.4MszX
IPM     44.34 284 ePd   07 02.00   0.9
NST     48.82 298 eP    07 44.50   8.2X
KMI     51.13 310 Pc    07 56.00   1.8
       1.8s    70.00nm          5.3mb
CHG     51.15 301 iPc   07 55.50   1.3
       0.9s    30.88nm          5.2mb
BJI     53.16 333 eP    08 08.50  -0.4
       1.1s    24.00nm          5.1mb
LZH     56.88 321 eP    08 37.00   0.7
       1.5s    54.00nm          5.4mb
      Z  20s     0.30um          4.4Msz
                  pP    08 43.50  21km
HON     63.36  62 P     09 30.00   9.4X
      Z  20s     0.24um          4.4Msz
CIT     64.03 340 eP    09 25.00   0.4
GUN     65.80 305 Pc    09 37.26   0.4
       0.8s    61.00nm          5.8mb
PKI     66.06 304 Pc    09 38.60   0.1
KKN     66.25 304 P     09 39.86   0.3
       0.8s    65.00nm          5.8mb
DMN     66.32 304 Pc    09 40.48   0.4
GKN     66.85 304 Pc    09 43.62   0.3
       0.7s    49.00nm          5.7mb
MGD     66.86   4 eP    09 41.00  -1.5
ZAK     66.90 333 iPc   09 43.70   0.7
       1.0s    32.00nm          5.4mb
MOY     68.85 333 eP    09 56.00   0.8
GBA     69.09 287 P     09 58.00   0.7
YAK     69.45 353 eP    09 54.00  -4.6X
       1.2s    25.00nm          5.2mb
POO     73.55 291 iPc   10 23.80  -0.3
ELT     76.98 329 eP    10 43.00   0.1
       2.0s    37.00nm          5.1mb
SVW     82.17  25 eP    11 11.10   0.4
       0.9s    36.60nm          5.4mb
SPA     83.29 180 iPc   11 15.80  -0.9
       0.7s    13.67nm          5.2mb
CP2     83.69  26 eP    11 17.87  -0.9
                  e     11 26.07  26km
SLKM    84.25  27 eP    11 20.21  -1.2
                  e     11 27.69  24km
PMS     84.85  26 eP    11 24.20  -0.2
       1.1s    43.10nm          5.6mb
NRI     84.96 343 iPc   11 23.70  -1.0
       1.3s    22.00nm          5.2mb
                  e     11 31.00  23km
PMR     85.18  26 ePd   11 24.64  -1.3
       0.8s    17.36nm          5.3mb
IMA     85.32  21 eP    11 26.40  -0.4
       1.0s     7.72nm          4.9mb
                  e     11 33.40  22km
BRVK    85.69 324 iPc   11 29.00   0.3
       1.1s    21.00nm          5.3mb
KLU     86.57  27 eP    11 32.81  -0.2
TOA     86.67  26 eP    11 34.30   0.8
BRW     86.95  16 eP    11 34.92   0.4
FBA     87.04  23 eP    11 33.68  -1.4
       0.9s    11.77nm          5.1mb
BALM    88.05  28 eP    11 40.06  -0.1
                  e     11 47.00  22km
CMB     98.54  53 P     12 40.00  11.1)
      Z  19s     0.14um          4.5Msz
YKA    101.22  28 ePdiff12 38.70  -1.7
       0.9s     1.10nm          4.4mb
RSSD   110.40  45 PKP   17 30.00   6.9)
      Z  19s     0.08um          4.3Msz
GEC2   120.79 324 ePKP  17 42.30  -0.3
       0.6s     0.74nm
                  e     17 45.20
                  e     17 50.60
BCAO   125.69 271 iPKPd 17 52.90  -0.1
       0.4s     8.00nm
LNV    127.44 143 iPKP  18 05.54   9.8)
SAN    128.24 143 iPKP  17 57.26  -0.1
LPB    140.72 126 PKP   18 15.00  -6.7)
ZOBO   140.83 126 PKP   18 16.80  -5.3)
SDV    145.64  84 ePKP  18 29.50  -0.5
SIV    146.44 133 iPKPc 18 35.50   4.5)
TOV    146.44  83 ePKP  18 31.80   0.7
VAO    148.55 160 ePKP  18 37.40   3.1)
KIC    148.94 271 PKP   18 39.30   4.2)
LIC    149.22 271 PKPc  18 40.20   4.7)
       0.9s    19.50nm
TIC    149.23 272 PKP   18 40.20   4.7)
       0.8s    11.50nm
BAO    154.79 152 e(PKP)18 42.00  -1.6
BDF    154.81 152 e(PKP)18 43.00  -0.6
      S.D. = 0.9  on  59 of  75 obs.
-----------------------------------
*  JAN  01, 1993  09h 17m 26.79± 1.22s
   32.057 S ±22.1km   69.469 W ±12.5km
   DEPTH = 120.0km  (geophysicist)
 MENDOZA PROVINCE, ARGENTINA      (139)
      MD 3.5 (SAN).

JACH     1.14 236 iPd   17 51.15   0.5
                  iS    18 10.12
FCH      1.44 208 iPd   17 54.73   0.4
                  iS    18 15.98
PEL      1.49 223 iP+   17 54.66   0.1
                  iS    18 14.62
ROCH     1.59 235 iP+   17 55.78  -0.1
                  iS    18 16.74
PCH      1.79 209 iP+   17 58.40   0.2
                  iS    18 23.20
TACH     2.02 217 iPd   18 00.45  -0.5
                  iS    18 25.80
CHCH     2.12 208 iPd   18 02.17  -0.1
                  iS    18 28.79
LCCH     2.27 231 iP    18 03.67  -0.4
                  iS    18 30.10
TCA      4.22  82 eP    18 30.20  -0.1
      S.D. = 0.4  on   9 of   9 obs.
```

```
-----------------------+-----------------
   JAN  01, 1993  09h 56m 27.27± 0.20s
   31.621 S ± 3.2km    71.608 W ± 5.0km
   DEPTH =  27.1km  (  6 depth phases)
   5.4mb ( 25 obs.)  4.7Msz (  8 obs.)
 NEAR COAST OF CENTRAL CHILE      (135)
      Mw 5.3 (HRV). MD 5.2 (SAN).
      CENTROID, MOMENT TENSOR     (HRV)
      Data Used: GDSN
      L.P.B.: 21S, 29C
      Centroid Location:
      Origin Time        09:56:34.0 0.5
      Lat 31.93S 0.07 Lon  71.66W 0.07
      Dep  22.2 3.1 Half-duration  1.1
      Moment Tensor:    Scale 10**16 Nm
        Mrr= 7.02 0.42   Mtt=-1.06 0.65
        Mff=-5.96 0.60   Mrt= 0.93 1.05
        Mrf=-8.22 1.59   Mtf= 0.41 0.47
       Principal Axes:
        T  Val= 11.04   Plg=64  Azm= 83
        N       -1.03      1       174
        P      -10.01     26       265
      Best Double Couple:Mo=1.1*10**17
       NP1:Strike=356 Dip=19 Slip=  92
       NP2:       174     71        89

JACH    1.36 141 iPd    56 52.14   1.4
IHA     1.40 181 iPc    56 51.70   0.6
                iS      56 57.10
ROCH    1.44 160 iPd    56 52.65   0.7
PEL     1.71 153 iPd    56 57.14   1.5
LCCH    1.85 179 iPd    56 57.99   0.3
SAN     1.99 157 iP+    57 01.18   1.4
                iS      57 30.84
FCH     2.03 147 iPd    57 02.22   1.5
TACH    2.10 165 iP+    57 02.29   0.9
PCH     2.20 155 iP+    57 03.94   1.2
LNV     2.33 176 iP     57 04.23  -0.3
CHCH    2.44 161 iP+    57 07.36   1.1
RTCV    2.63  96 iPd    57 13.00   4.1X
                (S)     58 50.00
CACH    2.63 161 iPd    57 10.52   1.6
MDZ     2.65 119 iPd    57 13.90   4.6X
                i       57 48.90
                i       58 56.60
CFA     2.87  91 ePc    57 16.80   4.5X
RFA     4.10 141 iP     57 09.20 -20.6X
RTPR    4.57  75 ePc    57 38.50   2.1
MRA     5.07 100 ePd    57 44.80   1.3
CYA     5.95  59 iPd    57 56.50   0.6
TCA     6.00  89 iP     57 56.60  -0.1
ANT     7.96   8 eP     58 25.00   1.0
HJA    10.02  35 ePd    58 52.50   0.0
YJA    10.87  32 e(P)   59 10.00   5.4X
LPA    11.91 110 eP-    59 16.00  -2.2
ARE    15.09   0 eP     00 02.00   1.3
LPB    15.36  13 Pc     00 05.50   1.3
       1.0s   130.00nm          5.1mb
     Z  18s     4.12um
                i       00 12.30
                S       03 10.00
                LR      04 45.00
ZOBO   15.59  13 iPc    00 08.70   1.2
     Z  22s     2.87um
                S       03 30.00
                LR      04 54.00
SIV    18.28  34 Pc     00 42.80   2.0
                i       00 55.00
NNA    20.13 345 eP     01 02.90   0.8
       0.7s    10.27nm          4.3mb X
                eS      04 50.70
VAO    23.48  75 eP     01 34.80  -0.9
                e       01 48.60  58kmX
                e       02 10.50
BAO    26.77  59 Pd     02 05.50  -1.5
BDF    26.81  59 Pd     02 06.00  -1.4
BOG    36.12 356 eP     03 32.00   2.6
SDV    40.29   1 eP     04 04.00  -0.1
NVL    58.36 157 eP     06 20.00  -2.0
       1.4s    57.00nm          5.5mb
                e       06 29.00  30km
                e       07 06.00
SPA    58.56 180 iPc    06 22.50  -1.2
       0.9s    54.09nm          5.6mb
CEH    67.52 353 eP     07 22.05  -0.9
       0.7s    13.43nm          5.2mb
     Z  22s     0.31um          4.5Msz
UYO    68.89 340 iPc    07 30.60  -1.0
MIAR   68.99 341 eP     07 31.56  -0.6
       1.0s     7.03nm          4.7mb
     Z  19s     0.13um          4.2Msz
MEO    70.76 337 iPc    07 42.00  -1.0
TUL    70.91 339 eP     07 43.10  -0.8
       1.0s    27.30nm          5.3mb
LNO    70.91 339 eP     07 43.10  -0.6
RLO    70.92 340 eP     07 43.30  -0.6
KDS    71.87  62 iPd    07 49.30  -0.8
TUC    73.59 326 P      08 10.00  10.1X
     Z  20s     0.40um          4.7Msz
LIC    73.69  72 Pc     08 00.10  -0.7
     Z  20s     0.45um          4.8Msz
ALQ    73.88 331 P      08 10.00   8.3X
     Z  19s     0.47um          4.8Msz
TIC    73.93  72 P      08 01.40  -0.8
KIC    74.00  72 Pc     08 02.00  -0.6
       0.8s    86.00nm          5.8mb
CER    74.08 120 iPc    08 02.50  -0.4
       1.0s    80.00nm          5.7mb
MAW    75.35 164 iPd    08 09.50   0.0
       1.0s    41.67nm          5.4mb
RSNY   75.85 358 eP     08 12.22  -0.3
       0.9s    41.34nm          5.5mb
POF    76.44 116 iPc    08 16.20  -0.2
       1.0s    40.00nm          5.4mb
LMN    77.35   5 eP     08 24.50   3.6X
PLM    77.46 322 (P)    08 23.41   1.4
WIN    77.48 109 iPc    08 21.70  -0.8
       1.2s    30.00nm          5.2mb
GLD    77.56 334 eP     08 22.97   0.5
       1.2s    21.85nm          5.1mb
                e       08 32.33  30km
PV10   77.88 331 eP     08 24.21  -0.2
PEC    78.03 323 eP     08 25.72   0.7
       1.0s     6.78nm          4.6mb
                e       08 34.63  28km
EEO    78.19 355 ePd    08 28.60   3.1X
GSC    78.96 324 ePc    08 30.59   0.5
SRU    79.13 330 ePc    08 31.17   0.1
MSU    79.35 329 ePc    08 32.83   0.5
GRM    79.42 123 iPd    08 34.50   1.7
       0.7s    50.00nm          5.6mb
ISA    80.09 323 ePc    08 37.23   1.0
       0.8s    12.80nm          5.0mb
                e       08 44.41  23km
FRS    80.32 119 iPc    08 36.60  -1.0
       7.0s    61.00nm          4.7mb X
RSSD   80.99 337 ePd    08 41.02   0.1
       1.1s    15.80nm          4.9mb
     Z  21s     0.13um          4.2Msz
DUG    81.01 329 eP     08 40.92  -0.1
       0.9s     6.19nm          4.6mb
BLF    81.30 119 iPc    08 42.20  -0.8
       0.7s    66.00nm          5.8mb
MEMM   81.87 324 eP     08 46.82   1.5
HVU    82.30 330 eP     08 47.45  -0.3
                e       08 53.99  21km
SEK    82.79 119 iPc    08 48.00  -2.8
       1.0s   110.00nm          5.9mb
HHAI   83.38 331 (P)    08 53.62   0.4
PRY    83.41 117 iPd    08 52.00  -2.0
       0.5s    16.00nm          5.4mb
KSR    83.53 116 iPd    08 53.50  -1.1
       0.6s    28.00nm          5.6mb
ULM    84.30 345 ePc    08 59.60   2.0
ORV    84.61 324 eP     09 00.28   0.9
SLR    84.66 117 iPc    08 58.60  -1.6
       0.7s    72.00nm          6.0mb
     Z  20s     8.00um          6.1MszX
LCCM   85.30 333 ePc    09 03.10   0.2
BFT    86.02 118 eP     09 07.00  -0.1
BUL    87.92 112 iPd    09 15.80  -0.5
VGB    88.79 328 eP     09 19.45  -0.2
DPW    89.49 331 ePc    09 22.88  -0.1
CIR    89.76 115 iPd    09 26.00   1.1
FCC    91.98 348 eP     09 37.50   3.4X
BCAO   92.42  86 iPc    09 37.00  -0.2
       0.5s    13.00nm          5.6mb
                ic      09 47.10  31km
                ic      10 31.10
                ic      13 15.10
HON    97.97 290 P      10 10.00   7.8X
     Z  20s     0.24um          4.7Msz
YKA    99.93 341 eP     10 07.90  -2.4X
       0.8s     1.10nm          4.4mb
GEC2  110.22  45 ePKP   14 57.00  -1.1
       0.9s     1.11nm
WB2   123.00 209 iPKPd  15 21.80  -1.4
       0.9s     9.00nm
                i       15 31.30
WRA   123.01 209 PKP    15 22.20  -1.0
       0.8s     5.40nm
OBN   125.46  42 ePKP   15 25.50  -1.4
       1.2s    26.00nm
     Z  20s     0.60um          5.3Msz
     E  20s     0.40um
                e       15 35.00
ARU   137.72  39 ePKP   15 50.00  -0.2
                e       16 00.00
TIK   138.43 350 ePKP   15 50.00  -1.1
       1.0s    10.00nm
                e       16 01.00
MAIO  139.52  70 ePKP   15 45.00  -9.2X
AAI   140.15 212 ePKP   16 13.50  17.6X
NRI   140.46  11 iPKPc  15 54.50  -0.2
       1.5s    29.00nm
                e       16 05.00
BRVK  145.20  41 iPKPc  16 03.00  -0.5
       1.0s    70.00nm
POO   146.26 104 iPKPd  16 05.60  -0.7
GBA   146.44 115 PKP    16 06.00  -0.6
YAK   146.61 342 iPKPd  16 05.20  -0.3
       1.0s   171.00nm
HYB   149.51 111 ePKP   16 11.00  -0.5
       1.0s   120.00nm
                e       16 15.50
                e       16 26.00
KGM   150.17 170 ePKP   16 16.50   3.9X
FRU   151.05  58 iPKPc  16 19.50   6.4X
       2.0s   130.00nm
BSI   151.26 152 ePKP   16 16.00   1.8
SEM   151.92  40 iPKPc  16 20.30   6.2X
       1.3s    47.00nm
                i       16 30.30
                e       20 06.00
IPM   152.22 164 ePKPc  16 21.20   5.6X
       1.0s    75.50nm
NDI   152.93  88 iPKPc  16 23.00   6.8X
       0.7s    27.40nm
ELT   153.12  30 ePKP   16 22.20   6.6X
       1.7s    20.00nm
BOD   153.47 353 ePKP   16 16.30   0.3
PRZ   153.85  57 ePKP   16 36.00  18.7X
GKN   159.08  94 PKPc   16 23.74  -0.6
       1.0s    32.00nm
MOY   159.23  13 ePKP   16 25.90   2.4X
CIT   159.28 351 ePKP   16 24.00   0.3
                e       17 02.00
DMN   159.37  95 PKPc   16 24.26  -0.5
KKN   159.57  95 PKPc   16 24.32  -0.6
       0.9s    19.00nm
PKI   159.62  96 PKPc   16 24.30  -0.9
GUN   160.12  95 PKPc   16 25.18  -0.5
       1.0s    26.00nm
ZAK   160.87  10 ePKP   16 25.00  -0.2
       1.6s    14.00nm
                e       17 08.30
CHG   164.66 144 ePKP   16 39.40   9.4X
                e       17 32.20
BJI   169.49 325 ePKP   16 33.00   0.2
LZH   174.16  39 ePKP   16 37.00   1.7
       1.5s    27.00nm
                pP      16 47.00
     S.D. = 1.1  on  99 of 122 obs.
-----------------------------------
?  JAN  01, 1993  10h 06m 40.54± 4.20s
   35.792 S ±29.5km   71.734 W ±35.2km
   DEPTH = 100.0km  (geophysicist)
 CENTRAL CHILE                   (136)
      MD 4.0 (SAN).

LNV     1.85   8 iP+    07 12.52   0.9
                iS      07 40.73
CHCH    2.06  26 iPd    07 14.44   0.0
                iS      07 45.51
TACH    2.23  17 iP+    07 16.74   0.0
                iS      07 48.13
LCCH    2.32   3 iP     07 17.43  -0.4
                iS      07 50.29
PCH     2.39  25 iP     07 18.83  -0.1
                iS      07 54.04
FCH     2.73  26 iP     07 24.08   0.3
```

iS * 08 01.31
PEL 2.78 18 iPd 07 24.49 0.4
iS 08 01.31
ROCH 2.88 12 iP+ 07 25.33 -0.3
iS 08 05.06
JACH 3.24 17 iP 07 29.70 -0.8
BDF 29.23 53 Pd 12 35.10 -0.1
S.D. = 0.5 on 10 of 10 obs.

? JAN 01, 1993 10h 56m 24.90± 6.08s
7.329 S ±60.0km 131.511 E ±55.8km
DEPTH = 121.6 ± 15.5 km
TANIMBAR ISLANDS REG., INDONESIA(281)

SLKI 0.68 198 iPc 56 44.50 0.0
iS 57 02.00
MTN 5.50 184 eP 57 45.70 0.0
0.3s 83.00nm 5.4mb X
eS 58 54.00
WB2 12.84 168 iPd 59 23.70 -0.4
eS 01 45.60
ASPA 16.41 172 eP 00 10.00 0.6
eS 03 10.40
WARB 19.32 193 eP 00 43.00 -0.1
eS 04 10.00
S.D. = 0.7 on 5 of 5 obs.

JAN 01, 1993 12h 35m 32.43± 0.66s
38.906 S ± 5.0km 177.472 E ± 7.8km
DEPTH = 59.3 ± 8.5 km
4.4mb (4 obs.)
NORTH ISLAND, NEW ZEALAND (159)

PAHZ 0.33 278 iPd 35 42.40 -0.4
S 35 48.80
MOH 0.34 228 Pc 35 44.90 2.0
MAHZ 0.43 132 P 35 46.60 2.9X
NOZ 0.53 57 Pd 35 45.60 0.9
URZ 0.70 336 Pc 35 45.30 -1.5
S 35 54.00
WHH 0.76 271 P 35 48.80 1.2
TTH 0.81 218 Pc 35 51.60 3.5X
TAZ 1.01 311 Pd 35 50.60 -0.1
PUZ 1.03 37 Pd 35 51.00 -0.1
WAHZ 1.17 227 P 35 55.50 2.5X
UTU 1.24 306 P 35 53.80 0.0
HBZ 1.46 27 P 35 56.70 -0.1
NGZ 1.48 259 P 35 59.10 1.8
CNZ 1.53 258 P 35 59.70 1.8
WLZ 1.80 304 P 36 00.80 -0.8
PGZ 1.94 208 P 36 05.00 1.4
MOZ 2.13 280 P 36 07.30 1.2
BSZ 2.16 245 P 36 09.20 2.5X
MNG 2.30 221 P 36 09.30 0.7
S 36 38.50
KUZ 2.56 327 P 36 10.80 -1.5
eS 36 37.50
MTW 2.71 213 P 36 14.20 -0.2
KIW 2.78 224 P 36 15.70 0.3
NRZ 2.79 260 eP 36 17.90 2.4X
CAW 2.87 219 P 36 16.40 -0.3
BLW 2.90 211 P 36 17.10 0.0
MOW 3.03 213 P 36 18.20 -0.8
MRW 3.15 222 P 36 19.80 -0.8
DIW 3.32 234 P 36 22.90 -0.3
TCW 3.37 226 P 36 22.80 -0.9
WCZ 3.87 319 P 36 29.50 -1.2
THZ 4.51 229 P 36 38.80 -1.0
S 37 30.40
KHZ 4.61 219 P 36 38.40 -2.7
S 37 30.40
DSZ 5.18 235 P 36 47.00 -2.3
LTZ 5.53 224 P 36 50.50 -3.6X
eS 37 51.60
MOZ 6.01 216 P 36 57.10 -3.7X
S 38 01.50
ODZ 7.97 217 eP 37 23.70 -4.3X
eS 38 49.10
BWZ 7.99 223 P 37 24.90 -3.3X
TOO 25.09 263 eP 40 55.80 2.8X
0.7s 12.00nm 4.5mb
e 41 07.70
ASPA 39.83 279 iPc 43 02.90 1.3
0.8s 19.30nm 5.0mb
WB2 41.59 284 iPd 43 17.20 1.1
0.5s 3.40nm 4.4mb
WRA 41.60 284 P 43 17.60 1.4
0.6s 0.60nm 3.5mb
S.D. = 1.3 on 31 of 41 obs.

? JAN 01, 1993 12h 48m 14.39± 4.08s
37.512 S ±19.0km 179.329 E ±32.1km
DEPTH = 181.5 ± 17.1 km
OFF E. COAST OF N. ISLAND, N.Z. (160)

HBZ 0.82 264 Pc 48 41.30 0.1
PUZ 1.02 236 Pc 48 40.90 -1.8
eS 48 48.00
NOZ 1.50 222 P 48 46.90 0.1
URZ 1.91 246 Pd 48 48.80 -2.1
S 49 01.90
MAHZ 2.02 214 eP 48 54.00 1.8
PAHZ 2.24 232 P 48 54.50 -0.1
TAZ 2.35 251 eP 48 54.90 -0.8
MOH 2.36 226 eP 48 56.40 0.5
WHH 2.62 238 P 48 58.80 -0.3
TTH 2.82 223 P 49 02.50 1.1
KUZ 2.98 284 eP 49 04.80 1.5
eS 49 30.70
TEHZ 3.16 218 eP 49 06.30 0.7
WAHZ 3.19 226 eP 49 06.10 0.1
NGZ 3.37 239 P 49 08.70 0.4
CNZ 3.42 239 P 49 09.40 0.5
PGZ 3.91 217 eP 49 15.70 0.8
BSZ 4.13 235 P 49 19.40 1.6
MNG 4.31 223 P 49 20.10 0.0
MTW 4.70 218 eP 49 25.10 0.0
KIW 4.79 224 eP 49 26.00 -0.4
BLW 4.87 217 eP 49 27.90 0.5
CAW 4.88 221 P 49 27.00 -0.5
MOW 5.02 218 eP 49 29.10 -0.2
MRW 5.16 223 P 49 30.20 -0.9
S 50 18.80
DIW 5.33 230 eP 49 33.30 -0.1
TCW 5.38 225 eP 49 33.50 -0.5
ORZ 6.23 236 eP 49 44.90 -0.3
KHZ 6.62 220 eP 49 50.30 0.1
LTZ 7.54 224 eP 50 01.40 -1.2
MOZ 8.00 217 eP 50 07.70 -0.9
ODZ 9.96 218 eP 50 34.60 0.3
S.D. = 0.9 on 31 of 31 obs.

JAN 01, 1993 13h 09m 06.30± 0.13s
25.189 S ± 3.7km 177.838 W ± 4.3km
DEPTH = 202.6km (13 depth phases)
5.2mb (35 obs.)
SOUTH OF FIJI ISLANDS (171)

RAO 4.05 181 iP 10 10.20 0.9
iS 11 03.00
SVA 7.83 333 iP 10 59.00 0.6
VUN 7.93 334 iPd 10 59.00 -0.7
URZ 13.72 197 eP 12 09.40 -4.2X
NOZ 13.84 194 eP 12 10.30 -4.8X
eS 14 37.20
DZM 14.74 279 iPc 12 32.80 6.3X
PVC 14.86 297 iPc 12 28.30 0.3
MNG 16.37 198 eP 12 40.00 -6.2X
eS 15 31.70
KIW 16.76 199 eP 12 45.60 -5.4X
MTW 16.86 198 eP 12 49.40 -2.8
DIW 17.02 202 eP 12 50.10 -3.9X
BLW 17.07 197 eP 12 52.00 -2.5
MRW 17.16 199 eP 12 50.70 -4.8X
eS 15 47.00
TCW 17.28 200 eP 12 52.20 -4.4X
ORZ 17.54 205 eP 12 58.20 -1.3
DSZ 18.61 205 eP 13 08.80 -2.0
LTZ 19.35 202 eP 13 16.70 -1.6
LMZ 21.28 206 eP 13 38.00 0.6
BWZ 21.72 204 eP 13 41.80 0.0
MSCZ 22.38 204 eP 13 48.10 -0.1
LRCZ 22.38 204 eP 13 46.10 -2.3
MHZ 22.40 204 eP 13 47.50 -1.0
MMCZ 22.41 205 eP 13 47.00 -1.6
LSCZ 22.41 204 eP 13 47.30 -1.3
SBCZ 22.41 204 eP 13 49.60 1.0
CMCZ 22.47 204 eP 13 51.70 2.5X
TLC 22.59 205 eP 13 52.90 2.5X
ARMA 27.46 252 eP 14 37.70 2.1
e 15 17.20 196km
RMQ 30.05 260 eP 15 01.20 2.7X
ePP 15 49.00
eScP 32 22.30
CMS 32.49 250 eP 15 21.80 2.1
0.5s 4.00nm 4.3mb
e 16 04.80 209km
TOO 33.45 239 eP 15 29.10 1.1
0.6s 13.00nm 4.7mb
CTA 33.46 271 P 15 30.79 2.5
BFD 35.70 241 eP 15 44.50 -2.5
STK 36.10 250 iPc 15 52.50 2.1
0.5s 4.10nm 4.3mb
ADE 38.59 245 eP 16 13.20 1.9
MDG 40.10 294 eP 16 17.50 -6.3X
ASPA 43.78 261 eP 16 54.50 0.7
0.4s 25.00nm 5.1mb
e 17 40.60 215kmX
eS 23 04.60
WB2 44.28 267 iPd 16 57.70 0.0
0.6s 42.60nm 5.1mb
i 17 44.80 220kmX
iScP 22 15.20
eS 23 13.50
WRA 44.29 267 P 16 58.00 0.2
1.1s 3.40nm 3.8mb X
MTN 49.52 274 eP 17 38.00 -0.5
WARB 49.71 256 eP 17 39.50 -0.4
GUA 52.92 312 eP 18 03.00 -0.9
PJG 52.98 312 eP 18 02.50 -1.8
COOL 53.59 249 eP 18 08.00 -0.8
KLB 56.31 248 eP 18 27.00 -1.3
BAL 57.39 249 eP 18 35.20 -0.7
MUN 57.53 247 eP 18 36.50 -0.3
MRWA 58.29 250 eP 18 42.00 -0.2
CSY 59.83 206 eP 18 53.60 1.5
0.5s 35.30nm 5.3mb
NANU 60.42 257 eP 18 56.50 -0.3
SPA 64.96 180 iPd 19 28.20 2.0
1.0s 36.00nm 5.2mb
i 20 13.70 194km
TRT 68.26 272 ePc 19 31.50 -16.0X
MAT 74.08 324 iPd 20 19.70 -2.0
0.8s 6.72nm 4.4mb
OFUJ 74.30 328 eP 20 21.20 -1.7
KUSJ 76.19 333 eP 20 32.40 -1.1
KLI 76.46 271 eP 20 34.20 -1.5
ADK 76.74 1 ePd 20 34.60 -1.7
1.0s 321.25nm 6.0mb
e 21 49.06 324kmX
MAW 77.23 200 iP 20 41.50 2.6X
1.1s 54.35nm 5.2mb
ASAJ 77.89 332 eP 20 43.30 0.5
SMY 77.90 355 ePd 20 40.69 -2.0
1.1s 525.48nm 6.2mb X
YSS 80.21 334 (P) 20 55.30 0.1
PET 80.52 346 eP 20 55.00 -1.7
1.2s 90.00nm 5.4mb
KGM 80.77 277 eP 21 01.00 2.1
SSE 80.82 311 eP 20 59.00 0.3
1.0s 11.00nm 4.5mb
Z 20s 0.50um 4.9Msz
BCH 81.19 45 eP 21 01.39 0.6
PLM 82.17 48 ePd 21 05.90 -0.1
ISA 82.51 45 eP 21 07.62 0.0
1.0s 28.11nm 4.9mb
e 21 23.26 55kmX
CMB 82.81 42 eP 21 08.60 -0.4
1.1s 23.48nm 4.8mb
ORV 83.12 40 iPd 21 09.96 -0.5
GLA 83.36 49 iPc 21 12.47 0.5
GSC 83.37 46 ePd 21 11.75 -0.2
MTUM 83.50 44 ePd 21 12.79 0.1
LMEM 83.72 40 (P) 21 14.22 0.5
IPM 83.94 278 ePc 21 15.60 0.4
0.6s 41.20nm 5.3mb
BONR 84.04 43 eP 21 15.59 0.1
NVL 84.07 183 eP 21 16.00 1.2
1.2s 32.00nm 4.9mb
e 22 03.00 191kmX
TNP 84.79 44 ePd 21 19.00 -0.2
1.0s 28.28nm 5.0mb
KVN 84.84 42 eP 21 19.44 0.1
KDC 85.31 13 eP 21 20.11 -0.9
1.2s 58.40nm 5.2mb
TUC 85.76 51 iPd 21 24.86 0.9
1.3s 61.91nm 5.3mb
epP 22 14.46 202km
KMOR 86.05 35 P 21 25.23 0.2
BPO 86.34 36 P 21 26.60 -0.1
BMW 86.75 34 eP 21 28.52 0.1

FL2	87.01	35	P •	21 30.31	0.6
ARUT	87.02	46	ePd	21 30.29	0.2
SHW	87.07	35	eP	21 30.53	0.5
TDL	87.19	35	P	21 31.03	0.5
VGB	87.40	36	(P)	21 31.61	0.1
HDW	87.63	34	P	21 33.06	0.5
GLK	87.64	35	P	21 32.70	0.0
GMW	87.69	34	ePd	21 33.02	0.2
WPW	87.76	35	P	21 33.14	-0.2
FMW	87.85	35	P	21 34.02	0.2
SVW	87.86	11	iPd	21 32.16	-1.2
	0.8s	39.38nm			5.3mb
BLN	87.91	33	P	21 34.47	0.6
GSM	87.97	34	P	21 34.31	0.0
RMW	88.13	34	iPd	21 35.00	0.0
			epP	22 25.18	203km
MSU	88.26	46	iPd	21 36.50	0.5
			epP	22 26.95	204km
SLKM	88.31	13	iPd	21 34.64	-0.9
			epP	22 24.89	204km
BRVW	88.44	36	P	21 36.77	0.3
TBM	88.56	35	P	21 37.15	0.1
NNT	88.57	285	iPc	21 32.80	-4.8X
BGL	88.58	12	ePd	21 35.49	-1.4
			epP	22 25.76	204km
CP2	88.61	12	iPd	21 35.78	-1.4
CMW	88.61	33	P	21 37.63	0.3
CRP	88.63	12	iPd	21 35.47	-1.7
			epP	22 26.14	205km
MDW	88.65	36	P	21 37.66	0.3
MGD	88.78	345	eP-	21 36.00	-1.7
WIW	88.78	36	P	21 38.20	0.2
GBL	88.80	36	P	21 38.30	0.2
WAH2	88.84	36	P	21 38.37	0.1
LNOR	88.97	37	P	21 38.43	-0.5
CRF	88.98	36	P	21 38.94	0.1
ETW	88.98	35	P	21 39.06	-0.1
WTV	89.24	35	P	21 39.97	-0.2
NLW	89.29	34	P	21 40.26	-0.2
BJI	89.32	315	eP	21 41.00	0.4
	1.7s	122.00nm			5.6mb
SIT	89.40	22	e(P)	21 41.20	0.6
TTA	89.52	10	ePd	21 40.77	-0.4
	1.3s	52.85nm			5.3mb
			epP	22 31.22	204km
PMR	89.52	13	iPc	21 40.16	-0.9
	0.7s	51.00nm			5.6mb
SRU	89.66	46	eP	21 42.36	-0.2
			epP	22 32.62	203km
OD2	89.69	36	P	21 42.27	0.0
HVU	89.73	43	eP	21 42.44	-0.3
EMUT	89.86	45	eP	21 43.21	-0.3
KLU	90.14	15	ePd	21 43.28	-0.8
ALQ	90.21	51	ePd	21 45.11	-0.1
	1.3s	25.54nm			5.0mb
			epP	22 35.61	204km
PV10	90.24	47	eP	21 44.24	-1.1
DPW	90.26	36	iPd	21 44.70	-0.2
PTI	90.59	42	eP	21 47.32	0.6
BALM	90.61	16	iPc	21 45.88	-0.4
TOA	90.62	14	eP	21 46.90	0.6
HHAI	90.83	42	eP	21 47.99	0.3
NEW	91.08	36	ePc	21 48.01	-0.6
	0.8s	10.73nm			4.9mb
KMI	91.60	297	Pd	21 53.50	1.7
	1.5s	70.00nm			5.5mb
			pP	22 07.50	47kmX
CHG	91.97	290	ePd	21 54.30	1.0
	1.0s	27.50nm			5.2mb
LCCM	92.56	40	eP	21 55.40	-0.3
FBA	92.77	12	ePd	21 54.62	-1.4
	1.1s	35.19nm			5.4mb
IMA	92.82	10	ePd	21 55.67	-0.7
	1.2s	13.60nm			4.9mb
GOL	93.37	47	eP	21 59.31	-0.3
	1.1s	2.93nm			4.3mb
GLD	93.49	47	eP	22 00.74	0.6
	1.6s	42.64nm			5.3mb
LZH	95.72	307	eP	22 11.50	1.1
	1.4s	39.00nm			5.5mb
RSSD	96.41	44	eP	22 12.18	-1.2
	1.2s	18.17nm			5.3mb
			epP	23 02.53	203km
YAK	96.47	338	iPd	22 12.10	-0.8
	1.1s	120.00nm			6.1mb
YKA	100.69	25	ePdiff	22 30.30	-1.7
	1.1s	1.50nm			4.4mb

RES	112.24	17	ePKP	27 18.00	-0.3
	1.0s	3.00nm			
SEM	116.42	316	iPKPd	27 25.80	-1.2
	1.2s	25.00nm			
BRVK	122.77	318	iPKPd	27 38.00	-1.0
	1.4s	45.00nm			
SVE	127.88	324	ePKPd	27 48.70	-0.1
ARU	129.07	323	iPKPc	27 52.00	0.9
MAIO	130.13	297	ePKP	27 55.00	1.1
KAF	139.67	343	ePKP	28 00.50	-10.3X
MOS	140.03	329	ePKP	28 10.00	-1.7
OBN	140.88	329	iPKPc	28 12.70	-0.5
	1.2s	26.00nm			
NUR	141.45	342	ePKP	28 06.40	-7.7X
UPP	143.72	347	iPKPc	28 14.60	-3.4X
NAO	143.89	353	PKP	28 15.80	-2.5X
	0.9s	41.10nm			
HFS	144.17	350	ePKP	28 15.10	-3.7X
	0.4s	19.50nm			
MNK	145.64	333	iPKP	28 20.00	-1.4
	1.2s	861.00nm			
KVT	147.74	308	iPKP	28 30.00	4.7X
GAZ	147.90	300	ePKP	28 29.00	3.4X
MUD	148.35	353	iPKPd	28 29.70	4.0X
	1.1s	167.00nm			
EDU	148.45	5	ePKP	28 29.30	3.4X
COP	148.62	349	iPKPc	28 30.20	4.1X
	0.7s	76.71nm			
BSD	148.67	346	iPKPd	28 30.20	4.0X
	1.0s	136.00nm			
			i	29 23.00	
EAB	148.67	7	ePKP	28 29.80	3.6X
EBH	148.70	6	ePKP	28 30.20	3.9X
EDI	149.05	6	ePKP	28 30.60	3.8X
	1.2s	100.00nm			
EAU	149.10	6	ePKP	28 31.10	4.2X
ESY	149.10	5	ePKP	28 31.10	4.2X
	1.1s	172.00nm			
EBL	149.21	6	ePKP	28 31.30	4.2X
	1.2s	102.00nm			
KIS	149.59	323	iPKPd-	28 33.00	5.1X
	1.0s	400.00nm			
EKA	149.63	6	PKPc	28 32.70	5.0X
	0.8s	48.90nm			
AYN	149.69	285	PKP	28 29.47	0.8
BHL	149.70	295	PKP	28 33.00	4.3X
HRI	149.71	293	iPKPd	28 35.00	6.3X
JVI	150.17	291	iPKPd	28 36.10	6.7X
HQL	150.53	285	PKP	28 30.00	0.1
DMU	150.53	11	iPKPd	28 34.50	5.4X
	1.1s	203.00nm			
CLI	150.74	323	ePKPd	28 37.00	7.3X
PPE	150.76	322	ePKPc	28 37.00	7.3X
RMN	150.87	288	iPKPd	28 37.50	7.0X
DCN	151.00	12	iPKPd	28 35.60	5.8X
	1.0s	290.00nm			
DLF	151.18	11	iPKPd	28 35.90	5.8X
	1.0s	93.00nm			
WME	151.41	8	ePKP	28 36.40	6.0X
CSS	151.42	297	ePKP	28 38.00	6.9X
VRI	151.47	323	ePKPc	28 27.50	-3.3X
BRD	151.50	322	ePKP	28 39.50	8.6X
YRC	151.52	8	ePKP	28 36.60	6.0X
OJC	151.53	336	iPKP	28 37.30	6.5X
			i	28 42.60	
			i	28 46.40	
			i	29 30.10	
UZH	151.76	331	ePKP	28 31.50	0.4
	1.7s	78.00nm			
			i	28 48.00	
YRH	151.92	9	ePKP	28 37.20	6.0X
BMR	151.92	329	ePKPc	28 42.00	10.6X
ISR	152.01	321	ePKPc	28 39.00	7.3X
MLR	152.13	323	ePKPc	28 37.00	5.0X
KSP	152.17	341	ePKP	28 31.30	-0.4
	1.1s	144.00nm			
			id	28 39.00	
			i	28 44.80	
			i	28 49.40	
			e	29 28.80	
SPC	152.19	334	ePKP	28 32.00	0.0
			i	28 40.80	
WIT	152.20	354	ePKP	28 34.00	2.4X
			e	28 40.00	
			e	28 46.50	
			e	29 33.00	
PPCY	152.23	297	ePKP	28 39.70	7.5X

HCG	152.55	8	ePKP	28 38.80	6.6X
CLL	152.63	345	iPKP	28 32.10	-0.2
	1.4s	25.00nm			
MTUR	152.78	323	ePKP	28 36.00	3.2X
BRG	152.80	344	iPKPc	28 33.00	0.5
	1.5s	42.00nm			
			i	28 40.40	
			i	28 51.50	
			e	29 26.00	
HTR	152.83	7	ePKP	28 39.40	6.9X
HAE	152.95	6	ePKP	28 40.20	7.5X
WTS	153.00	354	ePKP	28 33.50	0.8
	0.9s	90.00nm			
			i	28 40.80	
			e	28 52.00	
			e	29 33.50	
COZ	153.11	324	ePKP	28 35.00	1.6
HGH	153.32	7	ePKP	28 40.60	7.4X
	1.1s	86.00nm			
PSZ	153.34	333	ePKP	28 33.90	0.4
PRU	153.44	342	ePKP	28 31.50	-2.0
	1.5s	79.70nm			
			e	28 41.80	
			i	28 54.70	
MOX	153.56	346	iPKP	28 34.00	0.4
	1 6s	59.00nm			
			i	28 42.00	
			i	28 54.80	
BNS	153.98	353	iPKPc	28 42.50	8.4X
BUD	154.04	333	ePKP	28 42.50	8.2X
BCAO	154.05	220	iPKPc	28 36.10	0.7
	0.9s	32.00nm			
			id	28 44.50	
			ic	28 59.20	
			ic	29 27.40	
			ic	29 48.00	
SRO	154.06	335	ePKP	28 42.30	8.0X
			i	28 58.20	
ZST	154.19	337	iPKP	28 34.70	0.2
			i	28 43.00	
			i	28 58.90	
ENN	154.30	354	ePKP	28 35.00	0.4
	1.0s	28.00nm			
			e	28 43.50	
			e	28 57.50	
			e	29 49.00	
BZS	154.30	327	ePKP	28 29.00	-5.7X
KHC	154.49	342	PKP	28 35.40	0.4
	1.3s	18.00nm			
			i	28 44.00	
			i	28 59.60	
TNS	154.54	351	ePKPd	28 44.20	9.2X
			iPKPab	28 59.40	
GRF	154.54	346	ePKPd	28 35.50	0.5
			id	28 44.50	
			e	28 59.60	
WET	154.66	343	iPKPc	28 35.90	0.7
SNF	154.66	357	PKP	28 35.90	0.9
			i	28 44.48	
			i	28 59.19	
			e	29 50.60	
GEC2	154.71	342	e(PKP)	28 35.20	-0.1
	0.9s	3.10nm			
SOP	154.82	337	ePKP	28 32.00	-3.4X
DOU	155.06	356	PKP	28 45.40	9.8X
			e	29 00.20	
WLF	155.37	354	PKP	28 37.00	1.0
			e	28 47.00	
			i	29 02.61	
FLN	156.38	4	ePKP	28 37.50	0.0
	1.1s	15.15nm			
KBA	156.41	341	iPKPd	28 38.00	0.2
			i	29 07.10	
CDF	156.47	351	ePKP	28 37.20	-0.5
	1.0s	4.60nm			
PTJ	156.55	335	ePKP	28 38.00	0.1
LDF	156.57	4	ePKP	28 38.70	1.0
	1.0s	12.20nm			
WTTA	156.72	344	iPKPd	28 37.60	-0.6
	1.1s	116.00nm			
			i	29 08.90	
GRR	156.72	5	iPKPd	28 38.50	0.6
	1.1s	8.30nm			
SLE	156.92	349	ePKPc	28 38.10	-0.1
HAU	156.99	353	ePKP	28 38.10	-0.2
	1.0s	7.60nm			
BSF	157.11	352	ePKP	28 38.20	-0.4

01d 13h

```
        1.2s     13.40nm
VBY   157.15 336 iPKPc 28 39.20   0.7
                 iPKPab29 10.40
ZLA   157.21 349 ePKPc 28 40.40   1.8
OGA   157.24 344 ePKP  28 39.40   0.5
                 i     29 11.30
OSS   157.62 345 ePKPc 28 39.80   0.5
LOR   157.92 357 iPKPd 28 39.60   0.2
        1.5s     43.85nm
SSF   158.15 358 iPKPd 28 39.90   0.2
        1.5s     43.85nm
LBF   158.20 357 iPKPd 28 39.90   0.1
        1.5s     30.30nm
AVF   158.42 358 ePKP  28 39.90  -0.1
        1.3s     15.15nm
SMF   158.55 357 ePKP  28 40.20   0.1
        1.3s     16.25nm
MFF   158.55   4 iPKPd 28 40.00  -0.1
        1.6s     54.75nm
MMK   158.67 349 ePKPd 28 41.10   0.5
BGF   158.67 359 iPKPd 28 40.60   0.3
        1.2s     18.15nm
DIX   158.73 350 ePKPc 28 41.90   1.2
EMS   158.81 351 ePKPd 28 42.00   1.3
TCF   158.95 360 iPKPd 28 40.80   0.2
        1.3s     19.15nm
LSF   158.98   1 ePKP  28 40.60   0.0
        1.4s     34.00nm
MAF   159.01 359 iPKPd 28 41.20   0.5
        1.2s     13.40nm
LPL   159.38 351 iPKPd 28 42.00   0.6
        1.2s     10.70nm
LPG   159.40 351 iPKPd 28 42.20   0.7
        1.3s     18.05nm
RJF   159.92   1 iPKPd 28 42.00   0.3
        1.2s     19.95nm
LIC   159.92 159 PKP   28 43.50   0.9
KIC   160.15 159 PKP   28 43.00   0.2
TIC   160.32 158 PKP   28 44.00   1.0
ERUA  161.20  22 ePKP  28 44.90   1.8
LMR   161.55 350 iPKPd 28 43.50   0.2
        1.5s     49.60nm
ECRI  162.20  11 ePKP  28 46.00   1.9X
EPLA  163.64  23 iPKPc 28 47.50   1.9X
GUD   163.71  17 iPKPc 28 47.00   1.2
ETOR  164.02  12 ePKP  28 46.50   0.5
ECHE  165.40  10 ePKP  28 47.20   0.0
EVAL  165.50  29 ePKP  28 49.50   2.2X
EHOR  165.92  25 ePKP  28 49.00   1.4
EVIA  166.02  15 ePKP  28 47.70  -0.1
EHUE  166.78  17 ePKP  28 48.90   0.5
ECOG  167.00  21 iPKPd 28 48.70   0.1
EGUA  167.40  22 ePKP  28 49.80   1.0
ENIJ  167.67  17 ePKP  28 50.20   1.2
     S.D. = 1.0  on 203 of 273 obs.
-----------------------------------
?  JAN  01, 1993  14h 25m 02.73± 3.33s
   38.329 N ±27.4km   27.101 E ±18.8km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                            (366)
      MD 3.1 (ISK).

IZM     0.14  62 iPg   25 05.40  -0.7
                 iSg   25 10.40
EZN     1.61 338 ePn   25 31.00  -0.2
DST     1.74  43 ePn   25 33.00  -0.3
KHL     1.91  89 ePn   25 36.00   0.4
KCT     2.15  27 ePn   25 40.00   0.9
     S.D. = 0.9  on   5 of   5 obs.
-----------------------------------
&  JAN  01, 1993  14h 55m 26.29s
   64.042 N          148.790 W
   DEPTH =   6.2km
 CENTRAL ALASKA                    (  1)
      <AEIC>. ML 2.8 (AEIC).

MCK     0.32 192 iP    55 32.38  -0.4
                 eS    55 36.31
NEA     0.55 347 iP    55 36.76  -0.6
RND     0.64 183 iP    55 38.44  -0.7
                 eS    55 46.63
CCB     0.74  35 eP    55 40.42  -0.7
                 eS    55 50.38
HDA     0.88  65 eP    55 42.94  -0.6
                 eS    55 55.01
MDM     0.95  15 eP    55 44.37  -0.4
FBA     0.96  26 eP    55 44.21  -0.8
                 eS    55 57.25
GLM     1.13  32 eP    55 47.49  -0.3
                 eS    56 02.89
HUR     1.13 200 eP    55 47.50  -0.4
MLY     1.30 321 eP    55 50.11  -0.7
THY     1.49 114 eP    55 54.68   1.0
PAX     1.84 124 eP    55 59.86   1.2
                 eS    56 24.84
SDG     2.11 135 eP    56 04.24   1.6
                 eS    56 32.59
DOT     2.13  99 eP    56 03.79   0.9
SML     2.25 174 eP    56 04.70   0.0
GHO     2.28 182 eP    56 05.14   0.0
TOA     2.28 147 eP    56 06.92   1.8
SCM     2.32 163 eP    56 07.34   1.7
SKT     2.42 212 eP    56 06.65  -0.3
                 eS    56 38.75
PWA     2.45 192 P     56 10.10   2.7
                 S     56 41.40
PLRM    2.46 184 eP    56 07.58   0.0
PMR     2.46 184 eP    56 07.33  -0.3
TZL     2.52 141 eP    56 11.17   2.7
KNK     2.64 177 eP    56 10.88   0.7
SUA     2.74 200 eP    56 12.34   0.7
PMS     2.83 188 P     56 14.00   1.1
                 S     56 49.40
KLU     2.88 151 eP    56 15.50   1.9
IMA     2.90 317 eP    56 12.25  -1.7
CGLM    3.12 210 eP    56 16.44  -0.5
VLZ     3.13 158 eP    56 18.39   1.3
CRP     3.19 211 (P)   56 16.21  -1.8
PTE     3.19 182 eP    56 19.76   1.9
CP2     3.21 211 eP    56 17.98  -0.4
CKN     3.23 211 eP    56 17.83  -0.7
SPU     3.24 209 eP    56 18.15  -0.6
BGL     3.25 212 eP    56 18.11  -0.7
CKT     3.26 210 eP    56 18.35  -0.6
GLI     3.27 165 eP    56 20.64   1.6
CKL     3.29 211 eP    56 19.03  -0.5
TTA     3.43 254 ePn   56 19.95  -1.4
GLB     3.47 136 eP    56 23.83   1.9
SLKM    3.61 191 eP    56 25.39   1.5
CVA     3.78 157 P     56 29.70   3.3
DFR     3.91 209 P     56 28.20   0.0
SGAM    3.93 153 P     56 32.40   4.0
RAGM    4.14 150 P     56 35.70   4.3
BALM    4.24 132 P     56 36.00   3.0
SVW     4.32 230 (P)   56 34.18   0.2
        48 obs. associated
-----------------------------------
*  JAN  01, 1993  15h 57m 41.98± 1.74s
   48.897 N ±15.6km  112.190 W ±10.2km
   DEPTH =   5.0km  (geophysicist)
 MONTANA                           (456)
      ML 3.3 (GS), 3.4 (BUT).

HRY     2.20 174 iPnd  58 20.80   1.0
BUT     2.90 185 iPg   58 34.50   4.7X
                 eSn   59 03.80
                 iSg   59 10.70
LCCM    3.07 176 ePn   58 32.50   0.3
LRM     3.08 183 ePn   58 32.10  -0.4
HBMT    3.12 185 ePn   58 32.80  -0.2
NEW     3.33 261 ePn   58 36.32   0.4
                 eS    59 24.47
BGMT    3.67 178 ePn   58 41.30   0.5
MCMT    4.10 187 ePn   58 45.80  -1.1
DPW     4.14 258 (Pn)  58 46.89  -0.3
                 eS    59 50.49
RSSD    7.38 127 eP    59 32.88  -0.3
     S.D. = 0.7  on   9 of  10 obs.
-----------------------------------
   JAN  01, 1993  16h 11m 15.12± 0.41s
   41.748 N ± 4.0km   19.566 E ± 5.4km
   DEPTH =  10.0km  (geophysicist)
 ALBANIA                           (391)
      ML 2.7 (TIR), 2.7 (TTG).

SDA     0.31 351 iPgd  11 21.60   0.1
                 iSg   11 27.20
ULC     0.32 312 iPgd  11 21.48  -0.3
                 iSg   11 27.11
TIR     0.46 151 iPgd  11 23.50  -1.0
                 iSg   16 31.50
TTG     0.72 342 iPgd  11 28.31  -0.9
                 iSg   11 39.86
BDV     0.77 314 iPgd  11 29.49  -0.6
                 iSg   11 41.68
PVY     0.90  20 iPgd  11 31.42  -1.0
                 iSg   11 45.15
HCY     1.06 312 iPgd  11 34.95  -0.1
                 iSg   11 51.69
OHR     1.12 124 iPn   11 35.40  -0.8
                 iSn   11 53.70
                 Lg    11 55.50
NKY     1.14 339 ePg   11 36.21  -0.4
                 iSg   11 54.20
IVA     1.15  12 iPgd  11 35.98  -0.7
                 iSg   11 53.36
VLO     1.28 182 ePn   11 38.60  -0.2
BRY     1.38 327 iPgc  11 40.81   0.3
                 iSg   12 02.00
SKO     1.42  80 iP    11 42.40   1.5
TPE     1.49 167 ePn   11 41.60  -0.3
PLE     1.59 355 iPnd  11 44.58   1.2
                 iSn   12 08.13
LSK     1.78 154 ePn   11 47.00   0.8
VAY     2.30 100 ePn   11 54.30   0.7
HVAR    2.71 303 e(Pn) 12 01.30   1.7
     S.D. = 0.9  on  18 of  18 obs.
-----------------------------------
%  JAN  01, 1993  17h 29m 59.78± 1.04s
   31.377 S ±10.3km   68.121 W ± 6.9km
   DEPTH =  10.0km  (geophysicist)
 SAN JUAN PROVINCE, ARGENTINA      (137)

CFA     0.25 204 ePd   30 05.20   0.1
                 S     30 11.00
RTLL    0.30 279 iPd   30 05.90  -0.2
                 S     30 10.20
RTCB    0.59 259 e(P)  30 12.10   0.3
RTCV    0.60 216 ePc   30 11.70  -0.2
                 S     30 20.20
RTPR    1.75  53 ePc   30 25.40  -4.9X
TCA     3.02  90 eP    30 48.60   0.0
                 S     31 29.70
     S.D. = 0.3  on   5 of   6 obs.
-----------------------------------
   JAN  01, 1993  18h 46m 13.80± 0.44s
   41.574 N ± 5.5km   13.877 E ± 3.5km
   DEPTH =  10.0km  (geophysicist)
 SOUTHERN ITALY                    (390)
      ML 3.8 (TTG). MD 3.7 (TRI), 3.5
      (LJU).

SDI     0.14 341 Pd    46 17.60   0.5
                 eSg   46 19.40
AOU     0.86 336 P     46 31.00   0.7
                 eSg   46 43.00
RDP     0.89 282 P     46 32.00   1.1
                 eSg   46 46.00
RMP     0.91 285 P     46 33.00   1.8
                 eSg   46 47.20
ASS     1.75 329 P     46 46.10   1.7
                 eSn   47 08.50
MGR     1.92 138 P     46 47.00   0.2
ARV     2.04 341 P     46 50.00   1.4
BAI     2.30 100 P     46 52.00  -0.3
BRT     2.60 104 P     46 56.20  -0.5
TDS     2.68 135 P     46 58.90   1.2
SFI     2.78 328 P     47 01.00   1.9
FIR     2.93 320 eP    47 53.00  51.8X
BDI     3.46 317 P     47 10.40   1.5
HCY     3.55  74 iPnd  47 09.90  -0.2
                 iSn   47 49.71
BRY     3.71  68 iPnd  47 11.87  -0.7
                 iSn   47 52.61
PGF     3.76 287 Pn    47 13.10  -0.1
                 Sn    47 58.70
BDV     3.76  77 iPnd  47 12.69  -0.4
                 iSn   47 54.86
NKY     4.00  70 iPnc  47 16.70   0.1
                 iSn   48 00.23
ULC     4.04  83 iPnd  47 18.43   1.4
                 iSn   48 02.64
VBY     4.06  14 ePn   47 17.00  -0.2
TTG     4.10  76 iPnd  47 17.74  -0.1
                 iSn   48 03.20
TRI     4.13 359 e(Pn) 47 19.90   1.6
                 e(Pg) 47 33.30
                 e(Sn) 48 05.00
                 e(Sg) 48 26.80
                 e     48 38.10
CEY     4.18   5 eP    47 25.50   6.5X
```

			eSn*	48 08.40	
VLO	4.39	103	ePn	47 21.80	-0.2
PLE	4.44	65	iPnd	47 22.96	0.1
			iSn	48 11.00	
VOY	4.46	0	e(Pn)	47 24.50	1.5
			eSn	48 09.50	
LJU	4.49	6	e(Pn)	47 24.50	1.1
			e(Sn)	48 14.00	
TIR	4.51	91	ePn	47 23.20	-0.4
			eSn	48 13.50	
PTJ	4.58	19	ePn	47 24.00	-0.7
			eSn	48 20.20	
PVY	4.65	75	Pnc	47 26.56	0.7
			iSn	48 16.76	
IVA	4.66	72	iPnd	47 26.57	0.7
			iSn	48 16.53	
SAL	4.71	330	P	47 27.10	0.6
CTI	4.75	341	P	47 25.50	-1.8
TPE	4.82	103	ePn	47 27.60	-0.5
FVI	5.08	351	P	47 29.70	-2.0
OHR	5.23	93	iP	47 33.80	-0.2
SBF	5.27	298	Pn	47 33.60	-0.9
LSK	5.29	103	ePn	47 36.00	1.1
IGT	5.32	110	eP	47 46.12	10.9X
SKO	5.67	83	ePn	47 39.50	-0.6
FRF	5.70	293	Pn	47 39.00	-1.5
FNA	5.71	95	eP	47 46.16	5.3X
			eS	48 40.52	
LMR	5.73	290	Pn	47 39.20	-1.7
LRG	5.86	291	Pn	47 41.80	-1.0
WTTA	5.91	345	iPnc	47 43.10	-0.5
			iSn	48 54.50	
GRG	6.45	93	eP	47 49.40	-1.8
			eS	49 00.44	
LIT	6.70	100	eP	47 53.44	-1.2
			eS	49 06.32	
KNT	6.80	90	eP	47 50.36	-5.7X
AGG	6.95	109	eP	47 59.80	1.7
GEC2	7.27	359	Pn	47 58.90	-3.8X
			Sn	49 20.90	
KHC	7.56	359	eP	48 05.50	-1.2
			e	48 15.50	
			eSg	49 25.00	
CDF	8.28	328	Pn	48 14.80	-2.0
GRF	8.33	348	eP	48 06.00	-11.4X
			e(S)	49 37.00	
HAU	8.36	323	Pn	48 16.10	-1.8
			Sn	49 43.70	

S.D. = 1.2 on 47 of 54 obs.

% JAN 01, 1993 19h 16m 16.31± 0.89s
44.563 N ± 6.3km 7.408 E ± 8.2km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.0 (GEN).

PZZ	0.23	255	P	16 21.53	0.3
			S	16 25.14	
BHB	0.30	340	P	16 22.40	-0.1
			S	16 26.61	
STV	0.32	191	P	16 22.90	-0.2
			S	16 27.43	
ENR	0.34	179	P	16 23.17	-0.1
			S	16 27.89	
ROB	0.43	129	P	16 25.23	0.2
			S	16 30.95	

S.D. = 0.3 on 5 of 5 obs.

? JAN 01, 1993 20h 49m 41.11± 3.38s
38.224 N ±27.9km 26.841 E ±16.7km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
MD 3.1 (ISK).

IZM	0.37	62	iPg	49 48.50	-0.3
			iSg	49 53.50	
EZN	1.65	346	ePn	50 10.00	-0.2
DST	1.96	45	iPn	50 15.30	0.5
KHL	2.11	86	ePn	50 17.00	0.0

S.D. = 0.6 on 4 of 4 obs.

JAN 01, 1993 21h 00m 08.52± 0.52s
43.490 N ± 5.9km 4.500 E ± 3.6km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
ML 3.6 (LDG).

LRG	1.35	91	Pn	00 33.00	-0.4
			Pg	00 35.50	
			Sn	00 48.90	
			Sg	00 52.40	
LMR	1.47	95	Pn	00 34.20	-0.9
			Pg	00 37.50	
			S	00 54.70	
FRF	1.56	87	Pn	00 35.70	-0.7
			Pg	00 39.40	
			Sg	00 58.70	
ETER	1.69	226	iPc	00 43.00	4.7X
			eS	01 04.50	
PZZ	2.13	61	P	00 47.23	2.4
SBF	2.16	79	Pn	00 45.50	0.4
			Pg	00 50.80	
			Sg	01 17.60	
RRL	2.18	48	P	00 52.55	7.0X
STV	2.18	69	P	00 45.11	-0.3
BNI	2.21	44	P	00 53.30	7.4X
			eSn	01 20.90	
DOI	2.23	62	P	00 52.90	6.8X
			eSn	01 22.00	
ENR	2.24	70	P	00 45.92	-0.3
BHB	2.40	55	P	00 51.01	2.5
IMI	2.49	79	P	00 56.27	6.4X
ROB	2.57	71	P	00 51.01	0.1
LPG	2.57	38	Pn	00 52.10	0.9
			Pg	00 59.90	
LPL	2.58	37	Pn	00 52.20	1.0
			Pg	00 59.50	
RSP	2.58	49	P	00 53.41	2.2
LPO	2.67	298	Pn	00 53.40	1.1
			Pg	01 02.90	
			Sg	01 36.70	
LSD	2.74	43	P	00 58.10	4.6X
FIN	2.78	74	P	00 53.87	0.0
RJF	2.80	311	Pn	00 55.00	0.8
			Pg	01 04.90	
			Sg	01 40.30	
CKI	2.89	70	P	01 04.00	8.6X
			eSn	01 38.50	
MAF	3.06	334	Pn	00 58.70	0.9
			Pg	01 10.30	
			Sg	01 46.90	
LFF	3.07	299	Pn	00 58.20	0.3
			Pg	01 10.00	
			Sg	01 51.20	
EPF	3.07	263	Pn	00 57.60	-0.4
			Pg	01 10.30	
			Sg	01 50.80	
PCP	3.10	69	P	00 58.10	-0.4
SMF	3.19	352	Pn	00 59.90	0.2
			Pg	01 12.50	
			Sg	01 52.00	
TCF	3.24	331	Pn	01 01.30	0.9
			Pg	01 13.30	
			Sg	01 54.70	
ORX	3.28	48	P	01 03.71	2.6X
BGF	3.28	340	Pn	01 01.40	0.4
			Pg	01 13.70	
			Sg	01 54.50	
AVF	3.40	347	Pn	01 02.90	0.3
			Pg	01 16.50	
			Sg	01 57.50	
PGF	3.43	104	Pn	01 01.40	-1.8
			Sn	01 38.20	
LSF	3.47	324	Pn	01 04.30	0.6
			Pg	01 18.10	
			Sn	01 43.00	
			Sg	02 01.80	
LBF	3.51	354	Pn	01 03.70	-0.6
			Pg	01 18.40	
			Sg	02 02.90	
SSF	3.64	349	Pn	01 06.50	0.4
			Pg	01 20.00	
			Sg	02 05.60	
LOR	3.81	353	Pn	01 08.40	-0.1
			Pg	01 22.50	
			Sg	02 13.90	
EBR	4.00	230	eP	02 23.50	72.4X
HYF	4.00	342	Pn	01 12.10	1.0
			Pg	01 26.70	
			Sg	02 19.70	
EROO	4.04	230	eP	01 14.20	2.4
			eS	02 00.60	
ELIZ	4.41	268	eP	01 16.20	-0.8
			eS	02 07.40	
MFF	4.53	315	Pn	01 18.60	-0.1
			Sg	02 33.90	
BSF	4.63	20	Pn	01 18.10	-2.1
			Sn	02 08.70	
			Sg	02 34.80	
HAU	4.70	15	P	01 19.00	-2.1
			Pg	01 39.20	
			Sn	02 09.90	
			Sg	02 40.60	
CDF	5.29	20	Pn	01 27.10	-2.4
			Sn	02 22.40	
			Sg	02 54.70	
ETOR	5.55	244	eP	01 32.00	-1.3
			eS	02 34.20	
LPF	5.97	321	Pn	01 38.10	-0.9
			Sn	02 42.80	
			Sg	03 19.10	
LDF	6.03	329	Pn	01 39.10	-0.8
			Sg	03 23.80	
GRR	6.16	325	Pn	01 41.50	-0.2
			Pg	02 06.10	
			Sg	03 24.30	
FLN	6.31	328	Pn	01 41.40	-2.4
			Sn	02 49.50	
			Sg	03 29.80	
GEC2	8.33	47	Pn	02 08.80	-3.5X
			Sn	03 36.00	

S.D. = 1.3 on 40 of 50 obs.

? JAN 01, 1993 21h 26m 51.03± 1.14s
2.649 N ±43.3km 122.215 E ±42.5km
DEPTH = 536.0 ± 23.4 km
4.4mb (4 obs.)
CELEBES SEA (262)

MNI	2.88	114	ePc	28 04.80	0.0
MTN	17.76	150	eP	30 28.00	0.5
WB2	25.42	153	iPd	31 36.20	-1.7
	0.4s	28.40nm		5.2mb	
ASPA	28.52	157	iPc	32 04.40	-0.7
	0.5s	7.20nm		4.5mb	
WARB	28.98	172	eP	32 10.00	1.0
STK	38.96	153	eP	33 32.30	0.0
	0.8s	4.20nm		4.1mb	
ARMA	43.23	142	eP	34 07.60	1.0
HYB	45.28	292	eP	34 22.50	-0.1
GBA	45.56	286	P	34 24.70	0.0
	0.4s	3.00nm		4.2mb	

S.D. = 1.1 on 9 of 9 obs.

JAN 01, 1993 21h 36m 38.85± 0.26s
61.011 S ± 4.3km 154.003 E ± 5.6km
DEPTH = 10.0km (geophysicist)
5.2mb (17 obs.) 5.1Msz (5 obs.)
BALLENY ISLANDS REGION (702)
Mw 5.6 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 18S, 28C
Centroid Location:
Origin Time 21:36:44.5 0.3
Lat 60.76S 0.04 Lon 152.78E 0.07
Dep 15.0 FIX Half-duration 1.5
Moment Tensor; Scale 10**17 Nm
Mrr=-0.53 0.06 Mtt= 1.87 0.08
Mff=-1.34 0.07 Mrt= 0.23 0.24
Mrf= 1.03 0.21 Mtf=-1.85 0.06
Principal Axes:

T	Val= 2.73	Plg= 4	Azm=205
N	-0.05	64	304
P	-2.68	26	113

Best Double Couple:Mo=2.7*10**17
NP1:Strike=252 Dip=69 Slip=-164
NP2: 157 75 -22

MCQ	7.05	24	eP	38 20.40	-4.0X
DRV	8.37	221	iP	38 41.80	-1.2
SBA	17.42	171	iPd	40 41.00	-2.0
TUZ	17.64	38	eP	40 45.80	-0.1
	1.4s	316.00nm		5.3mb	
TLC	18.17	36	eP	40 52.20	-0.5
CMCZ	18.27	36	eP	40 53.20	-0.6
MSZ	18.33	33	eP	40 56.20	1.8
MSCZ	18.36	37	eP	40 54.10	-0.8
MMCZ	18.36	36	eP	40 54.60	-0.4
LRCZ	18.36	37	eP	40 54.60	-0.5
TAU	18.57	344	iPd	40 57.90	0.5

01d 21h

```
ODZ     18.77  39 eP  *  41 00.20   0.3
        1.4s   201.00nm          5.1mb
BWZ     19.01  37 eP     41 02.30  -0.4
        1.8s   454.00nm          5.4mb
CSY     19.66 236 eP     41 11.00   0.6
        0.7s    15.10nm          4.4mb
DSZ     22.12  37 eP     41 34.80  -1.0
        1.7s   774.00nm          5.9mb
THZ     22.44  39 eP     41 40.10   1.1
QRZ     23.18  38 eP     41 45.70  -0.5
TCW     23.37  41 eP     41 49.30   1.3
BLW     23.62  43 eP     41 50.90   0.4
TOO     24.07 343 eP     41 55.70   0.8
        1.1s   118.00nm          5.4mb
MNG     24.30  43 eP     41 57.30   0.2
        1.7s   677.00nm          6.0mb
CNB     25.89 351 eP     42 12.70   0.4
        1.2s   111.00nm          5.4mb
CAN     25.91 351 eP     42 13.20   0.8
BWA     26.85 350 iPc    42 20.60  -0.5
ADE     27.85 332 eP     42 31.20   1.0
SPA     29.15 180 iPd    42 41.90   0.0
        1.2s    84.51nm          5.4mb
      Z  20s     4.50um          5.1Msz
                 i      42 45.00
CMS     30.02 346 eP     42 49.80   0.1
ARMA    30.64 356 eP     42 54.80  -0.5
        1.0s    14.00nm          4.8mb
BRS     33.62 358 e(PKP)43 19.00  -2.3
RMO     34.70 352 iPc    43 30.20  -0.4
MAW     36.59 220 e(P)   43 38.00  -8.1X
        1.0s    50.00nm          5.3mb
      Z  16s    12.50um          5.8MszX
WARB    39.46 319 eP     44 10.00  -0.7
ASPA    39.82 331 iPd    44 13.40  -0.3
        1.2s    28.50nm          4.8mb
      Z  21s     2.30um          5.0Msz
DZM     39.87  18 iPc    44 14.00  -0.2
MEEK    41.85 309 eP     44 30.00  -0.3
WB2     43.30 333 iPd    44 41.00  -1.2
        0.8s    16.60nm          4.8mb
WRA     43.31 333 P      44 41.30  -1.0
        1.2s     3.00nm          3.9mb X
NVL     45.86 196 eP     45 02.00  -0.1
        1.8s   227.00nm          5.9mb
                 ePcP   46 37.00
                 ePP    46 46.00
                 ePS    52 03.00
                 eS     57 55.00
IPM     77.11 305 ePc    48 35.00   1.2
SNG     79.64 306 eP     48 47.00  -0.6
                 eS     58 53.00
MDZ     80.13 144 eP     48 50.20   0.0
FRS     80.42 224 iPc    48 53.70   2.0
        0.8s    11.19nm          4.9mb
NNT     84.92 307 eP     49 16.70   1.8
CYA     85.17 146 iPc    49 16.00  -0.2
FSA     87.34 145 eP     49 28.50   1.6
KHT     87.36 307 ePP    49 27.50   0.6
NST     87.58 309 eP     49 37.20   9.2X
CHG     90.90 309 eP     49 44.10   0.5
KMI     95.30 315 Pd     50 05.00   1.0
        1.4s    30.00nm          5.5mb
GBA     95.40 288 P      50 04.10  -0.2
        0.9s     3.00nm          4.7mb
LPB     95.72 140 P      50 09.00   2.4
      Z  20s     1.42um          5.4Msz
                 LR     21 44.00
ZOBO    95.94 140 P      50 08.20   0.4
LZH    105.03 320 ePKP   55 08.50   6.4X
        1.5s    32.00nm
      Z  20s     0.35um          4.9Msz
MAIO   123.07 286 ePKP   55 36.00  -0.3
YAK    124.10 346 ePKP   55 32.50  -4.9X
      Z  22s     0.90um          5.4Msz
ULM    141.00  73 ePKP   56 08.00  -1.7
VAY    144.81 259 iPKP   56 15.00  -1.6
        1.0s    80.00nm
                 i      56 45.00
CFR    145.01 268 ePKP   56 13.00  -3.7X
OHR    145.49 256 ePKP   56 16.70  -1.1
ANTZ   145.71 206 iPKP   56 18.50   0.0
                 i      56 20.00
SKO    145.85 258 iPKP   56 19.00   0.7
                 i      56 28.20
VRI    146.20 268 ePKPc  56 22.00   3.2X
MLR    146.30 267 ePKPc  56 20.00   0.9
```

```
EEO    146.57  91 ePKP   56 24.50   5.1X
COZ    146.96 265 ePKP   56 24.00   3.8X
FCC    147.15  63 ePKP   56 24.50   4.7X
OBN    147.51 288 iPKPd  56 24.50   4.0X
        1.5s   175.00nm
                 i      56 33.70
                 i      56 41.20
                 i      56 56.50
                 i      57 10.00
                 i      57 27.00
                 LQ     41 46.00
AVE    149.76 212 ePKP   56 15.00  -9.8X
                 i      56 30.50
PSZ    150.96 264 e(PKP)56 36.80  10.6X
SRO    151.65 263 ePKP   56 42.90  15.8X
EGUA   151.95 221 ePKP   56 32.70   4.7X
MAL    152.12 219 ePKP   56 30.50   2.3X
ZST    152.50 262 ePKP   56 46.80  18.4X
OJC    152.56 268 ePKP   56 31.60   3.2X
                 e      56 37.80
EPRU   152.59 218 ePKP   56 36.00   7.1X
RES    152.69  33 ePKP   56 36.50   8.7X
        0.9s     5.00nm
LMN    152.86 106 ePKP   56 40.00  11.0X
EVIA   153.24 224 ePKP   56 42.50  12.6X
GEC2   154.59 260 ePKP   56 30.50  -0.8
        0.8s     0.80nm
                 e      56 41.50
                 e      56 46.70
                 e      56 53.70
                 e      57 00.50
KSP    154.67 266 ePKP   56 33.40   2.1X
                 e      56 57.20
ETOR   155.04 227 ePKP   56 50.00  17.8X
      S.D. = 1.0  on  57 of  81 obs.
-----------------------------------
   JAN  01, 1993  21h 46m 21.24± 0.62s
   35.024 N ± 6.1km   33.213 E ± 5.4km
   DEPTH =  12.9 ±  4.0 km
   3.2mb (  1 obs.)
 CYPRUS REGION                    (372)
      ML 3.4 (CSS). Felt (II) at
      Limassol.

CSS      0.11 122 ePd    46 24.70   0.2
                 eS     46 28.70
FAM      0.65  92 eP     46 33.80  -0.1
                 eS     46 43.30
PPCY     0.73 259 eP     46 34.80  -0.4
                 eS     46 45.50
ELL      3.19 304 eP     47 26.00  13.9X
BCK      3.23 320 eP     47 16.00   3.4X
SALJ     3.65 145 P      47 18.91   0.3
KFNJ     3.77 146 P      47 21.00   0.8
GAZ      3.88  55 eP     47 22.00   0.1
MASJ     3.90 147 P      47 22.06  -0.1
LISJ     4.23 153 P      47 26.91   0.2
OTRJ     4.39 147 P      47 21.11  -8.1X
SHBJ     4.71 124 P      47 32.38  -1.4
SHWJ     5.01 157 P      47 37.69  -0.4
HITJ     5.72 156 P      47 47.90  -0.1
HOL      5.94 164 eP     47 47.33  -3.7X
AYN      6.58 158 eP     48 00.50   0.5
GEC2    19.96 320 ePc    50 56.20   0.3
        0.5s     0.60nm          3.2mb
                 e      51 05.20
                 e      51 08.00
                 e      51 10.60
                 e      51 14.20
KHC     20.19 320 eP     51 04.00   5.7X
                 e      51 24.00
      S.D. = 0.6  on  13 of  18 obs.
-----------------------------------
   JAN  01, 1993  23h 49m 47.38± 0.62s
   23.157 N ± 7.0km   94.778 E ± 6.7km
   DEPTH =  95.5 ±  6.2 km
   4.3mb ( 15 obs.)
 MYANMAR-INDIA BORDER REGION      (294)

CHG      5.82 137 ePn    51 13.20   0.4
                 eSg    52 47.80
BDT      7.09 145 eP     51 29.50  -0.8
KMI      7.53  73 eP     51 48.00  11.4X
NST      9.00 145 eP     52 07.00  10.7X
KHT      9.07 156 eP     51 58.50   1.1
GUN      9.32 302 P      52 01.52   0.4
PKI      9.54 299 P      52 04.08   0.0
```

```
KKN      9.74 300 P      52 06.36  -0.3
DMN      9.80 299 P      52 07.18  -0.4
GKN     10.35 300 P      52 14.50  -0.2
HYB     16.25 252 eP     53 34.00   2.6X
                 eS     56 16.50
_NDI    16.72 293 iPgc   53 33.00  -4.2X
        0.4s   245.76nm          5.8mb X
GBA     18.99 243 P      54 03.60  -0.6
                 S      57 21.00
KOD     20.95 235 eP     54 25.20   0.4
WRA     57.66 135 P      59 30.00  -0.2
        0.5s     0.60nm          3.9mb
WB2     57.67 135 iPd    59 29.60  -0.6
        0.2s    15.30nm          5.7mb X
KAF     59.74 330 eP     59 44.40   0.3
        0.2s     1.40nm          4.7mb
ASPA    60.09 138 iPc    59 46.50  -0.5
        0.5s   240.60nm          6.6mb X
NUR     60.36 328 eP     59 48.40   0.1
        0.6s    11.30nm          5.1mb
HFS     65.80 327 eP     00 24.20   0.1
        0.6s    12.30nm          5.0mb
NAO     67.14 328 P      00 32.00  -0.7
        0.5s     2.90nm          4.5mb
GEC2    67.18 315 ePd    00 33.40   0.1
        0.6s     1.47nm          4.1mb
                 e      00 55.00
                 e      01 03.60
                 e      01 16.00
LPG     72.53 313 eP     01 06.60   0.5
        0.5s     1.95nm          4.2mb
LPL     72.54 313 eP     01 06.60   0.5
        0.5s     4.00nm          4.5mb
LBF     73.97 315 eP     01 13.80  -0.3
        0.5s     1.15nm          4.0mb
SMF     74.15 314 eP     01 15.10  -0.1
        0.5s     3.00nm          4.4mb
SSF     74.25 315 eP     01 15.70   0.0
        0.4s     0.95nm          4.0mb
AVF     74.43 315 eP     01 16.70  -0.1
        0.4s     0.70nm          3.9mb
LDF     76.10 317 eP     01 26.20   0.0
        0.4s     1.15nm          4.1mb
LPO     76.53 313 eP     01 29.30   0.6
        0.5s     2.60nm          4.3mb
LPF     76.87 317 eP     01 30.90   0.4
        0.6s     2.45nm          4.2mb
      S.D. = 0.5  on  27 of  31 obs.
-----------------------------------
?  JAN  02, 1993  01h 07m 28.42± 3.11s
   37.559 S ±22.2km  176.180 E ±17.4km
   DEPTH = 253.2 ± 32.3 km
 NORTH ISLAND, NEW ZEALAND        (159)

URZ      1.02 134 P      08 03.80  -0.3
                 eS     08 28.50
PUZ      1.72 108 eP     08 08.80  -0.3
                 eS     08 37.10
NOZ      1.81 126 eP     08 10.40   0.7
MNG      3.10 190 P      08 22.90   0.3
                 S      09 01.60
KIW      3.44 196 P      08 26.40   0.0
MTW      3.63 188 P      08 28.30  -0.2
CAW      3.65 193 P      08 28.80   0.1
DIW      3.68 208 P      08 29.10   0.0
MRW      3.84 197 eP     08 30.80  -0.1
                 eS     09 17.40
MOW      3.92 190 eP     08 31.60  -0.3
TCW      3.94 201 P      08 32.00   0.0
QRZ      4.32 220 eP     08 36.50  -0.1
THZ      4.90 210 eP     08 44.00   0.4
KHZ      5.26 202 P      08 48.00   0.1
DSZ      5.38 218 eP     08 49.90   0.4
LTZ      6.02 209 eP     08 56.90  -0.5
      S.D. = 0.3  on  16 of  16 obs.
-----------------------------------
%  JAN  02, 1993  01h 48m 40.64± 0.58s
   39.281 N ± 5.2km   28.712 E ± 5.5km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                           (366)
      MD 3.1 (ISK).

DST      0.33 349 iPg    48 47.70   0.2
                 iSg    48 51.70
KCT      1.01 344 iPg    49 00.40   0.7
ALT      1.11 101 iPg    49 02.70   1.2
                 eSg    49 17.70
```

```
KHL      1.15 146 ePg*  49 01.70  -0.5
EDC      1.25 329 ePn   49 04.00   0.2
YLV      1.38  21 ePn   49 06.00   0.0
IZM      1.44 233 ePn   49 07.10   0.4
GPA      1.59  50 ePn   49 08.00  -0.9
EYL      1.70  40 ePn   49 10.00  -0.6
EZN      1.92 287 ePn   49 13.00  -0.7
     S.D. = 0.8  on  10 of  10 obs.
-----------------------------------------
*  JAN  02, 1993  01h 57m 12.62± 1.42s
   6.918 N ±19.7km   75.829 W ±13.8km
   DEPTH =  24.0 ± 11.6 km
   4.4mb (  1 obs.)
 NORTHERN COLOMBIA                ( 99)
      MD 4.5 (UPA).

BMG      2.74  87 iPd   57 56.50   0.4
BOG      2.88 142 eP    58 06.00   7.8X
                  iS    58 47.00
UPA      4.20 299 iP    58 16.53  -0.3
                  eS    58 58.11
ECO      4.53 303 iP    58 21.76   0.2
                  eS    59 13.95
TOV      6.62  64 eP    58 57.00   6.0X
                  iS    00 14.90
ZOBO    24.28 162 P     02 30.80   0.8
                  e     09 19.00
BAO     35.53 129 e(P)  04 10.00  -0.2
BDF     35.62 129 e(P)  04 09.00  -1.9
ULM     46.33 342 eP    05 42.00   3.6X
YKA     62.27 341 eP    07 34.10  -0.7
        0.7s      2.30nm          4.4mb
KIC     70.55  86 P     08 29.30   1.0
GBA    146.53  52 PKP   16 57.00   3.9X
WB2    147.99 243 iPKPd 16 56.20   0.8
        0.5s      3.50nm
WRA    148.00 243 PKP   16 52.50  -2.9X
        0.8s      0.30nm
     S.D. = 1.2  on   9 of  14 obs.
-----------------------------------------
?  JAN  02, 1993  02h 32m 38.03± 1.75s
   39.248 N ±14.0km   28.716 E ±31.2km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                           (366)
      MD 2.6 (ISK).

DST      0.36 349 iPg   32 45.10  -0.4
                  iSg   32 50.10
KCT      1.04 345 ePn   32 58.00   0.4
KHL      1.12 145 ePn   32 59.00  -0.1
YLV      1.41  21 ePn   33 03.90   0.1
     S.D. = 0.6  on   4 of   4 obs.
-----------------------------------------
*  JAN  02, 1993  02h 39m 47.76± 1.31s
   6.858 N ±16.8km   80.062 W ± 9.1km
   DEPTH =  10.0km  (geophysicist)
   4.0mb (  1 obs.)
 SOUTH OF PANAMA                  ( 83)
      MD 4.3 (UPA).

UPA      2.17  14 iP    40 24.08  -0.4
                  iS    40 49.77
ECO      2.52   8 iP    40 29.14  -0.3
                  eS    40 57.36
DVD      2.84 304 iP    40 35.00   1.0
BRU      3.14 308 iP    40 39.55   0.9
                  eS    41 12.34
SDV      9.55  77 ePn   42 10.30   1.7
TOV     10.57  73 eP    42 22.20  -0.3
SIV     29.48 141 eP    46 02.00   7.6X
YKA     61.00 342 eP    50 01.70  -1.8
        0.7s      0.90nm          4.0mb
WRA    144.19 245 PKP   59 25.60  -0.9
        0.7s      0.30nm
     S.D. = 1.3  on   8 of   9 obs.
-----------------------------------------
%  JAN  02, 1993  03h 09m 19.41± 2.59s
   30.888 S ±13.4km   69.127 W ±23.7km
   DEPTH = 131.7 ± 17.8 km
 CHILE-ARGENTINA BORDER REGION    (127)

RTLL     0.72 128 iPc   09 40.00  -0.4
CFA      1.04 134 ePc   09 43.10  -0.1
                  S     09 59.00
RTCV     1.09 153 iPd   09 44.10   0.4
                  S     09 59.00
RTPR     2.33  76 ePc   09 58.40   0.4
```

```
                  S     10 26.50
MRA      3.29 118 ePd   10 10.90   0.4
CYA      3.79  51 ePc   10 17.20   0.0
RFA      3.91 172 eP    10 18.80  -0.1
                  S     11 02.40
TCA      3.92  98 iP    10 18.30  -0.7
                  S     11 00.20
     S.D. = 0.5  on   8 of   8 obs.
-----------------------------------------
   JAN  02, 1993  03h 42m 39.31± 0.43s
   31.624 N ± 5.3km   49.901 E ± 6.5km
   DEPTH =  33.0km  (normal)
   4.3mb ( 18 obs.)
 WESTERN IRAN                     (347)
      Felt at Izeh.

KER      3.59 320 eP    43 42.00   7.8X
TEH      4.29  16 eP    43 45.00   1.0
RYD      7.47 204 eP    44 28.50  -0.2
QASM     7.85 227 eP    44 33.67  -0.4
MAIO     9.23  57 eP    45 05.00  11.7X
AYN     12.33 261 eP    45 34.93  -0.4
HQL     13.03 263 eP    45 44.33  -0.3
DHJN    15.07 204 eP    46 11.87   0.1
OBN     25.29 342 eP    48 03.00  -1.1
                  e     48 26.00
VBY     30.17 307 eP    48 50.00   1.5
GBA     30.97 119 P     48 57.00   1.2
GEC2    32.17 313 ePc   49 06.30   0.1
        0.6s      0.37nm          3.5mb
                  e     49 16.10
                  e     49 21.30
NUR     33.36 337 eP    49 15.90  -0.3
KAF     34.10 340 eP    49 22.20  -0.4
        0.3s      1.50nm          4.4mb
LPG     36.04 305 eP    49 40.20   0.5
        0.8s      4.45nm          4.4mb
LPL     36.05 305 eP    49 40.20   0.4
        0.7s      4.30nm          4.5mb
HFS     37.23 331 eP    49 48.70  -0.4
        0.3s      0.80nm          4.0mb
LBF     38.13 307 eP    49 56.90  -0.1
        0.6s      0.80nm          3.7mb
SMF     38.18 307 eP    49 57.70   0.3
        0.7s      9.70nm          4.8mb
LOR     38.25 308 eP    49 57.20  -0.8
        0.5s      1.40nm          4.1mb
SSF     38.46 307 eP    50 00.00   0.3
        0.7s      4.30nm          4.4mb
NAO     38.80 330 P     50 02.00  -0.3
        0.8s      1.70nm          3.9mb
BCAO    39.97 234 iPd   50 19.20   6.6X
        0.7s      6.00nm          4.5mb
LFF     40.22 304 eP    50 22.00   7.6X
        0.7s      3.40nm          4.2mb
LDF     41.06 309 eP    50 20.30  -0.8
        0.7s      4.50nm          4.3mb
FLN     41.31 309 eP    50 23.30   0.1
        0.6s      2.55nm          4.1mb
GRR     41.53 309 eP    50 25.10   0.1
        1.1s     15.15nm          4.6mb
LZH     44.55  69 eP    50 47.50  -2.5
        1.0s     22.00nm          5.0mb
KIC     56.76 256 P     52 24.00   1.2
IMA     80.94  10 eP    54 52.29   0.7
        0.7s      1.74nm          4.2mb
FBA     82.80   8 (P)   55 01.90   0.8
YKA     85.39 353 eP    55 14.10  -0.1
        0.8s      0.40nm          3.7mb
     S.D. = 0.8  on  28 of  32 obs.
-----------------------------------------
*  JAN  02, 1993  04h 04m 58.37± 1.10s
   30.173 S ± 9.4km  177.232 W ±18.8km
   DEPTH =  10.0km  (geophysicist)
   4.9mb (  8 obs.)
 KERMADEC ISLANDS, NEW ZEALAND    (178)

RAO      1.10 327 iPc   05 18.00  -0.9
                  S     05 33.00
PUZ      8.72 204 eP    07 06.60  -0.9
                  eS    08 45.50
WCZ      9.11 229 eP    07 19.30   6.5X
THZ     14.04 212 eP    08 20.90   1.4
KHZ     14.29 209 eP    08 20.90  -1.8
LTZ     15.14 211 eP    08 31.30  -2.5X
DZM     16.72 295 iPd   09 00.50   6.2X
LMZ     17.26 215 eP    08 59.70  -1.2
```

```
BRS     26.40 269 iPc   10 38.00   1.1
ARMA    26.85 262 eP    10 45.20   4.1X
        1.0s     23.00nm          4.8mb
CNB     28.48 251 eP    11 00.20   4.4X
        1.0s     20.00nm          4.9mb
CAN     28.78 251 eP    11 02.00   3.6X
CMS     31.65 258 eP    11 27.00   3.0X
        1.0s     14.00nm          4.8mb
TOO     31.66 246 eP    11 26.70   2.7X
        0.7s     22.00nm          5.2mb
BFD     34.00 247 eP    11 47.00   2.6X
STK     35.18 256 iPc   11 56.80   2.3
        0.6s      7.90nm          4.8mb
                  epP   12 02.00  18kmX
ASPA    43.79 266 iPc   13 06.30   0.2
        0.5s     10.70nm          4.9mb
WB2     44.74 272 iPc   13 13.20  -0.7
        0.6s     29.80nm          5.4mb
WARB    49.22 260 eP    13 48.50  -0.5
CSY     55.65 208 eP    14 38.20   1.7
        0.5s     17.00nm          5.3mb
NVL     79.14 183 (P)   17 16.00  11.8X
KAF    144.55 341 iPKP  24 32.10  -3.9X
        0.9s     12.20nm
OBN    145.35 326 iPKPc 24 35.60  -1.9
        1.6s    120.00nm
      Z  16s      0.60um          5.5MszX
                  i     24 48.00
NUR    146.32 341 iPKP  24 38.50  -0.5
        0.7s     22.00nm
UPP    148.67 346 iPKP  24 51.70   9.0X
NAO    148.88 352 PKP   24 45.80   2.7X
        0.9s      9.60nm
HFS    149.15 349 ePKP  24 45.10   1.6
        1.2s     52.90nm
BCAO   150.38 213 iPKPd 24 52.20   5.4X
        0.6s     14.00nm
                  id    25 00.20
HRI    151.85 285 ePKP  25 01.00  12.4X
PRNI   152.21 279 ePKP  25 01.60  12.5X
MBH    152.23 277 ePKP  25 02.10  12.9X
KIC    155.28 162 PKP   24 54.00   0.3
     S.D. = 1.4  on  15 of  32 obs.
-----------------------------------------
*  JAN  02, 1993  04h 55m 06.05± 1.15s
   9.381 S ±11.9km  121.293 E ± 8.1km
   DEPTH =  84.4 ± 21.5 km
   4.5mb (  6 obs.)
 SAVU SEA                         (288)

MKS      4.51 336 iPc   56 13.80   0.4
KHKI     5.71 280 eP    56 29.80  -0.2
                  eS    57 30.50
                  e     00 48.00
TRT      8.72 280 ePc   57 19.20   7.7X
                  eS    58 39.60
MTN     10.25 111 eP    57 31.50  -0.8
        0.3s    152.00nm          6.4mb X
                  eS    59 18.00
WB2     16.42 131 iPc   58 51.40  -1.3
                  eS    01 43.60
MEEK    17.35 188 eP    59 05.00   0.7
        0.3s      5.00nm          4.3mb
                  eS    02 05.00
WARB    17.47 164 iPc   59 07.50   1.8
                  eS    02 16.00
ASPA    18.63 141 eP    59 19.90   0.0
        0.4s     51.60nm          5.1mb
                  eS    02 39.10
MRWA    20.35 193 eP    59 37.30  -0.7
                  e     59 48.00
                  eS    03 12.00
QIS     20.87 124 eP    59 44.70   1.4
        0.5s      6.00nm          4.2mb
COOL    21.40 180 eP    59 49.00   0.4
                  eS    03 39.00
BAL     21.55 191 eP    59 49.00  -1.1
                  eS    03 41.00
KLB     22.34 188 eP    59 57.80  -0.1
        0.4s      7.00nm          4.4mb
                  eS    04 00.00
MUN     22.98 191 eP    00 03.60  -0.5
                  eS    04 15.00
STK     29.25 143 iPc   01 02.20  -0.1
        0.4s      9.70nm          4.8mb
BFD     33.69 149 eP    01 41.20   0.1
        0.5s      5.00nm          4.6mb
```

02d 05h

```
YKA    113.60  25 ePKP*  13 31.80  -4.0X
        0.4s      0.10nm
      S.D. = 1.0  on  15 of  17 obs.
-----------------------------------------
?  JAN  02, 1993  05h 45m 38.59± 8.30s
   19.308 N ±41.6km    67.474 W ±50.2km
   DEPTH =  10.0km  (geophysicist)
 MONA PASSAGE                        ( 89)

APR      1.10 140 P      45 59.80   0.5
LRS      1.17 149 P      46 00.00  -0.5
                  S      46 08.90
MGP      1.34 164 P      46 03.70   0.4
PORP     1.48 147 P      46 04.90  -0.3
LPR      1.82 123 P      46 10.20   0.0
CPD      1.94 130 P      46 12.00   0.0
      S.D. = 0.5  on   6 of   6 obs.
-----------------------------------------
?  JAN  02, 1993  06h 03m 39.83± 4.60s
   18.513 N ±38.0km    65.501 W ±34.7km
   DEPTH =  70.0km  (geophysicist)
 PUERTO RICO REGION                  ( 90)

LPR      0.40 240 P      03 51.90  -0.1
                  S      04 07.20
CPD      0.61 220 P      03 54.00   0.0
SJG      0.73 237 iP     03 55.50   0.1
                  S      04 12.80
APR      1.17 267 P      04 01.00   0.3
                  S      04 22.50
PORP     1.17 247 P      04 01.00   0.2
LRS      1.29 260 P      04 02.20  -0.3
                  S      04 24.20
MGP      1.59 252 P      04 06.20  -0.2
      S.D. = 0.3  on   7 of   7 obs.
-----------------------------------------
   JAN  02, 1993  06h 15m 29.15± 0.39s
   33.378 S ± 6.5km    70.788 W ± 8.5km
   DEPTH =  80.0km  (geophysicist)
 CHILE-ARGENTINA BORDER REGION       (127)
      MD 3.1 (SAN).

SAN      0.13 125 iP+    15 40.78  -0.3
                  iS     15 49.14
PEL      0.25  20 iP+    15 41.46   0.1
                  iS     15 50.47
TACH     0.30 204 iP     15 41.56  -0.1
                  iS     15 50.38
PCH      0.33 137 iP     15 41.96   0.0
                  iS     15 51.07
FCH      0.42  83 iP     15 43.00   0.2
                  iS     15 53.08
ROCH     0.45 335 iPd    15 42.76  -0.1
                  iS     15 53.22
CHCH     0.57 169 iPd    15 43.56  -0.2
                  iS     15 54.64
LCCH     0.66 261 iP+    15 44.95   0.4
                  iS     15 56.49
JACH     0.71  13 iP+    15 45.24   0.0
                  iS     15 57.19
CACH     0.75 168 iP     15 46.00   0.3
                  iS     16 00.08
LNV      0.78 222 iP     15 45.57  -0.2
                  iS     15 58.23
      S.D. = 0.2  on  11 of  11 obs.
-----------------------------------------
?  JAN  02, 1993  06h 29m 18.15± 1.34s
   39.810 S ±27.7km    86.452 E ±19.5km
   DEPTH =  10.0km  (geophysicist)
   5.2Msz (  2 obs.)
 SOUTHEAST INDIAN RIDGE              (435)
      Mw 5.5 (HRV).
      CENTROID, MOMENT TENSOR      (HRV)
      Data Used: GDSN
      L.P.B.: 12S, 18C
      Centroid Location:
      Origin Time        06:29:12.7 0.6
      Lat 40.00S  FIX;Lon  86.55E  FIX
      Dep  15.0 FIX Half-duration  1.1
      Moment Tensor;   Scale 10**17 Nm
        Mrr= 0.11 0.08  Mtt=-0.79 0.11
        Mff= 0.68 0.06  Mrt=-1.14 0.19
        Mrf=-1.14 0.18  Mtf=-0.49 0.08
       Principal Axes:
        T  Val=  1.63  Plg=42  Azm=103
        N        0.37     27      220
        P       -2.00     36      332
       Best Double Couple:Mo=1.8*10**17
        NP1:Strike=122 Dip=27 Slip= 173
        NP2:        219     87       63

ASPA    42.93  83 iPd   37 19.10   0.2
         1.0s      8 30nm          4.4mb
      Z  22s     2.90um           5.1Msz
WRA     45.40  79 P    37 40.20   1.4
         0.8s     0.70nm          3.7mb
TOO     45.41 107 eP    37 37.00  -1.7
         0.7s     6.00nm          4.7mb
WB2     45.41  79 eP    37 39.50   0.7
         0.9s     3.10nm          4.3mb
HYB     57.40 351 eP    39 11.10   1.9
KMI     66.36  16 eP    40 08.50  -0.9
      Z  20s     1.50um           5.2Msz
                 pP    40 23.00  52kmX
PKI     67.04 359 P     40 12.36  -1.5
DMN     67.08 359 P     40 13.38  -0.6
KKN     67.26 359 P     40 13.98  -1.1
GUN     67.37 359 P     40 15.62  -0.3
GKN     67.48 358 P     40 15.40  -1.0
BCAO    76.13 288 ePc   41 09.20   1.0
         0.7s     3.00nm          4.5mb
LZH     77.20  14 eP    41 16.00   2.1
      Z  26s     0.78um           4.9MszX
BJI     83.98  23 eP    41 56.50   7.0X
      Z  24s     0.64um           4.9MszX
SIV    116.77 215 Pdiff 44 27.70   7.9X
RES    145.03   1 ePKP  48 55.50  -0.4
         1.0s     4.00nm
      S.D. = 1.4  on  14 of  16 obs.
-----------------------------------------
   JAN  02, 1993  06h 39m 16.47± 0.54s
   44.902 N ± 3.8km   110.960 W ± 5.3km
   DEPTH =   5.0km  (geophysicist)
 YELLOWSTONE REGION, WYOMING         (459)
      ML 3.1 (GS), 3.5 (BUT).

TPMT     0.53 251 iPc    39 27.40   0.3
MEMT     0.70 359 iPc    39 30.80   0.3
BGMT     0.83 294 iPd    39 33.00  -0.3
LTMT     0.90 246 eP     39 34.30  -0.1
LCCM     1.14 326 iPc    39 38.80   0.5
MCMT     1.35 267 ePn    39 42.30   0.4
LRM      1.40 312 ePn    39 43.40   0.5
HBMT     1.46 308 ePn    39 44.30   0.5
BUT      1.58 315 ePg    39 46.80   1.4X
                  eSn    40 07.00
                  iSg    40 07.70
HHAI     1.90 213 eP     39 49.87  -0.2
                  eS     40 14.78
HRY      1.91 342 iPnd   39 51.00   0.9
PTI      2.27 207 eP     39 55.38   0.0
HVU      3.39 204 ePn    40 10.89  -0.4
DAU      4.49 183 (Pn)   40 28.21   1.1
RSSD     5.01  97 ePn    40 33.68  -0.7
                  eS     41 49.71
NEW      5.42 311 eP     40 38.44  -1.5
                  Lg     42 05.71
DPW      5.82 303 eP     40 44.33  -1.3
      S.D. = 0.8  on  16 of  17 obs.
-----------------------------------------
*  JAN  02, 1993  06h 44m 29.42± 1.26s
   9.504 N ± 9.5km    82.659 W ±13.5km
   DEPTH =  10.0km  (geophysicist)
   3.4mb (  1 obs.)
 PANAMA-COSTA RICA BORDER REGION ( 80)
      MD 3.8 (UPA). Felt at Bocas del
      Toro, Panama.

BRU      0.70 172 iP     44 43.37  -0.2
DVD      1.08 169 iPc    44 49.99   0.3
                  iS     45 06.08
ECO      2.93  92 eP     45 17.78   0.8
UPA      3.13  99 eP     45 18.81  -0.9
                  eS     45 56.86
YKA     57.73 343 eP     54 22.50   0.0
         0.8s     0.30nm          3.4mb
      S.D. = 0.9  on   5 of   5 obs.
-----------------------------------------
&  JAN  02, 1993  07h 09m 04.00s
   60.635 N          150.414 W
   DEPTH =  41.4km
 KENAI PENINSULA, ALASKA             ( 14)
      <AEIC>. ML 2.5 (AEIC).

SLKM     0.16 143 iPd    09 10.78  -0.4
                  eS     09 16.39
NKA      0.42 285 iPc    09 14.66   0.9
MPA      0.54 105 iPd    09 14.64  -0.7
SEW      0.72 138 ePc    09 16.74  -1.0
PTE      0.72  71 ePc    09 17.12  -0.7
                  eS     09 27.84
PMS      0.74  34 P      09 17.50  -0.6
                  S      09 28.30
SUA      0.85 349 ePd    09 18.82  -0.9
BRLK     0.90 195 ePc    09 19.79  -0.7
SPU      0.97 305 iPc    09 20.59  -0.8
                  eS     09 33.74
RDT      0.98 267 eP     09 20.84  -0.8
CGLM     1.03 312 iPc    09 21.48  -0.8
CKT      1.04 304 iPc    09 21.58  -0.9
                  eS     09 35.85
CKN      1.05 305 iPc    09 21.92  -0.5
PWA      1.05  14 eP     09 21.99  -0.5
CRP      1.06 307 eP     09 22.06  -0.7
CP2      1.09 306 ePc    09 22.73  -0.5
CKL      1.10 302 ePc    09 22.38  -0.8
DFR      1.12 269 iPc    09 22.60  -1.0
                  eS     09 37.35
REF      1.14 264 iPc    09 23.07  -0.8
                  eS     09 38.33
PLRM     1.14  32 iPc    09 23.05  -0.7
                  eS     09 38.33
BGL      1.15 304 ePc    09 23.37  -0.6
RSO      1.17 262 iPc    09 23.49  -0.9
RS2      1.17 263 iPc    09 23.54  -0.8
RS1      1.17 262 iPc    09 23.56  -0.8
RDW      1.19 264 iPc    09 23.77  -0.9
                  eS     09 39.39
KNK      1.23  50 iPc    09 24.40  -0.7
                  eS     09 40.81
NCT      1.24 268 iPc    09 24.42  -0.9
GHO      1.35  32 ePc    09 26.17  -0.6
                  eS     09 44.39
KNIM     1.36 101 eP     09 24.68  -2.1
ILIM     1.38 247 eP     09 26.52  -0.7
LTI      1.41 114 eP     09 25.83  -1.7
INE      1.44 248 eP     09 27.02  -1.1
SKT      1.45 339 ePd    09 28.15  -0.1
INW      1.47 248 eP     09 27.45  -1.0
SML      1.55  40 ePd    09 28.96  -0.6
VLZ      2.06  74 eP     09 35.01  -1.8
KLU      2.35  67 iPc    09 39.32  -1.7
TOA      2.52  52 eP     09 46.26   2.8
GLB      3.31  73 ePc    09 52.11  -2.6
      39 obs. associated
-----------------------------------------
?  JAN  02, 1993  07h 55m 57.50± 3.93s
   43.810 N ±22.0km     6.460 E ±24.1km
   DEPTH =  10.0km  (geophysicist)
 NEAR SOUTH COAST OF FRANCE          (379)
      ML 2.2 (LDG).

FRF      0.28 151 Pg     56 03.50   0.0
                  Sg     56 08.10
LRG      0.36 192 Pg     56 05.00   0.0
LMR      0.48 176 Pg     56 07.10  -0.1
                  Sg     56 15.10
SBF      0.71  85 Pg     56 11.50   0.0
      S.D. = 0.1  on   4 of   4 obs.
-----------------------------------------
   JAN  02, 1993  08h 39m 00.93± 1.00s
   30.223 N ± 5.8km    50.860 E ± 4.7km
   DEPTH =  35.9 ± 10.4 km
   4.7mb ( 35 obs.)  3.9Msz (  1 obs.)
 NORTHERN IRAN                       (348)
      Felt in the Mamasani area.

DHR      3.96 189 ePd    40 01.20   0.5
KER      5.20 323 eP     40 37.00  18.4X
TEH      5.52   4 eP     40 24.00   1.0
MJMA     6.57 230 ePd    40 33.07  -4.6X
RYD      6.65 216 iPd    40 35.50  -3.4X
                  iS     41 52.00
OASM     7.67 239 eP     40 48.33  -4.7X
AFIF     9.16 230 eP     41 12.67  -1.1
MAIO     9.43  48 eP     41 17.00  -0.5
         0.8s    14.64nm          5.2mb
                  eS     43 35.00
ASH      9.89  37 eP     41 23.00  -0.8
                  e      43 13.00
KAT     10.00  25 eP     41 24.00  -1.2
```

```
AYN     13.01 268 eP     42 01.33  -4.6X
GRO     13.74 344 eP     42 16.00   0.6
HOL     13.77 270 eP     42 12.00  -3.9X
QUE     13.92  86 eP     42 18.80   0.7
ABHA    14.02 214 eP     42 19.67   0.1
KMTA    14.04 213 eP     42 20.20   0.5
DHJN    14.20 210 eP     42 16.80  -5.1X
PYA     15.11 338 eP     42 33.00  -0.4
CSS     15.51 292 eP     42 38.20  -0.4
SOC     16.02 329 eP     42 44.00  -1.1
        1.4s    140.00nm          4.9mb
KVT     16.17 316 eP     42 46.00  -1.1
FRU     22.78  50 eP     44 03.00   1.7
        2.1s    140.00nm          5.1mb
                  e      44 44.00
NDI     22.99  87 eP     44 05.00   1.5
POO     23.91 114 iP     44 15.80   3.3X
PPE     24.13 318 ePc    44 15.40   1.0
ISR     24.21 315 eP     44 17.50   2.3
VRI     24.47 316 eP     44 19.00   1.3
CLI     24.50 318 ePc    44 20.00   2.0
MLR     24.75 315 ePd    44 23.00   2.5
MTUR    25.17 314 ePd    44 26.00   1.5
PRZ     25.21  53 eP     44 26.00   1.0
        1.4s    120.00nm          5.3mb
GZR     26.69 312 ePd    44 39.00   0.4
ARU     26.73  10 eP     44 42.00   3.3X
OBN     26.88 342 eP     44 39.00  -1.0
        1.8s    120.00nm          5.2mb
                  i      45 18.50
MOS     27.18 344 eP     44 43.00   0.2
SVE     27.45  12 ePc    44 49.80   4.5X
HYB     28.27 111 eP     44 54.00   0.9
SEM     29.84  39 ePc    45 07.00   0.2
        1 6s    38.00nm          4.9mb
SRO     30.49 314 eP     45 12.10  -0.5
OJC     30.67 319 eP     45 13.20  -1.0
ZST     31.38 314 iP     45 18.80  -1.7
VBY     31 68 309 eP     45 22.70  -0.5
                  i      45 29.20
KSP     32.95 319 ePd    45 33.00  -1.1
PRU     33.62 316 eP     45 38.50  -1.5
GEC2    33.73 314 ePd    45 39.40  -1.7
        1.0s      5.48nm          4.4mb
KHC     33.90 314 iP     45 40.10  -2.4
        1.1s      4.00nm          4.3mb
                  e      45 44.00
BRG     34.32 318 eP     45 44.20  -1.8
        1.1s     13.00nm          4.8mb
WET     34.34 314 eP     45 44.70  -1.5
ELT     34.49  38 eP     45 46.70  -0.7
OGA     34.88 310 iPc    45 50.80  -0.3
NUR     34.97 338 eP     45 50.60  -0.8
CLL     35.03 318 iPd    45 51.30  -0.8
        1.2s     19.00nm          4.9mb
FUR     35.05 312 eP     45 51.20  -1.2
GRF     35.54 315 ePc    45 55.40  -1.1
        1.4s     42.00nm          5.2mb
      Z  20s      0.20um          3.9Msz
                  e      45 59.30
MOX     35.61 316 eP     45 56.60  -0.5
KAF     35.69 340 eP     45 56.80  -0.7
        0.4s      1.80nm          4.4mb
LPG     37.52 307 eP     46 16.10   2.6
        0.6s      4.70nm          4.5mb
LPL     37.54 307 eP     46 16.70   3.1X
        0.8s     10.05nm          4.7mb
CDF     37.70 311 eP     46 17.80   3.0X
        0.7s      3.75nm          4.4mb
BSF     37.90 310 eP     46 18.60   2.2
        0.6s      3.70nm          4.4mb
HAU     38.22 310 eP     46 21.20   2.1
        0.7s      3.75nm          4.3mb
HFS     38.85 331 eP     46 22.30  -1.8
        0.4s      4.30nm          4.5mb
LBF     39.64 308 eP     46 33.10   2.2
LOR     39.76 309 eP     46 34.10   2.2
        0.8s      3.65nm          4.2mb
BCAO    39.85 236 iPc    46 32.90  -0.1
        1.1s     22.00nm          4.8mb
                 id      46 37.10
SSF     39.97 308 eP     46 36.10   2.5
        0.9s      6.90nm          4.4mb
NAO     40.42 331 P      46 35.00  -2.1
        0.7s      1.70nm          3.9mb
MOY     42.49  45 eP     46 56.00   1.9
        1.7s     45.00nm          4.9mb
```

```
FLN     42.84 311 eP     46 59.30   2.2
        1.0s     15.40nm          4.7mb
GRR     43.05 310 eP     47 01.20   2.4
        0.9s     11.45nm          4.6mb
ZAK     43.73  47 eP     47 05.00   0.8
        1.4s     16.00nm          4.6mb
      Z  11s      0.58um          4.7MszX
      E  14s      0.77um
                   e     48 50.00
LZH     44.29  68 eP     47 09.50   0.2
        1.8s     60.00nm          5.1mb
      Z  15s      0.29um          4.3MszX
                  pP     47 19.00  32kmX
                   i     47 40.00
NRI     44.58  18 ePc    47 11.00   0.1
        1.0s     16.00nm          4.8mb
                   e     47 25.00
CHG     44.91  93 eP     47 12.70  -1.5
KMI     45.91  83 eP     47 20.00  -2.3
        1.5s     60.00nm          5.3mb
NNT     48.38 100 eP     47 40.60  -0.9
CIT     50.30  46 eP     47 56.00   0.1
BOD     50.88  38 iPd    48 01.20   1.1
        1.3s     41.00nm          5.2mb
BJI     53.24  61 eP     48 19.50   1.4
KIC     57.24 257 P      48 46.00  -1.4
        0.7s      5.00nm          4.7mb
TIC     57.33 258 P      48 46.50  -1.6
TIK     57.86  21 eP     48 50.00  -1.0
        1.6s     26.00nm          5.0mb
SSE     59.51  70 P      49 01.50  -1.5
IMA     82.18  10 eP     51 18.81  -0.5
        0.7s      3.44nm          4.5mb
FBA     84.08   8 eP     51 28.41  -0.5
        0.9s      3.36nm          4.5mb
YKA     86.87 353 eP     51 41.70  -1.1
        1.0s      3.30nm          4.5mb
BALM    88.43   6 (P)    51 50.24  -0.3
      S.D. = 1.4  on  75 of  87 obs.
-----------------------------------------
&  JAN  02, 1993  08h 54m 41.19s
   62.256 N            150.943 W
   DEPTH =  72.3km
 CENTRAL ALASKA                      (  1)
      <AEIC>.

SKT      0.39 225 iPd    54 52.79  -0.7
                  iS     55 02.08
PWA      0.79 140 iPc    54 56.94  -0.5
SUA      0.80 173 iPc    54 57.27  -0.5
HUR      0.94  39 iPc    54 58.57  -0.8
                  S      55 12.01
GHO      1.07 116 ePd    55 00.52  -0.5
                  eS     55 16.60
CGLM     1.08 208 iPd    55 00.21  -0.9
PLRM     1.09 127 ePd    55 00.21  -0.9
PMR      1.09 127 eP     54 59.86  -1.3
                  eS     55 15.14
CRP      1.15 211 eP     55 00.62  -1.5
                  eS     55 15.54
CP2      1.17 212 ePd    55 01.28  -1.2
                  eS     55 17.50
CKN      1.19 210 ePd    55 02.10  -0.5
SPU      1.20 207 iPd    55 01.83  -0.9
                  eS     55 17.79
PMS      1.21 146 eP     55 01.89  -0.9
                  eS     55 18.96
BGL      1.21 215 eP     55 01.92  -1.0
CKT      1.22 210 ePd    55 02.16  -0.8
CKL      1.25 213 ePd    55 02.76  -0.7
SML      1.31 109 iPd    55 03.47  -0.7
KNK      1.45 125 iPd    55 05.18  -0.8
RND      1.50  39 ePc    55 05.56  -1.2
                  eS     55 24.72
NKA      1.53 185 eP     55 08.90   2.0
PTE      1.67 146 ePc    55 07.54  -1.4
MCK      1.74  31 eP     55 08.97  -1.0
SCM      1.76 102 iPd    55 08.95  -1.2
SLKM     1.79 168 ePc    55 10.31  -0.3
DFR      1.87 207 eP     55 11.22  -0.5
MPA      1.93 156 ePc    55 11.02  -1.4
NCT      1.95 210 eP     55 12.39  -0.5
REF      1.96 206 eP     55 12.64  -0.5
RDW      1.99 208 ePd    55 13.15  -0.4
RS2      2.00 207 eP     55 13.20  -0.5
RSO      2.00 207 eP     55 13.19  -0.5
RS1      2.00 207 eP     55 13.31  -0.4
```

```
TOA      2.24  92 ePd    55 16.06  -0.8
SEW      2.28 161 eP     55 16.57  -0.7
GLI      2.30 125 ePd    55 15.47  -2.2
TTA      2.44 288 ePd    55 17.64  -2.0
KNIM     2.46 140 eP     55 16.53  -3.3
VLZ      2.47 115 eP     55 17.81  -2.1
KLU      2.50 106 ePd    55 18.34  -2.1
                  eS     55 46.59
SVW      2.51 245 eP     55 18.10  -2.5
SDG      2.53  81 ePd    55 19.75  -1.1
TZL      2.60  92 eP     55 20.76  -1.0
FID      2.62 123 eP     55 19.44  -2.6
PAX      2.63  72 ePd    55 21.29  -1.0
LTI      2.68 145 eP     55 19.89  -3.0
MTU      2.78 143 eP     55 20.91  -3.4
CCB      2.78  29 ePc    55 22.44  -1.9
HDA      2.81  38 ePd    55 23.32  -1.4
HIN      2.84 129 ePc    55 22.66  -2.5
PDB      2.94 214 eP     55 25.49  -1.0
FBA      3.00  27 ePn    55 23.29  -4.1
CVA      3.03 122 ePc    55 24.88  -2.8
GLM      3.17  28 ePd    55 28.04  -1.7
SGAM     3.27 120 eP     55 28.43  -2.7
GLB      3.48 100 ePc    55 31.60  -2.5
IMA      4.01 344 eP     55 39.09  -2.5
CROM     4.03 108 eP     55 40.39  -1.6
BALM     4.28 103 eP     55 42.21  -3.2
CTGM     4.77 101 eP     55 49.64  -2.6
YAH      4.82 109 eP     55 50.38  -2.7
      60 obs. associated
-----------------------------------------
*  JAN  02, 1993  09h 30m 01.75± 1.51s
   7.028 S ± 9.5km  129.342 E ±25.9km
   DEPTH = 172.5 ± 22.2 km
   3.8mb (  2 obs.)
 BANDA SEA                           (280)

MTN      6.04 163 eP     31 29.80  -0.3
      0.3s     77.00nm          5.4mb X
                  eS     32 34.00
SWI      6.42  17 eP     31 35.00   0.0
                  eS     32 35.00
WB2     13.73 160 iPc    33 07.00  -3.5X
                  iS     35 33.80
OIS     16.73 145 eP     33 47.80   0.2
      0.3s      3.00nm          4.1mb
ASPA    17.11 166 iPd    33 52.80   0.5
                  eS     36 56.50
NANU    20.39 219 iPd    34 31.20   4.4X
STK     27.24 157 eP     35 31.20  -0.5
      2.1s      2.40nm          3.5mb
CHG     39.47 311 eP     37 17.00   0.0
      S.D. = 0.5  on   6 of   8 obs.
-----------------------------------------
&  JAN  02, 1993  09h 49m 38.57s
   59.896 N            153.377 W
   DEPTH = 122.4km
 SOUTHERN ALASKA                     (  2)
      <AEIC>.

INW      0.21  35 iP     49 55.02   0.7
INE      0.23  44 eP     49 55.12   0.7
                  eS     50 08.16
OPT      0.26 163 iP     49 55.03   0.7
                  eS     50 07.86
PDB      0.43 256 eP     49 55.42  -1.2
                  eS     50 09.06
AUL      0.52 183 iP     49 56.41  -0.7
AUW      0.53 185 iP     49 56.49  -0.7
AUH      0.53 184 eP     49 56.63  -0.7
AUP      0.54 182 eP     49 56.60  -0.8
AUE      0.54 180 iP     49 56.26  -1.0
AUI      0.56 183 eP     49 56.40  -1.0
RS1      0.65  28 eP     49 57.42  -0.8
RS2      0.65  28 eP     49 57.55  -0.7
                  eS     50 12.03
RSO      0.65  28 eP     49 57.44  -0.8
                  eS     50 12.16
RDW      0.65  25 eP     49 57.39  -0.9
                  eS     50 12.76
REF      0.68  29 iP     49 57.60  -0.9
                  eS     50 12.17
NCT      0.70  18 iP     49 57.81  -0.8
DFR      0.78  26 eP     49 58.27  -0.9
RDT      0.84  35 eP     49 58.58  -1.1
MCNL     0.86 215 iP     49 58.85  -1.0
CDD      0.98 188 iP     49 59.71  -1.2
```

02d 09h

BRLK	1.27	95	eP *	50	02.76	-1.1
			eS	50	19.87	
NKA	1.36	50	eP	50	05.46	0.6
SYI	1.39	158	eP	50	03.89	-1.3
CKL	1.40	21	iP	50	04.95	-0.6
CKT	1.43	23	iP	50	05.06	-0.8
SPU	1.45	26	eP	50	05.07	-0.9
			eS	50	25.51	
BGL	1.46	19	eP	50	05.70	-0.4
CKN	1.46	23	eP	50	05.42	-0.7
CP2	1.48	22	iP	50	06.16	-0.4
CGLM	1.57	25	eP	50	06.74	-0.7
SLKM	1.69	67	eP	50	07.42	-1.4
SEW	1.98	82	eP	50	10.40	-2.0
			S	50	34.53	
SUA	2.04	38	iP	50	12.53	-0.7
MPA	2.09	72	eP	50	11.97	-1.8
SKT	2.28	23	eP	50	14.79	-1.4
PMS	2.32	53	P	50	15.10	-1.6
PTE	2.37	64	eP	50	15.29	-2.0
LTI	2.78	85	eP	50	20.69	-2.0
KNIM	2.86	78	eP	50	20.95	-2.8
KNK	2.86	56	eP	50	21.08	-2.7
MTU	2.88	86	eP	50	22.53	-1.5
SML	3.13	50	eP	50	24.53	-2.8
HIN	3.47	79	eP	50	29.54	-2.4
VLZ	3.70	67	eP	50	33.14	-1.7

44 obs. associated

? JAN 02, 1993 09h 49m 58.06± 0.57s
8.748 S ±10.7km 122.658 E ±10.8km
DEPTH = 150.0km (geophysicist)
4.3mb (2 obs.)
FLORES REGION, INDONESIA (286)

MTN	9.27	117	eP	52	09.50	0.0
MBL	12.64	192	eP	52	32.00	-21.7X
			eS	54	47.00	
NANU	15.35	206	eP	53	28.00	0.0
			eS	56	10.00	
WB2	15.87	136	iPd	53	34.50	0.0
	0.4s		4.70nm			4.2mb
			e	56	28.50	
WARB	17.75	168	iPd	54	02.40	5.1X
ASPA	18.33	145	iPc	54	09.30	5.6X
	0.6s		11.70nm			4.4mb
			eS	57	29.10	
GUN	50.92	317	P	58	46.20	-0.4
PKI	51.03	316	P	58	47.20	-0.1
KKN	51.25	316	P	58	49.20	0.3
GKN	51.83	316	P	58	53.40	0.2

S.D. = 0.3 on 7 of 10 obs.

% JAN 02, 1993 11h 12m 02.40± 0.84s
38.861 S ± 4.8km 175.778 E ± 4.4km
DEPTH = 142.2 ± 9.6 km
NORTH ISLAND, NEW ZEALAND (159)

NGZ	0.34	204	P	12	22.00	-0.4
CNZ	0.38	208	eP	12	22.10	-0.4
WHH	0.56	93	eP	12	22.50	-1.0
MOZ	0.84	295	Pc	12	25.60	0.2
			S	12	40.80	
WAHZ	0.95	152	Pc	12	26.70	0.4
PAHZ	1.00	90	eP	12	26.70	0.0
WLZ	1.00	352	Pc	12	27.20	0.5
			S	12	43.50	
TTH	1.06	130	eP	12	26.60	-0.6
MOH	1.10	105	eP	12	28.10	0.5
BSZ	1.14	215	P	12	29.00	1.0
URZ	1.20	61	P	12	27.90	-0.7
			S	12	44.80	
TEHZ	1.38	145	eP	12	31.10	0.6
MAHZ	1.67	102	eP	12	34.20	0.6
MNG	1.77	187	Pc	12	35.20	0.4
NOZ	1.78	83	eP	12	35.10	0.2
PGZ	1.80	168	Pc	12	35.50	0.5
PUZ	2.10	69	eP	12	38.50	-0.2
			eS	13	03.10	
KIW	2.11	198	Pc	12	38.90	0.1
MTW	2.31	185	Pc	12	41.00	-0.2
CAW	2.31	193	P	12	41.20	-0.1
HBZ	2.35	58	eP	12	41.80	0.1
DIW	2.41	216	eP	12	42.60	0.1
MRW	2.51	199	eP	12	43.40	-0.3
			eS	13	12.70	
BIW	2.52	185	eP	12	43.20	-0.6
MOW	2.59	189	eP	12	44.30	-0.5
TCW	2.62	206	eP	12	45.00	-0.1
QRZ	3.18	231	eP	12	52.10	-0.3
			eS	13	29.50	

S.D. = 0.5 on 27 of 27 obs.

JAN 02, 1993 11h 35m 50.20± 0.64s
33.659 S ± 5.0km 71.387 W ± 5.9km
DEPTH = 33.0km (normal)
NEAR COAST OF CENTRAL CHILE (135)
MD 4.2 (SAN).

LCCH	0.24	320	iP+	35	57.91	0.7
LNV	0.30	184	iP+	35	58.15	0.3
TACH	0.38	89	iP+	35	59.35	0.3
SAN	0.64	71	iP+	36	02.72	-0.1
			iS	36	12.64	
IHA	0.67	341	eP	36	02.00	-1.1
			iS	36	12.10	
CHCH	0.67	114	iP+	36	02.76	-0.5
PCH	0.73	87	iP+	36	03.67	-0.5
ROCH	0.75	25	iP+	36	04.64	0.0
PEL	0.78	49	iP+	36	04.98	0.2
			iS	36	16.48	
CACH	0.80	125	iP+	36	05.22	0.1
			iS	36	16.90	
FCH	0.97	70	iP+	36	07.40	-0.5
JACH	1.18	35	iPd	36	10.41	-0.1
			iS	36	26.77	
MDZ	2.26	71	eP	36	27.70	1.6
			i	36	39.60	
			i(S)	36	57.60	
RFA	2.66	115	eP	36	31.60	-0.2
			i	36	40.00	
RTCV	3.00	54	ePc	36	37.00	0.5
RTCB	3.08	46	eP	36	38.50	0.8
			S	37	20.00	
RTLL	3.39	48	eP	36	41.70	-0.4
			S	37	25.50	
MRA	4.93	77	ePc	37	02.80	-1.1
TCA	6.19	70	eP	37	18.00	-3.8X
CYA	7.07	44	eP	37	28.00	-6.1X

S.D. = 0.7 on 18 of 20 obs.

JAN 02, 1993 12h 32m 28.52± 0.46s
37.986 S ± 5.6km 176.221 E ± 8.8km
DEPTH = 224.0 ± 5.3 km
5.0mb (13 obs.)
NORTH ISLAND, NEW ZEALAND (159)

UTU	0.19	187	P	32	58.20	0.4
TAZ	0.33	138	Pc	32	58.10	0.1
WLZ	0.51	283	Pd	32	58.50	0.0
			S	33	21.20	
URZ	0.75	112	Pd	32	58.30	-1.3
			eS	33	19.50	
WHH	0.92	167	eP	33	01.00	0.3
PAHZ	1.09	143	Pd	33	02.00	0.3
MOZ	1.23	245	Pc	33	03.90	1.3
			eS	33	30.40	
NGZ	1.28	202	Pc	33	04.40	1.2
KUZ	1.30	342	P	33	00.50	-2.6
			eS	33	25.40	
CNZ	1.32	203	P	33	04.70	1.3
MOH	1.36	148	Pc	33	04.50	1.0
NOZ	1.56	114	Pd	33	05.00	-0.2
PUZ	1.61	94	P	33	03.50	-2.1
			eS	33	29.00	
TTH	1.62	163	P	33	07.40	1.7
HBZ	1.69	77	Pd	33	03.80	-2.5
WAHZ	1.71	177	eP	33	08.10	1.5
MAHZ	1.77	133	P	33	07.60	0.6
TEHZ	2.05	167	eP	33	11.10	1.4
BSZ	2.07	209	Pc	33	11.50	1.6
NRZ	2.24	232	Pd	33	14.20	2.6
WCZ	2.54	323	Pd	33	13.00	-1.7
PGZ	2.63	179	Pc	33	16.80	1.1
MNG	2.69	192	Pc	33	17.60	1.2
			eS	33	53.70	
KIW	3.05	199	Pc	33	21.20	0.8
MTW	3.22	190	Pc	33	22.90	0.6
CAW	3.24	196	Pc	33	23.40	0.8
DIW	3.33	212	P	33	24.10	0.4
BLW	3.43	189	P	33	25.30	0.5
MRW	3.45	199	Pc	33	25.60	0.6
			eS	34	09.10	
WEL	3.48	198	eP	33	26.00	0.6
			eS	34	09.50	
MOW	3.51	192	P	33	26.20	0.4
SNZO	3.52	199	P	32	57.00	-28.9X
			S	33	39.00	
TCW	3.56	204	P	33	26.90	0.6
QRZ	4.03	224	eP	33	31.80	-0.2
			eS	34	22.60	
THZ	4.55	213	eP	33	38.40	-0.2
			eS	34	34.70	
KHZ	4.88	204	Pc	33	43.10	0.6
			eS	34	36.90	
DSZ	5.07	221	eP	33	44.20	-0.8
MQZ	6.32	204	Pc	33	59.70	-1.1
			eS	35	10.60	
EWZ	6.86	215	eP	34	07.30	-0.4
LMZ	7.78	220	eP	34	17.80	-1.8
BWZ	8.09	214	eP	34	22.90	-0.8
ODZ	8.20	209	eP	34	24.70	-0.4
MSCZ	8.74	214	P	34	30.70	-1.6
LRCZ	8.75	214	eP	34	30.30	-2.2
MHZ	8.78	214	eP	34	30.30	-2.4
LSCZ	8.78	214	eP	34	30.50	-2.2
SBCZ	8.79	214	eP	34	31.30	-1.5
MMCZ	8.80	215	eP	34	30.70	-2.3
CMCZ	8.85	214	P	34	32.00	-1.6
			eS	36	08.40	
TLC	8.97	214	eP	34	33.30	-1.9
MSZ	9.14	220	eP	34	35.00	-2.2
			eS	36	15.30	
TUZ	9.35	210	eP	34	40.40	0.5
			eS	36	20.20	
BCZ	10.15	215	eP	34	49.50	-0.7
			eS	36	41.60	
DZM	17.96	329	iPc	36	23.20	-1.6
ARMA	21.66	283	iPc	37	06.20	4.3X
	1.0s		71.00nm			5.2mb
CNB	21.69	269	iPd	37	07.00	4.9X
	0.9s		32.00nm			4.9mb
			e	37	47.00	
CAN	21.97	269	iPd	37	08.90	4.0X
			ipP	37	14.20	19kmX
BWA	22.68	271	iPd	37	12.70	1.0
TOO	24.24	261	iPc	37	28.20	1.7
	0.7s		24.00nm			4.9mb
CMS	25.73	275	iPd	37	42.30	2.2
	0.7s		42.00nm			5.2mb
RMQ	25.81	288	iPc	37	43.10	2.2
	1.2s		59.00nm			5.1mb
BFD	26.62	261	eP	37	50.80	2.7
	1.0s		33.00nm			5.0mb
STK	28.92	272	eP	38	10.80	2.0
	0.8s		15.70nm			4.7mb
			i	38	26.50	
PMG	38.65	310	eP	39	32.00	0.1
ASPA	38.71	279	iPd	39	32.90	0.5
	0.7s		48.90nm			5.2mb
WB2	40.41	284	iPd	39	46.70	0.3
	0.6s		50.90nm			5.2mb
WRA	40.42	284	P	39	46.80	0.3
	0.6s		5.20nm			4.2mb
WARB	43.17	271	eP	40	08.50	-0.3
COOL	45.42	262	eP	40	27.00	0.4
	0.3s		8.00nm			4.6mb
MTN	47.20	290	eP	40	40.00	-0.6
KLB	47.76	259	eP	40	45.00	0.1
	0.4s		11.00nm			4.6mb
MUN	48.80	258	iPc	40	53.60	0.7
BAL	49.00	260	eP	40	53.00	-1.4
MEEK	49.29	266	eP	40	56.40	-0.3
MRWA	50.16	261	eP	41	03.00	-0.2
NANU	53.75	268	iPc	41	29.70	-0.2
	0.9s		113.00nm			5.4mb
TRT	64.53	281	iPc	42	43.50	-0.2
NVL	70.97	185	eP	43	24.00	1.2
LIC	148.36	178	PKP	51	49.40	3.1X
KIC	148.51	178	PKP	51	49.80	3.2X
TIC	148.78	178	PKP	51	50.40	3.4X
KAF	149.59	332	ePKP	51	48.80	2.1X
	0.5s		7.70nm			
NUR	151.21	331	ePKP	51	53.10	3.9X
	0.5s		12.10nm			

S.D. = 1.3 on 74 of 83 obs.

% JAN 02, 1993 13h 40m 11.34± 1.09s
34.055 S ±10.5km 71.266 W ± 8.0km
DEPTH = 60.0km (geophysicist)
NEAR COAST OF CENTRAL CHILE (135)

```
      MD 3.3 (SAN).

LNV     0.16 309 iP     40 20.62   0.0
                 iS     40 28.53
TACH    0.48  34 iP     40 23.08  -0.2
                 iS     40 33.28
CHCH    0.52  77 iP     40 23.49  -0.2
                 iS     40 33.78
CACH    0.56  97 iP     40 24.47   0.3
                 iS     40 34.31
LCCH    0.63 336 iPd    40 24.74  -0.1
                 iS     40 35.53
PCH     0.76  56 iP+    40 26.39  -0.1
                 iS     40 38.15
PEL     1.03  28 iPd    40 30.29   0.3
                 iS     40 44.96
FCH     1.09  49 iPd    40 30.91  -0.1
                 iS     40 46.78
ROCH    1.10  11 iP     40 31.41   0.3
                 iS     40 47.13
JACH    1.48  23 iP+    40 36.13  -0.1
                 iS     40 55.55
     S.D. = 0.2  on  10 of  10 obs.
-----------------------------------
?  JAN  02, 1993  14h 31m 14.96± 4.30s
   32.688 S ±27.2km   71.587 W ±22.7km
   DEPTH =  24.5 ±  7.5 km
 NEAR COAST OF CENTRAL CHILE      (135)
      MD 3.4 (SAN).

ROCH    0.56 120 iP+    31 26.48   0.2
                 iS     31 33.99
LCCH    0.79 179 iP     31 29.77  -0.1
                 iS     31 39.47
JACH    0.84  90 iPd    31 30.75  -0.1
                 iS     31 42.31
PEL     0.88 121 iP+    31 31.57   0.0
                 iS     31 43.05
TACH    1.11 151 iP     31 34.90   0.0
                 iS     31 48.71
FCH     1.26 121 iP+    31 37.46   0.0
                 iS     31 53.47
LNV     1.27 173 iP+    31 37.51   0.3
                 iS     31 53.10
PCH     1.29 136 iP     31 37.97   0.3
                 iS     31 54.07
CHCH    1.47 148 iP     31 39.54  -0.6
                 iS     31 59.80
     S.D. = 0.3  on   9 of   9 obs.
-----------------------------------
&  JAN  02, 1993  14h 32m 13.66s
   39.191 N          123.540 W
   DEPTH =   3.4km
 NEAR COAST OF NORTHERN CALIF.    ( 35)
      <GM-P>. MD 3.1 (GM).

NTYM    1.05 139 ePn    32 33.90  -0.2
WDC     1.59  29 ePn    32 39.68  -3.0
ORV     1.62  76 ePn    32 40.04  -3.2
FHC     1.64 348 ePn    32 43.88   0.3
HMR     1.71 127 (Pn)   32 45.59   1.1
LGPM    1.80  17 eP     32 43.95  -2.0
LMEM    2.03  48 ePn    32 48.73  -0.5
ARN     2.42 139 ePn    32 54.40  -0.4
        8 obs. associated
-----------------------------------
   JAN  02, 1993  14h 53m 38.31± 0.20s
   29.145 N ± 4.4km   81.119 E ± 3.0km
   DEPTH =  14.7km  (  3 depth phases)
   4.9mb ( 40 obs.)
 NEPAL                            (310)

GKN     3.30 109 P      54 32.20   1.6
NDI     3.45 263 iPn    54 36.20   3.6X
                 iPg    54 46.20
                 iSn    55 16.00
                 iSg    55 30.00
DMN     3.83 113 P      54 39.38   1.1
KKN     3.90 109 P      54 40.40   1.2
PKI     4.09 112 P      54 42.72   0.7
GUN     4.36 105 P      54 46.88   1.0
LSA     8.77  84 P      55 47.40  -0.5
HYB    11.91 192 eP     56 29.00  -1.6
                 eS     58 35.00
QUE    12.37 278 eP     56 37.00   0.1
                 eS     58 46.50
POO    12.48 214 eP     56 37.50  -0.7
```

```
                 iS     58 50.00
WMO    15.56  18 P      57 17.00  -1.7
       1.0s     3.70nm          3.6mb X
GBA    15.84 193 P      57 20.30  -2.0
                 S      00 07.00
GTA    18.50  51 eP     57 52.00  -3.8X
CHG    19.24 118 eP     58 05.00   0.2
MAIO   19.52 297 eP     58 08.00  -0.2
KMI    19.65  97 eP     58 06.50  -3.3X
       1.0s    40.00nm          4.7mb
                 pP     58 12.00  21km
LZH    20.33  64 eP     58 14.50  -2.3
       1.4s    26.00nm          4.4mb
                 pP     58 23.50  34kmX
KHT    21.56 128 eP     58 30.00   0.7
GYA    22.74  91 iPd    58 40.80  -0.4
       1.0s    12.00nm          4.4mb
XAN    24.14  71 P      58 54.10  -0.6
     Z  15s     0.59um          4.2MszX
BTO    26.20  56 eP     59 15.00   0.8
TIY    27.40  64 eP     59 23.80  -1.4
HHC    27.40  57 eP     59 26.00   0.8
BJI    30.66  60 eP     59 54.50   0.2
       1.0s    13.00nm          4.7mb
SNY    36.46  58 iPc    00 43.60  -0.8
       0.8s    11.00nm          4.8mb
CN2    38.07  55 eP     00 57.30  -0.6
       0.8s     6.70nm          4.5mb
                 epP    01 01.50  14km
MLR    45.91 306 iPc    02 05.00   2.8X
KAF    48.35 329 eP     02 21.30   0.4
       1.0s    21.60nm          5.2mb
NUR    48.69 327 eP     02 23.70   0.1
PRU    53.52 313 P      03 01.30   1.0
BRG    53.85 314 iP     03 03.30   0.6
       0.8s    17.00nm          5.1mb
HFS    54.02 325 eP     03 02.80  -1.0
       0.7s     4.50nm          4.6mb
GEC2   54.15 311 ePc    03 05.30   0.2
       0.5s     3.13nm          4.6mb
KHC    54.21 312 P      03 05.50   0.1
NAO    55.46 326 P      03 13.60  -0.8
       0.7s     8.30nm          4.9mb
GRF    55.69 312 ePc    03 17.50   1.3
BSF    58.85 311 iPc    03 38.70   0.0
       0.9s    18.20nm          5.2mb
HAU    59.12 311 iPc    03 40.40   0.0
       0.8s    11.95nm          5.1mb
SBF    59.18 306 eP     03 40.60  -0.3
       0.9s    19.50nm          5.2mb
LPG    59.32 308 iPc    03 42.70   0.5
       0.7s    18.30nm          5.3mb
LPL    59.33 308 iPc    03 42.80   0.6
       0.8s    37.60nm          5.6mb
FRF    59.81 306 eP     03 45.30   0.2
       0.7s    13.45nm          5.2mb
LBF    60.89 310 iPc    03 52.20  -0.4
       0.7s     4.95nm          4.7mb
LOR    60.91 311 iPc    03 52.10  -0.6
       0.9s     4.40nm          4.6mb
SMF    61.06 310 iPc    03 53.60  -0.1
       0.8s     9.65nm          5.0mb
SSF    61.19 310 iPc    03 54.00  -0.6
       0.8s    11.55nm          5.1mb
AVF    61.35 310 eP     03 55.40  -0.3
       0.8s     7.50nm          4.9mb
BGF    61.75 310 eP     03 58.20  -0.2
       0.7s     5.20nm          4.8mb
MAF    62.02 310 iPc    04 00.50   0.3
       0.8s     7.10nm          4.9mb
TCF    62.24 310 iPc    04 02.10   0.4
       1.0s    16.20nm          5.2mb
LSF    62.71 310 iPc    04 04.60  -0.2
       0.8s     5.25nm          4.8mb
RJF    62.96 309 eP     04 07.10   0.7
       1.0s    10.00nm          4.9mb
LDF    63.21 313 eP     04 07.80  -0.2
       0.7s     8.50nm          5.0mb
LPO    63.34 308 eP     04 09.40   0.4
       0.9s     5.90nm          4.8mb
EKA    63.42 321 P      04 09.00  -0.3
       0.9s    14.30nm          5.1mb
GRR    63.73 313 iPc    04 11.10  -0.4
       0.6s     4.95nm          4.9mb
MFF    63.74 311 iPc    04 11.20  -0.3
       0.6s     5.25nm          4.9mb
LPF    63.94 312 eP     04 12.40  -0.5
```

```
       0.8s     6.45nm          4.8mb
BCAO   63.97 260 iPc    04 13.40  -0.2
       0.2s    32.00nm          6.1mb X
                 id     04 16.00   8km
DMU    65.90 320 eP     04 25.90   0.5
WRA    70.83 127 P      04 56.30  -0.3
       0.6s     0.60nm          3.9mb
WB2    70.83 127 eP     04 55.60  -1.1
       0.5s     7.10nm          5.1mb
ASPA   73.04 130 iPc    05 08.60  -1.2
       0.4s     3.90nm          4.8mb
IMA    76.31  20 eP     05 28.39   0.3
       0.9s     5.00nm          4.6mb
FBA    78.87  19 eP     05 42.70   0.6
       0.8s     5.52nm          4.6mb
SLKM   81.34  23 ePc    05 54.65  -0.7
KDC    82.49  26 eP     06 01.55   0.3
       0.6s    10.24nm          5.1mb
KIC    83.33 274 P      06 08.20   1.7
TIC    83.44 274 P      06 08.80   1.8
LIC    83.65 274 P      06 09.70   1.6
YKA    87.81   7 eP     06 27.10  -0.7
       0.6s     3.60nm          4.9mb
SIV   142.88 282 iPKP   13 19.50   5.8X
                 i      13 47.50
ZOBO  148.99 288 PKP    13 25.10   0.6
ARE   151.85 291 ePKP   13 38.00   9.6X
     S.D. = 0.9  on  68 of  74 obs.
-----------------------------------
%  JAN  02, 1993  15h 00m 59.67± 3.83s
   32.707 S ±21.5km   71.600 W ±19.8km
   DEPTH =  10.0km  (geophysicist)
 NEAR COAST OF CENTRAL CHILE      (135)
      MD 3.1 (SAN).

ROCH    0.56 118 iP+    01 11.71   0.5
                 iS     01 19.27
LCCH    0.77 178 iPd    01 15.01   0.4
                 iS     01 24.75
JACH    0.85  89 iP     01 16.07  -0.1
                 iS     01 27.69
PEL     0.88 120 iP     01 17.16   0.5
                 iS     01 28.06
TACH    1.09 150 iP     01 20.00  -0.2
                 iS     01 33.90
LNV     1.25 173 iP     01 22.90  -0.1
                 iS     01 38.29
FCH     1.26 120 iP     01 22.78  -0.6
                 iS     01 38.66
PCH     1.29 135 iP     01 23.05  -0.6
                 iS     01 39.33
CHCH    1.46 147 iP     01 26.02  -0.1
                 iS     01 44.86
     S.D. = 0.5  on   9 of   9 obs.
-----------------------------------
   JAN  02, 1993  15h 10m 46.69± 1.28s
   34.003 N ± 7.7km  141.547 E ± 7.8km
   DEPTH =  44.1 ±  9.0 km
   4.6mb ( 21 obs.)
 OFF EAST COAST OF HONSHU, JAPAN (229)

KAKJ    2.47 333 P      11 24.40  -0.9
                 S      11 52.90
CHJJ    2.92 315 P      11 31.30  -0.5
IIDJ    3.34 297 P      11 39.10   1.3
MAT     3.72 314 iPc    11 43.60   0.4
                 eS     12 29.00
NIIJ    3.84 328 P      11 44.30  -0.4
MTMJ    4.00 311 P      11 47.40   0.2
YAMJ    4.34 344 eP     11 50.40  -1.4
                 eS     12 42.30
TSRJ    4.83 290 P      11 59.80   1.1
WKYJ    4.94 274 P      12 00.20  -0.2
OFUJ    5.07   1 eP     11 58.30  -3.8X
                 eS     12 56.00
TKSJ    6.23 272 P      12 19.50   1.0
AOMJ    6.61 352 eP     12 21.90  -1.9
YONJ    6.77 282 eP     12 26.30   0.2
MRRJ    8.42 358 eP     12 44.90  -4.0X
                 eS     14 17.50
HOOJ    8.48   9 P      12 44.30  -5.4X
                 S      14 14.60
SHNJ    8.66 274 eP     12 53.30   1.0
KUMJ    9.09 264 P      12 58.40   0.1
KUSJ    9.41  14 eP     12 55.90  -6.7X
                 S      14 33.80
KAGJ    9.42 256 P      13 03.90   1.1
```

02d 15h

```
ASAJ    10.14    4 P     13 07.10  -5.5X
YSS     13.03    4 eP    13 45.30  -6.1X
      Z  16s      1.00um
      N  16s      0.80um
PJG     20.55  171 eP    15 29.10   5.0X
BJI     21.10  294 eP    15 31.00   1.4
      Z  16s      0.52um          4.0MszX
MGD     26.80   10 eP    16 23.00  -1.3
                  e      17 16.00
CIT     26.97  320 eP    16 27.00   1.0
YAK     29.03  349 eP    16 43.00  -1.4
        1.0s     20.00nm          4.7mb
      Z  16s      0.50um          4.2MszX
BOD     30.13  331 eP    16 53.80  -0.4
LZH     30.81  285 eP    17 00.00  -0.7
ZAK     32.31  312 eP    17 14.00   0.6
        1.5s     10.00nm          4.4mb
MOY     34.05  314 eP    17 23.30  -5.2X
UER     38.24  312 eP    18 04.50   0.6
CHG     40.74  259 eP    18 23.70  -1.4
ILT     40.81   22 iP    18 24.00  -1.0
        1.0s     10.00nm          4.5mb
                  i      18 32.00
NNT     43.53  251 eP    18 47.20  -0.7
NVS     45.05  316 eP    18 59.00  -0.7
        1.0s     10.00nm          4.6mb
NRI     45.91  337 eP    19 06.00  -0.3
        1.0s      9.00nm          4.6mb
                  e      19 17.00
SEM     46.92  310 iPd   19 14.00  -0.5
        1.7s     15.00nm          4.7mb
                  e      19 27.00
IMA     49.26   29 eP    19 34.90   2.2
        1.0s      3.00nm          4.3mb
FBA     51.62   31 eP    19 51.79   1.2
        1.0s      3.50nm          4.3mb
BRVK    52.78  314 eP    19 59.00  -0.4
        1.0s      7.00nm          4.6mb
WB2     54.08  188 iPc   20 07.30  -1.9
        0.6s      5.10nm          4.7mb
WRA     54.08  188 P     20 02.00  -7.2X
        1.5s      0.50nm          3.3mb X
ASPA    57.81  188 eP    20 34.40  -1.6
        0.4s      7.60nm          5.1mb
HYB     58.28  270 ePd   20 38.50  -1.1
ARU     58.71  320 eP    20 41.00  -0.9
GBA     61.13  267 P     20 58.00  -1.1
        0.6s      6.00nm          4.9mb
POO     61.64  274 eP    21 01.00  -1.6
QUE     61.99  289 eP    21 05.30   0.3
RES     65.51   14 eP    21 28.00   0.9
        1.0s      3.00nm          4.3mb
YKA     66.38   29 eP    21 31.60  -1.2
        0.8s      1.40nm          4.1mb
KAF     71.05  333 iP    22 01.40  -0.3
        0.6s     12.30nm          5.1mb
NEW     72.24   43 eP    22 10.00   0.8
        0.9s      7.46nm          4.6mb
NUR     72.68  332 eP    22 09.90  -1.5
        0.6s     11.50nm          5.0mb
ORV     74.02   53 (P)   22 21.58   2.0
LCCM    76.57   44 eP    22 34.40   0.1
HFS     76.89  336 eP    22 34.60  -1.0
        0.4s      1.40nm          4.3mb
NAO     77.31  338 P     22 37.90   0.0
        0.7s      4.90nm          4.6mb
EMUT    80.73   48 eP    22 57.97   0.8
SRU     81.33   48 eP    23 00.30   0.1
PV10    82.70   48 eP    23 08.73   1.3
KSP     82.73  329 eP    23 06.20  -0.8
BRG     83.71  330 e(P)  23 12.20   0.2
CLL     83.78  330 eP    23 12.00  -0.3
SRO     84.01  325 iP    23 15.60   2.0
PRU     84.12  329 P     23 15.00   0.9
ZST     84.30  326 eP    23 16.20   1.2
MOX     84.85  331 e(P)  23 24.00   6.2X
KHC     85.18  329 P     23 20.40   0.9
        1.0s      3.50nm          4.5mb
                  e      23 25.50
                  e      23 34.50
GEC2    85.34  328 ePc   23 20.70   0.3
        0.6s      1.85nm          4.4mb
                  e      23 23.20
                  epP    23 34.80  48kmX
                  e      23 44.70
GRF     85.75  330 eP    23 24.00   1.7
ZOBO   148.03   64 PKP   30 31.00   4.0X
```

```
SIV    152.87   54 PKP   30 39.50   6.0X
       S.D. = 1.1  on  60 of  72 obs.
-----------------------------------------
%  JAN  02, 1993  16h 24m 13.33± 1.17s
   33.186 S ± 8.1km   71.436 W ±10.2km
   DEPTH =  33.0km  (normal)
 NEAR COAST OF CENTRAL CHILE      (135)
       MD 3.5 (SAN).

LCCH     0.31  201 iPd    24 21.69   0.5
                   iS     24 28.36
ROCH     0.42   59 iP+    24 23.16   0.2
                   iS     24 31.27
TACH     0.63  138 iP+    24 25.74   0.0
                   iS     24 36.31
PEL      0.63   86 iP+    24 26.27   0.4
                   iS     24 36.23
SAN      0.70  113 iP+    24 26.97   0.2
                   iS     24 37.75
LNV      0.77  178 iP     24 27.09  -0.6
                   iS     24 38.99
JACH     0.87   55 iP     24 28.70  -0.6
                   iS     24 41.00
PCH      0.88  120 iP     24 29.41  -0.1
                   iS     24 42.17
FCH      0.97   99 iP+    24 30.89  -0.1
                   iS     24 44.44
CHCH     0.99  139 iP     24 30.96   0.0
                   iS     24 45.72
       S.D. = 0.4  on  10 of  10 obs.
-----------------------------------------
?  JAN  02, 1993  17h 45m 47.53± 3.11s
   37.475 N ±13.3km   23.842 E ±33.6km
   DEPTH =  33.0km  (normal)
 SOUTHERN GREECE                  (368)
       ML 3.3 (ATH).

ATH      0.51  349 iPnd   45 57.60  -0.6
                   eSn    46 05.50
VLI      1.05  224 ePn    46 06.00   0.1
                   eSn    46 22.50
VLS      2.67  286 ePn    46 28.70  -0.4
KZN      3.26  331 ePn    46 38.50   1.0
       S.D. = 1.2  on   4 of   4 obs.
-----------------------------------------
%  JAN  02, 1993  17h 48m 11.33± 1.06s
   28.532 S ± 6.7km   67.406 W ±13.2km
   DEPTH = 160.5 ± 23.1 km
 LA RIOJA PROVINCE, ARGENTINA     (138)

CYA      1.42   87 iPc    48 40.70  -0.6
                   S      48 54.20
RTPR     1.93  156 ePd    48 46.90   0.3
FSA      2.74   27 iPc    48 56.20  -0.1
RTLL     2.94  198 iPd    48 58.80  -0.1
                   S      49 33.00
CFA      3.15  193 ePd    49 01.70   0.1
RTCB     3.18  202 ePc    49 02.20   0.2
                   S      49 40.60
TCA      3.71  140 eP     49 08.60  -0.3
                   S      49 48.00
MRA      4.13  160 ePd    49 15.20   1.0
SLA      4.16   25 eP     49 15.10   0.4
RFA      6.28  188 eP     49 42.00  -0.9
       S.D. = 0.6  on  10 of  10 obs.
-----------------------------------------
?  JAN  02, 1993  17h 56m 44.10± 1.42s
    6.179 S ±26.9km  150.510 E ±26.8km
   DEPTH =  54.1 ± 25.3 km
   4.1mb (  2 obs.)
 NEW BRITAIN REGION, P.N.G.       (192)

RAB      2.57   40 iPc    57 24.10   0.0
        0.5s   957.75nm
PMG      4.62  226 eP     57 53.00   0.0
                   eS     58 46.00
RMQ     20.27  185 iPd    01 18.10   0.3
        0.8s    83.00nm          5.1mb X
WB2     20.82  227 iPd    01 22.80  -0.8
        0.4s    26.60nm          4.9mb X
ASPA    23.61  221 eP     01 52.40   1.2
        0.4s     5.50nm          4.4mb
STK     26.90  197 eP     02 21.30  -0.7
        0.8s     2.30nm          3.8mb
       S.D. = 1.2  on   6 of   6 obs.
-----------------------------------------
   JAN  02, 1993  19h 01m 07.45± 0.68s
```

```
    6.570 S ± 9.2km  130.111 E ±15.6km
   DEPTH =  33.0km  (normal)
 BANDA SEA                        (280)

SWI      5.78   11 ePc    02 34.00   0.8
                   eS     03 32.50
MTN      6.32  171 eP     02 45.00   4.2X
        0.3s    81.00nm          5.9mb X
                   eS     03 53.50
WB2     13.92  163 iPd    04 23.10  -1.6
                   eS     06 48.30
QIS     16.68  147 eP     05 00.80   0.4
                   eS     07 00.80
ASPA    17.39  168 iPc    05 12.30   3.0X
                   eS     08 11.10
NANU    21.23  220 eP     05 56.50   3.6X
MRWA    26.17  209 eP     06 43.00   2.2
GUN     54.75  311 P      10 36.76  -0.1
        0.6s    24.00nm          5.4mb
PKI     54.93  310 P      10 37.66  -0.5
KKN     55.14  310 P      10 39.22  -0.3
        0.5s    10.00nm          5.1mb
DMN     55.18  310 P      10 39.78  -0.1
GKN     55.74  310 P      10 43.56  -0.2
        0.4s    15.00nm          5.4mb
GBA     56.00  291 P      10 45.00  -0.6
ZOBO   150.99  142 PKP    21 00.00   5.7X
       S.D. = 1.1  on  10 of  14 obs.
-----------------------------------------
%  JAN  02, 1993  19h 29m 28.79± 1.67s
   38.730 S ±10.4km  175.202 E ± 6.9km
   DEPTH = 249.2 ± 14.7 km
 NORTH ISLAND, NEW ZEALAND        (159)

MOZ      0.38  305 P      30 01.40   0.1
                   S      30 24.10
CNZ      0.54  150 Pd     30 01.90   0.0
NGZ      0.54  145 P      30 01.90  -0.1
WHH      1.02   99 eP     30 03.40  -0.8
BSZ      1.09  191 P      30 04.80   0.3
WAHZ     1.32  138 P      30 06.00  -0.1
TTH      1.50  123 P      30 06.10  -1.2
MOH      1.57  105 P      30 08.20   0.4
TEHZ     1.77  136 P      30 09.70   0.2
MNG      1.90  174 Pc     30 10.80   0.2
                   S      30 38.70
PGZ      2.06  157 Pc     30 12.10   0.1
KIW      2.14  186 P      30 12.80   0.0
NOZ      2.22   88 P      30 14.40   0.9
DIW      2.29  205 P      30 14.50   0.2
CAW      2.38  182 Pc     30 15.20   0.1
MTW      2.44  175 P      30 15.40  -0.3
MRW      2.53  189 P      30 16.70   0.1
                   S      30 49.50
WEL      2.57  187 P      30 17.20   0.2
                   eS     30 50.70
TCW      2.58  196 P      30 17.50   0.4
BLW      2.64  176 Pc     30 17.70  -0.1
MOW      2.69  179 P      30 18.10  -0.2
ORZ      2.94  224 P      30 20.60  -0.3
THZ      3.50  209 eP     30 28.00   0.7
                   eS     31 10.40
KHZ      3.90  198 P      30 32.20   0.5
                   S      31 17.40
DSZ      3.98  220 P      30 32.40  -0.4
LTZ      4.62  208 eP     30 40.40  -0.1
                   S      31 32.60
MOZ      5.33  200 P      30 48.30  -0.8
                   S      31 46.90
       S.D. = 0.5  on  27 of  27 obs.
-----------------------------------------
%  JAN  02, 1993  22h 09m 26.53± 0.56s
   46.008 N ± 4.8km    2.787 E ± 4.6km
   DEPTH =  10.0km  (geophysicist)
 FRANCE                           (538)
       ML 1.9 (LDG).

MAF      0.26  324 Pg     09 32.20   0.1
                   Sg     09 36.50
TCF      0.49  305 Pg     09 36.40  -0.1
                   Sg     09 43.30
BGF      0.55    4 Pg     09 37.10  -0.6
                   Sg     09 45.40
AVF      0.88   26 Pg     09 43.00  -0.3
                   Sg     09 54.40
LSF      0.91  286 Pg     09 44.20   0.3
                   Sg     09 56.30
```

```
SMF      0.97  49 Pg    09 44.90  -0.1
                Sg    09 57.80
RJF      1.14 232 Pg    09 47.80   0.0
                Sg    10 01.40
SSF      1.17  25 Pg    09 48.30   0.0
                Sg    10 03.60
CAF      1.20 205 Pg    09 48.60  -0.2
                Sg    10 04.40
LBF      1.28  40 Pg    09 50.40   0.1
                Sg    10 06.90
LOR      1.46  30 Pg    09 53.70   0.7
                Sg    10 12.20
     S.D. = 0.4  on  11 of  11 obs.
-----------------------------------------
   JAN  02, 1993  22h 38m 19.91± 0.44s
   40.682 N ± 3.9km   23.417 E ± 4.2km
   DEPTH =  10.0km  (geophysicist)
 GREECE                              (364)

SOH      0.15 341 iPg   38 23.64   0.3
                eSg   38 24.96
THE      0.35 262 ePg   38 26.97  -0.1
                eSg   38 31.88
SRS      0.45  17 ePg   38 28.65  -0.5
                eSg   38 35.96
OUR      0.55 129 ePg   38 31.00  -0.1
                eSg   38 38.48
KNT      0.62 321 iPg   38 31.93  -0.5
                eSg   38 40.48
PAIG     0.78 165 ePg   38 34.40  -0.7
                eSg   38 44.68
GRG      0.82 290 ePg   38 35.76   0.0
                eSg   38 47.92
VAY      0.90 315 iPg   38 37.50   0.3
                iSg   38 50.60
                Lg    38 51.40
LIT      0.92 231 ePg   38 37.80   0.4
                eSg   38 50.76
AGG      1.86 207 ePb   38 52.24   0.2
                eSb   39 16.68
ALN      2.01  83 ePn   38 55.00   0.8
     S.D. = 0.5  on  11 of  11 obs.
-----------------------------------------
   JAN  03, 1993  00h 01m 54.09± 0.41s
   33.881 N ± 6.5km  100.667 E ± 4.4km
   DEPTH =  10.0km  (geophysicist)
   4.0mb (  4 obs.)
 QINGHAI, CHINA                      (325)
     ML 4.4 (BJI).

LZH      3.41  49 iPnd  02 50.00   1.4
CD2      3.95 138 Pn    03 00.80   4.7X
     Z  10s     3.80um
                Pg    03 06.80
                Sn    03 50.60
                Sg    04 00.80
XAN      6.86  86 Pn    03 37.30   0.1
                Pg    04 03.10
                Sg    05 35.10
KMI      8.91 168 P     04 05.50  -0.5
       1.5s    40.00nm          5.5mb X
GYA      9.03 143 iPc   04 08.20   0.6
LSA      9.11 245 eP    04 12.00   3.0X
BTO     10.02  45 eP    04 22.00   0.8
     N  12s     1.39um
     E  12s     1.12um
                eS    06 16.00
TIY     10.29  65 eP    04 23.80  -1.1
     Z  10s     0.63um
     N  10s     0.93um
HHC     11.11  48 Pc    04 36.40   0.3
                S     06 41.00
WHN     12.06 102 Pc    04 47.50  -1.3
                eS    07 09.00
BJI     13.83  59 eP    05 15.50   3.1X
     N  10s     1.02um
GUN     14.02 249 P     05 16.34   1.1
WMQ     14.15 318 P     05 16.00  -0.7
       0.6s    5.20nm          4.4mb
KKN     14.54 249 P     05 22.08   0.1
PKI     14.55 248 P     05 22.56   0.4
DMN     14.76 249 P     05 25.72   0.8
GKN     14.95 251 P     05 26.56  -0.7
KSH     20.54 293 eP    06 34.00  -1.4
CN2     21.62  55 eP    06 49.00   2.8X
       0.8s    24.00nm          4.7mb
HYB     25.72 236 eP    07 31.70   5.4X
```

```
WRA     62.41 144 P     12 19.90   0.3
       0.7s     0.20nm          3.4mb
YKA     79.86  16 eP    14 06.60   2.7X
       0.9s     0.70nm          3.6mb
     S.D. = 0.9  on  16 of  22 obs.
-----------------------------------------
%  JAN  03, 1993  00h 56m 54.87± 1.22s
   17.235 N ± 7.1km   99.831 W ±18.6km
   DEPTH =  10.0km  (geophysicist)
 GUERRERO, MEXICO                    ( 59)

ACX      0.36 184 iPc   57 02.30  -0.1
                iS    57 08.50
III      1.19  17 iP    57 17.20   0.1
                iS    57 34.00
PPM      2.15  32 iP    57 30.70  -1.1
                iS    58 03.00
UNM      2.17  16 iP    57 32.60   0.7
OXX      2.98  92 (P)   57 43.50   0.3
     S.D. = 0.9  on   5 of   5 obs.
-----------------------------------------
%  JAN  03, 1993  01h 33m 07.10± 0.80s
   26.416 S ± 6.3km   27.384 E ± 8.5km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA            (584)
     ML 2.8 (PRE).

PRY      0.52 171 eP    33 17.00  -0.5
                S     33 23.20
KSR      0.70 321 eP    33 21.10  -0.1
                S     33 29.50
SLR      1.05  50 iPc   33 27.00  -0.5
                S     33 42.50
BFT      2.50  74 eP    33 50.00   0.7
                S     34 19.00
BLF      2.88 201 eP    33 55.10   0.4
     S.D. = 0.8  on   5 of   5 obs.
-----------------------------------------
%  JAN  03, 1993  01h 49m 53.46± 0.87s
   26.900 S ± 6.9km   26.709 E ± 8.3km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA            (584)
     ML 2.3 (PRE).

BFS      0.07  88 iPc   49 55.00  -0.3
PRY      0.68  93 eP    50 07.00  -0.1
                S     50 15.00
KSR      1.04   9 eP    50 13.90   0.1
                S     50 28.00
SEK      1.63 150 eP    50 23.50   0.4
                S     50 44.30
SLR      1.83  51 iPd   50 26.00   0.1
                S     50 48.20
BLF      2.25 192 eP    50 33.00   1.0
FRS      3.09 203 eP    50 42.60  -1.2
                S     51 18.60
     S.D. = 0.8  on   7 of   7 obs.
-----------------------------------------
   JAN  03, 1993  01h 53m 28.50± 0.83s
   31.181 S ±10.4km   68.471 W ± 7.6km
   DEPTH = 116.3 ± 10.5 km
 SAN JUAN PROVINCE, ARGENTINA        (137)
     MD 3.9 (SAN).

RTLL     0.15 179 iPc   53 44.50  -0.6
RTCB     0.41 223 iPd   53 45.80  -0.1
                S     53 55.60
CFA      0.47 155 iPc   53 46.10   0.0
                S     53 58.20
RTCV     0.68 185 iPd   53 47.50  -0.1
                S     53 59.00
RTPR     1.90  63 iPc   54 01.80   0.8
                eS    54 26.00
JACH     2.34 230 iP    54 07.73   0.9
                iS    54 37.88
FCH      2.64 215 iP+   54 12.13   1.2
                iS    54 46.16
MRA      2.65 118 iPc   54 11.20   0.5
                S     54 38.00
PEL      2.71 223 iP+   54 12.74   1.1
                (S)   54 44.40
ROCH     2.80 230 iPd   54 12.69  -0.2
                iS    54 46.57
PCH      2.98 215 iP    54 16.20   0.9
                (S)   54 53.94
TACH     3.23 220 iPd   54 18.33  -0.1
                iS    54 56.64
```

```
CHCH     3.31 213 iP+   54 19.90   0.4
                iS    54 59.23
TCA      3.33  94 iP    54 19.80  -0.1
                S     54 57.00
LCCH     3.48 228 iPd   54 20.82  -1.0
RFA      3.58 180 eP    54 22.00  -1.3
CYA      3.58  41 iPc   54 22.70  -0.6
                S     55 03.00
LNV      3.72 221 iP    54 23.21  -1.8
     S.D. = 0.9  on  18 of  18 obs.
-----------------------------------------
&  JAN  03, 1993  03h 46m 53.44s
   34.279 N          116.445 W
   DEPTH =   1.2km
 SOUTHERN CALIFORNIA                 ( 43)
     <PAS-P>. ML 2.8 (PAS). Felt.

PEC      0.71 237 ePd   47 06.90  -0.7
PLM      0.99 201 ePd   47 12.03  -1.1
SSK      1.04 267 eP    47 13.05  -0.9
                eS    47 27.38
GSC      1.06 344 eP    47 13.64  -0.7
GLA      1.82 132 ePn   47 23.93  -2.3
                ePg   47 27.48
ISA      2.16 310 ePn   47 31.64   0.5
TNP      3.85 351 ePg   48 05.59  10.3
BONR     3.96 338 ePg   48 08.44  11.4
ARUT     4.26  34 (P)   47 59.50  -1.6
     9 obs. associated
-----------------------------------------
   JAN  03, 1993  04h 23m 34.59± 0.17s
    1.513 S ± 3.4km  119.679 E ± 4.4km
   DEPTH =  37.2km  ( 10 depth phases)
   5.6mb ( 73 obs.)  5.2Msz ( 23 obs.)
 SULAWESI, INDONESIA                 (268)
     Mw 5.7 (HRV).
     CENTROID, MOMENT TENSOR         (HRV)
     Data Used: GDSN
     L.P.B.: 21S, 35C
     Centroid Location:
     Origin Time        04:23:41.8 0.4
     Lat  1.17S 0.04 Lon 120.08E 0.04
     Dep  48.4 2.7 Half-duration  1.4
     Moment Tensor;   Scale 10**17 Nm
       Mrr= 1.51 0.09  Mtt= 1.88 0.14
       Mff=-3.39 0.20  Mrt= 0.13 0.17
       Mrf=-1.00 0.18  Mtf=-2.71 0.10
      Principal Axes:
       T  Val=  3.19  Plg=18  Azm= 25
       N        1.47      70      179
       P       -4.66       8      292
     Best Double Couple:Mo=3.9*10**17
      NP1:Strike= 68 Dip=72 Slip= 173
      NP2:        160     83       19

PCI      0.62  15 iPd   23 45.40  -1.5
MKS      3.69 183 iPc   24 30.60   0.0
                iS    25 35.50
TSM      6.04 343 eP    25 00.00  -4.0X
       0.3s   285.60nm          6.3mb
                e     26 08.30
KHKI     7.92 211 eP    25 26.50  -3.8X
                eS    26 55.00
                e     34 17.80
TNE      7.99  73 ePd   25 33.70   2.5
KKM      8.27 335 ePc   25 33.60  -1.5
                eS    27 05.30
AAI      8.78 104 eP    25 46.90   4.8X
TRT      9.33 229 ePd   25 45.00  -4.7X
       0.5s    62.40nm          6.0mb
DAV     10.37  34 ePc   26 08.00   3.9X
SLKI    13.24 119 iPc   26 47.00   4.4X
KLI     15.17 257 eP    27 08.00   0.1
                e(S)  31 27.30
                e     31 35.00
MTN     15.98 135 eP    27 17.30  -1.2
OCP     16.11   5 eP    27 10.00 -10.0X
KGM     16.73 282 eP    27 30.00   2.1
BAG     17.83   3 ePc+  27 42.00   0.1
       1.7s   569.23nm          5.4mb
                eS    31 05.00
PPI     19.31 273 eP    27 59.00  -0.6
IPM     19.60 288 ePc   28 02.00  -0.8
       1.0s   239.60nm          5.4mb
SNG     20.89 295 eP    28 15.20  -1.1
                eS    32 10.00
NANU    21.31 191 iPd   28 19.70  -0.8
```

03d 04h

```
        0.9s   453.00nm          5.9mb
OIZ    22.59 335 P      28 35.00   1.7
        1.0s    75.00nm          5.1mb
     N  18s     4.96um
     E  16s     2.57um
                 S      32 41.00
WRA    23.26 143 P      28 40.70   0.8
        0.6s    12.90nm          4.6mb
WB2    23.27 143 iPd    28 40.20   0.3
        0.6s   188.90nm          5.8mb
NNT    24.26 306 eP     28 50.70   1.2
HKC    24.27 348 eP     28 50.60   1.0
                 S      33 06.00
MEEK   25.00 182 eP     28 55.50  -1.2
        0.9s   205.00nm          5.7mb
GZH    25.22 346 Pd     29 00.40   1.7
        1.2s    45.00nm          4.9mb
     Z  18s     2.30um          4.7Msz
     N  12s     1.01um
     E  12s     1.02um
WARB   25.43 165 iPd    29 00.60  -0.1
NST    25.79 312 eP     29 13.00   9.0X
LOE    25.82 317 iPc    29 06.00   1.7
ASPA   25.98 149 iPd    29 05.80   0.0
        0.7s    65.50nm          5.3mb
     Z  21s     4.50um          5.0Msz
                eS      33 33.20
OZH    26.32 358 Pc     29 09.50   0.6
        1.0s    68.00nm          5.2mb
     N  15s     2.95um
     E  22s     4.13um
                 S      33 43.50
BDT    27.62 313 eP     29 21.80   1.0
PMG    28.44 107 eP     29 29.00   0.7
CHG    28.70 316 eP     29 30.80   0.2
        1.5s    63.89nm          5.1mb
BAL    29.07 185 eP     29 31.50  -2.3
PJG    29.13  58 e(P)   29 24.00 -10.6X
MUN    30.48 186 eP     29 44.00  -2.3
GYA    30.52 337 iPc    29 47.00   0.1
        1.2s    23.00nm          4.8mb
     Z  30s     4.00um          4.9MszX
     N  18s     4.66um
     E  18s     3.40um
                PcP     32 44.80
                 S      34 50.00
                SS      36 30.00
KMI    31.15 329 Pc     29 54.50   1.9
        2.0s   210.00nm          5.6mb
     Z  16s     4.70um          5.2MszX
     N  13s     2.00um
     E  14s     2.60um
                pP      30 03.50  31km
CTA    31.87 127 iPd    29 59.00   0.3
        1.0s    25.00nm          5.0mb
                iS      37 12.00
WHN    32.28 351 Pc     30 03.50   1.4
        1.2s   160.00nm          5.8mb
     Z  18s     5.43um          5.3Msz
     N  12s     1.06um
     E  12s     2.52um
                 S      35 19.00
SSE    32.46   2 Pc     30 04.50   0.8
        1.5s    95.00nm          5.5mb
     Z  20s     5.00um          5.2Msz
     N  14s     1.40um
     E  14s     0.80um
                 S      35 20.00
RAB    32.55  95 e(P)   30 05.00   0.3
NJ2    33.39 359 iPc    30 11.00  -0.8
        1.4s   160.00nm          5.7mb
     Z  20s     1.78um          4.8Msz
     N  10s     0.75um
     E  10s     1.46um
                 S      35 36.00
CD2    35.63 336 Pc     30 31.00  -0.1
        1.0s    95.00nm          5.7mb
     Z  20s     5.61um          5.3Msz
     N  19s     6.34um
                pP      30 42.00  39km
                PP      31 55.10
                 S      36 05.00
               ePcS     36 41.00
STK    36.60 148 eP     30 38.40  -0.8
        0.7s    10.60nm          4.8mb
                eS      36 21.30
XAN    36.78 345 P      30 40.40  -0.4
```

```
        1.5s    94.00nm          5.5mb
     Z  16s     3.51um          5.2MszX
     N  16s     2.62um
     E  14s     1.38um
                pP      30 53.40  49kmX
                iPP     32 06.00
                 S      36 24.00
                PcS     36 50.00
RMQ    37.38 134 eP     30 46.00   0.1
        1.2s    62.00nm          5.4mb
                 e      32 14.00 465kmX
TIA    37.61 357 Pc     30 48.40   0.8
        1.4s   150.00nm          5.7mb
     Z  26s     5.71um          5.3MszX
     N  21s     3.02um
     E  21s     5.06um
                 S      36 37.60
CMS    38.72 143 iPc    30 57.30   0.3
        1.2s    57.00nm          5.3mb
                 e      32 31.80 527kmX
TIY    39.60 351 Pc     31 05.00   0.6
        1.2s    62.00nm          5.3mb
     Z  18s     3.88um          5.3Msz
     N  18s     3.42um
                 S      37 03.00
LZH    40.22 340 eP     31 10.50   0.9
        1.5s    94.00nm          5.3mb
     Z  20s     3.55um          5.2Msz
     E  18s     2.86um
                pP      31 19.00  29km
                sP      31 22.50
                PP      32 43.00
DL2    40.26   2 eP     31 10.00   0.4
     Z  24s     1.69um          4.8MszX
     N  12s     1.00um
     E  12s     0.81um
                 S      37 16.00
BRS    40.83 132 eP     31 15.00   0.4
                 i      32 48.00 507kmX
BFD    41.28 152 eP     31 18.20   0.1
        1.2s    67.00nm          5.2mb
                 i      32 54.20 528kmX
LSA    41.30 321 iPc    31 20.40   1.5
        0.7s    13.00nm          4.8mb
     Z  28s     7.81um          5.4MszX
     N  17s     3.47um
                 S      37 32.00
BJI    41.48 356 eP     31 21.00   1.4
        1.5s   630.00nm          6.1mb
     Z  24s     3.18um          5.1MszX
     N  15s     1.36um
                eS      37 36.00
               eSS      40 37.00
MAT    41.60  23 eP     31 18.00  -2.8
        1.6s   123.33nm          5.4mb
     Z  20s     2.84um          5.1Msz
                eS      37 30.00
ARMA   41.76 137 eP     31 23.20   0.9
        1.2s    51.00nm          5.1mb
                 e      33 04.30 569kmX
BWA    42.33 144 iPc    31 28.80   2.0
HHC    42.81 351 Pc     31 31.40   0.7
        1.2s   110.00nm          5.5mb
     Z  24s     2.56um          5.0MszX
     N  19s     3.07um
     E  19s     1.63um
                PP      33 17.00
                 S      37 51.00
               ScS      41 27.00
BTO    42.83 349 P      31 31.00   0.1
        1.2s    93.00nm          5.4mb
     N  17s     2.06um
     E  15s     1.86um
                pP      31 42.50  41km
                 S      37 54.00
TOO    43.03 150 eP     31 32.50   0.0
        1.2s    64.00nm          5.2mb
                 e      33 16.00 585kmX
SNY    43.28   4 Pc     31 32.00  -2.4
        1.4s   160.00nm          5.6mb
     Z  30s     1.62um          4.7MszX
     N  13s     0.94um
                 S      37 56.00
CAN    43.29 144 eP     31 35.50   0.8
CNB    43.50 144 eP     31 37.30   0.9
        1.6s   279.00nm          5.8mb
                 e      32 19.60 195kmX
```

```
KOD    43.60 286 eP     31 38.00   0.3
                eS      38 08.00
PKI    43.84 314 P      31 39.16  -0.4
        0.6s    45.00nm          5.4mb
KKN    44.06 314 P      31 41.08  -0.1
        1.2s   172.00nm          5.7mb
DMN    44.08 314 P      31 41.22  -0.2
        0.6s    81.00nm          5.7mb
GBA    44.49 291 Pc     31 44.20  -0.3
        0.9s    21.00nm          5.0mb
GTA    44.62 338 P      31 47.00   1.5
        1.0s    43.00nm          5.2mb
     Z  20s     3.17um          5.2Msz
     E  19s     2.54um
                pP      31 52.00  17kmX
                 S      38 18.00
GKN    44.65 314 P      31 45.38  -0.5
        0.5s    84.00nm          5.8mb
HYB    44.67 297 ePc    31 45.50  -0.6
        1.0s    70.00nm          5.5mb
                 e      31 59.00  51kmX
CN2    45.41   6 eP     31 50.40  -1.1
        1.2s     9.80nm          4.6mb
     Z  20s     0.92um          4.7Msz
     N  15s     0.52um
     E  15s     0.90um
                epP     32 01.00  36km
                ePcP    33 30.00
                eS      38 28.00
MDJ    46.77  10 Pc     32 02.00  -0.2
        1.4s   290.00nm          6.1mb
     Z  23s     3.11um          5.2MszX
     N  12s     0.59um
     E  12s     0.80um
                eS      38 53.00
POO    49.26 296 iPd    32 22.00  -0.1
                iS      39 26.00
DZM    49.84 118 iPc    32 28.10   1.5
BOM    50.31 296 iP     32 25.10  -4.9X
                iS      39 40.50
NDI    50.55 310 eP     32 30.00  -1.7
                eS      39 54.00
YSS    52.39  20 eP     32 45.00  -0.3
     Z  20s     0.80um          4.8Msz
     N  20s     0.50um
                 e      40 15.00
WMO    53.44 331 iPc    32 53.70   0.4
        1.5s    65.00nm          5.4mb
     Z  20s     2.67um          5.3Msz
                pP      33 07.80  52kmX
                PcP     33 56.50
                PP      34 58.00
CIT    53.56 355 eP     32 55.00   1.0
     Z  20s     1.95um          5.2Msz
ZAK    53.57 347 iPc    32 54.30   0.3
        2.3s   164.00nm          5.6mb
     Z  18s     1.54um          5.1Msz
     N  17s     1.18um
     E  18s     1.51um
                eS      40 31.00
IRK    55.14 349 ePc    33 05.40  -0.1
        2.3s   170.00nm          5.7mb
     Z  17s     1.12um          5.0Msz
     N  20s     1.41um
     E  17s     0.73um
                 e      33 20.70  57kmX
                eS      40 51.00
MOY    55.32 346 iPc    33 07.90   1.1
        1.2s   144.00nm          5.9mb
                eS      40 56.00
KSH    57.12 320 P      33 21.60   1.5
        1.2s    70.00nm          5.6mb
     Z  20s     2.99um          5.4Msz
     N  20s     2.59um
     E  20s     3.25um
                pP      33 34.00  44km
UER    57.16 341 iPc    33 19.80  -0.2
        1.3s    92.00nm          5.7mb
                 e      34 19.80 271kmX
                 e      35 27.00
                 e      36 50.00
                eS      41 15.00
QUE    59.27 307 eP     33 34.70  -0.7
                eS      41 43.40
BOD    59.34 357 iPc    33 34.50  -0.6
        1.4s   152.00nm          5.9mb
FRU    59.89 323 eP     33 40.00   0.8
```

```
        2.6s   240.00nm          5.9mb
ELT    61.28 338 iPc   33 47.00  -1.5
        3.0s   400.00nm          6.0mb
                  eS   42 08.00
                  e    42 38.00
SEM    61.71 333 iPc+  33 50.80  -0.6
        1.9s   188.00nm          5.9mb
                  eS   42 16.00
                  e    42 33.00
YAK    63.82   5 iPc+  34 03.20  -2.0
        1.2s   200.00nm          6.1mb
                  e    36 32.00
                  eS   42 29.00
                  ePS  42 53.00
MGD    66.04  16 eP+   34 18.00  -1.6
        1.3s    60.00nm          5.5mb
      Z  20s     0.80um          4.9Msz
      N  20s     0.80um
                  e    34 27.00  29km
                  e    34 42.00
                  eS   43 06.00
                  ePS  43 30.00
                  e    44 04.00
                  eSS  47 16.00
MAIO   67.29 311 iPc   34 27.40  -0.7
                  eS   43 24.00
BRVK   68.17 330 iPc   34 32.50  -0.7
        1.4s   135.00nm          5.8mb
ASH    68.71 312 eP    34 36.00  -0.8
TIK    73.26   3 iPc   35 02.70  -0.8
        1.6s   156.00nm          5.7mb
                  e    35 16.00  46km
                  e    37 49.00
                  iS   44 35.00
                  ePS  45 09.00
NRI    73.93 349 iPc   35 06.00  -1.4
        1.4s   132.00nm          5.7mb
      Z  19s     2.70um          5.6Msz
      E  18s     3.00um
                  e    35 17.00  36km
                  e    35 22.00
SVE    74.88 331 ePc   35 12.00  -1.2
        3.0s   630.00nm          6.1mb
ARU    75.70 330 ePc   35 16.50  -1.4
        1.4s   240.00nm          6.0mb
MAW    76.47 199 iPd   35 22.50   0.5
        1.0s    58.33nm          5.5mb
PYA    81.45 315 iPc   35 49.00  -0.5
        1.3s   150.00nm          5.8mb
NAI    82.85 269 iPd   36 00.00   2.3
SVST   85.37 310 eP    36 11.00   1.3
MDRJ   85.39 300 P     36 10.50   0.5
AKKT   85.42 311 eP    36 10.80   0.8
SDN    85.45  34 eP    36 08.41  -1.2
        0.6s    44.72nm          5.8mb
MASJ   85.65 302 P     36 11.50   0.3
SHMJ   85.69 303 P     36 12.00   0.7
SALJ   85.70 302 P     36 12.00   0.5
HRI    85.75 303 iPd   36 13.30   1.5
LISJ   85.81 301 P     36 13.50   1.6
DHLJ   85.85 301 P     36 12.50   0.4
BHL    85.87 304 P     36 12.00  -0.3
MML    85.96 302 iPd   36 14.40   1.7
TRHT   86.01 310 eP    36 13.30   0.4
KVT    86.18 311 iP    36 14.00   0.4
RMN    86.49 301 iPd   36 16.80   1.3
MOS    86.76 326 eP    36 15.00  -1.0
CTK    87.07 311 eP    36 18.90   0.8
OBN    87.26 325 iPc   36 17.50  -1.0
        1.5s   230.00nm          6.2mb
                  e    36 30.00  41km
CSS    87.86 305 eP    36 22.50   0.6
SPA    88.49 180 ePc   36 24.20  -0.2
        0.8s    62.50nm          6.0mb
      Z  18s     2.04um          5.6Msz
BBTK   88.59 310 eP    36 25.00  -0.4
BFT    89.02 244 eP    36 27.50  -0.4
IMA    90.00  24 eP    36 30.00  -1.5
        1.5s     9.70nm          4.9mb
CP2    90.39  29 (P)   36 32.39  -1.1
SLR    90.61 244 iPc   36 32.50  -2.7
        1.4s    40.00nm          5.6mb
      Z  20s     4.00um          5.8Msz
                  e    40 01.70
PRY    91.29 243 iPd   36 38.00  -0.3
KAF    92.91 332 eP    36 43.50  -1.3
FRS    93.04 240 eP    36 33.20 -12.9X
VRI    93.14 316 ePc   36 46.50   0.3
MLR    93.70 315 eP    36 47.50  -1.4
NVL    94.40 198 eP    36 53.00   1.4
        1.6s   106.00nm          6.0mb
      Z  18s     1.00um          5.3Msz
      E  18s     0.80um
                  e    37 28.00 136kmX
                  e    38 05.00
                  e    40 26.00
                  LR   20 35.00
UZH    96.02 319 ePd   36 59.00  -0.3
        1.1s    40.00nm          5.8mb
HFS    99.23 331 ePKP  37 11.50  -2.1
        0.8s     1.40nm          4.6mb X
NAO   100.43 332 Pdiff 37 17.40  -1.6
        1.3s    16.80nm          5.4mb
GRF   103.03 321 e(Pdif37 34.00   3.1X
      Z  19s     0.80um          5.3Msz
                  e(PP) 41 56.00
                  e    50 35.00
YKA   107.11  23 ePKP  41 52.60  -5.4X
        1.1s     1.10nm
LCCM  116.95  38 ePKP  42 17.00  -0.5
MSU   120.04  45 ePKP  42 23.06  -0.7
                  e    42 33.36
RSSD  122.59  36 ePKP  42 24.94  -3.4X
GOL   124.16  41 ePKP  42 30.34  -1.3
KIC   124.37 277 PKP   42 31.10  -1.3
TIC   124.63 277 PKP   42 31.70  -1.2
LIC   124.66 276 PKP   42 31.70  -1.3
      Z  20s     0.41um          5.1Msz
MIAR  134.82  40 ePKP  42 51.51  -0.3
PEL   144.17 165 iPKP+ 43 07.20  -1.6
MDZ   144.85 167 ePKP  43 10.50   0.5
MRA   145.88 172 e(PKP)43 12.70   1.0
RTCB  146.21 167 ePKPc 43 14.00   1.6
RTLL  146.43 167 ePKPd 43 14.00   1.3
TCA   147.08 173 ePKP  43 16.50   2.7X
CYA   149.75 170 iPKPd 43 22.50   4.5X
FSA   152.02 169 e(PKP)43 23.50   2.1X
VAO   152.38 207 ePKP  43 23.70   1.6
                  e    43 30.40
                  e    43 42.10
BAO   159.05 215 PKPc  43 32.00   1.1
LPB   160.49 157 PKP   43 29.00  -3.8X
ZOBO  160.70 157 PKP   43 34.00   0.7
        1.2s    23.65nm
                  LR   43 00.00
      S.D. = 1.1  on 143 of 161 obs.
-----------------------------------
*  JAN  03, 1993  05h 20m 15.13± 0.83s
    8.492 S ±14.0km  122.265 E ±14.4km
   DEPTH =  33.0km  (normal)
   4.3mb (  1 obs.)
 FLORES REGION, INDONESIA          (286)

MKS     4.28 319 iPc   21 20.40   0.8
MTN     9.73 117 eP    22 36.00   0.1
        0.4s    67.00nm          6.2mb X
                  eS   24 23.00
NANU   15.41 204 eP    23 52.00   0.1
                  eS   26 35.00
WB2    16.32 135 iPd   24 02.00  -1.6
                  eS   26 55.00
WARB   18.08 167 iPd   24 30.40   4.8X
MEEK   18.38 190 eP    24 33.00   3.8X
ASPA   18.76 145 eP    24 35.70   1.8
                  eS   27 47.50
QIS    20.60 127 eP    24 56.80   2.5X
CHG    35.57 320 eP    27 11.80   0.1
GBA    49.62 296 P     29 04.40  -1.4
        0.6s     2.00nm          4.3mb
LPB   153.10 158 PKP   40 19.00  14.3X
ZOBO  153.32 157 ePKP  40 19.00  13.7X
      S.D. = 1.4  on   7 of  12 obs.
-----------------------------------
   JAN  03, 1993  05h 55m 39.44± 0.47s
   57.970 N ±12.6km   32.495 W ± 6.1km
   DEPTH =  10.0km  (geophysicist)
   4.7mb ( 21 obs.)  4.0Msz (  1 obs.)
 NORTH ATLANTIC OCEAN              (402)

AKU    10.28  35 iP    58 12.00   2.2
        1.8s   290.91nm          6.4mb X
GDH    14.56 329 eP    59 08.00   0.9
                  i    03 24.00
DCN    14.92  97 eP    59 17.50   5.6X
FLN    21.02 102 eP    00 26.80   1.5
        1.5s    74.15nm          4.8mb
      Z  17s     0.15um          3.4MszX
GRR    21.06 103 eP    00 27.20   1.6
        1.6s    84.60nm          4.9mb
LPF    21.19 104 eP    00 28.50   1.5
        1.4s    48.80nm          4.7mb
LDF    21.31 102 eP    00 30.10   1.9
        1.6s    64.70nm          4.8mb
NAO    21.94  64 P     00 32.80  -1.6
        1.4s    22.30nm          4.4mb
SNF    22.52  93 P     00 38.80  -1.4
WIT    22.59  86 eP    00 41.00   0.1
DOU    22.91  94 eP    00 46.90   2.8
WTS    23.07  88 eP    00 44.50  -1.1
        1.0s    13.00nm          4.4mb
ENN    23.25  91 eP    00 47.50   0.1
        1.2s    18.00nm          4.5mb
LSF    23.68 105 eP    00 51.30  -0.4
        1.2s    17.25nm          4.5mb
HAU    25.08  96 eP    01 04.80  -0.4
        1.4s    18.30nm          4.6mb
      Z  21s     0.55um          4.0Msz
CDF    25.32  95 eP    01 06.30  -1.3
        1.5s    33.45nm          4.8mb
BSF    25.42  96 eP    01 08.30  -0.2
        1.4s    15.70nm          4.5mb
MOX    26.35  87 eP    01 15.80  -1.2
        2.0s    53.00nm          4.9mb
GRF    26.67  89 ePc   01 19.40  -0.6
        1.4s    28.00nm          4.8mb
CLL    26.72  85 e(P)  01 17.00  -3.4X
RES    28.20 330 eP    01 38.00   4.5X
        1.0s     3.00nm          4.0mb
KSP    28.72  83 ePc   01 36.80  -1.7
FCC    31.32 298 eP    02 05.50   4.1X
YKA    38.43 312 eP    03 01.80  -0.5
        1.1s     3.50nm          4.0mb
MIAR   46.34 267 eP    04 05.61  -1.4
        1.2s    13.40nm          4.8mb
LCCM   47.65 292 eP    04 16.70  -0.8
FBA    48.07 329 eP    04 18.77  -1.5
        1.0s     6.64nm          4.7mb
GLD    48.63 281 eP    04 27.17   2.0
        1.1s    33.37nm          5.3mb
IMA    48.70 332 iPc   04 25.24  -0.1
        0.9s     3.89nm          4.5mb
DPW    49.27 298 ePc   04 30.07   0.2
DAU    51.27 286 ePc   04 46.04   0.5
EMUT   51.48 285 eP    04 47.74   0.6
SRU    51.86 285 eP    04 50.13   0.3
BONR   56.70 289 ePd   05 26.07   0.6
BCAO   66.47 122 iPc   06 30.00  -1.1
        0.8s    11.00nm          5.1mb
                  id   06 44.90
SIV    77.38 208 P     07 42.50   6.6X
BJI    78.89  24 eP    07 43.00  -0.9
LZH    79.40  35 eP    07 46.50  -0.5
        1.4s    33.00nm          5.1mb
      S.D. = 1.3  on  33 of  38 obs.
-----------------------------------
   JAN  03, 1993  07h 15m 49.38± 0.52s
   39.264 N ± 5.5km   20.796 E ± 3.9km
   DEPTH =   5.0km  (geophysicist)
   4.0mb (  8 obs.)
 GREECE-ALBANIA BORDER REGION      (392)
      ML 4.3 (ATH), 3.9 (TIR).

IGT     0.45 307 iPg   15 57.30  -1.1
                  eSg  16 05.28
SRN     0.87 315 iPgd  16 05.40  -1.1
                  iSg  16 21.40
LSK     0.90 350 ePg   16 05.30  -1.8
VLS     1.10 189 ePn   16 11.90   1.4
AGG     1.22 101 ePb   16 11.08  -1.4
                  eSb  16 28.12
LIT     1.55  57 ePb   16 17.32  -0.4
                  eSb  16 40.36
FNA     1.58  16 iPb   16 18.85   0.7
                  eSb  16 42.20
OHR     1.84   0 iPnd  16 23.50   1.5
                  i    16 27.50
                  i    16 36.20
                  i    16 49.40
                  i    16 52.00
GRG     2.09  36 ePn   16 25.96   0.4
                  eSn  16 56.28
```

03d 07h

```
THE      2.16  50 ePn*  16 27.16   0.7
                  eSn   16 56.16
TIR      2.20 341 ePn   16 28.70   1.6
                  iSn   17 05.50
PAIG     2.32  73 ePn   16 27.84  -1.0
                  eSn   16 58.04
VAY      2.46  33 iPn   16 30.00  -0.8
       0.8s   588.00nm
                  iSn   17 10.00
                  i     17 13.30
                  i     17 28.00
                  Lg    17 32.50
KNT      2.49  40 ePn   16 31.04  -0.1
                  eSn   17 03.68
SOH      2.50  51 ePn   16 30.76  -0.7
                  eSn   17 04.80
OUR      2.68  65 ePn   16 33.40  -0.5
                  eSn   17 08.80
SKO      2.75  10 iPn   16 36.50   1.6
                  i     16 39.00
                  iSn   17 10.90
                  i     17 13.60
                  iSg   17 19.30
                  Lg    17 22.50
SRS      2.83  48 ePn   16 35.33  -0.8
                  eSn   17 11.60
ULC      2.94 337 iPnd  16 37.12  -0.5
                  iSn   17 35.99
SDA      2.95 341 ePn   16 46.60   8.8X
BRT      3.19 301 P     16 41.70   0.5
BDV      3.37 334 iPnd  16 42.69  -1.0
                  iSn   17 44.37
TTG      3.37 340 iPnc  16 44.73   1.0
                  iSn   17 46.95
PVY      3.39 350 iPnd  16 45.85   1.8
                  iSn   17 49.73
TDS      3.47 278 P     16 48.00   2.8
HCY      3.63 332 iPnc  16 45.85  -1.5
                  iSn   17 48.80
IVA      3.67 350 iPnc  16 49.56   1.5
                  iSn   17 56.23
NKY      3.80 340 iPnc  16 49.93   0.0
                  iSn   17 56.79
SOI      3.90 254 P     16 50.30  -0.9
BRY      4.01 336 iPnd  16 52.20  -0.7
                  iSn   17 59.95
MGR      4.14 284 P     16 54.90   0.3
PLE      4.20 346 iPnd  16 56.99   1.5
                  iSn   18 08.12
EZN      4.31  81 eP    16 58.50   1.4
MEU      5.10 247 P     17 07.50  -0.9
IZM      5.12  98 iP    17 08.40  -0.3
SDI      5.85 297 P     17 19.60   0.6
DST      6.07  84 eP    17 23.00   0.9
VBY      7.46 328 iPnc  17 38.60  -2.9X
PTJ      7.53 333 eP    17 39.40  -3.1X
SRO      8.73 349 eP    18 15.30  16.1X
                  e     18 23.20
ZST      9.32 345 eP    18 15.10   7.8X
                  e     26 00.80
SPC      9.93 358 eP    18 31.70  15.8X
WTTA    10.41 323 iPc   18 20.40  -2.1
                  i     20 13.90
                  i     20 19.40
GEC2    10.85 334 Pn    18 25.70  -2.7X
                  Sn    20 26.00
KHC     11.14 335 eP    18 36.00   3.7X
      1.2s     5.00nm          4.8mb
    Z  20s     2.40um          5.3Msz
    N  18s     1.30um
    E  20s     1.80um
                  e     18 42.50
CLL     13.22 338 eP    19 12.00  11.7X
SMF     14.43 306 eP    19 22.30   6.1X
      0.7s     3.00nm          4.1mb
LOR     14.68 308 eP    19 26.30   6.7X
      0.5s     1.15nm          3.7mb
AVF     14.79 306 eP    19 27.10   6.2X
      0.6s     1.55nm          3.7mb
SSF     14.81 307 eP    19 27.40   6.2X
      0.7s     3.65nm          4.0mb
MFF     16.97 302 eP    19 50.10   1.1
      0.6s     4.50nm          3.8mb
NAO     22.46 347 P     20 48.40  -2.1
      1.1s    10.20nm          4.2mb
EKA     22.68 323 P     20 51.00  -1.7
      1.2s    35.30nm          4.7mb
```

```
KAF     23.12   7 eP    20 59.00   2.0
UYO     85.54 311 iPd   28 27.70  -2.1
        S.D. = 1.3  on  42 of  55 obs.
-----------------------------------------
    JAN  03, 1993  07h 19m 52.03± 0.26s
    58.099 N ± 6.4km   32.293 W ± 3.5km
    DEPTH =  10.0km  (geophysicist)
    4.9mb ( 36 obs.)  4.5Msz (  2 obs.)
 NORTH ATLANTIC OCEAN                (402)

AKU     10.11  35 iP    22 21.30   1.2
        1.9s   336.84nm          6.5mb X
GDH     14.51 329 eP    23 18.00  -1.0
                  e     27 15.00
DMU     14.77  96 eP    23 31.10   8.6X
DCN     14.83  98 eP    23 30.00   6.7X
DLF     15.25  97 eP    23 32.10   3.4X
FLN     20.95 103 eP    24 36.20  -0.9
        1.5s   126.40nm          5.1mb
      Z  22s     1.25um          4.2MszX
GRR     20.99 104 eP    24 37.00  -0.5
        1.5s    78.35nm          4.9mb
LPF     21.12 105 eP    24 38.00  -0.8
        1.4s   114.15nm          5.1mb
LDF     21.24 103 eP    24 39.30  -0.7
        1.3s    55.60nm          4.8mb
NAO     21.79  64 P     24 45.40  -0.1
        1.3s    43.00nm          4.7mb
SNF     22.42  94 iPc   24 51.68  -0.1
WIT     22.48  87 eP    24 54.00   1.6
DOU     22.82  94 P     25 01.00   5.2X
WTS     22.96  88 eP    24 58.50   1.4
        1.0s    13.00nm          4.4mb
ENN     23.14  92 eP    24 59.00   0.1
        1.1s    16.00nm          4.5mb
WLF     23.89  94 P     25 07.00   0.9
                  e     25 15.00
TCF     23.94 105 eP    25 06.80   0.1
        1.4s    20.50nm          4.5mb
BGF     24.09 103 eP    25 07.90  -0.2
        1.2s    22.90nm          4.6mb
SSF     24.10 102 eP    25 08.20   0.0
        1.4s    23.95nm          4.6mb
LOR     24.15 101 eP    25 08.60  -0.2
        1.5s    23.50nm          4.6mb
      Z  22s     0.95um          4.2MszX
SMF     24.54 102 eP    25 12.90   0.3
        1.5s    34.45nm          4.8mb
HAU     24.99  97 eP    25 17.70   0.8
        1.4s    37.45nm          4.9mb
      Z  23s     2.22um          4.6MszX
GUD     25.03 122 eP    25 18.00   0.5
CDF     25.23  95 eP    25 19.10  -0.2
        1.3s    24.20nm          4.7mb
BSF     25.33  97 eP    25 21.10   0.9
        1.3s    26.35nm          4.8mb
MOX     26.23  87 ePc   25 28.60   0.1
        1.8s    61.00nm          5.0mb
      Z  18s     2.00um          4.7Msz
GRF     26.56  89 eP    25 32.00   0.4
        1.6s    57.00nm          5.0mb
      Z  22s     1.00um          4.3Msz
CLL     26.61  85 eP    25 32.00   0.1
BRG     27.34  85 e(P)  25 37.70  -0.9
                  e     26 07.00
RES     28.14 330 eP    25 47.50   1.9
GEC2    28.38  89 eP    25 46.70  -1.4
        1.2s    3.28nm          4.0mb
                  e     25 51.90
                  e     25 57.10
FCC     31.35 298 eP    26 18.00   3.7X
SPC     31.64  83 eP    26 18.00   0.8
UZH     33.05  82 eP    26 28.30  -1.0
        1.1s    40.00nm          5.3mb
ULM     36.74 286 eP    27 06.00   5.2X
NRI     45.78  25 eP    28 16.00   1.3
        1.5s    29.00nm          5.0mb
                  e     28 21.00
MIAR    46.46 267 ePc   28 21.26   0.7
        1.2s    18.47nm          5.0mb
LCCM    47.70 292 eP    28 28.40  -2.1
IMA     48.64 332 eP    28 37.94   0.5
        0.8s     4.83nm          4.6mb
GLD     48.71 281 ePc   28 39.92   1.5
        1.3s    51.33nm          5.4mb
GOL     48.83 281 ePc   28 40.18   0.8
        1.7s     7.25nm          4.4mb
```

```
WMOK    49.07 272 iPc   28 41.39   0.4
        1.3s    15.76nm          4.9mb
DPW     49.31 298 ePc   28 42.22  -0.5
EMUT    51.55 285 eP    29 00.34   0.1
SRU     51.93 285 ePc   29 03.33   0.3
BGL     52.18 328 eP    29 04.50   0.0
BRVK    52.71  48 iPc   29 08.00  -0.5
        1.2s    20.00nm          4.9mb
MSU     53.23 285 eP    29 11.39  -1.4
ARUT    54.42 286 eP    29 20.76  -0.7
BONR    56.76 289 eP    29 37.70  -0.8
ELT     58.35  38 eP    29 48.00  -1.1
        2.2s    56.00nm          5.2mb
SEM     58.61  44 ePd   29 50.20  -0.7
        1.8s    36.00nm          5.2mb
BOD     61.36  20 eP    30 08.10  -1.6
        1.2s    12.00nm          4.9mb
MOY     64.12  30 eP    30 29.00   0.9
IRK     64.44  28 ePc   30 29.00  -1.2
        1.3s    30.00nm          5.3mb
ZAK     65.91  29 iPc   30 39.80   0.2
        2.0s    20.00nm          5.0mb
BCAO    66.45 123 iPc   30 42.20  -1.4
        1.0s    35.00nm          5.5mb
                  id    30 47.00
                  id    31 10.10
CIT     66.79  22 eP    30 45.00  -0.3
SIV     77.55 208 iPd   31 54.90   5.5X
BJI     78.73  24 eP    31 56.00   0.4
        1.2s    29.00nm          5.2mb
LZH     79.24  35 eP    31 59.00   0.3
        1.4s    39.00nm          5.2mb
GKN     79.45  53 P     32 00.26   0.2
ZOBO    79.79 215 iPc   32 02.90   0.5
                  LR    58 16.00
KKN     79.91  53 P     32 02.72   0.1
DMN     79.99  53 P     32 03.42   0.3
        1.3s    59.00nm          5.4mb
LPB     80.01 215 P     32 04.00   0.7
GUN     80.06  52 P     32 01.82  -1.7
PKI     80.16  53 P     32 04.30   0.3
KMI     89.01  40 Pc    32 48.50   0.0
        2.0s    40.00nm          5.3mb
WRA    140.66  20 PKP   39 24.90   1.6
        0.9s     0.40nm
      S.D. = 0.9  on  63 of  70 obs.
-----------------------------------------
    JAN  03, 1993  08h 09m 50.21± 0.92s
    49.150 N ± 8.9km    6.868 E ± 7.8km
    DEPTH =  10.0km  (geophysicist)
 GERMANY                            (543)

RUP      0.57  13 ePg   10 00.79  -0.9
WLF      0.70 318 iPd   10 03.31  -0.6
                  iS    10 12.54
ABH      0.86  31 ePg   10 06.53  -0.2
FEL      1.49 149 ePg   10 17.62   0.5
TNS      1.49  43 ePnc  10 18.20   1.2
                  ePbd  10 20.60
                  eSn   10 34.00
ENN      1.73 340 eP    10 22.50   2.0
       0.6s     11.00nm
                  eS    10 45.00
DOU      1.76 303 P     10 20.30  -0.5
                  i     10 22.70
                  iS    10 42.00
SNF      2.16 310 P     10 26.40  -0.3
                  i     10 31.40
GEC2     4.51  91 Pn    10 59.00  -1.2
                  Sn    11 48.60
                  Sg    12 15.20
      S.D. = 1.2  on   9 of   9 obs.
-----------------------------------------
%   JAN  03, 1993  08h 15m 13.58± 8.14s
    33.804 S ±21.7km   71.916 W ±66.9km
    DEPTH =  33.0km  (normal)
 NEAR COAST OF CENTRAL CHILE        (135)
      MD 3.5 (SAN).

LCCH     0.44  41 iPd   15 21.47  -1.8
                  iS    15 29.86
LNV      0.45 110 iPd   15 21.84  -1.5
                  iS    15 30.37
TACH     0.83  80 iP    15 27.75  -1.1
                  iS    15 42.84
CHCH     1.06  97 iP    15 31.55  -0.6
                  iS    15 48.69
```

```
ROCH     1.12  43 iP    15 33.00  -0.3
                iS    15 49.97
CACH     1.14 106 iP    15 34.60   1.2
                iS    15 52.97
PCH      1.18  82 iP+   15 33.56  -0.4
                iS    15 53.03
PEL      1.22  58 iPd   15 35.20   0.7
                iS    15 53.92
FCH      1.44  71 iPd   15 38.07   0.2
                iS    16 00.20
JACH     1.57  45 iPd   15 40.41   0.8
                iS    16 03.70
     S.D. = 1.1  on  10 of  10 obs.
-----------------------------------
?  JAN  03, 1993  08h 32m 00.53± 3.25s
   5.288 S ±14.3km  149.094 E ±61.6km
   DEPTH =  33.0km  (normal)
   5.0mb (  1 obs.)
 NEW BRITAIN REGION, P.N.G.        (192)

FINC     1.80 223 eP    32 30.00   0.2
MDG      3.30 270 eP    33 00.00   8.9X
PMG      4.52 205 eP    33 08.00  -0.5
                eS    33 47.00
WB2     20.44 223 iPd   36 37.40  -0.6
        0.3s    20.30nm          5.0mb
                eS    40 11.70
ASPA    23.41 217 iPd   37 08.70   1.0
        0.7s  2464.60nm          6.8mb X
                eS    41 10.80
GUN     69.24 302 P     43 06.14  -1.0
PKI     69.53 302 P     43 11.84   3.0X
KKN     69.70 302 P     43 09.82   0.0
DMN     69.80 302 P     43 11.22   0.8
GKN     70.31 302 P     43 09.42  -4.0X
     S.D. = 0.9  on   7 of  10 obs.
-----------------------------------
   JAN  03, 1993  09h 34m 29.59± 0.46s
   51.920 N ± 7.0km  153.143 E ± 5.1km
   DEPTH = 409.9 ±  6.1 km
   4.4mb ( 22 obs.)
 NORTHWEST OF KURIL ISLANDS        (220)

SKR      2.24 123 iPnd  35 26.80  -1.6
                eS    36 12.50
PET      3.54  70 ePn   35 39.00   0.5
                eS    36 33.50
KUR      7.55 210 ePn   36 19.70  -0.6
YSS      8.37 238 iPnc  36 31.00   1.3
                eS    38 08.80
YAK     16.19 318 iPd   37 55.50  -0.2
        0.5s    59.00nm          5.3mb
                eS    40 45.00
MAT     18.67 220 iPd   38 21.50   0.9
        0.8s    23.13nm          4.7mb
ILT     21.03  30 eP    38 45.00   1.9
TIK     22.54 340 iPd   38 58.00   0.8
        1.2s    30.00nm          4.6mb
BOD     22.93 300 eP    39 01.30   0.4
        0.5s     7.00nm          4.4mb
CIT     24.16 286 eP    39 13.50   1.2
IMA     29.74  41 eP    40 01.46  -0.2
        0.6s     4.07nm          4.0mb
ZAK     30.82 287 eP    40 12.20   1.2
        1.1s    20.00nm          4.4mb
SLKM    31.70  52 eP    40 17.81  -0.7
KLU     33.57  49 (P)   40 34.25  -0.1
UER     35.69 293 eP    40 51.80  -0.3
ELT     39.31 299 eP    41 22.20   0.3
        1.0s    20.00nm          4.4mb
NVS     40.23 303 iPd   41 29.80   0.5
        1.0s    30.00nm          4.6mb
YKA     46.84  39 eP    42 21.20  -0.3
        0.7s     3.60nm          3.8mb
BRVK    47.74 306 iPd   42 28.00  -0.6
        1.6s    22.00nm          4.3mb
CHG     53.50 253 ePc   43 11.40  -0.2
        0.8s    13.99nm          4.3mb
LCCM    58.41  55 iPd   43 46.30   0.4
KAF     58.78 334 iP    43 46.60  -1.4
        0.6s     6.40nm          4.2mb
NUR     60.56 334 eP    43 58.50  -1.4
        0.5s     6.10nm          4.3mb
DUG     61.88  60 eP    44 10.00   0.9
MSU     63.44  61 eP    44 19.49   0.2
RSSD    63.53  52 eP    44 20.00   0.2
        0.8s     7.68nm          4.4mb
```

```
NAO     63.62 340 P     44 18.70  -1.2
        0.8s     7.20nm          4.3mb
HFS     63.63 339 eP    44 18.40  -1.5
        0.4s     2.70nm          4.2mb
SRU     63.89  59 eP    44 22.40   0.3
PV10    65.22  59 (P)   44 31.33   0.6
PV08    65.28  59 eP    44 31.54   0.4
HYB     67.00 269 eP    44 40.70  -1.1
GBA     70.60 267 P     45 02.00  -1.4
CLL     71.77 335 iPc   45 09.60  -0.2
PRU     72.56 333 P     45 14.40   0.0
WB2     73.42 198 iPc   45 19.40  -0.2
        0.5s     6.60nm          4.5mb
WRA     73.42 198 P     45 14.40  -5.2X
        0.5s     1.30nm          3.8mb
KHC     73.60 334 eP    45 20.00  -0.5
GRF     73.72 335 ePc   45 21.80   0.7
        0.7s     7.00nm          4.4mb
GEC2    73.83 333 ePd   45 21.60  -0.2
        0.4s     1.53nm          3.9mb
KBA     75.53 333 iPc   45 32.40   0.9
        0.8s    14.90nm          4.8mb
ASPA    77.13 198 eP    45 40.70   0.4
        0.5s    10.80nm          4.8mb
     S.D. = 0.9  on  41 of  42 obs.
-----------------------------------
   JAN  03, 1993  10h 10m 14.88± 1.89s
   44.159 N ± 8.3km  128.847 W ±15.1km
   DEPTH =  10.0km  (geophysicist)
   3.8mb (  3 obs.)
 OFF COAST OF OREGON               ( 30)

BMW      4.59  58 eP    11 25.61  -0.4
                e     11 33.64
PGO      4.73  72 P     11 27.48  -0.5
RVW      4.75  63 P     11 28.05  -0.2
GT2      4.80  76 P     11 27.93  -1.0
CPW      4.90  53 P     11 30.08  -0.3
LVP      4.94  65 P     11 32.45   1.4
SMW      4.98  49 P     11 31.09  -0.4
CZM      5.02  61 P     11 31.47  -0.6
FL2      5.02  64 P     11 31.83  -0.4
VLMM     5.03  72 P     11 31.24  -1.1
MTMW     5.06  66 P     11 31.55  -1.1
ERK      5.07  63 P     11 33.51   0.7
SHW      5.10  64 eP    11 34.87   1.6
                e     11 41.29
                eS    12 37.07
OBC      5.10  39 P     11 33.11  -0.1
OSD      5.12  43 P     11 35.96   2.3
REMW     5.13  64 P     11 35.07   1.2
YEL      5.13  64 P     11 35.21   1.4
BPO      5.15  82 P     11 33.94  -0.2
TDH      5.15  75 P     11 33.38  -0.7
TDL      5.17  63 P     11 33.50  -0.8
SOSW     5.18  64 P     11 35.62   1.3
LMW      5.25  59 P     11 35.60   0.2
VBEM     5.26  78 P     11 35.57   0.0
VLL      5.26  73 P     11 34.28  -1.3
HDW      5.34  47 P     11 36.89   0.3
VFP      5.39  75 P     11 36.29  -1.1
GMW      5.42  49 eP    11 37.41  -0.3
                e     11 47.97
                eS    12 35.06
GULW     5.43  69 P     11 38.11   0.1
GHW      5.44  56 P     11 38.55   0.6
ASR      5.50  66 P     11 37.95  -1.0
RVC      5.57  58 P     11 39.99   0.1
LON      5.59  60 eP    11 39.43  -0.7
GLK      5.64  62 P     11 41.32   0.4
CROR     5.68  79 P     11 43.69   2.3
WPW      5.73  61 P     11 41.33  -0.9
FMW      5.75  59 P     11 42.11  -0.4
GSM      5.80  56 P     11 43.67   0.5
VGB      5.90  74 eP    11 44.55   0.1
RMW      5.93  54 eP    11 44.83   0.0
                e     11 53.71
MCW      6.14  40 eP    11 47.97   0.1
JCW      6.27  48 P     11 50.04   0.3
CMW      6.32  45 P     11 50.74   0.3
TBM      6.52  60 P     11 53.84   0.6
JBO      6.54  75 P     11 53.02  -0.5
RPW      6.65  47 P     11 55.33   0.3
MBW      6.66  44 P     11 55.86   0.5
MDW      6.85  66 P     11 58.84   1.0
ETW      6.87  57 P     11 57.93  -0.3
LOCW     7.10  66 P     12 01.60   0.3
```

```
EPH      7.22  60 P     12 02.37  -0.6
ET3      7.39  67 P     12 05.49   0.2
OD2      7.79  62 P     12 10.03  -1.0
DPW      8.29  60 eP    12 16.26  -1.7
                e     12 24.82
NEW      9.11  59 eP    12 27.69  -1.6
        0.9s    10.80nm          5.2mb X
BONR    10.09 124 eP    12 43.18   0.1
LCCM    12.13  76 eP    13 12.70   1.9
ARUT    13.26 113 eP    13 35.34   9.5X
                e     13 41.52
MSU     13.73 109 eP    13 39.11   7.0X
SRU     14.59 104 eP    13 50.31   6.9X
PV08    16.14 103 eP    14 08.54   4.8X
RSSD    17.80  81 eP    14 23.62  -0.7
        1.2s     8.46nm          3.7mb
YKA     20.15  19 eP    14 50.50  -1.2
        1.1s     2.60nm          3.5mb
WMOK    24.93 102 eP    15 40.31   0.8
        1.1s    15.68nm          4.6mb
     S.D. = 0.9  on  59 of  63 obs.
-----------------------------------
?  JAN  03, 1993  10h 33m 13.20± 0.91s
   22.985 S ±15.2km  67.085 W ±13.4km
   DEPTH = 195.9 ± 14.3 km
   3.4mb (  1 obs.)
 CHILE-BOLIVIA BORDER REGION       (124)

HJA      1.56  99 iPd   33 48.20   0.8
                S     34 15.00
SLA      2.27 140 iPd   33 54.00  -0.8
ANT      3.14 256 iP+   34 05.00   0.2
                iS    34 42.50
LPB      6.49 351 P     34 47.50  -0.5
SIV      8.97  40 iPc   35 23.80   3.7X
                (S)   37 00.00
YKA     93.15 340 eP    46 05.70   0.2
        0.6s     0.20nm          3.4mb
     S.D. = 1.3  on   5 of   6 obs.
-----------------------------------
%  JAN  03, 1993  10h 57m 08.09± 0.44s
   38.633 S ± 4.0km  174.498 E ± 5.6km
   DEPTH =  33.0km  (normal)
 NORTH ISLAND, NEW ZEALAND         (159)
      ML 3.8 (WEL).

MOZ      0.27  62 Pd    57 14.20  -1.3
                S     57 18.80
NRZ      0.83 212 P     57 23.80   0.5
CNZ      1.00 125 P     57 25.20  -0.7
NGZ      1.02 123 P     57 25.50  -0.7
WLZ      1.15  49 P     57 28.60   0.7
                S     57 43.50
BSZ      1.21 164 P     57 29.00   0.2
UTU      1.41  72 eP    57 31.60   0.0
KUZ      2.12  28 P     57 42.10   0.3
                S     58 06.50
MNG      2.12 159 P     57 42.90   0.9
DIW      2.21 191 eP    57 43.20   0.0
KIW      2.25 172 P     57 44.30   0.6
CAW      2.51 170 eP    57 48.10   0.6
TCW      2.58 184 P     57 48.40   0.0
MRW      2.60 177 eP    57 49.40   0.[illegible]
ORZ      2.67 214 P     57 48.90  -0.[illegible]
WCZ      2.69 357 P     57 50.50   0.5
THZ      3.36 201 P     57 59.20  -0.3
DSZ      3.73 213 P     58 03.80  -1.0
KHZ      3.85 191 P     58 06.60   0.2
LTZ      4.48 202 P     58 14.90  -0.5
MOZ      5.26 195 eP    58 22.90  -3.4X
                eS    59 18.00
     S.D. = 0.7  on  20 of  21 obs.
-----------------------------------
&  JAN  03, 1993  11h 31m 33.52s
   34.331 N          116.918 W
   DEPTH =   4.8km
 SOUTHERN CALIFORNIA               ( 43)
      <PAS-P>. ML 2.9 (PAS).

PEC      0.48 205 iPd   31 42.54  -0.6
SSK      0.65 260 iPc   31 45.83  -0.8
GSC      0.97   5 ePd   31 51.54  -1.0
PLM      0.98 177 ePd   31 51.59  -1.1
                eS    32 05.28
ISA      1.84 317 ePn   32 04.26  -1.9
GLA      2.16 126 (P)   32 07.31  -3.4
TNP      3.75 356 ePg   32 42.68   9.1
```

03d 11h

```
BONR     3.79 343 ePg*  32 43.84    9.7
         8 obs. associated
-------------------------------------
&  JAN  03, 1993  11h 46m 41.13s
   34.610 N          116.636 W
   DEPTH =   3.0km
 SOUTHERN CALIFORNIA                ( 43)
      <PAS-P>. ML 3.0 (PAS).

GSC      0.70 349 ePd    46 54.48   -0.7
PEC      0.84 211 ePc    46 56.73   -1.1
SSK      0.96 246 ePc    46 59.10   -1.1
                  eS     47 11.81
PLM      1.27 189 ePc    47 04.66   -0.8
ISA      1.84 305 ePn    47 12.17   -1.7
                  ePg    47 14.66
GLA      2.16 135 ePn    47 16.74   -1.9
MTUM     3.15 331 ePg    47 39.69    6.9
TNP      3.50 352 ePn    47 36.52   -1.2
MEMM     3.57 329 ePg    47 47.53    9.0
BONR     3.60 339 ePn    47 38.53   -0.7
                  ePg    47 48.97
         10 obs. associated
-------------------------------------
*  JAN  03, 1993  12h 02m 06.62± 1.01s
   28.041 S ± 9.8km    66.542 W ±15.5km
   DEPTH = 187.0 ± 11.5 km
 CATAMARCA PROVINCE, ARGENTINA     (130)

CYA      0.77 122 iPd    02 33.50   -0.4
                  S      02 52.00
FSA      2.01  14 iPd    02 44.50   -0.1
RTPR     2.25 179 ePd    02 48.10    0.8
                  S      03 12.90
TCA      3.70 153 iP     03 04.60   -0.2
                  S      03 47.80
CFA      3.85 202 ePd    03 06.90    0.3
                  S      03 51.00
RTCV     4.18 204 eP     03 11.00    0.1
                  S      03 59.00
RFA      6.91 193 e(P)   03 45.60   -0.8
                  (S)    04 59.00
VAO     18.36  79 (P)    06 10.00    0.2
      S.D. = 0.6  on   8 of   8 obs.
-------------------------------------
&  JAN  03, 1993  12h 21m 22.24s
   63.047 N          149.715 W
   DEPTH =  93.1km
 CENTRAL ALASKA                     (  1)
      <AEIC>.

HUR      0.08 153 eP     21 35.09    1.3
                  eS     21 45.48
RND      0.53  47 eP     21 37.65   -0.2
                  eS     21 49.14
MCK      0.77  27 eP     21 39.93   -0.1
                  eS     21 53.67
GHO      1.33 164 eP     21 46.28   -0.2
                  S      22 05.39
SKT      1.36 219 eP     21 46.37   -0.4
                  eS     22 04.46
SML      1.40 152 eP     21 46.70   -0.6
PWA      1.40 183 eP     21 47.49    0.2
                  eS     22 06.74
PLRM     1.49 169 eP     21 48.53    0.2
                  S      22 08.81
NEA      1.56  10 eP     21 48.34   -1.0
SCM      1.65 137 eP     21 49.76   -0.8
SUA      1.66 197 eP     21 50.64   -0.1
KNK      1.74 160 eP     21 51.12   -0.6
PMS      1.81 178 eP     21 53.31    0.7
CCB      1.82  27 iP     21 51.99   -0.6
                  eS     22 14.31
HDA      1.84  41 eP     21 52.35   -0.6
                  eS     22 15.38
TOA      1.89 118 eP     21 53.58   -0.1
PAX      1.94  90 eP     21 54.17   -0.2
                  eS     22 18.82
SDG      1.99 103 eP     21 54.72   -0.2
                  S      22 20.55
FBA      2.04  24 eP     21 54.99   -0.7
CGLM     2.05 213 eP     21 55.53   -0.3
                  eS     22 21.53
CRP      2.12 214 eP     21 56.61   -0.3
CP2      2.15 215 iP     21 57.18   -0.1
CKN      2.17 213 eP     21 57.40    0.1
SPU      2.17 211 eP     21 56.77   -0.7
BGL      2.19 216 eP     21 57.70    0.0
GLM      2.20  27 eP     21 57.27   -0.6
PTE      2.21 171 eP     21 58.45    0.5
TZL      2.23 115 eP     21 58.15    0.0
CKL      2.23 215 eP     21 57.71   -0.5
KLU      2.36 130 eP     21 58.64   -1.4
VLZ      2.50 139 eP     22 01.65    0.0
GLI      2.50 149 eP     22 00.12   -1.7
SLKM     2.56 186 iP     22 02.56   -0.1
MPA      2.57 176 eP     22 03.56    0.8
TTA      2.88 270 eP     22 06.45   -0.6
REF      2.93 210 eP     22 07.24   -0.7
CVA      3.14 141 eP     22 09.56   -0.9
GLB      3.20 118 eP     22 10.06   -1.3
         38 obs. associated
-------------------------------------
*  JAN  03, 1993  16h 48m 12.42± 0.64s
   28.871 N ±11.5km    52.084 E ±11.4km
   DEPTH =  33.0km  (normal)
   4.0mb (  2 obs.)
 SOUTHERN IRAN                      (353)

DHR      3.09 214 ePc    49 15.50   15.6X
RYD      6.40 231 eP     49 48.50    1.5
AFIF     9.28 241 eP     50 32.00    4.9X
MAIO     9.69  38 eP     50 33.00    0.3
QUE     13.01  81 eP     51 17.90    0.1
KMTA    13.59 220 eP     51 24.67   -0.9
DHJN    13.66 217 eP     51 25.00   -1.5
KAF     37.32 340 eP     55 22.90   -0.1
NAO     42.11 331 P      56 01.00   -1.8
         0.7s      1.80nm          3.9mb
KIC     58.00 259 P      58 05.30    0.7
TIC     58.10 259 P      58 06.00    0.7
LIC     58.32 259 P      58 07.40    0.6
PCI     71.07 102 ePd    59 44.00   14.4X
YKA     88.33 354 eP     01 02.00    0.3
         0.8s      0.80nm          4.1mb
      S.D. = 1.1  on  11 of  14 obs.
-------------------------------------
   JAN  03, 1993  17h 08m 13.82± 0.14s
    4.064 S ± 3.3km   129.512 E ± 3.6km
   DEPTH =  53.7km  (  6 depth phases)
   5.8mb ( 78 obs.)
 BANDA SEA                          (280)
      Mw 5.8 (HRV).
      CENTROID, MOMENT TENSOR       (HRV)
      Data Used: GDSN
      L.P.B.: 24S, 44C
      Centroid Location:
      Origin Time        17:08:14.4 0.4
      Lat  4.13S 0.03 Lon 129.41E 0.04
      Dep  20.3 1.8 Half-duration  1.8
      Moment Tensor;   Scale 10**17 Nm
        Mrr= 3.96 0.17  Mtt=-5.50 0.17
        Mff= 1.54 0.27  Mrt= 1.38 0.40
        Mrf= 1.35 0.33  Mtf= 2.41 0.13
       Principal Axes:
        T  Val=  5.07  Plg=58  Azm=295
        N        1.26      31       103
        P       -6.33       5       196
      Best Double Couple:Mo=5.7*10**17
       NP1:Strike=316 Dip=48 Slip= 134
       NP2:         80      58        52

SLKI     4.28 156 iPc    09 18.00    0.0
TNE      5.30 336 eP     09 30.20   -2.2
MTN      8.87 170 eP     10 19.00   -3.1X
         0.3s   423.00nm          6.9mb X
MKS     10.07 263 iPd    10 40.70    2.1
PCI     10.16 288 ePc    10 41.70    1.9
DAV     11.75 340 eP     11 03.80    2.4
TSM     14.29 305 eP     11 33.00   -1.8
KHKI    14.46 252 ePd    11 39.30    2.2
                  e      19 44.00
MDG     16.26  95 eP     12 00.30    0.1
KKM     16.65 307 ePd    12 05.50    0.3
         1.2s   317.10nm          5.3mb
TRT     17.17 257 iPd    12 13.50    1.8
PMG     18.31 108 eP     12 24.00   -1.7
QIS     19.11 150 iPc    12 34.00   -1.4
ASPA    19.94 168 iPc    12 42.20   -2.1
         0.6s   320.20nm          5.8mb
      Z  21s     19.20um
                  eS     16 18.60
OCP     20.37 336 eP     12 58.00    9.3X
BAG     22.18 337 ePc+   13 06.80   -0.3
         1.6s  2466.67nm          6.4mb
                  eS     17 12.00
RAB     22.59  91 iPd    13 11.00    0.0
         0.6s   266.67nm          5.8mb
                  iS     17 20.00
CTA     22.80 136 iPc    13 12.50   -0.5
         1.0s   115.00nm          5.3mb
                  iS     16 59.00
GUA     23.23  41 eP     13 17.10   -0.1
         1.0s   264.00nm          5.6mb
                  eS     17 26.00
PJG     23.23  41 eP     13 17.80    0.6
KLI     24.59 267 eP     13 31.00    0.5
MEEK    24.75 204 eP     13 30.30   -1.6
KGM     26.86 283 ePd    13 52.50    0.9
MRWA    28.11 206 eP     14 01.00   -1.8
KLM     28.74 284 eP     14 13.00    4.4X
RMO     28.92 142 eP     14 08.70   -1.4
         1.0s    49.00nm          5.1mb
                  e      14 57.50 247kmX
BAL     29.04 203 eP     14 10.00   -1.1
PPI     29.31 276 ePd    14 12.50   -1.2
         1.0s    20.50nm          4.7mb X
KLB     29.53 201 eP     14 14.00   -1.5
IPM     29.73 286 ePc    14 16.00   -1.5
         0.9s   394.90nm          6.1mb
STK     29.91 159 iPd    14 17.50   -1.4
         0.4s    17.80nm          5.1mb
                  eS     19 16.60
QIZ     30.02 320 P      14 19.30   -0.7
      N  11s      4.52um
                  S      19 16.50
HKC     30.20 331 P      14 21.70    0.2
QZH     30.72 340 iPc    14 25.00   -1.1
         1.4s   220.00nm          5.7mb
      Z  14s      3.66um          5.2MszX
      N  13s      3.05um
                  S      19 27.00
SNG     30.92 291 eP     14 28.50    0.5
                  eS     19 50.00
GZH     31.26 330 P      14 30.00   -0.8
         1.5s   170.00nm          5.6mb
      Z  30s      6.24um          5.1MszX
      N  12s      3.37um
      E  10s      3.12um
CMS     31.30 152 eP     14 30.00   -1.1
         0.7s    10.00nm          4.7mb X
                  e      16 28.20
ADE     31.91 166 eP     14 36.00   -0.5
BRS     32.11 139 iPc    14 34.00   -4.3X
         1.0s    25.00nm          5.0mb
                  iS     19 48.00
RKG     32.50 199 eP     14 43.00    1.4
ARMA    33.51 144 eP     14 50.50   -0.1
         0.9s    38.00nm          5.3mb
NNT     33.90 300 eP     14 53.20   -0.8
LOE     34.74 309 ePd    15 02.10    0.9
                  e      28 47.00
BWA     34.94 152 eP     15 03.20    0.4
NST     35.07 305 eP     15 11.20    7.2X
SSE     35.85 348 Pc     15 10.00   -0.4
         1.5s   280.00nm          6.0mb
      Z  20s      4.60um          5.2Msz
      N  14s      2.20um
      E  14s      3.80um
                  sP     15 28.00
KHT     35.91 302 eP     15 11.30    0.2
CAN     35.95 152 eP     15 11.60    0.3
                  e      15 29.10  71kmX
CNB     36.12 152 eP     15 13.00    0.3
         1.0s    55.00nm          5.4mb
TOO     36.42 158 eP     15 15.90    0.7
         0.5s    27.00nm          5.4mb
BDT     36.82 306 eP     15 18.00   -0.7
         1.0s   165.60nm          5.9mb
NJ2     37.32 345 Pc     15 23.00    0.3
         1.6s   300.00nm          6.0mb
      Z  20s      1.24um          4.7Msz
      N  12s      1.18um
      E  13s      0.91um
                  pP     15 41.00  73kmX
                  S      21 08.00
WHN     37.34 338 Pc     15 24.00    1.1
         1.5s   300.00nm          6.0mb
      Z  30s      4.67um          5.1MszX
      E  11s      2.41um
                  pP     15 32.50  29kmX
```

```
                S     21 08.00
GYA   37.55 325 iPc   15 25.00   0.1
      1.0s    77.00nm          5.6mb
   Z  18s      2.97um          5.1Msz
   N  14s      2.83um
   E  14s      1.64um
                sP    15 39.40
                S     21 10.00
                sS    21 30.00
CHG   37.72 308 ePc   15 26.80   0.5
      0.9s    89.29nm          5.7mb
                eS    21 20.80
KMI   38.96 320 Pc    15 37.50   0.6
      1.8s   600.00nm          6.1mb
   Z  20s      3.70um          5.2Msz
   N  12s      2.30um
   E  13s      2.20um
                pP    15 46.00  29kmX
                sP    15 51.00
DZM   40.01 120 iPc   15 42.70  -2.8
MAT   41.20  11 iPc+  15 53.40  -1.6
      1.6s   283.33nm          5.8mb
   Z  20s      4.96um          5.4Msz
                eS    22 06.00
TIA   41.71 345 Pc    15 58.30  -0.8
      1.6s   150.00nm          5.5mb
   Z  42s      5.50um          5.1MszX
   E  12s      2.35um
                sP    16 17.00
                S     22 13.00
CD2   42.59 327 eP    16 05.60  -0.8
      1.6s   260.00nm          5.7mb
   Z  20s      3.74um          5.3Msz
   E  10s      2.91um
                sP    16 30.00
                S     22 25.00
XAN   42.59 334 P     16 05.30  -1.1
      1.2s    89.00nm          5.4mb
   Z  35s      6.45um          5.3MszX
   N  12s      1.55um
   E  12s      2.06um
                PP    17 50.50
                PcS   21 48.00
                S     22 20.00
DL2   43.37 351 Pc    16 12.00  -0.6
      1.4s   350.00nm          5.9mb
   Z  16s      1.89um          5.1MszX
   N  16s      2.52um
   E  16s      1.89um
                S     22 38.00
TIY   44.49 341 iPc   16 21.00  -0.8
      1.3s   130.00nm          5.6mb
   Z  26s      3.67um          5.2MszX
   N  12s      1.76um
                sP    16 39.00
                PP    18 05.00
                S     22 54.00
                sS    23 11.00
BJI   45.57 346 eP    16 29.50  -0.7
      1.5s   490.00nm          6.2mb
   Z  28s      2.07um          4.9MszX
   N  13s      1.05um
                eS    23 10.00
                eSS   26 24.00
SNY   45.99 354 iPc   16 32.00  -1.5
      1.4s   240.00nm          5.9mb
   Z  22s      3.84um          5.3Msz
   N  15s      2.01um
                pP    16 51.00  77kmX
                PP    18 20.00
                SS    26 34.00
LZH   46.61 331 Pc    16 38.50  -0.2
      1.5s   420.00nm          6.1mb
   Z  29s      5.52um          5.3MszX
   N  12s      1.38um
                PcP   18 05.50
                PcS   22 02.50
                S     23 25.00
                SS    26 43.00
VLA   47.01   2 iPd   16 42.00   0.4
      1.2s   184.00nm          5.9mb
                i     17 07.00 106kmX
                i     18 20.00
                i     18 29.00
                iS    23 39.00
                i     23 40.00
                i     26 30.00
HHC   47.62 342 Pc    16 46.00  -0.6
      1.4s   170.00nm          5.8mb
   Z  26s      2.26um          5.0MszX
   N  10s      0.79um
   E  13s      0.81um
                sP    17 10.00
                S     23 41.00
CN2   47.79 356 Pc    16 47.00  -0.7
      1.2s    23.00nm          5.0mb
   Z  18s      3.70um          5.4Msz
   N  14s      1.57um
   E  14s      0.77um
                pP    17 04.00  67kmX
                ePcP  18 16.00
                eScP  22 02.00
                eS    23 39.00
                eSS   27 05.00
BTO   47.90 340 iPd   16 48.00  -0.8
      1.2s    42.00nm          5.3mb
   N  12s      0.97um
   E  15s      1.33um
                PP    18 36.00
                S     23 33.00
MDJ   48.46   0 eP    16 53.00   0.2
      1.5s   260.00nm          6.0mb
   Z  24s      5.29um          5.4MszX
   N  10s      0.99um
   E  10s      1.01um
                sP    17 08.00
                eS    23 55.00
LSA   49.77 315 iPc   17 04.00   0.2
      0.6s    51.00nm          5.7mb
                sP    17 23.00
                S     24 10.00
GTA   51.19 330 iPc   17 13.50  -0.5
      1.5s   130.00nm          5.7mb
   Z  30s      6.05um          5.4MszX
   E  12s      1.05um
                pP    17 22.50  30kmX
                sP    17 29.00
                S     24 29.00
                sS    24 46.00
KUR   51.74  16 eP    17 18.00   0.1
      1.0s   380.00nm          6.4mb
                eS    24 35.00
YSS   52.18  11 eP+   17 20.00  -1.2
      1.6s    50.00nm          5.3mb
   Z  18s      2.50um          5.3Msz
   N  18s      1.50um
                esP   17 44.00 338kmX
                e     18 31.00
                eS    24 42.00
                ePS   24 56.00
                eSSS  29 57.00
GUN   52.69 310 Pc    17 24.38  -1.4
      0.6s   244.00nm          6.4mb
PKI   52.88 309 Pc    17 25.52  -1.7
KKN   53.09 309 Pc    17 26.98  -1.6
DMN   53.13 309 Pc    17 27.52  -1.4
ORZ   53.18 140 P     17 28.50  -0.3
GKN   53.69 309 Pc    17 31.36  -1.5
KOD   53.74 286 eP    17 32.80  -0.8
THZ   53.91 141 P     17 34.20   0.0
GBA   54.57 290 Pc    17 37.00  -2.3
      0.7s    24.00nm          5.3mb
HYB   54.62 295 ePc   17 37.80  -2.0
      1.4s   425.00nm          6.3mb
KHZ   54.66 141 P     17 38.10  -1.5
MNG   55.01 138 eP    17 40.40  -1.8
WAHZ  55.17 137 P     17 42.00  -1.4
PAHZ  55.27 136 eP    17 44.00  -0.2
TTH   55.42 136 eP    17 43.90  -1.2
HBZ   55.61 134 eP    17 45.60  -1.0
NOZ   55.86 135 eP    17 48.00  -0.3
CIT   57.47 348 eP    18 00.00   0.4
   Z  20s      2.16um          5.3Msz
                e     21 38.00
                eS    25 55.00
ZAK   58.75 341 iPc+  18 08.20  -0.3
      1.7s   208.00nm          6.0mb
                epP   18 28.00  77kmX
                eS    26 14.00
                e     27 46.50
                eSSS  32 30.00
POO   59.23 294 iPc   18 08.90  -3.5X
                iPP   20 24.00
NDI   59.84 306 iPc   18 13.00  -3.4X
      0.6s    46.67nm          5.8mb
                eS    26 25.00
IRK   60.06 342 eP+   18 17.00  -0.6
      1.6s   200.00nm          6.0mb
   Z  15s      1.01um          5.1MszX
   N  21s      0.39um
   E  20s      0.91um
                e     19 06.00 214kmX
                ePPP  22 06.00
                iS    26 31.00
                e     26 38.00
                ePS   26 48.00
BOM   60.27 294 iP    18 17.60  -1.9
                eS    25 39.00
MOY   60.62 340 iPc   18 22.00   0.7
      1.6s   435.00nm          6.3mb
                eS    26 37.70
WMO   60.69 326 iPc   18 21.20  -0.9
      1.0s   980.00nm          6.9mb X
   Z  30s      3.37um          5.3MszX
                PcP   18 58.00
                S     26 36.00
PET   61.95  19 eP    18 30.00  -0.3
      1.0s    60.00nm          5.7mb
                eS    26 56.00
UER   63.11 336 iP    18 37.00  -0.9
      2.0s   210.00nm          5.9mb
                e     22 37.00
                eS    27 04.00
                e     27 17.00
CSY   63.52 188 iPd   18 39.50  -1.0
      0.8s    19.40nm          5.2mb
KSH   65.51 317 P     18 54.50   0.4
      0.8s    60.00nm          5.7mb
   Z  20s      1.87um          5.3Msz
   E  16s      2.39um
                pP    19 13.00  70kmX
                PcP   19 22.00
                PP    21 18.00
                eS    27 40.00
YAK   65.89   0 iPc+  18 54.80  -1.0
      1.2s   410.00nm          6.3mb
                e     19 23.00 114kmX
                iS    27 41.00
                ePS   28 00.00
                e     28 50.00
MGD   66.12  11 eP+   18 56.00  -1.4
      1.5s   290.00nm          6.1mb
   Z  18s      1.10um          5.1Msz
   N  18s      1.60um
                i     19 10.00  50km
                i     19 16.00
                e     21 28.00
                ePPP  23 08.00
                iS    27 45.00
                iPS   28 12.00
                e     28 44.00
                eSS   32 00.00
ELT   67.64 334 iPc   19 06.10  -1.0
      1.8s   312.00nm          6.0mb
                e     21 33.00 787kmX
                iS    28 01.00
SMY   67.91  27 P     19 20.00  11.2X
   Z  21s      4.88um          5.7Msz
FRU   68.02 320 iP    19 09.40  -0.4
      3.6s   750.00nm          6.1mb X
   Z  24s      2.00um          5.3MszX
   E  24s      3.00um
                i     19 33.00  92kmX
QUE   68.73 304 eP    19 13.90  -0.7
                eS    28 32.90
SEM   68.75 329 iPc   19 12.90  -1.2
      2.0s   352.00nm          6.0mb
                i     19 36.20  90kmX
                i     19 38.90
                e     21 46.00
                eS    28 08.00
ADK   71.95  32 (P)   19 32.27  -1.2
      1.2s    78.60nm          5.5mb
HON   75.26  67 P     20 00.00   6.7X
   Z  19s      1.34um          5.2Msz
BRVK  75.41 328 iPc   19 53.30  -0.3
      1.2s   176.00nm          5.9mb
                eS    29 32.00
TIK   75.56 360 iPc+  19 54.00   0.0
      1.4s   154.00nm          5.7mb
   Z  18s      4.00um          5.8Msz
```

03d 17h

```
                    i      20 09.00   53km
                    ePPP   24 26.00
                    eS     29 30.00
                    ePS    30 15.00
MAIO   76.47 309 iPc       20 00.20    0.1
       0.9s    23.44nm            5.2mb
                    eS     30 40.00
MAW    77.49 201 P         20 05.80    0.9
ASH    77.79 310 eP        20 07.50    0.3
       1.7s   210.00nm            5.9mb
                    e      30 34.00
                    e      31 03.00
NRI    78.52 346 iPc+      20 10.00   -0.6
       1.5s   229.00nm            5.9mb
     Z  20s    13.00um            6.3Msz
     E  20s     8.60um
                    i      20 19.00   29kmX
                    i      20 34.00
                    (PPP)  25 05.00
                    eS     30 00.00
CRZF   78.56 224 eP        20 25.00   13.8X
                    eS     29 07.00
                    eSS    35 10.00
KAT    79.68 311 iP+       20 18.00    0.5
                    i      20 33.00   53km
                    eS     30 56.00
PMO    81.81 105 iPc       20 31.70    2.6
       1.4s   292.80nm            6.1mb
SVE    82.01 329 iPc       20 25.00   -4.3X
       4.0s  1330.00nm            6.3mb X
     Z  17s     1.00um            5.2MszX
     N  18s     0.50um
     E  18s     1.00um
                    e      36 00.00
                    e      39 19.00
VAH    82.06 105 iPc       20 32.90    2.5
       1.8s   488.50nm            6.2mb
TPT    82.08 104 iPc       20 33.20    2.7
       1.9s   748.90nm            6.4mb
SDN    82.11  33 eP        20 30.40    0.6
       1.5s   548.90nm            6.3mb
DHR    82.29 297 ePc       20 29.50   -1.9
RUV    82.30 105 iPc       20 34.20    2.6
       1.6s   340.80nm            6.1mb
ARU    82.94 328 ePc       20 34.00   -0.2
       2.0s   400.00nm            6.1mb
                    e      20 50.00   56km
RYD    85.25 295 ePc       20 46.10   -0.4
                    iS     22 04.00
KER    86.01 305 eP        20 49.00   -1.3
SVW    86.28  28 eP        20 53.10    2.2
       1.4s   128.80nm            5.9mb
TTA    86.59  26 eP        20 53.90    1.5
KDC    87.03  32 eP        20 56.00    1.5
DHJN   87.44 288 ePc       20 59.00    1.4
ARO    87.54 282 eP+       20 59.50    1.6
BGL    87.83  28 eP        20 58.16   -0.3
CP2    87.90  28 (P)       20 58.84   -0.1
CRP    87.95  28 eP        20 58.21   -0.9
AFIF   88.30 294 eP        21 04.07    2.6
IMA    88.36  23 eP        21 01.50    0.5
       1.4s    34.70nm            5.4mb
BRW    88.66  18 eP        21 03.20    1.1
SLKM   88.72  29 eP        21 02.37   -0.3
MTA    88.73 312 iPc+      21 04.60    1.6
                    i      24 32.00
                    iPPP   26 30.00
                    iS     31 35.60
                    iPS    32 46.00
                    iPPS   33 02.00
PMS    89.17  29 eP        21 05.50    0.7
       1.4s   128.30nm            6.0mb
PMR    89.43  28 eP        21 06.09    0.2
       1.0s    30.70nm            5.6mb
     Z  21s     2.36um            5.6Msz
PYA    90.24 314 eP        21 10.00   -0.1
       1.3s   150.00nm            6.2mb
                    eS     32 06.00
                    i      33 10.00
FBA    90.55  25 eP        21 10.37   -0.7
       1.5s    28.39nm            5.4mb
NAI    92.61 269 iPd       21 23.50    1.6
BALM   92.62  29 eP        21 21.60    0.8
OBN    94.98 325 iPd       21 31.00   -0.6
       1.2s    53.00nm            5.8mb
     Z  20s     1.60um            5.5Msz
                    i      21 47.00   55km
```

```
                    e      25 25.00
                    (PPS)  34 45.00
NVL    95.00 197 eP        21 32.00    0.5
     Z  18s     2.00um            5.6Msz
     N  18s     0.50um
     E  19s     1.50um
                    e      21 48.00   55km
                    ePcP   22 39.00
                    (S)    27 08.00
                    e      29 29.00
                    eSS    31 49.00
                    LR     02 05.00
AYN    95.01 299 eP        21 33.00    0.7
GLH    95.41 302 eP        21 35.60    1.4
MML    95.62 302 eP        21 36.20    1.1
SIT    96.20  33 P         21 50.00   12.9X
     Z  19s     1.23um            5.4Msz
RMN    96.25 300 eP        21 38.90    0.8
SLR    98.33 243 e(P)      22 05.70   18.1X
     Z  22s     3.96um            5.9Msz
KAF    99.75 332 eP        21 52.20   -0.9
UZH   104.39 319 ePdiff22 15.30    1.2
       1.2s    40.00nm            6.2mb
RES   104.91  11 ePdiff22 17.50    1.7
DAG   105.30 353 ePdiff22 18.00    0.4
       1.2s    12.50nm            5.8mb
YKA   105.34  26 ePdiff22 17.70   -0.3
       0.9s     2.10nm            5.1mb
YKA   105.34  26 ePKP  26 26.10   -5.7X
       1.1s     2.60nm
SPC   105.61 320 ePKP  26 27.00   -6.0X
OJC   105.67 321 ePdiff22 20.70    0.9
HFS   106.16 332 ePdiff22 19.30   -2.4X
       0.4s     0.90nm            5.2mb
     Z  19s  1248.00um            8.5MszX
                    LR     05 55.00
WDC   106.24  49 PKP   26 40.00    5.8X
     Z  20s     1.23um            5.5Msz
SRO   107.16 319 ePKP  26 54.00   18.3X
ORV   107.19  50 (PKP) 26 38.16    2.1X
ZST   107.86 319 ePKP  26 57.00   20.0X
CMB   108.30  51 PKP   26 50.00   11.8X
     Z  17s     0.84um            5.3MszX
WIN   108.95 245 e(Pdif22 36.00    0.7
     Z  20s     5.33um            6.1Msz
PRU   109.00 322 ePKP  26 40.00    0.9
                    e      27 00.00
KHC   109.85 321 PKP   26 32.60   -8.2X
       1.3s     6.00nm
                    e      26 41.70
                    e      27 01.60
GEC2  109.86 321 ePKP  26 40.50   -0.4
       0.8s     1.29nm
ISA   110.20  54 PKP   26 50.00    8.1X
     Z  21s     1.76um            5.6Msz
BCAO  111.19 273 iPKPd 26 44.00   -0.3
       1.0s    10.00nm
                    ic     27 02.10
                    ic     30 43.00
HVU   113.18  46 ePKP  26 48.75    1.2
DUG   113.59  48 ePKP  26 49.38    1.0
BSF   114.54 321 ePKP  26 49.60   -0.3
       0.7s     4.95nm
LPG   115.45 319 ePKP  26 52.10    0.1
       0.4s     1.25nm
LPL   115.45 319 ePKP  26 51.90    0.0
       0.8s     6.45nm
SRU   115.58  48 ePKP  26 53.01    0.7
FCC   115.88  24 ePKP  26 55.00    3.1X
LOR   116.58 322 ePKP  26 54.10    0.4
       0.5s     1.95nm
     Z  23s     0.73um            5.2MszX
LBF   116.63 321 ePKP  26 53.90    0.1
       0.6s     2.80nm
PV09  116.80  49 ePKP  26 55.56    0.8
SSF   116.89 322 ePKP  26 54.50    0.2
       0.6s     3.00nm
PV10  116.91  49 ePKP  26 55.56    0.6
                    ePP    28 08.47
TUC   117.13  56 ePKP  26 56.84    1.6
     Z  21s     1.46um            5.6Msz
BGF   117.52 321 ePKP  26 55.90    0.4
       0.6s     4.35nm
TCF   118.03 321 ePKP  26 56.90    0.4
       0.6s     4.35nm
RSSD  118.40  41 ePKP  26 56.48   -1.1
LSF   118.47 322 ePKP  26 57.40    0.1
```

```
       0.6s     2.80nm
GOL   119.18  46 ePKP  26 59.37    0.2
     Z  20s     0.15um            4.6Msz
GLD   119.27  46 ePKP  27 00.13    0.9
     Z  19s     1.72um            5.7Msz
MFF   119.34 322 ePKP  26 59.20    0.3
       0.4s     4.65nm
ALQ   119.92  52 ePKP  27 01.95    1.3
     Z  20s     0.22um            4.8Msz
ULM   120.25  32 ePKP  27 04.00    3.5X
ACO   124.85  47 iPKPc 27 10.10    0.3
WMOK  125.91  49 ePKP  27 12.18    0.2
MEO   126.04  49 iPKPc 27 12.50    0.2
FNO   126.74  48 iPKPd 27 10.10   -3.4X
SIO   127.33  47 ePKP  27 15.60    0.9
TUL   127.64  47 ePKPd 27 15.70    0.5
       1.4s   125.50nm
     Z  20s     1.17um            5.6Msz
                    e      27 24.40
                    PP     29 02.30
                    LR     08 17.00
LNO   127.64  47 ePKPd 27 15.70    0.6
                    e      27 24.50
LNO2  127.64  47 ePKPd 27 15.90    0.7
LNO3  127.64  47 ePKP  27 16.00    0.8
RLO   128.08  46 ePKPd 27 16.30    0.2
MIAR  129.87  47 ePKP  27 20.02    0.5
EEO   130.88  26 ePKP  27 24.50    3.4X
KIC   134.40 275 PKP   27 14.80  -13.9X
RSNY  134.47  24 (PKP) 27 27.93    0.0
     Z  21s     1.30um            5.6Msz
CBM   134.65  17 PKP   27 40.00   11.8X
     Z  20s     1.29um            5.6Msz
TIC   134.67 275 PKP   27 13.70  -15.5X
LIC   134.68 275 PKP   27 15.00  -14.2X
     Z  20s     0.38um            5.1Msz
MCWV  135.72  33 PKP   27 40.00    9.5X
     Z  21s     2.04um            5.8Msz
LMN   136.54  15 ePKP  27 38.00    6.2X
HRV   137.37  23 PKP   27 40.00    6.5X
     Z  20s     1.12um            5.6Msz
MDZ   139.34 156 ePKP  27 38.50    1.0
CYA   144.48 156 iPKPd 27 44.70   -1.9
MBO   145.40 289 iPKPd 27 50.00    1.6
ANT   146.25 146 ePKP  27 50.50    0.9
FSA   146.47 154 ePKP  27 51.80    1.9
                    i      28 08.60
BRU   147.79  80 ePKP  27 54.40    1.4
SLA   147.88 154 e(PKP)27 53.60    1.2
HJA   149.23 152 ePKPd 27 57.40    3.0x
ECO   150.53  78 iPKPc 28 02.23    5.6x
UPA   150.74  79 ePKP  27 57.30    0.4
ARE   150.89 135 ePKP  28 05.00    7.6x
VAO   152.88 187 ePKP  28 07.90    8.0x
PSO   153.04  95 ePKP  28 03.00    2.2x
LPB   153.13 140 PKP   28 03.30    2.5x
ZOBO  153.29 140 PKPc  28 02.70    1.4
       1.8s   241.58nm
     Z  24s     0.53um            5.3Mszx
                    LR     21 28.00
BOG   156.48  88 ePKP  28 06.00    0.6
SIV   157.49 153 PKP   28 11.00    4.9x
                    i      28 43.00
     S.D. = 1.1  on 196 of 237 obs
-----------------------------------
   JAN  03, 1993  17h 21m 59.23± 0.45s
    4.139 S ± 4.9km  129.562 E ± 5.4km
   DEPTH =  59.9 ±  4.4 km
   5.2mb ( 24 obs.)
 BANDA SEA                          (280)

SLKI    4.19 156 iPd   23 02.50    0.4
TNE     5.39 336 eP    23 16.00   -2.9
MTN     8.79 170 eP    24 03.50   -2.7
       0.3s   126.00nm            6.3mb X
MKS    10.12 264 iPc   24 26.50    2.1
PCI    10.23 288 ePd   24 28.00    2.1
KHKI   14.49 252 ePc   25 23.20    0.7
                    e      29 48.90
MDG    16.20  95 eP    25 46.70    2.2
KKM    16.73 307 ePd   25 51.60    0.3
TRT    17.20 257 ePc   25 58.50    1.4
PMG    18.24 108 eP    26 10.00    0.2
QIS    19.02 150 eP    26 18.20   -1.1
       0.3s     6.00nm            4.3mb
ASPA   19.86 168 iPc   26 27.10   -1.2
       0.8s   142.10nm            5.3mb
```

```
                    eS    30 06.20
QCP     20.46 336 eP    26 46.00   11.5X
WARB    22.10 187 iPd   26 52.00    1.1
BAG     22.27 337 ePc   26 53.00    0.2
CTA     22.71 136 P     26 58.29    1.3
MEEK    24.70 204 eP    27 15.00   -1.3
KGM     26.93 283 eP    27 37.50    0.5
IPM     29.80 287 ePc   28 02.00   -0.9
        0.7s   120.80nm          5.7mb
STK     29.82 159 iPd   28 02.30   -0.6
        0.5s     7.30nm          4.6mb
CMS     31.21 152 eP    28 14.80   -0.3
BRS     32.02 139 iPc   28 19.00   -3.3X
ARMA    33.42 144 eP    28 36.50    1.9
        0.7s     8.00nm          4.7mb
NNT     33.98 300 eP    28 38.70   -0.7
                e       40 10.40
KHT     35.99 302 eP    28 57.00    0.4
TOO     36.33 158 eP    29 00.30    1.1
        0.4s    13.00nm          5.2mb
BDT     36.90 306 eP    29 04.00   -0.2
        0.8s    88.30nm          5.7mb
CHG     37.81 308 ePc   29 12.50    0.7
        0.9s    25.21nm          5.1mb
KMI     39.05 320 Pc    29 23.50    1.1
        1.5s    90.00nm          5.4mb
                pP      29 33.50   34kmX
                sP      29 36.60
MAT     41.27  11 eP    29 39.00   -1.2
        0.6s    12.67nm          4.9mb
BJI     45.65 346 eP    30 15.00   -0.6
LZH     46.70 331 eP    30 24.50    0.3
        1.8s    60.00nm          5.2mb
                pP      30 34.00   32kmX
                i       30 41.50
YSS     52.24  11 eP    31 06.00   -0.4
GBA     54.65 290 Pc    31 23.00   -1.6
HYB     54.70 295 iPc   31 23.50   -1.5
        1.0s    60.00nm          5.6mb
ZAK     58.84 341 eP    31 52.00   -1.8
        1.6s    19.00nm          5.0mb
POO     59.30 294 iPc   31 54.20   -3.4X
IRK     60.15 342 ePc   32 03.30    0.5
        2.2s    37.00nm          5.1mb
MOY     60.71 340 eP    32 07.90    1.3
BOD     63.02 351 iPc   32 22.10    0.1
        1.5s    27.00nm          5.1mb
CSY     63.46 188 iPc   32 24.70   -0.1
        0.6s    12.70nm          5.1mb
YAK     65.97   0 iPc   32 40.90   -0.1
        0.8s    80.00nm          5.8mb
MGD     66.19  11 eP    32 36.00   -6.5X
QUE     68.81 304 eP    32 59.90    0.1
BRVK    75.50 328 iPc   33 39.00    0.3
        1.0s    38.00nm          5.3mb
TIK     75.63 360 iPc   33 39.50    0.4
        0.5s    18.00nm          5.3mb
                i       33 46.00
MAIO    76.56 309 iPc   33 45.50    0.3
NRI     78.61 346 iPc   33 55.00   -0.7
        1.2s    25.00nm          5.0mb
                e       34 03.00
                e       34 20.00
SVE     82.10 329 ePc   34 15.00    0.5
KER     86.10 305 eP    34 35.00   -0.4
SVW     86.32  28 eP    34 36.49    0.7
        0.7s    15.32nm          5.3mb
IMA     88.41  23 eP    34 47.00    1.1
        1.2s     6.06nm          4.7mb
SLKM    88.76  29 eP    34 47.87    0.4
PMR     89.48  28 eP    34 51.70    0.9
        0.7s     6.40nm          5.0mb
KAF     99.84 332 eP    35 37.20   -1.0
        0.4s     1.50nm          4.9mb
YKA    105.38  26 ePKP  40 16.50    0.1
        0.8s     0.50nm
GEC2   109.95 321 ePKP  40 25.90    0.2
        0.5s     0.61nm
                e       40 29.20
BCAO   111.24 273 ePKPd 40 30.00    1.0
        0.5s     3.00nm
                id      41 16.00
RSSD   118.43  41 ePKP  40 42.49    0.3
KIC    134.45 275 PKP   41 03.50   -9.9X
CYA    144.39 156 iPKPc 41 29.70   -1.4
NNA    149.24 122 ePKP  41 43.90    4.6X
        1.4s    46.51nm
ARE    150.81 135 ePKP  41 50.00    8.1X
VAO    152.81 187 (PKP) 41 53.00    8.6X
LPB    153.04 140 PKP   41 45.00   -0.3
ZOBO   153.20 140 PKP   41 48.00    2.2X
        1.0s    15.00nm
SIV    157.40 152 PKPc  41 57.20    6.6X
                i       42 28.00
      S.D. = 1.1  on  57 of  67 obs.
-----------------------------------------
    JAN  03, 1993  17h 33m 26.71± 0.36s
     4.146 S ± 8.1km  129.413 E ± 9.3km
    DEPTH =  27.6km  (  2 depth phases)
    5.2mb ( 13 obs.)
 BANDA SEA                          (280)

SLKI     4.25 154 ePc   34 33.10    1.9
TNE      5.33 337 eP    34 47.00    0.4
MTN      8.81 169 eP    35 31.00   -4.3X
                e       35 37.00
PCI     10.09 288 ePd   35 59.10    6.1X
MDG     16.35  94 eP    37 16.50    0.5
QIS     19.09 150 eP    37 50.20    0.1
MBL     19.31 208 iPc   37 33.10  -19.5X
        0.8s    96.00nm
ASPA    19.88 168 ePc   37 57.50   -1.5
        0.8s    58.10nm          4.9mb
                eS      41 29.70
QCP     20.41 336 eP    38 18.00   13.5X
BAG     22.21 337 ePc   38 25.00    2.0
CTA     22.81 135 P     38 29.20    0.5
RMO     28.92 142 eP    39 25.20   -0.6
IPM     29.66 287 ePd   39 33.70    1.2
        0.9s    57.70nm          5.4mb
BDT     36.79 306 eP    40 35.00    0.8
CHG     37.69 308 ePc   40 43.30    1.4
        1.0s    25.00nm          5.0mb
KMI     38.96 320 eP    40 54.50    1.8
        1.5s    70.00nm          5.2mb
                pP      41 02.00   25km
MAT     41.30  11 iPd   41 10.10   -1.5
        0.5s     9.86nm          4.8mb
BJI     45.62 346 eP    41 45.50   -1.0
        1.5s    29.00nm          5.0mb
LZH     46.63 331 eP    41 55.00    0.2
        1.4s    34.00nm          5.1mb
                pP      42 04.00   30km
GUN     52.66 310 P     42 40.86   -0.7
        0.6s    57.00nm          5.7mb
PKI     52.86 309 P     42 42.06   -0.9
KKN     53.06 309 P     42 43.54   -0.8
        0.6s    23.00nm          5.3mb
DMN     53.11 309 P     42 44.02   -0.7
        0.9s    37.00nm          5.3mb
GKN     53.66 309 P     42 47.80   -0.8
        0.8s    40.00nm          5.5mb
GBA     54.51 290 P     42 53.00   -1.8
HYB     54.57 295 eP    42 54.50   -0.8
                e       43 11.50   65kmX
YAK     65.98   0 iPc   44 11.90   -0.5
        0.9s    51.00nm          5.6mb
QUE     68.70 305 eP    44 31.10    0.6
MAIO    76.45 309 eP    45 17.00    0.9
IMA     88.48  23 (P)   46 18.20    0.5
        1.0s     4.00nm          4.7mb
SLKM    88.84  29 eP    46 18.95   -0.5
YKA    105.46  26 ePKP  51 41.30   -7.0X
        0.5s     0.50nm
RSSD   118.53  41 ePKP  52 13.61   -0.5
LPB    153.13 140 PKP   53 26.00    8.8X
ZOBO   153.29 140 PKP   53 16.90   -0.8
      S.D. = 1.1  on  29 of  35 obs.
-----------------------------------------
?   JAN  03, 1993  18h 50m 55.12± 4.76s
    33.012 S ±13.6km   72.286 W ±34.1km
    DEPTH =  10.0km  (geophysicist)
 OFF COAST OF CENTRAL CHILE         (134)
      MD 3.4 (SAN).

LCCH     0.76 128 iPd   51 10.07    0.2
                iS      51 19.81
ROCH     1.07  88 iPd   51 15.22   -0.2
                iS      51 28.61
LNV      1.19 142 iPd   51 17.00   -0.3
                iS      51 31.35
TACH     1.30 120 iP    51 18.77   -0.4
                iS      51 34.96
PEL      1.35  96 iP+   51 20.22    0.2
                iS      51 37.18
JACH     1.46  77 eP    51 21.37   -0.3
PCH      1.60 113 iPd   51 24.03    0.4
CHCH     1.65 124 iP    51 24.38    0.2
                eS      51 44.07
FCH      1.70 101 eP    51 25.54    0.2
      S.D. = 0.3  on   9 of   9 obs.
-----------------------------------------
•   JAN  03, 1993  18h 58m 42.36± 1.41s
     0.114 N ± 8.7km  125.696 E ± 9.3km
    DEPTH =  58.4 ± 14.9 km
    4.7mb (  5 obs.)
 NORTHERN MOLUCCA SEA               (266)

TNE      1.77  67 ePc   59 11.20    0.1
PCI      5.95 260 ePd   00 14.80    4.9X
MKS      8.17 229 iPc   00 41.50    0.7
MTN     13.96 157 eP    01 56.80   -2.0
TRT     15.16 239 ePc   02 22.50    8.0X
PMG     23.37 114 eP    03 47.00    0.4
QIS     24.64 147 eP    04 00.20    1.2
        0.3s     2.00nm          4.1mb
ASPA    24.95 162 iPc   04 02.20    0.3
        0.6s    55.60nm          5.2mb
                eS      08 21.90
WARB    26.16 178 eP    04 12.50   -0.6
CHG     32.17 307 eP    05 06.80   -0.2
STK     35.20 156 eP    05 33.20    0.3
        0.7s    16.80nm          5.1mb
ADE     36.96 162 eP    05 49.20    1.4
BJI     40.67 349 eP    06 19.00    0.4
LZH     41.15 333 eP    06 26.50    3.7X
        1.5s    30.00nm          4.8mb
HYB     49.46 293 eP    07 28.70   -0.4
YKA    103.20  24 ePdiff12 39.20    2.8X
        0.9s     0.50nm          4.3mb
CNCB   158.63 142 ePKP  18 24.00  -12.0X
LPB    158.76 141 PKP   18 20.00  -16.0X
ZOBO   158.92 140 ePKP  18 35.00   -1.5
      S.D. = 1.1  on  13 of  19 obs.
-----------------------------------------
    JAN  03, 1993  20h 01m 09.32± 1.18s
     4.103 S ± 7.1km  129.632 E ± 7.8km
    DEPTH =  63.1 ± 11.6 km
    5.2mb ( 24 obs.)
 BANDA SEA                          (280)

SLKI     4.19 157 iPc   02 12.80    0.5
TNE      5.38 335 eP    02 26.20   -2.8
MTN      8.81 170 eP    03 12.00   -4.6X
        0.4s    58.00nm          5.8mb X
PCI     10.29 288 ePd   03 38.50    1.8
MDG     16.14  95 eP    04 57.20    3.6X
KKM     16.77 307 ePc   05 04.00    2.3
TRT     17.28 257 ePc   05 10.00    2.1
PMG     18.18 108 eP    05 18.00   -1.1
QIS     19.02 150 eP    05 28.20   -0.9
        0.2s     2.00nm          4.0mb X
ASPA    19.88 168 eP    05 36.70   -1.7
        1.1s    40.00nm          4.6mb
      Z  20s     0.60um
                eS      09 11.00
QCP     20.46 336 eP    06 00.00   15.7X
WARB    22.14 187 iPc   06 02.50    1.3
BAG     22.26 337 ePd   06 04.00    1.4
        1.0s   120.00nm          5.3mb
CTA     22.69 136 P     06 07.59    1.0
NANU    22.87 215 eP    06 08.00   -0.3
IPM     29.85 286 ePd   07 11.90   -1.3
        0.6s    33.00nm          5.2mb
NNT     34.02 300 eP    07 49.70    0.1
NST     35.19 305 eP    08 07.50    7.9X
KHT     36.03 302 eP    08 07.00    0.3
BDT     36.94 306 eP    08 14.00   -0.3
CHG     37.84 308 eP    08 21.60   -0.3
        0.9s    17.02nm          5.0mb
KMI     39.07 319 Pd    08 33.50    1.2
        2.0s    60.00nm          5.1mb
                pP      08 41.20   26kmX
MAT     41.22  11 eP    08 49.00   -0.6
        0.8s    11.94nm          4.7mb
BJI     45.64 346 eP    09 25.00   -0.3
        1.5s    34.00nm          5.0mb
LZH     46.70 331 eP    09 35.00    1.0
        1.5s    92.00nm          5.5mb
                pP      09 42.00   23kmX
                i       10 00.00
```

03d 20h

```
GUN     52.80 310 P      10 19.24  -1.9
        0.7s    41.00nm          5.5mb
PKI     53.00 309 P      10 20.96  -1.6
KKN     53.21 309 P      10 22.00  -1.9
        0.8s    21.00nm          5.2mb
DMN     53.25 309 P      10 23.64  -0.7
        0.9s    35.00nm          5.4mb
GKN     53.81 309 P      10 27.12  -1.1
        0.9s    64.00nm          5.6mb
GBA     54.70 290 Pd     10 34.00  -0.7
HYB     54.75 295 eP     10 33.70  -1.5
        1.4s    87.50nm          5.6mb
                e        10 40.50
CIT     57.53 348 eP     10 56.00   1.5
ZAK     58.83 341 eP     11 03.80   0.3
        1.3s    26.00nm          5.2mb
POO     59.35 294 eP     11 05.50  -2.3
IRK     60.13 342 eP     11 11.20  -1.3
        2.2s    36.00nm          5.1mb
                e        11 30.30
MOY     60.70 340 eP     11 17.00   0.7
        1.4s    80.00nm          5.7mb
BOD     63.00 351 eP     11 31.90   0.3
        1.1s    18.00nm          5.1mb
YAK     65.93   0 iPd    11 51.40   0.9
        1.0s   110.00nm          5.8mb
ELT     67.73 334 iPd    12 02.10   0.0
        1.6s    52.00nm          5.3mb
SEM     68.85 329 (P)    12 09.00  -0.1
                e        12 32.00
QUE     68.85 304 eP     12 09.60  -0.2
BRVK    75.51 328 iPd    12 49.00   0.5
        1.1s    35.00nm          5.2mb
TIK     75.60 360 iPc    12 50.00   1.4
        1.4s    88.00nm          5.5mb
                i        12 56.00
                i        13 12.00
MAIO    76.59 309 eP     12 56.00   0.9
NRI     78.59 346 eP     13 06.00   0.7
        1.2s    21.00nm          5.0mb
                i        13 12.00
SVW     86.26  28 eP     13 45.33   0.2
        0.8s    19.52nm          5.3mb
PMR     89.41  28 (P)    14 02.00   1.8
        0.8s     8.97nm          5.1mb
RSSD   118.36  41 ePKP   19 52.59   0.8
ALQ    119.85  52 ePKP   19 55.37   0.5
MIAR   129.81  47 ePKP   20 09.76  -4.0X
CYA    144.40 156 ePKP   20 40.50  -0.3
FSA    146.38 154 ePKP   20 47.30   3.2X
CNCB   152.90 141 PKP    20 58.00   3.0X
LPB    153.03 140 PKP    21 05.00  10.0X
ZOBO   153.18 139 PKPc   20 58.70   3.2X
        1.6s    26.32nm
      Z 24s      0.13um          4.6MszX
                LR       44 06.00
SIV    157.40 152 PKP    21 14.80  14.5X
                e        21 36.00
     S.D. = 1.3  on  47 of  57 obs.
-----------------------------------
*  JAN  03, 1993  20h 41m 31.01± 1.96s
   22.515 S ±14.8km   66.397 W ±11.0km
   DEPTH = 259.4 ± 33.3 km
 JUJUY PROVINCE, ARGENTINA        (128)

HJA     1.15 127 iPd     42 08.00  -0.1
SLA     2.35 160 eP      42 17.90  -0.1
ANT     3.88 251 iPc     42 34.70   0.4
                iS       43 23.10
CNCB    5.87 345 P       42 59.30   0.4
                S        44 08.00
LPB     6.16 345 P       43 03.00   0.6
ZOBO    6.41 345 P       43 05.00  -0.7
                S        44 18.20
ARE     7.70 321 eP      43 21.00  -0.6
                iS       44 45.50
SIV     8.21  39 iP      43 27.90   0.2
     S.D. = 0.6  on   8 of   8 obs.
-----------------------------------
?  JAN  03, 1993  21h 59m 06.52± 3.61s
   28.607 S ±25.5km   67.692 W ±15.1km
   DEPTH = 154.3 ± 36.3 km
 LA RIOJA PROVINCE, ARGENTINA     (138)

CYA     1.68  85 iPc     59 38.70   0.0
                S        00 01.20
RTPR    1.98 149 iPd     59 41.70  -0.3
                (S)      00 06.00
RTLL    2.80 194 iPd     59 52.20   0.2
                S        00 22.50
RTCB    3.03 198 ePc     59 55.20   0.2
                S        00 26.50
CFA     3.03 189 ePd     59 55.00   0.0
                S        00 30.00
RTCV    3.32 192 eP      59 58.70  -0.1
                S        00 30.00
TCA     3.83 136 eP      00 05.40   0.0
                S        00 44.00
MRA     4.16 156 ePc     00 10.00   0.4
MDZ     4.38 193 eP      00 52.10  39.5X
RFA     6.18 186 eP      00 36.30  -0.3
     S.D. = 0.3  on   9 of  10 obs.
-----------------------------------
&  JAN  04, 1993  00h 32m 23.04s
   34.288 N          116.772 W
   DEPTH =   5.6km
 SOUTHERN CALIFORNIA              ( 43)
      <PAS-P>. ML 3.8 (PAS), 3.5 (GS).
      Felt in the epicentral area.

PEC     0.51 219 iPd     32 32.24  -1.0
SSK     0.77 264 iPc     32 37.27  -1.2
PLM     0.94 185 iPc     32 40.81  -0.6
GSC     1.01 358 iPd     32 41.62  -1.0
ISA     1.96 315 ePn     32 55.14  -2.1
                ePg      32 58.60
                eS       33 21.84
GLA     2.04 127 ePnd    32 55.94  -2.4
BCH     2.87 289 ePn     33 08.42  -1.9
MTUM    3.39 335 ePn     33 16.80  -1.0
                ePg      33 25.13
                eS       34 08.32
MRCM    3.66 338 ePn     33 21.04  -0.6
MMPM    3.79 332 ePn     33 23.30  -0.3
                ePg      33 33.10
                eS       34 16.35
MEMM    3.80 333 (Pn)    33 24.59   1.2
                ePg      33 33.33
                eS       34 21.41
TNP     3.80 355 ePn     33 22.31  -1.4
                ePg      33 32.79
BONR    3.86 342 ePn     33 22.98  -1.6
                ePg      33 35.30
CMB     4.75 323 ePg     33 49.00  12.1
                Lg       34 48.16
TUC     5.39 110 ePn     33 41.87  -4.2
MSU     5.61  40 ePn     33 47.55  -1.8
                iPg      34 05.37
DUG     6.69  27 ePg     34 28.37  24.0
SRU     6.95  44 ePn     34 07.55  -0.6
PV09    7.46  53 ePn     34 13.11  -2.2
                ePg      34 38.35
                eS       36 11.76
PV10    7.45  55 ePn     34 13.54  -1.7
                ePg      34 38.07
                eS       36 13.95
PV08    7.82  54 ePn     34 18.80  -1.7
        21 obs. associated
-----------------------------------
*  JAN  04, 1993  01h 18m 18.70± 0.67s
   34.227 N ±10.2km   141.827 E ±12.0km
   DEPTH =   33.0km  (normal)
   4.3mb (  9 obs.)
 OFF EAST COAST OF HONSHU, JAPAN (229)

MAT     3.75 309 iPd     19 15.40  -0.2
                iS       19 59.20
CN2    15.89 312 eP      22 03.00   1.6
      Z 14s      0.94um
      N 13s      0.54um
      E 13s      0.61um
TIY    24.00 287 eP      23 31.80   0.5
HHC    24.81 294 P       23 42.60   3.4X
        1.2s      8.10nm          4.2mb
WMQ    42.46 300 P       26 14.00   1.8
                pP       26 27.00  48kmX
GUN    47.83 278 P       26 54.94  -0.7
        0.8s     30.00nm          5.4mb
PKI    48.35 278 P       26 58.54  -1.1
KKN    48.37 279 P       26 58.96  -0.7
DMN    48.58 278 P       27 00.54  -0.8
GKN    48.82 279 P       27 02.14  -0.9
        0.9s     36.00nm          5.4mb X
WB2    54.34 189 iPd     27 44.30   0.0
        0.9s     4.00nm           4.4mb
WRA    54.34 189 P       27 44.70   0.4
        0.5s     1.00nm           4.1mb
ASPA   58.06 189 eP      28 11.80   0.8
        0.8s     5.80nm           4.7mb
HYB    58.51 270 eP      28 14.50   0.1
GBA    61.38 267 P       28 35.00   1.0
RES    65.23  14 eP      29 00.50   1.9
        1.0s     4.00nm           4.5mb
YKA    66.07  30 eP      29 03.00  -1.1
        1.1s     1.40nm           4.0mb
NUR    72.58 333 eP      29 43.00  -1.2
NAO    77.19 338 P       30 09.40  -1.1
        0.8s     3.60nm           4.5mb
GEC2   85.27 329 eP      30 53.30  -0.1
        0.6s     0.90nm           4.2mb
ZOBO  147.72  64 PKP     38 04.80   4.9X
LPB   147.90  64 PKP     38 05.60   5.7X
CNCB  148.16  64 PKP     38 06.20   5.7X
SIV   152.55  54 PKPd    38 19.50  13.0X
     S.D. = 1.1  on  19 of  24 obs.
-----------------------------------
   JAN  04, 1993  01h 26m 17.92± 0.21s
    3.266 N ± 2.5km  128.094 E ± 3.3km
   DEPTH =  72.3 ±  1.9 km
   5.9mb (106 obs.)
 NORTH OF HALMAHERA, INDONESIA    (264)
      Mw 5.9 (HRV).
      FAULT PLANE SOLUTION: P-Waves
       NP1:Strike=106 Dip=86 Slip=  15
       NP2:        15     75       176
       Principal Axes:
        T                Plg=13  Azm=331
        P                     8      240
      Comment: The focal mechanism is
        moderately well controlled and
        corresponds to strike-slip
        faulting with a moderate
        reverse component. The
        preferred fault plane is not
        determined.
      RADIATED ENERGY
       No. of sta:   6  Focal mech.  F
       Energy        3.8±1.1*10**13 Nm
      CENTROID, MOMENT TENSOR     (HRV)
      Data Used: GDSN
      L.P.B.: 28S, 61C
      Centroid Location:
      Origin Time        01:26:21.9 0.2
      Lat  3.31N 0.02 Lon 127.96E 0.02
      Dep  69.0 1.6 Half-duration  2.2
      Moment Tensor;    Scale 10**17 Nm
        Mrr= 6.62 0.15  Mtt=-0.05 0.28
        Mff=-6.57 0.33  Mrt= 3.09 0.21
        Mrf=-2.66 0.20  Mtf=-2.20 0.20
       Principal Axes:
        T  Val=  8.55  Plg=64  Azm= 29
        N       -1.09      24      190
        P       -7.46       8      283
      Best Double Couple:Mo=8.0*10**17
       NP1:Strike= 39 Dip=43 Slip= 127
       NP2:       173     57       60

DAV     4.55 327 ePc     27 28.10   2.2
AAI     6.91 179 e(P)    28 05.00   6.3X
PCI     9.23 243 ePc     28 32.60   1.9
                eS       28 46.50
TLE     9.99 152 ePd     28 42.50   1.5
TSM    10.25 276 iPd     28 43.50  -1.0
        0.8s  1565.80nm          7.1mb X
                e        30 33.00
SLKI   11.62 164 iPc     29 03.50   0.5
MKS    12.05 226 iPd     29 06.50  -2.2
KKM    12.16 284 ePd     29 09.60  -0.6
        1.0s   418.30nm          6.3mb
QVP    13.28 329 P       29 28.00   3.2X
BAG    15.01 331 ePc+    29 45.00  -2.6
                e        32 38.00
MTN    16.29 169 eP      30 03.00  -0.7
        0.3s   358.00nm          6.0mb
KHKI   16.99 227 ePc     30 11.80  -0.6
                e        31 01.10
                eS       33 36.20
                e        38 09.70
TRT    18.88 235 ePc     30 33.00  -2.5
        0.6s   120.40nm          5.3mb
                eS       33 28.60
```

```
PJG     19.49  57 eP ?  30 42.90   0.9
GUA     19.50  57 eP    30 42.00  -0.2
        0.8s   226.87nm          5.5mb
      Z  20s    14.18um          4.0Msz
MDG     19.59 116 eP    30 44.70   1.6
PMG     22.79 124 eP    31 15.50   0.2
HKC     23.25 326 iP    31 21.00   1.3
                  S     35 23.00
QZH     23.42 338 iPc   31 21.50   0.2
        1.0s   340.00nm          5.7mb
      Z  24s     5.39um          4.9MszX
                 sP     31 46.50
                  S     35 29.00
                 sS     35 58.00
QIZ     23.75 313 iPc   31 25.60   1.0
        1.0s   170.00nm          5.4mb
                 iS     35 31.00
WRA     23.87 165 P     31 25.50  -0.3
        0.6s    71.80nm          5.3mb
WB2     23.87 165 iPc   31 25.60  -0.2
        0.8s   600.00nm          6.1mb
                 eS     35 33.70
GZH     24.34 325 P     31 30.40   0.1
        1.0s   360.00nm          5.8mb
      Z  35s    12.40um          5.2MszX
      N  11s     2.14um
      E  12s     2.39um
                  S     35 42.00
KGM     24.78 268 ePc   31 34.70   0.1
        1.1s   240.50nm          5.6mb
                  e     32 03.90
RAB     25.17 107 e(P)  31 38.00  -0.3
                 iS     36 00.00
QIS     26.23 155 eP    31 48.30   0.2
        0.7s    53.00nm          5.2mb
IPM     27.04 274 ePc   31 55.00  -0.5
        1.0s   159.30nm          5.5mb
ASPA    27.36 168 ePc   31 56.80  -1.6
        1.1s   158.60nm          5.5mb
      Z  22s     6.60um          5.2Msz
                 eS     36 29.70
                  e     36 57.10
                iScS    42 38.20
SNG     27.63 279 eP    31 59.80  -1.1
                 eS     36 34.80
KAGJ    27.90   5 P     32 02.50  -0.6
SSE     28.44 347 Pc    32 08.00   0.1
        1.0s   140.00nm          5.5mb
      Z  22s     4.30um          5.0Msz
      E  10s     2.10um
                 pP     32 24.00  67kmX
                 sP     32 30.00
                  S     36 44.00
                 sS     37 16.00
                ScP     38 56.50
NANU    28.45 205 iPc   32 07.80  -0.4
        0.6s   192.00nm          5.9mb
KUMJ    29.23   5 P     32 13.40  -1.7
CTA     29.27 143 iPc   32 15.00  -0.6
        1.2s   144.53nm          5.5mb
                  i     32 32.00
                 iS     37 03.00
WARB    29.31 183 iPd   32 15.00  -0.9
NNT     29.54 290 eP    32 16.20  -1.9
NJ2     29.92 344 Pc    32 21.00  -0.2
        1.1s    47.00nm          5.1mb
      Z  16s     1.34um          4.7MszX
                 pP     32 38.00  72kmX
                 sP     32 49.00
                  S     37 14.00
WHN     30.08 336 Pc    32 23.50   0.8
        0.8s   170.00nm          5.8mb
      Z  26s    13.40um          5.5MszX
                 pP     32 34.00  38kmX
SHNJ    30.83   5 P     32 26.80  -2.4
GYA     30.88 320 iPc   32 30.00   0.1
        1.0s   120.00nm          5.6mb
      Z  20s     5.63um          5.2Msz
      N  12s     4.92um
      E  12s     2.06um
                 pP     32 44.00  56kmX
                 sP     32 52.00
                PcP     35 25.80
                  S     37 28.00
                 sS     37 54.00
                ScS     43 00.60
TKSJ    31.06  10 P     32 30.30  -0.9
```

```
MEEK    31.11 197 iPd   32 30.30  -1.5
KHT     31.25 293 eP    32 33.20   0.0
SHK     31.40   7 eP    32 32.50  -1.7
WKYJ    31.58  12 P     32 35.10  -0.8
BDT     31.75 298 iPc   32 37.00  -0.4
        1.2s   147.40nm          5.7mb
YDNJ    32.15   8 P     32 40.10  -0.7
CHG     32.43 301 ePd   32 43.50   0.1
        1.0s   180.00nm          5.9mb
                 eS     37 54.40
KMI     32.67 314 Pc    32 46.50   0.8
        1.5s  1210.00nm          6.5mb
      Z  26s     6.20um          5.2MszX
      N  10s     0.90um
      E  10s     1.10um
                 PP     33 54.00
                  S     37 53.00
TSRJ    32.93  12 P     32 46.60  -1.0
CHJJ    34.14  16 P     32 56.20  -1.8
TIA     34.31 344 P     32 58.70  -0.8
      Z  34s     4.72um          5.0MszX
      N  11s     0.94um
                 sP     33 28.00
                  S     38 18.50
                PcS     39 16.60
MRWA    34.32 199 eP    32 58.70  -0.9
MTMJ    34.34  14 P     32 58.40  -1.5
MAT     34.40  14 iPc   32 57.80  -2.5
        1.2s   234.38nm          6.0mb
                 eS     38 59.00
COOL    34.60 191 eP    33 00.30  -1.7
KAKJ    34.62  17 P     32 59.40  -2.7
NIIJ    35.27  15 P     33 05.80  -1.8
XAN     35.45 332 iPc   33 08.90  -0.4
        1.0s   320.00nm          6.2mb
      Z  35s    12.20um          5.4MszX
      N  17s     4.90um
                 pP     33 23.50  57kmX
                 sP     33 32.60
                  S     38 38.00
                 sS     39 04.00
                ScP     39 18.00
                PcS     39 26.50
                 SS     40 54.00
                ScS     43 21.00
RMQ     35.70 147 iPc   33 10.20  -1.2
        1.1s   159.00nm          5.9mb
                  e     34 37.50
                  i     35 41.00
CD2     35.83 323 Pc    33 12.20  -0.3
        1.6s   610.00nm          6.3mb
      Z  36s     9.58um          5.3MszX
      N  14s     4.63um
                 PP     34 40.00
                  S     38 45.00
DL2     35.96 351 Pc    33 12.50  -0.9
        1.0s   180.00nm          6.0mb
      Z  24s     2.17um          4.8MszX
      E  20s     6.74um
                 pP     33 32.00  81kmX
KLB     36.03 195 eP    33 13.00  -1.2
        0.8s   178.00nm          6.0mb
                  e     35 40.00
YAMJ    36.42  16 P     33 17.00  -0.3
MUN     36.82 197 iPd   33 20.30  -0.5
TIY     37.17 339 Pd    33 23.60  -0.1
        1.0s   110.00nm          5.7mb
      Z  26s     4.67um          5.2MszX
                 sP     33 46.00
                  S     39 05.00
                 sS     39 34.00
STK     37.23 161 eP    33 24.10  -0.1
        0.9s   266.10nm          6.2mb
                 eS     39 02.50
OFUJ    37.73  17 P     33 28.10  -0.2
BJI     38.17 345 Pc    33 31.50  -0.5
        1.2s   130.00nm          5.7mb
      Z  24s     1.59um          4.7MszX
      N  12s     0.67um
                esP     33 58.00
                 eS     39 16.00
                eSS     41 56.00
               eScS     43 38.00
CMS     38.46 155 iPc   33 31.10  -3.5X
        1.0s   123.00nm          5.8mb
                ipP     33 50.50  81kmX
                iPP     35 12.20
```

```
                 eS     39 34.50
SNY     38.61 355 iPc   33 35.00  -0.6
        1.0s   110.00nm          5.7mb
      N  12s     1.46um
      E  29s     4.33um
                 pP     33 50.00  59kmX
                 PP     35 06.00
                  S     39 20.00
BRS     38.67 144 iPd   33 32.50  -3.9X
        1.0s    37.00nm          5.3mb
                  i     33 47.00
AOMJ    38.75  15 P     33 38.80   2.0
RKG     39.05 195 iPd   33 40.20   0.7
        0.5s    23.00nm          5.4mb
ADE     39.32 166 iPc   33 42.40   0.7
LZH     39.60 329 iPc   33 45.50   1.3
        1.6s  1410.00nm          6.6mb
      Z  29s    14.90um          5.7MszX
                 pP     34 00.00  56kmX
                 sP     34 08.00
                 PP     35 20.00
                PcP     35 52.00
                  S     39 40.00
                PcS     39 44.50
                ScS     43 46.50
VLA     39.83   4 iPd   33 47.50   1.8
        2.2s   825.00nm          6.3mb
      E  16s     1.80um
                  i     35 41.00
                  e     39 40.00
                  e     40 13.00
HHC     40.27 340 iPc   33 49.40  -0.2
        1.0s   160.00nm          5.9mb
      Z  21s     1.65um          4.9Msz
      N  12s     0.91um
      E  13s     1.42um
                 sP     34 18.00
                  S     39 49.00
ARMA    40.34 148 iPd   33 50.70   0.4
        1.0s   300.00nm          6.1mb
                iPcP     35 55.20
                 eS     39 35.70
CN2     40.43 357 Pc    33 49.00  -1.7
        1.0s    20.00nm          4.9mb
      Z  20s     2.44um          5.1Msz
                 PP     35 24.00
                PcP     35 53.00
                ScP     39 36.80
                 eS     39 50.00
BTO     40.59 339 iPd   33 52.00  -0.2
        0.8s    41.00nm          5.3mb
      N  20s     2.66um
      E  20s     4.24um
                 pP     34 06.00  54kmX
                 PP     35 27.00
MRRJ    40.68  15 eP    33 50.90  -1.8
MDJ     41.20   2 Pc    33 56.90  -0.1
        1.2s   280.00nm          6.0mb
      Z  34s    17.30um          5.7MszX
                 eS     40 03.00
HOOJ    41.25  17 eP    33 58.50   1.1
BWA     42.09 155 eP    34 05.90   1.4
KUSJ    42.33  18 P     34 06.60   0.3
BFD     42.42 163 iPc   34 07.20   0.1
        1.2s   550.00nm          6.3mb
                  i     35 47.30
ASAJ    42.67  15 eP    34 09.10   0.1
CAN     43.10 155 eP    34 13.40   0.7
CNB     43.25 154 iPc   34 14.90   0.9
        1.0s   205.00nm          5.9mb
TOO     43.73 160 iPc   34 18.90   1.2
        0.7s   220.00nm          6.1mb
                ePcP     36 30.50
                 eS     39 55.20
LSA     43.77 311 iPc   34 20.20   1.5
        2.0s  1090.00nm          6.3mb
                  S     40 45.00
GTA     44.20 328 iPc   34 22.50   0.8
        1.0s   160.00nm          5.8mb
      Z  30s    15.90um          5.8MszX
                 pP     34 38.00  60kmX
                 sP     34 44.00
                  S     40 50.00
                 sS     41 16.00
DZM     45.16 126 iPc   34 30.10   0.5
YSS     45.39  14 eP+   34 30.30  -0.6
        0.9s    80.00nm          5.6mb
```

04d 01h

```
     Z  16s      1.00um          4.8MszX
     N  17s      1.20um
     E  17s      0.70um
                   e     36 10.00
                   eS    41 06.00
GUN    47.10 306 P      34 45.20   0.0
PKI    47.35 305 P      34 46.56  -0.5
       1.5s   605.00nm          6.3mb
KKN    47.54 305 P      34 48.30  -0.2
DMN    47.61 305 P      34 49.04   0.0
       1.1s   580.00nm          6.4mb
GKN    48.14 305 P      34 52.82  -0.3
TAU    49.14 161 iPd    35 01.00   0.8
CIT    50.05 348 eP     35 07.20   0.0
HYB    50.55 290 eP     35 09.50  -2.0
       1.0s   290.00nm          6.3mb
                   e     35 20.50
                   eS    42 16.50
                   e     42 22.00
KOD    50.70 280 eP     35 13.20   0.2
GBA    51.05 285 P      35 15.00  -0.2
ZAK    51.42 340 iPc+   35 17.00  -0.5
       3.0s   518.00nm          6.0mb
     Z  22s      1.98um          5.1Msz
     N  23s      2.51um
     E  20s      5.40um
                   e     36 31.50
                   eS    42 34.00
                   e     44 54.00
IRK    52.70 342 ePc    35 25.00  -2.1
       2.5s   274.00nm          5.8mb
                   epP   35 41.40  63kmX
                   e     36 34.00
                   e     42 48.00
                   eS    43 13.00
MOY    53.30 339 iP     35 31.20  -0.3
       2.0s   259.00nm          5.9mb
                   eS    42 57.70
WMO    53.89 324 iPc    35 36.10   0.0
       1.0s   200.00nm          6.1mb
     Z  30s      7.79um          5.6MszX
     N  15s      3.81um
                   pP    35 51.00  56kmX
                   sP    36 00.00
                   PcP   36 36.20
                   PP    37 37.50
                   PcS   40 34.00
                   S     43 09.50
                   sS    43 36.00
                   ScS   45 18.20
NDI    54.51 303 iPc    35 40.00  -0.9
       0.8s   231.34nm          6.3mb
                   eS    43 13.00
POO    55.15 290 iPc    35 43.40  -2.3
                   iS    43 16.00
PET    55.63  22 eP     35 48.00  -0.5
       2.0s   750.00nm          6.4mb
     Z  20s      1.70um          5.1Msz
                   pP    36 18.00 126kmX
                   e     36 40.00
                   e     37 48.00
                   eS    43 32.00
                   ePS   43 52.00
                   eSS   47 20.00
UER    55.89 335 iPc    35 50.30  -0.1
       2.0s   160.00nm          5.7mb
                   e     39 18.00
                   eS    43 33.00
                   e     43 56.00
BOM    56.18 290 iPd    35 52.60  -0.4
                   iS    43 33.60
YAK    58.63   1 iPc+   36 08.10  -1.4
       1.1s   330.00nm          6.4mb
                   i     36 57.00
                   eS    44 10.00
                   iPS   44 32.00
                   i     45 49.00
KSH    59.30 315 P      36 16.00   1.2
       1.4s   660.00nm          6.6mb
     Z  30s      3.73um          5.3MszX
     E  30s      3.90um
                   pP    36 31.00  55kmX
                   PP    38 30.00
                   sS    44 48.00
                   ScS   45 58.00
MGD    59.31  13 ePc+   36 13.20  -1.1
       0.9s   160.00nm          6.1mb
```

```
                   e     36 38.00
                   e     37 00.00
                   e     38 20.00
                   eS    44 46.00
MSZ    59.50 148 P      36 16.20   0.4
LMZ    59.61 146 eP     36 16.40  -0.2
DSZ    59.83 143 eP     36 17.60  -0.6
TLG    59.97 319 eP     36 21.00   1.8
       2.5s    30.00nm          5.0mb
     Z  80s      1.00um          4.3MszX
                   e     36 47.00
                   eS    44 35.00
                   eSS   48 19.00
WLZ    60.05 138 eP     36 20.20   0.4
MMCZ   60.37 148 eP     36 20.50  -1.4
TLC    60.46 148 eP     36 20.60  -2.0
THZ    60.50 143 eP     36 22.50  -0.3
ELT    60.51 333 ePc    36 21.00  -1.6
       2.4s   350.00nm          6.1mb
                   e     40 07.00
                   iS    44 31.00
                   e     44 55.00
SBCZ   60.53 148 eP     36 21.90  -1.0
CMCZ   60.54 148 eP     36 22.10  -1.0
MSCZ   60.58 148 eP     36 22.40  -0.9
LTZ    60.73 144 eP     36 23.60  -0.8
TCW    61.03 142 eP     36 25.00  -1.3
KIW    61.23 141 eP     36 25.90  -1.8
TUZ    61.26 148 eP     36 26.90  -0.9
KHZ    61.27 143 eP     36 26.10  -1.8
URZ    61.28 137 eP     36 26.40  -1.7
MRW    61.31 141 eP     36 26.70  -1.5
MNG    61.45 140 P      36 27.20  -2.1
FRU    61.61 318 iP     36 30.00  -0.4
       2.4s   960.00nm          6.5mb
     Z  24s      4.50um          5.5MszX
     E  24s      6.50um
                   i     36 53.60
                   eS    44 46.00
HBZ    61.76 136 eP     36 30.20  -1.1
MTW    61.76 141 eP     36 28.90  -2.4
SEM    61.82 327 iPc+   36 29.80  -1.7
       2.8s   662.00nm          6.3mb
                   i     36 44.50
                   i     36 59.50
                   i     38 50.20
                   eS    44 46.00
                   i     45 17.00
PUZ    61.96 137 eP     36 31.20  -1.5
SMY    62.18  30 P      36 40.00   6.1X
     Z  21s      2.80um          5.4Msz
OUE    63.54 302 iPc+   36 44.30   0.7
       1.7s  4519.23nm          7.2mb X
                   eS    45 14.50
TIK    68.28   0 iPc+   37 11.00  -1.7
       1.6s   155.00nm          5.7mb
                   e     37 27.00
                   ipP   37 42.00 126kmX
                   i     39 39.00
                   iS    46 03.00
                   i     46 36.00
BRVK   68.52 327 iPc    37 12.50  -2.1
       1.2s   360.00nm          6.2mb
                   eS    46 08.00
DRV    70.29 175 iP     37 25.90   0.8
CSY    70.54 187 iPc    37 28.00   1.3
       0.8s    77.60nm          5.7mb
MAIO   70.87 307 iPc    37 29.60   0.1
                   eS    46 43.00
NRI    71.12 346 iPc+   37 28.80  -1.4
       2.0s   207.00nm          5.7mb
                   e     37 43.00
                   eS    46 37.00
ASH    72.07 309 P      37 37.00   0.5
       1.8s  1010.00nm          6.4mb
                   e     37 53.00
                   e     38 03.00
                   S     47 00.00
                   e     47 26.00
                   PS    47 40.00
                   e     47 48.00
                   e     51 29.00
HON    73.83  69 P-     37 59.44  12.5X
     Z  21s      1.65um          5.3Msz
KAT    73.88 310 iP+    37 47.00   0.0
                   i     38 04.00
                   iS    47 15.00
```

```
                   ePS   47 45.00
                   eSS   52 02.00
DHH    74.01  69 eP     37 49.67   1.6
SVE    75.06 328 iPc    37 52.00  -1.5
       2.9s   680.00nm          6.1mb
     Z  19s      1.50um          5.3Msz
     N  19s      1.00um
     E  19s      1.20um
                   e     38 17.00
                   eS    47 20.00
                   eSS   52 17.00
ARU    76.03 328 ePc    37 57.50  -1.4
       2.6s   650.00nm          6.1mb
                   e     38 14.00
                   e     38 24.00
                   e     40 54.00
                   eS    47 33.00
SDN    76.80  34 eP     38 03.55   0.3
       0.5s   121.14nm          6.1mb
     Z  20s      1.59um          5.3Msz
BAK    78.90 310 iPc    38 18.00   2.9X
                   iS    48 16.00
SHE    79.88 311 iPd    38 22.00   1.6
       1.0s   220.00nm          6.0mb
                   iS    48 24.00
SVW    80.54  29 eP     38 24.17   0.6
       1.2s   110.92nm          5.7mb
TTA    80.70  27 eP     38 24.30  -0.1
       1.3s    61.38nm          5.4mb
KER    80.72 304 iPd    38 24.70  -0.6
RYD    80.91 294 PKP    38 25.50  -0.8
TAB    81.51 308 eP     38 31.00   1.7
KDC    81.60  32 eP     38 29.80   0.8
       1.0s    30.84nm          5.2mb
BGL    82.11  29 eP     38 31.71  -0.1
MJMA   82.11 296 PKP    38 32.70   0.2
CP2    82.18  29 eP     38 32.12  -0.2
BRW    82.18  18 eP     38 32.76   0.9
CRP    82.22  29 eP     38 31.73  -0.8
GRO    82.25 313 iPd    38 34.00   1.2
     N  17s      6.00um
                   i     41 41.00
                   eS    48 43.00
IMA    82.26  24 ePc    38 33.18   0.6
       1.1s    56.10nm          5.4mb
MTA    82.83 311 eP+    38 37.00   1.2
       0.8s   160.00nm          6.0mb
                   i     38 53.00
                   i     41 53.00
                   iPPP  43 41.00
                   iS    48 56.20
                   iPS   49 51.00
CRZF   82.91 223 eP     38 44.00   7.9X
SLKM   83.07  30 ePc    38 36.22  -0.5
AFR    83.48 108 iPd    38 41.40   1.8
       1.9s  1087.10nm          6.5mb
PPT    83.68 108 iPd    38 41.70   1.1
       1.7s   826.40nm          6.5mb
PAE    83.68 108 iPd    38 41.90   1.3
       1.9s  1050.80nm          6.5mb
SBA    83.69 172 iPc    38 41.00   1.5
PMR    83.70  29 eP     38 39.15  -0.7
       1.3s   235.85nm          6.0mb
     Z  21s      0.70um          5.0Msz
MAW    83.80 200 iPd    38 42.50   2.3
       1.0s   108.33nm          5.8mb
DHJN   83.88 287 PKP    38 42.70   0.7
TVO    84.00 108 iPd    38 44.00   1.7
       1.5s   618.40nm          6.4mb
PYA    84.17 314 iPc    38 42.00  -0.7
       1.5s   390.00nm          6.2mb
     Z  20s      2.00um          5.5Msz
                   i     39 02.00
                   eS    49 01.00
                   i     50 02.00
KMTA   84.46 288 PKP    38 45.70   0.9
FBA    84.56  25 eP     38 42.92  -1.2
       1.7s    54.62nm          5.3mb
                   ePP   41 58.65
ABHA   84.57 288 PKP    38 47.10   1.7
ARO    84.70 281 iP+    38 47.00   1.1
PMO    85.06 105 iPd    38 49.00   1.5
       2.0s   774.40nm          6.4mb
KLU    85.23  29 ePc    38 47.85   0.2
TPT    85.32 105 iPd    38 50.40   1.6
       1.8s   649.10nm          6.4mb
VAH    85.33 105 iPd    38 50.30   1.4
```

```
        1.7s   423.50nm          6.2mb
RUV     85.57 105 iPd   38 51.50   1.5
        1.7s   682.30nm          6.4mb
SOC     86.59 313 eP    38 54.00  -0.6
        2.5s   200.00nm          5.8mb
                  e     50 34.00
BALM    86.95  29 eP    38 56.30   0.1
MOS     87.59 326 eP    38 59.00  -0.2
      Z  20s     3.20um          5.7Msz
OBN     88.20 325 eP    39 00.00  -2.1
        1.2s   110.00nm          5.9mb
      Z  22s     2.20um          5.5Msz
      E  22s     1.90um
                  e     39 22.00
                  e     49 28.00
                  (S)   49 40.00
                  ePS   50 52.00
GAZ     88.75 307 eP    39 04.00  -1.2
APA     88.83 337 iPc   39 05.00   0.1
AAE     88.83 279 eP    39 05.00  -1.3
KVT     89.42 311 iP    39 09.00   0.7
WAJH    89.95 296 PKP   39 11.70   0.7
BHL     90.23 304 P     39 11.00  -1.3
                  PP    42 35.00
                  SKS   49 36.00
AYN     90.28 299 PKP   39 13.30   0.9
SIT     90.87  33 P     39 20.00   5.5X
      Z  20s     1.84um          5.5Msz
HOL     91.08 299 PKP   39 16.30   0.2
PUL     91.12 330 ePd   39 15.00  -0.6
      Z  26s     2.10um          5.5MszX
      N  26s     1.00um
      E  26s     1.70um
                  e     39 43.00
NAI     91.36 269 iPd   39 20.00   2.0
        1.0s    60.00nm          5.9mb
SDF     91.49 338 iP    39 16.50  -0.8
CSS     92.05 305 eP    39 21.00   0.5
KAF     92.63 333 iP    39 21.30  -1.3
        0.3s     3.10nm          5.2mb
SPA     93.24 180 iPc   39 26.30   0.8
        0.7s    52.73nm          6.1mb
MNK     93.57 324 eP    39 24.00  -3.1X
NUR     93.77 331 eP    39 26.40  -1.4
        0.7s    10.20nm          5.4mb
UPP     97.32 332 iP    39 43.70  -0.3
DAG     97.90 353 eP    39 45.10  -1.3
        0.8s    12.69nm          5.5mb
UZH     97.93 320 iPd   39 47.50   0.5
        1.0s    64.00nm          6.1mb
                  i     40 08.00
RES     98.02  11 eP    39 48.00   1.0
        0.8s     8.00nm          5.3mb
BFT     98.66 245 eP    39 52.00   0.9
HFS     99.06 333 eP    39 49.80  -2.1
        0.5s     2.40nm          5.0mb
OJC     99.09 322 eP    39 52.60   0.3
YKA     99.35  25 eP    39 52.70  -0.5
        0.8s     6.60nm          5.2mb
NAO    100.06 334 Pdiff 39 54.50  -2.0
        0.8s    12.10nm          5.6mb
SLR    100.25 245 iPdiff39 57.00  -1.3
        1.1s    50.00nm          6.0mb
                  e     43 54.10
SEK    100.76 242 iPdiff39 59.00  -1.5
        0.5s    16.00nm          5.9mb
PRY    100.94 243 iPdiff40 01.00  -0.4
NVL    101.52 198 ePdiff40 04.00   1.3
      Z  20s     1.00um          5.3Msz
      N  20s     0.40um
      E  22s     0.90um
                  ePP   43 14.00
                  e     46 21.00
                  eS    50 32.00
WDC    102.45  47 Pdiff 40 20.00  12.4X
      Z  21s     1.69um          5.5Msz
FRS    102.70 240 iPdiff40 08.50  -0.4
        0.8s    20.00nm          5.9mb
GEC2   103.29 322 ePdiff40 09.70  -1.6
        0.9s     1.84nm          4.9mb X
                  e     40 19.30
                  e     40 26.60
CMB    104.74  49 Pdiff 40 30.00  12.1X
      Z  21s     0.94um          5.3Msz
FUR    105.04 322 iPKPd 44 35.30   1.8
FIR    106.71 318 ePKP  44 55.50  18.8X
ISA    106.89  51 PKP   44 50.00  12.6X
      Z  21s     1.59um          5.5Msz
WLF    107.47 325 PKP   44 57.00  19.1X
BSF    107.92 323 ePKP  44 39.40   0.4
HAU    108.11 323 ePKP  44 39.70   0.4
      Z  21s     0.73um          5.2Msz
GSC    108.29  51 ePKP  44 42.17   2.1
PEC    108.44  53 ePKP  44 41.95   1.6
LPG    108.97 321 ePKP  44 42.10   0.8
        0.6s     3.95nm
LPL    108.97 321 ePKP  44 41.90   0.6
        0.8s     9.25nm
HVU    109.02  44 ePKP  44 42.91   1.5
BCAO   109.20 276 iPdiff40 37.80  -0.5
        1.0s    10.00nm
                  id    40 57.00
SBF    109.22 319 ePKP  44 41.90   0.3
FCC    109.71  22 ePKP  44 45.50   3.6X
LOR    109.94 323 ePKP  44 43.30   0.5
      Z  19s     0.45um          5.1Msz
LBF    110.01 323 ePKP  44 43.40   0.5
        0.6s     5.05nm
SMF    110.25 323 ePKP  44 43.80   0.5
        0.5s     2.50nm
SSF    110.25 323 ePKP  44 44.00   0.7
        1.1s    18.30nm
AVF    110.48 323 ePKP  44 44.10   0.4
MSU    110.69  47 ePKP  44 45.71   1.0
BGF    110.89 323 ePKP  44 45.40   0.8
        0.6s     5.95nm
EMUT   111.16  45 ePKP  44 46.69   1.1
TCF    111.41 323 ePKP  44 46.30   0.7
        0.8s    14.50nm
SRU    111.65  46 ePKP  44 47.50   1.0
FLN    111.69 326 ePKP  44 47.60   1.7
        0.8s     8.85nm
      Z  21s     1.42um          5.5Msz
LSF    111.84 323 ePKP  44 46.80   0.5
        0.7s     8.50nm
CAF    112.17 322 ePKP  44 48.10   1.0
        0.7s     6.85nm
RJF    112.32 322 ePKP  44 48.20   0.9
      Z  23s     0.88um          5.3MszX
LPF    112.40 326 ePKP  44 48.50   1.2
        0.7s    12.55nm
MFF    112.65 324 ePKP  44 48.40   0.6
        0.8s    15.70nm
LPO    112.83 322 ePKP  44 49.50   1.2
        0.6s     7.30nm
PV09   112.89  46 ePKP  44 50.58   1.6
LFF    112.98 322 ePKP  44 49.60   1.1
PV10   113.01  46 ePKP  44 50.76   1.6
PV08   113.21  45 ePKP  44 51.16   1.5
RSSD   113.71  38 ePKP  44 50.00  -0.4
      Z  21s     1.15um          5.4Msz
TUC    114.01  53 PKP   45 00.00   8.9X
      Z  21s     0.88um          5.3Msz
ULM    114.70  29 ePKP  44 54.50   2.8X
GOL    115.00  43 ePKP  44 53.51   0.5
      Z  21s     0.18um          4.6Msz
GLD    115.07  43 ePKP  44 54.00   0.9
      Z  19s     1.45um          5.6Msz
ECRI   116.20 321 ePKP  44 57.00   2.1X
ALQ    116.32  48 ePKP  44 56.12   0.5
      Z  22s     0.18um          4.7Msz
ECHE   116.76 318 ePKP  44 57.50   1.4
ETOR   116.85 319 ePKP  44 58.00   1.7
EVIA   118.27 318 ePKP  45 00.30   1.3
GUD    118.30 320 ePKP  45 00.50   1.4
EMON   118.64 324 ePKP  45 01.50   2.0
STS    119.68 324 ePKP  45 03.50   2.1
ECOG   119.69 317 ePKP  45 01.70  -0.1
EPLA   119.85 321 ePKP  45 04.00   2.1X
EGUA   119.91 316 ePKP  45 02.30   0.2
EHOR   120.54 318 ePKP  45 04.70   1.5
EPRU   120.98 317 ePKP  45 05.50   1.3
EJIF   121.42 317 ePKP  45 06.00   1.1
EVAL   121.66 319 ePKP  45 07.00   1.6
WMOK   122.00  45 ePKP  45 06.38   0.2
      Z  21s     1.21um          5.5Msz
MEO    122.12  45 iPKPc 45 06.80   0.4
IFR    122.69 314 iPKP  45 10.50   2.8X
SIO    123.19  43 ePKP  45 09.40   1.0
TUL    123.44  42 ePKPd 45 09.50   0.7
        1.0s    41.90nm
      Z  20s     1.05um          5.5Msz
      N  18s     0.36um
      E  18s     0.55um
                  LR    24 06.00
LNO    123.44  42 ePKPd 45 09.40   0.7
                  e     45 15.40
LNO2   123.44  42 ePKP  45 09.40   0.6
LNO3   123.44  42 ePKP  45 09.60   0.8
VVO    123.80  43 (PKP) 45 09.50  -0.1
RLO    123.81  42 ePKP  45 09.70   0.1
AVE    124.44 315 iPKP  45 12.00   1.1
EEO    124.82  23 ePKP  45 15.00   3.8X
UYO    125.32  43 iPKPd 45 13.30   0.7
TIO    125.56 312 iPKPd 45 14.50   1.2
MIAR   125.71  43 ePKP  45 13.73   0.4
CBM    128.01  14 PKP   45 30.00  12.7X
      Z  20s     1.01um          5.5Msz
RSNY   128.27  21 ePKP  45 18.81   0.9
PPM    128.98  62 iPKP  45 22.80   2.1X
LMN    129.77  12 ePKP  45 25.00   4.3X
HRV    131.09  19 PKP   45 30.00   6.7X
      Z  21s     1.01um          5.5Msz
KIC    131.95 281 PKP   45 18.40  -7.4X
TIC    132.17 282 PKP   45 18.70  -7.5X
LIC    132.25 281 PKP   45 18.90  -7.5X
      Z  20s     0.17um          4.8Msz
CEH    133.48  31 ePKP  45 28.65   0.6
      Z  22s     0.91um          5.4Msz
KDS    137.55 293 iPKP  45 39.50   3.1X
MBO    141.17 298 ePKP  45 43.50   0.6
LNV    144.46 151 iPKP+ 45 46.47  -1.6
CACH   144.71 153 iPKP+ 45 47.70  -1.0
LCCH   144.77 151 iPKP+ 45 47.99  -0.6
CHCH   144.84 152 iPKP+ 45 48.03  -0.8
TACH   144.93 152 iPKP+ 45 47.71  -1.2
RFA    145.08 156 ePKP  45 50.00   0.8
IHA    145.10 150 ePKP  45 48.00  -1.2
PCH    145.16 152 iPKP+ 45 49.21  -0.2
SAN    145.23 152 iPKP+ 45 48.89  -0.6
ROCH   145.46 151 iPKP+ 45 50.40   0.3
PEL    145.47 152 iPKP+ 45 50.46   0.5
        1.1s   987.34nm
FCH    145.51 152 ePKPd 45 50.46   0.1
JACH   145.89 151 iPKP+ 45 52.22   1.5
MDZ    146.53 154 ePKP  45 53.50   1.8
RTCV   147.54 153 iPKPd 45 54.50   1.2
RTCB   147.73 152 iPKPd 45 55.50   1.8
CFA    147.89 153 e(PKP)45 55.00   1.1
RTLL   148.02 153 ePKP  45 55.10   1.0
LPA    148.02 171 ePKP+ 45 56.00   2.1X
        1.0s   768.00nm
MRA    148.24 157 ePKPc 45 55.80   1.5
TCA    149.62 158 ePKP  45 58.50   1.9
CYA    151.68 154 ePKPc 46 01.00   1.3
ANT    152.93 140 iPKPd 46 09.80   8.2X
                  i     46 21.20
FSA    153.58 150 iPKPd 46 04.90   2.5X
NNA    153.83 111 iPKPd 46 05.00   1.9
        1.2s    46.88nm
SLA    154.96 150 ePKPd 46 06.90   2.4X
HJA    156.25 148 iPKPd 46 10.00   3.9X
ARE    156.71 126 ePKP  46 10.00   2.7X
SDV    157.77  57 iPKPd 46 09.50   1.0
TOV    157.96  54 ePKP  46 10.40   1.8
CNCB   159.25 132 PKP   45 49.50 -21.0X
                  i     46 12.90
LPB    159.33 131 PKP   45 51.00 -19.4X
                  i     46 12.70
ZOBO   159.46 130 iPKPc 46 12.20   1.4
        1.8s   193.60nm
                  LR    42 12.00
VAO    159.81 193 ePKP  46 11.90   1.5
                  e     46 51.10
SIV    164.47 145 PKP   45 58.50 -16.6X
                  i     46 21.40
                  i     47 16.30
BAO    167.12 197 e(PKP)46 18.30   0.9
     S.D. = 1.2  on 309 of 348 obs.
-----------------------------------------
   JAN  04, 1993  01h 26m 28.90± 1.25s
   45.571 N ±10.4km  151.348 E ± 9.2km
   DEPTH =  38.2 ±  8.2 km
   5.0mb ( 41 obs.)  5.1Msz (  1 obs.)
 KURIL ISLANDS                    (221)

KUR      2.48 263 iPnd  27 08.00   0.4
      Z  15s     8.30um
      N  15s     5.50um
      E  15s    11.00um
                  eS    27 42.50
```

04d 01h

```
SKR      6.01  30 ePn    27 58.00   0.3
YSS      6.15 287 ePn    28 00.00   0.3
     Z  16s      2.00um
     N  19s      1.00um
     E  15s      1.20um
                  eS     29 22.70
MAT     13.39 232 (P)    29 34.00  -4.7X
        0.8s      9.70nm          4.8mb
SHNJ    19.23 241 eP     30 53.70   1.1
KUMJ    20.50 238 P      31 04.70  -1.5
YAK     20.68 330 eP     31 07.00  -0.7
        0.8s    100.00nm          5.2mb
                  eS     34 56.00
KAGJ    21.44 235 P      31 14.70  -1.1
CIT     25.47 298 eP     31 54.00  -0.8
BJI     26.25 270 eP     32 02.50   0.4
        1.0s     33.00nm          4.9mb
ILT     27.24  24 eP     32 11.00   0.2
ZAK     32.08 296 eP     32 54.30   0.2
        1.3s      8.00nm          4.4mb
LZH     36.70 272 eP     33 34.00  -0.2
        1.4s    105.00nm          5.5mb
RES     52.34  18 ePd    35 38.60   0.0
        0.6s      3.00nm          4.5mb
YKA     52.60  36 eP     35 38.90  -1.7
        0.9s      3.30nm          4.3mb
KAF     63.99 335 iP     36 58.20  -2.0
        1.0s     21.50nm          5.2mb
NUR     65.74 334 iP     37 09.90  -1.6
        0.6s      8.20nm          5.0mb
ASH     65.99 300 eP     37 14.00   0.5
MAIO    66.35 298 eP     37 16.00   0.1
HFS     69.12 339 eP     37 31.30  -1.4
        0.6s     17.50nm          5.3mb
NAO     69.22 341 P      37 31.80  -1.5
        0.7s     10.70nm          5.0mb
OJC     75.75 330 iP     38 11.80  -0.2
                  e      38 17.50
KSP     76.40 333 iPc    38 15.30  -0.4
                  id     40 01.50
                  e      44 13.30
VRI     76.68 324 eP     38 22 50   5.1X
CLL     77.02 335 iPc    38 18.70  -0.4
        1.0s     30.00nm          5.3mb
PRU     77.70 333 P      38 22.70  -0.2
                  e      38 27.10
                  e      40 07.50
MOX     78.02 335 eP     38 24.70   0.0
        1.4s     17.00nm          4.9mb
WTS     78.13 338 eP     38 25.00  -0.2
        0.8s     15.00nm          5.1mb
SRO     78.31 330 iP     38 26.20   0.0
                  e      44 09.80
BUD     78.33 329 eP     38 26.00  -0.4
ZST     78.40 331 eP     38 26.90   0.1
                  e      40 01.50
                  e      43 34.00
                  e      44 14.20
KHC     78.75 333 Pc     38 28.20  -0.6
        1.0s     10.50nm          4.8mb
                  e      38 36.20
                  e      40 10.00
GEC2    78.96 333 ePc    38 29.60  -0.4
        1.1s      6.88nm          4.6mb
                  e      38 35.00
                  e      38 40.50
GRF     78.98 335 eP     38 30.50   0.5
        1.4s     39.00nm          5.2mb
     Z  22s      1.00um          5.1Msz
ENN     79.48 338 eP     38 33.00   0.4
        1.0s     19.00nm          5.0mb
DLF     79.71 347 eP     38 34.20   0.4
DCN     79.78 347 eP     38 35.00   0.8
KBA     80.63 332 iPd    38 39.60   0.5
        1.1s     23.10nm          5.1mb
                  i      44 18.30
                  i      44 29.40
WTTA    81.01 334 iPc    38 41.10   0.0
        0.5s      9.90nm          5.0mb
                  i      38 52.40
                  i      44 35.00
                  i      44 44.80
SQTA    81.18 334 iPc    38 42.10   0.2
        0.9s      9.60nm          4.8mb
CDF     81.27 337 eP     38 42.20  -0.1
        0.7s      6.05nm          4.7mb
HAU     81.90 337 eP     38 45.40  -0.1
        0.6s      3.00nm          4.5mb
BSF     81.93 337 eP     38 45.70  -0.1
SKO     82.06 325 i(P)   38 47.00   0.6
VAY     82.14 324 eP     38 46.70  -0.1
                  i      38 53.40
HRI     82.28 310 eP     38 54.90   7.1X
ADI     82.71 311 eP     38 57.40   7.5X
FLN     82.88 342 eP     38 50.50   0.0
        0.6s      8.85nm          5.0mb
LDF     82.96 341 eP     38 50.80  -0.1
        0.5s      4.45nm          4.8mb
LOR     83.24 338 eP     38 52.40   0.0
        0.6s      7.20nm          4.9mb
GRR     83.32 342 eP     38 52.60  -0.2
        0.8s     21.20nm          5.3mb
LBF     83.47 338 eP     38 53.60   0.0
        0.5s      4.25nm          4.8mb
SSF     83.52 339 eP     38 53.90   0.1
        0.6s      4.70nm          4.8mb
JVI     83.52 310 eP     38 57.00   2.8
LPF     83.70 342 eP     38 55.10   0.4
        0.7s     10.45nm          5.1mb
AVF     83.81 339 eP     38 55.60   0.3
        0.7s      7.60nm          4.9mb
SMF     83.82 338 eP     38 55.70   0.3
        1.0s     22.40nm          5.2mb
LPL     84.06 336 eP     38 57.50   0.6
        0.9s     15.05nm          5.1mb
LPG     84.07 336 eP     38 57.70   0.6
        1.0s     16.60nm          5.1mb
BGF     84.16 339 eP     38 57.40   0.3
        0.6s      4.95nm          4.8mb
MAF     84.54 339 eP     39 00.00   1.0
        0.7s     14.00nm          5.2mb
TCF     84.57 339 eP     38 59.80   0.6
        0.8s      6.05nm          4.8mb
LSF     84.77 339 eP     39 00.30   0.1
        0.7s      8.05nm          5.0mb
MFF     84.84 341 eP     39 01.20   0.7
        0.6s      7.30nm          5.0mb
SAGI    85.22 309 eP     39 00.90  -1.8
RJF     85.66 339 eP     39 05.00   0.4
CAF     85.87 339 eP     39 06.20   0.4
LFF     86.19 340 eP     39 08.30   1.0
        0.9s     13.75nm          5.2mb
LPO     86.32 339 eP     39 08.90   1.0
        0.7s      6.50nm          5.0mb
BAO    146.02  35 e(PKP)46 03.00  -2.7X
     S.D. = 0.8  on  65 of  70 obs.
-----------------------------------
    JAN  04, 1993  01h 26m 29.84± 0.60s
    31.161 S ± 7.3km   68.605 W ± 6.8km
    DEPTH = 116.4 ±  9.4 km
 SAN JUAN PROVINCE, ARGENTINA     (137)
       MD 4.1 (SAN).

RTLL     0.20 145 iPc    26 46.10  -0.5
RTCB     0.36 207 iPd    26 47.00   0.0
CFA      0.54 145 iPc    26 47.90  -0.1
                  S      26 59.00
RTCV     0.70 175 iPc    26 48.70  -0.5
MDZ      1.73 187 eP     27 01.30   1.0
                  e      27 22.60
RTPR     2.00  65 iPc    27 04.00   0.5
                  eS     27 28.10
JACH     2.27 228 iP+    27 08.02   0.8
FCH      2.59 213 ePd    27 12.84   1.2
                  iS     27 46.75
PEL      2.65 221 iP+    27 12.40   0.3
                  iS     27 44.40
ROCH     2.73 228 iP+    27 13.01  -0.3
                  eS     27 45.70
MRA      2.76 118 ePd    27 13.70   0.2
                  S      27 44.00
PCH      2.94 213 iP     27 16.94   1.0
                  iS     27 52.99
TACH     3.17 218 eP     27 18.53  -0.5
CHCH     3.26 211 iP+    27 20.53   0.3
                  eS     27 59.38
CACH     3.39 209 iP     27 22.82   0.7
                  iS     28 03.29
LCCH     3.41 227 iP     27 21.17  -1.0
TCA      3.44  94 eP     27 22.60  -0.2
                  S      27 59.50
RFA      3.60 178 eP     27 23.80  -1.1
CYA      3.65  43 iPc    27 24.90  -0.6
                  S      28 02.80
LNV      3.66 220 iP     27 23.68  -1.9
FSA      5.55  25 iP     27 51.80   0.5
     S.D. = 0.8  on  21 of  21 obs.
-----------------------------------
•   JAN  04, 1993  01h 52m 57.70± 1.40s
    30.652 S ±11.1km   71.404 W ±12.1km
    DEPTH = 142.5 ± 27.7 km
 NEAR COAST OF CENTRAL CHILE      (135)

JACH     2.14 161 iPd    53 33.57  -1.0
ROCH     2.34 172 eP     53 36.66  -0.5
IHA      2.38 185 eP     53 37.50   0.1
                  i(S)   53 52.50
RTCB     2.38 111 iPd    53 37.30  -0.3
PEL      2.56 166 eP     53 39.42  -0.3
RTLL     2.61 106 iPc    53 40.00  -0.4
RTCV     2.73 117 ePd    53 42.50   0.5
LCCH     2.82 183 iP     53 42.60  -0.4
FCH      2.83 161 eP     53 44.04   0.5
CFA      2.88 110 ePc    53 44.00   0.2
                  S      54 19.20
TACH     3.02 173 iPd    53 46.01   0.4
PCH      3.05 166 eP+    53 46.76   0.6
MDZ      3.11 136 eP     53 49.20   2.3
LNV      3.29 180 iP     53 48.13  -1.0
CHCH     3.33 169 iP     53 50.16   0.4
RTPR     4.24  87 ePd    54 01.20  -0.4
RFA      4.80 150 eP     54 09.40   0.2
MRA      5.17 111 ePd    54 13.20  -0.9
CYA      5.36  67 iPd    54 16.70   0.0
TCA      5.89  98 eP     54 22.80  -1.1
FSA      6.58  48 eP     54 34.00   0.8
SIV     17.39  35 iPc    57 02.80   9.7X
                  i      57 21.10
     S.D. = 0.9  on  21 of  22 obs.
-----------------------------------
•   JAN  04, 1993  01h 58m 17.25± 1.24s
    19.257 N ±14.5km   64.594 W ± 9.6km
    DEPTH =  33.0km  (normal)
    3.6mb (  1 obs.)
 VIRGIN ISLANDS                   ( 91)

LPR      1.53 232 P      58 42.20  -0.5
                  S      59 00.20
CPD      1.74 226 P      58 45.60  -0.1
SJG      1.86 233 iP     58 47.00  -0.4
APR      2.17 249 P      58 52.10   0.3
PORP     2.28 239 P      58 53.00  -0.3
MGP      2.67 243 P      58 59.00   0.1
PAG      4.25 139 eP     59 20.00  -1.3
SIV     35.20 174 P      05 13.00   2.4
YKA     55.09 334 eP     07 47.90  -0.3
        0.6s      0.40nm          3.6mb
     S.D. = 1.2  on   9 of   9 obs.
-----------------------------------
    JAN  04, 1993  02h 45m 40.76± 0.86s
     9.365 N ± 7.9km   83.927 W ± 6.5km
    DEPTH =  27.4 ±  6.3 km
    4.6mb ( 20 obs.)
 COSTA RICA                       ( 78)
       MD 4.5 (UPA). Felt at David,
       Panama.

BRU      1.46 112 iP     46 05.69  -0.2
DVD      1.73 122 iP     46 08.81  -0.5
                  eS     46 33.45
ECO      4.18  90 iP     46 45.12   0.8
                  eS     47 35.43
UPA      4.35  95 iP     46 47.40   0.6
                  eS     47 50.00
TPX      9.83 305 (P)    47 56.50  -7.0X
BOG     10.86 115 eP     48 24.00   6.1X
                  eS     50 45.00
SDV     13.14  91 eP     48 47.80  -0.6
TOV     13.95  87 eP     49 01.50   2.5
OXX     14.62 303 iP     49 09.50   1.5
UNM     17.78 306 iP     49 42.70  -5.7X
NNA     22.35 161 iP     50 33.80  -4.5X
        1.5s     47.22nm          4.7mb
UYO     26.51 340 iPc    51 17.60  -0.3
MIAR    26.58 342 eP     51 18.38  -0.1
        0.8s     14.66nm          4.7mb
ARE     28.46 154 eP     51 37.00   0.9
MEO     28.64 334 iPd    51 36.80  -0.4
WMOK    28.69 334 eP     51 36.22  -1.4
        0.8s      4.38nm          4.2mb
ZOBO    29.90 148 P      51 47.00  -2.4
```

```
LPB     30 12 149 P     51 53.00   1.8
CNCB    30 42 149 eP    51 52.00  -1.9
TUC     33.75 316 eP    52 22.60   0.2
        0.8s      4.71nm          4.5mb
SIV     33.86 138 iPd   52 24.70   1.3
PV08    36.58 327 eP    52 46.50  -0.3
PV10    36.65 326 eP    52 46.19  -1.1
PV09    36.79 326 eP    52 48.16  -0.3
GLA     36.97 314 eP    52 50.63   0.9
EEO     37.38   6 eP    52 56.50   3.6X
SRU     37.99 326 eP    52 57.26  -1.2
PLM     38.58 313 eP    53 04.56   1.1
RSSD    38.78 337 eP    53 04.42  -0.6
        1.1s      6.01nm          4.3mb
PEC     39.07 314 eP    53 08.52   1.1
        1.2s      9.14nm          4.4mb
GSC     39.56 316 eP    53 12.59   1.1
CBM     39.78  17 eP    53 12.20  -0.8
        0.8s     11.71nm          4.7mb
LMN     39.89  21 ePc   53 19.00   5.1X
TNP     41.39 319 eP    53 27.34   0.7
        0.8s      6.81nm          4.4mb
ULM     41.95 349 ePd   53 32.00   1.3
BONR    42.02 318 eP    53 33.22   1.3
ORV     44.99 318 eP    53 55.97   0.3
VAO     48.41 132 eP    54 22.40  -0.5
FCC     49.89 353 ePc   54 36.50   2.9X
YKA     57.50 344 eP    55 27.10  -2.6
        0.9s      4.00nm          4.5mb
RES     65.59 357 eP    56 23.50  -0.4
        0.8s      4.00nm          4.6mb
SLKM    70.32 331 eP    56 53.42  -0.3
FBA     70.63 336 (P)   56 55.39  -0.1
        0.8s      2.90nm          4.4mb
IMA     73.33 336 eP    57 13.00   1.3
        0.9s      3.12nm          4.3mb
TIC     78.04  85 P     57 39.10  -0.1
LIC     78.09  86 P     57 39.20  -0.3
KIC     78.36  85 P     57 40.60  -0.4
GRR     78.47  42 eP    57 41.10   0.2
        1.1s     38.60nm          5.3mb
FLN     78.71  42 eP    57 42.60   0.4
LDF     78.95  42 eP    57 43.80   0.2
        0.8s     14.25nm          5.0mb
MFF     79.00  44 eP    57 44.00   0.1
LFF     79.69  46 eP    57 47.90   0.3
        0.6s      4.25nm          4.6mb
CAF     80.63  46 eP    57 51.50  -1.2
TCF     80.64  45 eP    57 52.70   0.0
HAU     83.30  43 eP    58 09.90   3.4X
      Z  23s      0.25um          4.5MszX
BSF     83.62  43 eP    58 11.40   3.1X
NAO     84.21  29 P     58 11.00   0.2
        0.7s      2.50nm          4.5mb
ADK     84.41 322 eP    58 09.84  -2.1
        0.8s     42.24nm          5.7mb X
HFS     85.73  30 eP    58 17.30  -1.1
        0.5s      2.30nm          4.7mb
MOX     86.33  39 eP    58 21.10  -0.5
CLL     87.07  39 iPd   58 25.70   0.5
        1.7s     29.00nm          5.2mb
KHC     87.87  41 P     58 29.20   0.1
        1.5s      9.80nm          4.9mb
                   e    58 42.70
GEC2    88.00  41 eP    58 30.20   0.3
        1.5s      8.64nm          4.8mb
                   e    58 36.90
                   e    58 39.40
                   e    58 44.40
GKN    141.24  16 PKP   05 08.00  -3.6X
WB2    141.59 250 iPKPc 05 03.00  -9.2X
        1.1s      1.90nm
WRA    141.60 250 PKP   05 05.80  -6.5X
        0.9s      0.30nm
GUN    141.65  15 PKP   05 07.40  -5.2X
KMI    145.11 349 ePKP  05 17.50  -0.9
        1.6s     60.00nm
HYB    148.25  33 ePKP  05 25.20   1.8
GBA    150.62  39 PKP   05 31.00   4.0X
      S.D. = 1.1  on  56 of  70 obs.
-----------------------------------------
&  JAN  04, 1993  02h 57m 25.40s
   34.290 N          116.769 W
   DEPTH =   7.2km
 SOUTHERN CALIFORNIA                ( 43)
      <PAS-P>. ML 2.6 (PAS).
```

```
PEC     0.51 219 ePc    57 34.93  -0.8
SSK     0.77 264 eP     57 39.70  -1.1
                eS      57 50.53
PLM     0.94 185 iPd    57 42.74  -0.9
GSC     1.01 358 ePd    57 44.17  -0.7
ISA     1.96 315 ePn    57 58.95  -0.5
GLA     2.04 127 ePn    57 58.69  -1.8
BONR    3.86 342 ePg    58 38.02  11.3
        7 obs. associated
-----------------------------------------
    JAN  04, 1993  02h 59m 10.05± 0.70s
     9.058 N ± 6.5km   83.993 W ± 4.7km
    DEPTH =  40.8 ±  6.0 km
    4.7mb ( 25 obs.)  4.7Msz (  3 obs.)
  COSTA RICA                        ( 78)
        MD 4.6 (UPA). Felt at David,
        Panama.

BRU     1.44 100 iP     59 34.07  -0.3
DVD     1.65 112 iP     59 36.99   0.1
                eS      59 58.12
ECO     4.25  86 iP     00 14.08  -0.1
                eS      01 05.00
UPA     4.40  91 iP     00 16.54   0.3
                eS      01 08.72
TPX     9.96 306 iP     01 34.20   0.5
BOG    10.80 113 eP     01 51.50   6.0X
BMG    10.99 100 eP     01 41.00  -6.9X
SDV    13.20  90 eP     02 17.50  -0.1
TOV    14.03  86 eP     02 28.00  -0.4
OXX    14.74 304 iP     02 38.50   0.7
PPM    17.32 307 iP     03 12.00   0.9
NNA    22.08 161 iPc    04 03.10  -0.4
        1.5s    138.89nm          5.2mb
UYO    26.78 340 iPd    04 47.00  -1.1
MIAR   26.85 342 eP     04 47.55  -1.2
        0.7s     11.72nm          4.6mb
ARE    28.21 154 eP     05 06.00   4.3X
MEO    28.89 335 e(P)   05 06.00  -1.2
WMOK   28.93 334 eP     05 05.76  -1.9
        1.0s     12.14nm          4.5mb
ZOBO   29.68 148 eP     05 08.00  -7.2X
LPB    29.90 148 P      05 18.00   1.1
CNCB   30.19 148 P      05 14.00  -5.7X
PV10   36.87 326 eP     06 15.17  -1.6
EEO    37.69   6 eP     06 25.50   2.2
SRU    38.21 326 eP     06 26.89  -1.1
MSU    38.74 324 eP     06 31.96  -0.6
RSSD   39.03 337 eP     06 34.43  -0.4
        1.3s     14.06nm          4.6mb
LMN    40.20  21 ePd    06 49.30   5.1X
ISA    41.08 315 eP     06 51.64   0.0
        1.2s     11.18nm          4.5mb
TNP    41.58 319 eP     06 56.33   0.5
        0.7s      4.90nm          4.3mb
BONR   42.21 318 eP     07 02.32   1.2
ULM    42.23 349 ePd    07 01.00   0.2
BAO    43.28 124 Pc     07 09.00  -1.0
MDZ    44.13 162 eP     07 16.80   0.2
ORV    45.17 318 eP     07 26.09   1.3
VAO    48.25 132 eP     07 47.50  -1.8
                e       07 52.80
FCC    50.19 353 ePc    08 05.50   2.0
YKA    57.78 344 eP     08 56.00  -3.3X
        0.7s      2.90nm          4.5mb
RES    65.89 357 eP     09 52.50  -0.9
        0.7s      3.00nm          4.5mb
KDS    70.41  80 eP     10 24.00   1.4
SLKM   70.55 331 eP     10 22.25  -0.5
IMA    73.58 336 eP     10 42.00   1.3
        1.0s      5.50nm          4.5mb
DMU    75.12  37 eP     10 50.40   0.7
EJIF   75.47  55 eP     10 54.00   2.0
EHOR   75.63  53 eP     10 53.00   0.1
DAG    75.67  12 eP     10 51.30  -1.1
        0.6s      8.00nm          4.9mb
EBAN   76.78  53 eP     11 12.50  13.1X
ECOG   76.98  54 eP     11 05.00   4.3X
EVIA   77.78  52 eP     11 09.70   4.7X
ETOR   78.05  50 eP     11 07.50   1.0
TIC    78.13  85 P      11 08.00   0.7
LIC    78.18  86 P      11 08.00   0.5
KIC    78.45  85 P      11 09.60   0.6
LPF    78.62  43 eP     11 09.00  -0.3
GRR    78.74  42 eP     11 09.90   0.0
        0.9s     31.30nm          5.3mb
FLN    78.98  42 eP     11 11.20  -0.1
```

```
      Z  21s      0.38um          4.7Msz
LDF     79.22  42 eP     11 12.60   0.0
MFF     79.26  44 eP     11 12.80   0.0
EPF     79.75  48 eP     11 16.00   0.3
        1.1s     21.50nm          5.0mb
LFF     79.95  46 eP     11 16.70   0.1
LPO     80.28  46 eP     11 18.30  -0.1
        0.9s      9.00nm          4.7mb
RJF     80.48  46 eP     11 19.40   0.0
        0.8s     10.75nm          4.9mb
      Z  21s      0.35um          4.7Msz
CAF     80.89  46 eP     11 21.50  -0.1
        1.2s     26.50nm          5.1mb
TCF     80.91  44 eP     11 21.30  -0.4
        1.0s     10.40nm          4.8mb
MAF     81.16  45 eP     11 22.70  -0.3
BGF     81.33  44 eP     11 23.60  -0.2
        0.7s      8.80nm          4.9mb
SSF     81.74  44 eP     11 25.30  -0.7
LOR     81.97  43 eP     11 26.60  -0.6
      Z  23s      0.40um          4.7MszX
SMF     82.00  44 eP     11 26.40  -1.0
        0.6s      3.25nm          4.5mb
WTS     83.43  38 eP     11 43.00   8.5X
        0.8s     17.00nm          5.2mb
HAU     83.57  43 eP     11 34.30  -1.1
      Z  21s      0.38um          4.7Msz
BSF     83.89  43 eP     11 36.70  -0.5
CDF     84.14  42 eP     11 38.20  -0.2
NAO     84.51  29 P      11 40.60   0.7
        0.8s      3.70nm          4.6mb
HFS     86.03  30 eP     11 46.50  -0.9
        0.5s      2.80nm          4.8mb
GRF     86.52  40 eP     11 50.90   0.8
MOX     86.61  39 eP     11 50.80   0.3
CLL     87.35  39 iPd    11 54.80   0.8
        1.7s     41.00nm          5.4mb
WET     87.69  41 eP     11 56.90   1.1
KHC     88.14  41 eP     11 57.50  -0.5
        1.5s     13.30nm          5.0mb
                   e     12 14.00
                   e     13 13.10
GEC2    88.28  41 ePd    11 59.00   0.3
        0.6s      0.96nm          4.3mb
                   e     12 03.10
                   e     12 05.70
                   e     12 11.40
KBA     88.40  43 iPc    11 59.10  -0.3
        1.4s     27.80nm          5.4mb
ZST     90.63  41 eP     12 09.60   0.0
WB2    141.42 249 ePKP   18 35.90  -3.5X
        0.8s      3.40nm
WRA    141.43 249 PKP    18 34.80  -4.6X
        0.8s      0.60nm
MTN    145.33 261 ePKP   18 46.00  -0.1
KMI    145.40 349 PKPc   18 46.00  -0.3
        2.0s    110.00nm
HYB    148.54  33 ePKP   18 54.00   2.7X
GBA    150.90  40 PKP    19 00.00   5.1X
      S.D. = 0.9  on  72 of  87 obs.
-----------------------------------------
*  JAN  04, 1993  04h 30m 30.10± 1.31s
   19.334 N ±14.6km   64.637 W ±10.4km
   DEPTH =  33.0km  (normal)
   3.8mb (  1 obs.)
 VIRGIN ISLANDS                     ( 91)

LPR      1.55 229 P      30 54.80  -1.0
SJG      1.88 230 iP     30 59.90  -0.6
                S        31 22.40
APR      2.17 246 P      31 04.90   0.3
PORP     2.28 236 P      31 05.50  -0.8
LRS      2.33 244 P      31 06.80  -0.2
PAG      4.33 139 eP     31 34.00  -1.4
TOV     10.72 208 eP     33 06.50   1.9
SDV     11.90 210 eP     33 23.60   2.9X
SIV     35.28 174 P      37 25.70   1.6
YKA     55.01 334 eP     40 00.50   0.1
        0.6s      0.60nm          3.8mb
      S.D. = 1.3  on   9 of  10 obs.
-----------------------------------------
?  JAN  04, 1993  05h 38m 08.64± 4.44s
   40.000 N ±29.9km   20.658 E ±27.5km
   DEPTH =  10.0km  (geophysicist)
 GREECE-ALBANIA BORDER REGION      (392)

SRN      0.52 257 ePn    38 19.20   0.0
```

04d 05h

```
TPE      0.58 301 iPn?   38 31.50   11.2X
KBN      0.63   9 ePn    38 20.50   -0.8
VLO      1.01 298 ePn    38 27.00   -0.7
TIR      1.47 336 ePn    38 40.50    5.3X
PHP      1.69 354 ePn    38 37.80   -0.6
LACI     1.79 337 ePn    38 40.50    0.8
SDA      2.23 337 ePn    38 50.70    4.6X
BCI      2.41 350 ePn    38 49.90    1.2
      S.D. = 1.1  on   6 of   9 obs.
-----------------------------------
%  JAN  04, 1993  05h 41m 16.79± 0.57s
   44.778 N ± 4.1km     7.130 E ± 7.1km
   DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                    (545)
      ML 1.8 (GEN).

BHB      0.11  56 P      41 20.03    0.3
PZZ      0.27 184 P      41 22.94    0.3
                  S      41 26.92
RRL      0.28 300 P      41 23.17    0.3
RSP      0.38  14 P      41 24.91    0.2
                  S      41 29.71
STV      0.55 165 P      41 27.65   -0.4
                  S      41 34.92
ENR      0.59 159 P      41 28.24   -0.5
                  S      41 35.61
LSD      0.68   2 P      41 29.75   -0.7
                  S      41 38.36
ROB      0.72 132 P      41 31.49    0.5
                  S      41 40.32
      S.D. = 0.6  on   8 of   8 obs.
-----------------------------------
   JAN  04, 1993  06h 05m 25.52± 1.34s
   19.326 S ±10.1km  177.515 W ± 5.9km
   DEPTH = 561.7 ± 18.7 km
   4.9mb ( 22 obs.)
 FIJI ISLANDS REGION               (181)

DZM     15.26 257 iPc    08 37.80    0.8
URZ     19.44 193 eP     09 15.50   -1.4
        0.3s     28.00nm          5.4mb
NOZ     19.61 190 eP     09 19.70    1.3
        0.3s     25.00nm          5.3mb
QRZ     23.06 200 P      09 50.20    0.3
THZ     23.81 198 eP     09 56.60   -0.1
        0.3s      5.00nm          4.6mb
DSZ     24.13 200 eP     09 59.80    0.3
KHZ     24.24 196 P      09 59.40   -1.0
LTZ     24.93 198 P      10 04.90   -1.7
        0.3s     11.00nm          5.0mb
AFR     26.36  91 iPd    10 20.00    0.6
        0.9s     94.30nm          5.4mb
PAE     26.53  91 iPd    10 20.60   -0.2
        2.0s   1147.50nm          6.2mb X
PPT     26.55  91 iPd    10 21.50    0.5
        1.7s    735.20nm          6.0mb X
PPN     26.69  91 iPd    10 22.70    0.5
        0.8s     66.60nm          5.3mb
LMZ     26.73 202 P      10 22.30    0.0
PMO     28.60  86 iPd    10 38.70   -0.2
        1.1s     99.60nm          5.4mb
VAH     28.80  87 iPd    10 40.10   -0.5
        0.8s     57.00nm          5.3mb
TPT     28.87  86 iPd    10 41.10   -0.1
        1.2s    123.80nm          5.4mb
RUV     29.05  87 iPd    10 42.40   -0.3
        0.8s     79.50nm          5.4mb
CTA     34.08 263 P      11 26.50    1.2
CMS     35.10 243 iPc    11 34.50    0.9
        0.7s     10.00nm          4.6mb
TOO     36.96 233 iPc    11 50.20    1.3
        0.6s     21.00nm          4.9mb
STK     38.72 243 eP     12 04.30    1.0
        0.7s      8.40nm          4.5mb
WB2     45.21 261 iPd    12 54.10   -0.7
        0.6s     15.40nm          4.7mb
                  i      14 23.00
                  eS     18 51.20
WRA     45.22 261 P      12 54.70   -0.1
        0.7s      1.40nm          3.6mb X
ASPA    45.24 256 iPc    12 55.10    0.1
        1.0s     38.60nm          4.9mb
                  i      14 22.90
                  iS     18 52.20
WARB    51.63 252 iPc    13 41.00   -1.7
KLB     58.96 244 iPc    14 33.00   -0.6
        0.5s     10.00nm          4.4mb
BAL     59.95 245 eP     14 39.40   -0.8
MUN     60.25 244 eP     14 41.80   -0.3
MRWA    60.72 247 eP     14 44.00   -1.2
MAT     69.54 323 eP     15 39.00   -1.0
        0.7s     12.33nm          4.5mb
SPA     70.79 180 iPd    15 48.10    1.0
        0.8s     15.83nm          4.6mb
TNP     80.37  44 eP     16 42.00    1.8
        1.0s      3.00nm          3.7mb X
BGL     82.81  12 eP     16 50.59   -1.2
CP2     82.84  12 eP     16 51.19   -0.9
CRP     82.86  12 eP     16 50.42   -1.7
PMR     83.78  13 eP     16 56.90    0.4
IMA     87.02  10 eP     17 12.80    0.6
        1.0s      6.25nm          4 3mb
CHG     90.28 290 ePd    17 30.00    1.9
        1.0s     15.50nm          4.9mb
RSSD    91.99  44 eP     17 36.02    0.2
        1.3s      7.95nm          4.6mb
LZH     92.42 307 eP     17 49.00   11.2X
        1.3s     26.00nm
YKA     95.26  25 eP     17 49.50   -0.4
        0.7s      0.70nm          4.0mb
NAO    138.12 354 PKP    23 48.10    0.2
        0.8s      2.70nm
EKA    143.80   5 PKP    23 57.00   -1.0
        2.1s    176.10nm
LWI    146.42 233 iPKPd 24 07.40    3.5X
WIT    146.42 355 ePKP  24 06.00    3.6X
KSP    146.70 344 iPKPd 24 06.00    3.0X
SPC    146.96 338 e(PKP)24 06.50    2.8X
WTS    147.22 355 ePKP  24 07.50    3.8X
        0.9s     25.00nm
                   e    24 10.50
HRI    147.27 302 ePKP  24 08.20    3.6X
MOX    147.92 349 ePKP  24 08.80    3.8X
        2.0s     40.00nm
PRU    147.93 345 PKP   24 09.00    4.0X
        0.9s     10.70nm
                   e    24 13.80
DSI    148.02 299 ePKP  24 10.00    4.3X
ENN    148.51 356 ePKP  24 10.50    4.7X
        0.8s      8.00nm
                   e    24 15.50
CSS    148.60 306 ePKP  24 10.60    4.1X
SRO    148.80 339 iPKP  24 12.10    5.7X
ZST    148.86 341 ePKP  24 10.80    4.3X
RMN    148.90 297 ePKP  24 12.10    4.9X
GRF    148.91 349 iPKP  24 12.20    5.7X
        0.9s     11.00nm
                   e    24 18.20
KHC    148.95 346 PKPd  24 12.10    5.4X
        1.1s     18.80nm
                   e    24 19.00
GEC2   149.19 345 e(PKP)24 08.70    1.6
        1.0s      1.50nm
DOU    149.25 357 PKP   24 12.80    5.8X
WLF    149.59 355 iPKPc 24 13.88    6.4X
FLN    150.54   4 ePKP  24 14.80    5.8X
        1.2s     78.55nm
CDF    150.73 353 ePKP  24 15.50    6.1X
        0.9s     20.15nm
LDF    150.73   4 ePKP  24 15.10    5.8X
        0.6s      9.00nm
GRR    150.88   5 ePKP  24 15.70    6.2X
        0.7s     14.65nm
KBA    150.93 345 iPKPd 24 15.30    5.4X
        0.9s     18.60nm
WTTA   151.15 347 iPKPd 24 16.60    6.4X
        0.7s     21.30nm
HAU    151.22 355 ePKP  24 16.50    6.4X
        0.9s     13.25nm
LPF    151.22   5 ePKP  24 16.60    6.6X
        0.7s     23.80nm
PTJ    151.26 340 ePKP  24 17.10    6.8X
BSF    151.35 354 ePKP  24 16.70    6.3X
        0.9s     15.40nm
VBY    151.83 341 e(PKP)24 18.50    7.5X
LOR    152.11 358 ePKP  24 18.60    7.3X
        0.9s     12.80nm
SSF    152.32 358 ePKP  24 19.20    7.6X
        1.0s     18.40nm
LBF    152.39 358 ePKP  24 19.20    7.4X
        0.9s     10.95nm
MFF    152.71   4 ePKP  24 19.60    7.4X
        1.0s     14.60nm
BGF    152.84 359 ePKP  24 20.20    7.8X
        0.8s      7.95nm
TCF    153.11   0 ePKP  24 20.70    7.9X
        1.1s     16.35nm
LSF    153.14   1 ePKP  24 20.50    7.7X
        0.9s     12.80nm
MAF    153.18 360 ePKP  24 21.10    8.2X
        1.2s     16.35nm
LPL    153.65 353 ePKP  24 22.80    9.0X
        1.2s     10.70nm
LPG    153.66 353 ePKP  24 22.80    8.9X
        1.4s     18.30nm
BCAO   158.45 229 iPKPc 24 21.20    0.7
        0.9s     14.00nm
                   ic   24 59.70
      S.D. = 1.0  on  44 of  84 obs.
-----------------------------------
&  JAN  04, 1993  06h 10m 04.58s
   63.119 N          150.525 W
   DEPTH = 111.1km
 CENTRAL ALASKA                    (  1)
      <AEIC>.

HUR      0.43 109 iP     10 20.99   -0.4
                  eS     10 33.46
RND      0.81  68 iP     10 24.06   -0.3
                  eS     10 38.65
MCK      0.94  49 eP     10 25.40   -0.2
                  S      10 41.46
SKT      1.23 203 iP     10 28.29   -0.4
                  eS     10 46.42
PWA      1.50 168 eP     10 31.98    0.1
                  S      10 53.64
GHO      1.54 150 iP     10 32.04   -0.4
                  eS     10 53.53
NEA      1.60  23 iP     10 32.36   -0.7
                  S      10 53.72
SML      1.66 141 eP     10 32.91   -1.0
                  eS     10 55.96
PLRM     1.66 156 eP     10 33.28   -0.5
SUA      1.66 184 eP     10 34.76    0.8
                  eS     10 57.68
NCG      1.88 205 eP     10 36.78    0.1
MLY      1.92 357 iP     10 36.71   -0.4
PMS      1.93 166 iP     10 37.36    0.1
CGLM     1.95 202 eP     10 37.58    0.1
                  eS     11 03.28
CCB      1.95  37 iP     10 36.70   -0.7
KNK      1.97 150 iP     10 36.83   -0.9
SCM      1.97 130 eP     10 36.92   -0.8
CRP      2.01 203 eP     10 38.57    0.2
CP2      2.03 204 eP     10 38.44   -0.2
                  eS     11 03.81
HDA      2.05  49 eP     10 37.89   -0.8
CKN      2.05 203 eP     10 39.59    0.7
BGL      2.06 206 eP     10 39.55    0.6
SPU      2.07 201 eP     10 38.48   -0.6
                  S      11 05.97
CKT      2.08 203 eP     10 39.57    0.3
CKL      2.11 205 eP     10 39.64    0.0
FBA      2.16  33 eP     10 39.46   -0.6
TOA      2.26 115 eP     10 40.61   -0.9
PAX      2.31  91 eP     10 41.55   -0.7
                  S      11 09.64
GLM      2.33  35 eP     10 41.66   -0.8
SDG      2.36 102 eP     10 42.30   -0.6
PTE      2.37 162 eP     10 41.53   -1.4
                  S      11 10.61
TTA      2.51 268 eP     10 43.16   -1.7
SLKM     2.62 177 eP     10 45.52   -0.8
                  eS     11 15.20
MPA      2.70 168 eP     10 46.14   -1.1
                  eS     11 17.30
KLU      2.70 125 eP     10 45.75   -1.6
DFR      2.74 203 eP     10 48.09    0.2
GLI      2.77 143 eP     10 46.26   -2.0
REF      2.83 202 eP     10 48.80   -0.5
RDW      2.86 203 eP     10 49.52   -0.1
RS2      2.87 203 eP     10 50.29    0.5
RSO      2.87 203 eP     10 50.21    0.5
FID      3.05 139 eP     10 50.05   -2.0
SEW      3.07 170 eP     10 50.93   -1.3
KNIM     3.08 153 eP     10 50.24   -2.2
SVW      3.13 232 eP     10 52.71   -0.4
GLB      3.56 115 eP     10 57.10   -1.9
      46 obs. associated
-----------------------------------
   JAN  04, 1993  06h 11m 29.98± 1.36s
```

32.686 S ± 7.6km 71.550 W ±10.0km
DEPTH = 16.9 ± 7.2 km
NEAR COAST OF CENTRAL CHILE (135)
MD 4.0 (SAN).

IHA	0.35	193	e(P)	11	38.00	0.7
			iS	11	46.70	
ROCH	0.54	122	iPd	11	41.47	0.8
			iS	11	51.89	
LCCH	0.79	181	iP	11	44.66	-0.2
			iS	11	57.50	
JACH	0.81	90	iPd	11	44.51	-0.7
			iS	11	57.57	
PEL	0.86	122	iPd	11	46.63	0.5
			iS	12	00.87	
SAN	1.07	136	iPd	11	49.76	0.1
			iS	12	06.43	
TACH	1.09	152	iP	11	50.40	0.3
			iS	12	07.00	
FCH	1.24	121	iPd	11	52.27	-0.4
			iS	12	11.97	
LNV	1.27	175	iP+	11	51.45	-1.4
PCH	1.27	137	iP+	11	53.24	0.2
			iS	12	12.99	
CHCH	1.45	149	eP	11	55.92	0.4
			iS	12	18.17	
CACH	1.63	151	eP	11	59.80	1.6
			iS	12	24.38	
MDZ	2.28	96	eP	12	11.80	4.2X
			eS	12	43.10	
RTCB	2.62	64	ePd	12	13.20	0.8
			S	12	55.00	
RTCV	2.68	73	ePd	12	13.50	0.3
			(S)	12	53.00	
RTLL	2.95	63	eP	12	16.80	-0.1
			S	12	57.00	
TCA	6.06	79	eP	12	57.20	-3.9X
			S	13	07.50	

S.D. = 0.8 on 15 of 17 obs.

• JAN 04, 1993 06h 47m 26.91± 2.93s
22.871 S ± 9.5km 175.957 W ±14.0km
DEPTH = 92.7 ± 25.6 km
4.9mb (16 obs.)
TONGA ISLANDS REGION (174)

SVA	7.05	311	eP	49	10.10	0.7
BKM	15.70	286	iPc	51	12.20	8.1X
DZM	16.29	269	iPd	51	18.00	6.5X
PGZ	18.87	199	eP	51	41.00	-1.5
MNG	19.11	200	eP	51	38.30	-6.9X
	0.2s	11.00nm			4.8mb	
ORZ	20.37	206	eP	52	00.90	2.8X
THZ	21.02	204	eP	52	05.00	0.1
KHZ	21.37	202	eP	52	05.90	-2.3
LMZ	24.11	207	eP	52	34.10	-0.9
ARMA	29.86	248	eP	53	28.80	1.0
RMQ	32.21	256	eP	53	50.00	1.7
	1.0s	49.00nm			5.2mb	
CMS	34.92	247	eP	54	12.00	0.3
	0.8s	13.00nm			4.9mb	
TOO	36.12	237	eP	54	23.20	1.4
	1.0s	29.00nm			5.2mb	
PMG	37.75	285	eP	54	35.00	-0.6
STK	38.55	247	eP	54	43.30	1.1
	0.8s	3.00nm			4.2mb	
ASPA	45.88	259	eP	55	41.40	-0.5
	1.0s	32.00nm			5.1mb	
			eS	02	13.40	
			eScS	05	29.00	
WB2	46.18	264	iPc	55	43.20	-1.2
	0.7s	17.30nm			5.0mb	
			eS	02	22.60	
WRA	46.19	264	P	55	44.00	-0.5
	0.8s	3.00nm			4.2mb	
WARB	51.97	254	iPd	56	28.00	-0.9
CSY	62.66	206	eP	57	45.40	1.9
	0.7s	13.00nm			5.0mb	
SPA	67.27	180	iPc	58	15.60	2.1
	1.0s	27.50nm			5.1mb	
MAT	73.24	323	eP	58	47.00	-2.7
TNP	81.93	43	eP	59	39.10	1.2
	1.0s	2.00nm			3.9mb	
			pP	59	55.00	56kmX
PMR	86.89	12	eP	00	02.00	0.0
	1.1s	3.70nm			4.4mb	
			pP	00	17.20	53kmX
FBA	90.15	12	eP	00	17.40	0.0
	1.1s	7.90nm			4.8mb	
			pP	00	31.90	49kmX
IMA	90.27	9	eP	00	18.80	0.7
	1.0s	7.20nm			4.8mb	
			pP	00	34.00	52kmX
MEO	93.07	54	iPc	00	31.10	-0.4
RSSD	93.55	43	eP	00	33.80	0.0
	1.0s	13.02nm			5.3mb	
			pP	00	49.90	56kmX
YKA	97.87	24	eP	00	51.60	-1.1
	0.8s	0.60nm			4.2mb	
GBA	110.28	277	PKP	06	06.00	15.6X
NAO	141.78	355	PKP	06	59.10	10.3X
	0.9s	4.40nm				
MUD	146.24	355	iPKPc	07	03.40	6.9X
	1.2s	130.00nm				
EKA	147.14	8	PKPc	07	14.60	16.6X
	1.2s	36.90nm				
KSP	150.49	344	ePKP	07	12.30	8.9X
	1.1s	43.00nm				
			i	07	26.10	
WTS	150.85	356	ePKP	07	26.50	22.7X
	1.1s	42.00nm				
MLR	151.24	327	ePKP	07	12.00	7.2X
MOX	151.65	350	e(PKP)	07	28.00	22.9X
	1.5s	39.00nm				
PRU	151.71	346	ePKP	07	11.50	6.3X
			e	07	28.80	
GRF	152.64	350	ePKP	07	24.20	17.6X
			e	07	40.60	
KHC	152.73	346	PKP	07	17.30	10.6X
	1.0s	3.50nm				
			e	07	29.50	
			e	07	40.00	
GEC2	152.97	346	ePKP	07	15.90	8.7X
	0.9s	2.25nm				
			e	07	24.70	
			e	07	31.30	
BCAO	156.93	220	iPKPc	07	06.00	-7.4X
	0.4s	3.00nm				
			ic	07	45.00	

S.D. = 1.3 on 25 of 42 obs.

& JAN 04, 1993 07h 17m 37.26s
56.879 N 150.145 W
DEPTH = 10.0km (geophysicist)
3.1mb (1 obs.)
GULF OF ALASKA (15)
<AEIC>. ML 3.5 (AEIC).

KDC	1.54	305	P	18	00.00	-4.8
SYI	2.11	326	eP	18	07.65	-5.4
			eS	18	31.73	
XLV	2.71	343	eP	18	16.39	-5.3
CDD	2.78	319	eP	18	17.59	-5.0
			S	18	48.39	
BRLK	2.92	353	eP	18	18.50	-6.1
AUI	3.02	326	eP	18	20.73	-5.2
			S	18	54.53	
AUE	3.02	327	eP	18	20.24	-5.7
AUP	3.04	326	eP	18	21.32	-5.0
AUH	3.04	326	eP	18	21.26	-5.1
AUL	3.06	327	eP	18	21.01	-5.5
MCNL	3.21	318	iP	18	23.49	-5.2
OPT	3.22	331	P	18	24.50	-4.4
SEW	3.26	6	eP	18	23.16	-6.1
MID	3.26	37	P	18	24.20	-5.1
MTU	3.38	22	iP	18	25.52	-5.6
LTI	3.39	20	eP	18	25.39	-5.9
ILIM	3.53	336	eP	18	27.15	-6.2
			eS	19	07.02	
INE	3.54	336	eP	18	27.02	-6.5
			S	19	07.06	
INW	3.56	335	eP	18	28.05	-5.7
			S	19	06.17	
PDB	3.61	326	eP	18	28.44	-6.0
			S	19	05.86	
SLKM	3.64	359	eP	18	29.55	-5.3
			S	19	07.86	
MPA	3.64	6	eP	18	28.80	-6.0
KNIM	3.70	19	eP	18	29.49	-6.2
RS1	3.84	340	eP	18	31.48	-6.4
RSO	3.84	340	eP	18	31.56	-6.3
RS2	3.84	340	eP	18	31.44	-6.5
REF	3.86	341	eP	18	32.33	-5.8
			eS	19	14.03	
RDW	3.87	340	eP	18	31.95	-6.3
NCT	3.97	340	eP	18	32.77	-6.8
HIN	4.01	27	eP	18	34.20	-5.8
PTE	4.04	8	eP	18	34.98	-5.4
			S	19	17.08	
KAIM	4.29	42	eP	18	38.99	-5.1
GLI	4.31	20	eP	18	38.33	-6.1
CVA	4.33	30	iP	18	38.89	-5.7
SGAM	4.45	33	eP	18	41.47	-4.9
RAGM	4.53	37	eP	18	42.06	-5.4
BGL	4.55	346	eP	18	42.27	-5.5
VLZ	4.70	23	iP	18	44.27	-5.5
PLRM	4.76	6	eP	18	44.97	-5.7
GHO	4.95	7	eP	18	47.75	-5.7
SML	5.03	10	eP	18	48.76	-5.8
SNH	5.06	46	eP	18	49.95	-5.0
KLU	5.11	23	eP	18	50.13	-5.6
CYK	5.14	48	eP	18	50.61	-5.5
CROM	5.33	40	eP	18	53.51	-5.4
YAH	5.61	48	eP	18	57.49	-5.4
GLB	5.62	33	eP	18	57.32	-5.5
TZL	5.71	23	eP	18	59.00	-5.2
BALM	5.80	41	eP	19	00.06	-5.4
PCA	6.11	54	eP	19	04.56	-5.2
CTGM	6.13	44	eP	19	04.84	-5.3
PNL	6.32	59	eP	19	07.51	-5.3
BCPM	6.32	56	eP	19	07.69	-5.1
HQN	6.50	62	eP	19	09.37	-5.8
YKA	18.61	58	eP	21	55.80	-0.5
	0.7s	1.00nm			3.1mb	

55 obs. associated

% JAN 04, 1993 07h 57m 44.73± 0.65s
33.521 S ± 6.5km 71.257 W ± 6.8km
DEPTH = 33.0km (normal)
NEAR COAST OF CENTRAL CHILE (135)
MD 3.2 (SAN).

LCCH	0.27	280	iP	57	52.69	0.6
			iS	58	00.00	
TACH	0.30	116	iP+	57	53.57	1.1
			iS	58	01.35	
LNV	0.45	196	iPd	57	53.92	-0.7
			iS	58	01.76	
ROCH	0.58	21	iPd	57	56.68	-0.1
			iS	58	06.73	
PEL	0.61	52	iP	57	57.25	0.3
			iS	58	07.59	
PCH	0.63	99	iPd	57	57.38	0.1
			iS	58	07.62	
CHCH	0.65	129	iP+	57	57.10	-0.4
			iS	58	07.76	
FCH	0.83	77	iP	58	00.24	-0.1
			iS	58	12.41	
JACH	1.01	34	iP	58	01.77	-0.9
			iS	58	16.62	

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

• JAN 04, 1993 08h 14m 50.68± 0.59s
15.349 S ±10.7km 173.471 W ±18.1km
DEPTH = 33.0km (normal)
4.6mb (6 obs.)
TONGA ISLANDS (173)

DZM	20.15	248	iPc	19	26.90	1.7
KUZ	23.38	202	P	19	58.70	1.4
URZ	24.29	198	eP	20	06.50	0.4
NOZ	24.36	196	P	20	09.40	2.6
MOZ	25.28	202	P	20	17.70	2.1
MNG	26.95	199	eP	20	29.90	-1.2
ORZ	28.15	203	eP	20	42.50	0.6
THZ	28.84	201	eP	20	48.40	0.2
KHZ	29.20	200	eP	20	50.10	-1.2
DSZ	29.22	203	eP	20	51.20	-0.4
LTZ	29.96	201	eP	20	55.90	-2.3
LMZ	31.88	204	P	21	13.10	-1.9
BWZ	32.33	203	eP	21	16.90	-2.0
STK	44.01	240	eP	22	57.10	0.1
	0.8s	5.30nm			4.4mb	
WB2	49.78	257	iPc	23	41.60	-0.9
	0.6s	7.40nm			4.9mb	
WRA	49.79	257	P	23	42.00	-0.6
	0.7s	0.60nm			3.7mb	
ASPA	50.06	252	iPd	23	43.50	-1.2
	0.6s	12.10nm			5.1mb	
SPA	74.75	180	iPc	26	29.60	0.5
	0.9s	26.36nm			5.2mb	

04d 08h

```
BJI     85.38 313 eP   27 27.00    1.0
YKA     90.08  23 eP   27 45.30   -2.9
         0.8s     0.80nm          4.0mb
GRF    145.54 355 ePKP 34 26.40   -0.7
         0.9s     7.00nm
                  e    34 35.80
KHC    145.82 352 PKP  34 26.60   -1.0
         1.2s     8.50nm
                  e    34 36.00
GEC2   146.08 351 ePKPd 34 27.60  -0.5
         0.7s     4.01nm
                  e    34 31.20
                  e    34 36.50
                  e    34 44.90
ZST    146.10 347 ePKP 34 22.20   -5.8X
                  e    49 23.70
SRO    146.19 346 ePKP 34 28.50    0.3
                  e    34 36.40
LPF    146.82   9 ePKP 34 30.00    0.8
         0.7s     7.95nm
CDF    147.02 359 ePKP 34 30.10    0.4
         0.9s    10.15nm
HAU    147.44   0 ePKP 34 31.40    1.2
         0.7s     7.40nm
LOR    148.10   3 ePKP 34 33.00    1.7
         0.8s     5.65nm
SSF    148.28   4 ePKP 34 33.60    2.0X
         1.0s    10.40nm
LBF    148.39   3 ePKP 34 33.80    2.0X
         0.8s     5.90nm
ADI    148.59 309 ePKP 34 35.20    2.6X
BGF    148.73   5 ePKP 34 33.90    1.6
         0.8s     6.30nm
DSI    149.13 307 ePKP 34 37.80    4.4X
LPL    149.93 360 ePKP 34 38.90    4.4X
LPG    149.95 360 ePKP 34 39.10    4.5X
MBH    150.25 304 ePKP 34 40.60    5.4X
BCAO   163.96 229 iPKPd 34 52.40   0.0
         0.8s     7.00nm
                  id   35 46.00
      S.D. = 1.4  on  30 of  38 obs.
-----------------------------------
   JAN  04, 1993  08h 40m 25.28± 1.08s
   40.028 N ± 6.8km  143.611 E ±13.7km
   DEPTH =  33.0km  (normal)
 OFF EAST COAST OF HONSHU, JAPAN (229)

OFUJ     1.78 238 iP+   40 54.50    0.4
                  S    41 14.90
HOOJ     2.37 354 eP    41 02.70    0.1
                  eS   41 29.30
AOMJ     2.53 283 eP    41 04.60   -0.4
                  eS   41 34.90
MRRJ     3.07 322 eP    41 11.80   -0.7
                  eS   41 46.80
KUSJ     3.18  15 iPd   41 14.20    0.2
                  eS   41 48.80
YAMJ     3.34 237 P     41 16.70    0.2
                  eS   41 54.70
ASAJ     4.15 350 eP    41 28.10    0.2
NIIJ     4.56 234 P     41 34.30    0.6
KAKJ     4.68 216 P     41 34.10   -1.3
CHJJ     5.39 224 P     41 45.00   -0.5
MAT      5.49 232 iPc   41 47.30    0.4
        0.5s     17.61nm         4.8mb X
                  (S)  42 59.00
MTMJ     5.71 235 P     41 50.90    0.8
      S.D. = 0.7  on  12 of  12 obs.
-----------------------------------
   JAN  04, 1993  09h 19m 24.86± 0.70s
   36.635 N ± 6.3km    2.532 W ± 6.3km
   DEPTH =   5.0km  (geophysicist)
 STRAIT OF GIBRALTAR              (385)
      mbLg 3.5 (MDD). Felt (IV) in the
      Almeria area, Spain.

ENIJ     0.43  38 iPgc  19 35.11    1.7
EGUA     0.85 284 iPgd  19 40.14   -1.6
                  eSg  19 53.60
ECOG     1.05 308 iPgc  19 44.40   -0.8
                  eSg  19 59.30
EHUE     1.18 358 iPgd  19 48.57    1.2
                  eSg  20 04.60
EMEL     1.38 195 iPnd  19 49.44   -1.2
                  eSn  20 08.30
EALH     1.51  36 iPnc  19 52.59    0.0
                  eSn  20 15.20
ELUQ     1.67 304 ePn   19 57.24    2.4X
EBAN     1.82 327 iPnc  19 58.44    1.3
                  eSn  20 21.10
EVIA     2.00   1 ePn   20 00.85    1.1
                  eSn  20 24.50
EPRU     2.19 279 ePn   20 02.93    0.4
                  eSn  20 29.90
EJIF     2.37 266 ePn   20 05.43    0.4
ALJ      2.47 272 iP    20 08.00    1.5
EHOR     2.47 299 iPnd  20 05.11   -1.3
                  eSn  20 37.80
PLAT     2.65 260 iP    20 10.00    0.9
GIBL     2.75 275 iP    20 22.00   11.5X
ECHE     3.20  22 iPnd  20 17.76    1.0
IFR      3.77 215 iPn   20 24.00   -1.1
                  i    20 26.00
                  iSn  21 04.00
                  i    21 05.00
ETOR     4.19   5 ePn   20 30.23   -0.7
GUD      4.20 343 eP    20 30.92   -0.1
                  eS   21 19.70
EPLA     4.42 322 eP    20 32.39   -1.7
                  eS   21 24.40
EROQ     4.77  28 ePn   20 38.75   -0.4
AVE      5.21 232 ePn   20 48.00    2.7
                  iS   21 04.00
                  eSn  21 37.50
                  i    21 39.50
ESEL     5.30  52 eP    20 45.27   -1.3
ECRI     5.97   0 eP    20 55.22   -0.8
EPF      6.76  18 Pn    21 06.10   -1.1
LPO      8.52  18 Pn    21 28.60   -3.2X
LFF      8.66  16 Pn    21 36.30    2.6X
GEC2    17.02  39 ePn   23 27.80    2.7X
         0.6s     0.41nm          2.7mb X
      S.D. = 1.3  on  23 of  28 obs.
-----------------------------------
   JAN  04, 1993  10h 03m 04.49± 0.90s
    4.048 S ± 6.1km  102.447 E ± 6.7km
   DEPTH =  84.2 ±  7.2 km
   5.2mb ( 34 obs.)
 SOUTHERN SUMATERA, INDONESIA     (274)
      Felt (III) at Kapahiong.

KSI      0.44  19 iPd   03 17.00   -1.3
                  iS   03 21.60
                  e    08 10.00
KGM      6.09   8 ePd   04 35.00    1.3
         0.5s   176.20nm          5.6mb
                  i    05 06.80
                  e    05 51.00
KLM      7.15 354 eP    04 50.00    1.6
IPM      8.69 351 ePd   05 10.60    1.1
         1.0s     90.00nm          5.5mb
SNG     11.30 351 eP    05 46.00    1.2
NNT     16.75 351 eP    06 54.30   -1.0
KKM     17.01  54 eP    07 03.50    4.8X
TSM     17.50  62 ePc   07 09.00    4.4X
PCI     17.65  80 ePc   07 11.00    4.6X
NST     19.73 353 eP    07 36.20    6.1X
BDT     21.43 351 eP    07 43.00   -4.4X
         1.0s     75.90nm          5.0mb
CHG     22.98 351 ePd   08 03.10    0.4
         1.0s     58.75nm          4.9mb
KMI     29.00   1 Pc    08 57.50   -1.2
         1.5s     70.00nm          5.1mb
                  pP   09 06.50   31kmX
MTN     29.66 109 eP    09 02.50   -2.0
GBA     30.39 306 P     09 11.30    0.4
         0.4s      2.00nm          4.2mb X
HYB     31.80 313 eP    09 23.10   -0.2
WARB    31.96 136 eP    09 24.00   -0.7
WRA     34.86 120 P     09 49.70   -0.1
         0.5s      2.00nm          4.3mb
WB2     34.87 120 iPd   09 48.90   -1.0
         0.6s     14.00nm          5.1mb
                  iPcP 12 21.10
                  eS   15 11.30
PKI     35.47 333 P     09 54.60   -0.7
GUN     35.56 334 P     09 55.80   -0.2
DMN     35.64 333 P     09 56.60    0.0
KKN     35.72 333 P     09 56.80   -0.4
POO     36.02 309 iPd   09 58.50   -1.1
ASPA    36.08 126 iPc   09 59.40   -0.7
         1.0s     28.80nm          5.2mb
                  epP  10 04.30   17kmX
                  eS   15 33.00
GKN     36.19 333 P     10 00.80   -0.3
OIS     39.69 118 eP    10 30.70    0.4
         0.3s      3.00nm          4.7mb
LZH     39.95   2 Pc    10 33.00    0.7
         1.2s    104.00nm          5.6mb
                  pP   10 51.00   73kmX
NDI     40.59 325 iPc   10 37.40   -0.1
CTA     45.53 114 P     11 18.80    1.1
BJI     45.65  15 eP    11 19.50    1.2
         0.8s     38.00nm          5.3mb
       Z  20s     0.84um          4.7Msz
STK     45.97 132 P     11 11.19   -9.9X
QUE     48.08 317 eP    11 44.60    6.7X
CMS     49.02 129 eP    11 44.80   -0.1
BFD     49.33 137 eP    11 39.30   -7.9X
         0.8s     14.00nm          5.0mb
RMQ     49.56 122 eP    11 49.70    0.6
         0.6s     15.00nm          5.2mb
                  e    13 11.20
TOO     51.55 136 eP    12 05.30    1.2
MTMJ    52.18  36 P     12 08.70   -0.2
BWA     52.22 131 eP    12 10.70    1.4
MAT     52.39  36 iPc   12 09.20   -1.2
         0.7s     15.75nm          5.2mb
CHJJ    52.53  37 P     12 10.60   -0.8
FRU     53.03 335 iPc   12 14.80   -0.2
         2.0s     60.00nm          5.3mb
                  e    12 33.00
CAN     53.03 132 eP    12 15.30    0.1
ARMA    53.23 125 eP    12 18.00    1.2
         0.9s     21.00nm          5.2mb
BRS     53.25 121 iPc   12 14.00   -2.9X
         0.5s     12.00nm          5.2mb
NIIJ    53.33  36 eP    12 16.50   -0.7
KAKJ    53.35  38 eP    12 15.60   -1.8
ZAK     54.22   1 ePc   12 24.00    0.5
         0.6s     25.00nm          5.4mb
YAMJ    54.56  36 P     12 25.70   -0.6
OFUJ    56.12  36 P     12 36.30   -1.2
IRK     56.13   1 eP    12 37.00   -0.4
         2.0s     48.00nm          5.2mb
                  e    12 52.70
AOMJ    56.35  34 eP    12 39.80    0.6
CIT     56.64   8 eP    12 42.00    0.9
MAIO    56.74 319 eP    12 41.00   -1.1
SEM     57.51 343 iPc   12 46.00   -1.2
         1.0s    114.00nm          5.9mb
                  e    13 04.00
                  e    13 16.00
                  i    13 39.80
                  e    20 39.00
MRRJ    58.00  33 eP    12 50.90    0.2
ELT     58.69 349 iPc   12 54.20   -1.1
         1.0s     20.00nm          5.2mb
HOOJ    59.20  34 eP    12 59.70    0.7
ASAJ    59.99  32 P     13 04.70    0.3
KUSJ    60.46  34 P     13 07.50   -0.1
YSS     61.99  30 eP+   13 13.00   -4.9X
         0.9s     50.00nm          5.6mb
BOD     62.42   7 iPc   13 19.60   -1.0
         1.1s     28.00nm          5.2mb
BRVK    63.01 339 iPc   13 23.00   -1.6
         1.0s     46.00nm          5.4mb
DZM     64.41 112 iPc   13 36.10    1.6
YAK     69.12  13 eP    14 00.00   -3.3X
         0.8s    160.00nm          6.0mb
SVE     69.49 337 ePc   14 05.30   -0.4
PYA     71.47 319 iPc   14 17.00   -1.0
MBH     72.76 303 eP    14 26.30    0.3
THZ     72.77 132 P     14 25.90    0.1
DSI     72.83 305 eP    14 26.60    0.4
HRI     73.01 306 eP    14 28.00    0.6
KHZ     73.35 133 P     14 28.90   -0.1
NRI     73.95 355 iPc   14 30.00   -2.0
         1.0s     40.00nm          5.3mb
                  i    14 49.00
                  e    14 58.00
SLR     73.99 245 eP    14 29.00   -4.3X
MGD     74.25  23 eP    14 34.50    0.6
                  e    14 44.00
SEK     74.73 242 eP    14 35.50   -2.1
PGZ     75.11 131 P     14 39.10   -0.2
PUZ     76.35 128 P     14 45.80   -0.6
TIK     77.48   8 iPc   14 51.00   -0.9
         1.0s     44.00nm          5.3mb
                  i    15 05.00
OBN     79.79 328 iPd   15 05.60    0.8
```

```
CLI     82.79 318 eP    15 18.00   -2.7
VRI     83.01 317 ePd   15 24.00    2.2
                  e     45 14.50
MLR     83.46 316 ePd   15 25.00    0.7
                  e     45 00.00
BCAO    84.26 275 iPc   15 29.00    0.2
        1.2s     21.00nm          5.0mb
                  ic    15 45.00
KAF     87.11 333 iP    15 42.70    0.9
        0.7s     22.10nm          5.4mb
NUR     87.51 331 iP    15 44.00    0.2
        0.7s     21.10nm          5.3mb
KEV     88.76 340 iP    15 51.80    2.1
        1.0s     24.00nm          5.3mb
SRO     89.03 318 eP    15 52.40    1.1
ZST     89.88 318 eP    15 56.30    1.0
KSP     90.68 321 eP    16 00.00    1.1
VBY     90.89 315 eP    16 01.50    1.5
GEC2    92.19 319 ePd   16 07.30    1.2
        1.3s      6.47nm          4.9mb
HFS     92.86 330 eP    16 09.30    0.6
        0.3s      0.90nm          4.6mb
NAO     94.30 331 PKP   16 14.30   -1.1
        0.9s      7.00nm          5.1mb
IMA     99.30  24 ePDIF 16 39.50    1.3
YKA    115.58  18 ePKP  21 37.20   -0.9
        0.8s      1.30nm
GMW    121.84  34 ePKP  21 51.84    1.4
FCC    123.93  10 ePKP  21 57.50    3.4X
NEW    124.47  31 ePKP  21 56.26    0.6
ARN    127.91  45 ePKP  22 04.13    1.5
HVU    131.00  35 ePKP  22 09.02    0.5
ULM    131.43  16 ePKP  22 11.50    2.7X
GSC    132.24  44 ePKP  22 12.90    2.0
MSU    133.43  38 ePKP  22 15.14    1.8
RSSD   133.76  26 ePKP  22 13.98    0.2
     Z  19s      0.13um          4.7Msz
SRU    134.04  36 ePKP  22 14.86    0.5
PV09   135.26  36 ePKP  22 17.70    0.8
PV10   135.39  36 ePKP  22 18.78    1.7
PV08   135.49  35 ePKP  22 19.00    1.6
ALQ    139.24  37 ePKP  22 17.34   -6.9X
RSNY   139.58 357 ePKP  22 23.61   -0.7
WMOK   143.66  30 ePKP  22 29.08   -2.7X
MEO    143.73  30 iPKPc 22 29.20   -2.7X
SIO    144.01  26 e(PKP)22 30.60   -1.8
LNO    144.10  26 ePKPd 22 30.50   -1.9
LNO2   144.10  26 ePKP  22 30.50   -1.9
LNO3   144.10  26 ePKP  22 30.70   -1.8
TUL    144.10  26 ePKPd 22 30.50   -2.0
        0.6s     45.30nm
RLO    144.21  25 ePKP  22 31.30   -1.4
VVO    144.61  26 ePKP  22 32.20   -1.2
BAO    144.81 236 e(PKP)22 32.00   -2.4X
UYO    146.16  26 iPKPc 22 35.90   -0.1
FSA    148.03 200 ePKP  22 44.00    4.8X
CEH    148.28   2 ePKP  22 40.09    0.7
                  i     22 42.87
CNCB   157.22 204 PKP   23 01.00    7.7X
LPB    157.52 204 PKP   23 07.00   13.5X
ZOBO   157.75 205 ePKP  22 51.00   -3.0X
     S.D. = 1.1  on 105 of 127 obs.
-----------------------------------
*  JAN  04, 1993  10h 16m 20 51± 1.93s
   35.001 S ±22.5km   70.138 W ±13.1km
   DEPTH = 110.0km  (geophysicist)
 CHILE-ARGENTINA BORDER REGION    (127)
      MD 3.8 (SAN).

CACH    0.96 336 iP     16 42.96    1.2
                 iS     17 01.05
CHCH    1.15 338 iP+    16 44.39    0.8
                 iS     17 03.96
RFA     1.39  81 iP     16 46.20   -0.3
                 S      17 06.90
PCH     1.41 347 iPd    16 47.31    0.6
                 iS     17 08.58
LNV     1.48 314 iP+    16 47.15   -0.3
                 iS     17 08.51
TACH    1.50 334 iP     16 47.65   -0.1
                 iS     17 08.99
FCH     1.67 356 iP+    16 50.43    0.2
                 eS     17 14.87
PEL     1.91 346 iP+    16 52.79   -0.1
                 iS     17 17.84
LCCH    1.93 322 iP+    16 52.34   -0.7
ROCH    2.15 340 iP+    16 55.39   -0.8
                 iS     17 22.54
JACH    2.34 351 iP     16 57.95   -0.6
                 iS     17 27.12
      S.D. = 0.7  on  11 of  11 obs.
-----------------------------------
    JAN  04, 1993  10h 28m 07.66± 0.13s
     4.126 S ± 2.7km  129.548 E ± 3.5km
    DEPTH =  30.4km  ( 12 depth phases)
    5.6mb ( 53 obs.)  4.8Msz ( 19 obs.)
  BANDA SEA                        (280)
        Mw 5.2 (HRV).
        CENTROID, MOMENT TENSOR    (HRV)
        Data Used: GDSN
        L.P.B.: 17S, 21C
        Centroid Location:
        Origin Time        10:28:16.6 1.2
        Lat  3.62S 0.09 Lon 129.61E 0.08
        Dep  31.9 5.5 Half-duration  1.1
        Moment Tensor;   Scale 10**16 Nm
          Mrr= 8.01 0.67  Mtt=-5.88 0.72
          Mff=-2.13 1.02  Mrt=-0.92 2.00
          Mrf=-0.69 1.63  Mtf= 1.90 0.64
         Principal Axes:
          T  Val=  8.13  Plg=84  Azm=133
          N       -1.44      6      293
          P       -6.69      2       23
        Best Double Couple:Mo=7.4*10**16
         NP1:Strike=119 Dip=43 Slip=  99
         NP2:        287     48       82

TLE     3.53 115 ePc    29 03.00    1.3
SLKI    4.21 156 iPd    29 13.70    2.4
TNE     5.37 336 eP     29 27.10   -0.7
                 eS     30 35.50
MTN     8.80 170 eP     30 15.00   -0.9
MKS    10.10 263 iPd    30 38.00    4.2X
DAV    11.82 340 eP     31 05.60    8.3X
TSM    14.35 306 eP     31 34.00    3.1X
KHKI   14.48 252 ePd    31 35.30    2.8
                 e      32 01.00
                 e(S)   34 39.80
                 e      36 47.00
MDG    16.22  95 eP     31 56.00    1.0
WRA    16.40 164 P      31 52.79   -4.6X
WB2    16.41 164 eP     31 52.20   -5.2X
                 eS     34 55.00
KKM    16.71 307 ePd    32 03.30    1.9
        1.4s   288.80nm          5.2mb
TRT    17.19 257 ePd    32 09.60    2.3
PMG    18.25 108 eP     32 20.00   -0.5
OIS    19.04 150 iPc    32 29.80   -0.4
        0.3s    12.00nm          4.6mb X
ASPA   19.88 168 iPc    32 38.10   -1.5
        0.9s   232.30nm          5.5mb
                 eS     36 12.10
OCP    20.45 336 eP     33 02.00   16.5X
WARB   22.11 187 iPd    33 03.10    0.8
BAG    22.25 337 ePc+   33 04.00    0.1
        1.3s   903.85nm          6.1mb
                 eS     37 10.00
RAB    22.56  91 e(P)   33 08.00    1.2
CTA    22.73 136 iPc    33 09.00    0.5
        1.0s   125.00nm          5.4mb
                 i      33 22.00   54kmX
                 i      33 27.00
                 iS     37 21.00
NANU   22.81 215 iPd    33 10.00    0.8
        0.8s   316.00nm          5.9mb
GUA    23.25  41 eP     33 13.50    0.0
PJG    23.26  41 eP     33 13.00   -0.6
MEEK   24.71 204 eP     33 26.50   -1.2
KGM    26.91 283 ePd    33 49.00    0.7
COOL   27.77 196 eP     33 55.00   -1.0
        0.8s    28.00nm          5.0mb
MRWA   28.07 206 eP     33 57.00   -1.7
RMQ    28.85 142 eP     34 04.20   -1.5
        1.0s    49.00nm          5.2mb
                 i      37 16.20
BAL    28.99 203 eP     34 09.00    2.0
KLB    29.48 201 eP     34 10.30   -1.1
IPM    29.78 287 ePc    34 13.70   -0.5
        1.0s   344.90nm          6.1mb
STK    29.84 159 eP     34 13.10   -1.4
        0.9s    10.00nm          4.6mb X
                 e      37 55.50
HKC    30.27 331 iP     34 19.80    1.4
SNG    30.98 291 eP     34 24.00   -0.8
CMS    31.23 152 eP     34 25.20   -1.6
        1.0s    14.00nm          4.7mb
                 ePP    35 42.20
                 i      41 44.00
ADE    31.84 166 iPd    34 31.60   -0.6
BRS    32.04 139 iPd    34 29.50   -4.5X
        1.0s    27.00nm          5.1mb
ARMA   33.44 144 eP     34 45.60   -0.7
        1.0s    30.00nm          5.2mb
NNT    33.96 300 iPd    34 51.10    0.3
BWA    34.87 152 iPc    34 59.20    0.7
                 i      35 10.80   43kmX
BFD    34.99 162 eP     34 59.00   -0.4
        1.0s    43.00nm          5.3mb
KAGJ   35.14   2 P      35 00.80    0.1
NST    35.14 305 eP     35 08.50    7.6X
CAN    35.88 152 iPc    35 06.90   -0.1
                 e      35 19.40   46kmX
SSE    35.92 348 Pd     35 07.00   -0.3
        1.0s    63.00nm          5.5mb
     Z  20s      0.90um          4.5Msz
                 pP     35 16.50   32km
                 sP     35 20.00
                 S      40 52.00
                 SS     43 16.00
CNB    36.04 152 eP     35 08.50    0.0
        1.0s    40.00nm          5.3mb
                 e      35 31.20   96kmX
TOO    36.35 158 iPd    35 12.00    1.1
        0.9s    66.00nm          5.5mb
KUMJ   36.48   2 P      35 12.10    0.1
BDT    36.89 306 iPc    35 15.50   -0.1
        0.9s   151.40nm          5.9mb
CHG    37.79 308 iPc    35 24.20    1.0
        1.1s   205.70nm          5.9mb
                 eS     41 13.00
SHNJ   38.07   2 eP     35 25.20   -0.1
TKSJ   38.14   6 P      35 26.00    0.0
SHK    38.56   4 eP     35 30.00    0.5
WKYJ   38.56   8 P      35 29.70    0.1
KMI    39.03 320 Pc+    35 35.00    1.2
        1.5s   290.00nm          5.8mb
     Z  20s      0.70um          4.5Msz
     E  10s      0.40um
                 pP     35 44.50   32km
                 S      41 33.00
YONJ   39.28   5 P      35 35.90    0.4
TSRJ   39.91   8 eP     35 40.90    0.2
DZM    39.95 120 iPc    35 40.80   -0.6
BKM    40.20 113 iPc    35 43.30   -0.1
CHJJ   40.93  12 P      35 47.80   -1.3
MTMJ   41.23  10 P      35 51.40   -0.2
MAT    41.26  11 iPc    35 50.40   -1.4
        0.8s    63.43nm          5.4mb
                 eS     41 49.00
KAKJ   41.33  13 eP     35 52.80    0.5
NIIJ   42.08  11 eP     35 57.60   -0.9
YAMJ   43.20  12 P      36 08.20    0.6
OFUJ   44.42  14 eP     36 17.50    0.0
AOMJ   45.56  12 eP     36 29.00    2.4
BJI    45.64 346 eP     36 26.50   -0.7
        1.4s   191.00nm          5.8mb
     Z  20s      0.30um          4.2Msz
                 eS     42 52.00
LZH    46.68 331 Pc     36 36.00    0.3
        1.5s   229.00nm          5.9mb
     Z  25s      0.85um          4.6MszX
                 pP     36 46.00   33km
                 sP     36 53.00
                 PcP    38 10.00
                 PP     38 25.00
                 ScP    42 01.50
                 sS     43 21.00
                 sS     43 40.00
MRRJ   47.50  12 eP     36 40.40   -1.4
HOOJ   47.94  14 eP     36 46.90    1.6
KUSJ   48.97  15 P      36 53.30    0.1
ASAJ   49.45  12 eP     36 57.10    0.2
YSS    52.23  11 eP     37 26.20    8.1X
GUN    52.75 310 P      37 22.00   -0.8
PKI    52.95 309 P      37 23.20   -1.0
KKN    53.16 309 P      37 24.80   -0.8
DMN    53.20 309 P      37 25.20   -0.7
GKN    53.76 309 P      37 29.20   -0.7
KOD    53.79 286 eP     37 29.00   -1.5
BSZ    54.18 137 P      37 32.80    0.2
KHZ    54.59 141 P      37 34.00   -1.6
```

04d 10h

```
        0.8s    62.00nm          5.7mb
                  e     37 46.30  43kmX
GBA   54.63 290 Pc    37 34.50  -1.7
        0.9s    31.00nm          5.3mb
HYB   54.68 295 iPc   37 35.00  -1.7
        1.0s   180.00nm          6.1mb
MNG   54.94 138 P     37 36.30  -1.9
        0.8s    44.00nm          5.5mb
ZAK   58.82 341 iPc   38 05.60   0.1
        2.1s   213.00nm          5.9mb
POO   59.29 294 iPc   38 05.50  -3.9X
NDI   59.91 306 iPc   38 11.00  -2.4
IRK   60.13 342 ePc   38 13.80  -0.8
        1.9s   120.00nm          5.7mb
                  i     38 24.20  34km
                  e     38 29.70
                  e     39 02.80
BOM   60.33 294 iPd   38 14.60  -1.8
MOY   60.69 340 iPc   38 19.00   0.6
        1.3s   184.00nm          6.1mb
                  eS    46 33.00
PET   61.99  19 eP    38 10.00 -17.1X
                  e     46 56.00
BOD   63.01 351 iPc   38 32.80  -1.0
        1.1s   128.00nm          6.0mb
UER   63.18 336 iPc   38 35.00   0.0
        1.3s    80.00nm          5.7mb
                  eS    48 24.00
YAK   65.95   0 iPc   38 52.10  -0.7
        1.4s   360.00nm          6.3mb
                  epP   39 23.00 126kmX
                  e     41 14.00
                  iS    47 38.00
                  ePS   48 11.00
                  e     48 44.00
MGD   66.18  11 ePd   38 54.50   0.2
        1.1s   110.00nm          5.9mb
                  e     39 04.00  30km
                  e     39 10.00
                  e     39 23.00
                  e     47 36.00
                  e     48 00.00
ELT   67.71 334 iPc   39 03.10  -1.1
        1.4s   250.00nm          6.1mb
                  eS    47 58.00
FRU   68.09 320 eP    39 06.00  -0.9
        2.5s    90.00nm          5.4mb
                  i     39 15.00  29km
QUE   68.79 304 iPc   39 13.40   1.7
SEM   68.82 329 iPc   39 10.50  -0.6
        1.4s   124.00nm          5.8mb
                  e     39 18.60  26km
                  e     41 41.00
                  e     48 09.00
HON   75.25  67 P     40 00.00  10.1X
    Z  19s     0.12um          4.2Msz
BRVK  75.48 328 iPc   39 50.00  -0.6
        1.0s   147.00nm          5.9mb
                  eS    49 26.00
TIK   75.62 360 iPc+  39 50.00  -1.0
        1.3s    90.00nm          5.6mb
    Z  20s     0.60um          4.9Msz
                  i     39 59.00  29km
                  eS    49 26.00
MAIO  76.54 309 iPc   39 58.00   0.9
        1.2s    42.36nm          5.3mb
MAW   77.45 201 eP    40 01.50   0.1
        0.8s    22.99nm          5.3mb
ASH   77.86 310 eP    40 05.00   0.8
        1.5s   140.00nm          5.8mb
NRI   78.59 346 iPc   40 07.80   0.2
        1.2s   135.00nm          5.8mb
                  e     40 16.00  26km
                  e     40 26.00
SVE   82.09 329 ePc   40 27.20   0.8
        1.2s   140.00nm          5.9mb
SDN   82.15  33 (P)   40 31.07   4.3X
        1.4s   622.29nm          6.5mb
SPA   85.90 180 iPc   40 44.90  -0.9
        0.6s    20.33nm          5.5mb
SVW   86.31  28 eP    40 49.30   1.5
TTA   86.63  26 eP    40 50.30   1.0
KDC   87.06  32 e(P)  40 52.20   0.8
TAB   87.19 308 eP    40 54.00   1.3
BGL   87.87  28 eP    40 55.34  -0.1
CP2   87.94  28 eP    40 55.68  -0.2
CRP   87.98  28 eP    40 55.02  -1.0
IMA   88.40  23 eP    40 58.20   0.3
        1.2s    19.20nm          5.3mb
BRW   88.70  18 eP    41 00.10   1.0
SLKM  88.76  29 eP    40 59.00  -0.6
MTA   88.80 312 iPc   41 00.80   0.7
                  i     41 09.60  27km
PMS   89.21  29 eP    41 01.70   0.0
        1.4s    73.70nm          5.8mb
PMR   89.47  28 eP    41 02.16  -0.7
        0.9s    22.84nm          5.5mb
    Z  21s     0.44um          4.9Msz
PYA   90.31 314 iPc   41 07.00  -0.2
                  i     41 16.00  28km
FBA   90.59  25 eP    41 06.26  -1.8
        1.1s     8.19nm          5.0mb
NVL   94.95 197 iPd   41 28.40   0.3
        1.6s    49.00nm          5.7mb
    Z  20s     0.30um          4.8Msz
    N  22s     0.30um
                  e     41 40.00  37km
                  e     42 03.00
                  LR    22 50.00
OBN   95.05 325 iPc   41 27.20  -1.5
        1.1s    39.00nm          5.8mb
UZH  104.46 319 ePdiff42 11.00  -0.2
        1.0s    32.00nm          6.2mb
RES  104.96  11 ePdiff42 14.00   1.2
        1.0s     3.00nm          5.2mb
YKA  105.38  26 ePdiff42 14.30  -0.6
        0.9s     1.70nm          5.0mb
YKA  105.38  26 ePKP  46 28.00  -0.7
        0.8s     2.10nm
WDC  106.26  49 PKP   46 40.00   8.9X
    Z  20s     0.37um          4.9Msz
CMB  108.31  51 PKP   46 50.00  14.9X
    Z  18s     0.18um          4.7Msz
GEC2 109.93 321 ePKP  46 37.70  -0.2
        1.0s     1.63nm
                  e     46 46.30
ISA  110.21  54 PKP   46 50.00  11.2X
    Z  21s     0.37um          4.9Msz
BCAO 111.23 273 iPKPd 46 41.00  -0.3
        0.8s    10.00nm
GSC  111.61  54 ePKP  46 42.81   1.3
WTTA 111.74 320 iPKPc 46 40.60  -0.9
        0.8s    10.40nm
                  i     46 50.20
HVU  113.20  46 ePKP  46 44.37  -0.1
BSF  114.61 321 ePKP  46 46.40  -0.5
        1.4s    25.70nm
HAU  114.82 322 ePKP  46 47.00  -0.2
    Z  19s     0.22um          4.8Msz
LPG  115.52 319 ePKP  46 46.50  -2.5X
LPL  115.52 319 ePKP  46 46.50  -2.4X
SRU  115.60  48 ePKP  46 48.75  -0.5
FCC  115.93  24 ePKP  46 51.50   2.6X
LOR  116.66 322 ePKP  46 50.60  -0.1
    Z  19s     0.22um          4.8Msz
LBF  116.70 321 ePKP  46 50.70  -0.2
PV09 116.82  49 ePKP  46 51.59  -0.1
PV10 116.92  49 ePKP  46 52.26   0.4
SSF  116.96 322 ePKP  46 51.20  -0.1
        1.2s    16.35nm
TUC  117.13  56 PKP   47 00.00   7.8X
    Z  21s     0.38um          5.0Msz
PV08 117.16  48 ePKP  46 53.11   0.7
BGF  117.59 321 ePKP  46 52.60   0.1
        1.2s    19.65nm
TCF  118.10 321 ePKP  46 53.60   0.1
RSSD 118.43  41 ePKP  46 53.76  -0.7
    Z  20s     0.25um          4.8Msz
FLN  118.56 325 ePKP  46 54.10  -0.1
    Z  20s     0.35um          5.0Msz
CAF  118.78 320 ePKP  46 55.10   0.2
        1.0s    10.00nm
GOL  119.19  46 ePKP  46 56.51   0.4
LPF  119.25 324 ePKP  46 55.50  -0.1
GLD  119.28  46 ePKP  46 57.13   0.9
MFF  119.41 322 ePKP  46 55.80  -0.1
        0.8s    13.95nm
LPO  119.45 320 ePKP  46 56.50   0.4
ALQ  119.93  52 ePKPc 46 58.31   0.7
    Z  20s     0.05um          4.1Msz
ULM  120.28  32 ePKP  46 59.50   2.0X
WMOK 125.92  49 ePKP  47 08.41  -0.5
    Z  20s     0.54um          5.2Msz
SIO  127.35  47 (PKP) 47 11.70   0.1
TUL  127.65  47 ePKP  47 12.30   0.2
        1.4s    77.50nm
LNO  127.65  47 ePKP  47 12.00   0.0
LNO2 127.65  47 ePKP  47 12.20   0.1
LNO3 127.65  47 (PKP) 47 12.50   0.4
VVO  127.95  47 ePKP  47 13.60   0.9
RLO  128.10  46 ePKP  47 12.80  -0.2
UYD  129.41  48 iPKPd 47 15.60   0.1
EEO  130.92  26 ePKP  47 22.00   4.0X
KIC  134.44 275 PKP   47 14.60 -11.1X
RSNY 134.52  24 PKP   47 30.00   5.1X
    Z  21s     0.21um          4.8Msz
TIC  134.71 275 PKP   47 14.90 -11.3X
LIC  134.72 275 PKP   47 14.40 -11.8X
HRV  137.41  23 PKP   47 40.00  -9.6X
    Z  19s     0.25um          5.0Msz
CYA  144.41 156 iPKPc 47 40.50  -2.9X
MBO  145.45 289 iPKPc 47 46.50   1.1
ANT  146.18 146 iPKP  47 46.80   0.4
FSA  146.40 154 iPKP  47 48.20   1.5
SLA  147.80 154 e(PKP)47 50.30   1.1
HJA  149.15 152 ePKPc 47 53.00   1.9
NNA  149.26 122 iPKP  47 53.10   1.5
        1.5s   125.00nm
ARE  150.83 135 iPKPc 48 01.00   6.8X
CNCB 152.93 141 PKPc  47 59.30   1.7
LPB  153.06 140 PKP   48 00.40   2.8X
ZOBO 153.22 140 iPKPc 47 58.80   0.7
        1.1s    63.81nm
SIV  157.42 153 iPKPc 48 08.60   5.6X
      S.D. = 1.0  on 161 of 192 obs.
-----------------------------------
*  JAN  04, 1993  11h 00m 17.37± 1.11s
   17.179 N ±10.8km  100.813 W ±10.2km
   DEPTH =  33.0km  (normal)
 GUERRERO, MEXICO                  ( 59)
ACX     0.96 109 iP    00 35.00   0.4
                 iS    00 51.00
III     1.75  47 iP    00 46.50   0.5
                 (S)   01 14.00
UNM     2.64  36 eP    00 58.00  -0.9
                 (S)   01 34.00
PPM     2.80  48 iP    01 01.50   0.2
                 iS    01 38.00
CGX     3.55 315 (P)   01 12.00   0.3
OXX     3.91  91 (P)   01 12.00  -4.8X
AGX     4.88 344 (P)   01 35.00   4.7X
CNCB   46.77 135 P     08 45.90  -0.5
      S.D. = 0.7  on   6 of   8 obs.
-----------------------------------
   JAN  04, 1993  11h 03m 34.16± 0.60s
    4.096 S ± 4.7km  129.546 E ± 6.1km
   DEPTH =  34.3 ±  6.2 km
   5.1mb ( 18 obs.)
 BANDA SEA                         (280)
SLKI    4.24 156 iPc   04 40.80   2.8
TNE     5.34 336 eP    04 53.50  -0.2
MTN     8.83 170 eP    05 42.00  -0.6
PCI    10.20 288 ePd   05 54.30  -7.1X
MDG    16.22  95 eP    07 22.50   1.3
TRT    17.20 257 ePc   07 32.60  -0.9
PMG    18.26 108 eP    07 46.00  -0.8
QIS    19.07 150 eP    07 55.80  -0.8
        0.3s     4.00nm          4.1mb
                  e     08 06.50
ASPA   19.91 168 iPd   08 04.50  -1.4
        0.7s    49.50nm          4.9mb
                  eS    11 40.20
BAG    22.22 337 ePc   08 30.50   0.8
RMQ    28.88 142 eP    09 31.70  -0.3
        0.5s     6.00nm          4.5mb
                  e     10 27.20
IPM    29.77 287 ePd   09 40.20   0.0
        0.8s    63.00nm          5.4mb
STK    29.87 159 eP    09 39.50  -1.3
        0.9s     2.00nm          3.9mb X
ARMA   33.47 144 eP    10 13.80   1.3
NNT    33.95 300 eP    10 17.00   0.3
BWA    34.90 152 eP    10 24.90   0.2
NST    35.12 305 eP    10 34.80   8.1X
CAN    35.91 152 eP    10 33.10  -0.2
BDT    36.87 306 eP    10 41.50   0.1
        1.0s    75.90nm          5.5mb
WHN    37.38 338 eP    10 47.00   1.4
                  pP    10 55.00  27kmX
```

```
GYA     37.59 325 iPd   10 48.80    1.2
        0.8s      7.80nm          4.6mb
                  pP    10 56.60   26kmX
CHG     37.77 308 ePc   10 50.40    1.3
        1.1s     53.80nm          5.3mb
KMI     39.01 319 Pd    11 01.50    1.9
        1.5s     70.00nm          5.2mb
                  pP    11 09.50   27kmX
CHJJ    40.90  12 eP    11 13.50   -1.4
MTMJ    41.20  10 eP    11 16.90   -0.5
MAT     41.23  11 iPc   11 16.20   -1.3
        0.7s     10.27nm          4.7mb
KAKJ    41.31  13 eP    11 18.00   -0.1
NIIJ    42.06  11 eP    11 23.30   -1.0
CD2     42.64 326 eP    11 29.00   -0.2
XAN     42.63 334 P     11 28.90   -0.3
        1.5s     20.00nm          4.6mb
YAMJ    43.17  12 P     11 34.00    0.6
TIY     44.53 341 Pc    11 44.60    0.0
BJI     45.61 346 eP    11 52.00   -0.9
        1.4s     48.00nm          5.2mb
SNY     46.03 354 Pd    11 56.50    0.3
LZH     46.65 331 eP    12 02.50    1.0
        1.5s     46.00nm          5.2mb
                  pP    12 10.00   25kmX
HHC     47.66 342 Pd    12 09.40    0.1
CN2     47.82 356 eP    12 10.10   -0.3
        1.0s     13.00nm          4.9mb
                  epP   12 19.00   30kmX
BTO     47.94 340 eP    12 11.00   -0.6
GTA     51.23 330 eP    12 37.50    0.7
        1.5s     14.00nm          4.7mb
                  pP    12 45.00   25kmX
GUN     52.73 310 P     12 48.20   -0.4
PKI     52.93 309 P     12 49.00   -1.0
KKN     53.14 309 P     12 50.80   -0.6
DMN     53.18 309 P     12 51.40   -0.4
GKN     53.74 309 P     12 55.20   -0.5
        0.6s     32.00nm          5.5mb
HYB     54.67 295 ePd   13 01.40   -1.2
        1.0s     40.00nm          5.4mb
                  e     13 08.80
POO     59.27 294 eP    13 32.00   -3.3X
IRK     60.10 342 eP    13 40.00   -0.4
                  e     13 48.10
WMO     60.73 326 iPd   13 44.50   -0.4
        1.2s     27.00nm          5.3mb
KSH     65.56 317 Pd    14 18.60    1.7
YAK     65.92   0 eP    14 18.00   -0.6
        1.8s     70.00nm          5.5mb
MAIO    76.52 309 eP    15 24.00    1.0
YKA    105.35  26 ePKP  21 54.10   -0.5
        0.6s      0.30nm
FSA    146.42 154 ePKPd 23 15.00    2.3X
CNCB   152.95 141 PKP   23 26.00    2.4X
LPB    153.09 140 PKP   23 33.00    9.4X
ZOBO   153.25 140 PKP   23 25.00    0.9
        1.0s     10.00nm
                  LR    41 42.00
     S.D. = 1.0  on  50 of  56 obs.
-----------------------------------
   JAN  04, 1993  12h 05m 09.17± 1.01s
   19.470 N ± 5.0km   64.577 W ± 4.8km
   DEPTH =  24.8 ±  7.9 km
   4.6mb ( 16 obs.)
 VIRGIN ISLANDS                    ( 91)

LPR      1.68 227 P     05 37.80    0.4
CPD      1.91 222 P     05 41.70    1.1
SJG      2.01 228 iP    05 42.60    0.4
APR      2.27 244 P     05 46.40    0.5
PORP     2.41 235 P     05 48.00    0.2
LRS      2.45 242 P     05 48.10   -0.3
MGP      2.79 239 P     05 52.90   -0.3
NEV      3.00 140 iP    06 01.45    5.2X
CPB      3.18 124 eP    05 57.64   -1.1
BPA      3.53 133 eP    06 02.07   -1.8
MGH      3.54 140 eP    06 04.12    0.2
PAG      4.40 141 eP    06 16.00   -0.1
FDF      5.74 145 eP    06 32.30   -2.8
CRM      5.85 143 eP    06 35.74   -0.9
BIM      5.96 145 eP    06 37.27   -0.9
CUM      8.96 177 eP    06 58.00  -22.1X
TCE      9.14 162 eP    07 25.72    3.2X
TRN      9.29 160 eP    07 27.04    2.4
GUAN     9.51 186 eP    07 28.60    0.7
                  eS    09 06.00
```

```
TPP      9.59 161 eP    07 33.48    4.7X
OLLA     9.64 193 eP    07 29.40   -0.2
TOV     10.87 208 eP    07 27.20  -19.2X
SDV     12.04 210 eP    08 05.00    2.5
CEH     20.76 325 eP    09 49.25   -1.5
                  e     09 58.39
                  Lg    13 23.33
CBN     21.73 332 eP    10 00.00   -0.6
                  e     13 45.00
                  e     14 02.00
PNJ     22.88 341 eP    10 19.02    7.1X
                  PnPn  10 33.42
                  PcP   14 12.75
                  S     14 27.68
MCWV    24.04 330 eP    10 43.86   20.7X
EEO     29.60 340 eP    11 16.50    2.0
NNA     33.51 202 eP    11 46.30   -2.8
        1.6s     46.67nm          5.2mb
MEO     33.70 304 iPc   11 49.00   -1.6
WMOK    33.84 304 eP    11 50.01   -1.8
        0.8s      6.46nm          4.6mb
SIV     35.41 174 P     12 07.70    2.4
ZOBO    35.70 186 P     12 08.40   -0.2
LPB     35.94 186 P     12 09.00   -1.3
CNCB    36.21 186 P     12 11.00   -1.7
BAO     38.51 154 e(P)  12 31.00   -0.6
ULM     39.50 328 eP    12 41.00    1.6
ALQ     40.00 301 eP    12 43.78   -0.2
        0.8s      6.01nm          4.4mb
RSSD    41.02 316 eP    12 51.60   -0.6
PV08    42.51 306 eP    13 04.32   -0.4
PV10    42.77 306 eP    13 06.20   -0.5
TUC     43.18 297 eP    13 09.75   -0.2
        0.8s      3.94nm          4.2mb
SRU     44.06 306 eP    13 16.55   -0.6
FCC     44.71 339 eP    13 23.50    1.7
DUG     46.02 307 eP    13 32.29   -0.4
HVU     46.35 310 eP    13 34.69   -0.6
GSC     48.45 300 eP    13 52.02    0.2
TNP     49.06 304 eP    13 56.23   -0.4
        1.0s      5.46nm          4.5mb
BONR    49.89 304 eP    14 03.41    0.3
NEW     50.96 317 eP    14 09.55   -1.2
        0.8s     11.90nm          4.9mb
YKA     54.91 334 eP    14 36.50   -3.4X
        0.9s      6.30nm          4.6mb
DCN     55.20  38 eP    14 42.90    0.8
DMU     55.55  37 eP    14 45.80    1.2
RES     57.60 351 eP    14 58.00   -1.0
LPF     58.14  45 eP    15 04.90    1.7
FLN     58.59  44 eP    15 07.90    1.6
EPF     58.76  51 eP    15 06.00   -1.7
TIC     59.14  94 P     15 10.00   -0.6
LIC     59.26  94 P     15 12.00    0.5
KIC     59.49  94 P     15 12.30   -0.8
RJF     59.70  48 eP    15 13.90   -0.2
CAF     60.07  49 eP    15 16.40   -0.3
TCF     60.22  47 eP    15 17.80    0.1
        0.9s      7.35nm          4.8mb
AVF     61.03  47 eP    15 23.60    0.5
        0.7s      3.65nm          4.6mb
SSF     61.15  46 eP    15 24.70    0.8
LOR     61.39  46 eP    15 25.40   -0.2
        0.8s      4.55nm          4.7mb
NAO     66.09  31 P     15 55.80   -0.3
        0.9s      4.40nm          4.6mb
KHC     67.85  44 eP    16 13.00    5.4X
                  e     16 36.00
GEC2    67.95  44 eP    16 08.80    0.5
        0.6s      1.01nm          4.1mb
                  e     16 14.30
                  e     16 20.20
                  e     16 24.60
                  e     16 31.90
FBA     69.68 333 eP    16 16.48   -2.0
        0.9s      3.36nm          4.5mb
IMA     72.03 335 eP    16 31.33   -1.5
        0.7s      2.82nm          4.4mb
OBN     80.44  35 eP    17 22.00    1.9
        1.6s     40.00nm          5.2mb
BCAO    82.05  88 iPd   17 32.00    2.6
        0.9s      5.00nm          4.6mb
ARMA   145.54 244 ePKP  24 48.20    0.7
        0.7s     11.00nm
CNB    146.18 235 ePKP  24 50.00    1.6
        1.0s     26.00nm
TOO    148.21 229 ePKP  24 55.30    3.8X
```

```
        0.6s     10.00nm
RMQ    148.59 251 ePKP  24 57.00    4.6X
        1.0s     27.00nm
WRA    162.18 265 PKP   25 11.90    1.8
        0.8s      0.80nm
     S.D. = 1.3  on  67 of  78 obs.
-----------------------------------
%  JAN  04, 1993  12h 17m 51.64± 0.75s
   40.879 N ± 6.6km   22.992 E ± 5.7km
   DEPTH =  10.0km  (geophysicist)
 GREECE                            (364)

THE      0.25 185 ePg    17 56.96    0.1
                  eSg    18 00.52
SOH      0.28 102 iPg    17 57.62    0.1
                  eSg    18 01.20
KNT      0.29 346 iPg    17 57.96    0.2
                  iSg    18 01.96
GRG      0.45 280 ePg    18 00.72   -0.2
                  iSg    18 07.68
SRS      0.51  62 ePg    18 01.84   -0.2
                  eSg    18 08.20
     S.D. = 0.3  on   5 of   5 obs.
-----------------------------------
•  JAN  04, 1993  13h 49m 22.06± 0.99s
   21.335 S ± 9.4km   68.752 W ±13.8km
   DEPTH =  33.0km  (normal)
 CHILE-BOLIVIA BORDER REGION       (124)

ANT      2.82 213 eP    50 05.50   -0.2
HJA      3.62 122 ePc   50 27.00    9.8X
CNCB     4.56   9 P     50 31.20    0.1
LPB      4.82   7 P     50 34.00   -0.6
ZOBO     5.05   7 P     50 37.30   -0.9
ARE      5.50 331 eP    50 45.00    0.9
                  eS    51 50.00
SIV      9.01  55 iP    51 33.60    0.6
     S.D. = 0.9  on   6 of   7 obs.
-----------------------------------
?  JAN  04, 1993  15h 06m 12.40± 4.87s
   20.080 S ±20.3km  177.583 W ±17.2km
   DEPTH = 423.5 ± 50.4 km
   4.5mb (  6 obs.)
 FIJI ISLANDS REGION               (181)

DZM     15.04 260 iPd   09 27.00    0.5
HBZ     17.82 191 eP    09 54.90    0.5
PUZ     18.29 191 eP    09 59.30    0.2
URZ     18.69 193 eP    10 02.90   -0.1
NOZ     18.86 191 eP    10 03.40   -1.2
MNG     21.31 195 eP    10 26.60   -1.7
QRZ     22.34 200 eP    10 39.60    1.8
        0.5s     29.00nm          5.0mb
DSZ     23.40 200 eP    10 48.50    0.9
KHZ     23.50 197 eP    10 48.10   -0.3
LTZ     24.20 198 eP    10 54.30   -0.5
CNB     32.79 235 eP    12 11.20    1.1
        0.5s      9.00nm          4.4mb
TOO     36.46 233 iPc   12 41.50    0.6
        0.3s     12.00nm          4.7mb
ASPA    45.00 256 iPc   13 49.60   -0.4
        0.6s      9.70nm          4.4mb
WB2     45.04 262 iPd   13 49.30   -1.0
        0.3s     10.30nm          4.7mb
WRA     45.05 262 P     13 49.80   -0.5
        0.4s      0.70nm          3.4mb X
WARB    51.33 252 iPd   14 37.40   -0.5
YKA     95.97  25 eP    18 53.00   -0.1
        0.4s      0.20nm          3.6mb
EKA    144.55   5 PKPc  25 01.10    0.7
        1.0s     14.10nm
PRU    148.63 345 ePKP  25 13.00    5.8X
                  e     25 18.20
GRF    149.63 349 ePKP  25 16.30    7.5X
        0.7s      4.00nm
KHC    149.66 345 ePKP  25 15.50    6.6X
                  e     25 22.50
GEC2   149.90 345 ePKPc 25 16.00    6.7X
        0.6s      2.71nm
                  e     25 22.80
FLN    151.29   4 ePKP  25 18.70    7.5X
        0.5s      7.75nm
CDF    151.46 353 ePKP  25 19.40    7.8X
        0.5s      4.65nm
LDF    151.48   4 ePKP  25 18.80    7.3X
        0.3s      2.20nm
GRR    151.64   5 ePKP  25 19.70    8.0X
```

04d 15h

```
        0.3s      4.35nm
HAU   151.96 354 ePKP  25 20.40   8.1X
        0.4s      2.50nm
LPF   151.98   5 ePKP  25 20.50   8.3X
        0.4s      7.80nm
BSF   152.09 354 ePKP  25 20.50   7.9X
        0.7s      4.30nm
LOR   152.85 358 ePKP  25 22.50   8.9X
        0.5s      3.50nm
SSF   153.07 358 ePKP  25 23.00   9.2X
        0.6s      2.55nm
LBF   153.13 358 ePKP  25 23.70   9.7X
AVF   153.35 359 ePKP  25 24.20  10.0X
        0.4s      0.90nm
MFF   153.46   4 ePKP  25 23.70   9.3X
     S.D. = 1.0  on  18 of  34 obs.
-----------------------------------
%  JAN  04, 1993  15h 06m 48.58± 0.66s
   26.391 S ± 5.7km   27.422 E ± 6.9km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA          (584)
      ML 2.8 (PRE).

PRY      0.54 175 iPd   06 59.50   0.1
                  S     07 05.20
KSR      0.70 318 iPd   07 03.00   0.3
                  S     07 11.00
SLR      1.01  50 iPd   07 07.80  -0.5
                  S     07 19.90
SEK      1.93 175 eP    07 23.50   0.9
                  S     07 47.70
SWZ      2.03 247 eP    07 24.10   0.1
                  S     07 49.40
BFT      2.46  74 eP    07 30.50   0.3
                  S     07 58.50
BLF      2.92 202 eP    07 35.50  -1.2
     S.D. = 0.8  on   7 of   7 obs.
-----------------------------------
&  JAN  04, 1993  15h 54m 28.46s
   58.625 N          153.398 W
   DEPTH =  63.2km
   3.1mb (  1 obs.)
 KODIAK ISLAND REGION              ( 13)
      <AEIC>. ML 3.8 (PMR), 3.4
      (AEIC).

SYI      0.53  91 iPc   54 40.27  -0.8
                  eS    54 49.89
AUI      0.71 359 iPc   54 42.48  -0.8
                  eS    54 53.25
AUE      0.74   1 ePc   54 42.99  -0.5
                  S     54 54.09
AUP      0.74 359 eP    54 42.94  -0.7
AUH      0.74 358 ePc   54 43.01  -0.7
                  eS    54 54.12
MCNL     0.74 319 iPd   54 42.92  -0.7
                  S     54 52.92
AUW      0.75 357 iPc   54 43.03  -0.6
                  eS    54 53.22
AUL      0.76 359 eP    54 43.12  -0.7
                  S     54 54.27
KDC      1.00 151 eP    54 45.64  -1.2
                  eS    55 00.38
OPT      1.03   5 iPc   54 46.48  -0.9
                  eS    55 00.40
XLV      1.20  45 eP    54 49.88   0.3
PDB      1.24 341 eP    54 48.94  -1.1
                  S     55 04.19
INE      1.45   7 ePc   54 51.60  -1.5
                  eS    55 09.50
INW      1.45   5 iPc   54 51.66  -1.5
                  eS    55 09.38
ILIM     1.48   9 ePc   54 51.76  -1.6
BRLK     1.73  47 eP    54 55.09  -1.7
RS1      1.87  10 eP    54 57.57  -1.4
RSO      1.87  10 eP    54 57.58  -1.4
RS2      1.87  10 eP    54 57.36  -1.6
RDW      1.89   9 iPc   54 57.88  -1.3
REF      1.90  10 ePc   54 57.90  -1.5
                  eS    55 20.52
RDN      1.92   9 eP    54 58.45  -1.2
NCT      1.96   7 iPc   54 58.79  -1.3
                  eS    55 22.29
DFR      2.01  10 iPc   54 59.49  -1.3
NKA      2.39  26 eP    55 06.51   0.5
SLKM     2.49  39 eP    55 05.62  -1.8
SEW      2.51  52 eP    55 04.89  -2.7
CKL      2.63  11 iPc   55 08.02  -1.5
CKT      2.65  13 eP    55 08.17  -1.6
SPU      2.65  14 iPc   55 08.19  -1.6
CKN      2.68  13 iPc   55 09.45  -0.7
BGL      2.70  10 eP    55 08.69  -1.7
CP2      2.71  12 eP    55 09.17  -1.6
                  eS    55 44.53
CRP      2.72  13 eP    55 09.11  -1.8
SVW      2.73 337 eP    55 08.34  -2.5
MPA      2.78  46 eP    55 09.20  -2.3
CGLM     2.78  14 eP    55 10.20  -1.4
SUA      3.14  24 ePc   55 15.04  -1.7
PTE      3.15  43 eP    55 14.43  -2.3
LTI      3.18  61 iPc   55 14.29  -2.8
MTU      3.25  63 eP    55 15.47  -2.6
PMS      3.26  35 P     55 16.20  -2.1
KNIM     3.37  57 eP    55 16.59  -3.2
SKT      3.49  15 ePc   55 19.24  -2.3
PWA      3.51  29 P     55 20.60  -1.1
PLRM     3.66  34 eP    55 20.81  -3.1
PMR      3.66  34 eP    55 20.95  -2.9
MID      3.74  75 P     55 22.10  -2.8
KNK      3.74  39 eP    55 22.21  -2.8
GHO      3.87  33 eP    55 24.83  -2.0
GLI      3.91  52 eP    55 23.51  -3.9
HIN      3.94  60 eP    55 24.22  -3.6
SML      4.07  36 eP    55 26.76  -2.9
FID      4.10  56 eP    55 26.06  -4.1
CVA      4.34  60 eP    55 29.47  -3.9
VLZ      4.36  52 eP    55 30.85  -2.8
SCM      4.42  41 eP    55 31.97  -2.6
SGAM     4.57  62 eP    55 32.82  -3.9
KLU      4.72  49 eP    55 35.60  -3.3
RAGM     4.78  65 eP    55 36.02  -3.7
KAIM     4.79  70 eP    55 36.91  -2.8
TOA      5.00  43 P     55 41.20  -1.6
TZL      5.24  46 eP    55 44.49  -1.6
RND      5.28  23 eP    55 44.40  -2.3
SDG      5.50  41 eP    55 47.13  -2.7
MCK      5.56  21 eP    55 48.67  -1.9
GLB      5.57  55 eP    55 46.75  -4.1
SNH      5.62  69 eP    55 47.83  -3.5
CROM     5.62  63 eP    55 47.58  -4.0
CYK      5.77  71 eP    55 50.36  -3.1
PAX      5.83  38 eP    55 52.43  -2.1
BALM     6.07  62 eP    55 53.81  -4.0
YAH      6.19  69 eP    55 55.97  -3.5
CTGM     6.52  64 eP    56 00.51  -3.6
CCB      6.60  21 eP    56 01.91  -3.1
FBA      6.83  20 eP    56 03.00  -5.2
IMA      7.47 359 eP    56 14.08  -3.2
YKA     19.24  62 eP    58 46.00  -4.1
        0.5s     0.60nm          3.1mb
        78 obs. associated
-----------------------------------
?  JAN  04, 1993  17h 14m 52.45± 6.40s
   36.328 N ±53.9km    2.592 W ±12.5km
   DEPTH =  10.0km  (geophysicist)
 STRAIT OF GIBRALTAR               (385)
      mbLg 3.2 (MDD). Felt (III) in
      the Almeria area, Spain.

ENIJ     0.71  26 iPgc  15 56.40  49.9X
                  eSg   16 11.80
EGUA     0.93 303 iPgc  15 10.49   0.2
                  eSg   15 20.00
ECOG     1.23 321 iPgc  15 14.85  -0.5
                  eSg   15 27.10
EHUE     1.48 360 ePg   15 19.52   0.3
                  eSg   15 35.90
MAL      1.52 286 ePn   15 27.00   7.4X
                  iSg   15 36.00
EALH     1.79  31 ePn   15 23.30  -0.3
EVIA     2.31   2 ePn   15 31.53   0.3
                  eSn   15 56.10
     S.D. = 0.6  on   5 of   7 obs.
-----------------------------------
•  JAN  04, 1993  17h 26m 09.17± 0.58s
   16.692 S ±10.9km  177.840 E ±12.0km
   DEPTH =  10.0km  (geophysicist)
   4.7mb (  5 obs.)  4.6Msz (  2 obs.)
 FIJI ISLANDS                      (182)
      ML 4.6 (SVA). Felt at Lekutulevu
      and Ndreketi, Vanua Levu. Also
      felt on Ngaloa and Yandua.

SVA      1.53 157 eP    26 36.20  -0.4
                  eS    26 58.20
RMQ     28.69 245 eP    32 09.50   0.9
        0.8s     11.00nm          4.7mb
CMS     32.58 237 eP    32 43.20   0.2
        1.0s     14.00nm          4.8mb
STK     36.14 239 eP    33 14.20   0.6
        0.8s      3.50nm          4.3mb
ASPA    41.69 253 eP    33 58.90  -1.1
        1.2s      9.70nm          4.4mb
      Z  22s      0.40um          4.2Msz
BJI     80.43 317 eP    38 22.00  -0.6
LZH     87.33 309 eP    38 57.50  -0.4
        1.5s     38.00nm          5.4mb
                  pP    39 08.50  35kmX
LCCM    88.74  41 eP    39 05.50   1.0
KHC    145.20 342 ePKP  45 48.00  -0.7
        1.4s      7.00nm
                  e     45 57.00
GEC2   145.42 341 ePKP  45 48.80  -0.3
        0.8s      1.05nm
                  e     45 52.90
                  e     45 57.60
LOR    149.11 352 ePKP  45 55.80   0.8
      Z  21s      0.20um          4.9Msz
AVF    149.64 352 ePKP  46 01.20   5.4X
        0.8s      2.15nm
LPG    150.33 347 ePKP  46 01.50   4.2X
     S.D. = 0.8  on  11 of  13 obs.
-----------------------------------
%  JAN  04, 1993  18h 28m 13.28± 0.82s
   26.327 S ± 6.7km   27.715 E ± 8.8km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA          (584)
      ML 2.5 (PRE).

PRY      0.64 200 eP    28 26.00   0.0
                  S     28 32.50
SLR      0.78  41 eP    28 29.00   0.0
                  S     28 40.50
KSR      0.87 302 eP    28 30.50  -0.1
                  S     28 42.00
SEK      1.99 182 eP    28 48.10   0.0
                  S     29 15.20
SWZ      2.30 248 eP    28 52.70   0.1
                  S     29 20.10
     S.D. = 0.1  on   5 of   5 obs.
-----------------------------------
   JAN  04, 1993  20h 41m 11.20± 0.13s
   22.055 S ± 4.1km  174.866 W ± 4.1km
   DEPTH =  33.0km  (normal)
   5.9mb ( 70 obs.)  6.2Msz ( 64 obs.)
 TONGA ISLANDS REGION              (174)
      Mw 6.0 (HRV). Ms 6.3 (BRK).
      Mo=1.3*10**18 Nm (PPT).
      CENTROID, MOMENT TENSOR     (HRV)
      Data Used: GDSN
      L.P.B.: 21S, 48C  M.W.: 10S, 13C
      Centroid Location:
      Origin Time        20:41:16.1 0.2
      Lat 22.02S 0.03 Lon 174.10W 0.02
      Dep  20.8 1.1 Half-duration  2.3
      Moment Tensor;   Scale 10**17 Nm
        Mrr= 6.02 0.13  Mtt=-1.66 0.16
        Mff=-4.36 0.14  Mrt= 3.51 0.39
        Mrf= 8.05 0.57  Mtf=-3.54 0.11
       Principal Axes:
        T  Val= 10.59  Plg=62  Azm=286
        N        0.59       6       27
        P      -11.18      27      126
      Best Double Couple:Mo=1.1*10**18
       NP1:Strike=226 Dip=19 Slip= 109
       NP2:         25      72       84

SVA      7.40 301 iPc   43 05.00   5.4X
RAO      7.68 200 eP    43 03.10  -0.4
RAR     14.06  89 P     44 18.00 -12.2X
                  S     46 38.00
PVC     16.39 282 iPc   45 09.40   9.0X
BKM     16.47 282 iP    45 07.00   5.5X
PUZ     17.03 199 eP    45 08.10  -0.3
DZM     17.33 266 iPd   45 17.30   5.0X
URZ     17.56 201 eP    45 13.50  -1.5
PGZ     19.97 200 eP    45 43.10  -0.4
MNG     20.23 202 P     45 44.90  -1.4
THZ     22.18 205 P     46 06.50   0.4
KHZ     22.51 203 P     46 07.80  -1.4
LTZ     23.29 204 P     46 15.20  -1.8
```

```
AFR     24.02  84 iPd*  46 19.80  -4.3X
        1.3s  1010.90nm          6.2mb
PAE     24.17  84 iPd   46 20.70  -4.9X
        1.7s  1352.80nm          6.2mb
PPT     24.20  84 iPd   46 21.00  -4.9X
        1.3s  1074.40nm          6.2mb
PPN     24.34  84 iPd   46 22.40  -4.8X
        1.8s  1374.10nm          6.2mb
TVO     24.44  85 iPd   46 23.40  -4.9X
        1.0s   752.00nm          6.2mb
LMZ     25.29 208 P     46 35.10  -1.0
ODZ     25.83 204 P     46 41.30   0.1
PMO     26.49  79 iPd   46 41.70  -5.8X
        1.6s   654.20nm          6.0mb
VAH     26.65  80 iPd   46 42.90  -6.1X
        1.5s   305.00nm          5.7mb
TPT     26.75  79 iPd   46 44.10  -5.7X
        1.6s   527.40nm          5.9mb
RUV     26.90  80 iPd   46 45.10  -6.1X
        1.4s   378.10nm          5.8mb
TUZ     26.99 204 eP    46 51.90   0.2
HNR     27.24 293 eP    46 53.00  -1.4
BRS     29.82 253 iPc   47 15.00  -2.6
        1.5s     5.00nm          4.1mb X
                iS      52 06.00
ARMA    31.10 247 eP    47 30.00   1.0
        0.9s    24.00nm          5.0mb
RIV     32.08 241 eP    47 40.80   3.4X
                eS      52 55.20
RMO     33.38 255 eP    47 49.20   0.3
        1.0s    98.00nm          5.7mb
CNB     33.86 239 eP    47 53.00   0.0
        1.0s    42.00nm          5.3mb
                e       50 33.00
CAN     34.15 239 eP    47 53.90  -1.6
BWA     34.43 241 eP    47 55.30  -2.6
CMS     36.17 246 eP    48 12.00  -0.6
        1.0s    29.00nm          5.2mb
                ipP     48 27.80  62kmX
CTA     36.27 266 iPc   48 13.00  -0.6
        2.0s   220.59nm          5.7mb
                iS      53 45.00
RAB     36.55 294 iP+   48 14.00  -2.0
                iS      54 04.00
TOO     37.41 237 eP    48 22.80  -0.3
        0.8s    39.00nm          5.3mb
TAU     37.65 228 iPc   48 26.80   1.9
                eS      54 16.00
PMG     38.54 283 eP    48 32.00  -0.7
BFD     39.63 238 eP    48 46.20   4.6X
        1.0s    25.00nm          4.9mb
STK     39.80 246 eP    48 42.40  -0.6
        0.5s     6.00nm          4.6mb X
                eS      54 37.30
ADE     42.42 242 e(P)  49 04.80   0.2
HPO     45.04  26 (P)   49 24.77  -1.0
HON     46.15  22 P     49 44.35   9.9X
      Z  19s     5.11um          5.5Msz
                S       56 39.15
DHH     46.17  22 eP    49 33.30  -1.3
ASPA    47.03 258 iPc   49 40.50  -1.1
        1.1s    49.50nm          5.4mb
      Z  19s    55.10um          6.5Msz
                ePcS    55 07.10
                eS      56 27.80
                eScS    59 42.40
WB2     47.28 263 iPc   49 41.70  -2.0
        0.6s    26.90nm          5.4mb
WRA     47.29 263 P     49 42.20  -1.5
        0.6s     4.00nm          4.6mb X
MTN     52.10 271 eP    50 22.00   1.3
DRV     52.90 201 eP    50 32.00   6.1X
                S       58 03.00
                SS      00 06.00
GUA     52.98 308 e(P)  50 26.20  -1.0
        0.8s   208.96nm          6.1mb
      Z  17s     8.57um          5.9MszX
                eS      58 07.00
GUMO    53.05 308 P     50 30.00   2.4
PJG     53.05 308 e(P)  50 27.00  -0.6
                e       50 30.00
WARB    53.17 253 iPd   50 26.80  -1.7
KLB     60.05 245 eP    51 16.80  -0.7
MEEK    60.18 251 eP    51 17.00  -1.5
BAL     61.10 246 eP    51 24.00  -0.7
MUN     61.30 245 eP    51 26.60   0.6
      Z  19s    22.10um          6.3Msz
      N  19s    11.40um
      E  19s    14.30um
MRWA    61.96 248 eP    51 30.00  -0.5
NANU    63.82 255 iPd   51 42.20  -0.6
CSY     63.83 206 iPc   51 44.30   2.1
        0.7s    12.90nm          5.1mb
DAV     65.12 289 eP    51 49.00  -2.4
PCI     66.83 279 ePd   52 05.10   2.8
SPA     68.08 180 iPc   52 10.30   0.6
        0.9s    66.36nm          5.7mb
      Z  20s     4.59um          5.7Msz
                i       12 13.80
TRT     70.96 269 ePd   52 27.20  -0.8
KAKJ    71.86 323 P     52 32.20  -0.6
CHJJ    72.41 322 P     52 35.40  -0.7
MAT     73.21 322 iPc+  52 39.70  -1.1
        1.5s   194.44nm          5.9mb
                eS      02 09.00
YAMJ    73.36 324 eP    52 41.40  -0.2
MTMJ    73.47 322 P     52 42.10  -0.3
BAG     73.87 296 eP+   52 44.00  -1.3
                eS      02 18.00
KUSJ    74.74 331 P     52 49.10  -0.4
HOOJ    74.85 329 eP    52 50.90   0.8
KUR     75.08 334 iPc+  52 51.00  -0.4
        1.0s   230.00nm          6.1mb
SMY     75.08 353 (P)   52 48.93  -2.3
        0.9s   156.58nm          6.0mb
      Z  18s    13.79um          6.3Msz
SHK     75.16 317 ePc   52 51.00  -1.2
MRRJ    75.96 328 eP    52 56.60   0.2
ASAJ    76.48 330 eP    53 00.60   1.2
BCH     77.05  43 eP    53 02.12  -0.8
COE     77.38  41 eP    53 05.42   0.8
BKS     77.45  40 eP    52 59.09  -5.8X
                eS      02 54.09
                eScS    03 18.09
                eLQ     13 03.09
                eLR     18 14.09
ARN     77.53  41 eP    53 04.45  -1.0
PKEM    77.59  43 (P)   53 08.18   2.5
HMR     77.89  40 (P)   53 08.18   0.9
SSK     78.00  45 eP    53 09.06   0.8
PLM     78.05  47 eP    53 09.51   1.0
KMPM    78.05  37 eP    53 09.12   0.8
PEC     78.17  46 eP    53 08.88  -0.1
        1.1s    25.56nm          5.2mb
PET     78.22 344 eP    53 08.00  -0.8
        2.0s   680.00nm          6.3mb
      Z  18s     8.10um          6.1Msz
      N  18s     4.40um
      E  20s     5.00um
                e       53 21.00
                e       03 35.00
                ePS     04 00.00
ISA     78.38  44 eP    53 09.44  -0.8
        1.6s   165.56nm          5.8mb
      Z  18s    14.94um          6.4Msz
AIA     78.39 156 e(P)  53 14.00   4.3X
CMB     78.67  41 iPd   53 12.70   1.0
                eS      02 59.70
                eScS    03 22.70
                ePPS    03 53.70
                eSS     07 51.70
                e(SSS)10 56.70
                eLQ     13 18.70
                eLR     18 41.70
YSS     78.67 332 eP+   53 11.50   0.1
        1.5s    90.00nm          5.6mb
                eS      03 10.00
ORV     78.98  39 eP    53 11.98  -1.3
WDC     79.05  38 eP    53 12.90  -0.8
        1.2s    78.97nm          5.6mb
LGPM    79.11  37 (P)   53 12.75  -1.4
GSC     79.24  45 eP    53 14.71  -0.2
GLA     79.25  48 eP    53 16.21   1.2
QZH     79.71 302 Pc    53 18.00   0.5
      Z  19s     4.90um          5.9Msz
      N  15s     1.72um
BONR    79.90  42 eP    53 18.17  -0.5
TNP     80.65  43 eP    53 21.40  -1.2
        1.1s    51.78nm          5.4mb
KVN     80.70  41 (P)   53 22.34  -0.5
SSE     80.93 309 Pc    53 24.00   0.1
        1.4s    67.00nm          5.4mb
      Z  20s     4.60um          5.8Msz
      N  16s     2.50um
      E  16s     0.90um
                sS      03 46.00
                SS      08 52.00
MAW     81.08 199 iP    53 26.00   1.9
        1.0s    41.67nm          5.4mb
      Z  16s    10.42um          6.3MszX
KDC     81.67  12 eP    53 26.86  -0.3
        1.3s    89.35nm          5.6mb
TUC     81.68  50 eP    53 27.89   0.0
        1.0s    38.33nm          5.4mb
      Z  19s    16.26um          6.4Msz
HKC     81.99 298 iP    53 30.90   1.3
                S       03 51.00
BMW     82.64  33 eP    53 30.43  -2.1
ARUT    82.89  45 eP    53 35.27   1.1
FL2     82.90  34 P     53 33.90  -0.1
SHW     82.96  34 eP    53 33.91  -0.4
ERK     82.98  34 P     53 34.31  -0.1
CPW     83.03  33 P     53 34.59   0.1
GZH     83.03 298 iPc   53 36.00   1.1
        1.4s   150.00nm          5.9mb
      Z  20s     5.62um          5.9Msz
      E  21s     3.87um
TDL     83.07  34 P     53 34.60  -0.3
NJ2     83.12 308 Pd    53 36.80   1.5
        1.4s    95.00nm          5.7mb
      Z  20s     1.78um          5.4Msz
      N  15s     1.85um
      E  10s     0.91um
KGM     83.17 275 ePc   53 37.10   1.2
        1.1s   227.20nm          6.2mb
ASR     83.26  34 P     53 35.27  -0.6
VGB     83.27  35 eP    53 34.53  -1.3
MDJ     83.48 324 Pc    53 38.00   1.2
        2.0s   600.00nm          6.4mb
      Z  20s     8.61um          6.1Msz
      N  18s     2.30um
      E  18s     4.36um
LON     83.55  34 eP    53 35.91  -1.3
GMW     83.59  33 eP    53 36.68  -0.7
WPW     83.65  34 P     53 36.78  -1.0
JBO     83.74  35 P     53 37.67  -0.5
PGC     84.01  31 eP    53 40.00   0.6
        1.4s     2.50nm          4.2mb X
RMW     84.02  33 eP    53 38.79  -0.8
MSU     84.12  44 eP    53 40.21  -0.3
QIZ     84.15 293 P     53 41.50   0.7
      N  19s     1.86um
      E  17s     1.97um
                PP      56 59.00
MXC     84.22  34 P     53 42.20   1.6
BRVW    84.32  35 P     53 40.93  -0.2
RSW     84.47  35 P     53 41.72  -0.2
MDW     84.52  35 P     53 41.55  -0.5
BVW     84.59  34 P     53 42.34  -0.1
DUG     84.66  43 (P)   53 42.58  -0.5
        1.3s    34.82nm          5.4mb
GBL     84.67  35 P     53 42.53  -0.3
SLKM    84.67  12 ePc   53 41.04  -1.5
WAH2    84.72  35 P     53 42.75  -0.2
LOCW    84.77  35 P     53 42.97  -0.2
LNOR    84.84  36 P     53 43.55  -0.2
CRF     84.86  35 P     53 43.51  -0.2
DL2     84.87 315 iPc   53 44.00   0.1
        1.0s    89.00nm          5.9mb
      Z  22s     1.67um          5.4Msz
      N  16s     2.52um
                eS      04 06.00
ETW     84.87  34 P     53 43.16  -0.8
ET3     84.94  35 P     53 45.49   1.4
PPM     84.98  67 (P)   53 48.80   3.3X
CP2     85.01  11 eP    53 42.69  -1.7
CRP     85.03  11 ePc   53 42.12  -2.3
EPH     85.09  34 P     53 44.50  -0.4
WTV     85.13  34 P     53 44.13  -1.0
NLW     85.18  33 P     53 44.75  -0.7
SNY     85.28 319 iPc   53 47.00   1.1
        1.8s   180.00nm          6.0mb
      Z  18s     4.78um          5.9Msz
      N  18s     2.86um
                S       04 11.00
                sS      04 28.00
CN2     85.32 321 iPc   53 47.00   0.9
        1.4s   250.00nm          6.2mb
      Z  17s     3.91um          5.9MszX
      N  17s     2.71um
      E  17s     2.75um
```

040 20h

```
                 eSKS  04 10.00
SIT    85.51  20 P     54 00.00  13.3X
     Z  18s     4.09um          5.9Msz
SRU    85.53  45 eP    53 46.28  -1.2
OD2    85.58  34 P     53 46.30  -1.0
WHN    85.72 305 P     53 50.00   1.7
       1.5s   130.00nm          5.9mb
     N  18s     2.78um
     E  20s     3.73um
                 eSKS  04 06.00
                 S     04 20.00
EMUT   85.72  44 eP    53 49.28   0.8
PMR    85.88  12 eP    53 47.90  -0.6
       1.7s   227.60nm          6.1mb
     Z  20s     2.50um          5.6Msz
TTA    86.00   9 eP    53 49.50   0.3
PV09   86.12  46 eP    53 51.11   0.5
ALQ    86.12  50 eP    53 49.79  -0.8
       1.0s    51.90nm          5.7mb
     Z  18s    13.22um          6.4Msz
DPW    86.14  34 eP    53 48.79  -1.4
IPM    86.25 276 ePc   53 53.00   1.6
       0.9s   185.30nm          6.3mb
KLU    86.45  13 eP    53 49.89  -1.5
TIA    86.48 311 Pc    53 53.10   1.1
       1.2s    68.00nm          5.8mb
     Z  18s     5.27um          6.0Msz
     N  17s     2.07um
     E  17s     2.96um
                 S     04 20.00
MGD    86.52 344 eP    53 49.00  -2.7
       1.5s   130.00nm          5.9mb
     Z  18s     5.20um          6.0Msz
     N  18s     5.50um
     E  18s     3.30um
                 e     54 00.00
                 e     57 04.00
                 eS    04 22.00
                 e     05 14.00
                 ePS   05 42.00
                 eSS   10 00.00
HHAI   86.69  40 (P)   53 53.92   0.9
BALM   86.87  15 eP    53 52.51  -1.0
NVL    87.31 182 eP    53 56.00   0.5
     Z  17s    15.00um          6.5MszX
     N  15s     9.50um
     E  18s     0.90um
                 e     54 11.00
                 e     54 38.00
                 e     56 41.00
                 eSKS  04 33.00
                 eSKKS 04 43.00
                 eS    05 05.00
                 eSS   09 29.00
SNG    87.61 279 eP    53 59.50   1.6
       1.2s   268.75nm          6.4mb
                 eS    04 31.60
LCCM   88.42  39 eP    54 01.70   0.4
BJI    89.05 314 eP    54 05.50   1.2
       1.8s   340.00nm          6.4mb
     Z  18s     3.23um          5.8Msz
     N  16s     1.73um
                 eSKS  04 34.00
FBA    89.16  11 eP    54 03.50  -0.7
GOL    89.24  46 eP    54 06.41   0.9
       1.1s     3.50nm          4.6mb X
     Z  19s     1.50um          5.4Msz
PEL    89.29 126 eP    54 05.70  -0.1
IMA    89.31   8 eP    54 05.10   0.0
       2.0s   163.60nm          6.0mb
GLD    89.37  46 eP    54 07.28   1.2
       1.1s    27.97nm          5.5mb
     Z  18s     7.10um          6.1Msz
GYA    89.95 299 iPc   54 10.40   1.4
       1.4s   120.00nm          6.0mb
     Z  38s     3.06um          5.4MszX
     N  20s     3.02um
     E  20s     4.06um
                 PP    57 42.00
                 sS    05 16.00
NNT    90.47 283 iPc   54 13.20   1.8
TIY    90.49 311 iPc   54 12.50   1.3
       1.4s   150.00nm          6.1mb
     Z  18s     5.58um          6.0Msz
     N  20s     3.11um
     E  18s     2.56um
                 sS    05 18.00
LOE    90.53 288 eP    54 14.00   2.4
MDZ    90.78 126 i(P)  54 12 60  -0.2
                 i     54 15.80
NST    91.28 286 iPc   54 24.80   9.8X
XAN    91.40 306 iPc   54 16.80   1.4
       0.7s   110.00nm          6.4mb
     Z  20s     3.34um          5.8Msz
     N  16s     1.94um
     E  18s     2.03um
                 SKS   04 38.00
SES    91.43  35 eP    54 14.00  -1.1
       1.8s   377.00nm          6.5mb
RTCB   91.45 125 eP    54 16.50   0.6
RTCV   91.48 125 iPd   54 20.00   4.0X
WMOK   91.61  53 eP    54 16.82   0.5
       1.0s     9.32nm          5.1mb
     Z  19s     9.07um          6.2Msz
MEO    91.77  53 iPc   54 17.50   0.5
RTLL   91.77 125 eP    54 17.00  -0.3
RSSD   92.27  43 eP    54 19.72   0.4
       1.8s   111.83nm          6.0mb
     Z  18s    11.21um          6.4Msz
HHC    92.53 313 iPc   54 21.80   1.3
       1.6s   200.00nm          6.3mb
     Z  19s     3.68um          5.9Msz
     N  15s     1.21um
     E  18s     1.64um
                 sS    05 36.00
KMI    92.65 296 Pc    54 24.00   2.4
       1.6s   380.00nm          6.6mb
     Z  20s     6.80um          6.1Msz
     N  20s     4.10um
     E  20s     3.70um
                 sP    54 37.00
BDT    92.88 287 iPc   54 23.50   1.2
       1.0s   155.30nm          6.4mb
OCO    92.91  53 iPd   54 25.40   3.2X
BTO    93.47 313 P     54 26.00   1.2
       1.4s    47.00nm          5.7mb
     N  16s     2.61um
     E  16s     2.11um
                 ePP   58 17.00
                 SKS   04 59.00
CHG    93.51 289 iPc   54 27.50   2.2
       1.0s   110.00nm          6.2mb
                 eS    04 58.30
ANT    93.61 117 eP    54 20.00  -5.8X
CD2    94.09 302 eP    54 26.50  -1.3
     Z  20s     3.74um          5.8Msz
     N  17s     3.86um
TUL    94.32  53 eP    54 31.00   2.3
       2.4s   144.30nm          6.0mb
     Z  18s    14.52um          6.5Msz
     N  18s     6.90um
     E  18s     8.64um
                 LR    27 40.00
LNO    94.32  53 eP    54 29.70   1.1
YAK    94.64 337 eP    54 28.10  -1.4
       1.9s    77.00nm          5.8mb
     N  17s     3.30um
     E  17s     1.30um
                 e     58 12.00
                 e     05 00.00
MIAR   95.44  55 P     54 40.00   6.1X
     Z  19s     7.33um          6.2Msz
ARE    95.78 110 e(P)  54 42.00   5.7X
LZH    96.03 306 Pc    54 38.40   1.6
       1.5s    81.00nm          6.0mb
     Z  17s     2.84um          5.8MszX
     E  16s     1.52um
                 sP    54 53.00
                 SKS   05 12.00
FSA    96.11 121 e(P)  54 39.00   1.8
YKA    96.72  24 eP    54 36.90  -2.1
       0.8s     3.60nm          4.9mb
CNCB   98.67 112 P     54 55.20   5.6X
                 e     58 43.00
LPB    98.69 112 P     54 56.00   6.5X
     Z  18s     8.93um          6.3Msz
                 SKS   05 30.00
                 LR    26 22.00
ZOBO   98.77 111 P     54 48.10  -2.0
     Z  18s     6.78um          6.2Msz
                 SKS   05 20.00
                 LR    27 34.00
BOD    98.83 329 eP    54 48.70   0.1
       1.5s    14.00nm          5.3mb
FVM    99.08  53 P     55 00.00   9.8X
     Z  18s    21.83um          6.7Msz
CRZF   99.80 211 eP    54 59.00   5.4X
                 ePP   59 03.00
                 eSP   08 08.00
                 eSS   13 13.00
GTA   100.22 308 ePdiff54 56.50   0.8
     Z  20s     7.21um          6.2Msz
     E  18s     2.71um
                 pP    55 04.00
                 SKS   05 30.00
                 S     06 20.00
TIK   101.00 344 ePdiff54 56.00  -2.2X
       2.0s    20.00nm          5.3mb
                 i     59 02.00
                 iPS   08 10.00
ZAK   101.69 320 ePdiff55 00.50  -1.2
       2.6s    63.00nm          5.8mb
     Z  20s     2.64um          5.8Msz
     N  20s     5.50um
                 e     59 08.00
                 e     05 42.00
                 ePS   08 16.00
IRK   101.75 322 ePdiff55 04.00   2.0
     Z  20s     6.05um          6.1Msz
                 e     05 39.00
                 ePS   08 14.00
                 eSS   13 46.00
MOY   103.49 320 ePdiff55 16.60   6.9X
CEH   107.08  58 PKP   59 50.00  14.3X
     Z  18s     5.86um          6.2Msz
MCWV  107.46  54 PKP   59 50.00  13.7X
     Z  18s    11.61um          6.5Msz
GUN   107.81 293 Pdiff 55 34.80   4.8X
PKI   108.12 293 Pdiff 55 34.20   2.8X
KKN   108.29 293 Pdiff 55 35.20   3.2X
DMN   108.39 293 Pdiff 55 35.80   3.3X
GKN   108.89 293 Pdiff 55 37.40   2.8X
KOD   110.06 273 ePdiff55 44.00   3.8X
WMQ   110.15 310 ePdiff55 42.00   2.3X
     Z  22s     3.63um          5.9Msz
RSNY  112.33  50 PKP   00 00.00  14.6X
     Z  18s     9.13um          6.4Msz
NRI   112.92 338 ePKP  59 46.00   0.4
       1.7s    29.00nm
                 e     00 29.00
NDI   115.41 292 ePKP  59 51.00  -0.8
POO   115.94 281 ePKP  59 52.50  -0.6
SEM   116.06 316 ePKPd 59 48.50  -3.8X
     Z  17s     4.00um          6.1MszX
                 e     00 58.50
CBM   117.07  47 PKP   00 00.00   5.7X
     Z  18s    14.38um          6.6Msz
KSH   118.16 304 PKP   59 58.00   1.1
     Z  20s     4.23um          6.1Msz
     E  20s     4.37um
                 sPKP  00 12.00
                 ePP   01 15.00
                 SKS   07 02.00
                 eSKKS 08 05.00
FRU   119.48 308 ePKP  00 00.00   0.9
                 e     01 20.00
                 e     06 57.00
BRVK  122.21 320 iPKPc 00 03.00  -0.9
       1.4s    36.00nm
CER   123.26 194 e(PKP)59 50.00 -16.6X
QUE   124.48 292 ePKP  00 15.10   5.8X
FRS   124.95 201 ePKP  00 06.50  -3.4X
BLF   125.24 203 ePKP  00 11.50   0.7
PRY   126.72 205 ePKP  00 13.50  -0.2
BFT   126.75 208 ePKP  00 16.00   2.1X
SVE   126.92 325 iPKPc 00 08.00  -5.0X
       1.7s    60.00nm
     Z  19s     7.00um          6.4Msz
     N  19s     1.00um
     E  19s     5.00um
                 e     02 12.00
SLR   127.46 207 ePKP  00 10.70  -4.4X
     Z  18s    13.50um          6.7Msz
KSR   127.90 205 ePKP  00 22.00   6.0X
MAIO  131.05 299 ePKP  00 21.00  -0.6
                 e     02 32.00
ASH   131.90 302 ePKP  00 23.00   0.0
       1.7s    80.00nm
                 e     02 43.00
KAT   133.42 304 iPKP- 00 27.00   1.2
                 i     02 52.00
```

```
WIN   134.14 195 ePKP  00 28.20   0.2
      Z  18s     18.90um          6.9Msz
                 e     03 03.50
PUL   138.32 341 ePKP  00 39.00   4.6X
      Z  20s      3.00um          6.0Msz
      N  20s      2.00um
      E  20s      2.20um
MOS   138.63 333 ePKP  00 40.00   4.9X
      Z  20s      3.30um          6.1Msz
NUR   139.21 345 ePKP  00 37.00   1.0
OBN   139.49 332 iPKP  00 53.00  16.3X
       1.8s    180.00nm
      E  18s      2.40um
                 ePP   03 26.00
                 ePPP  06 32.00
                 e     07 19.00
                 eSKS  08 00.00
                 eSKKS 10 10.00
                 ePS   13 48.00
                 ePPS  15 24.00
                 eSS   21 18.00
                 eRSKS 23 20.00
                 eSSS  25 26.00
                 e     27 20.00
OBN   139.49 332 iPKPd 00 38.20   1.5
      Z  19s      4.80um          6.3Msz
      N  19s      4.20um
      E  18s      2.40um
                 i     00 53.00
                 e     03 26.00
                 ePPP  06 32.00
                 ePS   13 48.00
NAO   141.06 356 PKP   00 32.90  -6.5X
       1.4s     16.80nm
TAB   141.28 304 ePKP  00 43.00   2.3X
NAI   141.36 237 iPKPc 00 36.00  -5.6X
      Z  18s      4.36um          6.3Msz
                 PP    03 44.00
                 SKS   10 46.00
                 SS    17 22.00
                 e     22 14.00
MTA   141.46 310 ePKP  00 32.00  -8.7X
                 e     00 42.00
PYA   141.85 314 ePKP  00 34.00  -7.4X
                 i     00 40.00
RYD   141.94 282 ePKPc 00 39.00  -3.2X
ARO   142.51 260 ePKP+ 00 40.00  -3.4X
MNK   143.94 337 iPKP  00 40.00  -4.5X
      Z  16s      4.10um          6.3MszX
                 e     03 48.00
                 ePPP  06 58.00
SOC   144.24 315 ePKP  00 38.00  -7.4X
      Z  16s      3.40um          6.2MszX
                 e     00 44.00
KMTA  144.42 271 ePKP  00 46.90   0.1
ABHA  144.54 271 ePKP  00 47.70   0.7
AFIF  145.01 281 ePKP  00 48.30   0.9
ELO   145.01   9 ePKP  00 44.10  -2.3X
EDU   145.03   8 ePKP  00 44.70  -1.6
ANN   145.17 318 iPKP+ 00 32.00 -14.9X
       1.4s    140.00nm
      Z  18s      2.00um          5.9Msz
      N  18s      2.50um
      E  18s      2.50um
AAE   145.20 253 iPKP  00 50.00   1.7
EBH   145.26   8 ePKP  00 45.60  -1.2
       0.8s    144.00nm
MUD   145.51 356 iPKPc 00 46.40  -0.7
       1.2s    250.00nm
EDI   145.62   8 ePKP  00 45.40  -1.9
EAU   145.66   9 ePKP  00 45.30  -2.2X
       1.4s    105.00nm
ESY   145.69   8 ePKP  00 47.10  -0.4
       1.2s     55.00nm
COP   145.98 353 iPKP+ 00 49.00   1.1
       1.1s    212.66nm
      Z  19s      3.61um          6.2Msz
BSD   146.19 350 iPKPd 00 50.00   1.7
       1.1s      4.70nm
EKA   146.19   9 PKP   00 49.00   0.7
       2.2s    345.80nm
LWI   146.57 227 iPKPc 00 53.10   2.6X
DMU   146.91  13 iPKPd 00 50.80   1.3
XDE   146.95   9 ePKP  00 50.60   1.0
SIM   147.05 321 ePKP+ 00 53.00   2.9X
      Z  20s      2.70um          6.0Msz
LMI   147.25   9 ePKP  00 51.60   1.6
```

```
DCN   147.35  14 iPKPd 00 54.30   4.1X
DLF   147.56  13 iPKPd 00 54.60   4.0X
KVT   147.79 313 ePKP  00 54.00   2.6X
LVV   148.53 336 iPKP  00 59.00   6.7X
      Z  19s      6.50um          6.4Msz
                 e     04 22.00
KIS   148.58 328 ePKP  00 56.00   3.6X
      Z  20s      4.90um          6.3Msz
      N  19s      3.50um
      E  19s      2.30um
                 e     04 21.00
BNN   148.86 309 ePKP  00 46.00  -7.4X
BRNL  149.02 350 ePKPc 00 56.70   3.8X
WIT   149.27 358 ePKP  00 59.00   5.7X
OJC   149.61 341 ePKP  00 53.70  -0.2
                 e     00 58.60
                 i     01 08.50
CLI   149.67 329 ePKPd 01 01.00   6.8X
PPE   149.75 328 ePKPc 01 01.00   6.7X
KSP   149.97 346 ePKP  00 54.80   0.3
       1.5s    221.00nm
                 i     00 59.80
WTS   150.08 358 ePKP  00 57.50   3.0X
       1.0s     76.00nm
UZH   150.15 337 ePKP  00 57.00   2.2X
UZH   150.15 337 iPKPc+01 00.60   5.8X
      Z  18s      5.50um          6.4Msz
      E  18s      5.50um
CFR   150.20 326 ePKP  00 39.00 -15.9X
SPC   150.38 340 ePKP  00 56.00   0.6
                 i     01 02.80
BRG   150.42 349 ePKP  00 55.60   0.5
       1.4s    140.00nm
                 i     01 01.60
VRI   150.43 329 ePKP  01 01.50   6.2X
BMR   150.48 334 ePKPd 01 06.00  10.7X
BRD   150.53 328 ePKPc 01 03.00   7.5X
BHL   150.69 300 PKP   00 55.00  -1.2
                 SKS   11 20.00
CVO   150.73 329 ePKPc 01 01.00   5.2X
HRI   150.78 299 ePKP  00 57.20   0.8
MOX   151.01 351 ePKP  00 56.50   0.5
       1.6s    164.00nm
      Z  19s      5.20um          6.4Msz
ISR   151.05 328 ePKP  01 00.50   4.2X
WAJH  151.06 284 ePKP  01 03.00   6.2X
MLR   151.09 329 ePKP  01 04.00   7.5X
BNS   151.10 357 iPKPc 01 02.00   5.9X
      Z  20s      9.10um          6.6Msz
PRU   151.15 347 ePKP  00 58.00   1.8
       2.4s    267.20nm
      Z  17s      3.60um          6.2MszX
                 e     01 01.30
                 e     01 11.50
                 ePP   04 48.00
UCC   151.31   1 PKP   01 01.00   4.6X
VRAC  151.32 344 iPKPc 01 00.70   4.2X
       3.1s   1152.90nm
                 i     01 22.30
                 i     01 34.70
                 e     17 31.10
ENN   151.34 359 iPKPc 01 02.60   6.1X
       1.0s     43.00nm
                 e     04 45.00
AYN   151.37 290 ePKP  01 03.00   5.8X
JVI   151.42 297 ePKP  00 58.40   1.1
SNF   151.59   1 PKP   01 02.20   5.3X
FAM   151.66 303 e(PKP)01 03.70   6.2X
CMP   151.68 330 ePKPc 01 05.00   7.8X
MTUR  151.70 329 ePKP  01 05.00   7.6X
TNS   151.77 355 ePKPc 01 03.50   6.3X
EYL   151.91 317 ePKP  00 53.00  -4.8X
COZ   151.96 330 ePKP  01 05.50   7.7X
GPA   151.97 316 ePKP  00 48.00  -9.8X
GRF   152.00 352 ePKP  00 57.50  -0.1
DOU   152.01   1 PKP   01 04.20   6.7X
                 e     24 10.00
KHC   152.16 348 PKP   00 58.00   0.2
       1.4s     62.40nm
      Z  18s      3.50um          6.2Msz
      N  18s      2.00um
      E  18s      3.00um
                 i     01 06.50
                 e     01 14.60
CSS   152.19 304 ePKP  01 05.00   6.7X
ZST   152.21 343 ePKP  00 58.40   0.5
BUD   152.27 340 ePKP  00 58.00   0.0
```

```
WET   152.27 349 iPKPd 01 00.60   2.6X
RMN   152.31 294 ePKP  01 00.30   1.6
VKA   152.36 344 ePKP  00 59.00   0.9
GEC2  152.41 348 ePKP  00 59.00   0.7
                 ePKPbc01 04.80
                 e     01 08.10
                 e     01 10.90
                 e     01 15.10
                 e     01 21.50
                 e     01 26.40
                 e     01 32.50
WLF   152.44 359 iPKPc 01 05.63   7.6X
PPCY  152.98 304 ePKP  01 06.50   7.2X
FLN   152.98   8 ePKP  00 58.00  -0.9
       0.9s     39.00nm
      Z  19s      5.45um          6.4Msz
LDF   153.19   8 ePKP  00 58.40  -0.8
GRR   153.29   9 ePKP  00 58.80  -0.5
       0.9s     29.65nm
FUR   153.49 351 ePKP  01 02.20   2.5X
LPF   153.61   9 ePKP  00 59.10  -0.7
       1.1s     66.65nm
BHG   153.64 348 ePKP  01 02.10   2.2X
CDF   153.64 357 ePKP  00 59.00  -1.0
       1.3s     44.40nm
HAU   154.09 358 ePKP  00 59.90  -0.6
       0.9s     16.70nm
      Z  21s      4.20um          6.2Msz
KBA   154.17 347 iPKPc 00 59.70  -1.2
       2.1s    211.00nm
                 i     01 28.80
BSF   154.25 357 ePKP  01 00.00  -0.9
       1.4s     31.35nm
WTTA  154.31 350 iPKPc 00 52.60  -8.5X
       1.9s    145.00nm
                 i     01 12.00
                 i     01 22.10
PTJ   154.63 342 ePKP  01 01.60   0.2
ZAG   154.70 342 iPKP  01 03.00   1.7
LOR   154.82   2 ePKP  01 01.00  -0.5
       1.3s     23.10nm
      Z  18s      6.07um          6.5Msz
LJU   154.87 344 ePKP  01 03.00   1.4
SSF   155.02   3 ePKP  01 01.20  -0.5
       1.1s     20.25nm
VOY   155.04 345 ePKP  01 01.50  -0.4
LBF   155.11   2 ePKP  01 01.40  -0.5
       1.3s     24.20nm
VBY   155.18 343 ePKP  01 02.40   0.4
SMF   155.45   2 ePKP  01 01.70  -0.7
LSF   155.69   6 ePKP  01 02.00  -0.7
TCF   155.71   5 ePKP  01 02.10  -0.7
MAF   155.80   4 ePKP  01 02.50  -0.4
SKO   155.88 329 iPKP  01 02.00  -1.1
                 i     01 12.00
                 i     01 32.50
                 i     05 09.00
                 i     15 13.00
EMON  156.29  23 ePKP  01 07.00   3.3X
LPL   156.56 357 ePKP  01 04.10  -0.1
RJF   156.62   6 ePKP  01 03.50  -0.5
      Z  21s      4.43um          6.3Msz
OHR   156.85 329 ePKP  01 03.20  -1.3
LFF   156.89   8 ePKP  01 04.10  -0.2
LPO   157.20   7 ePKP  01 04.50  -0.2
ERUA  157.26  24 ePKP  01 08.00   3.1X
MBO   157.70 106 iPKPd 01 10.00   3.9X
FIR   157.75 348 ePKP  01 02.00  -3.4X
BCAO  158.19 218 iPKPc 01 06.30  -0.5
       1.6s     76.00nm
                 ic    01 13.50
                 id    01 41.60
                 ic    01 47.00
                 ic    05 21.00
ECRI  158.53  16 ePKP  01 09.00   2.6X
EPF   158.70  10 ePKP  01 06.60   0.0
EPLA  159.67  25 ePKP  01 09.00   1.3
GUD   159.87  21 ePKP  01 10.00   2.0X
ETOR  160.33  16 ePKP  01 09.00   0.5
EVAL  161.43  31 ePKP  01 11.50   2.0X
LIC   161.45 147 PKP   01 11.20   1.0
KIC   161.71 147 PKP   01 10.80   0.3
TIC   161.81 146 PKP   01 11.00   0.4
EVIA  162.22  20 ePKP  01 12.00   1.6
EPRU  162.64  29 ePKP  01 13.50   2.7X
ALJ   162.71  30 ePKP  01 13.00   2.0X
ECOG  163.07  24 ePKP  01 12.00   0.7
```

04d 21h

```
PLAT   163.08  32 ePKP*  01 12.00    0.7
MAL    163.20  27 ePKP   01 13.00    1.7
                  iPP    05 28.00
EGUA   163.45  25 ePKP   01 13.50    1.9
AVE    164.24  42 ePKP   01 13.00    0.5
                  i      02 09.00
     S.D. = 1.1  on 267 of 388 obs.
-----------------------------------
?  JAN  04, 1993  22h 38m 45.18± 2.53s
    4.561 S ±17.7km  129.229 E ±25.1km
   DEPTH =  71.2 ± 25.9 km
   4.1mb (  2 obs.)  4.7Msz (  1 obs.)
 BANDA SEA                          (280)

SLKI     3.97 149 iPc    39 45.00    0.0
MTN      8.44 167 eP     40 48.00    0.8
WB2     16.08 162 iPd    42 25.00   -3.4X
                  eS     45 33.30
QIS     18.83 148 eP     43 00.50   -1.8
        0.3s     2.00nm          3.8mb
ASPA    19.52 167 eP     43 08.80   -1.0
        1.5s    29.50nm          4.3mb
                  eS     46 53.40
WARB    21.64 186 iPc    43 33.00    1.6
IPM     29.60 287 ePc    44 45.00   -1.0
CHG     37.81 309 eP     45 56.00   -0.6
BJI     45.98 346 eP     47 04.00    1.0
     Z  18s     0.82um          4.7Msz
BCAO   110.93 273 ePdiff53 04.50   -8.8X
        0.4s     3.00nm
CNCB   152.79 142 PKP    58 37.00    7.3X
LPB    152.93 141 (PKP)  58 32.00    2.3X
ZOBO   153.09 141 ePKP   58 31.00    0.8
     S.D. = 1.4  on   9 of  13 obs.
-----------------------------------
&  JAN  04, 1993  23h 20m 45.41s
   63.106 N          150.716 W
   DEPTH = 118.2km
 CENTRAL ALASKA                     (  1)
      <AEIC>.

TRF      0.40  29 iP     21 02.73   -0.3
                  eS     21 16.22
HUR      0.51 104 eP     21 02.93   -0.6
                  eS     21 16.41
RND      0.90  69 eP     21 06.17   -0.5
MCK      1.02  51 eP     21 07.50   -0.3
                  eS     21 23.82
SKT      1.19 199 eP     21 08.54   -1.1
                  eS     21 27.05
PWA      1.51 165 P      21 14.10    0.9
GHO      1.58 147 eP     21 13.74   -0.4
                  eS     21 35.89
NEA      1.65  25 iP     21 13.85   -1.0
SUA      1.65 180 eP     21 15.06    0.1
PLRM     1.69 153 eP     21 14.97   -0.4
SML      1.71 139 eP     21 14.74   -0.9
CGLM     1.90 199 eP     21 17.23   -0.9
MLY      1.93 360 iP     21 17.48   -1.0
PMS      1.95 163 P      21 18.10   -0.5
CRP      1.97 201 eP     21 18.74   -0.2
CP2      1.98 202 eP     21 19.03   -0.2
KNK      2.00 147 eP     21 18.23   -1.1
                  eS     21 45.22
BGL      2.01 204 eP     21 19.68    0.2
CKN      2.01 201 eP     21 19.72    0.3
CCB      2.01  38 iP     21 18.52   -0.9
SCM      2.03 128 eP     21 18.79   -0.9
                  eS     21 45.76
SPU      2.03 199 eP     21 18.39   -1.3
CKT      2.04 201 eP     21 19.62   -0.2
CKL      2.06 202 eP     21 19.77   -0.4
HDA      2.12  50 eP     21 20.49   -0.3
TOA      2.33 114 P      21 23.10   -0.4
PTE      2.39 160 eP     21 23.58   -0.6
GLM      2.39  36 eP     21 23.43   -0.9
PAX      2.40  91 eP     21 24.18   -0.2
TTA      2.42 268 eP     21 22.51   -2.2
SDG      2.45 101 eP     21 24.43   -0.6
SLKM     2.62 175 eP     21 26.59   -0.7
TZL      2.67 111 eP     21 27.47   -0.5
DFR      2.69 201 eP     21 27.01   -1.3
MPA      2.70 166 eP     21 27.31   -1.0
KLU      2.76 124 eP     21 27.47   -1.8
GLI      2.81 141 eP     21 28.02   -1.8
VLZ      2.86 132 eP     21 29.41   -1.0
DOT      3.05  77 eP     21 31.87   -1.1
SVW      3.06 231 P      21 32.00   -1.1
SEW      3.07 168 eP     21 31.83   -1.4
FID      3.10 138 eP     21 31.83   -1.8
KNIM     3.11 152 eP     21 31.52   -2.3
LTI      3.37 155 eP     21 35.05   -2.2
MTU      3.46 154 eP     21 36.50   -1.9
CVA      3.48 135 eP     21 38.14   -0.6
GLB      3.63 114 eP     21 39.51   -1.4
SGAM     3.70 133 eP     21 40.40   -1.3
MCNL     4.31 206 eP     21 50.14    0.2
BALM     4.45 114 eP     21 50.06   -2.0
SYI      4.59 191 eP     21 52.18   -1.5
CTGM     4.91 112 eP     21 57.05   -1.3
        52 obs. associated
-----------------------------------
?  JAN  04, 1993  23h 29m 49.66± 2.59s
   34.616 S ±25.7km   70.973 W ±13.0km
   DEPTH =  90.0km  (geophysicist)
 CHILE-ARGENTINA BORDER REGION    (127)
      MD 3.7 (SAN).

CACH     0.59  32 iP+    30 05.43   -0.1
                  iS     30 19.96
CHCH     0.73  21 iP+    30 06.83    0.1
                  iS     30 22.46
LNV      0.75 331 iP+    30 06.87    0.0
                  iS     30 22.12
TACH     0.96   2 iPd    30 09.30    0.1
                  iS     30 26.81
PCH      1.06  21 iPd    30 10.58    0.1
                  iS     30 29.82
LCCH     1.24 336 iP     30 12.46   -0.1
                  iS     30 31.14
FCH      1.40  24 iP+    30 14.80   -0.1
                  iS     30 36.75
PEL      1.49   9 iPd    30 16.00    0.3
                  iS     30 38.43
ROCH     1.64 359 eP     30 17.88    0.0
JACH     1.95   9 iP     30 21.62   -0.3
                  iS     30 48.86
FSA      9.52  28 eP     32 41.60   35.8X
SLA     10.94  27 ePc    32 29.70    4.6X
     S.D. = 0.2  on  10 of  12 obs.
-----------------------------------
   JAN  04, 1993  23h 31m 21.52± 0.64s
   21.234 S ± 6.4km   68.641 W ±10.5km
   DEPTH = 144.0 ±  9.2 km
   4.2mb (  1 obs.)
 CHILE-BOLIVIA BORDER REGION      (124)

ANT      2.96 213 iPc    32 07.80   -0.8
HJA      3.59 124 ePc    32 17.40    0.5
CNCB     4.44   8 iPc    32 29.30    0.5
LPB      4.70   6 Pc     32 33.20    1.0
        1.0s    152.00nm
                  eLR    51 18.00
ZOBO     4.94   6 iPc    32 35.80    0.2
     Z  24s     0.28um
                  LR     44 14.00
ARE      5.46 330 eP     32 41.00   -1.2
                  eS     33 40.00
SIV      8.87  55 iP     33 27.00   -0.8
MDZ     11.61 181 i(P)   34 04.70    0.8
PEL     12.00 188 eP     33 57.00  -12.0X
LIC     68.07  74 P      42 07.60   -0.4
TIC     68.26  73 P      42 08.70   -0.5
KIC     68.39  74 P      42 09.00   -0.9
YKA     91.02 340 eP     44 11.60    1.6
        0.7s     1.50nm          4.2mb
WRA    133.31 210 PKP    50 26.20    3.5X
        0.7s     0.50nm
GBA    146.81  98 PKP    50 49.80    2.9X
        0.7s     3.00nm
     S.D. = 1.1  on  12 of  15 obs.
-----------------------------------
?  JAN  05, 1993  00h 32m 25.01± 3.49s
   31.359 S ±22.9km   68.611 W ±34.9km
   DEPTH = 111.9 ± 24.9 km
 SAN JUAN PROVINCE, ARGENTINA     (137)

RTLL     0.12  77 eP     32 40.50   -0.5
RTCB     0.21 232 iPd    32 41.50    0.3
                  S      32 51.50
CFA      0.40 128 ePc    32 41.80    0.0
                  S      32 53.00
RTCV     0.50 173 iPd    32 42.60    0.2
                  S      32 54.20
RTPR     2.09  60 ePc    32 59.80    0.1
RFA      3.40 178 ePc    33 17.20   -0.1
                  S      33 51.30
     S.D. = 0.4  on   6 of   6 obs.
-----------------------------------
&  JAN  05, 1993  00h 41m 00.22s
   35.988 N          120.116 W
   DEPTH =  14.0km
 CENTRAL CALIFORNIA                 ( 39)
      <GM-P>. MD 3.0 (GM). ML 3.0
      (GS). 2.8 (PAS).

BCH      0.80 178 eP     41 15.35   -0.1
ISA      1.37 103 eP     41 23.80   -1.2
ARN      1.77 320 eP     41 29.39   -1.3
MEMM     1.92  29 ePn    41 33.00    0.2
                  eS     41 56.97
CMB      2.05 354 eP     41 34.24   -0.5
                  eS     41 58.70
MRCM     2.12  37 ePn    41 36.53    0.7
BONR     2.44  36 ePn    41 40.70    0.2
                  eS     42 13.86
SSK      2.66 131 (P)    41 44.17    0.6
GSC      2.78 103 ePn    41 43.57   -1.6
TNP      3.12  47 ePn    41 51.29    1.2
ORV      3.73 343 eP     41 57.00   -1.5
        11 obs. associated
-----------------------------------
?  JAN  05, 1993  00h 52m 17.49± 2.19s
   19.664 N ±16.9km   64.541 W ±32.0km
   DEPTH =  33.0km  (normal)
   4.0mb (  1 obs.)
 VIRGIN ISLANDS                     ( 91)

LPR      1.84 223 P      52 47.20   -0.2
CPD      2.08 219 P      52 51.00    0.3
SJG      2.17 225 iP     52 52.00    0.0
                  S      53 18.30
APR      2.40 240 P      52 55.50    0.2
PORP     2.55 231 P      52 57.10   -0.4
LRS      2.57 238 P      52 57.70   -0.1
MGP      2.92 236 P      53 02.70    0.0
YKA     54.75 334 eP     01 45.90    0.0
        0.8s     1.20nm          4.0mb
     S.D. = 0.3  on   8 of   8 obs.
-----------------------------------
   JAN  05, 1993  01h 31m 58.66± 0.32s
   38.922 N ± 4.8km  142.599 E ± 4.9km
   DEPTH =  28.1km  (  9 depth phases)
   4.8mb ( 30 obs.)
 NEAR EAST COAST OF HONSHU, JAPAN(228)

OFUJ     0.74 283 iPd    32 12.30   -0.6
                  eS     32 21.60
YAMJ     2.14 250 eP     32 33.40    0.2
                  eS     32 59.70
AOMJ     2.37 314 eP     32 37.50    1.1
                  eS     33 06.00
NIIJ     3.30 241 P      32 50.10    0.5
KAKJ     3.33 216 P      32 49.20   -0.8
                  eS     33 29.30
HOOJ     3.50   8 eP     32 51.80   -0.6
                  eS     33 31.30
MRRJ     3.69 342 eP     32 56.60    1.5
                  eS     33 38.60
CHJJ     4.06 226 P      33 00.40    0.0
                  eS     33 49.80
MAT      4.21 237 iPc    33 03.70    1.1
                  eS     33 55.00
MTMJ     4.46 240 P      33 07.10    0.9
KUSJ     4.47  20 eP     33 03.20   -3.0X
                  S      33 53.50
IIDJ     5.08 229 P      33 16.90    1.9
ASAJ     5.19   0 eP     33 17.00    0.6
TSRJ     6.27 239 P      33 34.10    2.5
WKYJ     7.33 232 P      33 47.40    0.8
KUR      7.42  30 eP     33 44.00   -3.7X
        0.9s    140.00nm          6.0mb X
     Z  14s     2.70um
     N  14s     2.70um
                  iS     35 03.30
YSS      8.09   1 eP     33 55.10   -2.0
     Z  17s     0.80um
     N  17s     1.00um
                  (S)    35 22.00
YONJ     8.20 246 eP     34 00.10    1.4
TKSJ     8.47 237 P      34 01.90   -0.5
```

```
VLA      9.11 301 iPc   34 14.00   2.7
        2.0s   114.00nm          5.7mb
SSE     19.17 252 Pc    36 20.50  -2.2
        1.0s    42.00nm          4.6mb
      Z  20s     0.60um
      E  10s     0.20um
                  eS    40 33.00
                  ScP   42 31.00
BJI     20.41 282 eP    36 32.00  -4.0X
        1.0s    11.00nm          4.2mb
      Z  12s     0.60um          4.2MszX
MGD     21.82  11 eP    36 48.00  -2.3
                  e     36 57.00  32km
                  e     37 11.00
CIT     23.99 313 eP    37 13.50   1.9
YAK     24.44 345 eP    37 15.70  -0.1
        1.0s    50.00nm          5.0mb
                  e     41 32.00
SEY     24.73  11 eP    37 20.00   1.4
BOD     26.42 325 eP    37 33.20  -1.2
        0.8s    12.00nm          4.6mb
LZH     30.72 277 eP    38 12.00  -1.6
        1.5s    27.00nm          4.8mb
      Z  11s     0.58um          4.5MszX
MOY     31.49 308 eP    38 19.90   0.0
UER     35.77 307 eP    38 56.00  -0.9
ILT     35.95  24 iPc   38 57.00  -1.2
        0.9s     6.00nm          4.5mb
KMI     36.20 260 Pd    39 00.00  -1.1
        1.5s    80.00nm          5.4mb
ELT     40.54 310 eP    39 36.00  -0.7
        0.8s    16.00nm          4.8mb
NVS     42.24 312 eP    39 49.80  -0.9
        1.1s    51.00nm          5.2mb
CHG     42.68 255 eP    39 45.30  -9.4X
SVW     43.44  38 eP    40 02.20   1.7
IMA     44.59  31 eP    40 10.16   0.3
        1.2s     8.16nm          4.5mb
BGL     45.01  38 eP    40 14.27   1.1
CRP     45.12  38 eP    40 14.78   0.6
PMS     46.37  38 eP    40 24.40   0.5
        0.5s    13.00nm          5.1mb
FBA     47.01  33 eP    40 28.51  -0.3
        0.4s     1.83nm          4.4mb
TOA     47.91  37 eP    40 37.30   1.2
KKN     48.44 275 P     40 40.60  -0.2
PKI     48.45 274 P     40 40.00  -1.0
DMN     48.67 275 P     40 42.20  -0.4
GKN     48.84 275 P     40 43.40  -0.4
        0.8s    28.00nm          5.3mb
BRVK    50.07 311 iPd   40 51.50  -1.2
        0.9s     9.00nm          4.8mb
WB2     59.06 189 iPc   41 57.00  -1.6
        0.6s     9.20nm          5.1mb
WRA     59.06 189 P     41 57.20  -1.4
        0.8s     3.30nm          4.5mb
HYB     59.20 268 eP    41 58.00  -1.8
                  e     42 07.00  29km
RES     60.54  15 ePc   42 08.20   0.0
        0.9s     3.00nm          4.4mb
YKA     61.71  31 eP    42 14.70  -1.6
        0.9s     2.10nm          4.3mb
GBA     62.30 265 P     42 20.00  -0.8
ASPA    62.79 189 eP    42 22.60  -1.2
        1.3s     4.60nm          4.4mb
RMQ     65.32 174 eP    42 40.70   0.4
        0.7s    10.00nm          5.0mb
KAF     67.06 333 eP    42 57.10   6.0X
        0.5s     2.00nm          4.5mb
DPW     67.75  46 eP    42 55.67  -0.1
NUR     68.73 332 eP    43 09.10   7.7X
SES     70.12  41 eP    43 10.00  -0.2
                  pP    43 20.00  32km
FCC     71.90  27 eP    43 23.00   2.3
LCCM    72.46  45 ePd   43 24.70   0.2
                  e     43 35.70  36km
NAO     73.09 338 P     43 26.70  -1.1
        0.8s     2.50nm          4.3mb
BONR    73.40  55 eP    43 30.81   0.5
HHAI    73.74  47 eP    43 33.37   1.3
ULM     77.42  34 eP    44 06.00  13.4X
SRU     77.47  50 eP    43 53.62   0.3
RSSD    77.80  43 eP    43 54.92  -0.2
        0.8s     3.08nm          4.4mb
                  e     44 03.26  27km
                  e     44 05.99
PV10    78.83  49 eP    44 01.76   0.8
                  e     44 10.04  26km
                  i     44 13.22
BRG     79.90 330 e(P)  44 16.20  10.1X
CLL     79.92 331 iPc   44 16.30  10.1X
        1.1s    16.00nm
MOX     80.98 331 eP    44 22.10  10.3X
KHC     81.42 329 eP    44 13.60  -0.6
                  e     44 20.00  20km
GEC2    81.60 329 eP    44 15.00  -0.2
        0.8s     0.50nm          3.6mb X
                  e     44 23.00  25km
                  e     44 31.40
                  e     44 35.00
GRF     81.90 331 eP    44 18.40   1.7
        0.9s     2.00nm          4.1mb
                  e     44 26.10  24km
LOR     86.63 333 eP    44 40.60   0.0
        1.2s    19.95nm          5.2mb
LBF     86.83 333 eP    44 41.30  -0.4
        1.0s     7.60nm          4.9mb
SSF     86.93 333 eP    44 41.00  -1.1
        1.0s    10.60nm          5.0mb
SMF     87.17 333 eP    44 43.50   0.2
        1.3s    22.40nm          5.3mb
AVF     87.22 333 eP    44 43.70   0.3
        1.1s    23.95nm          5.4mb
ZOBO   144.92  59 PKP   51 35.10  -0.8
LPB    145.12  59 ePKP  51 43.00   7.0X
CNCB   145.39  59 PKP   51 37.90   1.3
SIV    149.14  49 iPKP  51 51.20   9.2X
                  i     52 02.40
      S.D. = 1.2  on  71 of  83 obs.
-----------------------------------
&  JAN  05, 1993  02h 07m 16.85s
   32.012 N            115.556 W
   DEPTH =    6.0km  (geophysicist)
 CALIF.-BAJA CALIF. BORDER REGION( 45)
      <PAS-P>. ML 2.8 (PAS).

GLA      1.21  31 eP    07 37.72  -2.0
PLM      1.73 321 eP    07 48.05   0.2
                  eS    08 10.43
PEC      2.31 325 (P)   07 55.54  -0.5
                  eS    08 27.22
SSK      2.83 321 (P)   08 04.55   0.9
                  eS    08 44.26
GSC      3.44 343 (Pn)  08 08.76  -3.4
PV10     8.29  38 (P)   09 27.92   7.2
         6 obs. associated
-----------------------------------
%  JAN  05, 1993  02h 35m 22.76± 0.66s
   33.810 S ± 6.8km   71.057 W ± 6.2km
   DEPTH =  33.0km  (normal)
 NEAR COAST OF CENTRAL CHILE      (135)
      MD 3.6 (SAN).

TACH     0.19  32 iP+   35 31.07   1.8
                  iS    35 39.31
LNV      0.33 244 iPd   35 31.04   0.2
                  iS    35 39.49
CHCH     0.36 110 iPd   35 31.47   0.1
                  iS    35 40.67
CACH     0.49 129 iPd   35 32.84  -0.5
                  iS    35 42.70
PCH      0.49  68 iP+   35 33.43   0.1
                  iS    35 43.65
LCCH     0.54 308 iP    35 33.64  -0.3
                  iS    35 43.72
PEL      0.73  25 iPd   35 36.83   0.1
                  iS    35 49.79
FCH      0.80  53 iPd   35 37.37  -0.5
                  iS    35 50.97
ROCH     0.84   3 iP    35 38.13  -0.2
                  iS    35 52.80
JACH     1.19  19 iP    35 42.53  -0.7
                  iS    35 59.78
      S.D. = 0.8  on  10 of  10 obs.
-----------------------------------
   JAN  05, 1993  02h 35m 33.41± 0.88s
   19.704 S ± 8.3km   69.025 W ± 9.5km
   DEPTH = 144.0 ±  7.7 km
   4.8mb (  1 obs.)
 NORTHERN CHILE                   (123)

CNCB     3.04  19 iPc   36 22.20  -0.1
LPB      3.27  16 iPc   36 25.60   0.5
        1.0s   520.00nm
ZOBO     3.50  14 iPc   36 27.20  -1.1
ARE      3.99 324 eP    36 28.00  -6.4X
                  iS    37 16.00
YJA      4.11 127 ePc   36 36.80   0.7
ANT      4.19 198 iP    36 27.80  -8.9X
HJA      4.85 137 e(P)  36 45.00  -0.6
SIV      8.42  65 iPc   37 35.30   1.5
NNA     10.74 314 eP    38 04.40  -0.1
                  eS    40 11.70
BAO     20.44  82 e(P)  40 00.10  -1.4
VAO     20.80 103 eP    40 04.50  -0.5
LIC     68.00  75 P     46 19.60   0.1
KIC     68.32  75 P     46 21.40   0.0
ULM     73.58 342 ePc   46 53.50   1.3
SES     79.02 334 eP    47 22.00  -0.7
YKA     89.46 341 eP    48 14.40  -0.4
        0.6s     5.60nm          4.8mb
WB2    134.42 212 iPKPc 54 36.90   0.2
        0.3s     4.80nm
WRA    134.43 211 PKP   54 37.20   0.5
        0.6s     1.50nm
      S.D. = 0.9  on  16 of  18 obs.
-----------------------------------
%  JAN  05, 1993  03h 41m 57.41± 1.52s
   33.578 S ± 9.8km   70.333 W ±16.9km
   DEPTH =  33.0km  (normal)
 CHILE-ARGENTINA BORDER REGION    (127)

PCH      0.16 254 iPd   42 02.97  -0.8
                  iS    42 05.35
FCH      0.25   8 iP+   42 04.52  -0.4
                  iS    42 08.42
CHCH     0.44 217 iPd   42 07.59   0.4
                  iS    42 14.22
TACH     0.51 261 iP    42 07.86  -0.3
                  iS    42 14.31
ROCH     0.83 317 eP    42 12.72  -0.2
                  iS    42 23.38
JACH     0.92 346 eP    42 14.83   0.7
                  iS    42 26.37
LNV      0.97 247 iP    42 15.30   0.6
                  iS    42 27.55
      S.D. = 0.7  on   7 of   7 obs.
-----------------------------------
*  JAN  05, 1993  03h 44m 12.33± 1.41s
   9.684 N ± 9.0km  126.267 E ±15.2km
   DEPTH =  80.0 ± 12.4 km
   4.7mb (  4 obs.)
 MINDANAO, PHILIPPINE ISLANDS     (259)

DAV      2.67 195 eP    44 54.00   0.0
BAG      8.68 321 eP    46 17.50  -0.1
WRA     30.50 165 P     50 20.00  -0.1
        0.5s     0.40nm          3.4mb X
BJI     31.54 345 eP    50 29.00   0.0
        1.2s    16.00nm          4.7mb
LZH     33.25 326 eP    50 53.00   8.8X
GUN     42.06 301 P     51 58.60   0.2
        0.7s    12.00nm          4.8mb
PKI     42.36 300 P     52 00.80   0.0
KKN     42.53 301 P     52 01.80  -0.3
DMN     42.63 300 P     52 03.60   0.7
GKN     43.14 301 P     52 06.60  -0.3
GBA     47.92 280 P     52 49.00   4.1X
KAF     86.14 332 iP    56 45.20  -0.3
        0.4s     3.10nm          4.7mb
NUR     87.31 331 eP    56 51.10  -0.1
YKA     94.29  24 eP    57 24.00   0.3
        0.8s     1.20nm          4.4mb
      S.D. = 0.3  on  12 of  14 obs.
-----------------------------------
*  JAN  05, 1993  04h 53m 40.73± 0.46s
   4.100 S ± 8.9km  129.551 E ±14.8km
   DEPTH =  33.0km  (normal)
   4.8mb ( 10 obs.)
 BANDA SEA                        (280)

MTN      8.83 170 eP    55 49.00  -0.1
WB2     16.43 164 iPd   57 26.10  -4.4X
                  eS    00 22.70
OIS     19.06 150 eP    58 03.00  -0.2
        0.3s     3.00nm          4.0mb
ASPA    19.90 168 eP    58 10.90  -1.7
        0.5s    50.20nm          5.1mb
      Z  23s     0.10um          3.4MszX
                  eS    01 50.30
WARB    22.13 187 eP    58 36.50   1.2
```

05c 05h

```
BWA     34.89 152 eP    00 32.00   0.6
CAN     35.90 152 eP    00 39.90   0.0
CHG     37.77 308 ePc   00 57.40   1.6
        1.0s    14.25nm          4.8mb
KMI     39.01 319 eP    01 07.50   1.1
        1.8s    50.00nm          5.0mb
MAT     41.23  11 eP    01 23.00  -1.3
        0.9s    10.92nm          4.6mb
BJI     45.61 346 eP    02 00.00   0.3
        1.0s    11.00nm          4.7mb
LZH     46.66 331 eP    02 09.00   0.7
        1.5s    16.00nm          4.8mb
GUN     52.74 310 P     02 55.40   0.0
        0.7s    30.00nm          5.4mb
PKI     52.93 309 P     02 55.00  -1.8
KKN     53.14 309 P     02 58.20   0.0
DMN     53.19 309 P     02 58.20  -0.4
GKN     53.74 309 P     03 02.40  -0.1
        0.9s    23.00nm          5.2mb
GBA     54.62 290 P     03 08.00  -0.9
        0.9s     4.00nm          4.4mb
HYB     54.68 295 eP    03 08.50  -0.8
YKA    105.35  26 ePKP  12 01.50   0.2
        0.7s     0.30nm
CNCB   152.95 141 PKP   13 39.80   9.5X
LPB    153.08 140 ePKP  13 40.00   9.7X
ZOBO   153.24 140 PKP   13 32.30   1.5
     S.D. = 1.0  on  20 of  23 obs.
-----------------------------------
?  JAN  05, 1993  05h 03m 20.76± 5.77s
   35.041 S ±52.7km   71.076 W ±18.6km
   DEPTH = 100.0km  (geophysicist)
 CENTRAL CHILE                    (136)
      MD 3.6 (SAN).

CACH     1.00  23 iP+   03 41.83   0.2
                iS     03 57.02
LNV      1.12 346 iP+   03 42.83   0.1
                iS     03 58.47
CHCH     1.16  18 iP    03 43.19  -0.1
                iS     03 59.79
TACH     1.39   5 iPd   03 45.83  -0.2
                iS     04 03.62
PCH      1.49  18 iP+   03 47.40   0.0
                iS     04 06.63
LCCH     1.61 345 iP    03 48.60  -0.2
                iS     04 09.31
FCH      1.83  21 iPd   03 51.54  -0.4
                iS     04 14.07
PEL      1.92  10 eP    03 53.85   1.0
                iS     04 16.20
ROCH     2.07   2 eP    03 55.11   0.2
JACH     2.39  10 iP    03 58.59  -0.5
     S.D. = 0.5  on  10 of  10 obs.
-----------------------------------
&  JAN  05, 1993  06h 16m 37.40s
   37.748 N          122.142 W
   DEPTH =   3.0km
 CENTRAL CALIFORNIA               ( 39)
      <BRK>. ML 2.1 (BRK), 2.0 (GS).
      Felt at San Leandro.

BKS      0.15 330 iPc   16 40.39   0.0
                eS     16 42.89
ZSP      0.22 335 iPc   16 42.02   0.3
                eS     16 46.00
PCC      0.31 218 iPd   16 43.75   0.1
                eS     16 45.71
JEGM     0.35 228 iPd   16 44.13  -0.2
STAN     0.34 184 iPd   16 44.51   0.2
                eS     16 50.60
HMR      0.49  34 (P)   16 47.09  -0.1
MHC      0.57 135 ePc   16 48.69  -0.1
                eS     16 57.24
COE      0.62 143 eP    16 49.50  -0.2
ARN      0.63 129 ePc   16 49.62  -0.3
                eS     16 59.53
GCC      0.73 171 iPd   16 51.27  -0.6
                eS     17 02.98
NTYM     0.76 328 eP    16 51.62  -1.0
                eS     17 03.40
SAO      1.13 150 eP    16 57.35  -1.8
CMB      1.42  78 eP    17 02.64  -1.5
                eS     17 20.79
      13 obs. associated
-----------------------------------
   JAN  05, 1993  07h 00m 14.49± 0.97s
     7.216 N ± 9.2km   76.709 W ± 6.9km
    DEPTH =  68.1 ± 11.6 km
    4.4mb (  2 obs.)
 NORTHERN COLOMBIA                ( 99)
      MD 4.4 (UPA).

UPA      3.30 302 eP    01 04.83  -0.1
                eS     01 45.81
BMG      3.61  92 iPc   01 05.00  -4.3X
ECO      3.64 306 iP    01 09.57  -0.2
                eS     01 58.44
BOG      3.68 134 iPc   01 11.50   1.0
                iS     01 57.00
PSO      6.02 186 eP    01 49.00   5.7X
SDV      6.24  74 ePn   01 48.80   2.5X
                iSn    03 01.70
TOV      7.30  69 eP    02 02.40   1.5
                iS     03 24.20
MORO     9.05  66 eP    02 25.50   0.5
OLLA    10.18  73 eP    02 39.70  -0.7
LLAV    10.31  71 eP    02 41.60  -0.5
GUAN    11.27  75 eP    02 53.50  -1.7
CUM     12.80  74 eP    03 08.00  -7.4X
ARE     24.09 168 eP    05 29.00   3.8X
ZOBO    24.85 160 P     05 31.00  -1.9
      Z  24s     0.15um          3.4MszX
                LR     13 24.00
LPB     25.09 160 P     05 35.00   0.1
                e      12 34.00
CNCB    25.38 160 P     05 38.50   0.6
                e      12 28.00
SIV     27.77 146 eP    06 02.00   2.9X
                i      06 17.00
PV10    42.60 322 (P)   08 05.00  -0.9
ULM     45.79 343 ePd   08 37.50   6.5X
TNP     47.78 316 (P)   08 46.31  -0.9
        0.7s     1.43nm          4.0mb
LCCM    48.99 328 eP    09 01.00   4.7X
ORV     51.43 316 eP    09 15.00   0.2
YKA     61.70 341 eP    10 29.50   1.9
        0.6s     4.00nm          4.7mb
TIC     71.10  85 PKP   11 34.80   6.6X
LIC     71.13  86 PKP   11 33.80   5.5X
KIC     71.40  86 PKP   11 34.70   4.7X
ASPA   146.38 237 ePKP  19 49.80   1.0
        1.1s     4.70nm
GBA    147.03  51 PKP   19 56.00   6.1X
WB2    147.34 244 iPKPc 19 57.70   7.4X
        0.6s     4.60nm
WRA    147.35 244 PKP   19 54.20   3.9X
        1.1s     0.80nm
      S.D. = 1.2  on  16 of  30 obs.
-----------------------------------
%  JAN  05, 1993  08h 13m 47.38± 0.58s
   39.260 N ± 4.8km   28.691 E ± 5.8km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                           (366)
      MD 3.0 (ISK).

DST      0.35 352 iPg   13 54.00  -0.6
                iSg    13 58.00
KCT      1.02 345 ePn   14 07.10   0.4
ALT      1.12 100 ePn   14 08.40  -0.1
KHL      1.14 145 ePn   14 08.80   0.0
EDC      1.26 330 ePn   14 11.00   0.2
YLV      1.41  22 ePn   14 12.70  -0.4
IZM      1.41 233 ePn   14 13.00  -0.1
GPA      1.62  50 ePn   14 16.00   0.0
EYL      1.72  40 ePn   14 18.20   0.5
     S.D. = 0.4  on   9 of   9 obs.
-----------------------------------
   JAN  05, 1993  10h 19m 36.42± 0.78s
   64.740 N ± 8.0km   16.894 E ± 8.7km
   DEPTH =  33.0km  (normal)
   4.2mb (  2 obs.)
 SWEDEN                           (536)
      ML 4.1 (NAO), 4.1 (UPP). Slight
      damoge in central Vasterbotten
      County.

UME      1.73 121 iPg   20 06.10   1.5
                i      20 06.80
                iSg    20 28.40
MYV      2.13 213 iPg   20 12.40   2.1
                i      20 13.20
                iSg    20 39.00
KIR      3.42  23 iPn   20 29.50   0.7
                i      20 37.90
                iSn    21 09.50
                iSg    21 20.70
NAO      4.81 218 P     20 46.92  -1.5
HFS      4.86 199 eP    20 49.30   0.3
       0.2s    13.90nm
UDD      4.91 200 iPn   20 50.40   0.6
                iSn    21 43.00
                i      21 50.70
                iSg    22 05.70
UPP      4.91 176 iPn   20 50.00   0.2
                iPg    21 07.90
                iSn    21 44.00
                i      22 00.00
                iSg    22 04.50
KAF      4.98 118 eP    20 49.40  -1.4
                eS     21 45.60
NUR      5.55 136 eP    20 58.10  -0.7
                eS     22 00.00
DEL      8.43 192 iPn   21 36.80  -2.3X
                iSn    23 08.10
                eSg    23 53.00
MUD      9.13 208 eP    21 47.80  -0.9
BSD      9.71 187 iP    21 52.70  -4.1X
                iS     23 36.00
                i      24 35.00
OJC     14.64 173 eP    22 58.00  -4.8X
                eS     25 36.50
YKA     48.09 332 eP    28 13.40  -0.7
        0.7s     0.40nm          3.6mb
BCAO    60.20 178 ePd   29 42.90  -0.3
        0.5s     5.00nm          4.9mb
      S.D. = 1.2  on  12 of  15 obs.
-----------------------------------
%  JAN  05, 1993  10h 43m 06.10± 0.94s
   39.044 N ± 8.0km   27.603 E ± 9.8km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                           (366)
      MD 2.8 (ISK).

IZM      0.70 203 iPg   43 19.70  -0.2
                iSg    43 30.70
DST      0.97  54 ePn   43 25.40   0.8
EZN      1.26 309 ePn   43 30.00   0.5
EDC      1.32   9 ePn   43 30.00  -0.4
KCT      1.34  26 ePn   43 30.10  -0.6
     S.D. = 0.9  on   5 of   5 obs.
-----------------------------------
?  JAN  05, 1993  11h 10m 57.23± 0.68s
   16.155 S ±11.7km  174.843 W ±16.7km
   DEPTH =  33.0km  (normal)
   5.1mb ( 11 obs.)
 TONGA ISLANDS                    (173)

HBZ     22.20 195 eP    15 54.70   2.4
        0.3s     8.00nm          4.6mb
PUZ     22.66 194 eP    15 59.10   2.2
URZ     23.13 196 eP    16 00.40  -1.0
        0.3s    61.00nm          5.6mb
WLZ     23.22 199 eP    16 05.10   2.8X
NOZ     23.24 194 eP    16 05.10   2.7X
        0.3s    31.00nm          5.3mb
ORZ     26.91 202 eP    16 37.00  -0.2
THZ     27.62 200 eP    16 42.50  -1.2
DSZ     27.98 202 eP    16 45.00  -2.0
KHZ     28.01 199 eP    16 45.40  -1.7
LTZ     28.74 200 eP    16 51.20  -2.6X
        0.3s    14.00nm          5.1mb
RMO     35.33 247 eP    17 52.70   1.1
        0.8s    13.00nm          4.9mb
CNB     37.19 232 iPd   18 08.20   0.9
        0.4s     8.00nm          4.9mb
CMS     38.85 240 eP    18 21.80   0.6
        0.8s    11.00nm          4.7mb
TOO     40.91 231 eP    18 38.80   0.6
        0.9s    37.00nm          5.1mb
STK     42.46 240 iPc   18 51.80   0.9
        0.7s     7.50nm          4.5mb
WB2     48.31 258 eP    19 37.10  -0.7
        0.4s    14.30nm          5.4mb
ASPA    48.56 253 iPc   19 39.10  -0.6
        0.8s    22.10nm          5.2mb
WARB    55.09 249 iPc   20 27.10  -1.6
GEC2   146.66 350 ePKP  30 33.00  -2.6X
        0.9s     1.12nm
                e      30 36.30
                e      30 45.40
```

```
                    e(PP)  35 50.00
                    e      36 01.50
                    e      36 05.50
FLN   147.15   7 ePKP  30 33.90  -2.3X
       0.6s     4.05nm
LOR   148.96   2 ePKP  30 39.10  -0.1
       0.7s     3.00nm
SSF   149.15   2 ePKP  30 39.00  -0.5
       0.7s     4.50nm
LBF   149.24   2 ePKP  30 39.20  -0.5
       0.5s     2.20nm
BGF   149.63   3 ePKP  30 40.70   0.5
       0.6s     2.80nm
LSF   149.84   5 ePKP  30 40.90   0.3
       0.8s     8.85nm
TCF   149.86   4 ePKP  30 40.50  -0.1
       0.8s     3.65nm
MAF   149.95   4 ePKP  30 41.70   1.0
       0.8s     5.50nm
LPL   150.70 358 ePKP  30 44.30   2.1X
       0.7s     3.75nm
LPG   150.72 358 ePKP  30 44.50   2.2X
       0.8s     4.15nm
     S.D. = 1.2  on  22 of  29 obs.
-----------------------------------
   JAN  05, 1993  11h 22m 30.20± 0.52s
   39.251 N ± 4.7km   28.813 E ± 5.0km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                            (366)
      MD 3.3 (ISK).

DST     0.38 338 iPg   22 37.40  -0.6
                iSg    22 42.40
ALT     1.03 101 ePn   22 49.60  -0.1
KCT     1.06 341 ePn   22 50.50   0.4
KHL     1.08 149 ePn   22 50.50  -0.1
EDC     1.32 327 iPn   22 54.50   0.0
YLV     1.38  18 iPn   22 55.90   0.3
IZM     1.48 235 iPn   22 56.70  -0.2
GPA     1.55  48 ePn   22 57.40  -0.5
GBZT    1.61  17 ePn   22 58.50  -0.2
                iSg    23 23.20
EYL     1.67  38 ePn   23 01.00   1.3
ISK     1.82   6 ePn   23 01.00  -0.8
EZN     2.01 287 ePn   23 05.10   0.6
     S.D. = 0.6  on  12 of  12 obs.
-----------------------------------
   JAN  05, 1993  11h 23m 04.76± 0.47s
   19.116 N ± 7.0km  121.103 E ± 6.9km
   DEPTH =  10.0km  (geophysicist)
   4.8mb ( 23 obs.)  4.4Msz (  4 obs.)
 PHILIPPINE ISLANDS REGION         (248)

OZH     6.25 339 eP    24 36.50  -2.7
     Z  16s     2.49um
HKC     7.22 297 iP    24 50.90  -2.0
MCO     7.67 294 iP    24 57.40  -1.9
GZH     8.25 300 iPd   25 05.00  -2.4
       1.0s    55.00nm          5.8mb
     Z  16s     3.56um          3.4MszX
     N  14s     0.89um
     E  12s     1.20um
QIZ    10.65 271 eP    25 38.40  -2.1
     N  13s     0 64um
     E  15s     1.64um
                S      27 30.60
GYA    15.18 301 P     26 40.00  -1.1
       1.2s    27.00nm          4.5mb
     Z  16s     2.69um          4.2MszX
     N  12s     0.94um
     E  12s     0.99um
KMI    18.03 293 eP    27 17.50   0.2
       1.5s    70.00nm          4.6mb
     Z  18s     3.00um
     N  15s     1.20um
     E  15s     2.00um
XAN    18.40 326 P     27 22.00   0.3
     Z  16s     1.19um
     N  16s     1.46um
     E  14s     0.69um
                pP     27 30.40
CD2    19.59 310 eP    27 36.00  -0.2
     Z  16s     1.78um
     E  15s     1.85um
                pP     27 45.50  40kmX
                ePP    27 55.00
                S      31 10.00
TIY    20.02 340 eP    27 41.00   0.3
     Z  20s     2.24um          4.5Msz
     N  16s     1.36um
                pP     27 51.50  44kmX
NST    20.30 264 eP    27 53.00   9.4X
CHG    20.96 273 eP    27 51.60   1.1
       1.0s    26.25nm          4.6mb
BDT    21.08 268 eP    27 52.50   0.8
BJI    21.28 350 eP    27 53.00  -0.6
       2.0s    87.00nm          4.8mb
     Z  16s     1.17um          4.4MszX
     N  12s     0.37um
                eS     31 50.00
NNT    21.54 256 eP    27 59.00   2.6
LZH    22.74 322 eP    28 10.00   1.6
       1.4s    68.00nm          5.0mb
     Z  16s     1.21um          4.4MszX
     N  11s     0.55um
                eS     32 16.00
SNY    22.74   5 Pc   28 08.60   0.5
       1.0s    14.00nm          4.4mb
     Z  16s     0.59um          4.1MszX
                S      32 12.00
MAT    22.96  37 eP   28 10.00  -0.4
       1.2s    15.63nm          4.4mb
     Z  20s     0.71um          4.1Msz
                (S)    32 23.00
HHC    23.15 341 eP   28 14.60   2.3
       1.4s    31.00nm          4.7mb
     Z  18s     2.18um          4.6Msz
     N  14s     0.51um
     E  10s     0.33um
                S      32 23.00
BTO    23.43 338 eP   28 17.00   2.0
     N  15s     0.44um
     E  15s     0.79um
                eS     32 27.00
IPM    24.34 236 ePd  28 26.00   2.0
       1.1s    44.30nm          5.0mb
CN2    24.88   7 eP   28 34.50   5.6X
MDJ    26.40  14 eP   28 47.00   3.9X
GTA    27.33 322 eP   28 52.00   0.1
       1.0s     9.00nm          4.4mb
     Z  18s     0.86um          4.4Msz
LSA    29.16 297 P    29 08.00  -0.9
GUN    33.37 292 P    29 47.40   1.5
PKI    33.74 291 P    29 49.80   0.7
KKN    33.88 292 P    29 51.00   0.8
DMN    34.01 291 P    29 52.20   0.8
GKN    34.47 292 P    29 55.80   0.6
       1.2s    60.00nm          5.4mb
WMQ    37.26 319 P    30 20.00   1.5
       1.0s     3.70nm          4.1mb
     Z  16s     1.24um          4.8MszX
HYB    40.37 275 eP   30 45.50   0.8
GBA    42.17 269 P    31 00.00   0.5
QIS    43.40 154 eP   31 10.00   0.6
ASPA   44.32 163 eP   31 15.70  -1.1
       0.4s    13.80nm          5.2mb
POO    44.62 277 eP   31 18.50  -1.0
WARB   45.35 173 iPd  31 24.60  -0.4
MAIO   56.29 301 eP   32 49.00   0.8
CNB    60.41 154 eP   33 14.20  -2.6
       0.8s    11.00nm          5.0mb
TOO    60.88 158 eP   33 18.70  -1.2
       0.6s    10.00nm          5.1mb
IMA    70.77  26 eP   34 23.80   0.7
       1.0s     2.00nm          4.2mb
                pP     34 36.50  44kmX
FBA    73.34  26 eP   34 38.70   0.5
       1.0s     0.60nm          3.6mb X
NUR    76.69 330 eP   35 01.00   3.6X
       0.9s    20.90nm          5.2mb
OJC    82.51 321 eP   35 28.50  -0.5
NAO    82.92 332 P    35 29.40  -1.5
       1.0s     6.80nm          4.8mb
RES    83.65   9 ePd  35 35.00   0.6
       1.0s     9.00nm          4.9mb
KSP    84.35 322 iP   35 38.30  -0.1
                i      35 49.30  35kmX
BRG    85.69 323 i(P) 35 44.10  -1.0
       1.0s    12.00nm          5.0mb
YKA    87.65  23 eP   35 54.00  -0.4
       0.8s    12.00nm          5.2mb
NEW    95.20  35 eP   36 30.20   0.3
       1.0s     4.75nm          4.9mb
     S.D. = 1.3  on  46 of  50 obs.
-----------------------------------
    JAN  05, 1993  12h 28m 58.34± 0.44s
     4.043 S ± 7.5km  129.523 E ±11.5km
    DEPTH =  27.7km  (  4 depth phases)
    4.6mb ( 11 obs.)
  BANDA SEA                         (280)

TNE     5.29 336 eP    30 18.20   0.7
MNI     7.18 319 eP    30 52.40   8.1X
                eS     31 07.70
MTN     8.89 170 eP    31 09.00   1.0
MDG    16.25  95 e(P)  32 52.00   5.6X
WB2    16.49 164 iPc   32 45.80  -3.7X
       0.5s    10.00nm          4.2mb
QIS    19.13 150 eP    33 21.80  -0.3
       0.3s     2.00nm          3.8mb
ASPA   19.96 168 iPd   33 22.00  -9.5X
       0.7s    10.40nm          4.3mb
     Z  20s     0.30um
                e      33 30.30  32km
                eS     37 09.50
NANU   22.86 215 iPd   34 01.50   0.8
       0.8s    92.00nm          5.3mb
RMO    28.93 142 eP    34 57.70   0.2
IPM    29.73 286 ePd   35 04.70  -0.1
       0.9s    55.30nm          5.4mb
STK    29.92 159 eP    35 05.30  -1.0
       0.5s     1.60nm          4.1mb
ADE    31.93 166 e(P)  35 24.00   0.0
CAN    35.96 152 eP    35 58.60  -0.2
                ipP    36 06.90  28km
BDT    36.82 306 eP    36 06.10   0.0
CHG    37.72 308 ePc   36 14.50   0.8
       0.9s     9.66nm          4.6mb
KMI    38.95 319 eP    36 25.50   1.3
       1.8s    50.00nm          5.0mb
                pP     36 32.00  22km
MAT    41.18  11 iPc   36 42.10  -0.1
       0.6s     5.33nm          4.4mb
GBA    54.58 290 P    38 25.00  -1.9
       0.8s     3.00nm          4.4mb
HYB    54.63 295 eP    38 26.00  -1.3
YAK    65.87   0 eP   39 42.90  -0.4
       0.7s    75.00nm          5.9mb X
                e      39 52.00  29km
MAIO   76.47 309 eP    40 40.00  -7.8X
NAO   107.20 333 Pdiff 43 08.30  -5.9X
       0.9s     5.10nm          5.6mb
FSA   146.48 154 ePKP  48 40.30   2.4X
NNA   149.33 122 ePKP  48 56.70  13.9X
       1.0s    12.00nm
CNCB  153.01 141 PKP   48 58.20   9.4X
LPB   153.14 140 ePKP  49 02.00  13.2X
ZOBO  153.30 140 PKP   48 50.00   0.7
     S.D. = 0.9  on  17 of  27 obs.
-----------------------------------
•   JAN  05, 1993  12h 31m 20.31± 0.66s
    29.467 N ±11.5km  128.744 E ± 8.8km
    DEPTH =  33.0km  (normal)
    4.5mb ( 11 obs.)
  NORTHWEST OF RYUKYU ISLANDS       (234)

KAGJ     2.52  47 P     31 59.60  -0.3
KUMJ     3.54  30 eP    32 14.00  -0.3
SSE      6.73 286 ePn   32 56.20  -3.2X
     Z  20s     0.90um
     N  11s     1.70um
     E  11s     1.30um
MAT     10.62  46 eP    33 53.00  -0.3
       0.9s     8.40nm          5.0mb
TIA     11.86 308 eP    34 13.60   3.6X
     Z  15s     1.23um
     N  10s     0.88um
SNY     13.03 343 Pc   34 33.60   8.0X
     Z  12s     1.75um
     E  10s     1.26um
CN2     14.55 350 eP   34 54.00   8.4X
       1.0s    13.00nm          4.4mb
     Z  16s     1.58um
     N  12s     0.94um
     E  12s     1.44um
                epP    35 01.00
BJI     14.75 319 eP   34 48.00  -0.2
       1.6s    34.00nm          4.5mb
     Z  20s     0.60um
MDJ     15.14   2 eP   34 59.10   5.8X
TIY     15.87 305 eP   35 07.00   4.1X
```

05d 12h

```
      Z  14s      1.19um
      N  15s      1.38um
XAN     17.46 290 P      35 25.00    2.1
                pP       35 35.10
HHC     18.03 314 eP     35 35.20    5.2X
        1.4s     37.00nm          4.3mb
      Z  17s      0.96um
      N  11s      0.38um
      E  10s      0.59um
                S        39 02.00
BTO     18.89 311 eP     35 44.00    3.4X
GYA     19.73 267 iPc    35 49.00   -1.3
        1.2s     19.00nm          4.3mb
CD2     21.64 280 eP     36 08.00   -1.8
      Z  11s      0.92um          4.4MszX
      E  10s      1.16um
                eS       39 58.00
LZH     21.92 294 eP     36 15.50    2.8
        1.4s     39.00nm          4.6mb
LSA     32.60 280 eP     37 47.60   -4.0X
WMQ     35.54 305 P      38 15.40   -0.9
        1.0s      5.00nm          4.4mb
                pP       38 28.50   49kmX
KSH     44.09 298 eP     39 25.00   -2.2
WB2     49.42 173 iPd    40 09.80    0.7
        0.9s      7.50nm          4.7mb
RMQ     58.85 159 eP     41 17.70   -0.5
        0.6s      4.00nm          4.7mb
DZM     62.79 140 iPc    41 45.10    0.0
RES     72.30  11 eP     42 44.00    0.1
        1.0s      3.00nm          4.2mb
YKA     75.41  25 eP     43 00.60   -1.6
        1.0s      5.80nm          4.5mb
SES     84.54  34 eP     43 51.00   -0.3
FCC     85.16  21 ePc    43 56.50    2.4
LCCM    87.09  38 eP     44 03.70   -0.5
ULM     91.33  27 eP     44 26.00    2.1
      S.D. = 1.5  on  19 of  28 obs.
-----------------------------------
%  JAN  05, 1993  13h 26m 10.35± 0.67s
   26.315 S ± 7.4km   27.203 E ± 6.0km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA          (584)
      ML 3.6 (PRE).

KSR      0.53 328 eP     26 26.50    5.6X
                S        26 36.50
PRY      0.66 158 eP     26 23.00   -0.5
                S        26 29.50
BFS      0.69 213 iPc    26 27.50    3.3X
                S        26 37.20
BPI      0.76  80 iPc    26 24.50   -1.1
                S        26 33.00
SLR      1.13  60 iPd    26 32.40    0.3
                S        26 45.50
SWZ      1.89 242 eP     26 48.20    4.5X
                S        27 13.00
SEK      2.04 169 iPd    26 46.90    1.1
                S        27 10.40
BFT      2.63  77 iPc    26 55.00    0.6
                S        27 24.50
BLF      2.93 198 iPc    26 59.50    1.0
                S        27 31.00
FRS      3.81 205 eP     27 11.60    0.7
                S        27 54.00
POF      7.11 243 e(P)   27 58.10    0.5
                S        29 16.00
CER      9.82 222 eP     28 34.00   -1.3
                S        30 17.00
WIN      9.93 290 eP     28 37.30    0.3
                S        30 25.00
BLE     10.58 222 e(P)   28 44.20   -1.5
      S.D. = 1.0  on  11 of  14 obs.
-----------------------------------
%  JAN  05, 1993  14h 24m 31.13± 0.75s
   38.052 N ±28.2km   15.083 E ± 8.6km
   DEPTH =  10.0km  (geophysicist)
 SICILY                            (398)

ATN      0.32  70 P      24 38.00    0.2
                eSg      24 43.50
MNO      0.33 249 P      24 38.10    0.1
                eSg      24 44.10
MSI      0.40  68 P      24 39.20   -0.2
SOI      0.77  88 P      24 46.00   -0.1
                eSg      24 57.60
GIB      0.84 266 P      24 47.30   -0.1
                eSg      25 00.10
      S.D. = 0.2  on   5 of   5 obs.
-----------------------------------
*  JAN  05, 1993  14h 27m 55.23± 1.26s
   31.783 S ±18.9km   70.045 W ±16.1km
   DEPTH = 130.0km  (geophysicist)
 CHILE-ARGENTINA BORDER REGION     (127)
      MD 3.6 (SAN).

JACH     1.01 207 iPd    28 18.96    0.3
                iS       28 36.02
RTCB     1.10  75 eP     28 19.50    0.0
                S        28 37.70
RTCV     1.29  94 ePd    28 20.80   -0.6
                S        28 38.70
RTLL     1.42  72 eP     28 23.20    0.4
                S        28 42.50
ROCH     1.44 214 iPd    28 23.36    0.1
                iS       28 43.66
PEL      1.46 202 iPd    28 23.27    0.0
                iS       28 43.57
FCH      1.55 188 iPd    28 25.29    0.6
                iS       28 46.02
PCH      1.88 192 iPd    28 28.47    0.3
                iS       28 52.62
TACH     2.01 202 iPd    28 29.55   -0.2
LCCH     2.12 217 iP+    28 31.22    0.1
                iS       28 56.88
CHCH     2.20 193 iP     28 32.34    0.1
                iS       28 59.04
LNV      2.45 208 iP     28 34.36   -0.9
      S.D. = 0.5  on  12 of  12 obs.
-----------------------------------
   JAN  05, 1993  15h 06m 12.38± 0.87s
   39.463 N ± 7.4km   28.405 E ± 7.2km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                            (366)
      MD 3.1 (ISK).

DST      0.22  50 iPg    06 16.80   -0.4
                iSg      06 21.80
KCT      0.79 357 ePg    06 27.00   -0.7
EDC      0.98 335 iPg    06 31.00    0.1
                eSg      06 43.00
YLV      1.33  34 iPn    06 36.40   -0.6
ALT      1.39 107 ePn    06 37.80    0.0
KHL      1.43 142 ePn    06 38.50    0.0
GBZT     1.55  31 ePn    06 42.20    2.2
                iSg      07 03.00
EZN      1.65 283 ePn    06 41.30   -0.1
GPA      1.68  60 ePn    06 41.50   -0.5
      S.D. = 1.0  on   9 of   9 obs.
-----------------------------------
%  JAN  05, 1993  16h 15m 41.40± 0.86s
   38.810 S ± 7.7km  175.002 E ± 7.3km
   DEPTH = 237.3 ± 10.4 km
 NORTH ISLAND, NEW ZEALAND         (159)

BSZ      0.99 183 P      16 15.50    0.3
WHH      1.17  94 P      16 15.90   -0.6
WAHZ     1.38 131 P      16 17.90    0.0
                S        16 41.40
PAHZ     1.60  92 P      16 19.80    0.1
MOH      1.70 102 P      16 20.90    0.4
URZ      1.74  72 P      16 20.20   -0.6
                S        16 45.40
TEHZ     1.83 131 P      16 21.70    0.1
MNG      1.84 169 Pc     16 21.80    0.1
                S        16 47.60
KIW      2.05 182 P      16 23.60    0.0
PGZ      2.06 152 P      16 23.60    0.0
DIW      2.16 202 P      16 24.90    0.2
MAHZ     2.27 100 eP     16 25.90    0.1
CAW      2.30 179 Pc     16 26.10    0.1
MTW      2.38 171 P      16 26.50   -0.3
NOZ      2.38  86 P      16 27.40    0.5
MRW      2.43 185 P      16 27.40    0.0
                S        16 58.10
TCW      2.46 193 P      16 28.10    0.4
WEL      2.48 184 eP     16 27.70   -0.2
BLW      2.58 172 P      16 28.70   -0.2
MOW      2.62 176 eP     16 29.00   -0.3
PUZ      2.66  75 eP     16 29.60   -0.2
                eS       17 02.40
QRZ      2.77 223 P      16 31.00    0.0
                S        17 06.00
HBZ      2.87  66 eP     16 32.10    0.1
THZ      3.36 208 eP     16 37.40   -0.2
                eS       17 18.40
KHZ      3.77 197 P      16 42.90    0.6
                S        17 25.70
DSZ      3.82 219 eP     16 42.90   -0.1
LTZ      4.48 207 P      16 51.00    0.1
                S        17 40.80
MQZ      5.20 199 P      16 58.90   -0.9
                eS       17 55.00
ODZ      7.03 206 eP     17 23.30    0.4
                eS       18 38.20
      S.D. = 0.4  on  29 of  29 obs.
-----------------------------------
   JAN  05, 1993  16h 23m 16.93± 0.45s
    9.191 S ± 7.6km  123.923 E ± 9.3km
   DEPTH =  33.0km  (normal)
   4.6mb (  6 obs.)
 TIMOR REGION, INDONESIA           (289)

MKS      5.92 311 iPd    24 55.00   10.3X
MTN      7.95 118 eP     25 13.00   -0.2
                iS       26 35.00
WRA     14.69 138 P      26 40.00   -4.2X
WB2     14.69 138 iPd    26 39.80   -4.5X
                eS       29 08.00
WARB    17.10 172 eP     27 13.00   -2.1
                eS       30 11.00
ASPA    17.27 148 eP     27 15.40   -1.9
                eS       30 13.50
MEEK    18.07 195 eP     27 29.00    1.8
                eS       30 34.00
QIS     18.88 129 eP     27 38.00    0.7
        0.3s     18.00nm          4.8mb
                eS       30 51.00
MRWA    21.27 199 eP     28 02.70   -0.1
                eS       31 52.00
BAL     22.35 197 eP     28 13.60    0.1
KLB     23.01 194 eP     28 20.00   -0.1
MUN     23.78 196 eP     28 28.00    0.5
CTA     24.14 119 P      28 33.70    2.6X
STK     27.90 147 iPc    29 06.20    0.2
        0.6s      3.50nm          4.2mb
                eS       34 19.90
RMQ     29.14 129 eP     29 17.80    0.5
CMS     30.11 141 eP     29 26.20    0.3
        0.7s      5.00nm          4.4mb
CAN     34.65 142 eP     30 07.30    1.8
BDT     36.01 317 eP     30 17.50    0.4
        0.6s     28.60nm          5.4mb
CHG     37.17 319 eP     30 28.50    1.6
GBA     51.40 296 P      32 19.40   -1.7
        0.6s      2.00nm          4.3mb
GUN     52.10 316 P      32 27.00    0.3
PKI     52.21 316 P      32 27.00   -0.5
KKN     52.44 316 P      32 28.80   -0.3
        0.6s     15.00nm          5.1mb
DMN     52.45 315 P      32 29.20    0.0
GKN     53.01 315 P      32 33.20   -0.1
RZN    102.91 311 iPdiff37 25.00   11.4X
PLD    102.93 311 iPdiff37 27.00   13.6X
PGB    103.33 312 iPdiff37 26.00   10.7X
MMB    103.65 311 iPdiff37 11.00   -5.7X
VTS    104.04 312 iPdiff37 22.00    3.5X
YKA    112.33  25 ePKP   41 49.70   -1.0
        0.4s      0.10nm
CNCB   151.61 155 PKP    43 12.90    8.3X
LPB    151.81 155 ePKP   43 12.00    7.3X
ZOBO   152.01 155 ePKP   43 21.00   15.8X
      S.D. = 1.1  on  22 of  34 obs.
-----------------------------------
   JAN  05, 1993  16h 36m 57.82± 0.31s
   41.244 N ± 3.4km   22.838 E ± 3.1km
   DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION        (383)
      ML 3.0 (TIR).

KNT      0.09 151 iPg    37 00.82    0.4
                eSg      37 03.60
GRG      0.44 229 iPg    37 05.78   -1.0
SOH      0.57 137 iPg    37 09.26   -0.2
SRS      0.58 102 iPg    37 09.10   -0.5
THE      0.62 171 ePg    37 10.00   -0.3
                eSg      37 18.92
LIT      1.17 193 ePb    37 19.20   -0.5
                eSb      37 36.12
FNA      1.20 248 ePb    37 19.08   -1.1
                eSb      37 36.04
```

```
OUR      1.26 136 iPb   37 22.05   0.9
                  eSb   37 40.60
SKO      1.28 305 iPg   37 20.70  -0.8
       0.6s   579.00nm
                  iSg   37 36.50
PAIG     1.46 154 ePb   37 25.20   1.0
                  iSb   37 45.28
OHR      1.55 266 iPn   37 24.70  -0.8
                  iSn   37 45.50
                  Lg    37 52.00
LSK      2.02 238 ePn   37 32.20  -0.2
                  iSn   38 10.70
DIM      2.17  67 iP    37 35.00   0.5
TIR      2.24 274 ePn   37 38.00   2.5
                  iSn   38 09.50
AGG      2.25 190 iPn   37 35.76   0.0
                  eSn   38 06.48
TPE      2.35 247 iPnd  37 38.00   1.0
                  iSn   38 11.00
ALN      2.45  97 ePn   37 38.52   0.1
                  eSn   38 10.00
SDA      2.63 289 ePn   37 42.10   1.1
PVL      2.71  42 iP    37 40.00  -2.1
EZN      3.01 117 ePn   37 46.20  -0.2
JMB      3.05  65 iP    37 46.00  -1.0
COZ      4.22  15 eP    38 09.00   5.3X
MTUR     4.30  21 eP    38 05.50   0.7
CMP      4.33  21 ePd   38 19.00  13.8X
TNR      4.53  13 ePc   38 03.00  -5.0X
DEV      4.64   1 ePc   38 29.00  19.5X
DST      4.71 108 ePn   38 10.70   0.0
MLR      4.81  27 ePc   38 12.90   0.8
CVO      5.18  27 ePc   38 17.50   0.3
BRD      5.26  34 eP    38 32.00  13.7X
VRI      5.42  30 iPc   38 20.90   0.3
PPE      6.06  33 eP    38 32.50   3.0X
CLI      6.20  30 eP    38 32.00   0.4
GEC2     9.97 323 eP    39 23.00  -1.2
       1.3s     1.78nm          4.3mb X
     S.D. = 1.0  on  28 of  34 obs.
-----------------------------------------
%  JAN  05, 1993  16h 41m 09.81± 0.75s
   43.978 N ±14.7km   10.918 E ± 9.0km
   DEPTH =  10.0km  (geophysicist)
 CENTRAL ITALY                      (381)
      MD 2.7 (FIR).

BDI      0.25 290 Pc    41 14.10  -1.0
                  eSg   41 18.20
MME      0.27 324 P     41 15.70   0.2
                  eSg   41 20.60
FIR      0.32 129 ePg   41 17.00   0.6
                  iSg   41 27.00
PGD      0.59 100 P     41 21.20  -0.7
                  eSg   41 30.50
SFI      0.68  94 P     41 23.20   0.0
                  eSg   41 33.70
CRE      0.83 115 P     41 25.80  -0.1
                  eSg   41 37.70
BOB      1.32 307 P     41 35.10   0.9
     S.D. = 0.8  on   7 of   7 obs.
-----------------------------------------
%  JAN  05, 1993  16h 57m 54.72± 1.13s
   37.974 N ±26.4km   15.099 E ± 8.3km
   DEPTH =  10.0km  (geophysicist)
 SICILY                             (398)

MNO      0.32 263 P     58 01.70   0.2
                  eSg   58 06.90
ATN      0.34  57 P     58 01.40  -0.4
                  eSg   58 07.20
MSI      0.43  57 P     58 03.90   0.5
                  eSg   58 09.30
SOI      0.76  82 P     58 09.50  -0.1
                  eSg   58 22.20
GIB      0.85 271 P     58 10.90  -0.2
                  eSg   58 23.80
     S.D. = 0.5  on   5 of   5 obs.
-----------------------------------------
&  JAN  05, 1993  17h 15m 11.37s
   63.210 N          150.698 W
   DEPTH = 130.9km
   3.4mb (  1 obs.)
 CENTRAL ALASKA                     (  1)
      <AEIC>.

HUR      0.54 115 iPc   15 30.65  -0.4
                  eS    15 45.50
RND      0.86  76 ePc   15 33.03  -0.4
                  eS    15 49.76
MCK      0.95  56 iPc   15 33.99  -0.2
                  eS    15 50.25
SKT      1.29 198 iPc   15 37.25  -0.4
                  iS    15 57.19
NEA      1.55  27 iPd   15 39.59  -0.8
                  eS    16 00.29
PWA      1.61 166 P     15 41.00  -0.1
                  S     16 03.00
GHO      1.66 150 iPc   15 41.38  -0.5
                  eS    16 04.79
SUA      1.75 181 ePc   15 42.90  -0.1
                  S     16 07.31
PLRM     1.78 155 iPc   15 42.14  -1.0
                  S     16 06.33
PMR      1.78 155 eP    15 41.85  -1.3
                  eS    16 05.19
SML      1.78 141 iPc   15 42.31  -0.9
                  eS    16 07.29
MLY      1.83 359 ePd   15 43.16  -0.6
CCB      1.93  40 iPd   15 44.09  -0.8
                  eS    16 08.77
CGLM     2.01 198 ePd   15 45.57  -0.4
PMS      2.04 164 P     15 45.70  -0.7
HDA      2.05  52 ePd   15 45.48  -1.0
                  eS    16 12.47
MDM      2.06  31 iPd   15 45.87  -0.8
                  eS    16 11.06
CRP      2.07 200 eP    15 46.14  -0.7
                  eS    16 11.85
CP2      2.08 201 eP    15 46.50  -0.6
KNK      2.09 149 iPc   15 45.95  -1.0
                  eS    16 12.97
SCM      2.09 130 iPc   15 45.71  -1.3
BGL      2.11 203 eP    15 46.95  -0.3
CKN      2.11 200 eP    15 47.31   0.1
FBA      2.12  36 iPd   15 46.38  -1.0
SPU      2.13 198 ePd   15 46.74  -0.8
CKT      2.14 200 eP    15 47.11  -0.5
CKL      2.16 202 ePd   15 47.48  -0.5
THY      2.24  82 eP    15 49.12   0.2
                  eS    16 17.73
GLM      2.30  38 iPd   15 48.93  -0.7
TOA      2.37 116 P     15 49.90  -0.6
PAX      2.39  93 iPc   15 50.11  -0.7
                  eS    16 19.46
TTA      2.44 266 eP    15 50.36  -1.0
SDG      2.46 104 ePc   15 50.71  -0.9
PTE      2.48 161 ePc   15 50.67  -1.2
NKA      2.49 186 eP    15 53.85   1.9
TZL      2.70 113 eP    15 54.14  -0.6
SLKM     2.72 175 eP    15 54.25  -0.8
RDT      2.77 198 eP    15 55.36  -0.3
DFR      2.79 201 ePd   15 55.26  -0.7
MPA      2.80 166 iPc   15 54.77  -1.2
KLU      2.82 126 iPc   15 54.52  -1.8
NCT      2.86 203 eP    15 56.84  -0.1
GLI      2.89 142 ePc   15 55.41  -1.8
REF      2.89 200 ePd   15 56.76  -0.6
RDW      2.91 201 ePd   15 57.18  -0.5
VLZ      2.92 134 ePc   15 55.41  -2.2
                  eS    16 30.16
RS2      2.92 200 eP    15 57.34  -0.5
RSO      2.93 200 eP    15 57.15  -0.7
RS1      2.93 200 eP    15 57.47  -0.4
DOT      3.02  79 eP    15 57.62  -1.2
SVW      3.13 230 eP    15 58.93  -1.4
IMA      3.14 337 eP    15 59.00  -1.6
FID      3.17 139 ePc   15 59.01  -1.9
SEW      3.17 169 eP    15 59.47  -1.4
KNIM     3.20 153 ePc   15 59.09  -2.1
ILIM     3.32 200 eP    16 02.14  -0.8
INE      3.36 201 eP    16 02.59  -0.9
INW      3.36 201 eP    16 02.59  -0.9
HIN      3.45 143 ePc   16 02.73  -1.9
LTI      3.46 156 ePc   16 02.76  -1.9
BRLK     3.46 182 eP    16 03.75  -1.0
MTU      3.55 154 ePc   16 04.14  -1.7
CVA      3.55 137 eP    16 04.27  -1.7
GLB      3.67 116 iPc   16 06.26  -1.3
                  eS    16 47.56
SGAM     3.76 134 ePd   16 06.46  -2.3
PDB      3.82 208 eP    16 09.04  -0.5
RAGM     4.02 132 eP    16 10.35  -1.9
AUL      4.06 200 eP    16 11.98  -0.8
AUP      4.08 200 P     16 15.50   2.4
AUP      4.08 200 eP    16 11.92  -1.1
FYU      4.10  32 ePd   16 11.87  -1.3
AUI      4.11 200 eP    16 12.58  -0.8
CROM     4.33 121 eP    16 14.88  -1.7
MCNL     4.41 205 eP    16 16.61  -0.8
KAIM     4.46 135 eP    16 15.67  -2.4
BALM     4.49 115 eP    16 16.62  -2.0
CDD      4.53 200 eP    16 17.97  -1.1
SYI      4.69 191 eP    16 19.82  -1.4
SNH      4.82 126 eP    16 21.60  -1.4
CTGM     4.94 113 eP    16 23.25  -1.5
YAH      5.12 120 eP    16 25.34  -1.9
YKA     16.35  76 eP    18 52.20  -2.0
       0.5s     1.00nm          3.4mb
       82 obs. associated
-----------------------------------------
%  JAN  05, 1993  17h 28m 13.53± 0.62s
   26.372 S ± 6.0km   27.410 E ± 6.4km
   DEPTH =  10.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA           (584)
      ML 2.6 (PRE).

PRY      0.56 174 eP    28 24.00  -0.9
                  S     28 30.00
KSR      0.68 317 eP    28 26.90  -0.3
                  S     28 35.50
BFS      0.77 227 eP    28 29.00   0.4
                  S     28 38.20
SLR      1.01  51 eP    28 32.20  -0.5
                  S     28 45.20
SEK      1.95 174 eP    28 47.00  -0.2
                  S     29 11.00
SWZ      2.03 246 eP    28 48.30   0.0
                  S     29 13.00
BFT      2.47  75 eP    28 55.60   1.0
                  S     29 25.00
BLF      2.93 201 iPd   29 01.80   0.6
                  S     29 36.00
     S.D. = 0.8  on   8 of   8 obs.
-----------------------------------------
   JAN  05, 1993  18h 20m 58.33± 0.62s
   32.584 S ± 6.8km   66.888 W ± 5.5km
   DEPTH =  33.0km  (normal)
 SAN LUIS PROVINCE, ARGENTINA       (140)

MRA      1.01  80 iPd   21 16.00  -0.2
CFA      1.50 310 ePd   21 22.20  -1.1
                  S     21 40.10
RTCV     1.57 297 iPd   21 24.00  -0.3
MDZ      1.68 259 iP    21 26.90   1.0
                  iS    21 49.50
RTLL     1.84 313 iPd   21 27.70  -0.4
                  S     21 50.50
RTCB     1.96 303 ePc   21 29.50  -0.5
                  S     21 54.00
RTPR     2.30   8 ePc   21 34.80   0.2
                  S     22 04.90
TCA      2.31  58 iP    21 35.00   0.0
RFA      2.55 211 iPd   21 37.40  -0.9
FCH      2.95 255 eP    21 44.96   0.6
                  eS    22 27.41
JACH     3.13 267 iP    21 47.62   1.1
PEL      3.24 259 iP+   21 49.66   1.5
                  iS    22 37.00
CHCH     3.43 246 eP    21 56.89   6.1X
CACH     3.46 243 eP    21 59.00   7.6X
ROCH     3.49 263 iP+   21 51.99   0.1
LNV      4.03 249 iPd   21 58.06  -1.2
LCCH     4.03 256 iP+   21 58.31  -1.0
CYA      4.23  13 ePc   22 00.80  -1.4
CNCB    15.74 356 eP    24 32.00  -7.8X
ZOBO    16.26 356 P     24 47.00   0.4
SIV     17.34  19 P     25 01.30   1.7
     S.D. = 1.0  on  18 of  21 obs.
-----------------------------------------
?  JAN  05, 1993  18h 57m 42.51± 2.94s
   40.388 N ±27.0km   23.608 E ±20.8km
   DEPTH =  10.0km  (geophysicist)
 GREECE                             (364)

OUR      0.29 101 ePg   57 48.56   0.0
                  eSg   57 52.36
SOH      0.47 336 iPg   57 51.92  -0.2
                  eSg   57 58.00
SRS      0.73 359 ePg   57 56.96   0.1
                  eSg   58 05.60
```

05d 18h

```
KNT      0.94 325 ePg   58 00.60    0.1
                  eSg   58 13.12
     S.D. = 0.3   on    4 of   4 obs.
-----------------------------------------
*  JAN  05, 1993  19h 17m 38.61± 1.19s
   23.143 S ±12.7km    66.695 W ±11.9km
   DEPTH = 241.5 ± 14.7 km
 JUJUY PROVINCE, ARGENTINA          (128)

HJA      1.19  94 iPd   18 14.00   -0.1
                  S     18 40.00
YJA      1.47  49 ePd   18 15.60   -1.1
SLA      1.92 145 ePd   18 20.80    0.6
ANT      3.46 260 iPc   18 36.30    0.1
                  eS    19 17.50
CNCB     6.42 349 P     19 14.00    1.0
                  S     20 26.00
LPB      6.71 348 eP    19 15.00   -1.6
ZOBO     6.95 349 P     19 20.20    0.3
                  S     20 39.90
SIV      8.87  38 Pc    19 45.60    1.7
BAO     19.15  70 Pc    21 45.10   -0.9
     S.D. = 1.3   on    9 of   9 obs.
-----------------------------------------
%  JAN  05, 1993  19h 26m 34.50± 2.02s
   45.342 N ±24.5km     5.702 E ± 7.5km
   DEPTH =  10.0km  (geophysicist)
 FRANCE                             (538)
      ML 2.4 (LDG).

LPL      0.75  76 Pg    26 49.20   -0.1
LPG      0.76  78 Pg    26 49.70    0.2
SMF      1.84 316 Pg    27 06.80    0.4
                  Sg    27 27.50
FRF      1.90 159 Pg    27 17.40   10.1X
                  Sg    27 42.40
LBF      2.03 324 Pg    27 08.60   -0.6
                  Sg    27 31.20
AVF      2.19 312 Pg    27 10.70   -0.7
                  Sg    27 37.60
SSF      2.30 319 Pg    27 14.50    1.5
                  Sg    27 39.50
LOR      2.31 327 Pg    27 13.80    0.6
                  Sg    27 38.50
BGF      2.33 302 Pg    27 12.80   -0.7
                  Sg    27 45.20
HAU      2.70   9 Pg    27 18.20   -0.6
                  Sg    27 45.90
     S.D. = 0.9   on    9 of  10 obs.
-----------------------------------------
%  JAN  05, 1993  19h 26m 42.51± 1.50s
   45.507 N ±20.6km     5.838 E ± 8.7km
   DEPTH =  10.0km  (geophysicist)
 FRANCE                             (538)
      ML 2.4 (LDG).

LPL      0.63  89 Pg    26 55.20   -0.1
LPG      0.64  91 Pg    26 55.70    0.1
SMF      1.80 310 Pg    27 12.90   -0.9
                  Sg    27 33.40
AVF      2.15 307 Pg    27 19.30    0.4
                  Sg    27 42.70
LOR      2.23 323 Pg    27 20.00   -0.1
                  Sg    27 44.50
SSF      2.24 315 Pg    27 20.80    0.6
                  Sg    27 46.80
HAU      2.52   8 Pg    27 24.20    0.0
                  Sg    27 53.70
     S.D. = 0.6   on    7 of   7 obs.
-----------------------------------------
&  JAN  05, 1993  20h 04m 41.77s
   34.983 N          116.973 W
   DEPTH =   6.2km
 SOUTHERN CALIFORNIA                (  43)
      <PAS-P>. ML 3.1 (PAS), 2.9 (GS).
      Felt.

GSC      0.35  23 iPd   04 48.29   -0.5
SSK      0.97 218 eP    04 59.51   -1.2
                  eS    05 14.68
ISA      1.40 299 ePn   05 06.36   -1.6
PLM      1.63 177 eP    05 11.22    0.0
                  eS    05 32.23
BCH      2.56 275 ePn   05 22.98   -1.6
GLA      2.62 137 ePn   05 26.92    1.5
                  S     06 06.31
TNP      3.10 356 ePn   05 31.82   -0.5
MMPM     3.10 328 ePg   05 38.53    6.1
BONR     3.15 341 ePn   05 31.22   -1.9
ARUT     3.99  44 ePn   05 43.67   -1.3
CMB      4.10 319 (Pn)  05 44.95   -1.4
        11 obs. associated
-----------------------------------------
    JAN  05, 1993  20h 37m 21.89± 0.43s
    39.582 N ± 5.0km    25.371 E ± 2.8km
    DEPTH =  10.0km  (geophysicist)
  AEGEAN SEA                        (365)
       MD 3.7 (ISK).

EZN      0.78  71 iPg   37 37.40    0.4
OUR      1.31 306 iPb   37 46.38    0.4
                  eSb   38 03.46
PAIG     1.35 285 ePb   37 46.66    0.0
                  eSb   38 05.26
ALN      1.41  21 ePb   37 48.10    0.5
                  iSb   38 06.46
IZM      1.89 128 iPn   37 53.90   -0.6
SOH      1.98 309 ePb   37 56.26    0.4
                  eSb   38 21.46
SRS      2.05 319 ePn   37 56.82    0.0
                  eSn   38 24.02
EDC      2.06  67 ePn   37 57.00    0.0
THE      2.12 300 ePn   37 57.78   -0.1
RZN      2.16 347 iPc   37 59.00    0.4
LIT      2.28 284 ePn   38 01.02    0.9
MMB      2.36 329 iP    38 01.00   -0.3
KCT      2.39  73 ePn   38 02.00    0.3
AGG      2.42 258 iPn   38 02.34    0.1
                  eSn   38 32.70
KNT      2.46 311 ePn   38 03.26    0.6
DIM      2.47   3 iP    38 02.00   -0.8
DST      2.52  88 iPn   38 04.10    0.6
PLD      2.57 349 iP    38 04.00   -0.2
GRG      2.65 302 ePn   38 06.62    1.1
                  eSn   38 38.66
DMK      2.88  38 ePn   38 08.00   -0.7
PGB      3.10 343 iP    38 11.00   -0.8
ISK      3.18  61 ePn   38 13.20    0.2
YLV      3.22  71 ePn   38 13.70    0.1
VTS      3.42 332 iP    38 16.00   -0.5
KHL      3.47 110 ePn   38 17.00   -0.1
PVL      3.63 360 iP    38 18.00   -1.3
SKO      3.82 310 ePn   38 19.50   -2.6
GPA      3.86  78 ePn   38 22.00   -0.6
MLR      5.92   4 eP    38 53.00    1.2
VRI      6.36   9 eP    38 59.00    1.0
CLI      7.10  11 ePc   39 08.90    0.5
     S.D. = 0.8   on   31 of  31 obs.
-----------------------------------------
&  JAN  05, 1993  21h 00m 30.76s
   63.632 N          149.714 W
   DEPTH = 126.1km
  CENTRAL ALASKA                    (   1)
       <AEIC>.

MCK      0.36  73 iPd   00 48.75   -0.2
                  eS    01 02.40
RND      0.45 120 ePd   00 48.93   -0.5
KTH      0.55 262 iPd   00 49.68   -0.3
                  eS    01 03.86
HUR      0.66 177 eP    00 50.28   -0.4
                  eS    01 04.93
NEA      0.99  16 iPd   00 52.80   -0.7
CCB      1.32  39 iPd   00 56.28   -0.6
HDA      1.44  56 iPd   00 57.68   -0.6
MDM      1.48  25 iPd   00 58.43   -0.3
FBA      1.52  33 P     00 58.70   -0.5
GLM      1.70  36 iPd   01 00.81   -0.5
THY      1.79  95 eP    01 03.26    0.8
SKT      1.86 208 ePd   01 02.11   -1.1
                  eS    01 27.02
GHO      1.90 169 ePc   01 03.45   -0.4
                  eS    01 28.91
SML      1.94 160 iPc   01 03.57   -0.7
                  eS    01 29.26
PWA      1.99 182 P     01 05.50    0.7
PAX      2.03 107 ePc   01 04.99   -0.4
                  eS    01 32.37
PLRM     2.07 172 eP    01 05.16   -0.6
PMR      2.07 172 eP    01 04.70   -1.0
                  eS    01 29.38
SCM      2.11 148 ePc   01 05.64   -0.8
SDG      2.20 118 ePc   01 06.90   -0.6
                  eS    01 36.51
SUA      2.23 193 ePc   01 07.84   -0.1
TOA      2.23 132 P     01 07.80   -0.2
KNK      2.30 165 eP    01 08.15   -0.7
                  eS    01 36.81
PMS      2.40 178 P     01 09.60   -0.5
DOT      2.52  87 eP    01 10.76   -0.9
CGLM     2.56 206 eP    01 11.17   -1.1
CRP      2.63 207 eP    01 11.94   -1.3
                  eS    01 37.13
CP2      2.65 207 eP    01 11.47   -2.0
CKN      2.68 207 eP    01 13.24   -0.4
BGL      2.68 209 eP    01 13.32   -0.5
SPU      2.69 205 ePd   01 13.04   -0.8
CKT      2.70 207 eP    01 13.28   -0.8
CKL      2.73 208 eP    01 14.12   -0.4
KLU      2.77 139 ePc   01 13.59   -1.4
PTE      2.80 173 eP    01 14.25   -0.9
VLZ      2.96 146 eP    01 15.51   -1.8
IMA      2.98 327 eP    01 16.52   -1.2
NKA      2.99 195 eP    01 19.83    2.2
GLI      3.02 155 eP    01 16.96   -1.2
SLKM     3.15 185 eP    01 19.01   -0.8
MPA      3.16 177 eP    01 18.71   -1.2
FID      3.27 151 eP    01 20.05   -1.4
DFR      3.36 206 eP    01 22.48   -0.2
KNIM     3.43 163 eP    01 21.70   -1.8
NCT      3.43 208 eP    01 23.73    0.0
RDW      3.48 206 eP    01 24.08   -0.4
RS2      3.49 206 eP    01 24.04   -0.5
RSO      3.49 206 eP    01 24.07   -0.5
RS1      3.49 206 eP    01 24.09   -0.5
GLB      3.51 126 eP    01 23.89   -0.8
SEW      3.54 178 eP    01 24.16   -0.9
HIN      3.58 154 eP    01 23.95   -1.7
CVA      3.61 147 eP    01 24.56   -1.5
LTI      3.71 165 eP    01 25.34   -2.0
SVW      3.74 230 P     01 26.20   -1.6
MTU      3.79 164 eP    01 27.02   -1.4
SGAM     3.79 144 eP    01 27.01   -1.4
INE      3.92 205 eP    01 29.00   -1.3
INW      3.93 206 eP    01 30.05   -0.3
RAGM     4.03 142 eP    01 30.46   -1.2
CROM     4.22 130 eP    01 32.57   -1.8
BALM     4.31 124 eP    01 34.16   -1.4
PDB      4.41 211 eP    01 35.73   -1.0
MCNL     4.98 209 eP    01 43.35   -1.2
YAH      4.98 128 eP    01 43.04   -1.7
CDD      5.08 204 eP    01 44.61   -1.3
SYI      5.20 196 eP    01 45.47   -2.0
        67 obs. associated
-----------------------------------------
    JAN  05, 1993  21h 20m 45.83± 1.24s
    36.597 N ± 8.4km   141.426 E ±10.8km
    DEPTH =  46.0 ± 10.5 km
    4.2mb (  7 obs.)  4.2Msz (  1 obs.)
  NEAR EAST COAST OF HONSHU, JAPAN(228)

KAKJ     1.08 249 iPd   21 04.40   -0.4
                  S     21 20.10
YAMJ     1.92 325 P     21 17.50    0.8
                  eS    21 39.60
CHJJ     2.04 255 P     21 18.10   -0.2
                  S     21 43.90
OFUJ     2.49   4 P     21 23.70   -1.0
                  eS    21 53.50
MAT      2.59 270 iPc   21 27.30    1.0
                  eS    21 59.00
AOMJ     4.04 349 eP    21 48.60    1.8
WKYJ     5.32 245 P     22 04.90    0.0
MRRJ     5.83 357 eP    22 11.90    0.0
HOOJ     5.96  13 eP    22 11.00   -2.7
                  eS    23 18.40
TKSJ     6.57 249 eP    22 22.50    0.1
YONJ     6.61 260 P     22 24.20    1.2
KUSJ     6.97  20 eP    22 22.90   -4.9X
                  eS    23 37.10
BJI     20.09 288 eP    25 16.50   -1.6
YAK     26.48 348 eP    26 19.40   -0.8
        1.5s     28.00nm          4.6mb
                  e     26 25.00
                  e     30 49.00
                  e     31 12.00
LZH     30.15 280 eP    26 53.00   -0.8
      Z  18s      0.49um          4.2Msz
CHG     41.20 256 eP    28 27.90    0.2
IMA     47.06  30 (P)   29 16.70    2.2
        1.0s     4.00nm          4.3mb
```

```
WB2     56.63 188 iPc*  30 25.50  -1.1
        0.6s     3.80nm          4.6mb
WRA     56.63 188 P     30 25.90  -0.7
        1.1s     1.40nm          3.9mb
ASPA    60.36 188 P     30 52.50   0.0
GBA     61.19 266 P     31 05.00   6.6X
RES     63.02  14 eP    31 10.50   0.7
YKA     64.18  30 eP    31 16.80  -0.8
        0.8s     1.10nm          4.0mb
KAF     68.70 333 eP    31 45.80  -0.5
LCCM    74.76  44 eP    32 23.80   0.9
                  e     32 35.30
NAO     74.88 337 P     32 22.50  -0.6
        0.8s     3.10nm          4.3mb
SRU     79.69  49 eP    32 50.77   0.3
PV10    81.06  49 eP    32 59.52   1.8
                  e     33 10.04
GEC2    83.09 328 eP    33 08.10   0.2
        0.6s     0.64nm          3.8mb
                  e     33 15.80
                  e     33 18.70
                  e     33 20.60
                  e     33 25.10
ZOBO   146.90  60 PKP   40 26.80   2.8X
LPB    147.09  60 ePKP  40 17.00  -7.0X
CNCB   147.36  61 PKP   40 28.80   4.2X
SIV    151.36  50 PKP   40 41.80  11.7X
                  i     40 53.80
     S.D. = 1.2  on  27 of  33 obs.
-------------------------------------
*  JAN  05, 1993  22h 26m 21.95± 1.69s
   36.451 N ±10.2km    2.328 W ±14.8km
   DEPTH =  10.0km  (geophysicist)
 STRAIT OF GIBRALTAR              (385)
      mbLg 2.5 (MDD).

ENIJ     0.53  11 ePg   26 32.30  -0.4
                  eSg   26 42.00
EGUA     1.07 291 ePg   26 41.00  -1.0
                  eSg   26 56.50
ECOG     1.29 310 ePn   26 47.00   1.0
EHUE     1.38 351 ePn   26 47.50   0.2
IFR      3.72 219 iPg   27 21.00   0.1
                  iSg   27 45.50
     S.D. = 1.1  on   5 of   5 obs.
-------------------------------------
   JAN  05, 1993  22h 53m 37.86± 0.45s
   44.017 N ± 4.2km   20.639 E ± 4.7km
   DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION       (383)
      ML 3.1 (TTG).

BEO      0.82 351 ePg   53 52.50  -1.1
                  iSg   54 03.50
PLE      1.13 233 iPgd  53 59.20   0.0
                  iSg   54 16.78
IVA      1.27 206 iPgd  54 01.50   0.1
                  iSg   54 21.32
PVY      1.50 199 iPgd  54 05.42   0.5
                  iSg   54 27.45
NKY      1.70 225 iPnd  54 08.42   0.7
                  iSn   54 32.43
TTG      1.88 213 iPnd  54 11.20   0.9
                  iSn   54 37.29
BRY      1.89 235 iPnd  54 11.20   0.6
                  iSn   54 37.29
GZR      2.05  47 ePd   54 15.00   2.1
SKO      2.13 164 iPn   54 14.00   0.1
                  iPg   54 19.40
                  iSg   54 52.10
                  Lg    54 59.80
BDV      2.18 218 iPnd  54 14.82   0.1
                  iSn   54 44.50
HCY      2.22 226 iPnd  54 15.93   0.7
ULC      2.29 207 iPnd  54 15.93  -0.4
                  iSn   54 48.06
DEV      2.46  40 ePc   54 23.00   4.3X
TNR      3.06  56 P     54 28.00   0.9
FNA      3.28 170 eP    54 30.46   0.1
KNT      3.30 149 eP    54 30.06  -0.6
GRG      3.32 156 iP    54 30.46  -0.5
SRS      3.63 142 eP    54 34.10  -1.1
ZAG      3.77 300 eP    54 36.80  -0.4
SOH      3.77 147 eP    54 36.10  -1.3
PTJ      3.82 301 eP    54 36.70  -1.4
MLR      4.06  67 ePd   54 53.00  11.6X
VBY      4.11 293 ePn   54 59.10  17.0X
                  e     55 27.20
ZST      4.85 331 eP    54 56.60   4.0X
                  e     56 20.70
                  e     10 19.20
     S.D. = 0.9  on  20 of  24 obs.
-------------------------------------
%  JAN  05, 1993  22h 58m 28.53± 1.09s
   39.239 N ± 8.0km   28.658 E ±10.7km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                           (366)
      MD 3.1 (ISK).

DST      0.37 356 iPg   58 36.00  -0.1
                  iSg   58 40.00
KCT      1.03 347 ePn   58 48.00  -0.1
KHL      1.14 143 ePn   58 50.00   0.1
ALT      1.14  99 ePn   58 49.70  -0.3
EDC      1.26 331 ePn   58 52.00   0.0
YLV      1.44  22 ePn   58 54.70   0.0
GPA      1.65  50 ePn   58 58.00   0.3
     S.D. = 0.2  on   7 of   7 obs.
-------------------------------------
*  JAN  05, 1993  23h 13m 09.90± 1.30s
   19.808 N ±12.6km   64.715 W ±16.7km
   DEPTH =  10.0km  (geophysicist)
   4.1mb (  1 obs.)
 VIRGIN ISLANDS                   ( 91)

LPR      1.85 216 P     13 41.30  -0.7
CPD      2.09 213 P     13 44.90  -0.6
SJG      2.17 219 iP    13 45.50  -1.1
APR      2.33 235 P     13 50.00   1.1
LRS      2.52 234 P     13 52.00   0.5
PORP     2.52 227 P     13 51.70   0.1
MGP      2.87 232 P     13 56.80   0.2
SIV     35.75 174 eP    20 12.00   0.9
YKA     54.55 334 eP    22 39.70  -0.5
        0.6s     1.10nm          4.1mb
     S.D. = 0.8  on   9 of   9 obs.
-------------------------------------
   JAN  05, 1993  23h 22m 01.93± 0.67s
    6.769 S ± 7.6km  147.706 E ± 9.6km
   DEPTH =  10.0km  (geophysicist)
   4.5mb (  4 obs.)
 EASTERN NEW GUINEA REG., P.N.G. (207)

FINC     0.21  45 iPc   22 06.50   0.0
MDG      2.44 308 eP    22 42.50   0.1
PMG      2.68 192 iPd   22 50.00   4.2X
WB2     18.43 223 iPd   26 19.30   0.0
        0.4s    13.80nm          4.5mb
RMQ     19.64 177 eP    26 34.00   0.1
        0.6s    20.00nm          4.6mb
ASPA    21.41 217 iPd   26 52.00  -0.3
        0.5s    20.90nm          4.8mb
STK     25.63 192 eP    27 33.40   0.1
        0.7s     3.70nm          4.2mb
     S.D. = 0.2  on   6 of   7 obs.
-------------------------------------
   JAN  05, 1993  23h 25m 28.68± 0.22s
    6.412 S ± 3.9km  130.402 E ± 5.6km
   DEPTH =  62.9km  (  2 depth phases)
   5.1mb ( 23 obs.)
 BANDA SEA                        (280)

SLKI     1.79 150 iPc   26 00.00   2.1
MTN      6.43 174 eP    27 02.00  -1.0
MNI      9.58 324 eP    27 51.50   5.1X
WB2     13.99 164 iPd   28 39.60  -5.8X
                  eS    31 03.50
MDG     15.34  86 e(P)  29 02.00  -0.9
QIS     16.66 148 eP    29 16.50  -3.0X
        0.3s    16.00nm          4.7mb
                  eS    32 08.20
PMG     16.86 101 eP    29 23.00   0.9
ASPA    17.48 169 eP    29 26.00  -3.9X
                  eS    32 24.00
TRT     17.68 265 ePc   29 35.50   3.2X
                  eS    29 53.50
KKM     18.80 311 ePc   29 47.00   0.9
        0.5s    76.10nm          5.2mb
WARB    19.99 190 eP    29 58.00  -0.8
NANU    21.53 220 eP    30 15.00   0.5
MEEK    23.04 208 iP    30 30.30   1.0
                  eS    34 41.00
BAG     24.67 337 eP    30 46.00   0.6
COOL    25.85 198 eP    31 06.00   9.9X
MRWA    26.45 209 eP    31 02.50   0.9
                  e     31 29.00 124kmX
                  eS    36 00.00
RMQ     26.54 141 eP    31 03.50   0.9
        0.5s    10.00nm          4.6mb
BAL     27.29 206 eP    31 09.00  -0.3
                  e     31 36.00 126kmX
                  eS    36 18.00
STK     27.41 159 iPd   31 09.50  -0.9
        0.6s     4.60nm          4.3mb
                  eS    36 17.40
KLB     27.70 204 eP    31 12.90  -0.1
                  eS    36 32.00
MUN     28.68 206 eP    31 22.00   0.1
                  eS    36 50.00
CMS     28.82 152 eP    31 23.70   0.6
                  e     31 50.00 122kmX
ADE     29.43 166 e(P)  31 26.40  -2.2
PPI     30.52 280 eP    31 37.50  -0.9
        0.5s    30.00nm          5.3mb
BWA     32.47 152 eP    31 56.10   0.8
                  e     32 11.40  62km
BFD     32.56 162 eP    31 56.20   0.2
        1.2s    30.00nm          5.0mb
CAN     33.47 152 iPd   32 03.90  -0.2
                  e     32 19.60  64km
CNB     33.64 151 eP    32 06.20   0.7
        0.7s     8.00nm          4.7mb
TOO     33.92 158 eP    32 08.50   0.6
        0.8s    17.00nm          5.0mb
NNT     35.85 302 eP    32 20.70  -3.9X
LOE     36.91 310 iPd   32 35.00   1.6
KHT     37.92 304 iPc   32 42.80   0.8
DZM     38.11 118 iPc   32 53.00   9.4X
BDT     38.93 308 eP    32 50.20  -0.1
        0.6s   117.90nm          5.9mb
WHN     39.84 338 Pc    32 59.00   1.3
        1.0s    20.00nm          5.0mb
CHG     39.87 310 ePc   32 59.20   1.0
        0.8s    58.21nm          5.5mb
KMI     41.32 320 Pc    33 11.50   1.3
        1.6s    80.00nm          5.3mb
MAT     43.35   9 (P)   33 26.00  -0.4
        0.8s     8.21nm          4.6mb
CD2     45.03 327 eP    33 40.00   0.0
XAN     45.08 335 Pc    33 39.90  -0.5
        0.7s    18.00nm          5.0mb
TIY     46.99 340 eP    33 55.70   0.2
BJI     48.05 345 eP    34 03.50  -0.1
        0.8s    22.00nm          5.2mb
SNY     48.41 353 Pc    34 06.40   0.0
LZH     49.08 331 eP    34 12.50   0.6
        1.4s    63.00nm          5.5mb
                  pP    34 35.00  93kmX
                  sP    34 42.50
HHC     50.11 341 eP    34 20.00   0.3
        1.2s    20.00nm          5.0mb
CN2     50.18 355 eP    34 19.70  -0.2
        1.0s    13.00nm          4.9mb
                  epP   34 41.00  87kmX
                  esP   34 51.00
BTO     50.40 340 eP    34 21.80   0.0
MDJ     50.80 359 eP    34 24.60   0.0
LSA     52.05 316 iPc   34 32.60  -2.4
        1.0s    32.00nm          5.3mb
GUN     54.87 311 Pc    34 55.80   0.1
PKI     55.05 310 Pc    34 56.60  -0.4
KKN     55.26 310 Pc    34 58.20  -0.1
DMN     55.30 310 Pc    34 58.80   0.1
GKN     55.86 310 Pc    35 02.60   0.0
GBA     56.22 291 Pc    35 04.00  -1.0
HYB     56.42 296 iPc   35 05.00  -1.6
        1.0s    40.00nm          5.4mb
POO     61.01 295 iP    35 35.50  -2.9X
NDI     61.95 307 iPc   35 43.00  -1.6
        0.5s    91.55nm          6.2mb X
WMQ     63.12 327 iPd   35 53.00   0.8
        1.0s    25.00nm          5.2mb
                  sP    36 27.00
KSH     67.82 317 P     36 24.30   1.8
        1.1s    30.00nm          5.2mb
YAK     68.23 360 iPc   36 24.00  -0.4
        0.8s    68.00nm          5.7mb
                  e     36 45.00  80kmX
MAIO    78.63 309 eP    37 27.00   1.3
YKA    107.05  26 ePKP  43 46.80  -1.9
        0.5s     0.20nm
```

05d 23h

```
GEC2   112.23 320 ePKP* 43 58.50  -0.5
        0.5s      0.99nm
BSF    116.91 321 ePKP  44 07.00  -1.1
        0.7s      3.30nm
LOR    118.96 321 ePKP  44 11.30  -0.6
        0.9s      5.10nm
SSF    119.27 321 ePKP  44 12.10  -0.4
        0.6s      3.00nm
AVF    119.47 321 ePKP  44 12.00  -0.8
        0.8s      5.25nm
BGF    119.89 321 ePKP  44 13.40  -0.3
        0.6s      5.75nm
LPF    121.58 324 ePKP  44 16.70  -0.1
        0.5s      1.70nm
MFF    121.72 322 ePKP  44 16.80  -0.3
        0.8s     12.65nm
ARE    148.60 137 ePKP  45 13.00   5.4X
CNCB   150.63 142 iPKPc 45 18.00   7.0X
VAO    150.65 185 ePKP  45 15.90   5.6X
LPB    150.76 141 PKP   45 18.60   7.5X
ZOBO   150.93 141 iPKPc 45 18.00   6.4X
        0.9s     13.41nm
      S.D. = 0.9  on  62 of  76 obs.
-----------------------------------
%  JAN  06, 1993  00h 19m 43.15± 0.76s
   45.808 N ± 5.5km   27.532 E ± 6.5km
   DEPTH =  10.0km  (geophysicist)
 ROMANIA                          (358)

PPE      0.41   8 iPd   19 51.30  -0.3
BRD      0.45 229 ePc   19 52.00  -0.2
VRI      0.57 277 ePd   19 54.00  -0.7
CFR      0.76 145 iPc   19 58.00   0.0
CLI      0.76 347 iPc   19 58.40   0.4
CVO      0.95 271 iPc   20 01.50   0.2
MLR      1.16 255 ePd   20 05.50   0.6
      S.D. = 0.5  on   7 of   7 obs.
-----------------------------------
*  JAN  06, 1993  00h 44m 21.90± 0.89s
   17.952 N ±10.2km   98.826 W ± 9.2km
   DEPTH =  84.4 ± 12.7 km
   3.9mb (  2 obs.)
 GUERRERO, MEXICO                 ( 59)

PPM      1.12  10 iP    44 43.70   0.2
UNM      1.41 346 iP    44 48.20   1.3
                  iS   45 04.50
ACX      1.46 223 iPd   44 48.00   0.7
                  iS   45 03.70
IISM     1.72  53 iP    44 49.10  -1.6
OXX      2.18 113 iP    44 55.80  -1.4
                  (S)  45 28.00
MRX      2.84 308 iP    45 04.50  -1.4
EVV      3.34  81 iP    45 15.00   2.1
CGX      4.72 292 (P)   45 28.00  -4.4X
UYO     16.61  13 iPd   48 10.40  -0.5
OCO     17.54   4 iPc   48 44.30  21.9X
TUL     18.09   8 e(P)  48 29.40   0.3
        0.6s     4.90nm          3.9mb
LNO     18.09   8 e(P)  48 29.30   0.3
YKA     45.84 350 eP    52 36.90   0.0
        0.5s     0.70nm          3.8mb
BAO     60.19 121 e(P)  54 39.00  15.3X
      S.D. = 1.4  on  11 of  14 obs.
-----------------------------------
   JAN  06, 1993  01h 01m 52.23± 0.57s
   32.704 S ± 6.5km   68.758 W ± 6.8km
   DEPTH =  33.0km  (normal)
 MENDOZA PROVINCE, ARGENTINA      (139)
      MD 3.7 (SAN).

RTCV     0.86  13 iP    02 08.00   0.0
                  S    02 20.00
CFA      1.18  22 eP    02 13.00   0.5
                  S    02 30.00
RTCB     1.21 358 eP    02 13.00  -0.1
                  S    02 29.00
RTLL     1.39  10 eP    02 16.30   0.7
                  S    02 34.70
FCH      1.43 244 iP+   02 15.30  -1.1
                  iS   02 33.49
JACH     1.55 270 iP    02 16.56  -1.3
                  iS   02 35.68
PEL      1.68 254 iP    02 18.83  -0.9
                  iS   02 39.83
PCH      1.73 238 iPd   02 20.96   0.4
                  iS   02 43.06
ROCH     1.92 261 iP    02 23.02  -0.3
                  eS   02 46.59
CHCH     2.01 232 iP+   02 26.00   1.5
                  iS   02 52.03
TACH     2.06 242 iP    02 25.98   0.8
                  iS   02 52.38
RFA      2.08 173 eP    02 25.30  -0.2
                  i    02 30.60
                  S    02 57.30
LCCH     2.48 251 eP    02 32.17   1.0
                  iS   03 03.30
MRA      2.59  84 e(P)  02 40.00   7.3X
                  S    03 16.00
RTPR     3.07  39 e(P)c 02 47.00   7.5X
TCA      3.79  70 eP    02 49.00  -0.8
                  S    02 53.00
      S.D. = 0.9  on  14 of  16 obs.
-----------------------------------
?  JAN  06, 1993  01h 02m 22.99± 5.46s
   48.342 N ±18.3km    2.125 W ±40.7km
   DEPTH =  10.0km  (geophysicist)
 FRANCE                           (538)
      ML 2.7 (LDG).

LPF      0.79 113 Pg    02 37.80  -0.5
                  Sg   02 59.40
GRR      0.85  86 Pg    02 40.10   0.8
                  Sg   03 02.00
FLN      1.17  68 Pg    02 44.40  -0.4
                  Sg   03 09.30
LDF      1.36  79 Pg    02 47.90   0.0
                  Sg   03 17.10
MFF      2.20 142 Pg    03 00.20   0.1
                  Sg   03 38.80
      S.D. = 0.7  on   5 of   5 obs.
-----------------------------------
%  JAN  06, 1993  01h 14m 10.88± 0.73s
   41.231 N ± 6.1km   19.858 E ±13.7km
   DEPTH =  21.1 ± 10.3 km
 ALBANIA                          (391)
      ML 3.4 (TIR).

TIR      0.12   3 iPgd  14 16.00   0.9
                  iSg  14 21.00
LACI     0.42 345 iPgd  14 18.50  -1.1
                  iSg  14 25.60
PHP      0.63  44 iPgd  14 22.60  -0.5
                  iSg  14 32.30
VLO      0.81 200 iPg   14 25.70  -0.4
                  iSg  14 37.80
SDA      0.86 342 ePg   14 27.50   0.5
                  iSg  14 42.20
TPE      0.94 173 ePg   14 31.00   2.6X
                  iSg  14 46.00
BCI      1.15   8 ePn  14 32.10   0.4
                  iSn  14 50.70
SRN      1.35 175 ePn   14 34.90   0.3
                  iSn  14 52.90
      S.D. = 1.0  on   7 of   8 obs.
-----------------------------------
*  JAN  06, 1993  01h 15m 48.73± 1.32s
   21.995 S ±12.4km  170.803 E ±17.9km
   DEPTH =  33.0km  (normal)
   4.6mb (  4 obs.)
 LOYALTY ISLANDS REGION           (189)

DZM      4.04 268 iPd   16 49.90  -0.1
                  iS   17 30.40
BKM      4.93 330 iP    17 02.90   0.4
                  iS   17 58.00
ARMA    19.12 240 eP    20 12.20   0.3
        0.9s    17.00nm         4.3mb
RMO     20.59 253 iPc   20 27.20  -0.4
        0.8s    26.00nm         4.7mb
CNB     22.96 230 eP    20 52.70   1.3
        1.0s    50.00nm         5.0mb
CAN     23.22 230 eP    20 54.70   0.8
BWA     23.23 233 eP    20 52.30  -1.7
CMS     24.18 242 eP    21 02.80  -0.3
        0.6s    12.00nm         4.6mb
GEC2   147.60 331 ePKP  35 27.10  -1.4
        0.6s     0.53nm
                  e    35 51.30
                  e    35 58.90
BCAO   147.96 241 iPKPd 35 31.20   1.2
        1.0s    10.00nm
      S.D. = 1.1  on  10 of  10 obs.
-----------------------------------
%  JAN  06, 1993  02h 04m 27.43± 1.95s
   39.208 N ±10.2km   28.545 E ±18.5km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                           (366)
      MD 2.8 (ISK).

DST      0.40   9 iPg   04 35.40  -0.3
                  iSg  04 40.40
KCT      1.05 352 ePn   04 48.00   0.8
KHL      1.17 139 ePn   04 49.00  -0.3
ALT      1.23  97 ePn   04 50.90   0.6
YLV      1.50  25 ePn   04 53.50  -0.9
GPA      1.74  51 ePn   04 58.00   0.2
      S.D. = 0.8  on   6 of   6 obs.
-----------------------------------
*  JAN  06, 1993  02h 15m 53.79± 0.98s
   19.259 N ± 6.7km   64.707 W ±12.5km
   DEPTH =  33.0km  (normal)
   4.1mb (  2 obs.)
 VIRGIN ISLANDS                   ( 91)

LPR      1.45 230 P     16 18.00   0.0
CPD      1.67 224 P     16 21.90   0.8
SJG      1.78 230 iP    16 22.90   0.1
                  S    16 48.00
APR      2.08 248 P     16 26.30  -0.7
PORP     2.19 237 P     16 28.40  -0.2
LRS      2.24 245 P     16 29.00  -0.4
MGP      2.58 242 P     16 33.50  -0.6
TOV     10.62 208 eP    18 27.30   0.4
SDV     11.80 210 eP    18 44.70   1.6
HBF     19.55 317 eP    20 21.25  -0.5
SGS     19.80 318 eP    20 24.93   0.5
                  eS   23 54.64
LHS     20.84 320 eP    20 38.59   3.4X
                  eS   24 14.49
CEH     20.86 325 (P)   20 37.25   1.8
        0.4s    29.66nm         5.0mb X
                  e    20 38.85
                  eS   24 13.33
JSC     20.98 319 iP    20 40.08   3.4X
                  eS   24 20.57
PRM     21.56 317 (P)   20 45.07   2.6X
                  e    20 48.20
                  eS   24 35.97
LVNJ    23.14 340 (P)   20 57.35  -0.7
                  e    21 08.06
SIV     35.21 174 iP    22 48.00   0.8
ZOBO    35.48 186 eP    22 45.00  -5.2X
CNCB    35.99 185 P     22 52.00  -2.4
ALQ     40.01 302 iP    23 27.00  -0.6
        1.0s     2.25nm         3.9mb
                  pP   23 36.10  31kmX
                  sP   23 40.00
YKA     55.05 334 eP    25 16.30  -8.1X
        0.7s     2.60nm         4.4mb
      S.D. = 1.1  on  16 of  21 obs.
-----------------------------------
?  JAN  06, 1993  02h 36m 58.04± 3.45s
   39.323 N ±24.6km   28.712 E ±25.5km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                           (366)
      MD 2.5 (ISK).

DST      0.29 347 iPg   37 03.40  -0.7
                  iSg  37 08.40
KCT      0.96 344 ePn   37 17.00   0.6
ALT      1.12 103 ePn   37 19.00  -0.1
YLV      1.34  22 ePn   37 23.00   0.2
      S.D. = 1.0  on   4 of   4 obs.
-----------------------------------
   JAN  06, 1993  02h 41m 53.99± 0.69
   36.432 N ± 7.3km   23.193 E ± 5.7k
   DEPTH =  88.6 ± 12.7 km
 SOUTHERN GREECE                  (368)

VLI      0.35 324 eP    42 06.40  -1.3
ATH      1.59  15 eP    42 21.60   0.3
                  eS   42 39.80
NPS      2.29 120 eP    42 32.70   2.1
AGG      2.67 345 iPn   42 36.70   0.8
                  eSn  43 06.58
VLS      2.71 311 eP    42 36.70   0.4
PAIG     3.51   6 ePn  42 47.02  -0.3
LIT      3.70 352 ePn   42 50.45   0.4
                  eSn  43 31.30
```

```
IGT      3.83 325 ePn   42 52.30   0.5
                  eSn   43 35.18
OUR      3.94   9 iPn   42 53.33   0.0
                  iSn   43 36.66
KZN      4.03 344 eP    42 56.40   1.8
THE      4.20 358 ePn   42 55.66  -1.2
KEK      4.23 322 eP    42 57.10  -0.3
SOH      4.38   2 ePn   42 59.78   0.2
                  eSn   43 49.06
GRG      4.56 352 ePn   43 01.42  -0.5
                  eSn   43 50.06
FNA      4.57 342 ePn   43 02.14   0.0
SRS      4.69   4 ePn   43 03.74   0.0
KNT      4.73 357 ePn   43 04.22   0.0
                  eSn   43 57.54
OHR      5.03 339 iPn   43 09.20   0.7
SOI      5.92 288 P     43 23.00   2.1
TDS      6.30 303 P     43 25.30  -0.7
ATN      6.40 288 P     43 26.40  -1.1
                  eSn   44 28.00
BRT      6.45 315 P     43 27.00  -1.2
MGR      7.05 304 Pc    43 35.50  -1.0
PPCY     7.61  99 eP    43 43.60  -0.4
                  eS    45 01.40
CSS      8.38  97 eP    43 53.00  -1.6
                  eS    45 16.60
GEC2    14.22 334 ePn   45 12.70   0.3
       0.4s      0.32nm          2.9mb X
                  e     45 19.60
     S.D. = 1.1  on  26 of  26 obs.
-----------------------------------
?  JAN  06, 1993  02h 44m 37.87± 5.14s
   39.762 N ±38.2km   19.883 E ±18.0km
   DEPTH =  10.0km  (geophysicist)
 GREECE-ALBANIA BORDER REGION     (392)
      ML 3.5 (TIR).

SRN      0.15  37 iPgd  44 40.40  -0.9
                  iSg   44 44.40
TPE      0.54  10 iPgc  44 49.00   0.2
                  iSg   45 01.50
VLO      0.77 337 ePg   44 51.00  -1.8
                  iSg   45 06.00
TIR      1.58 360 iPnc  45 07.50   1.5
                  iSn   45 34.20
LACI     1.88 356 ePn   45 10.20   0.0
                  iSn   45 42.00
PHP      1.97  12 iPnc  45 11.80   0.2
                  iSn   45 43.30
SDA      2.31 353 ePn   45 17.00   0.5
BCI      2.61   3 ePn   45 21.10   0.3
     S.D. = 1.2  on   8 of   8 obs.
-----------------------------------
%  JAN  06, 1993  02h 46m 52.15± 2.61s
   38.532 S ± 9.2km  178.465 E ±22.5km
   DEPTH =  63.1 ± 22.9 km
 OFF E. COAST OF N. ISLAND, N.Z. (160)

NOZ      0.35 256 Pd    47 02.10  -1.0
PUZ      0.49 340 Pc    47 03.60  -0.8
                  S     47 10.60
MAHZ     0.80 215 P     47 09.30   1.3
HBZ      0.94 352 Pc    47 10.70   0.9
URZ      1.10 284 P     47 12.00   0.2
                  S     47 24.60
PAHZ     1.15 253 P     47 13.10   0.5
TAZ      1.57 280 P     47 19.20   1.0
WAHZ     2.01 234 P     47 24.60   0.1
KUZ      2.81 308 P     47 34.90  -0.8
MNG      3.11 227 P     47 38.40  -1.4
                  S     48 12.70
     S.D. = 1.2  on  10 of  10 obs.
-----------------------------------
%  JAN  06, 1993  02h 59m 40.26± 2.41s
   44.169 N ±14.6km    7.195 E ±15.2km
   DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                   (545)
      ML 1.4 (GEN).

STV      0.12  51 P     59 44.11   0.8
                  S     59 45.76
ENR      0.17  70 P     59 44.29   0.1
                  S     59 46.03
PZZ      0.34 349 P     59 47.13  -0.3
                  S     59 51.20
ROB      0.50  75 P     59 49.88  -0.6
                  S     59 54.54
IMI      0.56 117 P     59 51.75   0.0
                  S     59 58.71
     S.D. = 0.7  on   5 of   5 obs.
-----------------------------------
?  JAN  06, 1993  03h 11m 08.38± 4.78s
   35.331 N ±29.0km   28.276 E ±36.9km
   DEPTH =  33.0km  (normal)
 EASTERN MEDITERRANEAN SEA        (371)
      ML 3.4 (CSS).

YER      1.80   0 ePn   11 37.70   0.0
ELL      1.94  43 ePn   11 41.00   1.3
BCK      2.83  41 ePn   11 51.00  -1.3
PPCY     3.37  96 eP    12 00.00   0.1
                  eS    12 44.50
CSS      4.16  94 eP    12 11.00  -0.1
                  eS    30 40.00
     S.D. = 1.3  on   5 of   5 obs.
-----------------------------------
   JAN  06, 1993  03h 42m 44.89± 0.83s
   14.910 N ± 6.9km   93.798 W ± 5.8km
   DEPTH =  28.8 ±  5.5 km
   4.8mb ( 22 obs.)  4.6Msz (  2 obs.)
 NEAR COAST OF CHIAPAS, MEXICO    ( 69)
      Mw 5.4 (HRV).
      CENTROID, MOMENT TENSOR     (HRV)
      Data Used: GDSN
      L.P.B.: 12S, 16C
      Centroid Location:
      Origin Time        03:42:46.1 0.9
      Lat 15.04N  FIX;Lon  93.77W  FIX
      Dep  15.0 FIX Half-duration  1.0
      Moment Tensor;    Scale 10**17 Nm
        Mrr= 0.02 0.05  Mtt=-0.32 0.05
        Mff= 0.30 0.08  Mrt= 1.15 0.13
        Mrf=-0.60 0.13  Mtf=-0.01 0.04
       Principal Axes:
        T  Val=  1.25  Plg=46  Azm= 41
        N        0.15      12      299
        P       -1.40      42      198
      Best Double Couple:Mo=1.3*10**17
       NP1:Strike=219 Dip=12 Slip=  10
       NP2:        119     88      102

TPX      1.49  90 eP    43 10.44   0.5
                  iS    43 34.50
SCX      2.13  32 iP    43 25.72   6.5X
                  iS    44 00.09
OXX      3.55 308 iP    43 38.67  -0.9
EVV      3.83 337 iP    43 45.60   2.3
ACX      6.15 289 (P)   44 12.00  -4.2X
PPM      6.20 312 iP    44 19.39   2.0
UNM      6.77 311 (P)   44 24.00  -1.2
MRX      8.52 305 iP    44 49.87   0.5
CGX     10.39 299 (P)   45 14.50  -0.8
UYO     19.18 358 iPc   47 08.10  -1.0
MIAR    19.55   1 eP    47 11.86  -1.5
        0.6s    22.98nm          4.6mb
WMOK    20.25 348 eP    47 19.11  -1.6
        0.8s    18.41nm          4.5mb
                  eS    51 01.77
MEO     20.25 349 iPc   47 19.60  -1.2
OLY     20.61   5 eP    47 23.07  -1.4
OCO     20.79 352 iPc   47 26.50   0.2
TUL     20.99 355 eP+   47 28.00  -0.3
        0.8s    25.10nm          4.7mb
     N  20s      0.61um
     E  18s      0.62um
                  S     51 20.00
                  LR    57 38.00
                  e     57 39.00
LNO     20.99 355 eP    47 27.70  -0.5
HBF     21.69  32 (P)   47 35.47   0.0
PRM     21.71  26 eP    47 35.73   0.1
                  e     47 45.00
BOG     21.95 116 eP    47 39.50   1.0
                  eS    51 45.00
ACO     22.22 349 e(P)  47 40.60  -0.1
JSC     22.36  28 (P)   47 43.53   1.4
ELC     22.65   9 eP    47 44.64  -0.3
LHS     22.74  29 (P)   47 43.47  -2.3
ALQ     22.97 333 (P)   47 48.32   0.0
        0.8s     8.92nm          4.3mb
                  e     47 50.05
FVM     23.18   7 eP    47 50.01  -0.1
        1.2s    19.87nm          4.5mb
TUC     23.23 321 eP    47 51.77   1.0
        1.1s    32.85nm          4.8mb
SDV     23.43 102 eP    47 52.80  -0.2
TOV     23.99  99 eP    47 57.50  -0.7
GLA     26.28 317 eP    48 19.59  -0.2
GLD     26.70 340 (P)   48 23.75   0.0
        1.2s    26.60nm          4.7mb
GOL     26.70 340 (P)   48 24.11   0.3
        1.1s     5.43nm          4.1mb
PV08    26.97 334 eP    48 27.51   1.1
PV10    26.97 333 eP    48 25.90  -0.5
PV09    27.12 333 eP    48 28.48   0.8
SRU     28.24 332 eP    48 37.84   0.1
MSU     28.56 329 (P)   48 39.39  -1.3
ARUT    28.67 326 ePc   48 42.53   0.9
EMUT    28.94 332 eP    48 44.77   0.6
DAU     29.63 332 eP    48 51.26   0.9
RSSD    30.39 345 eP    48 57.56   0.5
        1.0s     7.22nm          4.4mb
TNP     31.01 322 eP    49 02.34  -0.1
        1.0s    10.69nm          4.6mb
HVU     31.41 332 eP    49 06.63   0.7
NNA     31.56 147 eP    49 02.90  -4.4X
BONR    31.57 321 eP    49 08.02   0.5
MEMM    31.78 320 eP    49 09.38   0.4
EEO     33.95  18 eP    49 31.00   3.2X
LCCM    34.38 337 eP    49 32.60   0.9
ULM     35.29 358 eP    49 40.50   1.3
SES     38.06 342 eP    50 04.00   1.4
ARE     38.17 144 eP    50 02.00  -2.1
DPW     38.57 334 eP    50 07.23   0.2
LON     39.42 329 eP    50 13.66  -0.4
ZOBO    40.04 140 P     50 15.10  -5.1X
     Z  22s     0.40um          4.2Msz
                  S     56 32.00
                  LR    02 30.00
LPB     40.25 140 P     50 24.10   2.5
CNCB    40.53 140 P     50 20.20  -3.9X
FCC     43.78 360 eP    50 52.50   3.1X
SIV     44.58 132 iPd   50 56.80   0.2
YKA     49.76 348 eP    51 35.70  -0.8
        0.6s     9.40nm          5.0mb
BAO     54.49 122 Pc    52 08.50  -4.3X
VAO     59.33 129 eP    52 41.30  -5.7X
RES     59.78 360 eP    52 49.50   0.3
        0.8s     3.00nm          4.5mb
FBA     61.73 337 eP    53 00.69  -2.0
        0.8s     7.71nm          4.9mb
CRP     62.03 332 (P)   53 03.28  -1.8
DAG     72.16  14 eP    54 07.40  -1.0
        1.0s    20.00nm          5.1mb
EKA     78.25  36 P     54 43.00  -0.4
        1.1s    14.60nm          4.9mb
NAO     84.07  28 P     55 15.40   1.4
        1.0s    23.70nm          5.3mb
WIT     84.46  37 eP    55 18.00   1.9
ENN     84.61  39 eP    55 17.50   0.6
        1.0s    32.00nm          5.5mb
WTS     84.78  38 eP    55 19.00   1.3
        0.8s    25.00nm          5.5mb
PERF    84.90  48 P     55 19.48   0.9
TIC     87.14  84 P     55 29.40  -0.7
LIC     87.24  84 Pd    55 29.90  -0.7
KIC     87.48  84 P     55 30.90  -0.9
GRF     88.18  39 eP    55 35.70   1.2
        1.9s    42.00nm          5.4mb
     Z  18s     0.50um          5.0Msz
BRG     89.36  37 i(P)  55 40.40   0.3
        1.0s    20.00nm          5.4mb
KHC     89.82  39 eP    55 43.10   0.8
 -      1.0s     3.50nm          4.6mb
                  e     55 50.10
GEC2    90.00  39 ePc   55 43.50   0.2
        1.0s     4.72nm          4.7mb
                  e     55 50.70
PRU     90.06  38 eP    55 43.00  -0.4
ZST     92.33  39 eP    55 54.80   0.9
SRO     93.23  39 eP    56 02.40   4.4X
WB2    133.91 257 iPKPd 01 59.00  -2.8X
        0.5s     5.70nm
WRA    133.92 257 PKP   01 59.50  -2.4X
        0.6s     0.70nm
GKN    137.32   2 PKP   02 07.00  -1.3
GUN    137.43   0 PKP   02 07.40  -1.4
KKN    137.55   1 PKP   02 07.40  -1.4
DMN    137.72   1 PKP   02 08.00  -1.2
PKI    137.77   1 PKP   02 07.40  -2.0X
CHG    144.22 339 ePKP  02 16.70  -3.9X
```

06d 04h

```
HYB   147.00  13 ePKP*  02 25.70   0.4
GBA   150.37  17 PKP    02 34.00   3.5X
     S.D. = 1.1  on  76 of  91 obs.
-----------------------------------------
%  JAN  06, 1993  03h 58m 21.56± 2.12s
   39.329 N ±16.6km   28.682 E ±15.0km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                              (366)
      MD 2.7 (ISK).

DST      0.28 351 iPg    58 27.40   0.0
                  iSg    58 32.40
KCT      0.95 345 iPn    58 39.50  -0.2
ALT      1.14 103 ePn    58 43.00   0.0
EDC      1.20 328 ePn    58 44.00   0.2
YLV      1.35  23 ePn    58 46.50   0.1
     S.D. = 0.2  on   5 of   5 obs.
-----------------------------------------
   JAN  06, 1993  04h 09m 44.13± 0.39s
   44.807 N ± 3.1km     7.186 E ± 4.7km
   DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                      (545)
      ML 2.2 (GEN), 2.1 (LDG).

BHB      0.06  58 P      09 47.10   0.6
                  S      09 48.80
DOI      0.31 172 P      09 50.20  -0.4
                  eSg    09 54.10
RRL      0.31 292 P      09 50.12  -0.5
                  S      09 53.97
PZZ      0.31 191 P      09 49.99  -0.6
                  S      09 53.97
RSP      0.35   8 P      09 51.77   0.4
                  S      09 56.85
BNI      0.44 304 Pd     09 52.60  -0.5
                  eSg    09 57.10
STV      0.57 170 P      09 54.56  -1.2
                  S      10 01.52
ENR      0.60 164 P      09 54.98  -1.4
                  S      10 02.71
LSD      0.65 358 P      09 57.49   0.2
                  S      10 05.09
ROB      0.71 136 P      09 57.77  -0.4
                  S      10 06.65
LPG      0.76 336 Pg     09 58.70  -0.4
                  Sg     10 08.10
LPL      0.78 336 Pg     09 59.10  -0.4
                  Sg     10 08.60
FIN      0.94 129 P      10 01.75  -0.4
                  S      10 13.84
SBF      0.96 169 Pg     10 03.70   1.2
                  Sg     10 15.00
PCP      1.01 105 P      10 03.82   0.6
                  S      10 16.70
IMI      1.03 150 P      10 02.76  -0.9
                  S      10 15.84
FRF      1.31 197 Pg     10 09.40   1.1
                  Sg     10 25.80
LRG      1.48 204 Pg     10 11.80   1.1
                  Sg     10 31.80
LMR      1.55 199 Pg     10 13.50   1.7
                  Sg     10 33.50
     S.D. = 0.9  on  19 of  19 obs.
-----------------------------------------
   JAN  06, 1993  04h 10m 27.92± 0.35s
   43.216 N ± 3.9km     0.669 W ± 4.5km
   DEPTH =  10.0km  (geophysicist)
 PYRENEES                            (378)
      mbLg 3.4 (MDD). Felt (IV) in the
      Arette-Feas area,-France.

ELIZ     0.63 266 iPgc   10 41.00   0.4
                  eSg    10 49.50
EPF      0.76 104 Pg     10 43.10   0.3
                  Sg     10 54.10
ECRI     1.48 246 ePn    10 55.40   0.7
                  eSn    11 13.50
LPO      1.99  42 Pn     11 02.20   0.3
                  Pg     11 08.80
                  Sg     11 35.30
LFF      2.00  30 Pn     11 03.60   1.5
                  Pg     11 08.40
                  Sg     11 35.30
EROQ     2.52 161 ePn    11 09.00  -0.6
                  eSn    11 38.70
EBR      2.55 160 ePn    11 16.00   6.1X
                  eSg    11 45.00
CAF      2.61  48 Pn     11 11.00   0.1
                  Pg     11 19.60
                  Sn     11 40.20
                  Sg     11 54.30
ETOR     2.61 204 ePn    11 10.90   0.0
                  eSn    11 39.40
RJF      2.61  36 Pn     11 11.40   0.5
                  Pg     11 19.40
                  Sg     11 53.20
ETER     2.75 108 ePn    11 14.00   1.1
                  eSn    11 45.50
MFF      3.41   6 Pn     11 22.20   0.1
                  Pg     11 34.70
                  Sn     12 01.00
                  Sg     12 20.10
LSF      3.41  27 Pn     11 22.20  -0.1
                  Sn     11 59.70
                  Sg     12 18.10
ECHE     3.63 184 ePn    11 25.20  -0.2
                  eSn    12 05.30
GUD      3.66 226 ePn    11 25.00  -0.8
                  eSn    12 06.00
TCF      3.69  33 Pn     11 26.30   0.0
                  Pg     11 40.50
                  Sg     12 27.60
MAF      3.79  36 Pn     11 27.80   0.2
                  Sg     12 31.10
BGF      4.17  36 Pn     11 32.10  -0.9
                  Pg     11 50.10
                  Sg     12 41.80
AVF      4.57  37 Pn     11 38.00  -0.7
                  Sn     12 26.80
                  Sg     12 54.00
SMF      4.69  41 Pn     11 39.50  -0.9
SSF      4.85  36 Pn     11 41.60  -1.0
                  Sg     13 04.80
     S.D. = 0.7  on  20 of  21 obs.
-----------------------------------------
   JAN  06, 1993  04h 56m 17.08± 0.51s
   44.363 N ± 3.5km     7.375 E ± 5.8km
   DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                      (545)
      ML 1.9 (GEN), 1.7 (LDG).

STV      0.12 197 P      56 19.54  -0.7
                  S      56 21.00
ENR      0.14 167 P      56 19.81  -0.7
                  S      56 21.64
PZZ      0.24 306 P      56 21.78  -0.6
                  S      56 25.44
ROB      0.36 101 P      56 24.98   0.4
BHB      0.49 351 P      56 26.49  -0.5
                  S      56 32.76
SBF      0.50 175 Pg     56 27.10  -0.2
                  Sg     56 33.70
FRF      0.96 214 Pg     56 35.00  -0.3
                  Sg     56 49.00
LRG      1.17 219 Pg     56 39.80   0.9
                  Sg     56 55.80
LMR      1.20 212 Pg     56 40.20   0.7
                  Sg     56 55.80
LPG      1.22 339 Pg     56 39.80  -0.2
                  Sg     56 56.80
LPL      1.24 339 Pg     56 41.20   0.9
     S.D. = 0.7  on  11 of  11 obs.
-----------------------------------------
   JAN  06, 1993  05h 02m 53.83± 0.63s
   44.594 N ± 3.7km  129.805 W ± 5.4km
   DEPTH =  10.0km  (geophysicist)
   3.9mb (  5 obs.)
 OFF COAST OF OREGON                 ( 30)

MPOR     4.47  89 P      04 02.02  -1.3
TKO      4.57  78 P      04 03.70  -1.0
KMOR     4.59  75 P      04 03.90  -1.1
NLO      4.72  69 P      04 06.86   0.0
ONR      4.80  59 P      04 08.37   0.5
DBO      4.97 105 P      04 08.72  -1.6
BMW      4.99  66 eP     04 09.88  -0.7
OSR      5.00  52 P      04 11.04   0.3
OTR      5.15  45 P      04 13.86   1.1
RVW      5.21  70 P      04 13.12  -0.6
CPW      5.24  61 P      04 14.07   0.0
SMW      5.27  57 P      04 14.34  -0.2
PGO      5.28  78 P      04 15.11   0.4
OSD      5.33  51 P      04 15.78   0.3
GT2      5.38  81 P      04 15.84  -0.4
LVP      5.42  72 P      04 17.03   0.3
CZM      5.45  68 P      04 16.91  -0.2
FL2      5.49  70 P      04 17.51  -0.2
MTMW     5.54  72 P      04 18.11  -0.4
SHW      5.57  71 eP     04 18.44  -0.4
VLMM     5.58  78 P      04 19.03   0.0
STD      5.59  70 P      04 19.08   0.0
HSR      5.60  71 P      04 20.02   0.7
HDW      5.60  55 P      04 19.67   0.4
REMW     5.60  71 P      04 19.62   0.2
YEL      5.60  71 P      04 19.29  -0.1
JLK      5.61  71 P      04 20.51   1.1
TDL      5.62  69 P      04 19.21  -0.4
MEW      5.64  60 P      04 20.83   1.2
SOSW     5.64  70 P      04 20.14   0.2
LMW      5.66  66 P      04 20.34   0.2
GMW      5.71  56 eP     04 20.32  -0.4
TDH      5.73  80 P      04 20.89  -0.3
BPO      5.79  87 P      04 21.75  -0.3
GHW      5.81  62 P      04 22.46   0.4
VLL      5.83  79 P      04 22.54   0.1
BLN      5.84  52 P      04 23.46   1.0
VBEM     5.86  83 P      04 23.02   0.0
TCO      5.90  92 P      04 22.86  -0.8
GULW     5.95  74 P      04 24.38   0.3
RVC      5.96  64 P      04 25.05   0.7
VFP      5.96  80 P      04 24.56   0.1
ASR      5.99  72 P      04 24.48  -0.3
LON      6.00  66 eP     04 24.47  -0.4
REMR     6.01  65 P      04 25.27   0.3
SPW      6.03  58 P      04 26.27   1.1
GLK      6.08  68 P      04 26.25   0.2
RCS      6.09  65 P      04 26.61   0.2
WPW      6.16  67 P      04 27.42   0.3
GSM      6.17  62 P      04 27.66   0.4
RMW      6.26  60 eP     04 28.16  -0.4
CROR     6.29  83 P      04 28.27  -0.7
MCW      6.30  47 eP     04 29.51   0.4
HTW      6.43  57 P      04 31.03   0.0
VGB      6.46  79 eP     04 30.94  -0.4
GL2      6.48  75 P      04 31.12  -0.6
JCW      6.53  54 P      04 32.75   0.5
CMW      6.54  51 P      04 33.33   0.8
NAC      6.65  68 P      04 34.28   0.3
MBW      6.86  50 P      04 37.74   0.6
RPW      6.90  53 P      04 37.97   0.5
TBM      6.92  65 P      04 38.23   0.4
MXC      6.96  70 P      04 38.23  -0.1
JBO      7.12  79 P      04 39.29  -1.3
BRVW     7.15  71 P      04 41.03   0.0
ETW      7.24  62 P      04 42.51   0.1
MDW      7.33  70 P      04 43.39  -0.1
NLW      7.42  59 P      04 44.69  -0.2
WAH2     7.49  70 P      04 45.54  -0.2
WTV      7.51  62 P      04 45.60  -0.5
GBL      7.53  71 P      04 46.22   0.0
LOCW     7.57  70 P      04 46.66  -0.2
WIW      7.61  72 P      04 47.41   0.0
CRF      7.63  69 P      04 47.71   0.1
EPH      7.63  65 P      04 47.25  -0.5
ET3      7.88  72 P      04 51.01  -0.2
DPW      8.68  64 eP     05 00.79  -1.7
MEMM    10.72 126 (P)    05 32.95   2.6
TNP     11.48 120 (P)    05 42.82   1.9
HHAI    12.63  90 (P)    05 56.20  -0.2
LCCM    12.71  78 eP     05 56.20  -1.2
GSC     13.61 129 (P)    06 11.16   1.8
SES     13.94  59 eP     06 23.00   9.5X
ARUT    14.06 113 eP     06 16.64   1.3
MSU     14.52 109 (P)    06 22.51   1.1
EMUT    14.86 102 eP     06 24.85  -1.0
SRU     15.37 104 eP     06 33.22   0.8
PV09    16.61 104 eP     06 48.88   0.3
PV10    16.74 105 eP     06 50.56   0.5
RSSD    18.41  82 eP     07 11.18   0.2
        1.8s     24.71nm          4.1mb
TUC     19.24 123 eP     07 18.64  -2.3
        1.0s      4.24nm          3.7mb
KLU     19.41 336 eP     07 23.35   0.6
YKA     19.98  21 eP     07 33.50   4.7X
        1.3s      5.40nm          3.7mb
SLKM    20.06 330 (P)    07 28.49  -1.3
ALQ     20.31 110 eP     07 31.98  -0.8
        1.2s      8.05nm          3.9mb
ULM     23.51  64 eP     08 08.50   4.1X
WMOK    25.70 102 eP     08 25.83   0.2
        1.0s     10.52nm          4.5mb
```

```
ZOBO    82.50 121 P      15 17.00  -1.8
     S.D. = 0.8  on  95 of  98 obs.
-----------------------------------------
*  JAN  06, 1993  06h 43m 20.27± 0.89s
   7.931 N ±15.2km   76.306 W ± 8.2km
   DEPTH =  65.0 ± 13.8 km
   3.8mb (  1 obs.)
 NORTHERN COLOMBIA                ( 99)

UPA      3.36 288 iP     44 12.79   1.3
                  eS     44 47.08
ECO      3.64 293 eP     44 14.31  -1.2
                  eS     44 50.24
BOG      3.97 146 eP     44 20.00  -0.4
                  eS     45 11.50
SDV      5.69  80 ePn    44 44.40   0.0
                  eSn    45 52.40
TOV      6.70  74 eP     44 58.70   0.4
                  eS     46 15.30
YKA     61.16 341 eP     53 29.30  -0.8
       0.5s     0.40nm          3.8mb
WRA    148.02 245 PKP    02 58.20   0.6
       0.8s     0.30nm
     S.D. = 1.2  on   7 of   7 obs.
-----------------------------------------
%  JAN  06, 1993  08h 30m 24.08± 1.44s
   44.044 N ±12.8km   10.598 E ±10.8km
   DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                   (545)

BDI      0.02 358 P      30 25.20  -0.9
                  eSg    30 26.60
MME      0.17  26 P      30 28.30   0.3
                  eSg    30 33.20
SFI      0.91  97 P      30 42.10   0.6
                  eSg    30 54.70
CRE      1.06 113 P      30 44.20   0.0
                  eSg    30 59.30
BOB      1.10 312 P      30 45.40   0.7
     S.D. = 0.9  on   5 of   5 obs.
-----------------------------------------
&  JAN  06, 1993  08h 45m 40.60s
   59.057 N          153.967 W
   DEPTH =  98.7km
 SOUTHERN ALASKA                  (  2)
      <AEIC>.

CDD      0.21 127 iP     45 54.12   0.7
                  eS     46 04.76
MCNL     0.23 304 iP     45 54.30   0.9
                  eS     46 04.74
AUI      0.39  45 eP     45 54.98  -0.8
                  eS     46 06.35
AUH      0.41  41 eP     45 55.60  -0.3
AUL      0.43  40 eP     45 55.36  -0.6
OPT      0.71  32 iP     45 57.50  -0.7
PDB      0.74 351 eP     45 57.39  -1.1
                  eS     46 10.93
SYI      0.93 118 eP     45 59.08  -1.4
INW      1.10  22 eP     46 01.11  -1.3
                  eS     46 17.66
INE      1.11  24 eP     46 01.37  -1.2
ILIM     1.15  26 eP     46 01.71  -1.2
RS1      1.54  23 iP     46 06.49  -1.3
RS2      1.54  23 iP     46 06.50  -1.4
RSO      1.54  23 eP     46 06.44  -1.4
                  eS     46 28.18
RDW      1.55  22 iP     46 06.53  -1.4
REF      1.57  23 eP     46 06.80  -1.5
NCT      1.60  19 iP     46 07.15  -1.4
DFR      1.67  22 eP     46 07.93  -1.5
BRLK     1.73  64 eP     46 07.49  -2.6
                  eS     46 28.98
NKA      2.18  38 eP     46 15.52  -0.5
SVW      2.22 339 eP     46 14.80  -1.8
CKL      2.30  20 iP     46 16.00  -1.7
CKT      2.32  22 eP     46 16.30  -1.7
SPU      2.34  23 eP     46 16.17  -2.0
BGL      2.35  19 eP     46 16.84  -1.6
CP2      2.38  21 iP     46 17.53  -1.3
SLKM     2.39  51 eP     46 17.07  -1.8
CRP      2.40  21 eP     46 16.37  -2.7
CGLM     2.46  23 P      46 18.15  -1.7
SEW      2.53  64 eP     46 19.03  -1.6
MPA      2.74  56 P      46 21.21  -2.3
SUA      2.90  32 eP     46 23.98  -1.9
PTE      3.08  52 eP     46 25.09  -3.0
SKT      3.17  21 eP     46 27.01  -2.4
LTI      3.26  70 eP     46 27.61  -3.1
MTU      3.35  71 eP     46 28.80  -3.1
KNIM     3.41  65 eP     46 28.62  -4.1
KNK      3.62  47 eP     46 32.46  -3.2
GHO      3.70  40 eP     46 33.47  -3.2
SML      3.93  43 eP     46 36.11  -3.7
FID      4.14  63 eP     46 37.70  -5.0
       41 obs. associated
-----------------------------------------
?  JAN  06, 1993  10h 47m 48.87± 4.05s
   32.270 S ±18.0km  177.488 W ±77.9km
   DEPTH =  33.0km  (normal)
   4.4mb (  1 obs.)
 SOUTH OF KERMADEC ISLANDS        (179)

RAO      3.03 353 P      48 35.50  -0.1
                  eS     49 09.00
HBZ      6.34 212 eP     49 23.80   1.4
PUZ      6.76 210 eP     49 28.30   0.0
                  eS     50 43.60
URZ      7.43 215 eP     49 36.10  -1.6
                  eS     50 58.20
ASPA    43.48 269 eP     55 51.20   0.3
       0.6s     4.40nm          4.4mb
KAF    146.45 340 ePKP   07 30.30   4.4X
       0.8s     8.60nm
NUR    148.21 339 ePKP   07 37.90   9.1X
BCAO   148.50 212 iPKPc  07 39.20   8.5X
       0.6s     6.00nm
     S.D. = 1.5  on   5 of   8 obs.
-----------------------------------------
&  JAN  06, 1993  11h 43m 02.85s
   62.095 N          150.876 W
   DEPTH =  66.3km
 CENTRAL ALASKA                   (  1)
      <AEIC>. ML 3.2 (PMR), 3.1
      (AEIC). Felt (III) at Skwentna.

SKT      0.33 250 iPd    43 13.22  -0.8
                  eS     43 21.94
SUA      0.64 174 iPc    43 16.76  -0.4
PWA      0.65 133 P      43 16.70  -0.4
PMR      0.97 121 ePd    43 19.75  -1.2
                  eS     43 34.59
PLRM     0.97 121 iPc    43 20.06  -0.9
GHO      0.98 108 iPc    43 20.75  -0.5
CRP      1.03 217 iPd    43 20.52  -1.5
                  eS     43 34.51
HUR      1.06  32 iPd    43 21.18  -1.0
                  eS     43 35.67
CP2      1.06 219 iPd    43 21.24  -1.2
PMS      1.06 143 iPc    43 22.00  -0.2
CKN      1.07 216 iPd    43 21.83  -0.6
SPU      1.08 212 iPd    43 21.43  -1.0
CKT      1.10 216 iPd    43 21.83  -1.0
                  eS     43 37.16
BGL      1.10 222 iPd    43 21.88  -1.0
CKL      1.14 218 iPd    43 22.45  -0.9
SML      1.24 102 iPc    43 23.79  -0.8
KNK      1.34 120 iPc    43 25.06  -0.9
NKA      1.37 187 eP     43 27.68   1.4
PTE      1.52 143 ePc    43 26.93  -1.4
RND      1.61  34 ePd    43 28.19  -1.5
SLKM     1.62 168 ePd    43 28.88  -1.0
SCM      1.70  97 iPc    43 29.69  -1.2
DFR      1.74 211 iPd    43 30.30  -1.2
MPA      1.77 155 eP     43 30.19  -1.6
RDN      1.83 211 eP     43 31.49  -1.3
NCT      1.83 214 iPd    43 31.78  -1.0
MCK      1.87  28 ePd    43 31.85  -1.4
RDW      1.87 211 iPd    43 32.34  -1.0
RS2      1.87 210 ePd    43 32.51  -0.9
RSO      1.87 210 ePd    43 32.36  -1.1
RS1      1.88 210 ePd    43 32.49  -1.0
SEW      2.12 160 eP     43 34.89  -1.7
GLI      2.19 122 iPc    43 35.17  -2.4
TOA      2.21  88 P      43 37.40  -0.6
ILIM     2.26 208 eP     43 37.11  -1.6
INE      2.30 208 eP     43 38.63  -0.7
INW      2.31 209 eP     43 39.14  -0.3
KNIM     2.32 138 ePc    43 35.96  -3.5
VLZ      2.38 112 ePc    43 37.95  -2.3
KLU      2.43 102 ePc    43 39.02  -2.1
                  eS     44 07.36
SVW      2.47 249 ePd    43 39.12  -2.6
                  eS     44 00.32
FID      2.51 121 ePc    43 39.18  -2.9
TTA      2.53 292 eP     43 39.32  -3.1
SDG      2.53  78 eP     43 41.40  -1.0
LTI      2.53 143 eP     43 39.12  -3.3
TZL      2.57  89 eP     43 41.59  -1.3
NEA      2.62  17 ePd    43 41.29  -2.4
MTU      2.63 142 ePc    43 40.93  -2.9
PAX      2.66  68 ePd    43 42.98  -1.3
HIN      2.72 127 ePc    43 41.97  -3.1
PDB      2.82 216 iPd    43 45.17  -1.4
CCB      2.91  27 ePd    43 45.26  -2.5
CVA      2.92 120 eP     43 44.69  -3.1
HDA      2.92  36 ePd    43 45.78  -2.1
MDM      3.11  21 ePd    43 48.16  -2.4
FBA      3.14  25 eP     43 48.20  -2.7
SGAM     3.17 118 eP     43 47.86  -3.5
GLM      3.30  27 ePd    43 50.78  -2.4
MCNL     3.38 212 ePd    43 52.91  -1.4
GLB      3.42  98 eP     43 52.42  -2.5
CDD      3.46 205 eP     43 54.59  -0.8
DOT      3.49  60 eP     43 53.80  -2.1
SYI      3.58 193 eP     43 55.91  -1.1
CRQM     3.95 106 eP     44 00.35  -2.2
IMA      4.17 344 eP     44 01.93  -3.7
BALM     4.22 101 eP     44 03.08  -3.1
CTGM     4.71 100 eP     44 10.74  -2.4
       67 obs. associated
-----------------------------------------
?  JAN  06, 1993  11h 57m 50.64± 6.18s
   40.880 N ±26.0km   24.187 E ±47.9km
   DEPTH =  10.0km  (geophysicist)
 AEGEAN SEA                       (365)

SRS      0.51 298 ePg    58 00.21  -0.8
OUR      0.57 196 ePg    58 02.00  -0.1
                  eSg    58 12.44
SOH      0.64 265 ePg    58 03.20  -0.2
                  eSg    58 15.76
KNT      1.02 287 iPg    58 10.62   0.8
                  eSg    58 26.20
GRG      1.36 274 ePb    58 15.96   0.4
     S.D. = 0.8  on   5 of   5 obs.
-----------------------------------------
   JAN  06, 1993  12h 52m 19.79± 0.66s
   26.379 S ± 8.6km   27.618 E ± 8.3km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA         (584)
      ML 3.0 (PRE).

BPI      0.42  61 eP     52 27.80  -0.5
                  S      52 33.20
PRY      0.56 193 eP     52 31.00  -0.1
                  S      52 38.00
SLR      0.88  43 iPc    52 36.50  -0.7
                  S      52 45.80
BFS      0.91 235 eP     52 37.90   0.2
                  S      52 49.90
SEK      1.94 180 eP     52 54.00   0.2
                  S      53 18.50
SWZ      2.20 248 eP     52 58.20   0.5
                  S      53 25.00
BFT      2.29  73 eP     53 00.40   1.4
                  S      53 28.00
BLF      3.00 205 iPc    53 08.50  -0.5
                  S      53 43.00
FRS      3.92 211 eP     53 21.50  -0.5
                  S      54 05.00
     S.D. = 0.8  on   9 of   9 obs.
-----------------------------------------
*-  JAN  06, 1993  12h 54m 32.27± 1.21s
   51.100 N ±14.5km   15.814 E ± 6.0km
   DEPTH =  10.0km  (geophysicist)
 POLAND                           (548)
      ML 3.2 (VIE).

KSP      0.40 130 iPd    54 39.20  -1.2
       0.4s     52.00nm
                  iS     54 48.00
                  e      54 52.50
BRG      1.20 260 iPg    54 54.40  -0.3
                  iSg    55 13.40
PRU      1.38 217 ePn    54 58.00   0.5
                  Pg     55 00.00
                  Sn     55 16.00
                  Sg     55 22.50
CLL      1.78 278 ePg    55 03.00  -0.3
                  eSg    55 29.00
```

06d 12h

```
KHC      2.44 217 Pn     55 13.40   0.6
                  e      55 19.50
                  e      55 24.30
                  eSg    56 02.00
OJC      2.68 108 eP     55 17.30   1.0
                  eS     55 53.20
MOX      2.70 262 ePg    55 22.40   5.9X
                  iSg    56 02.40
WET      2.72 225 iPnc   55 17.00   0.2
VKA      2.86 173 iPgc   55 27.20   8.5X
                  iSn    55 54.00
                  iSg    56 10.90
ZST      3.03 163 eP     56 17.50  56.4X
                  e      17 08.80
GRF      3.26 246 ePn    55 23.90  -0.5
                  e(Pg)  55 38.70
                  eSg    56 21.60
      S.D. = 0.8  on   8 of  11 obs.
-----------------------------------------
&  JAN  06, 1993  13h 11m 25.08s
   60.039 N          151.284 W
   DEPTH =  46.8km
 KENAI PENINSULA, ALASKA          ( 14)
      <AEIC>. ML 2.5 (AEIC).

BRLK     0.34 144 eP     11 33.76  -0.7
                  eS     11 40.91
NKA      0.71   2 P      11 40.20   1.3
                  S      11 49.90
SLKM     0.71  48 eP     11 38.09  -0.9
ILIM     0.84 274 P      11 39.90  -0.9
                  S      11 50.80
RSO      0.85 301 eP     11 40.29  -0.7
                  eS     11 52.30
RS2      0.85 301 P      11 40.20  -0.8
RDN      0.88 304 eP     11 40.53  -0.8
                  eS     11 52.63
RDW      0.88 301 eP     11 40.64  -0.8
                  eS     11 53.17
DFR      0.89 309 eP     11 40.72  -0.8
INE      0.89 272 eP     11 40.55  -1.0
                  eS     11 52.98
SEW      0.92  85 eP     11 41.21  -0.6
INW      0.93 273 P      11 41.20  -0.8
                  S      11 53.80
NCT      0.97 303 eP     11 41.88  -0.8
                  eS     11 55.34
OPT      1.06 249 P      11 43.50  -0.2
                  S      11 57.70
MPA      1.06  64 eP     11 43.56  -0.2
                  eS     11 56.88
SPU      1.21 342 iP     11 45.34  -0.6
                  eS     12 01.74
CKT      1.25 339 eP     11 46.01  -0.5
                  eS     12 02.68
AUE      1.26 238 eP     11 46.61   0.1
CKN      1.27 340 eP     11 46.54  -0.2
AUL      1.27 240 eP     11 47.11   0.3
PTE      1.39  53 eP     11 47.92  -0.5
SUA      1.45  10 eP     11 49.47   0.0
PMS      1.48  34 P      11 49.70   0.0
                  S      12 09.40
PDB      1.49 262 eP     11 49.23  -0.5
                  eS     12 07.91
SYI      1.54 202 eP     11 49.94  -0.6
CDD      1.64 228 eP     11 51.72  -0.2
LTI      1.72  88 eP     11 52.72  -0.4
PWA      1.76  22 P      11 53.20  -0.4
MCNL     1.77 242 eP     11 53.25  -0.6
KNIM     1.80  79 eP     11 52.87  -1.3
MTU      1.82  90 eP     11 53.95  -0.6
PLRM     1.88  33 eP     11 54.43  -0.9
SKT      1.95 357 eP     11 56.80   0.4
GHO      2.09  33 eP     11 57.57  -0.8
SML      2.29  38 eP     12 00.42  -0.7
SCM      2.64  45 eP     12 05.64  -0.7
VLZ      2.68  64 eP     12 04.13  -2.6
        37 obs. associated
-----------------------------------------
%  JAN  06, 1993  13h 25m 04.90± 0.75s
   40.048 N ± 8.1km   28.594 E ± 6.7km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                           (366)
      MD 3.0 (ISK).

KCT      0.27 318 iPg    25 10.60   0.0
DST      0.44 177 iPg    25 13.50  -0.4
                  eSg    25 19.50
BNT      0.60 301 iPg    25 18.60   1.6
                  eSg    25 26.60
EDC      0.63 298 ePg    25 16.00  -1.6
EYL      1.30  66 ePn    25 29.00  -0.1
GPA      1.34  79 ePn    25 29.00  -0.6
ALT      1.54 130 ePn    25 33.40   0.9
      S.D. = 1.3  on   7 of   7 obs.
-----------------------------------------
?  JAN  06, 1993  14h 00m 59.16± 6.23s
   19.374 N ±44.9km   66.461 W ±12.6km
   DEPTH =  10.0km  (geophysicist)
 PUERTO RICO REGION               ( 90)

APR      0.95 196 P      01 18.20   0.9
LRS      1.13 199 P      01 20.10  -0.3
LPR      1.20 152 P      01 21.80   0.3
                  S      01 34.00
SJG      1.29 167 iP     01 22.90  -0.2
PORP     1.32 187 P      01 23.10  -0.5
CPD      1.42 159 P      01 25.00  -0.1
MGP      1.48 204 P      01 25.80  -0.1
      S.D. = 0.6  on   7 of   7 obs.
-----------------------------------------
?  JAN  06, 1993  14h 27m 55.68± 6.18s
   19.395 N ±44.4km   66.464 W ±12.7km
   DEPTH =  10.0km  (geophysicist)
 PUERTO RICO REGION               ( 90)

APR      0.97 195 P      28 15.00   0.9
LRS      1.15 198 P      28 17.00  -0.3
LPR      1.22 152 P      28 18.50   0.1
                  S      28 41.00
SJG      1.31 167 iP     28 19.80  -0.2
PORP     1.34 187 P      28 20.00  -0.4
CPD      1.45 159 P      28 22.00   0.1
MGP      1.50 203 P      28 22.50  -0.2
      S.D. = 0.5  on   7 of   7 obs.
-----------------------------------------
*  JAN  06, 1993  14h 51m 36.89± 2.66s
   31.703 S ±14.3km   68.773 W ±21.2km
   DEPTH = 112.1 ± 21.5 km
 SAN JUAN PROVINCE, ARGENTINA     (137)

RTCB     0.22 354 iPd    51 53.20   0.0
                  S      52 10.70
RTCV     0.26 128 iPd    51 53.00  -0.2
                  S      52 04.00
RTLL     0.45  35 iPc    51 54.00   0.0
                  S      52 11.50
CFA      0.47  78 iPc    51 54.10   0.1
                  S      52 06.00
RTPR     2.39  55 e(P)d  52 15.80   0.3
MRA      2.70 106 ePd    52 20.10   0.5
                  S      52 50.00
RFA      3.07 175 iPc    52 24.70   0.0
TCA      3.59  85 iP     52 31.00  -0.7
                  S      53 11.00
      S.D. = 0.5  on   8 of   8 obs.
-----------------------------------------
%  JAN  06, 1993  14h 55m 08.56± 0.92s
   39.064 N ± 7.9km   27.609 E ± 9.6km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                           (366)
      MD 2.7 (ISK).

IZM      0.72 202 iPg    55 22.50  -0.2
                  iSg    55 34.50
DST      0.96  55 iPn    55 27.50   0.7
EZN      1.25 308 ePn    55 32.30   0.5
EDC      1.30   9 ePn    55 32.00  -0.6
KCT      1.32  26 ePn    55 32.50  -0.4
      S.D. = 0.8  on   5 of   5 obs.
-----------------------------------------
*  JAN  06, 1993  16h 44m 58.28± 1.35s
   14.756 N ±11.1km   93.838 W ± 9.7km
   DEPTH =  38.7 ± 10.5 km
   4.7mb ( 17 obs.)
 NEAR COAST OF CHIAPAS, MEXICO    ( 69)

TPX      1.53  84 iPc    45 25.00   1.4
                  iS     45 45.00
SCX      2.28  30 iP     45 38.70   4.4X
                  iS     46 03.50
OXX      3.61 310 iP     45 52.20  -1.2
EVV      3.95 339 iP     45 56.80  -1.3
PPM      6.28 314 iP     46 32.30   0.9
UYO     19.33 358 iPc    49 21.90  -1.5
MIAR    19.71   1 eP     49 23.06  -4.4X
        0.9s    22.27nm          4.5mb
WMOK    20.39 348 ePd    49 33.19  -1.4
        0.6s     6.74nm          4.2mb
MEO     20.40 349 iPc    49 33.20  -1.5
OLY     20.77   5 eP     49 32.58  -5.9X
ACO     22.36 349 iPc    49 53.90  -0.6
TKL     22.69  22 (P)    49 49.12  -8.5X
ELC     22.81  10 (P)    49 56.89  -1.9
ALQ     23.09 333 eP     50 02.69   0.9
        0.7s     4.34nm          4.0mb
TUC     23.32 321 eP     50 06.05   2.1
        1.0s    13.81nm          4.4mb
GOL     26.83 340 eP     50 37.38   0.1
        0.8s     2.53nm          3.9mb
PV08    27.09 334 eP     50 40.84   1.0
PV10    27.09 333 eP     50 39.68   0.0
PV09    27.24 333 eP     50 41.38   0.3
MSU     28.67 329 eP     50 54.66   0.7
ARUT    28.78 326 eP     50 55.39   0.5
EMUT    29.06 332 (P)    50 57.02  -0.5
HVU     31.52 332 eP     51 19.66   0.5
BONR    31.67 321 eP     51 21.81   1.2
LCCM    34.51 338 ePc    51 46.00   0.9
ULM     35.44 358 eP     51 53.50   0.8
FHC     36.89 321 eP     52 05.85   0.8
        1.0s    55.35nm          5.4mb
SES     38.19 342 eP     52 16.00   0.0
DPW     38.69 334 eP     52 20.80   0.6
LON     39.53 330 eP     52 27.24   0.1
ZOBO    39.95 140 P      52 30.00  -1.6
FCC     43.93 360 eP     53 05.00   2.1
SIV     44.51 132 P      53 10.10   1.9
                  e      54 54.00
YKA     49.90 348 eP     53 48.20  -1.6
        0.8s     8.10nm          4.8mb
BAO     54.44 122 Pd     54 22.70  -1.9
RES     59.93 360 eP     55 02.50   0.0
        0.9s     3.00nm          4.4mb
FBA     61.85 337 eP     55 13.83  -1.9
        0.9s     5.95nm          4.7mb
DAG     72.32  14 eP     56 18.10  -3.4X
        0.8s     8.96nm          4.8mb
NAO     84.23  28 P      57 28.10   1.2
        0.9s    11.40nm          5.0mb
SSF     84.25  43 eP     57 27.10  -0.2
        1.0s     7.80nm          4.8mb
SMF     84.58  43 eP     57 28.60  -0.4
        1.1s     8.05nm          4.8mb
HAU     85.83  42 eP     57 35.60   0.4
        0.9s    11.30nm          5.1mb
BSF     86.17  42 eP     57 37.10   0.1
        0.8s     6.05nm          4.9mb
CDF     86.30  41 eP     57 37.90   0.3
        0.9s     8.50nm          5.0mb
BRG     89.51  37 i(P)   57 54.20   1.4
GEC2    90.15  39 ePKPc 57 56.30   0.3
        1.0s     1.64nm          4.3mb
WRA    133.84 256 PKP    04 13.10  -0.6
        0.7s     0.50nm
GKN    137.47   2 PKP    04 19.80  -0.8
KKN    137.70   1 PKP    04 19.40  -1.8
BDT    145.77 338 ePKP   04 34.00  -1.2
HYB    147.16  13 ePKP   04 39.00   1.4
GBA    150.53  17 PKP    04 48.00   5.2X
      S.D. = 1.2  on  46 of  52 obs.
-----------------------------------------
   JAN  06, 1993  17h 16m 53.27± 0.62s
   37.450 N ± 5.3km   57.522 E ± 3.3km
   DEPTH =   8.4 ±  3.8 km
   4.7mb ( 37 obs.)  4.1Msz (  4 obs.)
 TURKMENISTAN-IRAN BORDER REGION (341)
      Felt at Bojnurd and Shirvan,
      Iran.

ASH      0.83  53 iPd    17 08.00  -1.4
        0.4s  *******nm
                  iS     17 16.00
MAIO     1.95 125 iPnc   17 26.50  -0.6
                  eS     17 55.00
KAT      2.01 331 iP+    17 26.50  -1.2
                  e      17 51.00
TEH      5.22 253 eP     18 17.00   3.3X
BAK      6.62 299 iPc    18 34.00   0.7
SHE      7.61 297 iPc    18 45.50  -1.6
        0.8s   350.00nm          6.6mb X
```

i 20 09.00
KER 9.00 253 eP 19 15.00 8.5X
QUE 10.67 130 eP 19 31.00 1.4
eS 22 48.50
MTA 10.70 297 iPd 19 27.40 -2.3X
0.6s 60.00nm 6.2mb X
iS 21 31.40
GRO 10.78 307 iPd 19 29.00 -1.8
1.0s 380.00nm 6.7mb X
PYA 12.78 305 iPc 19 54.50 -3.4X
1.0s 200.00nm 6.3mb X
Z 14s 1.50um
iS 22 18.00
FRU 14.13 62 eP 20 17.50 1.7
i 22 46.00
MJMA 15.54 225 ePc 20 36.00 1.7
RYD 15.74 219 eP 20 22.80 -14.1X
ANN 16.92 302 eP 20 53.50 1.8
AFIF 18.11 227 eP 21 12.67 5.9X
NDI 18.65 112 eP 21 10.50 -2.9X
AYN 19.91 251 ePd 21 29.00 0.9
WAJH 21.01 244 eP 21 40.00 0.4
ALT 21.56 283 eP 21 43.00 -2.2
ELL 22.01 277 eP 21 51.50 1.7
OBN 22.67 328 iPc 21 56.20 0.3
1.5s 105.00nm 5.1mb
Z 16s 1.20um 4.4MszX
N 16s 1.20um
E 16s 0.60um
i 22 27.00
iSS 26 50.00
MOS 22.69 330 eP 22 00.00 3.8X
1.2s 250.00nm 5.6mb
e 22 29.00
eS 26 03.00
BOM 22.82 140 eP 22 05.00 7.3X
e(S) 26 13.20
KIS 23.16 303 eP 22 02.00 1.2
e 26 44.00
PPE 23.83 301 eP 22 10.50 3.2X
BRD 24.10 299 eP 22 19.50 9.5X
CLI 24.12 302 eP 22 11.50 1.3
VRI 24.38 300 ePd 22 20.50 7.8X
GKN 24.61 105 P 22 14.60 -0.7
CVO 24.75 300 ePc 22 18.50 2.1
MLR 24.87 299 ePd 22 20.50 2.9X
DMN 25.16 105 P 22 20.00 -0.7
1.0s 99.00nm 5.5mb
KKN 25.21 104 P 22 20.80 -0.3
ELT 25.41 42 eP 22 21.00 -1.4
1.5s 49.00nm 5.0mb
Z 11s 1.00um 4.6MszX
PKI 25.42 105 P 22 22.00 -1.2
MTUR 25.45 298 ePc 22 23.00 -0.1
CMP 25.47 298 ePc 22 22.00 -1.2
GUN 25.61 104 P 22 24.20 -0.9
MNK 26.34 318 eP 22 31.00 -0.1
BMR 26.87 303 ePd 22 44.00 8.0X
VAY 27.18 289 eP 22 49.00 10.1X
HYB 27.21 131 eP 22 38.00 -1.5
SKO 27.99 291 eP 22 44.00 -2.3
OHR 28.52 289 eP 22 56.00 4.8X
SPC 29.26 306 eP 23 05.60 7.7X
UER 29.30 49 eP 22 57.80 -0.2
1.2s 18.00nm 4.8mb
GBA 29.65 138 P 23 01.00 -0.4
OJC 29.72 308 eP 23 01.70 -0.2
e 23 06.40
SRO 30.35 303 eP 23 21.00 13.6X
NUR 31.03 329 eP 23 14.70 1.5
ZST 31.20 303 eP 23 14.30 -0.5
KAF 31.31 332 eP 23 14.90 -0.7
KSP 32.03 308 eP 23 22.50 0.3
KOD 32.52 141 eP 23 26.00 -1.0
PRU 33.04 306 eP 23 31.00 0.0
APA 33.08 343 iPd 23 34.40 3.3X
GEC2 33.50 304 ePd 23 34.80 -0.3
1.1s 3.15nm 4.2mb
e 23 39.70
e 23 42.30
e 23 47.30
e 23 50.40
BRG 33.51 308 iP 23 35.10 0.0
i 23 38.30
MOY 33.54 51 eP 23 36.20 0.9
KHC 33.60 305 eP 23 34.60 -1.3
e 23 39.70

KBA 33.68 301 iPc 23 36.30 -0.5
1.0s 12.90nm 4.8mb
i 23 43.20
SDF 34.75 340 iP 23 49.00 3.4X
WTTA 34.85 301 iPc 23 45.60 -1.3
1.1s 11.70nm 4.7mb
i 23 49.80
ZAK 34.86 53 eP 23 50.00 3.4X
1.5s 15.00nm 4.6mb
Z 12s 0.59um 4.6MszX
E 12s 0.58um
CTI 34.87 299 P 23 46.60 -0.4
SFI 34.87 295 P 23 47.50 0.7
MOX 34.97 307 eP 23 48.00 0.4
1.4s 33.00nm 5.0mb
GRF 35.16 305 eP 23 50.00 0.7
0.8s 4.00nm 4.3mb
MME 35.67 296 P 23 54.70 0.7
NRI 36.02 18 eP 23 58.00 1.7
1.0s 15.00nm 4.8mb
Z 17s 1.80um 4.9MszX
e 24 11.00
e 25 16.00
e 25 36.00
LZH 36.85 78 eP 24 04.50 0.6
1.6s 28.00nm 4.8mb
Z 16s 0.68um 4.5MszX
E 11s 0.49um
PGF 37.11 293 eP 24 05.10 -0.8
1.1s 33.95nm 5.0mb
NAO 37.31 324 P 24 06.20 -1.1
0.9s 9.60nm 4.6mb
CDF 37.76 303 eP 24 10.00 -1.3
1.0s 9.40nm 4.5mb
LPG 38.33 299 eP 24 16.30 -0.1
1.0s 5.40nm 4.2mb
LPL 38.34 299 eP 24 15.70 -0.7
1.2s 16.35nm 4.6mb
HAU 38.40 303 eP 24 15.40 -1.2
1.2s 19.05nm 4.7mb
FRF 38.66 295 eP 24 18.00 -0.8
1.1s 21.50nm 4.8mb
LMR 38.80 295 eP 24 18.90 -1.0
1.3s 20.20nm 4.6mb
LBF 40.09 301 eP 24 29.80 -0.9
1.1s 19.55nm 4.7mb
LOR 40.14 302 eP 24 30.00 -1.1
0.9s 6.40nm 4.3mb
Z 22s 0.13um 3.7Msz
KMI 40.20 94 Pd 24 31.50 -0.5
1.5s 50.00nm 5.0mb
pP 24 40.00 29kmX
SMF 40.22 301 eP 24 31.20 -0.5
1.0s 19.00nm 4.7mb
SSF 40.40 301 eP 24 32.50 -0.7
1.2s 17.25nm 4.6mb
AVF 40.53 301 eP 24 33.80 -0.5
1.0s 27.80nm 4.9mb
CHG 40.59 106 eP 24 34.00 -1.1
1.4s 26.74nm 4.8mb
MAF 41.14 300 eP 24 39.30 0.0
1.0s 17.20nm 4.7mb
CIT 41.37 51 eP 24 44.80 3.7X
TCF 41.38 300 eP 24 41.10 -0.2
0.9s 13.60nm 4.7mb
BDT 41.57 107 ePd 24 42.00 -1.0
LSF 41.85 300 eP 24 44.70 -0.4
0.9s 12.80nm 4.7mb
RJF 42.01 299 eP 24 46.50 0.1
1.1s 12.70nm 4.6mb
Z 19s 0.20um 4.0Msz
BJI 45.10 68 eP 25 15.00 3.4X
Z 16s 0.41um 4.5MszX
BCAO 48.45 237 iPd 25 37.00 -1.2
YAK 49.56 36 eP 25 44.40 -1.7
SSE 52.12 77 eP 26 14.50 8.5X
Z 20s 0.60um 4.6Msz
i 30 24.00
YSS 60.85 51 eP 27 10.40 2.3
1.0s 20.00nm 5.2mb
KIC 64.23 258 P 27 30.50 -0.6
LIC 64.54 258 P 27 32.80 -0.3
Z 20s 0.13um 4.1Msz
IMA 74.03 13 eP 28 30.28 -0.7
1.9s 32.91nm 5.0mb
FBA 76.07 11 eP 28 42.16 -0.3
0.9s 5.60nm 4.7mb

PMR 78.95 13 eP 28 59.20 0.8
1.2s 15.15nm 4.9mb
SLKM 79.77 14 eP 29 03.72 0.8
YKA 80.20 356 eP 29 04.90 -0.2
0.8s 3.10nm 4.3mb
WRA 91.98 114 P 30 10.20 6.4X
0.6s 0.20nm 3.7mb X
ASPA 94.00 117 P 30 14.60 1.5
S.D. = 1.1 on 82 of 107 obs.

---

* JAN 06, 1993 18h 21m 49.02± 1.07s
17.768 N ±20.7km 93.518 W ±14.2km
DEPTH = 91.7 ± 20.9 km
4.1mb (1 obs.)
CHIAPAS, MEXICO (61)

SCX 1.33 140 iP 22 12.50 -0.6
iS 22 32.30
EVV 1.87 292 eP 22 20.70 0.6
TPX 3.09 157 iP 22 37.30 0.6
OXX 3.13 258 iP 22 37.20 -0.3
(S) 23 14.00
PPM 5.02 286 iP 23 03.50 -0.4
YKA 47.04 347 eP 30 12.80 0.0
0.8s 2.10nm 4.1mb
S.D. = 0.8 on 6 of 6 obs.

---

* JAN 06, 1993 18h 24m 01.56± 0.85s
10.434 N ±14.0km 62.888 W ± 7.4km
DEPTH = 5.0km (geophysicist)
NEAR COAST OF VENEZUELA (97)
MD 3.3 (TRN).

TCE 1.15 77 iPd 24 21.50 -2.0
eS 24 35.21
CUM 1.26 272 iP 24 25.00 -0.4
iS 24 44.00
TPP 1.42 95 eP 24 28.52 0.5
TRN 1.48 82 eP 24 27.58 -1.2
eS 24 47.98
TBH 1.79 88 eP 24 34.68 1.3
eS 24 57.44
GRW 2.10 35 eP 24 38.63 0.8
eS 25 05.03
TPR 2.20 70 eP 24 39.32 0.0
BOT 2.25 71 eP 24 40.85 0.8
SIV 26.32 176 P 29 40.50 0.2
S.D. = 1.2 on 9 of 9 obs.

% JAN 06, 1993 18h 30m 30.06± 1.40s
39.907 N ±11.8km 23.226 E ± 6.1km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)

PAIG 0.35 87 iPg 30 37.60 0.3
eSg 30 43.32
LIT 0.60 289 ePg 30 41.80 -0.4
eSg 30 50.88
OUR 0.72 53 ePg 30 43.76 -0.4
eSg 30 55.20
SOH 0.92 6 ePg 30 47.08 -0.6
GRG 1.22 329 ePb 30 53.48 0.7
eSb 31 08.72
SRS 1.24 13 ePb 30 53.40 0.3
KNT 1.28 349 ePb 30 53.84 0.1
iSb 31 10.72
S.D. = 0.6 on 7 of 7 obs.

% JAN 06, 1993 19h 29m 31.55± 0.63s
26.361 S ± 5.6km 27.395 E ± 6.3km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 2.6 (PRE).

PRY 0.57 173 eP 29 43.00 0.0
S 29 50.20
KSR 0.67 318 eP 29 45.20 0.3
S 29 55.00
BFS 0.76 225 eP 29 46.70 -0.3
SLR 1.01 52 eP 29 50.10 -1.2
S 30 02.50
SEK 1.97 174 eP 30 06.50 0.5
S 30 29.50
SWZ 2.02 246 eP 30 07.10 0.3
S 30 31.50
BFT 2.48 75 eP 30 14.50 1.1
S 30 43.00

06d 19h

```
BLF      2.94 201 eP     30 19.20  -0.7
     S.D. = 0.8  on   8 of   8 obs.
-----------------------------------------
%  JAN  06, 1993  20h 46m 33.78± 2.77s
   47.626 N ± 5.5km     1.609 W ±30.0km
   DEPTH =  10.0km  (geophysicist)
 FRANCE                              (538)
      ML 2.7 (LDG).

LPF      0.56  43 Pg     46 44.90  -0.2
                  Sg     46 53.70
GRR      0.91  33 Pg     46 51.50   0.3
                  Sg     47 05.60
FLN      1.36  33 Pg     46 59.10   0.3
                  Sg     47 18.60
LDF      1.39  45 Pg     46 58.60  -0.6
                  Sg     47 17.90
MFF      1.43 135 Pg     46 52.20  -7.6X
                  Sg     47 06.90
TCF      2.94 116 Pg     47 20.90  -0.5
                  Sg     47 54.20
LFF      3.14 148 Pg     47 23.60  -0.6
                  Sg     48 01.30
RJF      3.17 136 Pg     47 23.40  -1.3
                  S      48 00.50
BGF      3.23 108 Pg     47 26.00   0.5
                  Sg     48 03.40
LPO      3.53 146 Pg     47 30.10   0.4
                  Sg     48 09.80
CAF      3.71 135 Pg     47 34.00   1.6
                  Sg     48 18.50
     S.D. = 0.9  on  10 of  11 obs.
-----------------------------------------
%  JAN  06, 1993  21h 39m 59.10± 3.47s
   36.666 N ±23.8km     1.748 W ±15.6km
   DEPTH =  10.0km  (geophysicist)
 WESTERN MEDITERRANEAN SEA           (387)
      mbLg 3.0 (MDD).

ENIJ     0.48 310 ePg    40 08.70  -0.1
                  eSg    40 14.00
EALH     1.22  12 ePg    40 21.50  -0.3
                  eSg    40 38.40
EHUE     1.33 330 ePn    40 23.70   0.0
                  eSn    40 40.80
ECOG     1.58 293 ePn    40 27.50   0.2
                  eSn    40 45.80
EVIA     2.06 343 ePn    40 34.70   0.5
                  eSn    40 59.00
ELUQ     2.20 295 ePn    40 36.00  -0.3
                  eSn    41 02.30
EBAN     2.21 313 ePn    40 39.80   3.5X
                  eSn    41 06.00
     S.D. = 0.4  on   6 of   7 obs.
-----------------------------------------
?  JAN  06, 1993  22h 10m 00.22± 1.49s
   21.635 S ± 9.8km  169.947 E ±14.8km
   DEPTH = 168.6 ± 10.9 km
   4.7mb (  3 obs.)
 LOYALTY ISLANDS REGION              (189)

DZM      3.28 262 iPd    10 51.80  -0.7
                  iS     11 36.90
BKM      4.26 338 iPd    11 05.50   0.5
                  iS     12 00.00
ARMA    18.62 238 eP     14 08.80   1.2
        0.7s     11.00nm          4.4mb
QRZ     19.26 174 eP     14 14.50   0.5
RMO     19.94 252 eP     14 19.40  -1.6
        0.7s     25.00nm -        4.8mb
THZ     20.22 174 P      14 28.40   4.6X
LTZ     21.18 175 P      14 41.20   7.9X
BWA     22.82 231 eP     14 47.90  -1.5
CAN     22.85 229 eP     14 50.60   0.9
ASPA    33.27 260 eP     16 24.40   0.7
        1.0s     17.70nm          4.7mb
WRA     33.29 266 P      16 25.00   1.2
        0.8s      0.50nm          3.3mb X
PKI     95.17 297 P      23 06.20   0.0
KKN     95.36 298 P      23 06.80  -0.1
DMN     95.44 297 P      23 07.60   0.3
GKN     95.97 298 P      23 10.00   0.4
CCH    112.76 121 (PKP)  28 09.40 -10.1X
KSP    144.30 331 iPKPc  29 13.60  -3.8X
BRG    145.30 333 ePKP   29 16.60  -2.5X
PRU    145.69 332 ePKP   29 18.50  -1.3
KHC    146.75 331 ePKP   29 21.00  -0.6
GEC2   146.90 331 ePKPd  29 21.70  -0.2
        0.8s      2.62nm
GRF    147.33 334 ePKP   29 22.60   0.1
        0.8s      3.00nm
BCAO   147.43 242 iPKPd  29 24.00   0.3
        1.0s      8.00nm
     S.D. = 0.9  on  18 of  23 obs.
-----------------------------------------
%  JAN  06, 1993  22h 10m 40.83± 1.70s
   43.911 N ±21.0km    10.854 E ±13.4km
   DEPTH =  10.0km  (geophysicist)
 CENTRAL ITALY                       (381)

BDI      0.24 309 P      10 45.80  -0.2
                  eSg    10 49.80
MME      0.30 339 P      10 47.50   0.2
                  eSg    10 52.20
PGD      0.63  93 P      10 53.10  -0.5
                  eSg    11 03.20
SFI      0.72  89 P      10 55.00   0.0
                  eSg    11 05.00
CRE      0.84 109 P      10 57.60   0.4
     S.D. = 0.5  on   5 of   5 obs.
-----------------------------------------
?  JAN  06, 1993  22h 19m 17.73± 7.56s
   36.465 S ±65.3km  176.645 E ±37.7km
   DEPTH = 307.2 ± 47.5 km
 OFF E. COAST OF N. ISLAND, N.Z. (160)

URZ      1.83 168 eP     20 03.90  -0.2
                  S      20 34.00
PUZ      2.06 142 P      20 05.60  -0.3
                  S      20 35.90
PAHZ     2.41 172 P      20 09.30   0.4
NOZ      2.42 153 P      20 09.10   0.2
MOH      2.69 172 P      20 11.80   0.4
WAHZ     3.24 184 P      20 16.80   0.0
TEHZ     3.52 178 P      20 19.80   0.2
MNG      4.25 192 P      20 27.20  -0.3
                  S      21 15.80
KIW      4.60 197 P      20 31.30  -0.1
MTW      4.77 190 eP     20 32.90  -0.5
MRW      5.00 197 eP     20 36.20   0.2
                  S      21 30.70
MOW      5.07 192 eP     20 36.30  -0.5
TCW      5.09 201 eP     20 36.80  -0.2
KHZ      6.41 201 P      20 53.40   0.7
                  S      22 03.20
     S.D. = 0.4  on  14 of  14 obs.
-----------------------------------------
*  JAN  06, 1993  22h 31m 52.80± 2.05s
   27.975 S ± 9.2km   71.213 W ±17.6km
   DEPTH = 210.6 ± 55.0 km
 NEAR COAST OF NORTHERN CHILE        (122)

RTCB     4.08 150 eP     32 56.50  -0.1
                  S      33 44.50
RTLL     4.11 145 ePd    32 57.50   0.6
                  S      33 45.20
ANT      4.31  10 eP     32 59.60   0.2
CFA      4.45 145 ePc    33 02.20   1.1
RTCV     4.52 150 eP     33 02.00   0.0
RTPR     4.72 121 ePc    33 03.90  -0.6
CYA      4.80  97 iPc    33 05.30  -0.3
FSA      5.01  69 e(P)   33 13.60   5.5X
PEL      5.17 175 eP     33 08.50  -1.8
MDZ      5.30 158 eP     33 15.10   3.1X
                  i      33 17.30
                  i(S)   34 39.60
MRA      6.50 134 e(P)   33 28.10   0.8
TCA      6.67 122 eP     33 28.50  -1.1
                  S      34 40.00
RFA      7.17 162 ePd    33 37.20   1.1
     S.D. = 1.1  on  11 of  13 obs.
-----------------------------------------
   JAN  06, 1993  22h 51m 44.63± 0.15s
   28.997 N ± 2.8km   52.137 E ± 2.0km
   DEPTH =  23.6km  (  8 depth phases)
   5.4mb (103 obs.)  5.3Msz ( 28 obs.)
 SOUTHERN IRAN                       (353)
      Mw 5.4 (HRV). Severe damage in
      the Firuzabad-Dadenjan area.
      CENTROID, MOMENT TENSOR      (HRV)
      Data Used: GDSN
      L.P.B.: 14S, 29C
      Centroid Location:
      Origin Time        22:51:46.2 0.3
      Lat 29.31N 0.04 Lon  52.02E 0.04
      Dep  15.0 FIX Half-duration  1.4
      Moment Tensor;    Scale 10**17 Nm
        Mrr=-0.49 0.05  Mtt=-0.76 0.07
        Mff= 1.25 0.05  Mrt=-0.03 0.20
        Mrf=-0.40 0.17  Mtf= 1.04 0.05
      Principal Axes:
        T  Val=  1.76   Plg= 9  Azm=113
        N       -0.53      76      340
        P       -1.23      10      204
      Best Double Couple:Mo=1.5*10**17
       NP1:Strike=248 Dip=76 Slip=   0
       NP2:       339     90     -166

DHR      3.21 214 ePd    52 37.00   2.2
                  eS     53 22.00
RYD      6.52 230 iPd    53 21.50  -0.1
                  eS     54 30.00
TEH      6.75 355 eP     53 25.00   0.1
MJMA     6.84 244 iPd    53 24.47  -1.7
                  eS     54 39.00
KER      6.85 323 eP     53 26.00  -0.3
QASM     8.17 251 ePd    53 43.00  -1.7
MAIO     9.56  39 iPd    54 04.20   0.2
                  eS     56 22.00
ASH     10.32  29 iPc    54 14.00  -0.4
        1.2s   810.00nm          6.9mb X
                  S      56 08.00
KAT     10.74  17 iP+    54 19.50  -0.5
                  eS     56 22.00
BAK     11.51 351 iP     54 31.00   0.5
      Z  12s     22.50um
      N  12s     27.50um
      E  12s     43.00um
                  iS     56 40.00
QUE     12.95  81 eP     54 50.00  -0.1
                  eS     58 52.00
ABHA    13.72 221 iPc    54 58.67  -1.7
                  eS     57 31.00
DHJN    13.79 217 iPd    54 58.67  -2.6
                  eS     57 28.00
MDSJ    13.97 285 P      55 02.39  -1.1
WAJH    14.10 262 ePc    55 07.47   2.5
                  eS     58 17.00
AYN     14.13 273 eP     55 03.00  -2.5
JARJ    14.31 287 P      55 09.04   1.2
MASJ    14.43 285 P      55 07.98  -1.5
MKRJ    14.48 284 P      55 10.21   0.1
SALJ    14.50 286 P      55 13.90   3.6X
LISJ    14.59 283 P      55 11.70   0.3
DHLJ    14.63 281 P      55 09.48  -2.5
HRI     14.67 291 eP     55 13.30   0.7
DSI     14.70 284 eP     55 10.80  -2.2
BHL     14.89 293 P      55 12.00  -3.5X
GAZ     14.92 307 eP     55 13.00  -2.7
PRNI    14.96 279 eP     55 13.30  -3.1X
GRO     15.23 342 iP     55 20.50   0.7
        1.5s   320.00nm          5.4mb
                  iS     58 12.00
SAGI    15.25 279 eP     55 18.40  -1.8
                  eS     57 33.10
ADAT    16.19 304 eP     55 33.00   0.8
FAM     16.50 296 eP     55 36.80   0.7
PYA     16.67 337 iPd    55 38.30   0.1
        1.0s   250.00nm          5.3mb
                  iS     58 46.00
BNN     16.68 310 eP     55 32.00  -6.5X
CSS     17.02 295 eP     55 42.00  -0.7
SOC     17.64 329 iPd-   55 50.50   0.2
 -       2.0s  1500.00nm          5.8mb
      Z  13s     13.00um          4.6MszX
      N  16s     11.50um
      E  15s     15.50um
                  eS     59 06.00
PPCY    17.78 294 eP     55 53.50   1.3
KVT     17.82 317 iP     55 53.00   0.3
HLW     18.14 278 eP+    55 57.00   0.4
                  ePP    56 16.50
                  eS     59 19.00
ARO     19.42 208 ePd    56 13.00   0.6
BZK     19.58 316 iP     56 14.00   0.2
ANN     19.75 327 eP     56 14.00  -1.6
        1.0s    30.00nm          4.6mb
      Z  14s     3.70um          5.3Msz
      N  15s     5.00um
      E  14s     4.00um
                  eS     59 50.00
```

BCK		19.87	301	eP	56 16.40	-0.7
ELL		20.18	298	iP	56 22.00	1.6
KSL		20.27	296	eP	56 23.30	2.1
ALT		20.78	305	iP	56 26.00	-0.6
KHL		20.95	302	iP	56 28.20	-0.1
GPA		21.14	308	eP	56 29.00	-1.2
EYL		21.37	308	eP	56 33.00	0.5
BOM		21.38	113	iPd	56 32.30	-0.3
				eS	00 22.30	
SIM		21.39	323	eP	56 32.00	-0.6
	Z	20s		7.20um	5.1Msz	
				e	56 50.00	83kmX
				ePPP	57 02.00	
				eS	00 24.00	
				eSS	01 00.00	
YER		21.54	298	iP	56 37.00	2.8
YLV		21.91	308	iP	56 38.20	0.3
GBZT		21.95	308	iPd	56 39.00	0.7
NDI		21.96	85	iP	56 37.50	-1.0
		1.0s	415.00nm		5.8mb	
DST		22.06	305	iP	56 39.70	0.3
ISK		22.33	309	eP	56 44.50	2.5
POO		22.40	113	iPc	56 41.00	-1.9
		1.5s	183.33nm		5.3mb	
				iS	00 50.00	
IZM		22.66	301	iP	56 45.30	-0.1
FRU		22.76	47	iPc	56 52.00	5.7X
		2.0s	1400.00nm		6.1mb	
	Z	18s		9.50um	5.3Msz	
				eS	00 58.00	
				e	01 28.00	
EDC		22.88	306	eP	56 51.00	3.6X
NPS		23.28	292	eP	56 55.60	4.2X
AAE		23.50	215	P	56 56.50	2.4
				S	01 20.00	
PRK		23.66	302	eP	56 50.50	-4.5X
EZN		23.80	304	eP	56 57.70	1.3
ALN		24.37	306	iP	57 03.34	1.5
CFR		24.91	317	eP	57 08.00	1.0
PRZ		25.09	51	(P)	57 14.00	4.9X
	Z	15s		9.60um	5.4MszX	
	N	15s		31.20um		
				eS	01 36.00	
DIM		25.15	308	iPd	57 10.00	0.6
ATH		25.26	298	eP	57 12.70	2.2
KIS		25.53	321	iPd-	57 13.00	0.1
		1.5s	600.00nm		6.0mb	
	Z	15s		4.60um	5.1MszX	
	N	16s		4.40um		
	E	16s		3.10um		
				iSS	02 34.00	
RZN		25.58	307	iPd	57 14.00	0.3
VLI		25.64	295	eP	57 14.10	0.0
OUR		25.66	304	eP	57 04.94	-9.3X
BRD		25.74	317	eP	57 17.50	2.6
PLD		25.74	308	iPd	57 16.00	1.0
PVL		25.75	311	iPd	57 07.00	-8.0X
PAIG		25.77	303	eP	57 16.38	1.2
PPE		25.78	319	eP	57 22.50	7.2X
BUC		25.79	314	ePd	57 16.50	1.2
VRI		26.12	317	ePd	57 20.00	1.6
CLI		26.16	319	ePd	57 20.50	1.7
SRS		26.19	305	eP	57 19.34	0.2
MMB		26.24	306	iPd	57 20.00	0.3
SOH		26.27	304	iP	57 21.46	1.5
PGB		26.28	308	iPd	57 21.00	1.0
IAS		26.36	320	eP	57 22.00	1.4
MLR		26.40	316	eP	57 24.00	2.8
CVO		26.43	317	ePc	57 23.00	1.7
THE		26.49	304	iP	57 22.74	0.8
AGG		26.55	300	eP	57 22.02	-0.5
LIT		26.70	302	eP	57 23.22	-0.6
KNT		26.70	305	eP	57 24.06	0.2
HYB		26.81	110	ePd	57 25.50	0.4
		1.0s	80.00nm		5.3mb	
				eS	01 56.00	
MTUR		26.82	315	ePd	57 27.00	2.0
CMP		26.85	315	ePd	57 27.00	1.8
VTS		26.95	308	iPd	57 27.00	0.7
VAY		26.98	305	iP	57 27.20	0.8
		1.2s	138.00nm		5.5mb	
GRG		27.00	304	eP	57 25.90	-0.7
KZN		27.28	302	eP	57 31.10	1.9
COZ		27.31	314	ePc	57 30.50	0.9
BRVK		27.51	24	iPd	57 31.00	0.0
		1.3s	117.00nm		5.4mb	
				eS	02 00.00	

TNR		27.51	315	ePc	57 21.00	-10.2X
FNA		27.70	303	eP	57 33.18	0.2
VLS		27.72	298	eP	57 33.00	-0.2
ARU		27.77	8	ePc	57 35.00	1.6
		1.5s	150.00nm		5.5mb	
	Z	17s		5.50um	5.2MszX	
	N	17s		5.00um		
	E	17s		3.00um		
				e	57 45.00	36kmX
				e	58 33.00	
SKO		27.99	306	iP	57 35.20	-0.4
		1.6s	271.00nm		5.7mb	
	Z	15s		7.25um	5.4MszX	
				i	57 57.50	101kmX
				i	02 22.50	
				LR	10 29.00	
GBA		28.02	118	Pd	57 37.00	1.0
LSK		28.11	302	eP	57 38.30	1.5
IGT		28.18	300	eP	57 41.78	4.5X
OHR		28.20	304	iP	57 37.50	-0.1
		1.6s	327.00nm		5.8mb	
				i	57 53.20	66kmX
				i	58 05.70	
				i	58 21.60	
GZR		28.33	313	iPc	57 40.00	1.3
OBN		28.39	341	iPd	57 38.80	-0.2
		1.5s	168.00nm		5.6mb	
	Z	18s		5.50um	5.2Msz	
	N	18s		5.00um		
	E	22s		3.30um		
				i	58 30.00	263kmX
				eS	02 24.00	
				eSS	04 10.00	
SVE		28.44	10	ePc	57 41.00	1.5
		1.9s	200.00nm		5.5mb	
	Z	12s		9.00um	5.6MszX	
	N	13s		4.00um		
	E	13s		2.50um		
				e	58 31.10	256kmX
				eSSS	04 09.00	
DEV		28.47	314	ePd	57 41.00	1.2
SRN		28.50	301	eP	57 41.60	1.5
GKN		28.53	84	P	57 40.20	-0.6
TPE		28.58	302	eP	57 38.50	-2.4
KEK		28.62	301	eP	57 52.10	10.9X
MOS		28.67	343	iPd	57 42.00	0.5
		1.8s	460.00nm		5.9mb	
				e	58 37.00	284kmX
				ePPP	58 52.00	
				eS	02 26.00	
TIR		28.95	304	eP	57 45.00	0.8
BMR		28.95	318	ePd	57 51.00	6.9X
DMN		29.01	85	P	57 44.20	-1.0
KKN		29.13	84	P	57 45.20	-1.1
PKI		29.28	85	P	57 46.40	-1.4
SDA		29.40	305	eP	57 47.00	-1.2
GUN		29.63	84	P	57 49.60	-1.3
KOD		30.18	123	eP	57 56.00	0.2
				eS	02 57.00	
MNK		30.66	331	eP	58 00.00	0.8
PSZ		31.21	316	eP	58 04.00	-0.3
TDS		31.23	299	P	58 05.70	1.2
UZD		31.49	313	eP	58 07.00	0.3
SPC		31.58	319	eP	58 07.30	-0.4
HVAR		31.86	306	iP	58 10.60	0.6
MGR		31.90	300	P	58 10.70	0.3
SRO		32.14	315	eP	58 12.50	0.2
OJC		32.32	320	iP	58 13.70	-0.2
				i	58 19.40	20km
				i	58 29.00	
				i	58 33.90	
ZAG		32.92	311	iPc	58 19.50	0.3
PTJ		32.97	311	iP	58 19.50	-0.2
ZST		33.03	315	iP	58 19.30	-0.8
RAC		33.17	319	eP	58 21.00	-0.3
	Z	15s		5.00um	5.3MszX	
				e	58 26.00	17km
SOP		33.18	314	iP	58 21.00	-0.4
VBY		33.32	310	ePc	58 22.80	0.2
				i	58 39.60	69kmX
SDI		33.46	303	P	58 23.90	-0.1
NAI		33.49	209	P	58 28.00	3.4X
	Z	16s		7.34um	5.5MszX	
				S	04 10.00	
				LQ	10 48.00	
VKA		33.55	315	iPc	58 23.90	-0.7
		2.0s	328.00nm		5.9mb	

AQU		33.88	304	P	58 28.50	0.9
CEY		33.94	310	eP	58 28.40	0.3
LJU		33.96	310	ePc	58 28.80	0.6
PUL		34.16	340	ePd	58 30.00	0.3
		1.8s	140.00nm		5.6mb	
	Z	16s		3.80um	5.2MszX	
	N	17s		4.60um		
				i	58 41.00	40kmX
				i	59 43.50	
				e	01 05.00	
				(S)	03 53.00	
RDP		34.28	302	P	58 31.20	0.1
RMP		34.30	303	P	58 31.70	0.5
TRI		34.38	310	eP	58 31.30	-0.5
				ePP	59 37.50	
				eS	03 56.00	
VOY		34.38	310	iPc	58 31.80	-0.2
ARV		34.43	306	P	58 32.60	0.3
ASS		34.55	305	P	58 34.00	0.6
KSP		34.60	319	iP	58 32.60	-1.1
		1.4s	62.00nm		5.3mb	
ELT		34.79	36	iPc	58 35.00	-0.2
		1.0s	344.00nm		6.2mb	
				e	59 51.00	405kmX
				eS	04 04.00	
RSM		34.86	306	P	58 36.90	0.9
KBA		35.04	312	iPc	58 37.50	-0.3
		0.9s	54.00nm		5.5mb	
				i	58 43.70	21km
				i	04 06.10	
CRE		35.16	306	P	58 38.90	0.2
PRU		35.28	317	P	58 38.50	-1.0
		2.0s	87.10nm		5.3mb	
	Z	20s		3.30um	5.1Msz	
	N	19s		2.50um		
	E	16s		2.80um		
				e	59 08.80	135kmX
				e	04 16.00	
FVI		35.28	311	P	58 39.40	-0.1
SFI		35.29	306	Pc	58 41.00	1.4
PGD		35.37	306	P	58 39.50	-1.1
GEC2		35.38	315	ePc	58 39.50	-1.0
		0.6s	5.94nm		4.7mb	
				e	58 45.60	21km
				e	58 48.90	
				e	58 50.90	
				e	58 56.50	
				e	59 00.10	
				e	59 04.60	
BHG		35.54	313	iPc	58 41.20	-0.5
		1.0s	102.00nm		5.7mb	
KHC		35.55	315	Pc	58 41.40	-0.5
	Z	18s		3.50um	5.2Msz	
	N	18s		2.60um		
	E	18s		3.50um		
				e	58 45.00	12kmX
				e	59 09.00	
FIR		35.68	306	eP	58 43.50	0.5
				iS	04 24.00	
CTI		35.89	310	Pc	58 44.50	-0.4
BRG		35.97	318	iP	58 45.20	-0.1
		1.5s	52.00nm		5.2mb	
				i	58 51.80	22km
WET		35.99	315	iPc	58 44.70	-0.9
MME		36.15	306	P	58 48.02	0.7
BDI		36.20	306	Pd	58 47.10	-0.4
WTTA		36.21	312	iPc	58 46.90	-0.8
		0.9s	90.00nm		5.7mb	
				i	04 25.00	
SOTA		36.48	311	iPc	58 49.00	-0.9
		0.9s	98.00nm		5.7mb	
				i	04 28.70	
OGA		36.51	311	iPc	58 50.20	0.0
		2.0s	243.00nm		5.7mb	
NUR		36.52	337	eP	58 47.80	-2.0
		0.6s	33.20nm		5.4mb	
SAL		36.56	308	P	58 50.80	0.5
CLL		36.68	318	iPc	58 50.50	-0.8
		1.9s	150.00nm		5.5mb	
FUR		36.70	313	iPc	58 50.90	-0.6
		1.0s	154.00nm		5.8mb	
	Z	22s		3.00um	5.0Msz	
BRNL		36.92	320	ePc	58 54.00	0.7
HOF		36.99	316	eP	58 54.30	0.3
OSS		37.06	310	iPc	58 54.80	0.0
PGF		37.13	303	P	58 54.76	-0.5
BOB		37.14	307	Pc	58 55.90	0.6

06d 22h

```
GRF     37.19 315 iPc   58 55.40  -0.2
        1.2s    65.00nm          5.3mb
      Z  21s     2.00um          4.9Msz
KAF     37.21 340 iP    58 54.90  -0.7
        0.4s    22.40nm          5.3mb
MOX     37.26 317 ePc   58 55.60  -0.6
        2.0s    95.00nm          5.3mb
      Z  18s     2.00um          5.0Msz
                  eS    04 51.00
BSD     37.30 325 iP    58 54.00  -2.4
        0.7s    30.00nm          5.2mb
VDL     37.47 310 ePc   58 58.10  -0.1
PCP     37.74 306 P     58 59.05  -1.3
TMA     37.79 309 ePc   59 00.20  -0.7
LLS     37.87 310 iPc   59 00.70  -0.9
CKI     37.91 306 Pd    59 00.80  -0.9
FIN     37.92 306 P     59 01.02  -0.9
IMI     38.11 305 P     59 02.99  -0.5
ROB     38.18 306 P     59 03.81  -0.2
LWI     38.27 220 iPc   59 09.30   4.0X
ORO     38.31 308 P     59 03.70  -1.5
ORX     38.31 308 P     59 03.81  -1.4
SAOF    38.36 305 P     59 05.38  -0.2
MMK     38.40 309 ePc   59 05.40  -0.7
SLE     38.40 311 ePc   59 05.00  -0.9
ZLA     38.41 311 ePc   59 05.40  -0.5
UER     38.42  42 iPc   59 05.80  -0.1
        1.0s   230.00nm          5.9mb
                  e     01 14.00
                  eS    05 00.00
SBF     38.43 305 P     59 05.99  -0.2
AUTN    38.45 305 P     59 06.62   0.1
ENR     38.49 306 P     59 06.33  -0.4
AURF    38.51 305 P     59 06.79  -0.1
STV     38.56 306 P     59 06.74  -0.5
TOUF    38.58 305 P     59 07.66   0.0
MVIF    38.63 305 P     59 07.72  -0.3
DOI     38.65 306 P     59 06.10  -2.0
UPP     38.68 333 iP    59 06.70  -1.2
BHB     38.69 307 P     59 06.24  -2.0
RSP     38.74 307 P     59 06.38  -2.4
FEL     38.74 312 P     59 07.59  -1.2
PZZ     38.75 306 P     59 07.57  -1.4
DIX     38.79 309 ePc   59 08.80  -0.6
CALN    38.81 305 P     59 09.00  -0.4
COP     38.81 325 ePc   59 10.40   1.3
        1.2s   206.25nm          5.7mb
      Z  20s     2.84um          5.1Msz
LSD     38.86 308 P     59 09.40  -0.6
FRF     38.96 304 iPc   59 10.10  -0.4
        1.3s    44.40nm          5.0mb
BBS     38.99 311 P     59 09.87  -0.9
LMR     39.03 304 eP    59 11.10   0.0
        1.2s    26.20nm          4.8mb
RRL     39.03 307 P     59 10.86  -0.6
TNS     39.06 315 ePc   59 10.80  -0.5
LIBD    39.07 312 P     59 10.04  -1.4
EMS     39.11 308 (P)   59 21.21   9.2X
BNI     39.13 307 Pc    59 11.20  -0.9
LPG     39.14 308 eP    59 11.70  -0.7
        1.1s    98.65nm          5.4mb
LRG     39.15 304 iPc   59 12.00  -0.1
        1.5s    64.25nm          5.1mb
      Z  20s     3.85um          5.2Msz
LPL     39.16 308 eP    59 11.60  -0.9
        1.0s    90.00nm          5.4mb
MOF     39.32 311 P     59 12.50  -1.1
CDF     39.34 312 P     59 12.23  -1.6
ECH     39.38 312 P     59 13.04  -1.0
LOMF    39.42 310 P     59 13.77  -0.6
BSF     39.54 311 P     59 14.44  -1.0
HAU     39.86 311 iPc   59 16.80  -1.2
        1.1s    38.85nm          5.0mb
      Z  24s     2.42um          5.0MszX
BNS     40.04 316 iPc   59 19.80   0.4
      Z  16s     4.50um          5.4MszX
BCAO    40.14 239 iPc   59 20.50  -0.1
        0.7s     6.00nm          4.4mb
VITF    40.15 312 P     59 18.74  -1.6
APA     40.20 349 iPc   59 21.30   0.8
WLF     40.35 314 iPc   59 21.18  -0.7
HFS     40.45 331 eP    59 21.90  -0.7
        0.4s    38.90nm          5.4mb
WTS     40.55 317 iPc   59 24.30   0.8
        0.9s    67.00nm          5.4mb
SSB     40.66 307 P     59 23.57  -1.0
ENN     40.76 315 iPc   59 25.80   0.6
        1.2s    59.00nm          5.2mb
MUD     40.80 325 iPc   59 25.30  -0.2
        1.0s    44.00nm          5.1mb
WIT     40.87 319 eP    59 27.00   0.9
LBF     41.27 309 iPc   59 28.70  -0.9
        1.0s    26.60nm          4.9mb
COLF    41.28 307 P     59 28.90  -0.8
SMF     41.32 309 iPc   59 29.20  -0.7
        1.0s   112.80nm          5.6mb
PLDF    41.38 308 P     59 29.90  -0.7
LOR     41.39 310 iPc   59 29.50  -1.1
        1.3s    65.35nm          5.2mb
      Z  23s     2.45um          5.0MszX
DOU     41.43 314 P     59 33.70   2.9X
                  S     05 46.00
SDF     41.45 345 iP    59 31.00   0.3
LBL     41.56 307 P     59 31.55  -0.5
ESEL    41.58 298 eP    59 33.00   0.9
SSF     41.60 309 iPc   59 31.70  -0.6
        1.0s    64.00nm          5.3mb
ETER    41.64 302 eP    59 32.50  -0.1
AVF     41.67 309 iPc   59 32.00  -0.8
        1.6s   139.90nm          5.4mb
SNF     41.71 315 P     59 33.70   0.6
UCC     41.73 315 P     59 34.00   0.8
AGO     41.73 308 P     59 32.71  -0.6
PYM     41.78 307 P     59 33.40  -0.5
MTHF    41.90 303 P     59 34.96   0.1
BGF     41.99 309 iPc   59 34.80  -0.6
        1.0s    33.80nm          5.0mb
NAO     42.02 331 P     59 34.50  -1.0
        0.7s    25.80nm          5.1mb
MAF     42.14 308 iPc   59 36.40  -0.3
        1.2s    49.70nm          5.1mb
CAF     42.37 306 iPc   59 38.40  -0.2
        1.0s    26.60nm          4.9mb
TCF     42.39 308 iPc   59 38.30  -0.5
        1.1s    35.90nm          5.0mb
MOY     42.58  44 iPd   59 42.00   1.8
        1.6s   160.00nm          5.5mb
                  eS    06 02.40
PAND    42.62 302 P     59 41.60   0.7
GRBF    42.63 303 P     59 41.06   0.2
RJF     42.78 307 iPc   59 42.00   0.0
        1.2s    84.50nm          5.3mb
      Z  23s     3.63um          5.2MszX
LESF    42.82 303 P     59 42.65   0.3
LSF     42.86 308 iPc   59 42.00  -0.6
        1.6s    72.75nm          5.2mb
SALF    42.89 303 P     59 42.60  -0.3
LPO     42.97 306 iPc   59 43.60   0.1
        1.2s    58.00nm          5.2mb
LFF     43.31 306 iPc   59 46.40   0.2
        1.3s   132.50nm          5.5mb
EBR     43.40 300 eP    59 49.50   2.5
                  eS    06 16.00
EROO    43.46 300 eP    59 48.00   0.5
EPF     43.52 303 iPc   59 47.30  -0.7
        1.2s    27.35nm          4.9mb
CHG     43.73  93 iPd   59 50.00   0.0
        1.1s    63.29nm          5.3mb
                  eS    06 21.60
LZH     43.74  67 eP    59 50.50   0.5
        1.2s   155.00nm          5.7mb
      Z  18s     3.58um          5.3Msz
      N  15s     3.89um
                  pP    00 00.00  32km
                  sP    00 04.00
                  PcP   01 37.50
                  PcS   05 30.00
                  e     06 20.00
ZAK     43.75  46 eP    59 50.00   0.3
        1.6s    67.00nm          5.2mb
      Z  15s     7.74um          5.7MszX
      E  16s     8.34um
                  eSS   09 22.00
LDF     44.22 311 iPc   59 52.50  -1.1
        0.7s    32.10nm          5.3mb
BDT     44.40  95 eP    59 54.00  -1.4
        0.8s    25.90nm          5.2mb
FLN     44.48 311 iPc   59 54.60  -1.1
        0.9s    54.20nm          5.4mb
      Z  23s     1.98um          5.0MszX
ECHE    44.56 298 eP    59 58.00   1.5
GRR     44.69 311 iPc   59 56.30  -1.0
        1.0s   103.20nm          5.7mb
IRK     44.72  44 ePc   59 57.00  -0.6
      Z  16s     7.63um          5.7MszX
                  eS    06 24.00
                  e     06 35.00
                  eSSS  09 50.00
                  e     10 44.00
LPF     44.77 310 iPc   59 57.00  -1.0
        0.9s    59.15nm          5.5mb
ELIZ    44.89 303 eP    59 59.00  -0.1
KMI     44.96  82 eP    59 59.50  -0.6
        2.0s   180.00nm          5.6mb
      Z  20s     3.50um          5.3Msz
      N  13s     1.90um
      E  13s     0.90um
                  pP    00 09.50  34km
                  S     06 36.00
KHT     45.08  98 eP    00 01.00   0.1
ETOR    45.33 300 eP    00 03.00   0.3
NRI     45.41  17 iPd   00 03.00   0.2
        1.5s   130.00nm          5.6mb
      Z  19s    15.00um          5.9Msz
      N  17s     5.40um
      E  23s    10.00um
                  e     00 10.00  23km
                  e     00 19.00
                  e     01 52.00
                  ePPP  02 30.00
                  eS    06 46.00
ECRI    45.61 303 eP    00 05.50   0.6
ENIJ    45.75 295 eP    00 05.50  -0.5
EVIA    45.82 297 eP    00 07.50   0.9
EHUE    45.97 296 eP    00 08.50   0.7
HAE     46.21 316 eP    00 08.60  -0.7
HTR     46.65 316 eP    00 12.20  -0.7
ECOG    46.80 295 eP    00 14.00  -0.4
EGUA    46.85 295 eP    00 15.30   0.6
EBAN    46.87 297 eP    00 15.50   0.7
HCG     46.92 316 eP    00 14.60  -0.4
GUD     46.93 300 eP    00 16.00   0.6
EKA     47.10 320 Pd    00 16.00  -0.3
        1.0s    38.10nm          5.4mb
WME     47.45 317 eP    00 18.80  -0.3
        1.0s    37.00nm          5.4mb
YRH     47.57 317 eP    00 19.80  -0.3
        1.1s    65.00nm          5.6mb
YRC     47.59 317 eP    00 19.90  -0.3
EHOR    48.06 296 eP    00 24.80   0.7
EPRU    48.16 295 eP    00 25.50   0.5
EJIF    48.42 294 eP    00 27.00   0.0
EPLA    48.45 299 eP    00 27.20   0.0
ETA     48.51 316 eP    00 27.30  -0.1
OJEN    48.53 294 eP    00 28.00   0.1
ECP     48.56 316 iPd   00 27.60  -0.2
        0.8s   213.00nm          6.2mb
IFR     48.64 291 iP    00 31.50   2.6
DLF     48.76 317 eP    00 28.90  -0.4
ECB     48.83 316 iPd   00 29.60  -0.3
CNIL    48.90 294 eP    00 30.00  -0.6
ERUA    49.04 303 eP    00 32.00   0.3
DMU     49.05 318 eP    00 31.00  -0.6
EMON    49.11 304 eP    00 32.30   0.1
DCN     49.21 317 eP    00 32.80   0.0
        1.0s   104.00nm          5.8mb
EVAL    49.27 296 eP    00 33.80   0.3
STS     50.04 303 eP    00 40.20   0.9
EZAM    50.21 302 eP    00 42.50   1.8
CIT     50.37  45 eP    00 42.00   0.2
      Z  16s    10.60um          5.9MszX
                  eS    07 55.00
AVE     50.56 291 eP    00 36.00  -7.4X
-                 i     00 59.50  97kmX
IPM     52.23 108 ePd   00 54.60  -1.7
        0.7s    41.40nm          5.5mb
BJI     52.88  60 eP    01 00.00  -0.8
        1.0s    24.00nm          5.1mb
      Z  20s     3.59um          5.4Msz
      N  15s     2.62um
                  e     02 36.00 487kmX
                  eS    08 30.00
                  eScS  10 47.50
                  eSS   12 10.00
ANTZ    53.78 286 iPd   01 07.80   0.2
KGM     55.55 109 eP    01 20.00  -0.7
HKC     55.78  82 eP    01 22.00  -0.2
AKU     55.83 332 iP    01 23.30   1.3
        1.3s   107.69nm          5.7mb
DAG     57.64 345 iP    01 34.00  -0.8
        0.6s    16.67nm          5.2mb
```

```
KIC     58.07 259 P     01 38.20  -0.4
        0.7s    16.50nm          5.2mb
                  S     09 37.00
TIC     58.17 259 P     01 38.80  -0.5
BFT     58.36 203 eP    01 40.00  -0.7
        0.9s    25.00nm          5.3mb
LIC     58.39 259 P     01 40.30  -0.5
SSE     58.90  69 Pd    01 44.00  -0.1
        1.0s    42.00nm          5.5mb
      Z  18s     3.90um          5.6Msz
      N  23s     5.90um
      E  23s     3.10um
                  sS    09 52.00
SLR     59.04 205 iPd   01 45.80   0.5
        0.8s    20.00nm          5.3mb
      Z  18s    20.30um          6.3MszX
YAK     59.06  32 iPd   01 43.40  -1.5
        1.0s   100.00nm          5.9mb
      Z  14s     3.00um          5.6MszX
      N  12s     0.80um
      E  14s     2.20um
                   e    03 51.00 688kmX
                  eS    09 45.00
                   e    11 33.00
KSR     59.69 206 iPc   01 51.00   1.2
PRY     60.43 205 iPc   01 56.50   1.7
SEK     61.63 205 iPd   02 03.00   0.0
        1.0s   130.00nm          6.0mb
BLF     62.88 205 iPc   02 12.50   1.3
        0.7s    30.00nm          5.5mb
BAG     63.62  85 eP    02 17.00   0.5
KKM     64.45  98 eP    02 21.00  -0.9
MBO     65.04 273 eP    02 26.50   1.0
POF     65.69 211 eP    02 31.00   1.7
        0.5s     8.00nm          5.1mb
SHNJ    65.90  63 eP    02 31.20   0.4
KUMJ    66.22  65 eP    02 32.80   0.0
KAGJ    66.74  66 eP    02 37.70   1.5
CER     69.39 209 eP    02 53.00   0.4
        1.0s   140.00nm          6.0mb
MGD     69.44  32 ePd   02 52.00  -0.6
        1.2s    60.00nm          5.6mb
      Z  12s     2.00um          5.6MszX
      E  14s     2.00um
                   e    03 20.00 111kmX
YSS     69.78  47 eP    02 54.00  -0.9
                   e    03 05.00  36kmX
MTMJ    70.16  59 P     02 56.80  -0.7
NIIJ    70.80  58 P     03 00.30  -1.0
CHJJ    71.25  59 P     03 03.90  -0.2
RES     74.36 351 eP    03 23.50   1.9
        1.0s     6.00nm          4.6mb
BRW     77.93   9 (P)   03 42.92   1.2
NANU    79.71 123 eP    03 52.00  -0.2
FBA     85.13   8 eP    04 19.95   0.3
        0.9s    12.53nm          5.1mb
TTA     85.67  13 eP    04 22.21  -0.3
        1.5s    31.75nm          5.3mb
LMN     86.13 321 eP    04 31.50   6.5X
CBM     87.21 324 P     04 40.00   9.8X
      Z  20s     0.76um          5.1Msz
SVW     87.42  13 eP    04 33.00   2.0
PWA     87.93  10 eP    04 35.10   1.7
        0.7s    54.10nm          6.0mb
TOA     88.03   9 eP    04 36.20   2.2
PMR     88.10  10 eP    04 34.44   0.2
        0.8s    20.10nm          5.5mb
      Z  19s     0.82um          5.2Msz
FCC     88.16 343 eP    04 39.50   5.0X
YKA     88.21 354 eP    04 35.70   1.0
        0.9s    17.20nm          5.4mb
KLU     88.65   9 eP    04 38.00   1.0
SLKM    88.96  11 eP    04 38.00  -0.4
BALM    89.52   7 eP    04 41.71   0.5
WARB    90.08 120 eP    04 45.00   0.9
KDC     91.14  13 eP    04 49.80   1.3
HRV     91.99 322 P     05 00.00   7.3X
      Z  18s     0.55um          5.0Msz
EEO     92.76 329 eP    05 06.50  10.3X
WRA     92.97 111 P     04 58.80   1.3
        0.7s     0.80nm          4.3mb X
WB2     92.98 111 iPd   04 59.70   2.2
        0.6s    10.70nm          5.5mb
ASPA    94.44 114 eP    05 04.50   0.3
        0.7s    17.00nm          5.6mb
ULM     96.16 340 eP    05 15.50   3.7X
CEH    100.80 322 Pdiff 05 40.00   7.1X
      Z  17s     0.50um          5.1MszX
NEW    102.49 353 ePdiff05 42.00   1.8
        1.2s    11.36nm          5.4mb
RSSD   104.04 343 Pdiff 06 00.00  12.6X
      Z  20s     1.34um          5.5Msz
GLD    108.43 342 PKP   10 20.00   6.9X
      Z  18s     1.95um          5.7Msz
GOL    108.52 342 PKP   10 20.00   6.7X
      Z  20s     0.42um          5.0Msz
MIAR   108.98 331 PKP   10 20.00   6.0X
      Z  19s     0.74um          5.3Msz
WMOK   110.91 335 PKP   10 30.00  12.3X
      Z  20s     1.32um          5.5Msz
ALQ    113.27 341 PKP   10 30.00   7.6X
      Z  21s     1.25um          5.5Msz
ISA    115.08 352 PKP   10 40.00  14.3X
      Z  18s     0.92um          5.4Msz
TUC    116.91 344 PKP   10 40.00  10.7X
      Z  21s     1.10um          5.4Msz
SIV    117.65 266 PKP   10 40.00   8.9X
                   e    11 49.80
HON    122.14  34 PKP   10 50.00  10.6X
      Z  19s     0.60um          5.3Msz
CCH    122.65 267 (PKP) 10 41.00   0.1
ZOBO   123.95 269 ePKP  10 46.00   2.1X
      Z  20s     0.96um          5.5Msz
                  LR    51 42.00
ARE    126.96 271 ePKP  10 55.00   5.7X
        S.D. = 1.0  on 364 of 404 obs.
-----------------------------------------
*  JAN  06, 1993  23h 18m 55.45± 0.84s
   11.532 N ±13.1km   87.182 W ±14.0km
   DEPTH =  33.0km  (normal)
   4.9mb (  6 obs.)  4.1Msz (  1 obs.)
 NEAR COAST OF NICARAGUA          ( 74)

PPM     13.34 306 iP    22 07.20   1.7
HBF     22.20  15 eP    23 49.29  -1.2
PRM     22.88  10 eP    23 58.69   1.5
MIAR    23.64 347 eP    24 04.82   0.2
        0.8s    18.70nm          4.7mb
GRT     24.71 356 (P)   24 14.22  -0.7
VVO     24.94 343 iP    24 18.30   1.1
CEH     25.33  15 eP    24 21.33   0.4
        0.8s    25.20nm          4.9mb
MEO     25.37 338 iPd   24 21.10  -0.2
FNO     25.38 340 e(P)  24 21.20  -0.1
WMOK    25.40 337 eP    24 20.71  -0.9
        1.2s    49.75nm          5.0mb
LNO     25.49 344 eP    24 21.30  -1.0
LNO2    25.49 344 eP    24 21.30  -1.0
LNO3    25.49 344 eP    24 21.40  -1.0
TUL     25.49 344 P     24 21.60  -0.8
        1.0s   126.20nm          5.5mb
      Z  18s     0.56um          4.1Msz
                   e    24 23.40
                   e    24 32.10
                  LR    45 29.00
RLO     25.53 345 eP    24 21.60  -1.2
ACO     27.28 339 iPc   24 38.80  -0.1
PV10    33.10 328 eP    25 29.91  -0.9
RSNY    34.65  16 eP    25 42.70  -1.2
        1.2s    27.98nm          5.1mb
EMUT    35.09 328 eP    25 47.81  -0.2
ARUT    35.16 323 (P)   25 49.32   0.8
EEO     35.66  10 eP    25 54.00   1.6
DAU     35.76 328 eP    25 53.31  -0.4
HVU     37.54 328 eP    26 09.17   0.7
SIV     37.62 136 eP    26 12.00   2.7
LMN     39.15  25 eP    26 24.50   2.7
ULM     39.26 351 ePd   26 23.20   0.6
LCCM    40.13 333 eP    26 30.20   0.1
BAO     47.26 124 e(P)  27 26.00  -1.9
BDF     47.35 124 e(P)  27 27.00  -1.6
FCC     47.42 355 eP    27 30.00   1.6
YKA     54.56 345 eP    28 20.10  -2.4
        0.8s     2.70nm          4.3mb
RES     63.28 358 eP    29 24.00   1.2
WRA    139.26 253 PKP   38 27.20   5.4X
        0.7s     0.70nm
CHG    149.25 349 ePKP  38 42.80   4.0X
GBA    150.74  32 PKP   38 46.00   5.0X
BDT    150.76 348 ePKP  38 46.00   5.0X
        S.D. = 1.3  on  32 of  36 obs.
-----------------------------------------
%  JAN  06, 1993  23h 44m 00.38± 2.75s
   39.261 N ±23.1km   28.721 E ±19.7km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                            (366)
      MD 2.7 (ISK).

DST      0.35 348 iPg    44 07.20  -0.4
                  iSg    44 12.20
KCT      1.03 344 ePn    44 20.00   0.2
ALT      1.10 100 ePn    44 21.00  -0.1
EDC      1.27 329 ePn    44 24.00   0.1
YLV      1.40  21 ePn    44 26.20   0.2
        S.D. = 0.4  on   5 of   5 obs.
-----------------------------------------
*  JAN  07, 1993  00h 45m 28.61± 0.88s
   19.515 N ± 6.8km   64.400 W ±12.1km
   DEPTH =  10.0km  (geophysicist)
   4.6mb (  2 obs.)
 VIRGIN ISLANDS                    ( 91)

LPR      1.84 229 P      46 00.20  -0.3
CPD      2.05 225 P      46 04.00   0.4
SJG      2.17 230 iP     46 05.00  -0.3
APR      2.44 245 P      46 08.50  -0.7
PORP     2.57 236 P      46 10.80  -0.2
LRS      2.61 243 P      46 11.00  -0.7
MGP      2.96 240 P      46 15.30  -1.2
MORO     9.39 204 eP     47 48.20   1.1
TOV     10.99 209 eP     48 12.50   3.5X
SDV     12.17 211 eP     48 27.40   2.2
HBF     19.56 316 P      50 03.70   4.1X
SGS     19.81 317 P      50 07.40   5.1X
CEH     20.82 325 eP     50 11.56  -1.2
        0.3s    33.34nm          5.2mb
                   e     50 21.42
                  eS     53 47.86
JSC     20.98 318 (P)    50 14.43   0.0
PRM     21.57 316 (P)    50 20.78   0.3
                  eS     54 13.98
CVL     22.10 329 (P)    50 24.44  -1.2
NAV     22.80 324 eP     50 34.09   1.4
LVNJ    23.00 340 (P)    50 36.81   2.2
TKL     23.46 317 (P)    50 41.16   2.1
BAO     38.48 154 e(P)   52 52.00  -0.9
BDF     38.54 154 e(P)   52 53.00  -0.4
EMUT    44.55 307 (P)    53 42.89   0.1
YKA     54.94 334 eP     54 58.90  -2.9
        0.7s     1.30nm          4.1mb
        S.D. = 1.4  on  20 of  23 obs.
-----------------------------------------
   JAN  07, 1993  02h 32m 18.82± 0.72s
   39.455 N ± 9.0km   25.477 E ± 5.5km
   DEPTH =  10.0km  (geophysicist)
 AEGEAN SEA                        (365)

EZN      0.75  60 iPg    32 33.80   0.3
                  eSg    32 47.80
OUR      1.45 308 ePb    32 44.20  -0.8
                  eSb    33 04.24
PAIG     1.46 289 ePb    32 45.68   0.4
                  eSb    33 04.72
ALN      1.50  17 ePb    32 46.48   0.7
IZM      1.75 127 ePn    32 48.80  -0.6
SOH      2.12 311 ePn    32 54.36  -0.5
                  eSn    33 23.24
SRS      2.20 320 ePn    32 55.60  -0.3
                  eSn    33 25.04
LIT      2.39 287 ePn    32 57.88  -0.8
DST      2.44  85 ePn    33 05.60   6.2X
AGG      2.48 261 iPn    33 01.32   1.4
KNT      2.61 312 ePn    33 02.00   0.3
-                 eSn    33 34.92
        S.D. = 0.8  on  10 of  11 obs.
-----------------------------------------
%  JAN  07, 1993  03h 19m 46.04± 0.77s
   38.479 S ± 4.8km  175.795 E ± 4.8km
   DEPTH = 201.2 ±  8.1 km
 NORTH ISLAND, NEW ZEALAND         (159)

UTU      0.43  46 eP     20 12.50  -0.6
TAZ      0.61  67 P      20 13.20  -0.7
WLZ      0.63 345 P      20 14.20   0.2
                  S      20 32.10
WHH      0.68 127 Pd     20 13.40  -1.0
NGZ      0.71 192 P      20 14.50  -0.2
CNZ      0.74 195 eP     20 14.60  -0.2
MOZ      0.78 268 Pd     20 15.00   0.2
                  S      20 34.00
PAHZ     1.06 111 P      20 16.30  -0.3
```

07d 03h

```
URZ      1.06  78 P     20 15.50  -1.0
                  S     20 33.70
MOH      1.24 122 P     20 18.20   0.2
WAHZ     1.29 160 P     20 18.60   0.2
TTH      1.33 143 P     20 18.90   0.3
BSZ      1.48 207 P     20 20.60   0.7
TEHZ     1.70 153 P     20 22.40   0.4
KUZ      1.73 358 P     20 23.20   1.0
NOZ      1.76  95 eP    20 22.90   0.3
MAHZ     1.78 114 P     20 23.30   0.6
PUZ      1.98  79 eP    20 24.60  -0.2
                  S     20 49.30
MNG      2.15 186 Pc    20 26.90   0.4
                  S     20 53.00
HBZ      2.17  67 eP    20 27.10   0.4
PGZ      2.17 170 Pc    20 27.10   0.4
KIW      2.48 196 Pc    20 30.30   0.2
CAW      2.69 192 P     20 32.70   0.2
MTW      2.69 185 Pc    20 32.40  -0.1
DIW      2.73 211 P     20 33.40   0.3
MRW      2.87 197 P     20 34.80   0.1
                  S     21 08.30
BLW      2.90 185 P     20 34.90   0.0
WEL      2.91 195 P     20 35.20   0.1
MOW      2.97 188 P     20 35.70  -0.1
TCW      2.97 203 P     20 35.90   0.1
QRZ      3.44 226 P     20 41.50   0.0
THZ      3.96 213 P     20 48.10   0.2
                  eS    21 34.20
KHZ      4.29 203 P     20 52.30   0.3
                  S     21 41.60
LTZ      5.07 211 eP    21 01.30  -0.7
                  eS    21 56.60
MQZ      5.74 203 P     21 09.40  -1.1
                  S     22 09.90
ODZ      7.60 209 eP    21 34.60  -0.4
     S.D. = 0.5  on  36 of  36 obs.
-----------------------------------
&  JAN  07, 1993  03h 53m 38.81s
   59.523 N          151.360 W
   DEPTH =   4.9km
 KENAI PENINSULA, ALASKA            ( 14)
      <AEIC>. ML 3.1 (PMR), 2.8
      (AEIC).

XLV      0.20 250 iPd   53 42.55  -0.3
                  S     53 45.37
BRLK     0.34  45 iPd   53 45.74   0.0
                  eS    53 51.24
ILIM     0.98 305 ePd   53 57.15  -0.8
                  S     54 11.13
INE      1.02 303 eP    53 57.52  -1.1
AUE      1.04 262 eP    53 57.86  -1.1
                  S     54 11.69
INW      1.05 302 eP    53 57.74  -1.4
                  eS    54 12.29
SYI      1.06 211 eP    53 57.16  -2.1
                  eS    54 11.87
AUP      1.07 262 eP    53 58.42  -1.0
                  eS    54 13.45
AUL      1.07 263 eP    53 58.45  -1.0
                  S     54 13.10
AUI      1.07 261 ePc   53 58.26  -1.2
                  eS    54 12.73
AUH      1.08 262 ePd   53 58.60  -1.0
SEW      1.13  58 ePc   53 59.35  -1.0
SLKM     1.14  30 ePc   53 58.96  -1.7
                  eS    54 15.09
RS1      1.17 324 ePc   54 00.33  -1.0
RSO      1.17 324 eP    54 00.19  -1.2
RS2      1.18 324 ePc   54 00.40  -1.0
                  eS    54 16.33
REF      1.18 326 ePc   54 00.40  -1.0
                  S     54 16.35
RDW      1.21 324 ePc   54 00.76  -1.1
NKA      1.23   3 eP    54 02.98   0.9
DFR      1.26 329 eP    54 01.61  -1.2
                  eS    54 18.58
NCT      1.31 324 eP    54 02.11  -1.4
                  S     54 19.61
CDD      1.32 244 ePc   54 01.69  -2.0
MPA      1.40  45 eP    54 04.12  -0.8
                  eS    54 21.30
PDB      1.46 282 eP    54 04.21  -1.7
MCNL     1.56 259 ePc   54 05.74  -1.6
                  S     54 25.44
SPU      1.70 349 ePc   54 08.45  -0.9
CKT      1.74 346 eP    54 09.22  -0.7
CKL      1.75 344 eP    54 09.16  -0.9
CKN      1.75 347 eP    54 09.78  -0.3
PTE      1.78  40 eP    54 09.93  -0.5
CRP      1.79 348 eP    54 09.87  -0.9
CP2      1.80 346 eP    54 10.23  -0.7
CGLM     1.82 350 eP    54 10.75  -0.4
BGL      1.82 344 eP    54 10.39  -0.7
PMS      1.94  27 eP    54 13.15   0.3
PMR      2.35  27 (P)   54 18.45  -0.2
KNK      2.38  36 eP    54 18.56  -0.6
SKT      2.47 358 eP    54 19.99  -0.4
GHO      2.56  27 eP    54 21.80   0.1
SML      2.73  32 eP    54 23.59  -0.6
VLZ      2.98  55 eP    54 25.24  -2.3
KLU      3.34  51 eP    54 31.77  -1.0
        42 obs. associated
-----------------------------------
   JAN  07, 1993  04h 06m 17.25± 0.57s
   26.892 S ± 5.4km   26.756 E ± 5.6km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA          (584)
      ML 3.0 (PRE). mbLg 2.9 (BUL).

BFS      0.03 104 iPd   06 19.00   0.5
                  S     06 19.50
PRY      0.64  93 eP    06 29.00  -1.1
                  S     06 37.00
KSR      1.03   7 eP    06 37.00  -0.3
                  S     06 50.00
SWZ      1.31 257 iPc   06 41.30  -0.7
                  S     06 58.60
BPI      1.35  58 eP    06 42.00  -0.7
                  S     07 00.20
SEK      1.62 152 iPc   06 47.50   0.8
                  S     07 07.80
SLR      1.79  50 iPd   06 49.00  -0.2
                  S     07 11.50
BLF      2.26 193 iPc   06 55.50  -0.6
                  S     07 23.50
FRS      3.12 204 eP    07 08.00   0.1
                  S     07 44.50
BUL      6.93  15 iPn   08 02.50   0.4
                  iSn   09 18.00
                  iSg   09 53.00
CIR      7.33  38 iPn   08 09.30   1.7
                  iSg   10 10.30
     S.D. = 0.9  on  11 of  11 obs.
-----------------------------------
&  JAN  07, 1993  04h 22m 59.00s
   40.132 N          123.847 W
   DEPTH =  22.0km
 NORTHERN CALIFORNIA                ( 36)
      <BRK>. ML 3.0 (BRK).

KMPM     0.35 324 iPn   23 06.55  -0.2
FOX      0.40 344 iPd   23 07.70   0.2
                  iS    23 15.90
FHC      0.68 351 iPd   23 11.27  -0.8
                  iS    23 21.69
ARC      0.76 347 e(P)d 23 12.80  -0.7
                  iS    23 23.88
WDC      1.09  65 ePn   23 16.77  -2.2
                  eS    23 32.26
LGPM     1.10  45 ePn   23 16.67  -2.5
MIN      1.73  82 ePc   23 25.92  -2.3
LMEM     1.79  76 ePg   23 27.10  -2.0
ORV      1.90 107 ePd   23 28.10  -2.4
                  eS    23 50.69
        . 9 obs. associated
-----------------------------------
   JAN  07, 1993  04h 47m 21.36± 0.64s
   38.416 N ± 6.0km   22.037 E ± 4.8km
   DEPTH =  10.0km  (geophysicist)
 GREECE                             (364)
      ML 3.7 (TIR). MD 3.7 (ATH).

AGG      0.65  21 ePg   47 33.24  -1.1
                  eSg   47 43.00
ATH      1.40 108 ePb   47 47.20   0.4
LIT      1.72  12 ePb   47 52.09   0.6
                  eSb   48 14.00
IGT      1.73 311 ePb   47 51.44  -0.3
                  eSb   48 14.32
VLI      1.84 157 ePn   47 53.10  -0.1
KZN      1.90 354 ePn   47 54.30   0.1
PAIG     1.98  40 ePn   47 54.72  -0.5
LSK      2.06 328 ePn   47 57.70   1.2
                  iSn   48 29.70
SRN      2.16 313 ePn   47 58.50   0.7
                  iSn   48 28.50
KEK      2.17 307 ePg   47 59.00   1.0
THE      2.33  18 ePn   48 00.12  -0.1
FNA      2.42 348 ePn   48 00.88  -0.7
                  eSn   48 32.08
OUR      2.44  38 iPn   48 01.88   0.1
TPE      2.45 321 ePn   48 00.00  -2.0
                  iSn   48 36.50
GRG      2.55   6 ePn   48 02.84  -0.7
                  iSn   48 35.72
SOH      2.61  23 ePn   48 04.08  -0.2
KNT      2.82  13 ePn   48 07.00  -0.3
                  eSn   48 41.96
VLO      2.84 317 ePn   48 06.90  -0.7
OHR      2.86 341 iPn   48 09.40   1.6
                  i     48 15.60
                  i     48 48.20
                  i     48 50.20
                  Lg    49 00.80
VAY      2.93   8 iPn   48 10.30   1.5
SRS      2.95  23 ePn   48 09.04  -0.1
SKO      3.58 353 iPn   48 19.00   0.9
                  iPg   48 25.70
                  iS    49 05.60
                  Lg    49 28.00
SDA      4.12 333 ePn   48 32.00   6.4X
TDS      4.61 287 P     48 34.50   1.8
MGR      5.32 291 P     48 41.60  -1.1
SDI      7.11 300 P     49 06.20  -1.8
MLR      7.65  21 eP    49 19.00   3.5X
VBY      8.70 327 ePn   49 29.90  -0.2
VOY      9.71 324 e(Pn) 49 40.20  -3.9X
                  eSn   51 28.10
     S.D. = 1.0  on  26 of  29 obs.
-----------------------------------
&  JAN  07, 1993  06h 25m 51.88s
   58.439 N          154.509 W
   DEPTH =   0.0km
 ALASKA PENINSULA                   ( 12)
      <AEIC>. ML 2.8 (AEIC).

CDD      0.67  42 iP    26 05.32   0.1
                  eS    26 16.05
MCNL     0.75   7 eP    26 06.53  -0.4
                  S     26 18.18
AUI      1.06  32 eP    26 12.58  -0.2
                  eS    26 27.79
                  eS    26 27.95
AUH      1.08  30 eP    26 13.10  -0.1
                  eS    26 28.79
AUP      1.08  31 eP    26 13.31   0.0
                  eS    26 28.81
AUE      1.10  32 eP    26 13.38   0.0
                  eS    26 29.09
AUL      1.10  30 eP    26 13.43   0.0
                  S     26 29.46
SYI      1.12  80 eP    26 12.81  -1.0
                  eS    26 28.11
KDC      1.28 122 P     26 15.30  -1.1
PDB      1.36   7 eP    26 16.74  -1.2
                  eS    26 35.17
INW      1.78  23 eP    26 23.84  -0.4
INE      1.79  24 eP    26 23.90  -0.5
RS2      2.22  23 eP    26 30.03  -0.6
RSO      2.22  23 eP    26 29.93  -0.7
NCT      2.28  20 eP    26 31.01  -0.4
SVW      2.74 349 P     26 36.50  -1.4
        16 obs. associated
-----------------------------------
?  JAN  07, 1993  06h 58m 16.89± 2.38s
   34.517 S ±23.6km   70.618 W ±15.1km
   DEPTH =  90.0km  (geophysicist)
 CHILE-ARGENTINA BORDER REGION      (127)

CACH     0.40   2 (P)   58 30.76  -0.5
                  iS    58 45.28
CHCH     0.58 357 iP    58 33.06   0.5
                  iS    58 46.97
LNV      0.86 310 iP+   58 35.46   0.2
                  iS    58 51.16
PCH      0.90   6 iP    58 35.61  -0.2
                  iS    58 52.65
TACH     0.90 343 iP+   58 36.16   0.4
                  iS    58 52.48
```

```
FCH      1.22  13 iP    58 40.21   0.4
                iS    58 59.22
LCCH     1.31 322 iP+   58 40.31  -0.2
                iS    59 00.95
PEL      1.37 358 iP    58 41.63   0.2
                iS    59 01.84
ROCH     1.58 348 iPd   58 44.06  -0.2
                iS    59 05.37
JACH     1.83   1 eP    58 47.05  -0.4
                eS    59 11.98
     S.D. = 0.4  on  10 of  10 obs.
-----------------------------------
?  JAN  07, 1993  07h 01m 30.25± 2.95s
   7.279 S ±36.1km  129.739 E ±44.9km
   DEPTH = 145.7 ± 42.3 km
 BANDA SEA                        (280)

SLKI     1.70 114 iPc   02 02.00   0.0
                iS    02 24.00
MTN      5.70 166 iPd   02 54.00   0.1
                eS    03 57.00
WB2     13.36 161 iPd   04 32.00  -3.4X
                eS    06 53.70
ASPA    16.78 167 eP    05 17.40  -0.7
                eS    08 13.30
WARB    19.03 189 eP    05 44.50   0.9
                eS    09 12.00
NANU    20.45 221 eP    05 57.70  -0.4
     S.D. = 1.2  on   5 of   6 obs.
-----------------------------------
   JAN  07, 1993  07h 42m 26.33± 0.15s
    0.136 N ± 2.9km   16.972 W ± 3.0km
   DEPTH =  10.0km  (geophysicist)
   5.7mb ( 95 obs.)  5.4Msz ( 41 obs.)
 NORTH OF ASCENSION ISLAND        (407)
      Mw 5.7 (HRV).
      CENTROID, MOMENT TENSOR     (HRV)
      Data Used: GDSN
      L.P.B.: 22S, 44C
      Centroid Location:
      Origin Time        07:42:32.8 0.2
      Lat  0.62N 0.02 Lon  16.94W 0.03
      Dep  15.0 FIX Half-duration  1.7
      Moment Tensor;   Scale 10**17 Nm
        Mrr= 1.20 0.05  Mtt= 0.19 0.08
        Mff=-1.39 0.08  Mrt= 1.25 0.22
        Mrf= 0.57 0.23  Mtf=-3.19 0.06
       Principal Axes:
        T  Val=  2.95  Plg=23  Azm= 34
        N        1.22      64      247
        P       -4.17      13      129
      Best Double Couple:Mo=3.6*10**17
       NP1:Strike=173 Dip=65 Slip=   7
       NP2:         80     84      154

LIC     13.37  63 Pc    45 35.00  -3.7X
     Z  20s     0.35um
TIC     13.57  61 P     45 37.60  -3.8X
KIC     13.68  63 Pc    45 39.30  -3.6X
                S     47 59.00
MBO     14.16   0 iP    45 46.00  -3.2X
                iS    48 10.00
ANTZ    28.99  13 iPc   48 26.60  -1.8
AVE     34.19  14 eP    49 06.00  -8.1X
                i     49 20.00
                i     50 43.50
BAO     34.41 241 e(P)  49 15.00  -1.3
IFR     35.02  17 iPc   49 23.00   1.5
BCAO    35.73  83 iPc   49 28.50   1.0
        0.9s   266.00nm          6.1mb
                ic    49 55.10
                ic    50 25.30
                ic    52 06.90
EJIF    37.68  15 iPc   49 45.20   1.6
EPRU    38.23  15 iPc   49 49.70   1.4
EVAL    38.44  13 iPc   49 50.40   0.4
EGUA    38.57  17 eP    49 51.50   0.4
ECOG    38.98  17 iPd   49 55.60   0.9
EHOR    39.03  15 iPc   49 55.70   0.8
ENIJ    39.12  19 iPd   49 57.00   1.3
EBAN    39.74  16 iPc   50 01.10   0.2
EHUE    39.77  18 iPc   50 01.50   0.3
WIN     40.11 127 iPc   50 05.40   1.0
        1.2s   140.00nm          5.5mb
     Z  18s     6.10um          5.5Msz
EALH    40.18  19 iPc   50 05.40   0.9
EVIA    40.56  18 iPc   50 07.50  -0.2
```

```
EPLA    40.96  13 iPc   50 12.20   1.3
ECHE    41.90  19 iPc   50 18.90   0.2
GUD     41.97  15 iPc   50 20.80   1.5
ETOR    42.70  17 iPc   50 25.80   0.6
ERUA    42.99  11 iPc   50 28.00   0.5
STS     43.23   9 iPd   50 30.00   0.6
EROQ    43.47  19 iPc   50 32.00   0.6
EBR     43.49  19 eP    50 32.00   0.5
EMON    43.96  10 iPc   50 35.30  -0.1
ECRI    44.24  15 iPc   50 38.80   1.1
ELIZ    45.02  16 iPd   50 44.20   0.3
ENSF    45.23  18 P     50 46.51   0.7
EPF     45.44  18 iPc   50 48.40   1.1
        1.7s   451.45nm          6.2mb
SALF    45.46  19 P     50 48.61   1.1
GRBF    45.65  19 P     50 49.56   0.6
LESF    45.74  19 P     50 50.61   1.0
PERF    45.78  21 P     50 50.47   0.5
LWI     45.82  93 iPc   50 51.20   0.2
POF     45.85 133 iPc   50 52.00   1.4
        1.1s    80.00nm          5.6mb
MTHF    46.07  20 P     50 52.87   0.6
SIV     46.37 248 Pc    51 02.00   7.0X
ERC     46.51  32 P     50 57.60   1.8
MCT     46.78  34 P     51 00.40   2.3
LPO     47.20  18 iPc   51 01.80   0.7
        1.2s   147.55nm          5.9mb
GIB     47.26  34 P     51 03.30   1.5
LFF     47.30  17 iPc   51 02.80   1.0
        1.2s   230.30nm          6.1mb
BLE     47.56 139 iPc   51 06.00   1.9
        1.0s    48.00nm          5.5mb
MNO     47.59  34 P     51 05.70   1.2
CER     47.66 138 iPd   51 06.00   1.0
        1.0s    80.00nm          5.8mb
CAF     47.69  18 iPc   51 05.40   0.4
        1.2s   123.15nm          5.9mb
RJF     47.86  18 iPc   51 06.60   0.3
        1.7s   374.95nm          6.2mb
     Z  21s     3.85um          5.4Msz
LMR     47.87  23 iPc   51 07.10   0.7
        1.3s   185.55nm          6.0mb
LRG     47.91  23 iPc   51 07.50   0.8
        1.7s   348.50nm          6.2mb
     Z  22s     6.68um          5.6Msz
CUM     48.03 284 eP    51 08.00  -0.1
FRF     48.11  23 iPc   51 08.70   0.4
        1.3s   118.40nm          5.8mb
ATN     48.18  35 P     51 09.90   1.0
PGF     48.25  26 P     51 09.65   0.2
LBL     48.34  19 P     51 10.69   0.6
CALN    48.37  23 P     51 11.06   0.6
SOI     48.46  35 Pc    51 11.80   0.8
MFF     48.57  15 iPc   51 12.10   0.3
        0.5s    30.75nm          5.6mb
MVIF    48.59  23 P     51 12.96   0.8
AURF    48.65  23 P     51 13.18   0.6
LSF     48.72  17 iPc   51 13.60   0.6
        1.2s   176.75nm          6.0mb
PYM     48.72  19 P     51 13.95   0.9
TOUF    48.73  23 P     51 14.07   0.8
COLF    48.74  19 P     51 13.58   0.4
AUTN    48.78  23 P     51 14.48   0.7
SSB     48.81  20 P     51 14.24   0.5
SAOF    48.83  23 P     51 14.37   0.5
IMI     48.90  24 P     51 09.93  -4.5X
STV     48.95  23 P     51 15.93   1.1
SURF    48.95  23 P     51 16.16   1.2
TCF     48.95  18 iPc   51 15.60   0.8
        1.4s   186.45nm          5.9mb
ENR     48.97  23 P     51 16.06   1.0
MAF     49.00  18 iPc   51 16.20   1.0
        1.3s   207.95nm          6.0mb
AGO     49.03  18 P     51 16.18   0.8
PZZ     49.08  23 P     51 17.34   1.4
PLDF    49.11  19 P     51 16.70   0.6
DOI     49.14  23 P     51 17.50   1.2
ROB     49.21  23 P     51 17.57   0.7
FIN     49.27  24 P     51 17.80   0.5
RRL     49.31  22 P     51 18.99   1.2
RDP     49.34  29 P     51 18.30   0.4
BNI     49.38  22 Pc    51 19.40   1.1
BGF     49.39  18 iPc   51 18.90   0.8
BHB     49.43  23 P     51 18.49   0.0
CKI     49.48  24 Pc    51 19.00   0.2
KSR     49.57 125 iPd   51 20.00  -0.1
        0.4s    17.00nm          5.4mb
```

```
MGR     49.62  33 Pc    51 20.10   0.2
LPF     49.67  14 iPc   51 20.40   0.2
        1.4s   109.35nm          5.7mb
PCP     49.69  24 P     51 19.04  -1.4
RSP     49.69  22 P     51 21.65   1.1
TDS     49.71  34 Pc    51 20.20  -0.5
AVF     49.76  18 iPc   51 21.40   0.5
        1.4s   102.80nm          5.6mb
SMF     49.78  19 iPc   51 21.70   0.6
        1.7s   167.65nm          5.7mb
LPG     49.79  22 iPc   51 22.80   1.2
LPL     49.80  22 iPc   51 22.70   1.1
        0.6s    36.45nm          5.5mb
SDI     49.85  30 Pc    51 21.90   0.1
LSD     49.91  22 P     51 23.39   1.0
SSF     50.05  18 iPc   51 23.70   0.6
        1.2s   154.10nm          5.8mb
GRR     50.05  14 iPc   51 23.40   0.3
        1.2s   147.55nm          5.8mb
FRS     50.05 130 iPd   51 23.50   0.1
        0.8s    33.00nm          5.4mb
LBF     50.13  19 iPc   51 24.20   0.4
        1.4s   129.80nm          5.7mb
AQU     50.13  29 Pc    51 24.60   0.7
BDI     50.16  26 Pc    51 23.70  -0.4
FIR     50.22  26 iPc   51 25.00   0.5
                iPP     53 22.00
BOB     50.24  24 Pc    51 25.80   1.1
MME     50.31  26 P     51 25.38  -0.1
        1.8s   267.80nm          5.9mb
ASS     50.32  28 Pc    51 24.90  -0.4
LOR     50.34  18 iPc   51 25.70   0.3
        0.5s    23.25nm          5.4mb
EMS     50.34  21 iPc   51 26.00   0.3
ORO     50.36  23 Pc    51 24.80  -0.9
ORX     50.37  23 P     51 24.71  -1.1
CRE     50.42  27 Pc    51 25.30  -0.8
BLF     50.42 129 iPd   51 25.70  -0.8
        0.8s    31.25nm          5.3mb
LDF     50.42  14 iPc   51 26.20   0.2
        1.3s    99.30nm          5.6mb
PRY     50.48 126 iPc   51 26.00  -1.0
        0.4s    21.00nm          5.4mb
FLN     50.49  14 iPc   51 26.40  -0.1
        0.9s    42.40nm          5.4mb
     Z  21s     3.40um          5.3Msz
PGD     50.51  27 P     51 26.30  -0.6
        1.2s   146.30nm          5.8mb
DIX     50.53  22 iPc   51 27.70   0.5
SFI     50.60  27 Pc    51 26.70  -0.6
SLR     50.66 124 iPc   51 26.00  -2.4
        1.4s    70.00nm          5.4mb
     Z  18s     6.77um          5.7Msz
MMK     50.71  22 iPc   51 28.80   0.3
RSM     50.88  27 P     51 28.00  -1.5
TMA     51.11  23 iPc   51 30.50  -1.0
SEK     51.20 127 iPd   51 29.00  -3.4X
        1.0s   110.00nm          5.7mb
SAL     51.37  25 P     51 32.20  -1.0
LOMF    51.40  21 P     51 33.26  -0.3
CCH     51.42 248 eP    51 34.30  -0.1
VDL     51.66  23 ePc   51 34.50  -1.1
LPA     51.73 223 eP-   51 38.00   1.9
     Z  20s     2.84um          5.3Msz
BBS     51.74  21 P     51 35.82  -0.2
LLS     51.79  22 iPc   51 35.60  -1.1
HAU     51.80  20 iPc   51 36.40  -0.1
        0.6s    41.85nm          5.5mb
     Z  20s     1.52um          5.0Msz
BSF     51.80  20 P     51 36.14  -0.5
CIR     51.86 117 iPd   51 37.50   0.1
VITF    51.86  19 P     51 36.91   0.0
IGT     51.93  37 iP    51 37.93   0.4
MOF     51.94  20 P     51 36.94  -0.7
ZLA     52.07  22 iPc   51 38.10  -0.5
OSS     52.09  23 ePc   51 37.90  -1.0
BFT     52.11 123 iPd   51 40.00   0.6
        1.0s     3.00nm          4.2mb X
CTI     52.19  25 Pc    51 38.90  -0.7
YJA     52.20 242 e(P)  51 41.00   0.6
TPE     52.23  36 eP    51 39.00  -0.8
ECH     52.26  20 P     51 39.51  -0.4
FEL     52.27  21 P     51 39.67  -0.5
SLE     52.35  21 ePc   51 40.00  -0.7
LIBD    52.36  21 P     51 40.36  -0.3
HJA     52.45 240 ePd   51 43.00   1.3
CDF     52.47  20 P     51 41.08  -0.5
```

07d 07h

WLS	52.49	20	P	51 41.16	-0.6
OGA	52.59	24	iPc	51 42.00	-0.7
	1.5s	162.00nm			5.7mb
ECP	52.62	8	eP	51 46.60	4.1X
GRM	52.72	134	iPc	51 44.60	0.9
	0.8s	138.00nm			5.9mb
ECB	52.74	8	eP	51 41.60	-1.8
STR	52.78	20	P	51 43.42	-0.4
AGG	52.82	38	eP	51 42.72	-1.6
TIR	52.83	35	eP	51 44.70	0.4
TRI	52.85	27	eP	51 43.60	-0.7
			ePcP	52 52.00	
			ePP	53 37.00	
			eS	59 20.00	
RIY	52.85	27	iP	51 43.50	-0.8
BDV	52.88	33	iPc	51 45.10	0.4
DOMF	52.89	17	P	51 44.01	-0.6
ULC	52.90	34	iPc	51 45.20	0.4
SQTA	52.95	24	iPc	51 44.00	-1.2
	1.2s	135.00nm			5.8mb
			i	51 55.20	
ZOBO	53.01	249	P	51 46.00	-0.8
	1.0s	40.00nm			5.3mb
			S	59 20.00	
			LR	08 04.00	
SLA	53.04	239	e(P)	51 46.20	-0.1
DOU	53.08	17	P	51 45.60	-0.4
SRBF	53.09	20	P	51 45.65	-0.5
SDA	53.09	34	eP	51 47.50	1.3
FVI	53.10	25	Pc	51 45.90	-0.3
LANF	53.13	20	P	51 46.31	-0.2
ETA	53.15	8	eP	51 45.20	-1.2
BRY	53.15	32	iPc	51 46.82	0.0
VOY	53.15	27	iPc	51 46.70	0.0
			e	53 35.70	
WTTA	53.15	24	iPc	51 45.70	-1.2
	1.4s	120.00nm			5.7mb
HOFF	53.16	20	P	51 46.46	-0.1
CEY	53.17	27	iPc	51 46.70	-0.1
			e	52 25.00	
WLF	53.18	19	iPc	51 46.23	-0.4
			e	53 47.00	
OHR	53.21	35	iP	51 47.50	0.3
	1.4s	151.00nm			5.8mb
TTG	53.22	33	iPc	51 47.53	0.4
NKY	53.33	33	iPc	51 48.39	0.3
FNA	53.34	36	eP	51 48.20	0.1
SNF	53.36	17	iPc	51 47.16	-0.8
VBY	53.38	28	iPc	51 48.60	0.4
			ipP	51 51.60	10kmX
			i	51 55.50	
TOV	53.41	282	eP	51 51.70	2.6
LJU	53.45	27	iPc	51 49.00	0.2
			e	53 39.50	
			eS	59 20.00	
LIT	53.58	37	eP	51 48.44	-1.4
UCC	53.63	17	P+	51 50.00	0.0
DCN	53.64	7	iPc	51 49.60	-0.4
	0.7s	102.00nm			5.9mb
DLF	53.69	8	iPc	51 50.00	-0.3
	0.7s	54.00nm			5.7mb
PVY	53.72	33	iPc	51 51.82	0.9
KBA	53.72	25	iPc	51 50.40	-0.6
	1.4s	85.00nm			5.6mb
			i	52 00.50	
FUR	53.74	23	iPc	51 50.30	-0.6
	Z 16s	5.00um			5.7MszX
NAI	53.79	92	iPd	51 55.00	2.9X
	2.0s	352.94nm			6.0mb
	Z 16s	3.37um			5.5MszX
			PS	59 44.00	
			SS	03 48.00	
IVA	53.86	33	iPc	51 52.72	0.8
PLE	53.90	32	iPc	51 52.54	0.3
ZAG	53.95	28	iPc	51 52.80	0.4
FSA	53.95	237	ePd	51 52.30	-0.4
PTJ	54.00	28	iP	51 52.90	0.0
BHG	54.03	25	iPc	51 51.90	-1.1
	1.8s	318.00nm			6.0mb
GRG	54.05	36	iP	51 53.06	-0.3
ENN	54.07	18	iPc	51 53.30	0.1
	1.5s	401.00nm			6.2mb
KLL	54.08	18	iPc	51 53.60	0.3
SDV	54.13	281	eP	51 54.30	-0.2
SKO	54.14	35	iPc	51 54.00	0.1
	1.6s	518.00nm			6.3mb
	Z 17s	5.47um			5.7MszX

			LR	18 25.00	
THE	54.19	37	eP	51 52.84	-1.4
PAIG	54.20	38	eP	51 52.56	-1.8
DMU	54.23	7	eP	51 53.90	-0.4
VAY	54.38	36	iP	51 55.40	-0.3
	1.6s	137.00nm			5.7mb
TNS	54.41	20	iPc	51 55.10	-0.8
			e	52 06.80	
			e	53 50.60	
KNT	54.48	36	iP	51 54.88	-1.5
SOH	54.54	37	eP	51 57.00	0.0
BNS	54.63	18	iPc	51 57.80	0.4
	Z 14s	5.30um			5.8MszX
OUR	54.63	38	eP	51 57.44	-0.1
KMR	54.82	25	iP+	51 58.80	0.0
SRS	54.86	37	eP	51 58.40	-0.9
GRF	54.96	22	iPc	51 56.50	-3.4X
	1.5s	139.00nm			5.8mb
	Z 20s	2.10um			5.2Msz
DBN	55.03	16	eP	52 00.00	-0.3
	Z 20s	2.50um			5.3Msz
			eS	59 48.00	
WET	55.16	23	iPc	52 00.50	-0.8
	1.3s	292.00nm			6.2mb
MMB	55.23	37	iPc	52 01.00	-1.0
GEC2	55.25	24	ePc	52 01.20	-0.9
	0.7s	17.08nm			5.2mb
			e	52 08.40	
			e	52 12.10	
			e	52 18.20	
			e	52 23.20	
			e	52 29.90	
			e	53 48.30	
			e	53 58.30	
			ePP	54 01.70	
			e	54 11.50	
WTS	55.41	18	iPc	52 03.00	0.0
	1.0s	142.00nm			6.0mb
			e	52 13.50	
KHC	55.43	24	Pc	52 02.10	-1.2
	Z 18s	4.20um			5.6Msz
	N 18s	2.60um			
	E 18s	1.50um			
			e	52 10.50	
			e	54 01.50	
VTS	55.54	35	iPc	52 04.00	-0.4
HOF	55.71	22	iPc	52 04.30	-1.0
RZN	55.88	37	iPc	52 06.00	-0.9
MOX	55.89	22	iPc	52 05.90	-0.6
	2.0s	243.00nm			5.9mb
	Z 18s	2.50um			5.3Msz
			eS	00 03.00	
VKA	55.92	26	iPc	52 06.00	-0.8
	3.0s	851.00nm			6.3mb
			i	54 06.70	
PGB	56.08	36	iPc	52 08.00	-0.1
WIT	56.09	17	eP	52 08.00	0.1
PLD	56.12	37	iPc	52 08.00	-0.3
EKA	56.16	9	P	52 07.00	-1.4
	1.6s	131.20nm			5.7mb
AAE	56.19	79	P	52 11.20	1.6
ARE	56.20	250	eP	52 10.00	0.3
ZST	56.22	27	iPc	52 08.10	-0.9
			i	54 14.30	
ALN	56.24	38	eP	52 03.40	-5.7X
PRU	56.49	24	Pc	52 09.60	-1.3
	2.4s	353.00nm			6.0mb
	Z 15s	3.30um			5.6MszX
	N 15s	2.20um			
	E 15s	2.10um			
			PcP	53 07.40	
			PP	54 11.50	
			S	00 04.00	
SRO	56.50	28	iP	52 11.00	0.1
DIM	56.59	37	iPc	52 11.00	-0.7
CLL	56.94	22	iPc	52 12.90	-1.1
	1.9s	205.00nm			5.8mb
			i	52 23.80	
BRG	56.95	23	iPc	52 13.00	-1.1
	1.4s	110.00nm			5.7mb
			i	52 22.60	
			eS	59 44.00	
ANT	56.97	241	eP	52 15.40	0.6
GZR	57.08	32	iPd	52 16.00	0.7
BOG	57.20	275	eP	52 19.00	2.0
			eS	00 01.00	
PSZ	57.32	29	eP	52 13.90	-3.0X

MBH	57.44	54	eP	52 18.00	0.0
DEV	57.47	32	ePc	52 18.00	0.1
KSP	57.86	24	iPc	52 19.60	-1.0
	1.3s	92.00nm			5.6mb
			ePP	54 24.80	
BRNL	57.97	21	ePc	52 21.00	-0.2
RAC	58.10	26	iP+	52 22.20	0.0
	Z 15s	4.00um			5.7MszX
CMP	58.24	34	iPd	52 23.00	-0.3
BUC1	58.24	35	ePd	52 22.00	-1.3
DSI	58.49	52	eP	52 25.10	-0.2
MDZ	58.79	231	i(P)	52 30.70	3.2X
MLR	58.88	34	iPc	52 27.50	-0.4
OJC	58.91	27	iP	52 27.10	-0.8
	1.2s	119.00nm			5.9mb
			i	52 33.10	
			i	52 37.80	
			i	52 51.60	
			e	54 34.50	
BMR	58.94	31	ePd	52 32.00	3.9X
ISR	59.01	35	ePc	52 28.50	-0.2
CVO	59.21	34	ePc	52 29.40	-0.7
RFA	59.26	229	ePd	52 30.20	-0.5
HRI	59.41	51	eP	52 31.90	0.1
BRD	59.52	35	ePc	52 32.10	-0.1
VRI	59.55	34	iPc	52 31.60	-0.8
CFR	59.96	35	eP	52 44.00	8.8X
MUD	59.98	16	iPc	52 34.00	-1.1
	0.6s	57.00nm			5.9mb
CLI	60.26	34	ePc	52 37.00	-0.3
COP	60.31	19	iPc	52 47.50	10.1X
	0.6s	106.67nm			
	Z 18s	2.20um			5.3Msz
PEL	60.31	231	eP	52 38.00	0.1
NNA	60.62	256	eP	52 41.00	0.8
	1.3s	23.08nm			5.1mb
LVV	60.62	29	eP	52 38.00	-1.6
	Z 16s	3.90um			5.6MszX
			eS	00 49.00	
			ePS	01 18.00	
ABHA	61.32	69	PKP	52 44.00	-1.3
KMTA	61.42	69	PKP	52 47.00	1.1
KIS	61.42	34	iPc+	52 43.00	-2.1
	2.0s	800.00nm			6.5mb
	Z 18s	3.60um			5.6Msz
	N 16s	3.30um			
	E 18s	2.20um			
			e	53 18.00	
			ePPP	56 23.00	
			eS	01 06.00	
LMN	61.91	324	eP	52 51.00	2.5
			pP	53 01.50	35kmX
DHJN	61.92	70	PKP	52 50.73	1.4
GAZ	62.04	47	eP	52 47.00	-2.5
KVT	62.85	43	iP	52 41.00	-13.9X
AFIF	62.89	63	PKP	52 54.13	-1.3
NAO	64.18	15	P	53 02.40	-0.9
	0.8s	29.70nm			5.5mb
HFS	64.37	16	eP	53 02.70	-1.8
	0.5s	14.20nm			5.4mb
	Z 17s	2515.00um			8.5MszX
			LR	17 56.00	
CBM	64.43	324	eP	53 04.28	-0.8
	0.9s	18.68nm			5.3mb
	Z 21s	2.36um			5.3Msz
HRV	64.53	318	eP	53 04.55	-1.2
	1.0s	37.48nm			5.5mb
	Z 22s	1.83um			5.2Msz
MNK	64.93	27	iP	53 10.00	1.8
			e	55 31.00	
			eS	01 52.00	
			ePS	02 18.00	
MJMA	65.14	62	PKP	53 10.67	0.5
UPP	65.33	18	iP	53 09.70	-0.9
ANN	65.37	39	iPc+	53 10.00	-1.1
	1.3s	100.00nm			5.8mb
	Z 16s	1.00um			5.1MszX
	N 16s	2.00um			
	E 16s	1.00um			
			e	55 36.00	
			eS	01 45.00	
LVNJ	66.04	315	eP	53 16.37	0.8
RYD	66.07	63	PKP	53 17.00	0.9
SOC	66.38	42	iPc+	53 17.00	-0.7
	1.4s	180.00nm			6.1mb
	Z 18s	0.90um			5.0Msz
	N 16s	0.50um			

```
      E  16s      0.60um
                   eS     01 57.00
RSNY    67.34 319 eP     53 23.28  -0.6
        1.7s    123.99nm          5.8mb
      Z  21s      1.33um          5.1Msz
CEH     67.60 309 eP     53 26.44   0.8
        0.8s     22.70nm          5.4mb
CVL     67.75 311 eP     53 27.75   1.2
HBF     67.81 306 eP     53 26.82  -0.1
NUR     68.17  21 iP     53 25.70  -3.0X
        0.6s     19.70nm          5.5mb
LHS     68.56 307 (P)    53 31.56   0.0
PYA     68.78  42 iPc+   53 32.00  -0.8
      Z  20s      1.50um          5.2Msz
                   i      56 06.00
JSC     68.86 307 eP     53 33.36  -0.1
NAV     69.32 310 (P)    53 38.11   1.8
DHR     69.50  62 PKP    53 37.00  -0.5
PRM     69.70 306 (P)    53 37.84  -0.8
PUL     69.80  23 ePd    53 38.00  -0.7
      Z  19s      2.00um          5.4Msz
      N  17s      1.60um
      E  17s      1.60um
                   e      02 54.00
KAF     69.86  20 iP     53 38.30  -0.7
        1.2s    171.40nm          6.1mb
OBN     69.93  29 iPc    53 37.50  -2.1
        1.2s    224.00nm          6.2mb
      Z  18s      4.10um          5.7Msz
      N  18s      2.40um
      E  18s      2.40um
                   i      54 05.00
                   eS     02 42.00
MOS     70.76  29 iPc    53 42.00  -2.6
        1.0s      1.00nm          3.9mb X
      Z  17s      4.20um          5.8MszX
      N  18s      3.48um
      E  19s      3.90um
                   e      54 04.00
EEO     71.09 320 eP     53 49.50   2.6
                   pP     54 00.00  34kmX
BAK     72.45  47 iPc    53 56.00   0.9
NVL     73.25 170 eP     53 54.00  -5.2X
      Z  16s      0.50um          4.9MszX
      N  16s      0.40um
      E  18s      0.30um
                   e      54 17.00
                   e      55 19.00
SDF     73.57  16 iP     54 01.00  -0.1
APA     75.67  18 iPc    54 13.70   0.4
GRT     75.82 307 (P)    54 13.13  -1.6
ELC     75.85 308 eP     54 13.38  -1.5
DAG     76.56 360 iPd    54 18.20   0.2
        1.0s     33.00nm          5.4mb
FVM     76.91 309 eP     54 19.59  -1.2
        0.7s     33.71nm          5.5mb
KAT     76.96  50 iP+    54 21.00  -0.1
      Z  14s      1.00um          5.3MszX
      N  14s      1.00um
      E  14s      1.00um
                   e      57 17.00
                   e      04 16.00
                   eS     04 43.00
OLY     77.32 306 eP     54 22.27  -0.9
ASH     78.36  51 P      54 29.00   0.2
        1.5s    400.00nm          6.3mb
MIAR    78.90 305 eP     54 29.88  -2.0
        1.2s     18.58nm          5.0mb
      Z  20s      0.93um          5.1Msz
MAIO    79.02  53 eP     54 34.00   1.4
                   eS     04 40.00
UYO     79.57 305 iPd    54 35.00  -0.5
RLO     80.27 307 eP     54 38.30  -0.9
LNO     80.86 306 eP     54 41.30  -0.9
LNO2    80.86 306 eP     54 41.40  -0.9
LNO3    80.86 306 eP     54 41.50  -0.8
TUL     80.86 306 P      54 41.70  -0.7
        1.6s     41.60nm          5.2mb
      Z  22s      0.92um          5.1Msz
                   e      54 53.20
                   S      04 55.00
                   LR     20 09.00
ARU     81.92  33 eP     54 47.00  -0.4
        2.0s    400.00nm          6.2mb
      Z  18s      2.50um          5.6Msz
      N  14s      1.50um
FNO     82.10 305 iPc    54 49.10   0.3
OCO     82.19 306 iPc    54 49.70   0.4
ULM     82.80 321 ePd    54 54.60   2.5
                   pP     55 05.50  35kmX
SVE     83.11  33 iPc    54 54.50   0.9
      Z  17s      2.50um          5.7MszX
      N  17s      0.50um
      E  17s      1.50um
WMOK    83.18 305 eP     54 53.69  -0.8
        1.0s     66.06nm          5.8mb
      Z  21s      2.44um          5.5Msz
FCC     83.21 329 eP     54 57.00   3.0X
                   pP     55 08.50  37kmX
ACO     83.64 307 iPc    54 56.80   0.0
MAW     86.25 158 eP     55 11.00   1.9
        0.6s     17.44nm          5.4mb
RES     86.68 345 ePd    55 13.60   2.4
        1.0s     12.00nm          5.1mb
                   pP     55 26.00  41kmX
RSSD    87.79 314 eP     55 17.45   0.1
        1.1s     28.50nm          5.5mb
      Z  19s      0.61um          5.0Msz
BRVK    88.24  37 iPc    55 19.00   0.0
        1.5s     75.00nm          5.8mb
                   iS     06 59.00
GLD     88.56 310 eP     55 21.76   0.6
        1.7s    164.84nm          6.1mb
      Z  18s      1.23um          5.4Msz
GOL     88.68 310 eP     55 22.41   0.6
        1.1s     10.67nm          5.0mb
ALQ     89.50 305 eP     55 26.10   0.4
        1.3s     21.37nm          5.2mb
      Z  19s      1.80um          5.5Msz
POO     90.74  72 iP     55 30.00  -1.5
FRU     91.08  47 iPc    55 34.00   1.4
        2.0s    220.00nm          6.1mb
PV10    91.54 308 eP     55 35.63   0.5
PV09    91.61 308 eP     55 34.95  -0.6
KSH     92.20  51 P      55 39.20   1.2
        1.5s     70.00nm          5.8mb
      Z  16s      2.86um          5.8MszX
      N  14s      1.72um
SES     92.50 320 ePc    55 38.60  -0.4
        1.3s     74.00nm          5.9mb
                   pP     55 50.00  36kmX
SRU     92.68 309 eP     55 37.93  -2.4
DAU     93.18 310 (P)    55 42.95   0.2
LCCM    93.33 316 eP     55 43.00  -0.1
YKA     93.42 333 eP     55 42.90   0.0
        0.8s     10.00nm          5.3mb
NDI     93.62  61 iP     55 45.00   0.4
PTI     93.87 313 (P)    55 45.65   0.0
MSU     94.00 308 (P)    55 46.60   0.2
HVU     94.25 312 (P)    55 45.58  -1.8
GBA     94.25  76 P      55 48.00   0.4
HYB     95.23  73 eP     55 43.50  -8.7X
ELT     97.80  36 eP     56 03.00  -0.1
        1.6s     21.00nm          5.5mb
                   eS     08 49.00
ISA     99.27 306 P      56 20.00   9.8X
      Z  19s      1.21um          5.4Msz
GKN    100.19  62 Pdiff 56 14.80   0.1
WMQ    100.47  45 ePdiff56 15.40  -0.1
      Z  18s      1.57um          5.6Msz
DMN    100.64  62 Pdiff 56 18.00   1.1
KKN    100.77  62 Pdiff 56 17.60   0.2
PKI    100.91  62 Pdiff 56 19.00   0.8
IRK    108.50  34 ePKP  01 11.20  14.3X
      Z  18s      1.45um          5.6Msz
      N  16s      0.84um
      E  18s      0.83um
                   LR     42 24.00
PMR    108.60 338 PKP   01 10.00  13.3X
      Z  19s      0.49um          5.1Msz
GTA    110.34  48 ePKP  01 00.00  -1.0
      Z  22s      1.47um          5.5Msz
      E  16s      0.49um
BOD    110.48  25 ePdiff57 07.50   7.9X
LZH    114.43  50 ePKP  01 09.00   0.0
      Z  28s      1.19um          5.3MszX
CD2    115.98  55 ePKP  01 07.60  -4.3X
BTO    117.17  43 ePKP  01 12.00  -1.9
      N  18s      1.09um
      E  20s      2.22um
HHC    118.10  42 PKP   01 16.70   1.0
      Z  18s      1.33um          5.6Msz
XAN    119.05  50 PKP   01 17.90   0.3
GYA    119.70  59 PKP   01 19.00  -0.2
TIY    120.13  45 ePKP  01 19.40  -0.2
      Z  20s      2.24um          5.8Msz
      E  17s      1.40um
                   SKS    08 26.00
BJI    121.57  41 ePKP  01 22.50   0.4
      Z  20s      1.56um          5.7Msz
TIA    124.15  45 ePKP  01 25.70  -1.6
WHN    124.64  52 ePKP  01 28.00  -0.4
      Z  20s      1.24um          5.6Msz
CN2    124.90  33 ePKP  01 28.30  -0.2
      Z  18s      1.01um          5.5Msz
                   ePP    03 16.00
SNY    125.14  36 PKPd  01 29.30   0.3
      Z  22s      2.50um          5.8Msz
                   ePP    03 22.00
MDJ    126.47  29 ePKP  01 30.60  -0.9
NJ2    127.43  48 ePKP  01 27.60  -6.1X
      Z  20s      0.59um          5.3Msz
SSE    129.63  48 ePKP  01 37.00  -0.9
      Z  18s      1.30um          5.7Msz
HON    136.39 302 PKP   02 00.00   9.0X
      Z  22s      0.51um          5.2Msz
MAT    136.85  30 (PKP) 01 45.00  -6.5X
STK    142.48 149 ePKP  01 56.20  -5.7X
        0.5s      2.10nm
CAN    142.63 161 ePKP  02 07.30   5.2X
BWA    143.25 160 ePKP  02 01.20  -2.0
CMS    144.82 154 ePKP  02 04.30  -1.5
        1.2s     36.00nm
WRA    145.70 127 PKP   02 07.30  -0.4
        0.9s      6.60nm
WB2    145.71 127 iPKPc 02 07.20  -0.5
        0.7s     35.30nm
ARMA   147.99 161 ePKP  02 14.00   2.8X
        0.8s     16.00nm
RMO    150.41 153 ePKP  02 15.50   0.6
        1.3s    214.00nm
      S.D. = 0.9  on 361 of 394 obs.
-----------------------------------
?  JAN  07, 1993  07h 44m 25.41± 1.03s
    8.147 S ±23.5km  122.766 E ±22.8km
    DEPTH =  33.0km  (normal)
    4.7mb (  7 obs.)
 FLORES REGION, INDONESIA          (286)

MKS      4.38 311 iPc    45 30.50  -0.9
MTN      9.46 120 iPc    46 40.00  -2.4
                   eS     48 25.00
WB2     16.23 137 iPd    48 07.80  -4.9X
                   eS     50 58.50
WARB    18.31 169 eP     48 38.00  -0.7
ASPA    18.76 147 eP     48 41.90  -2.4
        0.5s     35.20nm          4.8mb
                   eS     52 04.50
OIS     20.43 129 eP     49 03.80   1.1
        0.4s      2.00nm          3.8mb
STK     29.40 146 eP     50 27.80  -0.2
        0.6s      9.70nm          4.7mb
RMO     30.68 130 eP     50 39.80   0.3
        0.7s     20.00nm          5.0mb
CMS     31.64 140 iPd    50 48.00   0.2
        0.6s      6.00nm          4.6mb
ARMA    34.92 133 eP     51 18.00   1.5
        0.6s      4.00nm          4.5mb
BWA     35.22 142 iPc    51 21.00   2.1X
TOO     35.80 148 eP     51 25.20   1.5
        0.8s     22.00nm          5.1mb
CAN     36.17 142 eP     51 27.70   0.8
CNB     36.39 142 eP     51 30.00   1.2
      S.D. = 1.5  on  12 of  14 obs.
-----------------------------------
*  JAN  07, 1993  07h 56m 34.22± 0.94s
    14.941 N ±16.0km   92.680 W ±12.5km
    DEPTH =  62.7 ±  8.5 km
    4.2mb (  1 obs.)
 NEAR COAST OF CHIAPAS, MEXICO    ( 69)

TPX      0.41  95 iPd    56 45.60   0.0
                   iS     56 57.00
SCX      1.78   1 iP     57 08.30   5.0X
                   iS     57 37.00
EVV      4.33 324 (P)    57 39.50   0.4
OXX      4.43 299 iP     57 39.70  -1.1
PPM      7.01 307 iP     58 18.00   0.9
UYO     19.21 356 iPd    00 55.70  -0.3
MEO     20.46 346 iPc    01 09.10  -0.1
LCCM    34.78 336 eP     03 21.60   0.7
```

07d 08h

```
SIV     43.81 133 P      04 36.10   0.2
YKA     49.96 347 eP     05 23.00  -0.6
        0.7s       1.60nm          4.2mb
GBA    150.00  19 PKP    16 19.00   4.2X
      S.D. = 0.8  on   9 of  11 obs.
-----------------------------------------
&  JAN  07, 1993  08h 14m 19.30s
   40.890 N          124.832 W
   DEPTH =  14.0km
 NEAR COAST OF NORTHERN CALIF.     ( 35)
      <BRK>. ML 4.0 (BRK), 3.4 (GS).

ARC      0.57  91 iPd    14 30.26  -0.3
                  iS     14 37.86
FHC      0.65  98 iPc    14 31.72  -0.2
                  eS     14 40.33
KMPM     0.72 131 iPc    14 32.85  -0.3
FOX      0.74 120 iPc    14 33.34   0.0
LGPM     1.52  88 iPc    14 44.04  -2.1
WDC      1.77  99 ePc    14 47.63  -2.0
LBFM     2.27  77 ePc    14 55.72  -1.4
LMEM     2.50  97 eP     14 58.40  -2.0
MIN      2.52 101 iPc    14 58.13  -2.4
                  eS     15 28.31
DBO      2.52  27 P      14 59.18  -1.4
ORV      2.88 117 iPd    15 03.14  -2.4
                  eS     15 36.91
HSO      2.93  26 P      15 04.39  -2.0
RNO      3.13  15 P      15 07.57  -1.5
BKS      3.62 145 eP     15 13.53  -2.6
                  eS     15 54.03
PCC      3.88 150 eP     15 16.79  -3.0
TCO      4.01  36 P      15 21.28  -0.4
MHC      4.33 144 ePc    15 25.70  -0.5
                  eS     16 12.80
SSOR     4.33  23 P      15 26.55   0.3
ARN      4.37 143 eP     15 24.37  -2.4
COE      4.38 145 eP     15 23.62  -3.3
BPO      4.41  31 P      15 26.80  -0.7
CMB      4.47 128 ePd    15 26.51  -1.7
VBEM     4.80  29 P      15 31.88  -1.1
KVN      5.49 107 eP     15 40.08  -2.7
VGB      5.49  31 (P)    15 41.86  -0.8
MEMM     5.59 123 eP     15 43.18  -0.8
BONR     5.84 118 eP     15 46.42  -1.4
TNP      6.52 113 eP     15 55.07  -2.3
DUG      9.18  90 eP     16 33.00  -1.3
MSU     10.04 100 eP     16 45.34  -1.0
SRU     11.12  95 (P)    17 00.62  -0.4
ALQ     15.66 106 P      18 04.00   2.8
        1.0s       1.25nm          3.1mb
YKA     22.49  12 eP     19 18.00  -1.3
        0.8s       1.00nm          3.3mb
        33 obs. associated
-----------------------------------------
*  JAN  07, 1993  08h 14m 41.83± 0.73s
   34.182 N ±10.4km    45.463 E ±10.5km
   DEPTH =  33.0km  (normal)
 IRAN-IRAQ BORDER REGION          (346)

QASM     8.24 192 eP     16 42.67   0.7
MJMA     8.30 181 eP     16 41.67  -1.2
RYD      9.48 174 eP     17 04.50   5.3X
AFIF    10.24 192 eP     17 12.67   3.0X
GKN     33.96  90 P      21 24.80   0.3
        0.6s      21.00nm          5.2mb
DMN     34.48  90 P      21 29.60   0.4
        0.6s      19.00nm          5.2mb
KKN     34.56  90 P      21 30.00   0.2
        0.6s      14.00nm          5.1mb
PKI     34.75  90 P      21 31.20  -0.3
        0.5s      12.00nm          5.1mb
GUN     35.02  89 P      21 34.20   0.3
        0.8s      30.00nm          5.3mb
GBA     35.46 117 P      21 38.00   0.7
BCAO    38.75 226 iPc    22 11.00   6.1X
        0.7s       6.00nm          4.5mb
CHG     49.72  94 eP     23 32.00  -1.0
KIC     53.92 251 P      24 05.20   0.7
YKA     82.33 351 eP     27 00.40  -0.8
        0.5s       0.50nm          3.8mb X
      S.D. = 0.8  on  11 of  14 obs.
-----------------------------------------
%  JAN  07, 1993  08h 21m 49.68± 3.54s
   40.321 N ± 7.3km    24.038 E ±32.4km
   DEPTH =  10.0km  (geophysicist)
 AEGEAN SEA                       (365)

OUR      0.05 287 iPg    21 52.00   0.2
                  eSg    21 52.68
PAIG     0.48 215 ePg    21 59.40   0.0
                  eSg    22 07.24
SOH      0.72 314 ePg    22 03.20  -0.7
                  eSg    22 12.20
SRS      0.86 337 ePg    22 06.24  -0.1
                  eSg    22 18.44
KNT      1.21 314 ePg    22 12.80   0.6
                  eSg    22 27.76
GRG      1.40 298 iPb    22 15.32   0.1
                  eSb    22 34.08
      S.D. = 0.6  on   6 of   6 obs.
-----------------------------------------
   JAN  07, 1993  10h 12m 02.20± 0.47s
   40.366 N ± 8.0km    42.215 E ± 5.2km
   DEPTH =  10.0km  (geophysicist)
   4.4mb (  4 obs.)
 TURKEY                           (366)
      Felt at Erzurum and Kars.

MTA      2.37  55 iPnd   12 41.20  -0.4
                  iS     13 17.20
SOC      3.72 331 ePn    13 00.00  -0.8
PYA      3.72   9 ePn    13 03.00   2.1
                  i      13 14.00
TAB      3.93 124 eP     13 16.00  11.9X
GRO      3.95  40 iPn    13 17.00  12.9X
KVT      4.74 281 eP     13 18.00   2.5X
SHE      4.90  85 iPnc   13 31.00  13.4X
GAZ      5.05 232 eP     13 19.00  -0.7
ANN      5.79 323 eP     13 30.00  -0.1
                  eS     14 38.00
BAK      5.87  87 eP     13 18.00 -13.3X
SIM      7.52 310 eP     14 02.00   7.5X
                  eS     15 20.00
OBN     15.21 348 eP     15 32.50  -5.9X
        0.5s      8.00nm          4.4mb
SVE     20.36  30 ePc    16 39.50  -1.8
      Z  15s      0.50um          4.0MszX
      N  16s      0.50um
      E  16s      0.40um
                  e      17 00.00
KSP     20.84 309 eP     16 44.70  -1.6
KBA     21.84 297 iPc    16 55.80  -0.9
        1.0s     20.70nm          4.5mb
GEC2    21.90 302 ePc    16 56.60  -0.6
        0.7s      1.97nm          3.6mb
                  e      16 58.60
                  e      17 01.60
                  e      17 06.10
                  e      17 21.30
CLL     22.95 308 eP     17 08.00   0.5
WTTA    23.02 298 iPc    17 09.10   0.7
        1.1s     22.70nm          4.6mb
SQTA    23.30 297 iPd    17 11.50   0.4
OSS     23.99 296 P      17 18.59   0.8
VDL     24.44 295 P      17 22.94   0.8
LLS     24.78 296 P      17 24.80  -0.7
TMA     24.84 294 P      17 26.19   0.2
SLE     25.18 298 P      17 29.09   0.0
ZLA     25.23 298 P      17 29.27  -0.4
DIX     25.86 294 P      17 37.40   1.7
GKN     36.87  96 P      19 16.20   3.5X
DMN     37.42  96 P      19 18.00   0.5
KKN     37.46  96 P      19 18.20   0.4
PKI     37.67  96 P      19 18.20  -1.5
GUN     37.86  95 P      19 21.60   0.3
GBA     40.74 121 P      19 46.00   1.1
      S.D. = 1.0  on  24 of  32 obs.
-----------------------------------------
%  JAN  07, 1993  10h 55m 14.29± 2.98s
   37.138 N ±11.6km     1.971 W ±24.1km
   DEPTH =  10.0km  (geophysicist)
 SPAIN                            (377)
      mbLg 2.9 (MDD).

ENIJ     0.25 229 ePg    55 19.40  -0.2
                  eSg    55 24.00
EHUE     0.84 324 ePg    55 30.30  -0.2
                  eSg    55 43.00
ECOG     1.28 277 ePn    55 38.00  -0.1
                  eSn    55 56.00
EGUA     1.31 257 ePn    55 39.00   0.4
                  eSn    55 57.00
EVIA     1.56 344 ePn    55 42.30   0.2
                  eSn    56 01.00

      S.D. = 0.4  on   5 of   5 obs.
-----------------------------------------
   JAN  07, 1993  11h 30m 19.53± 0.65s
   42.970 N ± 5.9km    18.762 E ± 4.3km
   DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION       (383)
      ML 2.4 (TTG).

BRY      0.17 247 iPgd   30 23.52   0.0
                  iSg    30 26.09
NKY      0.23 132 iPgd   30 25.25   0.6
                  iSg    30 29.63
HCY      0.56 201 iPgc   30 30.37  -0.5
                  iSg    30 38.86
PLE      0.59  52 ePg    30 30.83  -0.6
                  iSg    30 40.50
TTG      0.65 146 iPgc   30 32.19  -0.3
                  iSg    30 42.52
BDV      0.69 176 iPgc   30 32.66  -0.5
                  iSg    30 43.46
IVA      0.84  96 iPgd   30 35.72  -0.1
                  iSg    30 49.26
PVY      0.97 112 iPgd   30 38.59   0.6
                  iSg    30 53.26
SDA      1.07 149 ePn    30 43.60   4.0X
ULC      1.07 160 iPgc   30 39.90   0.2
                  iSg    30 56.32
HVAR     1.71 278 iPn    30 50.10   0.6
                  iSg    31 15.30
TIR      1.82 153 ePn    30 54.00   2.9X
SKO      2.22 116 ePn    31 02.50   5.6X
OHR      2.40 140 ePn    31 05.70   6.2X
VBY      3.57 316 e(Pn)  31 18.60   2.5X
                  e      31 29.20
      S.D. = 0.6  on  10 of  15 obs.
-----------------------------------------
   JAN  07, 1993  12h 02m 10.44± 0.42s
   32.031 S ± 9.4km   178.073 W ± 8.4km
   DEPTH =  10.0km  (geophysicist)
   5.2mb ( 14 obs.)  4.9Msz (  1 obs.)
 SOUTH OF KERMADEC ISLANDS        (179)
      Mw 5.6 (HRV).
      CENTROID, MOMENT TENSOR     (HRV)
      Data Used: GDSN
      L.P.B.: 15S, 21C
      Centroid Location:
      Origin Time        12:02:12.6 0.7
      Lat 31.93S  FIX;Lon 178.05W  FIX
      Dep  15.0 FIX Half-duration  1.6
      Moment Tensor;    Scale 10**17 Nm
        Mrr= 0.35 0.10  Mtt=-0.06 0.11
        Mff=-0.29 0.11  Mrt= 1.86 0.20
        Mrf= 2.31 0.23  Mtf= 0.16 0.15
       Principal Axes:
        T  Val=  3.13  Plg=47  Azm=311
        N       -0.31       3       218
        P       -2.82      43       125
      Best Double Couple:Mo=3.0*10**17
       NP1:Strike=162 Dip= 3 Slip=  34
       NP2:        38      88        93

RAO      2.77   3 P      02 55.00  -0.7
HBZ      6.30 207 eP     03 41.70  -4.0X
PUZ      6.74 206 eP     03 45.30  -6.5X
                  eS     05 03.40
KUZ      6.96 226 eP     03 53.70  -1.2
NOZ      7.30 205 eP     03 53.10  -6.5X
URZ      7.36 211 eP     03 53.90  -6.6X
                  eS     05 18.90
WCZ      7.41 236 eP     04 01.90   0.7
WLZ      7.80 220 eP     04 04.80  -1.9
PGZ      9.70 206 eP     04 24.40  -8.7X
KHZ     12.33 210 eP     05 02.00  -6.8X
                  eS     07 10.10
MQZ     13.75 209 eP     05 20.40  -7.3X
                  eS     07 42.20
LMZ     15.34 217 eP     05 43.50  -5.0X
BWZ     15.64 214 eP     05 46.60  -5.7X
ODZ     15.69 211 eP     05 47.80  -5.2X
DZM     16.97 302 iPc    06 14.60   5.0X
BKM     18.91 316 iPc    06 38.30   4.7X
ARMA    25.92 266 eP     07 47.30   2.7X
        1.0s     26.00nm          4.9mb
                  e      11 42.80
CNB     27.23 254 eP     07 58.80   2.3X
        0.9s     11.00nm          4.6mb
CAN     27.53 254 eP     08 00.40   1.2
```

epP 08 10.70 38kmX
BWA 28.06 256 eP 08 02.70 -1.4
TAU 29.35 238 eP 08 17.00 1.6
RMO 29.39 272 eP 08 17.80 1.7
0.8s 46.00nm 5.3mb
e 11 22.70
TOO 30.30 249 eP 08 25.20 1.1
0.8s 22.00nm 5.1mb
e 11 23.20
HNR 30.34 313 eP 08 25.00 0.5
e(S) 12 57.00
CMS 30.61 261 eP 08 27.30 0.4
0.6s 18.00nm 5.1mb
BFD 32.65 250 eP 08 44.30 -0.4
1.0s 33.00nm 5.2mb
CTA 34.03 282 P 08 59.59 2.7
ASPA 42.99 269 eP 10 10.50 -1.2
0.7s 39.70nm 5.3mb
MDG 43.03 301 eP 10 13.00 1.0
WB2 44.11 274 iPc 10 19.50 -1.3
0.6s 52.60nm 5.6mb
WRA 44.12 274 P 10 19.80 -1.1
0.7s 3.80nm 4.3mb
FORT 45.59 257 eP 10 30.00 -2.5
CSY 53.68 208 eP 11 35.10 1.0
0.7s 55.80nm 5.7mb
MAW 70.76 201 e(P) 13 30.00 1.6
0.6s 17.44nm 5.4mb
BAG 75.95 300 eP 14 00.00 0.2
MAT 79.54 326 eP 14 19.00 0.0
PEL 85.74 127 eP 14 51.00 -0.3
GLA 88.02 49 eP 15 03.31 1.2
GSC 88.26 46 eP 15 03.80 0.5
ORV 88.46 40 eP 15 03.67 -0.3
BONR 89.15 43 eP 15 06.74 -1.0
TNP 89.87 44 eP 15 11.01 0.0
0.8s 10.79nm 5.1mb
MDJ 89.93 326 eP 15 10.60 -0.2
TUC 90.18 51 eP 15 13.53 1.1
0.8s 6.51nm 4.9mb
CN2 91.40 323 eP 15 15.40 -2.2
1.0s 12.00nm 5.2mb
epP 15 25.50 31kmX
MSU 93.17 46 eP 15 24.77 -1.4
SRU 94.55 46 eP 15 32.18 -0.3
HVU 94.87 43 eP 15 34.67 0.8
PV10 95.02 47 eP 15 35.50 0.7
PV09 95.03 47 eP 15 33.98 -0.9
ZOBO 97.53 114 eP 15 37.00 -10.2X
Z 22s 0.42um 4.9Msz
SKS 26 32.00
LR 48 04.00
RES 118.82 18 ePKP 21 04.00 4.5X
KAF 146.06 340 ePKP 21 48.90 -1.6
0.6s 21.00nm
OBN 146.45 324 ePKPd 21 51.50 0.1
1.0s 84.00nm
i 21 59.00
i 22 15.00
i 25 43.00
NUR 147.81 339 ePKP 21 55.00 1.6
0.5s 19.50nm
BCAO 148.44 213 iPKPd 21 58.50 2.6X
0.3s 13.00nm
id 23 02.20
ic 23 22.00
id 24 05.40
UPP 150.26 344 iPKP 22 03.70 6.5X
NAO 150.61 351 PKP 22 02.10 4.4X
0.8s 14.20nm
SVST 150.74 295 iPKP 22 05.30 6.5X
HFS 150.82 348 ePKP 22 01.60 3.6X
0.6s 4.40nm
TRHT 151.28 296 iPKP 22 04.70 5.2X
ARVI 151.63 276 ePKP 22 11.30 11.1X
PRNI 151.72 275 ePKP 22 11.50 11.1X
RMN 152.06 276 ePKP 22 12.90 11.9X
LIC 153.52 164 (PKP) 22 10.00 6.7X
KIC 153.71 165 (PKP) 22 10.20 6.6X
ZST 160.18 329 e(PKP)22 25.90 15.3X
e 22 50.70
S.D. = 1.3 on 39 of 67 obs.

JAN 07, 1993 12h 06m 44.29± 0.25s
32.036 S ± 6.9km 178.074 W ± 5.6km
DEPTH = 10.0km (geophysicist)
5.5mb (27 obs.) 5.3Msz (30 obs.)

SOUTH OF KERMADEC ISLANDS (179)
Mw 5.6 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 20S, 30C
Centroid Location:
Origin Time 12:06:53.6 0.5
Lat 32.32S 0.07 Lon 178.14W 0.07
Dep 15.0 FIX Half-duration 1.5
Moment Tensor; Scale 10**17 Nm
Mrr= 1.45 0.08 Mtt=-0.14 0.11
Mff=-1.31 0.14 Mrt= 0.94 0.23
Mrf= 2.47 0.27 Mtf=-0.92 0.08
Principal Axes:
T Val= 2.94 Plg=60 Azm=284
N 0.33 5 23
P -3.28 29 116
Best Double Couple:Mo=3.1*10**17
NP1:Strike=220 Dip=16 Slip= 108
NP2: 21 74 85

RAO 2.78 3 eP 07 25.40 -4.2X
iS 08 15.60
PUZ 6.73 206 eP 08 25.80 0.2
KUZ 6.96 226 eP 08 35.60 6.9X
NOZ 7.29 205 eP 08 34.70 1.3
URZ 7.36 211 eP 08 38.20 3.9X
eS 09 52.20
WCZ 7.40 236 eP 08 40.40 5.4X
KHZ 12.32 210 eP 09 37.80 -4.8X
eS 11 44.20
DZM 16.97 302 iPc 10 47.90 4.5X
BKM 18.91 316 iPc 11 11.50 4.0X
BRS 25.70 273 iPc 12 16.00 -0.3
1.0s 19.00nm 4.7mb
RIV 25.84 258 eP 12 15.30 -2.2
Z 18s 4.74um 5.1Msz
ARMA 25.92 266 eP 12 15.50 -2.9X
1.2s 110.00nm 5.4mb
CNB 27.23 254 iPc 12 32.10 1.7
1.0s 52.00nm 5.2mb
i 15 50.00
e 15 59.80
e 19 31.20
CAN 27.53 254 eP 12 34.10 1.1
iScP 15 50.10
ePP 16 00.10
BWA 28.06 256 eP 12 36.40 -1.5
eScP 15 49.40
ePP 16 00.80
TAU 29.34 238 eP 12 48.00 -1.3
RMO 29.39 272 iPd 12 52.00 2.1
1.5s 330.00nm 5.9mb
e 15 57.00
TOO 30.29 249 eP 12 58.00 0.1
0.8s 34.00nm 5.2mb
e 15 56.30
CMS 30.61 261 eP 13 01.50 0.8
0.7s 24.00nm 5.2mb
BFD 32.65 250 eP 13 18.70 0.2
1.0s 49.00nm 5.4mb
CTA 34.03 282 iPc 13 31.00 0.3
1.0s 70.00nm 5.5mb
iS 17 03.00
STK 34.08 259 eP 13 31.10 0.1
0.7s 8.70nm 4.8mb
ADE 35.95 253 eP 13 46.80 -0.2
PMG 39.27 297 eP 14 16.00 1.0
RAB 39.32 309 eP 14 17.00 1.6
ASPA 42.99 269 P 14 46.00 0.5
MDG 43.03 301 eP 14 47.00 1.1
WB2 44.11 274 iPd 14 54.10 -0.5
0.4s 69.00nm 5.8mb
i 15 04.40
eS 21 36.70
WRA 44.12 274 P 14 57.00 2.3X
1.0s 4.10nm 4.2mb X
SBA 46.41 184 iPd 15 15.70 3.5X
CSY 53.68 208 eP 16 09.10 1.2
0.6s 27.70nm 5.4mb
HON 56.43 23 P 16 40.00 11.6X
Z 19s 1.19um 5.0Msz
SPA 58.14 180 ePd 16 49.80 9.5X
1.0s 340.00nm 6.3mb
i 33 25.90
MAW 70.76 201 e(P) 18 01.00 -1.2
1.0s 41.67nm 5.5mb

NVL 77.25 183 eP 18 38.00 -1.7
1.8s 99.00nm 5.6mb
Z 17s 1.40um 5.3MszX
N 17s 0.90um
e 18 46.00
e 19 33.00
e 20 17.00
MAT 79.55 326 eP 18 49.00 -3.8X
1.4s 48.84nm 5.3mb
eS 29 33.00
SMY 84.68 355 P 19 30.00 11.0X
Z 18s 2.55um 5.6Msz
SSE 85.13 311 Pc 19 20.00 -1.8
Z 20s 0.90um 5.2Msz
epP 19 29.50 30kmX
GZH 85.42 301 P 19 26.00 2.6X
PEL 85.74 127 iPc 19 25.00 -0.1
i 19 38.00
YSS 86.25 334 eP 19 26.00 -1.0
0.9s 20.00nm 5.3mb
e 19 36.00
eS 29 57.00
SSK 86.99 46 eP 19 31.79 0.6
MDZ 87.14 127 i(P) 19 30.90 -1.1
NJ2 87.26 311 eP 19 32.60 0.4
Z 20s 0.59um 5.0Msz
ISA 87.50 45 eP 19 33.87 0.4
1.4s 98.83nm 5.9mb
Z 18s 1.45um 5.4Msz
CMB 88.02 42 P 19 50.00 14.2X
Z 19s 1.44um 5.4Msz
GSC 88.27 46 eP 19 37.06 -0.1
ORV 88.46 40 eP 19 38.09 0.2
MMPM 88.50 43 eP 19 39.32 0.8
MTUM 88.60 43 eP 19 39.14 0.3
WDC 88.62 39 P 19 50.00 11.4X
Z 18s 1.81um 5.5Msz
MRCM 88.85 43 eP 19 40.89 0.8
BONR 89.16 43 eP 19 41.34 -0.3
LBFM 89.51 39 eP 19 44.20 1.1
TNP 89.88 44 eP 19 46.79 1.9
1.3s 54.08nm 5.6mb
MDJ 89.93 326 eP 19 44.80 0.1
1.2s 39.00nm 5.5mb
KVN 90.02 42 eP 19 45.65 0.2
TUC 90.18 51 eP 19 47.31 1.1
1.5s 75.13nm 5.7mb
Z 19s 1.36um 5.4Msz
SNY 91.01 320 Pd 19 48.00 -1.7
1.2s 23.00nm 5.4mb
Z 22s 1.00um 5.2Msz
pP 19 58.50 33kmX
TIA 91.03 313 eP 19 50.40 0.4
CN2 91.40 323 Pc 19 50.40 -1.1
1.0s 41.00nm 5.7mb
Z 20s 0.61um 5.0Msz
GYA 92.31 300 P 19 56.80 0.6
1.0s 19.00nm 5.4mb
Z 20s 0.63um 5.1Msz
VGB 93.02 36 eP 19 58.85 -0.1
BJI 94.04 315 eP 20 03.50 -0.2
Z 20s 0.60um 5.1Msz
KMI 94.50 297 Pd 20 06.50 0.0
2.0s 50.00nm 5.6mb
Z 46s 1.60um 5.1MszX
ALQ 94.64 51 P 20 20.00 13.1X
Z 19s 1.38um 5.4Msz
HVU 94.87 43 eP 20 07.61 -0.1
TIY 94.91 312 Pd 20 08.00 0.1
Z 20s 1.00um 5.3Msz
N 21s 1.80um
PV10 95.02 47 eP 20 09.00 0.4
XAN 95.05 307 P 20 11.00 2.4X
Z 24s 0.64um 5.0MszX
BGL 95.29 12 (P) 20 08.52 -0.6
MGD 95.31 345 eP 20 07.00 -2.1
CP2 95.32 12 eP 20 08.03 -1.4
PTI 95.79 42 (P) 20 13.07 1.1
HHAI 96.05 42 eP 20 13.82 0.7
PMR 96.21 13 P 20 20.00 6.8X
Z 18s 0.64um 5.1Msz
HHC 97.32 314 eP 20 21.60 2.8X
Z 18s 0.97um 5.3Msz
E 10s 0.66um
LCCM 97.92 40 eP 20 21.40 -0.1
GOL 98.11 48 P 20 30.00 7.4X
Z 18s 0.30um 4.8Msz

07d 12h

```
GLD    98.23  48 P     20 30.00   7.0X
     Z  18s     1.85um          5.6Msz
FBA    99.47  13 eP    20 27.00  -0.8
       1.0s     7.50nm          5.2mb
LZH    99.64 306 eP    20 27.50  -2.0
       1.4s    70.00nm          6.0mb
     Z  18s     0.44um          5.0Msz
WMOK   99.76  55 P     20 40.00  10.1X
     Z  18s     1.45um          5.5Msz
SES   101.16  37 ePdiff20 36.00   0.1
RSSD  101.42  45 ePdiff20 37.70   0.2
       1.5s    13.25nm          5.3mb
     Z  20s     0.89um          5.3Msz
MIAR  103.34  58 Pdiff 21 00.00  14.0X
     Z  18s     0.67um          5.2Msz
KOD   107.57 271 ePKP  25 32.00  18.0X
GUN   108.96 291 PKP   25 00.00 -16.4X
WMO   114.18 308 PKP   25 23.00  -2.6X
CEH   114.57  62 PKP   25 40.00  13.6X
     Z  18s     0.87um          5.4Msz
SLR   117.29 207 ePKP  25 29.20  -2.9X
     Z  18s     5.42um          6.2Msz
ELT   118.18 317 ePKP  25 30.50  -2.2X
       1.5s    17.00nm
                  e    32 25.00
RES   118.82  18 ePKP  25 36.00   2.7X
RSNY  120.75  54 PKP   25 50.00  12.1X
     Z  18s     0.73um          5.4Msz
KSH   120.98 300 ePKP  25 39.00   0.3
HRV   122.27  57 PKP   25 50.00   9.2X
     Z  19s     1.18um          5.6Msz
FRU   122.92 303 iPKP  25 41.80  -0.3
       2.0s    70.00nm
                  e    27 22.00
WIN   123.80 197 ePKP  25 28.60 -16.1X
     Z  18s     5.42um          6.3Msz
QUE   125.07 286 ePKP  25 46.90   0.0
CBM   125.67  52 PKP   26 00.00  12.7X
     Z  18s     0.87um          5.5Msz
BRVK  127.59 315 ePKP  25 48.00  -2.8X
       1.0s    38.00nm
LMN   127.74  54 ePKP  25 52.00   0.7
MAIO  132.77 292 ePKP  26 01.00  -0.3
                  e    29 30.00
SVE   133.12 320 iPKP  26 00.00  -1.2
       3.0s   210.00nm
                  e    40 23.00
                 eSS   46 03.00
ASH   134.00 294 ePKP  26 05.40   1.9
ARU   134.28 320 ePKP  26 04.00   0.6
                  e    26 13.00
SDF   141.76 345 iPKP  26 15.00  -1.9
PYA   145.80 302 iPKPd-26 24.00  -0.6
       1.0s   200.00nm
                  i    26 35.00
KAF   146.06 340 iPKP  26 24.00  -0.4
       0.9s   112.70nm
PUL   146.45 334 ePKP  26 35.00   9.9X
OBN   146.45 324 iPKPc+26 25.00  -0.2
       1.6s   600.00nm
     Z  20s     0.60um          5.4Msz
     N  20s     0.30um
                  e    29 52.00
NUR   147.82 339 ePKP  26 29.30   2.1X
SOC   148.25 302 ePKP  26 31.00   2.5X
       1.4s   120.00nm
ANN   149.72 305 ePKP  26 35.00   4.3X
UPP   150.27 344 iPKP  26 39.90   8.9X
NAO   150.61 351 PKP   26 34.60   3.0X
       0.9s     8.90nm
GAZ   150.62 290 ePKP  26 34.00   1.7
SVST  150.74 295 ePKP  26 37.60   5.0X
HFS   150.83 348 ePKP  26 35.60   3.7X
       0.5s     4.20nm
TRHT  151.28 296 ePKP  26 40.00   6.6X
KVT   151.29 298 iPKP  26 40.00   6.7X
HRI   151.57 282 ePKP  26 40.70   6.7X
DSI   151.63 278 ePKP  26 40.20   6.2X
BNN   151.64 293 ePKP  26 38.50   4.5X
PRNI  151.72 275 ePKP  26 41.00   6.8X
RMN   152.06 276 ePKP  26 41.40   6.6X
CSS   153.70 285 ePKP  26 44.00   7.1X
BBTK  153.94 296 ePKP  26 44.00   6.8X
VRI   156.40 313 ePKP  26 52.00  11.8X
CVO   156.76 313 ePKP  26 53.00  12.3X
MLR   157.06 313 ePKP  26 52.00  10.8X
OJC   157.49 329 ePKP  26 35.00  -6.4X
                  e    26 44.50
                  e    27 12.10
                  e    27 22.00
KSP   158.41 335 ePKP  26 48.00   5.6X
       1.0s    56.00nm
                 id    27 16.90
                 id    27 26.90
BRG   159.18 338 ePKP  26 54.00  10.7X
       1.4s    70.00nm
                  i    27 03.80
                  i    27 20.00
                  i    27 29.50
SRO   159.91 326 e(PKP)26 55.40  11.3X
                  e    27 23.50
ZST   160.18 329 e(PKP)26 42.90  -1.5
                  i    27 25.00
KHC   160.81 336 ePKP  26 47.50   2.4X
       1.1s    18.90nm
     Z  20s     0.80um
     N  20s     0.60um
     E  20s     0.70um
                  e    27 27.40
                  e    27 37.00
GEC2  161.01 336 ePKP  26 50.10   4.7X
       0.7s     0.61nm
                  e    26 52.90
                  e    26 57.00
                  e    27 00.70
                  e    27 05.80
                  e    27 08.80
                ePKPab27 27.70
                  e    27 32.30
                pP'ab  27 36.20
                  e    27 41.70
SKO   161.56 308 ePKP  26 39.00  -7.0X
OHR   162.37 306 ePKP  26 53.50   6.6X
VBY   163.04 326 ePKP  26 45.00  -2.4X
                epP'df26 55.70
                isP'df27 00.20
                ePKPab27 36.70
     S.D. = 1.0  on  75 of 141 obs.
-----------------------------------
?  JAN  07, 1993  12h 29m 22.42± 6.04s
   42.752 N ±53.2km   24.324 E ±12.0km
   DEPTH =  10.0km  (geophysicist)
 BULGARIA                          (359)

SRS     1.72 199 ePb   29 51.70  -0.9
                eSb    30 17.54
KNT     1.91 214 ePb   29 55.86   0.5
                eSb    30 20.70
VAY     1.94 223 ePn   29 55.70   0.0
SOH     2.06 201 ePn   29 57.50  -0.1
                iSn    30 25.74
ALN     2.26 145 iPn   30 00.26  -0.1
GRG     2.30 219 ePn   30 00.86  -0.1
OUR     2.43 186 ePn   30 03.42   0.7
                eSn    30 35.34
     S.D. = 0.6  on   7 of   7 obs.
-----------------------------------
*  JAN  07, 1993  12h 31m 51.69± 1.04s
   32.004 S ±11.9km  177.956 W ±16.3km
   DEPTH =  10.0km  (geophysicist)
   5.1mb (  9 obs.)  5.3Msz (  1 obs.)
 SOUTH OF KERMADEC ISLANDS         (179)

RAO     2.74   1 P     32 36.80   0.3
                eS     33 18.00
HBZ     6.37 208 eP    33 23.10  -4.8X
PUZ     6.80 206 P     33 27.90  -6.1X
                eS     34 42.50
KUZ     7.05 226 eP    33 37.10  -0.3
NOZ     7.37 205 eP    33 35.30  -6.5X
URZ     7.44 212 eP    33 37.10  -5.7X
                eS     34 59.90
WCZ     7.50 236 eP    33 45.00   1.2
KHZ    12.40 211 eP    34 42.20  -8.8X
                eS     36 49.70
BWZ    15.71 214 eP    35 28.70  -5.9X
ODZ    15.76 211 eP    35 28.80  -6.4X
DZM    17.04 302 iPc   35 58.10   6.4X
ARMA   26.02 265 eP    37 30.20   3.4X
       0.8s    15.00nm          4.7mb
CNB    27.33 254 eP    37 41.70   3.0X
       1.0s    22.00nm          4.8mb
CAN    27.63 254 eP    37 43.10   1.7
BWA    28.16 256 eP    37 45.30  -0.9
RMQ    29.49 272 eP    38 00.20   2.0
       0.8s    26.00nm          5.1mb
TOO    30.40 249 eP    38 06.20   0.0
       0.8s    21.00nm          5.0mb
BFD    32.76 250 eP    38 25.80  -1.0
       0.9s    20.00nm          5.0mb
CTA    34.12 282 iPc   38 40.00   1.1
STK    34.19 259 eP    38 40.20   0.9
       0.7s     7.60nm          4.7mb
WB2    44.21 274 eP    40 01.80  -1.0
       0.3s    38.70nm          5.7mb
FORT   45.69 257 eP    40 12.00  -2.6
WARB   48.32 262 eP    40 33.00  -2.4
CSY    53.75 208 eP    41 16.80   0.9
       0.7s    40.70nm          5.5mb
SPA    58.17 180 ePc   41 48.30   0.3
       0.8s   108.33nm          5.9mb
NVL    77.28 183 eP    43 47.00  -0.3
KAF   146.06 340 iPKP  51 32.00   0.2
       0.6s    20.50nm
NUR   147.82 339 ePKP  51 37.70   3.1X
       0.4s     6.20nm
BCAO  148.51 213 iPKPc 51 41.10   3.9X
       0.5s    20.00nm
                  ic   53 10.10
UPP   150.27 344 iPKP  51 45.40   7.0X
NAO   150.60 351 PKP   51 44.50   5.5X
       0.7s     5.20nm
HFS   150.82 348 ePKP  51 43.70   4.4X
       0.5s     2.30nm
LIC   153.51 164 (PKP) 51 50.60   6.0X
     Z  20s     0.43um          5.3Msz
KIC   153.71 165 (PKP) 51 50.70   5.8X
ZST   160.20 329 e(PKP)52 11.50  19.7X
     S.D. = 1.4  on  17 of  35 obs.
-----------------------------------
   JAN  07, 1993  14h 08m 17.50± 0.91s
   14.923 N ± 8.6km   93.686 W ± 7.0km
   DEPTH =  45.5 ±  7.1 km
   4.6mb ( 22 obs.)  4.5Msz (  2 obs.)
 NEAR COAST OF CHIAPAS, MEXICO    ( 69)

TPX     1.38  91 iPd   08 41.50   0.9
                iS     09 04.50
SCX     2.07  29 iP    08 56.60   6.2X
                iS     09 28.00
OXX     3.63 307 iP    09 10.50  -2.3
EVV     3.86 336 iP    09 18.00   2.1
PPM     6.27 312 iP    09 49.20  -1.2
UNM     6.84 311 (P)   10 02.00   3.8X
UYO    19.17 358 iPd   12 39.00  -1.2
MIAR   19.54   0 eP    12 43.24  -1.0
       0.7s    13.37nm          4.3mb
FNO    20.52 351 iPc   12 54.30  -0.3
OCO    20.79 351 iPd   13 02.30   5.0X
PRM    21.65  26 (P)   13 05.30  -0.7
BOG    21.85 116 eP    13 13.00   4.5X
                eS     17 25.00
ALQ    23.01 332 eP    13 20.22   0.6
       0.8s     6.38nm          4.1mb
TUC    23.29 321 (P)   13 23.73   1.5
       1.4s    38.41nm          4.7mb
SDV    23.33 102 eP    13 21.80  -1.1
TOV    23.88 100 eP    13 27.00  -1.1
GOL    26.73 340 (P)   13 55.33   0.4
       0.8s     1.72nm          3.7mb
PV08   27.01 334 eP    13 58.36   0.8
PV10   27.01 333 eP    13 56.73  -0.8
PV09   27.16 333 eP    13 58.69  -0.2
SRU    28.28 332 eP    14 09.60   0.7
EMUT   28.98 332 eP    14 15.20  -0.1
GSC    29.02 319 (P)   14 15.29  -0.3
DAU    29.66 332 eP    14 21.68   0.2
RSSD   30.41 345 (P)   14 29.00   1.1
       1.0s     3.52nm          4.1mb
HVU    31.45 332 (P)   14 37.73   0.7
LCCM   34.41 337 eP    15 03.50   0.8
SES    38.08 342 eP    15 34.00   0.5
ZOBO   39.98 140 P     15 47.20  -3.2X
CCH    42.05 139 eP    16 12.00   5.0X
SIV    44.51 132 Pc    16 29.00   2.3
                i      18 20.70
YKA    49.77 347 eP    17 06.10  -1.2
       0.6s     4.20nm          4.6mb
BAO    54.41 122 e(P)  17 43.00   0.2
BDF    54.49 122 e(P)  17 43.00  -0.5
RES    59.76 360 eP    18 20.00   0.2
```

```
        1.0s     4.00nm          4.5mb
DAG    72.12  14 eP    19 38.30  -0.5
        0.7s     5.48nm          4.6mb
LPF    80.81  43 eP    20 27.90   0.0
GRR    80.85  42 eP    20 28.40   0.3
FLN    81.02  42 eP    20 29.30   0.3
        0.7s     9.50nm          4.9mb
     Z  22s     0.30um          4.6Msz
LDF    81.29  42 eP    20 30.60   0.2
EPF    82.86  47 eP    20 38.40  -0.4
        0.9s     7.20nm          4.7mb
RJF    83.14  45 eP    20 39.60  -0.5
CAF    83.61  45 eP    20 42.50  -0.1
        0.6s     3.05nm          4.5mb
MAF    83.62  44 eP    20 42.70   0.1
        1.0s     8.20nm          4.7mb
BGF    83.72  44 eP    20 43.10   0.0
        0.8s    10.90nm          5.0mb
AVF    84.00  43 eP    20 44.20  -0.2
        0.8s     5.10nm          4.6mb
NAO    84.01  28 P     20 45.60   1.4
        0.7s     5.20nm          4.7mb
SSF    84.03  43 eP    20 44.50  -0.1
        0.9s    10.15nm          4.9mb
LOR    84.21  43 eP    20 45.70   0.2
        0.5s     1.95nm          4.4mb
     Z  21s     0.20um          4.5Msz
LBF    84.36  43 eP    20 46.00  -0.3
SMF    84.36  43 eP    20 46.10  -0.2
        0.7s     3.40nm          4.6mb
HAU    85.61  42 eP    20 52.30  -0.2
        0.7s    10.05nm          5.1mb
     Z  23s     0.17um          4.4MszX
BSF    85.95  42 eP    20 53.70  -0.6
        0.7s     5.30nm          4.9mb
CDF    86.08  41 eP    20 54.60  -0.3
        0.8s     5.10nm          4.8mb
KIC    87.37  84 (P)   21 01.06  -0.6
KHC    89.74  39 eP    21 19.00   6.6X
                e      21 35.00
GEC2   89.93  39 ePc   21 13.80   0.4
        0.7s     0.88nm          4.2mb
                e      21 23.10
                e      21 37.00
ZST    92.26  39 eP    21 31.00   7.0X
WRA   134.03 257 PKP   27 31.90  -0.5
        0.7s     0.20nm
HYB   146.97  14 ePKP  27 55.50  -0.1
GBA   150.33  18 PKP   28 05.00   4.2X
     S.D. = 0.9  on  52 of  61 obs.
-----------------------------------
   JAN  07, 1993  15h 16m 57.12± 0.50s
   38.725 N ± 6.0km   26.577 E ± 4.4km
   DEPTH =  10.0km  (geophysicist)
 AEGEAN SEA                        (365)
     MD 3.5 (ISK).

IZM     0.63 121 iPg    17 09.00  -0.8
                iSg    17 17.50
EZN     1.12 350 iPn    17 17.50  -0.5
DST     1.82  60 iPn    17 28.70  -0.1
EDC     1.90  31 iPn    17 30.00   0.1
YER     2.08 139 ePn    17 33.30   0.7
ALN     2.21 349 ePn    17 34.86   0.6
                eSn    18 07.42
KHL     2.35  99 ePn    17 36.00  -0.4
PAIG    2.55 299 ePn    17 39.98   0.8
OUR     2.57 310 ePn    17 38.90  -0.6
ALT     2.78  82 ePn    17 43.00   0.4
GBZT    3.02  46 ePg    18 38.00  52.1X
DMK     3.22  16 ePn    17 49.00   0.3
SOH     3.25 311 ePn    17 49.70   0.5
SRS     3.31 317 ePn    17 49.62  -0.4
                eSn    18 35.30
KNT     3.73 312 ePn    17 55.94  -0.1
                eSn    18 43.18
GRG     3.91 306 ePn    17 57.86  -0.7
VAY     4.02 311 ePn    17 53.60  -6.5X
     S.D. = 0.6  on  15 of  17 obs.
-----------------------------------
?  JAN  07, 1993  15h 57m 24.80± 5.13s
   42.977 N ±33.9km    2.456 E ±34.8km
   DEPTH =   5.0km  (geophysicist)
 PYRENEES                          (378)
     ML 3.2 (LDG).

EPF     1.55 273 Pn     57 53.20   0.0
                Pg     57 55.30
                Sg     58 15.30
LPO     1.94 332 Pn     57 58.30  -0.4
                Pg     58 03.40
                Sg     58 32.00
CAF     1.97 352 Pn     57 59.50   0.3
                Pg     58 04.60
                Sn     58 24.40
                Sg     58 32.00
LFF     2.32 328 Pn     58 04.50   0.3
                Pg     58 10.80
                Sg     58 42.60
RJF     2.42 344 Pn     58 05.70   0.0
                Pg     58 12.40
                Sg     58 46.00
EBR     2.61 215 eP     58 44.00  35.7X
MAF     3.25   1 Pn     58 17.20  -0.2
                Pg     58 28.70
                Sg     59 12.50
TCF     3.32 357 Pg     58 29.50  11.1X
                Sg     59 14.40
LSF     3.34 349 Pg     58 30.00  11.3X
                Sg     59 15.30
     S.D. = 0.3  on   6 of   9 obs.
-----------------------------------
   JAN  07, 1993  16h 15m 12.75± 0.39s
    7.994 S ± 7.0km   80.398 W ± 8.7km
   DEPTH =  39.9km  ( 15 depth phases)
   4.9mb ( 10 obs.)  4.5Msz (  1 obs.)
 OFF COAST OF NORTHERN PERU        (108)

NNA     5.29 139 iPc    16 26.20  -5.3X
        0.8s    67.16nm          5.1mb
                eS     17 24.30
PSO     9.63  19 eP     17 31.00  -1.3
ARE    12.10 135 eP     18 19.00  13.1X
BOG    14.04  27 eP     18 31.00  -0.5
                eS     22 59.00
ZOBO   14.55 126 P      18 36.00  -2.5
        1.1s    27.55nm          4.6mb
                LR     24 04.00
CCH    16.74 125 P      19 06.30   0.0
ANT    18.32 150 eP     19 11.50 -14.1X
SDV    19.39  30 eP     19 36.90  -1.8
TOV    20.58  31 eP     19 49.00  -2.1
HJA    20.88 138 ePd    19 54.00  -0.1
CYA    24.57 148 iPc    20 29.50  -0.9
MDZ    26.98 158 e(P)   20 52.70  -0.2
PRM    41.89 358 eP     23 00.62  -0.3
UYO    44.00 343 iPd    23 18.50   0.4
MIAR   44.11 344 eP     23 19.00   0.0
        1.0s    16.50nm          4.8mb
ELC    45.79 350 (P)    23 30.97  -1.4
MEO    45.89 339 iPd    23 32.60  -0.7
WMOK   45.92 339 eP     23 33.02  -0.5
        1.2s    21.99nm          5.0mb
                pP     23 45.52  46km
TUL    46.01 343 P      23 34.10  -0.1
        1.0s    51.40nm          5.4mb
                e      23 46.70  46km
LNO    46.01 343 eP     23 33.50  -0.6
                e      23 47.20  51kmX
LNO2   46.01 343 eP     23 33.70  -0.4
                e      23 47.00  50km
LNO3   46.01 343 eP     23 44.10   9.9X
RLO    46.03 344 eP     23 34.40   0.1
                e      23 46.00  41km
FVM    46.69 349 eP     23 38.97  -0.5
        0.8s    25.59nm          5.2mb
ACO    47.81 340 iPc    23 48.40   0.0
ALQ    49.29 332 eP     24 00.25   0.1
        0.9s    11.70nm          4.9mb
                pP     24 11.41  39km
TUC    49.46 326 eP     24 01.52   0.2
        0.8s     9.06nm          4.9mb
                pP     24 12.50  38km
GOL    52.79 336 (P)    24 26.23  -0.4
EEO    54.40   1 eP     24 23.50 -14.5X
MSU    54.91 330 eP     24 41.96  -0.3
                pP     24 53.56  40km
LMN    55.39  13 eP     24 48.00   2.7
                pP     24 59.00  37km
TNP    57.26 326 eP     24 58.86  -0.2
        0.9s    12.35nm          5.0mb
                pP     25 09.97  38km
MTUM   57.52 324 eP     25 00.67  -0.2
                pP     25 11.87  38km
BONR   57.78 325 eP     25 03.02   0.2
                pP     25 14.58  40km
MEMM   57.95 324 eP     25 04.29   0.8
                pP     25 15.22  37km
PTI    58.40 333 (P)    25 06.90   0.0
HHAI   58.74 333 (P)    25 08.89  -0.3
                pP     25 20.42  40km
ULM    59.55 349 ePd    25 15.90   1.4
LCCM   60.55 335 eP     25 21.20  -0.4
ORV    60.70 324 eP     25 22.80   0.2
                pP     25 34.13  39km
SES    63.95 339 eP     25 43.00  -1.1
                pP     25 53.00  32km
FCC    67.44 352 eP     26 08.00   1.7
YKA    75.05 344 eP     26 49.90  -2.0
        0.7s     1.60nm          4.1mb
LIC    76.48  82 P      26 54.00  -6.9X
     Z  20s     0.21um          4.5Msz
KIC    76.78  82 P      26 55.80  -6.8X
EJIF   82.77  52 iP     27 36.00   1.7
RES    83.01 356 eP     27 35.00   0.3
EPRU   83.09  51 eP     27 37.50   1.5
EHOR   83.30  50 eP     27 37.60   0.6
MAL    83.66  52 iPd    27 40.50   1.7
ECOG   84.45  51 eP     27 44.80   1.8
EBAN   84.51  50 eP     27 44.60   1.5
GUD    84.86  48 iP     27 45.40   0.5
EVIA   85.60  50 eP     27 51.00   2.3
KLU    85.66 334 eP     27 48.29  -0.2
WB2   135.95 230 iPKPc  34 30.60  -1.5
        0.7s     8.30nm
                e      34 41.10
WRA   135.96 230 PKP    34 29.00  -3.1X
        0.9s     5.30nm
BJI   144.82 338 ePKP   34 49.00   1.6
        1.0s    22.00nm
SSE   149.43 322 PKPc   34 58.50   3.4X
        1.0s    17.00nm
LZH   151.77 353 ePKP   34 58.50  -0.3
        1.4s    66.00nm
                pP     35 05.00
KMI   162.70 350 ePKP   35 12.00  -0.4
        1.5s    40.00nm
CHG   169.23   3 ePKP   35 17.10  -0.4
     S.D. = 1.1  on  53 of  62 obs.
-----------------------------------
*  JAN  07, 1993  16h 30m 32.09± 1.25s
   39.247 N ± 9.4km   28.660 E ±12.5km
   DEPTH =   5.0km  (geophysicist)
 TURKEY                            (366)
     MD 3.1 (ISK).

DST     0.36 356 iPg    30 39.10  -0.2
                iSg    30 44.10
KHL     1.14 144 ePn    30 54.00   0.0
ALT     1.14  99 ePn    30 53.90  -0.1
EDC     1.26 331 iPn    30 56.00   0.1
GPA     1.64  50 ePn    31 02.00   0.3
     S.D. = 0.3  on   5 of   5 obs.
-----------------------------------
   JAN  07, 1993  16h 31m 10.62± 0.47s
   46.962 N ± 4.9km    9.348 E ± 4.2km
   DEPTH =  10.0km  (geophysicist)
 SWITZERLAND                       (544)
     ML 2.7 (VIE), 2.7 (FUR), 2.6
     (LDG).

LLS     0.26 249 iPc    31 16.10  -0.1
VDL     0.48 170 iPc    31 20.20  -0.3
OSS     0.61 116 iPd    31 21.40  -1.7
ZLA     0.84 309 ePd    31 27.00   0.2
TMA     0.92 201 iPc    31 28.70   0.4
SLE     0.99 325 iPc    31 29.50   0.0
FEL     1.29 316 ePn    31 34.73   0.2
SQTA    1.30  78 iPnc   31 35.30   0.6
                iPg    31 36.40
                iSg    31 54.20
MMK     1.32 227 ePd    31 35.90   0.7
WTTA    1.59  78 iPnc   31 40.90   1.8
                iPg    31 41.30
                iSg    32 02.40
FUR     1.78  47 iPgc   31 42.90   1.3
BSF     1.94 298 Pn     31 43.80  -0.3
                Pg     31 47.70
                Sn     32 05.10
                Sg     32 12.70
CDF     2.02 317 Pn     31 44.20  -0.9
```

07d 16h

```
                    Pg    31 48.80
                    Sn    32 07.80
                    Sg    32 13.90
HAU      2.29 298 Pn    31 48.80  -0.2
                    Pg    31 53.70
                    Sg    32 25.50
LPL      2.32 232 Pg    31 53.80   4.1X
                    Sg    32 25.40
LPG      2.32 232 Pg    31 54.50   4.7X
                    Sg    32 25.80
KBA      2.74  86 iPgd  32 00.90   5.3X
                    i     32 05.00
                    iSg   32 35.00
GEC2     3.48  56 Pn    32 04.20  -1.8
                    Pg    32 15.40
                    Sn    32 44.00
                    Sg    32 56.70
KHC      3.57  51 ePn   32 14.00   6.8X
                    e     32 22.00
                    e     32 46.00
                    eSg   32 59.40
LBF      3.68 272 Pg    32 20.20  11.4X
                    Sg    33 06.80
     S.D. = 1.1  on  15 of  20 obs.
-----------------------------------
   JAN  07, 1993  16h 33m 46.61± 0.92s
   47.536 N ± 5.6km    7.850 E ± 9.8km
   DEPTH =  10.0km  (geophysicist)
 SWITZERLAND                      (544)
     ML 2.3 (LDG).

FEL      0.36  18 ePg   33 53.83  -0.2
BSF      0.77 293 Pn    34 01.80   0.0
                    Sg    34 12.90
CDF      0.96 336 Pg    34 05.30   0.4
                    Sg    34 19.50
HAU      1.12 295 Pg    34 07.30  -0.3
                    Sg    34 22.50
LPL      2.16 201 Pg    34 23.30  -0.1
                    Sg    34 51.50
LPG      2.18 201 Pg    34 23.80   0.2
                    Sg    34 51.60
     S.D. = 0.3  on   6 of   6 obs.
-----------------------------------
*  JAN  07, 1993  16h 46m 16.27± 0.52s
   32.123 S ± 8.3km  177.949 W ± 9.7km
   DEPTH =  10.0km  (geophysicist)
   5.3mb ( 16 obs.)  4.9Msz (  3 obs.)
 SOUTH OF KERMADEC ISLANDS        (179)
      Mw 5.4 (HRV).
      CENTROID, MOMENT TENSOR     (HRV)
      Data Used: GDSN
      L.P.B.: 12S, 21C
      Centroid Location:
      Origin Time        16:46:20.5 0.7
      Lat 31.91S 0.16 Lon 177.59W 0.09
      Dep  15.0 FIX Half-duration  1.3
      Moment Tensor;   Scale 10**16 Nm
        Mrr= 7.02 1.05  Mtt= 2.68 0.99
        Mff=-9.69 0.87  Mrt= 8.48 2.13
        Mrf= 4.89 3.16  Mtf=-2.90 1.22
       Principal Axes:
        T  Val= 13.80  Plg=53  Azm=351
        N        -0.85       28       215
        P       -12.95       21       113
      Best Double Couple:Mo=1.3*10**17
       NP1:Strike=163 Dip=34 Slip=  33
       NP2:         45      72       120

RAO      2.86   1 eP    47 02.50  -0.3
                    eS    47 35.10
HBZ      6.27 208 eP    47 46.40  -4.7X
PUZ      6.70 207 eP    47 50.90  -6.3X
                    eS    49 07.20
KUZ      6.97 227 eP    48 00.00  -0.9
NOZ      7.26 206 eP    48 00.00  -5.0X
URZ      7.34 212 eP    48 00.00  -6.0X
                    eS    49 22.40
WCZ      7.44 237 eP    48 09.00   1.5
WLZ      7.80 221 eP    48 10.80  -1.8
KHZ     12.30 211 eP    49 06.30  -8.0X
LMZ     15.33 217 eP    49 49.00  -5.2X
BWZ     15.62 214 eP    49 52.40  -5.5X
ODZ     15.66 211 eP    49 54.80  -3.7X
SBCZ    16.31 214 eP    49 59.90  -7.0X
CMCZ    16.37 214 eP    50 03.30  -4.3X
DZM     17.11 302 iPd   50 21.70   4.6X
BRS     25.81 273 eP    51 48.00  -1.3
ARMA    26.02 266 eP    51 53.50   2.2
        0.8s    29.00nm          5.0mb
CNB     27.31 254 eP    52 03.70   0.6
        1.0s    35.00nm          5.0mb
                e       55 22.70
CAN     27.61 254 eP    52 06.90   1.2
BWA     28.14 256 eP    52 09.50  -1.1
TAU     29.39 239 eP    52 21.00  -0.7
RMQ     29.50 272 eP    52 23.30   0.4
        1.0s   120.00nm          5.7mb
                e       55 28.00
TOO     30.36 249 eP    52 30.70   0.2
        0.8s    29.00nm          5.2mb
                e       55 29.80
CMS     30.70 261 eP    52 33.80   0.3
        0.6s    35.00nm          5.4mb
BFD     32.72 250 eP    52 51.00  -0.1
        0.9s    25.00nm          5.1mb
CTA     34.15 282 iPd   53 04.00   0.3
        1.0s    30.00nm          5.2mb
STK     34.17 259 eP    53 03.50  -0.3
        0.8s    11.70nm          4.9mb
ADE     36.03 253 e(P)  53 12.00  -7.7X
MDG     43.17 301 ePd   54 20.10   1.1
WB2     44.22 274 iPc   54 26.10  -1.4
        0.3s    48.20nm          5.8mb
WRA     44.23 274 P     54 26.40  -1.2
        0.9s     2.70nm          4.1mb X
FORT    45.67 257 eP    54 36.00  -3.0X
        0.6s    58.00nm          5.7mb
MTN     50.31 280 eP    55 15.00  -0.3
CSY     53.65 208 eP    55 41.30   1.6
        0.8s    53.90nm          5.6mb
SPA     58.05 180 ePd   56 12.10   0.4
        0.7s   144.53nm          6.1mb
      Z  22s     1.06um          4.9Msz
                i       16 21.20
MAW     70.72 201 e(P)  57 30.00  -3.9X
        0.6s    17.44nm          5.4mb
NVL     77.16 183 eP    58 11.00  -0.2
        1.8s    39.00nm          5.2mb
      Z  19s     1.00um          5.2Msz
      N  18s     0.80um
      E  23s     1.20um
                eS      07 58.00
YSS     86.38 334 (P)   59 00.00   0.4
                e       59 10.20
MDJ     90.06 326 eP    59 15.00  -2.3
CN2     91.54 323 eP    59 23.40  -0.7
        1.0s    10.00nm          5.1mb
GYA     92.44 300 P     59 28.80   0.0
        1.0s     9.60nm          5.1mb
TIY     95.05 312 eP    59 43.00   2.5
WMQ    114.32 308 ePKP  04 56.60  -1.2
QUE    125.20 286 ePKP  05 19.30   0.2
BRVK   127.72 315 ePKP  05 22.00  -1.0
        1.0s    14.00nm
MAIO   132.90 292 ePKP  05 33.00  -0.6
SVE    133.25 320 ePKP  05 34.00   0.6
ASH    134.13 294 ePKP  05 36.40   0.7
MOS    145.76 324 ePKP  05 57.00   0.9
KAF    146.18 340 ePKP  05 55.20  -1.4
        1.0s    62.90nm
PUL    146.57 334 ePKP  05 57.00  -0.2
OBN    146.59 324 iPKPc 05 58.00   0.6
        1.2s   110.00nm
NUR    147.94 339 ePKP  06 00.40   1.0
        0.8s    61.00nm
BCAO   148.42 213 iPKPc 06 04.20   2.6X
        0.8s    28.00nm
                ic      06 27.00
                ic      06 50.20
                id      08 18.30
UPP    150.38 344 iPKP  06 14.10  10.9X
NAO    150.71 351 PKP   06 08.80   5.1X
        0.9s    12.60nm
SVST   150.88 295 ePKP  06 11.40   6.6X
HFS    150.93 348 ePKP  06 07.80   3.8X
        0.7s    16.40nm
TRHT   151.41 296 ePKP  06 11.60   6.0X
MNK    151.61 328 ePKP  06 10.00   4.8X
HRI    151.69 281 ePKP  06 19.00  12.8X
DSI    151.74 278 ePKP  06 18.60  12.4X
PRNI   151.83 275 ePKP  06 18.10  11.7X
BHL    151.84 283 PKP   06 11.00   4.6X
KART   152.72 298 ePKP  06 15.10   7.5X
LIC    153.40 164 PKP   06 16.40   7.4X
      Z  20s     0.10um          4.6Msz
KIC    153.60 165 PKP   06 16.80   7.5X
BBTK   154.07 296 ePKP  06 16.50   7.1X
ZST    160.31 329 ePKP  06 25.20   8.7X
KHC    160.93 336 ePKP  06 30.00  12.8X
                e       06 37.50
                e       07 00.00
     S.D. = 1.1  on  39 of  70 obs.
-----------------------------------
   JAN  07, 1993  18h 35m 04.05± 0.20s
   25.085 S ± 4.0km  179.987 W ± 4.2km
   DEPTH = 521.2km  (  2 depth phases)
   5.0mb ( 37 obs.)
 SOUTH OF FIJI ISLANDS            (171)
      Mw 5.5 (HRV).
      CENTROID, MOMENT TENSOR     (HRV)
      Data Used: GDSN
      L.P.B.: 15S, 18C
      Centroid Location:
      Origin Time        18:35: 8.7 0.5
      Lat 24.54S 0.06 Lon 179.95W 0.04
      Dep 507.1 3.4 Half-duration  1.4
      Moment Tensor;   Scale 10**17 Nm
        Mrr=-0.06 0.07  Mtt=-0.06 0.13
        Mff= 0.12 0.10  Mrt=-0.04 0.14
        Mrf=-2.23 0.09  Mtf=-0.03 0.11
       Principal Axes:
        T  Val=  2.26  Plg=44  Azm= 90
        N       -0.06       1       181
        P       -2.20      46       272
      Best Double Couple:Mo=2.2*10**17
       NP1:Strike=149 Dip= 1 Slip=-122
       NP2:          1      89       -89

SVA      7.08 348 iP    36 48.70  -4.0X
                eS    38 15.20
VUN      7.19 348 iPc   36 48.20  -5.6X
KRO      7.75 356 eP    36 56.00  -3.5X
TVI      8.12 360 eP    36 59.20  -4.1X
MBU      8.16 351 eP    37 01.00  -2.7
NDE      8.48 355 eP    37 03.40  -3.6X
WCZ     11.87 203 P     37 45.50   3.5X
KUZ     12.19 197 P     37 47.60   2.3
DZM     12.80 281 iPc   37 53.00   1.3
                iS    40 11.40
                ScP   45 31.10
PUZ     13.03 186 eP    37 53.80  -0.2
                eS    40 09.30
BKM     13.21 302 iPc   37 56.00   0.1
                iS    40 28.30
WLZ     13.29 195 eP    37 57.80   1.2
URZ     13.36 190 eP    37 55.70  -1.6
NOZ     13.60 187 eP    37 59.60  -0.1
BSZ     15.28 195 eP    38 17.40   0.8
PGZ     15.80 191 eP    38 22.70   0.9
MNG     15.95 193 eP    38 22.40  -0.8
KIW     16.30 194 eP    38 25.80  -0.9
CAW     16.50 193 eP    38 29.60   0.9
MRW     16.70 194 eP    38 29.40  -1.2
TCW     16.78 195 eP    38 30.80  -0.5
QRZ     16.90 200 eP    38 34.20   1.7
THZ     17.65 198 eP    38 40.70   0.8
KHZ     18.10 196 eP    38 44.30   0.2
LTZ     18.77 198 eP    38 50.40  -0.3
MQZ     19.53 196 eP    38 57.40  -0.4
LMZ     20.56 203 eP    39 07.40   0.0
BWZ     21.08 200 eP    39 10.90  -1.3
MMCZ    21.74 201 eP    39 17.50  -0.9
SBCZ    21.76 201 eP    39 17.40  -1.2
LSCZ    21.76 201 eP    39 17.40  -1.2
BRS     24.52 259 iPc   39 41.00  -2.7
        1.0s     7.50nm          4.2mb
ARMA    25.64 252 eP    39 54.70   1.0
        1.0s    43.00nm          5.0mb
CNB     28.28 242 iPc   40 18.00   1.3
        0.5s    45.00nm          5.3mb
CAN     28.58 242 eP    40 20.00   0.8
BWA     28.87 244 iPd   40 20.40  -1.4
AFR     29.08  81 iPc   40 23.30  -0.4
        1.2s   247.50nm          5.7mb
PAE     29.22  81 iPc   40 23.90  -1.0
        1.2s   210.60nm          5.6mb
PPT     29.25  81 iPc   40 24.30  -0.9
PPN     29.39  81 iPc   40 25.50  -0.9
TVO     29.47  82 iPc   40 26.10  -1.0
        1.0s   189.60nm          5.6mb
```

```
CMS     30.69 250 iPd * 40 37.70   0.3
        0.3s    14.00nm          5.0mb
CTA     31.51 272 iPd   40 45.00   0.5
        1.0s    85.00nm          5.3mb
PMO     31.70  78 iPc   40 45.20  -0.8
        0.9s    97.00nm          5.4mb
TOO     31.83 239 iPd   40 48.30   1.2
        0.6s    32.00nm          5.1mb
VAH     31.84  78 iPc   40 46.30  -0.9
        0.8s    40.30nm          5.0mb
TPT     31.95  78 iPc   40 47.50  -0.7
        0.9s   152.00nm          5.6mb
RUV     32.08  78 iPc   40 48.50  -0.8
        0.9s   113.00nm          5.4mb
TAU     32.15 228 iPd   40 51.00   1.4
BFD     34.05 240 eP    41 06.70   1.0
        1.0s    38.00nm          4.9mb
STK     34.31 250 iPd   41 08.60   0.7
        0.4s    23.20nm          5.1mb
PMG     34.91 291 eP    41 12.40  -0.6
        1.0s   136.00nm          5.5mb
ADE     36.87 245 iPd   41 29.50   0.4
MDG     38.29 295 iPc   41 39.80  -1.0
ASPA    41.87 262 P     42 09.50  -0.2
WB2     42.34 267 iPd   42 12.40  -1.0
        0.4s   205.90nm          6.0mb X
                eScP    46 58.90
                iS      47 56.50
WRA     42.35 267 P     42 13.89   0.4
FORT    45.92 251 eP    42 40.10  -1.1
MTN     47.57 275 iPc   42 52.10  -1.8
WARB    47.84 257 iPd   42 54.60  -1.4
MEEK    54.79 254 iPd   43 44.80  -1.8
NANU    58.54 258 iPd   44 11.80  -0.6
        0.5s    43.00nm          5.1mb
MAT     72.88 326 iPd   45 39.30  -1.9
        1.0s    25.00nm          4.7mb
SSE     79.28 312 Pd    46 15.20  -1.0
        1.2s    15.00nm          4.3mb
NJ2     81.44 311 Pd    46 27.00  -0.4
        1.0s    23.00nm          4.7mb
MDJ     83.25 326 eP    46 36.50   0.3
        1.0s    18.00nm          4.6mb
WHN     83.73 308 eP    46 39.00   0.1
        1.0s    27.00nm          4.8mb
ISA     83.83  46 ePc   46 40.42   1.0
        0.9s    23.30nm          4.8mb
CMB     84.05  43 eP    46 40.65   0.2
        0.8s    11.02nm          4.5mb
ORV     84.32  41 eP    46 42.16   0.5
GSC     84.72  47 eP    46 44.36   0.5
GLA     84.78  50 eP    46 45.59   1.5
MTUM    84.78  45 (P)   46 45.37   1.1
CN2     84.84 324 Pd    46 43.60  -0.5
        1.0s    25.00nm          4.8mb
MRCM    85.01  44 (P)   46 46.07   0.7
TIA     85.05 314 eP    46 45.50   0.2
        1.4s    81.00nm          5.2mb
BONR    85.31  44 eP    46 47.20   0.3
TNP     86.07  45 eP    46 50.97   0.5
        0.8s    16.62nm          4.8mb
TUC     87.23  52 ePc   46 57.71   1.8
        1.0s    24.14nm          4.9mb
                epP     48 52.86 519km
GYA     87.36 301 P     46 56.60  -0.1
        1.0s    12.00nm          4.6mb
NST     87.69 288 eP    47 06.50   8.3X
BJI     87.89 316 eP    46 59.00   0.3
                eS      57 00.00
SHW     88.12  36 eP    47 00.72   0.9
ARUT    88.36  47 eP    47 02.24   1.1
GMW     88.70  35 (P)   47 02.46   0.1
TIY     89.00 313 eP    47 04.00   0.0
XAN     89.48 308 P     47 06.70   0.4
        1.0s    17.00nm          4.9mb
MSU     89.59  47 eP    47 07.88   1.0
KMI     89.82 298 Pc    47 09.50   1.2
        2.0s    60.00nm          5.2mb
CHG     90.10 291 ePd   47 10.50   1.1
        0.9s    21.64nm          5.1mb
EMUT    91.18  46 eP    47 15.28   1.1
DAU     91.21  45 eP    47 15.58   1.1
HHC     91.26 315 eP    47 15.20   0.8
        1.0s     9.90nm          4.8mb
ALQ     91.67  52 eP    47 16.90   0.4
        0.9s     8.61nm          4.8mb
                pP      49 16.30 537kmX
```

```
CD2     91.74 303 eP    47 17.80   1.1
        1.0s    26.00nm          5.2mb
BTO     92.13 314 eP    47 19.80   1.4
LZH     94.11 308 eP    47 27.50  -0.2
        1.5s    24.00nm          5.1mb
RSSD    97.70  45 eP    47 42.10  -1.7
        0.7s     2.42nm          4.6mb
                pP      49 38.90 523km
GUN    104.72 294 Pdiff 48 19.20   3.5X
PKI    104.99 294 Pdiff 48 21.20   4.3X
KKN    105.18 294 Pdiff 48 21.20   3.6X
DMN    105.26 294 Pdiff 48 21.60   3.6X
GKN    105.79 294 Pdiff 48 24.20   4.0X
UPP    143.15 345 iPKP  53 35.50  -3.7X
NAO    143.51 351 PKP   53 37.00  -2.8X
        1.0s    10.60nm
HFS    143.70 348 ePKP  53 36.70  -3.5X
        0.4s    10.40nm
CSS    149.64 297 ePKP  53 55.80   5.3X
OJC    150.60 334 iPKP  53 57.80   6.3X
KSP    151.39 338 iPKPd 53 59.60   7.0X
                e       56 00.00
BRG    152.11 341 iPKP  54 01.00   7.4X
        1.0s    10.00nm
                i       54 13.40
PRU    152.70 339 ePKP  54 02.00   7.5X
                e       54 15.10
BCAO   152.83 224 ePKPc 53 53.40  -2.4X
        0.4s    10.00nm
                ic      54 04.30
                ic      54 17.90
KHC    153.75 340 ePKP  54 04.50   8.5X
                i       54 20.00
GEC2   153.97 339 ePKP  54 04.60   8.2X
        0.8s     0.96nm
                e       54 07.90
                e       54 20.00
      S.D. = 1.1  on  91 of 114 obs.
-----------------------------------
*  JAN  07, 1993  18h 58m 29.94± 1.25s
   32.190 S ±14.3km  173.556 W ±16.3km
   DEPTH =  33.0km  (normal)
   4.8mb (  8 obs.)
 SOUTH OF KERMADEC ISLANDS        (179)

RAO      4.76 307 eP    59 42.80   1.6
                eS      00 19.30
HBZ      8.59 229 eP    00 28.10  -6.8X
PUZ      8.91 227 eP    00 32.90  -6.5X
                eS      01 47.20
NOZ      9.39 225 eP    00 39.70  -6.2X
URZ      9.74 229 eP    00 40.90  -9.9X
                eS      02 02.00
WCZ     10.71 246 eP    00 51.30 -12.8X
KHZ     14.46 221 eP    01 49.00  -5.1X
                eS      03 55.00
ODZ     17.77 219 eP    02 37.10   0.9
DZM     20.42 295 iPc   03 06.10  -1.0
ARMA    29.73 264 eP    04 35.50   0.0
        0.7s     9.00nm          4.6mb
CNB     30.87 254 eP    04 46.30   0.8
        0.4s     8.00nm          4.9mb
CAN     31.17 254 iPc   04 48.50   0.4
BWA     31.74 255 eP    04 50.40  -2.7
RMQ     33.22 270 eP    05 05.20  -0.9
        1.0s    29.00nm          5.1mb
TOO     33.83 249 eP    05 11.80   0.5
        0.6s     9.00nm          4.9mb
CMS     34.37 260 eP    05 15.00  -1.0
        0.3s    23.00nm          5.6mb
BFD     36.20 250 eP    05 32.20   0.8
        0.6s     9.00nm          4.9mb
STK     37.81 258 eP    05 45.10   0.0
        0.5s     5.60nm          4.7mb
WB2     47.94 271 iPd   07 07.30  -0.2
        0.3s    68.10nm          6.2mb X
WRA     47.95 271 P     07 07.80   0.2
        0.5s     4.20nm          4.7mb
FORT    49.27 255 eP    07 18.00   0.5
CNCB    93.77 112 eP    11 46.00   0.1
LPB     93.83 112 eP    11 51.00   5.0X
      S.D. = 1.1  on  16 of  23 obs.
-----------------------------------
?  JAN  07, 1993  19h 18m 44.44± 1.51s
   31.932 S ±13.8km  177.600 W ±23.7km
   DEPTH =  33.0km  (normal)
   4.6mb (  6 obs.)
```

```
 KERMADEC ISLANDS REGION          (177)

RAO      2.69 354 eP    19 26.50   0.2
                eS      20 01.00
DZM     17.26 301 iPc   22 49.20   4.5X
ARMA    26.33 265 eP    24 25.80   6.5X
        1.2s    26.00nm          4.7mb
RMQ     29.79 272 eP    24 24.00 -26.5X
        0.7s     9.00nm
CMS     31.02 261 eP    25 02.20   0.9
        0.8s     9.00nm          4.6mb
STK     34.50 259 eP    25 32.80   1.2
        0.8s     4.30nm          4.4mb
ASPA    43.39 268 eP    26 45.00  -0.7
        1.2s    13.50nm          4.6mb
WB2     44.50 273 iPd   26 53.80  -0.9
        0.4s    30.90nm          5.5mb
WRA     44.51 273 P     26 54.20  -0.6
        0.9s     3.00nm          4.1mb
NVL     77.37 183 eP    30 37.00  -0.1
KAF    146.10 340 iPKP  38 23.30   2.3X
        0.8s    11.00nm
OBN    146.61 324 ePKPc 38 26.50   4.5X
        1.8s    72.00nm
NUR    147.86 339 ePKP  38 26.80   3.0X
BCAO   148.74 212 iPKPc 38 31.00   4.3X
        0.9s    23.00nm
                id      38 40.70
SLL    150.55 349 ePKP  38 34.40   6.4X
        0.5s     1.20nm
NAO    150.57 352 PKP   38 34.80   6.8X
        0.7s     1.70nm
BRG    159.23 339 e(PKP)39 19.40  39.6X
ZST    160.30 330 ePKP  39 25.20  44.2X
KHC    160.87 337 ePKP  39 28.00  46.4X
GEC2   161.08 336 ePKP  39 27.80  45.9X
        1.2s     2.27nm
                e       39 39.80
      S.D. = 1.0  on   7 of  20 obs.
-----------------------------------
?  JAN  07, 1993  20h 11m 51.83± 4.15s
   32.604 S ±13.1km  176.569 W ±50.2km
   DEPTH =  33.0km  (normal)
   4.8mb (  4 obs.)
 SOUTH OF KERMADEC ISLANDS        (179)

PUZ      6.90 216 eP    13 32.70  -0.6
                S       14 51.50
URZ      7.64 221 eP    13 43.00  -0.6
                S       15 05.80
WCZ      8.22 244 eP    13 52.20   0.4
DZM     18.35 301 iPc   16 04.20  -1.4
RMQ     30.68 272 eP    18 07.20   1.4
        0.8s    13.00nm          4.8mb
CMS     31.79 262 eP    18 17.20   1.8
        0.7s     9.00nm          4.8mb
ASPA    44.25 269 eP    20 00.00   0.0
        0.8s     7.70nm          4.6mb
WB2     45.42 274 iPd   20 08.80  -0.6
        0.4s    10.30nm          5.1mb
WRA     45.43 274 P     20 09.10  -0.4
        1.0s     0.90nm          3.6mb X
KAF    147.03 340 ePKP  31 39.20   9.4X
        0.6s     4.10nm
OBN    147.66 324 ePKPc 31 41.00  10.0X
        1.2s    22.00nm
BCAO   148.61 210 iPKPd 31 47.80  13.9X
        0.8s    14.00nm
                ic      32 10.40
NUR    148.80 340 ePKP  31 44.50  11.8X
        0.9s    12.50nm
NAO    151.36 352 PKP   31 50.10  13.5X
        0.8s     1.90nm
SLL    151.37 350 ePKP  31 50.80  14.2X
        0.5s     2.50nm
      S.D. = 1.2  on   9 of  15 obs.
-----------------------------------
   JAN  07, 1993  20h 35m 28.75± 0.81s
   49.190 N ± 8.1km    6.966 E ± 7.1km
   DEPTH =  10.0km  (geophysicist)
 GERMANY                          (543)
      MD 2.8 (UCC).

RUP      0.52   7 ePg   35 39.30   0.1
WLF      0.71 312 iPd   35 41.91  -0.9
                iS      35 51.43
ABH      0.79  28 ePg   35 44.57   0.4
```

07d 20h

TNS	1.41	42	ePnc	35 57.70	3.1X
			eSn	36 15.20	
FEL	1.49	152	ePg	35 56.13	0.5
DOU	1.79	301	Pc	35 58.80	-1.1
			i	36 02.00	
SNF	2.18	308	iP	36 07.30	1.7
GRF	2.82	78	e(Pg)	36 23.60	8.9X
			eSg	37 00.20	
KHC	4.34	88	ePn	36 36.00	-0.3
			e	36 54.00	
			eSn	37 26.00	
			eSg	37 45.50	
GEC2	4.45	92	Pn	36 37.30	-0.5
			Pg	36 59.40	
			Sn	37 29.20	
			Sg	37 51.40	

S.D. = 1.1 on 8 of 10 obs.

---

* JAN 07, 1993 20h 45m 49.83± 1.21s
30.520 S ± 5.9km 72.622 W ±13.7km
DEPTH = 33.0km (normal)
OFF COAST OF CENTRAL CHILE (134)
MD 4.3 (SAN).

JACH	2.76	142	iP+	46 33.56	0.7
			iS	47 04.95	
ROCH	2.80	151	iP+	46 33.30	-0.2
			iS	47 04.93	
LCCH	3.08	163	iP+	46 36.58	-0.7
			iS	47 10.84	
PEL	3.09	148	iP+	46 37.69	0.2
RTCB	3.42	107	iPc	46 44.50	2.3
			S	47 25.20	
FCH	3.43	145	iP+	46 42.67	0.1
			eS	47 22.75	
TACH	3.44	156	eP	46 42.40	0.0
			iS	47 20.81	
PCH	3.57	150	iPd	46 44.41	0.0
			iS	47 24.87	
LNV	3.58	164	iP+	46 42.92	-1.4
RTLL	3.66	104	e(P)	46 46.80	1.3
CHCH	3.79	154	iPd	46 47.64	0.3
			iS	47 30.12	
CACH	3.97	155	iP	46 50.64	0.5
			iS	47 34.64	
RFA	5.50	141	eP	47 12.20	0.6
MRA	6.20	109	e(P)	47 21.00	-0.4
CYA	6.30	73	eP	47 21.50	-1.4
TCA	6.95	99	iP	47 29.50	-2.5
CNCB	14.29	18	P	49 13.00	0.6
ZOBO	14.75	17	Pc	49 18.70	0.2
SIV	17.92	39	Pc	50 03.00	4.8X

S.D. = 1.1 on 18 of 19 obs.

JAN 07, 1993 21h 29m 32.17± 0.41s
49.244 N ± 4.1km 6.971 E ± 6.2km
DEPTH = 18.7 ± 5.9 km
GERMANY (543)
MD 3.3 (UCC).

RUP	0.46	7	ePg	29 41.72	0.2
WLF	0.68	309	iPd	29 44.78	-0.4
			iS	29 54.56	
ABH	0.74	30	ePg	29 46.85	0.6
TOD	1.25	72	ePg	29 54.27	-0.4
TNS	1.37	44	ePnc	29 56.60	0.2
			iPbd	29 58.60	
			eSn	30 14.80	
FEL	1.53	153	ePg	29 57.01	-1.8
ENN	1.67	336	ePnc	30 01.00	0.4
	0.7s	8.00nm			
			iPgc	30 03.30	
			eSg	30 27.50	
DOU	1.76	300	iP	30 01.80	-0.2
			i	30 04.80	
SLE	1.79	145	eP	30 02.80	0.3
ZLA	2.00	151	ePd	30 06.40	0.9
SNF	2.15	307	eP	30 08.30	0.7
LLS	2.74	149	ePd	30 16.30	0.1
WTS	2.76	358	eP	30 30.00	13.8X
	0.7s	12.00nm			
			eS	31 01.50	
GRF	2.81	79	ePg	30 24.80	7.8X
			e	30 26.00	
			e(Sg)	31 05.90	
VDL	3.23	148	iPd	30 23.60	0.4
OSS	3.33	139	ePc	30 25.30	0.8
SOTA	3.48	124	iPnc	30 26.80	0.2
WTTA	3.69	121	iPnc	30 30.20	0.5
KHC	4.34	89	Pn	30 37.50	-1.2
			e	30 54.50	
			eSg	31 45.40	
			e	02 02.60	
			e	02 08.00	
			eSn	02 36.30	
			eSg	02 49.00	
GEC2	4.45	93	Pn	30 39.80	-0.5
			Pg	31 00.20	
			Sn	31 32.40	
			Sg	31 55.50	
BRG	4.78	67	e(Pg)	31 05.00	20.1X
			eSg	32 09.00	
KBA	4.78	115	iPnc	30 45.80	0.6
	0.5s	7.40nm			
			i	31 02.80	
			e	31 40.00	
			e	32 04.00	
PRU	4.98	79	ePg	31 06.50	18.8X
			Sg	32 14.50	

S.D. = 0.8 on 19 of 23 obs.

JAN 07, 1993 22h 00m 06.61± 1.51s
32.486 S ± 6.5km 71.706 W ±12.9km
DEPTH = 10.0km (geophysicist)
NEAR COAST OF CENTRAL CHILE (135)
MD 4.3 (SAN).

ROCH	0.76	130	iPd	00 21.87	0.2
JACH	0.96	102	iPd	00 24.13	-0.8
			iS	00 37.16	
LCCH	0.99	173	iP+	00 25.71	0.3
			iS	00 40.00	
PEL	1.08	128	iPd	00 26.87	-0.1
			iS	00 41.67	
TACH	1.33	151	eP	00 31.15	0.0
			iS	00 49.14	
FCH	1.46	126	iP+	00 32.41	-0.9
			iS	00 52.55	
LNV	1.49	170	eP	00 32.55	-0.8
			eS	00 53.95	
PCH	1.51	139	iPd	00 33.88	0.1
			iS	00 54.59	
CHCH	1.69	149	iP	00 36.72	0.3
			iS	00 59.95	
CACH	1.87	151	eP	00 39.58	0.5
MDZ	2.44	100	eP	00 50.40	3.2X
			i(S)	01 22.60	
RTCB	2.66	69	ePd	00 51.60	1.2
			S	01 28.20	
RTLL	2.98	68	e(P)	00 55.20	0.3
CFA	3.07	74	eP	00 56.30	0.2
RFA	3.54	131	e(P)	01 03.30	0.6
TCA	6.16	81	iP	01 36.00	-3.9X
			S	02 48.00	
CYA	6.50	53	eP	01 43.70	-1.0

S.D. = 0.7 on 15 of 17 obs.

---

* JAN 07, 1993 22h 01m 20.55± 2.08s
51.160 N ±24.2km 15.913 E ± 8.6km
DEPTH = 10.0km (geophysicist)
POLAND (548)
MG 2.8 (WAR).

KSP	0.40	143	iP	01 27.80	-0.9
	0.3s	55.00nm			
			iS	01 36.20	
BRG	1.28	258	iPg	01 43.80	-0.4
			iSg	02 03.60	
PRU	1.46	217	ePg	01 48.50	1.5
	0.4s	32.60nm			
			e	01 52.80	
			eSn	02 06.30	
			Sg	02 11.50	
			i	02 19.10	
OJC	2.64	109	eP	02 04.50	0.5
			iS	02 40.50	
MOX	2.77	261	ePg	02 10.60	4.8X
			iSg	02 51.40	
GRF	3.34	246	e(Pn)	02 13.10	-0.8
			e(Pg)	02 21.20	
			eSg	03 11.20	
KBA	4.42	203	e(Pn)	02 35.00	5.7X
			i(Sg)	03 48.00	

S.D. = 1.4 on 5 of 7 obs.

& JAN 07, 1993 22h 06m 42.01s
47.595 N 121.515 W
DEPTH = 14.4km
WASHINGTON (29)
<SEA-P>. MD 3.4 (SEA). Felt (IV) at Baring and (III) at Index and Skykomish. Also felt at Gold Bar, North Bend and Sultan.

RMW	0.24	236	Pc	06 46.90	-0.6
HTW	0.27	321	Pd	06 47.27	-0.8
BLH	0.42	305	Pd	06 50.26	-0.5
			S	06 56.45	
GSM	0.44	206	Pc	06 50.06	-1.0
			S	06 55.74	
SPW	0.50	265	P	06 52.33	0.4
TWW	0.63	136	Pd	06 54.00	-0.4
JCW	0.66	335	Pd	06 53.87	-0.9
			S	07 02.88	
FMW	0.67	189	Pd	06 53.80	-1.3
RVC	0.72	206	Pd	06 54.95	-0.9
RCS	0.74	192	Pd	06 55.24	-1.1
TBM	0.75	124	Pd	06 55.81	-0.6
GHW	0.76	223	P	06 55.58	-0.8
PGW	0.77	288	P	06 56.26	-0.3
			S	07 07.94	
ETW	0.80	89	Pd	06 56.20	-1.1
REMR	0.81	196	Pd	06 56.26	-1.1
RPW	0.85	0	Pd	06 56.94	-1.2
GMW	0.86	267	P	06 57.65	-0.6
MEW	0.86	243	Pd	06 59.18	1.0
LON	0.87	193	Pd	06 57.16	-1.2
			S	07 08.57	
WPW	0.90	181	Pd	06 57.70	-1.2
CMW	0.92	334	Pd	06 58.63	-0.7
NLW	0.93	58	Pd	06 58.62	-0.8
NAC	0.98	151	Pd	06 59.90	-0.4
OHW	1.00	317	P	06 59.47	-1.0
CBSW	1.02	78	P	06 59.98	-0.9
GLK	1.03	184	Pd	07 00.29	-0.9
HDW	1.04	274	P	07 00.11	-1.2
WTV	1.06	84	P	07 00.92	-0.7
BLN	1.07	293	Pd	07 00.47	-1.2
LMW	1.07	210	Pd	07 00.75	-1.0
MBW	1.22	348	Pd	07 03.36	-1.0
KOSW	1.22	202	Pd	07 03.27	-1.1
DHW2	1.24	71	P	07 03.93	-0.7
CPW	1.27	241	P	07 04.14	-1.0
YAKW	1.27	148	P	07 04.62	-0.5
SMW	1.27	258	P	07 04.32	-0.9
MXC	1.32	140	Pd	07 05.67	-0.2
EPH	1.32	100	Pc	07 05.42	-0.6
TDL	1.33	201	P	07 04.89	-1.4
CZM	1.34	211	Pd	07 05.37	-0.9
MCW	1.40	321	Pd	07 06.38	-0.6
ERK	1.41	204	Pd	07 06.11	-1.1
SOSW	1.42	198	P	07 06.28	-1.2
STD	1.44	200	P	07 06.75	-1.0
ASR	1.45	182	P	07 07.42	-0.4
YEL	1.46	199	P	07 07.31	-0.7
ESD	1.46	198	P	07 07.37	-0.7
REMW	1.47	198	P	07 07.67	-0.5
SHW	1.49	200	P	07 07.32	-1.1
OSD	1.49	280	P	07 08.14	-0.4
HSR	1.49	198	P	07 08.31	-0.2
FL2	1.51	203	P	07 08.02	-0.7
JLK	1.51	197	P	07 08.01	-0.7
BRVW	1.52	136	P	07 08.77	0.0
CDFW	1.52	194	P	07 08.21	-0.6
MDW	1.55	129	Pd	07 09.55	0.4
STW	1.55	292	P	07 08.36	-0.8
WAH2	1.57	121	P	07 09.37	-0.1
BMW	1.62	227	Pd	07 09.84	-0.4
MTMW	1.64	197	P	07 10.17	-0.4
LVP	1.65	202	P	07 10.18	-0.5
OSR	1.66	268	P	07 12.69	1.9
LOCW	1.67	121	P	07 10.51	-0.4
GULW	1.67	182	P	07 11.37	0.3
PGC	1.67	310	P	07 10.00	-0.9
	0.5s	57.00nm			
RVW	1.67	211	P	07 10.46	-0.5
ONR	1.70	246	P	07 12.11	0.8
GL2	1.70	164	P	07 11.43	0.0
GBL	1.72	125	P	07 11.68	0.0
WRD	1.73	110	P	07 10.65	-1.1
OBC	1.78	285	P	07 13.12	0.5

```
OT2      1.78 118 P     07 13.62   1.1
RSW      1.79 132 P     07 13.11   0.5
MJ2      1.80 124 P     07 12.65  -0.1
OOW      1.81 275 P     07 14.66   1.7
OD2      1.91  95 P     07 13.03  -1.4
WIW      1.92 127 P     07 14.59   0.2
OFK      1.95 282 P     07 17.71   2.8
OTR      1.97 285 P     07 17.74   2.5
NLO      2.01 222 P     07 16.95   1.1
ET3      2.04 119 P     07 15.09  -1.1
VLMM     2.09 190 P     07 16.98  -0.1
PATW     2.10 144 P     07 19.09   2.0
                  S     07 45.81
VLL      2.14 183 P     07 19.45   1.7
VGB      2.14 166 P     07 17.54  -0.2
DPW      2.25  82 Pc    07 17.77  -1.6
VFP      2.28 179 P     07 20.04   0.2
TDH      2.31 185 P     07 22.31   2.0
KMOR     2.39 215 P     07 21.91   0.6
JBO      2.43 151 P     07 21.05  -0.8
GT2      2.50 192 P     07 23.11   0.3
VBEM     2.54 181 P     07 24.29   0.8
CROR     2.64 172 P     07 27.69   2.8
LNOR     2.81 127 Pd    07 33.50   6.2
SSOR     2.82 194 P     07 30.47   3.0
                  S     08 11.85
NEW      3.03  76 iPd   07 28.30  -2.1
                  eS    08 04.37
                  Lg    08 17.53
HBMT     6.39 103 ePn   08 16.40  -1.7
MCMT     6.62 112 ePn   08 18.60  -2.8
HRY      6.66  94 ePn   08 19.40  -2.5
LCCM     6.85 101 ePn   08 21.90  -2.7
BGMT     6.96 106 ePn   08 22.90  -3.3
TPMT     7.41 109 ePn   08 30.70  -1.8
MEMT     7.53 101 ePn   08 31.60  -2.5
      103 obs. associated
-----------------------------------
&  JAN  07, 1993  22h 09m 55.31s
   62.980 N          151.031 W
   DEPTH = 114.9km
 CENTRAL ALASKA                  (  1)
      <AEIC>.

TRF      0.58  35 iP    10 13.33  -0.4
                  eS    10 27.42
HUR      0.64  90 eP    10 13.45  -0.5
                  S     10 28.29
SKT      1.03 193 iP    10 17.10  -0.4
                  eS    10 33.74
RND      1.08  66 iP    10 17.59  -0.5
                  eS    10 33.88
MCK      1.21  50 iP    10 19.08  -0.4
                  eS    10 37.28
PWA      1.44 158 P     10 22.00   0.0
                  S     10 43.90
SUA      1.53 175 eP    10 23.73   0.5
                  eS    10 45.32
GHO      1.56 140 iP    10 23.34  -0.3
                  eS    10 46.25
PLRM     1.65 147 eP    10 23.81  -0.8
                  eS    10 46.42
NCG      1.67 199 eP    10 24.52  -0.4
SML      1.72 132 iP    10 24.75  -0.8
CGLM     1.74 196 eP    10 25.54  -0.3
                  eS    10 49.29
CRP      1.80 198 eP    10 26.56  -0.1
CP2      1.81 199 eP    10 26.03  -0.8
BGL      1.84 201 iP    10 27.08   0.0
CKN      1.84 198 eP    10 27.58   0.5
SPU      1.87 195 iP    10 26.78  -0.6
CKT      1.87 198 eP    10 27.23  -0.2
PMS      1.87 158 P     10 26.60  -0.8
CKL      1.89 200 eP    10 27.30  -0.5
KNK      1.98 141 eP    10 27.74  -1.1
CCB      2.20  39 eP    10 30.91  -0.6
NKA      2.25 183 eP    10 34.67   2.5
TTA      2.28 271 P     10 32.00  -0.6
HDA      2.31  50 eP    10 32.11  -0.9
PTE      2.33 155 eP    10 31.95  -1.2
TOA      2.42 109 P     10 34.00  -0.5
SLKM     2.51 171 eP    10 35.17  -0.5
DFR      2.52 199 eP    10 36.50   0.6
PAX      2.54  88 iP    10 35.67  -0.4
SDG      2.57  98 eP    10 35.88  -0.5
GLM      2.58  37 eP    10 35.59  -1.0
NCT      2.59 201 eP    10 36.60  -0.2
```

```
MPA      2.62 162 eP    10 36.12  -1.0
REF      2.62 198 eP    10 35.75  -1.6
RDW      2.65 199 eP    10 37.76   0.2
RS2      2.66 199 P     10 40.50   2.7
TZL      2.76 107 eP    10 38.49  -0.5
KLU      2.82 120 iP    10 37.86  -1.9
VLZ      2.89 128 eP    10 38.31  -2.3
                  eS    11 12.11
KNIM     3.07 148 iP    10 40.51  -2.6
FID      3.11 134 eP    10 41.80  -1.8
LTI      3.32 151 eP    10 43.97  -2.4
HIN      3.37 138 eP    10 45.05  -2.1
MTU      3.41 150 eP    10 45.40  -2.3
GLB      3.72 111 iP    10 50.13  -1.7
                  S     11 32.26
SGAM     3.72 129 eP    10 50.79  -1.1
RAGM     3.99 128 eP    10 54.62  -1.0
HMT      4.18 126 eP    10 55.83  -2.3
CDD      4.26 199 eP    10 59.62   0.4
SYI      4.44 189 eP    11 00.46  -1.1
BALM     4.53 112 eP    11 00.55  -2.5
      52 obs. associated
-----------------------------------
%  JAN  07, 1993  22h 26m 18.44± 0.78s
   40.549 N ± 6.8km   23.111 E ± 6.7km
   DEPTH =  10.0km  (geophysicist)
 GREECE                          (364)

THE      0.14 307 ePg   26 21.02  -0.7
                  eSg   26 23.10
SOH      0.33  34 ePg   26 25.90   0.6
                  eSg   26 30.50
KNT      0.63 345 ePg   26 30.89  -0.3
                  eSg   26 40.42
SRS      0.67  33 ePg   26 31.42  -0.4
GRG      0.68 307 ePg   26 32.66   0.8
OUR      0.70 108 ePg   26 32.02  -0.2
PAIG     0.76 145 ePg   26 33.42   0.2
      S.D. = 0.7  on   7 of   7 obs.
-----------------------------------
*  JAN  07, 1993  23h 15m 24.74± 1.31s
    4.362 S ± 9.2km   78.007 W ±23.0km
   DEPTH =  33.0km  (normal)
   4.4mb (  2 obs.)
 PERU-ECUADOR BORDER REGION      (110)

NNA      7.66 171 iP    17 17.50   0.5
      0.6s     16.67nm          5.3mb X
                  eS    18 42.90
BOG      9.76  24 eP    18 29.00  42.8X
                  eS    20 52.00
BMG     12.38  23 eP    18 05.00 -16.7X
ARE     13.62 152 eP    18 43.00   4.7X
SDV     15.07  29 eP    19 01.00   3.7X
ZOBO    15.31 141 P     18 59.00  -1.9
      Z  24s      0.38um
                  i     19 07.80
                  LR    24 04.00
LPB     15.52 142 eP    19 02.00  -1.3
                  i     19 11.00
CNCB    15.80 142 P     19 08.00   0.9
TOV     16.27  30 eP    19 11.70  -0.8
CCH     17.40 139 P     19 27.60   0.6
SIV     20.26 126 iP    20 05.80   5.5X
                  S     25 55.00
BAO     31.56 113 e(P)  21 47.00   0.2
BDF     31.65 113 e(P)  21 47.00  -0.6
YKA     72.25 343 eP    26 47.50  -0.9
      0.6s     0.70nm          3.8mb
LIC     73.62  82 PKP   26 59.30   2.0
TIC     73.67  82 PKP   26 58.70   1.0
KIC     73.92  82 PKP   26 59.40   0.3
      0.5s     8.50nm          5.0mb
GKN    151.26  33 PKP   35 20.00   8.9X
KKN    151.78  33 PKP   35 20.00   8.0X
GUN    152.00  32 PKP   35 22.40   9.9X
PKI    152.02  33 PKP   35 21.20   8.7X
      S.D. = 1.2  on  12 of  21 obs.
-----------------------------------
%  JAN  07, 1993  23h 17m 54.87± 0.70s
   42.446 N ± 7.0km    8.082 W ± 6.2km
   DEPTH =  10.0km  (geophysicist)
 SPAIN                           (377)
      mbLg 3.2 (MDD).

EZAM     0.54 237 iPgc  18 06.12   0.3
                  eSg   18 13.80
```

```
STS      0.56 322 iPgd  18 06.19   0.0
                  eSg   18 13.50
ERUA     0.70  94 iPgc  18 09.63   1.0
                  eSg   18 19.50
EMON     1.13  29 iPgc  18 15.84  -0.3
                  eSg   18 31.40
EPLA     2.82 147 ePn   18 40.46  -0.4
GUD      3.46 120 ePn   18 49.33  -0.6
      S.D. = 0.7  on   6 of   6 obs.
-----------------------------------
   JAN  07, 1993  23h 30m 28.25± 3.50s
   13.121 N ±47.7km   89.227 W ±20.1km
   DEPTH =  82.3 ± 11.3 km
   4.1mb (  1 obs.)
 EL SALVADOR                     ( 73)
      Felt (III) at San Salvador.

SJAS     0.55   6 iPd   30 42.00  -0.9
VSS      0.62 359 iP    30 43.50  -0.1
LFU      0.63  10 iPd   30 43.60  -0.1
TME      0.90 352 iPd   30 46.80   0.3
VSM      0.98  72 iP    30 48.10   0.4
CUSS     1.05 318 iPc   30 48.50   0.1
YPE      1.09 336 iPd   30 49.50   0.5
YKA     52.52 345 eP    39 34.70  -0.2
      0.7s     1.30nm          4.1mb
      S.D. = 0.6  on   8 of   8 obs.
-----------------------------------
%  JAN  07, 1993  23h 43m 37.23± 1.12s
   43.009 N ± 8.1km   18.723 E ± 7.2km
   DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION      (383)
      ML 1.4 (TTG).

BRY      0.17 231 iPgd  43 41.30   0.1
                  iSg   43 44.23
NKY      0.28 134 iPgd  43 43.50   0.3
                  iSg   43 48.00
PLE      0.59  57 iPgc  43 49.07  -0.1
                  iSg   43 57.80
TTG      0.70 145 iPgd  43 50.39  -0.7
                  iSg   44 01.33
BDV      0.73 174 iPgc  43 51.30  -0.3
                  iSg   44 01.89
IVA      0.87  99 iPgc  43 54.27   0.2
                  iSg   44 06.90
ULC      1.12 159 iPgc  43 58.59   0.4
                  iSg   44 14.89
      S.D. = 0.5  on   7 of   7 obs.
-----------------------------------
   JAN  07, 1993  23h 45m 32.62± 0.59s
   17.199 N ± 7.1km   95.317 W ± 7.6km
   DEPTH = 112.8 ±  7.3 km
   4.0mb (  1 obs.)
 OAXACA, MEXICO                  ( 60)

EVV      1.25 359 ePd   45 56.82  -0.2
                  iS    46 15.26
OXX      1.35 265 iPd   45 56.53  -1.9
                  iS    46 11.00
SCX      2.61 100 iP    46 15.03   0.9
                  (S)   46 37.85
IISM     2.65 313 iP    46 14.25  -0.4
PUE      3.29 304 (P)   46 29.00   5.3X
PPM      3.65 301 iP    46 30.29   1.5
                  (S)   46 56.50
TPX      3.72 127 iP    46 28.44  -0.7
III      4.12 287 iP    46 34.70  -0.2
UNM      4.24 301 (P)   46 37.60   1.0
ACX      4.36 266 iP    46 34.20  -3.7X
MRX      6.11 295 iP    47 03.65   1.8
UYO     16.91   2 iPd   49 23.60  -0.2
MEO     17.75 351 iPc   49 34.30   0.2
VVO     18.07 359 iP    49 37.80  -0.1
FNO     18.08 354 iPd   49 38.80   0.8
OCO     18.35 354 iPc   49 45.50   4.4X
SIO     18.49 357 iP    49 42.20  -0.5
LNO     18.64 359 iPd   49 43.50  -0.7
                  Lg    52 06.40
LNO2    18.64 359 iPd   49 43.60  -0.7
LNO3    18.64 359 iPd   49 43.70  -0.7
RLO     18.89   1 iPd   49 46.10  -0.9
ACO     19.72 351 iPc   49 55.40  -0.2
EEO     32.30  21 eP    51 54.00   1.3
FCC     41.51   1 eP    53 13.50   3.6X
ZOBO    42.72 140 iPc   53 19.70  -1.4
LPB     42.93 140 eP    53 24.00   1.5
```

07d 23h

```
CNCB    43.21 140 P     53 24.00  -0.9
CCH     44.79 139 P     53 33.80  -3.5X
SIV     47.20 132 iP    53 59.00   2.9X
                  i     54 23.00
YKA     47.22 348 eP    53 54.20  -1.4
         0.8s     2.20nm          4.0mb
LIC     88.46  84 (P)   58 15.90   1.9
KIC     88.69  84 (P)   58 17.00   1.9
HYB    145.08  10 ePKP  04 57.50  -1.6
                  e     05 23.50
GBA    148.57  14 PKP   05 09.00   4.3X
      S.D. = 1.2  on  27 of  34 obs.
-----------------------------------
&  JAN  07, 1993  23h 57m 55.65s
   61.370 N          146.699 W
   DEPTH =  15.4km
 SOUTHERN ALASKA                  (  2)
      <AEIC>. ML 2.7 (AEIC).

VLZ      0.30 143 iPc   58 02.17   0.0
                  eS    58 07.31
VZW      0.32 167 eP    58 03.89   1.3
KLU      0.39  71 iPc   58 03.41  -0.4
                  eS    58 09.71
GLI      0.53 201 iPc   58 05.48  -0.6
                  eS    58 13.46
SCM      0.55 327 iPd   58 06.11  -0.5
                  eS    58 14.19
FID      0.63 170 eP    58 07.40  -0.4
                  eS    58 16.55
TOA      0.78  19 ePc   58 09.72  -0.7
                  eS    58 20.53
KNK      0.85 274 iPc   58 10.79  -0.7
                  eS    58 22.89
SML      0.90 300 iPc   58 11.08  -1.3
                  eS    58 23.68
TZL      0.91  41 iPc   58 11.65  -0.9
CVA      0.95 150 ePc   58 11.74  -1.5
                  eS    58 27.34
HIN      0.98 174 ePc   58 12.74  -1.1
SGAM     1.14 139 ePc   58 14.54  -1.9
GHO      1.14 292 iPc   58 15.09  -1.5
                  eS    58 30.85
KNIM     1.14 207 iPc   58 14.82  -1.8
                  eS    58 30.45
PLRM     1.19 282 iPc   58 15.84  -1.5
                  eS    58 31.89
PMR      1.19 282 ePd   58 15.55  -1.8
                  eS    58 32.03
PTE      1.24 247 iPc   58 16.78  -1.3
SDG      1.28  25 iPc   58 17.06  -1.8
                  eS    58 33.05
PMS      1.39 266 iPc   58 19.23  -1.1
                  eS    58 37.60
GLB      1.39  86 ePc   58 17.81  -2.6
                  eS    58 36.72
RAGM     1.40 134 ePd   58 18.56  -2.0
                  eS    58 37.04
LTI      1.45 204 ePc   58 20.13  -1.1
MTU      1.46 199 eP    58 20.35  -1.1
PWA      1.55 282 eP    58 22.59   0.0
MPA      1.57 237 ePc   58 21.92  -1.0
                  eS    58 42.01
PAX      1.71  19 ePc   58 23.19  -1.9
                  eS    58 44.85
CROM     1.84 108 ePd   58 25.67  -1.3
SEW      1.85 228 eP    58 26.19  -0.9
SLKM     1.92 245 ePc   58 26.74  -1.4
SUA      1.95 275 ePc   58 27.57  -1.0
                  eS    58 53.75
BALM     2.13  97 eP    58 28.96  -2.3
                  eS    58 55.39
SNH      2.24 121 eP    58 32.22  -0.5
SKT      2.38 287 ePd   58 33.20  -1.5
CGLM     2.56 271 eP    58 35.82  -1.5
SPU      2.59 268 ePc   58 35.81  -1.9
YAH      2.63 110 eP    58 36.94  -1.4
CTGM     2.63  97 eP    58 37.03  -1.4
CRP      2.63 270 (P)   58 37.09  -1.3
                  eS    59 08.01
CKT      2.66 269 eP    58 37.01  -1.8
CP2      2.68 270 (P)   58 36.72  -2.4
CKL      2.73 269 eP    58 37.72  -2.0
BGL      2.75 270 ePn   58 38.35  -1.6
RSO      3.09 256 eP    58 42.54  -2.4
RS2      3.10 256 eP    58 42.62  -2.3
RS1      3.10 256 eP    58 42.78  -2.2
RDW      3.11 256 eP    58 43.44  -1.8
NCT      3.14 258 eP    58 43.12  -2.5
INW      3.42 250 eP    58 46.77  -2.7
        49 obs. associated
-----------------------------------
?  JAN  08, 1993  00h 39m 46.87± 5.83s
   32.426 S ±35.2km   71.962 W ±28.9km
   DEPTH =  10.0km  (geophysicist)
 NEAR COAST OF CENTRAL CHILE      (135)
      MD 3.7 (SAN).

ROCH     0.97 124 iPd   40 05.35  -0.1
                  iS    40 15.17
LCCH     1.10 163 iP    40 07.41  -0.1
                  iS    40 19.23
JACH     1.18 103 iPd   40 09.09   0.1
                  iS    40 22.38
PEL      1.29 124 iPd   40 10.55  -0.3
                  iS    40 24.41
TACH     1.50 145 iP+   40 13.56  -0.2
                  iS    40 29.07
LNV      1.59 163 iPd   40 14.59  -0.5
                  iS    40 33.39
FCH      1.67 123 iP+   40 16.26  -0.3
                  iS    40 34.99
PCH      1.70 135 iP+   40 16.85   0.0
                  iS    40 35.68
CHCH     1.86 144 eP    40 19.39   0.3
CACH     2.04 146 iP    40 22.82   1.1
      S.D. = 0.5  on  10 of  10 obs.
-----------------------------------
?  JAN  08, 1993  01h 07m 07.97± 1.03s
     1.523 N ±29.7km  126.894 E ±37.2km
    DEPTH =  33.0km  (normal)
 NORTHERN MOLUCCA SEA             (266)

WB2     22.55 161 iPc   12 07.40   0.7
         0.4s    37.70nm          5.2mb
                  i     12 14.50
ASPA    25.95 165 iPd   12 39.00  -0.4
         0.4s    17.50nm          5.0mb
STK     36.03 158 eP    14 07.30  -0.9
         0.4s    11.20nm          5.1mb
ARMA    39.56 145 eP    14 37.70  -0.3
         0.8s     7.00nm          4.5mb
BWA     41.07 153 eP    14 51.20   0.9
CAN     42.08 153 eP    14 58.50  -0.1
GUN     47.17 308 P     15 40.20   0.3
         0.7s    32.00nm          5.4mb
PKI     47.39 307 P     15 41.40  -0.3
KKN     47.59 307 P     15 43.20   0.1
DMN     47.65 307 P     15 43.60  -0.1
GKN     48.20 307 P     15 47.80   0.0
HYB     50.04 291 eP    16 02.00   0.1
      S.D. = 0.5  on  12 of  12 obs.
-----------------------------------
?  JAN  08, 1993  01h 43m 08.11± 2.31s
   30.638 N ±17.8km    6.256 W ±28.4km
   DEPTH =  33.0km  (normal)
 MOROCCO                          (395)
      MD 3.9 (RBA).

AVE      2.83 340 iPn   43 52.00   0.0
                  i     43 52.50
                  i     44 15.00
                  i     44 20.00
                  i     44 23.00
                  iSn   44 25.50
IFR      3.03  18 iPn   43 55.00   0.0
                  i     44 02.50
                  i     44 25.50
                  i     44 27.50
                  iSn   44 34.00
                  i     44 35.00
                  i     44 37.50
RBA      3.40 352 ePn   44 00.00  -0.1
                  e     44 02.00
                  i     44 10.00
                  i     44 26.50
                  i     44 31.50
                  iSn   44 39.00
ANTZ     3.80 236 iPn   44 05.80   0.0
                  i     44 17.50
                  iSn   44 50.00
                  i     44 57.50
                  i     45 02.00
                  i     45 04.00
                  i     45 08.50
      S.D. = 0.1  on   4 of   4 obs.
-----------------------------------
%  JAN  08, 1993  02h 42m 09.03± 0.84s
   26.937 S ± 9.1km   26.741 E ± 7.6km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA         (584)
      ML 2.1 (PRE).

BFS      0.06  46 iPd   42 11.00   0.3
PRY      0.65  89 iPc   42 20.90  -1.2
SWZ      1.29 259 eP    42 33.00  -0.4
                  S     42 50.80
SEK      1.59 151 eP    42 39.00   1.0
                  S     42 59.00
SLR      1.83  49 eP    42 42.00   0.5
                  S     43 04.60
BLF      2.22 193 eP    42 47.00  -0.2
      S.D. = 1.0  on   6 of   6 obs.
-----------------------------------
%  JAN  08, 1993  02h 45m 30.81± 0.61s
   26.422 S ± 6.5km   27.466 E ± 6.7km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA         (584)
      ML 2.8 (PRE).

KSR      0.75 317 eP    45 46.00  -0.1
                  S     45 55.00
BFS      0.77 232 eP    45 46.10  -0.3
                  S     45 56.10
SLR      1.00  47 iPd   45 49.90  -0.5
                  S     46 05.20
SEK      1.90 176 eP    46 05.00   0.7
                  S     46 29.00
SWZ      2.06 248 eP    46 07.60   1.0
                  S     46 32.30
BFT      2.43  73 eP    46 12.50   0.4
                  S     46 42.00
BLF      2.91 203 eP    46 18.00  -0.7
                  S     46 52.00
FRS      3.82 209 eP    46 31.00  -0.5
      S.D. = 0.7  on   8 of   8 obs.
-----------------------------------
•  JAN  08, 1993  03h 03m 48.93± 0.58s
     8.023 S ±13.6km  107.707 E ±10.5km
    DEPTH =  33.0km  (normal)
    4.9mb (  4 obs.)
 JAWA, INDONESIA                  (277)

TRT      4.89  87 iPc   05 01.50  -0.6
                  iS    05 56.20
KHKI     7.83  93 ePc   05 43.80   0.4
                  eS    07 05.00
                  e     09 53.70
PPI     10.47 316 eP    06 24.00   4.2X
NANU    16.30 153 eP    07 35.00  -2.0
                  eS    10 15.00
MEEK    21.21 152 eP    08 41.00   6.7X
                  eS    11 21.00
WARB    25.50 137 eP    09 18.00   1.9
                  eS    14 01.00
GBA     36.94 305 P     10 58.00   1.0
HYB     38.33 311 eP    11 08.60  -0.1
GUN     41.49 330 P     11 35.40   0.3
         0.6s    14.00nm          4.9mb
GKN     42.19 329 P     11 40.40  -0.2
CMS     42.47 129 eP    11 43.50   0.8
         0.8s     4.00nm          4.2mb
MAIO    63.17 318 eP    14 15.00  -1.3
BCAO    89.79 274 iPd   16 47.00   0.7
         0.6s     8.00nm          5.2mb
KAF     93.02 332 iP    16 59.30  -0.8
         0.5s     2.80nm          4.9mb
YKA    117.57  21 ePKP  22 30.10  -2.7X
         0.6s     0.90nm
TUL    144.91  34 PKPd  23 22.10  -2.7X
         0.6s    14.10nm
                  e     23 27.00
LNO    144.91  34 ePKPd 23 22.00  -2.6X
                  e     23 31.80
LNO2   144.91  34 ePKPd 23 22.10  -2.6X
LNO3   144.91  34 ePKPd 23 22.20  -2.6X
RLO    145.15  33 ePKP  23 22.60  -2.6X
BDF    146.27 226 PKPd  23 29.80   2.0X
SIV    153.68 205 iPKPd 23 44.50   5.7X
                  i     23 51.50
                  i     24 06.30
```

S.D. = 1.2 on 12 of 22 obs.

---

* JAN 08, 1993 04h 53m 09.03± 1.07s
19.123 S ±10.0km 69.331 W ±12.0km
DEPTH = 142.1 ± 9.7 km
4.4mb (1 obs.)
NORTHERN CHILE (123)

CNCB	2.64	29	iPc	53 53.10	0.5
LPB	2.83	25	iPc	53 56.00	1.1
ZOBO	3.04	22	iPc	53 57.70	-0.2
ARE	3.35	322	iPc	54 00.30	-1.3
			iS	54 37.40	
CCH	3.49	61	iPc	54 01.70	-1.7
			i	54 17.00	
HJA	5.48	139	iPd	54 31.00	1.4
SLA	6.62	148	ePd	54 45.00	-0.2
SIV	8.47	70	iPc	55 11.50	1.4
BAO	20.66	84	e(P)	57 38.00	-1.4
BDF	20.73	84	e(P)	57 39.00	-1.2
VAO	21.22	104	eP	57 44.10	-0.8
LIC	68.13	75	P	03 56.60	0.5
KIC	68.44	75	P	03 58.60	0.6
YKA	88.82	341	eP	05 49.80	2.2
	0.6s		2.20nm		4.4mb
WRA	134.77	212	PKP	12 12.10	-1.1
	0.8s		0.60nm		
GKN	154.60	65	PKP	13 00.00	13.9X

S.D. = 1.4 on 15 of 16 obs.

& JAN 08, 1993 05h 04m 22.80s
48.917 N 128.811 W
DEPTH = 10.0km (geophysicist)
3.7mb (1 obs.)
VANCOUVER ISLAND REGION (25)
<PGC-P>. ML 3.3 (PGC).

BPBC	1.41	28	P	04 48.20	-0.4
			S	05 07.67	
EDB	1.46	48	P	04 49.27	0.1
			S	05 08.23	
ETB	1.56	72	P	04 50.95	0.4
HOLB	1.78	14	P	04 53.13	-0.7
PHC	2.00	26	P	04 56.77	-0.2
			S	05 21.96	
GDR	2.01	64	P	04 57.22	0.1
			S	05 23.09	
OZB	2.19	88	P	04 58.63	-1.1
			S	05 25.96	
CBB	2.51	62	P	05 04.67	0.4
			S	05 37.07	
ALB	2.64	81	P	05 05.33	-0.8
PFB	2.91	95	P	05 08.23	-1.8
NAB	3.18	83	P	05 13.23	-0.5
			S	05 53.16	
SHB	3.30	76	P	05 15.49	-0.2
PGC	3.55	92	P	05 17.80	-1.3
BIB	3.65	80	P	05 20.04	-0.4
WPB	3.74	76	P	05 22.14	0.3
MCW	3.96	91	eP	05 24.00	-0.9
WHB	4.00	70	P	05 26.43	0.9
HDW	4.05	106	P	05 25.83	-0.4
HNB	4.11	83	P	05 26.50	-0.5
CPW	4.28	115	P	05 28.40	-1.1
VDB	4.42	86	P	05 30.54	-0.9
CMW	4.46	94	P	05 31.68	-0.4
BMW	4.49	121	P	05 31.11	-1.4
MBW	4.57	89	P	05 33.05	-0.6
JCW	4.63	96	P	05 33.56	-0.8
HTW	4.83	101	P	05 36.83	-0.4
RPW	4.86	93	P	05 36.89	-0.8
LMW	4.94	115	P	05 39.08	0.2
RVC	5.00	111	P	05 39.52	-0.2
GSM	5.01	107	P	05 39.74	-0.1
ERK	5.10	118	P	05 40.25	-0.8
REMR	5.14	111	P	05 42.08	0.3
TDL	5.14	117	P	05 41.42	-0.4
FL2	5.15	119	P	05 41.60	-0.3
RCS	5.18	111	P	05 42.67	0.1
LON	5.19	112	eP	05 42.25	-0.1
FMW	5.19	110	P	05 42.24	-0.3
SHW	5.22	119	eP	05 42.23	-0.6
SOSW	5.25	118	P	05 42.97	-0.4
WPW	5.37	112	P	05 45.21	0.2
GLK	5.40	113	P	05 45.83	0.4
ASR	5.62	117	P	05 48.51	0.0
NLW	5.69	95	P	05 48.22	-1.4
TBM	5.78	105	P	05 50.76	0.1
NAC	5.80	109	P	05 51.44	0.4
ETW	5.81	100	P	05 50.46	-0.8
VLL	5.96	123	P	05 53.81	0.5
WTV	6.03	98	P	05 53.29	-1.0
EPH	6.36	101	P	05 57.23	-1.7
MDW	6.52	107	P	06 01.00	-0.1
WAH2	6.59	106	P	06 01.20	-0.9
GBL	6.72	107	P	06 03.11	-0.8
OD2	6.93	99	P	06 04.86	-2.0
DPW	7.14	94	eP	06 07.90	-2.0
LNOR	7.77	109	P	06 17.83	-0.7
MSU	15.87	125	(P)	08 10.28	2.4
SRU	16.37	120	(P)	08 17.11	2.8
PV09	17.58	119	eP	08 31.67	2.0
RSSD	17.68	96	(P)	08 33.08	2.3
	0.7s		4.84nm		3.7mb
	59 obs. associated				

% JAN 08, 1993 05h 35m 06.07± 0.58s
28.001 S ± 5.7km 26.712 E ± 6.8km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 3.2 (PRE).

SEK	0.87	112	iPc	35 23.00	-0.3
			S	35 32.00	
BFS	1.10	3	eP	35 35.10	7.8X
BLF	1.20	203	iPd	35 29.00	0.1
			S	35 46.00	
PRY	1.27	33	iPd	35 29.50	-0.6
			S	35 47.50	
SWZ	1.48	303	iPc	35 32.70	-0.8
			S	35 52.40	
FRS	2.13	215	iPd	35 43.00	0.3
			S	36 08.50	
KSR	2.13	4	eP	35 44.00	1.0
			S	36 11.00	
SLR	2.66	32	iPc	35 50.60	0.1
			S	36 20.10	
BFT	3.76	53	eP	36 06.50	0.2
			S	36 49.00	
POF	6.10	255	e(P)	36 44.00	5.0X
			S	38 09.50	

S.D. = 0.7 on 8 of 10 obs.

JAN 08, 1993 05h 59m 48.62± 0.40s
22.796 S ± 4.6km 66.673 W ± 8.8km
DEPTH = 245.8 ± 7.9 km
4.3mb (2 obs.)
JUJUY PROVINCE, ARGENTINA (128)

HJA	1.24	110	iPd	00 24.50	-0.4
			S	00 48.50	
SLA	2.21	151	ePc	00 33.80	0.6
FSA	3.33	170	iPc	00 46.20	1.4
ANT	3.56	255	iP+	00 47.20	-0.3
			iS	01 22.20	
CCH	5.41	5	iPc	01 07.80	-2.4
			S	02 07.00	
CYA	5.68	172	iPc	01 14.80	1.5
CNCB	6.08	348	iPc	01 20.00	1.1
			iS	02 28.10	
LPB	6.37	348	iPc	01 23.80	1.4
			iS	02 35.50	
ZOBO	6.62	348	iPc	01 25.80	0.1
	1.0s	137.50nm			4.9mb
			S	02 37.80	
RTPR	7.48	179	ePc	01 35.60	-0.3
ARE	7.77	323	eP	01 39.00	-1.0
			iS	03 02.50	
SIV	8.59	39	iP	01 52.30	2.1X
			S	02 13.00	
RTLL	8.65	190	ePc	01 50.70	-0.3
TCA	8.71	168	iP	01 50.00	-1.8
RTCB	8.86	192	eP	01 54.00	0.2
MRA	9.62	175	ePd	02 02.20	-1.0
RFA	12.03	187	e(P)	02 34.20	0.4
VAO	18.16	94	eP	03 44.40	-1.1
			e	03 46.80	
BAO	19.01	71	Pc	03 54.80	0.4
BDF	19.08	71	Pc	03 55.70	0.6
SDV	31.72	353	eP	05 52.00	0.1
TOV	32.52	354	eP	05 59.20	0.5
KIC	67.10	72	P	10 18.40	0.3
LMN	68.34	1	eP	10 29.50	4.4X
YKA	93.10	340	eP	12 39.70	4.6X
	0.4s		0.30nm		3.7mb
GBA	144.78	99	PKP	19 03.00	4.7X
GUN	154.71	73	PKP	19 00.00	-13.6X

S.D. = 1.1 on 22 of 27 obs.

---

* JAN 08, 1993 06h 00m 07.12± 0.43s
32.084 S ±10.3km 178.096 W ± 8.2km
DEPTH = 10.0km (geophysicist)
5.2mb (17 obs.) 5.2Msz (16 obs.)
SOUTH OF KERMADEC ISLANDS (179)

RAO	2.83	3	eP	00 51.80	-1.3
			eS	01 21.70	
HBZ	6.25	207	P	01 36.20	-5.3X
PUZ	6.68	206	P	01 40.80	-6.9X
			S	02 57.30	
NOZ	7.24	205	eP	01 50.50	-5.0X
URZ	7.30	211	P	01 50.20	-6.2X
			S	03 13.20	
WCZ	7.36	236	P	02 00.00	2.8X
KHZ	12.27	210	eP	02 56.50	-8.2X
			S	05 02.90	
BWZ	15.58	214	eP	03 41.90	-6.4X
ODZ	15.63	211	eP	03 42.20	-6.8X
MSZ	16.65	217	eP	03 54.50	-7.4X
DZM	16.98	302	iPc	04 12.00	5.6X
			i	07 51.50	
BRS	25.68	273	iPd	05 38.30	-0.7
ARMA	25.90	266	eP	05 43.50	2.4
	1.2s	76.00nm			5.3mb
CNB	27.20	254	eP	05 54.70	1.8
	1.0s	35.00nm			5.0mb
			ePcP	09 12.20	
			eScP	12 51.80	
CAN	27.50	254	eP	05 56.50	0.9
			ipP	06 08.50	47kmX
BWA	28.03	256	eP	05 59.30	-1.2
			ipP	06 10.60	43kmX
RMO	29.37	272	eP	06 14.00	1.4
	1.0s	106.00nm			5.6mb
TOO	30.26	249	eP	06 19.20	-1.2
	0.7s	14.00nm			4.9mb
			ePcP	09 20.00	
			eScP	13 03.20	
HNR	30.36	313	eP	06 25.00	3.6X
CMS	30.59	261	eP	06 23.80	0.5
	0.6s	23.00nm			5.2mb
			i	06 36.30	
BFD	32.62	250	eP	06 40.20	-0.9
	0.8s	14.00nm			4.9mb
CTA	34.02	282	iPd	06 54.00	0.5
	1.0s	22.50nm			5.1mb
STK	34.06	259	eP	06 54.10	0.5
	0.5s	5.20nm			4.7mb
ASPA	42.97	269	P	08 07.69	-0.5
WB2	44.09	274	iPc	08 16.40	-0.9
	0.4s	17.80nm			5.3mb
			iPcP	09 50.90	
			eS	14 46.90	
WRA	44.10	274	P	08 16.50	-0.9
	1.5s	3.40nm			4.0mb X
FORT	45.56	257	eP	08 27.00	-2.0
	0.6s	45.00nm			5.6mb
CSY	53.62	208	eP	09 31.40	1.0
	0.8s	27.50nm			5.3mb
HON	56.48	23	P	10 00.00	8.4X
Z	20s	1.21um			5.0Msz
SPA	58.09	180	iPd	10 01.60	-1.2
	1.1s	18.45nm			5.0mb
MAW	70.71	201	P	11 25.39	0.7
NVL	77.20	183	eP	12 00.00	-2.3
	1.8s	37.00nm			5.2mb
SMY	84.73	355	P	12 50.00	7.9X
Z	21s	2.71um			5.6Msz
ISA	87.55	45	eP	12 56.31	-0.2
	0.9s	26.55nm			5.5mb
CMB	88.07	42	P	13 10.00	11.1X
Z	20s	1.27um			5.3Msz
GSC	88.31	46	eP	13 00.43	0.2
SDN	88.37	10	P	13 10.00	10.2X
Z	20s	1.59um			5.4Msz
MEMM	88.64	43	eP	13 02.72	1.2
BONR	89.21	43	eP	13 04.50	-0.2
TNP	89.92	44	eP	13 07.85	-0.1
	0.8s	18.62nm			5.4mb
MDJ	89.96	326	eP	13 06.90	-0.8
TUC	90.22	51	eP	13 09.78	0.5

08d 06h

```
        0.9s     12.34nm          5.2mb
      Z  19s      0.83um          5.2Msz
                     e     13 25.82
CN2    91.43 323 eP     13 14.00  -0.4
        1.0s     13.00nm          5.2mb
      Z  20s      0.67um          5.1Msz
                    ePP    13 24.00  31kmX
ARUT   91.98  46 eP     13 17.79   0.4
ALO    94.69  51 P      13 40.00  10.1X
      Z  19s      0.82um          5.2Msz
TIY    94.93 312 eP     13 36.40   5.6X
      Z  19s      0.98um          5.3Msz
SIT    95.87  22 P      13 40.00   5.5X
      Z  19s      1.20um          5.4Msz
PMR    96.26  13 P      13 50.00  13.8X
      Z  19s      0.34um          4.8Msz
GOL    98.15  48 P      14 00.00  14.4X
      Z  21s      0.16um          4.5Msz
GLD    98.28  48 P      14 00.00  13.9X
      Z  18s      1.14um          5.4Msz
RSSD  101.47  45 Pdiff  14 10.00   9.5X
      Z  19s      0.51um          5.1Msz
RSNY  120.79  54 PKP    19 10.00   9.2X
      Z  19s      0.33um          5.0Msz
HRV   122.31  57 PKP    19 10.00   6.3X
      Z  20s      1.15um          5.5Msz
CBM   125.71  52 PKP    19 20.00   9.8X
      Z  19s      0.53um          5.2Msz
LMN   127.78  54 ePKP   19 15.00   0.8
MAIO  132.77 292 ePKP   19 22.00  -2.2X
KAF   146.10 340 iPKP   19 46.50  -0.8
        0.7s     27.80nm
OBN   146.48 324 iPKPc  19 48.90   0.8
        1.1s     98.00nm
                     i  19 52.00
                     i  20 00.00
NUR   147.86 339 iPKP   19 52.00   1.9
        0.9s     78.10nm
BCAO  148.38 213 iPKPd  19 55.00   2.6X
        1.2s    147.00nm
                    id  20 07.00
                    ic  20 23.00
UPP   150.31 344 iPKP   19 57.80   3.9X
NAO   150.66 351 PKP    19 58.70   4.2X
        0.8s     10.90nm
SVST  150.75 295 iPKP   20 01.40   6.0X
HFS   150.87 348 ePKP   19 57.90   3.1X
        0.5s      5.10nm
TRHT  151.28 296 iPKP   20 01.80   5.6X
BHL   151.71 283 PKP    20 02.00   5.0X
KART  152.59 299 ePKP   20 05.20   7.0X
LIC   153.47 164 PKP    20 06.60   6.7X
KIC   153.67 165 PKP    20 06.70   6.5X
TIC   153.88 164 PKP    20 07.20   6.7X
BBTK  153.95 296 ePKP   20 07.50   7.5X
KSP   158.45 335 ePKP   20 27.00  21.7X
                    id  20 40.10
KHC   160.84 336 ePKP   20 21.40  13.4X
     S.D. = 1.2  on  33 of  73 obs.
-----------------------------------
   JAN  08, 1993  06h 01m 31.21± 0.35s
    7.391 N ± 8.3km   34.588 W ± 6.3km
    DEPTH =  10.0km  (geophysicist)
    4.8mb ( 15 obs.)
 CENTRAL MID-ATLANTIC RIDGE       (406)

BDF    26.43 210 Pc     07 11.50   1.2
BAO    26.45 210 Pc     07 09.80  -0.7
LIC    29.37  90 P      07 35.90  -1.0
        0.8s      8.00nm          4.6mb
KIC    29.65  90 P      07 38.10  -1.3
SIV    35.03 228 eP     08 30.00   3.6X
CCH    39.73 231 P      09 05.60  -0.6
ZOBO   40.69 234 P      09 14.30  -0.2
        1.2s     33.78nm          4.9mb
                    LR  21 20.00
LPB    40.80 234 P      09 16.00   0.8
CNCB   40.85 234 P      09 16.60   0.8
EPF    46.91  35 eP     10 04.60   0.8
        1.1s     10.75nm          4.8mb
CAF    49.06  34 eP     10 20.40  -0.2
        1.3s     29.95nm          5.2mb
LOR    51.50  33 eP     10 38.30  -0.8
        1.0s      6.80nm          4.5mb
SBF    51.60  38 eP     10 39.40  -0.6
        0.9s     33.50nm          5.3mb
STV    51.73  38 P      10 41.94   0.9
PZZ    51.74  37 P      10 42.44   1.3
RRL    51.78  37 P      10 42.72   1.2
ENR    51.78  38 P      10 42.26   0.9
PGF    51.90  40 eP     10 41.50  -0.9
        1.1s     33.70nm          5.2mb
LPL    52.08  36 eP     10 42.70  -1.1
        1.1s     10.00nm          4.7mb
LPG    52.08  36 eP     10 42.80  -1.1
        1.1s      7.55nm          4.5mb
FIN    52.25  38 P      10 44.68  -0.2
BCAO   52.90  90 iPd    10 50.30   0.1
        0.9s      9.00nm          4.7mb
DOU    53.64  30 P      10 56.20   1.3
GRF    56.90  34 eP     11 20.00   1.3
                     e  11 26.50
VBY    57.27  40 eP     11 21.30  -0.1
GEC2   57.87  36 eP     11 22.30  -3.3X
        0.8s      1.18nm          4.0mb
                     e  11 26.90
                     e  11 36.40
BRG    59.00  34 e(P)   11 41.60   8.2X
ZST    59.58  38 eP     11 36.30  -1.1
SKO    60.10  46 eP     11 41.80   0.6
SRO    60.16  38 eP     11 40.70  -0.7
                     e  29 32.00
RLO    61.90 307 eP     11 51.70  -1.8
VVO    62.30 306 e(P)   11 55.20  -1.0
LNO    62.45 307 eP     11 55.20  -1.8
LNO2   62.45 307 eP     11 55.30  -1.8
TUL    62.45 307 eP     11 55.30  -1.9
        1.2s     31.30nm          5.4mb
                     e  11 57.40
                     e  12 04.40
ACO    65.26 307 iPc    12 14.00  -1.6
ULM    66.18 322 eP     12 22.50   1.3
FCC    68.20 331 ePc    12 35.50   1.8
PV10   73.26 308 eP     13 05.24   0.1
PV09   73.35 308 eP     13 05.94   0.3
SRU    74.47 308 eP     13 11.53  -0.5
EMUT   74.73 309 eP     13 13.64   0.0
DAU    75.10 310 eP     13 15.51  -0.3
SES    75.71 320 eP     13 19.00   0.3
MSU    75.73 308 eP     13 19.37   0.0
HHAI   76.09 313 (P)    13 22.79   1.6
DUG    76.28 309 eP     13 22.52   0.2
        1.4s     13.82nm          4.9mb
TNP    79.69 307 eP     13 41.68   0.4
        1.1s     16.20nm          4.9mb
BONR   80.55 307 eP     13 47.75   1.8
ISA    80.78 305 eP     13 48.17   1.3
        1.0s     12.24nm          4.9mb
MAT   135.78   8 ePKP   20 55.00   0.6
        0.5s      6.34nm
WRA   163.54 140 PKP    21 49.00  12.9X
        0.8s      0.70nm
     S.D. = 1.1  on  48 of  52 obs.
-----------------------------------
?  JAN  08, 1993  06h 02m 55.26± 0.96s
   32.773 S ±13.0km   70.777 W ±13.6km
   DEPTH = 100.0km  (geophysicist)
 CHILE-ARGENTINA BORDER REGION    (127)
      MD 3.6 (SAN).

JACH    0.18  60 iP     03 10.13   0.2
                    iS  03 19.07
ROCH    0.28 225 iP+    03 09.82  -0.4
                    iS  03 18.48
PEL     0.38 168 iP     03 10.20  -0.3
                    iS  03 19.13
FCH     0.69 144 iP+    03 13.50   0.3
                    iS  03 25.40
PCH     0.87 165 iP+    03 14.53  -0.2
                    iS  03 26.63
TACH    0.89 189 iP+    03 14.61  -0.2
                    iS  03 26.54
LCCH    0.97 223 iPd    03 16.02   0.4
                    iS  03 29.30
CHCH    1.16 175 iP     03 18.01   0.2
                    iS  03 33.02
LNV     1.29 204 iPd    03 19.28   0.0
                    iS  03 35.21
     S.D. = 0.3  on   9 of   9 obs.
-----------------------------------
*  JAN  08, 1993  06h 08m 55.67± 0.87s
   31.983 S ±11.3km  177.966 W ±14.7km
   DEPTH =  21.6km  (  3 depth phases)
   5.3mb ( 13 obs.)  5.0Msz (  3 obs.)
 KERMADEC ISLANDS REGION          (177)

RAO     2.72   1 eP     09 37.50  -1.5
                    eS  10 11.90
PUZ     6.82 206 P      10 29.40  -7.6X
                     S  11 46.00
URZ     7.45 211 P      10 37.60  -8.1X
                     S  12 01.10
WCZ     7.51 236 eP     10 48.00   1.4
MOZ     8.79 220 eP     11 04.00  -0.5
THZ    12.19 214 eP     11 44.80  -6.1X
                     S  13 51.40
KHZ    12.41 211 P      11 46.10  -7.8X
                     S  13 51.30
BWZ    15.73 214 eP     12 30.10  -7.2X
DZM    17.02 302 iPc    13 00.20   6.1X
BRS    25.79 273 eP     14 26.00  -0.9
CNB    27.33 254 eP     14 42.00   1.0
        1.0s     30.00nm          4.9mb
                     e  18 00.00
CAN    27.63 254 eP     14 44.10   0.4
                     i  14 50.40  22km
BWA    28.16 256 eP     14 46.60  -1.9
RMQ    29.48 272 eP     15 00.20  -0.2
        1.0s     51.00nm          5.3mb
                     e  18 08.20
TOO    30.40 249 eP     15 10.70   2.2
        0.9s     31.00nm          5.1mb
CMS    30.71 261 eP     15 11.70   0.4
        0.5s     23.00nm          5.3mb
BFD    32.76 250 eP     15 23.80  -5.3X
        0.9s     22.00nm          5.1mb
CTA    34.11 281 iPd    15 42.00   0.9
        1.0s     22.50nm          5.1mb
STK    34.18 259 eP     15 41.40  -0.2
        0.5s   2103.40nm          7.3mb X
WB2    44.20 274 iPc    17 02.60  -2.4
        0.5s     57.40nm          5.7mb
WRA    44.21 274 P      17 03.80  -1.3
        0.8s      5.50nm          4.5mb
FORT   45.69 257 eP     17 13.50  -3.3X
WARB   48.32 262 eP     17 35.00  -2.6
MTN    50.27 280 eP     17 53.00   0.3
CSY    53.77 208 iPd    18 18.90   0.7
        0.7s     34.50nm          5.5mb
SPA    58.19 180 iPc    18 49.20  -1.1
        1.4s    117.65nm          5.7mb
NVL    77.30 183 eP     20 48.00  -1.6
        2.0s     78.00nm          5.4mb
      Z  15s      1.20um          5.3MszX
      N  15s      0.50um
      E  15s      0.50um
                     e  20 57.00  29km
                    eS  30 38.00
MDJ    89.94 326 Pc     21 55.00   0.7
        1.5s     46.00nm          5.5mb
CN2    91.42 323 eP     22 02.00   0.9
        1.0s     16.00nm          5.3mb
      Z  20s      0.67um          5.1Msz
                    epP  22 06.50  14km
GYA    92.36 300 P      22 08.40   2.4
BJI    94.07 315 eP     22 15.00   1.7
      Z  20s      0.54um          5.0Msz
MAIO  132.84 292 ePKP   28 10.00  -0.9
KAF   146.04 340 iPKP   28 34.30   0.5
        0.4s     10.50nm
OBN   146.46 324 iPKPc  28 36.20   1.5
        1.1s     94.00nm
                     i  28 47.40
NUR   147.80 339 iPKP   28 40.50   3.8X
BCAO  148.53 213 iPKPd  28 43.00   3.7X
        1.6s    182.00nm
UPP   150.24 344 iPKP   28 46.20   5.7X
                     i  28 51.50
NAO   150.57 351 PKP    28 45.80   4.8X
        0.7s      5.60nm
HFS   150.79 348 ePKP   28 45.60   4.3X
        0.6s      9.20nm
ARVI  151.71 276 ePKP   28 49.40   5.8X
MBH   151.78 274 ePKP   28 50.70   6.8X
BHL   151.79 283 PKP    29 00.00  16.2X
SAGI  152.06 275 ePKP   28 51.40   7.2X
LIC   153.54 164 PKP    28 53.00   6.3X
      Z  20s      0.25um          5.0Msz
KIC   153.73 165 PKP    28 53.40   6.4X
     S.D. = 1.4  on  26 of  45 obs.
-----------------------------------
```

% JAN 08, 1993 06h 57m 51.89± 0.59s
28.028 S ± 5.4km 26.800 E ± 6.9km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 2.7 (PRE). Six people killed and 7 injured in a mine near Welkom.

SEK	0.79	112	eP	58 08.00	0.3
			S	58 18.50	
BFS	1.13	359	eP	58 13.40	-0.1
			S	58 26.90	
BLF	1.20	206	iPc	58 14.60	-0.3
			S	58 29.10	
PRY	1.25	29	eP	58 16.00	0.3
			S	58 34.00	
SWZ	1.56	302	eP	58 20.80	0.4
			S	58 40.00	
FRS	2.15	217	eP	58 28.90	0.0
			S	58 54.00	
SLR	2.64	30	eP	58 35.40	-0.6
			S	59 04.50	

S.D. = 0.5 on 7 of 7 obs.

? JAN 08, 1993 07h 00m 24.71± 5.65s
32.392 S ±31.4km 72.044 W ±33.6km
DEPTH = 14.7 ± 4.7 km
OFF COAST OF CENTRAL CHILE (134)
MD 3.6 (SAN).

ROCH	1.05	124	iPd	00 43.97	-0.2
			iS	00 53.06	
LCCH	1.15	160	eP	00 46.01	0.2
			eS	00 56.27	
JACH	1.26	104	iPd	00 47.96	0.2
PEL	1.37	124	iP+	00 49.07	-0.2
			iS	01 02.40	
TACH	1.56	144	iP+	00 51.94	-0.1
			eS	01 06.64	
LNV	1.65	161	iP+	00 53.07	-0.1
			iS	01 10.43	
FCH	1.75	123	iP+	00 54.86	-0.1
			iS	01 12.65	
PCH	1.78	134	iP	00 55.28	0.1

S.D. = 0.2 on 8 of 8 obs.

% JAN 08, 1993 07h 18m 08.25± 1.07s
36.542 N ±11.8km 5.075 W ± 7.7km
DEPTH = 33.0km (normal)
STRAIT OF GIBRALTAR (385)
mbLg 3.0 (MDD).

EJIF	0.33	254	ePg	18 16.50	0.1
			eSg	18 22.00	
EPRU	0.44	344	iPgc	18 18.20	0.2
			eSg	18 26.50	
ALJ	0.45	287	eP	18 18.00	-0.2
MAL	0.57	71	iPnd	18 19.80	0.0
			iSg	18 29.00	
ELUQ	1.21	32	ePn	18 28.80	-0.1
			eSn	18 46.40	
EHOR	1.29	354	ePn	18 30.00	0.0
			eSn	18 47.50	

S.D. = 0.2 on 6 of 6 obs.

JAN 08, 1993 07h 19m 23.06± 0.62s
38.811 N ± 6.3km 142.813 E ± 8.6km
DEPTH = 10.0km (geophysicist)
4.8mb (9 obs.)
NEAR EAST COAST OF HONSHU, JAPAN(228)

OFUJ	0.93	287	iPd	19 39.90	-0.9
			S	19 49.60	
YAMJ	2.27	255	P	20 01.00	-0.2
			S	20 26.70	
AOMJ	2.57	314	P	20 06.70	1.3
			eS	20 36.40	
KAKJ	3.34	220	P	20 15.70	-0.7
			S	20 55.80	
NIIJ	3.39	244	eP	20 17.20	0.1
HOOJ	3.59	6	eP	20 21.10	1.3
			eS	21 01.60	
MRRJ	3.85	340	eP	20 24.20	0.7
			S	21 08.50	
CHJJ	4.10	229	P	20 28.70	1.5
MAT	4.30	240	eP	20 31.00	1.0
			eS	21 22.00	
KUSJ	4.52	18	eP	20 33.30	0.3
			eS	21 23.70	
MTMJ	4.55	242	eP	20 35.30	1.7
IIDJ	5.14	231	P	20 43.90	2.0
			eS	21 42.20	
ASAJ	5.30	359	eP	20 45.90	1.7
TSRJ	6.36	241	eP	21 01.30	2.2
SSE	19.30	253	Pd	23 49.00	-1.9
	1.0s		11.00nm	4.1mb	
			i	24 13.50	
YAK	24.59	345	eP	24 43.00	-1.1
	0.9s		30.00nm	4.9mb	
			e	24 52.00	
			e	29 05.00	
CHG	42.81	255	eP	27 22.20	-0.6
GUN	48.10	275	P	28 04.60	-0.7
	0.9s		41.00nm	5.5mb	
KKN	48.62	275	P	28 08.40	-0.8
	0.6s		19.00nm	5.3mb	
PKI	48.62	275	P	28 08.40	-1.0
DMN	48.84	275	P	28 10.20	-0.8
GKN	49.02	276	P	28 11.20	-1.0
WB2	58.98	189	iPd	29 24.50	-0.6
	0.5s		12.50nm	5.3mb	
			e	29 33.90	
WRA	58.98	189	P	29 24.80	-0.3
	0.7s		4.70nm	4.7mb	
HYB	59.36	268	eP	29 26.00	-2.0
GBA	62.46	265	Pc	29 48.00	-1.0
ASPA	62.71	189	iPd	29 50.20	-0.2
	1.0s		7.80nm	4.9mb	
NAO	73.26	338	P	30 53.90	-2.0
	0.7s		1.60nm	4.2mb	
GEC2	81.78	329	ePc	31 43.20	-0.1
	0.5s		0.67nm	4.0mb	
			e	31 51.60	
ZOBO	144.84	59	PKP	39 04.00	1.0
LPB	145.03	59	ePKP	39 04.00	0.9
CNCB	145.31	59	PKP	39 06.20	2.5X
CCH	146.94	58	PKP	39 17.70	11.6X

S.D. = 1.2 on 31 of 33 obs.

& JAN 08, 1993 08h 00m 32.97s
57.670 N 142.803 W
DEPTH = 10.0km (geophysicist)
GULF OF ALASKA (15)
<AEIC>. ML 2.7 (AEIC).

KAIM	2.41	340	eP	01 07.69	-5.4
			eS	01 34.20	
SNH	2.52	360	eP	01 09.44	-5.2
			eS	01 38.19	
PNL	2.68	40	iP	01 11.34	-5.6
			eS	01 41.40	
HON	2.72	47	eP	01 11.52	-6.0
			S	01 42.70	
YAH	2.76	11	iP	01 13.26	-5.0
			eS	01 45.64	
PCA	2.77	27	eP	01 12.99	-5.3
BCPM	2.82	34	eP	01 13.42	-5.5
RAGM	2.89	341	eP	01 14.72	-5.2
			eS	01 48.43	
SGAM	3.10	337	eP	01 16.88	-5.9
			eS	01 52.89	
CROM	3.10	357	eP	01 17.30	-5.7
CVA	3.26	333	eP	01 18.55	-6.6
			eS	01 54.82	
HIN	3.34	327	eP	01 20.10	-6.2
			eS	01 59.03	
BALM	3.39	4	iP	01 21.71	-5.3
			eS	02 00.69	
CTGM	3.39	12	eP	01 21.91	-5.2
			eS	02 01.27	
MTU	3.43	315	eP	01 20.01	-7.5
			eS	01 59.71	
LTI	3.54	314	eP	01 21.50	-7.6
KNIM	3.70	319	eP	01 23.77	-7.7
GLB	3.82	353	eP	01 28.36	-4.8
GLI	3.90	327	eP	01 28.63	-5.6
SEW	4.22	308	eP	01 30.51	-8.2
MPA	4.41	313	eP	01 33.44	-7.9
SLKM	4.77	310	eP	01 38.50	-8.1
SYI	5.17	285	eP	01 44.19	-7.9
REF	5.83	303	eP	01 53.60	-8.1
CDD	5.85	287	eP	01 53.52	-8.3
DFR	5.87	304	eP	01 53.97	-8.2
SPU	5.89	311	eP	01 54.43	-7.9
CGLM	5.94	312	eP	01 55.72	-7.4

28 obs. associated

JAN 08, 1993 08h 26m 48.98± 1.03s
34.199 N ± 7.0km 45.205 E ± 6.2km
DEPTH = 53.1 ± 11.3 km
IRAN-IRAQ BORDER REGION (346)

KER	1.58	84	ePc	27 15.30	0.1
			eS	27 35.00	
TAB	3.97	13	eP	27 55.00	6.1X
TEH	5.30	71	eP	28 29.00	21.3X
QASM	8.21	191	eP	28 48.27	0.1
			eS	30 19.33	
MJMA	8.32	179	eP	28 49.33	-0.3
			eS	30 18.00	
AFIF	10.22	190	eP	29 20.13	4.4X
ZST	25.18	312	eP	32 16.50	5.7X
GEC2	27.52	312	ePd	32 33.70	1.3
	1.0s		0.82nm	3.3mb X	
			e	32 38.50	
NUR	29.52	339	eP	32 50.10	-0.1
	0.4s		3.20nm	4.4mb	
KAF	30.40	342	iP	32 57.30	-0.7
	0.5s		2.10nm	4.1mb	
HFS	33.07	331	eP	33 20.60	-0.7
	0.5s		6.60nm	4.7mb	
GKN	34.17	89	P	33 31.60	0.2
	0.5s		22.00nm	5.3mb	
DMN	34.70	90	P	33 36.40	0.3
	0.6s		23.00nm	5.3mb	
KKN	34.78	89	P	33 36.40	-0.3
	0.6s		23.00nm	5.3mb	
PKI	34.96	90	P	33 38.40	0.0
	0.5s		20.00nm	5.3mb	
GUN	35.23	89	P	33 41.00	0.3
	0.5s		18.00nm	5.3mb	
GBA	35.66	117	P	33 44.00	0.0
LZH	47.35	70	eP	35 20.00	0.3
	1.0s		25.00nm	5.1mb	
CHG	49.93	94	eP	35 39.20	-0.4

S.D. = 0.5 on 15 of 19 obs.

JAN 08, 1993 09h 39m 51.58± 0.64s
40.514 N ± 6.8km 21.918 E ± 5.7km
DEPTH = 10.0km (geophysicist)
GREECE (364)

FNA	0.49	303	ePg	40 00.72	-0.9
GRG	0.58	40	ePg	40 04.12	0.9
LIT	0.60	133	ePg	40 03.12	-0.6
			eSg	40 13.44	
THE	0.81	81	ePg	40 06.64	-0.6
OHR	1.04	305	ePn	40 11.50	0.3
AGG	1.52	168	ePb	40 19.40	0.5
IGT	1.56	232	ePb	40 19.84	0.4

S.D. = 0.8 on 7 of 7 obs.

JAN 08, 1993 09h 47m 23.14± 1.30s
14.864 S ± 8.4km 166.795 E ± 6.9km
DEPTH = 34.7 ± 11.3 km
4.7mb (11 obs.)
VANUATU ISLANDS (186)

BKM	3.12	154	iPc	48 11.90	0.8
			iS	48 48.50	
DZM	7.18	183	iPc	49 07.00	-1.5
			iS	50 27.10	
HNR	8.60	308	eP	49 29.00	0.7
			eS	51 07.00	
RMQ	20.43	233	eP	52 01.00	0.7
	0.8s		19.00nm	4.5mb	
ARMA	20.83	219	eP	52 08.10	3.6X
	1.0s		18.00nm	4.4mb	
CMS	25.33	226	eP	52 48.80	0.4
	0.8s		9.00nm	4.4mb	
BWA	25.58	217	e(P)	52 51.40	0.6
			e	52 57.00	
			i	53 05.50	
WB2	31.34	256	iPd	53 41.20	-1.6
	0.9s		2.50nm	4.0mb	
AFR	41.72	100	iPc	55 22.60	11.9X
	1.5s		175.50nm		
PAE	41.91	100	iPc	55 23.70	11.5X
PMO	43.72	96	iPc	55 27.00	0.0
	1.5s		156.70nm	5.6mb	
VAH	43.95	97	iPc	55 28.90	0.0

08d 09h

```
        1.1s    60.60nm          5.3mb
TPT     43.99  96 iPc   55 29.50   0.3
        1.0s    28.40nm          5.0mb
RUV     44.19  97 iPc   55 30.60  -0.3
        1.5s   161.90nm          5.6mb
MDJ     68.18 332 eP    58 21.00  -1.1
CN2     69.52 329 eP    58 29.80  -0.6
        0.8s     3.80nm          4.5mb
                 epP    58 33.50  12kmX
TIY     73.05 318 eP    58 51.00  -0.8
XAN     73.44 313 P     58 54.10   0.0
        0.9s     6.00nm          4.6mb
                 pP     59 04.50  33kmX
                 sP     59 09.90
LZH     78.07 312 eP    59 21.50   1.0
        1.2s    23.00nm          5.1mb
GUN     89.06 299 P     00 11.80  -5.1X
PKI     89.36 299 P     00 18.40   0.1
KKN     89.53 299 P     00 19.40   0.4
GKN     90.14 299 P     00 21.40  -0.3
CDF    142.53 337 ePKP  06 50.20  -4.2X
LDF    144.68 345 ePKP  06 56.60  -1.3
LOR    144.71 340 ePKP  06 56.60  -1.4
LBF    144.91 339 ePKP  06 57.10  -1.3
SSF    145.00 340 ePKP  06 57.70  -0.8
        1.2s    37.20nm
GRR    145.05 346 ePKP  06 57.40  -1.1
LPL    145.12 335 ePKP  06 58.50  -0.6
        0.6s     9.20nm
LPG    145.13 335 ePKP  06 58.70  -0.5
        0.6s     8.50nm
SMF    145.25 339 ePKP  06 58.30  -0.7
        0.7s    10.80nm
AVF    145.29 340 ePKP  06 58.40  -0.6
        0.8s    11.55nm
LPF    145.43 346 ePKP  06 58.70  -0.5
        0.5s     8.75nm
BGF    145.66 340 ePKP  06 59.70   0.0
        0.8s    17.85nm
MAF    146.05 340 ePKP  07 01.00   0.7
        0.7s     5.50nm
TCF    146.11 341 ePKP  07 01.10   0.7
        0.6s     6.20nm
SBF    146.16 333 ePKP  07 00.90   0.3
        0.9s    30.95nm
LSF    146.36 341 ePKP  07 01.60   0.8
PGF    146.44 330 ePKP  07 02.00   0.8
        1.0s    35.00nm
MFF    146.52 344 ePKP  07 02.20   1.2
        0.8s    16.50nm
FRF    146.74 333 ePKP  07 02.70   1.2
        0.7s    14.65nm
LRG    146.95 333 ePKP  07 03.40   1.6
LMR    146.98 333 ePKP  07 03.40   1.5
        1.0s    18.40nm
BCAO   147.09 255 iPKPc 07 04.20   1.3
        0.9s    20.00nm
RJF    147.21 341 ePKP  07 04.40   2.2X
CAF    147.36 340 ePKP  07 05.10   2.6X
LFF    147.78 341 ePKP  07 05.80   2.7X
        0.7s    13.45nm
LPO    147.87 341 ePKP  07 06.20   3.0X
     S.D. = 0.9  on  40 of  49 obs.
-----------------------------------
*  JAN  08, 1993  10h 33m 40.67± 1.07s
    5.595 N ± 7.5km  126.747 E ±17.9km
    DEPTH = 113.4 ± 10.2 km
    4.7mb (  6 obs.)
 MINDANAO, PHILIPPINE ISLANDS      (259)

BIP      2.66 349 eP    34 21.50  -1.4
                 eS    34 49.00
MNI      4.54 205 ePd   34 49.00   0.6
                 eS    35 47.00
PLP      5.80 343 ePc   35 07.00   1.2
WB2     26.46 164 iPc   39 07.70  -1.3
        0.5s    12.90nm          4.7mb
ASPA    29.91 167 eP    39 41.00   1.0
        0.9s     3.40nm          4.1mb
BJI     35.59 346 eP    40 29.50   0.5
        1.0s    11.00nm          4.7mb
LZH     36.92 328 eP    40 42.00   1.6
        1.4s    55.00nm          5.2mb
GUN     44.67 305 P     41 44.26  -0.2
        0.7s    33.00nm          5.2mb
PKI     44.93 304 P     41 46.04  -0.4
KKN     45.12 304 P     41 47.58  -0.2
DMN     45.19 304 P     41 48.06  -0.4
GKN     45.72 304 P     41 51.78  -0.8
GBA     49.19 283 Pd    42 19.40  -0.1
        0.6s     2.50nm          4.3mb
OBN     85.54 325 eP    46 07.00  -0.1
     S.D. = 1.0  on  14 of  14 obs.
-----------------------------------
    JAN  08, 1993  11h 10m 26.51± 1.34s
     1.289 N ± 5.8km  128.037 E ± 9.0km
    DEPTH = 152.9 ± 13.7 km
    4.8mb ( 11 obs.)
 HALMAHERA, INDONESIA              (267)

PLP     10.27 343 ePd   12 51.00  -0.1
TRT     17.77 240 ePc   14 25.80   0.0
WB2     21.99 164 iPc   15 08.80  -0.3
        0.4s    26.50nm          5.0mb
ASPA    25.45 167 iPd   15 41.80  -0.2
        0.7s    12.50nm          4.6mb
                 e      16 06.20
WARB    27.34 183 iPd   15 59.10  -0.1
PPI     27.69 267 eP    16 03.00   0.6
STK     35.40 160 iPd   17 09.50   0.0
        0.8s     5.80nm          4.4mb
ARMA    38.72 146 eP    17 38.20   0.7
        0.6s     6.00nm          4.5mb
BJI     40.05 346 eP    17 47.50  -0.6
        1.0s    11.00nm          4.5mb
LZH     41.25 330 eP    17 59.50   1.2
        1.5s    27.00nm          4.6mb
                 sP     18 30.00
GUN     48.22 307 Pc    18 54.32   0.2
        0.6s    54.00nm          5.5mb
PKI     48.45 307 Pc    18 55.66  -0.2
KKN     48.65 307 Pc    18 57.18  -0.1
        0.5s    21.00nm          5.1mb
DMN     48.71 306 Pc    18 57.80   0.0
GKN     49.25 307 Pc    19 01.68  -0.2
        0.7s    22.00nm          5.0mb
HYB     51.19 291 eP    19 16.50  -0.1
        1.0s    40.00nm          5.1mb
GBA     51.52 286 Pc    19 18.60  -0.4
        0.6s     4.00nm          4.3mb
KIC    132.25 280 PKP   29 24.80  -0.2
LIC    132.55 280 PKP   29 25.40  -0.1
     S.D. = 0.5  on  19 of  19 obs.
-----------------------------------
%  JAN  08, 1993  11h 21m 19.10± 0.73s
    26.942 S ± 7.6km   26.755 E ± 7.2km
    DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA          (584)
      ML 2.7 (PRE).

BFS      0.05  32 iPd   21 21.30   0.6
PRY      0.64  89 eP    21 31.90   0.0
                 S      21 39.30
SWZ      1.30 259 eP    21 44.20   0.5
                 S      22 01.70
SEK      1.58 151 eP    21 49.00   1.1
                 S      22 08.50
SLR      1.82  49 iPd   21 50.50  -1.0
                 S      22 12.50
BLF      2.22 193 eP    21 56.70  -0.5
                 S      22 24.00
FRS      3.07 204 e(P)  22 08.50  -0.6
     S.D. = 0.9  on   7 of   7 obs.
-----------------------------------
    JAN  08, 1993  11h 48m 34.45± 0.53s
    44.425 N ± 3.9km    7.215 E ± 6.6km
    DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                    (545)
      ML 2.6 (LDG).

DOI      0.08  16 Pd    48 37.10   0.1
                 eSg    48 38.70
BNI      0.74 329 P     48 48.80  -0.2
                 eSg    48 59.50
CKI      0.76  90 P     48 49.30  -0.1
                 eSg    48 58.80
FRF      0.96 206 Pg    48 52.60  -0.1
                 Sg     49 04.60
LPG      1.12 343 Pg    48 55.80   0.1
                 Sg     49 10.70
LPL      1.14 343 Pg    48 56.00   0.0
                 Sg     49 10.80
LRG      1.15 213 Pg    48 56.00   0.1
                 Sg     49 11.40
LMR      1.20 205 Pg    48 56.90   0.0
                 Sg     49 12.20
     S.D. = 0.1  on   8 of   8 obs.
-----------------------------------
&  JAN  08, 1993  12h 25m 23.82s
    47.591 N          121.512 W
    DEPTH =   9.6km
 WASHINGTON                        ( 29)
      <SEA-P>. MD 1.9 (SEA).

RMW      0.24 237 ePc   25 28.65  -0.3
                 eS     25 32.63
HTW      0.27 321 Pd    25 29.03  -0.6
                 S      25 32.82
BLH      0.43 305 Pd    25 32.00  -0.5
                 S      25 38.21
GSM      0.43 206 Pd    25 31.85  -0.8
                 S      25 38.09
SPW      0.50 266 P     25 34.20   0.3
TWW      0.63 136 Pd    25 35.75  -0.8
JCW      0.67 335 Pd    25 35.63  -1.5
                 S      25 44.66
FMW      0.67 189 Pd    25 35.56  -1.7
                 S      25 44.45
RVC      0.72 206 Pd    25 36.72  -1.4
                 S      25 46.65
RCS      0.74 192 Pd    25 36.98  -1.6
                 S      25 46.66
TBM      0.75 124 Pd    25 37.55  -1.1
GHW      0.75 224 P     25 37.36  -1.3
PGW      0.77 288 P     25 37.95  -0.9
ETW      0.80  89 P     25 38.00  -1.5
REMR     0.80 196 Pd    25 38.03  -1.6
RPW      0.86 360 Pd    25 38.67  -1.8
GMW      0.86 268 eP    25 39.46  -1.0
LON      0.87 194 ePd   25 38.81  -1.8
                 eS     25 49.91
WPW      0.89 182 Pd    25 39.47  -1.6
CMW      0.93 334 Pd    25 40.45  -1.2
NLW      0.93  58 Pd    25 40.32  -1.4
NAC      0.98 151 Pd    25 41.64  -0.8
OHW      1.00 317 P     25 41.41  -1.4
CBSW     1.02  77 P     25 41.80  -1.4
GLK      1.03 184 Pd    25 42.06  -1.3
HDW      1.04 274 P     25 41.99  -1.6
WTV      1.06  84 P     25 42.70  -1.2
LMW      1.07 210 P     25 42.54  -1.5
BLN      1.07 293 Pd    25 42.22  -1.8
MBW      1.22 348 Pd    25 45.05  -1.7
DHW2     1.24  71 P     25 45.72  -1.2
YAKW     1.26 148 P     25 46.71  -0.6
CPW      1.27 241 P     25 46.48  -0.9
SMW      1.27 258 P     25 46.20  -1.3
SHW      1.48 200 eP    25 49.65  -1.1
                 eS     26 09.27
BMW      1.62 227 ePc   25 51.49  -1.1
                 Sg     26 13.15
VGB      2.14 166 eP    25 59.47  -0.6
                 eS     26 26.24
DPW      2.25  82 eP    25 59.51  -2.3
NEW      3.03  76 eP    26 10.13  -2.6
        39 obs. associated
-----------------------------------
?  JAN  08, 1993  12h 45m 39.99± 5.68s
    41.389 N ±38.5km   22.564 E ±19.8km
    DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION        (383)
      ML 2.3 (SKO).

VAY      0.07 176 iPg   45 42.00  -0.3
                 iSg    45 49.40
KNT      0.34 132 ePg   45 46.96   0.0
GRG      0.45 196 ePg   45 49.16   0.0
SRS      0.82 109 ePg   45 56.04   0.1
                 iSg    46 12.12
SOH      0.82 133 ePb   45 55.60  -0.4
                 iSb    46 13.12
     S.D. = 0.3  on   5 of   5 obs.
-----------------------------------
    JAN  08, 1993  12h 50m 26.92± 0.28s
    42.275 N ± 3.7km   18.656 E ± 2.5km
    DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION        (383)
      MD 4.3 (TRI). ML 3.7 (TTG).

BDV      0.13  86 iPgd  50 29.08  -1.0
                 iSg    50 30.56
```

HCY	0.21	326	iPgc*	50	32.68	1.2
			iSg	50	37.28	
TTG	0.47	71	iPgc	50	34.81	-1.7
			iSg	50	40.14	
ULC	0.54	125	iPgc	50	35.77	-2.1
			iSg	50	43.18	
NKY	0.59	25	iPgc	50	37.80	-1.2
			iSg	50	46.10	
BRY	0.63	353	iPgc	50	44.68	5.0X
			iSg	50	58.63	
SDA	0.67	109	iPgd	50	40.50	0.4
			iSg	50	49.00	
IVA	1.09	57	iPgd	50	46.11	-1.4
			iSg	51	01.37	
PLE	1.19	27	iPgd	50	48.16	-1.0
			iSg	51	05.57	
TIR	1.29	135	iPnc	50	51.60	0.7
			iSn	51	12.00	
BAI	1.77	230	P	50	57.50	-0.2
BRT	1.77	218	P	50	57.00	-0.8
HVAR	1.86	300	iPnc	50	59.70	0.6
			iSg	51	28.30	
OHR	1.98	125	iPn	51	02.30	1.4
			i	51	06.10	
			i	51	23.50	
			iSg	51	28.60	
			i	51	38.50	
SKO	2.09	97	iPn	51	03.60	1.1
			iPb	51	04.80	
			iPg	51	06.00	
			iSg	51	33.10	
			Lg	51	45.20	
FNA	2.53	125	eP	51	11.86	3.1X
			eS	51	41.38	
IGT	3.02	155	eP	51	14.02	-1.6
			eS	51	47.14	
VAY	3.08	107	iPn	51	16.40	0.0
GRG	3.10	114	eP	51	18.50	1.7
MGR	3.17	229	P	51	17.00	-0.7
KKB	3.32	96	iP	51	21.00	1.0
KNT	3.36	108	eP	51	22.38	1.8
VTS	3.38	83	iPc	51	21.00	0.0
LIT	3.62	126	eP	51	24.02	-0.2
			iS	52	04.26	
SDI	3.65	263	P	51	25.50	0.8
SOH	3.81	111	eP	51	27.06	0.1
MMB	3.85	99	iP	51	28.00	0.5
SRS	3.87	106	eP	51	27.70	-0.1
AQU	3.90	273	P	51	30.00	1.8
ZAG	4.03	332	i(Pn)	51	33.10	3.2X
			iSn	52	20.50	
VBY	4.06	324	iPnc	51	32.00	1.7
			iSn	52	15.20	
PGB	4.09	84	iPc	51	31.00	0.1
PTJ	4.11	333	iPn	51	32.10	0.9
			iSn	52	19.80	
AGG	4.29	138	eP	51	30.86	-2.8X
			eS	52	18.22	
GZR	4.31	42	iPd	51	35.00	0.9
UZD	4.32	359	ePn	51	34.20	0.1
RIY	4.35	316	ePn	51	34.60	0.0
			iSn	52	26.30	
ARV	4.37	288	P	51	35.00	0.1
ASS	4.49	282	P	51	37.50	0.9
RZN	4.56	95	eP	51	37.00	-0.6
CEY	4.61	320	ePn	51	39.50	1.2
			eSn	52	35.00	
DEV	4.73	39	ePc	52	36.00	56.0X
LJU	4.79	323	ePn	51	41.90	1.0
			eSn	52	40.00	
TRI	4.92	316	ePn	51	43.10	0.5
			ePg	51	58.80	
			eSn	52	40.80	
			i	53	04.70	
			eSg	53	07.30	
VOY	5.08	319	iPnc	51	45.40	0.4
			eSn	52	45.00	
CRE	5.10	288	P	51	46.00	0.7
BUD	5.22	3	ePn	51	46.00	-0.8
SFI	5.25	291	P	51	46.00	-1.2
SRO	5.54	358	eP	51	53.00	1.6
PSZ	5.71	8	ePn	51	52.90	-1.0
FVI	6.03	318	P	52	00.50	2.3
KBA	6.11	324	iPnd	52	00.10	0.5
			iSn	53	10.10	
			iSgSg	53	55.50	
BDI	6.16	290	P	52	01.00	0.8

MLR	6.17	56	ePc	52	02.60	2.2
CTI	6.29	309	P	52	01.00	-1.1
WTTA	7.06	317	iPnd	52	12.60	-0.3
			i	53	23.20	
			iSn	53	33.80	
PGF	7.15	275	Pn	52	12.80	-1.4
GEC2	7.43	334	Pn	52	17.40	-0.7
			Sn	53	38.30	
KHC	7.72	334	ePn	52	20.00	-2.0
			ePg	52	25.00	
			e	52	42.50	
			eSg	52	48.40	
			e	53	24.50	
			e	53	31.50	
			e	53	46.00	
			eSg	53	51.50	
FRF	8.91	282	Pn	52	37.70	-0.9
LPG	9.18	295	Pn	52	41.20	-1.4
LPL	9.20	295	Pn	52	42.50	-0.3
BSF	10.06	308	Pn	52	54.40	-0.2
CDF	10.09	311	Pn	52	54.50	-0.4
HAU	10.41	308	Pn	53	01.20	2.0
SMF	11.45	297	Pn	53	11.40	-2.1
LBF	11.47	299	Pn	53	12.40	-1.3
			Sn	55	13.40	
LOR	11.64	300	Pn	53	15.50	-0.5
			Sn	55	21.70	
HFS	18.14	352	eP	54	37.90	-2.4

0.5s 1.00nm 3.2mb
S.D. = 1.2 on 64 of 69 obs.

& JAN 08, 1993 13h 01m 18.80s
35.830 N 90.030 W
DEPTH = 21.1km
ARKANSAS (502)
<SLM-P>. MD 3.5 (SLM), 3.4 (TEIC). mbLg 3.5 (TUL), 3.4 (GS). Felt (IV) at Blytheville and Etowah; (III) at Armorel, Caraway, Dell, Gosnell, Leachville, Lepanto, Luxora, Monette and Osceola. Felt (III) at Tiptonville, Tennessee and at Hayti and Senath, Missouri. Also felt at Braggadocio, Caruthersville, Kennett and Steele, Missouri.

WGAR	0.13	280	iPd	01	23.72	0.5
			S	01	28.68	
HATI	0.45	40	eP	01	27.09	-0.9
			S	01	32.86	
LRDO	0.56	285	iPd	01	29.42	-0.4
MFTN	0.61	57	iPd	01	29.98	-0.7
DRTN	0.62	60	iPd	01	30.14	-0.7
GRT	0.65	48	iPc	01	30.55	-0.9
LDMO	0.69	33	iPc	01	30.57	-1.5
			S	01	39.16	
BBTN	0.72	40	eP	01	30.62	-2.0
			S	01	39.22	
OGTN	0.74	37	iPc	01	31.44	-1.4
			S	01	40.88	
ACTN	0.78	48	iPc	01	32.63	-0.9
			S	01	42.29	
NMMO	0.85	27	ePc	01	33.08	-1.7
			S	01	43.81	
UTMA	0.97	61	iPd	01	36.34	-0.5
DWM	1.07	24	ePc	01	36.45	-1.9
			S	01	50.15	
CRU	1.12	47	iPc	01	38.15	-1.0
			S	01	52.27	
OLY	1.22	255	eP	01	40.75	0.1
			eS	01	53.26	
AFAR	1.25	284	iPd	01	41.06	-0.1
			iS	01	57.68	
LGAR	1.28	204	iPc	01	42.80	1.3
DON	1.35	3	iPc	01	40.97	-1.4
			S	01	57.95	
ELC	1.59	24	eP	01	44.40	-1.5
			eS	02	04.76	
FVM	2.17	352	ePc	01	52.88	-1.5
			eS	02	20.98	
TYS	2.72	351	eP	02	00.90	-1.3
MIAR	3.17	247	eP	02	08.62	0.0
			eS	02	58.99	
RLO	4.06	276	Pn	02	19.45	-1.8
			i	02	20.13	

VVO	4.68	266	iPnc	02	28.10	-1.9
			ePg	02	42.30	
			Lg	03	44.73	
LNO	4.68	273	Pn	02	27.93	-1.9
			Pg	02	33.25	
			Lg	03	43.43	
LNO2	4.68	273	Pn	02	27.95	-2.0
			Pg	02	33.27	
			Lg	03	43.30	
LNO3	4.68	273	Pn	02	28.13	-1.8
			Pg	02	33.47	
			Lg	03	43.22	
TUL	4.68	273	ePn	02	27.85	-2.2
			i	02	33.34	
			Sn	03	20.03	
			Lg	03	32.50	
TKL	5.09	90	(P)	02	37.61	1.8
SIO	5.10	271	ePn	02	33.83	-2.1
			Lg	04	00.83	

30 obs. associated

? JAN 08, 1993 13h 45m 26.72± 0.93s
39.061 N ± 8.4km 27.554 E ± 9.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.7 (ISK).

IZM	0.70	199	ePg	45	40.60	0.0
			iSg	45	52.10	
DST	0.99	57	iPg	45	45.60	0.0
			eSg	46	00.00	
EZN	1.22	309	iPn	45	49.40	0.0
KCT	1.34	27	ePn	45	51.40	0.0

S.D. = 0.0 on 4 of 4 obs.

JAN 08, 1993 13h 51m 10.85± 0.53s
38.845 N ± 5.1km 27.152 E ± 6.9km
DEPTH = 18.2 ± 6.1 km
TURKEY (366)
MD 3.5 (ISK).

IZM	0.46	169	iPg	51	18.60	-1.5
EZN	1.17	327	iPg	51	32.40	0.2
DST	1.38	56	iPn	51	35.60	0.4
EDC	1.60	20	iPn	51	38.00	-0.3
BNT	1.62	21	iPn	51	37.90	-0.8
KCT	1.68	33	iPn	51	38.90	-0.7
YER	1.93	152	ePn	51	44.20	1.0
KHL	1.93	105	ePn	51	44.00	0.8
GBZT	2.62	42	ePn	51	59.80	6.7X
			iSg	52	38.00	
GPA	2.83	58	ePn	51	56.00	-0.1
DMK	3.01	9	ePn	51	58.00	-0.5
RZN	3.40	327	iPc	52	05.00	0.8
PLD	3.75	331	iP	52	10.00	0.9
KKB	4.33	315	iP	52	17.00	-0.3
PGB	4.34	329	iP	52	17.00	-0.5
VTS	4.79	323	iP	52	24.00	0.0

S.D. = 0.8 on 15 of 16 obs.

• JAN 08, 1993 14h 03m 03.02± 0.94s
5.628 S ±13.3km 147.266 E ±10.4km
DEPTH = 143.4 ± 10.3 km
4.2mb (1 obs.)
EASTERN NEW GUINEA REG., P.N.G. (207)

FINC	1.14	149	eP	03	29.00	0.3
MDG	1.53	284	eP	03	33.00	0.3
PMG	3.75	182	eP	04	00.00	-0.6
			eS	04	42.00	
RAB	5.08	74	e(P)	04	18.00	-0.4
WB2	18.98	220	iPd	07	15.20	-0.8

0.3s 66.90nm 5.4mb X

			eS	10	47.40	
RMO	20.79	176	eP	07	35.70	1.2

0.5s 5.00nm 4.2mb

WARB	28.39	222	iPc	08	46.00	0.0

S.D. = 1.0 on 7 of 7 obs.

• JAN 08, 1993 14h 23m 02.16± 0.57s
23.763 N ± 7.3km 122.619 E ±10.9km
DEPTH = 34.9km (2 depth phases)
4.3mb (9 obs.)
TAIWAN REGION (243)

PIP	5.72	199	eP	24	26.50	-0.5
CVP	6.07	187	ePd	24	30.00	-2.0

08d 14h

```
SSE      7.41 350 Pc  * 24 48.00  -2.7
      Z  20s      1.80um
      N  12s      1.10um
                   pP    24 53.50
BAG      7.56 195 eP    24 52.00  -1.0
HKC      7.92 261 iP    24 57.10  -0.7
BJI     17.12 343 P     27 00.50   0.2
      Z  14s      0.88um
KMI     18.15 278 eP    27 16.00   2.5
        1.6s     30.00nm          4.2mb
      Z  12s      1.30um
      N  10s      0.70um
      E  10s      0.70um
                   sP    27 27.50
MAT     18.51  43 eP    27 20.00   2.4
        0.6s      6.00nm          4.0mb
LZH     20.34 311 eP    27 38.20  -0.2
        1.2s     48.00nm          4.7mb
      Z  17s      1.08um          4.3MszX
      E  14s      0.65um
CHG     22.59 262 eP    28 03.30   2.3
WRA     44.92 164 P     31 16.90   1.3
        0.8s      1.00nm          3.7mb
WB2     44.92 164 iPc   31 16.50   0.9
MAIO    55.20 299 eP    32 34.00  -0.1
STK     58.23 161 eP    32 56.40   1.0
        0.7s      4.70nm          4.7mb
FBA     68.58  27 (P)   34 02.70  -0.6
        0.9s      3.33nm          4.4mb
BALM    71.89  31 eP    34 23.39  -0.2
NAO     79.48 332 P     35 03.90  -2.5
        0.6s      1.50nm          4.2mb
KSP     81.57 322 eP    35 07.50 -10.2X
                   e    35 29.40  82kmX
YKA     82.84  23 eP    35 23.90  -0.2
        0.8s      4.00nm          4.5mb
KHC     83.93 321 eP    35 26.50  -3.4X
                   e    35 30.50  13kmX
                   e    35 41.50
GEC2    84.00 321 ePd   35 30.70   0.3
        0.7s      2.33nm          4.4mb
                   e    35 37.20
                   epPd 35 41.70  35km
                   e    35 50.10
                   e    35 56.30
GRF     84.97 323 eP    35 36.10   1.0
                   e    35 47.00  35km
ZOBO   167.46  56 ePKP  43 13.00   6.0X
CNCB   167.89  57 ePKP  43 06.00  -1.2
SIV    171.53  25 ePKP  43 26.00  17.5X
                   i    45 20.00
     S.D. = 1.5  on  21 of  25 obs.
-----------------------------------
%  JAN  08, 1993  15h 02m 47.11± 0.84s
   39.063 N ± 7.0km   27.631 E ± 8.8km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                            (366)
      MD 2.8 (ISK).

IZM      0.72 204 iPg   03 01.20  -0.2
                  iSg   03 12.70
DST      0.94  55 iPn   03 05.60   0.5
EZN      1.27 307 iPn   03 11.00   0.4
EDC      1.30   8 ePn   03 11.00  -0.1
BNT      1.31  10 iPn   03 10.80  -0.5
KCT      1.31  25 iPn   03 11.30   0.0
     S.D. = 0.5  on   6 of   6 obs.
-----------------------------------
%  JAN  08, 1993  15h 12m 45.53± 0.88s
   26.381 S ± 8.4km   27.426 E ± 9.5km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA          (584)
      ML 2.4 (PRE).

PRY      0.55 176 eP    12 56.00  -0.5
                  S     13 02.30
SLR      1.00  50 eP    13 04.70  -0.4
                  S     13 18.20
SEK      1.94 175 eP    13 20.00   0.3
                  S     13 44.00
SWZ      2.04 247 eP    13 21.00  -0.1
                  S     13 46.00
BFT      2.45  74 eP    13 27.50   0.4
                  S     13 57.00
BLF      2.93 202 eP    13 34.00   0.2
                  S     14 07.50
     S.D. = 0.5  on   6 of   6 obs.
-----------------------------------
?  JAN  08, 1993  15h 32m 43.41± 6.18s
   32.932 S ±20.8km   72.156 W ±41.5km
   DEPTH =  10.0km  (geophysicist)
 OFF COAST OF CENTRAL CHILE        (134)
      MD 3.7 (SAN).

LCCH     0.73 138 iPd   32 57.94   0.2
                  iS    33 06.90
ROCH     0.96  93 iPd   33 01.80  -0.1
                  iS    33 13.86
LNV      1.20 149 iP+   33 05.41  -0.3
                  iS    33 19.45
TACH     1.25 126 iP+   33 06.28  -0.3
                  iS    33 21.52
PEL      1.25 100 iPd   33 06.84   0.1
                  iS    33 22.68
JACH     1.34  80 iPd   33 07.93  -0.2
                  iS    33 24.53
PCH      1.54 117 iP    33 11.06   0.1
CHCH     1.61 129 iP+   33 12.20   0.3
                  iS    33 32.24
FCH      1.61 105 iP+   33 12.68   0.4
     S.D. = 0.3  on   9 of   9 obs.
-----------------------------------
?  JAN  08, 1993  15h 50m 44.55± 3.62s
   32.517 S ±10.5km  176.160 W ±48.4km
   DEPTH =  33.0km  (normal)
   4.6mb (  6 obs.)
 SOUTH OF KERMADEC ISLANDS         (179)

RAO      3.59 335 eP    51 40.10   0.9
                  eS    52 13.50
HBZ      6.81 220 eP    52 25.40   0.8
PUZ      7.18 218 eP    52 29.20  -0.7
                  eS    53 45.00
NOZ      7.71 216 eP    52 38.00   0.8
URZ      7.94 222 eP    52 36.80  -3.7X
                  eS    54 00.20
WCZ      8.57 244 eP    52 49.40   0.1
DZM     18.61 300 iPc   54 59.20  -2.2X
ARMA    27.50 266 eP    56 33.20   3.1X
        1.0s     14.00nm          4.6mb
RMO     31.03 272 eP    57 04.80   3.3X
        0.7s     13.00nm          4.8mb
CMS     32.14 261 eP    57 12.00   0.8
        0.3s      2.00nm          4.5mb
                  e     59 19.20
ASPA    44.59 268 iPd   58 54.90  -0.7
        1.4s      7.40nm          4.4mb
WB2     45.76 273 iPc   59 03.70  -1.1
        0.3s     13.60nm          5.3mb
WRA     45.77 273 P     59 04.10  -0.8
        0.7s      0.90nm          3.8mb
KAF    147.06 341 iPKP  10 35.90  13.3X
        0.6s      5.90nm
OBN    147.79 324 iPKPc 10 37.00  13.0X
        1.0s     32.00nm
NUR    148.83 340 ePKP  10 39.60  14.1X
BCAO   148.86 209 iPKPd 10 43.00  16.0X
        0.8s      7.00nm
                  ic    12 49.90
NAO    151.31 353 PKP   10 46.20  17.0X
        0.9s      8.20nm
HFS    151.61 350 ePKP  10 47.60  17.9X
        0.4s      1.30nm
     S.D. = 0.9  on   9 of  19 obs.
-----------------------------------
*  JAN  08, 1993  15h 51m 29.38± 3.18s
   44.379 N ± 8.4km    8.105 E ±29.3km
   DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                    (545)
      ML 2.5 (LDG).

DOI      0.63 282 P     51 42.10   0.0
                  eSg   51 53.00
FRF      1.33 233 Pg    51 53.40  -0.6
                  Sg    52 12.40
LPG      1.47 320 Pg    51 55.80  -0.4
LPL      1.50 320 Pg    51 56.90   0.4
LMR      1.56 228 Pg    51 57.00  -0.1
                  Sg    52 17.80
LRG      1.56 234 Pg    51 57.80   0.6
                  Sg    52 19.20
     S.D. = 0.6  on   6 of   6 obs.
-----------------------------------
%  JAN  08, 1993  16h 32m 23.17± 0.48s
   26.876 S ± 4.6km   26.716 E ± 4.6km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA          (584)
      ML 3.0 (PRE). mbLg 3.2 (BUL).

BFS      0.07 110 eP    32 25.10   0.2
                  S     32 26.60
PRY      0.68  95 eP    32 36.50  -0.3
                  S     32 43.00
KSR      1.02   9 eP    32 43.20   0.1
SWZ      1.28 256 eP    32 47.50   0.1
                  S     33 06.80
BPI      1.37  60 eP    32 48.50  -0.6
SEK      1.65 151 eP    32 53.50   0.4
                  S     33 12.50
SLR      1.81  51 iPd   32 55.50   0.2
                  S     33 18.40
BLF      2.27 192 iPd   33 01.50  -0.6
                  S     33 31.60
FRS      3.12 203 iPd   33 14.00   0.2
                  S     33 50.50
BFT      3.21  69 eP    33 16.00   0.5
                  S     33 55.00
BUL      6.92  15 iPn   34 11.30   3.3X
                  iSg   36 02.90
CIR      7.34  38 iPn   34 13.40  -0.2
                  iSn   35 29.00
                  iSg   36 08.10
WIN      9.74 294 e(P)  34 30.00 -17.1X
     S.D. = 0.4  on  11 of  13 obs.
-----------------------------------
*  JAN  08, 1993  17h 10m 42.67± 0.50s
   31.843 S ±14.1km  177.638 W ± 7.7km
   DEPTH =  10.0km  (geophysicist)
   5.1mb ( 14 obs.)
 KERMADEC ISLANDS REGION           (177)

RAO      2.59 355 eP    11 25.50   0.1
                  eS    11 56.40
DZM     17.19 301 iPc   14 49.00   4.5X
ARMA    26.31 265 eP    16 24.20   3.8X
        1.2s     24.00nm          4.8mb
CNB     27.64 254 eP    16 33.50   1.0
        1.0s     18.00nm          4.8mb
CAN     27.94 254 eP    16 35.70   0.6
BWA     28.47 256 eP    16 38.20  -1.7
TVO     29.21  68 eP    16 46.80   0.0
RMO     29.75 272 iPd   16 53.20   1.6
        1.3s     71.00nm          5.3mb
TOO     30.71 249 eP    17 03.80   3.9X
        1.0s     22.00nm          5.0mb
CMS     31.01 261 eP    17 03.20   0.6
        1.0s     10.00nm          4.7mb
PMO     31.88  65 iPd   17 11.30   1.0
        1.8s    267.60nm          5.9mb
VAH     31.94  66 iPd   17 10.30  -0.6
        1.2s     66.10nm          5.4mb
TPT     32.10  65 iPd   17 11.90  -0.4
        1.0s     65.60nm          5.5mb
RUV     32.17  66 iPd   17 12.20  -0.6
        1.6s     93.30nm          5.5mb
BFD     33.07 250 eP    17 20.80   0.3
        1.2s     28.00nm          5.1mb
STK     34.48 259 eP    17 32.80  -0.1
        0.7s      2.80nm          4.3mb
ASPA    43.36 268 iPd   18 45.70  -1.3
        1.6s     19.60nm          4.6mb
WB2     44.47 273 iPc   18 54.60  -1.3
        0.3s     32.40nm          5.7mb
WRA     44.48 273 P     18 55.30  -0.7
        0.9s      3.00nm          4.2mb
KAF    146.01 340 iPKP  30 22.70   0.0
        0.8s     11.30nm
OBN    146.52 324 iPKPc 30 25.00   1.3
        1.9s    140.00nm
                  i     30 37.00
NUR    147.77 339 ePKP  30 28.10   2.6X
BCAO   148.79 212 iPKPc 30 32.00   3.3X
        1.1s     11.00nm
NAO    150.48 352 PKP   30 35.00   5.2X
        1.1s     13.30nm
KIC    153.79 164 (PKP) 30 46.50  10.5X
BRG    159.14 339 ePKP  31 10.00  28.4X
                  e     31 19.80
     S.D. = 1.0  on  18 of  26 obs.
-----------------------------------
   JAN  08, 1993  17h 31m 10.85± 0.21s
```

```
  13.006 N ± 3.7km  °49.351 E ± 3.3km
  DEPTH =  10.0km  (geophysicist)
  5.3mb ( 82 obs.)  5.0Msz (  7 obs.)
EASTERN GULF OF ADEN                (415)
     Mw 5.5 (HRV).
     CENTROID, MOMENT TENSOR     (HRV)
     Data Used: GDSN
     L.P.B.: 18S, 31C
     Centroid Location:
     Origin Time        17:31:11.9 0.5
     Lat 13.26N 0.05 Lon  49.33E 0.06
     Dep  15.0 FIX Half-duration  1.4
     Moment Tensor;   Scale 10**17 Nm
       Mrr=-1.04 0.07  Mtt= 1.59 0.08
       Mff=-0.54 0.12  Mrt=-1.25 0.29
       Mrf= 0.24 0.19  Mtf= 0.42 0.06
      Principal Axes:
       T  Val=  2.12  Plg=21  Azm=173
       N        -0.45      20       271
       P        -1.67      60        41
     Best Double Couple:Mo=1.9*10**17
      NP1:Strike=231 Dip=30 Slip=-134
      NP2:          99      69       -68

DHJN     7.31 310 eP     32 58.00  -2.5
                eS     34 16.00
KMTA     8.08 310 eP     33 09.00  -2.4
                eS     34 33.33
ABHA     8.22 310 eP     33 12.33  -1.0
                eS     34 43.50
AAE     11.12 250 eP     33 54.00   0.7
RYD     11.94 348 eP     34 00.50  -3.6X
                eS     36 00.50
AFIF    12.49 333 eP     34 03.00  -8.6X
                eS     37 34.66
NAI     18.87 222 PKP    35 34.00   0.1
                PKS    39 12.00
                PPP    40 14.00
KER     21.35 355 iPc    36 00.70   0.1
MBH     21.40 323 eP     36 03.40   2.3
SAGI    21.87 324 eP     36 09.20   3.5X
SDOM    22.12 327 eP     36 12.40   4.3X
TEH     22.71   4 eP     36 16.00   1.8
QUE     23.61  41 eP     36 27.50   4.4X
                eS     40 53.00
HLW     23.65 318 (P)    36 27.00   3.7X
                (S)    40 49.00
POO     24.20  74 iPc    36 28.00  -0.7
BHL     24.25 331 P      36 32.00   2.9
                S      40 54.00
MAIO    24.92  20 iPc    36 36.80   1.2
        1.2s   128.47nm          5.5mb
                eS     41 09.00
TAB     25.10 354 eP     36 41.00   3.6X
LWI     25.41 235 iPd    36 41.70   1.2
LWI     25.41 235 iP-    36 42.00   1.5
ASH     26.10  16 eP     36 48.50   1.9
        1.5s   310.00nm          5.8mb
KAT     26.80  12 iP-    36 54.00   1.1
                i      37 38.00
                eS     41 36.00
GBA     27.33  86 P      37 00.00   2.0
        1.1s     3.50nm          4.0mb X
HYB     28.50  77 eP     37 08.20  -0.5
        1.0s    40.00nm          5.2mb
NDI     30.25  55 iPc    37 25.00   0.8
        1.0s    50.00nm          5.3mb
SOC     31.58 347 eP     37 39.00   3.3X
                e      38 42.00
BCAO    31.60 257 iPd    37 35.30  -0.9
        1.2s   193.00nm          5.9mb
KDZ     35.34 328 iP     38 10.00   1.6
DIM     35.58 329 iP     38 12.00   1.6
RZN     35.73 328 iP     38 14.00   2.1
PLD     36.04 328 iP     38 16.00   1.7
GKN     36.10  60 P      38 14.38  -0.9
        1.2s   323.00nm          6.1mb
MMB     36.18 327 iP     38 17.00   1.4
DMN     36.39  61 P      38 16.96  -0.8
        1.1s   268.00nm          6.0mb
KKN     36.59  61 P      38 18.66  -0.7
        1.1s   282.00nm          6.0mb
PGB     36.64 328 eP     38 22.00   2.6
PKI     36.64  61 P      38 18.86  -1.1
        1.1s   172.00nm          5.8mb
KKB     36.72 326 iPc    38 21.00   0.9
FRU     36.88  32 eP     38 23.80   2.4
        1.8s    80.00nm          5.2mb
                e      40 44.00
GUN     37.13  61 P      38 14.38  -9.7X
        1.1s   387.00nm          6.1mb
VTS     37.16 327 iP     38 25.00   1.1
ISR     37.45 333 eP     38 30.00   3.8X
VRI     37.95 334 ePc    38 32.50   2.2
MLR     37.99 333 ePc    38 34.50   3.7X
KIS     38.02 337 eP     38 32.00   1.2
CIR     38.05 208 iPd    38 32.00   0.6
                i      38 38.30
CVO     38.15 334 eP     38 35.00   3.0X
CMP     38.23 332 ePc    38 35.00   2.3
BUL     38.75 212 iPd    38 37.60   0.2
        1.0s    10.00nm          4.5mb
GIB     40.06 315 Pc     38 49.40   1.3
MGR     40.13 319 Pc     38 49.70   1.1
HVAR    41.31 323 iP     38 58.90   0.7
UZD     42.31 328 eP     39 07.50   1.1
PSZ     42.58 331 ePc    39 09.50   0.9
AQU     42.69 320 P      39 10.80   1.2
BUD     42.70 330 eP     39 10.00   0.5
BFT     42.81 206 eP     39 11.50   0.6
OBN     43.17 349 eP     39 13.00  -0.2
        1.4s   126.00nm          5.5mb
      Z  18s     3.40um          5.3Msz
      N  18s     3.00um
                e      40 51.00
                eS     45 40.00
                e      49 08.00
ZAG     43.19 326 iP     39 15.50   2.0
PTJ     43.25 326 iPc    39 15.70   1.5
SRO     43.27 330 eP     39 14.80   0.6
BRVK    43.30  18 iPd    39 14.50   0.1
SPC     43.32 332 eP     39 17.10   2.3
VBY     43.40 325 iPc    39 16.70   1.5
ASS     43.54 321 Pc     39 17.00   0.5
ARV     43.60 321 Pc     39 18.00   1.1
SLR     43.63 208 eP     39 13.60  -3.9X
      Z  18s     8.81um          5.7Msz
ARU     43.89   7 eP     39 20.00   1.0
CEY     44.00 325 e(P)   39 21.00   0.8
                e(PcP)41 05.00
LJU     44.13 325 eP     39 21.50   0.3
                e(PP) 41 07.00
RSM     44.13 321 Pc     39 22.90   1.8
ZST     44.13 329 eP     39 21.10   0.0
OJC     44.27 333 eP     39 22.70   0.4
CRE     44.27 321 Pc     39 21.90  -0.6
MNK     44.29 342 eP     39 26.00   3.7X
TRI     44.36 324 Pc     39 23.90   0.9
VOY     44.48 325 eP     39 23.70  -0.4
                i      39 24.80
                ePcP   41 07.90
SFI     44.49 321 Pc     39 24.90   0.8
SVE     44.56   9 ePd    39 26.00   1.5
        3.0s   210.00nm          5.5mb
      N  16s     0.90um
      E  16s     2.50um
                e      41 05.00
VKA     44.57 329 iPc    39 25.70   1.0
FIR     44.78 321 eP     39 36.00   9.5X
PRY     45.03 208 iPd    39 29.90   1.1
MME     45.34 321 P      39 31.30   0.0
KBA     45.40 326 iPc    39 32.30   0.7
        0.9s    36.10nm          5.3mb
                i      39 38.40
                i      41 10.70
FVI     45.43 325 Pc     39 32.60   1.0
PGF     45.61 318 P      39 33.43   0.2
CTI     45.77 324 Pc     39 35.30   0.9
BSI     45.90  95 eP     39 36.50   0.8
BHG     46.04 326 iPc    39 36.90   0.5
        1.3s    50.00nm          5.3mb
SEK     46.16 207 eP     39 38.00   0.3
        1.0s    32.00nm          5.3mb
GEC2    46.28 328 ePd    39 38.10  -0.3
        0.8s     6.25nm          4.7mb
                e      39 44.30
                e      39 50.10
                e      39 55.80
KSP     46.30 331 iPc    39 39.40   1.0
                e      41 14.90
BOB     46.40 321 Pc     39 39.80   0.4
WTTA    46.46 325 iPc    39 40.10   0.1
        1.1s    54.30nm          5.5mb
                i      39 46.20
                i      41 14.60
KHC     46.52 328 eP     39 40.00  -0.3
        1.5s    22.30nm          5.0mb
                e      39 46.50
                e      40 25.00
PRU     46.58 330 Pc     39 40.90   0.3
                e      39 47.00
OGA     46.58 324 iPc    39 42.00   1.0
        1.3s    40.00nm          5.3mb
SQTA    46.67 325 iPc    39 41.70   0.1
        0.9s    23.60nm          5.2mb
                i      41 15.40
PCP     46.85 320 P      39 40.33  -2.6
WET     46.89 328 eP     39 42.70  -0.5
                i      41 16.00
FIN     46.90 320 P      39 39.42  -3.9X
CKI     46.96 320 Pd     39 44.30   0.5
IMI     46.96 319 P      39 40.33  -3.5X
OSS     46.99 323 iPc    39 45.00   0.8
ROB     47.16 320 P      39 44.31  -1.1
FUR     47.17 326 iPc    39 45.50   0.1
        1.2s    34.00nm          5.3mb
SAOF    47.21 319 P      39 46.10   0.3
SBF     47.23 319 P      39 46.56   0.6
VDL     47.28 323 ePd    39 47.40   0.9
AUTN    47.30 319 P      39 47.47   0.8
AURF    47.31 319 P      39 47.40   0.7
ENR     47.41 319 P      39 45.61  -1.8
WIN     47.42 222 iPd    39 48.00   0.1
        1.2s    60.00nm          5.6mb
      Z  18s     4.06um          5.4Msz
TOUF    47.42 319 P      39 48.57   0.9
MVIF    47.43 319 P      39 48.42   0.8
TMA     47.43 322 ePc    39 47.70   0.0
BRG     47.44 330 iP     39 47.60   0.2
        1.3s    34.00nm          5.3mb
                i      39 57.40
BLF     47.47 208 iPc    39 47.40  -0.7
        0.8s    26.00nm          5.4mb
STV     47.48 319 P      39 47.18  -0.8
CALN    47.53 318 P      39 48.85   0.4
LMR     47.59 318 eP     39 48.10  -0.7
        1.1s    53.70nm          5.5mb
FRF     47.60 318 eP     39 48.30  -0.6
        1.2s    14.25nm          4.9mb
ORO     47.73 321 P      39 48.40  -1.6
ORX     47.73 321 P      39 48.29  -1.7
PZZ     47.74 319 P      39 48.03  -2.1
LRG     47.74 318 eP     39 49.50  -0.4
        1.1s    82.55nm          5.7mb
LLS     47.75 323 ePc    39 49.60  -0.7
KHT     47.76  82 eP     39 50.00  -0.4
BHB     47.80 320 P      39 47.90  -2.5
SURF    47.91 319 P      39 51.82   0.3
CHG     47.92  76 eP     39 50.80  -0.9
        1.0s    11.25nm          4.9mb
                e      41 15.20
RSP     47.95 320 P      39 50.03  -1.7
MMK     47.95 322 ePc    39 51.40  -0.5
BDT     48.02  78 eP     39 52.00  -0.4
        0.9s   222.80nm          6.3mb
GRF     48.09 327 iPd    39 52.10  -0.5
        1.0s    20.00nm          5.2mb
      Z  20s     0.60um          4.6Msz
                e      39 58.00
RRL     48.14 320 P      39 52.46  -0.8
LSD     48.16 321 P      39 51.87  -1.6
CLL     48.18 330 iPd    39 52.90  -0.3
        2.0s    75.00nm          5.4mb
DIX     48.30 321 iPc    39 54.70   0.1
FRS     48.41 208 eP     39 53.60  -1.6
        1.0s    20.00nm          5.1mb
LPG     48.43 320 eP     39 54.00  -1.6
        0.9s    24.90nm          5.3mb
ZLA     48.43 324 iPc    39 55.00  -0.3
LPL     48.45 320 eP     39 54.10  -1.6
        1.0s    30.80nm          5.3mb
MOX     48.46 329 iPc    39 55.50   0.1
        1.6s    42.00nm          5.3mb
                e      41 21.80
                e      42 00.00
SLE     48.52 324 iPc    39 55.80  -0.1
EMS     48.59 321 ePd    39 56.30  -0.4
FEL     48.85 324 P      39 58.42  -0.2
BBS     48.93 323 P      39 58.96  -0.2
NNT     49.07  85 eP     40 01.00   0.4
NST     49.18  80 eP     40 08.50   7.1X
```

08d 17h

Sta	Dist	Azm	Phase	Time	Res
LOMF	49.28	323	P	40 01.90	0.1
MOF	49.35	323	P	40 02.21	-0.2
HOFF	49.44	325	P	40 02.87	-0.1
SRBF	49.49	325	P	40 03.81	0.5
WLS	49.51	324	P	40 03.54	0.0
ECH	49.52	324	P	40 03.42	-0.2
BSF	49.54	323	P	40 03.59	-0.3
LANF	49.55	325	P	40 03.49	-0.3
CDF	49.55	324	P	40 03.83	-0.1
ELT	49.68	28	eP	40 03.80	-0.9
	1.6s	163.00nm			5.8mb
			e	41 25.00	
			eS	47 13.00	
SSB	49.72	319	P	40 04.77	-0.4
HAU	49.88	323	eP	40 05.00	-1.4
	1.3s	39.35nm			5.2mb
VITF	50.20	323	P	40 08.46	-0.4
LOE	50.61	78	eP	40 11.20	-1.2
			e	40 51.00	
SMF	50.75	321	eP	40 11.40	-1.7
	1.0s	19.60nm			5.0mb
NUR	50.77	345	iP	40 12.60	-0.3
	0.7s	29.80nm			5.3mb
EBR	50.78	312	eP	40 14.00	0.7
POF	50.80	214	iPc	40 14.00	0.4
	0.3s	8.00nm			5.1mb
LBF	50.82	321	eP	40 12.20	-1.4
	0.9s	62.25nm			5.5mb
WLF	50.83	325	iPc	40 13.82	0.3
			i	40 19.66	
EROQ	50.84	312	eP	40 14.50	0.7
LOR	51.02	321	eP	40 13.70	-1.4
	1.0s	45.00nm			5.4mb
Z	23s	0.45um			4.4MszX
AVF	51.12	321	eP	40 14.10	-1.7
	1.0s	23.20nm			5.1mb
SSF	51.14	321	eP	40 14.40	-1.6
	0.9s	37.65nm			5.3mb
CAF	51.17	318	eP	40 15.20	-1.1
	1.0s	19.40nm			5.0mb
BGF	51.33	320	eP	40 16.20	-1.3
	1.1s	66.65nm			5.5mb
MAF	51.37	320	eP	40 16.50	-1.3
	0.9s	8.50nm			4.7mb
ECHE	51.48	311	eP	40 20.00	1.3
ENN	51.52	326	ePc	40 19.50	0.7
	0.8s	17.00nm			5.0mb
KMI	51.59	68	Pd	40 18.00	-2.0
	1.5s	110.00nm			5.6mb
Z	20s	0.90um			4.8Msz
			pP	40 31.50	50kmX
			sP	40 37.50	
TCF	51.62	320	eP	40 18.20	-1.5
	1.3s	18.05nm			4.8mb
LPO	51.65	317	eP	40 18.90	-1.0
	0.8s	15.60nm			5.0mb
IPM	51.67	94	eP	40 01.20	-19.3X
	0.9s	30.40nm			
RJF	51.67	318	eP	40 18.70	-1.4
	1.1s	25.15nm			5.1mb
Z	22s	0.60um			4.6MszX
WTS	51.70	328	eP	40 20.50	0.4
	0.9s	13.00nm			4.9mb
			e	40 26.50	
ENIJ	51.74	307	eP	40 21.00	0.3
KAF	51.75	346	iP	40 19.80	-0.6
	0.8s	20.80nm			5.1mb
DOU	51.92	325	Pc	40 21.90	0.1
	0.7s	35.50nm			5.4mb
LSF	52.04	319	eP	40 21.60	-1.2
	1.0s	22.40nm			5.1mb
LFF	52.04	317	eP	40 21.90	-0.9
	0.9s	39.00nm			5.3mb
EHUE	52.24	308	eP	40 24.00	-0.6
SNF	52.29	325	iPc	40 24.79	0.2
EVIA	52.37	309	iPc	40 26.00	0.4
ETOR	52.62	312	eP	40 27.80	0.4
UER	52.63	34	iP	40 25.00	-2.2
	1.5s	68.00nm			5.4mb
EGUA	52.77	306	eP	40 28.70	0.2
ECOG	52.87	307	eP	40 29.00	-0.3
ELIZ	52.96	315	eP	40 30.00	0.2
MFF	53.24	319	eP	40 30.00	-1.8
	1.0s	22.40nm			5.1mb
MAL	53.41	306	iPc	40 33.00	-0.2
ECRI	53.47	314	iPc	40 34.00	0.4
KIC	53.65	268	P	40 25.90	-9.3X
HFS	53.85	339	eP	40 34.40	-1.6
	0.6s	5.50nm			4.8mb
Z	29s	431.00um			7.3MszX
			LR	57 18.00	
TIC	53.86	269	P	40 27.70	-9.1X
LZH	53.87	55	eP	40 36.00	-0.7
	1.6s	47.00nm			5.3mb
Z	23s	0.62um			4.6MszX
			PcP	42 31.50	
			ScS	49 22.50	
LIC	53.95	268	P	40 29.00	-8.4X
Z	22s	0.22um			4.2Msz
LDF	54.01	321	eP	40 35.30	-2.0
	1.1s	48.10nm			5.4mb
EPRU	54.10	306	eP	40 37.50	-0.8
GUD	54.11	311	iPc	40 38.30	-0.1
EJIF	54.19	306	iPc	40 38.80	-0.1
FLN	54.29	321	eP	40 37.50	-1.9
	0.9s	44.05nm			5.5mb
Z	23s	0.30um			4.3MszX
CER	54.29	211	iPc	40 40.00	0.4
	1.4s	100.00nm			5.7mb
ALJ	54.34	306	iP	40 40.00	-0.2
LPF	54.35	320	eP	40 37.90	-2.0
	0.9s	40.45nm			5.5mb
GRR	54.37	321	eP	40 37.90	-2.1
	1.1s	35.90nm			5.3mb
NAO	55.35	338	P	40 45.70	-1.3
	0.9s	20.40nm			5.2mb
EPLA	55.40	310	iPc	40 47.60	-0.2
EVAL	55.41	307	iPc	40 47.30	-0.5
SDF	56.44	350	iP	40 54.70	-0.1
MOY	56.52	36	ePc	40 55.90	0.4
	1.2s	68.00nm			5.6mb
ERUA	56.72	312	iPc	40 57.30	0.1
EMON	57.10	314	iPc	41 00.00	0.1
ZAK	57.37	38	eP	41 00.50	-1.1
	1.5s	32.00nm			5.1mb
Z	12s	1.47um			5.3MszX
STS	57.84	313	eP	41 05.00	-0.1
KEV	58.44	351	iP	41 09.00	0.2
	0.9s	76.00nm			5.8mb
EKA	58.50	328	P	41 08.00	-1.5
	0.7s	11.20nm			5.1mb
NRI	61.43	15	iPc	41 29.00	-0.4
	1.0s	19.00nm			5.2mb
Z	16s	3.00um			5.5MszX
			e	41 31.00	
			e	42 11.00	
BJI	64.04	52	eP	41 46.00	-1.2
	1.5s	86.00nm			5.7mb
			e	42 23.50	
CIT	64.05	38	eP	41 47.50	0.4
BOD	65.76	32	eP	41 54.70	-3.2X
	1.0s	24.00nm			5.3mb
SSE	67.94	62	Pd	42 11.80	-0.5
	1.2s	75.00nm			5.8mb
Z	20s	0.50um			4.7Msz
			eS	51 14.00	
DAG	72.47	347	eP	42 38.90	-0.2
	1.0s	35.00nm			5.4mb
YAK	74.09	29	iPc	42 47.40	-1.3
	1.0s	116.00nm			5.9mb
MAT	81.48	55	eP	43 29.00	-1.1
	0.9s	9.24nm			4.8mb
MGD	84.46	30	ePc	43 45.00	0.2
	1.2s	80.00nm			5.8mb
NVL	87.41	192	eP	44 00.00	0.9
			e	46 48.00	
WRA	89.76	110	P	44 13.20	1.9
	0.6s	5.60nm			5.0mb
RSSD	118.20	339	(Pdiff	46 22.22	3.2X
CNCB	119.53	258	PKP	50 05.00	0.9
LPB	119.62	258	(PKP)	50 03.00	-1.1
ZOBO	119.62	259	PKP	50 04.00	-0.3
MIAR	121.04	324	ePKP	50 06.03	0.3
HVU	123.05	344	ePKP	50 10.04	0.4
WMOK	123.70	328	ePKP	50 10.55	-0.4
DAU	123.89	342	ePKP	50 12.26	0.7
DUG	124.54	343	ePKP	50 12.53	0.0
SRU	124.86	341	ePKP	50 12.85	-0.4
PV10	125.03	339	ePKP	50 13.93	0.2
MSU	125.91	342	ePKP	50 15.98	0.6
ALQ	127.08	335	ePKPc	50 18.29	0.6
BONR	128.00	348	ePKP	50 20.50	1.0

S.D. = 1.1 on 227 of 251 obs.

JAN 08, 1993 17h 33m 53.94± 0.20s
7.032 S ± 4.2km 129.791 E ± 4.8km
DEPTH = 143.9km (2 depth phases)
4.9mb (24 obs.)
BANDA SEA (280)

Sta	Dist	Azm	Phase	Time	Res
KUPT	6.86	243	eP	35 34.50	1.2
			iS	36 51.00	
MNI	9.76	329	eP	36 11.60	-0.5
MKS	10.42	279	iPc	36 22.60	1.9
WRA	13.57	161	P	36 58.29	-3.5X
	0.5s	10.90nm			4.5mb
WB2	13.58	161	iPc	36 57.00	-4.9X
			eS	39 19.00	
KHKI	14.12	264	eP	37 07.20	-1.5
			e(S)	39 41.00	
DAV	14.64	343	eP	37 18.50	3.1X
			eS	40 06.50	
MDG	16.00	85	eP	37 33.50	1.3
QIS	16.47	146	eP	37 37.30	-0.8
	0.2s	2.00nm			4.1mb
			eS	40 29.80	
ASPA	17.00	167	iPc	37 42.40	-2.3
	0.4s	92.20nm			5.5mb
			eS	40 39.90	
PMG	17.35	99	eP	37 49.00	0.1
KKM	18.77	313	ePd	38 04.70	-0.1
	0.9s	97.20nm			5.1mb
WARB	19.28	189	iPd	38 10.30	0.3
			eS	41 38.00	
CTA	20.58	131	P	38 27.00	3.7X
NANU	20.67	220	eP	38 24.20	0.1
	0.4s	30.00nm			5.1mb
			eS	42 10.00	
PGP	22.21	337	ePc	38 40.80	1.5
MEEK	22.21	207	iPc	38 39.80	0.4
			e	39 00.00	94kmX
			eS	42 43.50	
FORT	23.68	184	eP	38 53.50	0.0
BAG	25.01	339	eP	39 06.00	-0.4
RMQ	26.46	139	eP	39 19.80	0.3
	0.6s	7.00nm			4.5mb
			e	39 45.50	120kmX
STK	27.06	158	iPc	39 23.70	-1.1
	0.5s	12.10nm			4.8mb
			e	39 52.80	138km
			eS	44 36.90	
KGM	27.91	288	eP	39 34.00	1.4
CMS	28.58	150	eP	39 38.80	0.3
	0.5s	3.00nm			4.3mb
ADE	28.99	165	eP	39 41.10	-1.1
PPI	30.03	281	ePc	39 52.50	0.9
ARMA	31.00	141	eP	40 00.20	0.1
	0.6s	4.00nm			4.3mb
BFD	32.18	161	eP	40 09.80	-0.2
	1.0s	35.00nm			5.1mb
BWA	32.22	150	eP	40 11.60	1.0
CAN	33.23	151	iPc	40 19.20	-0.1
			i	40 51.50	150km
CNB	33.40	150	eP	40 20.80	0.0
	1.0s	20.00nm			4.8mb
TOO	33.58	157	eP	40 22.30	0.0
	0.5s	11.00nm			4.9mb
DZM	38.36	117	iPc	41 02.90	0.0
WHN	40.19	339	iPd	41 19.00	1.4
	0.7s	40.00nm			5.3mb
NJ2	40.24	346	Pc	41 18.60	0.5
	0.8s	19.00nm			4.9mb
MAT	44.06	10	iPc	41 47.80	-1.4
	0.9s	7.56nm			4.3mb
TIA	44.63	345	Pc	41 49.70	-4.0X
DL2	46.33	351	P	42 13.00	6.0X
	0.5s	26.00nm			5.1mb
SNY	48.95	354	Pc	42 22.00	-5.4X
MDJ	51.41	360	eP	42 45.50	-0.5
LSA	52.08	316	P	42 52.10	0.2
	1.0s	12.00nm			4.6mb
GUN	54.82	311	P	43 10.80	-1.1
PKI	54.99	311	P	43 11.60	-1.5
	0.7s	34.00nm			5.3mb
KKN	55.20	311	P	43 13.40	-1.1
DMN	55.24	311	P	43 14.00	-0.8
	0.7s	41.00nm			5.4mb
GKN	55.80	311	P	43 17.60	-1.1
GBA	55.87	292	Pc	43 17.20	-2.0
	0.4s	3.00nm			4.6mb
HYB	56.14	296	ePd	43 19.50	-1.7

```
NDI     61.84 308 iPc * 43 58.00  -2.2
         0.8s    33.58nm          5.3mb
WMQ     63.31 327 iPc   44 09.70   0.0
         0.8s    38.00nm          5.4mb
KSH     67.87 318 P     44 40.50   1.5
         0.8s    40.00nm          5.3mb
QUE     70.64 305 eP    44 58.00   1.8
MAW     74.84 201 P     45 21.20   1.3
MAIO    78.54 309 iPc   45 42.00   0.8
         0.8s    16.11nm          4.8mb
SLKM    91.16  29 eP    46 43.60   0.2
BALM    95.06  29 (P)   47 00.93  -0.5
YKA    107.87  26 ePKP  52 04.90  -0.5
         0.7s     0.50nm
GEC2   112.31 320 ePKPc 52 13.80  -0.6
         0.6s     2.19nm
                   e    52 16.80
BSF    117.01 321 ePKP  52 22.90  -0.6
         0.7s     7.60nm
LPG    117.85 318 ePKP  52 25.30  -0.1
         0.6s     4.35nm
LPL    117.85 318 ePKP  52 25.10  -0.2
         0.7s     9.50nm
LOR    119.06 321 ePKP  52 27.20  -0.1
         0.8s     4.85nm
LBF    119.10 321 ePKP  52 27.20  -0.2
         0.6s     2.80nm
SSF    119.36 321 ePKP  52 27.90   0.1
         0.8s     9.40nm
AVF    119.57 321 ePKP  52 27.90  -0.3
         0.6s     1.55nm
BGF    119.98 320 ePKP  52 29.30   0.3
         0.6s     9.20nm
RSSD   120.42  42 ePKP  52 30.08  -0.1
TCF    120.49 320 ePKP  52 30.20   0.2
         0.7s     4.85nm
LSF    120.94 321 ePKP  52 30.70  -0.1
CAF    121.14 319 ePKP  52 31.00  -0.3
         0.9s     5.55nm
LPF    121.72 323 ePKP  52 32.40   0.2
         0.7s     7.40nm
MFF    121.83 322 ePKP  52 32.60   0.1
         0.9s    12.60nm
EPF    123.04 318 ePKP  52 35.20   0.2
         0.9s     4.60nm
KIC    134.85 272 PKP   52 58.90   0.5
LIC    135.13 272 PKP   52 59.20   0.3
TIC    135.14 272 PKP   52 59.10   0.1
NNA    147.46 125 ePKP  53 23.70   3.0X
         0.7s    13.70nm
VAO    149.98 186 (PKP) 53 26.00   1.5
CNCB   150.50 144 PKP   53 28.70   2.7X
LPB    150.65 143 ePKP  53 27.00   1.0
ZOBO   150.82 143 PKP   53 28.10   1.5
CCH    151.08 147 PKPc  53 33.50   7.0X
                  e     54 13.00
SIV    154.72 155 iPKP  53 37.50   6.2X
                  i     54 01.30
     S.D. = 1.0  on  71 of  82 obs.
-----------------------------------
   JAN  08, 1993  19h 26m 38.88± 0.61s
   18.135 N ± 2.9km  121.023 E ± 3.2km
   DEPTH =  25.3 ±  4.5 km
   5.4mb ( 80 obs.)  4.7Msz ( 15 obs.)
 LUZON, PHILIPPINE ISLANDS        (249)

PIP      0.43 296 iPd   26 46.40  -1.5
                  eS    26 56.50
CVP      0.87 119 iPd   26 55.20  -0.1
                  eS    27 22.00
BAG      1.77 194 iPc+  27 06.00  -2.4
                  iS    27 26.00
OCP      3.48 179 eP    26 43.50 -49.2X
TGY      4.01 181 iPd   27 44.00   3.8X
                  iS    28 36.50
PGP      4.61 181 iPd   27 50.00   1.3
                  eS    28 21.50
HKC      7.65 304 iP    28 28.30  -3.3X
                  eS    28 50.00
PLP      7.92 151 ePd   28 36.50   1.2
                  eS    28 54.00
MCO      8.06 301 iP    28 33.40  -3.8X
GZH      8.72 306 eP    28 42.20  -4.2X
     Z  13s     5.05um
     N  12s    13.80um
     E  13s     5.61um
                  S     30 27.00
QIZ     10.64 277 P     29 07.60  -5.3X
     N  11s     2.92um
     E  13s     2.44um
                  S     31 04.40
DAV     11.84 157 eP    29 31.90   2.6
SSE     12.90   1 Pc    29 42.00  -1.4
         1.4s    67.00nm          5.6mb
     Z  20s     2.80um
     N  16s     2.00um
     E  15s     3.10um
                 pP     29 54.00
WHN     13.76 335 eP    29 55.50   0.8
     Z  18s     4.34um
     N  17s     2.94um
     E  12s     1.70um
NJ2     13.99 352 Pd    29 57.20  -0.5
         1.0s    54.00nm          5.2mb
     Z  20s     1.78um          4.0Msz
     N  13s     2.68um
     E  13s     1.82um
                  S     32 33.00
GYA     15.65 304 P     30 19.60   0.0
         1.0s    27.00nm          4.4mb
     Z  14s     2.79um          4.4MszX
     N  12s     8.13um
     E  12s     3.70um
                 pP     30 25.60
                  S     33 10.00
KAGJ    15.77  33 P     30 25.20   4.2X
KUMJ    16.84  30 P     30 35.40   0.9
SHNJ    18.30  28 eP    30 53.60   0.9
TIA     18.33 350 Pd    30 54.80   1.7
         1.8s    35.00nm          4.2mb X
     Z  15s     2.66um          4.2MszX
     N  13s     1.92um
     E  13s     1.40um
KMI     18.35 295 eP    30 52.00  -1.7
         1.8s   150.00nm          4.9mb
     Z  13s     3.70um
     N  12s     8.50um
     E  12s     4.00um
                 pP     31 01.50
LOE     18.39 271 iPc   30 55.50   1.6
XAN     19.18 328 Pd    31 03.60   0.1
         1.5s   150.00nm          5.0mb
     Z  16s     1.76um          5.2MszX
     N  12s     1.30um
     E  12s     1.29um
                 pP     31 09.00  20kmX
                 sP     31 12.00
                 PP     31 20.70
NST     20.14 266 eP    31 21.80   7.8X
CD2     20.18 312 iPd   31 14.00  -0.5
         1.0s    95.00nm          5.1mb
     Z  12s     4.98um          5.1MszX
     E  13s     6.79um
                 pP     31 20.00  23kmX
                 sP     31 26.00
                 eS     34 53.00
                 sS     35 06.00
WKYJ    20.64  36 P     31 19.10  -0.1
DL2     20.70   1 P     31 19.00  -0.8
         1.2s   220.00nm          5.4mb
     Z  16s     0.94um          4.3MszX
     E  15s     4.25um
                 pP     31 30.00  45kmX
TIY     20.91 341 Pc    31 23.00   1.0
         1.3s   170.00nm          5.3mb
     Z  14s     3.10um          4.8MszX
     N  13s     2.17um
     E  10s     2.83um
CHG     20.95 275 ePd   31 22.40  -0.1
         1.3s   154.81nm          5.3mb
                 eS     35 05.80
BDT     21.00 271 iPc   31 25.00   2.1
         1.0s   117.30nm          5.3mb
NNT     21.25 258 iPc   31 25.90   0.4
KHT     21.76 265 eP    31 31.50   0.8
TSRJ    21.83  34 eP    31 32.20   1.0
BJI     22.23 350 eP    31 36.00   0.9
         1.5s   520.00nm          5.8mb
     Z  18s     1.47um          4.4Msz
     N  12s     0.92um
                 eS     35 40.00
MKS     23.25 184 iPc   31 47.50   2.1
PJG     23.37  98 eP    31 31.60 -14.9X
LZH     23.46 323 Pd    31 49.50   2.0
         1.5s   320.00nm          5.6mb
     Z  12s     2.15um          4.8MszX
     N  12s     2.37um
                 eS     36 00.00
MTMJ    23.60  35 eP    31 49.40   0.7
KGM     23.63 229 eP    31 53.00   3.9X
SNY     23.72   5 iPd   31 49.70   0.0
         1.6s   250.00nm          5.5mb
     Z  19s     1.80um          4.6Msz
     E  14s     2.76um
                  S     35 56.00
IPM     23.75 238 ePc   31 50.10  -0.2
         1.0s    40.90nm          4.9mb
MAT     23.79  36 (P)   31 50.00  -0.5
         1.5s    61.11nm          4.9mb
     Z  20s     1.42um          4.4Msz
                 eS     36 13.00
CHJJ    23.89  38 P     31 51.30  -0.2
HHC     24.06 342 iPd   31 55.40   2.3
         1.4s   430.00nm          5.8mb
     Z  25s     1.79um          4.4MszX
     N  12s     1.14um
     E  10s     0.57um
                 sP     32 05.50
BTO     24.31 339 iPc   31 57.00   1.4
         1.4s   180.00nm          5.4mb
     N  15s     1.10um
     E  14s     3.38um
KAKJ    24.70  39 eP    31 53.00  -6.3X
NIIJ    24.73  36 eP    31 58.80  -0.8
CN2     25.86   7 Pc    32 09.80  -0.3
         0.8s    20.00nm          4.8mb
     Z  16s     1.53um          4.6MszX
     E  14s     1.26um
                 pP     32 17.00  26kmX
YAMJ    25.97  36 eP    32 10.00  -1.3
VLA     26.55  18 iPd   32 21.00   4.4X
         1.4s    65.00nm          5.1mb
                  i     32 31.00
                  e     33 04.00
                  e     33 17.00
TRT     26.98 199 ePc   32 19.60  -1.0
MDJ     27.36  13 eP    32 23.50  -0.4
         1.5s    32.00nm          4.8mb
PPI     27.44 230 eP    32 24.00  -0.9
OFUJ    27.52  36 P     32 25.20  -0.2
GTA     28.06 323 eP    32 31.00   0.5
         1.5s    28.00nm          4.8mb
     Z  12s     3.01um          5.1MszX
     E  11s     1.46um
                 pP     32 41.50  39kmX
                 sP     32 45.00
BSI     28.09 247 eP    32 30.50  -0.3
LSA     29.55 299 iPd   32 45.40   1.0
         1.2s   120.00nm          5.6mb
     N  12s     2.89um
                 eS     37 38.00
GUN     33.67 293 P     33 20.00  -0.5
YSS     33.88  27 eP    33 22.40   0.8
                  e     33 32.00
PKI     34.03 293 P     33 22.68  -0.9
         1.3s   149.00nm          5.8mb
KKN     34.18 293 P     33 23.94  -0.8
         0.9s    86.00nm          5.7mb
CIT     34.30 352 eP    33 27.00   1.8
DMN     34.31 293 P     33 25.08  -0.8
         1.4s   244.00nm          6.0mb
GKN     34.77 293 P     33 28.72  -1.0
         1.3s   237.00nm          6.0mb
ZAK     35.16 340 iPd   33 32.80   0.2
         2.8s   111.00nm          5.3mb
                  e     34 53.50
                  e     36 07.00
IRK     36.51 343 eP    33 42.00  -2.0
         1.5s    82.00nm          5.4mb
     Z  12s     1.00um          4.8MszX
MOY     37.03 339 iPd   33 49.90   1.6
         1.6s   125.00nm          5.5mb
WMQ     37.95 320 iPd   33 57.50   1.3
         1.4s   100.00nm          5.5mb
     Z  11s     1.97um          5.2MszX
                 pP     34 03.00  19kmX
                 sP     34 12.00
UER     39.57 334 iPd   34 10.60   1.1
         1.5s   210.00nm          5.6mb
BOD     39.98 354 iPd   34 12.20  -0.7
         1.7s   105.00nm          5.3mb
```

08d 19h

WRA		40.04	160	P	34 11.60 -2.2
		1.4s		2.50nm	3.8mb X
WB2		40.04	160	eP	34 10.40 -3.4X
		0.8s		8.60nm	4.5mb
				e	36 19.80
HYB		40.38	276	eP	34 16.50 -0.3
		1.0s		35.00nm	5.0mb
GBA		42.10	270	P	34 30.00 -0.8
ASPA		43.41	163	iPc	34 39.80 -1.6
		0.5s		14.20nm	5.0mb
PRZ		43.47	313	iPc	34 44.50 2.6
		1.7s		300.00nm	5.8mb
ELT		44.21	331	iPd	34 48.00 0.5
YAK		44.26	6	iPc	34 47.70 -0.1
		1.2s		95.00nm	5.5mb
KSH		44.27	308	P	34 50.70 2.3
		1.5s		100.00nm	5.5mb
	Z	12s		2.46um	5.3MszX
	N	18s		4.83um	
	E	16s		3.58um	
				ePP	36 27.00
WARB		44.39	173	eP	34 46.00 -3.3X
POO		44.68	278	iPd	34 48.20 -3.6X
FRU		46.22	312	eP	35 05.00 1.3
		2.2s		120.00nm	5.5mb
				e	36 32.00
MGD		47.06	20	eP	35 09.00 -1.1
		1.0s		30.00nm	5.3mb
				e	35 22.00
				e	42 00.00
QUE		50.36	294	eP	35 37.00 0.7
RMO		51.89	148	eP	35 48.20 0.5
		1.0s		15.00nm	4.9mb
BRVK		52.42	324	iPd	35 51.00 -0.3
		1.0s		63.00nm	5.5mb
NRI		55.12	346	iPd	36 09.50 -1.5
		1.0s		64.00nm	5.6mb
	Z	22s		3.60um	5.4Msz
	E	21s		3.40um	
				e	36 16.00
				e	36 22.00
				e	37 11.00
				e	38 15.00
				e	43 50.00
ADE		55.42	162	e(P)	36 13.20 -0.4
MAIO		56.73	302	iPd	36 23.10 -0.1
		1.0s		17.00nm	5.0mb
ASH		57.69	304	eP	36 30.20 0.4
		1.4s		210.00nm	6.0mb
CNB		59.57	153	eP	36 42.30 -0.6
		0.8s		20.00nm	5.3mb
DZM		59.76	130	iPc	36 45.20 0.7
ARU		59.87	325	eP	36 44.00 -0.7
TAB		67.17	304	eP	37 34.00 0.8
PYA		69.07	311	iP	37 44.00 -0.8
				i	38 11.00
BRW		70.47	20	eP	37 52.83 0.0
TTA		70.83	29	eP	37 54.74 -0.5
		1.1s		21.91nm	5.2mb
SVW		71.10	31	eP	37 56.10 -0.8
		1.0s		29.28nm	5.4mb
OBN		72.16	323	iPd	38 02.00 -1.3
		1.0s		53.00nm	5.5mb
				e	38 08.50
APA		72.52	336	iPd	38 04.60 -0.6
CP2		72.72	30	ePd	38 06.11 -0.6
PMR		74.16	30	ePc	38 13.61 -1.2
		0.9s		36.55nm	5.4mb
	Z	19s		0.33um	4.6Msz
FBA		74.25	26	eP	38 14.50 -0.8
		0.6s		6.46nm	4.8mb
PUL		74.88	328	eP	38 19.00 0.1
SDF		75.18	337	iP	38 19.50 -1.1
TOA		75.46	29	eP	38 23.10 0.7
HON		75.47	72	P	38 30.00 6.9X
	Z	19s		0.36um	4.7Msz
KLU		75.69	30	ePd	38 23.34 -0.4
KAF		76.33	331	iP	38 26.40 -0.8
		0.9s		31.60nm	5.3mb
BALM		77.48	30	eP	38 33.18 -0.6
NUR		77.49	330	eP	38 33.10 -0.5
MNK		77.56	323	eP	38 32.00 -2.1
CSS		78.00	303	eP	38 36.60 -0.4
PPE		79.43	315	eP	38 45.50 0.9
BRD		80.00	315	ePc	38 51.00 3.3X
VRI		80.12	315	ePc	38 50.00 1.7
ISR		80.45	314	eP	38 53.00 2.9X

CVO		80.51	315	ePd	38 51.50 1.1
MLR		80.75	315	Pc	38 52.50 0.6
UPP		81.03	330	iP	38 51.40 -1.4
DIM		82.03	312	iP	38 59.00 0.6
DAG		82.31	351	iPc	38 58.80 -0.4
		1.4s		93.02nm	5.7mb
PLD		82.60	312	eP	39 02.00 0.6
RZN		82.72	311	iP	39 02.00 -0.3
HFS		82.76	331	eP	39 00.80 -1.0
		0.4s		4.60nm	4.9mb
	Z	20s		64.00um	7.0MszX
				LR	13 20.00
PGB		82.85	312	iPd	39 03.00 0.3
OJC		83.21	321	eP	39 04.60 0.2
VTS		83.50	313	iP	39 06.00 -0.2
NAO		83.75	332	P	39 05.30 -1.6
KKB		83.82	312	iPd	39 07.00 -0.7
PSZ		83.95	318	eP	39 08.10 -0.2
VAY		84.36	312	iP	39 09.60 -0.8
		1.3s		116.00nm	5.9mb
				i	39 16.70
RES		84.63	9	ePd	39 12.50 1.4
		1.0s		14.00nm	5.1mb
BUD		84.65	318	eP	39 11.50 -0.2
SKO		84.95	312	iP	39 13.00 -0.3
		1.2s		99.00nm	5.9mb
SRO		84.98	319	eP	39 13.30 0.0
KSP		85.07	322	iPd	39 14.00 0.3
		1.1s		72.00nm	5.8mb
				i	39 21.30
UZD		85.25	317	eP	39 14.00 -0.7
VRAC		85.48	321	iPd	39 16.70 1.0
		1.7s		576.40nm	6.5mb X
ZST		85.59	319	eP	39 16.20 -0.2
OHR		85.69	312	iP	39 16.00 -1.1
VKA		86.05	320	e(P)	39 17.00 -1.7
BRG		86.42	323	iP	39 20.60 0.2
		1.1s		30.00nm	5.4mb
				i	39 27.20
PRU		86.44	322	Pd	39 20.60 0.1
				e	39 27.40
MUD		86.51	329	eP	39 20.00 -0.7
		1.0s		44.00nm	5.6mb
CLL		86.78	323	iPc	39 22.20 0.0
		1.7s		49.00nm	5.5mb
PTJ		87.20	318	eP	39 24.60 0.1
ZAG		87.22	317	eP	39 25.00 0.6
KHC		87.36	321	eP	39 25.50 0.4
		1.5s		13.30nm	5.0mb
				e	40 16.50
				e	42 48.50
GEC2		87.41	321	ePd	39 25.30 -0.1
		1.1s		3.80nm	4.6mb
				e	39 32.30
VBY		87.81	317	eP	39 27.50 0.3
				i	39 34.40
				e	42 55.80
LJU		88.05	318	e(P)	39 28.00 -0.4
CEY		88.25	318	e(P)	39 29.00 -0.4
KBA		88.37	319	iPc	39 29.70 -0.5
		1.0s		11.40nm	5.2mb
				i	39 37.90
BHG		88.38	320	eP	39 30.20 0.2
VOY		88.46	318	i(P)	39 30.00 -0.5
				e	41 10.50
GRF		88.51	322	eP	39 31.20 0.6
				e	39 37.70
YKA		88.58	23	eP	39 31.00 0.4
		1.2s		22.00nm	5.4mb
TRI		88.68	318	eP	39 30.70 -0.7
FVI		88.93	319	Pc	39 31.80 -0.7
WTTA		89.34	320	iPc	39 34.00 -0.8
		1.0s		27.30nm	5.5mb
				i	39 40.70
SQTA		89.62	320	iPd	39 35.40 -0.6
		0.9s		22.30nm	5.4mb
				i	39 42.60
OGA		89.89	320	eP	39 37.40 0.0
		1.0s		24.00nm	5.4mb
OSS		90.51	320	iPd	39 40.40 0.2
SFI		90.68	317	Pc	39 42.20 1.4
SAL		90.77	319	Pc	39 41.60 0.4
PGD		90.78	317	P	39 42.50 1.0
SLE		91.00	321	ePd	39 41.70 -0.6
VDL		91.02	320	ePd	39 42.70 0.1
LLS		91.12	320	ePd	39 43.00 -0.1
FIR		91.13	317	eP	39 44.00 1.2

ZLA		91.20	321	ePd	39 42.60 -0.6
MME		91.30	318	P	39 45.00 1.0
CDF		91.40	322	eP	39 43.90 -0.3
		1.2s		25.00nm	5.5mb
WLF		91.42	324	P	39 45.00 1.0
				e	39 53.00
TMA		91.56	320	ePd	39 44.60 -0.5
BOB		91.83	318	Pd	39 46.30 0.1
BSF		91.97	322	eP	39 46.30 -0.5
		1.3s		24.90nm	5.5mb
DOU		92.06	325	P	39 47.60 0.6
				e	39 54.40
MMK		92.14	320	ePd	39 48.30 0.5
DIX		92.47	320	Pd	39 49.60 0.2
EMS		92.76	320	ePc	39 51.00 0.4
LPG		93.15	320	iPd	39 52.70 0.1
		1.0s		24.00nm	5.6mb
LPL		93.16	320	iPd	39 52.60 0.1
		1.3s		46.55nm	5.8mb
GMW		93.25	38	eP	39 53.07 0.4
LOR		93.96	323	iPd	39 55.20 -0.7
		1.2s		13.10nm	5.2mb
LBF		94.05	322	eP	39 55.60 -0.7
		1.2s		25.00nm	5.5mb
SSF		94.28	323	iPd	39 56.80 -0.5
		1.1s		8.05nm	5.1mb
AVF		94.51	322	eP	39 57.80 -0.6
		1.0s		6.00nm	5.0mb
MAF		95.28	322	eP	40 01.80 -0.2
		1.3s		14.10nm	5.2mb
VGB		95.51	39	(P)	40 03.28 0.2
NEW		96.04	35	eP	40 06.00 0.5
		0.9s		15.12nm	5.4mb
CAF		96.28	321	iPd	40 06.60 0.0
		1.1s		10.00nm	5.2mb
RJF		96.39	322	iPd	40 07.30 0.2
		1.2s		19.65nm	5.5mb
	Z	20s		0.30um	4.8Msz
CMB		99.76	45	P	40 30.00 7.5X
	Z	18s		0.25um	4.8Msz
RSSD		105.61	32	PKP	45 10.00 8.1X
	Z	22s		0.18um	4.6Msz
TUC		109.47	45	PKP	45 20.00 10.6X
	Z	18s		0.27um	4.9Msz
ALQ		110.59	40	PKP	45 20.00 8.4X
	Z	18s		0.34um	4.9Msz
WMOK		115.22	36	PKP	45 30.00 9.8X
	Z	19s		0.34um	4.9Msz
RSNY		116.03	12	PKP	45 30.00 8.6X
	Z	21s		0.20um	4.7Msz
MIAR		118.13	32	PKP	45 40.00 14.3X
	Z	19s		0.16um	4.6Msz
HRV		118.56	11	PKP	45 40.00 13.7X
	Z	18s		0.29um	4.9Msz
KIC		121.22	289	(PKP)	45 30.70 -1.5
LIC		121.54	289	(PKP)	45 31.80 -1.0
ZOBO		171.06	80	PKP	46 48.60 1.3
	Z	20s		0.12um	
				LR	14 36.00
LPB		171.14	81	ePKP	46 52.00 4.9X
CNCB		171.31	83	PKP	46 49.50 2.1X
CCH		173.13	85	(PKP)	47 05.00 17.3X

S.D. = 1.0 on 179 of 208 obs.

% JAN 08, 1993 19h 30m 17.05± 0.93s
42.011 N ± 7.5km 7.235 W ± 9.4km
DEPTH = 10.0km (geophysicist)
SPAIN (377)
mbLg 3.1 (MDD).

ERUA		0.39	10	ePg	30 24.50 -0.5
				eSg	30 29.70
EZAM		1.10	278	ePg	30 37.40 -0.2
				eSg	30 51.50
STS		1.31	312	ePn	30 41.40 0.1
				eSn	30 57.50
EMON		1.43	357	ePn	30 43.60 0.6
				eSn	31 02.00
EPLA		2.13	155	ePn	30 53.20 0.0
GUD		2.69	119	ePn	31 08.70 7.4X
				eSn	31 42.00

S.D. = 0.6 on 5 of 6 obs.

JAN 08, 1993 19h 38m 34.63± 0.68s
31.446 S ± 9.4km 70.168 W ± 9.5km
DEPTH = 130.0 ± 20.5 km
CHILE-ARGENTINA BORDER REGION (127)

```
      MD 4.5 (SAN).
RTCB     1.17  92 eP     39 00.00   0.4
JACH     1.28 196 iPd    39 00.86   0.1
                  iS     39 19.92
RTLL     1.46  86 iPc    39 02.70   0.0
CFA      1.65  96 ePc    39 06.00   1.1
                  S      39 26.20
ROCH     1.68 205 iPd    39 04.36  -1.1
PEL      1.75 194 iPd    39 06.03   0.0
                  iS     39 29.42
MDZ      1.82 142 iP     39 08.80   1.9
                  iS     39 34.70
FCH      1.88 183 iPd    39 09.13   1.2
                  iS     39 34.85
SAN      2.04 192 iP     39 09.80   0.2
                  iS     39 35.52
PCH      2.19 188 iP+    39 11.77   0.3
                  iS     39 39.52
TACH     2.29 196 iP     39 12.29  -0.5
LCCH     2.34 210 iPd    39 11.82  -1.5
CHCH     2.51 189 iPd    39 15.56   0.0
CACH     2.69 188 iP     39 18.50   0.6
                  iS     39 50.78
LNV      2.71 202 iP     39 16.47  -1.6
RTPR     3.34  71 ePd    39 25.40  -1.0
                  S      40 04.30
RFA      3.61 157 iPc    39 30.60   0.6
                  (S)    40 10.30
MRA      3.91 105 eP     39 34.80   0.8
                  S      40 08.00
TCA      4.77  90 iP     39 45.00  -0.7
CYA      4.83  53 iPd    39 44.00  -2.5
FSA      6.47  35 iP     40 06.10  -2.6
ANT      7.71 358 eP     40 28.20   2.6
CNCB    14.71   8 P      42 00.00   2.0
ZOBO    15.20   7 P      42 04.00  -0.3
     S.D. = 1.4  on  24 of  24 obs.
-----------------------------------
%  JAN  08, 1993  20h 10m 56.64± 0.81s
   44.396 N ± 6.9km    7.258 E ± 9.5km
   DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                    (545)
      ML 1.4 (GEN).

PZZ      0.16 314 P      11 00.33   0.0
                  S      11 02.67
STV      0.16 162 P      11 00.17  -0.2
                  S      11 02.36
ENR      0.21 145 P      11 01.51   0.3
                  S      11 04.27
BHB      0.45   0 P      11 05.80   0.1
                  S      11 11.85
ROB      0.45 103 P      11 05.70  -0.1
                  S      11 12.33
     S.D. = 0.3  on   5 of   5 obs.
-----------------------------------
%  JAN  08, 1993  20h 22m 11.51± 0.75s
   39.121 N ± 6.9km   29.326 E ± 7.7km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                            (366)
      MD 2.9 (ISK).

ALT      0.61  96 ePg    22 23.60  -0.4
                  eSg    22 32.60
DST      0.73 312 iPg    22 25.40  -0.4
                  eSg    22 36.40
KHL      0.81 169 iPg    22 27.50   0.2
                  eSg    22 37.50
KCT      1.35 327 iPn    22 36.60   0.2
GPA      1.39  33 ePn    22 37.00   0.0
EYL      1.58  24 ePn    22 40.00   0.3
     S.D. = 0.4  on   6 of   6 obs.
-----------------------------------
*  JAN  08, 1993  20h 28m 10.83± 1.84s
   29.317 N ±11.8km  102.967 E ±19.3km
   DEPTH =   5.0km  (geophysicist)
 SICHUAN, CHINA                    (307)
      ML 3.9 (BJI).

CD2      1.73  23 Pg     28 41.20  -0.6
KMI      4.18 183 Pnd    29 23.50   6.6X
                  Pg     29 36.40
                  Sg     30 32.00
GYA      4.34 130 Pn     29 19.00  -0.1
                  Pg     29 29.20
LZH      6.79   6 ePg    30 09.00  15.2X
XAN      6.92  46 Pn     29 55.80   0.3
                  Sn     31 12.30
                  Sg     31 47.70
WHN      9.95  80 eP     30 43.00   5.5X
GTA     10.40 346 eP     30 44.00   0.2
TIY     11.51  41 Pc     30 59.00   0.1
GUN     15.08 269 P      32 00.00  13.4X
     S.D. = 0.5  on   5 of   9 obs.
-----------------------------------
?  JAN  08, 1993  21h 41m 17.70± 0.87s
   8.316 S ±13.4km  122.381 E ± 9.9km
   DEPTH = 122.8 ± 21.6 km
   4.8mb (  2 obs.)
 FLORES REGION, INDONESIA          (286)

KUPT     2.19 147 eP     41 54.00  -0.1
MKS      4.22 317 iPc    42 21.00  -0.2
KHKI     6.70 269 eP     42 55.30   0.3
                  e(S)   44 41.20
                  e      46 27.00
MTN      9.71 118 eP     43 36.00   0.4
                  eS     45 23.50
NANU    15.62 204 eP     44 52.30  -0.1
                  eS     47 36.00
WB2     16.37 136 iPc    45 01.40  -0.3
        0.8s    18.80nm          4.4mb
                  iS     47 57.80
MEEK    18.57 191 eP     45 33.00   5.0X
                  eS     48 48.00
CHG     35.51 320 eP     48 13.60   8.9X
GUN     50.42 317 P      50 12.72   7.5X
        0.9s    34.00nm          5.2mb
PKI     50.53 316 P      50 12.98   7.0X
KKN     50.75 316 P      50 14.76   7.2X
DMN     50.76 316 P      50 14.84   7.2X
GKN     51.33 316 P      50 18.96   7.1X
     S.D. = 0.4  on   6 of  13 obs.
-----------------------------------
   JAN  08, 1993  21h 44m 07.03± 0.43s
   73.142 N ± 6.5km    6.008 E ± 9.5km
   DEPTH =  10.0km  (geophysicist)
   4.7mb ( 26 obs.)  4.0Msz (  2 obs.)
 GREENLAND SEA                     (640)

DAG      7.35 311 eP     45 49.90  -6.9X
        0.7s     8.22nm          5.0mb
KEV      7.48 107 eP     46 08.00   9.3X
SDF      8.92 120 iP     46 25.70   7.0X
KAF     13.39 135 eP     47 17.00  -2.3
HFS     13.40 163 eP     47 17.40  -2.0
        0.4s     3.00nm          4.7mb
     Z  17s  1233.00um          4.2Msz
                  LR     51 22.00
NUR     14.54 141 eP     47 32.00  -2.3
OBN     22.02 129 iPc    49 01.80  -0.9
        2.0s   260.00nm          5.3mb
                  i      49 11.00
CLL     22.12 168 iPd    49 03.60  -0.2
        2.0s    68.00nm          4.7mb
ENN     22.46 180 eP     49 08.00   0.9
        0.9s    24.00nm          4.7mb
BRG     22.62 167 iP     49 08.60  -0.1
        1.8s    90.00nm          5.0mb
                  i      49 18.00
                  i      49 26.50
MOX     22.71 171 eP     49 10.70   1.0
        1.6s    66.00nm          4.9mb
KSP     22.82 163 iPc    49 12.20   1.4
PRU     23.54 166 ePc    49 18.20   0.5
                  e      49 32.80
GRF     23.65 172 eP     49 20.10   1.3
        1.6s    77.00nm          5.0mb
OJC     23.79 158 eP     49 21.50   1.4
WET     24.27 169 iPc    49 26.40   1.5
KHC     24.33 168 eP     49 26.50   1.1
                  e      49 36.50
VRAC    24.37 163 eP     49 26.80   1.1
GEC2    24.62 168 ePc    49 29.60   1.3
        0.9s     6.79nm          4.3mb
                  e      49 35.80
CDF     24.82 178 eP     49 30.40   0.1
        1.1s    10.75nm          4.4mb
FUR     25.17 172 eP     49 35.80   2.3
HAU     25.22 179 eP     49 34.10   0.1
        1.0s    18.80nm          4.7mb
     Z  21s     0.55um          4.0Msz
LPF     25.39 191 eP     49 34.20  -1.4
     -  1.2s    22.30nm          4.7mb
BSF     25.40 179 eP     49 35.30  -0.5
        1.4s    22.65nm          4.7mb
ZST     25.52 163 iP     49 37.10   0.3
BHG     25.69 169 eP     49 41.30   2.9
LOR     25.98 183 eP     49 40.30  -0.8
        0.9s    12.80nm          4.6mb
     Z  21s     0.38um          3.9Msz
SRO     26.01 161 eP     49 42.20   0.9
SSF     26.19 184 eP     49 42.20  -0.8
        1.1s    10.25nm          4.4mb
LBF     26.26 183 eP     49 42.60  -1.1
        1.1s    15.15nm          4.6mb
AVF     26.46 184 eP     49 44.40  -1.1
        1.3s    19.15nm          4.6mb
BGF     26.71 185 eP     49 46.70  -1.1
        1.1s    18.30nm          4.7mb
TCF     27.00 186 eP     49 49.10  -1.3
        0.9s     7.70nm          4.4mb
MAF     27.05 185 eP     49 49.90  -1.0
        1.1s    10.75nm          4.5mb
LSF     27.06 187 eP     49 49.40  -1.6
        0.9s     8.50nm          4.4mb
CTI     27.30 171 Pc     49 53.50   0.2
SBF     29.37 178 eP     50 11.50  -0.5
        1.0s    26.20nm          5.0mb
SFI     29.43 171 P      50 12.70   0.3
CRE     29.73 171 Pc     50 15.90   0.7
OHR     32.89 159 eP     50 38.00  -5.0X
YKA     38.91 320 eP     51 33.90   0.1
        1.4s     5.20nm          4.0mb
MAIO    45.25 114 eP     52 27.00   1.0
                  e      54 14.00
SES     49.46 311 eP     52 58.00  -0.7
RSSD    53.73 303 eP     53 31.39   0.2
        0.7s     4.18nm          4.5mb
LZH     58.08  71 eP     54 02.00  -0.5
        1.5s    27.00nm          5.1mb
GLD     58.15 302 eP     54 03.10   0.1
                  e      54 08.10
EMUT    59.43 307 eP     54 12.47   0.4
SRU     60.03 307 eP     54 14.93  -1.2
                  e      54 19.77
PV09    60.29 305 eP     54 17.77  -0.2
MSU     60.99 308 eP     54 23.02   0.4
BCAO    69.06 167 iPd    55 13.90  -0.8
        0.7s     9.00nm          5.1mb
CHG     73.00  82 eP     55 38.30  -0.1
WRA    119.64  58 PKP    02 59.00   1.0
        0.5s     0.70nm
WB2    119.64  58 iPKPd  03 04.40   6.4X
        0.8s     3.50nm
     S.D. = 1.2  on  49 of  54 obs.
-----------------------------------
*  JAN  08, 1993  21h 52m 27.64± 0.93s
   43.466 N ± 9.2km  147.657 E ±10.1km
   DEPTH =  33.0km  (normal)
   4.0mb (  1 obs.)
 KURIL ISLANDS                     (221)

KUSJ     2.18 261 P      53 01.00  -1.3
                  eS     53 21.50
HOOJ     3.39 253 eP     53 20.40   1.0
                  eS     53 56.10
ASAJ     3.69 282 eP     53 23.60  -0.1
MRRJ     4.94 260 eP     53 41.90   0.4
                  eS     54 33.70
AOMJ     6.15 244 eP     53 58.70   0.1
OFUJ     6.29 228 P      54 00.80   0.3
                  eS     55 06.70
YAMJ     7.83 230 P      54 22.60   0.5
NIIJ     9.07 230 eP     54 39.40   0.2
KAKJ     9.25 221 eP     54 41.20  -0.6
                  eS     56 17.90
CHJJ     9.96 225 eP     54 51.10  -0.4
                  eS     56 36.00
MAT     10.01 229 (P)    54 52.00  -0.2
YKA     55.83  34 eP     02 03.70   0.1
        0.6s     0.90nm          4.0mb
GBA     66.44 267 P      03 16.00   0.1
     S.D. = 0.6  on  13 of  13 obs.
-----------------------------------
%  JAN  08, 1993  21h 56m 19.97± 0.74s
   27.995 S ± 6.3km   26.761 E ± 8.0km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA          (584)
      ML 3.0 (PRE).
```

08d 21h

```
SEK      0.83 113 eP   * 56 36.30  -0.3
BFS      1.09   1 eP     56 41.20   0.1
BLF      1.22 204 iPd    56 43.50   0.3
                  S      57 04.70
PRY      1.24  31 eP     56 43.00  -0.5
                  S      57 03.60
SWZ      1.51 302 eP     56 47.40  -0.4
                  S      57 06.90
SLR      2.63  31 e(P)   57 04.80   0.9
     S.D. = 0.7  on   6 of   6 obs.
-------------------------------------
%  JAN  08, 1993  22h 23m 10.88± 0.98s
   39.733 N ± 7.2km   23.754 E ± 6.8km
   DEPTH =  10.0km  (geophysicist)
 AEGEAN SEA                        (365)

PAIG     0.20 344 ePg    23 15.38   0.1
                  eSg    23 19.02
OUR      0.63  16 iPg    23 22.85  -0.6
                  eSg    23 32.46
LIT      1.04 291 ePg    23 30.58   0.1
                  eSg    23 44.66
THE      1.08 326 ePg    23 31.66   0.5
                  eSg    23 45.86
SOH      1.13 344 ePg    23 31.66  -0.4
                  eSg    23 48.30
AGG      1.31 238 ePb    23 34.82  -0.3
                  eSb    23 54.38
SRS      1.39 355 ePb    23 35.70  -0.6
                  eSb    23 54.82
KNT      1.57 336 ePb    23 39.10   0.3
                  eSb    24 01.26
GRG      1.60 320 ePb    23 39.70   0.4
                  eSb    24 01.10
ALN      2.10  56 iPn    23 47.10   0.6
                  eSn    24 16.70
     S.D. = 0.5  on  10 of  10 obs.
-------------------------------------
•  JAN  08, 1993  22h 48m 11.76± 0.82s
   30.469 S ±10.5km  177.515 W ±13.7km
   DEPTH =  10.0km  (geophysicist)
   5.0mb ( 12 obs.)
 KERMADEC ISLANDS, NEW ZEALAND     (178)
      felt (III) on Raoul Island.

RAO      1.26 344 iPc    48 36.00   0.8
                  iS     48 54.80
HBZ      7.91 205 eP     50 03.60  -6.0X
PUZ      8.35 204 eP     50 08.70  -7.1X
WCZ      8.73 229 eP     50 24.60   3.6X
MNG     11.62 207 eP     50 51.70  -8.9X
                  eS     52 56.90
THZ     13.66 212 eP     51 24.80  -3.1X
                  eS     53 45.70
KHZ     13.92 209 eP     51 22.10  -9.1X
                  eS     53 48.50
LTZ     14.76 211 eP     51 35.10  -7.2X
                  eS     54 08.20
DZM     16.63 296 iPd    52 11.80   5.2X
LMZ     16.88 215 eP     52 04.70  -4.8X
BWZ     17.20 212 eP     52 08.70  -4.9X
ODZ     17.27 209 eP     52 09.60  -4.9X
BKM     18.18 311 iPc    52 39.10  13.1X
BRS     26.15 269 iPd    53 47.00  -1.0
        1.0s     7.00nm          4.3mb
ARMA    26.56 262 eP     53 53.70   1.8
        0.7s    12.00nm          4.7mb
CNB     28.15 251 eP     54 06.50   0.3
        1.1s    35.00nm          5.1mb
CAN     28.45 251 eP     54 09.00   0.1
BWA     28.94 253 eP     54 11.60  -1.7
                  epP    54 22.30  39kmX
RMO     29.85 269 eP     54 22.70   1.2
        0.3s    11.00nm          5.2mb
TOO     31.32 247 eP     54 35.20   0.8
        0.9s    29.00nm          5.2mb
CMS     31.35 259 eP     54 35.70   1.0
        0.7s    12.00nm          4.9mb
BFD     33.66 248 eP     54 50.50  -4.3X
        1.0s    20.00nm          5.0mb
ADE     36.88 251 eP     55 22.80   0.4
WB2     44.51 272 iPd    56 24.00  -1.4
        0.4s    35.10nm          5.6mb
WRA     44.52 272 P      56 24.40  -1.1
        0.7s     5.10nm          4.5mb
WARB    48.93 261 eP     56 58.00  -2.1
CSY     55.28 208 eP     57 49.30   2.1
        0.9s    25.80nm          5.3mb
SPA     59.70 180 iPd    58 18.50  -0.2
        1.2s    35.21nm          5.4mb
NVL     78.83 183 eP     00 15.00  -0.9
        1.4s    21.00nm          5.0mb
                  e      00 32.00
BJI     93.27 315 eP     01 27.00  -0.6
BOD    104.81 329 ePdiff 02 30.80  11.4X
GUN    108.83 292 PKP    06 48.16   4.5X
        0.8s    26.00nm
PKI    109.07 291 PKP    06 52.00   7.9X
        0.9s    43.00nm
KKN    109.26 291 PKP    06 51.52   7.2X
        0.6s    42.00nm
DMN    109.33 291 PKP    06 53.42   8.9X
        0.8s    86.00nm
GKN    109.87 291 PKP    06 53.24   7.8X
        0.9s    92.00nm
QUE    125.08 287 ePKP   07 15.80   1.4
OBN    145.46 325 iPKPc  07 50.00  -1.1
        1.1s   137.00nm
NAO    149.14 352 PKP    08 00.10   3.2X
        1.0s    21.30nm
BCAO   150.00 213 iPKPc  08 04.00   4.4X
        1.1s    17.00nm
MNK    150.40 329 ePKP   07 59.00   0.1
CSS    153.72 288 ePKP   08 19.50  15.1X
GEC2   159.76 338 ePKP   08 11.60   0.0
        1.1s     0.94nm
     S.D. = 1.2  on  21 of  43 obs.
-------------------------------------
   JAN  08, 1993  22h 58m 15.51± 0.39s
   51.765 N ± 4.7km  151.209 E ± 5.6km
   DEPTH = 523.0 ±  5.2 km
   4.4mb ( 43 obs.)
 SEA OF OKHOTSK                    (663)

SKR      3.27 108 eP     59 28.50  -2.2
        0.5s   240.00nm
                  eS     00 28.60
PET      4.73  72 eP     59 41.00  -1.0
        0.5s   260.00nm
                  eS     00 49.00
OKH      5.35 293 eP     59 50.00   2.5
YSS      7.30 233 eP     00 06.50   0.3
        0.8s    40.00nm          4.6mb
                  e      01 36.00
MGD      8.36 359 eP     00 17.00   0.0
        0.6s    90.00nm          5.2mb
ASAJ     9.56 220 eP     00 28.90  -0.6
KUSJ     9.72 209 eP     00 25.50  -5.6X
                  eS     02 12.00
HOOJ    10.82 213 eP     00 38.20  -4.2X
                  eS     02 32.90
SEY     11.18   3 iP     00 47.00   0.8
        0.8s    41.00nm          4.9mb
                  eS     02 52.00
MRRJ    11.61 220 eP     00 47.50  -3.1X
AOMJ    13.47 218 eP     01 09.10  -0.6
OFUJ    14.33 211 eP     01 18.00  -0.4
YAK     15.51 320 iPc    01 30.20   0.1
        0.9s    51.00nm          5.1mb
                  e      04 11.00
NIIJ    16.90 215 P      01 44.20   0.5
KAKJ    17.43 211 eP     01 49.30   0.4
MAT     17.81 216 iPd    01 53.00   0.4
        0.5s    44.37nm          5.3mb
MTMJ    17.92 217 P      01 54.30   0.5
CHJJ    17.97 214 P      01 54.70   0.6
TSRJ    19.54 220 eP     02 09.50   0.3
ZAK     29.72 287 eP     03 40.50   0.5
        1.1s    14.00nm          4.5mb
FBA     33.16  43 ePc    04 09.21   0.2
        0.6s     7.66nm          4.5mb
UER     34.65 293 eP     04 22.00   0.5
ELT     38.34 299 eP     04 52.00   0.2
        1.3s    20.00nm          4.5mb
                  eS     10 10.00
NVS     39.30 302 eP     04 59.80   0.2
RES     46.50  20 ePc    05 56.50   0.4
        0.9s     6.00nm          4.1mb
BRVK    46.86 305 iP     05 58.50  -0.6
        0.8s    11.00nm          4.4mb
YKA     47.72  39 eP     06 04.80  -0.7
        0.6s     6.50nm          4.3mb
FRU     50.45 292 eP     06 27.00   0.8
CHG     52.31 251 eP     06 39.50  -0.4
        0.9s    10.50nm          4.2mb
FCC     57.77  34 eP     07 20.50   2.9
OBN     60.50 323 eP     07 34.00  -1.9
HFS     63.33 338 eP     07 52.70  -1.4
        0.4s     4.00nm          4.3mb
ULM     63.56  41 eP     07 57.00   1.3
MSU     64.55  60 iPc    08 03.42   0.8
SRU     65.00  58 (P)    08 05.83   0.5
HYB     65.80 268 eP     08 09.00  -1.3
PV10    66.32  58 eP     08 13.97   0.4
PV08    66.38  57 eP     08 13.95  -0.1
GBA     69.39 266 P      08 32.00  -0.1
OJC     70.35 329 eP     08 36.00  -1.3
KSP     70.87 332 eP     08 38.30  -2.0
CLL     71.39 334 iPd    08 41.40  -1.9
        0.9s    22.00nm          4.7mb
BRG     71.52 333 iP     08 42.60  -1.5
PRU     72.15 332 eP     08 45.50  -2.2
                  e      08 47.80
WTS     72.34 338 eP     08 49.00   0.2
        0.6s    11.00nm          4.6mb
MOX     72.37 334 eP     08 48.60  -0.4
        1.1s    16.00nm          4.5mb
EEO     72.89  34 eP     08 53.50   1.4
WB2     72.91 197 iPc    08 52.40   0.0
        0.9s     6.90nm          4.2mb
WRA     72.91 197 P      08 52.70   0.3
        0.7s     1.10nm          3.5mb
KHC     73.19 332 eP     08 49.70  -4.1X
        1.0s     8.90nm          4.2mb
                  e      08 54.00
GRF     73.34 334 eP     08 51.00  -3.6X
                  e      08 55.10
GEC2    73.42 332 ePd    08 50.20  -4.9X
        1.3s     5.75nm          3.9mb
                  epP    08 54.80  15kmX
                  e      09 01.10
                  e      09 08.90
ENN     73.69 338 eP     08 56.50   0.0
        1.0s    17.00nm          4.5mb
DOU     74.63 338 P      09 02.30   0.6
KBA     75.11 332 iPc    08 57.70  -7.0X
        1.0s    24.80nm          4.6mb
                  i      09 05.40
WTTA    75.44 333 iPd    08 59.70  -6.8X
        0.9s    25.10nm          4.7mb
                  i      09 06.70
CDF     75.55 336 iPd    09 06.70  -0.3
        1.0s    13.80nm          4.4mb
ZLA     76.12 335 ePc    09 10.47   0.4
HAU     76.16 337 iPd    09 09.90  -0.4
        1.1s    10.75nm          4.2mb
OSS     76.38 334 ePc    09 12.30   0.6
LLS     76.53 334 ePc    09 11.97  -0.6
ASPA    76.63 196 iPc    09 13.90   0.9
        0.6s    21.10nm          4.8mb
VDL     76.75 334 ePc    09 14.59   0.8
ELC     76.82  45 eP     09 13.59  -0.4
FLN     76.98 341 eP     09 14.30  -0.3
        1.2s    25.00nm          4.5mb
LDF     77.06 341 eP     09 14.70  -0.4
        1.0s    16.60nm          4.4mb
GRR     77.41 341 eP     09 16.90  -0.1
        0.9s    17.35nm          4.5mb
LOR     77.45 338 iPd    09 16.80  -0.5
        1.1s    25.15nm          4.6mb
MMK     77.56 335 ePd    09 19.40   1.2
DIX     77.68 335 ePd    09 19.55   0.7
LBF     77.69 338 iPd    09 18.10  -0.5
        0.9s     5.10nm          4.0mb
LPF     77.78 341 iPd    09 19.10   0.1
        0.9s    12.60nm          4.3mb
EMS     77.81 335 ePc    09 20.09   0.6
LMN     77.94  25 ePc    09 27.50   7.6X
OHR     77.95 324 eP     09 19.50  -0.6
AVF     78.02 338 iPd    09 20.20  -0.1
        0.9s    11.30nm          4.3mb
SMF     78.04 338 iPd    09 20.40   0.0
        1.1s    29.30nm          4.6mb
LPL     78.38 335 eP     09 23.00   0.5
        1.0s    19.60nm          4.5mb
LPG     78.39 335 iPd    09 23.20   0.5
        1.0s    21.20nm          4.5mb
MAF     78.73 338 iPd    09 24.60   0.5
        1.1s    28.55nm          4.6mb
TCF     78.75 339 iPd    09 24.40   0.2
        1.1s    16.35nm          4.4mb
```

```
LSF     78.94 339 iPd   09 25.30   0.1
        0.8s    11.15nm          4.3mb
MFF     78.97 340 iPd   09 25.60   0.3
        0.8s     7.80nm          4.2mb
RJF     79.84 339 eP    09 30.30   0.4
        1.2s    14.30nm          4.3mb
CAF     80.07 338 iPd   09 31.80   0.7
        0.9s     9.00nm          4.2mb
LFF     80.36 339 iPd   09 33.10   0.6
        1.1s    33.95nm          4.7mb
KIC    118.55 333 PKP   16 03.60  -1.3
LIC    118.76 333 PKP   16 04.30  -1.0
VAO    148.04  33 (PKP) 17 03.00   4.0X
     S.D. = 0.9  on  79 of  89 obs.
-----------------------------------
*  JAN  08, 1993  23h 20m 43.58± 0.96s
   17.862 S ±11.8km   70.135 W ±10.2km
   DEPTH = 141.6 ± 11.2 km
   3.5mb (  1 obs.)
 NEAR COAST OF PERU                (115)

CNCB     2.31  63 iPc   21 23.90   0.9
                  i     21 51.00
LPB      2.35  56 iPc   21 24.00   0.6
ZOBO     2.47  51 iPc   21 25.00  -0.1
                  i     21 54.00
CCH      3.84  83 iPc   21 41.40  -1.1
ANT      5.82 183 eP    22 09.10   0.3
NNA      8.72 311 eP    22 46.80  -1.2
                  eS    24 22.40
SIV      8.87  79 iPc   22 50.50   0.5
BAO     21.32  87 e(P)  25 19.00  -1.6
                  e     25 20.90
                  e     25 22.40
KIC     68.86  76 P     31 35.00  -0.2
YKA     87.39 341 eP    33 17.20   1.8
        0.7s     0.40nm          3.5mb
     S.D. = 1.3  on  10 of  10 obs.
-----------------------------------
   JAN  08, 1993  23h 29m 44.99± 1.22s
   33.009 S ± 6.8km   69.879 W ± 7.2km
   DEPTH = 127.6 ± 16.4 km
 CHILE-ARGENTINA BORDER REGION     (127)
      MD 3.9 (SAN).

FCH      0.47 227 iPd   30 04.05  -0.2
                  iS    30 17.60
JACH     0.68 298 iP+   30 04.94  -0.4
                  iS    30 20.17
PEL      0.69 259 iP+   30 05.12  -0.2
                  iS    30 19.42
PCH      0.81 221 iP+   30 06.51   0.1
                  iS    30 22.59
MDZ      0.87  82 i(P)  30 06.30  -0.6
ROCH     0.95 272 iP+   30 07.54  -0.2
                  iS    30 23.69
TACH     1.09 234 iP+   30 08.86  -0.1
                  iS    30 25.84
CHCH     1.13 215 iPd   30 09.93   0.7
                  iS    30 27.82
CACH     1.26 208 eP    30 11.13   0.4
                  iS    30 31.53
LCCH     1.49 251 iPd   30 13.19   0.0
                  iS    30 32.78
LNV      1.59 233 iP+   30 13.87  -0.4
                  iS    30 34.70
RTCB     1.77  31 ePd   30 17.50   0.9
                  S     30 42.00
CFA      1.97  45 ePc   30 19.20   0.2
                  S     30 44.20
RTLL     2.06  36 ePc   30 20.70   0.6
                  S     30 47.00
RFA      2.11 147 eP    30 21.20   0.4
TCA      4.78  71 iP    30 55.00  -1.2
                  S     31 45.50
     S.D. = 0.6  on  16 of  16 obs.
-----------------------------------
?  JAN  09, 1993  00h 50m 51.07± 1.70s
   18.449 S ±45.5km  169.251 E ±25.9km
   DEPTH = 167.9 ± 25.7 km
   4.6mb (  5 obs.)
 VANUATU ISLANDS                   (186)

PVC      1.14 308 iPc   51 18.60  -0.4
                  iS    51 38.80
BKM      1.23 309 iPd   51 20.20   0.4
                  iS    51 42.50
DZM      4.46 216 iPd   51 50.50  -8.1X
                  iS    52 32.90
ARMA    19.95 230 eP    55 11.50  -0.7
        0.9s    14.00nm          4.4mb
RMO     20.54 243 eP    55 18.20   0.2
        0.8s    13.00nm          4.4mb
MNG     22.74 168 P     55 39.30  -0.1
THZ     23.45 173 eP    55 47.40   1.1
KHZ     24.17 172 eP    55 52.00  -1.1
CNB     24.35 222 eP    55 55.70   0.7
        0.7s    21.00nm          4.8mb
LTZ     24.39 175 eP    55 55.30   0.0
STK     28.29 236 eP    56 30.80   0.0
        0.4s     3.20nm          4.4mb
ASPA    33.34 255 iPd   57 15.10  -0.1
        0.4s    47.40nm          5.5mb
     S.D. = 0.7  on  11 of  12 obs.
-----------------------------------
?  JAN  09, 1993  01h 08m 57.79± 0.62s
   29.894 N ±16.8km   98.845 E ± 5.8km
   DEPTH =  33.0km  (normal)
   3.6mb (  1 obs.)
 XIZANG                            (306)
      ML 3.4 (BJI).

CD2      4.36  75 ePn   10 04.20   0.7
                  Pg    10 14.40
KMI      5.88 143 Pgd   10 46.50  21.4X
        0.9s    40.00nm
GYA      7.70 114 iPd   10 50.20  -0.4
XAN      9.50  62 P     11 11.50  -4.0X
GUN     11.53 263 P     11 43.68   0.2
PKI     12.02 262 P     11 49.42  -0.6
KKN     12.08 263 P     11 51.20   0.5
CN2     25.28  49 eP    14 22.00  -0.6
WRA     60.20 141 P     19 05.20   0.2
        0.6s     0.30nm          3.6mb
     S.D. = 0.6  on   7 of   9 obs.
-----------------------------------
   JAN  09, 1993  01h 20m 14.66± 0.49s
   45.211 N ± 3.7km   7.451 E ± 4.7km
   DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                    (545)
      ML 2.0 (GEN).

RSP      0.15 247 P     20 19.15   0.9
                  S     20 21.53
LSD      0.32 320 P     20 21.85   0.4
                  S     20 25.83
BHB      0.39 200 P     20 23.45   0.7
                  S     20 28.21
RRL      0.55 239 P     20 26.29   0.2
                  S     20 32.70
ORO      0.56  42 P     20 26.00   0.0
                  eSg   20 32.50
ORX      0.56  41 P     20 26.06  -0.1
                  S     20 32.79
LPG      0.57 300 Pg    20 26.00  -0.4
                  Sg    20 32.30
BNI      0.57 254 P     20 26.30  -0.1
LPL      0.59 301 Pg    20 26.40  -0.4
                  Sg    20 32.50
PZZ      0.75 200 P     20 28.90  -0.5
                  S     20 37.73
STV      0.97 185 P     20 31.78  -1.4
ENR      0.98 181 P     20 32.47  -0.9
                  S     20 44.14
FIN      1.14 151 P     20 37.59   1.6
IMI      1.34 166 P     20 39.19  -0.2
     S.D. = 0.8  on  14 of  14 obs.
-----------------------------------
?  JAN  09, 1993  01h 29m 19.03± 0.99s
   21.477 S ±15.3km   66.566 W ±32.0km
   DEPTH = 244.1 ± 50.2 km
 SOUTHERN BOLIVIA                  (125)

CCH      4.09   6 P     30 24.40  -0.1
                  e     31 09.10
ANT      4.19 237 iP+   30 25.30   0.0
                  iS    31 13.80
CNCB     4.83 344 P     30 34.00   0.3
LPB      5.13 343 P     30 37.80   0.6
ZOBO     5.37 344 P     30 39.60  -0.8
                  S     31 40.20
VAO     18.21  98 eP    33 16.60   0.0
     S.D. = 0.8  on   6 of   6 obs.
-----------------------------------
%  JAN  09, 1993  01h 36m 49.48± 0.98s
   44.771 N ± 6.0km   6.913 E ± 9.3km
   DEPTH =  10.0km  (geophysicist)
 FRANCE                            (538)
      ML 1.5 (GEN).

RRL      0.17 328 P     36 53.66   0.1
                  S     36 56.18
BHB      0.26  74 P     36 55.22   0.2
                  S     36 58.74
PZZ      0.30 153 P     36 55.82   0.1
                  S     37 00.39
RSP      0.45  33 P     36 58.47  -0.2
ENR      0.65 146 P     37 02.45  -0.2
                  S     37 11.28
     S.D. = 0.3  on   5 of   5 obs.
-----------------------------------
*  JAN  09, 1993  01h 58m 42.87± 1.06s
   49.198 N ± 8.7km   6.934 E ±10.4km
   DEPTH =  10.0km  (geophysicist)
 GERMANY                           (543)

RUP      0.51   9 ePg   58 52.96  -0.3
WLF      0.69 313 iPd   58 55.40  -1.1
                  iS    59 04.87
ABH      0.79  30 ePg   58 58.70   0.4
FEL      1.51 151 ePg   59 09.77  -0.2
DOU      1.77 301 Pd    59 14.90   1.2
                  i     59 16.20
                  S     59 38.30
     S.D. = 1.2  on   5 of   5 obs.
-----------------------------------
?  JAN  09, 1993  02h 29m 46.40± 2.31s
   37.859 N ±13.7km   26.881 E ±21.4km
   DEPTH =  10.0km  (geophysicist)
 DODECANESE ISLANDS                (369)
      MD 3.0 (ISK).

IZM      0.62  29 iPg   29 58.50  -0.3
                  eSg   30 08.50
YER      1.33 123 ePn   30 10.90  -0.1
EZN      2.01 348 ePn   30 20.70   0.0
DST      2.22  38 ePn   30 24.20   0.4
     S.D. = 0.6  on   4 of   4 obs.
-----------------------------------
&  JAN  09, 1993  02h 36m 49.57s
   35.020 N          116.973 W
   DEPTH =   4.5km
 CENTRAL CALIFORNIA                ( 39)
      <PAS-P>. ML 2.6 (PAS).

GSC      0.31  26 iPd   36 55.59  -0.3
SSK      1.00 217 ePc   37 08.35  -0.8
PEC      1.14 188 ePd   37 10.57  -0.8
ISA      1.38 298 ePc   37 14.56  -1.1
PLM      1.66 177 eP    37 19.22  -0.5
GLA      2.65 137 ePn   37 35.02   1.2
                  ePg   37 38.30
PKEM     2.76 293 (P)   37 40.00   4.6
ARUT     3.97  45 (P)   38 00.52   7.9
MSU      5.20  46 (Pn)  38 10.95   0.8
                  ePg   38 26.88
     9 obs. associated
-----------------------------------
&  JAN  09, 1993  02h 53m 26.87s
   65.017 N          152.046 W
   DEPTH =  19.5km
   2.7mb (  1 obs.)
 NORTHERN ALASKA                   (676)
      <AEIC>. ML 3.4 (AEIC).

MLY      0.55  88 iP    53 37.87   0.0
IMA      1.26 328 ePn   53 48.38  -1.1
                  ePg   53 49.41
NEA      1.35 108 eP    53 51.16   0.5
                  eS    54 09.33
MDM      1.62  90 eP    53 54.32  -0.3
                  S     54 16.45
FBA      1.81  92 ePn   53 56.10  -1.3
                  iPg   54 00.98
CCB      1.85 100 eP    53 57.51  -0.4
MCK      1.87 132 eP    53 58.72   0.5
GLM      1.98  89 eP    53 59.08  -0.7
RND      2.14 138 eP    54 02.37   0.2
HDA      2.27 103 eP    54 03.37  -0.6
                  S     54 32.86
HUR      2.31 151 eP    54 05.53   1.0
```

09d 02h

```
                    S   * 54 33.88
TTA      2.73 222 ePnc   54 09.65  -0.9
                 ePg    54 16.06
SKT      3.06 175 eP     54 15.85   0.7
FYU      3.21  58 eP     54 17.62   0.4
PWA      3.52 163 P      54 22.80   1.2
GHO      3.55 155 iP     54 22.64   0.5
PAX      3.55 122 eP     54 22.85   0.6
SUA      3.62 170 eP     54 24.09   0.9
SML      3.63 151 eP     54 23.24  -0.1
PLRM     3.68 158 eP     54 24.56   0.6
PMR      3.68 158 eP     54 23.76  -0.2
CGLM     3.72 180 eP     54 25.16   0.5
DOT      3.74 108 eP     54 25.20   0.4
CRP      3.77 181 (P)    54 25.23  -0.1
CP2      3.77 181 eP     54 25.84   0.4
BGL      3.77 183 eP     54 25.89   0.5
                 eS     55 25.67
CKN      3.81 181 eP     54 26.38   0.5
SDG      3.82 128 eP     54 27.02   1.1
CKT      3.83 181 eP     54 27.01   0.8
SCM      3.83 144 eP     54 26.23   0.0
CKL      3.84 182 eP     54 27.32   1.0
SPU      3.85 180 iP     54 27.11   0.7
TOA      3.93 135 P      54 28.70   1.2
PMS      3.95 162 P      54 29.20   1.4
KNK      3.97 154 eP     54 29.13   1.1
SVW      4.25 204 ePn    54 30.39  -1.7
PTE      4.39 160 eP     54 34.95   1.0
DFR      4.45 184 eP     54 34.56  -0.4
KLU      4.49 139 eP     54 36.17   0.6
RS2      4.58 184 P      54 34.40  -2.6
RSO      4.58 184 P      54 35.00  -2.0
RS1      4.59 184 P      54 33.70  -3.3
SLKM     4.60 169 eP     54 37.38   0.2
VLZ      4.68 144 eP     54 38.91   0.7
VZW      4.69 145 eP     54 39.41   1.0
MPA      4.71 164 eP     54 39.09   0.5
GLI      4.73 149 eP     54 38.59  -0.3
FID      4.98 147 eP     54 42.89   0.5
INE      5.00 186 eP     54 43.00   0.2
SEW      5.08 165 eP     54 44.32   0.6
KNIM     5.09 155 eP     54 41.73  -2.2
GLB      5.17 130 eP     54 46.26   1.2
HIN      5.29 149 eP     54 46.93   0.1
CVA      5.34 144 eP     54 47.84   0.5
PDB      5.34 192 eP     54 47.77   0.3
LTI      5.36 157 eP     54 48.60   0.9
SGAM     5.51 142 eP     54 50.40   0.5
BALM     5.95 128 eP     54 55.90  -0.2
YKA     16.58  81 eP     57 16.70  -2.8
       0.5s     0.30nm          2.7mb
       59 obs. associated
-----------------------------------------
   JAN  09, 1993  04h 01m 08.19± 0.40s
   38.939 N ± 5.2km  142.496 E ± 6.3km
   DEPTH =  27.2km  (  4 depth phases)
   4.7mb ( 25 obs.)  4.4Msz (  2 obs.)
 NEAR EAST COAST OF HONSHU, JAPAN(228)

OFUJ     0.66 283 iPd    01 21.40   0.3
                 S      01 30.80
YAMJ     2.07 249 eP     01 41.40  -0.5
                 eS     02 09.10
AOMJ     2.30 315 eP     01 46.10   1.1
                 eS     02 17.30
NIIJ     3.24 239 P      01 58.70   0.4
KAKJ     3.29 215 P      01 57.60  -1.5
HOOJ     3.49  10 eP     02 01.80  -0.2
                 eS     02 42.50
MRRJ     3.65 343 eP     02 05.60   1.5
                 eS     02 48.90
CHJJ     4.01 225 P      02 08.10  -1.2
                 eS     02 55.80
MAT      4.16 236 eP     02 12.00   0.6
                 eS     03 04.00
MTMJ     4.40 239 P      02 15.40   0.5
KUSJ     4.48  21 eP     02 13.70  -2.3
                 eS     03 03.10
IIDJ     5.03 228 P      02 26.30   2.4
                 eS     03 21.70
ASAJ     5.18   1 eP     02 25.90   0.1
TSRJ     6.21 239 P      02 42.70   2.3
WKYJ     7.28 232 P      02 56.90   1.4
KUR      7.45  31 iPc    02 57.00  -0.7
       0.5s   120.00nm          6.2mb X
                 eS     04 14.00
```

```
YSS      8.07   1 (P)    03 05.70  -0.8
       Z  21s     1.10um
       E  21s     1.00um
                  (S)    04 33.00
YONJ     8.13 245 P      03 08.90   1.5
TKSJ     8.41 237 eP     03 10.80  -0.4
SSE     19.10 252 Pd     05 27.50  -4.0X
         1.2s    33.00nm          4.4mb
       Z  18s     1.00um          4.2MszX
       N  14s     0.40um
                  sP     05 36.50
                  eS     08 18.00
BJI     20.32 281 eP     05 41.50  -3.3X
       Z  12s     1.15um          4.5MszX
MGD     21.82  11 eP     06 00.00   0.1
CIT     23.92 313 eP     06 18.00  -2.6
YAK     24.40 345 eP     06 25.40   0.3
         1.0s    75.00nm          5.2mb
                  e      10 43.00
BOD     26.36 325 eP     06 42.70  -0.8
         0.9s    13.00nm          4.6mb
ZAK     29.81 305 iPc    07 14.00  -0.8
         1.1s    16.00nm          4.7mb
LZH     30.64 277 eP     07 25.00   2.5
       Z  18s     0.74um          4.4Msz
       E  10s     0.51um
MOY     31.42 308 eP     07 28.00  -0.9
KMI     36.12 260 Pc     08 09.50  -0.6
         1.5s    70.00nm          5.4mb
       Z  20s     0.80um          4.5Msz
                  pP     08 16.00  22km
ELT     40.46 310 eP     08 46.00   0.2
         0.9s    16.00nm          4.8mb
NRI     41.75 334 eP     09 03.00   6.9X
CHG     42.61 255 eP     09 03.60  -0.2
IMA     44.62  31 eP     09 21.87   2.2
         1.4s     8.98nm          4.5mb
CRP     45.16  38 (P)    09 26.76   2.6
FBA     47.04  33 eP     09 40.02   1.3
         1.2s     7.89nm          4.6mb
GUN     47.84 275 P      09 44.82  -1.1
         0.6s    41.00nm          5.6mb
KLU     48.13  38 (P)    09 49.17   1.7
KKN     48.36 275 P      09 48.94  -0.9
         0.6s    43.00nm          5.6mb
PKI     48.37 274 P      09 49.80  -0.2
         0.7s    10.00nm          5.0mb
DMN     48.58 275 P      09 50.54  -1.1
GKN     48.76 275 P      09 51.80  -1.0
         0.6s    25.00nm          5.4mb
BRVK    50.00 311 iPc    10 01.00  -0.8
         0.9s     7.00nm          4.7mb
WB2     59.07 189 iPc    11 06.00  -2.3
         0.7s    19.80nm          5.4mb
WRA     59.07 189 P      11 06.20  -2.1
         0.7s     6.00nm          4.8mb
RES     60.54  15 eP     11 18.00   0.1
         1.0s     3.00nm          4.4mb
GBA     62.22 265 Pc     11 30.00   0.0
RMO     65.35 174 iPd    11 49.70  -0.4
         0.8s    16.00nm          5.2mb
WARB    66.46 196 iPd    11 56.80  -0.4
KAF     67.01 333 iP     12 08.60   8.2X
         0.5s     2.20nm          4.5mb
FCC     71.92  27 eP     12 41.50  11.0X
HFS     72.70 336 eP     12 34.10  -1.1
         0.4s     1.80nm          4.4mb
NAO     73.05 337 P      12 36.10  -1.1
         0.7s     1.90nm          4.2mb
SRU     77.52  50 (P)    13 04.39   1.1
KSP     78.93 329 eP     13 20.50  10.0X
BRG     79.84 330 e(P)   13 25.00   9.5X
CLL     79.87 331 e(P)   13 24.00   8.5X
PRU     80.30 329 eP     13 18.00   0.1
                  e      13 27.00  29km
KHC     81.36 329 eP     13 24.00   0.4
                  e      13 33.00  29km
GEC2    81.54 329 ePd    13 24.60   0.0
         0.7s     1.00nm          4.0mb
                  e      13 34.00  30km
LOR     86.58 333 eP     13 49.90  -0.2
         0.8s     3.65nm          4.7mb
SSF     86.88 333 eP     13 51.60   0.1
LPL     87.01 331 eP     13 52.70   0.3
         0.7s     2.75nm          4.6mb
LPG     87.01 331 eP     13 52.70   0.1
         0.4s     1.25nm          4.5mb
```

```
AVF_    87.16 333 eP     13 53.00   0.1
         0.8s     5.65nm          4.9mb
ZOBO   144.98  58 PKP    20 45.00  -0.7
LPB    145.18  59 ePKP   20 46.00   0.3
CNCB   145.45  59 PKP    20 47.90   1.5
      S.D. = 1.2  on  59 of  67 obs.
-----------------------------------------
&  JAN  09, 1993  04h 07m 28.30s
   35.025 N           116.974 W
   DEPTH =    3.6km
 CENTRAL CALIFORNIA                  ( 39)
      <PAS-P>. ML 2.7 (PAS), 2.5 (GS).

GSC      0.31  27 iPd    07 34.33  -0.2
PEC      1.14 188 ePd    07 49.25  -1.0
                 eS     08 04.39
ISA      1.38 298 eP     07 53.29  -1.2
                 eS     08 11.25
PLM      1.67 177 eP     07 58.27  -0.4
                 eS     08 21.08
BCH      2.55 274 eP     08 09.59  -1.8
GLA      2.66 137 ePn    08 11.64  -1.1
BONR     3.11 340 ePn    08 16.71  -2.7
ARUT     3.97  45 ePn    08 30.07  -1.4
         8 obs. associated
-----------------------------------------
?  JAN  09, 1993  04h 40m 13.21± 3.69s
   41.748 N ±31.3km   12.723 E ±24.4km
   DEPTH =  10.0km  (geophysicist)
 SOUTHERN ITALY                      (390)

RDP      0.01 335 P      40 15.30   0.1
                 eSg    40 17.20
RMP      0.06 346 Pc     40 15.30  -0.2
                 eSg    40 17.40
SDI      0.82  93 P      40 29.00  -0.1
                 eSg    40 43.30
ASS      1.32 358 P      40 37.20  -0.5
                 eSg    40 56.60
ARV      1.76   5 P      40 44.70   0.8
      S.D. = 0.7  on   5 of   5 obs.
-----------------------------------------
?  JAN  09, 1993  05h 09m 29.19± 3.19s
   16.491 S ±19.6km   74.005 W ±25.1km
   DEPTH =  99.7 ± 24.6 km
   3.9mb (  1 obs.)
 NEAR COAST OF PERU                  (115)

ARE      2.41  90 iPc    10 06.50  -1.6
                 i(S)   10 35.00
ZOBO     5.64  89 iPc    10 52.80   0.1
       Z  20s     0.10um
                 LR     41 12.00
LPB      5.67  91 P      10 54.00   1.1
         1.1s   253.16nm          5.4mb X
CNCB     5.78  94 Pc     10 55.90   1.3
CCH      7.58  98 P      11 18.90  -0.1
ANT      7.93 155 iPd    11 23.50   0.0
BAO     25.01  92 e(P)   14 44.00  -1.6
                 e      14 47.10
                 e      14 51.40
                 e      15 09.70
KIC     72.15  78 (P)    20 46.00   0.6
YKA     84.93 342 eP     21 54.00   0.1
         0.8s     1.40nm          3.9mb
WRA    134.32 219 PKP    28 43.80   6.0X
         0.7s     0.60nm
      S.D. = 1.3  on   9 of  10 obs.
-----------------------------------------
?  JAN  09, 1993  05h 26m 38.70± 6.06s
   32.478 S ±37.9km   71.788 W ±33.9km
   DEPTH =  33.0km  (normal)
 NEAR COAST OF CENTRAL CHILE         (135)
      MD 3.9 (SAN).

ROCH     0.82 127 iPd    26 53.38  -0.6
                 iS     27 01.50
LCCH     1.01 170 iPd    26 56.36  -0.2
                 iS     27 06.57
JACH     1.03 102 iPd    26 57.29   0.3
                 iS     27 08.74
PEL      1.14 126 iPd    26 58.34  -0.1
                 iS     27 09.97
SAN      1.36 136 iPd    27 01.26  -0.3
                 iS     27 15.68
TACH     1.37 149 iP+    27 01.63  -0.1
                 iS     27 15.70
```

```
LNV     1.51 168 iP  * 27 03.32  -0.3
FCH     1.52 124 iP    27 03.94  -0.2
                 iS    27 20.24
PCH     1.56 137 iP    27 04.46  -0.1
CHCH    1.74 147 iP+   27 07.62   0.6
CACH    1.91 149 iP    27 10.72   1.0
                 iS    27 32.70
MDZ     2.51 100 eP    27 36.60  18.4X
     S.D. = 0.5  on  11 of  12 obs.
-----------------------------------
   JAN  09, 1993  05h 29m 51.10± 1.01s
   38.243 N ± 9.2km   21.074 E ± 5.0km
   DEPTH =  33.0km  (normal)
   3.6mb (  3 obs.)
 GREECE                            (364)
     ML 4.0 (TTG).

VLS     0.39 260 ePg   29 59.60  -0.5
AGG     1.25  51 iPb   30 11.30  -1.1
                 eSb   30 28.46
IGT     1.41 336 ePb   30 15.58   0.9
                 eSb   30 36.90
SRN     1.84 333 ePn   30 23.10   2.3
                 iSn   30 52.10
LSK     1.94 349 ePn   30 24.10   1.7
                 iSn   30 52.50
LIT     2.16  30 ePn   30 26.38   0.9
                 eSn   30 54.90
TPE     2.21 338 ePn   30 26.00  -0.1
                 iSn   30 58.50
VLO     2.54 332 ePn   30 31.90   1.1
FNA     2.55   5 iPn   30 32.25   1.2
                 eSn   31 04.90
PAIG    2.63  50 ePn   30 31.74  -0.5
                 iSn   31 05.94
THE     2.80  31 ePn   30 34.86   0.4
OHR     2.87 356 iPn   30 36.90   1.3
                 i     30 47.50
                 i     31 13.50
                 i     31 23.50
GRG     2.90  20 ePn   30 36.18   0.2
SOH     3.12  34 ePn   30 40.10   0.9
                 eSn   31 18.10
KNT     3.24  25 iPn   30 41.22   0.5
                 eSn   31 20.06
TIR     3.24 344 iPnd  30 42.20   1.5
                 iSn   31 21.00
VAY     3.28  20 iPn   30 41.40   0.0
SRS     3.47  33 ePn   30 43.78  -0.3
                 eSn   31 25.10
SKO     3.74   4 iPn   30 47.70  -0.1
                 iPg   30 58.50
                 iSn   31 35.40
                 iSg   31 51.00
MMB     3.92  31 eP    30 50.00  -0.4
KKB     3.93  22 eP    30 51.00   0.3
TDS     3.95 292 P     30 53.00   2.0
ULC     3.97 340 ePn   30 50.52  -0.7
                 eSn   31 35.56
BRT     3.98 313 P     30 52.50   1.1
SDA     3.99 343 ePn   30 56.00   4.6X
BAI     4.33 313 P     30 56.00  -0.3
BDV     4.39 338 iPnd  30 57.21   0.1
                 iSn   31 45.41
TTG     4.41 342 iPnc  30 58.19   0.8
                 iSn   31 47.63
ATN     4.42 271 Pd    30 58.50   0.9
PVY     4.43 349 iPnc  30 59.23   1.4
                 iSn   31 50.79
HCY     4.64 336 iPnd  30 59.15  -1.5
                 iSn   31 51.13
VTS     4.64  20 iPc   31 01.00   0.2
ALN     4.67  54 ePn   31 00.38  -0.7
MGR     4.69 296 Pd    31 02.50   1.2
IVA     4.71 349 iPnd  31 02.91   1.2
                 iSn   31 56.55
NKY     4.83 342 iPnc  31 04.55   1.1
                 iSn   31 57.48
MEU     5.01 259 P     31 05.30  -0.7
                 eSn   32 02.40
BRY     5.04 338 iPnc  31 04.89  -1.5
                 iSn   32 00.69
MNO     5.04 268 P     31 07.50   0.9
PLE     5.24 346 iPnd  31 10.86   1.6
                 iSn   32 09.08
HVAR    6.05 326 iPnc  31 18.30  -2.3
                 iSn   32 25.30
```

```
SDI     6.56 304 P     31 28.50   0.7
ASS     8.01 310 P     31 48.60   0.5
ARV     8.09 313 P     31 48.00  -1.2
MLR     8.10  25 eP    31 50.00   0.6
VBY     8.45 331 iPn   31 52.00  -2.1
                 iSn   33 23.60
CVO     8.47  25 eP    31 58.00   3.6X
PTJ     8.54 335 eP    31 52.60  -2.9
RSM     8.64 314 P     31 56.30  -0.4
VRI     8.70  27 eP    32 01.00   3.4X
CRE     8.75 311 P     31 59.20   0.8
CEY     8.97 329 ePn   31 59.50  -1.9
                 eSn   33 36.00
SFI     8.98 312 P     32 03.00   1.6
                 eSn   33 38.40
PGD     9.03 312 P     32 03.30   1.0
LJU     9.18 330 e(Pn) 32 03.00  -1.2
                 eSn   33 43.00
TRI     9.23 326 e(Pn) 32 02.00  -2.9
                 e(Sn) 33 41.50
VOY     9.43 328 ePn   32 05.70  -2.0
                 eSn   33 47.50
FVI    10.35 326 P     32 19.00  -1.2
GEC2   11.86 336 Pn    32 38.50  -2.4
                 Sn    34 46.70
HFS    22.41 350 eP    34 46.60  -1.3
        0.4s     2.70nm          4.1mb
NAO    23.50 347 P     34 57.50  -1.1
        0.5s     0.90nm          3.5mb
YKA    73.48 340 eP    41 25.20   3.5X
        0.5s     0.10nm          3.1mb
SES    82.20 331 eP    42 15.00   5.0X
     S.D. = 1.3  on  58 of  63 obs.
-----------------------------------
   JAN  09, 1993  05h 33m 59.38± 0.66s
   19.509 N ± 3.5km   69.556 W ± 3.6km
   DEPTH =  27.5 ±  5.3 km
   4.7mb ( 25 obs.)  4.4Msz (  3 obs.)
 DOMINICAN REPUBLIC REGION        ( 88)
     MD 4.8 (SDD). Felt at Santiago
     and in the Santo Domingo-San
     Cristobal area.

SDD     1.10 198 iP    34 23.00   4.0X
                 S     34 36.00
MGP     2.77 122 P     34 44.40   1.5
LRS     2.84 115 P     34 44.50   0.6
APR     2.87 111 P     34 45.00   0.7
PORP    3.12 117 P     34 48.60   0.7
SJG     3.51 113 iP    34 53.20  -0.3
                 S     35 44.00
LPR     3.69 108 P     34 55.00  -1.0
CPD     3.75 112 P     34 56.50  -0.3
BPA     7.71 107 eP    35 50.00  -2.8
PAG     8.26 114 eP    36 00.00  -0.5
MORO    8.67 172 iPd   36 06.80   0.6
                 iS    37 38.80
LLAV    9.37 163 eP    36 15.60  -0.2
                 iS    37 54.30
TOV     9.67 181 iPnc  36 20.00   0.1
                 eS    38 03.70
OLLA    9.80 164 iPc   36 23.30   1.5
                 iS    38 20.30
GUAN   10.22 158 iPc   36 28.40   0.8
CEOS   10.48 173 iPc   36 30.80  -0.3
SDV    10.61 186 eP    36 31.60  -1.4
                 iS    38 26.20
BMG    12.83 196 iPd   36 44.00 -18.9X
BOG    15.44 197 eP    37 40.00   2.6
SGS    16.78 326 eP    37 52.70  -1.3
                 eS    40 38.47
LHS    17.95 328 eP    38 07.42  -1.2
                 eS    41 07.02
JSC    18.01 327 eP    38 07.39  -2.0
                 eS    41 12.73
CVL    19.97 339 eP    38 32.95   0.5
                 eS    41 57.74
BLA    20.03 334 (P)   38 32.70  -0.4
        0.5s    17.66nm          4.7mb
NAV    20.28 333 (P)   38 36.76   1.1
                 eS    42 04.62
TKL    20.40 325 (P)   38 36.70  -0.2
ELC    24.67 320 eP    39 18.82  -0.4
OLY    25.04 314 eP    39 23.03   0.2
RSNY   25.31 352 eP    39 25.64   0.4
        1.1s    29.88nm          4.8mb
FVM    25.85 320 eP    39 30.21  -0.2
```

```
   —     0.8s    29.86nm          5.0mb
                 iPcP  43 00.39
MIAR   26.03 310 eP    39 32.03   0.0
        0.9s    15.94nm          4.6mb
UYO    26.49 308 iPd   39 37.00   0.7
LMN    26.56   7 eP    39 40.50   3.7X
                 pP    40 18.50 189kmX
RLO    27.85 312 eP    39 48.10  -0.6
LNO    28.27 311 ePd   39 52.00  -0.4
LNO2   28.27 311 eP    39 52.20  -0.2
LNO3   28.27 311 eP    39 52.20  -0.3
TUL    28.27 311 Pd    39 52.10  -0.4
        0.6s    36.50nm          5.3mb
     Z  18s     0.54um          4.2Msz
                 LR    48 56.00
OCO    29.32 309 iPc   40 01.90   0.0
MEO    29.84 307 iPc   40 06.20  -0.5
WMOK   29.97 306 eP    40 06.62  -1.2
        0.6s    19.00nm          5.1mb
ACO    31.04 310 iPc   40 16.90  -0.3
ZOBO   35.60 178 P     40 56.00  -1.5
LPB    35.84 178 eP    40 57.00  -2.4
ALO    36.00 303 eP    41 00.42   0.0
        0.9s    11.48nm          4.8mb
CNCB   36.12 177 P     41 00.00  -1.9
GLD    36.65 311 eP    41 06.52   0.7
        1.3s    47.67nm          5.2mb
GOL    36.74 311 eP    41 06.21  -0.4
        1.2s     5.81nm          4.3mb
                 e     41 14.77
CCH    36.81 175 Pc    41 05.90  -1.5
ULM    37.12 332 eP    41 11.50   2.2
RSSD   37.78 318 eP    41 15.17  -0.1
        0.8s     2.74nm          4.1mb
                 iPcP  43 32.32
TUC    38.98 297 eP    41 25.80   0.5
        1.1s    11.02nm          4.5mb
SRU    40.30 308 eP    41 36.63   0.4
                 ePcP  43 39.54
BAO    40.86 147 e(P)  41 37.00  -3.9X
                 e     41 38.70
                 e     41 45.50
                 e     41 59.10
                 e     42 10.00
                 e     42 15.10
                 e     42 42.00
DAU    41.22 310 eP    41 44.28   0.3
MSU    41.37 307 eP    41 45.40   0.3
DUG    42.30 309 eP    41 52.77   0.2
        0.9s     7.52nm          4.4mb
HVU    42.74 311 eP    41 56.17   0.0
HHAI   42.95 313 eP    41 58.43   0.6
FCC    43.07 342 eP    42 01.00   2.6
LCCM   43.54 317 eP    42 02.70   0.1
PEC    44.50 299 eP    42 11.48   1.1
        0.8s     8.44nm          4.7mb
TNP    45.15 305 eP    42 16.45   0.6
        0.8s    10.68nm          4.8mb
BONR   45.97 304 eP    42 23.42   1.0
BCH    47.03 300 (P)   42 31.31   0.7
NEW    47.76 318 eP    42 34.74  -1.3
        1.1s    26.79nm          5.2mb
YKA    52.88 336 eP    43 12.60  -2.2
        0.6s     2.30nm          4.3mb
AVE    56.60  62 eP    43 43.00   0.6
RES    56.87 352 eP    43 44.50   0.8
MFF    62.02  47 eP    44 19.80   0.2
        0.7s    10.70nm          5.1mb
LDF    62.08  45 eP    44 20.00   0.0
EPF    62.39  51 eP    44 23.00   0.8
        0.8s     7.40nm          4.9mb
LFF    62.64  49 eP    44 23.80   0.0
LPO    62.96  49 eP    44 26.00   0.1
RJF    63.18  48 eP    44 27.30  -0.1
     Z  22s     0.28um          4.4Msz
CAF    63.58  49 eP    44 30.10   0.0
TCF    63.65  47 eP    44 30.30  -0.2
        0.9s     5.90nm          4.7mb
KIC    64.18  92 (P)   44 34.10  -0.3
LOR    64.76  46 eP    44 37.20  -0.5
        0.7s     6.15nm          4.8mb
     Z  21s     0.32um          4.5Msz
SMF    64.77  47 eP    44 37.30  -0.4
        0.8s     4.85nm          4.7mb
LPL    66.84  48 eP    44 51.20  -0.1
LPG    66.86  48 eP    44 51.50   0.0
FBA    67.53 333 (P)   44 54.05  -0.9
```

09d 05h

```
        0.6s      1.82nm          4.4mb
IMA    69.97 334 eP     45 09.08  -1.1
        0.9s      3.44nm          4.5mb
KHC    71.07  44 eP     45 17.00  -0.1
                  e     45 24.50
                  e     45 46.40
GEC2   71.19  44 eP     45 18.30   0.4
        1.0s      0.86nm          3.8mb
                  e     45 25.10
                  e     45 31.40
                  e     45 45.40
                  e     45 48.80
ZST    73.53  44 e(P)   45 38.70   7.1X
KAF    75.66  29 eP     45 44.00   0.4
OBN    83.06  34 eP     46 29.50   5.9X
                  e     46 38.00
BCAO   86.74  86 iPc    46 44.00   1.1
        0.7s     12.00nm          5.2mb
GKN   126.57  29 PKP    53 02.60   0.1
        0.6s      9.00nm
KKN   127.05  28 PKP    53 03.80   0.3
DMN   127.12  28 PKP    53 04.20   0.5
GUN   127.20  28 PKP    53 04.60   0.6
PKI   127.29  28 PKP    53 03.80  -0.3
RMO   144.16 252 ePKP   53 32.20  -2.7X
        0.9s     32.00nm
TOO   144.60 232 ePKP   53 34.30  -1.1
        0.8s     67.00nm
CMS   146.05 242 ePKP   53 38.20   0.2
BFD   146.93 231 ePKP   53 40.70   1.5
        1.0s     25.00nm
STK   149.46 240 ePKP   53 47.30   3.9X
        0.7s      4.70nm
WB2   157.49 265 iPKPc  53 55.40   0.5
        0.9s      3.00nm
WRA   157.50 265 PKP    53 55.50   0.6
        0.8s      1.30nm
      S.D. = 1.0  on  94 of 102 obs.
-----------------------------------
*  JAN  09, 1993  07h 04m 48.30± 0.60s
   8.503 S ±10.2km  122.005 E ±13.4km
   DEPTH =  33.0km  (normal)
   4.9mb (  5 obs.)
 FLORES REGION, INDONESIA          (286)

KHKI    6.33 271 eP     06 21.10  -0.7
                  eS    07 35.00
                  e     09 50.00
WB2    16.50 135 iPd    08 37.00  -2.0
                  i     08 45.80
                  eS    11 32.90
WARB   18.13 166 eP     09 00.00   0.7
ASPA   18.90 144 eP     09 10.20   1.4
        0.9s     16.20nm          4.2mb
                  eS    12 35.70
GYA    37.81 337 P      12 05.00   1.3
CD2    42.92 337 eP     12 46.00   0.2
        1.0s     31.00nm          5.0mb
XAN    44.09 344 P      12 55.00  -0.2
LZH    47.53 340 eP     13 23.00   0.3
        1.5s     43.00nm          5.2mb
BJI    48.60 354 eP     13 30.00  -0.7
        1.0s     13.00nm          4.9mb
GTA    51.93 338 eP     13 56.00  -0.3
        1.2s     10.00nm          4.7mb
      S.D. = 1.1  on  10 of  10 obs.
-----------------------------------
&  JAN  09, 1993  07h 18m 33.23s
   38.027 N          118.730 W
   DEPTH =   8.3km
 CALIFORNIA-NEVADA BORDER REGION ( 40)
      <GM-P>. MD 2.9 (GM).

BONR    0.35 102 iPc    18 40.34  -0.1
MEMM    0.40 205 ePd    18 41.19  -0.1
MRCM    0.40 153 iPc    18 41.05  -0.3
MMPM    0.48 210 ePd    18 42.54  -0.4
MTUM    0.69 169 ePc    18 46.37  -0.7
KVN     1.14  26 eP     18 54.22  -0.6
TNP     1.19  87 ePc    18 55.66  -0.2
CMB     1.31 271 eP     18 56.76  -0.8
ARN     2.32 254 eP     19 14.03   1.6
ISA     2.37 175 eP     19 14.45   1.4
HMR     2.43 274 (P)    19 15.37   1.6
GSC     3.13 150 (Pn)   19 22.66  -1.2
                 ePg    19 32.56
DUG     5.09  63 (Pg)   20 08.99  17.3
MSU     5.18  83 ePg    20 06.40  13.3
        14 obs. associated
-----------------------------------
?  JAN  09, 1993  07h 47m 29.35± 4.78s
   36.637 S ±39.2km  177.005 E ±22.9km
   DEPTH = 322.7 ± 30.4 km
 OFF E. COAST OF N. ISLAND, N.Z. (160)

HBZ     1.41 133 P      48 14.50   0.0
URZ     1.62 177 P      48 15.20  -0.6
                 S      48 45.10
TAZ     1.64 194 eP     48 16.70   0.8
PUZ     1.75 146 P      48 16.50  -0.2
                 eS     48 47.00
NOZ     2.14 158 P      48 19.70   0.2
PAHZ    2.22 179 eP     48 20.20   0.0
WHH     2.28 190 P      48 20.60  -0.2
MOH     2.49 177 P      48 22.60   0.1
TTH     2.90 183 P      48 26.60   0.5
WAHZ    3.10 189 P      48 27.60  -0.5
PGZ     4.02 188 eP     48 37.90   0.5
MNG     4.15 196 P      48 38.40  -0.4
                 S      49 27.10
KIW     4.53 201 P      48 42.90  -0.1
MTW     4.67 194 P      48 44.50   0.0
CAW     4.71 198 eP     48 45.00   0.0
MRW     4.93 201 eP     48 47.30  -0.1
                 eS     49 42.90
MOW     4.97 195 eP     48 47.80  -0.1
TCW     5.04 204 eP     48 48.50  -0.2
KHZ     6.36 204 eP     49 04.50   0.4
      S.D. = 0.4  on  19 of  19 obs.
-----------------------------------
&  JAN  09, 1993  08h 56m 11.90s
   40.747 N          124.880 W
   DEPTH =  11.0km
 NEAR COAST OF NORTHERN CALIF.    ( 35)
      <BRK>. ML 3.0 (BRK).

ARC     0.62  78 iPc    56 23.90  -0.4
                 eS     56 32.21
FHC     0.68  85 ePc    56 25.13  -0.2
WDC     1.79  95 iPc    56 40.78  -2.1
                 eS     57 03.33
LBFM    2.34  74 eP     56 50.03  -1.1
LMEM    2.53  94 eP     56 52.51  -1.2
MIN     2.53  98 iPc    56 51.21  -2.5
                 eS     57 23.96
ORV     2.85 114 eP     56 54.94  -3.2
SAO     4.80 145 eP     57 21.33  -4.5
        8 obs. associated
-----------------------------------
*  JAN  09, 1993  09h 14m 07.20± 2.32s
   30.163 S ±14.4km   68.737 W ±18.2km
   DEPTH = 135.7 ± 22.0 km
 SAN JUAN PROVINCE, ARGENTINA     (137)

RTLL    1.19 169 iPd    14 32.50  -0.2
                 S      14 49.20
RTCB    1.32 182 iPc    14 34.20   0.0
                 S      14 50.00
CFA     1.50 164 iPd    14 36.20   0.1
                 S      14 57.00
RTPR    1.93  95 iPc    14 41.00   0.0
MDZ     2.71 182 e(P)   14 51.20   0.2
CYA     3.09  57 iPc    14 56.00   0.2
                 S      15 29.50
MRA     3.43 132 ePc    15 01.00   0.8
TCA     3.76 109 iP     15 04.00  -0.7
                 S      15 45.00
RFA     4.60 177 eP     15 15.70  -0.3
                 (S)    16 06.30
      S.D. = 0.5  on   9 of   9 obs.
-----------------------------------
&  JAN  09, 1993  09h 52m 57.11s
   59.557 N          152.871 W
   DEPTH = 101.5km
 SOUTHERN ALASKA                  (  2)
      <AEIC>.

AUE     0.32 232 eP     53 11.34  -0.8
AUL     0.34 239 eP     53 11.55  -0.7
AUH     0.35 237 eP     53 12.28  -0.1
AUI     0.36 232 eP     53 11.68  -0.7
                 S      53 22.58
INE     0.51 349 eP     53 12.64  -0.9
ILIM    0.53 355 eP     53 12.95  -0.6
INW_    0.53 346 eP     53 13.21  -0.4
PDB     0.71 290 eP     53 13.86  -1.1
                 eS     53 27.07
CDD     0.74 213 eP     53 14.29  -1.1
                 eS     53 28.45
MCNL    0.84 244 iP     53 15.32  -0.9
                 eS     53 29.50
RS1     0.91   4 eP     53 16.61  -0.6
                 eS     53 31.77
RSO     0.91   4 eP     53 16.31  -0.9
RS2     0.91   4 eP     53 16.74  -0.5
RDW     0.93   2 eP     53 16.45  -0.9
REF     0.94   5 eP     53 16.46  -1.0
                 eS     53 31.64
SYI     0.98 165 iP     53 16.75  -0.9
NCT     1.01 358 eP     53 17.15  -1.0
                 S      53 32.40
BRLK    1.03  77 eP     53 18.36   0.1
                 eS     53 32.14
DFR     1.04   5 eP     53 17.57  -0.9
                 eS     53 33.43
NKA     1.44  34 eP     53 24.08   1.0
SLKM    1.64  53 eP     53 24.36  -1.2
CKL     1.67   9 eP     53 25.06  -1.0
                 eS     53 46.92
SPU     1.68  14 eP     53 25.09  -1.1
                 S      53 46.24
CKT     1.68  11 eP     53 25.17  -1.0
                 S      53 46.55
BGL     1.73   8 eP     53 26.08  -0.8
CP2     1.74  10 eP     53 26.81  -0.3
CGLM    1.81  13 eP     53 27.00  -0.8
                 eS     53 49.50
SEW     1.81  71 eP     53 26.43  -1.3
                 eS     53 48.71
MPA     2.00  61 eP     53 28.86  -1.3
PTE     2.33  54 eP     53 33.34  -1.2
PMS     2.36  43 P      53 33.90  -1.1
LTI     2.58  77 eP     53 36.26  -1.7
KNIM    2.70  71 eP     53 37.29  -2.3
PLRM    2.75  41 eP     53 38.48  -1.8
KNK     2.87  48 eP     53 40.50  -1.4
GLI     3.17  63 eP     53 43.53  -2.5
SML     3.18  43 eP     53 44.30  -1.8
HIN     3.31  73 eP     53 45.68  -2.2
FID     3.41  67 eP     53 46.15  -3.1
VLZ     3.61  61 eP     53 50.18  -1.8
CVA     3.71  71 eP     53 50.96  -2.3
        41 obs. associated
-----------------------------------
   JAN  09, 1993  11h 15m 51.95± 0.46s
   32.199 S ± 7.4km  178.113 W ± 9.4km
   DEPTH =  10.0km  (geophysicist)
   5.4mb ( 12 obs.)  5.2Msz ( 11 obs.)
 SOUTH OF KERMADEC ISLANDS         (179)
      Mw 5.5 (HRV).
      CENTROID, MOMENT TENSOR      (HRV)
      Data Used: GDSN
      L.P.B.: 19S, 31C
      Centroid Location:
      Origin Time        11:15:58.2 0.5
      Lat 32.21S 0.07 Lon 177.61W 0.06
      Dep  15.0 FIX Half-duration  1.2
      Moment Tensor;    Scale 10**17 Nm
        Mrr= 1.24 0.06  Mtt= 0.20 0.09
        Mff=-1.44 0.08  Mrt= 0.20 0.21
        Mrf= 1.70 0.25  Mtf=-0.55 0.06
       Principal Axes:
        T  Val=  2.07  Plg=64  Azm=265
        N        0.33       7       11
        P       -2.39      25      104
      Best Double Couple:Mo=2.2*10**17
       NP1:Strike=210 Dip=21 Slip= 111
       NP2:          8     70       82

RAO     2.94   3 eP     16 38.70  -0.9
                 eS     17 12.00
HBZ     6.14 208 eP     17 20.70  -4.1X
PUZ     6.57 206 eP     17 26.20  -4.8X
                 eS     18 40.00
KUZ     6.82 227 eP     17 35.70   1.3
URZ     7.20 212 eP     17 35.00  -4.7X
                 eS     18 57.20
WCZ     7.29 237 eP     17 43.20   2.2
WLZ     7.65 221 eP     17 44.50  -1.7
MOZ     8.55 221 eP     17 56.50  -2.1
WAHZ    8.72 209 eP     17 55.30  -5.8X
```

```
TEHZ     8.79 206 eP    17 53.90  -8.1X
PGZ      9.54 207 eP    18 05.00  -7.3X
MNG      9.86 210 eP    18 08.90  -7.8X
                  eS    19 55.60
MRW     10.70 211 P     18 26.00  -2.2
                  eS    20 17.00
THZ     11.94 214 eP    18 39.80  -5.4X
                  eS    20 45.80
KHZ     12.16 211 eP    18 40.60  -7.5X
                  eS    20 49.40
MOZ     13.59 210 eP    19 00.70  -6.4X
                  eS    21 21.30
SVA     14.36 347 eP    19 14.90  -2.4
LMZ     15.19 217 eP    19 24.10  -3.9X
ODZ     15.53 211 eP    19 26.20  -6.2X
TUZ     16.68 211 eP    19 41.30  -5.9X
DZM     17.03 303 iPc   19 57.30   5.5X
BCZ     17.54 214 eP    19 54.40  -3.5X
BKM     19.01 316 iPc   20 28.90  12.6X
BRS     25.67 273 iPd   21 24.00   0.3
        1.5s     10.00nm          4.3mb X
                  iS    26 00.00
RIV     25.77 258 eP    21 22.00  -2.5
      Z  18s      6.67um          5.2Msz
ARMA    25.88 266 eP    21 30.30   4.6X
        1.5s    206.00nm          5.6mb
CNB     27.15 254 eP    21 40.00   2.7X
        1.0s     32.00nm          5.0mb
                  e     24 58.50
                  e     28 40.70
CAN     27.45 254 eP    21 41.70   1.7
BWA     27.99 256 eP    21 44.00  -0.9
TOO     30.21 250 eP    22 05.00   0.2
        0.7s     17.00nm          5.0mb
      Z  18s     26.90um          5.9Msz
                  e     25 05.00
CMS     30.55 262 iPd   22 09.80   1.9
STK     34.02 260 eP    22 39.20   1.1
        1.0s      9.50nm          4.7mb
ADE     35.87 254 eP    22 55.20   1.2
RAB     39.39 309 eP    23 25.00   1.3
FORT    45.52 257 eP    24 12.70  -0.8
        0.5s     36.00nm          5.6mb
WARB    48.16 262 iPc   24 33.30  -1.1
MTN     50.19 280 eP    24 50.00  -0.1
SPA     57.97 180 iPc   25 46.90   0.1
        0.9s     41.82nm          5.5mb
AIA     70.32 156 eP    27 06.90  -0.3
BAG     76.01 300 eP    27 37.00  -4.6X
NVL     77.08 183 eP    27 46.00  -0.5
        1.6s     69.00nm          5.5mb
                  eS    37 32.00
MAT     79.66 326 eP    28 00.00  -1.1
        1.4s     30.23nm          5.1mb
                  eS    38 39.00
SSE     85.22 311 eP    28 30.00   0.2
      Z  20s      0.90um          5.2Msz
                  S     38 56.00
GZH     85.48 301 eP    28 30.00  -1.3
                  S     39 00.00
YSS     86.39 334 ePc   28 36.00   0.7
      Z  19s      1.80um          5.5Msz
      N  19s      1.10um
      E  19s      0.90um
                  e     28 43.00
                  e     39 02.00
MDZ     87.07 127 i(P)  28 38.70  -0.6
NJ2     87.34 311 Pc    28 41.60   1.3
      N  10s      0.50um
      E  10s      0.69um
                  eS    39 16.00
MDJ     90.05 326 eP    28 53.30   0.4
        1.5s     46.00nm          5.5mb
SNY     91.11 321 Pd    28 57.00  -0.8
        1.4s     29.00nm          5.4mb
      Z  26s      1.62um          5.3MszX
                  S     39 46.00
                  sS    40 06.00
TIA     91.12 313 eP    28 59.10   1.1
      Z  20s      1.33um          5.4Msz
CN2     91.51 323 eP    29 00.00   0.4
        1.2s     29.00nm          5.5mb
      Z  20s      0.86um          5.2Msz
                  epP   29 11.50  37kmX
GYA     92.36 300 P     29 06.20   2.1
        1.0s     12.00nm          5.2mb
FSA     93.15 123 eP    29 08.20   0.4
```

```
CHG     94.09 290 eP    29 27.90  15.8X
BJI     94.13 315 eP    29 11.50  -0.3
      Z  20s      0.60um          5.1Msz
                  eSKS  39 48.00
TIY     94.99 312 eP    29 17.50   1.6
      Z  20s      0.75um          5.2Msz
MGD     95.46 345 eP    29 15.00  -2.4
      Z  16s      1.10um          5.4MszX
                  e     42 00.00
LPB     97.37 115 P     29 37.00   9.3X
      Z  22s      1.48um          5.4Msz
                  LR    01 28.00
ZOBO    97.49 114 eP    29 31.00   2.5
      Z  18s      0.64um          5.2Msz
                  SKS   40 12.00
                  LR    01 28.00
CCH     98.36 116 (P)   29 35.00   3.0X
YKA    107.10  26 ePKP  34 21.50   2.5X
        0.6s      0.30nm
RES    118.99  18 ePKP  34 42.50   1.2
NRI    121.05 336 ePKP  34 45.00  -0.3
        1.5s     19.00nm
FRU    122.98 303 ePKP  34 49.00  -0.9
        2.0s     30.00nm
BRVK   127.68 315 ePKP  34 57.00  -1.6
        1.3s     18.00nm
MAIO   132.80 292 ePKP  35 09.00   0.0
ASH    134.03 294 ePKP  34 52.00 -19.2X
GRO    144.01 301 iPKPd 35 27.00  -2.2X
        2.0s    240.00nm
PYA    145.85 302 iPKPc+35 32.00  -0.3
        1.3s    300.00nm
KAF    146.20 340 iPKP  35 34.20   1.9
        0.7s     20.00nm
OBN    146.56 324 iPKPc 35 34.00   1.0
        1.9s    630.00nm
PUL    146.58 334 (PKP) 35 36.00   3.1X
        1.6s    210.00nm
NUR    147.96 339 iPKP  35 37.20   2.1X
        0.9s     50.50nm
BCAO   148.28 213 iPKPc 35 40.50   3.4X
        1.2s    144.00nm
UPP    150.42 344 ePKP  35 38.00  -0.9
AYN    150.50 273 ePKP  35 44.70   4.7X
GAZ    150.64 290 ePKP  35 45.80   5.8X
NAO    150.77 351 PKP   35 44.50   5.0X
        0.9s     11.70nm
HFS    150.98 348 ePKP  35 44.40   4.6X
        0.5s      3.30nm
KVT    151.34 298 iPKP  35 48.20   7.2X
HQL    151.41 273 ePKP  35 48.00   6.6X
HRI    151.57 281 ePKP  35 49.20   7.5X
MNK    151.60 327 ePKP  35 45.00   4.1X
DSI    151.62 278 ePKP  35 48.70   7.0X
BHL    151.72 283 PKP   35 44.00   2.1X
RMN    152.04 275 ePKP  35 49.70   7.2X
LIC    153.36 165 PKP   35 52.10   7.5X
      Z  20s      0.32um          5.1Msz
KIC    153.56 165 PKP   35 52.00   7.1X
OJC    157.61 329 ePKP  36 05.00  15.8X
KSP    158.55 334 ePKP  36 01.70  11.5X
                  e     36 25.30
SRO    160.03 326 ePKP  36 00.70   8.8X
                  i     36 31.60
OHR    162.44 306 ePKP  36 10.00  15.3X
      S.D. = 1.4  on  47 of  92 obs.
-----------------------------------
   JAN  09, 1993  11h 34m 44.26± 0.81s
   31.697 S ± 9.6km   66.424 W ± 7.7km
   DEPTH =  33.0km  (normal)
 LA RIOJA PROVINCE, ARGENTINA     (138)

RTPR     1.39 357 iPd    35 07.00  -0.5
                  eS    35 25.50
CFA      1.55 273 ePd    35 10.90   1.0
                  S     35 33.00
TCA      1.61  78 iP     35 11.20   0.5
                  S     35 32.50
RTLL     1.79 281 iPd    35 13.20  -0.1
                  S     35 36.00
RTCB     2.04 275 iPc    35 16.50  -0.5
                  S     35 42.00
MDZ      2.37 239 i(P)   35 22.40   0.7
CYA      3.29  10 iPc    35 28.70  -6.0X
                  (S)   36 00.00
RFA      3.51 209 iP     35 37.00  -0.9
                  S     36 19.60
```

```
     - S.D. = 0.9  on   7 of   8 obs.
-----------------------------------
?  JAN  09, 1993  12h 04m 39.00± 3.20s
    7.037 S ±35.3km  129.229 E ±40.8km
   DEPTH = 148.2 ± 43.0 km
 BANDA SEA                          (280)

SLKI     2.26 115 iPd    05 17.50   0.0
                  iS    05 42.50
MTN      6.07 162 iPc    06 07.70   0.1
                  eS    07 14.00
WB2     13.76 159 iPd    07 45.50  -3.6X
        0.6s     22.50nm          4.7mb
                  eS    10 12.50
ASPA    17.13 165 iPc    08 30.60  -0.5
                  iS    11 34.80
WARB    19.20 187 iPc    08 54.50   0.6
NANU    20.31 219 eP     09 05.00  -0.2
      S.D. = 0.8  on   5 of   6 obs.
-----------------------------------
&  JAN  09, 1993   12h 31m 37.21s
   60.167 N            152.588 W
   DEPTH =  85.2km
 SOUTHERN ALASKA                    (  2)
      <AEIC>.

ILIM     0.21 245 ePd    31 49.44   1.1
                  eS    31 58.99
INE      0.26 246 ePd    31 49.57  -0.7
                  eS    31 59.89
INW      0.29 250 ePd    31 49.69  -0.7
                  eS    32 00.18
RS1      0.31 344 iPd    31 50.01  -0.5
RSO      0.31 344 iPd    31 49.98  -0.6
                  eS    32 00.49
RS2      0.31 344 iPd    31 49.98  -0.6
REF      0.33 350 iP     31 50.10  -0.6
                  eS    32 00.20
RDW      0.34 341 iPd    31 49.98  -0.7
RDN      0.36 346 iPd    31 50.23  -0.6
                  eS    32 00.63
RDT      0.42  12 eP     31 50.12  -1.0
DFR      0.43 354 iPd    31 50.48  -0.7
NCT      0.43 337 iPd    31 50.40  -0.8
OPT      0.61 212 iPd    31 52.18  -0.5
                  eS    32 03.69
XLV      0.84 148 eP     31 54.43  -0.6
NKA      0.88  49 iPc    31 56.52   1.1
PDB      0.89 245 iPc    31 54.57  -1.0
                  eS    32 08.31
AUL      0.90 209 ePd    31 54.89  -0.7
AUE      0.90 206 ePd    31 54.78  -0.9
AUH      0.91 209 eP     31 55.11  -0.8
AUI      0.94 207 eP     31 55.20  -0.9
                  eS    32 09.39
BRLK     0.95 115 ePd    31 55.24  -1.0
                  eS    32 09.80
CKL      1.04   7 iPd    31 56.57  -0.9
SPU      1.05  14 iPd    31 56.59  -0.9
                  eS    32 12.20
CKT      1.05  10 iPd    31 56.64  -1.0
                  eS    32 12.78
CKN      1.08  11 iPd    31 57.13  -0.7
BGL      1.10   5 iPd    31 57.18  -1.0
CP2      1.11   9 iPd    31 57.46  -1.0
CRP      1.12  11 eP     31 56.94  -1.6
                  eS    32 13.73
CGLM     1.18  14 iPd    31 58.31  -0.8
SLKM     1.23  73 eP     31 58.57  -1.1
MCNL     1.33 223 iPd    31 59.62  -1.3
                  eS    32 17.02
CDD      1.35 204 iPd    31 59.86  -1.4
SYI      1.57 176 iPd    32 03.06  -0.9
                  eS    32 23.93
SEW      1.57  91 eP     32 02.38  -1.7
SUA      1.58  34 ePd    32 03.62  -0.7
MPA      1.64  77 ePc    32 03.32  -1.6
SVW      1.77 304 ePc    32 04.43  -2.3
PMS      1.84  53 P      32 06.80  -0.9
SKT      1.89  15 iPd    32 06.95  -1.4
                  eS    32 31.73
PTE      1.90  67 ePc    32 06.52  -1.8
PWA      1.99  40 P      32 09.30  -0.4
                  S     32 35.40
PLRM     2.21  48 ePc    32 10.77  -1.9
PMR      2.21  48 eP     32 10.19  -2.5
                  eS    32 38.02
```

09d 12h

```
LTI      2.37  91 ePc  32 12.21  -2.7
KNK      2.38  57 iPc  32 12.88  -2.1
GHO      2.41  46 ePc  32 13.49  -1.9
KNIM     2.43  84 iPc  32 12.24  -3.4
                  eS   32 41.00
KDC      2.43 179 eP   32 12.45  -3.1
MTU      2.48  92 ePc  32 14.02  -2.3
SML      2.65  50 iPc  32 16.55  -2.1
GLI      2.81  73 eP   32 17.29  -3.6
HIN      3.04  83 eP   32 21.36  -2.7
SCM      3.06  55 ePc  32 22.01  -2.4
FID      3.08  76 ePc  32 20.26  -4.4
TTA      3.22 331 eP   32 23.89  -2.7
VLZ      3.23  70 eP   32 23.23  -3.4
MID      3.24 101 P    32 25.20  -1.6
CVA      3.42  81 eP   32 26.13  -3.1
KLU      3.53  65 iPc  32 27.70  -3.1
TOA      3.67  55 P    32 30.70  -2.1
SGAM     3.69  82 eP   32 29.68  -3.3
RAGM     3.95  83 eP   32 33.90  -2.7
TZL      3.95  58 eP   32 34.14  -2.6
MCK      3.97  24 eP   32 34.32  -2.7
KAIM     4.11  90 eP   32 36.41  -2.4
SDG      4.14  52 eP   32 36.83  -2.5
PAX      4.41  47 eP   32 40.98  -2.3
GLB      4.49  70 ePc  32 40.37  -3.8
CRQM     4.72  79 eP   32 44.98  -2.5
SNH      4.87  86 eP   32 47.19  -2.3
HDA      5.00  29 eP   32 49.05  -2.2
CCB      5.01  24 eP   32 48.81  -2.7
BALM     5.12  76 ePc  32 50.05  -3.1
FBA      5.24  23 eP   32 49.40  -5.2
GLM      5.40  24 eP   32 54.27  -2.6
YAH      5.40  83 ePc  32 54.61  -2.5
CTGM     5.61  77 eP   32 57.40  -2.5
!MA      5.95 356 ePc  33 01.30  -3.2
PCA      6.16  85 eP   33 04.57  -2.9
BCPM     6.49  86 eP   33 09.29  -2.6
PNL      6.65  89 ePc  33 10.43  -3.8
HON      6.95  90 eP   33 14.20  -4.1
       82 obs. associated
-----------------------------------
   JAN  09, 1993  12h 33m 55.22± 0.42s
   34.761 N ± 5.3km   33.266 E ± 6.0km
   DEPTH =  33.0km  (normal)
   3.5mb (  2 obs.)
 CYPRUS REGION                    (372)
      ML 3.6 (CSS). MD 4.0 (HLW).
      Felt (III) at Limassol.

CSS      0.21  15 ePd  34 01.50  -0.4
                  eS   34 06.70
FAM      0.65  69 eP   34 11.60   3.7X
                  eS   34 23.40
PPCY     0.77 280 eP   34 09.40  -0.2
                  eS   34 21.20
BHL      2.15 113 Pg   34 30.00   0.4
                  Sg   35 53.50
SHMJ     2.91 134 P    35 16.12  35.9X
ELL      3.37 307 ePn  34 54.00   7.0X
SALJ     3.41 143 P    34 47.76   0.3
BCK      3.46 322 ePn  34 49.00   0.9
MASJ     3.66 145 P    34 50.33  -0.6
LISJ     3.97 151 P    34 55.24  -0.1
GAZ      4.00  52 ePn  34 55.00  -0.8
OTRJ     4.15 146 P    34 49.47  -8.5X
JRDJ     4.50 153 P    35 04.42   1.4
YER      4.69 302 eP   35 06.00   0.5
SHWJ     4.75 156 P    35 06.34  -0.3
HLW      5.15 199 ePn  35 11.00  -1.1
                  eSn  36 06.00
GEC2    20.19 320 ePn  38 28.90  -0.9
        0.5s      0.39nm        3.0mb
                  e    38 33.30
YKA     79.69 345 eP   46 01.30   0.6
        0.9s      1.30nm        3.9mb
     S.D. = 0.8  on  14 of  18 obs.
-----------------------------------
?  JAN  09, 1993  12h 44m 06.91± 0.89s
   10.534 N ±16.9km   61.354 W ±11.1km
   DEPTH =  33.0km  (normal)
 TRINIDAD                         ( 98)
      MD 2.5 (TRN).

TRN      0.12 337 iPc  44 13.12   0.3
                  eS   44 16.55
TPP      0.24 204 eP   44 13.95   0.1
                  eS   44 20.00
TBH      0.29 100 eP   44 14.35  -0.2
                  eS   44 20.45
TCE      0.42 292 eP   44 16.16  -0.2
                  eS   44 25.14
     S.D. = 0.4  on   4 of   4 obs.
-----------------------------------
%  JAN  09, 1993  13h 54m 35.87± 0.94s
   42.844 N ± 9.3km    2.638 E ± 5.7km
   DEPTH =  10.0km  (geophysicist)
 PYRENEES                         (378)
      ML 3.1 (LDG).

EPF      1.70 277 Pn   55 06.40   0.7
                  Pg   55 07.80
                  Sg   55 28.80
LPO      2.12 331 Pn   55 12.00   0.2
                  Pg   55 16.70
                  Sg   55 45.30
CAF      2.12 349 Pn   55 12.40   0.5
                  Pg   55 17.00
                  Sn   55 37.60
                  Sg   55 45.30
LFF      2.50 327 Pn   55 17.20   0.0
                  Pg   55 22.90
                  Sg   55 56.10
RJF      2.59 342 Pn   55 19.10   0.6
                  Pg   55 25.50
                  Sn   55 47.80
                  Sg   55 59.70
LRG      2.79  76 Pn   55 22.30   0.9
                  Pg   55 30.80
                  Sn   55 57.60
                  Sg   56 09.40
LMR      2.88  79 Pn   55 23.40   0.8
                  Pg   55 32.00
                  Sn   55 59.00
                  Sg   56 11.60
FRF      3.02  75 Pn   55 25.30   0.7
                  Pg   55 34.20
                  Sg   56 15.10
MAF      3.38 359 Pn   55 30.00   0.3
                  Pg   55 41.50
                  Sg   56 24.40
TCF      3.46 355 Pn   55 31.40   0.6
                  Pg   55 42.60
                  Sg   56 27.80
LSF      3.50 347 Pn   55 30.80  -0.6
                  Pg   55 43.00
                  Sg   56 28.00
SBF      3.64  72 Pn   55 34.20   0.6
                  Sg   56 33.20
BGF      3.72   2 Pn   55 34.60   0.1
                  Pg   55 49.10
                  Sg   56 36.00
SMF      3.90  12 Pn   55 36.70  -0.4
                  Sg   56 39.40
AVF      3.98   7 Pn   55 38.30   0.1
                  Pg   55 53.60
                  Sg   56 44.20
MFF      4.25 333 Pn   55 41.10  -0.9
                  Sg   56 50.70
SSF      4.26   8 Pg   55 57.70  15.5X
                  Sg   56 53.00
PGF      4.70  91 Pn   55 46.50  -2.1
     S.D. = 0.8  on  17 of  18 obs.
-----------------------------------
   JAN  09, 1993  14h 04m 11.39± 1.09s
   42.559 N ± 9.4km   21.934 E ± 7.3km
   DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION       (383)

SKO      0.69 212 iPg   04 24.40  -0.7
                  iSg   04 34.40
VTS      0.94  88 iPgd  04 28.00  -1.5
KKB      1.10 129 iPgc  04 31.00  -1.0
VAY      1.32 159 iPn   04 34.40  -1.4
KNT      1.57 152 ePb   04 38.64  -0.7
                  eSb   04 59.56
GRG      1.64 168 ePb   04 39.84  -0.5
                  eSb   05 02.48
MMB      1.65 125 iP    04 41.00   0.5
OHR      1.68 211 ePn   04 42.00   1.0
FNA      1.82 193 ePb   04 42.72  -0.4
SRS      1.90 139 ePb   04 45.08   0.9
                  eSb   05 10.00
SOH      2.04 148 ePn   04 47.80   1.6
                  eSn   05 14.00
THE      2.07 158 iPn   04 46.76   0.1
RZN      2.25 112 eP    04 51.00   1.7
OUR      2.70 145 ePn   04 56.16   0.5
                  eSn   05 29.72
YKA     69.65 340 eP    15 22.30  -0.2
        0.5s      1.10nm        4.3mb
     S.D. = 1.1  on  15 of  15 obs.
-----------------------------------
%  JAN  09, 1993  14h 13m 21.51± 0.95s
   42.274 N ± 7.4km   18.774 E ± 6.0km
   DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION       (383)
      ML 1.6 (TTG).

BDV      0.04  77 iPgd  13 23.79   0.2
                  iSn   13 25.19
HCY      0.27 310 iPgc  13 27.25   0.1
                  iSg   13 31.33
TTG      0.39  67 iPgc  13 29.45  -0.1
                  iSg   13 35.58
ULC      0.47 131 iPgc  13 30.93  -0.2
                  iSg   13 37.99
NKY      0.56  17 iPgd  13 32.56  -0.4
                  iSg   13 41.56
BRY      0.65 345 iPgc  13 34.66   0.1
                  iSg   13 44.35
PVY      0.94  70 iPgd  13 39.72   0.1
                  iSg   13 53.50
IVA      1.02  54 iPgd  13 41.13   0.2
                  iSg   13 56.05
     S.D. = 0.3  on   8 of   8 obs.
-----------------------------------
&  JAN  09, 1993  14h 16m 18.85s
   61.305 N          147.332 W
   DEPTH =  13.3km
 SOUTHERN ALASKA                  (  2)
      <AEIC>. ML 3.1 (AEIC), 3.0
      (PMR).

GLI      0.44 165 iPc   16 27.67  -0.3
                  eS    16 34.63
VZW      0.45 123 ePc   16 27.80  -0.3
                  eS    16 35.13
VLZ      0.51 109 iPc   16 28.56  -0.6
                  eS    16 35.94
SCM      0.53   0 iPd   16 29.06  -0.5
KNK      0.55 282 iPc   16 29.50  -0.4
                  iS    16 37.39
FID      0.69 143 iPc   16 31.29  -1.0
                  eS    16 41.64
SML      0.70 317 iPc   16 31.54  -0.8
                  eS    16 41.78
KLU      0.71  74 ePc   16 31.51  -1.0
                  eS    16 40.92
GHO      0.90 302 iPc   16 34.67  -1.1
PLRM     0.91 289 iPc   16 34.85  -1.1
                  eS    16 47.61
PMR      0.91 289 iPd   16 34.44  -1.5
                  eS    16 46.40
PTE      0.93 242 ePd   16 35.28  -1.0
                  eS    16 48.07
TOA      0.97  34 P     16 36.40  -0.7
KNIM     0.98 192 iPd   16 35.45  -1.[illegible]
                  eS    16 49.32
HIN      1.00 156 iPc   16 36.86  -0.6
                  eS    16 51.04
PMS      1.08 268 iPc   16 38.40  -0.5
CVA      1.08 134 iPc   16 38.01  -0.9
                  eS    16 53.93
TZL      1.17  50 iPd   16 39.56  -0.9
                  eS    16 55.33
PWA      1.27 287 P     16 40.50  -1.6
MPA      1.29 231 iPd   16 40.85  -1.5
LTI      1.29 192 ePc   16 41.08  -1.4
                  eS    16 59.18
SGAM     1.32 127 ePc   16 41.54  -1.3
                  eS    17 00.30
MTU      1.33 187 ePd   16 42.33  -0.7
SDG      1.49  34 iPd   16 44.09  -1.2
SEW      1.59 222 ePd   16 45.14  -1.5
                  eS    17 06.09
RAGM     1.59 124 eP    16 45.74  -1.0
SLKM     1.62 242 iPd   16 46.28  -0.9
                  eS    17 06.64
SUA      1.65 277 ePc   16 46.70  -1.0
GLB      1.70  84 eP    16 47.12  -1.2
```

		eS	17	09.23	
PAX	1.89	27	eP	16 50.19	-0.9
		eS	17	14.12	
MID	1.95	165	P	16 52.90	1.1
NKA	1.98	255	eP	16 53.05	0.7
KAIM	1.99	133	eP	16 51.27	-1.3
HUR	2.00	328	eP	16 52.27	-0.3
CROM	2.11	103	eP	16 53.33	-1.1
SKT	2.12	291	iPc	16 53.13	-1.2
		eS	17	20.66	
RND	2.23	342	eP	16 55.29	-0.7
CGLM	2.26	272	eP	16 55.32	-1.1
SPU	2.29	269	ePc	16 55.30	-1.5
CRP	2.33	271	eP	16 55.88	-1.7
BRLK	2.34	230	eP	16 55.82	-1.7
CKN	2.34	270	eP	16 57.01	-0.6
CKT	2.36	270	eP	16 56.11	-1.8
CP2	2.37	271	eP	16 57.13	-1.0
		eS	17	28.46	
CKL	2.42	270	eP	16 57.66	-1.1
BALM	2.43	94	ePc	16 57.43	-1.5
BGL	2.44	271	eP	16 57.64	-1.4
SNH	2.48	115	eP	16 58.79	-0.7
DFR	2.71	257	eP	17 01.72	-1.2
RSO	2.78	255	eP	17 02.40	-1.6
RS2	2.78	255	eP	17 02.79	-1.3
RS1	2.79	255	eP	17 02.96	-1.1
RDW	2.80	255	eP	17 03.76	-0.5
YAH	2.89	107	eP	17 03.85	-1.8
CTGM	2.93	94	eP	17 04.74	-1.3
ILIM	3.03	249	eP	17 05.33	-2.0
HDA	3.12	3	eP	17 08.32	-0.2
FBA	3.62	357	eP	17 13.28	-2.4
MDM	3.69	354	P	17 16.10	-0.7
GLM	3.70	360	eP	17 17.17	0.3
SYI	3.71	225	eP	17 15.45	-1.5
CDD	3.96	236	eP	17 18.98	-1.5
SVW	4.02	271	eP	17 18.74	-2.6
TTA	4.39	296	eP	17 23.09	-3.6
IMA	5.55	332	eP	17 40.30	-2.9
0.6s		3.89nm			4.2mb X
65 obs. associated					

JAN 09, 1993 14h 52m 44.88± 0.32s
35.902 N ± 3.1km 29.940 E ± 2.5km
DEPTH = 41.6 ± 3.7 km
4.6mb (45 obs.)
EASTERN MEDITERRANEAN SEA (371)
MD 5.1 (ATH). Felt on Rodhos and nearby islands, Greece. Also felt at Denizli, Turkey.

KSL	0.36	307	ePg	52 53.00	-0.9
ELL	0.84	358	iPn	52 59.40	-1.2
BCK	1.64	18	ePn	53 14.00	2.2
YER	1.81	313	iPn	53 15.60	1.3
PPCY	2.21	117	eP	53 21.90	2.0
			eS	53 54.00	
KHL	2.44	352	iPn	53 22.70	-0.5
CSS	2.92	108	ePd	53 30.40	0.4
			eS	54 05.40	
ALT	3.15	2	iPn	53 32.90	-0.4
IZM	3.28	320	iPn	53 34.30	-0.8
FAM	3.44	104	eP	53 42.00	4.7X
			eS	54 26.80	
DST	3.84	345	iPn	53 41.80	-1.3
GPA	4.39	4	ePn	53 49.70	-1.1
PRK	4.43	320	ePn	53 52.00	0.6
ADAT	4.51	74	ePn	53 51.90	-0.7
KCT	4.52	344	iPn	53 51.50	-1.1
BBTK	4.52	29	iP	53 53.20	0.4
			eS	54 43.50	
EYL	4.66	2	ePn	53 53.20	-1.5
BNT	4.72	341	iPn	53 52.50	-3.0X
EDC	4.73	340	iPn	53 54.00	-1.6
EZN	4.85	325	iPn	53 55.80	-1.4
GBZT	4.89	356	ePn	53 56.60	-1.3
			iSg	53 59.80	
			iSg	54 56.50	
BHL	5.10	111	Pn	54 00.00	-0.9
			Sn	54 55.00	
ISK	5.20	353	iPn	54 03.40	1.2
ATZ	5.37	123	eP	54 04.10	-0.6
			eS	55 03.20	
ATH	5.40	294	ePn	54 06.50	1.5
GVMR	5.56	125	eP	54 07.70	0.4
VLI	5.71	280	ePn	54 10.00	0.5

SHMJ	5.77	122	P	54 11.20	0.9
ALN	5.85	330	ePn	54 11.16	-0.2
			iSn	55 18.72	
HLW	6.14	169	ePn	54 16.20	0.7
			eSn	54 21.50	
DMK	6.15	345	ePn	54 13.30	-2.3
KOT	6.16	165	ePn	54 16.30	0.5
			eSn	55 22.00	
JARJ	6.18	125	P	54 17.00	0.9
DSI	6.26	132	eP	54 16.80	-0.4
MASJ	6.36	129	P	54 18.90	0.3
PAIG	6.37	311	ePn	54 19.24	0.5
			eSn	55 32.60	
OUR	6.45	315	ePn	54 18.84	-0.9
MKT	6.59	137	eP	54 21.40	-0.4
			eS	55 33.70	
KDZ	6.74	330	eP	54 23.00	-0.8
AGG	6.81	299	ePn	54 25.64	0.8
			eSn	55 43.80	
DHLJ	6.82	136	P	54 25.20	0.2
SAGI	6.91	144	eP	54 26.20	-0.1
			eS	55 41.40	
KVT	7.05	41	iPn	54 28.50	0.3
JMB	7.05	339	iP	54 31.00	2.8X
RZN	7.07	326	iP	54 28.00	-0.7
SOH	7.13	315	ePn	54 28.36	-1.0
SRS	7.20	318	ePn	54 29.88	-0.4
SHWJ	7.21	138	P	54 02.00	-28.7X
LIT	7.22	308	ePn	54 31.04	0.4
THE	7.24	313	ePn	54 29.92	-0.9
			eSn	55 52.40	
MBH	7.39	144	eP	54 32.10	-1.0
MMB	7.47	321	iP	54 34.00	-0.1
KNT	7.62	316	ePn	54 35.60	-0.5
GRG	7.77	313	ePn	54 38.80	0.4
KZN	7.80	307	ePn	54 40.20	1.5
VLS	7.81	290	ePn	54 38.50	-0.4
PSN	7.89	351	iP	54 41.00	1.2
HOL	7.89	145	iPd	54 38.47	-1.5
VAY	7.91	315	iP	54 41.00	0.9
KKB	8.00	320	eP	54 42.00	0.5
MDRJ	8.13	141	P	54 42.30	-1.0
FNA	8.31	308	ePn	54 46.44	0.7
IGT	8.43	298	ePn	54 48.36	0.9
VTS	8.48	324	iP	54 49.00	0.8
LSK	8.50	303	iPnd	54 51.00	2.5
AYN	8.68	142	iPd	54 50.00	-0.8
OHR	8.85	309	iP	54 54.00	0.7
0.9s		43.00nm			5.5mb X
			i	55 05.60	
			i	55 13.00	
KEK	8.88	298	ePn	54 54.50	0.9
TPE	8.97	302	ePn	54 55.00	0.2
SKO	8.97	315	iP	54 55.50	0.6
Z 14s		3.39um			
			i	55 18.50	
			LR	58 52.00	
CFR	9.37	352	eP	55 01.00	0.7
VLO	9.40	302	ePn	55 01.60	0.8
ISR	9.58	345	eP	55 08.00	4.7X
SIM	9.58	18	eP	55 04.00	0.8
			e	56 50.00	
BRD	9.85	348	ePc	55 12.00	5.1X
MTUR	10.02	340	eP	55 13.00	3.6X
MLR	10.05	344	ePd	55 11.00	1.3
CMP	10.07	340	ePc	55 09.00	-0.9
PVY	10.21	314	iPd	55 13.80	1.8
VRI	10.25	347	iPc	55 16.00	3.6X
ULC	10.29	309	iPd	55 13.13	0.1
CVO	10.31	345	ePd	55 17.00	3.8X
IVA	10.43	315	iPd	55 16.96	2.1
PPE	10.45	351	ePc	55 19.00	3.9X
TTG	10.54	311	iPd	55 17.23	0.9
SOC	10.74	41	eP	55 26.00	6.9X
CLI	10.82	350	iPc	55 24.40	4.2X
NKY	10.92	312	iPd	55 22.53	0.9
GZR	10.93	332	ePd	55 22.50	0.8
PLE	11.00	316	iPd	55 24.39	1.6
HCY	11.02	310	iPd	55 21.97	-0.9
KIS	11.13	356	eP	55 25.00	0.6
GRI	11.15	289	P	55 21.56	-3.1X
BRT	11.16	300	P	55 23.38	-1.4
WAJH	11.23	148	ePd	55 24.33	-1.5
BRY	11.24	312	iPd	55 26.06	0.0
TDS	11.40	293	P	55 26.20	-1.8
GMB	11.48	286	P	55 25.84	-3.4X
BAI	11.49	301	P	55 26.50	-2.7

MSI-	11.72	286	P	55 29.50	-2.9X
ATN	11.79	285	P	55 29.76	-3.6X
MGR	12.11	295	P	55 34.50	-3.1X
MEU	12.14	280	P	55 35.59	-2.5
PZI	12.15	280	P	55 34.25	-4.0X
MNO	12.37	284	P	55 37.70	-3.6X
HVAR	12.69	309	ePn	55 42.20	-3.1X
			iSn	58 05.60	
BMR	12.70	340	ePd	55 55.00	9.6X
GIB	12.90	284	P	55 44.60	-3.6X
PYA	12.92	47	iP	55 56.00	7.6X
1.3s		150.00nm			5.8mb X
MTA	12.95	59	eP	55 48.00	-0.7
MCT	13.19	282	P	55 50.59	-1.5
RFI	13.59	298	P	55 57.38	0.3
UZD	13.66	325	e(P)	56 08.00	10.0X
SDI	13.84	300	P	56 00.20	-0.3
GRO	14.22	54	iPc	56 14.00	8.6X
1.5s		220.00nm			5.6mb X
PTJ	14.52	318	eP	56 11.90	2.4
VBY	14.68	315	eP	56 08.00	-3.4X
SRO	14.70	328	eP	56 17.20	5.6X
SPC	15.06	335	eP	56 26.90	10.4X
ARV	15.11	305	P	56 16.76	-0.3
ASS	15.13	303	P	56 17.30	0.0
CEY	15.29	315	eP	56 23.40	4.0X
LJU	15.40	316	eP	56 24.50	3.7X
ZST	15.52	326	eP	56 26.20	3.9X
RSM	15.61	306	P	56 25.04	1.6
TRI	15.66	314	eP	56 22.50	-1.6
			e	56 47.70	
			e	59 18.60	
VOY	15.76	315	eP	56 25.00	-0.5
			e	56 27.30	
CRE	15.82	305	P	56 28.30	2.0
VKA	15.93	325	eP	56 32.00	4.4X
SFI	16.00	306	P	56 30.40	1.9
FIR	16.34	304	eP	56 33.00	0.2
VRAC	16.58	328	P	56 38.90	3.2X
KBA	16.67	317	iPd	56 36.90	-0.2
1.1s		61.40nm			4.6mb
			i	56 39.60	
			i	56 59.30	
FVI	16.71	315	P	56 39.60	2.2
MME	16.87	305	P	56 39.50	-0.2
BHG	17.31	318	eP	56 46.60	1.7
PGF	17.51	299	eP	56 47.70	0.2
GEC2	17.59	322	ePc	56 49.10	0.6
0.7s		9.82nm			4.0mb
			e	56 56.20	
			e	57 06.10	
			e	57 10.00	
			e	57 15.40	
			e	57 20.00	
			e	57 25.20	
			e	57 36.70	
			e(ScP)	05 01.00	
			e	05 06.80	
WTTA	17.74	315	iPd	56 51.30	0.9
1.2s		62.20nm			4.6mb
			i	57 15.90	
KHC	17.84	323	P	56 52.10	0.5
0.6s		3.90nm			3.7mb
			e	57 02.50	
			e	57 39.40	
OGA	17.88	314	eP	56 54.40	2.2
KSP	17.88	331	eP	56 54.50	2.5
			e	57 13.20	
BOB	17.92	306	P	56 54.00	1.4
SOTA	17.96	315	iPc	56 53.70	0.6
0.8s		15.40nm			4.2mb
PRU	17.98	326	eP	56 53.50	0.3
			e	57 04.80	
MNK	18.07	355	eP	57 08.00	13.7X
WET	18.20	322	iPd	56 55.90	0.0
OSS	18.32	312	ePc	56 59.13	1.6
FUR	18.44	317	iPc	56 57.80	-1.1
0.8s		51.00nm			4.7mb
VDL	18.63	311	P	57 03.20	1.8
TMA	18.83	309	ePc	57 05.00	1.1
BRG	18.89	327	e(P)	57 04.00	-0.3
			e	57 15.00	
LLS	19.10	311	ePc	57 05.60	-1.4
GRF	19.38	321	ePc	57 08.60	-1.4
Z 20s		0.80um			
			e(S)	01 03.00	
MMK	19.39	308	ePd	57 10.00	-0.4

09d 14h

```
HOF     19.45 323 iPd *  57 09.60  -1.2
CLL     19.61 327 e(P)   57 11.00  -1.5
                  e      57 17.00
LRG     19.61 300 eP     57 11.90  -0.7
OBN     19.74  11 iPc    57 17.00   3.2X
        1.0s    32.00nm          4.6mb
                  i      57 25.00
ZLA     19.75 312 P      57 12.70  -1.4
DIX     19.75 308 eP     57 12.10  -2.2
MOX     19.80 324 iPc    57 14.40  -0.1
        1.1s    38.00nm          4.6mb
SLE     19.82 313 ePc    57 12.50  -2.3
LPG     19.96 306 eP     57 14.80  -1.8
        0.7s    19.40nm          4.5mb
LPL     19.98 306 eP     57 15.00  -1.7
        0.6s    17.50nm          4.6mb
EMS     20.06 307 eP     57 15.70  -1.7
MOS     20.52  12 eP     57 22.00   0.0
                  e      57 35.00
                  e      57 53.00
CDF     20.85 314 eP     57 23.30  -2.2
        0.7s    10.05nm          4.3mb
BSF     20.87 312 eP     57 23.10  -2.6
        0.6s     6.60nm          4.2mb
TNS     21.14 319 ePd    57 29.90   1.5
                  ec     57 35.90
                  id     57 48.80
                  e      57 58.20
                  e      58 18.20
HAU     21.21 312 eP     57 26.90  -2.2
        0.9s    22.75nm          4.6mb
ESEL    21.67 288 eP     57 32.80  -1.0
WLF     22.10 316 P      57 54.00  16.1X
SMF     22.26 307 eP     57 37.90  -1.7
        0.6s     6.75nm          4.3mb
LBF     22.29 308 eP     57 38.00  -1.9
LOR     22.46 308 eP     57 39.60  -2.0
      Z  18s     0.47um          4.0Msz
SSF     22.62 308 eP     57 42.80  -0.3
        0.8s    20.40nm          4.6mb
AVF     22.63 307 eP     57 41.50  -1.6
        0.7s     7.30nm          4.2mb
ASH     22.77  76 P      57 47.50   2.9X
        1.2s   150.00nm          5.3mb
BGF     22.88 306 eP     57 44.70  -1.0
        0.7s    11.70nm          4.5mb
MAF     22.97 305 eP     57 45.80  -0.7
CAF     22.97 302 eP     57 45.90  -0.6
        1.1s    18.80nm          4.5mb
DOU     23.19 316 P      57 48.70   0.1
        0.8s    21.70nm          4.7mb
TCF     23.22 305 eP     57 48.40  -0.6
RJF     23.43 302 eP     57 50.50  -0.5
        0.7s    11.25nm          4.5mb
      Z  20s     0.38um          3.8Msz
LPO     23.52 301 eP     57 51.30  -0.6
        0.5s     8.55nm          4.5mb
LSF     23.66 305 eP     57 52.50  -0.8
MAIO    23.85  80 eP     57 56.00   0.8
EPF     23.85 296 eP     57 54.60  -0.6
        0.8s     7.40nm          4.3mb
PUL     23.88   0 (P)    58 03.00   7.8X
                  e      58 08.00
                  e      58 17.00
                  i      58 27.00
                  i      58 38.00
LFF     23.89 301 eP     57 55.00  -0.4
        0.6s     8.05nm          4.4mb
ECHE    24.65 288 eP     58 03.50   0.5
NUR     24.86 354 eP     58 05.30   0.7
MFF     24.88 305 eP     58 04.20  -0.7
        0.5s     4.65nm          4.3mb
ELIZ    25.23 296 eP     58 04.00  -4.3X
UPP     25.27 345 iP     58 06.10  -2.4
LDF     25.43 309 eP     58 08.60  -1.6
FLN     25.71 309 eP     58 10.70  -2.1
ENIJ    25.82 282 eP     58 15.00   1.0
EVIA    25.89 286 eP     58 15.20   0.5
KAF     26.33 356 iP     58 19.80   1.4
HFS     26.42 342 eP     58 18.50  -0.7
        0.4s     3.70nm          4.3mb
      Z  16s   444.00um          7.1MszX
                  LR     07 59.00
ECOG    26.86 283 eP     58 24.30   0.7
EGUA    26.92 282 eP     58 25.80   1.8
GUD     27.08 290 eP     58 26.20   0.7
MAL     27.61 282 eP     58 30.00  -0.2
```

```
EHOR    28.12 284 eP     58 37.50   2.6
ARU     28.19  34 eP     58 34.00  -1.3
                  e      58 43.00
EPRU    28.22 283 eP     58 39.00   3.1X
EJIF    28.49 282 eP     58 41.00   2.8
EPLA    28.57 289 eP     58 41.00   2.1
QUE     31.41  90 eP     59 10.50   6.0X
FRU     34.90  65 eP     59 39.00   4.6X
                  e      59 44.00
KSH     36.31  70 P      59 47.70   1.2
NDI     40.29  86 eP     00 20.00   0.3
ELT     42.51  48 eP     00 36.50  -1.1
        2.0s   117.00nm          5.3mb
                  e      02 21.00
                  eS     06 53.00
KIC     43.29 236 P      00 45.90   1.5
LIC     43.59 236 P      00 48.10   1.3
      Z  20s     0.22um          4.1Msz
WMQ     44.25  61 P      00 52.00   0.1
        0.6s     5.20nm          4.5mb
      Z  20s     1.07um          4.8Msz
                  pP     01 03.50  41kmX
                  sP     01 09.00
                  PP     02 36.00
                  S      07 20.50
                  sS     07 40.50
NRI     45.76  25 ePd    01 08.00   4.4X
        0.8s    13.00nm          4.9mb
                  e      01 15.00
                  e      02 46.00
                  e      03 34.00
GKN     46.56  84 P      01 10.48  -0.2
HYB     46.67 100 eP     01 12.00   0.6
DMN     47.10  84 P      01 15.14   0.1
KKN     47.17  84 P      01 15.24  -0.3
PKI     47.36  84 P      01 16.90  -0.3
GUN     47.60  83 P      01 18.76  -0.4
GBA     47.95 105 P      01 23.00   1.6
LSA     51.10  78 P      01 45.70  -0.3
        0.6s    60.00nm          5.8mb X
MOY     51.61  49 eP     01 52.20   3.2X
        1.4s    48.00nm          5.3mb
ZAK     53.31  50 eP     02 02.00   0.3
        1.1s    38.00nm          5.3mb
                  e      03 13.00
IRK     53.49  47 ePc    02 12.00   9.0X
        1.6s    34.00nm          5.1mb
GTA     54.16  64 eP     02 07.00  -1.3
BOD     57.53  39 eP     02 29.10  -3.0X
        0.7s    17.00nm          5.2mb
LZH     58.35  66 eP     02 40.00   1.6
        1.0s    37.00nm          5.4mb
                  pP     02 49.50  31kmX
CIT     59.05  46 eP     02 44.90   2.0
WIN     59.41 194 iPc    02 48.80   3.0X
        0.7s    12.00nm          5.1mb
CD2     60.47  72 Pd     02 53.90   1.0
        1.2s    25.00nm          5.2mb
HHC     61.96  58 eP     03 03.00   0.0
CHG     62.44  86 eP     03 05.50  -0.8
PRY     62.53 182 eP     03 10.00   3.2X
XAN     62.99  66 P      03 10.90   1.1
        1.0s     7.00nm          4.7mb
                  pP     03 20.60  31kmX
                  sP     03 25.50
TIY     63.91  61 eP     03 15.00  -0.9
      Z  10s     0.51um          5.0MszX
RES     63.92 346 eP     03 18.00   2.7
        0.7s     2.00nm          4.3mb
BLF     64.76 184 eP     03 19.00  -2.4
GYA     64.80  75 P      03 20.80  -1.0
        1.0s    19.00nm          5.1mb
NST     65.06  88 eP     03 31.00   7.5X
BJI     65.48  57 eP     03 27.50   1.7
TIA     67.94  61 eP     03 44.80   3.2X
LMN     68.25 311 eP     03 56.50  13.2X
QIZ     71.10  80 eP     04 01.60   0.4
NJ2     71.25  64 Pd     04 02.60   0.7
IPM     72.02  98 eP     04 10.10   3.4X
MGD     72.75  27 eP     04 15.00   4.7X
                  e      04 30.00
FCC     74.84 333 eP     04 24.50   2.1
YSS     77.84  40 eP     04 45.00   5.6X
YKA     77.88 344 eP     04 39.00  -0.4
        0.6s     1.80nm          4.3mb
IMA     78.32   2 eP     04 42.41   0.5
        0.9s     2.54nm          4.2mb
```

```
FBA_    79.51 359 eP     04 49.02   0.8
        1.4s     8.78nm          4.5mb
ULM     81.80 328 eP     05 04.50   3.9X
MAT     81.89  51 eP     05 05.00   3.6X
PMR     82.85 360 (P)    05 04.81  -1.0
        1.2s    14.95nm          4.9mb
BALM    83.20 356 eP     05 07.81   0.0
SES     87.43 336 eP     05 32.00   3.0X
ELC     87.90 316 (P)    05 31.44   0.0
FVM     88.08 317 (P)    05 33.77   1.5
        0.6s     5.13nm          5.0mb
BAO     89.59 250 e(P)   05 44.00   4.2X
                  e      05 45.00
                  e      05 52.90
                  e      06 10.00
                  e      06 11.90
NEW     91.20 339 eP     05 46.68  -0.1
        0.8s    10.71nm          5.3mb
      S.D. = 1.2  on 209 of 267 obs.
-----------------------------------------
• JAN  09, 1993  15h 12m 32.42± 1.73s
  36.710 N ±16.6km   70.883 E ±10.4km
  DEPTH = 180.5 ± 21.7 km
  4.5mb (  5 obs.)
 HINDU KUSH REGION, AFGHANISTAN  (718)

OUE      7.29 208 iPd    14 19.70   2.3
        0.6s   583.33nm          6.1mb X
                  eS     15 36.50
MAIO     9.18 271 eP     14 40.00  -2.2
                  eS     16 17.00
NDI      9.62 145 eP     14 31.00 -16.8X
GKN     14.50 123 P      15 50.86   0.4
DMN     15.07 123 P      15 57.40  -0.3
KKN     15.07 122 P      15 57.28  -0.4
PKI     15.30 122 P      15 59.96  -0.6
        0.5s    17.00nm          4.7mb
GUN     15.40 120 P      16 01.54  -0.4
HYB     20.38 159 eP     16 57.00   0.3
YAK     43.87  36 eP     20 23.60   1.6
        0.8s    26.00nm          4.9mb
NAO     44.32 323 P      20 26.00   0.3
        0.6s     2.60nm          4.0mb
YKA     81.04   3 eP     24 28.60   0.8
        0.4s     1.30nm          4.0mb
WRA     82.18 122 P      24 33.50  -0.9
        0.6s     0.60nm          3.5mb X
WB2     82.19 122 iPd    24 33.20  -1.3
        0.4s    12.00nm          5.0mb
      S.D. = 1.4  on  13 of  14 obs.
-----------------------------------------
   JAN  09, 1993  16h 47m 52.63± 0.59s
   40.474 N ± 5.2km   23.496 E ± 5.5km
   DEPTH =  10.0km  (geophysicist)
 GREECE                            (364)

SOH      0.36 343 iPg    48 00.26   0.1
                  eSg    48 05.54
OUR      0.40 110 iPg    48 01.14   0.4
                  iSg    48 06.98
THE      0.43 292 ePg    48 00.66  -0.8
                  iSg    48 07.10
PAIG     0.56 166 iPg    48 03.37  -0.7
                  eSg    48 10.94
SRS      0.65   6 ePg    48 05.46  -0.1
                  eSg    48 15.30
KNT      0.82 327 ePg    48 08.38  -0.2
                  eSg    48 19.70
LIT      0.86 244 ePg    48 09.78   0.7
                  eSg    48 21.10
GRG      0.96 300 ePg    48 11.82   0.9
                  eSg    48 25.50
VAY      1.10 321 ePn    48 13.00  -0.3
      S.D. = 0.7  on   9 of   9 obs.
-----------------------------------------
• JAN  09, 1993  17h 54m 04.31± 0.98s
  17.160 N ± 5.8km   45.025 E ±13.2km
  DEPTH =  10.0km  (geophysicist)
  4.5mb (  7 obs.)
 WESTERN ARABIAN PENINSULA        (555)
      MD 4.5 (ARO). Some damage in the
      Sadah area, Yemen.

DHJN     1.55 289 iPc    54 32.40   0.2
KMTA     2.29 296 iP     54 42.67  -0.3
ABHA     2.42 297 iPd    54 46.00   1.1
ATA      5.94 197 P      55 43.00   8.6X
```

```
ARO      5.98 201 P    * 55 39.00   3.9X
                  S      56 39.99
DAF      6.03 204 P      55 35.50  -0.2
KSU      6.14 204 P      55 36.00  -1.3
SGH      6.14 202 P      55 39.40   2.0
GBR      6.47 203 P      55 43.00   1.0
RYD      7.67  11 eP     55 59.00   0.2
                  eS     58 27.50
QASM     8.99 351 eP     56 16.66  -0.6
                  eS     59 10.33
AAE     10.12 218 P      56 32.00  -1.1
MAIO    22.98  31 eP     59 35.00  24.8X
BCAO    28.88 247 iPd    00 03.70  -1.8
        0.9s      5.00nm          4.3mb
GBA     31.43  92 P      00 55.00  26.9X
HYB     31.99  84 eP     00 58.50  25.3X
GKN     37.98  66 P      01 48.90  24.4X
DMN     38.34  67 P      01 52.04  24.4X
        0.9s     64.00nm
OBN     38.42 352 eP     01 42.00  14.5X
        1.5s     42.00nm
                  e      02 03.50
ZST     38.45 330 eP     01 36.70   8.8X
KKN     38.52  67 P      01 53.70  24.7X
        0.9s     76.00nm
PKI     38.60  67 P      01 54.04  24.1X
        0.8s     39.00nm
GUN     39.06  67 P      01 58.06  24.3X
GEC2    40.57 328 ePd    01 53.70   8.1X
        0.7s      3.43nm          4.2mb
LMR     41.73 317 eP     02 00.80   5.8X
GRF     42.36 328 eP     02 08.00   7.8X
LPG     42.58 320 eP     02 08.60   6.2X
LPL     42.60 320 eP     02 08.90   6.4X
        0.8s      4.15nm          4.2mb
LBF     44.98 321 eP     02 27.70   6.1X
LOR     45.18 321 eP     02 29.30   6.2X
        0.8s      6.45nm          4.6mb
AVF     45.27 320 eP     02 29.60   5.8X
        0.7s      3.65nm          4.4mb
SSF     45.30 320 eP     02 30.80   6.8X
BGF     45.48 319 eP     02 31.70   6.2X
        0.9s     11.30nm          4.8mb
LSF     46.18 319 eP     02 38.30   7.3X
KIC     49.76 264 P      02 59.60   0.3
        1.1s     23.00nm          5.1mb
TIC     49.94 264 P      03 01.00   0.2
LIC     50.07 264 P      03 02.00   0.3
LZH     55.05  58 eP     04 02.50  23.6X
        1.2s     25.00nm
                  pP     04 11.00  28kmX
MAT     82.47  54 (P)    06 46.00  17.3X
WRA     95.09 109 P      07 49.30  20.0X
        1.0s      0.30nm
YKA     99.00 351 eP     07 30.00 -16.3X
        0.3s      2.80nm
      S.D. = 1.1  on  14 of  41 obs.
-----------------------------------
&  JAN  09, 1993  18h 05m 47.90s
   56.348 N          120.725 W
   DEPTH =   5.0km  (geophysicist)
 BRITISH COLUMBIA, CANADA          ( 23)
      <PGC-P>. ML 3.9 (PGC). Felt (V)
      north of Fort St. John; (IV) at
      Fort St. John, Cecil Lake and
      Charlie Lake; (III) at Montney;
      (II) at North Pine and Rose
      Prairie. Also felt at Taylor.

BDBC     0.89 259 Pg     06 03.90  -1.5
FSB      2.78 229 Pn     06 32.40  -1.6
                  Pg     06 39.00
                  Sg     07 13.90
MUB      3.76 316 Pn     06 46.00  -1.9
                  Sg     07 46.00
MNB      4.38 161 Pn     06 55.40  -1.4
                  Sn     07 47.00
                  Sg     08 03.50
EDM      5.29 123 Pn     07 07.90  -1.7
                  Pg     07 23.45
                  Sn     08 06.77
                  Sg     08 31.95
SLEB     5.41 162 Pn     07 09.50  -2.0
YKA      6.91  24 Pn     07 26.30  -5.9
SES      8.31 132 P      07 48.00  -3.9
       0.4s      8.00nm          5.3mb X
WALA     8.39 148 Pn     07 49.30  -3.8
                  Pg     08 21.95
                  Sn     09 20.22
                  Sg     10 07.25
LCCM    11.89 149 eP     08 37.60  -3.6
FCC     14.46  69 ePc    09 10.90  -4.1
ULM     16.01 102 eP     09 33.50  -1.6
        12 obs. associated
-----------------------------------
*  JAN  09, 1993  18h 18m 55.19± 0.50s
     3.491 S ± 8.0km  151.176 E ± 9.6km
    DEPTH =  16.0km  (  2 depth phases)
    4.8mb (  9 obs.)
  NEW IRELAND REGION, P.N.G.        (190)

RAB      1.21 125 eP     19 16.00  -1.2
MDG      5.66 252 e(P)   20 22.00   1.4
PMG      7.10 214 eP     20 42.00   1.0
RMO     22.98 186 eP     24 00.80   0.5
        1.0s     49.00nm          5.0mb
WB2     23.17 224 iPc    24 01.20  -0.9
        0.6s      5.00nm          4.2mb
DZM     23.68 143 iPc    24 08.00   0.9
ARMA    26.79 179 eP     24 36.70   0.2
        1.0s     13.00nm          4.5mb
CMS     28.30 190 eP     24 48.70  -1.4
        1.2s     15.00nm          4.6mb
MAT     41.63 344 (P)    26 38.00  -6.3X
BJI     53.92 327 eP     28 23.50   3.4X
TIY     54.51 322 eP     28 29.40   4.8X
XAN     54.56 317 P      28 24.00  -1.1
                  pP     28 29.40  18km
                  sP     28 33.20
CHG     55.97 295 eP     28 35.40  -0.1
CD2     56.66 311 P      28 45.00   4.7X
HHC     57.05 325 eP     28 45.70   2.7
BTO     57.79 324 eP     28 46.50  -1.7
LZH     59.17 316 eP     29 02.50   4.5X
        1.0s     15.00nm          5.1mb
GTA     63.60 318 eP     29 27.50  -0.3
        1.0s      6.00nm          4.7mb
YAK     67.37 349 eP     29 51.50   0.1
        1.3s     51.00nm          5.5mb
PKI     70.38 301 P      30 09.72  -1.4
KKN     70.54 301 P      30 10.90  -1.1
DMN     70.65 301 P      30 11.50  -1.2
GKN     71.15 301 P      30 14.72  -0.9
WMQ     73.69 318 eP     30 30.50   0.3
                  pP     30 35.00  14km
PMS     78.83  25 eP     30 59.40   0.6
        0.9s     13.80nm          5.0mb
IMA     79.78  20 eP     31 05.90   1.9
        1.0s      5.70nm          4.5mb
KSH     80.84 311 eP     31 14.00   3.9X
GEC2   122.10 328 ePKP   37 52.70   1.9
        0.9s      0.59nm
                  e      37 55.70
                  e      37 59.20
                  e      38 03.80
      S.D. = 1.3  on  22 of  28 obs.
-----------------------------------
&  JAN  09, 1993  19h 31m 02.60s
   56.385 N          120.722 W
   DEPTH =   5.0km  (geophysicist)
 BRITISH COLUMBIA, CANADA          ( 23)
      <PGC-P>. ML 3.6 (PGC). Felt in
      the Fort St. John area.

BDBC     0.90 257 Pg     31 19.00  -1.3
FSB      2.81 229 Pn     31 47.00  -2.0
                  Pg     31 54.50
                  Sg     32 28.90
MUB      3.73 316 Pn     32 01.00  -1.2
                  Sn     32 43.50
                  Sg     32 59.00
MNB      4.41 161 Pn     32 10.40  -1.6
                  Sn     33 03.00
SES      8.33 132 P      33 05.00  -1.9
       0.4s      3.00nm          4.9mb X
        5 obs. associated
-----------------------------------
&  JAN  09, 1993  21h 16m 04.90s
   56.344 N          120.694 W
   DEPTH =   5.0km  (geophysicist)
 BRITISH COLUMBIA, CANADA          ( 23)
      <PGC-P>. ML 3.8 (PGC). Felt in
      the Fort St. John area.

BDBC     0.90 260 Pg     16 21.40  -1.3
FSB      2.79 229 Pn     16 49.60  -1.5
                  Pg     16 55.70
                  Sg     17 30.80
MUB      3.78 316 Pn     17 03.50  -1.6
                  Sn     17 48.00
                  Sg     18 03.00
MNB      4.37 161 Pn     17 12.50  -1.2
                  Sn     18 03.70
SES      8.29 132 P      18 07.00  -1.6
       0.5s      4.00nm          4.9mb X
        5 obs. associated
-----------------------------------
*  JAN  09, 1993  21h 49m 28.12± 0.45s
    59.667 S ±11.7km   26.271 W ±13.6km
    DEPTH =  33.0km  (normal)
    4.9mb (  2 obs.)  4.0Msz (  1 obs.)
  SOUTH SANDWICH ISLANDS REGION     (153)

NVL     19.04 141 eP     53 50.00   0.4
SPA     30.51 180 iPc    55 41.00   0.9
        1.1s     23.81nm          4.9mb
CYA     41.15 302 ePc    57 10.00  -0.6
CNCB    52.37 306 P      58 41.00   1.3
LPB     52.67 306 eP     58 46.00   4.3X
ZOBO    52.90 307 P      58 43.30  -0.4
                  S      06 38.00
                  LR     16 00.00
LIC     67.82  23 P      00 24.70  -0.1
      Z  22s      0.10um          4.0Msz
KIC     68.01  23 P      00 27.70   1.7
BCAO    72.97  47 iPd    00 56.20   0.2
        0.4s      5.00nm          4.9mb
DMN    124.15  93 PKP    08 24.02  -0.6
GKN    124.23  92 PKP    08 23.80  -0.8
        0.4s     11.00nm
PKI    124.27  93 PKP    08 24.18  -0.8
        0.6s      8.00nm
KKN    124.39  93 PKP    08 24.32  -0.7
        0.4s     13.00nm
GUN    124.79  94 PKP    08 25.54  -0.4
        0.5s     14.00nm
NUR    126.19  28 ePKP   08 15.50 -11.7X
KAF    127.98  28 iPKP   08 30.40  -0.1
        0.6s      6.90nm
YKA    139.14 315 ePKP   08 46.00  -5.6X
        0.5s      1.50nm
BJI    149.43 113 ePKP   09 14.00   4.3X
      S.D. = 0.9  on  14 of  18 obs.
-----------------------------------
%  JAN  09, 1993  22h 15m 52.48± 1.56s
    38.055 N ±25.1km   14.197 E ± 7.6km
    DEPTH =   5.0km  (geophysicist)
  SICILY                            (398)

GIB      0.15 244 Pc     15 54.50  -1.1
                  eSg    15 56.80
MNO      0.41 107 P      16 01.30   0.5
                  eSg    16 09.50
MCT      0.61 227 P      16 05.90   1.1
ATN      1.00  84 P      16 12.00   0.0
CVT      1.17 252 P      16 15.90   1.1
      S.D. = 1.3  on   5 of   5 obs.
-----------------------------------
    JAN  09, 1993  23h 05m 13.26± 0.47s
    37.694 N ± 5.0km   20.374 E ± 3.4km
    DEPTH =  10.0km  (geophysicist)
    4.3mb ( 10 obs.)
  IONIAN SEA                        (399)
      ML 4.4 (TTG), 4.3 (ATH). MD 3.9
      (HLW).

VLS      0.51  19 ePg     05 23.50  -0.1
IGT      1.84 359 ePn     05 46.82   1.7
                  eSn    06 12.54
AGG      2.03  49 ePn     05 50.86   2.9X
                  eSn    06 19.26
KEK      2.07 348 ePb     05 50.00   1.6
VLI      2.27 115 ePn     05 57.00   5.7X
LSK      2.46   4 ePn     05 55.80   1.7
                  iSn    06 31.90
TPE      2.61 354 ePn     05 55.50  -0.7
                  iSn    06 29.00
ATH      2.66  83 ePn     05 59.50   2.6
KZN      2.83  22 ePb     06 01.00   1.7
LIT      2.92  34 ePn     06 02.30   1.8
                  eSn    06 40.66
```

09d 23h

FNA	3.18	14	ePn *	06 04.50	0.2
PAIG	3.41	48	iPn	06 08.26	0.7
OHR	3.43	5	iPn	06 09.00	1.2
			i	06 20.10	
			i	06 47.10	
			i	07 09.20	
THE	3.56	34	ePn	06 10.54	0.9
			eSn	06 54.82	
GRG	3.62	25	ePn	06 11.62	1.1
			eSn	06 57.46	
TDS	3.72	303	P	06 13.40	1.4
MSI	3.84	279	P	06 17.00	3.3X
OUR	3.85	46	ePn	06 14.78	1.0
SOH	3.89	36	iPn	06 15.61	1.3
ATN	3.91	278	P	06 16.20	1.5
KNT	3.98	29	ePn	06 16.70	1.1
			eSn	07 06.34	
VAY	4.00	24	iPn	06 16.30	0.4
BRT	4.02	323	P	06 16.70	0.5
SRS	4.23	35	ePn	06 19.14	-0.1
SKO	4.35	11	iPn	06 20.70	-0.2
	1.0s	211.00nm			
			i	06 37.00	
			i	06 50.70	
			iSn	07 05.20	
			iSb	07 17.50	
			i	07 32.50	
ULC	4.35	349	iPnd	06 20.49	-0.4
			iSn	07 05.91	
BAI	4.37	323	P	06 21.00	-0.1
MEU	4.38	264	Pd	06 22.20	0.8
SDA	4.40	351	ePn	06 22.00	0.4
MGR	4.48	304	P	06 23.70	1.0
KKB	4.66	26	iP	06 26.00	0.7
MMB	4.67	33	iPd	06 26.00	0.5
BDV	4.73	346	iPnd	06 25.24	-1.1
			iSn	07 14.01	
TTG	4.81	350	iPnd	06 26.99	-0.4
			iSn	07 17.06	
PVY	4.90	357	iPnd	06 29.46	0.6
			iSn	07 21.70	
HCY	4.96	344	iPnd	06 27.97	-1.5
			iSn	07 19.03	
EZN	5.11	64	eP	06 32.40	0.7
IVA	5.18	356	iPnd	06 33.30	0.5
			iSn	07 28.20	
RZN	5.21	39	iPd	06 34.00	0.8
NKY	5.22	349	iPnd	06 32.49	-0.8
			iSn	07 26.60	
VTS	5.35	23	iPd	06 35.00	-0.2
BRY	5.39	346	iPnc	06 34.00	-1.7
			iSn	07 29.61	
ALN	5.44	52	ePn	06 36.18	-0.1
KDZ	5.54	43	iPd	06 38.00	0.2
PLE	5.68	353	iPnd	06 39.23	-0.6
			iSn	07 39.09	
DIM	5.89	41	iP	06 43.00	0.4
HVAR	6.24	333	iPn	06 44.80	-2.8
			iSn	07 51.50	
LVI	6.37	275	P	06 50.40	1.0
SDI	6.45	310	P	06 51.40	0.7
DST	6.74	71	eP	06 56.50	1.8
DMK	7.02	52	eP	06 58.00	-0.6
AQU	7.09	313	P	07 01.60	2.0
ELL	7.67	94	eP	07 13.00	5.2X
GZR	7.90	12	ePd	07 15.00	4.1X
ASS	7.97	315	P	07 12.80	0.9
ARV	8.10	318	P	07 13.00	-0.6
CMP	8.34	23	ePd	07 19.00	2.0
RSM	8.65	319	P	07 21.60	0.3
VBY	8.69	335	iPnc	07 20.00	-1.9
			iSn	08 52.50	
CRE	8.72	315	P	07 23.70	1.3
ISR	8.76	30	ePc	07 25.50	2.6X
MLR	8.83	26	ePd	07 24.50	0.5
PTJ	8.84	340	iPn	07 20.90	-3.1X
			iSn	08 56.70	
RIY	8.86	331	ePn	07 22.70	-1.5
SFI	8.97	317	P	07 26.30	0.7
UZD	8.99	352	ePn	07 23.50	-2.5
PGD	9.01	316	P	07 28.10	1.7
CEY	9.18	333	ePn	07 26.50	-2.2
			eSn	09 06.00	
CVO	9.20	26	ePd	07 32.00	3.0X
FIR	9.21	314	eP	07 37.00	8.0X
TRI	9.41	330	e(Pn)	07 29.10	-2.6
			e(Sn)	09 06.70	
LJU	9.41	334	ePn	07 29.50	-2.3
			eSn	09 09.50	
VRI	9.44	28	ePd	07 36.60	4.4X
VOY	9.63	332	ePn	07 32.90	-2.0
			eSn	09 16.10	
BDI	9.76	314	P	07 37.70	1.0
MME	9.78	315	P	07 38.40	1.2
PGF	9.97	303	eP	07 48.40	8.8X
FVI	10.52	330	P	07 45.10	-2.0
KBA	10.72	333	iPc	07 48.40	-1.5
			iS	09 38.80	
SAL	10.80	320	P	07 50.00	-0.9
BHG	11.43	334	iPc	08 02.10	2.6
HLW	12.01	127	ePn	08 05.50	-1.8
			eS	10 05.00	
GEC2	12.15	339	Pn	08 07.70	-1.7
			Sn	10 15.10	
KHC	12.45	339	eP	08 10.00	-3.2X
			e	08 15.50	
			e	08 30.00	
LPG	12.82	312	eP	08 22.10	3.5X
LPL	12.84	312	eP	08 22.70	3.9X
PRU	12.98	343	eP	08 23.00	2.6X
GRF	13.68	334	eP	08 31.50	1.9
MASJ	13.95	111	P	08 31.00	-2.2
BSF	14.20	320	eP	08 35.50	-1.0
CDF	14.35	322	eP	08 35.50	-2.9X
	0.4s	1.95nm		4.1mb	
SHWJ	14.50	116	P	08 42.30	1.7
HAU	14.54	320	eP	08 39.60	-1.2
	0.3s	1.85nm		4.2mb	
	Z 23s	0.15um		4.0Msz	
LBF	15.24	313	eP	08 52.80	2.7X
LOR	15.46	313	eP	08 55.70	2.8X
	0.8s	4.55nm		3.8mb	
SSF	15.56	312	eP	08 57.70	3.5X
DOU	16.78	323	P	09 09.70	0.0
PYA	18.26	63	eP	09 30.00	1.7
GRO	20.02	66	eP	09 49.00	0.1
OBN	20.61	27	eP	09 53.00	-1.9
			i	10 03.50	
			i	10 17.50	
HFS	22.86	351	eP	10 16.40	-1.1
	0.4s	7.00nm		4.5mb	
NUR	23.00	5	eP	10 17.50	-1.3
	0.6s	8.00nm		4.4mb	
AVE	23.01	267	eP	10 24.00	4.8X
EKA	23.76	326	P	10 28.00	1.7
	2.6s	331.40nm		5.5mb X	
NAO	23.92	348	P	10 28.50	0.6
	0.9s	6.90nm		4.2mb	
KAF	24.72	7	eP	10 34.70	-0.9
KIC	38.66	222	P	12 40.60	1.9
LIC	38.92	223	P	12 42.90	1.9
FRU	41.11	65	eP	13 05.00	6.2X
			e	13 13.00	
ELT	47.05	49	eP	13 45.00	-1.5
	1.0s	16.00nm		5.1mb	
			eS	20 32.00	
GKN	53.92	80	P	14 36.84	-2.5
DMN	54.47	80	P	14 41.68	-1.9
HYB	54.52	95	eP	14 42.20	-1.5
KKN	54.52	80	P	14 41.68	-2.2
PKI	54.72	80	P	14 43.40	-2.1
GUN	54.93	80	P	14 45.20	-1.9
ZAK	57.97	49	eP	15 06.80	-1.1
	1.0s	6.00nm		4.6mb	
YKA	73.81	340	eP	16 48.90	-0.3
	0.5s	0.70nm		4.0mb	
IMA	76.46	358	(P)	17 05.80	1.3
	0.5s	1.03nm		4.2mb	
	S.D. = 1.4	on 98 of 119 obs.			

% JAN 10, 1993 00h 09m 35.62± 1.53s
38.007 N ± 9.0km 26.900 E ±13.6km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
MD 3.3 (ISK).

IZM	0.48	36	iPg	09 45.10	-0.3
			iSg	09 50.10	
YER	1.40	128	ePn	10 01.30	0.0
EZN	1.87	346	ePn	10 07.50	-0.4
DST	2.09	40	ePn	10 11.50	0.3
KHL	2.09	81	ePn	10 11.00	-0.2
EDC	2.45	17	ePn	10 17.00	0.7
KCT	2.51	26	ePn	10 17.00	-0.1

- S.D. = 0.5 on 7 of 7 obs.

• JAN 10, 1993 00h 52m 20.04± 2.06s
32.583 S ±11.4km 71.595 W ±13.8km
DEPTH = 10.0km (geophysicist)
NEAR COAST OF CENTRAL CHILE (135)
MD 4.0 (SAN).

ROCH	0.63	128	iPd	52 33.29	0.5
			iS	52 43.97	
JACH	0.85	97	iPd	52 35.62	-0.9
			iS	52 48.55	
LCCH	0.89	179	eP	52 37.26	0.2
			iS	52 51.45	
PEL	0.95	126	iPd	52 38.28	0.1
			iS	52 52.86	
TACH	1.20	153	eP	52 42.44	0.0
			iS	53 01.89	
FCH	1.32	124	iPd	52 43.87	-0.9
			iS	53 03.78	
PCH	1.38	139	iP	52 45.35	0.0
			iS	53 06.29	
LNV	1.38	174	eP	52 43.88	-1.4
CHCH	1.56	150	iP+	52 48.18	0.3
			iS	53 11.38	
CACH	1.74	152	eP	52 51.65	1.0
			iS	53 18.08	
MDZ	2.33	98	eP	52 04.40	-54.7X
RTCB	2.61	66	eP	53 03.50	0.4
RFA	3.40	131	e(P)	53 15.00	0.7
	S.D. = 0.8	on 12 of 13 obs.			

? JAN 10, 1993 02h 57m 40.70± 5.64s
36.195 N ±46.4km 29.776 E ±18.4km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 3.4 (ISK).

ELL	0.56	11	iPn	57 52.40	0.2
			eSg	58 06.40	
BCK	1.42	27	ePn	58 06.60	0.0
YER	1.52	308	ePn	58 08.30	0.3
KHL	2.13	355	ePn	58 16.70	-0.2
PPCY	2.47	121	eP	58 24.00	2.4X
IZM	2.97	318	iPn	58 28.60	-0.2
CSS	3.15	112	eP	58 35.00	3.7X
	S.D. = 0.3	on 5 of 7 obs.			

& JAN 10, 1993 03h 30m 11.25s
38.020 N 118.734 W
DEPTH = 1.3km
CALIFORNIA-NEVADA BORDER REGION (40)
<GM-P>. MD 2.7 (GM).

BONR	0.35	101	ePc	30 18.44	0.2
MEMM	0.39	205	iPd	30 19.38	0.4
MRCM	0.39	153	ePc	30 19.19	0.1
MMPM	0.47	210	eP	30 20.66	0.0
MTUM	0.68	168	eP	30 24.45	-0.4
KVN	1.14	26	eP	30 32.79	-0.8
TNP	1.20	87	eP	30 33.85	-0.7
			eS	30 49.97	
CMB	1.30	271	iPd	30 35.10	-1.1
			eS	30 51.84	
LLA	2.25	232	iPc	30 51.85	1.7
			eS	31 21.73	
ARN	2.32	254	eP	30 52.03	0.8
ISA	2.36	175	ePn	30 54.18	2.3
MHC	2.40	255	ePd	30 54.00	1.5
			eS	31 25.11	
PRI	2.43	220	iPc	30 54.99	2.1
SAO	2.50	241	eP	30 55.06	1.4
			eS	31 28.65	
ORV	2.65	306	ePn	30 55.85	0.0
PRS	2.70	232	iPd	30 57.89	1.4
GCC	2.78	250	iPc	30 58.19	0.5
ARUT	4.19	92	(Pn)	31 17.47	-0.4
			ePg	31 29.87	
	18 obs. associated				

• JAN 10, 1993 04h 12m 35.54± 0.54s
32.029 N ± 8.5km 142.205 E ±14.7km
DEPTH = 33.0km (normal)
4.7mb (7 obs.)
SOUTH OF HONSHU, JAPAN (211)

MAT	5.59	325	iPd	13 57.40	-1.1

```
        0.8s     39.55nm          5.0mb
                   eS    14 59.00
 WB2    52.22 189 iPd    21 44.70  -0.9
        0.4s      6.10nm          4.9mb
 WRA    52.22 189 P      21 45.20  -0.4
        0.7s      1.20nm          4.0mb
 NDI    55.42 285 eP     22 10.00   0.9
 ASPA   55.95 189 eP     22 13.20   0.3
 GBA    61.61 269 P      22 53.00   0.5
 RES    67.28  14 eP     23 29.00   0.5
        1.0s      2.00nm          4.2mb
 KAF    73.06 334 iP     24 03.50  -0.3
        0.6s      3.10nm          4.5mb
 LCCM   77.61  43 eP     24 30.10  -0.1
 KSP    84.70 329 eP     25 08.10   0.9
 LPL    92.89 330 eP     25 46.50  -0.1
        0.8s      2.55nm          4.7mb
 LPG    92.90 330 eP     25 46.70   0.0
        0.8s      3.35nm          4.8mb
      S.D. = 0.7  on  12 of  12 obs.
-----------------------------------------
% JAN  10, 1993  04h 37m 03.82± 4.62s
   43.236 N ±22.4km   20.025 E ±27.1km
   DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION        (383)
      ML 1.3 (TTG).

 IVA    0.38 194 iPgd   37 11.35  -0.2
                iSg    37 16.33
 PLE    0.47 282 iPgc   37 13.30  -0.1
                iSg    37 21.29
 PVY    0.64 183 iPgc   37 16.90   0.1
                iSg    37 24.97
 NKY    0.86 241 iPgc   37 20.55   0.0
                iSg    37 33.52
 TTG    0.98 215 iPgc   37 22.52   0.1
                iSg    37 36.40
 BRY    1.14 253 iPgd   37 25.30   0.1
                iSg    37 41.53
      S.D. = 0.2  on   6 of   6 obs.
-----------------------------------------
& JAN  10, 1993  04h 38m 51.20s
   37.137 N          121.520 W
   DEPTH =   5.0km
 CENTRAL CALIFORNIA                ( 39)
      <BRK>. ML 2.7 (BRK).

 COE    0.17 315 iPn    38 54.89   0.1
 ARN    0.21 357 iPn    38 55.51   0.0
 MHC    0.23 335 iPd    38 55.79  -0.1
                eS     38 59.72
 SAO    0.38 171 iPc    38 58.74   0.0
                eS     39 04.65
 GCC    0.40 254 iPd    38 58.71  -0.4
                eS     39 04.91
 STAN   0.59 297 iPc    39 02.27  -0.7
                eS     39 12.20
 LLA    0.70 138 iPc    39 04.10  -1.0
                eS     39 15.22
 PCC    0.78 298 iPd    39 05.21  -1.5
                eS     39 17.68
 PRS    0.81 171 iPc    39 06.44  -1.0
                eS     39 18.02
 JEGM   0.84 297 ePn    39 06.82  -1.1
 BKS    0.93 323 iPd    39 08.43  -1.0
                eS     39 22.47
 ZSP    1.00 324 iPd    39 09.60  -0.9
                eS     39 25.48
 HMR    1.04 348 ePn    39 06.04  -5.2
 PRI    1.21 145 iPd    39 13.93  -0.3
                eS     39 34.92
 CMB    1.27  45 ePd    39 14.19  -1.1
                eS     39 31.31
 MTUM   2.37  84 ePn    39 31.96   0.4
      16 obs. associated
-----------------------------------------
% JAN  10, 1993  05h 00m 20.20± 0.80s
   45.895 N ± 9.6km   14.843 E ± 5.9km
   DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION        (383)
      MD 2.5 (LJU). Felt (IV) at
      Velika Loka, Slovenia.

 LJU    0.26 305 e(Pg) 00 25.50  -0.2
                eSg    00 30.50
 CEY    0.33 242 e(Pg) 00 27.00  -0.1
                eSg    00 34.80
 VBY    0.49 143 ePg   00 30.00  -0.1
                iSg    00 35.60
 VOY    0.68 282 ePg   00 34.00   0.3
                eSg    00 45.00
 PTJ    0.78  89 eP    00 35.50   0.1
      S.D. = 0.3  on   5 of   5 obs.
-----------------------------------------
& JAN  10, 1993  05h 37m 25.46s
   38.027 N          118.734 W
   DEPTH =   2.4km
 CALIFORNIA-NEVADA BORDER REGION ( 40)
      <GM-P>. MD 2.9 (GM). ML 3.3
      (BRK).

 BONR   0.35 102 iPn    37 32.74   0.3
 MEMM   0.39 204 iPn    37 33.67   0.3
 MRCM   0.40 153 iPn    37 33.44   0.0
 MMPM   0.48 209 iPn    37 34.92  -0.1
 MTUM   0.69 169 eP     37 38.84  -0.3
 KVN    1.14  26 iP     37 46.73  -0.9
 TNP    1.20  87 eP     37 48.01  -0.6
                eS     38 03.78
 FRI    1.29 217 iPd    37 49.60  -0.5
                eS     38 06.39
 CMB    1.30 271 iPc    37 49.14  -1.2
                eS     38 06.25
 LLA    2.25 232 iPc    38 04.98   0.7
 MHC    2.41 254 ePc    38 06.84   0.2
                eS     38 38.80
 PRI    2.43 220 eP     38 07.27   0.3
 SAO    2.50 241 eP     38 07.76   0.0
 ORV    2.65 306 ePc    38 09.90   0.0
                eS     38 46.33
      14 obs. associated
-----------------------------------------
& JAN  10, 1993  05h 38m 56.60s
   36.545 N          121.178 W
   DEPTH =   9.0km
 CENTRAL CALIFORNIA                ( 39)
      <BRK>. ML 3.0 (BRK).

 LLA    0.20  69 iPc    39 00.77  -0.2
                eS     39 03.40
 PRS    0.26 216 iPc    39 02.18   0.1
                eS     39 05.26
 SAO    0.31 316 iPc    39 02.51  -0.4
 PRI    0.58 134 iPd    39 07.94  -0.3
                eS     39 20.40
 COE    0.81 331 ePc    39 12.79   0.3
                eS     39 25.78
 GCC    0.82 307 iPc    39 11.51  -1.0
                eS     39 23.76
 ARN    0.85 341 ePn    39 13.23   0.1
                eS     39 25.89
 MHC    0.88 335 iPd    39 13.64   0.0
                eS     39 26.95
 PKEM   0.99 119 eP     39 15.88   0.4
 STAN   1.17 317 ePc    39 17.27  -1.3
                eS     39 34.57
 FRI    1.26  69 iPc    39 18.23  -1.9
                eS     39 35.00
 PCC    1.36 315 iPd    39 20.15  -1.4
 JEGM   1.41 314 ePd    39 20.15  -2.3
 BKS    1.57 328 ePd    39 23.23  -1.5
                eS     39 48.19
 CMB    1.62  23 ePc    39 24.49  -0.9
                eS     39 46.86
 BCH    1.62 146 eP     39 23.60  -1.9
 HMR    1.68 343 eP     39 25.30  -1.0
 NTYM   2.19 328 eP     39 31.71  -1.9
 SSK    3.68 128 eP     39 52.58  -2.5
      19 obs. associated
-----------------------------------------
& JAN  10, 1993  06h 05m 50.49s
   66.691 N          147.634 W
   DEPTH =   0.0km
 NORTHERN ALASKA                   (676)
      <AEIC>. ML 3.2 (PMR), 3.0
      (AEIC).

 FYU    0.97  96 iP     06 08.83  -0.9
                eS     06 21.07
 PRP    1.46 143 P      06 19.00   0.8
 GLM    1.71 177 iP     06 21.50  -0.3
                eS     06 45.70
 MDM    1.76 188 iP     06 22.10  -0.3
                eS     06 47.95
 FBA-   1.80 182 eP     06 22.44  -0.6
 CCB    2.05 182 eP     06 25.92  -0.8
                eS     06 56.06
 NEA    2.21 196 eP     06 28.13  -0.8
 HDA    2.31 173 eP     06 29.70  -0.8
                eS     07 01.99
 IMA    2.51 258 eP     06 33.95   0.5
                eS     07 16.34
 MCK    3.02 191 eP     06 40.11  -0.4
 RND    3.34 189 eP     06 44.50  -0.6
 DOT    3.41 152 eP     06 45.40  -0.6
                S      07 29.89
 SML    4.91 184 eP     07 07.07  -0.3
 SKT    5.02 201 P      07 08.17  -0.8
 PWA    5.15 192 eP     07 12.70   1.9
 PLRM   5.16 188 eP     07 10.24  -0.6
 TTA    5.20 227 eP     07 11.10  -0.4
 KNK    5.31 184 eP     07 13.67   0.6
 PMS    5.53 190 eP     07 18.30   2.1
      19 obs. associated
-----------------------------------------
• JAN  10, 1993  07h 20m 02.91± 0.80s
    9.587 S ± 8.8km  113.078 E ±12.0km
   DEPTH =  33.0km  (normal)
   4.2mb (  2 obs.)
 SOUTH OF JAWA, INDONESIA          (282)

 TRT    1.92 347 iPc    20 33.10  -0.8
                iS     20 51.40
 SJI    2.25 325 iPc    20 39.30   0.7
                iS     21 04.80
                e      23 51.00
 KHKI   2.78  64 iPc    20 46.00   0.0
                iS     21 16.00
                e      24 10.00
 NANU  13.11 170 eP     23 09.00  -0.5
                eS     25 27.00
 MEEK  17.75 164 eP     24 14.50   5.2X
                eS     27 20.00
 WARB  20.92 144 eP     24 50.00   4.7X
 WB2   22.98 119 iPc    25 06.00   0.2
        0.8s      3.90nm          4.0mb
 ASPA  24.32 128 eP     25 19.40   0.5
        0.6s      7.60nm          4.4mb
      S.D. = 0.7  on   6 of   8 obs.
-----------------------------------------
   JAN  10, 1993  10h 37m 21.82± 0.40s
   44.309 N ± 3.6km   11.855 E ± 4.6km
   DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                    (545)
      ML 2.6 (LDG). MD 3.1 (LJU), 2.8
      (FIR).

 SFI    0.39 180 Pd     37 30.00   0.2
                eSg    37 35.50
 PGD    0.44 193 Pd     37 31.00   0.1
                eSg    37 37.10
 RSM    0.57 131 Pc     37 33.40   0.0
                eSg    37 42.20
 CRE    0.68 174 P      37 34.80  -0.7
                eSg    37 45.00
 FIR    0.68 219 ePg    37 27.00  -8.4X
                iSg    37 46.00
 MME    0.84 262 P      37 41.70   3.5X
 BDI    0.94 255 P      37 42.50   2.7X
 ARV    1.13 136 P      37 43.00   0.0
 ASS    1.37 154 P      37 48.00   1.0
 TRI    1.95  43 e(Pg)  37 54.30  -0.9
                e(PgPg38 00.00
                e(Sn)  38 18.60
                e(Sg)  38 27.50
 RIY    2.08  59 iP     38 20.70  23.6X
 VOY    2.25  39 ePn    37 58.90  -0.8
                eSn    38 27.00
 CEY    2.32  51 eP     38 05.50   4.9X
                eSn    38 39.50
 VBY    2.70  62 ePn    38 15.00   9.0X
 PGF    2.72 231 Pn     38 06.80   0.3
                Sn     38 40.40
 WTTA   2.96 357 iPnd   38 11.70   1.8
                i      39 00.20
 KBA    2.96  20 iPnc   38 10.10   0.2
                i      38 45.30
                i      39 01.20
 SBF    3.22 264 Pn     38 15.50   2.1X
                Sn     38 49.80
 PTJ    3.31  60 eP     38 24.70   9.9X
```

*0d 10h

```
FRF      3.84 261 Pn  * 38 20.90  -1.3
                  Sn    39 02.10
LMR      3.99 258 Pn    38 24.10  -0.2
                  Sn    39 04.40
LRG      4.06 260 Pn    38 25.80   0.5
CDF      5.18 324 Pn    38 40.60  -0.7
HAU      5.32 316 Pn    38 43.70   0.5
     S.D. = 0.8  on  16 of  24 obs.
-----------------------------------------
&  JAN  10, 1993  10h 53m 59.66s
   34.610 N          116.677 W
   DEPTH =   8.0km
 SOUTHERN CALIFORNIA                ( 43)
      <PAS-P>. ML 2.7 (PAS).

GSC      0.70 351 ePc   54 12.69  -1.0
PEC      0.82 209 iPd   54 14.69  -1.1
PLM      1.26 187 ePd   54 22.78  -0.6
                  eS    54 39.77
GLA      2.19 135 ePn   54 37.78   0.9
                  ePg   54 39.77
MMPM     3.55 328 (P)   54 54.57  -1.9
         5 obs. associated
-----------------------------------------
?  JAN  10, 1993  11h 09m 21.37± 4.16s
   11.234 N ±10.3km   60.574 W ±43.1km
   DEPTH =  33.0km  (normal)
 WINDWARD ISLANDS                   ( 95)
      MD 3.2 (TRN).

BOT      0.16 245 iPd   09 27.43  -0.1
                  iS    09 32.12
TPR      0.21 256 iPd   09 27.74  -0.3
TBH      0.89 213 ePc   09 37.61   0.1
                  iS    09 51.47
TRN      1.00 234 iPc   09 38.36  -0.7
                  iS    09 50.36
TPP      1.25 223 iPc   09 43.15   0.5
                  eS    10 02.30
TCE      1.28 245 iP    09 43.42   0.4
                  iS    09 57.69
GRW      1.41 311 eP    09 45.13   0.2
                  eS    10 05.72
     S.D. = 0.5  on   7 of   7 obs.
-----------------------------------------
?  JAN  10, 1993  11h 44m 49.94± 3.88s
   29.931 S ±22.1km   69.613 W ±31.5km
   DEPTH = 149.6 ± 30.6 km
 CHILE-ARGENTINA BORDER REGION      (127)

RTCB     1.70 156 ePd   45 21.90  -0.2
                  S     45 44.00
RTLL     1.71 145 ePd   45 21.50  -0.6
                  S     45 43.50
RTPR     2.71  99 ePc   45 34.50   0.4
                  eS    46 07.00
MDZ      3.01 168 iP    45 39.50   1.4
                  iS    46 16.60
CYA      3.65  67 iPc   45 46.30  -0.1
                  S     46 28.00
MRA      4.16 127 ePc   45 53.20   0.2
TCA      4.55 109 eP    45 58.00  -0.3
                  S     46 47.00
RFA      4.92 169 eP    46 02.30  -0.9
                  S     46 57.40
     S.D. = 0.9  on   8 of   8 obs.
-----------------------------------------
%  JAN  10, 1993  12h 54m 19.53± 0.81s
   38.588 N ± 6.7km   14.583 E ± 6.8km
   DEPTH =  10.0km  (geophysicist)
 SICILY                             (398)

MNO      0.66 172 P     54 32.70  -0.2
                  eSg   54 44.80
GIB      0.74 216 P     54 33.20  -0.9
                  eSg   54 45.00
ATN      0.81 121 P     54 35.70   0.4
                  eSg   54 50.00
MSI      0.86 116 P     54 36.30   0.3
                  eSg   54 51.30
MCT      1.21 218 P     54 43.70   1.4
SOI      1.27 114 P     54 42.90  -0.1
MEU      1.51 169 P     54 45.90  -0.8
MGR      1.72  26 P     54 49.40  -0.3
TDS      1.73  51 P     54 50.00   0.1
     S.D. = 0.8  on   9 of   9 obs.
-----------------------------------------
%  JAN  10, 1993  13h 02m 23.13± 0.82s
   38.565 N ± 6.7km   14.528 E ± 6.9km
   DEPTH =  10.0km  (geophysicist)
 SICILY                             (398)

MNO      0.65 168 P     02 36.20   0.0
                  eSg   02 47.00
GIB      0.70 215 P     02 36.30  -0.7
                  eSg   02 47.30
ATN      0.84 118 P     02 39.50   0.2
                  eSg   02 52.00
MSI      0.88 114 P     02 41.20   1.1
MCT      1.17 217 P     02 46.00   0.9
SOI      1.30 112 P     02 46.40  -0.7
MEU      1.50 168 P     02 49.50  -0.6
MGR      1.76  27 P     02 54.10   0.2
TDS      1.78  52 P     02 53.70  -0.5
     S.D. = 0.8  on   9 of   9 obs.
-----------------------------------------
&  JAN  10, 1993  13h 40m 31.99s
   63.195 N          151.449 W
   DEPTH =  11.2km
   2.6mb (  1 obs.)
 CENTRAL ALASKA                     (  1)
      <AEIC>. ML 3.1 (PMR), 2.7
      (AEIC).

HUR      0.85 104 eP    40 48.33   0.0
                  eS    41 00.37
RND      1.19  79 iP    40 53.79  -0.4
SKT      1.22 182 iP    40 54.17  -0.4
                  eS    41 10.84
MCK      1.25  63 eP    40 54.85  -0.3
PWA      1.71 154 P     41 02.40   0.5
NEA      1.74  36 eP    41 02.48   0.2
                  eS    41 25.22
SUA      1.77 169 iP    41 03.12   0.3
GHO      1.85 139 iP    41 04.29   0.4
CGLM     1.91 188 iP    41 04.50  -0.4
PMR      1.94 145 eP    41 04.80  -0.3
PLRM     1.94 145 eP    41 05.29   0.2
CRP      1.96 190 eP    41 04.45  -1.2
CP2      1.97 191 (P)   41 04.60  -1.3
                  eS    41 30.30
BGL      1.99 193 eP    41 05.41  -0.6
                  eS    41 32.21
SML      2.01 133 iP    41 05.89  -0.3
CKN      2.01 190 iP    41 06.45   0.3
CKT      2.03 190 eP    41 06.00  -0.6
SPU      2.04 188 iP    41 06.34  -0.3
CKL      2.05 192 eP    41 06.85   0.0
TTA      2.09 265 eP    41 07.53   0.1
PMS      2.15 155 P     41 08.60   0.4
CCB      2.17  46 eP    41 08.34  -0.2
                  S     41 38.08
MDM      2.27  37 eP    41 10.10   0.2
KNK      2.27 141 eP    41 10.99   1.0
                  S     41 40.23
HDA      2.34  57 eP    41 10.13  -0.8
FBA      2.35  42 eP    41 10.08  -1.0
                  eS    41 42.66
SCM      2.35 124 eP    41 11.87   0.7
NKA      2.46 178 eP    41 15.30   2.7
GLM      2.53  43 eP    41 13.34  -0.4
PTE      2.60 153 eP    41 15.18   0.5
TOA      2.67 112 P     41 16.20   0.5
DFR      2.68 193 eP    41 16.31   0.5
PAX      2.73  92 eP    41 16.10  -0.5
NCT      2.73 196 eP    41 16.37  -0.3
SLKM     2.76 167 eP    41 17.28   0.3
REF      2.78 193 eP    41 17.66   0.3
SDG      2.79 101 eP    41 17.87   0.5
RDW      2.80 194 eP    41 17.82   0.2
RSO      2.81 193 eP    41 18.61   0.8
RS1      2.81 193 eP    41 18.16   0.3
SVW      2.87 225 eP    41 17.22  -1.2
MPA      2.89 159 eP    41 19.45   0.7
TZL      3.01 110 eP    41 20.98   0.5
IMA      3.04 343 eP    41 17.05  -3.9
KLU      3.09 121 eP    41 22.44   0.8
GLI      3.10 137 eP    41 22.39   0.7
VLZ      3.17 128 eP    41 22.97   0.3
ILIM     3.21 194 eP    41 22.58  -0.7
INE      3.24 194 eP    41 21.69  -2.1
INW      3.24 195 eP    41 22.17  -1.6
KNIM     3.36 147 eP    41 25.24  -0.1
FID      3.39 134 eP    41 26.55   0.7
LTI.     3.60 150 eP    41 29.87   1.1
HIN      3.66 138 eP    41 29.27  -0.5
BALM     4.79 113 eP    41 44.88  -1.0
YKA     16.69  76 eP    44 30.20   3.3
         0.6s     0.30nm          2.6mb
         56 obs. associated
-----------------------------------------
?  JAN  10, 1993  13h 45m 24.76± 2.30s
   11.317 N ±14.0km   60.094 W ±23.1km
   DEPTH =  33.0km  (normal)
   3.6mb (  1 obs.)
 WINDWARD ISLANDS                   ( 95)
      MD 3.4 (TRN).

BOT      0.63 256 eP    45 36.69  -0.5
                  eS    45 40.93
TPR      0.68 259 iP    45 36.93  -1.0
                  eS    45 41.97
TBH      1.26 229 iP    45 46.78   0.6
                  eS    46 00.72
TPP      1.66 233 iP    45 52.37   0.4
TCE      1.74 249 eP    45 47.57  -5.6X
                  eS    46 07.83
GRW      1.75 299 eP    45 54.23   0.9
                  eS    46 14.13
YKA     64.08 335 eP    55 57.20  -0.4
         0.6s     0.30nm          3.6mb
     S.D. = 1.0  on   6 of   7 obs.
-----------------------------------------
%  JAN  10, 1993  13h 52m 06.76± 0.83s
   43.880 N ± 8.9km   11.970 E ± 5.9km
   DEPTH =  10.0km  (geophysicist)
 CENTRAL ITALY                      (381)

SFI      0.09 296 P     52 09.40   0.0
                  eSg   52 12.30
PGD      0.18 269 P     52 11.10   0.2
                  eSg   52 15.70
CRE      0.25 183 Pc    52 11.20  -1.0
                  eSg   52 14.80
RSM      0.35  82 P     52 13.40  -0.6
                  eSg   52 19.60
ARV      0.80 118 P     52 22.70   0.4
ASS      0.95 148 P     52 25.90   1.0
     S.D. = 0.9  on   6 of   6 obs.
-----------------------------------------
?  JAN  10, 1993  14h 09m 07.89± 0.93s
   39.094 N ± 8.5km   27.605 E ± 9.4km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                             (366)
      MD 2.6 (ISK).

IZM      0.75 201 iPg   09 22.50   0.0
                  iSg   09 34.00
DST      0.94  57 iPn   09 26.00   0.1
                  eSg   09 41.00
EZN      1.23 307 ePn   09 30.80   0.0
KCT      1.29  26 iPn   09 31.70  -0.1
     S.D. = 0.2  on   4 of   4 obs.
-----------------------------------------
?  JAN  10, 1993  14h 34m 19.66± 4.20s
   42.541 N ± 8.0km   11.615 E ±35.2km
   DEPTH =  10.0km  (geophysicist)
 CENTRAL ITALY                      (381)

ASS      0.93  55 Pd    34 37.30  -0.2
                  eSg   34 46.90
RMP      1.09 132 P     34 40.50   0.4
RDP      1.13 133 P     34 40.50  -0.4
AQU      1.34  97 P     34 44.50   0.2
ARV      1.37  45 P     34 44.90   0.2
                  eSn   35 00.20
SDI      1.84 116 P     34 51.50  -0.1
     S.D. = 0.4  on   6 of   6 obs.
-----------------------------------------
   JAN  10, 1993  14h 39m 00.39± 0.10s
   59.274 S ± 3.3km   26.205 W ± 3.3km
   DEPTH =  61.0km  (geophysicist)
   6.3mb ( 39 obs.)
 SOUTH SANDWICH ISLANDS REGION      (153)
      Mw 6.7 (GS), 6.7 (HRV).
      Mo=1.6*10**19 Nm (PPT). Depth
      from broadband displacement
      seismograms.
      FAULT PLANE SOLUTION: P-Waves
       NP1:Strike=147 Dip=70 Slip=  90
       NP2:        327     20       90
```

```
  Principal Axes:
   T                Plg=65  Azm= 57
   P                   25       237
 Comment: The focal mechanism is
   poorly controlled and
   corresponds to reverse
   faulting. The preferred fault
   plane is NP2.
 RADIATED ENERGY
  No. of sta:   5  Focal mech.  M
  Energy          1.1±0.3*10**14 Nm
 MOMENT TENSOR SOLUTION
 Dep  68            No. of sta:  6
 Moment Tensor;    Scale 10**19 Nm
   Mrr= 0.47        Mtt=-0.43
   Mff=-0.04        Mrt= 0.35
   Mrf=-0.96        Mtf= 0.49
  Principal axes:
   T  Val=  1.21  Plg=52  Azm= 92
   N        0.02       22       330
   P       -1.23       29       227
 Best Double Couple:Mo=1.2*10**19
  NP1:Strike=272 Dip=26 Slip=  30
  NP2:        155      78       113
 CENTROID, MOMENT TENSOR     (HRV)
 Data Used: GDSN
 L.P.B.: 35S, 96C  M.W.: 25S, 43C
 Centroid Location:
 Origin Time        14:39: 9.6 0.1
 Lat 59.42S 0.01 Lon  25.78W 0.02
 Dep  60.7 0.7 Half-duration  5.3
 Moment Tensor;    Scale 10**19 Nm
   Mrr= 0.51 0.01  Mtt=-1.05 0.01
   Mff= 0.54 0.01  Mrt= 0.04 0.01
   Mrf=-0.65 0.01  Mtf= 0.62 0.01
  Principal Axes:
   T  Val=  1.25  Plg=40  Azm=104
   N        0.05       49       302
   P       -1.30        9       202
 Best Double Couple:Mo=1.3*10**19
  NP1:Strike=251 Dip=56 Slip=  24
  NP2:        147      70       144

AIA    18.46 235 eP     43 14.40   1.4
NVL    19.33 142 iPc    43 21.80  -1.2
       1.6s  3172.00nm          6.3mb
     N  11s    23.00um
     E  12s     5.60um
                e      43 41.00  96kmX
                e      44 29.00
                eS     46 39.00
SPA    30.90 180 iPd    45 14.24   1.3
       0.9s   490.91nm          6.2mb
                epP    45 30.80  69kmX
LPA    32.03 305 eP+    45 24.00   1.2
       0.9s   806.72nm          6.6mb
RFA    36.87 293 iP     46 04.10  -0.3
MAW    37.27 141 P      46 07.69   0.4
MRA    37.55 298 ePd    46 09.80  -0.2
TCA    37.95 300 iP     46 13.00  -0.5
CACH   38.42 291 eP     46 17.30  -0.2
CHCH   38.60 291 eP     46 19.01   0.2
MDZ    38.60 294 iP     46 18.80  -0.1
                i      46 36.00  70kmX
                i      52 16.00
PCH    38.78 291 eP     46 20.64   0.2
BLE    38.82  69 iPc    46 22.00   1.4
FCH    38.92 292 eP     46 22.15   0.3
LNV    38.94 290 eP     46 20.76  -0.9
TACH   38.96 291 eP     46 20.99  -0.9
SAN    38.99 291 ePd    46 22.39   0.3
VAO    39.12 329 eP     46 23.90   0.5
                e      46 25.90   7kmX
                e      46 43.20
PEL    39.26 292 eP     46 24.49   0.1
CFA    39.38 296 ePc    46 26.10   0.7
LCCH   39.41 290 eP     46 25.25  -0.3
ROCH   39.55 292 ePd    46 26.42  -0.6
CER    39.57  70 iPc    46 28.00   1.1
       1.0s  1360.00nm          6.8mb
JACH   39.59 292 eP     46 25.22  -2.0
RTPR   39.70 299 ePc    46 26.90  -1.0
RTLL   39.72 296 eP     46 27.50  -0.7
RTCB   39.74 295 eP     46 28.20  -0.2
IHA    39.81 291 iPd    46 30.40   1.6
CYA    40.97 301 eP     46 36.20  -2.3
                S      46 54.50

SUR    41.10  70 iPc    46 41.11   1.4
                esPd   47 02.63
SBA    42.89 184 iPd    46 57.00   3.4X
FSA    43.11 303 i(P)   46 54.50  -1.4
POF    43.17  67 iPc    46 58.00   1.6
GRM    43.18  77 iPd    46 59.00   2.5
       0.6s  1450.00nm          6.9mb
SLA    44.08 304 e(P)   47 03.60  -0.4
HJA    45.38 305 iPc    47 14.00  -0.2
                S      47 36.50
FRS    45.46  73 iPc    47 14.10  -0.6
       0.7s   294.00nm          6.3mb
CRZF   46.12 110 iPc    47 27.00   7.2X
                ePP    49 26.00
                iS     54 16.00
                eSS    57 00.00
BDF    46.38 331 ePc    47 22.21  -0.1
                ipPd   47 37.44  59kmX
BLF    46.41  73 iPc    47 21.10  -1.4
       0.6s  1030.00nm          6.9mb
BAO    46.43 330 e(P)   47 17.00  -5.7X
                e      47 19.10   7kmX
                e      47 22.10
                e      47 47.00
ANT    47.12 299 eP     47 24.00  -4.0X
SWZ    47.59  71 iPd    47 42.20  10.4X
WIN    47.72  59 iPc    47 33.00   0.1
       0.5s   318.00nm          6.5mb
     Z  18s    84.00um          6.8Msz
SEK    47.77  74 iPc    47 33.00  -0.2
BFS    48.54  72 iPd    47 49.60  10.5X
PRY    48.85  73 iPd    47 40.50  -1.0
       0.7s   777.00nm          6.8mb
KSR    49.45  71 iPc    47 45.00  -1.2
       1.0s  1400.00nm          6.9mb
BPI    49.75  73 iPd    47 59.60  11.1X
SLR    50.24  73 iPc    48 02.87  10.7X
       0.6s   304.00nm
                epPc   48 20.41  69kmX
                esPd   48 24.22
CSY    50.68 159 eP     47 59.40   4.6X
       0.7s   292.70nm          6.4mb
CCH    50.90 308 Pc     47 57.60   0.2
                i      48 18.80  86kmX
BFT    51.15  74 iPc    47 58.50  -0.7
CNCB   52.16 306 P      48 07.00  -0.3
                S      55 28.00
PAF    52.29 125 iP     48 08.00   0.7
                S      55 39.00
                SS     59 15.00
LPB    52.46 306 P      48 10.00   0.6
       1.2s  1078.13nm          6.8mb
     Z  22s    41.48um          6.4Msz
                S      55 30.00
                LR     03 12.00
ZOBO   52.69 306 ePc    48 10.54  -0.8
                epPd   48 27.75  67kmX
                esPc   48 32.89
                ec     48 39.01
                S      55 15.00
                LR     03 22.00
DRV    53.96 173 iP     48 20.00   0.7
                PP     50 48.00
                S      55 48.00
                SS     00 21.00
ARE    53.96 303 eP     48 20.00  -0.3
BUL    55.13  69 iPd    48 27.20  -1.4
                ipP    48 32.50  17kmX
                iS     56 04.00
CIR    55.83  73 iPc    48 31.90  -1.6
                ipP    48 48.00  61kmX
                i      53 22.00
MCQ    66.50 183 eP     49 45.80   0.8
LIC    67.44  23 P      49 50.90  -0.5
     Z  22s    40.00um          6.6Msz
KIC    67.63  23 P      49 52.00  -0.6
       1.0s  1376.50nm          6.9mb
                S      58 42.10
TIC    67.85  23 P      49 53.40  -0.6
LWI    70.88  60 iPc    50 14.00   1.1
PSO    72.27 305 eP     50 21.50   0.1
BCAO   72.68  47 iPc    50 22.90  -0.4
       1.0s   230.00nm          6.1mb
                id     50 42.30  72kmX
                id     51 19.00
MBO    73.79   9 iP     50 31.30   1.7
                iS     59 58.50

BOG_   74.06 310 eP     50 32.00   0.3
                iS     53 36.00
TUZ    74.33 191 P      50 33.20   0.8
ODZ    75.12 192 P      50 37.30   0.2
                e      50 59.80  85kmX
TLC    75.14 191 P      50 38.50   1.1
                e      50 59.90  81kmX
CMCZ   75.16 191 P      50 38.10   0.7
LSCZ   75.18 191 P      50 38.00   0.5
                e      50 59.90  83kmX
MSCZ   75.20 191 P      50 38.20   0.6
SBCZ   75.21 191 P      50 38.10   0.4
TRN    75.23 324 eP     50 38.00   0.0
MHZ    75.25 191 P      50 38.50   0.6
MMCZ   75.32 191 P      50 38.60   0.2
NAI    75.41  67 iPc    50 44.50   5.1X
                S      00 32.00
                LQ     14 20.00
BWZ    75.71 192 P      50 40.10  -0.3
MSZ    75.77 190 eP     50 40.80   0.1
BMG    75.91 312 iPc    50 48.00   6.0X
GUAN   75.92 320 iPd    50 41.50  -0.6
                iS     51 03.00
MOZ    76.21 194 P      50 43.20   0.0
LMZ    76.58 191 eP     50 45.40   0.1
SDV    76.66 315 eP     50 45.20  -1.1
LTZ    77.16 194 eP     50 49.50   0.9
TOV    77.19 316 eP     50 48.20  -0.9
KHZ    77.36 195 P      50 50.60   1.0
TAU    78.04 175 ePc    50 52.85  -0.5
                i      50 54.10   4kmX
THZ    78.09 194 P      50 54.20   0.5
MOW    78.10 196 P      50 54.30   0.5
BLW    78.12 197 eP     50 54.90   1.0
                e      51 16.50  81kmX
DSZ    78.24 194 eP     50 52.40  -2.2
MTW    78.32 197 eP     50 54.60  -0.4
MRW    78.37 196 eP     50 55.60   0.4
CAW    78.44 196 eP     50 56.30   0.7
TCW    78.45 196 eP     50 55.60   0.0
KIW    78.70 196 P      50 58.10   1.1
PGZ    78.74 197 P      50 58.20   1.0
MNG    78.86 197 P      50 59.10   1.2
ORZ    79.06 194 eP     50 57.40  -1.6
WAHZ   79.63 198 eP     51 02.50   0.4
BSZ    79.74 196 P      51 03.70   1.0
CNZ    80.24 197 eP     51 06.20   0.7
NGZ    80.25 197 eP     51 06.40   0.8
NRZ    80.34 196 eP     51 03.80  -2.0
PAG    80.41 326 eP     51 06.50   0.0
NOZ    80.41 199 eP     51 07.20   1.0
PUZ    80.91 199 eP     51 10.30   1.4
URZ    80.91 198 eP     51 09.60   0.7
MOZ    81.03 197 eP     51 08.10  -1.4
                e      51 31.00  86kmX
HBZ    81.36 199 eP     51 12.20   1.0
                e      51 33.20  78kmX
WLZ    81.53 197 eP     51 11.80  -0.3
                e      51 33.80  82kmX
KUZ    82.61 198 eP     51 14.10  -3.7X
TOO    83.26 173 eP     51 20.30  -0.9
       0.8s   256.00nm          6.3mb
     Z  18s    78.80um          7.1Msz
                ePP    54 35.70
                ePKKP  09 33.00
                eP'P'  17 36.00
BFD    83.45 171 iPd    51 21.40  -0.7
       0.8s   221.00nm          6.2mb
                ipP    51 45.70  91kmX
WCZ    83.61 197 eP     51 21.30  -1.6
                e      51 43.90  84kmX
ADE    85.28 168 eP     51 31.90   0.5
                e      51 54.00  82kmX
AAE    85.37  64 iP     51 36.00   3.7X
                S      02 02.00
CAN    85.67 176 eP     51 33.00  -0.3
                i      51 34.10   3kmX
                i      51 49.20
                i      51 56.40
CNB    85.69 176 eP     51 33.20  -0.3
       1.0s   162.00nm          6.1mb
                eSKS   02 02.00
BWA    86.54 176 eP     51 37.90   0.2
                i      52 00.30  83kmX
GGC    87.50   9 iPc    51 45.00   2.9X
FORT   87.77 158 eP     51 43.00  -0.6
       0.6s   134.00nm          6.3mb
```

10d 14h

```
TBT     87.89   7 iPc * 51 46.70    2.9X
CFTV    87.93  11 iPd   51 46.20    2.1
ANTZ    88.47  14 iPd   51 49.00    2.4
STK     88.62 170 eP    51 47.20   -0.4
        0.9s     78.70nm          6.0mb
                  e     52 08.10   76kmX
                  eS    02 08.20
                  ePKKP 09 27.20
CMS     89.34 173 eP    51 51.80    0.7
        1.0s     99.00nm          6.1mb
                  ipP   52 16.00   89kmX
ARO     89.45  66 eP+   51 55.00    3.3X
MEEK    89.60 149 iPd   51 52.00   -0.4
TVO     90.36 233 iPc   51 57.20    1.1
        1.8s   1284.40nm          6.9mb
ARMA    90.63 178 eP    51 57.50    0.3
        1.0s    107.00nm          6.1mb
                  e     52 20.90   86kmX
                  e     55 35.50
                  e     55 54.20
PPT     90.69 233 iPc   52 00.00    2.5
        1.3s    255.60nm          6.4mb
AFR     90.80 233 iPc   52 01.70    3.8X
        1.7s    514.70nm          6.6mb
TPX     91.02 298 (P)   51 56.00   -2.8
WARB    91.95 156 eP    52 02.00   -1.2
        0.8s    116.00nm          6.4mb
VAH     91.97 236 iPc   52 02.20   -1.1
        1.6s    318.40nm          6.5mb
TPT     92.19 236 iPc   52 03.60   -0.8
        1.9s    642.20nm          6.7mb
NANU    92.60 145 eP    52 05.50   -0.7
AVE     93.54  16 iP    52 12.50    2.5
                  i     52 28.50   55kmX
                  i     53 16.00
BRS     93.66 179 iPc   52 08.00   -3.1X
        1.5s     14.00nm          5.2mb X
                  i     52 30.00   80kmX
                  i(S)  02 51.00
iFR     94.09  18 iP    52 16.00    3.2X
RMO     94.46 175 eP    52 15.70    0.9
        1.0s    108.00nm          6.2mb
                  ipP   52 38.80   85kmX
                  ePP   56 03.50
ASPA    95.75 162 iPc   52 19.30   -1.5
        0.8s    163.40nm          6.6mb
      Z  23s     64.40um          7.0MszX
                  epP   52 41.20   80kmX
                  ePP   56 09.40
                  eS    02 44.00
                  eP'P' 17 18.80
                  eSKPP'20 35.40
EJIF    96.92  17 iPd   52 29.12    3.8X
ALJ     97.11  17 iP    52 30.00    3.6X
MAL     97.35  18 iPc   52 29.00    1.8
                  iPP   56 50.00
                  iS    03 53.00
EPRU    97.46  17 iPd   52 31.05    3.2X
PPM     97.58 295 (P)   52 31.00    1.6
EGUA    97.58  18 eP    52 32.39    4.0X
EVAL    97.85  15 eP    52 32.64    3.1X
ENIJ    97.94  19 eP    52 32.53    2.6
ECOG    98.02  18 eP    52 33.79    3.4X
DZM     98.29 192 iPc   52 33.30    1.0
EHOR    98.29  17 iPd   52 34.54    3.1X
EHUE    98.70  19 eP    52 35.18    1.7
EBAN    98.85  18 eP    52 36.03    2.0
EALH    98.94  20 eP    52 38.76    4.3X
WRA     99.47 161 P     52 36.20   -1.4
        0.7s     11.00nm          5.5mb
WB2     99.47 161 iPc   52 36.90   -0.7
        1.0s      2.40nm          4.7mb X
                  epP   52 59.20   81kmX
                  ePP   56 40.10
                  eS    03 06.70
                  eP'P' 17 15.20
                  e     20 37.50
EVIA    99.52  19 eP    52 39.55    2.3
PAB    100.12  17 (Pdiff52 37.93   -2.1X
                  e     53 07.06
EPLA   100.38  16 ePdiff52 43.58    2.5X
CTA    100.69 173 iPdiff52 39.00   -3.9X
        1.5s     62.50nm          6.0mb
                  i     04 03.00
CTAO   100.69 173 ePdiff52 43.26    0.3X
HLW    100.70  48 ePdiff52 46.00    3.3X
                  e     53 18.00
```

```
                  eS    03 13.00
ECHE    100.71  20 ePdiff52 52.51    9.9X
GUD     101.22  17 ePdiff52 46.27    1.3
ETOR    101.72  18 ePdiff52 49.01    1.8
EBR     102.16  20 (Pdiff52 51.00    2.1X
                  i     03 54.00
                  i     04 37.00
HBF     102.21 316 (Pdiff52 50.12    0.7
RYD     102.64  63 ePdiff52 56.00    4.4X
SOI     103.12  33 Pdiffd52 55.90    2.6X
ECRI    103.40  18 ePdiff52 58.14    3.6X
ETER    104.03  22 ePdiff53 06.22    9.0X
CEH     104.43 318 Pdiff 57 27.40  268.2X
      Z  21s      7.43um          6.2Msz
                  SKS   03 28.83
                  SP    06 23.73
TDS     104.68  33 Pdiff 53 02.50    2.3X
MGR     104.91  32 Pdiff 53 02.80    1.6
TRT     105.60 137 ePKPd 57 16.90   -1.0
RDP     105.69  29 PKP   57 28.12   10.7X
RDP     105.69  29 Pdiff 53 12.40    7.6X
AGG     105.86  37 ePKP  57 13.86   -3.9X
SDI     105.92  30 Pdiff 53 07.60    1.8
SRN     105.94  35 ePKP  57 17.00   -0.8
CSS     106.00  47 ePdiff53 18.00   11.7X
CSS     106.00  47 ePKP  57 17.50   -0.7
LPO     106.03  20 ePdiff53 10.90    4.8X
         1.0s     20.40nm          6.1mb
LFF     106.20  20 ePdiff53 12.00    5.2X
         0.8s     13.05nm          6.0mb
NAV     106.31 317 (PKP) 57 16.12   -2.6X
TPE     106.32  35 ePKP  57 19.50    0.9
VLO     106.33  35 ePKP  57 18.30   -0.2
ELL     106.33  44 ePKP  57 24.00    5.1X
LSK     106.36  36 ePKP  57 22.50    3.7X
CAF     106.42  21 ePdiff53 13.30    5.4X
         1.1s     17.60nm          6.0mb
LIT     106.89  37 ePKP  57 14.26   -5.4X
PAIG    107.11  38 ePKP  57 26.70    6.7X
FNA     107.18  36 ePKP  57 30.50   10.3X
FIR     107.24  27 ePKP  57 19.00   -1.1
TIR     107.25  35 ePKP  57 15.50   -4.8X
OHR     107.31  35 iPdiff53 14.70    2.7X
BDI     107.35  27 PKP   57 34.58   14.1X
OUR     107.57  38 ePKP  57 22.74    1.9
GRG     107.65  37 ePKP  57 37.70   16.6X
SDA     107.79  34 ePKP  57 20.00   -1.2
SOH     107.82  37 ePKP  57 27.62    6.2X
LPG     107.88  24 ePdiff53 22.40    7.7X
         1.0s     16.80nm          6.1mb
LPL     107.89  24 ePdiff53 22.40    7.7X
         0.8s     12.75nm          6.1mb
KNT     107.99  37 ePKP  57 21.50   -0.2
VAY     108.03  37 ePdiff53 23.30    8.2X
         1.6s    258.00nm          7.1mb
                  i     56 46.80
                  i     57 38.40
                  i     57 51.00
MCWV    108.09 319 PKP   57 29.51    7.6X
      Z  21s      8.48um          6.3Msz
HRV     108.11 326 Pdiff 53 13.93   -1.5
SRS     108.16  37 ePKP  57 40.50   18.5X
SKO     108.29  35 ePdiff53 25.50    9.3X
                  e     57 33.00
                  i     57 47.40
                  i     57 54.70
                  i     58 07.50
                  i     58 23.00
                  i     58 54.00
                  i     07 37.00
                  i     11 47.00
                  i     13 20.00
                  i     15 48.00
                  i     17 38.00
SMF     108.40  21 ePdiff53 25.70    9.0X
         0.9s      3.10nm          5.5mb
GBA     108.56  95 Pdiff 53 23.00    5.0X
GBA     108.56  95 PKP   57 22.40   -1.0
         0.5s      5.00nm
MIAR    108.74 306 Pdiff 53 28.34    9.9X
MIAR    108.74 306 ePKP  57 22.61   -0.7
      Z  20s      4.24um          6.0Msz
                  PP    00 33.27
ALN     108.74  39 ePKP  57 40.18   17.1X
SSF     108.74  21 ePdiff53 26.80    8.7X
         1.0s     12.40nm          6.1mb
LOR     109.01  21 ePdiff53 28.70    9.4X
```

```
         1.0s     11.80nm
      Z  23s    150.00um          7.5MszX
ELC     109.38 311 ePKP  57 22.98   -1.4
                  ePKKP 08 31.72
LMN     109.46 332 ePKP  57 30.00    5.7X
RIY     109.47  29 ePKP  57 23.80   -0.5
GPA     109.63  43 ePKP  57 39.00   14.1X
TRI     109.66  29 e(Pdif53 26.70    4.5X
                  e     57 24.00
                  e(PP) 57 52.50
                  e     58 20.00
                  e     58 40.00
                  e(SP) 07 20.00
                  e     08 44.00
                  e     11 32.00
EYL     109.83  42 ePKP  57 39.00   13.7X
VBY     109.84  30 ePdiff53 30.40    7.3X
VBY     109.84  30 ePKP  57 25.00    0.0
                  iPP   57 56.30
                  e     07 30.70
FVI     110.25  28 Pdiff 53 31.50    6.7X
ZAG     110.32  30 e(PKP)57 20.00   -5.9X
PTJ     110.39  30 e(PKP)57 20.10   -6.1X
FVM     110.45 311 PKP   57 01.80  -24.6X
      Z  21s     13.49um          6.5Msz
FVM     110.45 311 Pdiff 53 40.37   14.4X
SQTA    110.48  26 iPdiff53 33.70    7.7X
         1.4s    116.00nm
                  i     57 26.20
                  i     58 01.80
                  i     58 08.20
WTTA    110.62  27 iPdiff53 32.10    5.4X
         0.7s     13.00nm
                  i     57 26.80
                  i     58 06.70
TUL     110.83 306 Pdiff-53 44.00   16.3X
      Z  18s      6.63um          6.3Msz
      N  20s      4.57um
      E  20s      3.08um
                  PP    00 52.00
                  SKS   07 40.00
                  LR    33 27.00
RSNY    110.84 325 Pdiff 53 20.88   -6.7X
RSNY    110.84 325 PKP   57 33.25    6.3X
      Z  23s     10.45um          6.3MszX
                  SP    07 07.55
KBA     110.84  28 iPdiff53 32.40    4.7X
         1.3s    106.00nm
                  i     53 36.20
                  i     57 26.40
                  i     58 07.40
                  i     58 25.10
POO     110.86  89 iPKPc 57 23.50   -4.3X
SLM     110.95 311 PKP   57 42.60   15.3X
      Z  21s     34.68um          6.9Msz
                  SP    08 54.13
                  e     13 54.22
MEO     111.06 303 iPdiff53 39.20   10.4X
WMOK    111.11 303 Pdiff 53 33.90    4.9X
      Z  25s     10.13um          6.3MszX
WMOK    111.11 303 PKP   57 27.89    0.1
      Z  25s     10.13um          6.3MszX
                  SKP   00 46.80
                  SP    07 33.90
                  SS    14 02.32
CBM     111.29 331 Pdiff 53 42.57   13.1X
CBM     111.29 331 PKP   57 49.55   21.8X
      Z  20s      6.06um          6.2Msz
                  SP    07 31.16
HNR     111.35 187 ePKP  57 36.00    7.2X
FUR     111.38  26 ePdiff53 38.50    8.6X
      Z  22s     13.00um          6.5Msz
UZD     111.72  32 e(PKP)57 29.00    0.5
WLF     111.74  22 PKP   57 31.00    2.6X
                  e     58 06.00
BUC1    111.85  38 ePKPc 57 44.00   15.2X
DOU     111.86  21 PKP   57 34.90    6.2X
                  e     58 17.00
                  e     08 11.00
IPM     112.19 121 ePKPc 57 29.10   -1.3
         0.9s     65.00nm
DEV     112.29  35 ePKPc 57 49.00   19.4X
MTUR    112.34  37 ePKP  57 33.50    3.6X
HYB     112.34  93 ePdiff53 53.00   18.2X
HYB     112.34  93 ePKP  57 29.50   -1.1
         1.0s     75.00nm
CMP     112.37  37 ePKPd 57 06.00  -23.9X
```

```
GEC2  112.58  27 ePKP* 57 30.20  -0.1
       0.9s     7.87nm
                e      57 36.00
                e      57 39.10
                e      57 50.60
                e      57 52.60
                e      57 57.80
                e      58 11.00
                e      58 12.30
                e      58 17.60
                e      58 24.60
                e      00 40.80
                e      00 54.80
                e      00 59.00
                e      01 01.20
                ePKKP  08 20.50
                e      08 25.90
                ePKKP  08 40.20
VKA   112.68  29 ePKP  57 13.00 -17.3X
       2.0s   642.00nm
                e      58 01.00
                i      58 18.60
SRO   112.77  31 ePdiff53 49.20  13.2X
                i      57 50.30
                i      58 40.10
                e      08 27.70
                i      08 39.30
GRF   112.81  25 ePdiff53 47.50  11.3X
      Z  24s    12.00um          6.4MszX
                e      57 31.00
                e      58 19.00
ZST   112.81  30 e(Pdif53 39.00   2.8X
                e      56 57.30
                e      57 10.70
                i      58 18.80
                e      08 19.80
                e      12 03.20
KHC   112.82  27 ePdiff53 46.20   9.9X
                e      54 24.50
                e      55 04.50
KHC   112.82  27 PKP   57 30.00  -0.6
       1.5s    19.60nm
                e      57 37.70
                e      58 16.30
MLR   112.85  37 ePdiff53 45.00   8.4X
MLR   112.85  37 ePKP  57 30.00  -0.9
BRD   113.22  38 ePKP  57 44.00  12.5X
CVO   113.22  37 ePdiff53 24.00 -14.1X
CVO   113.22  37 ePKP  57 32.00   0.5
                e      18 51.00
VRI   113.43  37 ePdiff53 47.50   8.5X
VRI   113.43  37 ePKP  57 31.00  -0.9
                e      18 51.00
PRU   113.85  27 ePdiff53 50.00   9.2X
PRU   113.85  27 PKP   57 32.30  -0.3
       1.7s   108.20nm
      Z  28s    14.00um          6.4MszX
      N  29s     8.60um
      E  24s     4.60um
                e      58 25.70
EEO   114.10 323 ePKP  57 36.50   3.3X
TEH   114.15  61 ePdiff53 49.00   6.3X
BRG   114.53  27 ePKP  57 24.00  -9.9X
       2.0s   130.00nm
      Z  28s     2.00um          5.6MszX
      N  28s     1.00um
      E  28s     1.00um
                i      57 33.00
                ePKKP  08 15.50
                eSKKP  11 51.40
TUC   114.54 292 ePKP  57 34.71   0.1
      Z  22s    10.61um          6.4Msz
                iSKP   01 01.98
SPC   114.55  32 ePdiff53 55.90  11.7X
                e      58 30.40
UZH   114.61  33 ePdiff53 44.00  -0.2
ALQ   114.70 297 PKP   57 28.00  -7.0X
      Z  20s    10.32um          6.4Msz
ALQ   114.70 297 (Pdiff53 47.86   2.7X
                e      54 24.09
CLL   114.73  26 ePKP  57 31.00  -3.2X
       1.1s    23.00nm
                i      57 53.20
KSP   115.06  28 ePdiff53 58.60  12.4X
KSP   115.06  28 iPKPd 57 35.30   0.4
       1.6s   155.00nm
                i      58 34.00
SIM   115.07  43 ePdiff53 50.00   3.7X
      Z  22s     8.40um          6.3Msz
      N  22s     5.80um
      E  22s     5.80um
                ePPP   01 08.00
                ePS    08 14.00
KIS   115.13  38 ePKP  57 34.00  -1.1
                i      58 38.00
                ePPP   04 23.00
                e      08 14.00
                iPS    09 34.00
OJC   115.37  31 ePKP  57 35.50   0.0
                e      58 36.50
EKA   115.74  14 PKP   57 36.00   0.0
       1.0s    26.50nm
SOC   115.93  48 ePKP  57 37.00   0.3
ANN   116.14  45 ePKP  57 37.50   0.4
                e      04 17.00
                ePS    08 28.00
                eSS    14 46.00
MTA   116.33  52 ePKP  57 37.00  -0.5
                e      58 49.00
RAB   116.72 178 ePKP  57 37.00  -2.1X
QUE   116.99  76 ePdiff53 48.00  -7.5X
GLA   117.09 289 ePKP  57 40.01   0.6
KIV   117.39  49 ePdiff54 00.56   3.7X
PYA   117.60  50 ePKP  57 40.00   0.1
                e      58 50.00
                e      04 26.00
                ePS    08 30.00
GRO   118.07  52 iPKPc 57 41.00   0.2
       1.0s   160.00nm
                i      59 02.00
MNI   118.07 147 ePKP  57 41.70   0.0
GLD   118.11 301 PKP   57 45.31   4.0X
      Z  20s     8.28um          6.3Msz
                iPP    59 16.60
                SKP    01 34.95
                ePKKP307 55.54
                ePKKP208 01.72
                SP     08 37.85
                SKKS   15 22.08
GOL   118.13 301 ePKP  57 40.00  -1.4
      Z  19s     0.71um          5.3MszX
                ePP    58 58.88
                e      01 08.01
                e      01 43.11
                ePKKP  07 56.96
PLM   118.33 288 ePKP  57 42.33   0.4
MAIO  118.34  66 iPKPc 57 41.00  -0.7
       0.8s    18.67nm
TSM   118.59 138 iPKP  57 42.50  -0.2
PV10  118.70 297 ePKPc 57 42.21  -0.3
                e      58 02.50
                ePP    59 14.65
                iSKP   01 09.99
                ePKKP307 56.43
                iPKKP208 00.02
MUD   118.77  22 ePKP  57 41.60  -0.1
       1.0s    44.00nm
                i      59 00.50
PV09  118.84 297 ePKP  57 42.70  -0.2
                ePKKP  07 58.91
PEC   118.91 288 ePKP  57 43.12   0.3
ASH   119.14  64 ePKP  57 36.00  -7.0X
      Z  22s    10.06um          6.4Msz
      N  22s    20.12um
      E  22s    17.38um
                e      57 43.50
                i      59 07.00
                PPP    01 43.00
                e      04 30.00
                e      08 40.00
KAT   119.20  62 ePKP  57 54.00  10.9X
      Z  20s    16.00um          6.6Msz
      N  20s    13.00um
      E  20s    14.00um
                e      04 30.00
GSC   119.87 289 ePKP  57 44.90   0.3
                ePP    59 30.22
                eSKP   01 12.52
SRU   119.97 297 ePKP  57 44.16  -0.7
                ePP    59 28.84
                eSKP   01 10.82
                ePKKP307 50.49
                ePKKP207 54.18
KHT   120.07 113 ePKP  57 44.50  -0.9
MSU.  120.25 295 ePKP  57 45.82   0.4
                iSKP   01 12.97
                ePKKP307 51.92
                ePKKP207 54.43
                e      08 18.19
EMUT  120.67 297 ePKP  57 46.40   0.2
                ePP    59 33.75
MNK   120.80  34 iPKP  57 46.00   0.4
NDI   120.96  85 iPKPc 57 46.00  -0.8
ISA   120.97 288 ePKP  57 47.24   0.6
      Z  21s     8.98um          6.4Msz
                i      58 08.94
                ePP    59 34.08
                iSKP   01 14.42
                SKS    04 13.73
                e      12 46.50
RSSD  121.15 305 Pdiff 54 18.81   5.1X
RSSD  121.15 305 ePKP  57 45.29  -1.7
      Z  21s     8.58um          6.4Msz
                epPKP  58 07.44
                PP     59 36.94
                eSKP   01 13.13
                iPKKP  07 49.75
DAU   121.35 297 ePKP  57 48.13   0.5
                epPKP  58 09.84
                eSKP   01 15.31
                ePKKP  07 49.52
NST   121.56 114 ePKP  57 55.00   6.8X
DUG   121.89 296 ePKP  57 48.22  -0.2
                e      58 10.02
                ePP    59 23.27
                i      59 44.57
                eSKP   01 15.06
                ePKKP  07 44.09
PKEM  122.09 287 (PKP) 57 48.52  -0.2
TNP   122.29 291 ePKPd 57 49.59   0.3
                e      58 11.11
                ePP    59 25.40
                e      59 43.45
                ePKKP  07 46.59
                e      08 10.14
MTUM  122.36 290 ePKP  57 49.64   0.2
BDT   122.39 112 ePKP  57 51.00   1.3
       1.0s   172.50nm
BONR  122.71 290 ePKP  57 50.45   0.2
                eSKP   01 17.15
                ePKKP  07 41.72
MMPM  122.79 289 ePKP  57 51.56   1.1
MEMM  122.79 289 ePKP  57 51.95   2.0
                e      58 14.08
                ePP    59 31.20
                e      59 50.57
                eSKP   01 24.41
                ePKKP  07 44.82
                e      08 08.99
ULM   122.91 314 ePKP  57 51.50   1.7
HFS   123.07  23 ePKP  57 48.20  -1.6
       0.8s    70.50nm
      Z  18s  7372.00um          9.4MszX
                LR     42 04.00
HVU   123.13 297 ePKP  57 50.37  -0.4
                e      58 11.45
                ePP    59 36.07
                e      59 53.99
                eSKP   01 16.87
                ePKKP  07 41.64
NAO   123.17  21 PKP   57 49.40  -0.6
       1.0s   111.80nm
UPP   123.63  25 iPKP  57 49.90  -1.0
                i      58 11.00
                i      01 17.30
DAV   123.66 146 ePKP  57 52.00  -0.4
CHG   123.72 111 ePKP  57 51.50  -0.9
       1.0s    72.50nm
                e      59 33.00
CHTO  123.72 111 ePdiff54 26.26   0.9X
CMB   123.78 289 (PKP) 57 50.46  -1.6
      Z  20s     6.06um          6.3Msz
                sP     07 31.16
COE   123.80 287 ePKP  57 53.10   1.1
                ePP    59 38.80
                e      59 56.98
                eSKP   01 20.92
ARN   123.80 287 ePKP  57 52.76   0.7
                epPKP  58 14.51
                eSKP   01 20.54
PTI   123.81 298 ePKP  57 53.11   1.0
```

10d 14h

```
                    e    58 13.66
                    ePP  59 37.60
                    eSKP 01 14.66
LOE   123.82 115 ePKP  57 54.00   1.4
HHAI  124.15 298 ePKP  57 52.84   0.2
                    epPKP 58 13.42
                    eSKP 01 21.11
OBN   124.56  38 iPKPd 57 52.00  -0.8
       1.0s   172.00nm
                    i    59 43.00
                    iSS  16 28.00
HMR   124.57 288 ePKP  57 56.44   3.0X
                    ePP  00 00.45
AKU   124.79   4 iPKP  57 55.10   2.2X
       1.0s   168.00nm
                    i    58 18.00
NTYM  125.17 287 ePKP  57 55.40   0.9
                    i    58 15.75
MOS   125.42  39 ePKP  57 54.00  -0.5
NUR   125.82  28 ePKP  57 45.80  -9.4X
LCCM  125.91 301 ePKPc 57 56.50   0.4
HPO   125.93 245 ePKP  57 57.00   0.4
LMEM  126.31 290 ePKP  57 57.74   0.7
                    e    58 36.86
                    eSKP 01 22.52
PUL   126.64  32 iPKPd 57 57.00   0.3
                    e    59 56.00
                    eSP  09 46.00
                    eSP  16 56.00
WDC   126.81 289 PKP   57 59.08   1.4
     Z  20s     6.59um          6.3Msz
                    PP   00 05.57
                    SKKP 12 00.52
                    SS   17 34.38
PLP   127.34 143 ePKPc 57 49.00 -10.4X
KMPM  127.46 288 ePKPc 58 00.88   1.8
KAF   127.62  28 ePKP  57 43.80 -14.7X
KSH   128.83  76 PKP   57 59.00  -2.8X
     Z  40s    26.10um          6.6MszX
     N  20s    12.40um
     E  20s    16.20um
                    SKS  05 04.00
                    SKKS 06 50.00
QIZ   128.89 122 PKP   58 01.50  -0.8
     N  22s     6.43um
     E  20s     3.63um
                    PP   00 06.00
                    SS   17 23.00
LSA   128.92  97 PKP   58 02.50  -0.2
     Z  20s    18.70um          6.8Msz
                    PP   00 08.40
                    SKKS 06 57.50
HON   129.00 243 PKP   57 59.71  -2.7X
     Z  20s     8.59um          6.4Msz
                    PP   00 21.72
                    e    18 49.68
SES   129.03 305 ePKP  58 02.00   0.3
       1.2s    76.00nm
FCC   129.17 321 ePKP  58 05.00   3.4X
VGB   129.71 294 ePKP  58 04.00   0.8
                    e    58 24.96
                    ePP  00 35.68
                    iSKP 01 16.71
NEW   130.08 299 PKP   58 15.58  11.8X
DPW   130.28 298 ePKP  58 01.35  -2.8X
FRU   130.71  72 iPKP  58 05.00  -0.1
       1.2s   210.00nm
     Z  20s    20.00um          6.8Msz
                    i    00 25.00
                    ePPS 12 06.00
                    eSSS 22 40.00
BAG   130.79 136 ePKP+ 58 05.00  -1.2
                    e    00 15.00
                    e    01 22.10
SHW   130.90 294 ePKP  58 04.61  -0.9
KMI   130.91 111 PKPc  58 05.50  -0.8
LON   131.11 295 ePKP  58 05.37  -0.4
                    eSKP 01 20.17
BMW   131.57 294 ePKP  58 07.75   1.1
                    eSKP 01 22.75
GMW   132.15 295 ePKP  58 08.37   0.7
                    ePP  00 50.54
                    iSKP 01 24.09
SDF   132.15  24 iPKP  57 52.00 -15.0X
                    i    01 25.60
AAA   132.18  74 iPKP  58 07.50  -0.4
     Z  21s    13.00um          6.6Msz
```

```
                    iPS  10 38.00
PRZ   132.31  75 iPKP  58 08.50   0.1
     Z  20s    15.50um          6.7Msz
     N  20s     9.00um
     E  20s    14.50um
CVP   132.42 137 ePKP  57 57.00 -12.0X
MCW   132.99 296 ePKP  58 09.85   0.6
                    e    58 29.98
                    iSKP 01 27.59
PGC   133.25 295 ePKP  58 08.50  -1.1
ARU   133.42  50 ePKP  57 55.00 -14.8X
     Z  24s    16.00um          6.7MszX
     N  24s    12.00um
     E  20s     5.00um
                    e    58 09.00
                    e    00 34.00
                    e    10 50.00
                    e    18 14.00
HKC   133.64 125 ePKP  58 12.20   1.0
APA   133.81  27 iPKPc 58 10.20   0.0
GYA   133.90 114 iPKPc 58 10.00  -1.8
     Z  30s    13.70um          6.5MszX
     N  24s    13.10um
     E  24s     5.03um
                    PP   00 38.00
                    SKKS 07 28.00
PJG   133.91 168 e(PKP)58 32.00  20.1X
GZH   133.98 124 PKP   58 12.00   0.2
     Z  28s    13.70um          6.5MszX
     N  20s     5.92um
     E  19s     3.59um
                    iPP  00 43.00
                    SS   18 20.00
KEV   134.22  23 ePKP  57 59.00 -11.9X
                    ePPP 01 36.00
                    ePPS 11 12.00
                    e    13 20.00
SVE   134.51  50 iPKP  58 00.00 -11.8X
       3.5s   240.00nm
     Z  23s    14.00um          6.6MszX
     N  25s     8.00um
     E  25s     4.00um
                    i    00 45.00
                    e    11 05.00
DAG   135.87   2 ePKP  57 59.80 -14.1X
       0.7s   138.36nm
CD2   136.23 108 PKP   58 15.00  -1.0
     Z  24s    11.30um          6.5MszX
     N  18s     6.49um
                    PP   00 55.00
                    SKKS 07 39.00
QZH   137.80 129 PKP   58 18.00  -1.0
     Z  22s     9.04um          6.5Msz
     N  20s     7.21um
                    SKKS 07 48.00
WMQ   137.96  81 PKP   58 17.60  -1.3
     Z  28s    18.30um          6.7MszX
     N  18s     7.73um
                    PP   01 08.00
YKA   138.88 315 ePKP  58 34.50  14.7X
       0.9s    98.60nm
LZH   140.43 103 PKP   58 13.00 -10.7X
       7.0s     2.82nm
     Z  35s    12.71um          6.4MszX
     E  20s     6.55um
                    pPKP 58 25.00
                    PP   01 18.00
                    PKS  01 48.00
                    SKKS 08 02.00
                    SS   19 40.00
LZH   140.43 103 ePKP  58 24.00   0.3
WHN   140.90 120 PKP   58 18.00  -6.5X
     Z  20s    13.10um          6.7Msz
     N  20s     5.77um
     E  20s     7.89um
                    PP   01 28.00
GTA   140.94  96 PKP   58 17.60  -6.9X
     Z  22s    21.50um          6.9Msz
     E  22s     7.91um
                    SKS  05 20.00
                    SKKS 08 12.00
RES   141.05 337 ePKP  58 17.00  -6.4X
       1.0s    59.00nm
XAN   141.29 110 PKP   58 19.50  -5.7X
     Z  24s    12.70um          6.6MszX
     N  22s     9.98um
     E  21s     5.58um
```

```
                    sPKP 58 53.00
                    PP   01 24.00
                    SKKS 08 07.00
                    SS   19 50.00
ELT   143.50  69 iPKPc 58 24.00  -4.2X
       1.9s  1071.00nm
                    i    01 45.00
SIT   144.15 298 ePKP  58 28.19  -1.0
     Z  23s     6.89um          6.4MszX
                    e    58 46.41
                    e    59 05.78
NJ2   144.16 124 iPKPc 58 27.00  -3.1X
     N  19s     3.58um
     E  20s     3.64um
                    pPKP 58 46.00
                    PP   01 44.00
                    SS   20 28.00
SSE   144.30 128 iPKPc 58 26.60  -3.7X
       1.0s   190.00nm
     Z  20s    11.00um          6.6Msz
     N  20s     6.70um
     E  20s     4.00um
                    ed   58 43.98
                    ed   58 49.61
                    S    01 46.00
                    PcP  02 01.40
                    SS   08 20.00
TIY   145.93 111 PKPd  58 32.00  -1.0
     Z  22s    13.40um          6.7Msz
     N  20s    10.90um
                    pPKP 58 50.00
                    SKS  05 28.00
                    SKKS 08 39.00
UER   146.31  76 iPKP  58 30.00  -3.1X
       1.0s   920.00nm
TIA   146.91 118 PKP   58 33.60  -1.0
     Z  30s    16.10um          6.6MszX
     N  20s     8.22um
                    pPKP 59 00.00
                    SKKS 08 42.00
                    SS   20 55.00
BTO   146.99 105 PKP   58 34.00  -0.7
     E  20s     6.06um
                    SKKS 08 39.00
HHC   147.94 106 PKPc  58 35.00  -1.2
     Z  22s    10.60um          6.6Msz
     N  20s     4.41um
     E  17s     2.78um
                    PP   02 04.00
KAGJ  147.94 141 PKP   58 36.00  -0.4
KUMJ  149.16 140 ePKP  58 37.20  -1.1
BALM  149.28 301 ePKP  58 34.72  -3.0X
                    ePKPab58 41.44
BJI   149.55 112 iPKPc 58 37.46  -1.1
                    ePKPbc58 42.92
                    ePKPab58 47.22
                    ed   58 59.80
                    ePP  02 12.00
                    SKKS 09 00.00
MOY   149.85  81 ePKPc 58 38.90   0.3
                    i    58 44.90
ZAK   150.26  85 ePKPc 58 38.00  -1.3
       2.0s   180.00nm
                    e    58 45.00
                    e    02 22.00
                    eSS  21 27.00
SHNJ  150.71 139 PKP   58 40.20  -0.3
KLU   151.05 301 ePKP  58 37.21  -3.1X
                    iPKPab58 46.89
DL2   151.15 121 ePKP  58 41.00   0.0
     Z  24s     5.07um          6.2Msz
     E  20s     6.76um
                    PP   02 26.00
                    SKKS 09 05.00
                    SS   21 46.00
NRI   151.33  42 iPKPc 58 38.00  -2.3X
       2.0s   112.00nm
                    i    58 45.00
                    i    02 30.00
TOA   151.39 302 ePKP  58 38.50  -2.3X
SHK   151.60 141 ePKPc 58 49.00   7.1X
       1.0s   280.00nm
IRK   151.88  82 ePKPc 58 40.80  -0.9
       1.8s   128.00nm
                    i    58 48.20
                    e    58 54.00
                    e    02 28.00
```

```
                    eSS  22 32.00
WKYJ   152.20 146 PKP   58 43.90   1.1
PMR    152.51 300 ePKP  58 38.47  -3.8X
     Z  19s      7.73um          6.5Msz
                    i    58 49.94
                    e    59 11.32
KDC    152.53 290 PKP   58 42.90   0.5
SLKM   152.60 297 ePKP  58 39.20  -3.3X
                    ePKPbc58 47.78
COL    152.98 307 ePKP  58 37.96  -4.9X
                    ePKPbc58 49.06
                    e    59 03.29
                    ec   59 23.32
FBA    152.98 307 ePKP  58 38.60  -4.3X
                    i    58 49.98
TSRJ   153.54 146 ePKP  58 45.80   1.2
CRP    153.76 298 ePKP  58 39.85  -4.4X
                    i    58 52.18
                    i    59 26.50
CP2    153.80 298 ePKP  58 40.69  -3.7X
                    e    58 53.23
BGL    153.86 298 ePKP  58 40.17  -4.2X
                    e    58 53.35
SNY    154.39 120 PKPd  58 41.00  -4.5X
     Z  22s     13.70um          6.7Msz
     N  18s      3.10um
     E  21s      6.04um
                    PKPab 59 09.00
                    PP    02 42.00
                    SKKS  09 20.00
                    SS    22 12.00
CHJJ   154.83 151 PKP   58 46.40   0.1
MTMJ   155.03 148 PKP   58 46.60  -0.1
MAJO   155.10 149 iPKPc 58 45.25  -1.4
                    ePKPbc58 54.35
                    e    59 09.75
MAT    155.10 149 ePKP  58 46.00  -0.6
     Z  20s      3.19um          6.1Msz
KAKJ   155.27 153 ePKP  58 49.70   2.9X
SVW    155.29 296 ePKP  58 41.54  -4.6X
                    e    58 55.79
                    ePKPab59 14.01
                    e    59 32.21
SDN    155.39 281 (PKP) 58 47.20   0.9
     Z  20s      2.38um          6.0Msz
IMA    155.63 308 ePKPc 58 42.41  -4.2X
                    i    58 57.28
                    i    59 34.33
NIIJ   155.96 150 PKP   58 47.40  -0.4
TTA    155.98 300 ePKPc 58 43.35  -3.8X
                    e    58 58.49
                    e    59 05.92
CIT    156.48  90 ePKP  58 48.50   0.4
CN2    156.79 119 ePKP  58 48.00  -0.7
     Z  20s     11.50um          6.7Msz
     N  20s      6.89um
     E  20s      5.28um
                    eSKS  05 43.00
BRW    156.91 321 ePKP  58 43.94  -4.0X
                    e    59 01.74
                    e    59 06.04
YAMJ   157.11 151 ePKP  58 51.50   2.2X
OFUJ   158.36 154 ePKP  58 51.10   0.4
VLA    158.95 130 iPKPd-58 50.00  -1.2
                    i    03 10.00
MDJ    159.25 124 iPKPc 58 49.97  -1.5
                    ed   59 06.86
AOMJ   159.44 150 ePKP  59 01.20   9.4X
BOD    159.50  77 iPKPc 58 49.30  -2.0
      0.9s    82.00nm
MRRJ   161.37 149 ePKP  58 54.50   0.8
ERM    161.49 154 iPKPc 58 53.61  -0.2
                    ed   59 12.98
                    ic   59 18.78
HOOJ   161.87 154 ePKP  58 56.90   2.7X
KUSJ   162.86 157 ePKP  58 58.60   3.4X
ASAJ   163.36 151 ePKP  58 59.40   3.7X
KUR    165.49 163 iPKP  58 54.00  -3.5X
      1.0s   370.00nm
                    e    59 56.00
                    (SS) 24 20.00
YSS    166.07 147 iPKPc 58 57.74  -0.2
                    ed   59 14.46
                    ic   59 21.75
                    e    03 47.00
                    ePPS 17 28.00
                    eSS  24 16.00
```

```
SMY    166.92 249 PKP   58 50.06  -8.4X
     Z  21s      9.77um
                    PP   04 01.68
PET    173.17 205 ePKP  59 00.00  -1.7
      1.0s    115.00nm
                    e    04 20.00
                    e    08 40.00
                    eSSS 25 28.00
MGD    178.27  60 iPKP  59 00.00  -2.7X
                    i    00 53.00
                    i    04 48.00
                    iSS  26 20.00
     S.D. = 1.0  on 284 of 466 obs.
-----------------------------------
%  JAN  10, 1993  15h 37m 41.54± 0.96s
   38.575 N ± 6.6km   14.485 E ± 8.4km
   DEPTH =  10.0km  (geophysicist)
 SICILY                            (398)

MNO      0.66 165 P     37 55.20   0.3
                    eSg  38 04.40
GIB      0.69 212 P     37 55.10  -0.1
                    eSg  38 05.80
ATN      0.87 118 P     37 58.10  -0.2
                    eSg  38 11.30
MSI      0.92 113 P     38 00.20   1.1
                    eSg  38 14.70
SOI      1.33 112 Pd    38 05.20  -0.9
MEU      1.51 166 Pd    38 08.60  -0.2
MGR      1.77  28 P     38 12.70   0.4
TDS      1.80  53 P     38 12.50  -0.4
     S.D. = 0.7  on   8 of   8 obs.
-----------------------------------
?  JAN  10, 1993  15h 40m 05.31± 4.73s
   38.673 N ±35.2km   14.394 E ±18.4km
   DEPTH =  10.0km  (geophysicist)
 SICILY                            (398)

GIB      0.74 203 P     40 20.10   0.2
                    eSg  40 30.30
MNO      0.78 162 Pc    40 20.00  -0.6
                    eSg  40 31.00
ATN      0.98 121 P     40 24.10   0.1
                    eSg  40 37.00
MSI      1.03 117 P     40 25.50   0.8
                    eSg  40 39.40
SOI      1.44 114 P     40 30.50  -0.9
MEU      1.63 165 P     40 34.50   0.3
     S.D. = 0.8  on   6 of   6 obs.
-----------------------------------
&  JAN  10, 1993  16h 23m 42.30s
   37.343 N          121.698 W
   DEPTH =   9.0km
 CENTRAL CALIFORNIA                ( 39)
      <BRK>. ML 2.8 (BRK).

MHC      0.04  92 iPc   23 44.01  -0.4
                    iS   23 45.61
COE      0.09 167 iPc   23 44.66  -0.1
ARN      0.13  87 iPc   23 45.11  -0.3
STAN     0.38 279 iPc   23 49.82  -0.3
GCC      0.39 217 iPd   23 50.11  -0.2
                    eS   23 56.62
PCC      0.57 286 iPc   23 52.79  -0.9
                    eS   24 02.33
SAO      0.61 161 iPd   23 54.47  -0.1
                    iS   24 03.17
BKS      0.68 321 iPc   23 55.36  -0.5
                    eS   24 05.76
ZSP      0.75 324 iPc   23 56.44  -0.6
                    eS   24 09.35
HMR      0.81 354 (P)   23 59.10   1.0
LLA      0.94 140 iPc   23 59.40  -1.0
                    eS   24 16.06
PRS      1.04 165 iPc   24 01.61  -0.5
                    eS   24 15.09
CMB      1.25  56 iPc   24 05.04  -0.6
                    eS   24 21.42
NTYM     1.29 324 eP    24 04.66  -1.7
PRI      1.46 145 eP    24 08.20  -0.7
FRI      1.63 102 iPd   24 10.55  -0.6
PKEM     1.81 135 (P)   24 14.93   1.1
MMPM     2.14  82 eP    24 19.32   0.3
ORV      2.21   4 eP    24 16.26  -3.5
MEMM     2.22  81 eP    24 20.52   0.8
MTUM     2.50  89 ePn   24 23.85  -0.1
BONR     2.76  76 (Pn)  24 29.40   1.5
```

```
TNP.     3.63  77 (P)   24 41.24   1.2
        23 obs. associated
-----------------------------------
%  JAN  10, 1993  16h 43m 28.76± 1.69s
   48.582 N ±17.2km    6.220 E ± 6.2km
   DEPTH =  10.0km  (geophysicist)
 FRANCE                            (538)
      ML 2.3 (LDG).

HAU      0.58 172 Pg    43 40.70   0.1
                    Sg   43 47.20
CDF      0.72 103 Pg    43 43.00   0.0
                    Sg   43 51.10
BSF      0.84 153 Pg    43 45.00  -0.1
                    Sg   43 54.50
FEL      1.39 120 ePn   43 54.33   0.0
LOR      2.06 231 Pn    44 04.10   0.2
                    Pg   44 09.60
                    Sn   44 28.80
                    Sg   44 35.60
LBF      2.20 224 Pn    44 07.20   1.3
                    Sg   44 39.30
SSF      2.38 231 Pn    44 08.20  -0.2
                    Sg   44 45.80
SMF      2.52 221 Pn    44 09.00  -1.4
                    Sg   44 48.90
BGF      3.05 230 Pg    44 26.10   8.2X
                    Sg   45 06.60
     S.D. = 0.9  on   8 of   9 obs.
-----------------------------------
   JAN  10, 1993  16h 43m 59.59± 0.24s
   27.895 S ± 4.1km   72.234 W ± 6.1km
   DEPTH =  33.0km  (normal)
   5.3mb ( 20 obs.)
 OFF COAST OF NORTHERN CHILE       (121)

ANT      4.48  22 iPd   45 00.70  -6.3X
                    iS   45 47.10
RTLL     4.74 137 ePc   45 12.50   1.9
JACH     4.98 164 eP    45 14.24   0.1
CFA      5.07 138 ePd   45 16.80   1.4
                    S    46 13.00
IHA      5.14 174 eP    45 12.20  -4.1X
                    eS   46 03.00
ROCH     5.17 169 eP    45 15.30  -1.6
                    iS   46 12.35
PEL      5.40 166 eP    45 19.59  -0.4
                    iS   46 17.86
RTPR     5.55 117 e(P)d 45 22.10   0.1
LCCH     5.59 174 eP    45 19.97  -2.6
FCH      5.67 163 eP    45 24.50   0.5
SAN      5.70 167 eP    45 23.71  -0.5
CYA      5.71  97 iPc   45 23.60  -0.8
MDZ      5.77 150 iP    45 27.40   2.2
                    i(S) 47 48.90
FSA      5.84  73 i(P)  45 26.10   0.0
TACH     5.85 169 eP    45 24.69  -1.6
PCH      5.90 166 eP    45 26.41  -0.6
LNV      6.08 174 eP    45 27.11  -2.4
CHCH     6.17 168 eP+   45 29.86  -1.0
SLA      6.82  64 e(P)  45 40.00  -0.1
MRA      7.22 130 ePc   45 44.80  -0.7
TCA      7.49 119 eP    45 47.20  -2.1
RFA      7.57 156 eP    45 49.60  -0.9
HJA      7.73  54 ePc   45 51.80  -0.8
                    S    46 12.00
ARE     11.40   4 eP    46 40.00  -3.5X
CNCB    11.71  20 P     46 43.80  -4.1X
CCH     11.87  29 eP    46 46.00  -3.9X
LPB     11.94  20 P     46 48.00  -2.9
      1.0s    80.00nm          5.8mb
ZOBO    12.16  19 P     46 49.20  -4.8X
VAO     23.31  84 eP    49 05.70   0.0
                    i    49 07.70
                    e    49 15.80
BAO     25.55  67 e(P)  49 22.00  -5.3X
                    e    49 23.00
                    e    49 25.90
                    e    49 26.80
                    e    49 32.90
                    e    49 46.20
                    e    50 13.00
                    e    50 17.50
                    e    50 27.40
                    e    51 06.50
                    e    51 11.90
                    e    51 32.20
```

10d 16h

```
NVL     62.00 158 eP  * 54 19.00   0.5
        1.8s    59.00nm          5.4mb
                e       54 33.00
SPA     62.27 180 iPc   54 21.40   0.8
        1.1s   220.24nm          6.2mb
PRM     62.38 351 eP    54 19.62  -1.7
UYO     65.22 340 iPd   54 38.20  -1.7
ELC     66.77 345 eP    54 47.94  -1.8
WMOK    67.16 336 ePc   54 51.06  -1.3
        1.1s    13.78nm          5.0mb
RLO     67.24 340 iP    54 51.80  -1.0
TUL     67.24 339 eP    54 51.40  -1.4
        1.2s    83.00nm          5.7mb
                e       54 54.10
LNO     67.24 339 eP    54 51.10  -1.6
LNO2    67.24 339 eP    54 51.20  -1.5
LNO3    67.24 339 eP    54 51.40  -1.4
SIO     67.25 339 e(P)  54 51.00  -1.9
FVM     67.71 345 eP    54 54.01  -1.7
        0.8s    56.31nm          5.7mb
RSNY    72.12 358 eP    55 21.38  -1.1
        0.7s    19.05nm          5.2mb
EMM     72.41   4 eP    55 23.46  -0.7
LIC     73.09  73 P     55 28.50  -0.4
TIC     73.32  73 P     55 30.00  -0.2
KIC     73.41  73 Pd    55 30.60  -0.1
        0.9s    52.50nm          5.5mb
LMN     73.70   5 eP    55 34.50   2.8X
GLD     73.98 334 eP    55 34.61   0.9
        1.1s    26.25nm          5.1mb
PV10    74.38 331 eP    55 35.71  -0.4
EEO     74.44 355 eP    55 38.50   2.5
PV09    74.52 331 eP    55 36.95  -0.1
PEC     74.75 322 eP    55 39.07   0.9
        0.8s     8.44nm          4.8mb
SRU     75.64 330 eP    55 43.14  -0.1
MSU     75.89 329 eP    55 45.28   0.5
ARUT    75.90 327 ePc   55 45.92   1.1
EMUT    76.34 330 eP    55 47.96   0.6
CER     76.41 121 e(P)  55 45.50  -2.2
        0.6s    30.00nm          5.5mb
RSSD    77.36 337 eP    55 52.35  -0.5
        0.7s     9.27nm          4.9mb
DUG     77.54 329 eP    55 53.65  -0.2
        0.8s     6.54nm          4.7mb
TNP     77.98 325 eP    55 56.74   0.3
        0.8s     6.35nm          4.7mb
BONR    78.44 324 eP    55 59.86   0.8
MEMM    78.55 324 eP    56 00.99   1.8
POF     78.60 117 e(P)  55 42.00 -17.8X
        0.5s    16.00nm
HVU     78.80 330 eP    56 00.53  -0.2
MAW     79.07 164 P     56 04.09   2.4
WIN     79.22 110 iPc   56 05.70   2.1
        1.5s    20.00nm          4.9mb
ARN     79.70 322 eP    56 06.28   0.7
HHAI    79.86 331 eP    56 06.83   0.4
ULM     80.58 345 ePc   56 11.80   1.9
ORV     81.30 324 eP    56 14.87   1.0
LCCM    81.74 333 eP    56 16.50   0.2
FRS     82.61 120 iPc   56 22.20   1.1
        1.0s    30.00nm          5.3mb
BLF     83.58 119 iPc   56 26.70   0.4
        1.0s    40.00nm          5.5mb
SES     85.19 336 ePd   56 33.40  -0.2
NEW     85.83 332 eP    56 36.05  -0.8
        0.7s     8.93nm          5.1mb
DPW     85.98 331 eP    56 37.68   0.1
CSY     86.09 181 eP    56 44.30   6.4X
        0.7s    29.70nm          5.6mb
AVE     86.50  49 eP    56 42.50   2.1
SLR     86.83 117 e(P)  56 53.60  11.0X
FCC     88.23 349 eP    56 51.50   3.4X
BUL     89.84 113 iPc   56 58.20   1.2
BCAO    92.73  86 iPc   57 12.00   1.8
        0.9s    18.00nm          5.5mb
                ic      57 15.00
                ic      57 31.00
GEC2   107.93  44 ePKP  02 25.40   0.1
        0.7s     0.88nm
                e       02 34.80
ASPA   122.87 209 iPKPc 02 54.00  -0.4
        0.8s     7.60nm
OBN    123.03  40 ePKP  02 54.00   0.4
        1.0s    21.00nm
                e       02 55.00
WB2    125.93 211 iPKPc 02 59.70  -0.7
        0.4s     6.90nm
WRA    125.94 211 PKP   03 00.50   0.0
        0.7s     8.60nm
MAIO   138.61  66 ePKP  03 25.00   0.9
                e       06 14.00
YAK    142.90 343 ePKP  03 26.00  -4.8X
        1.4s    70.00nm
TRT    144.30 188 ePKPc 03 33.20  -1.4
QUE    144.37  76 ePKP  03 35.00   0.4
KUSJ   146.61 307 ePKP  03 38.20   0.6
POO    147.56  99 ePKP  03 41.00   1.1
ASAJ   147.76 309 ePKP  03 43.40   3.9X
HOOJ   147.81 306 ePKP  03 43.50   3.9X
GBA    148.38 111 PKP   03 43.00   1.8
MNI    149.03 215 ePKP  03 47.50   5.1X
MRRJ   149.38 307 ePKP  03 47.10   5.1X
OFUJ   149.77 300 ePKP  03 48.30   5.6X
HYB    151.16 105 ePKP  03 52.00   6.5X
                e       04 01.50
YAMJ   151.20 299 ePKP  03 51.50   6.6X
KSH    151.29  58 PKP   03 47.50   2.3X
KAKJ   151.41 295 PKP   03 51.70   6.4X
NIIJ   152.18 298 PKP   03 53.40   7.0X
CHJJ   152.38 295 PKP   03 54.50   7.8X
MAT    152.93 296 ePKP  03 48.00   0.5
NDI    153.12  81 ePKP  03 50.00   2.0X
IRK    155.51   5 ePKPc 03 53.00   2.5X
        1.8s    37.00nm
                e       04 18.00
MDJ    155.86 320 ePKP  03 52.50   1.3
WMO    157.35  40 ePKP  03 55.00   1.7
HHC    166.70 347 ePKP  04 04.80   2.1X
GTA    166.75  28 PKPc  04 05.00   2.2X
CHG    167.87 136 ePKP  04 05.70   1.7
                e       05 12.80
TIA    168.53 319 ePKP  04 05.80   1.9X
LZH    171.18  21 ePKP  04 07.50   1.9X
XAN    173.80 351 PKP   04 08.50   2.0X
KMI    174.72 120 ePKP  04 09.00   1.7
CD2    175.39  48 ePKP  04 09.40   2.3X
GYA    178.26 145 PKP   04 09.60   1.8
      S.D. = 1.3  on  89 of 121 obs.
-----------------------------------
?  JAN  10, 1993  17h 41m 52.94± 2.55s
   11.192 N ±13.1km   61.980 W ±42.5km
   DEPTH =  70.0km  (geophysicist)
 WINDWARD ISLANDS                ( 95)
      MD 2.5 (TRN).

TCE      0.54 156 eP    42 06.46   0.1
                eS    42 15.62
TRN      0.78 134 eP    42 08.49  -0.5
                eS    42 19.16
GRW      1.01  18 eP    42 11.92   0.0
                eS    42 26.72
TBH      1.14 128 eP    42 13.87   0.4
                eS    42 29.65
      S.D. = 0.6  on   4 of   4 obs.
-----------------------------------
?  JAN  10, 1993  17h 44m 07.89± 1.39s
   39.255 N ±15.7km   28.665 E ±31.0km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                          (366)
      MD 2.7 (ISK).

DST      0.35 355 iPg   44 14.90  -0.2
                iSg   44 19.90
KCT      1.02 347 iPn   44 27.60   0.4
KHL      1.15 144 ePn   44 29.40   0.0
EDC      1.25 331 ePn   44 31.00  -0.2
      S.D. = 0.5  on   4 of   4 obs.
-----------------------------------
   JAN  10, 1993  18h 04m 03.52± 0.67s
   38.145 N ± 6.1km   23.024 E ± 8.2km
   DEPTH =  11.9 ±  4.7 km
 GREECE                          (364)
      ML 3.3 (ATH).

ATH      0.57 107 eP    04 15.80   0.8
AGG      1.03 328 ePg   04 23.28   0.5
                eSg   04 37.48
VLI      1.43 183 eP    04 28.00  -1.2
PAIG     1.85  16 iPb   04 36.01   0.7
                eSb   05 00.04
VLS      1.92 272 eP    04 38.00   1.7
LIT      2.00 348 ePb   04 37.28  -0.2
                eSb   05 02.88
OUR      2.31  18 ePn   04 41.88   0.0
KZN      2.37 336 eP    04 42.00  -0.8
SOH      2.68   5 ePn   04 47.20  -0.1
                eSn   05 20.40
GRG      2.85 350 ePn   04 49.36  -0.3
                eSn   05 24.20
SRS      3.00   8 ePn   04 51.76   0.0
                eSn   05 27.84
KNT      3.01 358 ePn   04 52.48   0.6
                eSn   05 27.92
VAY      3.19 354 ePn   04 47.70  -6.7X
OHR      3.42 331 ePn   05 04.00   6.2X
      S.D. = 0.9  on  12 of  14 obs.
-----------------------------------
*  JAN  10, 1993  18h 07m 57.08± 0.51s
   33.744 S ±13.2km   57.211 E ± 8.8km
   DEPTH =  10.0km  (geophysicist)
   5.0mb ( 18 obs.)
 SOUTHWEST INDIAN RIDGE          (428)

BFT     24.87 282 eP   13 23.00   1.5
        1.0s    40.00nm          5.0mb
GRM     25.50 262 iPd  13 35.00   7.8X
        1.0s   100.00nm          5.5mb
SEK     25.87 274 eP   13 30.50  -0.3
        1.0s    70.00nm          5.3mb
CIR     25.97 293 eP   13 34.70   3.1X
                i      13 49.10
SLR     26.29 280 iPd  13 46.50  11.8X
        1.1s    40.00nm
PRY     26.49 277 iPd  13 38.00   1.4
        1.0s    40.00nm          5.1mb
BLF     26.82 271 iPd  13 39.50   0.0
        0.6s    19.00nm          5.0mb
FRS     27.35 270 iPc  13 45.70   1.5
        1.2s    30.00nm          4.9mb
KSR     27.38 279 eP   13 41.00  -3.7X
        1.0s    40.00nm          5.1mb
BUL     28.76 291 eP   13 55.30  -1.9
        1.0s    10.00nm          4.6mb
WIN     36.87 277 e(P) 15 04.00  -3.8X
NVL     44.31 200 eP   16 08.00  -0.3
        1.8s    33.00nm          4.9mb
      Z  17s     1.00um          4.8MszX
      E  17s     1.30um
                e      16 19.00
                LQ     26 13.00
GBA     50.88  26 P    17 01.00   0.8
BCAO    52.69 308 iPd  17 11.50  -2.6
        0.7s    33.00nm          5.4mb
                ic     17 16.20
                id     17 25.90
POO     54.35  20 eP   17 30.50   4.3X
HYB     54.80  25 eP   17 26.00  -3.5X
                e      17 42.00
IPM     56.25  56 ePd  17 40.20   0.1
SPA     56.43 180 iPc  17 40.60  -0.5
        0.9s    77.27nm          5.7mb
QUE     64.25   9 eP   18 34.00  -0.7
CHG     65.68  44 eP   18 50.80   6.8X
ASPA    66.64 104 eP   18 50.40   0.2
        0.8s     5.70nm          4.8mb
                i      19 02.70
WRA     68.77 100 P    19 02.50  -1.1
        1.1s     1.00nm          3.9mb X
WB2     68.78 100 iPd  19 02.60  -1.1
        1.1s     5.90nm          4.7mb
                ipP    19 16.80  50kmX
STK     68.90 115 eP   19 04.90   0.7
        1.1s     1.40nm          4.1mb
MAIO    69.71   2 eP   19 07.00  -2.0
LSA     70.80  31 P    19 15.50  -0.8
KIC     70.82 292 P    19 20.30   4.1X
        0.8s     6.00nm          4.8mb
LIC     70.95 291 P    19 22.70   5.7X
TIC     71.21 292 P    19 22.80   4.3X
KMI     72.80  43 Pc   19 31.50   3.5X
        1.5s    30.00nm          5.2mb
      Z  25s     1.10um          5.0MszX
KSH     74.88  15 eP   19 41.00   1.3
GYA     76.08  45 eP   19 50.00   3.2X
CD2     77.88  40 eP   19 58.40   1.8
LZH     82.00  36 eP   20 26.00   7.3X
        1.0s    15.00nm          5.0mb
WMO     82.05  22 eP   20 21.70   3.0X
GTA     82.79  32 eP   20 22.40  -0.3
        1.2s     5.00nm          4.6mb
```

```
                    sP    20 35.80
 XAN     83.07  41 eP    20 26.50    2.4
                    sP    20 37.00
 MLR     83.80 338 eP    20 34.00    6.3X
 TIY     87.70  41 eP    20 53.00    5.9X
      Z  30s      0.94um            5.0MszX
                    S     31 28.00
 BTO     88.56  37 eP    20 55.90    4.7X
 HHC     89.53  38 eP    21 03.00    7.2X
      S.D. = 1.4  on  22 of  41 obs.
-----------------------------------------
% JAN  10, 1993  18h 33m 33.37± 1.25s
   44.151 N ±11.7km   11.900 E ± 6.7km
   DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                     (545)

 SFI      0.23 189 Pd    33 38.60    0.3
                  eSg    33 44.00
 RSM      0.46 119 P     33 42.10   -0.6
 CRE      0.52 176 P     33 43.70   -0.3
                  eSg    33 53.50
 MME      0.86 273 P     33 50.50    0.3
 BDI      0.94 265 P     33 51.00   -0.4
 ARV      1.00 131 P     33 53.00    0.7
      S.D. = 0.6  on   6 of   6 obs.
-----------------------------------------
% JAN  10, 1993  18h 39m 40.00± 0.62s
   31.633 S ± 9.6km   67.930 W ± 5.2km
   DEPTH =  14.9 ±  6.9 km
 SAN JUAN PROVINCE, ARGENTINA       (137)

 CFA      0.27 276 iPc   39 46.00    0.0
 RTLL     0.55 303 ePc   39 51.00    0.1
 RTCB     0.76 281 ePd   39 54.20   -0.2
 MRA      2.04 113 ePc   40 14.10    0.0
                  S      40 42.00
 TCA      2.87  85 eP    40 26.00   -0.1
                  S      41 07.50
 RFA      3.16 188 e(P)  40 30.30    0.1
                  S      41 15.80
 CYA      3.68  31 eP    40 37.60    0.0
                  S      41 35.00
      S.D. = 0.2  on   7 of   7 obs.
-----------------------------------------
   JAN  10, 1993  19h 27m 21.71± 0.71s
   38.395 N ± 6.6km   21.852 E ± 7.8km
   DEPTH =  10.0km  (geophysicist)
 GREECE                             (364)
      MD 3.3 (ATH).

 AGG      0.73  31 ePg   27 35.16   -0.9
                  eSg    27 44.84
 VLS      1.02 258 ePb   27 40.00   -1.0
 LIT      1.77  16 iPb   27 53.24    0.6
                  eSb    28 15.36
 VLI      1.88 152 ePn   27 55.00    0.8
 KZN      1.91 358 ePn   27 56.00    1.3
 PAIG     2.09  42 ePb   27 56.24   -0.9
 FNA      2.41 351 ePn   28 02.28    0.4
                  eSn    28 33.16
 OUR      2.55  40 ePn   28 03.44   -0.2
 GRG      2.59   9 ePn   28 04.88    0.5
                  eSn    28 36.20
 SOH      2.69  25 ePn   28 05.52   -0.3
                  eSn    28 36.92
 OHR      2.83 344 ePn   28 12.50    4.6X
 KNT      2.88  16 ePn   28 08.84    0.4
                  eSn    28 42.12
 VAY      2.97  10 ePn   28 13.80    4.0X
 SRS      3.03  26 ePn   28 09.92   -0.7
                  eSn    28 45.16
      S.D. = 0.8  on  12 of  14 obs.
-----------------------------------------
% JAN  10, 1993  19h 35m 52.48± 2.01s
   33.697 S ± 7.6km   71.312 W ±10.0km
   DEPTH =  51.0 ± 23.1 km
 NEAR COAST OF CENTRAL CHILE        (135)

 LNV      0.27 198 iP+   36 01.42   -0.1
                  iS     36 08.25
 LCCH     0.31 316 iP+   36 01.76   -0.1
 TACH     0.32  82 iP+   36 02.06    0.1
                  iS     36 09.10
 SAN      0.59  66 iP    36 04.93   -0.1
                  iS     36 14.62
 CHCH     0.60 113 iP+   36 04.97   -0.2
                  iS     36 14.42
```

```
 PCH      0.67  84 iP+   36 05.84   -0.2
                  iS     36 16.16
 CACH     0.73 126 iP    36 07.14    0.3
                  iS     36 18.53
 PEL      0.76  44 iP    36 07.52    0.3
                  iS     36 19.00
 ROCH     0.77  19 iPd   36 07.64    0.2
                  iS     36 19.43
 FCH      0.93  67 iP+   36 09.74    0.0
                  iS     36 22.95
 JACH     1.18  31 iPd   36 12.78   -0.2
                  iS     36 29.05
      S.D. = 0.2  on  11 of  11 obs.
-----------------------------------------
   JAN  10, 1993  20h 32m 04.71± 0.52s
   44.840 N ± 4.1km    6.790 E ±10.5km
   DEPTH =  10.0km  (geophysicist)
 FRANCE                             (538)
      ML 2.3 (LDG).

 BNI      0.23 339 P     32 09.40   -0.3
                  eSg    32 13.30
 DOI      0.47 136 P     32 13.80   -0.5
                  eSg    32 21.40
 LPG      0.66 358 Pg    32 18.20    0.2
                  Sg     32 27.30
 LPL      0.68 357 Pg    32 18.40    0.1
 SBF      1.08 154 Pg    32 25.70    0.6
                  Sg     32 41.10
 FRF      1.28 185 Pg    32 28.20   -0.3
                  Sg     32 45.60
 LRG      1.42 193 Pg    32 30.60    0.1
                  Sg     32 49.30
 LMR      1.52 188 Pg    32 32.00    0.1
                  Sg     32 51.60
      S.D. = 0.4  on   8 of   8 obs.
-----------------------------------------
? JAN  10, 1993  20h 51m 43.55± 1.22s
    0.586 N ±33.2km  125.366 E ±35.3km
   DEPTH = 105.5 ± 15.3 km
   4.8mb (  2 obs.)
 NORTHERN MOLUCCA SEA               (266)

 MNI      1.00 328 iPd   52 04.90    0.2
                  eS     52 13.50
 TSM      8.34 296 eP    53 43.00   -0.4
 WB2     22.22 157 iPd   56 32.10   -0.4
      0.6s     26.90nm          4.8mb
                  eS     00 27.70
 ASPA    25.49 162 iPd   57 04.00    0.2
      0.4s     15.90nm          4.9mb
                  eS     01 31.80
 CHG     31.62 307 eP    57 58.00   -0.8
 HYB     48.97 293 eP    00 21.80    0.2
 GBA     49.17 287 P     00 24.00    1.0
      S.D. = 0.8  on   7 of   7 obs.
-----------------------------------------
• JAN  10, 1993  22h 48m 17.32± 1.37s
   51.259 N ±13.8km   15.714 E ± 6.8km
   DEPTH =   5.0km  (geophysicist)
 POLAND                             (548)
      ML 3.6 (VIE).

 KSP      0.55 138 iPd   48 27.00   -1.4
      0.2s    169.00nm
                  i      48 30.00
                  iS     48 36.40
                  i      48 41.20
 BRG      1.18 252 iPg   48 41.00    1.2
                  iSg    49 01.00
 PRU      1.48 211 Pn    48 44.80    0.2
      0.4s     65.60nm
                  Pg     48 46.60
                  e      49 06.50
                  Sg     49 10.00
                  i      49 16.80
 CLL      1.70 273 iPn   48 45.80   -2.0
                  iPg    48 48.30
                  eSg    49 14.00
 KHC      2.53 214 Pn    48 59.90    0.1
                  ePg    49 07.00
                  Sn     49 35.30
                  Sg     49 45.50
                  e      03 10.50
                  e      03 38.00
                  eSg    03 46.50
 HOF      2.61 250 iPnc  49 00.40   -0.5
```

```
 MOX      2.66 258 ePn   49 02.50    0.8
                  ePg    49 09.00
                  iSg    49 47.90
 GEC2     2.74 209 Pn    49 02.80   -0.1
                  Pg     49 09.70
                  Sg     49 47.80
 WET      2.79 222 iPnc  49 04.20    0.7
 OJC      2.80 110 iP    49 04.90    1.4
                  iS     49 38.80
 VKA      3.02 172 iPgc  49 15.00    8.3X
                  iSg    49 58.70
 ZST      3.20 163 eP    50 01.60   52.5X
 GRF      3.27 243 ePn   49 10.00   -0.3
                  e(Pg)  49 23.30
                  e(Sn)  50 00.00
                  eSg    50 07.50
 SPC      3.57 124 eP    49 23.30    8.6X
 KBA      4.46 201 iPnd  49 27.20   -0.1
      0.5s     10.40nm
                  i(Sg)  50 44.60
      S.D. = 1.1  on  12 of  15 obs.
-----------------------------------------
   JAN  10, 1993  22h 58m 19.68± 0.24s
    5.500 N ± 4.1km   82.564 W ± 3.8km
   DEPTH =  10.0km  (geophysicist)
   5.1mb ( 30 obs.)  4.7Msz ( 20 obs.)
 SOUTH OF PANAMA                    ( 83)
      Mw 5.5 (HRV). MD 4.6 (UPA).
      CENTROID, MOMENT TENSOR     (HRV)
      Data Used: GDSN
      L.P.B.: 23S, 37C
      Centroid Location:
      Origin Time        22:58:28.8 0.5
      Lat  5.90N 0.05 Lon  82.38W 0.05
      Dep  15.0 FIX Half-duration  1.3
      Moment Tensor;   Scale 10**17 Nm
        Mrr=-0.19 0.05  Mtt= 0.12 0.08
        Mff= 0.07 0.10  Mrt= 0.63 0.23
        Mrf=-0.95 0.28  Mtf= 1.59 0.05
       Principal Axes:
        T  Val=  1.72  Plg= 8  Azm=133
        N        0.43      59       29
        P       -2.15      30      227
      Best Double Couple:Mo=1.9*10**17
       NP1:Strike=266 Dip=63 Slip= -17
       NP2:          3      75     -152

 DVD      2.92   2 iP    59 06.12   -0.9
                  eS     59 39.98
 BRU      3.29   0 iP    59 11.51   -1.1
 UPA      4.58  41 ePd   59 30.99    0.4
 ECO      4.78  36 eP    59 34.29    0.8
                  eS     00 27.34
 PSO      6.76 129 eP    00 00.00   -1.7
 BOG      8.51  95 eP    00 28.00    1.7
                  iS     02 06.00
 BMG      9.56  80 iPd   00 53.00   12.5X
 SDV     12.30  73 iPd   01 19.50    1.4
 TPX     13.35 315 (P)   01 35.00    3.1X
 TOV     13.35  71 eP    01 32.00    0.0
 CEOS    14.54  75 iP    01 46.70   -1.0
 EVV     17.93 317 (P)   02 31.00    0.1
 NNA     18.28 162 eP    02 34.10   -1.2
      1.1s    101.27nm          4.9mb
 MGP     19.57  49 (P)   02 51.00    0.1
 PORP    19.94  50 P     02 56.00    1.1
 APR     20.11  49 P     02 57.70    1.1
 SJG     20.35  51 i(P)  03 00.80    1.6
 ACX     20.36 305 (P)   03 01.50    2.2
 CPD     20.49  51 P     03 01.50    0.9
 PPM     20.66 312 (P)   03 05.00    2.0
 LPR     20.68  51 P     03 03.20    0.6
 TRN     21.56  75 eP    03 10.50   -1.0
 ARE     24.42 154 eP    03 42.00    2.1
 ZOBO    25.93 147 iPc   03 53.60   -1.1
      1.7s    123.55nm          5.3mb
      Z  24s     3.20um          4.8MszX
                  S      08 24.00
                  LR     11 42.00
 LPB     26.15 147 Pc    03 58.70    2.2
      1.0s     64.00nm          5.3mb
      Z  20s     5.67um          5.1Msz
                  S      08 30.00
                  LR     12 18.00
 CNCB    26.44 147 iPc   03 59.10   -0.3
 PRM     28.44   0 iPc   04 16.82    0.1
 JSC     28.66   2 iPc   04 18.89    0.2
```

10d 23h

```
LHS     28.88   3 ePc  * 04 19.38  -1.3
MZX     28.97 310 (P)    04 23.00   1.4
TKL     30.03 358 ePc    04 30.22  -0.8
CEH     30.41   6 ePc    04 33.96  -0.4
        0.7s    20.14nm          5.1mb
      Z  18s     0.98um          4.5Msz
MIAR    30.65 342 ePc    04 34.99  -1.5
        0.9s    14.22nm          4.8mb
      Z  21s     0.63um          4.2Msz
                 ePP    05 47.52
OLY     30.97 346 ePc    04 37.78  -1.5
BLA     31.62   3 eP     04 45.14   0.0
        0.7s    26.17nm          5.3mb
NAV     31.71   3 eP     04 45.32  -0.5
ELC     32.22 350 iPc    04 48.62  -1.6
CVL     32.55   6 ePc    04 53.13   0.0
RLO     32.59 341 eP     04 52.10  -1.5
TUL     32.62 340 eP     04 52.40  -1.4
        0.6s    16.50nm          5.1mb
      Z  22s     0.52um          4.2Msz
      N  18s     0.27um
      E  16s     0.45um
                 e      05 58.50
                 LR     14 20.00
LNO     32.62 340 eP     04 52.20  -1.5
LNO2    32.62 340 eP     04 52.20  -1.5
LNO3    32.62 340 eP     04 52.40  -1.4
FNO     32.62 337 iPd    04 53.20  -0.6
SIO     32.65 339 e(P)   04 52.30  -1.8
MEO     32.69 335 iPd    04 53.40  -1.0
WMOK    32.73 335 eP     04 52.79  -2.0
        0.9s    29.36nm          5.2mb
      Z  21s     1.77um          4.7Msz
FVM     33.12 349 ePc    04 56.34  -1.7
        0.8s    68.25nm          5.6mb
      Z  15s     1.19um          4.7MszX
MCWV    34.09   4 P      05 20.00  13.5X
      Z  20s     1.88um          4.8Msz
ACO     34.57 336 iPc    05 09.80  -0.9
FSA     35.26 154 ePd    05 16.80   0.1
ALQ     36.68 326 iPc    05 29.85   1.0
        1.3s    64.04nm          5.3mb
      Z  20s     1.41um          4.7Msz
CYA     37.42 155 ePc    05 34.50  -0.4
TUC     37.50 319 eP     05 36.26   0.6
        1.0s    20.01nm          4.8mb
      Z  18s     2.89um          5.1Msz
                 e      05 44.64
HRV     38.13  13 P      05 50.00   9.4X
      Z  19s     0.86um          4.6Msz
RSNY    39.52   9 eP     05 52.19  -0.2
        0.8s    23.42nm          4.9mb
      Z  22s     0.87um          4.5Msz
                 e      06 01.15
GLD     39.75 332 eP     05 55.22   0.7
        1.4s   107.28nm          5.3mb
      Z  19s     2.33um          5.0Msz
GOL     39.78 332 ePc    05 55.58   0.7
        1.3s    13.62nm          4.5mb
                 ePP    07 27.04
PEL     40.05 164 eP     05 56.00  -0.9
BAO     40.16 122 e(P)   05 52.00  -6.1X
                 e      05 53.70
                 e      05 56.10
                 e      06 09.70
PV08    40.54 328 ePc    06 02.49   1.3
PV10    40.60 327 iPc    06 02.12   0.5
                 ePP    07 39.02
GLA     40.66 317 iPd    06 03.08   1.2
PV09    40.74 327 ePc    06 03.73   0.9
                 ePP    07 44.46
EEO     41.10   4 ePc    06 07.50   2.3
SRU     41.94 327 iPc    06 13.39   0.9
PLM     42.23 315 eP     06 16.27   1.3
                 ePcP   07 56.45
MSU     42.44 325 iPc    06 17.85   1.2
                 ePP    08 02.08
EMUT    42.60 327 ePc    06 18.96   1.0
ARUT    42.69 323 iPc    06 20.16   1.5
                 ePP    07 57.20
PEC     42.74 316 eP     06 19.62   0.7
        1.3s    27.75nm          4.8mb
RSSD    42.84 337 iPd    06 20.73   0.9
        1.2s    92.50nm          5.4mb
      Z  21s     0.60um          4.5Msz
LMN     43.06  18 eP     06 28.50   7.2X
CBM     43.12  14 eP     06 22.87   1.1
        1.2s    43.96nm          5.1mb
      Z  20s     0.75um          4.6Msz
DAU     43.26 328 iPc    06 24.47   1.0
                 ePP    08 04.83
GSC     43.29 318 eP     06 24.43   0.9
DUG     43.95 326 ePc    06 29.87   1.0
        0.9s     7.96nm          4.5mb
ISA     44.62 317 eP     06 34.59   0.4
        0.9s    16.75nm          4.9mb
                 ePP    08 08.11
VAO     44.86 131 eP     06 34.80  -1.5
HVU     45.04 328 eP     06 37.53  -0.1
TNP     45.20 321 ePc    06 39.87   0.9
        0.9s    20.62nm          5.1mb
BCH     45.47 316 eP     06 41.46   0.4
BONR    45.81 320 eP     06 44.36   0.4
HHAI    45.92 330 iPc    06 44.95   0.4
ULM     45.98 348 ePc    06 45.60   0.9
KVN     46.33 321 eP     06 48.42   0.5
CMB     47.21 319 eP     06 54.21  -0.5
        0.9s     8.32nm          4.8mb
      Z  19s     1.10um          4.8Msz
                 e      07 04.59
LCCM    47.55 332 iPc    06 57.90   0.4
ARN     47.60 317 ePc    06 58.39   0.6
ORV     48.77 320 eP     07 07.56   0.7
WDC     50.01 320 P      07 30.00  13.7X
      Z  21s     0.78um          4.7Msz
LBFM    50.03 321 eP     07 15.37  -1.3
LGPM    50.37 321 eP     07 18.18  -1.1
SES     50.71 337 ePc    07 22.00   0.4
        1.5s   230.00nm          5.9mb
FHC     51.05 320 eP     07 23.78  -0.5
        1.6s   430.50nm          6.1mb X
NEW     51.78 331 iPd    07 28.95  -0.8
        1.0s    25.00nm          5.1mb
      Z  22s     4.52um          5.5Msz
VGB     51.86 326 ePc    07 30.61   0.3
DPW     52.04 330 ePc    07 31.33  -0.4
LON     53.18 327 eP     07 39.63  -0.7
RMW     53.62 328 iPc    07 42.68  -0.8
BMW     53.80 326 ePc    07 44.07  -0.7
                 ePcP   08 50.74
FCC     53.87 353 eP     07 46.50   1.5
GMW     54.20 327 iPc    07 46.51  -1.1
MCW     54.92 328 iPc    07 52.51  -0.5
                 ePcP   09 02.47
PGC     55.23 328 eP     07 55.00  -0.1
YKA     61.57 344 eP     08 38.50  -0.7
        0.8s    44.30nm          5.7mb
SIT     65.87 332 P      09 20.00  12.6X
      Z  18s     0.58um          4.8Msz
RES     69.50 357 eP     09 34.50   4.5X
        1.0s     6.00nm          4.7mb
KLU     72.68 333 eP     09 49.10  -0.4
                 ePcP   10 05.53
PMR     74.16 333 P      10 10.00  12.0X
      Z  19s     0.66um          4.9Msz
PMS     74.25 332 eP     09 58.80   0.2
        1.1s    36.20nm          5.3mb
SLKM    74.34 332 ePc    09 58.65  -0.5
HON     74.47 291 P      10 10.00   9.5X
      Z  20s     0.36um          4.7Msz
BGL     75.57 332 eP     10 05.46  -0.8
TIC     77.04  84 P      10 15.40   0.1
SVW     77.05 332 eP     10 13.52  -1.0
        0.7s    29.79nm          5.5mb
LIC     77.06  85 P      10 15.40  -0.1
      Z  20s     0.11um          4.2Msz
KIC     77.34  85 P      10 17.00   0.0
IMA     77.39 337 ePc    10 16.00  -0.4
        1.3s    14.23nm          4.9mb
                 ePcP   10 25.19
TTA     77.62 333 ePc    10 16.51  -1.2
        1.3s    23.30nm          5.1mb
NAO     86.90  29 P      11 05.90   0.1
        1.3s    19.90nm          5.2mb
GEC2    90.02  41 ePKP   11 21.20   0.1
        0.8s     0.77nm          4.0mb X
                 e      11 23.50
                 e      11 32.30
                 e      11 36.40
                 e      11 47.60
WMQ    130.13   9 PKP    17 31.40  -0.6
KSH    131.07  22 ePKP   17 32.50  -1.5
WB2    141.35 245 iPKPc  17 49.10  -4.4X
        0.5s     1.30nm
WRA    141.36 245 PKP    17 49.30  -4.3X
        2.0s     0.40nm
CD2    143.29 351 PKPd   17 52.80  -3.9X
GYA    147.00 345 PKP    18 04.00   0.9
KMI    149.13 351 PKPc   18 09.50   2.8X
HYB    150.57  39 ePKP   18 08.20  -0.5
GBA    152.53  46 PKP    18 18.00   6.4X
CHG    155.79 357 ePKP   18 17.00   0.9
      S.D. = 1.0  on 116 of 132 obs.
-----------------------------------------
&  JAN  10, 1993  23h 16m 42.72s
   46.473 N            122.280 W
   DEPTH =  16.5km
 WASHINGTON                          ( 29)
      <SEA-P>. MD 2.0 (SEA).

CZM      0.16 256 Pd     16 46.77  -0.3
ERK      0.17 194 Pc     16 46.79  -0.6
                  S      16 49.84
LMW      0.20 358 Pd     16 47.44  -0.2
                  S      16 51.21
STD      0.24 170 Pc     16 47.81  -0.5
SOSW     0.26 157 Pc     16 47.91  -0.7
                  S      16 51.84
YEL      0.27 166 Pc     16 48.49  -0.5
FL2      0.28 190 Pc     16 48.44  -0.6
                  S      16 52.17
REMW     0.28 166 Pc     16 48.80  -0.4
SHW      0.28 174 Pc     16 48.65  -0.4
ESD      0.29 162 P      16 48.72  -0.5
HSR      0.31 167 Pc     16 49.14  -0.4
JLK      0.34 165 Pc     16 49.44  -0.6
                  S      16 54.53
CDFW     0.39 156 Pc     16 50.30  -0.6
LVP      0.41 192 P      16 50.69  -0.6
LON      0.43  49 Pd     16 50.67  -0.8
MTMW     0.45 174 Pc     16 51.29  -0.6
RVW      0.46 225 Pd     16 51.11  -0.8
REMR     0.46  41 Pd     16 51.32  -0.8
GLK      0.47  79 Pd     16 51.51  -0.8
RVC      0.52  24 Pd     16 52.31  -0.7
                  S      16 59.54
RCS      0.55  43 Pd     16 52.82  -0.9
WPW      0.55  66 Pd     16 52.80  -0.9
GHW      0.57   1 P      16 52.91  -0.9
ASR      0.58 124 Pc     16 53.41  -0.6
FMW      0.62  42 Pd     16 54.12  -0.8
BMW      0.66 271 P      16 54.37  -1.0
CPW      0.77 311 Pc     16 56.56  -0.8
GSM      0.80  24 Pd     16 57.02  -0.9
NLO      0.90 245 Pd     16 59.00  -0.5
      29 obs. associated
-----------------------------------------
   JAN  11, 1993  00h 12m 33.60± 0.37s
   45.209 N ± 2.8km    7.465 E ± 3.8km
   DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                      (545)
      ML 2.8 (LDG), 2.5 (GEN).

RSP      0.16 249 Pc     12 37.80   0.5
                  S      12 40.12
LSD      0.33 319 Pd     12 40.34  -0.2
                  S      12 44.60
BHB      0.39 201 Pc     12 42.02   0.3
                  S      12 47.82
ORO      0.55  41 P      12 43.70  -1.2
                  eSg    12 51.20
ORX      0.56  40 P      12 44.17  -0.9
                  S      12 51.09
RRL      0.56 239 Pc     12 44.92  -0.3
                  S      12 52.49
BNI      0.58 255 Pc     12 45.10  -0.4
                  eSg    12 51.90
LPG      0.58 300 Pg     12 44.50  -1.1
                  Sg     12 51.70
LPL      0.60 301 Pg     12 44.90  -1.0
                  Sg     12 52.70
DOI      0.72 193 Pc     12 46.80  -1.1
                  eSg    12 55.50
PZZ      0.75 200 P      12 47.37  -1.0
                  S      12 56.25
ROB      0.96 162 P      12 52.31   0.4
                  S      13 04.50
STV      0.97 186 P      12 50.70  -1.4
                  S      13 01.89
CKI      0.98 143 P      12 52.80   0.7
ENR      0.98 182 P      12 51.07  -1.3
```

```
                    S     13 02.62
PCP      1.02 131 P      12 53.61    0.7
FIN      1.13 152 P      12 55.12    0.3
                  S      13 10.38
IMI      1.33 167 P      12 58.16   -0.1
                  S      13 14.50
SBF      1.35 181 Pg     12 58.20   -0.2
                  Sg     13 13.80
FRF      1.75 200 Pg     13 05.10    0.9
                  Sg     13 27.10
LRG      1.92 205 Pg     13 08.20    1.5
                  Sg     13 33.00
LMR      2.00 200 Pg     13 08.60    0.9
                  Sg     13 34.00
HAU      2.90 345 P      13 23.00    2.3
SMF      2.91 301 Pn     13 21.20    0.4
LBF      3.01 307 P      13 22.50    0.3
LOR      3.24 311 P      13 25.20   -0.3
AVF      3.27 300 P      13 26.40    0.4
SSF      3.32 305 P      13 27.00    0.4
BGF      3.50 294 Pn     13 29.20    0.1
      S.D. = 0.9  on  29 of  29 obs.
-----------------------------------------
*  JAN  11, 1993  00h 58m 47.78± 0.80s
   35.003 N ±13.5km   137.137 E ±17.7km
   DEPTH =  33.0km  (normal)
   4.5mb (  6 obs.)
 EASTERN HONSHU, JAPAN              (227)

MAT      1.77  29 iPd    59 15.60   -0.9
                  eS     59 34.00
SHK      3.70 264 iP     59 49.00    5.0X
         0.8s    20.90nm
LZH     27.04 282 eP     04 28.00   -1.1
         1.5s    27.00nm          4.7mb
                  pP     04 41.50   55kmX
                  sP     04 47.50
GKN     44.88 276 P      07 00.00   -1.2
WB2     54.71 183 iPd    08 15.40   -0.7
         0.6s     7.30nm          4.9mb
WRA     54.71 183 P      08 15.60   -0.5
         0.8s     2.70nm          4.3mb
GBA     57.58 264 P      08 39.00    2.1
ASPA    58.43 183 eP     08 42.00   -0.6
         0.6s     9.30nm          5.1mb
NAO     74.95 336 P      10 26.30   -0.7
         0.5s     1.20nm          4.1mb
GEC2    82.54 326 eP     11 09.70    1.1
         0.5s     0.41nm          3.7mb
                  e      11 19.70
ZOBO   150.71  57 ePKP   18 40.00    6.4X
LPB    150.90  57 ePKP   18 36.00    2.4
CNCB   151.17  57 PKP    18 38.00    3.8X
      S.D. = 1.5  on  10 of  13 obs.
-----------------------------------------
?  JAN  11, 1993  01h 59m 56.13± 1.76s
   27.549 S ±10.6km   73.064 W ±19.7km
   DEPTH =  33.0km  (normal)
   3.9mb (  1 obs.)
 OFF COAST OF NORTHERN CHILE        (121)

ANT      4.51  33 eP     01 05.50    1.6
RTCB     5.40 138 ePd    01 18.00    1.4
                  S      02 11.50
RTLL     5.50 134 eP     01 19.00    1.1
                  S      02 11.00
CFA      5.83 135 ePc    01 23.00    0.4
PEL      5.94 160 eP     01 26.00    1.8
                  iS     02 26.90
RTPR     6.36 117 ePd    01 28.10   -1.9
MDZ      6.45 147 e(P)   01 33.90    2.6X
FSA      6.47  79 e(P)   01 32.50    1.0
CYA      6.49 100 ePc    01 30.00   -1.9
MRA      8.01 129 eP     01 51.00   -2.1
RFA      8.21 152 eP     01 55.60   -0.3
TCA      8.30 119 iP     01 53.00   -4.2X
                  S      03 13.00
CNCB    11.68  25 P      02 50.20    6.2X
LPB     11.89  24 P      02 54.00    7.3X
ZOBO    12.10  23 P      02 54.40    4.6X
VAO     24.01  85 eP     05 10.10    1.1
KIC     74.02  74 (P)    11 45.80   15.0X
YKA     95.68 342 eP     13 17.10   -2.0
         0.9s     0.40nm          3.9mb
      S.D. = 1.7  on  12 of  18 obs.
-----------------------------------------
*  JAN  11, 1993  02h 39m 08.34± 0.74s
   23.086 N ±14.4km   142.322 E ±15.5km
   DEPTH =  33.0km  (normal)
   4.6mb (  4 obs.)
 VOLCANO ISLANDS REGION             (213)

SSE     20.42 298 Pd     43 44.20   -1.2
         1.0s    22.00nm          4.5mb
LZH     35.65 300 eP     46 05.50   -0.1
         1.5s    22.00nm          4.9mb
                  pP     46 15.50   34kmX
CHG     40.63 272 eP     46 48.70    1.6
WB2     43.47 191 iPc    47 10.50    0.3
         1.2s    15.70nm          4.6mb
ASPA    47.19 191 eP     47 39.20   -0.7
         1.2s     7.80nm          4.6mb
YKA     75.61  28 eP     50 51.00   -0.4
         0.8s     0.50nm          3.6mb X
SES     82.48  38 eP     51 30.00    1.1
ZOBO   150.58  82 PKP    59 00.90    6.6X
LPB    150.68  83 PKP    59 01.00    6.8X
CNCB   150.88  83 ePKP   58 54.00   -0.6
      S.D. = 1.1  on   8 of  10 obs.
-----------------------------------------
*  JAN  11, 1993  02h 56m 25.93± 1.38s
   38.125 N ±12.3km   20.361 E ± 7.8km
   DEPTH =  10.0km  (geophysicist)
 GREECE                             (364)
      MD 3.5 (ATH).

VLS      0.19  74 ePg    56 30.00   -0.1
IGT      1.41 359 ePb    56 53.38    1.8
                  eSb    57 19.06
KEK      1.64 345 ePb    56 57.00    2.0
SRN      1.77 351 ePn    57 01.50    4.7X
AGG      1.78  59 ePn    56 56.94   -0.1
                  eSn    57 22.46
LSK      2.03   5 ePn    57 06.80    6.2X
TPE      2.18 353 ePn    57 01.50   -1.3
VLO      2.43 344 ePn    57 11.10    4.8X
KZN      2.44  26 ePb    57 10.00    3.5X
VLI      2.49 124 ePn    57 09.00    1.9
LIT      2.58  39 iPn    57 07.98   -0.4
FNA      2.77  16 iPn    57 12.42    1.2
                  eSn    57 48.90
OHR      3.00   6 iPn    57 15.00    0.6
PAIG     3.15  54 iPn    57 14.34   -2.1
GRG      3.24  29 ePn    57 18.90    1.1
TIR      3.24 353 ePn    57 20.00    2.2
                  eSn    58 01.00
SOH      3.55  40 ePn    57 21.94   -0.3
                  iSn    58 07.13
OUR      3.57  51 ePn    57 20.82   -1.7
KNT      3.61  32 iPn    57 22.74   -0.3
VAY      3.62  27 ePn    57 23.40    0.3
BRT      3.68 319 P      57 23.10   -0.9
SRS      3.89  39 ePn    57 25.98   -1.1
SDA      3.98 351 ePn    57 32.30    4.1X
MGR      4.24 300 P      57 30.40   -1.7
HVAR     5.86 331 e(Pn)  57 52.40   -2.4X
VBY      8.30 334 ePn    58 27.90   -1.2
                  eSn    00 01.30
      S.D. = 1.4  on  20 of  26 obs.
-----------------------------------------
&  JAN  11, 1993  03h 02m 08.19s
   34.092 N          116.382 W
   DEPTH =   0.1km
 SOUTHERN CALIFORNIA                (  43)
      <PAS-P>. ML 2.9 (PAS), 2.8 (GS).
      Felt.

PEC      0.68 253 ePc    02 21.17   -0.5
                  eS     02 29.53
PLM      0.84 209 iPd    02 24.08   -0.8
GSC      1.26 344 eP     02 31.55   -0.9
                  eS     02 48.44
GLA      1.66 128 ePn    02 36.40   -2.3
ISA      2.33 313 ePn    02 46.64   -1.8
                  ePg    02 51.03
BCH      3.24 291 ePn    02 59.33   -2.1
         6 obs. associated
-----------------------------------------
?  JAN  11, 1993  03h 14m 44.45± 6.63s
    5.423 S ±75.4km   150.586 E ±26.7km
   DEPTH =  33.0km  (normal)
   4.3mb (  3 obs.)
 NEW BRITAIN REGION, P.N.G.         (192)

PMG      5.22 220 eP     16 02.50    0.2
                  eS     16 54.00
RMQ     21.02 185 iPd    19 26.80   -1.0
         0.8s    26.00nm          4.7mb
WB2     21.39 226 iPd    19 31.50   -0.1
         0.3s     3.50nm          4.2mb
                  i      19 37.50
ASPA    24.23 220 eP     20 07.30    7.7X
         0.9s     5.10nm          4.1mb
ARMA    24.88 178 eP     20 06.80    0.9
      S.D. = 1.4  on   4 of   5 obs.
-----------------------------------------
*  JAN  11, 1993  03h 16m 29.57± 0.84s
   46.204 N ± 8.7km   16.483 E ± 9.3km
   DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION         (383)
      MD 3.1 (LJU). ML 2.7 (ZAG). Felt
      (IV) at Ludbreg, Reka and
      Subotica, Croatia.

PTJ      0.48 230 iPg    16 38.40   -0.9
                  iSg    16 47.50
ZAG      0.52 222 iPg    16 39.60   -0.5
                  iSg    16 49.00
VBY      1.11 231 ePnc   16 52.10    1.8
                  eSn    17 08.30
LJU      1.37 264 e(Pn)  16 58.00    3.4X
                  eSn    17 18.50
UZD      1.50  74 ePn    16 55.90   -0.7
CEY      1.51 253 eP     17 02.50    5.8X
                  eSg    17 22.40
VOY      1.81 265 ePn    17 04.60    3.5X
                  eSn    17 31.90
SRO      2.04  37 iP     17 05.20    0.9
KBA      2.33 293 iPgc   17 14.40    5.7X
                  iSg    17 43.60
GEC2     3.25 326 Pn     17 21.00   -0.6
                  Sn     17 59.70
                  Sg     18 20.80
KHC      3.53 327 Pn     17 25.50    0.0
                  e      18 06.50
                  eSg    18 23.50
      S.D. = 1.2  on   7 of  11 obs.
-----------------------------------------
*  JAN  11, 1993  03h 53m 54.78± 0.66s
    3.000 N ±10.0km   128.373 E ±12.6km
   DEPTH =  33.0km  (normal)
   4.6mb (  6 obs.)
 NORTH OF HALMAHERA, INDONESIA      (264)

MNI      3.85 246 ePc    54 53.20    0.0
                  eS     55 44.00
SWI      4.80 143 ePd    55 08.50    1.9
                  iS     56 01.50
WB2     23.54 166 iPc    59 02.90   -0.3
         0.4s    29.10nm          5.1mb
                  i      59 13.20
ASPA    27.05 169 eP     59 34.50   -1.7
         0.9s     5.20nm          4.2mb
CHG     32.80 301 eP     00 28.30    0.8
MAT     34.59  14 eP     00 41.00   -1.8
         0.9s     8.40nm          4.7mb
STK     36.89 161 eP     01 01.70   -0.6
         0.5s     4.90nm          4.6mb
BJI     38.49 345 eP     01 11.00   -4.6X
LZH     39.97 328 eP     01 29.00    0.8
         1.4s    18.00nm          4.6mb
                  sP     01 43.00
GBA     51.39 285 P      03 11.30   12.4X
         0.8s     3.00nm
BALM    87.05  29 (P)    06 39.10    0.9
YKA     99.48  25 eP     07 35.50    0.1
         0.5s     0.30nm          4.1mb
      S.D. = 1.3  on  10 of  12 obs.
-----------------------------------------
%  JAN  11, 1993  04h 15m 27.56± 0.59s
   26.400 S ± 5.2km   27.392 E ± 5.9km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA           (584)
      ML 2.6 (PRE).

PRY      0.53 172 eP     15 38.00   -0.2
KSR      0.69 320 eP     15 41.00   -0.5
                  S      15 48.00
BFS      0.74 227 eP     15 43.20    0.9
                  S      15 54.00
SLR      1.04  51 eP     15 48.50    0.8
```

S 16 03.60
SEK 1.93 174 eP 16 02.00 0.5
S 16 29.00
SWZ 2.01 247 eP 16 03.00 0.4
S 16 29.30
BFT 2.49 74 eP 16 09.10 -0.5
S 16 30.00
BLF 2.90 201 eP 16 15.00 -0.4
S 16 48.30
FRS 3.81 208 e(P) 16 27.10 -1.0
S.D. = 0.8 on 9 of 9 obs.

% JAN 11, 1993 04h 40m 44.03± 0.70s
40.635 N ± 5.8km 22.500 E ± 5.8km
DEPTH = 10.0km (geophysicist)
GREECE (364)

GRG 0.33 347 ePg 40 50.62 -0.3
eSg 40 56.18
THE 0.35 90 ePg 40 51.58 0.3
eSg 40 57.02
LIT 0.53 181 iPg 40 54.50 -0.3
eSg 41 02.82
KNT 0.61 30 iPg 40 56.02 -0.3
eSg 41 06.22
SOH 0.68 74 ePg 40 57.66 0.2
FNA 0.87 280 ePg 41 01.18 0.4
S.D. = 0.4 on 6 of 6 obs.

? JAN 11, 1993 04h 47m 00.25± 3.24s
30.560 S ±14.2km 68.825 W ±32.4km
DEPTH = 10.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)

RTLL 0.83 158 iPc 47 17.20 0.9
S 47 28.00
RTCB 0.92 179 eP 47 18.00 0.0
CFA 1.16 154 ePc 47 20.90 -1.0
S 47 36.00
RTPR 2.01 83 ePc 47 34.90 0.3
CYA 3.38 52 eP 47 54.00 -0.2
S.D. = 1.0 on 5 of 5 obs.

& JAN 11, 1993 05h 51m 29.18s
34.391 N 116.462 W
DEPTH = 3.1km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 3.0 (PAS). Felt.

PEC 0.76 230 iPd 51 43.39 -1.1
GSC 0.95 343 ePc 51 46.98 -1.0
PLM 1.09 198 eP 51 49.15 -1.2
GLA 1.91 134 (Pn) 52 00.02 -2.9
ISA 2.08 308 ePn 52 06.17 0.7
MEMM 3.84 329 ePg 52 40.41 10.0
BONR 3.86 338 ePg 52 41.30 10.3
MSU 5.37 39 ePg 53 02.95 10.5
8 obs. associated

JAN 11, 1993 07h 03m 48.20± 0.25s
22.159 S ± 4.7km 176.562 W ± 7.0km
DEPTH = 167.8km (22 depth phases)
5.2mb (17 obs.)
SOUTH OF FIJI ISLANDS (171)
Mw 5.1 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 8S, 8C
Centroid Location:
Origin Time 07:03:55.6 2.3
Lat 21.46S 0.32 Lon 176.01W 0.21
Dep 160.3 5.4 Half-duration 1.0
Moment Tensor; Scale 10**16 Nm
Mrr=-2.86 0.79 Mtt= 2.07 1.59
Mff= 0.79 1.27 Mrt=-1.09 1.00
Mrf=-3.32 0.74 Mtf= 3.32 1.11
Principal Axes:
T Val= 5.86 Plg=20 Azm=135
N -0.94 27 34
P -4.92 55 256
Best Double Couple:Mo=5.4*10**16
NP1:Strike=262 Dip=35 Slip= -36
NP2: 23 70 -119

SVA 6.17 310 iP 05 19.30 1.1
MBU 6.81 318 iPd 05 27.00 0.2
BKM 14.97 285 iPc 07 19.20 6.5X
DZM 15.75 267 iPc 07 27.00 4.6X
HBZ 16.01 195 eP 07 27.50 2.1
PUZ 16.48 195 eP 07 30.50 -0.6
eS 10 20.90
URZ 16.95 197 eP 07 35.50 -1.2
NOZ 17.05 195 eP 07 37.90 -0.1
e 07 41.70
WLZ 17.05 202 eP 07 39.80 1.7
MOZ 17.90 203 P 07 49.30 1.6
WAHZ 18.50 197 eP 07 52.10 -2.0
PGZ 19.38 197 eP 08 02.20 -1.0
eS 11 24.10
MNG 19.60 198 eP 08 02.00 -3.5X
e 08 04.40 9kmX
KIW 19.99 199 eP 08 07.70 -1.8
MTW 20.09 198 eP 08 09.60 -0.9
MRW 20.39 199 eP 08 12.50 -1.0
eS 11 46.50
SNZO 20.47 199 P 08 13.00 -1.2
S 11 47.00
TCW 20.51 200 eP 08 12.20 -2.5
QRZ 20.77 204 eP 08 16.90 -0.4
e 08 21.40 17kmX
THZ 21.46 202 eP 08 24.80 0.7
eS 12 10.90
KHZ 21.83 200 eP 08 26.70 -1.0
eS 12 15.90
DSZ 21.84 204 eP 08 28.70 0.8
LTZ 22.58 202 eP 08 35.00 0.0
MQZ 23.28 200 eP 08 43.20 1.5
eS 12 47.00
LMZ 24.50 205 P 08 53.50 0.2
MSCZ 25.61 203 P 09 03.40 -0.2
MHZ 25.63 204 P 09 03.60 -0.3
MMCZ 25.64 204 P 09 03.80 -0.1
LSCZ 25.64 203 P 09 03.90 0.0
SBCZ 25.64 204 P 09 03.60 -0.3
CMCZ 25.71 204 P 09 04.60 0.1
ARMA 29.61 247 iPd 09 41.10 1.3
0.6s 22.00nm 5.1mb
RMO 31.84 255 iPd 10 00.20 1.0
1.0s 49.00nm 5.2mb
i 12 47.80
CNB 32.46 239 iPc 10 06.30 1.6
1.0s 95.00nm 5.5mb
CAN 32.75 239 eP 10 07.70 0.6
BWA 33.01 241 eP 10 07.60 -1.8
CMS 34.68 246 eP 10 24.00 0.3
0.7s 66.00nm 5.4mb
CTA 34.69 266 P 10 25.20 1.3
TOO 36.05 236 eP 10 35.30 0.2
0.6s 98.00nm 5.7mb
TAU 36.43 227 eP 10 40.00 1.8
BFD 38.25 238 eP 10 55.30 1.8
1.0s 35.00nm 5.0mb
STK 38.32 246 iPd 10 55.00 0.8
0.7s 28.20nm 5.1mb
ASPA 45.47 258 iPd 11 51.90 -0.5
0.7s 120.80nm 5.6mb
ePcP 13 28.50
eS 18 16.40
WB2 45.71 263 iPd 11 53.20 -1.1
0.6s 64.10nm 5.4mb
i 13 29.60 516kmX
WRA 45.72 263 P 11 53.50 -0.9
1.0s 4.10nm 3.9mb X
FORT 49.89 248 eP 12 25.50 -1.1
WARB 51.63 254 eP 12 38.00 -1.8
NANU 62.27 255 iPd 13 54.00 -0.7
0.4s 36.00nm 5.6mb
CSY 63.05 206 eP 14 05.50 6.3X
0.8s 33.60nm 5.3mb
SPA 67.97 180 iPd 14 33.20 2.3
0.9s 31.82nm 5.1mb
ADK 73.72 360 eP 15 01.95 -3.0
0.5s 23.50nm 5.2mb
ARN 78.64 42 (P) 15 36.02 3.0X
epP 16 17.50 169km
ISA 79.55 45 eP 15 38.31 0.4
1.2s 7.19nm 4.3mb
epPc 16 20.08 170km
CMB 79.78 42 eP 15 38.93 -0.2
0.8s 2.22nm 3.9mb X
epP 16 20.27 168km
ORV 80.06 40 eP 15 40.35 -0.1
epP 16 21.83 168km
WDC 80.11 39 eP 15 41.14 0.4
0.9s 3.22nm 4.1mb X
epPc 16 22.65 168km
GSC 80.43 46 (P) 15 44.03 1.4
MAW 80.46 200 P 15 54.20 12.1X
MTUM 80.51 43 eP 15 44.57 1.4
epP 16 25.81 167km
LBFM 80.98 38 eP 15 46.34 0.8
epP 16 27.46 166km
BONR 81.03 43 eP 15 46.43 0.4
epP 16 28.21 169km
TNP 81.80 43 (P) 15 51.11 1.3
epP 16 31.97 165km
BMW 83.60 34 eP 15 59.47 0.8
epP 16 41.65 170km
SHW 83.93 35 eP 16 01.43 1.0
epP 16 42.79 166km
LON 84.51 34 eP 16 03.32 0.1
epP 16 44.39 164km
GMW 84.53 33 eP 16 03.93 0.7
epP 16 45.59 167km
RMW 84.98 34 ePd 16 05.74 0.2
epP 16 47.60 168km
SLKM 85.11 13 eP 16 04.25 -1.7
epP 16 46.35 169km
MSU 85.31 45 eP 16 09.07 1.4
epP 16 50.46 165km
BGL 85.39 11 ePd 16 05.30 -2.1
epP 16 46.58 165km
CP2 85.41 12 eP 16 05.31 -2.3
SRU 86.71 45 eP 16 14.37 -0.1
epP 16 56.47 168km
DPW 87.12 35 eP 16 16.20 0.1
epP 16 57.79 166km
LCCM 89.48 39 eP 16 27.50 0.0
e 17 11.30 175km
FBA 89.57 12 eP 16 25.42 -1.8
0.7s 5.08nm 4.6mb
epP 17 08.53 171km
esP 17 31.16
CHG 92.06 289 eP 16 40.50 0.8
SES 92.42 36 eP 16 41.00 0.3
RSSD 93.42 43 eP 16 45.14 -0.5
0.6s 3.54nm 4.7mb
epP 17 28.27 171km
YKA 97.46 24 eP 17 01.30 -2.6
0.9s 1.40nm 4.4mb
GUN 106.41 294 Pdiff 17 57.66 13.0X
PKI 106.71 293 Pdiff 17 50.86 4.8X
KKN 106.89 294 Pdiff 17 52.08 5.4X
DMN 106.98 293 Pdiff 17 49.72 2.6X
GKN 107.49 294 Pdiff 17 51.98 2.7X
GBA 109.64 277 PKP 21 49.00 -12.2X
KAF 137.10 344 iPKP 22 51.50 -0.8
0.6s 3.70nm
NAO 141.02 354 PKP 22 51.00 -8.5X
0.7s 2.60nm
HFS 141.37 352 ePKP 22 51.60 -8.5X
0.5s 4.10nm
LWI 145.34 229 iPKPd 23 09.80 1.2
MUD 145.48 354 iPKPc 23 07.30 0.1
0.9s 87.00nm
OJC 149.18 339 ePKP 23 17.60 4.2X
e 23 20.00
KSHT 149.44 298 iPKPd 23 19.60 5.2X
KSP 149.66 344 iPKPd 23 18.90 4.8X
1.0s 47.00nm
e 24 05.80
VRI 149.68 327 ePKPd 23 15.50 1.2
SPC 149.91 338 ePKP 23 20.00 5.2X
CLL 149.96 348 iPKP 23 19.10 4.6X
1.5s 78.00nm
pPKP 24 06.10
CVO 149.99 327 ePKP 23 21.00 6.2X
JVI 150.05 296 iPKPd 23 20.90 5.5X
BRG 150.18 347 iPKPd 23 20.40 5.5X
1.2s 50.00nm
i 24 07.40
ISR 150.27 326 ePKPc 23 21.50 6.2X
MLR 150.34 327 ePKPc 23 20.00 4.5X
MOX 150.85 349 ePKP 23 21.90 6.0X
1.6s 31.00nm
PRU 150.88 345 PKP 23 21.50 5.5X
e 23 28.70
e 24 09.00
RMN 150.91 293 iPKPd 23 22.80 6.0X
ZST 151.81 340 ePKP 23 24.00 6.6X
GRF 151.84 349 ePKP 23 24.40 7.0X

```
                    e     23 33.20
KHC   151.90 346 PKP    23 24.50    6.9X
       0.8s      6.80nm
                    e     23 34.50
                    e     24 11.40
DOU   152.10 358 PKP    23 24.70    6.9X
                    e     24 13.40
GEC2  152.14 345 ePKPd  23 24.50    6.5X
       0.5s      2.15nm
                    e     23 27.20
                    e     23 29.40
WLF   152.47 356 PKPc   23 37.00   18.7X
VBY   154.79 340 e(PKP)23 30.50    8.9X
OHR   156.09 326 ePKP   23 21.50   -2.1
BCAO  157.10 222 iPKPd  23 25.70    0.1
       1.6s     26.00nm
                    ic    23 57.80
                    id    32 40.20
LIC   162.17 151 PKP    23 32.00    1.0
KIC   162.42 152 PKP    23 32.00    0.7
TIC   162.55 151 PKP    23 32.40    1.0
     S.D. = 1.2  on  82 of 116 obs.
-----------------------------------------
?  JAN  11, 1993  07h 35m 27.37± 8.40s
   43.049 N ±61.4km   18.725 E ± 9.0km
   DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION        (383)
      ML 1.3 (TTG).

BRY     0.20 222 iPgd   35 31.85    0.0
                 iSg    35 34.76
NKY     0.31 140 iPgc   35 33.75   -0.1
                 iSg    35 39.06
HCY     0.62 196 iPgc   35 39.79   -0.1
                 iSg    35 49.82
TTG     0.73 147 iPgd   35 41.85    0.1
                 iSg    35 53.46
BDV     0.77 174 iPgd   35 42.50    0.1
                 iSg    35 55.13
     S.D. = 0.2  on   5 of   5 obs.
-----------------------------------------
   JAN  11, 1993  07h 54m 16.37± 0.65s
   18.423 N ± 4.4km  145.242 E ± 4.8km
   DEPTH = 471.0 ±  8.0 km
   4.8mb ( 38 obs.)
 MARIANA ISLANDS                   (216)

PJG     4.82 184 Pn     55 41.80    0.9
                 Pg     55 43.50
                 eS     56 47.50
GUA     4.87 184 eP     55 41.50    0.1
       0.5s   197.18nm
MAT    19.08 342 eP     58 09.00    0.7
       0.9s    78.15nm          5.3mb
                 eS     01 15.00
PLP    20.87 253 iPd    58 26.00    0.6
                 eS     58 36.00
CVP    22.28 272 ePc    58 39.60    1.2
       1.0s   116.00nm          5.4mb
PIP    23.37 274 ePc    58 47.50   -0.8
SSE    25.16 305 eP     58 42.50  -22.0X
     Z  20s     0.50um          4.0Msz
                 sP     59 03.40
YSS    28.59 356 eP     59 32.80   -1.7
       1.0s    20.00nm          4.5mb
TSM    30.22 246 ePc    59 49.20    0.2
BJI    33.03 317 eP     00 13.50    0.9
                 e      04 56.00
CTA    38.28 178 P      00 57.40    1.0
KHKI   39.54 230 ePd    01 06.60   -0.2
                 e      02 39.40
WB2    39.60 196 iPc    01 06.90   -0.3
       0.5s    32.30nm          5.1mb
                 i      06 04.20
WRA    39.60 196 P      01 07.09   -0.1
LZH    40.44 304 iPc    01 16.00    1.9
       1.0s    47.00nm          4.9mb
                 pP     01 45.00 128kmX
LOE    41.34 276 eP     01 22.10    0.7
CIT    41.70 331 eP     01 25.00    1.1
ASPA   43.27 195 iPc    01 35.80   -0.8
       0.9s    17.70nm          4.5mb
                 iS     07 26.70
CHG    43.78 278 ePc    01 41.40    0.7
       0.8s    24.25nm          4.7mb
                 e      04 23.40
RMO    44.77 176 eP     01 47.20   -1.1
       0.8s    16.00nm          4.5mb
ADK    44.79  33 eP     01 46.66   -1.5
       0.7s    71.22nm          5.2mb
DZM    45.28 152 iPd    01 52.10   -0.3
BOD    45.55 337 iPd    01 53.90   -0.1
       1.1s    20.00nm          4.5mb
ZAK    46.11 324 eP     01 59.00    0.7
       1.0s    13.00nm          4.4mb
                 e      03 24.70
WARB   47.88 203 iPc    02 11.80   -0.4
       0.5s    14.00nm          4.7mb
NANU   50.03 217 iPc    02 27.70   -0.7
       0.6s    49.00nm          5.1mb
BWA    52.64 177 eP     02 46.70   -0.6
CAN    53.57 176 eP     02 52.60   -1.4
TIK    54.08 354 iPd    02 56.00   -1.2
       1.2s    24.00nm          4.4mb
                 e      03 57.00
SDN    54.93  35 eP     03 02.11   -1.2
       0.6s   153.21nm          5.5mb
GUN    54.94 292 Pc     03 04.34    0.0
       0.3s    22.00nm          4.9mb
PKI    55.38 291 Pc     03 06.84   -0.6
       0.4s    22.00nm          4.8mb
KKN    55.48 291 Pc     03 07.56   -0.4
DMN    55.65 291 Pc     03 08.84   -0.4
       0.4s    29.00nm          4.9mb
TOO    55.69 180 eP     03 08.50   -0.4
       0.7s    13.00nm          4.4mb
GKN    56.03 292 Pc     03 11.34   -0.4
       0.3s    29.00nm          5.0mb
TTA    59.69  27 iPd    03 35.60   -0.5
       0.9s    13.55nm          4.4mb
BGL    60.80  29 eP     03 42.61   -0.8
CP2    60.87  29 eP     03 43.49   -0.6
NRI    61.57 340 ePd    03 46.50   -1.7
SLKM   61.64  31 eP     03 47.39   -1.5
                 e      04 23.37
PMR    62.40  29 eP     03 52.03   -1.7
       0.5s    21.30nm          4.9mb
                 e      04 12.63
FBA    63.73  26 eP     04 00.35   -1.9
       0.8s    12.87nm          4.6mb
KLU    63.89  30 eP     04 02.54   -0.9
GBA    65.03 277 Pc     04 10.50   -0.8
       0.6s     4.00nm          4.2mb
BALM   65.54  31 iPc    04 12.92   -1.0
                 e      04 40.51
BRVK   66.47 321 iPd    04 19.00   -0.7
       1.0s    32.00nm          4.9mb
                 iS     12 28.00
ARU    73.02 325 eP     04 55.00   -3.5X
BMW    77.91  45 ePd    05 26.32    0.4
GMW    77.94  44 iPd    05 26.77    0.8
YKA    78.43  28 eP     05 27.70   -0.5
       0.5s    13.70nm          4.8mb
RMW    78.61  44 eP     05 30.00    0.4
SHW    78.64  45 eP     05 30.65    0.7
KMPM   78.77  51 eP     05 32.07    1.4
LON    78.78  44 eP     05 30.65    0.1
RES    79.79  14 ePd    05 36.20    1.0
       0.7s    19.00nm          4.7mb
VGB    79.80  45 eP     05 36.26    0.4
WDC    79.89  51 eP     05 35.85   -0.5
       1.0s    17.84nm          4.6mb
DPW    80.83  43 eP     05 41.41    0.2
ORV    80.94  51 iPd    05 41.79   -0.1
NEW    81.41  42 ePc    05 44.33    0.2
       0.9s    44.64nm          5.1mb
ARN    81.54  54 eP     05 45.56    0.5
CMB    82.21  53 iPd    05 48.84    0.4
       0.8s    29.66nm          4.9mb
KVN    83.60  51 eP     05 56.01    0.4
BONR   83.80  52 ePd    05 57.13    0.4
SES    84.42  39 iPd    05 59.20    0.0
       1.0s    89.00nm          5.4mb
DAG    84.52 356 eP     05 59.10    0.0
       0.8s    30.60nm          5.0mb
TNP    84.57  52 iPd    06 00.79    0.4
       0.7s    15.34nm          4.8mb
LCCM   85.60  43 iPd    06 05.50    0.3
                 e      08 47.80
HHAI   86.21  46 eP     06 08.96    0.8
PTI    86.38  46 eP     06 08.96    0.0
KAF    86.49 336 iP     06 07.30   -1.6
       0.6s     5.60nm          4.5mb
HVU    86.50  47 ePd    06 10.12    0.5
DUG    87.05  49 eP     06 12.36    0.1
       0.6s     6.58nm          4.5mb
MSU    88.14  50 ePd    06 18.40    0.9
EMUT   88.62  48 ePd    06 20.16    0.4
SRU    89.10  49 iPd    06 22.10    0.2
FCC    89.10  27 ePc    06 24.00    2.8
PV09   90.34  49 eP     06 27.92    0.1
PV08   90.66  49 eP     06 29.34    0.1
RSSD   91.38  42 eP     06 31.91   -0.4
       0.6s     7.00nm          4.8mb
GOL    92.48  47 eP     06 38.15    0.6
       0.6s     1.52nm          4.2mb
GLD    92.56  47 eP     06 38.74    0.9
       1.1s    16.56nm          5.0mb
ULM    93.07  34 eP     06 42.00    2.3
LIC   141.79 307 (PKP) 12 51.00   -4.9X
PEL   144.68 122 ePKPd 13 00.00   -0.4
ARE   144.94  93 ePKP  12 57.00   -4.6X
ZOBO  148.10  91 PKP   13 07.00   -0.1
       1.0s    40.00nm
LPB   148.17  92 PKP   13 08.00    1.1
CNCB  148.32  92 PKP   13 08.10    0.8
     S.D. = 0.9  on  86 of  90 obs.
-----------------------------------------
   JAN  11, 1993  07h 56m 59.89± 0.69s
   18.333 N ± 7.6km  145.172 E ± 6.4km
   DEPTH = 489.1 ±  9.3 km
   4.4mb ( 13 obs.)
 MARIANA ISLANDS                   (216)

PJG     4.73 184 eP     58 24.40   -0.2
                 eS     59 30.10
GUA     4.77 183 e(P)   58 25.50    0.5
MAT    19.15 343 eP     00 51.00   -0.6
WB2    39.49 196 iPd    03 49.10    0.5
       0.4s    15.30nm          4.9mb
                 e      04 18.10
                 iScP   08 46.30
                 iS     09 22.00
LZH    40.44 304 Pd     03 57.50    1.1
       1.0s    47.00nm          5.0mb
                 pP     04 22.00 106kmX
ASPA   43.17 195 eP     04 17.20   -0.8
       0.5s     7.40nm          4.4mb
                 eS     10 07.40
RMO    44.69 175 eP     04 29.40   -0.5
       0.8s    13.00nm          4.5mb
DZM    45.23 152 iPc    04 34.10   -0.1
GUN    54.91 292 P      05 47.00    0.8
PKI    55.35 291 P      05 48.60   -0.7
KKN    55.45 291 P      05 50.20    0.4
       0.9s    41.00nm          4.8mb
DMN    55.62 291 P      05 51.40    0.3
GKN    56.00 292 P      05 54.00    0.4
       1.0s    56.00nm          4.8mb
HYB    63.07 281 eP     06 42.00    1.2
FBA    63.84  26 eP     06 43.25   -1.7
       0.6s     1.86nm          3.9mb
KLU    64.00  30 eP     06 45.35   -0.8
GBA    64.98 277 Pd     06 52.60   -0.3
       0.6s     5.00nm          4.3mb
BALM   65.65  31 eP     06 55.11   -1.5
POO    67.21 283 iPc    07 04.00   -2.7
BMW    78.02  45 (P)    08 08.79    0.4
GMW    78.05  44 eP     08 09.15    0.7
RMW    78.72  44 eP     08 12.24    0.2
SHW    78.75  45 eP     08 14.24    1.9
LON    78.90  44 eP     08 12.80   -0.2
RES    79.90  14 ePc    08 18.60    1.0
       0.6s     5.00nm          4.2mb
VGB    79.91  45 eP     08 18.76    0.5
DPW    80.95  43 eP     08 23.09   -0.6
ORV    81.04  51 eP     08 24.16   -0.1
NEW    81.52  42 eP     08 26.51    0.0
       0.7s    11.86nm          4.6mb
ARN    81.64  54 eP     08 27.60    0.2
BONR   83.91  52 eP     08 38.83   -0.3
SES    84.53  39 ePd    08 41.40   -0.2
TNP    84.68  52 eP     08 42.94    0.2
       0.6s     3.51nm          4.2mb
HHAI   86.32  46 eP     08 51.20    0.7
HVU    86.61  47 eP     08 52.18    0.2
DUG    87.16  49 eP     08 54.94    0.3
       0.5s     1.47nm          4.0mb
MSU    88.24  50 eP     08 59.79   -0.1
EMUT   88.73  48 eP     09 02.44    0.4
SRU    89.21  49 iPd    09 04.12   -0.1
```

11d 08h

```
PV09    90.45  49 eP    09 09.92  -0.2
RSSD    91.49  42 eP    09 14.19  -0.5
        0.4s      1.60nm          4.4mb
LIC    141.80 307 (PKP) 15 33.00  -4.6X
ARE    145.00  93 ePKP  15 46.00   2.7X
ZOBO   148.16  92 PKP   15 53.10   4.3X
LPB    148.23  92 ePKP  15 53.00   4.3X
CNCB   148.38  92 iPKPd 15 54.30   5.2X
      S.D. = 0.8  on  41 of  46 obs.
-----------------------------------------
*  JAN  11, 1993  08h 22m 47.22± 1.03s
   10.527 N ±24.7km   85.134 W ±18.8km
   DEPTH =  32.1km  (  2 depth phases)
   4.2mb (  3 obs.)
 COSTA RICA                          ( 78)
      MD 4.4 (UPA).

BRU      3.06 124 iPd   23 34.74  -0.1
                  eS    24 09.44
DVD      3.37 128 iP    23 38.99   0.2
ECO      5.48 102 iP    24 08.74  -0.1
UPA      5.73 105 iP    24 12.68   0.4
                  eS    25 15.91
PPM     15.56 305 iP    26 27.50   1.0
MIAR    25.12 343 eP    28 10.75  -0.1
        0.7s      5.54nm          4.3mb
MEO     27.09 335 iPd   28 31.30   2.3
ALQ     31.12 325 eP    29 04.00  -1.4
        1.0s      6.75nm          4.4mb
                  pP    29 13.50  33km
SRU     36.37 326 eP    29 49.33  -1.3
                  pP    29 58.64  31km
BGMT    41.57 331 eP    30 33.10  -0.8
                  e     30 43.30
                  e     32 39.00
YKA     56.06 344 eP    32 21.20  -4.1X
        0.6s      0.40nm          3.6mb
LIC     79.19  86 P     35 00.20   8.9X
KIC     79.45  85 P     35 01.80   9.1X
      S.D. = 1.2  on  10 of  13 obs.
-----------------------------------------
*  JAN  11, 1993  08h 42m 27.14± 0.91s
   5.483 S ±13.0km  147.149 E ±11.6km
   DEPTH = 187.9 ±  7.3 km
   4.8mb (  6 obs.)
 EASTERN NEW GUINEA REG., P.N.G. (207)

FINC     1.33 148 iPd   42 58.10  -0.4
MDG      1.38 280 iP    42 59.30   0.3
WB2     19.01 220 iPc   46 36.50  -0.6
                  ePcP  50 01.30
                  eS    50 10.10
RMO     20.94 176 iPc   46 57.70   1.2
        0.7s     40.00nm          5.0mb
ASPA    22.13 214 iPc   47 09.20   1.1
        0.6s     23.80nm          4.9mb
                  eS    50 59.90
DZM     24.91 133 iPc   47 34.80   0.2
ARMA    25.16 171 eP    47 37.20   0.3
        1.0s     51.00nm          5.1mb
STK     26.77 191 eP    47 50.80  -0.6
        0.4s      1.20nm          4.0mb
                  e     48 01.90
WARB    28.42 221 eP    48 06.00  -0.4
BFD     31.82 187 eP    48 35.20  -0.9
        0.5s     17.00nm          5.0mb
YKA     98.65  28 eP    55 45.50  -0.1
        0.8s      0.40nm          3.9mb
      S.D. = 0.8  on  11 of  11 obs.
-----------------------------------------
?  JAN  11, 1993  08h 57m 38.26± 1.25s
   33.157 S ±13.7km  178.623 E ±31.8km
   DEPTH =  33.0km  (normal)
 SOUTH OF KERMADEC ISLANDS           (179)

PUZ      4.91 183 P     58 51.90   0.1
                  S     59 41.50
MNG      7.86 198 P     59 33.20   0.1
                  S     00 54.90
KHZ     10.08 202 P     00 03.50  -0.2
                  S     01 46.20
ASPA    40.20 272 eP    05 13.10  -0.3
                  e     05 27.10
WB2     41.44 277 iPc   05 34.90  11.3X
        0.3s     33.00nm
                  i     05 37.40
                  i     07 24.60
WRA     41.45 277 P     05 35.50  11.9X
        0.5s      1.00nm
YKA    109.18  27 ePKP  16 03.40  -2.1
        1.2s      0.50nm
BCAO   145.91 217 iPKPd 17 16.00   0.1
KAF    146.07 337 iPKP  17 17.10   2.4
        0.4s      3.10nm
NUR    147.78 336 ePKP  17 22.20   4.7X
SLL    151.02 345 ePKP  17 29.30   6.8X
        0.5s      3.90nm
NAO    151.20 348 PKP   17 30.30   7.6X
        0.7s      4.30nm
LIC    152.99 172 (PKP) 17 32.30   5.6X
KIC    153.16 173 (PKP) 17 33.50   6.5X
      S.D. = 1.6  on   7 of  14 obs.
-----------------------------------------
?  JAN  11, 1993  09h 30m 07.16± 3.13s
   6.454 S ±15.7km  130.549 E ±23.6km
   DEPTH =  78.1 ± 29.8 km
   4.5mb (  3 obs.)
 BANDA SEA                           (280)

MTN      6.38 175 iPd   31 41.00   0.5
                  eS    32 40.00
WB2     13.91 165 iPd   33 17.90  -4.2X
                  eS    35 43.70
ASPA    17.41 170 eP    34 05.40  -1.2
        0.4s     37.30nm          5.0mb
                  eS    37 05.20
WARB    19.97 190 eP    34 36.00   0.2
        0.4s      9.00nm          4.4mb
NANU    21.59 221 eP    34 52.00  -0.2
MEEK    23.07 208 eP    35 07.00   0.3
STK     27.32 159 iPc   35 47.10   0.5
        0.5s      5.20nm          4.3mb
GUN     55.01 311 P     39 33.40  -0.1
GKN     56.00 310 P     39 40.40   0.0
LPB    150.64 141 PKP   49 55.00   7.6X
ZOBO   150.81 141 PKP   49 55.00   7.0X
      S.D. = 0.7  on   8 of  11 obs.
-----------------------------------------
%  JAN  11, 1993  09h 33m 38.06± 0.94s
   39.124 N ± 8.4km   27.585 E ±15.8km
   DEPTH =   5.0km  (geophysicist)
 TURKEY                              (366)
      MD 2.8 (ISK).

IZM      0.77 199 iPg   33 53.50   0.0
DST      0.94  59 iPg   33 56.40  -0.1
                  eSg   34 10.40
EDC      1.24  10 iPn   34 01.00  -0.5
BNT      1.26  12 ePn   34 02.30   0.4
KCT      1.27  28 iPn   34 02.30   0.2
      S.D. = 0.5  on   5 of   5 obs.
-----------------------------------------
   JAN  11, 1993  09h 42m 54.07± 0.69s
   40.486 N ± 6.1km   21.859 E ± 5.9km
   DEPTH =  10.0km  (geophysicist)
 GREECE                              (364)

FNA      0.47 309 ePg   43 03.32  -0.4
                  iSg   43 09.82
LIT      0.62 128 iPg   43 05.76  -0.8
                  eSg   43 15.68
GRG      0.63  41 ePg   43 06.60  -0.1
VAY      0.99  33 ePn   43 13.00   0.1
OHR      1.02 308 ePn   43 13.50   0.1
KNT      1.04  49 iPg   43 13.96   0.3
AGG      1.51 166 ePb   43 21.80   0.6
      S.D. = 0.6  on   7 of   7 obs.
-----------------------------------------
*  JAN  11, 1993  09h 50m 15.24± 1.64s
   17.140 N ±17.4km  100.519 W ±11.7km
   DEPTH =  33.0km  (normal)
   3.9mb (  1 obs.)
 GUERRERO, MEXICO                    ( 59)
      Felt in Guerrero.

ACX      0.69 113 iP    50 28.00  -0.5
                  iS    50 39.00
UNM      2.52  30 iP    50 53.50  -1.6
                  iS    51 24.00
PPM      2.63  43 eP    50 52.50  -4.3X
                  iS    51 27.50
IISM     3.51  58 (P)   51 09.50   0.7
CGX      3.78 313 eP    51 12.50  -0.3
                  iS    52 02.00
AGX      5.00 341 (P)   51 35.00   5.0X
EVV      5.10  74 (P)   51 32.00   0.7
ALQ     18.51 344 eP    54 32.00   1.0
        1.0s      9.00nm          3.9mb
YKA     46.37 351 eP    58 46.20   6.3X
        0.6s      0.10nm          2.9mb X
      S.D. = 1.2  on   6 of   9 obs.
-----------------------------------------
*  JAN  11, 1993  10h 49m 11.23± 0.65s
   20.737 S ± 6.9km   69.537 W ±14.8km
   DEPTH =  92.8km  (  3 depth phases)
   4.8mb (  3 obs.)
 NORTHERN CHILE                      (123)

ANT      3.06 195 eP    50 01.20   2.7
                  iS    50 44.50
CNCB     4.18  21 P     50 15.20   0.8
LPB      4.40  18 P     50 19.30   1.9
        1.0s    472.00nm
HJA      4.56 123 iPc   50 21.00   1.8
ZOBO     4.62  17 P     50 21.00   0.3
                  i     50 22.70
ARE      4.64 336 eP    50 20.00  -0.6
                  iS    51 27.00
SLA      5.45 138 ePc   50 33.20   1.5
FSA      6.23 149 e(P)  50 46.10   3.8X
CYA      8.39 157 eP    51 16.00   4.0X
RTLL    10.59 175 eP    51 41.00  -0.8
RTCB    10.73 177 e(P)  51 43.80   0.2
TCA     11.45 158 iP    51 52.00  -1.3
MDZ     12.11 177 e(P)  52 11.40   9.4X
PEL     12.40 184 eP    52 11.00   5.3X
RFA     14.01 176 e(P)  52 25.30  -1.5
VAO     21.06 100 eP    53 45.70  -4.1X
BAO     21.08  80 e(P)  53 41.00  -9 0X
                  e     53 42.50
                  e     53 44.80
                  e     53 45.80
                  e     53 49.10
BDF     21.15  80 e(P)  53 42.00  -8.8X
                  e     53 43.00
                  e     53 46.10
ELC     60.62 342 ePd   59 12.82  -1.6
FVM     61.62 341 eP    59 20.33  -1.0
        0.5s      8.67nm          5.1mb
                  pP    59 44.10  94km
LIC     68.74  74 P     00 05.00  -2.5
KIC     69.06  74 P     00 07.00  -2.5
        0.7s     10.00nm          4.8mb
SRU     70.82 327 ePd   00 21.39   1.4
                  pP    00 45.22  92km
MSU     71.22 326 eP    00 24.30   1.9
                  pP    00 48.20  92km
ULM     74.42 343 eP    00 43.50   2.9X
YKA     90.28 341 eP    02 01.60  -0.7
        1.1s      3.20nm          4.4mb
      S.D. = 1.7  on  18 of  26 obs.
-----------------------------------------
   JAN  11, 1993  11h 33m 52.33± 0.32s
   35.998 N ± 4.0km   31.160 E ± 4.2km
   DEPTH =  66.3 ±  6.0 km
   4.2mb (  9 obs.)
 CYPRUS REGION                       (372)
      MD 4.0 (HLW), 4.0 (ISK).

ELL      1.26 307 iPn   34 15.00   0.6
KSL      1.28 276 ePb   34 14.30  -0.3
PPCY     1.47 139 eP    34 18.10   0.9
                  eS    34 45.00
BCK      1.53 343 iPn   34 17.30  -0.8
CSS      2.05 120 ePc   34 23.80  -1.4
                  eS    34 49.50
FAM      2.53 112 eP    34 33.50   1.7
                  eS    35 07.50
YER      2.58 297 iPn   34 32.20  -0.4
KHL      2.66 331 ePn   34 33.00  -0.8
ADAT     3.54  71 ePn   34 46.60   0.5
                  iSg   35 33.00
IZM      3.93 309 iPn   34 50.00  -1.5
BBTK     4.04  18 eP    34 53.00  -0.2
                  eS    35 39.00
DST      4.12 332 ePn   34 53.30  -1.0
BHL      4.24 118 Pn    34 55.00  -1.0
                  Sn    35 40.00
GPA      4.34 351 ePn   34 56.50  -0.8
ADI      4.44 130 eP    34 59.50   0.7
NPS      4.58 262 ePn   34 59.50  -1.2
```

```
EYL      4.63 350 ePn   35 00.20  -1.3
ATZ      4.65 132 eP    35 02.30   0.7
                  eS    35 50.90
HRI      4.65 124 eP    35 01.70  -0.1
BNN      4.70  51 ePn   35 04.00   1.5
KCT      4.78 333 ePn   35 02.70  -0.9
ZNT      4.94 138 eP    35 05.40  -0.3
                  eS    35 56.30
GBZT     4.97 345 ePn   35 05.00  -1.1
                  iSg   36 01.00
GAZ      5.01  75 ePn   35 05.60  -1.1
SHMJ     5.01 129 P     35 05.46  -1.4
BNT      5.04 331 ePn   35 07.20   0.0
PRK      5.06 311 ePn   35 04.50  -2.8X
EDC      5.06 330 ePn   35 05.00  -2.4
JVI      5.35 138 eP    35 11.20  -0.3
BURJ     5.37 133 P     35 06.00  -5.9X
KFNJ     5.58 136 P     35 14.93   0.3
MASJ     5.70 137 P     34 49.65 -26.8X
HLW      6.12 179 ePn   35 22.00  -0.3
                  eSn   36 25.00
OTRJ     6.19 138 P     35 14.92  -8.4X
KDZ      7.21 323 iP    35 40.00   2.7
JMB      7.37 333 iP    35 41.00   1.5
DIM      7.46 326 iP    35 42.00   1.2
PLD      7.90 322 iP    35 49.00   2.2
MMB      8.05 316 iP    35 50.00   1.0
VAY      8.56 311 eP    35 56.40   0.4
OHR      9.58 305 eP    36 11.00   0.9
SKO      9.63 311 eP    36 10.00  -0.6
MLR     10.27 339 eP    36 20.00   0.5
VRI     10.41 343 ePd   36 21.00  -0.3
CVO     10.51 341 eP    36 23.00   0.4
CLI     10.94 346 eP    36 32.00   3.7X
OJC     16.43 333 eP    37 42.10   2.2
LPG     20.72 305 eP    38 33.30   3.6X
        0.7s     10.35nm          4.3mb
LPL     20.74 305 eP    38 33.70   3.9X
        1.0s     19.60nm          4.4mb
CDF     21.50 313 eP    38 37.00  -0.3
        0.8s      9.65nm          4.2mb
BSF     21.55 311 eP    38 38.10   0.3
        1.0s      4.60nm          3.8mb
SSF     23.35 307 eP    38 55.10  -0.2
        1.0s     14.00nm          4.4mb
AVF     23.36 306 eP    38 55.30  -0.2
        0.9s      9.50nm          4.2mb
DOU     23.83 315 P     38 58.60  -1.3
NUR     24.88 352 eP    39 10.00   0.0
KAF     26.32 355 eP    39 21.50  -1.7
BCAO    33.50 203 iPd   40 28.00   0.5
        0.7s      3.00nm          4.3mb
KIC     44.17 237 P     41 56.40   0.0
LIC     44.46 237 P     41 58.80   0.1
GKN     45.57  84 P     42 00.00  -7.6X
YKA     78.05 345 eP    45 43.30  -1.6
        0.7s      0.70nm          3.7mb
IMA     78.19   2 eP    45 46.40   0.7
        0.5s      1.24nm          4.1mb
      S.D. = 1.1  on  54 of  62 obs.
-----------------------------------
?  JAN  11, 1993  11h 40m 50.61± 0.92s
   39.133 N ± 8.2km   27.507 E ± 9.1km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                            (366)
      MD 2.6 (ISK).

IZM      0.76 195 iPg   41 05.50   0.0
                  eSg   41 17.50
DST      0.99  61 ePn   41 09.30  -0.1
EZN      1.15 307 ePn   41 12.00   0.0
KCT      1.29  30 ePn   41 14.70   0.1
      S.D. = 0.2  on   4 of   4 obs.
-----------------------------------
?  JAN  11, 1993  13h 08m 26.52± 0.92s
   39.124 N ± 8.5km   27.599 E ± 9.2km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                            (366)
      MD 2.7 (ISK).

IZM      0.77 200 iPg   08 41.60   0.0
                  iSg   08 53.10
DST      0.93  59 ePn   08 44.30   0.0
EZN      1.21 306 ePn   08 49.00   0.0
KCT      1.27  27 iPn   08 50.10   0.0
      S.D. = 0.1  on   4 of   4 obs.
-----------------------------------
*  JAN  11, 1993  13h 11m 53.05± 2.85s
   32.655 S ±14.7km   71.712 W ±23.8km
   DEPTH =  33.0km  (normal)
 NEAR COAST OF CENTRAL CHILE       (135)
      MD 4.2 (SAN).

IHA      0.37 171 iPd   12 01.40  -0.4
                  iS    12 06.60
ROCH     0.67 118 iPd   12 05.42  -0.8
LCCH     0.83 172 iPd   12 07.76  -0.5
                  iS    12 19.66
JACH     0.94  92 iPd   12 09.31  -0.8
                  iS    12 21.70
PEL      0.99 120 iPd   12 10.53  -0.2
                  iS    12 22.97
TACH     1.19 147 iPd   12 13.56   0.1
                  iS    12 29.79
LNV      1.32 169 iPd   12 15.09  -0.2
                  iS    12 32.97
FCH      1.37 120 iP+   12 16.34   0.0
                  iS    12 33.94
PCH      1.39 134 iPd   12 16.63   0.2
                  iS    12 35.51
CHCH     1.55 145 iPd   12 19.39   0.6
                  iS    12 39.35
CACH     1.73 148 iP    12 22.69   1.3
                  iS    12 46.10
MDZ      2.42  96 eP    12 35.40   4.1X
RTCB     2.73  66 eP    12 38.50   2.9
                  S     13 18.50
RTLL     3.06  65 eP    12 38.00  -2.2
                  S     13 18.00
      S.D. = 1.3  on  13 of  14 obs.
-----------------------------------
&  JAN  11, 1993  13h 30m 24.42s
   38.034 N          118.737 W
   DEPTH =   0.1km
 CALIFORNIA-NEVADA BORDER REGION ( 40)
      <GM-P>. MD 3.2 (GM). ML 3.4
      (BRK).

BONR     0.35 103 iPc   30 32.13   0.7
MEMM     0.40 204 iPd   30 33.10   0.7
MRCM     0.41 153 iPc   30 32.81   0.3
MMPM     0.48 209 iPd   30 34.28   0.2
MTUM     0.69 168 eP    30 37.95  -0.3
KVN      1.13  26 ePd   30 46.18  -0.5
                  eS    31 02.25
TNP      1.20  87 iPc   30 47.65  -0.2
FRI      1.30 217 iPd   30 49.00  -0.3
                  eS    31 08.52
CMB      1.30 271 iPc   30 48.68  -0.8
                  iS    31 05.77
LLA      2.26 232 eP    31 05.20   1.6
ARN      2.32 254 eP    31 05.67   1.1
                  eS    31 35.43
MHC      2.41 254 ePc   31 06.75   0.9
                  eS    31 38.35
HMR      2.42 274 (P)   31 06.09   0.2
PRI      2.44 220 eP    31 07.60   1.3
COE      2.46 253 eP    31 07.01   0.6
SAO      2.50 240 ePc   31 08.45   1.4
                  eS    31 43.16
ORV      2.64 306 iPd   31 09.94   0.9
PRS      2.70 232 ePc   31 11.60   1.7
NTYM     3.11 278 (P)   31 15.24  -0.4
GSC      3.14 150 ePn   31 15.77  -0.4
MIN      3.21 317 eP    31 19.57   2.4
LMEM     3.33 320 (P)   31 21.67   2.7
      22 obs. associated
-----------------------------------
&  JAN  11, 1993  13h 32m 36.25s
   38.028 N          118.728 W
   DEPTH =   7.1km
 CALIFORNIA-NEVADA BORDER REGION ( 40)
      <GM-P>. MD 3.6 (GM). ML 3.8
      (BRK).

BONR     0.34 102 iPc   32 43.41   0.1
MRCM     0.40 154 iPc   32 44.07  -0.3
MEMM     0.40 205 iPd   32 44.25   0.0
MMPM     0.48 210 iPd   32 45.64  -0.3
MTUM     0.69 169 ePc   32 49.25  -0.8
KVN      1.13  26 iPd   32 57.22  -0.7
                  eS    33 13.10
TNP      1.19  87 iPc   32 58.79  -0.1
FRI      1.30 217 eP    32 59.41  -1.1
                  eS    33 17.10
CMB      1.31 271 ePc   32 59.84  -0.9
                  eS    33 16.78
LLA      2.26 232 eP    33 15.15   0.5
                  eS    33 45.39
ARN      2.33 254 ePn   33 16.45   0.9
                  eS    33 46.22
MHC      2.41 254 iPc   33 17.82   1.0
                  eS    33 49.90
HMR      2.43 274 (P)   33 20.26   3.3
PRI      2.44 220 iPd   33 18.78   1.6
COE      2.46 253 eP    33 18.63   1.2
SAO      2.50 241 eP    33 18.63   0.6
                  eS    33 53.86
ORV      2.65 306 ePc   33 20.21   0.1
                  eS    33 57.22
PRS      2.71 232 iPd   33 22.49   1.5
                  eS    33 58.09
GCC      2.78 250 iPd   33 22.98   1.0
PCC      2.94 261 eP    33 25.36   1.1
BCH      3.04 201 ePn   33 25.70   0.0
NTYM     3.12 278 ePn   33 27.06   0.3
GSC      3.13 150 ePn   33 25.76  -1.2
                  ePg   33 35.81
LMEM     3.34 320 ePn   33 29.17  -0.9
FHC      4.92 306 (P)   33 52.59   0.1
      25 obs. associated
-----------------------------------
?  JAN  11, 1993  13h 45m 24.94± 1.59s
   48.288 S ±31.1km  126.789 E ±16.2km
   DEPTH =  10.0km  (geophysicist)
   4.2mb (  7 obs.)
 SOUTH OF AUSTRALIA                (437)

BFD     16.01  52 eP    49 11.70   0.1
        0.7s     10.00nm          4.1mb
STK     19.86  40 eP    49 59.20   0.3
        0.3s      3.60nm          4.2mb
CMS     22.15  48 eP    50 21.30  -1.1
        0.8s      9.00nm          4.3mb
ASPA    25.21  15 eP    50 52.20   0.0
        1.0s     18.10nm          4.7mb
      Z  21s      0.10um          3.3Msz
WRA     28.93  15 P     51 26.80   0.6
        0.8s      0.80nm          3.6mb
WB2     28.93  15 iPd   51 26.40   0.2
        0.8s      2.30nm          4.0mb
CHG     71.29 332 eP    56 48.20   1.8
GBA     75.58 310 P     57 12.00   0.5
PKI     84.13 324 P     57 58.38   0.8
GUN     84.25 324 P     57 57.30  -0.9
DMN     84.29 324 P     57 56.08  -2.2
KKN     84.38 324 P     57 58.38  -0.3
GKN     84.82 323 P     58 00.40  -0.4
LZH     86.46 342 eP    58 08.00  -0.8
        1.4s     21.00nm          5.1mb
YKA    143.87  44 ePKP  04 53.30  -7.5X
        1.1s      2.70nm
RES    148.22  20 ePKP  05 09.00   1.4
        1.0s      3.00nm
      S.D. = 1.1  on  15 of  16 obs.
-----------------------------------
*  JAN  11, 1993  14h 01m 52.88± 2.01s
   3.707 N ±11.8km   76.951 W ±19.9km
   DEPTH =  56.8 ± 16.9 km
   4.0mb (  1 obs.)
 COLOMBIA                          (103)
      Felt at Cali.

PSO      2.53 189 eP    02 31.50  -1.1
BOG      3.02  72 eP    02 41.00   1.4
                  eS    03 22.50
BMG      5.10  49 iPd   03 19.00  10.2X
SDV      8.12  50 eP    03 50.50  -0.4
TOV      9.33  49 eP    04 07.40   0.0
ZOBO    21.70 157 P     06 41.60   0.0
LPB     21.93 157 eP    06 43.00  -0.7
CNCB    22.23 157 eP    06 49.00   2.2
YKA     64.93 342 eP    12 28.20  -0.3
        0.8s      1.30nm          4.0mb
LIC     71.65  85 P     13 09.40  -1.8
KIC     71.93  85 P     13 11.40  -1.4
ASPA   144.21 234 ePKP  21 24.80  -0.1
        0.8s      4.10nm
WB2    145.48 240 ePKP  21 29.50   2.4
        0.9s      2.80nm
WRA    145.49 240 PKP   21 30.50   3.4X
```

11d 14h

```
      0.9s      0.20nm
    S.D. = 1.6  on  12 of  14 obs.
-----------------------------------
*  JAN  11, 1993  14h 17m 17.28± 1.56s
   28.431 S ± 9.8km   67.467 W ±13.2km
   DEPTH = 153.2 ± 30.5 km
 LA RIOJA PROVINCE, ARGENTINA     (138)

CYA      1.47  91 iPd    17 47.00  -0.2
FSA      2.67  29 iP     18 01.20   0.1
                  (S)    18 34.50
RTLL     3.02 197 iPc    18 05.70   0.1
CFA      3.24 192 ePc    18 08.30  -0.1
RTCB     3.26 200 eP     18 08.70   0.0
                  S      18 43.50
TCA      3.83 140 iP     18 16.00  -0.1
                  S      18 54.00
MRA      4.25 159 ePd    18 21.90   0.4
RFA      6.38 187 eP     18 49.80  -0.3
    S.D. = 0.3  on   8 of   8 obs.
-----------------------------------
?  JAN  11, 1993  14h 39m 39.84± 1.66s
   44.448 S ± 5.4km  167.410 E ±14.4km
   DEPTH =  10.0km  (geophysicist)
 SOUTH ISLAND, NEW ZEALAND        (162)
      ML 3.9 (WEL).

MSZ      0.42 122 Pc     39 48.00  -0.5
                  S      39 51.20
MMCZ     1.35 115 P      40 04.10  -0.6
TLC      1.40 123 Pd     40 04.70  -0.8
MHZ      1.47 115 Pd     40 06.40   0.0
SBCZ     1.50 116 P      40 06.80   0.0
CMCZ     1.50 118 P      40 06.60  -0.3
                  S      40 23.70
LRCZ     1.51 115 P      40 07.20   0.1
LMZ      1.53  62 P      40 08.20   1.1
                  i      40 10.90
LSCZ     1.55 116 P      40 07.60   0.1
MSCZ     1.56 115 P      40 08.20   0.4
BCZ      1.59 169 P      40 08.00   0.0
                  S      40 27.10
BWZ      1.77  94 P      40 12.50   1.8
TUZ      2.18 135 P      40 17.20   0.6
                  eS     40 39.10
ODZ      2.38 106 P      40 19.60   0.1
                  S      40 45.10
EWZ      2.66  71 eP     40 24.80   1.4
MQZ      3.85  81 eP     40 39.30  -1.0
                  eS     41 21.20
LTZ      3.90  66 eP     40 39.90  -1.2
DSZ      4.20  52 P      40 44.80  -0.6
THZ      4.83  58 eP     40 54.60   0.2
                  S      41 46.70
QRZ      5.23  48 eP     40 59.20  -0.7
                  eS     41 56.40
    S.D. = 0.8  on  20 of  20 obs.
-----------------------------------
?  JAN  11, 1993  14h 54m 04.67± 1.10s
   37.200 N ±30.3km   68.859 E ±12.8km
   DEPTH =  33.0km  (normal)
   4.4mb (  4 obs.)
 AFGHANISTAN-TAJIKISTAN BORD REG.(717)

MAIO     7.57 266 ePn    55 54.00  -1.6
                  eSn    57 19.00
GKN     16.13 120 P      57 48.64  -2.1
DMN     16.70 120 P      57 59.44   1.4
KKN     16.71 119 P      57 57.20  -0.9
PKI     16.94 120 P      58 06.50   5.5X
      0.5s    38.00nm          4.7mb
GUN     17.06 118 P      58 03.10   0.5
HYB     21.48 154 eP     58 55.00   2.4X
BCAO    56.32 247 iPc    03 47.00   2.1
      0.8s     4.00nm          4.5mb
YKA     80.61   2 eP     06 14.80  -0.1
      0.6s     0.80nm          3.9mb
WB2     83.83 121 eP     06 32.90   0.6
      0.5s     1.20nm          4.3mb
    S.D. = 1.7  on   8 of  10 obs.
-----------------------------------
&  JAN  11, 1993  14h 54m 26.49s
   38.029 N          118.729 W
   DEPTH =   7.0km
 CALIFORNIA-NEVADA BORDER REGION ( 40)
      <GM-P>. MD 2.6 (GM).

BONR     0.35 102 eP     54 33.49  -0.1
MEMM     0.40 205 iPd    54 34.51   0.0
                  S      54 40.34
MRCM     0.40 154 iPc    54 34.27  -0.3
                  eS     54 39.60
MMPM     0.48 210 eP     54 35.57  -0.7
MTUM     0.69 169 eP     54 39.49  -0.8
                  eS     54 48.27
KVN      1.13  26 eP     54 47.57  -0.6
TNP      1.19  87 eP     54 48.61  -0.6
ARN      2.33 254 eP     55 06.98   1.2
COE      2.46 253 (P)    55 06.68  -1.0
ORV      2.65 306 ePn    55 10.28  -0.1
GSC      3.13 150 (P)    55 23.54   6.3
      11 obs. associated
-----------------------------------
?  JAN  11, 1993  15h 21m 04.37± 4.88s
   32.371 S ±33.1km   70.373 W ±17.9km
   DEPTH =  10.0km  (geophysicist)
 CHILE-ARGENTINA BORDER REGION    (127)
      MD 3.5 (SAN).

JACH     0.36 211 iPd    21 12.29   0.5
                  iS     21 19.66
ROCH     0.81 222 iPd    21 19.81  -0.3
                  iS     21 33.30
PEL      0.81 199 iPd    21 20.04  -0.1
                  iS     21 33.55
FCH      0.96 176 iP     21 22.33  -0.5
                  iS     21 37.35
PCH      1.25 185 iPd    21 27.68   0.0
                  iS     21 46.87
TACH     1.36 200 iP     21 28.06  -1.4
                  iS     21 50.01
LCCH     1.49 222 iPd    21 31.17   0.0
                  iS     21 52.95
CACH     1.75 186 eP     21 36.31   1.2
LNV      1.80 209 iP     21 36.36   0.7
                  iS     22 02.51
    S.D. = 0.8  on   9 of   9 obs.
-----------------------------------
?  JAN  11, 1993  16h 11m 03.32± 5.84s
   38.759 N ±37.6km   12.678 E ±30.3km
   DEPTH =  10.0km  (geophysicist)
 SICILY                           (398)

ERC      0.73 186 P      11 17.40  -0.2
                  eSg    11 26.60
CVT      1.08 175 P      11 24.00   0.3
                  eSg    11 39.00
GIB      1.31 126 P      11 27.50  -0.1
                  eSg    11 45.00
MCT      1.35 146 Pc     11 29.20   0.8
MNO      1.79 117 P      11 34.50  -0.1
ATN      2.27 104 P      11 42.00   0.6
MEU      2.43 132 P      11 42.50  -1.3
    S.D. = 0.9  on   7 of   7 obs.
-----------------------------------
&  JAN  11, 1993  16h 22m 06.57s
   34.346 N          116.903 W
   DEPTH =   2.8km
 SOUTHERN CALIFORNIA              ( 43)
      <PAS-P>. ML 2.9 (PAS).

PEC      0.50 205 ePd    22 16.03  -0.6
GSC      0.96   5 ePd    22 24.45  -1.1
PLM      0.99 178 eP     22 25.01  -1.1
                  eS     22 38.78
ISA      1.84 316 eP     22 38.79  -0.6
GLA      2.16 126 eP     22 41.97  -2.0
BCH      2.75 289 eP     22 51.71  -0.8
      6 obs. associated
-----------------------------------
   JAN  11, 1993  16h 41m 13.65± 1.09s
   39.894 N ± 7.8km   23.908 E ± 7.2km
   DEPTH =  10.0km  (geophysicist)
 AEGEAN SEA                       (365)

PAIG     0.18 281 iPg    41 17.92   0.3
                  eSg    41 20.00
OUR      0.44   7 iPg    41 23.36   0.7
SOH      1.02 336 ePg    41 32.36  -0.6
THE      1.03 316 ePg    41 32.75  -0.4
                  eSg    41 46.08
LIT      1.11 281 iPg    41 34.68   0.2
                  eSg    41 48.80
SRS      1.25 349 ePb    41 36.68  -0.1
                  eSb    41 53.80
KNT      1.48 329 iPb    41 40.32   0.0
                  eSb    41 59.40
AGG      1.50 235 ePb    41 40.44  -0.2
                  eSb    41 59.84
MMB      1.70 355 iP     41 43.00  -0.5
VAY      1.75 325 ePn    41 45.40   1.2
RZN      1.89  19 iPc    41 47.00   0.5
KKB      2.07 343 iPd    41 48.00  -0.8
KDZ      2.10  33 iP     41 49.00  -0.2
    S.D. = 0.6  on  13 of  13 obs.
-----------------------------------
*  JAN  11, 1993  16h 43m 20.49± 0.78s
   48.892 N ±10.1km  156.172 E ±12.9km
   DEPTH =  33.0km  (normal)
   4.3mb (  5 obs.)
 EAST OF KURIL ISLANDS            (222)

SKR      1.78 359 ePn    43 50.00   0.6
                  iS     44 13.40
PET      4.42  20 ePn    44 26.00  -0.9
                  eS     45 24.00
KUR      6.75 240 ePn    44 59.50  -0.2
MGD     11.65 347 ePn    46 07.00  -0.3
ILT     22.85  24 eP     48 21.00  -0.4
      1.2s    25.00nm          4.6mb
                  i      48 37.00
ZAK     33.69 293 eP     50 08.00   7.8X
      1.0s     4.00nm          4.3mb
YKA     47.97  39 eP     51 57.50   0.1
      0.8s     0.60nm          3.7mb
CHG     54.60 258 eP     52 58.90  10.9X
GUN     56.85 276 P      53 04.06  -0.6
KKN     57.33 276 P      53 07.32  -0.5
PKI     57.39 276 P      53 07.80  -0.6
DMN     57.56 276 P      53 09.32  -0.2
      0.9s    28.00nm          5.3mb X
GKN     57.61 277 P      53 08.92  -0.8
HYB     68.99 273 eP     54 37.00  12.3X
WRA     71.24 202 P      54 38.00  -0.2
      0.7s     0.20nm          3.3mb X
GBA     72.49 271 P      54 48.00   2.2
KHC     77.17 336 P      55 13.00   0.8
                  e      55 25.00
GEC2    77.39 336 ePd    55 13.60   0.1
      0.6s     1.03nm          4.0mb
                  e      55 20.30
                  e      55 25.50
                  e      55 31.10
KBA     79.11 335 iPc    55 23.80   0.8
      1.0s     9.80nm          4.8mb
                  i      55 36.80
    S.D. = 0.8  on  16 of  19 obs.
-----------------------------------
&  JAN  11, 1993  16h 48m 29.97s
   34.336 N          116.910 W
   DEPTH =   2.8km
 SOUTHERN CALIFORNIA              ( 43)
      <PAS-P>. ML 2.7 (PAS).

PEC      0.49 205 iPd    48 39.30  -0.5
GSC      0.97   5 ePd    48 48.13  -1.0
PLM      0.98 178 ePd    48 48.17  -1.2
GLA      2.16 126 eP     49 05.39  -2.0
TNP      3.75 356 ePg    49 39.93   9.8
BONR     3.78 343 ePg    49 41.66  10.9
MSU      5.65  41 ePg    50 14.03  16.8
      7 obs. associated
-----------------------------------
%  JAN  11, 1993  17h 06m 51.19± 0.64s
   26.872 S ± 6.8km   26.648 E ± 5.8km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA         (584)
      ML 2.8 (PRE).

BFS      0.13 102 iPd    06 54.20   0.3
PRY      0.74  95 eP     07 06.00   0.0
KSR      1.03  13 eP     07 10.60  -0.6
SWZ      1.22 255 eP     07 15.20   0.7
SEK      1.69 149 eP     07 22.50   0.9
                  S      07 43.50
SLR      1.85  53 iPd    07 25.40   1.4
                  S      07 49.30
BLF      2.27 190 eP     07 29.20  -0.8
                  S      07 57.30
KIM      2.50 221 eP     07 33.50   0.2
FRS      3.10 202 e(P)   07 40.80  -0.8
```

```
BFT      3.27  70 eP  * 07 43.00  -1.3
                  S     08 22.50
      S.D. = 1.0  on  10 of  10 obs.
-----------------------------------------
&  JAN  11, 1993  17h 32m 10.95s
   59.957 N            153.333 W
   DEPTH = 130.4km
 SOUTHERN ALASKA                    (  2)
      <AEIC>.

INW      0.15  42 iP     32 28.15   0.6
                  S      32 41.92
INE      0.17  52 eP     32 28.32   0.7
                  S      32 42.13
ILIM     0.22  56 eP     32 28.30   0.7
                  S      32 42.37
OPT      0.31 170 iP     32 28.67   0.8
                  eS     32 42.74
PDB      0.47 249 eP     32 29.09  -1.0
                  eS     32 43.06
AUL      0.58 185 eP     32 29.93  -0.9
RS2      0.58  29 eP     32 30.38  -0.7
                  eS     32 45.02
RSO      0.58  29 P      32 30.30  -0.8
                  S      32 45.00
RDW      0.59  26 eP     32 30.14  -1.0
AUW      0.59 187 P      32 30.20  -0.7
AUH      0.60 185 P      32 30.20  -0.8
AUE      0.60 182 eP     32 29.99  -0.9
REF      0.62  30 P      32 30.30  -1.0
                  S      32 46.30
AUI      0.63 184 iP     32 30.18  -0.9
NCT      0.64  18 eP     32 30.52  -0.8
                  eS     32 46.17
DFR      0.71  27 eP     32 30.74  -1.1
MCNL     0.93 214 eP     32 32.58  -0.9
                  eS     32 49.38
CDD      1.04 189 iP     32 33.54  -1.1
                  eS     32 51.23
BRLK     1.25  98 eP     32 35.75  -1.0
                  eS     32 53.82
NKA      1.31  52 eP     32 37.96   0.7
CKL      1.34  21 P      32 37.20  -0.5
CKT      1.37  24 eP     32 37.31  -0.7
SPU      1.38  27 P      32 37.20  -1.0
BGL      1.39  19 eP     32 37.93  -0.4
CKN      1.39  24 eP     32 37.54  -0.7
CP2      1.42  22 P      32 38.40  -0.3
SYI      1.44 160 eP     32 37.41  -1.2
CRP      1.44  23 eP     32 38.40  -0.5
CGLM     1.50  25 iP     32 38.89  -0.7
SLKM     1.65  69 eP     32 39.58  -1.6
SEW      1.96  84 eP     32 43.49  -1.3
SUA      1.98  39 eP     32 44.30  -0.9
MPA      2.05  73 eP     32 44.48  -1.5
SKT      2.21  23 eP     32 47.10  -0.9
PMS      2.27  54 P      32 47.20  -1.5
PTE      2.32  65 eP     32 47.35  -2.0
PWA      2.40  43 eP     32 50.02  -0.3
PLRM     2.63  50 eP     32 51.66  -1.7
LTI      2.75  86 eP     32 53.28  -1.7
KNK      2.81  57 P      32 53.20  -2.5
GHO      2.82  48 eP     32 53.74  -2.2
KNIM     2.83  80 P      32 53.20  -2.7
SML      3.07  51 eP     32 56.87  -2.3
GLI      3.23  71 eP     32 58.99  -2.2
HIN      3.44  80 eP     33 01.97  -2.1
FID      3.50  74 eP     33 01.71  -3.1
VLZ      3.65  68 eP     33 04.32  -2.5
CVA      3.83  78 eP     33 07.22  -1.9
KLU      3.95  64 eP     33 08.12  -2.8
        49 obs. associated
-----------------------------------------
&  JAN  11, 1993  18h 01m 00.84s
   38.026 N            118.728 W
   DEPTH =   9.1km
 CALIFORNIA-NEVADA BORDER REGION ( 40)
      <GM-P>. MD 2.9 (GM). ML 3.0
      (GS), 3.0 (BRK).

BONR     0.34 102 iPc    01 07.94  -0.1
MRCM     0.39 154 iPc    01 08.60  -0.4
MEMM     0.40 205 iPd    01 08.88   0.0
MMPM     0.48 210 iPd    01 10.20  -0.4
                  S      01 17.04
MTUM     0.68 169 ePc    01 13.98  -0.6
                  eS     01 23.76
KVN      1.14  26 iPc    01 22.27  -0.1
                  eS     01 40.48
TNP      1.19  87 ePc    01 23.22  -0.1
FRI      1.29 217 iPd    01 24.80  -0.1
                  eS     01 43.08
CMB      1.31 271 iPc    01 24.31  -0.9
                  eS     01 40.74
LLA      2.26 232 iPc    01 41.15   2.2
                  eS     02 10.94
ARN      2.33 254 ePn    01 40.75   0.8
ISA      2.37 175 ePn    01 41.12   0.6
MHC      2.41 254 eP     01 43.01   1.8
                  eS     02 13.80
PRI      2.44 220 iPc    01 44.24   2.7
SAO      2.50 241 iPc    01 44.81   2.4
                  eS     02 17.73
ORV      2.65 306 iPc    01 44.91   0.4
PRS      2.70 232 iPc    01 47.24   2.0
GSC      3.13 150 (Pn)   01 56.75   5.5
        18 obs. associated
-----------------------------------------
%  JAN  11, 1993  18h 03m 01.56± 2.51s
   44.895 N ± 6.0km     6.592 E ±19.5km
   DEPTH =  10.0km  (geophysicist)
 FRANCE                             (538)
      ML 2.3 (GEN).

RRL      0.14  79 P      03 04.80  -0.3
                  S      03 06.77
BHB      0.48  96 P      03 11.07  -0.3
                  S      03 17.20
PZZ      0.53 137 P      03 12.17  -0.2
                  S      03 19.67
RSP      0.54  61 P      03 12.99   0.5
                  S      03 20.36
LSD      0.69  35 P      03 15.19  -0.2
                  S      03 23.93
STV      0.83 141 P      03 17.93   0.2
                  S      03 29.33
ENR      0.89 138 P      03 18.94   0.2
                  S      03 30.61
      S.D. = 0.4  on   7 of   7 obs.
-----------------------------------------
&  JAN  11, 1993  18h 19m 36.87s
   38.029 N            118.727 W
   DEPTH =   8.3km
   3.9mb (  1 obs.)
 CALIFORNIA-NEVADA BORDER REGION ( 40)
      <GM-P>. MD 3.7 (GM). ML 4.0
      (BRK), 4.0 (GS).

BONR     0.34 102 iPc    19 44.06   0.1
MRCM     0.40 154 iPc    19 44.75  -0.2
MEMM     0.40 205 iPd    19 44.97   0.0
MMPM     0.48 210 iPd    19 45.30  -1.4
MTUM     0.69 169 iPd    19 49.99  -0.8
                  S      19 59.78
TNP      1.19  87 iPc    19 59.45   0.0
FRI      1.30 217 iPd    20 00.83  -0.2
                  eS     20 17.75
CMB      1.31 271 iPc    20 00.53  -0.8
                  eS     20 17.58
LLA      2.26 232 iPc    20 15.87   0.8
                  iS     20 46.68
ARN      2.33 254 eP     20 16.60   0.5
ISA      2.37 175 ePn    20 18.15   1.5
                  S      20 50.32
MHC      2.41 254 iPd    20 17.95   0.6
                  eS     20 50.04
HMR      2.43 274 ePn    20 17.16  -0.3
PRI      2.44 220 iPc    20 19.04   1.3
COE      2.46 253 ePn    20 18.19   0.3
SAO      2.51 241 eP     20 20.25   1.7
                  eS     20 53.46
ORV      2.65 306 iPc    20 20.66   0.1
                  eS     20 57.96
PRS      2.71 232 iPd    20 23.13   1.7
BKS      2.78 268 eP     20 24.93   2.5
                  eS     20 58.04
GCC      2.78 250 iPc    20 23.77   1.3
                  eS     20 56.97
ZSP      2.79 269 eP     20 25.21   2.6
JEGM     3.00 261 ePn    20 25.92   0.3
BCH      3.04 201 ePn    20 25.85  -0.4
NTYM     3.12 278 ePn    20 26.76  -0.4
                  eS     21 10.37
GSC      3.13 150 ePn    20 26.73  -0.7
MIN      3.22 317 eP     20 32.48   3.7
LMEM     3.34 320 (Pn)   20 33.03   2.5
SSK      3.90 167 ePg    20 50.29  11.8
WDC      3.90 312 ePn    20 37.77  -0.6
LBFM     4.12 325 ePn    20 42.46   0.9
ARUT     4.19  92 ePn    20 41.74  -0.8
                  ePg    20 54.82
                  eS     21 49.29
PLM      4.91 161 (Pn)   20 53.59   0.8
                  eS     22 12.86
DUG      5.08  63 ePn    20 57.69   2.4
                  ePg    21 12.95
                  eS     22 14.89
MSU      5.18  83 ePn    20 57.54   0.8
DAU      6.27  65 ePg    21 35.46  23.3
SRU      6.52  78 (Pn)   21 16.47   0.9
                  ePg    21 35.65
                  Lg     23 01.58
MIAR    20.55  92 eP     24 20.16   1.7
        0.8s     5.05nm          3.9mb
        37 obs. associated
-----------------------------------------
&  JAN  11, 1993  18h 24m 01.46s
   38.033 N            118.724 W
   DEPTH =   1.7km
 CALIFORNIA-NEVADA BORDER REGION ( 40)
      <GM-P>. MD 2.8 (GM). ML 2.9
      (GS).

BONR     0.34 103 iPc    24 08.94   0.6
MRCM     0.40 154 iPc    24 09.67   0.2
MEMM     0.40 205 iPd    24 09.82   0.3
MMPM     0.49 210 iPd    24 11.11  -0.1
MTUM     0.69 169 ePc    24 14.83  -0.4
TNP      1.19  87 iPc    24 24.13  -0.4
CMB      1.31 271 (P)    24 25.46  -1.1
                  eS     24 41.79
ARN      2.33 254 eP     24 42.08   0.6
ISA      2.37 175 ePn    24 43.33   1.2
                  eS     25 15.01
COE      2.47 253 (Pn)   24 43.46   0.1
ORV      2.65 306 ePn    24 44.82  -1.2
                  ePg    24 49.16
        11 obs. associated
-----------------------------------------
%  JAN  11, 1993  19h 00m 31.77± 1.00s
   28.525 S ± 6.7km    67.605 W ±12.2km
   DEPTH = 147.2 ± 25.6 km
 LA RIOJA PROVINCE, ARGENTINA       (138)

CYA      1.60  88 eP     01 02.50   0.0
RTPR     2.01 152 iPc    01 07.30   0.1
                  S      01 35.50
FSA      2.81  31 iPd    01 17.00  -0.2
                  (S)    01 49.50
RTLL     2.89 195 iPd    01 18.00  -0.3
                  S      01 51.70
CFA      3.12 190 ePd    01 21.00  -0.2
                  S      01 58.20
RTCB     3.13 199 iPc    01 21.40   0.1
                  S      01 57.00
RTCV     3.42 193 ePc    01 24.60  -0.5
                  S      01 57.00
TCA      3.83 138 iP     01 30.60   0.0
                  S      02 09.00
MRA      4.21 158 ePc    01 35.50   0.2
SLA      4.23  27 e(P)   01 36.00   0.2
MDZ      4.47 194 eP     01 40.60   1.6
RFA      6.27 186 eP     02 02.20  -0.9
                  S      03 11.30
      S.D. = 0.7  on  12 of  12 obs.
-----------------------------------------
   JAN  11, 1993  19h 54m 21.68± 0.40s
   30.543 N ± 7.4km    49.938 E ± 6.2km
   DEPTH =  33.0km  (normal)
   4.6mb (  7 obs.)
 WESTERN IRAN                       (347)
      Felt at Behbahan.

KER      4.49 329 eP     55 58.00  28.7X
                  eS     56 51.00
TEH      5.32  13 e(P)   55 40.00  -1.0
MJMA     6.22 222 eP     55 53.00  -0.6
RYD      6.51 208 eP     55 57.50  -0.2
                  eS     57 52.00
QASM     7.18 233 eP     56 05.80  -1.3
                  eS     57 22.33
```

11d 19h

```
MAIO     9.83  52 eP   56 44.00   0.1
HYB     29.13 110 eP   00 21.00  -0.9
GKN     30.30  86 P    00 32.18  -0.3
DMN     30.80  87 P    00 36.92   0.0
KKN     30.91  86 P    00 37.70  -0.2
        0.9s    20.00nm          4.9mb
PKI     31.07  86 P    00 39.28  -0.1
GUN     31.40  86 P    00 42.38   0.1
LPG     36.69 306 eP   01 27.20  -0.4
        1.0s    11.00nm          4.7mb
LPL     36.71 306 eP   01 27.80   0.1
        1.2s    11.30nm          4.6mb
HFS     38.19 331 eP   01 39.20  -0.4
        0.4s     3.70nm          4.6mb
NAO     39.75 331 P    01 51.90  -0.7
        0.6s     1.80nm          4.0mb
LZH     44.91  68 eP   02 37.00   1.7
        1.2s    18.00nm          4.8mb
KIC     56.54 256 (P)  04 06.40   2.9
LIC     56.85 256 (P)  04 06.40   0.7
YKA     86.46 353 eP   07 02.40   0.5
        0.9s     1.00nm          4.0mb
      S.D. = 1.0  on  19 of  20 obs.
-----------------------------------
   JAN  11, 1993  19h 56m 30.36± 0.65s
   38.098 N ± 5.8km   22.995 E ± 7.4km
   DEPTH =  20.1 ±  6.3 km
 GREECE                            (364)
      ML 3.2 (ATH).

ATH      0.58 102 eP   56 42.00   0.2
                  eS   56 53.00
AGG      1.06 331 iPg  56 48.25  -1.7
                  eSg  57 04.40
VLI      1.38 182 eP   56 54.00  -0.5
VLS      1.90 273 eP   57 03.00   0.9
PAIG     1.90  16 iPb  57 02.57   0.5
LIT      2.04 349 ePb  57 03.64  -0.5
OUR      2.36  19 ePn  57 08.16  -0.5
SOH      2.73   6 ePn  57 14.24   0.2
GRG      2.89 351 ePn  57 16.96   0.7
SRS      3.05   9 ePn  57 18.36  -0.1
                  eSn  57 53.80
KNT      3.06 359 ePn  57 18.44  -0.2
                  eSn  57 55.04
VAY      3.24 354 eP   57 20.60  -0.5
      S.D. = 0.8  on  12 of  12 obs.
-----------------------------------
&  JAN  11, 1993  20h 06m 43.61s
   57.833 N          153.414 W
   DEPTH =  45.6km
   2.9mb (  1 obs.)
 KODIAK ISLAND REGION              ( 13)
      <AEIC>. ML 3.2 (AEIC).

KDC      0.50  99 eP   06 53.53  -1.1
                  eS   07 01.81
SYI      0.95  34 iP   06 59.56  -1.1
                  eS   07 12.94
CDD      1.11 354 iP   07 01.72  -1.2
MCNL     1.44 341 eP   07 06.46  -1.2
AUI      1.51 360 P    07 07.90  -0.7
                  S    07 27.40
AUE      1.53   1 P    07 08.50  -0.4
AUH      1.54 359 eP   07 08.37  -0.7
                  eS   07 28.62
AUW      1.54 359 eP   07 08.43  -0.6
AUL      1.55 360 eP   07 08.53  -0.7
XLV      1.85  28 eP   07 13.50   0.0
PDB      2.00 349 eP   07 14.11  -1.5
                  eS   07 37.39
INE      2.24   5 eP   07 18.04  -1.1
INW      2.25   4 eP   07 17.81  -1.3
                  eS   07 45.29
ILIM     2.27   6 eP   07 18.15  -1.2
BRLK     2.34  33 eP   07 18.80  -1.6
RS1      2.66   7 eP   07 23.76  -1.4
RSO      2.66   7 eP   07 23.69  -1.5
RS2      2.66   7 eP   07 23.70  -1.5
RDW      2.68   6 eP   07 23.93  -1.5
REF      2.69   8 eP   07 24.13  -1.5
NCT      2.75   5 eP   07 24.66  -1.7
DFR      2.79   7 eP   07 24.61  -2.4
RDT      2.80  10 eP   07 25.12  -1.9
SEW      3.07  40 eP   07 28.31  -2.4
NKA      3.13  20 P    07 31.60   0.0
SLKM     3.15  30 eP   07 29.12  -2.8
MPA      3.38  36 eP   07 32.84  -2.4
CKL      3.42   9 eP   07 33.88  -2.0
SPU      3.43  11 eP   07 33.67  -2.3
CKT      3.43  10 eP   07 33.87  -2.2
CKN      3.46  10 eP   07 35.16  -1.2
SVW      3.47 342 ePc  07 34.21  -2.3
BGL      3.48   8 eP   07 34.59  -2.1
CP2      3.49   9 eP   07 34.65  -2.3
CRP      3.50  10 eP   07 34.13  -2.9
CGLM     3.56  11 eP   07 35.82  -2.0
LTI      3.63  50 eP   07 35.72  -3.0
PTE      3.78  35 eP   07 38.10  -2.7
KNIM     3.87  47 eP   07 38.82  -3.3
PMS      3.94  28 P    07 40.40  -2.9
SKT      4.27  12 eP   07 45.71  -2.1
PMR      4.35  28 (P)  07 46.97  -1.9
KNK      4.38  33 eP   07 45.97  -3.4
HIN      4.39  51 eP   07 45.90  -3.6
GHO      4.56  28 P    07 49.00  -2.9
FID      4.60  48 eP   07 48.18  -4.3
CVA      4.79  52 P    07 51.20  -3.8
KLU      5.28  43 eP   07 58.51  -3.6
BALM     6.49  56 eP   08 14.88  -4.3
YKA     19.64  60 eP   11 19.70   8.8
        0.7s     0.50nm          2.9mb
        50 obs. associated
-----------------------------------
   JAN  11, 1993  20h 58m 43.72± 0.21s
   38.535 N ± 4.5km  142.596 E ± 3.3km
   DEPTH =  34.7km  ( 31 depth phases)
   5.2mb ( 89 obs.)  5.0Msz ( 11 obs.)
 NEAR EAST COAST OF HONSHU, JAPAN(228)
      Mw 5.2 (HRV).
      CENTROID, MOMENT TENSOR     (HRV)
      Data Used: GDSN
      L.P.B.: 15S, 20C
      Centroid Location:
      Origin Time        20:58:47.7 0.8
      Lat 38.84N 0.11 Lon 143.05E 0.07
      Dep  33.5 4.1 Half-duration  1.0
      Moment Tensor;   Scale 10**16 Nm
        Mrr= 5.46 0.48  Mtt= 0.47 0.83
        Mff=-5.93 0.55  Mrt= 3.09 1.01
        Mrf= 4.01 1.25  Mtf=-2.12 0.46
       Principal Axes:
        T  Val=  7.55  Plg=66  Azm=327
        N        0.70      13      205
        P       -8.25      19      111
      Best Double Couple:Mo=7.9*10**16
       NP1:Strike=180 Dip=28 Slip=  62
       NP2:         31     66      104

MAT      4.01 242 eP   59 46.00   1.6
                  (S)  00 36.00
KUR      7.76  29 eP   00 32.50  -4.6X
     Z  14s      3.40um
     N  14s      6.80um
     E  14s      5.40um
                  iS   01 55.00
YSS      8.48   1 iPd  00 43.20  -3.8X
        0.6s    30.00nm          5.6mb
     Z  16s      5.60um
     N  16s      5.10um
     E  16s      3.40um
                  eS   02 15.00
SHK      8.92 246 eP   00 55.20   1.9
VLA      9.31 303 iPc  01 00.00   1.4
        1.0s   450.00nm          6.6mb X
     Z  15s      2.60um          4.2Msz
     N  17s      6.50um
                  i    02 44.00
MDJ     11.47 306 eP   01 29.10   0.9
        1.5s   280.00nm          6.2mb
     Z  18s     11.40um          4.2MszX
     N  12s      3.69um
     E  12s      2.67um
                  sP   01 40.00
                  eS   03 40.00
CN2     13.94 298 eP   02 01.00   0.0
        1.0s    29.00nm          5.0mb
     Z  16s      3.87um
     N  10s      1.91um
     E  10s      1.01um
                  eS   04 32.00
SNY     14.90 289 eP   02 14.00   0.5
     Z  18s      7.19um
     E  16s      4.79um
                  pP   02 19.40
                  sP   02 24.00
SKR     15.45  34 eP   02 23.50   3.0X
        0.7s    70.00nm          5.0mb
     Z  12s      2.70um          4.3MszX
     N  14s      3.30um
     E  14s      4.40um
DL2     16.37 278 P    02 34.00   1.6
        1.0s   220.00nm          5.2mb
     Z  16s      3.54um
     N  13s      1.91um
     E  14s      4.49um
PET     18.24  32 eP   02 58.00   2.4
SSE     19.06 254 Pc   03 03.50  -2.2
     Z  16s      4.80um
     N  14s      1.80um
     E  16s      2.40um
                  S    06 36.00
TIA     20.36 271 eP   03 18.20  -1.7
        0.8s    42.00nm          4.8mb
     Z  21s      3.46um          4.7Msz
     N  13s      1.32um
     E  13s      2.36um
                  eS   07 05.20
NJ2     20.40 259 Pd   03 18.00  -2.3
        1.0s    34.00nm          4.7mb
     Z  19s      2.16um          4.5Msz
     N  12s      1.68um
     E  13s      2.77um
                  pP   03 26.50  32km
BJI     20.48 283 eP   03 19.00  -2.1
        1.3s    76.00nm          4.9mb
     Z  15s      4.97um          5.0MszX
     E  13s      4.12um
MGD     22.20  11 ePc+ 03 37.00  -1.3
        0.8s    90.00nm          5.3mb
     Z  16s      1.50um          4.5MszX
     N  16s      1.30um
     E  18s      1.00um
                  i    03 53.00  71kmX
                  i    04 02.00
                  ePPP 04 17.00
                  eS   07 39.00
TIY     23.70 277 eP   03 52.00  -1.2
     Z  16s      7.68um          5.3MszX
     N  16s      2.72um
     E  16s      3.15um
                  PP   04 24.40
                  S    08 08.50
HHC     23.93 285 eP   03 54.20  -1.3
        0.9s    75.00nm          5.2mb
     Z  15s      9.45um          5.4Msz
     N  14s      1.12um
     E  14s      5.81um
                  sS   08 26.00
CIT     24.25 313 eP   03 57.00  -1.5
     Z  17s      5.32um          5.1Msz
     E  18s     10.07um
WHN     24.53 260 Pc   04 02.00   0.8
        1.0s   110.00nm          5.4mb
     Z  18s      4.83um          5.0Msz
     N  14s      1.80um
     E  12s      1.21um
YAK     24.81 345 iPc  04 02.20  -1.5
        1.0s   150.00nm          5.5mb
     Z  15s      2.80um          4.9Msz
     N  14s      1.50um
     E  16s      3.00um
                  e    04 45.00 222km
                  eS   08 22.00
BTO     25.12 285 P    04 06.50  -0.5
        0.8s    28.00nm          4.9mb
     N  13s      1.32um
     E  15s      7.26um
                  epP  04 15.00  30km
BOD     26.73 326 iPc  04 21.10  -0.5
        0.9s    95.00nm          5.4mb
XAN     27.42 271 P    04 27.50  -0.7
        0.6s    41.00nm          5.3mb
     Z  12s      2.19um          4.9MszX
     N  12s      1.04um
     E  13s      1.76um
                  pP   04 36.00  30km
                  sP   04 41.50
BAG     29.30 227 eP   04 44.00  -1.4
GZH     29.31 247 Pd   04 45.50   0.3
     Z  16s      4.04um          5.1MszX
```

```
     N  13s      1.31um
     E  14s      1.74um
IRK    29.80 310 eP     04 50.00   0.6
       1.6s     50.00nm          5.0mb
     Z  17s      4.69um          5.2MszX
     N  14s      1.16um
     E  16s      4.70um
                  e      05 01.40  42km
ZAK    30.11 306 iPc    04 51.50  -0.5
       1.1s     94.00nm          5.5mb
     Z  16s      6.53um          5.4MszX
     E  16s      7.08um
LZH    30.77 278 P      04 57.50  -0.8
       1.4s     39.00nm          5.0mb
     Z  17s      4.53um          5.2MszX
     E  14s      2.68um
                  pP     05 02.00  16kmX
PLP    31.47 215 ePd    05 06.00   1.6
MOY    31.73 308 ePd    05 07.00   0.7
       1.6s     90.00nm          5.4mb
GYA    32.41 259 P      05 12.00  -0.7
       0.8s    110.00nm          5.8mb
     Z  18s      2.36um          4.9Msz
     N  15s      1.61um
     E  15s      1.29um
                  S      10 22.00
CD2    32.63 268 P      05 13.40  -1.1
       0.8s    140.00nm          5.9mb
     Z  16s      4.12um          5.2MszX
     E  15s      2.38um
                  eS     10 29.00
GTA    33.05 285 P      05 18.50   0.4
       0.8s     31.00nm          5.3mb
     Z  16s      8.57um          5.6MszX
     E  15s      3.28um
                  pP     05 25.00  22kmX
TIK    33.91 352 eP     05 24.00  -1.0
       1.0s     19.00nm          5.0mb
     Z  16s      2.00um          4.9MszX
OIZ    34.41 245 eP     05 31.00   1.1
     N  14s      0.84um
     E  14s      1.40um
KMI    36.13 260 Pc     05 45.00   0.2
       1.5s    130.00nm          5.6mb
     Z  18s      4.20um          5.3Msz
     N  14s      1.20um
     E  14s      1.50um
                  pP     05 52.50  25km
ELT    40.78 310 iPc    06 22.50  -0.4
       1.6s    121.00nm          5.4mb
                  e      08 24.00
WMO    41.02 296 iPc    06 26.00   0.8
       1.0s     16.00nm          4.7mb
     Z  18s      2.51um          5.1Msz
                  pP     06 38.50  46kmX
                  sP     06 44.00
                  PP     08 07.00
                  PcS    12 12.00
NRI    42.14 335 iPc    06 31.80  -2.1
       1.3s     45.00nm          5.0mb
     Z  20s      8.60um          5.6Msz
     E  20s      7.00um
                  e      06 42.00  35km
                  e      08 21.00
CHG    42.58 255 eP     06 38.20   0.1
LSA    43.02 274 P      06 44.20   2.0
       0.8s     16.00nm          4.8mb
     Z  16s      3.44um          5.3MszX
     N  14s      1.91um
     E  14s      1.31um
BDT    43.48 253 eP     06 47.50   2.1
TTA    43.66  36 (P)    06 48.14   1.7
       0.8s      3.77nm          4.2mb X
SVW    43.74  38 eP     06 46.65  -0.5
       0.6s     17.31nm          5.0mb
IMA    44.92  31 eP     06 56.49  -0.2
       1.1s     10.77nm          4.6mb
BGL    45.31  38 (P)    07 01.16   1.3
KHT    45.33 251 eP     07 00.70   0.4
CP2    45.38  38 eP     06 59.43  -1.1
CRP    45.42  38 eP     07 01.33   0.5
NNT    45.93 248 iPc    07 06.00   1.0
SLKM   46.40  39 eP     07 08.67   0.3
PMR    46.87  38 (P)    07 13.28   1.4
       0.6s      7.56nm          4.9mb
FBA    47.34  33 eP     07 15.51  -0.1
       0.8s      6.61nm          4.7mb
GUN    47.95 275 P      07 21.16  -0.2
       0.7s    200.00nm          6.3mb X
KLU    48.41  37 eP     07 24.15   0.0
                  e      07 34.38  35km
                  e      07 40.51
KKN    48.48 275 P      07 25.02  -0.2
       0.7s     10.00nm          4.9mb
PKI    48.48 275 P      07 24.80  -0.6
       0.5s     21.00nm          5.4mb
MKS    48.53 211 iPc    07 26.60   1.2
DMN    48.70 275 P      07 26.60  -0.4
GKN    48.88 276 P      07 27.88  -0.4
       0.8s    122.00nm          6.0mb
BALM   50.18  38 eP     07 38.92   1.1
BRVK   50.32 312 iPd    07 39.60   0.8
                  eS     14 57.00
FRU    50.46 298 iP     07 40.60   0.5
       2.0s    100.00nm          5.5mb
     Z  20s      1.50um          5.0Msz
                  e      07 50.00  31km
IPM    50.65 239 ePc    07 42.50   0.8
       0.6s     22.20nm          5.3mb
KSH    50.68 293 P      07 43.00   1.1
       0.6s     50.00nm          5.7mb
     Z  16s      2.74um          5.4MszX
     E  16s      2.39um
                  epP    07 53.00  33km
NDI    54.32 280 ePd    08 09.00   0.0
       0.8s     59.70nm          5.7mb
ARU    55.85 318 eP     08 06.00 -13.8X
                  e      08 17.00  37km
WB2    58.68 189 iPd    08 38.30  -1.8
       0.7s     14.70nm          5.2mb
WRA    58.68 189 P      08 38.70  -1.4
       0.7s      4.70nm          4.7mb
HYB    59.18 268 eP     08 43.00  -0.9
       1.0s     45.00nm          5.6mb
                  e      08 52.50  31km
RES    60.91  15 eP     08 54.00  -0.9
       0.6s      6.00nm          4.9mb
                  pP     09 05.00  37km
YKA    62.04  31 eP     09 00.60  -2.1
       0.7s      2.30nm          4.4mb
POO    62.24 272 iPc    09 02.00  -2.7
GBA    62.27 265 Pd     09 05.00   0.2
ASPA   62.41 189 iPc    09 04.40  -1.1
       0.8s     12.50nm          5.1mb
ASH    63.76 299 eP     09 14.40   0.0
       0.7s    120.00nm          6.1mb
MAIO   63.78 297 iPc    09 15.00   0.3
       0.8s      8.78nm          4.9mb
SDF    63.99 337 iP     09 15.00  -0.4
DAG    64.37 355 eP     09 15.80  -2.0
       0.9s     11.76nm          5.0mb
RMO    64.94 174 eP     09 22.50   0.5
       0.7s     15.00nm          5.2mb
GMW    65.57  48 eP     09 26.07   0.1
WARB   66.09 196 eP     09 29.00  -0.4
       0.6s     23.00nm          5.4mb
                  e      09 40.00  36km
RMW    66.18  48 (P)    09 30.65   0.7
LON    66.55  48 eP     09 32.41   0.1
MOS    66.60 323 eP     09 21.00 -11.4X
KAF    67.40 333 iP     09 36 20  -1.2
       0.6s     12.90nm          5.2mb
OBN    67.45 323 iPd    09 37.20  -0.6
       1.0s     46.00nm          5.5mb
                  e      09 48.00  35km
                  e      09 55.00
DPW    68.02  46 eP     09 40.43  -1.2
NEW    68.41  45 eP     09 42.63  -1.3
       0.8s     30.13nm          5.4mb
NUR    69.07 332 iP     09 45.90  -1.8
       0.6s     21.00nm          5.4mb
GRO    69.18 309 eP     09 49.00   0.3
LBFM   69.42  53 eP     09 51.15   0.6
                  epP    10 01.63  34km
STK    70.06 181 eP     09 54.60   0.6
PYA    70.37 311 iPc    09 55.00  -1.0
                  i      10 07.00  40km
SES    70.41  41 eP     09 54.00  -2.2
                  pP     10 06.00  40km
KIV    70.63 311 eP     09 58.30   0.6
ORV    70.66  55 eP     09 57.30  -0.5
CMB    72.24  55 (P)    10 09.12   1.7
       0.6s      5.65nm          4.7mb
FCC    72.24  27 eP     10 08.50   1.6
                  pP     10 19.50  36km
MNK    72.32 326 eP     10 04.00  -3.4X
HFS    73.10 336 eP     10 10.70  -1.3
       0.4s      4.50nm          4.8mb X
     Z  22s    154.00um          7.2MszX
                  LR     39 38.00
NAO    73.45 338 P      10 13.70  -0.3
       0.9s     20.80nm          5.1mb
BONR   73.63  54 eP     10 16.04   0.2
TNP    74.24  54 eP     10 19.94   0.7
       1.2s     26.94nm          5.1mb
                  epP    10 30.43  34km
HVU    74.71  49 eP     10 21.80  -0.1
DUG    75.67  50 eP     10 27.19  -0.2
BW06   75.95  46 eP     10 28.04  -1.0
       0.5s      5.73nm          4.8mb
                  epP    10 38.15  32km
GSC    76.18  56 (P)    10 31.07   0.8
PEC    76.80  57 (P)    10 33.31  -0.4
MSU    77.11  51 eP     10 36.36   0.8
CLI    77.44 320 eP     10 42.00   5.1X
SRU    77.72  50 (P)    10 38.47  -0.4
ULM    77.74  34 eP     10 41.00   2.5
                  pP     10 52.00  36km
RSSD   78.09  43 eP     10 39.84  -1.0
       0.7s     12.82nm          5.1mb
                  epP    10 49.21  30km
OJC    78.31 327 eP     10 41.20  -0.4
       0.9s     56.00nm          5.6mb
                  i      10 42.40   4kmX
UZH    78.36 324 eP     10 42.00   0.1
                  e      10 52.20  33km
                  e      10 59.00
CVO    78.50 320 eP     10 43.00   0.2
ISR    78.78 320 eP     10 46.00   1.6
MLR    78.84 320 eP     10 45.00   0.2
KSP    79.32 329 iP     10 47.20   0.1
                  e      13 46.50
RYD    79.42 293 eP     10 47.10  -1.1
BRG    80.23 330 iP     10 52.20   0.2
       2.0s     66.00nm          5.3mb
                  i      11 06.80  51kmX
CLL    80.26 331 iPc    10 52.30   0.2
       1.1s     31.00nm          5.2mb
                  e      11 05.00  43km
PRU    80.69 329 P      10 55.10   0.7
                  e      11 48.20 220kmX
SRO    80.76 326 iP     10 55.70   0.9
                  i      11 09.40  47kmX
ZST    81.00 327 eP     10 55.90  -0.2
MOX    81.32 331 eP     10 58.20   0.5
KHC    81.75 329 Pc     11 01.10   1.0
       1.0s     10.50nm          4.8mb
                  e      11 13.50  41km
                  e      11 27.30
GEC2   81.93 329 ePd    11 00.90  -0.2
       1.0s      6.75nm          4.6mb
                  e      11 09.60  28km
                  e      11 14.00
                  e      11 16.30
                  e      11 19.60
                  e      11 26.80
ADI    81.93 306 eP     11 01.70   0.4
RZN    82.16 318 iP     11 03.00   0.5
GRF    82.23 331 iPc    11 03.70   1.2
       1.2s     80.00nm          5.6mb
     Z  20s      0.60um          5.0Msz
                  e(pP)  11 14.00  33km
VTS    82.29 320 iP     11 04.00   0.8
PPCY   82.53 309 e(P)   11 04.60   0.3
MMB    82.75 319 iP     11 06.00   0.6
KKB    82.88 319 iP     11 07.00   1.0
ALQ    82.91  51 eP     11 08.05   1.5
       0.9s      6.47nm          4.7mb
                  epP    11 18.62  33km
BHG    83.15 328 iPc    11 08.40   1.1
       1.2s     53.00nm          5.5mb
FUR    83.44 330 eP     11 07.80  -1.0
       0.9s     43.00nm          5.6mb
KBA    83.47 328 iPc    11 09.20   0.0
       0.7s     15.50nm          5.2mb
                  i      11 20.80  38km
VAY    83.54 319 iP     11 10.40   1.0
SKO    83.64 320 iP     11 11.20   1.3
       1.0s     39.00nm          5.5mb
                  i      11 23.30  40km
PRNI   83.86 304 eP     11 11.90   0.6
```

11d 21h

```
WTTA    84.02 329 iPc * 11 12.30   0.3
        0.8s     6.30nm          4.8mb
MBH     84.32 304 eP    11 13.90   0.2
TRI     84.37 327 eP    11 12.90  -0.6
OGA     84.59 329 iPd   11 15.70   0.8
OHR     84.60 320 eP    11 13.70  -1.1
DLF     84.71 342 eP    11 15.70   0.6
CDF     84.77 332 eP    11 15.50  -0.1
        1.1s    28.55nm          5.4mb
OSS     85.09 329 ePd   11 17.50   0.2
ZLA     85.13 331 Pd    11 17.10  -0.2
LLS     85.40 330 ePd   11 18.80  -0.1
HAU     85.45 332 eP    11 18.60  -0.3
        0.9s    20.45nm          5.3mb
      Z  23s     0.43um          4.8MszX
VDL     85.52 330 ePc   11 20.10   0.5
DHJN    86.06 289 eP    11 23.33   0.6
TMA     86.07 330 ePd   11 21.80  -0.5
KMTA    86.20 290 eP    11 24.47   1.1
ABHA    86.23 290 eP    11 25.87   2.3
MMK     86.47 330 Pd    11 25.10   0.8
DIX     86.66 331 Pd    11 26.00   0.7
EMS     86.86 331 ePd   11 26.70   0.6
LOR     86.97 333 eP    11 26.20  -0.2
        1.0s    39.60nm          5.6mb
      Z  23s     0.70um          5.0MszX
FLN     87.12 337 eP    11 26.60  -0.5
        0.8s    17.60nm          5.3mb
      Z  20s     1.13um          5.3Msz
LDF     87.15 336 eP    11 27.20  -0.1
        0.8s    14.25nm          5.3mb
LBF     87.17 333 eP    11 27.00  -0.5
        1.0s    21.20nm          5.3mb
SSF     87.27 333 eP    11 27.70  -0.2
        1.0s    22.80nm          5.4mb
EEO     87.36  27 eP    11 42.00  13.7X
LPL     87.40 331 eP    11 28.80   0.0
        1.1s     2.25nm          4.3mb
LPG     87.40 331 eP    11 29.00   0.1
        1.0s    17.80nm          5.3mb
SMF     87.51 333 eP    11 29.10   0.1
        1.0s    22.40nm          5.4mb
AVF     87.56 333 eP    11 29.20   0.0
        0.9s    37.85nm          5.7mb
WMOK    87.56  46 eP    11 28.40  -1.1
        0.6s     4.15nm          4.9mb
LPF     87.94 337 eP    11 31.20   0.2
        1.0s    29.00nm          5.5mb
RJF     89.49 334 eP    11 38.70   0.2
        0.9s    11.80nm          5.2mb
      Z  19s     0.47um          4.9Msz
CAF     89.62 333 eP    11 39.40   0.2
        1.0s    18.20nm          5.3mb
LFF     90.07 334 eP    11 41.60   0.4
        0.8s    17.35nm          5.4mb
MIAR    90.58  43 eP    11 43.00  -0.7
        0.7s     7.26nm          5.1mb
RSNY    90.77  26 eP    11 43.57  -0.9
        0.6s     7.11nm          5.2mb
                 ePP     11 55.17  37km
LMN     92.46  19 eP    11 55.50   3.3X
BCAO   112.97 296 iPKPc 17 29.00   9.7X
        1.2s    14.00nm
                 ic      18 07.80
SLR    124.00 262 ePKP  17 51.00  10.7X
KIC    126.01 318 (PKP) 17 47.70   3.4X
BLF    127.27 260 ePKP  17 39.00  -7.5X
FRS    128.23 260 ePKP  17 47.00  -1.1
ZOBO   145.12  59 PKP   18 18.80  -1.5
LPB    145.32  59 PKP   18 18.00  -2.4
CNCB   145.59  60 PKP   18 21.30   0.3
      S.D. = 1.0  on 176 of 189 obs.
-----------------------------------
?  JAN  11, 1993  21h 45m 07.24± 1.49s
   32.271 S ±14.9km  178.441 W ±29.2km
   DEPTH =  33.0km  (normal)
   4.4mb (  3 obs.)
 SOUTH OF KERMADEC ISLANDS        (179)

HBZ      5.95 206 P     46 36.80   1.5
PUZ      6.39 204 eP    46 41.10  -0.4
                  S     47 52.10
URZ      7.00 210 eP    46 48.40  -1.6
                  eS    48 08.00
ASPA    42.67 269 eP    53 03.40   0.7
        0.4s     3.30nm          4.4mb
WB2     43.81 274 iPc   53 11.60  -0.3
        0.4s     8.60nm          4.9mb
WRA     43.82 274 P     53 12.10   0.1
        0.7s     0.70nm          3.6mb
KAF    146.17 339 iPKP  04 41.10  -2.8
        0.4s     2.50nm
NUR    147.92 339 ePKP  04 47.60   0.9
BCAO   148.06 213 iPKPc 04 50.30   1.9
        0.8s     5.00nm
HFS    150.99 347 ePKP  04 55.10   3.7X
        0.4s     0.70nm
      S.D. = 1.7  on   9 of  10 obs.
-----------------------------------
%  JAN  11, 1993  22h 00m 06.53± 0.80s
   37.146 N ± 9.0km   29.332 E ± 6.4km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                            (366)
      MD 3.1 (ISK).

ELL      0.61 130 iPg    00 19.00   0.1
                  eSg    00 30.00
YER      0.84 270 iPg    00 22.50  -0.3
                  eSg    00 35.50
BCK      1.05  72 ePn    00 26.30  -0.1
KHL      1.19   7 ePn    00 28.60  -0.1
IZM      2.06 308 ePn    00 42.00   0.3
      S.D. = 0.3  on   5 of   5 obs.
-----------------------------------
   JAN  11, 1993  22h 22m 58.99± 0.23s
    5.366 N ± 4.0km   82.541 W ± 4.0km
   DEPTH =  33.0km  (normal)
   5.1mb ( 36 obs.)  5.0Msz ( 16 obs.)
 SOUTH OF PANAMA                   ( 83)
      Mw 5.7 (HRV). MD 4.8 (UPA).
      CENTROID, MOMENT TENSOR     (HRV)
      Data Used: GDSN
      L.P.B.: 30S, 57C
      Centroid Location:
      Origin Time        22:23: 1.6 0.4
      Lat  5.30N 0.04 Lon  82.45W 0.03
      Dep  15.0 FIX Half-duration  1.8
      Moment Tensor;    Scale 10**17 Nm
        Mrr=-0.32 0.08  Mtt= 0.23 0.10
        Mff= 0.09 0.13  Mrt= 0.75 0.28
        Mrf=-0.59 0.38  Mtf= 3.49 0.07
       Principal Axes:
        T  Val=  3.66  Plg= 2  Azm=316
        N       -0.05      74       52
        P       -3.61      16      225
      Best Double Couple:Mo=3.6*10**17
       NP1:Strike=  2 Dip=77 Slip=-170
       NP2:        269     80      -13

DVD      3.05   2 iPd   23 43.88  -2.2
                  iS    24 24.89
BRU      3.42 360 iPc   23 49.38  -2.3
UPA      4.67  40 ePd   24 08.96   0.0
                  eS    25 09.13
ECO      4.87  35 ePd   24 11.10  -0.9
                  eS    25 07.53
PSO      6.66 128 eP    24 35.50  -1.9
BOG      8.48  95 eP    25 05.00   2.2
                  iS    26 40.00
BMG      9.56  79 iPd   25 31.00  13.4X
SDV     12.32  73 iPd   25 55.70   0.4
TOV     13.38  70 eP    26 08.00  -1.2
TPX     13.46 315 (P)   26 11.50   1.3
MORO    15.10  68 iP    26 31.90   0.1
OLLA    16.26  73 iP    26 45.80  -1.0
EVV     18.05 317 (P)   27 09.00   0.0
NNA     18.15 162 iPc   27 07.80  -2.5
        1.0s    90.00nm          4.9mb
                  eS    30 32.00
CUM     18.88  73 iP    27 16.00  -3.3X
PORP    20.01  50 P     27 32.00   0.0
APR     20.18  49 P     27 34.50   0.8
SJG     20.42  50 eP    27 37.00   0.8
ACX     20.46 305 (P)   27 37.00   0.4
CPD     20.56  51 P     27 38.00   0.4
LPR     20.75  50 P     27 40.00   0.3
PPM     20.77 312 (P)   27 41.00   0.6
UNM     21.34 312 (P)   27 47.50   1.5
TRN     21.57  75 eP    27 49.50   1.5
MRX     23.08 310 (P)   28 02.50  -0.3
ARE     24.29 153 eP    28 17.00   2.1
CGX     24.85 307 (P)   28 22.00   1.7
ZOBO    25.81 147 iPc   28 28.90  -0.9
        1.8s   197.81nm          5.4mb
                  LR    36 16.00
LPB     26.03 147 Pc    28 33.00   1.4
        1.0s   100.00nm          5.4mb
      Z  20s    17.02um          5.6Msz
                  LR    36 50.00
CNCB    26.32 147 P     28 34.00  -0.4
PRM     28.57   0 ePc   28 53.71  -0.4
JSC     28.79   2 eP    28 55.93  -0.1
LHS     29.01   3 ePc   28 57.61  -0.4
MZX     29.07 310 (P)   29 00.00   1.3
CEH     30.54   6 eP+   29 11.49  -0.2
        0.9s    37.38nm          5.2mb
      Z  18s     2.20um          4.8Msz
UYO     30.72 340 iPd   29 12.00  -1.2
MIAR    30.78 342 ePc   29 12.24  -1.6
        1.3s    35.42nm          5.0mb
      Z  20s     1.26um          4.6Msz
                  ePP   30 26.39
                  S     34 23.24
OLY     31.10 346 eP    29 14.84  -1.8
GRT     31.39 349 eP    29 18.06  -1.1
NAV     31.84   3 eP    29 22.76  -0.4
ELC     32.35 350 ePc   29 25.90  -1.6
CVL     32.68   6 eP    29 30.17  -0.2
RLO     32.73 341 eP    29 28.90  -2.0
LNO     32.75 340 ePc   29 29.20  -1.7
                  e     29 56.10
                  Lg    35 11.40
LNO2    32.75 340 eP    29 29.20  -1.8
LNO3    32.75 340 e(P)  29 29.50  -1.6
TUL     32.75 340 P     29 29.50  -1.5
        0.6s    12.60nm          5.0mb
MEO     32.82 335 iPd   29 30.00  -1.7
WMOK    32.86 335 eP    29 30.29  -1.8
        0.9s    28.85nm          5.2mb
      Z  18s     2.37um          4.9Msz
                  e     29 57.68
                  ePP   30 43.25
MCWV    34.23   4 P     29 50.00   6.2X
      Z  20s     1.67um          4.8Msz
ACO     34.70 336 iPd   29 46.70  -1.3
FSA     35.13 154 eP    29 52.00   0.3
ALQ     36.80 326 ePc   30 06.60   0.6
        1.1s    43.19nm          5.2mb
TUC     37.61 319 P     30 20.00   7.3X
      Z  18s     8.35um          5.6Msz
HRV     38.25  13 P     30 30.00  12.2X
      Z  20s     1.71um          4.8Msz
RTLL    38.88 161 ePc   30 23.00  -0.3
RTCB    38.92 161 ePc   30 23.10  -0.6
RTCV    39.35 161 iPc   30 27.00  -0.2
RSNY    39.65   9 ePc   30 29.89   0.4
        1.0s    40.58nm          5.1mb
      Z  22s     1.69um          4.8Msz
GLD     39.88 332 ePc   30 32.62   1.0
        1.4s    92.67nm          5.4mb
      Z  19s     1.76um          4.9Msz
                  ePP   32 11.50
GOL     39.91 332 eP    30 32.67   0.7
        1.3s    12.59nm          4.5mb
                  ePP   32 13.05
PEL     39.92 164 eP    30 31.00  -0.8
MDZ     40.20 162 i(P)  30 34.50   0.3
TCA     40.32 156 eP    30 33.50  -1.7
GLA     40.77 317 eP    30 39.47   0.6
EEO     41.23   4 eP    30 45.00   2.6
EMM     41.37  16 eP    30 45.26   1.7
SRU     42.06 327 ePc   30 50.05   0.5
PLM     42.34 316 ePc   30 52.91   0.9
MSU     42.56 325 ePc   30 53.81   0.1
EMUT    42.72 327 eP    30 55.83   0.8
ARUT    42.81 323 eP    30 56.81   1.1
                  ePP   32 41.67
PEC     42.85 316 eP    30 56.49   0.6
        1.4s    34.13nm          4.9mb
RSSD    42.97 337 ePd   30 57.80   0.8
        0.9s    53.02nm          5.3mb
      Z  19s     1.67um          5.0Msz
                  e     37 55.10
LMN     43.17  18 eP    31 03.00   4.7X
CBM     43.24  14 eP    30 59.95   1.1
        1.1s    48.93nm          5.2mb
      Z  20s     1.41um          4.9Msz
DAU     43.39 328 ePc   31 01.04   0.5
SSK     43.39 316 eP    31 01.38   0.9
GSC     43.40 318 ePc   31 01.51   1.0
DUG     44.08 326 eP    31 06.66   0.7
```

```
        0.8s      4.57nm          4.3mb
BW06    44.28 331 ePc    31 07.08  -0.5
        1.1s     26.28nm          5.0mb
ISA     44.73 317 eP     31 11.79   0.6
        1.0s     17.19nm          4.9mb
      Z  21s      3.98um          5.3Msz
VAO     44.75 130 eP     31 07.30  -4.2X
HVU     45.17 328 eP     31 14.63   0.0
TNP     45.31 321 ePc    31 16.79   0.8
        0.8s     20.53nm          5.1mb
BCH     45.58 316 ePc    31 18.44   0.5
PTI     45.73 329 eP     31 19.25   0.1
MTUM    45.75 319 eP     31 19.74   0.4
BONR    45.93 320 eP     31 21.99   1.1
ULM     46.12 348 eP     31 23.00   1.2
MEMM    46.17 319 eP     31 23.59   1.2
KVN     46.45 321 eP     31 25.32   0.4
CMB     47.32 319 eP     31 31.14  -0.5
        0.8s      4.95nm          4.6mb
      Z  18s      2.62um          5.2Msz
LCCM    47.68 332 eP     31 34.70   0.2
ORV     48.89 320 eP     31 43.80   0.0
WDC     50.12 320 P      32 00.00   6.8X
      Z  19s      1.72um          5.1Msz
SES     50.85 337 ePc    31 58.20  -0.4
        1.9s    248.00nm          5.9mb
KMPM    51.05 319 eP     32 01.14   0.8
FHC     51.17 320 (P)    32 00.87  -0.3
        0.7s     49.20nm          5.6mb
NEW     51.91 331 eP     32 06.26  -0.4
        1.1s     17.97nm          4.9mb
VGB     51.98 326 ePc    32 07.29   0.0
DPW     52.17 330 eP     32 08.46  -0.2
LON     53.31 327 ePc    32 16.57  -0.6
RMW     53.75 328 eP     32 19.31  -1.1
FCC     54.01 353 eP     32 23.50   1.6
GMW     54.33 327 ePc    32 23.57  -1.0
YKA     61.70 344 P      33 15.50  -0.6
        0.8s     18.00nm          5.3mb
RES     69.63 357 eP     34 07.00   0.4
        1.0s      9.00nm          4.8mb
BALM    71.04 334 eP     34 16.09   0.4
KLU     72.81 333 eP     34 26.07  -0.1
PMR     74.29 333 P      34 40.00   5.4X
      Z  19s      1.09um          5.1Msz
SLKM    74.46 332 eP     34 34.88  -0.8
HON     74.54 291 P      34 50.00  13.3X
      Z  21s      0.98um          5.1Msz
AVE     74.65  57 eP     34 40.00   2.8X
                  i      34 47.00
FBA     74.82 336 eP     34 37.19  -0.5
        1.2s     15.02nm          4.9mb
BGL     75.69 332 eP     34 42.38  -0.5
TIC     77.03  84 Pc     34 51.70   0.6
LIC     77.05  85 Pc     34 51.80   0.6
SVW     77.18 332 eP     34 49.99  -1.1
        1.0s     30.75nm          5.3mb
KIC     77.33  85 Pc     34 53.30   0.6
        1.0s     26.00nm          5.2mb
IMA     77.52 337 eP     34 53.50   0.5
TTA     77.75 333 eP     34 53.57  -0.6
        1.2s     12.78nm          4.8mb
DAG     78.95  12 eP     35 00.00  -0.4
        1.1s     12.66nm          4.8mb
EKA     79.57  35 P      35 12.00   7.8X
        0.9s     12.40nm          4.9mb
HAU     85.31  42 eP     35 35.60   1.6
      Z  24s      1.23um          5.2MszX
BSF     85.62  43 eP     35 36.80   1.1
        1.3s     21.30nm          5.2mb
LPL     85.70  45 eP     35 38.40   2.1
        1.2s     19.95nm          5.2mb
CDF     85.91  42 eP     35 38.20   1.1
        1.2s     12.70nm          5.0mb
NAO     87.00  29 P      35 42.70   0.6
        1.2s     11.30nm          5.0mb
CLL     89.32  39 ePd    36 00.00   6.7X
        1.7s     17.00nm          5.1mb
GEC2    90.10  41 eP     35 58.60   1.4
        0.8s      1.22nm          4.2mb
                  e      36 01.40
                  e      36 05.80
                  e      36 10.00
ZST     92.44  41 eP     36 15.20   7.4X
BJI    131.64 341 ePKP   42 15.00   4.5X
                  e      45 37.00
ASPA   140.49 239 ePKP   42 21.30  -6.3X
```

```
        0.9s      3.60nm
WB2    141.32 245 iPKPd  42 26.10  -3.0
        1.1s      3.00nm
WRA    141.33 245 PKP    42 10.80 -18.4X
        1.0s      0.20nm
GKN    144.59  20 PKP    42 32.86  -1.9
        1.1s     91.00nm
KKN    145.00  19 PKP    42 34.54  -1.0
        0.8s     94.00nm
GUN    145.08  18 PKP    42 35.22  -0.6
        1.0s    246.00nm
DMN    145.11  19 PKP    42 35.04  -0.8
        0.8s     83.00nm
PKI    145.25  19 PKP    42 35.20  -0.9
        1.1s     94.00nm
POO    146.75  44 ePKP   42 38.00  -0.4
KMI    149.26 351 PKPd   42 44.50   2.0
        1.0s     60.00nm
                  pP     42 49.50
HYB    150.65  39 ePKP   42 47.00   2.5
GBA    152.61  46 PKP    42 56.00   8.6X
CHG    155.93 357 ePKP   42 54.80   2.9X
                  eSg    59 28.20
      S.D. = 1.1  on 127 of 146 obs.
-----------------------------------
?  JAN  11, 1993  23h 19m 10.35± 1.14s
   41.837 N ±12.9km   12.740 E ±11.8km
   DEPTH =  10.0km  (geophysicist)
 SOUTHERN ITALY                    (390)

RMP     0.04 227 Pd     19 12.30  -0.1
                  eSg    19 15.60
RDP     0.08 193 Pd     19 13.00   0.1
                  eSg    19 15.60
AQU     0.71  43 P      19 24.50   0.0
                  eSg    19 38.50
SDI     0.81  99 Pc     19 26.10  -0.1
                  eSg    19 40.50
      S.D. = 0.2  on   4 of   4 obs.
-----------------------------------
?  JAN  12, 1993  01h 02m 51.25± 1.81s
    5.109 S ±18.2km  149.919 E ±19.5km
   DEPTH =  48.5 ± 22.7 km
   4.2mb (  3 obs.)
 NEW BRITAIN REGION, P.N.G.        (192)

RAB     2.42  68 eP     03 29.00  -0.1
PMG     5.07 213 eP     04 07.00   0.2
                  eS     05 07.00
WB2    21.14 224 iPd    07 33.80  -0.7
        0.6s      4.30nm          4.0mb
                  i      07 41.60
RMO    21.29 183 eP     07 36.20   0.3
        1.0s     20.00nm          4.4mb
ASPA   24.06 218 eP     08 07.20   4.0X
        0.6s      4.90nm          4.2mb
GUN    69.84 302 P      14 00.00   0.3
      S.D. = 0.8  on   5 of   6 obs.
-----------------------------------
•  JAN  12, 1993  02h 03m 23.63± 1.36s
   31.461 S ±15.1km   70.149 W ±10.9km
   DEPTH = 130.0km  (geophysicist)
 CHILE-ARGENTINA BORDER REGION     (127)
      MD 4.1 (SAN).

RTCB    1.15  92 iPd     03 48.70   0.3
                  (S)    04 07.50
JACH    1.27 197 iP      03 50.21   0.5
                  iS     04 09.34
RTCV    1.43 107 iPd     03 51.50   0.1
                  S      04 10.70
RTLL    1.44  85 iPc     03 51.90   0.4
                  S      04 11.30
CFA     1.64  96 ePc     03 54.10   0.4
                  S      04 15.50
ROCH    1.67 206 iPd     03 54.19  -0.2
                  iS     04 16.04
PEL     1.74 195 iPd     03 55.00   0.1
                  iS     04 17.84
MDZ     1.80 143 eP      04 00.30   4.7X
FCH     1.87 184 iP+     03 57.72   1.0
                  iS     04 21.65
PCH     2.18 188 iP      04 00.78   0.5
                  iS     04 27.33
TACH    2.29 197 iPd     04 01.24  -0.4
                  iS     04 28.34
LCCH    2.34 211 iP+     04 01.86  -0.4
```

```
                  iS     04 28.40
CHCH    2.50 190 iP+     04 04.27  -0.2
                  iS     04 34.42
CACH    2.68 188 iP      04 07.42   0.7
                  iS     04 38.95
LNV     2.71 203 iPd     04 06.00  -1.0
                  iS     04 36.68
RFA     3.59 157 eP      04 18.30  -0.5
MRA     3.89 105 ePd     04 22.30  -0.4
TCA     4.75  90 iP      04 33.60  -0.8
                  S      05 23.00
      S.D. = 0.6  on  17 of  18 obs.
-----------------------------------
&  JAN  12, 1993  02h 25m 36.98s
   38.023 N          118.729 W
   DEPTH =   6.5km
 CALIFORNIA-NEVADA BORDER REGION ( 40)
      <GM-P>. MD 2.8 (GM). ML 3.0
      (BRK), 2.8 (GS).

BONR    0.34 101 iPc     25 43.94  -0.1
MEMM    0.39 205 iPd     25 44.91   0.0
MRCM    0.39 153 iPc     25 44.67  -0.3
                  eS     25 50.32
MMPM    0.48 210 iPd     25 46.15  -0.5
                  eS     25 52.91
MTUM    0.68 169 eP      25 49.76  -0.9
                  eS     25 58.63
KVN     1.14  25 eP      25 58.08  -0.7
TNP     1.19  87 ePc     25 59.33  -0.4
FRI     1.29 217 iPd     26 00.88  -0.3
                  eS     26 19.21
CMB     1.31 271 ePc     26 00.49  -1.1
                  eS     26 17.84
LLA     2.26 232 iPc     26 17.23   1.9
                  eS     26 47.07
ARN     2.32 254 ePn     26 14.83  -1.5
                  eS     26 45.31
ISA     2.36 175 (Pn)    26 15.63  -1.3
MHC     2.41 254 ePd     26 18.24   0.6
                  eS     26 50.05
HMR     2.43 274 (Pn)    26 21.48   3.7
PRI     2.43 220 iPc     26 20.32   2.3
                  eS     26 54.17
COE     2.46 253 (P)     26 17.13  -1.1
SAO     2.50 241 eP      26 20.87   2.1
                  eS     26 53.42
ORV     2.65 306 eP      26 21.98   1.0
                  eS     26 57.86
PRS     2.70 232 iPd     26 23.15   1.5
                  eS     27 01.04
GSC     3.13 150 (Pn)    26 27.19  -0.5
                  ePg    26 36.12
ARUT    4.19  92 ePn     26 43.17   0.2
                  ePg    26 55.31
      21 obs. associated
-----------------------------------
%  JAN  12, 1993  02h 37m 14.56± 2.94s
   38.629 N ±23.1km   12.780 E ±12.0km
   DEPTH =  10.0km  (geophysicist)
 SICILY                            (398)

ERC     0.61 194 P       37 26.00  -0.9
                  eSg    37 34.80
LVI     0.73 209 P       37 29.80   0.9
                  eSg    37 39.40
CVT     0.95 179 P       37 32.80   0.2
                  eSg    37 44.40
GIB     1.17 123 P       37 36.50   0.0
MCT     1.20 146 P       37 38.00   0.9
PTS     1.92 199 P       37 47.30  -0.3
ATN     2.16 102 P       37 51.50   0.4
MEU     2.29 131 Pc      37 51.80  -1.2
      S.D. = 0.9  on   8 of   8 obs.
-----------------------------------
?  JAN  12, 1993  03h 18m 01.06± 2.19s
   37.365 N ±13.1km   23.688 E ±28.9km
   DEPTH =  10.0km  (geophysicist)
 SOUTHERN GREECE                   (368)
      ML 3.0 (ATH).

ATH     0.61   2 eP      18 07.00  -6.3X
                  eS     18 15.00
VLI     0.88 223 eP      18 18.00   0.0
                  eS     18 38.00
AGG     1.97 328 ePn     18 34.52  -0.3
                  eSn    19 06.88
```

12d 03h

```
PAIG     2.56 360 ePn   18 42.92  -0.3
LIT      2.89 341 ePn   18 48.48   0.5
                  eSn   19 31.84
OUR      2.97   4 ePn   18 49.16   0.1
     S.D. = 0.5  on   5 of   6 obs.
-----------------------------------------
&  JAN  12, 1993  05h 01m 16.63s
   59.294 N            153.258 W
   DEPTH =  98.4km
   4.4mb (  9 obs.)
 SOUTHERN ALASKA                    (  2)
      <AEIC>. Felt (III) at Homer.

AUE      0.09 318 iPc   01 29.89   0.9
AUI      0.10 296 iPc   01 29.80   0.8
AUH      0.12 307 iPc   01 30.02   0.9
AUL      0.13 314 P     01 30.00   0.9
AUW      0.13 305 iPc   01 30.02   0.9
OPT      0.36   2 iPc   01 30.96  -0.6
MCNL     0.57 259 iPc   01 32.10  -0.9
                  eS    01 43.42
PDB      0.69 317 iPd   01 33.17  -0.8
                  eS    01 45.59
INE      0.78   7 iPd   01 34.12  -0.9
INW      0.78   5 iPd   01 34.11  -0.9
ILIM     0.80  11 iPd   01 34.26  -0.9
XLV      0.80  78 P     01 34.20  -0.9
                  S     01 47.90
SYI      0.82 146 iPc   01 34.36  -0.9
RS1      1.20  12 iPd   01 39.07  -0.6
RSO      1.20  12 iPd   01 39.06  -0.7
RS2      1.20  12 iPd   01 39.09  -0.6
REF      1.23  13 iPd   01 39.34  -0.8
RDN      1.25  11 iPd   01 39.66  -0.6
                  eS    01 56.64
NCT      1.28   7 P     01 39.70  -0.9
                  S     01 57.40
BRLK     1.30  68 P     01 39.70  -1.0
DFR      1.33  12 iPd   01 40.50  -0.7
KDC      1.60 165 iPd   01 42.70  -1.7
                  eS    02 02.07
NKA      1.77  34 P     01 47.50   0.9
SLKM     1.96  50 iPc   01 47.38  -1.7
CKL      1.96  13 iPd   01 48.68  -0.6
CKT      1.98  15 iPd   01 48.84  -0.7
SPU      1.99  17 iPd   01 48.79  -0.7
                  eS    02 14.04
CKN      2.01  15 iPd   01 49.35  -0.5
BGL      2.02  12 iPd   01 49.33  -0.7
CP2      2.04  14 iPd   01 49.63  -0.8
CRP      2.05  15 iPd   01 49.39  -1.1
SEW      2.09  66 iPc   01 48.92  -1.9
                  eS    02 13.87
CGLM     2.11  17 iPd   01 50.60  -0.7
SVW      2.17 328 iPd   01 50.58  -1.4
MPA      2.30  57 iPc   01 52.10  -1.5
                  eS    02 18.19
SUA      2.51  29 iPd   01 55.93  -0.7
PTE      2.64  52 iPc   01 56.78  -1.4
PMS      2.69  42 P     01 58.00  -0.9
SKT      2.83  17 iPd   01 59.69  -1.1
                  eS    02 34.23
LTI      2.84  72 eP    01 59.13  -1.8
PWA      2.90  34 P     02 00.80  -0.9
MTU      2.93  74 ePc   02 00.84  -1.3
KNIM     2.98  67 iPc   02 00.52  -2.4
PLRM     3.08  40 eP    02 02.23  -2.0
PMR      3.08  40 ePnc  02 01.72  -2.5
                  eS    02 36.01
KNK      3.20  46 ePc   02 03.89  -1.9
GHO      3.28  39 iPd   02 05.26  -1.8
                  S     02 42.45
GLI      3.47  60 iPc   02 06.65  -2.9
SML      3.50  42 ePd   02 08.06  -2.0
MID      3.54  85 P     02 09.00  -1.5
HIN      3.58  69 iPc   02 08.64  -2.5
FID      3.70  64 iPc   02 09.60  -3.1
VZW      3.79  59 ePc   02 11.37  -2.6
SCM      3.88  46 ePc   02 13.64  -1.6
TTA      3.89 341 ePd   02 13.01  -2.3
VLZ      3.92  59 ePc   02 13.28  -2.3
CVA      3.98  68 iPc   02 13.68  -2.9
HUR      4.09  24 ePc   02 17.34  -0.8
KLU      4.26  56 iPc   02 18.22  -2.2
RAGM     4.47  72 eP    02 20.39  -2.9
TOA      4.48  48 P     02 22.00  -1.5
KAIM     4.54  78 ePc   02 22.28  -1.9
RND      4.64  25 ePd   02 23.97  -1.7
TZL      4.74  51 eP    02 25.68  -1.3
MCK      4.91  23 P     02 27.70  -1.7
SDG      4.97  46 ePc   02 28.29  -1.9
GLB      5.16  61 iPc   02 30.21  -2.7
PAX      5.28  42 ePc   02 32.60  -2.0
CROM     5.28  70 eP    02 31.96  -2.8
SNH      5.35  76 iPc   02 33.37  -2.1
THY      5.49  38 eP    02 35.10  -2.3
CYK      5.52  77 ePc   02 35.91  -1.8
SDN      5.57 228 eP    02 35.74  -2.8
                  S     03 38.60
NEA      5.66  19 ePd   02 37.10  -2.6
BALM     5.72  68 ePc   02 37.63  -3.1
MLY      5.88  10 eP    02 40.22  -2.6
YAH      5.91  75 eP    02 41.39  -2.0
HDA      5.93  27 ePd   02 41.14  -2.4
                  eS    03 46.02
CCB      5.95  23 ePd   02 40.79  -3.0
MDM      6.15  20 eP    02 43.84  -2.7
FBA      6.18  22 eP    02 43.38  -3.5
                  S     03 51.31
CTGM     6.19  69 ePc   02 44.89  -2.3
DOT      6.20  41 eP    02 45.42  -1.8
GLM      6.34  23 ePd   02 46.13  -3.0
TMW      6.38  46 eP    02 47.31  -2.4
PCA      6.63  77 ePc   02 50.99  -2.2
IMA      6.80 359 iPd   02 53.46  -2.1
YKU      6.91  82 P     02 55.50  -1.4
BCPM     6.94  79 ePc   02 54.99  -2.4
PNL      7.07  81 iPc   02 56.73  -2.4
HON      7.35  83 iPc   03 00.05  -2.9
FYU      8.16  23 eP    03 10.47  -3.5
SIT      9.73  96 eP    03 31.76  -3.5
                  eS    05 10.53
YKA     18.87  64 eP    05 33.50   2.1
        0.5s      3.70nm          4.0mb
GMW     21.41 110 eP    05 58.70   1.1
VGB     23.84 111 eP    06 22.24   0.9
                  (pP)  06 42.62  93kmX
RES     25.98  31 eP    06 40.50  -0.6
        0.6s      2.00nm          3.8mb
BONR    30.89 118 (P)   07 26.71   0.9
                  epP   07 49.54 101kmX
                  esP   08 04.14
DAU     32.28 107 (P)   07 38.32   0.3
                  pP    08 00.41  97kmX
RSSD    33.19  95 eP    07 45.38  -0.4
        0.6s      2.76nm          4.3mb
                  epP   08 06.77  93kmX
                  e     08 21.86
ARUT    33.28 112 eP    07 47.32   0.8
                  epP   08 09.10  95kmX
MSU     33.31 110 eP    07 47.74   0.9
                  epP   08 09.20  93kmX
                  ePcP  10 25.41
SRU     33.65 108 eP    07 49.87   0.2
                  epP   08 11.48  94kmX
                  e     08 25.37
WMOK    42.91 100 eP    09 06.88   0.2
        1.0s      7.87nm          4.5mb
                  epP   09 29.04  93kmX
                  PcP   10 49.72
MDJ     46.98 288 eP    09 36.00  -3.0
MAT     48.70 274 eP    09 50.00  -2.4
        0.9s      9.24nm          4.7mb
CN2     49.59 290 P     09 56.80  -2.4
        0.7s     56.00nm          5.7mb X
LMN     51.43  63 eP    10 14.00   0.9
HHC     58.39 297 P     11 01.40  -2.3
        1.4s     25.00nm          5.1mb
GTA     64.73 305 eP    11 43.00  -3.2
        1.0s     10.00nm          4.7mb
LZH     65.76 300 P     11 50.00  -2.9
        1.2s     25.00nm          5.0mb
GEC2    71.70   9 eP    12 28.50  -0.7
        0.5s      0.60nm          3.7mb
BFT    146.33 355 iPKPd 20 45.50  -0.3
        0.5s     20.00nm
SLR    146.44 357 iPKPc 20 53.70   7.8
        0.7s     61.00nm
KSR    146.59 360 ePKP  20 45.50  -0.7
PRY    147.64 359 ePKP  20 48.50   0.7
SEK    149.03 358 iPKPd 20 52.50   2.5
        0.7s     66.00nm
KIM    149.44   3 iPKPd 20 53.10   2.6
        0.8s     56.00nm
BLF    149.82   1 iPKPd 20 53.60   2.5
        0.7s     22.00nm
FRS    150.44   3 iPKPd 20 54.90   3.1
        0.8s     60.00nm
      120 obs. associated
-----------------------------------------
    JAN  12, 1993  05h 19m 49.10± 0.59s
    38.096 N ± 5.1km   23.022 E ± 6.8km
    DEPTH =  33.0km  (normal)
 GREECE                                (364
      MD 3.2 (ATH).

ATH      0.56 103 ePn   20 00.60   0.0
AGG      1.07 330 iPg   20 06.46  -1.4
                  eSg   20 22.54
VLI      1.38 183 ePn   20 12.00  -0.2
PAIG     1.90  15 iPb   20 19.70   0.0
VLS      1.92 273 ePn   20 20.60   0.5
LIT      2.04 348 ePb   20 21.78  -0.1
                  eSb   20 46.58
OUR      2.36  18 ePn   20 26.46   0.2
KZN      2.41 337 ePn   20 27.50   0.3
SOH      2.73   5 ePn   20 31.70   0.1
GRG      2.90 351 ePn   20 34.26   0.3
SRS      3.05   8 ePn   20 36.54   0.4
                  eSn   21 12.02
KNT      3.06 358 ePn   20 36.42   0.1
                  iSn   21 12.94
VAY      3.24 354 ePn   20 38.70  -0.1
OHR      3.47 331 ePn   20 43.30   1.2
SKO      4.06 343 ePn   20 49.00  -1.4
     S.D. = 0.7  on  15 of  15 obs.
-----------------------------------------
•   JAN  12, 1993  05h 28m 26.97± 0.99s
    9.325 S ±10.7km  148.879 E ±13.6km
    DEPTH =  33.0km  (normal)
    4.4mb (  5 obs.)
 EASTERN NEW GUINEA REG., P.N.G. (207)
      ML 4.6 (PMG).

PMG      1.70 267 iPc   28 55.80   1.1
                  eS    29 20.00
FINC     2.87 339 eP    29 11.00  -0.5
RMQ     17.07 180 eP    32 29.20   4.4X
        0.8s     13.00nm          4.1mb
WB2     17.56 231 iPc   32 32.30   1.3
                  iS    35 33.50
ASPA    20.21 223 eP    33 00.40  -1.6
        0.7s     36.00nm          4.8mb
      Z  20s      0.20um          3.5Msz
                  eS    36 39.90
DZM     21.10 129 iPc   33 12.70   1.4
CMS     22.23 187 eP    33 21.00  -1.4
        1.0s     14.00nm          4.4mb
STK     23.44 196 eP    33 34.20  -0.1
        0.7s      3.50nm          4.0mb
LZH     61.93 319 eP    38 46.00  -0.2
        1.4s     21.00nm          5.1mb
                  pP    38 52.50  21kmX
     S.D. = 1.4  on   8 of   9 obs.
-----------------------------------------
%  JAN  12, 1993  05h 46m 10.13± 2.62s
    33.992 S ±11.6km   70.081 W ±15.8km
    DEPTH =  10.0km  (geophysicist)
 CHILE-ARGENTINA BORDER REGION    (127)
      MD 3.3 (SAN).

CACH     0.45 254 iP    46 19.52   0.2
                  iS    46 25.98
CHCH     0.48 277 iPd   46 20.10   0.2
                  iS    46 26.88
PCH      0.52 316 iP+   46 20.77   0.1
                  iS    46 27.99
FCH      0.69 345 iPd   46 23.71  -0.2
                  (S)   46 33.49
TACH     0.79 295 iP+   46 25.50   0.0
                  iS    46 36.46
PEL      0.99 329 eP    46 29.19   0.3
                  iS    46 42.46
LNV      1.11 272 (P)   46 30.49  -0.4
                  iS    46 45.89
LNV      1.11 272 iPd   46 30.73  -0.1
                  iS    46 44.78
ROCH     1.28 322 iP    46 33.64  -0.4
                  iS    46 51.15
LCCH     1.34 292 iP    46 34.76  -0.1
                  iS    46 52.66
```

```
JACH     1.38 342 iP  * 46 35.69   0.3
                  iS    46 53.82
      S.D. = 0.3  on  11 of  11 obs.
-----------------------------------------
&  JAN  12, 1993  05h 50m 15.31s
   58.592 N          142.769 W
   DEPTH =  10.0km  (geophysicist)
   3.2mb (  1 obs.)
 GULF OF ALASKA                    ( 15)
      <AEIC>. ML 3.1 (PGC), 2.9
      (AEIC).

CYK      1.50   5 eP    50 37.84  -4.4
                  eS    50 55.98
KAIM     1.58 328 eP    50 39.28  -4.2
SNH      1.59 359 eP    50 39.08  -4.6
                  eS    50 58.62
YAH      1.85  16 eP    50 42.97  -4.6
PCA      1.98  39 eP    50 44.48  -4.9
                  eS    51 06.92
MID      2.03 296 P     50 46.20  -3.7
PNL      2.05  57 eP    50 45.22  -5.0
RAGM     2.05 332 eP    50 45.32  -4.9
BCPM     2.11  48 eP    50 46.40  -4.7
                  S     51 10.66
CROM     2.18 355 eP    50 47.00  -5.3
BALM     2.46   5 eP    50 51.07  -5.2
CVA      2.48 324 eP    50 50.83  -5.5
CTGM     2.49  16 eP    50 51.79  -4.9
HIN      2.63 315 eP    50 53.66  -4.9
FID      2.87 321 eP    50 56.84  -5.1
MTU      2.87 301 eP    50 56.61  -5.3
GLB      2.91 350 eP    50 57.08  -5.4
LTI      2.98 301 eP    50 58.25  -5.3
KNIM     3.09 307 eP    50 59.53  -5.4
VLZ      3.12 326 eP    50 59.94  -5.4
GLI      3.17 318 eP    51 00.46  -5.7
KLU      3.31 333 eP    51 03.17  -5.1
PLBC     3.42  73 P     51 04.70  -5.0
                  S     51 43.00
HYT      3.48  48 P     51 05.90  -4.8
SEW      3.74 297 eP    51 08.54  -5.7
MPA      3.86 302 eP    51 09.79  -6.1
PTE      3.90 308 eP    51 11.20  -5.3
SCM      3.97 327 eP    51 12.37  -5.2
KNK      4.02 317 eP    51 13.15  -5.1
SLKM     4.25 300 eP    51 15.57  -6.0
SML      4.26 322 eP    51 15.76  -5.9
PMS      4.33 311 P     51 17.70  -5.0
PLRM     4.38 316 eP    51 18.15  -5.2
GHO      4.43 319 eP    51 19.08  -5.0
SYI      5.03 274 eP    51 26.99  -5.6
KDC      5.22 265 eP    51 29.51  -5.6
SPU      5.35 303 eP    51 30.98  -6.1
REF      5.40 295 eP    51 32.26  -5.7
RSO      5.42 294 eP    51 32.94  -5.3
DFR      5.42 296 eP    51 31.23  -7.0
INW      5.51 290 eP    51 33.34  -6.1
SKT      5.52 312 eP    51 32.80  -6.8
AUL      5.57 283 eP    51 34.57  -5.7
AUH      5.58 283 eP    51 35.35  -5.0
YKA     14.33  62 eP    53 42.50   2.5
       0.8s     0.50nm          3.2mb
       45 obs. associated
-----------------------------------------
•  JAN  12, 1993  06h 18m 07.71± 0.52s
   49.168 N ±14.5km  155.688 E ±12.8km
   DEPTH =  33.0km  (normal)
   4.4mb (  9 obs.)
 KURIL ISLANDS                     (221)

KUSJ     9.74 236 eP    20 27.00  -1.4
ASAJ    10.29 246 eP    20 39.80   3.8X
HOOJ    10.99 237 eP    20 47.30   1.7
MAT     17.93 232 eP    22 15.00  -1.0
FBA     33.19  41 eP    24 42.79  -0.2
       0.7s     5.08nm          4.5mb
LZH     39.57 271 eP    25 37.50   0.0
       1.2s    15.00nm          4.6mb
YKA     47.95  39 eP    26 44.00  -0.5
       0.6s     0.80nm          3.9mb
CHG     54.35 257 ePc   27 34.00   0.6
       1.0s    18.50nm          5.1mb
BGMT    58.97  55 ePc   28 06.80   0.4
RSSD    63.96  52 eP    28 39.87   0.0
       0.5s     3.17nm          4.7mb
WB2     71.38 201 iPd   29 26.10  -0.1
       0.7s     1.80nm          4.2mb
WRA     71.38 201 P     29 26.80   0.6
       0.4s     0.30nm          3.7mb
GEC2    77.01 335 eP    29 58.20  -0.4
       0.5s     0.81nm          4.0mb
                  e     30 01.90
                  e     30 15.70
KBA     78.72 335 iPc   30 08.60   0.5
       0.7s    10.70nm          5.0mb
      S.D. = 0.9  on  13 of  14 obs.
-----------------------------------------
   JAN  12, 1993  06h 19m 19.94± 0.38s
   34.435 N ± 6.6km   80.544 E ± 7.4km
   DEPTH =  33.0km  (normal)
   4.7mb ( 20 obs.)
 XIZANG                            (306)

KSH      6.20 325 Pn    20 54.00   2.3
       0.8s   520.00nm          6.3mb X
                  Sn    22 08.50
GKN      7.31 150 P     21 08.00   0.8
       0.4s    21.00nm          5.5mb
KKN      7.77 147 P     21 13.40  -0.3
       0.6s    32.00nm          5.6mb
DMN      7.85 149 P     21 14.60  -0.3
       0.6s    29.00nm          5.5mb
GUN      7.95 143 P     21 16.80   0.4
PKI      8.01 147 P     21 16.60  -0.7
       0.6s    32.00nm          5.6mb
WMQ     10.89  28 eP    21 55.00  -1.6
       1.0s     8.70nm          4.9mb
                  sP    22 09.50
QUE     12.25 254 eP    22 27.80  12.6X
                  eS    24 43.50
HYB     17.04 186 eP    23 15.00  -2.4
MAIO    17.27 282 eP    23 20.00  -0.2
LZH     19.09  78 eP    23 45.00   2.3
       1.5s    27.00nm          4.3mb
CD2     19.85  94 eP    23 49.00  -2.0
GBA     20.93 188 P     24 04.00   1.8
                  S     27 51.00
KMI     21.35 110 Pc    24 10.50   3.8X
       1.0s    40.00nm          4.8mb
                  pP    24 15.50  18kmX
CHG     22.58 129 ePd   24 22.00   3.2X
       1.0s    11.50nm          4.3mb
GYA     23.83 102 iPc   24 35.60   4.5X
       1.2s    32.00nm          4.7mb
NST     25.68 132 eP    25 01.50  12.9X
TIY     25.92  73 eP    24 41.10  -9.7X
TIY     25.92  73 eP    24 51.10   0.3
MLR     42.53 302 iPc   27 15.90   1.8
KAF     43.62 326 eP    27 22.20  -0.3
       0.4s     2.90nm          4.4mb
NUR     44.07 324 eP    27 32.20   6.1X
HFS     49.46 323 eP    28 07.70  -0.9
       0.4s     2.00nm          4.4mb
GEC2    50.41 308 ePc   28 16.20   0.1
       0.8s     2.75nm          4.3mb
NAO     50.87 324 P     28 17.60  -1.7
       0.8s     6.60nm          4.7mb
GRF     51.86 309 eP    28 27.00   0.0
BSF     55.13 308 eP    28 50.20  -1.1
       0.9s    11.45nm          4.9mb
LPG     55.78 305 ePc   28 55.60  -0.6
       0.7s     4.85nm          4.6mb
LPL     55.79 305 eP    28 55.60  -0.6
       1.1s    17.60nm          5.0mb
FBA     74.05  19 ePc   30 55.20   1.3
       1.0s     2.80nm          4.2mb
WRA     74.43 128 P     30 57.70   1.0
       0.8s     0.50nm          3.6mb X
WB2     74.44 128 iPd   30 57.20   0.4
       0.9s     4.90nm          4.5mb
                  i     31 00.30
SLKM    76.68  23 eP    31 08.16  -0.8
ASPA    76.84 131 eP    31 13.50   3.1X
       0.7s     4.80nm          4.6mb
KIC     82.56 273 P     31 41.30   0.0
YKA     82.64   7 eP    31 39.30  -1.6
       0.8s     3.50nm          4.5mb
LIC     82.87 273 P     31 42.60  -0.3
LPB    146.74 294 ePKP  39 01.00   1.7
CNCB   146.82 294 PKP   39 01.00   1.4
      S.D. = 1.3  on  31 of  39 obs.
-----------------------------------------
?  JAN  12, 1993  06h 24m 06.85± 9.57s
   43.422 N ±62.6km    7.825 E ±18.6km
   DEPTH =  10.0km  (geophysicist)
 NEAR SOUTH COAST OF FRANCE        (379)
      ML 1.6 (GEN).

IMI      0.49   5 P     24 16.90   0.1
                  S     24 20.88
FIN      0.83  19 P     24 23.07   0.1
                  S     24 31.54
ROB      0.87   2 P     24 23.49  -0.2
                  S     24 32.59
STV      0.90 336 P     24 23.90  -0.2
                  S     24 33.28
PZZ      1.20 334 P     24 29.62   0.3
      S.D. = 0.3  on   5 of   5 obs.
-----------------------------------------
   JAN  12, 1993  06h 59m 08.56± 0.92s
   44.467 S ± 7.4km  168.348 E ± 4.9km
   DEPTH =  10.0km  (geophysicist)
 SOUTH ISLAND, NEW ZEALAND         (162)
      ML 4.3 (WEL).

MSZ      0.37 236 Pd    59 16.10   0.0
                  eS    59 20.90
MMCZ     0.77 134 Pd    59 23.50  -0.2
TLC      0.89 145 P     59 25.10  -0.6
MHZ      0.89 132 P     59 25.60  -0.1
SBCZ     0.93 133 P     59 26.30   0.0
LRCZ     0.93 130 P     59 26.30  -0.1
CMCZ     0.95 136 Pd    59 26.50  -0.2
                  eS    59 39.90
LSCZ     0.97 132 Pd    59 27.10   0.0
MSCZ     0.98 130 Pd    59 27.30   0.1
BWZ      1.10  94 P     59 30.30   1.1
BCZ      1.58 193 P     59 37.00   0.4
                  eS    59 55.20
TUZ      1.74 149 P     59 39.50   0.5
LTZ      3.31  61 P     00 00.80  -0.6
WRA     37.34 300 P     06 27.20   4.3X
       0.8s     0.20nm          2.9mb
      S.D. = 0.5  on  13 of  14 obs.
-----------------------------------------
•  JAN  12, 1993  07h 10m 33.95± 1.54s
   19.636 N ± 6.2km   64.711 W ±22.0km
   DEPTH =  31.9km  (  4 depth phases)
   4.3mb (  8 obs.)
 VIRGIN ISLANDS                    ( 91)

LPR      1.72 220 P     11 01.80  -0.3
CPD      1.96 216 P     11 05.50  -0.1
APR      2.24 239 P     11 10.40   0.8
PORP     2.41 230 P     11 12.00   0.0
LRS      2.42 237 P     11 12.40   0.2
MGP      2.77 235 P     11 15.70  -1.4
TOV     10.95 207 eP    13 13.20   1.5
SDV     12.13 209 eP    13 27.00  -0.7
HBF     19.27 317 eP    15 04.86   6.0X
HBF     19.27 317 (P)   14 57.92  -1.0
                  e     15 04.80  26km
SGS     19.53 317 eP    15 08.69   7.0X
SGS     19.53 317 eP    15 01.69   0.0
                  e     15 08.59  27km
CEH     20.55 325 eP    15 21.55   9.0X
       0.4s    20.67nm          4.9mb
CEH     20.55 325 eP    15 13.34   0.8
       0.4s    20.75nm          4.9mb
                  e     15 22.39  34km
                  eS    18 56.48
JSC     20.70 318 eP    15 24.19  10.1X
JSC     20.70 318 eP    15 14.55   0.5
PRM     21.28 316 eP    15 31.92  11.9X
PRM     21.28 316 eP    15 21.24   1.2
                  e     15 31.68  41km
BLA     22.25 325 eP    15 47.00  17.3X
       0.6s    12.27nm
BLA     22.25 325 (P)   15 30.50   0.8
       0.5s    11.25nm          4.6mb
NAV     22.53 325 eP    15 50.24  17.8X
NAV     22.53 325 eP    15 32.17  -0.3
                  e     15 50.36  82kmX
PWV     22.68 324 P     15 53.20  19.2X
ELC     27.69 315 (P)   16 36.57  15.4X
ELC     27.69 315 eP    16 20.09  -1.1
FVM     28.87 315 (P)   16 31.00  -0.8
       0.6s     3.90nm          4.3mb
ALQ     39.81 301 (P)   18 10.00   3.8X
       1.0s     1.63nm          3.7mb
```

12d 07h

```
BW06    44.10 312 (P) *  18 42.50   1.2
         1.3s      3.28nm          4.0mb
NEW     50.75 317 eP     19 33.20   0.2
         0.9s      3.51nm          4.3mb
YKA     54.71 334 eP     20 00.70  -1.5
         0.8s      1.90nm          4.2mb
      S.D. = 0.9  on  20 of  30 obs.
-----------------------------------------
    JAN  12, 1993  08h 52m 43.01± 0.41s
    31.169 N ± 6.0km   80.309 E ± 6.1km
    DEPTH =  33.0km  (normal)
    4.8mb ( 22 obs.)  4.3Msz (  2 obs.)
  XIZANG                            (306)

NDI      3.65 228 iPn    53 43.50   4.9X
DMN      5.49 129 P      54 05.86   1.1
         0.4s   161.00nm          5.9mb X
KKN      5.49 127 P      54 05.68   0.9
         0.5s   331.00nm          6.1mb X
PKI      5.71 128 P      54 08.80   0.7
         0.4s   101.00nm          5.7mb
GUN      5.84 122 P      54 10.34   0.4
         0.4s   276.00nm          6.2mb X
KSH      8.99 338 P      54 52.50  -1.2
                  S      56 35.20
LSA      9.47  96 Pc     55 00.70   0.1
         0.9s    40.00nm          5.6mb
      Z  10s      2.55um
                  S      56 45.50
OUE     11.54 269 eP     55 42.30  13.6X
                  eS     59 40.70
HYB     13.78 187 eP     55 55.50  -2.9
                  eS     58 22.50
POO     13.87 206 iPc    55 57.80  -1.8
WMQ     13.91  23 P      55 58.00  -2.1
         0.8s    10.00nm          4.6mb
                  pP     56 04.20
                  sP     56 10.00
GBA     17.68 189 P      56 47 00  -1.4
                  S      59 56 00
GTA     17.90  57 P      56 50.40  -0.7
                  sP     57 00.00
CD2     20.09  85 P      57 17.00   0.3
         1.2s    58.00nm          4.8mb
LZH     20.19  70 eP     57 16.00  -1.7
         2.0s    41.00nm          4.4mb
      Z  15s      0.54um          4.0MszX
KMI     20.66 101 Pd     57 22.50  -0.3
         1.5s    90.00nm          4.9mb
      Z  15s      0.90um          4.3MszX
                  pP     57 27.00  17kmX
CHG     20.86 122 eP     57 23.80  -0.8
         1.2s    40.23nm          4.7mb
GYA     23.54  95 P      57 53.00   1.7
         1.0s    38.00nm          4.9mb
NST     23.79 126 eP     58 04.40  10.8X
XAN     24.24  76 P      57 57.10  -0.9
         0.8s    16.00nm          4.6mb
                  sP     58 10.40
BTO     25.74  60 eP     58 13.00   0.7
NNT     25.74 132 eP     58 13.00   0.7
HHC     26.94  60 iPc    58 24.20   0.9
         1.4s    25.00nm          4.7mb
      Z  18s      0.73um          4.3Msz
TIY     27.20  67 eP     58 25.30  -0.3
      Z  18s      0.73um          4.3Msz
      E  13s      0.56um
BJI     30.31  63 eP     58 53.50   0.0
         1.0s    22.00nm          4.9mb
SNY     36.04  61 iPc    59 43.00  -0.1
         1.0s    28.00nm          5.1mb
CN2     37.53  57 Pd     59 55.50  -0.1
         1.0s    64.00nm          5.4mb
MDJ     40.55  56 eP     00 19.80  -1.0
MLR     44.16 305 eP     00 53.00   2.6
NAO     53.40 325 P      02 00.00  -1.4
         0.6s     1.40nm          4.1mb
LPG     57.54 307 eP     02 32.60   0.8
         0.7s     3.75nm          4.5mb
LPL     57.55 307 eP     02 32.40   0.6
         1.1s    11.00nm          4.8mb
BCAO    63.66 259 ePd    03 14.00   0.4
         0.6s    14.00nm          5.2mb
                  id     03 17.00  10kmX
                  id     03 35.00
WRA     72.60 127 P      04 09.80   0.6
         0.7s     1.20nm          4.0mb
```

```
WB2     72.61 127 iPd    04 09.40   0.1
         0.5s    11.20nm          5.1mb
ASPA    74.88 130 iPd    04 22.50   0.1
         0.6s     5.80nm          4.8mb
FBA     77.19  19 eP     04 35.50   0.7
         1.0s     2.30nm          4.2mb
BALM    81.78  19 eP     04 59.59  -0.1
KIC     82.52 273 (P)    05 06.60   2.4
YKA     85.90   7 eP     05 18.80  -1.6
         0.7s     2.60nm          4.6mb
ZOBO   147.67 290 PKP    12 27.00   2.8
LPB    147.78 290 ePKP   12 33.00   8.9X
CNCB   147.83 289 PKP    12 28.00   3.6X
      S.D. = 1.3  on  38 of  43 obs.
-----------------------------------------
&  JAN  12, 1993  09h 43m 13.02s
   63.688 N          149.909 W
   DEPTH = 137.7km
   2.8mb (  1 obs.)
 CENTRAL ALASKA                      (  1)
      <AEIC>.

MCK      0.44  84 eP     43 32.85  -0.1
                  eS     43 47.37
RND      0.55 120 eP     43 33.15  -0.5
HUR      0.72 170 eP     43 34.37  -0.3
                  S      43 50.85
NEA      0.96  22 eP     43 36.11  -0.5
CCB      1.33  43 eP     43 39.46  -0.7
MLY      1.40 345 eP     43 40.53  -0.4
                  eS     44 00.96
HDA      1.49  60 eP     43 41.36  -0.5
FBA      1.53  36 eP     43 41.82  -0.5
GLM      1.70  39 eP     43 43.74  -0.6
SKT      1.87 204 eP     43 45.49  -0.8
                  eS     44 11.06
GHO      1.98 166 eP     43 46.98  -0.7
                  eS     44 13.23
SML      2.02 158 iP     43 47.10  -1.0
                  eS     44 14.11
PWA      2.05 180 P      43 48.00  -0.3
PAX      2.13 108 eP     43 49.20  -0.3
                  eS     44 16.94
PLRM     2.13 170 eP     43 48.61  -0.8
SCM      2.21 146 eP     43 49.30  -1.2
SUA      2.27 190 eP     43 51.09  -0.1
SDG      2.30 118 eP     43 50.60  -1.0
                  eS     44 20.31
TOA      2.34 131 eP     43 51.27  -0.8
KNK      2.38 163 eP     43 51.64  -0.9
PMS      2.46 176 P      43 52.70  -0.9
CGLM     2.58 203 eP     43 55.04  -0.1
DOT      2.61  88 eP     43 54.27  -1.2
CP2      2.66 205 eP     43 56.44   0.1
CKN      2.69 204 eP     43 56.41  -0.1
BGL      2.69 206 eP     43 56.57   0.0
SPU      2.71 203 eP     43 56.24  -0.5
                  S      44 28.39
CKT      2.72 204 eP     43 56.63  -0.3
CKL      2.74 205 eP     43 57.44   0.2
TTA      2.86 257 P      43 58.50  -0.2
PTE      2.86 171 eP     43 57.60  -1.1
KLU      2.87 138 eP     43 57.22  -1.7
IMA      2.88 328 eP     43 58.65  -0.4
VLZ      3.06 145 eP     43 59.09  -2.1
VZW      3.07 148 eP     43 59.50  -1.9
GLI      3.11 154 eP     44 00.09  -1.8
                  eS     44 37.48
SLKM     3.20 183 eP     44 02.24  -0.8
MPA      3.22 175 eP     44 01.94  -1.4
FID      3.36 150 eP     44 03.55  -1.6
DFR      3.37 204 eP     44 04.86  -0.6
KNIM     3.50 162 eP     44 05.07  -2.0
SEW      3.60 176 eP     44 07.02  -1.4
GLB      3.61 126 eP     44 07.48  -1.1
HIN      3.67 153 eP     44 07.32  -2.0
CVA      3.71 146 eP     44 08.20  -1.6
LTI      3.79 164 eP     44 09.03  -1.8
RAGM     4.13 141 eP     44 13.89  -1.6
CROM     4.32 130 eP     44 16.42  -1.8
BALM     4.41 124 eP     44 17.71  -1.6
YKA     15.90  78 eP     46 49.70  -0.3
         0.4s     0.20nm          2.8mb
         50 obs. associated
-----------------------------------------
•  JAN  12, 1993  09h 58m 43.83± 1.01s
   40.429 N ± 8.9km   21.801 E ± 7.0km
```

```
   DEPTH =  10.0km  (geophysicist)
 GREECE                              (364)

FNA      0.48 318 ePg    58 53.74   0.2
LIT      0.62 122 ePg    58 56.10  -0.3
GRG      0.70  41 ePg    58 56.46  -1.2
                  eSg    59 10.10
OHR      1.02 312 eP     59 03.00  -0.2
VAY      1.07  33 eP     59 04.60   0.7
KNT      1.11  48 ePg    59 05.02   0.4
PAIG     1.52 109 iPb    59 11.50   0.4
      S.D. = 0.8  on   7 of   7 obs.
-----------------------------------------
   JAN  12, 1993  11h 07m 01.31± 0.69s
   46.420 N ± 7.5km   12.497 E ± 5.6km
   DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                      (545)
      MD 2.8 (LJU). ML 2.2 (VIE).

FVI      0.26  48 P      07 06.00  -0.8
                  eSg    07 10.60
CTI      0.70 238 P      07 14.10  -1.0
                  eSg    07 23.30
KBA      0.88  41 iPgc   07 18.20  -0.1
                  iSg    07 30.10
WTTA     1.03 325 iPgd   07 21.10   0.2
                  iSg    07 34.10
VOY      1.04 111 ePg    07 19.50  -1.6
                  eSg    07 36.50
OGA      1.11 294 ePg    07 22.20  -0.1
TRI      1.13 128 ePg    07 23.20   0.7
                  eSg    07 38.70
SOTA     1.19 313 iPgd   07 24.50   0.9
                  iSg    07 39.60
VBY      2.13 114 ePn    07 39.30   1.9
                  eSn    08 07.20
GEC2     2.56  18 Pg     07 50.50   6.9X
                  Sg     08 24.00
      S.D. = 1.2  on   9 of  10 obs.
-----------------------------------------
?  JAN  12, 1993  12h 46m 48.19± 1.45s
   10.548 N ±11.8km   61.661 W ±11.6km
   DEPTH =  10.0km  (geophysicist)
 TRINIDAD                            ( 98)
      MD 2.6 (TRN).

TCE      0.17 328 iPd    46 52.17   0.0
                  eS     46 55.09
TRN      0.27  69 eP     46 53.34  -0.6
                  eS     46 58.62
TPP      0.31 138 eP     46 54.28  -0.3
                  eS     47 00.52
TBH      0.59  96 eP     47 00.97   0.9
                  eS     47 10.83
      S.D. = 1.1  on   4 of   4 obs
-----------------------------------------
?  JAN  12, 1993  12h 47m 24.99± [illegible]
   38.517 S ±10.7km  175.217 E ±10 [illegible]
   DEPTH = 288.3 ± 18.8 km
 NORTH ISLAND, NEW ZEALAND           (159[illegible]

MOZ      0.33 272 P      48 01.90  -0.[illegible]
WLZ      0.71  25 P      48 03.30   0.3
NGZ      0.72 156 P      48 03.30   0.[illegible]
CNZ      0.73 159 eP     48 03.40   0.2
WHH      1.07 111 eP     48 04.10  -0.7
BSZ      1.30 190 eP     48 06.30   0.3
WAHZ     1.48 143 P      48 07.30   0.1
PAHZ     1.48 104 P      48 07.40   0.2
URZ      1.51  81 P      48 06.50  -0.8
                  eS     48 34.30
MOH      1.63 113 P      48 08.60   0.4
MNG      2.11 175 P      48 12.00   0.0
                  eS     48 43.60
MAHZ     2.19 109 P      48 13.30   0.7
NOZ      2.21  93 P      48 13.30   0.5
PGZ      2.25 159 P      48 13.10   0.0
KIW      2.36 186 eP     48 14.10   0.0
PUZ      2.43  80 P      48 14.50  -0.3
CAW      2.59 183 P      48 16.20  -0.1
HBZ      2.60  70 P      48 16.20  -0.1
MTW      2.65 175 P      48 16.50  -0.3
MRW      2.74 188 eP     48 16.90  -0.8
                  eS     48 54.20
TCW      2.79 195 P      48 18.40   0.2
MOW      2.90 179 eP     48 19.00  -0.3
KHZ      4.10 198 P      48 32.70   0.6
```

S.D. = 0.4 on 23 of 23 obs.

& JAN 12, 1993 13h 06m 09.40s
36.555 N 121.188 W
DEPTH = 5.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 3.1 (BRK), 3.1 (GS).

LLA	0.21	73	iPc	06 13.48	-0.2
PRS	0.27	213	iPd	06 15.11	0.3
			eS	06 18.64	
SAO	0.29	315	iPc	06 15.10	-0.3
			iS	06 19.26	
PRI	0.59	134	iPd	06 21.39	0.2
COE	0.80	331	ePc	06 25.56	0.1
GCC	0.80	306	iPd	06 24.81	-0.6
			eS	06 38.49	
ARN	0.84	341	eP	06 25.65	-0.5
			eS	06 38.78	
MHC	0.87	335	iPc	06 26.25	-0.3
			eS	06 39.46	
STAN	1.16	317	iPd	06 30.99	-0.5
			eS	06 47.32	
FRI	1.27	69	eP	06 31.49	-1.8
			eS	06 48.72	
PCC	1.34	315	ePc	06 33.37	-1.2
BKS	1.56	328	ePc	06 39.29	1.4
			eS	07 07.01	
CMB	1.61	23	ePd	06 37.17	-1.4
			eS	06 59.12	
BCH	1.63	146	ePd	06 36.65	-2.4
HMR	1.67	343	(P)	06 38.92	-0.5
MMPM	2.02	58	eP	06 44.94	0.1
			eS	07 10.84	
MEMM	2.11	58	eP	06 45.73	-0.1
			eS	07 14.12	
NTYM	2.17	328	eP	06 44.47	-2.2
MTUM	2.25	68	eP	06 47.59	-0.4
			eS	07 17.14	
ISA	2.37	111	ePn	06 48.17	-1.5
MRCM	2.42	62	eP	06 51.06	0.6
			eS	07 22.13	
BONR	2.69	58	ePn	06 55.32	0.9
ORV	3.01	355	eP	06 58.40	-0.2
TNP	3.51	63	(Pn)	07 07.86	1.9
GSC	3.77	108	eP	07 07.42	-2.2

25 obs. associated

% JAN 12, 1993 13h 08m 05.46± 1.46s
41.283 S ± 6.6km 172.805 E ± 7.8km
DEPTH = 154.2 ± 15.9 km
SOUTH ISLAND, NEW ZEALAND (162)

THZ	0.49	171	P	08 27.30	-0.2
			eS	08 41.70	
QRZ	0.50	335	Pc	08 27.20	-0.3
			S	08 40.90	
DSZ	0.88	238	P	08 29.80	-0.2
DIW	0.97	61	P	08 31.20	0.5
TCW	1.11	87	P	08 32.20	0.4
KHZ	1.26	154	P	08 33.60	0.4
			eS	08 51.20	
MRW	1.43	89	eP	08 34.70	-0.3
			eS	08 54.60	
LTZ	1.55	195	P	08 36.60	0.4
			eS	08 57.00	
KIW	1.65	76	P	08 37.20	0.0
CAW	1.72	85	eP	08 37.60	-0.4
MOW	1.85	95	P	08 39.10	-0.4
MTW	2.04	87	eP	08 41.30	-0.4
BSZ	2.20	48	eP	08 44.40	0.9
MQZ	2.43	183	P	08 46.20	-0.1
			eS	09 13.40	
MOZ	3.17	30	eP	08 55.40	-0.3

S.D. = 0.5 on 15 of 15 obs.

? JAN 12, 1993 13h 24m 00.48± 6.48s
42.426 N ±54.4km 21.894 E ±11.4km
DEPTH = 10.0km (geophysicist)
NORTHWESTERN BALKAN REGION (383)

SKO	0.57	217	iPg	24 12.10	0.1
			iSg	24 20.60	
VAY	1.21	155	iPn	24 22.30	-0.8
			iSn	24 38.60	
KNT	1.47	149	ePb	24 26.62	-0.4
			eSb	24 46.58	
GRG	1.52	165	ePb	24 28.02	0.3
			eSb	24 48.98	
OHR	1.55	212	ePn	24 26.30	-1.9
FNA	1.69	193	ePb	24 32.82	2.6
			eSb	24 56.26	
SRS	1.82	135	ePb	24 33.22	1.1
			iSb	24 57.66	
THE	1.96	155	ePb	24 33.82	-0.3
LIT	2.37	169	iPn	24 39.82	-0.2
PAIG	2.84	151	ePn	24 45.86	-0.8

S.D. = 1.4 on 10 of 10 obs.

JAN 12, 1993 13h 24m 24.28± 0.42s
6.008 S ± 3.3km 127.639 E ± 4.5km
DEPTH = 397.9 ± 5.1 km
4.9mb (58 obs.)
BANDA SEA (280)
Mw 5.4 (HRV).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 10S, 15C
Centroid Location:
Origin Time 13:24:30.8 1.0
Lat 5.82S 0.07 Lon 127.95E 0.11
Dep 417.0 4.1 Half-duration 1.2
Moment Tensor; Scale 10**16 Nm
Mrr= 2.09 0.55 Mtt=-4.75 0.67
Mff= 2.66 1.04 Mrt=-3.29 0.85
Mrf= 9.41 0.69 Mtf= 4.24 0.66
Principal Axes:
T Val= 11.83 Plg=43 Azm=274
N -0.49 29 153
P -11.34 33 42
Best Double Couple:Mo=1.2*10**17
NP1:Strike= 76 Dip=30 Slip= 12
NP2: 336 84 119

MTN	7.62	153	iPd	26 16.90	1.3
			eS	27 33.00	
KHKI	12.16	258	ePd	27 06.80	-1.9
			eS	29 11.20	
			e	33 23.00	
DAV	13.17	351	eP	27 20.30	0.8
			eS	29 35.50	
WRA	15.31	155	P	27 41.50	-0.8
	0.6s	12.30nm			4.5mb
WB2	15.31	155	iPd	27 41.40	-1.0
	0.6s	193.30nm			5.7mb
KKM	16.53	316	ePd	27 56.50	1.4
	0.6s	157.70nm			5.6mb
			e	30 45.00	
PLP	17.26	351	ePd	28 03.50	1.1
	1.2s	20.00nm			4.3mb
MDG	18.07	89	eP	28 11.50	1.1
OIS	18.55	142	eP	28 16.50	1.3
	0.2s	3.00nm			4.3mb
ASPA	18.56	162	iPd	28 15.90	0.5
Z	23s	0.20um			
			eS	31 25.10	
PMG	19.63	101	eP	28 27.00	1.2
WARB	20.09	183	eP	28 32.00	1.8
	0.4s	13.00nm			4.7mb
NANU	20.19	214	eP	28 32.20	1.1
	0.4s	20.00nm			4.9mb
PGP	20.49	341	ePc	28 35.00	0.9
	1.0s	55.00nm			4.9mb
QCP	21.52	342	eP	28 26.10	-17.8X
MEEK	22.25	202	eP	28 50.00	-0.7
	0.3s	13.00nm			4.8mb
BAG	23.34	343	eP	29 01.00	-0.1
			eS	32 39.00	
CVP	24.25	346	ePd	29 08.00	-1.1
KGM	25.56	287	ePd	29 22.00	1.0
	0.9s	245.50nm			5.6mb
MRWA	25.57	204	eP	29 21.00	0.0
GUA	25.91	41	eP	29 23.50	-0.6
	0.8s	137.31nm			5.4mb
PJG	25.92	41	eP	29 23.60	-0.5
BAL	26.54	201	eP	29 30.00	0.3
KLB	27.08	199	iPd	29 34.00	-0.4
MUN	27.96	201	eP	29 42.00	-0.2
IPM	28.58	291	ePd	29 46.90	-0.9
	0.4s	57.90nm			5.3mb
RMQ	28.64	138	eP	29 45.30	-2.9
STK	28.86	155	ePc	29 49.90	-0.1
	0.5s	4.40nm			4.0mb
			e	29 56.60	
SNG	29.97	296	eP	30 00.20	0.3
QIZ	30.44	325	P	30 03.60	-0.3
CMS	30.54	148	eP	30 04.50	-0.2
	0.5s	2.00nm			3.7mb X
HNR	32.19	98	eP	30 13.00	-6.0X
ARMA	33.14	140	eP	30 25.00	-2.1
NNT	33.33	304	iPc	30 28.70	0.1
BFD	33.88	158	eP	30 32.20	-0.8
	0.6s	7.00nm			4.2mb
LOE	34.59	313	eP	30 40.00	0.8
NST	34.73	309	eP	30 48.00	7.6X
CAN	35.18	149	eP	30 45.80	1.7
TOO	35.38	155	eP	30 50.20	4.5X
	1.0s	25.00nm			4.5mb
			e	32 05.00	
KHT	35.44	306	iPc	30 47.00	0.6
KAGJ	37.11	5	P	31 00.60	0.5
SSE	37.41	351	Pd	31 03.00	0.5
	1.0s	53.00nm			4.8mb
CHG	37.53	312	iPc	31 04.30	0.6
	1.0s	250.00nm			5.5mb
GYA	38.15	329	iPc	31 09.00	0.2
	0.8s	16.00nm			4.4mb
			S	36 30.20	
KUMJ	38.45	4	P	31 11.20	0.2
WHN	38.51	341	Pd	31 13.00	1.4
	1.0s	72.00nm			5.0mb
NJ2	38.76	348	Pd	31 14.40	0.8
	0.9s	82.00nm			5.1mb
KMI	39.30	323	Pc	31 20.00	1.6
	1.4s	110.00nm			5.0mb
			eS	36 47.00	
SHNJ	40.05	4	P	31 24.00	-0.1
DZM	40.73	117	iPc	31 30.90	0.9
TSRJ	42.06	10	P	31 40.70	0.2
CHJJ	43.17	13	P	31 48.10	-1.2
CD2	43.24	329	eP	31 49.40	-0.5
	0.9s	24.00nm			4.5mb
MTMJ	43.43	12	P	31 51.00	-0.4
MAT	43.47	12	iPd	31 50.60	-1.0
	1.0s	143.00nm			5.3mb
XAN	43.59	337	iPd	31 52.00	-0.7
	0.7s	23.00nm			4.6mb
			S	37 46.50	
KAKJ	43.61	15	P	31 51.10	-1.6
DL2	45.03	353	P	32 04.50	0.6
	1.0s	89.00nm			5.0mb
			S	38 09.00	
YAMJ	45.44	14	P	32 07.70	0.5
TIY	45.75	343	eP	32 09.00	-0.6
OFUJ	46.70	15	P	32 16.20	-0.7
BJI	47.02	348	eP	32 18.50	-0.8
	1.2s	98.00nm			5.0mb
			S	38 37.00	
LZH	47.45	334	Pd	32 23.50	0.6
	1.2s	56.00nm			4.8mb
			ScP	37 02.00	
			iS	38 44.50	
			ScS	41 32.50	
SNY	47.75	356	iPd	32 24.40	-0.4
	1.0s	71.00nm			4.9mb
AOMJ	47.80	13	P	32 26.30	1.1
HHC	48.91	344	iPc	32 34.00	0.2
	1.0s	23.00nm			4.5mb
CN2	49.62	358	Pd	32 38.40	-0.5
	0.6s	19.00nm			4.6mb
			ePcP	33 53.00	
			epP	34 01.00	411kmX
MRRJ	49.73	13	eP	32 39.80	0.0
LSA	49.87	317	Pc	32 42.60	0.9
	1.0s	45.00nm			4.8mb
HOOJ	50.23	15	eP	32 44.20	0.7
MDJ	50.42	2	Pd	32 45.00	0.0
	1.3s	160.00nm			5.2mb
KUSJ	51.27	16	P	32 50.90	-0.3
ASAJ	51.70	14	P	32 54.30	0.0
GTA	52.00	333	P	32 57.00	0.2
	1.0s	21.00nm			4.4mb
GUN	52.54	312	Pc	33 00.48	-0.8
	0.5s	185.00nm			5.7mb
PKI	52.71	311	Pc	33 01.26	-1.2
	0.6s	72.00nm			5.2mb
KKN	52.92	312	Pc	33 02.98	-0.9
	0.6s	120.00nm			5.4mb
DMN	52.95	311	Pc	33 03.30	-0.9
	0.7s	136.00nm			5.4mb
GBA	53.51	292	Pc	33 07.00	-1.0

12d 13h

```
GKN     53.52 311 Pc   33 07.22  -0.9
        0.4s   184.00nm          5.7mb
HYB     53.77 297 ePc   33 08.10  -1.9
        1.0s   190.00nm          5.4mb
YSS     54.46  13 eP    33 13.60  -0.7
POO     58.36 296 eP    33 38.50  -3.5X
CIT     59.02 350 eP    33 46.50   0.6
NDI     59.53 308 iPc   33 48.00  -1.7
ZAK     59.99 342 ePd   33 53.00   0.6
        1.1s    14.00nm          4.3mb
                  e     41 33.00
WMQ     61.30 328 P     34 00.60  -0.8
        0.8s    10.00nm          4.4mb
IRK     61.37 344 iPc   34 02.40   0.8
        1.2s    37.00nm          4.8mb
MOY     61.83 342 ePd   34 05.90   1.3
        1.3s    88.00nm          5.1mb
                  eS    41 58.70
PET     64.40  20 eP    34 22.00   0.9
BOD     64.57 352 iPd   34 22.40   0.2
        1.3s    65.00nm          5.1mb
KSH     65.68 318 eP    34 31.00   1.3
        1.0s    20.00nm          4.8mb
YAK     67.84   1 iPd-  34 42.00  -0.4
        1.0s   307.00nm          6.0mb X
MGD     68.40  12 iPd   34 46.00   0.1
        0.9s   100.00nm          5.5mb
ELT     68.57 335 iPc   34 46.50  -0.5
        0.9s    32.00nm          5.0mb
                  iS    43 14.00
MAW     75.02 201 P     35 13.89 -10.6X
BRVK    76.06 328 iPc   35 30.50   0.0
        1.2s    34.00nm          5.0mb
                  iS    44 38.00
MAIO    76.24 309 iPc   35 32.60   0.6
        1.2s    32.64nm          4.9mb
TIK     77.49   0 iPd   35 32.00  -5.9X
        1.1s    67.00nm          5.3mb
                  e     35 49.00
                  iS    44 53.00
                  e     45 06.00
NRI     79.97 347 iPd   35 50.70  -0.5
        1.0s    36.00nm          5.1mb
BAK     84.59 311 eP    36 09.00  -6.2X
SDN     84.75  33 eP    36 15.62   0.0
        0.8s   187.25nm          5.9mb X
SHE     85.59 311 eP    36 22.00   1.9
        0.8s    50.00nm          5.4mb
                  iS    46 18.50
SVW     88.86  28 eP    36 35.28   0.0
        0.9s    23.18nm          5.0mb
TTA     89.14  26 eP    36 36.59  -0.1
        1.0s    10.84nm          4.6mb
BGL     90.42  28 eP    36 42.06  -0.5
CP2     90.49  28 (P)   36 42.64  -0.4
CRP     90.53  28 ePc   36 42.14  -1.0
IMA     90.88  24 eP    36 44.29  -0.4
        1.0s     6.82nm          4.5mb
SLKM    91.32  29 eP    36 45.44  -1.2
PMR     92.02  28 eP    36 49.00  -0.7
        0.8s    16.64nm          5.0mb
FBA     93.09  25 eP    36 53.03  -1.6
        0.8s     2.90nm          4.4mb
KLU     93.53  29 eP    36 57.00   0.1
RES    107.16  11 ePKP  42 07.50   3.0X
YKA    107.89  26 ePdiff37 58.30  -2.7
        0.8s     0.30nm          4.6mb
YKA    107.89  26 ePKP  42 05.70  -0.5
        0.7s     1.00nm
BCAO   109.42 273 ePKPd 42 22.10  11.5X
        1.0s    25.00nm
                  id    42 45.00
                  ic    42 48.00
                  id    42 54.00
MSU    117.18  50 ePKP  42 26.38   1.4
SRU    118.26  49 ePKP  42 27.49   0.5
FCC    118.40  23 ePKP  42 28.50   2.2
RSSD   121.09  41 ePKP  42 32.12  -0.1
FVM    133.04  42 ePdiff39 44.76  -8.6X
        0.6s    24.16nm
                  pP    39 50.49
CNCB   152.57 146 ePKP  43 33.00   3.4X
                  e     45 13.00
LPB    152.73 145 ePKP  43 33.00   3.3X
ZOBO   152.90 145 ePKP  43 31.00   0.8
                  e     45 19.00
      S.D. = 1.0  on 112 of 125 obs.
```

```
-----------------------------------------
*  JAN  12, 1993  13h 33m 09.84± 0.55s
     7.223 N ±12.0km   76.772 W ±10.6km
    DEPTH =  33.0km  (normal)
    4.4mb (  3 obs.)
 NORTHERN COLOMBIA                  ( 99)
       MD 4.5 (UPA).

UPA      3.25 303 iPd   33 59.54  -0.1
                  iS    34 38.94
ECO      3.59 307 ePd   34 04.31  -0.3
                  iS    34 48.81
BMG      3.67  92 eP    34 16.00  10.2X
BOG      3.73 134 eP    34 11.00   4.2X
                  eS    34 55.00
TOV      7.36  69 ePn   34 58.80   1.0
                  iSn   36 12.50
ZOBO    24.88 160 P     38 32.10   0.3
      Z  20s     0.12um          3.4Msz
                  LR    46 40.00
LPB     25.11 160 (P)   38 41.00   7.1X
CNCB    25.41 160 P     38 38.30   1.5
ALO     38.80 320 ePd   40 34.80   1.2
        0.9s     6.30nm          4.4mb
RSSD    43.79 332 (P)   41 15.43   0.9
        1.0s     6.05nm          4.3mb
                  pP    41 21.34  20kmX
ULM     45.76 343 eP    41 33.00   3.1X
BONR    48.42 316 eP    41 52.23   0.8
BGMT    48.64 327 eP    41 54.20   1.3
YKA     61.68 341 eP    43 24.70  -2.1
        0.6s     2.20nm          4.5mb
KIC     71.46  86 (P)   44 28.50  -1.3
                  e     45 44.00
HYB    145.45  45 ePKP  52 45.50  -1.6
ASPA   146.33 238 ePKP  52 47.80  -0.7
        0.7s     3.10nm
GBA    147.08  51 PKP   52 53.00   3.2X
WB2    147.29 244 ePKP  52 49.30  -0.8
        0.7s     2.40nm
WRA    147.30 244 PKP   52 49.80  -0.3
        0.6s     0.30nm
      S.D. = 1.2  on  15 of  20 obs.
-----------------------------------------
*  JAN  12, 1993  14h 15m 27.15± 0.54s
     8.134 S ± 7.4km  122.430 E ±13.0km
    DEPTH =  24.8km  (  5 depth phases)
    4.9mb ( 19 obs.)
 FLORES REGION, INDONESIA           (286)

KHKI     6.76 268 ePd   17 07.40   0.1
                  e     22 10.20
WB2     16.47 137 iPd   19 13.00  -5.3X
                  eS    22 09.20
WARB    18.39 168 eP    19 43.00   0.7
MEEK    18.76 191 eP    19 47.00   0.2
ASPA    18.96 146 eP    19 49.00  -0.3
        1.0s    28.30nm          4.4mb
                  eS    23 20.60
KGM     21.56 297 eP    20 27.60  10.6X
MRWA    21.83 195 eP    20 21.00   1.4
COOL    22.67 183 eP    20 27.00  -1.0
BAL     22.99 193 eP    20 31.00  -0.1
KLB     23.74 190 eP    20 39.00   0.6
MUN     24.42 193 eP    20 46.00   1.0
IPM     24.81 300 ePd   20 57.00   8.1X
        1.0s    47.10nm          5.1mb
SNG     26.54 304 eP    21 13.80   8.8X
                  eS    26 04.00
STK     29.60 146 eP    21 32.10  -0.5
        0.6s     3.20nm          4.3mb
                  e     21 39.00  24km
CMS     31.86 140 eP    21 50.20  -2.4
        0.8s    12.00nm          4.9mb
KHT     32.82 314 eP    22 06.20   5.1X
BFD     34.19 151 eP    22 18.20   5.4X
        0.7s    10.00nm          4.9mb
ARMA    35.18 133 eP    22 30.00   8.5X
        0.8s     9.00nm          4.8mb
CHG     35.40 319 eP    22 30.00   6.6X
TOO     35.99 148 eP    22 28.80   0.7
        1.0s    49.00nm          5.4mb
CAN     36.39 142 e(P)  22 34.90   3.4X
                  i     22 41.00  21km
GYA     37.64 336 P     22 49.00   6.8X
        1.2s    27.00nm          5.0mb
KMI     38.22 330 Pc    22 48.50   1.3
```

```
        2.0s    50.00nm          5.0mb
      Z  16s     0.70um          4.6MszX
                  pP    22 54.50  20km
SSE     39.02 358 P     23 01.20   7.6X
        1.4s    22.00nm          4.7mb
      Z  24s     0.50um          4.3MszX
WHN     39.23 349 eP    22 55.50   0.2
NJ2     40.10 355 Pc    23 05.00   2.5
CD2     42.75 336 eP    23 25.60   1.3
        1.2s    45.00nm          5.1mb
XAN     43.85 344 P     23 39.50   6.2X
        1.3s    19.00nm          4.8mb
TIY     46.55 349 eP    23 58.70   3.9X
      Z  24s     0.68um          4.5Msz
MAT     46.84  17 eP    24 05.00   8.0
LZH     47.33 339 eP    24 07.50   6.4X
        2.0s    54.00nm          5.2mb
      Z  25s     0.75um          4.6MszX
      E  10s     0.23um
                  pP    24 15.00  25km
                  sP    24 20.00
LSA     48.17 323 P     24 10.60   2.5
BJI     48.28 354 eP    24 14.00   5.8X
        1.4s    24.00nm          5.0mb
GBA     49.61 296 P     24 25.00   6.1X
        0.9s     5.00nm          4.5mb
HHC     49.76 349 eP    24 25.40   5.7X
        1.2s    16.00nm          4.9mb
BTO     49.82 348 eP    24 26.00   5.8X
HYB     50.24 301 eP    24 27.50   3.8X
GUN     50.32 317 P     24 23.10  -1.5
PKI     50.43 316 P     24 23.44  -1.9
KKN     50.66 316 P     24 25.38  -1.6
DMN     50.66 316 P     24 25.40  -1.6
GKN     51.23 316 P     24 29.46  -1.8
GTA     51.74 338 eP    24 40.40   5.5X
        1.0s     6.00nm          4.5mb
MDJ     52.90   6 eP    24 43.50   0.2
WMQ     60.53 332 P     25 43.50   5.7X
        1.0s     8.70nm          4.8mb
                  pP    25 54.00  35km
                  sP    25 58.20
KSH     63.95 321 eP    26 04.00   3.2
        1.4s    50.00nm          5.5mb
QUE     65.45 308 eP    26 32.00  21.2X
MAIO    73.68 311 eP    27 07.00   6.0X
CNCB   153.16 157 PKP   35 28.00   9.8X
ZOBO   153.58 157 PKP   35 27.60   8.7X
                  LR    26 30.00
      S.D. = 1.4  on  23 of  50 obs.
-----------------------------------------
&  JAN  12, 1993  15h 08m 31.46s
    34.099 N          116.384 W
    DEPTH =   0.6km
 SOUTHERN CALIFORNIA                ( 43)
      <PAS-P>. ML 2.7 (PAS), 2.7 (GS).
      Felt at Yucca Valley.

PEC      0.68 252 eP    08 44.32  -0.7
                  eS    08 53.46
PLM      0.84 208 iPd   08 47.26  -1.0
SSK      1.09 276 eP    08 51.98  -1.0
GSC      1.25 344 eP    08 54.77  -0.8
                  eS    09 11.62
GLA      1.67 128 ePn   08 59.42  -2.6
ISA      2.32 313 ePn   09 09.67  -1.9
                  ePg   09 14.62
        6 obs. associated
-----------------------------------------
?  JAN  12, 1993  15h 32m 49.80± 0.90s
    45.993 N ±27.4km  149.656 E ±21.0km
    DEPTH =  33.0km  (normal)
    3.7mb (  1 obs.)
 KURIL ISLANDS                      (221)

KUSJ     4.57 232 eP    33 56.90  -1.4
                  eS    34 48.40
ASAJ     5.31 252 eP    34 09.30   0.5
HOOJ     5.83 234 eP    34 17.00   0.8
                  eS    35 20.90
YKA     52.95  35 eP    42 04.00  -0.7
        0.6s     0.60nm          3.7mb
BGMT    64.14  51 ePc   43 23.80   0.5
WRA     67.08 196 P     43 42.20   0.3
        0.6s     0.10nm          3.1mb X
      S.D. = 1.1  on   6 of   6 obs.
-----------------------------------------
```

```
•  JAN  12, 1993  15h 38m 33.34± 0.94s
   32.784 S ±12.3km  179.553 E ±20.7km
   DEPTH = 396.8 ± 12.8 km
   4.4mb (  7 obs.)
 SOUTH OF KERMADEC ISLANDS          (179)

RAO      4.14  32 eP     39 46.00  -1.0
                  eS     40 13.50
HBZ      4.91 192 eP     39 54.60  -0.2
KUZ      5.06 218 eP     39 59.00   2.7
URZ      5.82 199 eP     40 03.70  -0.7
                  eS     41 23.00
NOZ      5.95 192 eP     40 05.60  -0.2
WLZ      6.02 211 eP     40 09.80   3.2X
PAHZ     6.39 198 eP     40 12.30   1.5
WHH      6.57 201 eP     40 14.20   1.3
MOZ      6.89 213 eP     40 21.00   4.6X
WAHZ     7.37 200 eP     40 22.50   0.7
BSZ      7.93 207 eP     40 31.00   2.8
PGZ      8.25 198 eP     40 31.80   0.0
MNG      8.47 202 eP     40 32.40  -2.1
KIW      8.88 203 eP     40 39.40   0.2
CAW      9.05 202 eP     40 39.90  -1.2
MRW      9.28 203 eP     40 42.40  -1.4
TCW      9.41 205 eP     40 44.30  -1.0
THZ     10.41 209 eP     40 56.20  -0.9
KHZ     10.73 205 eP     40 59.90  -0.8
DSZ     10.86 212 eP     41 02.10  -0.2
LTZ     11.52 208 eP     41 09.20  -0.9
MQZ     12.17 204 eP     41 16.70  -1.1
                  eS     43 34.40
RMO     27.43 275 eP     43 47.20   0.6
        0.8s     14.00nm          4.4mb
TOO     28.15 251 eP     43 56.20   3.3X
        0.7s     13.00nm          4.4mb
STK     31.98 261 eP     44 28.00   1.9
        0.4s      5.90nm          4.3mb
ASPA    40.98 271 iPd    45 40.40  -0.5
        0.4s     10.60nm          4.5mb
WB2     42.17 276 iPd    45 49.00  -1.6
        0.4s     19.00nm          4.8mb
WRA     42.18 276 P      45 49.30  -1.4
        0.6s      1.50nm          3.5mb
SPA     57.39 180 iPc    47 47.60   3.7X
        0.7s     26.56nm          4.8mb
BCAO   146.68 216 iPKPd 57 30.60   1.8
        1.0s     15.00nm
HFS    151.09 345 ePKP  57 34.80   0.7
        0.4s      0.80nm
KIC    153.41 170 (PKP) 57 46.20   7.4X
     S.D. = 1.4  on  27 of  32 obs.
-----------------------------------
•  JAN  12, 1993  16h 53m 13.55± 1.11s
   37.713 S ± 7.5km  176.092 E ± 6.0km
   DEPTH = 276.1 ±  9.8 km
 NORTH ISLAND, NEW ZEALAND          (159)

WLZ      0.42 248 Pc     53 49.40   0.0
                  eS     54 13.40
URZ      0.97 125 Pc     53 50.20  -1.3
                  eS     54 13.80
KUZ      1.01 343 Pd     53 51.80   0.2
WHH      1.21 165 P      53 52.20  -0.7
MOZ      1.29 232 P      53 53.90   0.7
PAHZ     1.37 147 eP     53 53.50  -0.3
NGZ      1.51 195 eP     53 55.10   0.2
CNZ      1.55 196 P      53 55.20   0.1
MOH      1.64 150 P      53 56.00   0.3
PUZ      1.75 103 eP     53 56.00  -0.5
                  eS     54 23.80
HBZ      1.76  87 eP     53 56.70   0.2
NOZ      1.78 121 P      53 57.10   0.4
TTH      1.91 163 P      53 58.40   0.6
WAHZ     1.99 174 P      53 58.70   0.2
MAHZ     2.04 137 P      53 59.50   0.7
BSZ      2.27 203 eP     54 01.20   0.3
TEHZ     2.34 166 P      54 01.90   0.3
NRZ      2.35 226 eP     54 03.50   1.9X
PGZ      2.91 177 P      54 07.20   0.2
MNG      2.94 189 P      54 07.50   0.1
                  eS     54 43.60
KIW      3.28 196 P      54 10.80  -0.2
MTW      3.47 187 P      54 12.70  -0.4
CAW      3.48 193 eP     54 13.00  -0.2
DIW      3.52 208 eP     54 13.50  -0.1
MRW      3.68 197 P      54 15.10  -0.2
                  eS     54 59.20
BLW      3.68 187 P      54 15.30  -0.1
WEL      3.71 196 P      54 15.80   0.1
MOW      3.76 190 P      54 15.80  -0.5
TCW      3.77 201 P      54 16.30   0.0
ORZ      4.16 221 P      54 20.60  -0.2
THZ      4.73 210 P      54 27.60   0.0
KHZ      5.09 202 P      54 32.30   0.6
DSZ      5.21 218 P      54 32.70  -0.6
LTZ      5.85 209 eP     54 40.80  -0.2
MQZ      6.53 202 eP     54 48.90  -0.4
BWZ      8.27 213 eP     55 11.00   0.1
ODZ      8.39 207 eP     55 13.10   0.7
     S.D. = 0.4  on  36 of  37 obs.
-----------------------------------
?  JAN  12, 1993  16h 57m 56.00± 5.19s
   31.557 S ±28.4km   72.194 W ±36.0km
   DEPTH =  33.0km  (normal)
 OFF COAST OF CENTRAL CHILE         (134)
      MD 4.4 (SAN).

IHA      1.54 162 iPc    58 21.30  -0.1
                  iS     58 40.30
ROCH     1.73 145 iP+    58 24.19  -0.2
                  iS     58 45.71
JACH     1.76 130 iP+    58 24.85   0.1
                  iS     58 45.90
LCCH     1.98 165 iP+    58 27.76  -0.1
                  iS     58 51.69
PEL      2.03 141 iP+    58 28.61   0.0
                  iS     58 53.46
TACH     2.34 153 iP+    58 33.43   0.4
                  iS     59 01.81
FCH      2.39 138 iPd    58 33.73  -0.2
                  iS     59 02.51
LNV      2.48 165 iP     58 34.00  -0.9
PCH      2.50 146 iP     58 35.16  -0.2
CHCH     2.70 152 iP     58 38.49   0.4
                  iS     59 10.34
CACH     2.88 153 iP     58 41.82   1.1
                  iS     59 14.97
MDZ      3.13 116 iP     58 52.60   8.4X
                  iS     59 35.20
RFA      4.48 137 eP     59 08.60   5.2X
                  S      00 03.30
RTPR     5.04  77 e(P)   59 02.00  -9.3X
MRA      5.58 100 e(P)   59 17.30  -1.5
TCA      6.50  90 eP     59 33.00   1.1
     S.D. = 0.8  on  13 of  16 obs.
-----------------------------------
   JAN  12, 1993  18h 23m 14.80± 0.31s
   38.394 N ± 7.0km   29.206 W ± 3.0km
   DEPTH =  10.0km  (geophysicist)
   5.0mb ( 50 obs.)  4.3Msz ( 12 obs.)
 AZORES ISLANDS                     (405)
      Felt (V) on Faial, (IV) on Pico
      and (III) on Sao Jorge.

CALA     0.44  65 iPd    23 24.20   0.4
                  eS     23 29.00
HOR      0.47  74 iPd    23 25.60   1.2
                  eS     23 31.30
PICO     0.62  80 iPd    23 27.90   0.5
                  eS     23 35.50
ADH      1.57  80 iP     23 42.50  -0.2
                  iS     24 01.10
TBT     13.50 133 iPd    26 27.30  -1.5
CHIE    14.20 135 iPd    26 31.30  -6.7X
GGC     15.27 128 iPd    26 51.60  -0.5
CFTV    16.06 124 eP     27 02.00  -0.3
EVAL    17.72  86 eP     27 20.80  -2.4
AVE     18.37  99 eP     27 35.00   3.8X
EJIF    18.95  89 eP     27 45.30   7.0X
EPRU    19.02  87 eP     27 51.00  11.8X
MAL     19.72  87 eP     27 55.50   8.2X
IFR     20.07  97 eP     28 06.00  14.7X
EGUA    20.36  86 eP     27 52.50  -1.6
ECRI    20.70  70 eP     27 58.00   0.4
EVIA    20.88  81 eP     28 00.20   0.7
ETOR    21.03  75 eP     28 02.50   1.4
EGRA    22.31  71 eP     28 11.50  -2.3
LPF     22.57  56 eP     28 15.30  -1.0
        1.5s    107.60nm          5.1mb
EPF     22.81  69 eP     28 20.60   1.8
        1.3s     87.35nm          5.1mb
MFF     22.84  60 eP     28 19.00  -0.1
        1.6s    161.05nm          5.3mb
LFF     23.22  64 iPc    28 23.60   0.9
        1.4s     81.90nm          5.1mb
LDF     23.30  55 eP     28 23.00  -0.5
        1.5s    101.35nm          5.1mb
LPO     23.52  65 eP     28 26.80   1.2
        1.3s     71.10nm          5.1mb
RJF     23.81  63 iPc    28 29.00   0.6
        1.6s     64.70nm          5.0mb
      Z  19s      0.70um          4.1Msz
LSF     23.93  61 eP     28 30.40   0.8
        1.3s     73.30nm          5.1mb
CAF     24.16  64 eP     28 32.60   0.7
        1.3s     50.20nm          5.0mb
TCF     24.40  61 iPc    28 35.00   0.7
        1.3s     65.35nm          5.1mb
MAF     24.64  61 iPc    28 36.90   0.4
        0.9s     23.25nm          4.8mb
BGF     24.88  61 iPc    28 38.90   0.1
        0.8s     37.05nm          5.1mb
AVF     25.25  60 eP     28 42.10  -0.2
        1.3s     45.15nm          5.0mb
SSF     25.39  59 iPc    28 43.50  -0.2
        1.6s     82.70nm          5.2mb
SMF     25.57  61 iPc    28 45.40   0.1
        1.2s     73.80nm          5.2mb
LOR     25.66  59 iPc    28 45.90  -0.3
        1.0s     12.80nm          4.6mb
      Z  19s      0.55um          4.1Msz
LBF     25.70  60 iPc    28 46.10  -0.5
        1.3s     32.85nm          4.9mb
DOU     26.66  53 P      28 54.90  -0.5
LMN     27.26 297 eP     29 04.00   3.0X
HAU     27.43  58 eP     29 01.90  -0.6
        1.5s     51.20nm          5.0mb
      Z  20s      0.57um          4.1Msz
LPL     27.49  63 iPc    29 03.90   0.6
        1.3s     39.35nm          5.0mb
LPL     27.49  63 iPc    29 04.10   0.8
        1.4s     40.95nm          5.0mb
BSF     27.70  58 eP     29 04.50  -0.6
        1.4s     40.10nm          5.0mb
CDF     28.09  57 eP     29 07.90  -0.7
        1.1s     17.10nm          4.8mb
CBM     29.61 299 eP     29 20.98  -1.1
        0.7s     13.77nm          4.9mb
      Z  20s      0.88um          4.4Msz
                    ipP    29 26.80  20kmX
SQTA    30.64  60 iPc    29 31.40   0.0
        1.1s     28.80nm          5.0mb
                     i     29 37.60  21kmX
WTTA    30.94  60 iPd    29 33.40  -0.7
        1.1s     28.30nm          5.1mb
                     i     29 34.40   4kmX
                     i     29 40.50
MOX     31.18  53 ePc    29 35.70  -0.3
        1.4s     17.00nm          4.8mb
HOF     31.31  54 iPd    29 37.40   0.3
KBA     32.10  60 iPc    29 43.70  -0.6
        1.4s     53.70nm          5.3mb
                     i     29 48.80  18kmX
KHC     32.31  57 eP     29 45.50  -0.4
        1.4s     14.50nm          4.7mb
                     e     29 51.00  19kmX
GEC2    32.38  57 ePd    29 46.10  -0.5
        0.9s      3.70nm          4.3mb
                     e     29 53.60  26kmX
GEC2    32.38  57 e(P)   29 53.60   7.0X
        1.4s     12.00nm          4.6mb
PRU     32.99  55 Pd     29 51.90   0.2
                     e     53 31.50
                     e     53 47.00
                     e     53 58.60
                    Sg     55 00.00
VBY     33.48  63 iPc    29 56.10   0.0
NAO     33.49  35 P      29 55.50  -0.5
        0.9s      4.60nm          4.4mb
MGR     34.43  73 P      30 05.40   1.1
SLL     34.50  36 eP     30 03.60  -1.1
        0.6s      2.10nm          4.2mb
ZST     34.63  58 eP     30 05.40  -0.6
TDS     35.12  73 P      30 11.70   1.4
SRO     35.45  59 eP     30 11.30  -1.7
OJC     36.38  55 iP     30 21.00   0.2
EEO     37.13 299 eP     30 30.00   2.8X
UZH     38.07  57 ePc    30 35.20   0.2
CVL     38.34 285 ePc    30 39.30   1.9
KIC     38.83 139 (P)    30 46.00   4.2X
CEH     39.46 282 P      31 00.00  13.2X
```

12d 18h

```
     Z  19s     0.22um          4.0Msz
CMP    40.35  62 ePd   30 54.00  -0.1
MTUR   40.37  62 eP    30 55.00   0.7
KAF    40.97  36 iP    30 59.80   0.9
       0.5s     3.60nm          4.4mb
TKL    43.12 284 eP    31 17.80   0.9
FCC    45.44 319 eP    31 38.50   3.3X
OBN    46.27  47 iPc   31 41.00  -0.9
       1.2s    31.00nm          5.2mb
ELC    46.67 288 eP    31 44.97  -0.2
RES    46.98 341 eP    31 49.00   1.8
FVM    47.31 290 eP    31 50.15  -0.2
       0.9s    29.58nm          5.4mb
ULM    47.62 307 eP    31 54.50   1.9
OLY    49.01 287 eP    32 03.15  -0.4
MIAR   50.97 287 eP    32 18.29  -0.3
       1.1s    23.76nm          5.0mb
     Z  20s     0.32um          4.3Msz
KIV    52.83  59 eP    32 39.60   6.9X
PYA    53.06  59 iP    32 35.00   0.8
RSSD   54.75 302 P     33 00.00  13.1X
     Z  21s     0.40um          4.5Msz
YKA    54.76 325 eP    32 43.40  -3.0
       1.1s     3.40nm          4.3mb
BCAO   54.95 116 iPc   32 45.00  -3.4X
       1.6s    26.00nm          5.0mb
                ic     32 56.00  37kmX
GRO    55.08  59 eP    32 55.00   6.0X
       1.5s    80.00nm          5.5mb
SES    56.86 311 ePd   33 01.00  -0.9
                pP     33 08.00  23kmX
GLD    57.29 297 P     33 20.00  14.8X
     Z  18s     0.60um          4.7Msz
GOL    57.42 297 P     33 20.00  13.8X
     Z  18s     0.12um          4.1Msz
BW06   58.97 302 ePd   33 15.50  -1.5
       1.3s    21.11nm          5.1mb
ALO    60.32 293 P     33 40.00  13.7X
     Z  21s     0.69um          4.8Msz
PV09   60.58 298 eP    33 28.45   0.3
DAU    61.16 300 eP    33 31.48  -0.6
HVU    61.55 302 eP    33 33.63  -0.9
                epP    33 39.95  21kmX
DPW    62.19 310 eP    33 37.37  -1.3
                epP    33 43.87  21kmX
DUG    62.31 301 ePd   33 39.50  -0.2
       1.2s    12.85nm          5.0mb
                epP    33 45.55  20kmX
MSU    62.68 299 eP    33 41.94  -0.3
TUC    64.76 292 eP    33 56.30   0.6
BRVK   65.49  41 eP    33 58.00  -2.0
       1.3s    24.00nm          5.2mb
ZOBO   65.50 222 iPc   34 02.90   1.7
       1.8s    67.34nm          5.5mb
                LR     55 04.00
LPB    65.69 221 P     34 06.80   4.6X
CNCB   65.86 221 eP    34 05.00   1.6
TNP    66.33 301 eP    34 06.10   0.1
       1.6s    43.31nm          5.4mb
                epP    34 12.06  19kmX
BONR   67.13 301 eP    34 10.75  -0.4
IMA    67.46 339 (P)   34 12.04  -0.6
       1.3s     7.45nm          4.7mb
MAIO   67.73  61 eP    34 18.00   3.3X
PMR    69.16 334 (P)   34 22.95   0.0
       1.0s     9.87nm          4.9mb
     Z  18s     0.24um          4.5Msz
                pP     34 28.91  19kmX
                e      35 32.91
TIK    69.18   7 eP    34 24.00   1.1
       1.8s    32.00nm          5.2mb
CRP    70.43 335 (P)   34 32.77   1.8
ELT    73.07  35 eP    34 48.00   1.4
       1.7s    34.00nm          5.2mb
YAK    78.49  10 eP    35 16.10  -1.0
       1.0s    25.00nm          5.2mb
MOY    80.31  29 eP    35 28.80   1.7
ZAK    82.22  28 eP    35 44.00   6.8X
       1.8s    17.00nm          4.9mb
PKI    90.33  54 P     36 35.80  17.8X
GUN    90.39  53 P     36 33.80  15.5X
HON   103.62 312 Pdiff 37 30.00  12.2X
     Z  18s     0.12um          4.5Msz
     S.D. = 1.0  on  89 of 114 obs.
-----------------------------------------
*  JAN  12, 1993  18h 23m 58.72± 1.97s
   11.574 S ±11.3km  165.834 E ±17.4km
   DEPTH =  88.3 ± 16.5 km
   4.8mb (  8 obs.)
 SANTA CRUZ ISLANDS                (184)
HNR     6.17 290 eP    25 29.00   0.0
                eS     26 40.00
BKM     6.49 159 iP    25 35.50   2.0
                iS     26 57.50
DZM    10.46 177 iPc   26 24.90  -2.8
                iS     28 15.90
RMQ    21.89 225 iPd   28 47.70   1.9
       1.0s    34.00nm          4.7mb
ARMA   22.92 213 eP    28 56.30   0.3
       1.0s    51.00nm          4.9mb
CMS    27.09 220 iPd   29 35.00  -0.1
       1.0s    21.00nm          4.6mb
CNB    27.97 210 eP    29 42.20  -0.8
       1.0s    20.00nm          4.7mb
WB2    31.38 251 iPd   30 13.50   0.1
       1.0s     7.70nm          4.4mb
                e      33 02.60
TOO    31.67 212 iPd   30 15.80   0.0
       0.7s    14.00nm          4.8mb
NJ2    62.45 316 Pc    34 14.50  -0.5
TIY    70.00 317 eP    35 02.50  -0.5
     Z  30s     0.94um          4.9MszX
     N  18s     0.95um
HHC    72.29 320 eP    35 15.00  -1.7
BTO    73.14 319 eP    35 24.40   2.7
LZH    75.17 312 Pd    35 34.00   0.4
       1.2s    28.00nm          5.0mb
KKN    87.13 299 P     36 36.80   0.1
DMN    87.24 299 P     36 37.40   0.1
GKN    87.74 299 P     36 39.20  -0.3
       1.0s    24.00nm          5.2mb
WMQ    89.53 315 eP    36 46.40  -1.2
HYB    90.85 287 eP    36 53.50  -0.6
GBA    91.14 284 P     36 56.00   0.6
BCAO  146.87 260 iPKPc 43 32.00   0.6
       0.8s    25.00nm
                ic     43 45.00
                id     43 50.00
     S.D. = 1.3  on  21 of  21 obs.
-----------------------------------------
   JAN  12, 1993  18h 50m 52.57± 0.20s
   42.528 N ± 2.4km   22.045 E ± 2.1km
   DEPTH =  10.0km  (geophysicist)
   4.2mb (  1 obs.)
 BULGARIA                          (359)
      MD 3.8 (TTG). Felt (V) in the
      Vranje area, Yugoslavia.
SKO     0.71 219 iPgc  51 05.50  -1.1
                iSg    51 15.70
VTS     0.86  85 iPd   51 09.00  -0.3
KKB     1.02 130 iPc   51 12.00   0.2
VAY     1.27 162 iPnc  51 15.30  -0.8
                iSn    51 31.60
KNT     1.51 155 ePb   51 19.56  -0.1
                eSb    51 40.48
PVY     1.53 273 iPgd  51 20.29   0.2
                iSg    51 42.76
MMB     1.57 126 iP    51 21.00   0.5
PGB     1.57  88 iPd   51 21.00   0.4
GRG     1.59 170 ePb   51 21.08   0.2
                iSb    51 43.88
IVA     1.62 283 ePn   51 21.41   0.1
                iSn    51 44.39
OHR     1.69 214 iPnc  51 22.20  -0.2
                iSn    51 46.00
FNA     1.81 196 iPb   51 24.64   0.5
                eSb    51 49.04
SRS     1.82 140 iPb   51 24.32   0.1
                eSb    51 49.32
SDA     1.95 257 iPnd  51 29.00   3.0X
                iSn    51 57.10
SOH     1.97 150 ePn   51 26.14  -0.2
TIR     2.01 235 ePn   51 31.50   4.6X
                iSn    51 59.50
PLD     2.02 101 iP    51 27.00   0.0
THE     2.02 160 ePn   51 27.00   0.0
                eSn    51 54.98
TTG     2.06 268 iPnd  51 27.51  -0.1
                iSn    51 55.42
PLE     2.11 293 iPnd  51 27.83  -0.6
                iSn    51 56.05
ULC     2.15 256 ePn   51 30.13   1.1
                iSn    51 58.69
RZN     2.16 112 iPg   51 29.00  -0.2
KZN     2.23 185 iPc   51 29.70  -0.5
NKY     2.27 278 iPnd  51 30.58  -0.1
                iSn    52 00.40
BDV     2.40 265 iPnd  51 32.29  -0.2
                iSn    52 04.60
LIT     2.45 172 iPn   51 32.96  -0.3
PVL     2.51  73 iP    51 33.00  -1.1
BRY     2.61 279 iPnd  51 35.22  -0.4
                iSn    52 08.76
LSK     2.61 205 ePn   51 35.20  -0.4
HCY     2.62 269 iPnc  51 35.98   0.3
                iSn    52 09.69
OUR     2.63 146 ePn   51 35.56  -0.2
DIM     2.63  99 iP    51 37.00   1.2
KDZ     2.66 108 iP    51 36.00  -0.2
TPE     2.70 215 ePn   51 36.50  -0.4
VLO     2.81 224 ePn   51 39.90   1.6
PAIG    2.88 154 ePn   51 38.80  -0.5
GZR     2.91  10 iPd   51 39.00  -0.9
SRN     3.06 211 ePn   51 43.20   1.4
KEK     3.28 212 eP    51 48.00   2.9X
JMB     3.36  90 iP    51 45.00  -1.1
ALN     3.41 117 ePn   51 46.88   0.1
DEV     3.41  10 iPc   51 48.50   1.7
MTUR    3.47  38 ePd   51 48.00   0.2
CMP     3.49  37 ePc   51 56.00   8.0X
AGG     3.51 176 iPn   51 47.64  -0.6
TNR     3.51  26 ePc   51 50.00   1.7
BRT     3.98 247 P     51 55.30   0.3
MLR     4.08  42 ePc   51 58.00   1.5
HVAR    4.17 281 e(Pn) 51 56.90  -0.7
ISR     4.17  50 eP    52 03.50   5.8X
PRK     4.58 134 iPc   52 03.80   0.3
PSN     4.64  74 iP    52 03.00  -1.3
VRI     4.74  44 eP    52 08.00   2.2
CFR     5.15  57 eP    52 30.00  18.4X
BMR     5.25  11 ePd   52 35.00  22.1X
BUD     5.40 338 e(P)  52 13.00  -2.0
MGR     5.44 246 P     52 14.60  -1.0
CLI     5.49  41 eP    52 10.00  -6.4X
PSZ     5.60 345 ePn   52 15.60  -2.4
VBY     5.73 304 ePn   52 20.00   0.3
                eSn    53 15.30
SRO     5.91 335 iP    52 22.80   0.7
SDI     6.18 265 P     52 28.00   2.0
CEY     6.35 303 e(Pn) 52 28.80   0.2
                e(Sn)  53 36.00
AQU     6.40 271 P     52 30.20   1.0
LJU     6.43 306 e(Pn) 52 30.50   0.8
                e      52 39.00
                eSn    53 36.50
SOP     6.45 325 e(P)  52 19.00 -10.9X
ZST     6.65 330 eP    52 31.10  -1.6
TRI     6.75 301 e(Pn) 52 27.00  -7.2X
                e(Pb)  52 43.70
                e(PgPg52 58.00
                e(Sn)  53 46.80
                e(Sg)  54 30.50
TRI     6.75 301 P     52 36.00   1.8
VOY     6.82 304 ePnd  52 35.00  -0.2
                i      52 36.70
                eSn    53 47.50
CRE     7.47 282 P     52 48.50   4.2X
KBA     7.68 309 iPnc  52 45.80  -1.5
       0.6s    37.00nm          5.8mb X
                i      53 05.90
                i      54 09.40
                i      54 11.70
                i      54 14.30
FVI     7.76 305 P     52 48.20  -0.1
GEC2    8.60 320 Pn    52 59.10  -0.9
                Sn     54 38.00
WTTA    8.77 306 iPnc  53 03.20   0.7
       0.4s    12.50nm          5.6mb X
                i      53 04.90
                i      54 21.90
                i      54 38.90
                i      54 43.90
KHC     8.86 321 ePn   53 03.00  -0.5
                e      53 09.60
                e      53 30.50
                eSg    54 42.00
SOTA    9.01 305 iPnd  53 05.40  -0.3
       0.4s     5.90nm          5.3mb X
                i      53 07.30
```

```
                    i     54 36.90
                    i     54 46.30
OBN     15.77  32 ePc    54 32.00  -4.1X
        0.9s    15.00nm          4.2mb
      S.D. = 1.0  on  66 of  78 obs.
-----------------------------------
    JAN  12, 1993  19h 36m 41.68± 0.61s
    10.759 N ±13.7km   62.617 W ± 5.3km
    DEPTH =  33.0km  (normal)
  NEAR COAST OF VENEZUELA          ( 97)
      MD 3.5 (TRN).

TCE     0.85  94 eP     36 57.90   0.6
TRN     1.20  95 iPc    37 02.24   0.1
                eS      37 15.69
TPP     1.23 111 iP     37 02.90   0.3
                eS      37 19.08
TBH     1.55 100 eP     37 06.80  -0.5
                eS      37 29.49
GRW     1.68  34 eP     37 09.54   0.3
TPR     1.86  77 iP     37 11.37  -0.4
                eS      37 31.94
BOT     1.91  78 eP     37 11.67  -0.8
GUAN    3.09 255 iPd    37 30.80   1.4
                iS      38 07.30
OLLA    4.18 260 iP     37 45.20   0.3
CEOS    5.89 254 iPd    38 07.20  -1.9
                iS      39 11.30
SDV     8.12 257 eP     38 37.00  -3.4X
      S.D. = 1.0  on  10 of  11 obs.
-----------------------------------
    JAN  12, 1993  20h 17m 23.71± 0.58s
    17.729 S ± 6.3km  178.129 W ± 9.3km
    DEPTH = 536.1 ±  5.6 km
    5.4mb ( 18 obs.)
  FIJI ISLANDS REGION              (181)

TVI     1.99 293 iPc    18 32.90   0.2
KRO     2.40 280 iPc    18 34.60  -0.1
NDE     2.69 295 iPc    18 36.30  -0.1
MBU     3.10 284 iPd    18 39.10   0.2
DZM    15.14 251 iPc    20 34.00  -0.7
KUZ    19.71 195 eP     21 21.80   3.2X
        0.4s    30.00nm          5.3mb
PUZ    20.51 188 eP     21 26.00  -0.2
WLZ    20.81 194 eP     21 30.60   1.8
URZ    20.88 191 P      21 28.60  -0.8
        0.3s    31 00nm          5.4mb
NOZ    21.08 188 eP     21 30.60  -0.7
        0.3s    36.00nm          5.5mb
ORZ    24.39 197 P      22 01.80   0.6
        0.2s    17.00nm          5.3mb
THZ    25.16 196 P      22 08.60   0.5
DSZ    25.44 198 P      22 11.00   0.3
KHZ    25.61 194 eP     22 11.50  -0.5
        0.3s    28.00nm          5.3mb
LTZ    26.28 196 eP     22 16.80  -1.2
LRCZ   29.20 198 P      22 43.10  -0.5
MSCZ   29.21 198 P      22 43.10  -0.4
MMCZ   29.21 199 P      22 43.20  -0.4
MHZ    29.22 198 P      22 43.10  -0.6
SBCZ   29.24 198 P      22 43.30  -0.5
LSCZ   29.24 198 P      22 43.50  -0.3
TLC    29.40 199 P      22 45.50   0.2
TUZ    29.93 197 P      22 50.60   1.0
        0.5s    81.00nm          5.6mb
ARMA   30.26 240 iPd    22 53.60   0.8
        0.6s    64.00nm          5.4mb
BCZ    30.51 199 P      22 55.90   1.3
        0.4s    68.00nm          5.6mb
RMO    31.82 248 iPd    23 06.20   0.3
        0.8s    91.00nm          5.4mb
                e       23 20.00
CNB    33.75 232 iPc    23 23.10   1.0
        0.5s    61.00nm          5.5mb
CAN    34.02 232 iPd    23 25.10   0.7
BWA    34.14 234 eP     23 24.00  -1.4
PMG    34.69 279 eP     23 30.00  -0.1
        0.9s   110.92nm          5.5mb
CMS    35.34 240 iPd    23 36.30   0.9
        0.8s    40.00nm          5.1mb
MDG    37.39 285 eP     23 53.60   1.3
TOO    37.49 231 iPd    23 54.20   1.3
        0.4s    91.00nm          5.7mb
ADE    41.96 237 eP     24 30.00   1.0
WB2    44.91 259 iPd    24 51.10  -1.2
        0.6s    41.70nm          5.1mb
WRA    44.92 259 P      24 51.30  -1.1
        0.7s     4.10nm          4.1mb X
MTN    49.07 268 iPd    25 22.80  -1.2
        0.4s    67.00nm          5.5mb
FORT   50.32 244 eP     25 32.00  -1.0
WARB   51.59 250 iPd    25 41.90  -0.6
        0.3s    13.00nm          4.8mb
MEEK   58.74 249 iPd    26 31.40  -1.0
        0.4s    16.00nm          4.7mb
NANU   62.03 253 iPd    26 54.10   0.1
        0.4s    63.00nm          5.4mb
FBA    85.58  12 eP     29 06.70   1.0
        1.0s     1.20nm          3.5mb X
ALQ    85.78  51 eP     29 05.50  -2.0
        1.0s     5.75nm          4.2mb X
YKA    94.06  25 eP     29 45.40   0.4
        0.6s     0.40nm          3.7mb X
KSP   145.01 344 iPKP   36 02.70   1.7
GEC2  147.51 345 ePKPd  36 09.40   4.1X
        0.6s     1.88nm
                 e      36 22.70
KBA   149.24 345 iPKPd  36 13.10   5.0X
        0.4s     3.40nm
                 i      36 20.80
WTTA  149.47 347 iPKPd  36 14.40   5.9X
        0.4s     6.80nm
SOTA  149.60 347 iPKPc  36 14.80   6.2X
        0.4s     2.30nm
      S.D. = 0.9  on  44 of  49 obs.
-----------------------------------
    JAN  12, 1993  20h 25m 29.22± 1.51s
    13.460 N ± 6.5km  125.264 E ±12.0km
    DEPTH =  33.1 ± 14 1 km
    4.6mb ( 12 obs.)
  PHILIPPINE ISLANDS REGION        (248)

PLP     2.30 187 iPd    26 06.80   1.2
                eS      26 12.50
PGP     4.19 271 eP     26 32.00  -0.5
TGY     4.26 279 ePc    26 55.50  22.1X
                eS      28 02.00
CVP     5.37 322 ePc    26 49.00  -0.1
                eS      27 45.00
BAG     5.39 304 eP     26 48.00  -1.7
DAV     6.34 177 eP     27 10.20   7.4X
SSE    17.95 349 Pd     29 39.80   1.9
        1.4s    36.00nm          4.3mb
XAN    25.30 327 iPc    30 54.70   0.3
        1.0s    15.00nm          4.5mb
                pP      31 09.40  62kmX
CD2    26.34 315 eP     31 04.70   0.6
TIY    26.72 337 eP     31 08.00   0.4
      Z  14s     0.60um          4.3MszX
BJI    27.66 345 eP     31 14.00  -2.0
SNY    28.30 357 eP     31 20.10  -1.6
LZH    29.63 323 eP     31 35.00   1.0
        1.5s    19.00nm          4.6mb
HHC    29.80 339 Pc     31 35.20  -0.3
        1.4s    12.00nm          4.5mb
BTO    30.16 337 eP     31 39.00   0.4
WB2    34.38 165 iPd    32 13.60  -1.9
        0.8s     5.50nm          4.5mb
GUN    39.36 298 P      32 58.84   0.9
WARB   39.43 178 eP     32 58.00   0.0
PKI    39.69 297 P      33 03.86   3.2X
KKN    39.85 297 P      33 03.62   1.8
DMN    39.96 297 P      33 06.82   4.0X
MEEK   40.38 189 eP     33 04.20  -1.6
GKN    40.45 297 P      33 06.74   0.0
HYB    45.11 281 eP     33 45.00   0.4
GBA    46.44 276 Pd     33 58.00   2.9X
STK    47.72 161 iPd    34 05.40   0.5
        0.8s     4.40nm          4.5mb
YAK    48.59   3 eP     34 10.10  -1.1
        1.1s    35.00nm          5.3mb
CMS    48.85 157 eP     34 14.70   1.0
        1.0s     8.00nm          4.7mb
IMA    74.17  25 eP     37 05.10   0.9
        0.8s     6.30nm          4.7mb
PMS    75.99  30 eP     37 14.30  -0.3
        0.4s     3.70nm          4.7mb
TOA    77.55  29 e(P)   37 24.40   1.1
HFS    88.78 332 eP     38 19.60  -1.2
        0.5s     1.10nm          4.4mb
YKA    91.25  24 eP     38 32.40   0.1
        0.8s     0.60nm          4.0mb
      S.D. = 1.2  on  28 of  33 obs.
-----------------------------------
%   JAN  12, 1993  20h 39m 55.97± 0.77s
    44.488 N ± 6.0km     7.312 E ± 7.3km
    DEPTH =    5.0km  (geophysicist)
  NORTHERN ITALY                   (545)
      ML 1.8 (GEN).

PZZ     0.15 276 P      39 59.04  -0.2
                S       40 01.42
STV     0.24 178 P      40 01.19   0.2
                S       40 03.52
ENR     0.27 163 P      40 01.46  -0.1
                S       40 04.62
BHB     0.36 354 P      40 03.25   0.1
                S       40 08.10
ROB     0.44 116 P      40 04.76  -0.1
      S.D. = 0.2  on   5 of   5 obs.
-----------------------------------
    JAN  12, 1993  20h 42m 22.14± 0.33s
    4.592 N ± 5.5km  125.441 E ± 8.5km
    DEPTH =  33.0km  (normal)
    4.8mb ( 15 obs.)
  TALAUD ISLANDS, INDONESIA        (263)

PLP     6.55 356 ePd    44 00.50   1.8
                eS      44 11.00
WRA    25.90 161 P      47 53.50   0.4
WB2    25.91 161 iPd    47 52.80  -0.3
        0.2s     9.90nm          5.1mb
                iS      52 29.50
ASPA   29.27 164 P      48 24.00   0.3
WARB   30.61 178 eP     48 35.50  -0.1
MEEK   31.74 192 eP     48 44.00  -1.5
XAN    33.08 334 iPd    48 55.60  -1.5
        1.0s    14.00nm          4.8mb
MAT    33.89  19 eP     49 02.00  -2.1
        0.8s     9.70nm          4.8mb
YAMJ   35.98  20 P      49 20.80  -1.1
BJI    36.27 348 eP     49 22.50  -1.8
        0.8s     8.00nm          4.7mb
LZH    37.12 330 Pc     49 32.00   0.3
        1.0s    60.00nm          5.4mb
OFUJ   37.35  21 P      49 33.80   0.4
STK    39.40 158 eP     49 51.30   0.7
        0.4s     5.50nm          4.7mb
MDJ    40.03   5 Pd     49 55.50  -0.2
        1.0s    18.00nm          4.8mb
GUN    44.18 306 P      50 30.76   0.4
        0.6s    35.00nm          5.3mb
PKI    44.42 305 P      50 31.88  -0.4
KKN    44.62 306 P      50 33.64  -0.1
DMN    44.69 305 P      50 34.64   0.3
GKN    45.22 306 P      50 38.24  -0.3
        0.6s    11.00nm          4.9mb
HYB    47.62 289 eP     50 57.70   0.3
GBA    48.16 284 P      51 02.80   1.2
SVW    80.65  29 eP     54 34.40   1.3
TTA    80.72  27 eP     54 34.02   0.6
        0.6s     3.15nm          4.5mb
IMA    82.12  24 eP     54 40.94   0.2
        0.8s     5.45nm          4.6mb
BGL    82.23  29 eP     54 42.25   0.9
SLKM   83.24  30 eP     54 45.75  -0.8
PMS    83.59  29 eP     54 48.40   0.1
        0.7s    23.70nm          5.4mb
PMR    83.81  29 eP     54 48.80  -0.5
        0.9s    16.45nm          5.2mb
FBA    84.50  25 eP     54 52.51  -0.2
        0.7s     4.15nm          4.7mb
TOA    85.22  28 e(P)   54 58.20   1.7
KLU    85.35  29 (P)    54 57.78   0.6
YKA    99.25  24 eP     56 01.10  -0.6
        0.8s     1.00nm          4.4mb
      S.D. = 1.0  on  32 of  32 obs.
-----------------------------------
%   JAN  12, 1993  22h 16m 37.28± 0.88s
    15.654 N ± 7.7km   61.120 W ±20.7km
    DEPTH =  33.0km  (normal)
  LEEWARD ISLANDS                  ( 92)
      ML 2.6 (FDF).

SFG     0.60 353 eP     16 49.70   0.4
PAG     0.66 305 eP     16 50.30   0.1
SEG     0.83 334 eP     16 52.00  -0.5
FDF     0.92 182 eP     16 53.98   0.2
MVM     1.11 169 iPd    16 56.24  -0.4
BIM     1.13 178 eP     16 57.10   0.2
```

12d 22h

```
     S.D. = 0.5  on  *6 of   6 obs.
-------------------------------------
   JAN  12, 1993  22h 58m 38.53± 0.23s
   37.792 N ± 4.1km  143.086 E ± 3.1km
   DEPTH =  24.7km  (  5 depth phases)
   5.0mb ( 56 obs.)
 OFF EAST COAST OF HONSHU, JAPAN (229)

OFUJ     1.70 320 P      59 06.60  -0.4
                  eS     59 29.70
YAMJ     2.44 280 P      59 18.10   0.5
KAKJ     2.82 237 P      59 22.70  -0.2
                  S      59 53.00
NIIJ     3.29 262 P      59 30.00   0.3
                  S      00 12.80
CHJJ     3.71 243 P      59 35.10  -0.5
                  S      00 16.60
MAT      4.09 254 iPc    59 41.70   0.6
                  eS     00 31.00
MTMJ     4.39 256 P      59 46.40   1.1
HOOJ     4.59   2 eP     59 48.20   0.1
                  eS     00 39.70
IIDJ     4.76 243 P      59 52.10   1.6
                  S      00 46.90
MRRJ     4.88 342 eP     59 52.20   0.1
KUSJ     5.44  13 eP     59 56.60  -3.5X
                  eS     00 54.70
WKYJ     7.04 242 P      00 22.50  -0.2
YONJ     8.17 254 eP     00 37.90  -0.6
KUR      8.25  24 eP     00 35.00  -4.5X
       0.5s   110.00nm          6.3mb X
     Z  12s     2.60um          4.5Msz
     N  12s     2.60um
     E  12s     5.30um
TKSJ     8.26 245 P      00 41.00   1.3
SHK      9.02 252 eP     00 54.00   3.7X
YSS      9.22 358 eP     00 54.00   1.1
       1.0s    10.00nm          5.0mb
     Z  17s     1.10um          4.1MszX
     N  17s     1.50um
                  (S)    02 30.00
VLA     10.05 305 iPc    01 05.50   1.1
       2.0s    80.00nm          5.7mb
SHNJ    10.37 253 eP     01 23.00  14.2X
KUMJ    11.32 246 eP     01 29.60   7.9X
KAGJ    12.02 240 eP     01 33.80   2.5
MDJ     12.23 308 eP     01 38.00   4.0X
CN2     14.64 300 eP     02 07.50   1.7
       1.0s     8.10nm          4.2mb
     Z  12s     0.73um          4.6MszX
                  epP    02 13.00
                  eS     04 45.00
SNY     15.52 291 eP     02 15.20  -2.1
     Z  15s     2.23um
     E  11s     1.22um
DL2     16.87 280 eP     02 33.70  -0.8
     Z  12s     0.62um
     E  12s     0.67um
SSE     19.24 256 eP     03 04.00   0.3
     Z  20s     0.50um
     N  10s     0.50um
     E  10s     0.50um
                  pP     03 09.80  22km
NJ2     20.65 261 Pc     03 17.00  -1.9
     Z  13s     0.60um          4.1MszX
     E  13s     1.46um
TIA     20.78 274 eP     03 15.40  -4.8X
     Z  14s     1.19um          4.4MszX
     N  10s     0.88um
     E  10s     0.61um
                  eS     07 07.50
BJI     21.03 285 eP     03 19.50  -3.2X
       1.5s    57.00nm          4.8mb
     Z  15s     0.58um          4.1MszX
                  eS     07 09.00
TIY     24.19 279 eP     03 51.80  -2.2
     Z  14s     1.07um          4.5MszX
     N  10s     0.87um
HHC     24.51 287 Pd     03 55.60  -1.5
       1.0s    17.00nm          4.6mb
     Z  14s     1.42um          4.6MszX
WHN     24.79 262 iPc    04 00.00   0.3
       1.0s    53.00nm          5.1mb
     Z  16s     1.78um          4.7MszX
     N  16s     2.00um
     E  17s     1.09um
                  sP     04 11.00
                  eS     08 22.00
CIT     25.05 314 eP     04 02.00  -0.1
YAK     25.63 345 eP     04 07.00  -0.4
       1.2s    80.00nm          5.2mb
                  e      08 39.00
BTO     25.70 287 eP     04 07.50  -0.9
     N  15s     0.81um
     E  14s     1.13um
                  eS     08 35.00
BOD     27.56 326 iPc    04 24.90  -0.3
       1.5s    44.00nm          4.9mb
XAN     27.83 273 iPd    04 27.20  -0.7
       0.6s     7.00nm          4.6mb
     Z  12s     1.00um          4.6MszX
     N  12s     0.52um
     E  10s     0.69um
IRK     30.58 311 eP     04 52.50   0.2
     Z  16s     0.68um          4.4MszX
ZAK     30.86 307 iPc    04 54.50  -0.2
       1.0s    13.00nm          4.7mb
                  e      07 50.50
LZH     31.26 279 eP     04 57.50  -1.1
       1.5s    35.00nm          5.0mb
     Z  13s     0.81um          4.6MszX
MOY     32.49 309 eP     05 09.10   0.1
GYA     32.66 260 iPd    05 10.20  -0.7
       1.2s    35.00nm          5.2mb
     Z  16s     0.60um          4.4MszX
CD2     33.00 270 eP     05 12.80  -1.0
     Z  16s     0.89um          4.6MszX
                  eS     10 28.00
GTA     33.62 286 eP     05 19.00  -0.2
       1.2s    36.00nm          5.2mb
     Z  16s     1.14um          4.7MszX
                  pP     05 26.00  24km
TIK     34.70 352 eP     05 21.00  -6.9X
KMI     36.39 262 Pd     05 43.00  -0.1
       1.5s    70.00nm          5.3mb
     Z  14s     1.20um          4.8MszX
                  pP     05 50.50  25km
ELT     41.56 311 iPc    06 26.00   0.6
       1.9s    71.00nm          5.1mb
WMQ     41.69 296 P      06 26.50  -0.3
       1.0s     5.60nm          4.2mb
                  sP     06 36.50
CHG     42.77 256 eP     06 36.00   0.2
       1.2s    19.53nm          4.7mb
NRI     42.98 335 iPd    06 35.20  -1.7
       1.4s    30.00nm          4.8mb
                  e      08 15.00 553kmX
LSA     43.47 275 Pd     06 43.50   1.6
       1.2s    13.00nm          4.6mb
SVW     44.09  38 eP     06 46.67   0.6
       1.3s    55.25nm          5.2mb
IMA     45.36  31 eP     06 55.79  -0.5
       1.4s    10.20nm          4.6mb
BGL     45.66  38 (P)    06 58.33  -0.4
KDC     45.70  43 eP     06 58.31  -0.5
       1.2s    18.35nm          4.9mb
CRP     45.77  38 eP     06 59.99   0.3
NNT     46.01 249 eP     07 02.00   0.2
SLKM    46.74  39 (P)    07 06.24  -0.9
PMS     47.03  38 eP     07 09.70   0.3
       1.0s    29.00nm          5.3mb
PMR     47.22  37 eP     07 10.27  -0.6
       1.0s    16.45nm          5.0mb
FBA     47.75  33 eP     07 15.19   0.2
       0.8s     4.58nm          4.6mb
GUN     48.40 276 P      07 20.78  -0.2
TOA     48.59  36 eP     07 23.20   1.5
KLU     48.76  37 eP     07 22.86  -0.1
PKI     48.93 276 P      07 24.36  -0.7
KKN     48.93 276 P      07 24.70  -0.2
DMN     49.15 276 P      07 26.26  -0.4
GKN     49.34 277 P      07 27.70  -0.3
BALM    50.53  37 eP     07 35.85  -0.8
BRVK    51.10 312 iP     07 40.00  -0.9
       1.0s    15.00nm          4.9mb
KSH     51.33 294 P      07 44.30   1.3
       1.0s    20.00nm          5.0mb
WB2     58.01 190 iPc    08 29.80  -1.8
       0.7s    20.50nm          5.3mb
                  e      08 38.10  27km
WRA     58.01 190 P      08 30.00  -1.6
       0.8s     6.40nm          4.7mb
HYB     59.55 269 ePc    08 42.00  -0.6
       1.0s    25.00nm          5.3mb
RES     61.53  15 eP     08 55.00  -0.3
       0.6s     3.00nm          4.6mb
YKA     62.48  31 eP     08 59.60  -2.2
       0.9s     2.80nm          4.4mb
GBA     62.60 266 Pc     09 03.00  -0.1
       0.5s     7.00nm          5.0mb
DZM     63.47 156 iPc    09 09.30   0.5
RMQ     64.16 174 eP     09 12.70  -0.4
       0.8s    18.00nm          5.3mb
MAIO    64.46 297 iPc    09 15.20  -0.1
KAF     68.24 333 iP     09 38.00  -0.8
OBN     68.28 324 iPc    09 38.00  -1.1
       1.0s    21.00nm          5.2mb
                  e      09 46.00  26km
NUR     69.90 332 iP     09 48.50  -0.5
       0.3s     3.80nm          5.0mb
SES     70.72  41 ePc    09 53.30  -1.0
PYA     71.15 311 eP     09 56.00  -0.9
KIV     71.41 311 iPc    09 59.10   0.5
LCCM    72.99  45 eP     10 06.70  -1.3
BONR    73.74  55 eP     10 12.85   0.1
HFS     73.94 336 eP     10 12.20  -0.9
       0.4s     1.20nm          4.3mb
NAO     74.28 338 P      10 14.50  -0.6
       1.1s    16.80nm          5.0mb
TNP     74.37  54 eP     10 16.24   0.0
       0.7s     3.37nm          4.5mb
DUG     75.85  50 eP     10 25.09   0.5
       1.0s     6.47nm          4.6mb
DAU     76.66  49 eP     10 29.86   0.5
ARUT    76.93  52 (P)    10 31.47   0.7
MSU     77.28  51 eP     10 33.11   0.4
SRU     77.91  50 eP     10 36.28   0.2
KSP     80.15 329 eP     10 48.40   0.6
CLL     81.09 331 iP     10 52.90   0.1
       1.4s    23.00nm          5.0mb
PRU     81.52 329 eP     10 56.00   1.0
KHC     82.59 329 P      11 01.50   0.8
       1.4s    11.70nm          4.8mb
                  e      11 44.50 174kmX
GEC2    82.76 329 ePc    11 01.90   0.2
       1.1s     2.79nm          4.3mb
                  e      11 04.80   9kmX
                  e      11 09.50
GRF     83.07 331 ePc    11 04.30   1.2
VAY     84.35 319 iP     11 10.50   0.7
SKO     84.46 320 iP     11 11.50   1.2
OHR     85.42 320 eP     11 15.20   0.0
CDF     85.61 332 eP     11 16.50   0.4
       1.5s    44.90nm          5.5mb
LOR     87.81 334 eP     11 27.20   0.5
       1.3s   252.50nm          6.4mb X
LDF     87.99 337 eP     11 27.00  -0.5
       1.3s    39.35nm          5.6mb
LBF     88.01 333 eP     11 28.00   0.3
       1.1s    10.75nm          5.1mb
SSF     88.11 334 eP     11 28.70   0.6
       0.9s     5.40nm          4.9mb
LPL     88.23 331 eP     11 29.80   0.7
       1.0s     4.60nm          4.8mb
LPG     88.24 331 eP     11 29.90   0.7
       1.4s    14.40nm          5.1mb
SMF     88.35 333 eP     11 29.90   0.6
       1.4s    26.55nm          5.4mb
AVF     88.40 334 eP     11 30.30   0.8
       1.0s    13.20nm          5.2mb
GRR     88.40 337 eP     11 29.10  -0.4
       1.3s    50.20nm          5.7mb
MAF     89.16 334 eP     11 34.30   1.1
       1.3s    26.35nm          5.4mb
TCF     89.23 334 eP     11 34.30   0.7
       1.6s    48.50nm          5.6mb
MFF     89.75 336 eP     11 36.90   1.0
       1.5s    65.30nm          5.7mb
CAF     90.46 333 eP     11 40.40   1.1
       1.4s    30.50nm          5.4mb
ZOBO   145.16  61 PKP    18 16.80   0.1
       1.1s    14.50nm
LPB    145.35  61 PKP    18 18.00   1.2
CNCB   145.62  61 PKP    18 18.80   1.4
CCH    147.29  60 PKP    18 23.00   3.2X
     S.D. = 0.9  on 113 of 123 obs.
-------------------------------------
?  JAN  12, 1993  23h 32m 04.90± 1.21s
   38.035 S ± 6.8km  176.061 E ± 5.8km
   DEPTH = 227.6 ± 11.7 km
 NORTH ISLAND, NEW ZEALAND        (159)
```

```
WLZ      0.40 294 eP  * 32 34.70  -0.3
URZ      0.86 106 Pc    32 35.80  -1.2
                  S     32 54.50
WHH      0.91 158 Pd    32 36.70  -0.7
MOZ      1.10 244 P     32 38.70   0.3
PAHZ     1.13 137 Pc    32 38.40  -0.3
NGZ      1.20 197 P     32 39.40   0.1
CNZ      1.23 199 P     32 39.60   0.1
KUZ      1.31 348 Pd    32 40.10   0.2
MOH      1.39 142 P     32 40.70   0.2
TTH      1.62 159 P     32 42.90   0.6
NOZ      1.66 111 P     32 43.00   0.3
WAHZ     1.68 172 Pc    32 43.20   0.3
PUZ      1.73  92 P     32 43.20  -0.2
                  S     33 08.40
HBZ      1.83  77 P     32 44.50   0.3
MAHZ     1.83 129 P     32 44.80   0.5
BSZ      1.97 206 P     32 46.40   0.9
TEHZ     2.04 164 Pd    32 46.70   0.5
PGZ      2.59 176 P     32 52.00   0.2
MNG      2.62 190 Pc    32 52.30   0.1
KIW      2.96 197 P     32 55.70  -0.3
MTW      3.15 188 P     32 57.70  -0.4
CAW      3.16 194 eP    32 58.20  -0.1
DIW      3.22 210 eP    32 58.90  -0.1
MRW      3.36 198 P     33 00.10  -0.5
                  S     33 39.30
MOW      3.44 190 P     33 01.00  -0.5
TCW      3.46 203 P     33 01.40  -0.3
THZ      4.45 212 P     33 14.60   0.9
KHZ      4.78 203 P     33 17.70  -0.1
LTZ      5.56 210 P     33 27.30  -0.3
     S.D. = 0.5  on  29 of  29 obs.
-----------------------------------
*  JAN  12, 1993  23h 48m 46.27± 1.01s
   51.590 N ± 8.4km   16.099 E ± 5.4km
   DEPTH =  10.0km  (geophysicist)
 POLAND                            (548)
      ML 3.8 (GRF), 3.6 (VIE).

KSP      0.76 171 iPd   49 00.60  -0.5
       0.5s   342.00nm
                  iS    49 10.20
BRG      1.53 243 iPn   49 13.40  -0.3
                  iPg   49 15.40
                  iSg   49 35.50
PRU      1.88 212 Pn    49 18.90   0.1
       0.6s   126.00nm
                  ePg   49 20.90
                  eSn   49 37.00
                  Sg    49 43.90
                  i     49 52.20
CLL      1.96 263 iPn   49 19.90   0.1
                  iPg   49 22.80
                  eSg   49 49.00
RAC      2.01 138 ePn   49 25.00   4.4X
                  iPg   49 26.50
                  iSg   49 54.00
OJC      2.71 119 eP    49 30.30  -0.4
                  iS    50 11.90
KHC      2.94 214 Pn    49 33.50  -0.5
                  ePg   49 47.00
                  Sn    50 09.10
                  eSg   50 22.60
HOF      2.96 246 iPnd  49 34.20   0.0
MOX      2.98 253 ePn   49 34.50   0.1
                  iPg   49 43.30
                  iSg   50 22.40
GEC2     3.15 210 Pn    49 37.20   0.3
                  Pg    49 44.00
                  Sg    50 29.50
WET      3.20 221 iPnd  49 38.10   0.5
VKA      3.33 177 iPnd  49 40.30   0.8
                  iPg   49 48.90
                  iSg   50 32.30
ZST      3.46 169 eP    49 51.10   9.9X
                  e     50 34.10
                  i     50 41.10
GRF      3.64 240 ePn   49 44.10   0.3
                  ePg   49 55.50
                  eSg   50 42.00
SOP      3.92 175 e(P)  49 49.00   1.2
BHG      4.40 210 iPnc  50 09.20  14.6X
KBA      4.86 203 iPnc  50 01.00  -0.3
                  i     50 21.10
                  iSg   51 16.00
WTTA     5.22 216 iPnc  50 05.60  -0.7
                  iSg   51 30.40
SOTA     5.41 218 iPnc  50 08.70  -0.4
                  i     50 09.50
                  iSg   51 38.80
FVI      5.45 205 P     50 09.20  -0.3
VBY      6.12 186 eP    50 18.80   0.0
CTI      6.28 210 P     50 21.10  -0.1
DOU      7.44 263 iP    50 37.60   0.2
     S.D. = 0.5  on  20 of  23 obs.
-----------------------------------
?  JAN  13, 1993  00h 20m 41.73± 1.26s
   47.819 N ±15.1km    7.297 E ± 6.3km
   DEPTH =  10.0km  (geophysicist)
 SWITZERLAND                       (544)
      ML 2.3 (LDG).

BSF      0.34 272 Pg    20 48.80   0.0
                  Sg    20 53.50
FEL      0.49  83 ePg   20 51.62   0.0
CDF      0.59 359 Pg    20 53.80   0.0
HAU      0.67 287 Pg    20 55.00   0.0
                  Sg    21 04.10
LOR      2.39 258 Pg    21 26.80   5.2X
                  Sg    21 56.10
LBF      2.40 251 Pg    21 27.20   5.4X
                  Sg    21 56.60
SMF      2.63 245 Pg    21 31.30   6.3X
                  Sg    22 04.30
SSF      2.68 255 Pg    21 32.30   6.6X
                  Sg    22 05.00
AVF      2.87 250 Pg    21 35.80   7.4X
                  Sg    22 10.90
     S.D. = 0.0  on   4 of   9 obs.
-----------------------------------
?  JAN  13, 1993  00h 34m 43.94±10.35s
   39.517 N ±77.7km   26.026 E ±53.4km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                            (366)

ALN      1.38   1 ePb   35 09.13   0.0
                  iSb   35 27.72
OUR      1.77 298 ePb   35 14.93   0.1
PAIG     1.86 284 ePn   35 16.40   0.4
                  eSn   35 41.94
SOH      2.43 303 ePn   35 25.52   1.2
                  eSn   35 58.00
SRS      2.45 311 ePn   35 26.50   1.9X
                  eSn   35 59.06
KNT      2.90 306 ePn   35 31.20   0.2
                  eSn   36 10.00
GRG      3.12 299 ePn   35 32.32  -1.9
VAY      3.19 305 ePn   35 44.30   9.2X
     S.D. = 1.3  on   6 of   8 obs.
-----------------------------------
   JAN  13, 1993  00h 56m 12.33± 0.70s
   34.351 N ± 6.6km   28.764 E ± 6.7km
   DEPTH =  66.4 ± 15.9 km
   4.0mb (  1 obs.)
 EASTERN MEDITERRANEAN SEA         (371)
      MD 4.1 (HLW).

KSL      1.89  21 eP    56 44.00   1.1
                  eS    57 00.50
ELL      2.57  21 iPn   56 54.00   1.5
NPS      2.75 290 eP    56 56.50   1.5
                  eS    57 22.00
YER      2.81 352 iPn   56 56.40   0.6
PPCY     3.00  79 eP    56 58.70   0.2
                  eS    57 33.40
BCK      3.44  25 iPn   57 06.50   1.8
CSS      3.81  80 eP    57 09.70  -0.2
                  eS    57 52.20
KHL      4.01   9 ePn   57 08.60  -4.2X
IZM      4.22 344 iPn   57 14.10  -1.5
FAM      4.36  80 eP    57 19.00   1.3
                  eS    58 09.00
HLW      4.98 153 ePn   57 26.75   0.4
                  eSn   58 20.50
DST      5.25 359 ePn   57 28.10  -2.0
VLI      5.31 298 eP    57 29.00  -1.9
ADI      5.53 101 eP    57 34.40   0.3
ATZ      5.64 104 eP    57 36.20   0.6
                  eS    58 36.00
ZNT      5.66 110 eP    57 34.60  -1.2
                  eS    58 36.10
KCT      5.90 357 eP    57 37.50  -1.6
JVI      6.03 112 eP    57 40.70  -0.3
SALJ     6.25 110 P     57 44.90   0.7
MASJ     6.40 112 P     57 45.90  -0.3
LISJ     6.45 117 P     57 44.90  -1.8
PRNI     6.62 125 eP    57 47.90  -1.2
DHLJ     6.62 120 P     57 48.50  -0.6
HOL      7.37 132 eP    58 00.00   0.5
                  eS    59 12.33
AYN      8.24 130 iPd   58 11.60   0.1
                  eS    59 37.33
SKO      9.54 325 iP    58 30.30   0.9
BRT     11.24 309 P     58 47.20  -5.2X
                  eSn   00 41.00
MEU     11.57 288 P     58 53.80  -3.2X
MGR     12.00 303 P     58 56.80  -5.8X
GEC2    18.30 327 eP    00 22.50  -0.6
       0.5s      0.85nm          3.2mb X
                  e     00 25.40
HFS     27.61 344 eP    01 54.60  -0.5
       0.4s      1.70nm          4.0mb
KIC     41.62 236 P     03 57.70   2.1
     S.D. = 1.2  on  28 of  32 obs.
-----------------------------------
%  JAN  13, 1993  01h 10m 55.95± 1.65s
   37.082 N ±11.9km   4.450 W ±10.4km
   DEPTH =  10.0km  (geophysicist)
 SPAIN                             (377)
      mbLg 2.6 (MDD).

ELUQ     0.50  17 ePg   11 05.50  -0.6
                  eSg   11 14.00
ECOG     0.73  74 ePg   11 10.50   0.1
                  eSg   11 21.80
EGUA     0.75 109 ePg   11 10.50  -0.1
                  eSg   11 20.50
EHOR     0.98 320 ePg   11 14.50   0.0
                  eSg   11 26.50
EBAN     1.20  26 ePn   11 19.00   0.6
                  eSn   11 35.50
     S.D. = 0.6  on   5 of   5 obs.
-----------------------------------
   JAN  13, 1993  01h 24m 13.12± 0.96s
   43.003 N ± 7.2km   18.735 E ± 5.8km
   DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION        (383)
      ML 1.6 (TTG).

BRY      0.17 234 iPgd  24 17.57   0.4
                  iSg   24 20.33
NKY      0.27 134 iPgc  24 19.39   0.5
                  iSg   24 24.12
HCY      0.58 198 ePg   24 24.40  -0.5
                  iSg   24 33.26
PLE      0.58  56 iPgd  24 24.77  -0.2
                  iSg   24 33.69
TTG      0.69 146 iPgd  24 26.37  -0.4
                  iSg   24 37.29
BDV      0.72 175 iPgd  24 27.19  -0.2
                  iSg   24 38.02
IVA      0.86  98 iPgd  24 29.97   0.2
                  iSg   24 43.35
PVY      1.00 114 iPgd  24 32.16   0.0
                  iSg   24 47.19
ULC      1.11 160 iPgc  24 34.03   0.1
                  iSg   24 50.75
HVAR     1.68 277 e(Pn) 24 44.10   1.4X
                  iSg   25 09.70
     S.D. = 0.4  on   9 of  10 obs.
-----------------------------------
   JAN  13, 1993  01h 31m 54.08± 0.18s
   38.870 N ± 3.2km  142.489 E ± 3.0km
   DEPTH =  30.8km  ( 34 depth phases)
   5.2mb (103 obs.)  4.7Msz ( 21 obs.)
 NEAR EAST COAST OF HONSHU, JAPAN(228)
      Mw 5.2 (HRV).
      CENTROID, MOMENT TENSOR    (HRV)
      Data Used: GDSN
      L.P.B.: 12S, 13C
      Centroid Location:
      Origin Time        01:31:57.0 1.4
      Lat 38.49N 0.16 Lon 142.25E 0.16
      Dep  25.0 6.8 Half-duration  1.0
      Moment Tensor;   Scale 10**16 Nm
        Mrr= 2.65 0.58  Mtt=-0.86 0.84
        Mff=-1.79 0.47  Mrt=-0.41 1.99
        Mrf= 4.49 1.36  Mtf=-4.85 0.59
       Principal Axes:
        T  Val=  6.77  Plg=43  Azm=235
```

```
*3d  01n

        N        0.47*      40       18
        P       -7.24       19      126
     Best Double Couple:Mo=7.0*10**16
     NP1:Strike=260 Dip=44 Slip= 159
     NP2:          6      75       48

OFUJ    0.67 288 P      32 07.40   0.1
                S      32 17.00
YAMJ    2.05 251 eP     32 27.60   0.6
                eS     32 54.80
AOMJ    2.35 317 eP     32 33.10   1.8
NIIJ    3.20 240 P      32 44.00   0.6
KAKJ    3.23 215 P      32 42.90  -1.0
                S      33 21.20
HOOJ    3.56  10 P      32 48.20  -0.3
                eS     33 29.30
MRRJ    3.71 344 eP     32 51.90   1.3
                S      33 36.80
CHJJ    3.96 226 P      32 54.40   0.2
MAT     4.11 237 eP     32 57.00   0.6
                eS     33 48.00
MTMJ    4.36 240 P      33 01.40   1.4
KUSJ    4.55  21 P      33 00.30  -2.2
                S      33 49.80
IIDJ    4.98 229 P      33 10.80   2.0
ASAJ    5.25   1 eP     33 11.30  -1.1
TSRJ    6.17 239 P      33 27.90   2.5
KUR     7.51  30 iPc    33 43.20  -1.0
      0.8s   150.00nm          6.1mb
    Z  14s     6.50um          4.0MszX
    N  14s     6.50um
    E  14s     7.60um
                eS     35 00.50
YONJ    8.10 246 P      33 54.20   1.7
YSS     8.14   1 iPc    33 52.20  -0.8
      0.9s    30.00nm          5.4mb
    Z  20s     3.20um          4.1MszX
    N  20s     2.50um
                e      35 19.10
TKSJ    8.37 237 P      33 56.20   0.0
SHK     8.99 244 eP     34 06.50   1.7
VLA     9.07 301 iPd    34 07.00   1.2
      0.8s    50.00nm          5.8mb
                i      35 55.00
SHNJ   10.31 246 eP     34 25.50   2.6
MDJ    11.21 305 eP     34 35.50   0.3
      1.2s    39.00nm          5.5mb
KUMJ   11.39 240 eP     34 38.80   1.1
KAGJ   12.21 235 eP     34 49.20   0.5
CN2    13.71 296 eP     35 13.60   4.9X
      1.0s    16.00nm          4.8mb
    Z  18s     1.79um          5.1Msz
    N  13s     1.08um
    E  13s     0.99um
                epP    35 18.50
                eS     37 47.00
SNY    14.72 288 Pd     35 21.20  -0.6
      1.1s    27.00nm          4.6mb
    Z  18s     3.39um          4.1Msz
    N  12s     1.19um
    E  12s     0.82um
                S      38 08.00
DL2    16.25 277 eP     35 41.50   0.0
      0.8s    98.00nm          5.0mb
    Z  14s     2.06um          5.2MszX
    E  12s     2.55um
SSE    19.07 252 Pc     36 14.00  -2.6
      1.0s   180.00nm          5.3mb
    Z  20s     2.80um          5.4MszX
    N  14s     1.10um
    E  14s     1.10um
                sP     36 29.00
TIA    20.27 270 eP     36 26.80  -3.0
      1.8s   120.00nm          4.9mb
    Z  15s     3.16um          4.8MszX
    N  12s     1.31um
    E  13s     1.78um
BJI    20.33 282 eP     36 27.00  -3.3X
      1.7s   130.00nm          5.0mb
    Z  16s     2.92um          4.7MszX
    E  13s     1.91um
                eS     40 11.00
NJ2    20.39 258 Pc     36 27.00  -3.9X
    Z  14s     1.78um          4.6MszX
    E  12s     1.86um
MGD    21.89  11 eP     36 45.00  -1.0
      1.0s   100.00nm          5.2mb

                e      37 00.00  66kmX
                e      37 17.00
                e      40 39.00
TIY    23.57 277 eP     37 01.00  -1.8
    Z  18s     3.64um          4.9Msz
    E  23s    10.60um
                S      41 11.00
HHC    23.76 285 Pd     37 02.60  -2.1
      0.6s    13.00nm          4.6mb
    Z  16s     4.03um          5.0MszX
    N  11s     0.51um
    E  15s     2.96um
CIT    23.96 313 eP     37 08.00   1.5
YAK    24.47 345 iPd    37 11.10   0.0
      0.8s   111.00nm          5.5mb
                eS     41 27.00
                e      41 45.00
WHN    24.51 259 Pc     37 11.00  -0.8
      1.5s   190.00nm          5.4mb
    Z  20s     2.49um          4.7Msz
    N  12s     1.33um
    E  15s     2.33um
BTO    24.96 284 eP     37 15.00  -1.2
    N  16s     1.57um
    E  17s     3.63um
BOD    26.41 325 iPc    37 29.00  -0.4
      1.0s    36.00nm          4.9mb
XAN    27.33 270 P      37 36.20  -2.0
      0.6s    13.00nm          4.8mb
    Z  18s     1.50um          4.6Msz
    E  12s     1.30um
                pP     37 43.00  24km
                sP     37 46.20
CVP    27.73 226 ePc    37 40.00  -1.8
PIP    27.93 229 ePd    37 44.50   0.9
GZH    29.36 246 P      37 57.00   0.5
    Z  16s     2.38um          4.9MszX
IRK    29.52 310 ePd    37 57.80   0.1
      0.8s    78.00nm          5.5mb
    Z  17s     2.36um          4.9MszX
    N  12s     0.62um
    E  15s     2.06um
ZAK    29.84 306 iPd    38 00.50   0.0
      1.6s    71.00nm          5.2mb
    Z  16s     3.07um          5.0MszX
    E  16s     4.17um
                e      41 03.00
LZH    30.64 277 eP     38 06.00  -2.0
      1.5s    32.00nm          4.9mb
    Z  19s     1.98um          4.8Msz
    E  13s     1.61um
                sP     38 16.00
                PP     39 13.00
MOY    31.45 308 ePc    38 14.00  -0.7
      1.6s    75.00nm          5.3mb
GYA    32.40 258 iPc    38 22.00  -1.4
      1.0s    77.00nm          5.6mb
    Z  20s     1.52um          4.7Msz
    N  15s     1.61um
    E  15s     1.29um
                S      43 34.40
CD2    32.56 268 P      38 23.60  -1.1
      0.9s    63.00nm          5.5mb
    Z  16s     1.88um          4.9MszX
GTA    32.88 285 P      38 27.00  -0.5
      1.0s    28.00nm          5.1mb
    Z  16s     3.43um          5.1MszX
    E  15s     1.64um
                pP     38 35.00  28km
TIK    33.56 352 eP     38 36.00   3.1X
      1.4s    22.00nm          4.9mb
    Z  16s     0.60um          4.4MszX
                i      38 43.50  26km
QIZ    34.47 244 eP     38 37.40  -3.9X
KMI    36.10 260 Pc     38 54.50  -0.9
      1.5s   250.00nm          5.9mb
    Z  20s     2.10um          4.9Msz
    N  14s     1.10um
    E  14s     1.00um
                pP     39 03.00  29km
ELT    40.50 310 eP     39 32.00   0.5
      1.8s   119.00nm          5.3mb
                eS     45 44.00
WMQ    40.80 295 iPc    39 34.50   0.3
      1.4s    13.00nm          4.5mb
                pP     39 43.50  30km
                sP     39 51.50

                PP     41 06.00
LOE    41.38 251 eP     39 38.90  -0.2
NRI    41.81 334 iPd    39 40.60  -1.4
      1.5s    36.00nm          4.9mb
    Z  20s     5.40um          5.4Msz
    E  20s     4.20um
CHG    42.58 255 ePc    39 48.90  -0.1
      1.0s    27.25nm          4.9mb
LSA    42.91 274 Pc     39 53.00   0.9
      1.2s    29.00nm          4.9mb
SVW    43.53  38 eP     39 57.71   1.4
      0.8s    34.16nm          5.2mb
                epP    40 06.13  28km
NST    43.66 250 eP     40 06.00   8.3X
BRW    44.39  24 (P)    40 05.78   2.8X
IMA    44.68  31 eP     40 05.70   0.1
      0.9s    10.62nm          4.7mb
                ipP    40 15.34  32km
BGL    45.10  38 eP     40 11.06   2.1
CP2    45.17  38 eP     40 10.97   1.3
                ipP    40 19.44  28km
CRP    45.21  38 eP     40 10.52   0.6
                ipP    40 19.90  31km
KDC    45.23  43 eP     40 07.84  -2.0
                e      40 13.31  18kmX
KHT    45.36 250 eP     40 11.80   0.4
SLKM   46.19  39 eP     40 16.26  -1.3
PMS    46.47  38 eP     40 19.70   0.0
PMR    46.65  38 eP     40 20.40  -0.6
      0.8s    15.53nm          5.0mb
    Z  20s     0.34um          4.3Msz
FBA    47.10  33 eP     40 26.19   1.6
      1.6s    55.38nm          5.3mb
                epP    40 34.06  26km
GUN    47.84 275 P      40 30.86  -0.5
      1.1s   186.00nm          6.0mb
GUN    47.84 275 P      40 37.60   6.3X
      1.4s   335.00nm          6.2mb
KLU    48.19  38 eP     40 32.94  -0.4
KKN    48.36 275 P      40 34.72  -0.5
      0.7s    96.00nm          5.9mb
PKI    48.37 274 P      40 34.60  -0.8
DMN    48.58 275 P      40 36.46  -0.5
BALM   49.97  38 eP     40 46.69  -0.3
                epP    40 55.79  30km
BRVK   50.04 311 iPc    40 46.50  -1.0
      0.9s    28.00nm          5.3mb
                eS     47 53.00
FRU    50.23 298 eP     40 49.00  -0.2
      2.0s    70.00nm          5.3mb
KSH    50.47 293 P      40 52.50   1.4
      0.8s    20.00nm          5.2mb
IPM    50.75 238 ePc    40 53.30  -0.1
      1.0s   103.20nm          5.8mb
KGM    51.20 234 ePd    40 54.00  -2.7
MTN    52.53 194 eP     41 05.50  -1.2
KHKI   53.23 214 iPd    41 10.30  -1.6
                e      42 52.50 528kmX
HON    53.47  91 P      41 20.00   6.3X
    Z  18s     0.12um          4.0Msz
NDI    54.17 280 iP     41 18.00  -0.8
WB2    59.00 189 iPc    41 51.30  -1.9
      0.7s    58.00nm          5.8mb
                e      42 01.10  32km
WRA    59.00 189 P      41 51.50  -1.7
      0.7s    23.40nm          5.4mb
RES    60.61  15 ePc    42 03.40  -0.3
      0.9s     7.00nm          4.8mb
QUE    61.22 287 eP     42 25.50  16.8X
YKA    61.80  31 eP     42 10.10  -1.8
      0.9s     2.20nm          4.3mb
POO    62.15 272 iPc    42 11.00  -3.9X
GBA    62.21 265 Pc     42 14.90  -0.4
      0.7s    41.00nm          5.7mb
ASH    63.53 299 eP     42 15.50  -8.2X
MAIO   63.56 296 iPc    42 23.60  -0.5
DAG    64.03 355 iPd    42 25.20  -1.2
      0.9s    11.76nm          5.0mb
DZM    64.64 155 iPc    42 32.00   0.9
RMQ    65.28 174 iPc    42 34.80  -0.2
      0.8s    33.00nm          5.5mb
WARB   66.39 196 eP     42 41.50  -0.7
      0.6s    26.00nm          5.5mb
KAF    67.07 333 iP     42 44.80  -1.3
      0.6s     6.10nm          4.9mb
OBN    67.13 323 eP     42 44.00  -2.6
      1.1s    39.00nm          5.4mb
```

```
                i      42 55.00  36km
DPW   67.85  46 eP     42 50.78  -0.6
                ipP    43 00.34  31km
NEW   68.23  45 ePc    42 53.50  -0.2
      1.3s    43.97nm          5.4mb
                ipP    43 02.82  30km
NUR   68.73 332 eP     42 54.10  -2.4
      0.7s    14.10nm          5.2mb
GRO   68.90 309 eP     42 58.00   0.1
CMS   70.07 177 eP     43 04.60  -0.3
      0.9s     7.00nm          4.7mb
PYA   70.08 311 iP     43 04.00  -1.1
SES   70.21  41 eP     43 05.00  -0.8
                pP     43 15.00  32km
KIV   70.35 311 iPc    43 07.00   0.1
      1.2s   149.00nm          5.9mb
STK   70.39 181 eP     43 06.20  -0.7
      0.7s     3.70nm          4.6mb
FCC   71.98  27 eP     43 18.50   2.3
CMB   72.12  55 P      43 30.00  12.4X
    Z  19s     0.26um          4.5Msz
LCCM  72.55  45 eP     43 20.10   0.0
HFS   72.77 336 eP     43 19.10  -1.8
      0.4s     3.00nm          4.7mb
    Z  18s   580.00um          7.9MszX
                LR     16 08.00
KVN   72.98  53 (P)    43 21.79  -1.0
NAO   73.11 338 P      43 21.80  -1.1
      0.8s    10.50nm          4.9mb
BWA   73.13 175 iPc    43 23.20  -0.1
                e      43 33.90  35km
BONR  73.50  54 eP     43 25.16  -0.8
                epP    43 35.95  35km
HHAI  73.84  47 (P)    43 32.57   4.9X
CAN   74.07 174 eP     43 27.90  -0.7
TNP   74.11  54 eP     43 28.45  -0.9
      0.8s     8.32nm          4.8mb
                epP    43 39.03  34km
PTI   74.11  48 (P)    43 29.79   0.5
HVU   74.55  49 (P)    43 32.08   0.2
                ipP    43 41.75  31km
DUG   75.52  50 eP     43 37.82   0.4
      0.8s     4.57nm          4.5mb
                ipP    43 47.36  31km
BW06  75.77  46 eP     43 38.26  -0.6
      1.2s    12.71nm          4.8mb
TOO   76.12 178 eP     43 40.60   0.3
      0.9s    17.00nm          5.1mb
SSK   76.15  57 (P)    43 50.68   9.6X
DAU   76.31  49 eP     43 43.72   1.7
ARUT  76.65  52 eP     43 44.31   0.5
EMUT  76.95  49 eP     43 45.89   0.3
                epP    43 55.61  31km
MSU   76.96  51 eP     43 46.49   0.9
                epP    43 56.16  31km
ULM   77.51  34 eP     43 50.50   2.4
SRU   77.57  50 ePc    43 49.18   0.3
VRI   77.88 320 ePc    43 50.00  -0.2
RSSD  77.90  43 eP     43 50.32  -0.3
      0.8s     9.66nm          4.9mb
    Z  20s     0.16um          4.3Msz
                epP    44 00.22  32km
BRD   77.96 320 eP     43 51.50   0.8
OJC   77.99 326 iP     43 51.10   0.4
                i      44 01.60  34km
UZH   78.04 324 eP     43 51.30   0.3
CVO   78.18 320 eP     43 51.50  -0.4
KSP   78.99 329 iP     43 56.40   0.2
      1.1s    29.00nm          5.2mb
COZ   79.45 321 eP     44 01.50   2.5
BRG   79.90 330 iP     44 01.20   0.1
                i      44 12.00  35km
CLL   79.92 331 iPc    44 01.00  -0.2
      1.1s    29.00nm          5.2mb
                i      44 10.50  30km
GLD   80.22  46 eP     44 03.58   0.3
      1.2s    25.83nm          5.1mb
    Z  21s     1.06um          5.2Msz
PRU   80.36 329 ePc    44 04.00   0.4
      1.0s    12.90nm          4.9mb
                e      44 13.50  30km
                e      44 22.50
BUD   80.37 325 eP     44 04.00   0.3
SRO   80.44 326 iP     44 04.50   0.5
MOX   80.98 331 iP     44 07.40   0.5
      1.5s    24.00nm          5.0mb
HOF   81.15 330 iPc    44 08.00   0.2
      0.9s    13.00nm          4.9mb
HRI   81.21 306 eP     44 08.80   0.3
UZD   81.24 325 eP     44 08.00  -0.3
SOP   81.30 326 eP     44 09.50   0.9
KHC   81.42 329 Pc     44 09.90   0.7
      1.0s    12.50nm          4.9mb
                e      44 20.80  35km
GEC2  81.60 329 Pc     44 10.20   0.0
      0.7s     3.72nm          4.5mb
                e      44 15.60  17kmX
                e      44 20.60
                ePP    47 16.00
TUC   81.83  55 eP     44 12.64   0.9
    Z  19s     0.22um          4.5Msz
                epP    44 21.96  30km
GRF   81.90 330 iPc    44 12.60   0.9
      1.2s    59.00nm          5.5mb
    Z  19s     0.40um          4.8Msz
                e      44 22.60  32km
DSI   82.55 305 eP     44 15.70   0.3
ALQ   82.76  51 eP     44 17.80   1.1
      1.2s    20.79nm          5.1mb
    Z  21s     0.21um          4.5Msz
BHG   82.82 328 eP     44 17.20   0.7
      1.2s    50.00nm          5.5mb
PTJ   82.94 326 eP     44 17.30   0.0
FUR   83.11 330 eP     44 18.60   0.6
      0.9s    30.00nm          5.4mb
KBA   83.14 328 iPc    44 18.20  -0.2
      0.8s    14.60nm          5.1mb
                i      44 19.50   4kmX
                i      44 32.00
VAY   83.23 319 iP     44 19.00   0.3
                i      44 29.00  32km
PLE   83.32 322 iPc    44 19.99   0.7
SKO   83.33 320 iP     44 20.00   0.8
      1.3s    68.00nm          5.6mb
                i      44 29.00  28km
IVA   83.42 321 iPc    44 20.51   0.7
VBY   83.56 326 iP     44 20.40   0.1
PVY   83.59 321 iPc    44 21.02   0.3
NKY   83.90 322 iPc    44 21.65  -0.6
BRY   84.05 322 iPc    44 22.49  -0.6
MBH   84.06 304 eP     44 23.40   0.1
TTG   84.06 321 iPc    44 22.89   0.0
OHR   84.29 320 iPc    44 24.10  -0.1
      0.8s    69.00nm          5.9mb
BDV   84.38 322 eP     44 24.35  -0.2
HCY   84.42 322 iPc    44 24.25  -0.5
ULC   84.42 321 ePc    44 24.33  -0.4
CDF   84.44 332 eP     44 25.10   0.3
      1.2s    31.55nm          5.4mb
SLE   84.52 331 ePd    44 25.30   0.1
OSS   84.76 329 ePd    44 27.10   0.5
ZLA   84.79 331 ePd    44 26.90   0.3
LLS   85.06 330 iPd    44 28.50   0.4
BSF   85.10 332 eP     44 28.10  -0.1
      1.4s    27.90nm          5.3mb
HAU   85.12 332 eP     44 28.30   0.1
      0.8s    10.50nm          5.1mb
    Z  17s     0.25um          4.7MszX
VDL   85.19 330 ePc    44 29.10   0.3
TMA   85.74 330 ePd    44 31.40  -0.1
MMK   86.14 330 ePd    44 34.20   0.6
DIX   86.33 330 Pd     44 35.00   0.5
EMS   86.52 331 ePd    44 35.50   0.1
LOR   86.64 333 eP     44 35.80   0.1
      1.1s    40.80nm          5.6mb
    Z  22s     0.35um          4.7Msz
FIR   86.66 327 eP     44 44.00   8.2X
FLN   86.78 336 eP     44 36.50   0.2
      0.6s     5.95nm          5.0mb
    Z  21s     0.47um          4.9Msz
LDF   86.81 336 eP     44 36.50   0.0
      0.7s     9.70nm          5.1mb
LBF   86.84 333 eP     44 36.70   0.0
      0.8s    11.80nm          5.2mb
SSF   86.94 333 eP     44 37.40   0.3
      0.8s    12.35nm          5.2mb
LPL   87.06 331 eP     44 38.30   0.2
      0.8s    11.55nm          5.2mb
LPG   87.07 331 eP     44 38.60   0.4
      0.6s     7.50nm          5.1mb
SMF   87.18 333 eP     44 38.70   0.4
      1.2s    29.75nm          5.4mb
AVF   87.22 333 eP     44 38.90   0.4
      1.1s    47.35nm          5.7mb
GRR   87.22 337 eP     44 38.90   0.4
      1.0s    44.00nm          5.7mb
WMOK  87.39  46 eP     44 39.49  -0.1
    Z  19s     0.27um          4.7Msz
                ipP    44 49.51  31km
LPF   87.60 336 eP     44 40.80   0.5
      0.7s    15.00nm          5.4mb
BGF   87.60 333 eP     44 40.90   0.5
      0.5s     2.60nm          4.8mb
MAF   87.99 333 eP     44 43.00   0.8
      1.0s    22.20nm          5.4mb
TCF   88.06 334 eP     44 43.30   0.7
SBF   88.17 329 eP     44 43.00  -0.2
      0.7s    10.05nm          5.2mb
LSF   88.32 334 eP     44 44.30   0.5
      1.0s    22.20nm          5.4mb
MFF   88.57 335 eP     44 45.70   0.7
      1.2s    50.60nm          5.7mb
PGF   88.62 328 eP     44 45.90   0.5
      0.8s    10.90nm          5.2mb
RJF   89.15 334 eP     44 48.40   0.6
      0.9s     9.50nm          5.1mb
    Z  18s     0.30um          4.8Msz
CAF   89.29 333 eP     44 49.40   0.9
      0.7s    10.05nm          5.2mb
LFF   89.74 334 eP     44 51.30   0.8
      0.7s    12.25nm          5.3mb
LPO   89.81 334 eP     44 51.50   0.6
      0.7s     8.95nm          5.1mb
RSNY  90.50  26 P      45 00.00   5.9X
    Z  21s     0.20um          4.5Msz
EPF   91.55 333 eP     45 00.00   1.0
      1.4s    15.70nm          5.2mb
HRV   93.30  25 P      45 20.00  13.0X
    Z  19s     0.23um          4.6Msz
LPB  145.22  59 PKP    51 30.80  -0.3
CNCB 145.49  59 PKPc   51 32.80   1.0
CCH  147.12  57 PKP    51 36.50   2.4
BAO  155.09  25 e(PKP)51 54.00   8.4X
                e      51 55.80
                e      52 23.00
BDF  155.14  24 e(PKP)51 55.00   9.3X
                e      51 56.00
                e      52 23.10
      S.D. = 1.0  on 202 of 222 obs.
-----------------------------------
%  JAN  13, 1993  01h 54m 55.75± 0.45s
   37.065 N ± 4.5km    4.483 W ± 4.0km
   DEPTH =  10.0km  (geophysicist)
 SPAIN                              (377)
      mbLg 2.7 (MDD).

MAL     0.34 170 ePn   55 02.50  -0.3
                iSg    55 07.20
ELUQ    0.52  19 iPgd  55 06.19  -0.2
                eSg    55 13.40
EPRU    0.61 261 ePg   55 08.18   0.1
                eSg    55 16.20
ECOG    0.76  74 ePg   55 11.43   0.7
                eSg    55 21.70
EGUA    0.77 107 ePg   55 10.27  -0.5
                eSg    55 21.20
EHOR    0.97 321 ePg   55 14.29   0.1
                eSg    55 27.10
EJIF    1.00 233 ePg   55 15.38   0.7
                eSg    55 27.70
EBAN    1.23  27 iPgc  55 18.97   0.3
                eSg    55 35.70
EHUE    1.68  63 ePn   55 25.87   0.5
                eSn    55 46.70
EVAL    1.88 287 iPnc  55 27.47  -0.7
                eSn    55 50.30
EVIA    2.22  44 iPnc  55 32.51  -0.7
                eSn    55 59.90
      S.D. = 0.6  on  11 of  11 obs.
-----------------------------------
   JAN  13, 1993  02h 03m 57.58± 0.43s
   42.550 N ± 5.1km   22.025 E ± 3.3km
   DEPTH =  10.0km  (geophysicist)
 BULGARIA                           (359)
      ML 2.7 (TTG).

SKO     0.72 217 iPgc  04 10.50  -1.3
                iSg    04 20.60
VTS     0.87  87 iPd   04 14.00  -0.5
KKB     1.04 131 iPc   04 17.00  -0.2
VAY     1.29 161 iPn   04 20.40  -1.1
```

13d 02h

```
                iSn   04 37.40
PVY     1.52 272 iPgd  04 24.89   0.0
                iSg   04 47.66
KNT     1.53 155 ePb   04 24.82  -0.2
                eSb   04 45.46
PGB     1.58  89 iPd   04 26.00   0.2
MMB     1.59 127 iPc   04 17.00  -8.9X
IVA     1.60 282 iPgc  04 26.11   0.1
                iSg   04 48.40
GRG     1.62 170 ePb   04 25.94  -0.3
                eSb   04 48.34
OHR     1.70 213 iPn   04 27.10  -0.5
                iSn   04 50.70
FNA     1.83 196 ePb   04 30.42   1.0
                eSb   04 54.38
SRS     1.85 140 ePb   04 30.74   1.1
                eSb   04 55.98
SOH     1.99 150 ePb   04 32.34   0.6
PLD     2.03 102 iP    04 35.00   2.7X
THE     2.04 159 iPn   04 33.25   0.9
                eSn   05 01.98
TTG     2.05 268 iPnc  04 32.57   0.1
                iSn   05 02.14
PLE     2.08 293 iPnd  04 32.24  -0.9
                iSn   04 59.73
RZN     2.18 112 iP    04 34.00  -0.6
NKY     2.25 278 iPnd  04 35.81   0.3
                iSn   05 05.60
LIT     2.47 172 ePn   04 38.82   0.3
BRY     2.59 279 iPnd  04 40.60   0.3
                iSn   05 13.66
HCY     2.61 269 iPnc  04 41.16   0.6
                iSn   05 15.17
      S.D. = 0.7  on  21 of  23 obs.
-----------------------------------
&  JAN  13, 1993  02h 05m 02.69s
   34.046 N          116.703 W
   DEPTH =  10.0km
 SOUTHERN CALIFORNIA                ( 43)
      <PAS-P>. ML 3.1 (PAS), 2.7 (GS).
      Felt.

PEC     0.41 248 iPc   05 10.36  -0.7
PLM     0.70 191 ePd   05 15.48  -1.2
                eS    05 25.43
SSK     0.84 282 eP    05 18.00  -1.0
                eS    05 29.02
GSC     1.26 356 eP    05 25.48  -0.6
GLA     1.85 122 ePn   05 31.64  -3.2
BCH     3.01 293 (P)   05 50.82  -0.6
TNP     4.05 354 (P)   06 09.03   2.8
        7 obs. associated
-----------------------------------
?  JAN  13, 1993  02h 32m 13.71± 6.59s
   51.141 N ±31.0km   15.745 E ±47.0km
   DEPTH =  10.0km  (geophysicist)
 POLAND                             (548)

BRG     1.17 257 iPg   32 35.50   0.0
                iSg   32 55.20
PRU     1.39 214 ePn   32 39.00   0.0
                ePg   32 41.00
                Sn    32 58.00
                Sg    33 04.50
CLL     1.73 277 (Pg)  32 44.00   0.0
                eSg   33 09.00
KHC     2.45 216 Pn    32 54.40   0.0
                e     33 01.50
                e     33 07.40
                eSn   33 29.50
                Sg    33 40.50
MOX     2.66 261 ePg   33 03.00   5.6X
                eSg   33 42.10
      S.D. = 0.1  on   4 of   5 obs.
-----------------------------------
•  JAN  13, 1993  03h 00m 57.64± 0.70s
   42.436 N ± 5.0km   19.118 E ± 4.6km
   DEPTH =  18.9 ± 13.9 km
 NORTHWESTERN BALKAN REGION         (383)
      ML 2.1 (TTG).

TTG     0.11  93 iPgc  01 01.57   0.1
                iSg   01 04.68
BDV     0.26 235 iPgd  01 03.64  -0.1
                iSg   01 08.66
NKY     0.39 347 iPgc  01 05.61  -0.2
                iSg   01 12.23
HCY     0.46 272 iPgd  01 07.10   0.2
                iSg   01 14.53
ULC     0.48 168 iPgc  01 07.34   0.0
                iSg   01 14.53
BRY     0.63 318 iPgd  01 09.87   0.0
                iSg   01 20.03
PVY     0.65  76 iPgc  01 10.18  -0.1
                iSg   01 19.91
IVA     0.72  53 iPgc  01 11.57   0.1
                iSg   01 22.14
PLE     0.92  13 iPgd  01 14.90   0.1
                iSg   01 28.88
OHR     1.83 136 ePn   01 31.20   2.8X
      S.D. = 0.2  on   9 of  10 obs.
-----------------------------------
&  JAN  13, 1993  03h 50m 21.31s
   44.748 N          111.744 W
   DEPTH =   9.8km
 HEBGEN LAKE REGION                 (458)
      <BUT>. ML 3.2 (BUT).

TPMT    0.06 108 iPd   50 23.50  -0.3
LTMT    0.34 230 iPd   50 27.90  -0.6
BGMT    0.53 337 iPc   50 31.20  -0.9
MCMT    0.79 276 iPd   50 36.10  -0.8
GBI     0.79 197 iPd   50 35.90  -1.0
MEMT    1.02  32 iPc   50 39.90  -0.8
LCCM    1.09 355 iPc   50 41.30  -0.7
LRM     1.18 335 ePc   50 42.80  -0.8
HBMT    1.21 330 iPc   50 43.50  -0.6
BUT     1.39 336 ePc   50 46.80  -0.1
                eS    51 04.90
HHAI    1.52 198 eP    50 48.16  -0.6
PTI     1.93 194 ePc   50 54.67   0.0
HRY     1.96 358 iPnc  50 54.50  -0.6
BW06    2.53 140 ePn   51 04.87   1.5
HVU     3.06 195 (Pn)  51 07.84  -3.0
                ePg   51 12.86
NEW     5.11 315 (P)   52 06.73  26.9
DPW     5.46 307 (P)   52 02.90  18.2
RSSD    5.56  94 ePn   51 51.47   5.2
SRU     5.71 170 (P)   51 49.06   0.7
        19 obs. associated
-----------------------------------
?  JAN  13, 1993  04h 57m 00.36± 0.48s
   30.446 N ± 8.9km   50.250 E ± 6.7km
   DEPTH =  33.0km  (normal)
   3.9mb (  3 obs.)
 NORTHERN IRAN                      (348)

DHR     4.13 181 eP    58 09.00   6.3X
KER     4.72 327 eP    58 36.00  24.9X
TEH     5.36  10 e(P)  58 38.00  17.7X
MJMA    6.33 225 ePc   58 33.87   0.0
RYD     6.55 210 eP    58 39.00   2.0
QASM    7.34 235 iPc   58 47.00  -1.0
                eS    00 11.33
MAIO    9.68  50 eP    59 24.00   3.4X
AYN    12.49 266 eP    59 57.33  -1.3
DHJN   14.14 207 eP    00 19.87  -0.8
OHR    26.04 302 eP    02 33.00   0.7
GKN    30.04  86 P     03 08.70  -0.2
DMN    30.54  87 P     03 13.74   0.4
KKN    30.65  86 P     03 13.80  -0.4
PKI    30.81  86 P     03 15.10  -0.7
GUN    31.13  86 P     03 18.66   0.0
GEC2   33.19 314 eP    03 37.60   1.5
       0.6s      0.34nm          3.4mb
SLL    38.75 332 eP    04 21.60  -1.4
       0.4s      2.90nm          4.4mb
LIC    57.09 257 P     06 46.50   0.4
YKA    86.59 353 eP    09 42.10   0.9
       1.2s      0.80nm          3.8mb
      S.D. = 1.1  on  15 of  19 obs.
-----------------------------------
   JAN  13, 1993  05h 12m 34.86± 0.41s
   39.188 S ± 4.8km  174.757 E ± 6.1km
   DEPTH = 239.8 ±  5.9 km
   4.4mb (  1 obs.)
 NORTH ISLAND, NEW ZEALAND          (159)

CNZ     0.61  91 P     13 07.50   0.4
BSZ     0.62 168 P     13 08.00   1.0
DRZ     0.63  98 P     13 07.80   0.3
NGZ     0.66  89 Pc    13 07.60   0.3
NRZ     0.66 257 P     13 07.70   0.6
MOZ     0.68   3 Pc    13 06.70  -0.6
                S     13 29.80
WAHZ    1.34 113 P     13 11.80   0.5
WHH     1.39  78 P     13 11.00  -0.7
WLZ     1.47  27 Pc    13 12.10  -0.2
                eS    13 39.20
UTU     1.51  49 P     13 12.30  -0.3
MNG     1.53 159 P     13 13.30   0.5
                S     13 39.80
TAHZ    1.54  89 P     13 13.80   0.8
                S     13 41.00
TTH     1.64 103 P     13 14.40   0.8
TAZ     1.67  56 P     13 13.40  -0.4
KIW     1.68 176 Pc    13 14.40   0.5
DIW     1.74 201 Pd    13 15.00   0.6
TEHZ    1.78 117 P     13 15.50   0.7
PAHZ    1.82  80 P     13 15.10  -0.1
PGZ     1.84 141 P     13 15.80   0.5
MOH     1.86  89 P     13 15.80   0.3
CAW     1.93 173 Pc    13 16.70   0.5
MRW     2.04 181 Pc    13 17.60   0.4
                S     13 47.20
MTW     2.05 164 Pc    13 17.50   0.2
TCW     2.06 190 Pc    13 18.00   0.7
URZ     2.06  64 Pd    13 16.00  -1.3
                S     13 44.50
WEL     2.10 180 P     13 18.00   0.3
                S     13 48.40
BLW     2.25 166 P     13 19.60   0.4
MOW     2.26 171 P     13 19.70   0.4
QRZ     2.37 226 P     13 19.90  -0.5
MAHZ    2.43  91 P     13 21.30   0.3
KUZ     2.55  18 P     13 21.80  -0.5
                eS    13 57.50
NOZ     2.62  78 P     13 22.70  -0.3
THZ     2.94 208 P     13 26.50   0.1
                S     14 04.70
PUZ     2.96  69 P     13 25.40  -1.3
                S     14 01.60
HBZ     3.21  61 P     13 28.10  -1.3
KHZ     3.36 196 Pc    13 31.30   0.2
DSZ     3.41 220 P     13 31.30  -0.4
LTZ     4.05 207 P     13 39.10  -0.2
MQZ     4.78 199 P     13 46.80  -1.3
                eS    14 41.40
EWZ     5.22 213 eP    13 52.50  -1.1
BWZ     6.46 213 eP    14 07.50  -1.6
ODZ     6.60 206 eP    14 10.60  -0.4
                eS    15 22.10
MSCZ    7.11 212 eP    14 15.50  -2.0X
MHZ     7.14 213 eP    14 15.50  -2.4X
LSCZ    7.15 212 eP    14 15.70  -2.3X
SBCZ    7.15 213 eP    14 15.90  -2.1X
MMCZ    7.16 214 eP    14 15.40  -2.8X
CMCZ    7.21 213 eP    14 17.10  -1.7
                S     15 35.00
MSZ     7.48 221 eP    14 19.90  -2.2X
                eS    15 40.50
TUZ     7.75 208 eP    14 25.60   0.1
BCZ     8.51 215 eP    14 35.00  -0.3
WB2    39.63 287 iPc   19 46.40   1.5
       0.4s      5.20nm          4.4mb
WRA    39.64 287 P     19 46.80   1.8
       0.7s      0.30nm          2.9mb X
      S.D. = 0.8  on  47 of  53 obs.
-----------------------------------
   JAN  13, 1993  05h 17m 06.60± 0.43s
   32.127 S ± 7.7km   69.367 W ± 6.2km
   DEPTH = 120.0km  (geophysicist)
 MENDOZA PROVINCE, ARGENTINA        (139)
      MD 4.0 (SAN).

RTCV    0.75  70 iPd   17 27.00   0.3
                S     17 41.00
RTCB    0.80  37 ePd   17 28.00   0.8
MDZ     0.87 150 iP    17 28.40   0.6
                iS    17 44.90
CFA     1.09  62 ePd   17 30.10   0.2
                S     17 47.00
RTLL    1.10  44 e(P)  17 30.70   0.7
                (S)   17 47.50
JACH    1.18 242 iP+   17 31.18   0.3
                iS    17 49.61
FCH     1.43 213 iP+   17 35.01   1.1
                iS    17 55.61
PEL     1.50 227 iP+   17 34.14  -0.4
                iS    17 55.33
ROCH    1.62 238 iP+   17 35.77  -0.3
```

```
                    iS    17 57.57
SAN      1.71 219 iP+    17 37.20    0.2
                    iS    18 00.27
PCH      1.78 213 iP     17 38.37    0.6
                    iS    18 02.59
TACH     2.02 221 iP+    17 40.46   -0.3
                    iS    18 05.91
CHCH     2.10 211 iP+    17 42.07    0.2
                    iS    18 09.30
CACH     2.24 207 iP     17 44.49    0.8
                    iS    18 12.19
LCCH     2.29 233 iP+    17 43.22   -1.0
                    iS    18 10.16
LNV      2.50 223 iPd    17 45.57   -1.4
                    iS    18 15.78
RFA      2.74 164 eP     17 50.00   -0.2
                    S     18 19.00
RTPR     3.05  54 ePd    17 53.50   -0.7
MRA      3.11  96 iPc    17 55.00    0.0
                    S     18 30.00
TCA      4.14  80 iP     18 07.70   -1.4
                    S     18 53.00
     S.D. = 0.8  on  20 of  20 obs.
-----------------------------------------
?  JAN  13, 1993  06h 14m 20.46± 1.80s
   19.715 N ±12.3km   64.983 W ±27.4km
   DEPTH =   33.0km  (normal)
   3.4mb (   1 obs.)
 VIRGIN ISLANDS                        ( 91)

CPD      1.89 208 iP     14 49.90   -1.1
SJG      1.94 215 iP     14 51.00   -0.8
APR      2.08 233 iP     14 54.00    0.4
LRS      2.26 232 iP     14 56.40    0.1
PORP     2.28 224 iP     14 56.40   -0.1
TOV     10.91 206 eP     16 58.40    0.9
SDV     12.07 208 e(P)   17 14.10    0.7
YKA     54.52 334 eP     23 47.10   -0.1
        0.7s      0.30nm          3.4mb
     S.D. = 0.8  on   8 of   8 obs.
-----------------------------------------
•  JAN  13, 1993  06h 33m 56.53± 1.80s
    7.827 N ±10.7km  126.622 E ±18.5km
   DEPTH =   94.2 ± 15.8 km
   4.9mb (   8 obs.)
 MINDANAO, PHILIPPINE ISLANDS          (259)

MAP      3.60 314 iPd    34 50.50   -0.7
                    iS    35 31.00
MNI      6.59 196 eP     35 33.50    1.0
MTN     21.02 168 eP     38 34.00   -0.5
NST     27.06 289 eP     39 42.50   10.4X
WB2     28.63 165 iPc    39 45.10   -1.2
        0.6s     10.10nm          4.6mb
                    eS    44 45.90
CHG     29.02 295 eP     39 49.30   -0.6
WARB    33.81 180 eP     40 32.00    0.3
        0.4s     17.00nm          5.2mb
LZH     34.98 327 eP     40 44.00    2.1
        1.2s     18.00nm          4.9mb
STK     42.00 161 iPd    41 40.40    0.4
        0.6s     12.40nm          4.9mb
GUN     43.34 303 P      42 08.44   16.9X
        0.8s    142.00nm
PKI     43.62 302 P      42 10.10   16.3X
        0.8s     29.00nm
KKN     43.80 302 P      42 11.56   16.5X
        0.9s     48.00nm
DMN     43.89 302 P      42 12.36   16.5X
GKN     44.41 302 P      42 16.16   16.2X
BFD     47.18 163 eP     42 22.30    0.8
        0.6s     12.00nm          4.9mb
HYB     47.75 286 P      42 25.30   -1.0
CNB     47.97 155 eP     42 27.10   -0.7
        0.6s     13.00nm          5.0mb
TOO     48.48 160 eP     42 27.70   -3.9X
        0.5s     15.00nm          5.1mb
GBA     48.60 281 P      42 33.00    0.2
KAF     87.94 332 eP     46 36.90    0.2
YKA     95.83  24 eP     47 13.10   -0.2
        0.8s      1.80nm          4.6mb
     S.D. = 1.0  on  14 of  21 obs.
-----------------------------------------
•  JAN  13, 1993  06h 40m 35.73± 0.47s
   55.931 S ±11.7km   27.203 W ± 9.5km
   DEPTH =   33.0km  (normal)
   5.1mb (   6 obs.)  5.5Msz (   1 obs.)
 SOUTH SANDWICH ISLANDS REGION         (153)

NVL     22.37 147 eP     45 41.00    9.2X
        1.8s     69.00nm          4.8mb
                    e     45 55.00
SPA     34.25 180 iPc    47 20.50    0.1
        1.0s     32.50nm          5.2mb
TCA     35.86 298 eP     47 32.30   -2.0
VAO     35.98 328 eP     47 36.40    1.1
                    e     47 44.80
BDF     43.20 330 Pd     48 35.20   -0.1
BAO     43.26 330 Pd     48 36.10    0.4
                    e     48 37.50
FRS     45.10  77 eP     48 55.70    5.4X
KIM     45.58  76 eP     48 53.50   -0.8
BLF     46.07  77 eP     49 09.00   10.8X
SEK     47.47  78 e(P)   49 16.50    7.2X
CCH     48.44 307 P      49 16.50   -0.6
PRY     48.48  77 e(P)   49 25.00    7.8X
CNCB    49.78 305 P      49 28.20    0.5
SLR     49.87  76 eP     49 29.50    1.7
      Z  20s      5.33um          5.5Msz
LPB     50.07 305 Pc     49 30.00    0.2
ARE     51.73 301 eP     49 43.00    0.8
BUL     54.54  73 eP     50 00.10   -2.8
CIR     55.45  76 iPc    50 08.00   -1.3
NNA     58.18 299 iP     50 27.00   -1.8
        1.2s     20.31nm          5.1mb
LIC     64.59  25 P      51 12.40    0.6
KIC     64.79  25 P      51 13.50    0.4
TIC     65.00  24 P      51 15.10    0.6
BCAO    70.84  49 iPd    51 51.00   -0.1
        0.9s      9.00nm          4.8mb
TAU     81.42 176 iPc    52 50.50    0.3
TOO     86.66 174 eP     53 11.20   -5.8X
        0.7s     12.00nm          5.2mb
BFD     86.85 172 eP     53 17.30   -0.5
        0.8s     14.00nm          5.2mb
BGMT   123.31 303 ePKP   59 31.00    0.9
YKA    136.08 318 ePKP   59 52.70   -0.9
        0.5s      0.90nm
NJ2    146.41 121 ePKP   00 14.00    1.1
                    pPKP  00 22.50
TIY    147.52 107 PKPc   00 16.70    2.1
BTO    148.25 101 ePKP   00 18.60    2.8X
TIA    148.86 114 ePKP   00 20.00    3.3X
HHC    149.28 102 ePKP   00 21.60    4.2X
BJI    151.22 108 ePKP   00 25.00    4.9X
     S.D. = 1.2  on  24 of  34 obs.
-----------------------------------------
?  JAN  13, 1993  06h 49m 09.98± 0.98s
   31.501 S ±31.7km   68.563 W ±15.3km
   DEPTH = 100.0km  (geophysicist)
 SAN JUAN PROVINCE, ARGENTINA          (137)

RTLL     0.19  25 iPc    49 24.80    0.1
                    S     49 36.00
RTCB     0.20 274 iPd    49 24.60   -0.2
                    S     49 36.50
RTCV     0.36 176 iPd    49 25.20    0.1
                    S     49 36.20
TCA      3.40  88 P      50 02.00   -0.1
                    S     50 41.50
     S.D. = 0.2  on   4 of   4 obs.
-----------------------------------------
&  JAN  13, 1993  07h 02m 37.43s
   34.106 N          116.640 W
   DEPTH =   4.1km
 SOUTHERN CALIFORNIA                   ( 43)
      <PAS-P>. ML 3.0 (PAS), 2.8 (GS).

PEC      0.48 244 iPc    02 46.41   -0.7
PLM      0.77 194 ePd    02 51.77   -1.1
SSK      0.88 277 eP     02 53.83   -1.2
                    eS    03 06.06
GSC      1.20 354 eP     02 59.28   -1.1
                    eS    03 15.81
GLA      1.84 124 ePn    03 05.88   -4.2
TNP      4.00 353 ePg    03 52.78   11.8
BONR     4.07 341 ePn    03 41.93   -0.2
                    ePg   03 54.01
ARUT     4.50  34 ePn    03 47.54   -0.5
        8 obs. associated
-----------------------------------------
•  JAN  13, 1993  08h 23m 04.26± 3.32s
    3.262 N ±14.8km  128.256 E ±21.4km
   DEPTH =   73.6 ± 28.5 km
   4.8mb (   6 obs.)
 NORTH OF HALMAHERA, INDONESIA         (264)

MNI      3.86 242 ePc    24 02.50    0.0
WB2     23.83 166 iPc    28 11.60    0.0
        0.6s     19.50nm          4.7mb
                    e     28 33.50
                    eS    32 17.00
CHG     32.57 301 eP     29 30.80   -0.1
        0.9s     10.71nm          4.7mb
STK     37.18 161 iPc    30 09.80   -0.2
        0.6s     10.60nm          4.9mb
BJI     38.21 345 eP     30 18.00   -0.5
LZH     39.69 328 eP     30 32.00    0.9
        1.2s     30.00nm          5.1mb
TOO     43.67 160 eP     31 03.70    0.2
        0.5s      6.00nm          4.7mb
GUN     47.23 306 P      31 32.80    0.4
        0.7s     22.00nm          5.2mb
PKI     47.48 305 P      31 34.00   -0.4
KKN     47.67 305 P      31 35.40   -0.3
DMN     47.74 305 P      31 36.60    0.3
GKN     48.28 305 P      31 40.00   -0.3
     S.D. = 0.5  on  12 of  12 obs.
-----------------------------------------
&  JAN  13, 1993  09h 01m 30.18s
   35.684 N          117.609 W
   DEPTH =   5.9km
 CENTRAL CALIFORNIA                    ( 39)
      <PAS-P>. ML 2.9 (PAS).

GSC      0.76 120 ePc    01 44.52   -0.9
PEC      1.83 168 eP     02 03.84    1.4
MTUM     1.83 336 eP     02 04.09    1.4
BONR     2.33 346 (Pn)   02 12.02    2.0
TNP      2.41   7 ePn    02 10.39   -0.7
                    ePg   02 15.14
ARUT     3.95  57 (Pn)   02 32.28   -0.6
                    ePg   02 42.86
        6 obs. associated
-----------------------------------------
&  JAN  13, 1993  09h 39m 30.52s
   34.924 N          116.916 W
   DEPTH =   0.0km
 SOUTHERN CALIFORNIA                   ( 43)
      <PAS-P>. ML 3.0 (PAS), 2.8 (GS).
      Felt.

GSC      0.39  14 iPd    39 38.22    0.0
SSK      0.96 222 iPd    39 48.57   -1.2
                    eS    40 01.65
PEC      1.05 191 ePd    39 50.20   -1.1
                    eS    40 04.25
PLM      1.57 178 eP     39 58.97   -0.9
GLA      2.55 136 ePn    40 10.76   -3.1
BCH      2.61 277 ePn    40 13.15   -1.7
TNP      3.16 356 ePn    40 21.27   -1.4
BONR     3.22 340 (P)    40 25.23    1.5
ARUT     4.00  43 eP     40 32.91   -1.8
        9 obs. associated
-----------------------------------------
•  JAN  13, 1993  09h 41m 58.41± 1.53s
   14.239 N ±12.2km   90.210 W ±12.3km
   DEPTH = 185.0 ± 10.3 km
   4.5mb (   8 obs.)
 GUATEMALA                             ( 70)

TPX      2.09 289 iP     42 35.50   -1.7
                    iS    42 59.50
SCX      3.41 317 eP     42 54.25    1.5
OXX      6.88 295 eP     43 38.00   -0.1
PPM      9.39 302 (P)    44 13.00    1.7
SGS     20.83  23 eP     46 27.47    0.7
                    e     46 32.57
OLY     21.20 357 eP     46 28.82   -1.6
JSC     21.53  21 eP     46 33.79    0.1
MEO     21.81 341 iPd    46 35.90   -0.5
WMOK    21.83 341 ePc    46 35.95   -0.6
        0.8s     54.25nm          5.1mb
LHS     21.87  21 ePc    46 37.23    0.3
TKL     22.10  14 ePc    46 39.68    0.5
TUL     22.15 348 ePc    46 39.00   -0.7
        0.6s     10.80nm          4.5mb
                    e     46 41.60
LNO     22.16 348 ePc    46 38.90   -0.7
LNO2    22.16 348 ePc    46 39.00   -0.6
LNO3    22.16 348 ePc    46 39.30   -0.4
```

13d

```
RLC     22 26 350 eP *  46 40.60  -0.1
ELC     22.97   2 ePc   46 47.96   0.4
FVM     23 65 360 ePd   46 53.76  -0.4
        0.6s     15 38nm          4.8mb
ACO     23.75 342 iPc   46 54.60  -0.5
CEH     23.76  23 eP    46 54.50  -0.7
        0.4s     43.54nm          5.4mb
SRU     30.57 328 eP    47 57.37   0.5
RSSD    32.04 341 iPc   48 09.98   0.3
        0.5s     6.18nm           4.6mb
BW06    32.96 333 eP    48 17.14  -0.6
        1.2s     4.93nm           4.0mb
EEO     33.63  14 eP    48 24.50   1.4
ULM     36.21 354 ePc   48 45.90   1.0
LCCM    36.41 334 eP    48 47.60   0.7
SES     39.84 339 eP    49 16.00   0.8
FCC     44.54 357 ePc   49 54.80   1.8
YKA     51.21 346 eP    50 43.00  -1.6
        0.6s     4.50nm           4.2mb
RES     60.50 359 eP    51 49.50  -1.0
        0.5s     3.00nm           4.3mb
WB2    137.12 256 iPKPd 01 02.00   0.0
        0.5s     6.20nm
WRA    137.13 256 PKP   01 02.30   0.3
        0.8s     1.10nm
ASPA   137.38 250 ePKP  01 02.40   0.0
        0.8s     3.10nm
      S.D. = 1.0  on  33 of  33 obs.
-----------------------------------
?  JAN  13, 1993  09h 51m 54.88± 1.08s
   26.503 S ± 9.0km   27.396 E ±11.6km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA          (584)

PRY     0.43 171 eP     52 03.00  -0.5
                S       52 11.00
SLR     1.10  46 eP     52 16.10  -0.1
                S       52 28.50
SEK     1.82 174 eP     52 28.00   0.7
                S       52 52.00
SWZ     1.97 249 eP     52 29.30  -0.1
                S       52 53.40
      S.D. = 0.9  on   4 of   4 obs.
-----------------------------------
&  JAN  13, 1993  10h 09m 29.51s
   61.439 N          147.165 W
   DEPTH =  13.3km
 SOUTHERN ALASKA                   (  2)
      <AEIC>. ML 2.6 (AEIC).

SCM     0.40 349 iPd    09 37.88  -0.1
                eS      09 44.34
VZW     0.48 142 eP     09 38.91  -0.4
VLZ     0.51 127 iPc    09 39.07  -0.6
                eS      09 46.45
GLI     0.56 176 iPd    09 40.31  -0.4
                eS      09 48.65
KLU     0.60  84 iPc    09 40.64  -0.8
                eS      09 48.99
KNK     0.62 268 iPc    09 41.24  -0.5
                eS      09 49.92
SML     0.67 304 iPc    09 41.51  -1.0
                eS      09 51.30
FID     0.77 154 eP     09 43.50  -0.7
                eS      09 54.51
TOA     0.82  35 P      09 44.40  -0.7
GHO     0.90 292 iPc    09 45.28  -1.3
                eS      09 58.36
PLRM    0.95 280 iPc    09 46.14  -1.2
                eS      09 58.83
TZL     1.03  53 iPd    09 47.77  -0.8
PTE     1.07 238 iPd    09 48.09  -1.2
                eS      10 02.40
HIN     1.09 162 ePc    09 48.99  -0.8
                eS      10 03.42
KNIM    1.13 195 iPd    09 48.62  -1.7
                eS      10 04.08
CVA     1.13 142 iPc    09 49.03  -1.3
PMS     1.17 261 P      09 49.70  -1.4
PWA     1.32 280 P      09 51.40  -2.1
SDG     1.33  34 iPd    09 52.12  -1.7
MPA     1.43 229 iPd    09 53.74  -1.3
                eS      10 13.42
LTI     1.44 194 iPd    09 54.25  -1.0
                eS      10 14.46
MTU     1.48 190 eP     09 54.86  -0.9
RAGM    1.61 130 eP     09 56.18  -1.5
GLB     1.61  88 eP     09 56.15  -1.6
                eS      10 17.24
SUA     1.72 272 iPc    09 58.33  -1.0
                eS      10 20.95
PAX     1.73  27 iPd    09 57.85  -1.6
SEW     1.75 221 eP     09 58.23  -1.4
                eS      10 20.84
SLKM    1.76 239 iPd    09 58.91  -0.9
                eS      10 20.93
HUR     1.93 324 eP     10 00.82  -1.5
KAIM    2.03 137 eP     10 02.22  -1.5
CROM    2.07 108 eP     10 03.38  -1.1
RND     2.13 339 eP     10 04.59  -0.6
SKT     2.15 287 ePc    10 03.95  -1.5
                eS      10 31.88
TGL     2.21 106 eP     10 04.91  -1.6
CGLM    2.33 269 eP     10 06.56  -1.7
BALM    2.37  98 ePc    10 06.89  -1.8
                eS      10 36.04
SPU     2.37 266 ePc    10 06.88  -1.8
                eS      10 36.29
CKT     2.44 267 eP     10 07.93  -1.8
SNH     2.47 119 eP     10 09.27  -0.8
CKL     2.51 267 iPc    10 08.97  -1.7
BGL     2.52 268 eP     10 09.67  -1.2
DFR     2.82 255 eP     10 13.19  -1.9
YAH     2.86 110 eP     10 13.91  -1.9
CTGM    2.86  97 eP     10 13.89  -1.9
REF     2.86 253 eP     10 13.90  -1.9
RSO     2.90 253 eP     10 14.50  -1.8
RS2     2.90 253 eP     10 14.57  -1.7
RS1     2.90 253 eP     10 15.77  -0.5
NCT     2.94 255 eP     10 14.75  -2.1
      49 obs. associated
-----------------------------------
   JAN  13, 1993  10h 57m 57.30± 0.43s
   42.006 S ± 4.8km  173.352 E ± 5.1km
   DEPTH =  25.8 ±  4.6 km
 SOUTH ISLAND, NEW ZEALAND         (162)
      ML 3.7 (WEL).

THZ     0.41 306 Pd     58 05.60  -0.6
                S       58 11.40
KHZ     0.43 161 Pc     58 07.30   0.9
                S       58 14.10
TCW     1.05  41 P      58 15.90  -0.5
LTZ     1.12 226 Pc     58 18.00   0.7
                eS      58 33.80
MRW     1.28  53 P      58 19.70   0.2
                S       58 36.50
DIW     1.28  20 P      58 19.70   0.1
WEL     1.28  56 eP     58 20.70   1.1
ORZ     1.33 332 P      58 21.20   0.9
                S       58 36.00
MOW     1.54  68 P      58 23.60   0.3
CAW     1.57  56 P      58 24.40   0.6
KIW     1.64  46 P      58 25.40   0.7
BLW     1.71  69 P      58 25.60  -0.2
MOZ     1.78 197 P      58 26.50  -0.2
                S       58 49.30
MTW     1.82  63 P      58 26.90  -0.5
MNG     2.12  50 P      58 31.70  -0.1
PGZ     2.60  59 eP     58 37.50  -1.1
WAHZ    3.24  46 eP     58 46.30  -1.4
NGZ     3.30  32 eP     58 49.20   0.5
ODZ     3.62 212 eP     58 52.00  -1.0
      S.D. = 0.8  on  19 of  19 obs.
-----------------------------------
*  JAN  13, 1993  11h 31m 39.01± 1.15s
   19.582 S ±11.0km   70.011 W ±13.1km
   DEPTH =  85.3 ± 14.0 km
   3.8mb (  1 obs.)
 NEAR COAST OF NORTHERN CHILE      (122)

CNCB    3.37  35 iPc    32 31.20   0.3
ARE     3.41 335 eP     32 30.00  -1.2
                iS      33 16.00
LPB     3.54  31 iPc    32 35.00   1.9
        1.0s    180.00nm
ANT     4.12 185 eP     32 40.70  -0.2
CCH     4.27  60 iPd    32 42.60  -0.7
NNA    10.01 318 eP     34 02.30   0.3
                eS      35 55.40
KIC    69.18  75 P      42 37.10  -1.8
YKA    89.04 341 eP     44 24.70  -0.6
        0.6s     0.40nm          3.8mb
WRA   134.04 213 PKP    50 51.00   2.2
        0.6s     0.20nm
      S.D. = 1.7  on   9 of   9 obs.
-----------------------------------
?  JAN  13, 1993  11h 56m 07.81± 5.36s
   31.228 S ±38.3km   68.621 W ±36.9km
   DEPTH = 105.7 ± 32.9 km
 SAN JUAN PROVINCE, ARGENTINA      (137)

RTLL    0.17 128 iPc    56 22.60  -0.5
                S       56 33.00
RTCB    0.30 211 iPd    56 23.50   0.1
                S       56 34.30
CFA     0.50 139 iPc    56 24.40  -0.1
                S       56 36.80
RTCV    0.64 174 eP     56 25.50   0.0
                S       56 38.00
MDZ     1.66 187 eP     56 38.30   1.5
                iS      57 01.30
TCA     3.45  93 eP     57 01.00   0.3
                S       57 39.10
RFA     3.54 178 eP     57 00.50  -1.3
                S       57 38.80
      S.D. = 1.2  on   7 of   7 obs.
-----------------------------------
%  JAN  13, 1993  12h 49m 36.80± 1.16s
   32.915 S ±11.2km   70.231 W ±17.0km
   DEPTH = 110.0km  (geophysicist)
 CHILE-ARGENTINA BORDER REGION     (127)
      MD 3.5 (SAN).

JACH    0.38 307 iP     49 53.36   0.1
                iS      50 06.82
FCH     0.41 187 iP+    49 53.65  -0.1
                iS      50 07.18
PEL     0.44 239 i(P)   49 53.17  -0.4
                iS      50 06.97
ROCH    0.66 265 iP+    49 55.59   0.3
                iS      50 10.12
PCH     0.74 199 iPd    49 55.97   0.1
                iS      50 10.87
TACH    0.94 219 iP+    49 57.69   0.0
                iS      50 14.14
CHCH    1.07 199 i(P)   49 59.04  -0.1
                iS      50 17.01
CACH    1.24 194 eP     50 01.48   0.5
                iS      50 20.55
LCCH    1.25 243 i(P)   50 01.31   0.3
                iS      50 19.21
LNV     1.43 223 iP+    50 02.66  -0.5
                iS      50 22.61
      S.D. = 0.3  on  10 of  10 obs.
-----------------------------------
%  JAN  13, 1993  13h 17m 19.46± 0.87s
   26.435 S ± 8.3km   27.389 E ± 8.9km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA          (584)
      ML 2.4 (PRE).

PRY     0.50 171 eP     17 28.50  -0.9
                S       17 35.00
BPI     0.63  66 eP     17 31.90  -0.2
                S       17 39.90
SLR     1.06  49 eP     17 39.90  -0.2
                S       17 54.20
SEK     1.89 174 eP     17 54.00   1.1
                S       18 17.20
SWZ     1.99 248 eP     17 54.00  -0.3
                S       18 19.60
BFT     2.50  73 eP     18 02.00   0.3
                S       18 03.00
BLF     2.87 201 eP     18 07.00   0.1
      S.D. = 0.8  on   7 of   7 obs.
-----------------------------------
%  JAN  13, 1993  13h 18m 14.33± 0.71s
   51.652 N ± 8.4km  102.154 E ± 5.8km
   DEPTH =  10.0km  (geophysicist)
 RUSSIA-MONGOLIA BORDER REGION     (333)

ARS     0.29  32 ePg    18 21.20   0.7
                iSg     18 25.80
MOY     0.73 273 iPgd   18 28.10  -0.5
                iSg     18 37.10
ZAK     1.46 150 iPgc   18 41.20   0.6
                eSg     19 01.00
IRK     1.47  64 iPgd   18 40.80  -0.1
                iSg     18 59.00
ORL     1.68 301 ePg    18 44.50   0.5
```

13d 13h

```
CIT      7 10  83 ePg *  20 00.50  -0.4
                  eSg    21 55.00
ORA      8.00  53 eP     20 12.50  -0.8
                  iPgc   20 42.00
                  iSg    22 24.00
OZE      8.39  52 iPgc   20 46.10  27.4X
                  iSg    22 40.30
     S.D. = 0.7  on   7 of   8 obs.
-----------------------------------
%  JAN  13, 1993  13h 44m 38.99± 1.17s
   43.068 N ± 8.1km   18.750 E ± 7.4km
   DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION        (383)
      ML 1.5 (TTG).

BRY      0.23 222 iPgd   44 44.20   0.3
                  iSg    44 47.12
NKY      0.31 144 iPgc   44 45.76   0.2
                  iSg    44 50.46
PLE      0.54  61 iPgd   44 49.72  -0.2
                  iSg    44 57.96
HCY      0.65 197 ePg    44 51.69  -0.3
                  iSg    45 00.47
TTG      0.74 149 iPgd   44 53.13  -0.4
                  iSg    45 03.90
BDV      0.79 176 iPgd   44 54.22  -0.1
                  iSg    45 05.32
IVA      0.87 103 iPgd   44 56.10   0.4
                  iSg    45 08.52
ULC      1.16 161 iPgd   45 00.75   0.0
                  iSg    45 18.57
     S.D. = 0.3  on   8 of   8 obs.
-----------------------------------
•  JAN  13, 1993  14h 56m 31.90± 1.30s
   50.493 N ±16.0km   18 883 E ± 6.9km
   DEPTH =  10.0km  (geophysicist)
 POLAND                            (548)
      ML 3.2 (WAR).

RAC      0.60 227 eP     56 44.00  -0.1
                  i      56 51.50
OJC      0.65 115 iPg    56 44.40  -0.5
                  eSg    56 53.70
SPC      1.57 145 ePn    57 00.70   0.6
                  i(Sg)  57 20.70
KSP      1.69 283 ePn    57 02.00   0.5
                  iPg    57 03.60
                  iS     57 26.70
VRAC     1.90 232 iPnd   57 04.80   0.3
       0.2s     11.70nm
                  e      57 08.60
                  eSn    57 29.00
                  eSg    57 32.10
ZST      2.58 208 eP     57 21.80   7.5X
PRU      2.83 261 Pg     57 26.50   8.5X
                  Sg     58 01.50
KHC      3.70 250 ePn    57 29.50  -0.8
                  ePg    57 40.50
                  eSn    58 09.10
                  eSg    58 25.00
     S.D. = 0.7  on   6 of   8 obs.
-----------------------------------
&  JAN  13, 1993  15h 14m 21.90s
   36.423 N          120.438 W
   DEPTH =   3.0km
 CENTRAL CALIFORNIA                ( 39)
      <BRK>. ML 2.7 (BRK), 2.7 (PAS).

PRI      0.34 213 iPc    14 28.95   0.3
LLA      0.45 296 iPd    14 30.84  -0.1
                  eS     14 38.91
PRS      0.76 263 iPc    14 36.28  -0.8
                  eS     14 48.98
SAO      0.88 293 iPc    14 38.32  -1.1
                  eS     14 53.39
ARN      1.27 317 eP     14 45.41  -0.8
COE      1.29 310 (Pn)   14 44.98  -1.5
                  ePg    14 47.13
MHC      1.33 314 iPd    14 47.62   0.4
                  eS     15 08.34
CMB      1.61   1 iPd    14 49.33  -2.0
                  eS     15 10.08
MEMM     1.73  44 ePn    14 48.52  -4.4
                  ePg    14 51.66
                  eS     15 12.46
BONR     2.29  47 ePn    14 55.62  -5.9
       10 obs. associated
-----------------------------------
?  JAN  13, 1993  16h 32m 41.65± 0.87s
   38.710 N ±12.5km   70.698 E ±12.2km
   DEPTH =  33.0km  (normal)
   3.8mb (  2 obs.)
 AFGHANISTAN-TAJIKISTAN BORD REG.(717)

QUE      9.05 201 eP     34 53.50   0.4
                  eS     36 43.00
MAIO     9.22 258 eP     34 40.00 -15.5X
                  eS     36 31.00
GKN     15.78 128 P      36 22.90  -0.3
KKN     16.33 128 P      36 29.78  -0.4
DMN     16.35 128 P      36 30.52   0.0
PKI     16.56 128 P      36 33.70   0.4
GUN     16.62 126 P      36 33.80  -0.2
NAO     42.66 321 P      40 34.90  -1.5
        0.7s      3.00nm          4.1mb
YKA     79.05   3 eP     44 45.30   1.8
        0.7s      0.40nm          3.5mb
WRA     83.36 122 P      45 10.10   3.2X
        0.9s      0.10nm          2.9mb X
     S.D. = 1.1  on   8 of  10 obs.
-----------------------------------
?  JAN  13, 1993  17h 08m 59.38± 4.61s
   31.305 S ±27.7km   68.882 W ±36.2km
   DEPTH = 104.5 ± 27.7 km
 SAN JUAN PROVINCE, ARGENTINA      (137)

RTCB     0.19 159 iPd    09 15.00   0.3
                  S      09 26.00
RTLL     0.35  94 iPc    09 14.80  -0.2
                  S      09 25.70
CFA      0.63 119 iPc    09 16.50  -0.4
                  S      09 29.00
RTCV     0.63 152 iPd    09 17.00   0.1
                  S      09 29.50
MDZ      1.57 179 eP     09 28.60   1.3
                  i      09 49.80
RTPR     2.27  65 e(P)c  09 35.00  -1.2
MRA      2.92 113 ePc    09 43.30  -1.5
                  S      10 10.10
RFA      3.47 174 eP     09 51.30  -1.2
                  (S)    10 25.20
TCA      3.67  92 iP     09 58.00   2.8
                  S      10 28.00
     S.D. = 1.7  on   9 of   9 obs.
-----------------------------------
   JAN  13, 1993  17h 11m 07.57± 0.12s
   17.955 N ± 2.5km   76.583 W ± 2.0km
   DEPTH =  16.0km  ( 33 depth phases)
   5.5mb ( 73 obs.)  4.8Msz ( 20 obs.)
 JAMAICA REGION                    ( 86)
      Mw 5.5 (HRV). MD 5.7 (UPA), 5.4
      (HOJ). One person killed and
      some damage (VII) in the
      Kingston area. Felt strongly
      throughout much of Jamaica.
      CENTROID, MOMENT TENSOR     (HRV)
      Data Used: GDSN
      L.P.B.: 19S, 23C
      Centroid Location:
      Origin Time        17:11:13.0 0.5
      Lat 18.69N 0.07 Lon  76.97W 0.06
      Dep  15.0 FIX Half-duration  1.2
      Moment Tensor;   Scale 10**17 Nm
        Mw= 0.75 0.04  Mtt=-0.42 0.06
        Mff=-0.32 0.07  Mrt=-0.19 0.18
        Mrf=-1.59 0.17  Mtf= 0.97 0.05
       Principal Axes:
        T  Val=  2.11  Plg=48  Azm=116
        N       -0.28      30      345
        P       -1.83      26      238
      Best Double Couple:Mo=2.0*10**17
       NP1:Strike=282 Dip=33 Slip=  23
       NP2:        172      77      121

HOJ      0.17 286 iP     11 12.76   0.8
GWJ      0.19 309 iP     11 12.01  -0.4
STH      0.25 299 iP     11 12.72  -0.6
BBJ      0.78 303 iP     11 21.68  -0.6
GCM      4.74 287 eP     12 15.46  -4.6X
MGP      9.04  88 iP     13 17.90  -2.4
ECO      9.06 200 iPc    13 17.81  -2.9
                  eS     14 56.52
LRS      9.27  86 iP     13 22.40  -1.2
UPA      9.37 198 ePc    13 23.00  -1.9
                  iS     15 02.37
APR      9.38  85 iP     13 25.50   0.4
PORP     9.46  88 iP     13 24.60  -1.7
SJG      9.93  87 P      13 30.00  -2.7
CPD     10.15  88 iP     13 34.30  -1.5
LPR     10.19  86 iP     13 34.00  -2.4
TOV     10.46 140 iPc    13 40.30   0.3
                  iS     15 36.50
VTU     10.52 222 eP     13 40.59  -0.6
IRZ2    10.65 223 eP     13 43.00   0.1
MORO    10.66 130 iP     13 41.50  -1.3
SDV     10.71 147 iPc    13 43.50  -0.1
                  iS     15 38.80
POA2    10.73 225 eP     13 44.29   0.4
OCM     10.74 223 eP     13 44.50   0.5
HDC2    10.76 224 eP     13 44.77   0.6
BRU     10.79 213 iPc    13 43.33  -1.6
                  eS     15 38.03
VACR    10.81 228 eP     13 45.88   1.1
CTCR    10.82 214 eP     13 44.04  -1.1
                  eS     15 42.75
CDM     10.88 221 eP     13 45.86  -0.3
DVD     11.05 212 iP     13 47.94  -0.1
EPA     11.10 226 eP     13 49.33   0.6
RIN3    11.10 231 eP     13 49.29   0.4
JTS     11.13 228 eP     13 49.95   0.8
BMG     11.35 162 iPd    14 05.00  12.8X
JUD     11.64 229 eP     13 58.22   2.0
GUAC    11.88 129 iPc    13 58.70  -0.7
                  iS     16 01.90
CAR     11.93 127 eP     13 58.00  -2.1
CEOS    11.96 137 iPd    13 59.10  -1.3
LLAV    12.04 127 iP     13 58.60  -3.0X
OLLA    12.34 128 iP     14 04.00  -1.6
GUAN    13.25 125 eP     14 17.70  -0.1
BOG     13.48 169 eP     14 28.00   7.0X
                  eS     17 08.00
MGH     13.77  93 eP     14 22.00  -2.6
BPA     14.08  91 eP     14 27.40  -1.2
                  eS     17 03.00
CUM     14.15 120 iP     14 28.00  -1.4
PAG     14.38  95 eP     14 33.00   0.4
MGG     14.75  96 eP     14 38.00   0.7
MDN     14.79  98 eP     14 40.00   2.2
FDF     15.15 100 eP     14 44.38   1.7
BIM     15.28 101 eP     14 44.75   0.4
HBF     15.30 348 eP     14 37.29  -7.1X
TPX     15.34 261 (P)    14 40.00  -5.1X
CRM     15.37 100 eP     14 50.58   5.1X
SCX     15.37 268 (P)    14 49.00   3.5X
MVM     15.44 100 eP     14 51.70   5.3X
SGS     15.58 348 eP     14 40.11  -7.9X
TCE     16.07 115 eP     14 57.00   2.4
TRN     16.40 114 eP     15 01.50   2.8
                  eS     17 55.00
PSO     16.67 183 eP     15 08.00   5.4X
JSC     16.79 346 eP     14 57.45  -6.0X
PRM     16.87 343 (P)    14 59.12  -5.5X
LHS     16.88 348 (P)    14 53.10 -11.6X
EVV     17.84 275 (P)    15 18.00   1.3
CEH     18.00 353 eP     15 14.99  -3.7X
        0.9s    92.57nm          4.9mb
GBTN    18.89 341 (P)    15 26.42  -3.3X
OXX     19.23 270 (P)    15 38.50   4.5X
BLA     19.48 351 eP     15 35.23  -1.6
        0.9s   143.73nm          5.3mb
NAV     19.64 350 eP     15 36.07  -2.5
CVL     20.02 356 eP     15 39.34  -3.2X
CBN     20.19 358 eP     15 42.00  -2.3
PPM     20.93 277 (P)    15 54.50   1.8
UNM     21.46 277 (P)    16 01.00   3.2X
GRT     21.48 331 eP     15 55.81  -1.8
MCWV    21.81 353 (P)    15 57.54  -3.3X
        0.9s   124.71nm          5.3mb
      Z  21s     2.37um          4.6Msz
OLY     21.91 326 (P)    16 03.75   1.9
ACX     22.23 271 (P)    16 05.50   0.3
ELC     22.23 333 eP     16 03.59  -1.5
UYO     22.71 319 iPd    16 12.20   2.3
GMTN    22.94   5 iP     16 11.90  -0.1
PNJ     22.97   5 iP     16 12.24   0.0
FVM     23.35 332 eP     16 16.15   0.1
        0.9s    99.25nm          5.4mb
MRX     23.35 278 (P)    16 17.00   0.8
VVO     24.27 319 e(P)   16 25.20   0.2
RLO     24.39 322 ePc    16 25.50  -0.7
AGX     24.48 283 (P)    16 30.50   3.4X
```

13d 17h

LNO	24.68	320	ePc *	16 28.00	-0.9
LNO2	24.68	320	ePc	16 28.10	-0.8
LNO3	24.68	320	e(P)	16 28.30	-0.7
TUL	24.68	320	ePc	16 28.10	-0.9
	0.4s	17.00nm		5.0mb	
HRV	24.84	9	(P)	16 25.92	-4.6X
	1.0s	38.16nm		5.0mb	
	Z 19s	1.12um		4.4Msz	
SIO	24.89	319	e(P)	16 32.70	1.7
FNO	25.28	317	iPc	16 38.00	3.3X
OCO	25.49	317	iPc	16 35.50	-1.2
MEO	25.78	315	iPc	16 38.50	-1.0
WMOK	25.89	315	ePc	16 38.34	-2.1
	0.9s	82.96nm		5.4mb	
	Z 21s	1.47um		4.5Msz	
RRO	26.02	316	iPc	16 45.00	3.3X
RSNY	26.57	3	(P)	16 45.90	-0.7
	1.2s	56.69nm		5.1mb	
	Z 19s	2.00um		4.7Msz	
ACO	27.28	318	iPd	16 52.80	-0.4
MZX	28.39	286	(P)	16 56.50	-6.8X
EEO	28.68	356	ePc	17 08.00	2.3
LMN	29.49	17	ePc	17 15.50	2.4
CBM	29.73	12	eP	17 13.60	-1.6
	1.0s	26.64nm		5.0mb	
	Z 19s	1.78um		4.7Msz	
ALQ	31.48	308	eP	17 29.78	-1.3
	1.2s	46.38nm		5.3mb	
	Z 19s	1.11um		4.6Msz	
		e		17 33.95	15km
GLD	32.94	317	eP	17 43.78	0.1
	1.4s	118.97nm		5.6mb	
	Z 19s	1.52um		4.7Msz	
GOL	33.01	317	eP	17 44.73	0.3
	1.4s	15.64nm		4.7mb	
TUC	33.94	302	eP	17 51.04	-1.3
	0.9s	24.97nm		5.1mb	
	Z 20s	0.91um		4.5Msz	
		i		17 56.53	19km
ARE	34.57	171	eP	17 58.00	-0.1
RSSD	34.82	324	eP	17 58.54	-1.4
	1.4s	88.14nm		5.5mb	
	Z 20s	4.38um		5.2Msz	
		i		18 02.11	12km
LPB	35.27	166	iPc	18 04.70	0.4
	1.1s	151.90nm		5.8mb	
	Z 22s	4.44um		5.2Msz	
		S		23 38.00	
		LR		30 26.00	
CNCB	35.57	166	iPc	18 07.30	0.4
ULM	35.74	339	ePc	18 08.60	1.2
SRU	36.21	313	eP	18 10.65	-1.1
		i		18 15.18	15km
EMUT	36.72	314	eP	18 15.43	-0.7
MSU	37.13	311	eP	18 19.01	-0.6
		e		18 23.53	15km
DAU	37.29	314	(P)	18 20.65	-0.3
BW06	37.32	319	eP	18 18.38	-2.7
	1.2s	46.03nm		5.1mb	
GLA	37.42	301	eP	18 21.81	0.0
ARUT	37.78	309	eP	18 24.99	0.0
		e		18 28.44	12km
DUG	38.27	313	eP	18 29.03	0.0
	1.1s	110.68nm		5.5mb	
HVU	38.93	315	eP	18 34.34	-0.2
HHAI	39.37	318	(P)	18 37.57	-0.6
PEC	39.51	302	(P)	18 38.79	-0.6
	1.0s	25.99nm		4.9mb	
		e		18 44.03	18km
GSC	39.58	304	eP	18 40.60	0.7
		e		18 44.23	12km
LCCM	40.34	321	eP	18 45.00	-1.2
		e		18 49.40	15km
TNP	40.69	308	eP	18 49.33	0.1
	1.1s	105.00nm		5.5mb	
ISA	40.98	304	eP	18 51.67	0.2
	1.4s	65.00nm		5.2mb	
	Z 20s	1.04um		4.7Msz	
BONR	41.47	307	(P)	18 56.01	0.3
		e		19 00.32	14km
MTUM	41.50	306	eP	18 55.95	0.1
		e		19 00.52	15km
MRCM	41.54	307	eP	18 56.38	0.1
		e		19 01.39	17km
KVN	41.65	309	(P)	18 56.46	-0.6
		e		19 01.84	18km
ANT	41.84	172	eP	18 59.00	0.6

BCH	42.15	303	eP	19 01.73	0.6
SES	42.46	328	ePc	19 02.30	-1.0
	1.4s	208.00nm		5.7mb	
FCC	42.72	347	ePc	19 06.50	1.2
CMB	43.07	307	eP	19 08.42	-0.1
	1.1s	26.02nm		4.9mb	
	Z 19s	0.87um		4.7Msz	
		i		19 12.48	14km
ARN	43.78	306	(P)	19 13.11	-1.2
		e		19 18.71	19km
ORV	44.32	309	eP	19 17.66	-0.9
		e		19 22.23	15km
NEW	44.65	322	eP	19 19.08	-2.1
	1.0s	58.66nm		5.4mb	
		i		19 23.80	16km
ET3	45.00	319	P	19 26.55	2.6
DPW	45.12	321	eP	19 24.30	-0.7
JBO	45.12	317	P	19 27.90	2.9
GBL	45.34	319	P	19 29.58	2.9
WDC	45.37	310	eP	19 24.23	-2.7
	1.3s	76.40nm		5.5mb	
	Z 20s	1.66um		5.0Msz	
		e		19 27.60	11km
CRF	45.39	319	P	19 29.86	2.9
WAH2	45.47	319	P	19 30.46	2.8
MDW	45.53	319	P	19 31.05	2.9
CROR	45.69	316	P	19 34.35	4.8X
VGB	45.75	317	eP	19 30.42	0.4
TCO	45.79	315	P	19 35.49	4.9X
MXC	45.85	318	P	19 34.02	3.3X
BPO	46.04	315	P	19 37.07	4.6X
WTV	46.10	320	P	19 35.18	2.4
VBEM	46.12	316	P	19 37.07	4.0X
TBM	46.28	319	P	19 37.60	3.4X
FHC	46.48	310	eP	19 36.17	0.3
	0.9s	105.02nm		5.9mb	
		e		19 39.62	12km
KMPM	46.49	309	eP	19 36.16	0.2
		i		19 40.55	15km
DBO	46.60	313	P	19 39.49	2.7
WPW	46.70	318	P	19 40.96	3.4X
LON	46.88	318	eP	19 38.45	-0.5
RNO	47.19	314	P	19 44.87	3.5X
KMOR	47.58	316	P	19 47.42	3.0
OSD	48.48	319	P	19 54.77	3.2X
OBC	48.79	319	P	19 57.65	3.8X
RTPR	48.95	168	ePc	19 55.00	0.0
VAO	49.95	143	eP	20 03.60	0.6
TCA	50.35	167	eP	20 06.00	0.1
MDZ	51.09	172	eP	20 12.50	1.0
YKA	51.72	339	eP	20 13.60	-2.3
	1.3s	34.70nm		5.1mb	
LPA	55.48	161	eP+	20 44.00	0.1
MBO	57.18	84	iPd	21 03.20	6.7X
RES	57.62	354	ePc	20 57.50	-1.2
	1.0s	24.00nm		5.2mb	
SIT	58.23	327	P	21 10.00	6.8X
	Z 19s	3.01um		5.4Msz	
ANTZ	61.55	67	iPd	21 27.20	0.6
BALM	62.75	330	eP	21 32.32	-1.9
AVE	63.20	61	eP	21 36.00	-1.5
		i		22 06.00	123kmX
EVAL	63.46	56	eP	21 40.00	0.8
EPLA	63.88	54	eP	21 42.30	0.4
CNIL	64.09	58	eP	21 45.00	1.7
PLAT	64.34	58	eP	21 45.00	0.0
ALJ	64.43	57	eP	21 46.00	0.3
OJEN	64.52	58	eP	21 46.00	-0.3
KLU	64.53	330	eP	21 44.93	-0.9
		e		21 49.36	14km
EJIF	64.55	58	eP	21 46.70	0.4
EHOR	64.64	56	eP	21 47.20	0.4
TOA	64.75	331	eP	21 47.20	0.0
IFR	65.08	61	iP	21 53.00	2.9
GUD	65.33	53	eP	21 52.00	0.6
MAL	65.38	57	iPc	21 52.50	0.9
DAG	65.48	12	iPd	21 50.70	-0.9
	0.9s	39.50nm		5.6mb	
EBAN	65.77	56	eP	21 54.80	0.7
FBA	65.93	334	eP	21 52.91	-1.7
EKA	66.01	37	P	21 55.00	-0.3
	2.2s	174.40nm		5.8mb	
ECOG	66.01	57	iPc	21 56.90	1.1
EGUA	66.05	57	eP	21 57.10	1.1
PMR	66.07	330	eP	21 53.30	-2.2
	1.1s	45.23nm		5.6mb	
PMS	66.24	330	eP	21 56.50	-0.2

SLKM	66.49	329	eP	21 57.18	-1.2
		i		22 01.57	14km
EHUE	66.73	56	eP	22 01.40	1.0
ETOR	66.91	53	eP	22 02.20	0.7
ENIJ	67.12	57	iPd	22 03.20	0.4
LPF	67.25	45	eP	22 03.20	-0.2
	1.2s	69.60nm		5.7mb	
GRR	67.36	44	eP	22 04.30	0.2
	0.7s	22.60nm		5.4mb	
KDC	67.49	326	(P)	22 04.21	-0.4
	1.3s	39.48nm		5.4mb	
CRP	67.49	330	eP	22 03.90	-0.9
CP2	67.53	330	eP	22 04.24	-0.9
BGL	67.60	330	eP	22 04.55	-0.9
FLN	67.60	44	eP	22 06.00	0.4
	Z 23s	0.70um		4.8MszX	
EALH	67.65	56	eP	22 06.80	0.6
ECHE	67.84	54	eP	22 08.20	0.9
LDF	67.85	44	eP	22 07.20	0.1
	1.2s	117.50nm		5.9mb	
MFF	67.92	46	eP	22 07.80	0.1
EGRA	68.10	51	iPd	22 12.60	3.8X
IMA	68.50	335	eP	22 10.00	-1.1
	1.3s	35.80nm		5.4mb	
EPF	68.51	50	eP	22 12.10	0.6
	1.2s	85.10nm		5.8mb	
ENSF	68.53	50	P	22 12.19	0.5
LFF	68.65	48	eP	22 12.40	0.2
EBR	68.83	52	eP	22 14.00	0.6
LPO	68.99	48	eP	22 14.40	0.1
	1.1s	49.10nm		5.6mb	
LSF	69.10	47	eP	22 14.80	-0.2
	1.3s	49.10nm		5.5mb	
SALF	69.16	50	P	22 15.51	0.0
SVW	69.16	329	eP	22 14.34	-0.7
	1.0s	33.67nm		5.5mb	
RJF	69.17	48	eP	22 15.40	0.0
	1.1s	42.25nm		5.5mb	
	Z 23s	1.38um		5.1MszX	
TTA	69.37	331	eP	22 13.98	-2.4
	1.2s	23.27nm		5.2mb	
TCF	69.57	47	eP	22 17.70	-0.2
	1.1s	45.40nm		5.5mb	
CAF	69.59	48	eP	22 18.20	0.2
	1.4s	109.35nm		5.8mb	
TRGS	69.76	51	P	22 20.11	0.8
MAF	69.82	47	eP	22 19.30	-0.1
	1.1s	40.55nm		5.5mb	
BRW	69.97	340	(P)	22 19.15	-0.6
BGF	69.99	46	eP	22 20.30	-0.1
	0.7s	20.15nm		5.4mb	
AVF	70.31	46	eP	22 22.00	-0.3
	1.4s	76.25nm		5.6mb	
SSF	70.39	46	eP	22 22.50	-0.3
	1.1s	46.90nm		5.5mb	
ETER	70.43	51	eP	22 24.00	0.8
LIC	70.58	90	P	22 24.30	-0.3
	Z 20s	0.64um		4.9Msz	
LOR	70.61	45	eP	22 23.90	-0.3
	1.2s	63.05nm		5.6mb	
	Z 23s	1.38um		5.1MszX	
SMF	70.66	46	eP	22 24.20	-0.3
	0.7s	24.75nm		5.4mb	
COLF	70.68	47	P	22 25.19	0.5
LBF	70.72	46	eP	22 24.30	-0.6
	1.3s	50.90nm		5.5mb	
KIC	70.82	89	P	22 25.80	-0.2
DOU	70.83	42	P	22 23.90	-1.5
WLF	71.87	43	iPd	22 32.20	0.5
		i		22 50.02	66kmX
HAU	72.20	44	eP	22 33.70	0.0
	1.2s	49.40nm		5.5mb	
	Z 22s	0.88um		5.0Msz	
BSF	72.52	45	eP	22 35.30	-0.4
	0.9s	23.75nm		5.3mb	
LOMF	72.61	45	P	22 36.01	-0.2
ECH	72.71	44	P	22 36.51	-0.2
CDF	72.76	44	P	22 36.73	-0.4
LPL	72.80	47	eP	22 38.10	0.5
	0.9s	22.30nm		5.2mb	
LPG	72.81	47	eP	22 38.30	0.6
	1.3s	56.30nm		5.5mb	
WLS	72.81	44	P	22 36.56	-0.8
EMS	72.85	46	Pd	22 38.40	0.6
RRL	72.92	48	P	22 38.66	0.4
LANF	73.03	43	P	22 38.44	-0.2
BBS	73.05	45	P	22 37.62	-1.1

```
SRBF   73.07  43 P     22 39.56   0.8
LSD    73.10  47 P     22 40.03   0.7
CALN   73.17  49 P     22 39.42  -0.2
DIX    73.18  46 ePd   22 40.90   1.0
PZZ    73.20  48 P     22 40.08   0.2
RSP    73.22  47 P     22 40.17   0.3
NAO    73.25  31 P     22 40.00   0.4
       1.0s    27.70nm          5.3mb
BHB    73.27  48 P     22 41.17   1.1
TNS    73.27  42 ePd   22 40.70   0.7
                e      22 46.70  19km
DOI    73.31  48 Pc    22 40.20  -0.2
FEL    73.33  44 P     22 39.98  -0.5
MVIF   73.33  49 P     22 40.33  -0.3
TOUF   73.38  48 P     22 40.47  -0.5
STV    73.40  48 P     22 41.86   0.9
AURF   73.46  49 P     22 40.87  -0.4
ENR    73.47  48 P     22 41.72   0.4
AUTN   73.51  48 P     22 41.07  -0.7
SBF    73.54  49 P     22 41.61  -0.1
MMK    73.57  46 ePd   22 43.20   1.1
SAOF   73.61  48 P     22 41.96  -0.1
ZLA    73.64  45 ePd   22 42.70   0.5
ORX    73.65  47 P     22 41.81  -0.5
SLE    73.66  44 ePd   22 42.60   0.3
ROB    73.78  48 P     22 42.91  -0.2
IMI    73.86  48 P     22 42.73  -0.8
FIN    74.04  48 P     22 43.92  -0.6
LLS    74.14  45 ePd   22 46.30   1.0
VAI    74.15  46 Pd    22 45.10   0.0
TMA    74.18  46 ePd   22 46.10   0.6
PCP    74.22  48 P     22 44.88  -0.7
VDL    74.53  46 Pd    22 48.50   0.9
HFS    74.76  31 eP    22 47.70  -0.6
       0.4s     0.80nm          4.1mb X
     Z  19s   547.00um          7.9MszX
                LR     50 14.00
BOB    74.81  47 P     22 49.40   0.3
PGF    74.89  50 P     22 49.15  -0.5
OSS    74.95  45 ePd   22 50.90   0.9
GRF    75.13  42 ePc   22 51.00   0.3
       1.6s   103.00nm          5.6mb
     Z  18s     0.60um          4.9Msz
                e(pP)  22 57.50  21km
MOX    75.21  41 ePd   22 51.20   0.1
       1.5s    38.00nm          5.2mb
FUR    75.44  44 eP    22 57.60   5.1X
OGA    75.51  45 iPd   22 54.10   0.9
SOTA   75.57  45 iPc   22 52.50  -0.9
                i      22 53.90   5kmX
                i      23 00.20
WTTA   75.85  45 iPc   22 53.40  -1.7
                i      22 55.50   7km
                i      23 01.60
HON    75.92 288 P     23 10.00  14.3X
     Z  20s     0.37um          4.7Msz
CLL    75.95  40 eP    22 55.00  -0.3
       1.4s    34.00nm          5.2mb
FIR    76.28  48 eP    23 02.50   5.2X
WET    76.29  43 iPd   22 58.30   0.9
BHG    76.58  44 eP    22 59.60   0.6
PGD    76.59  48 Pd    22 58.50  -0.8
BRG    76.62  41 iPd   22 59.60   0.5
       1.6s    56.00nm          5.4mb
                i      23 05.60  19km
                i      23 17.00
SFI    76.67  48 Pc    22 58.90  -0.6
KHC    76.75  42 P     23 00.00   0.1
       1.4s    25.70nm          5.1mb
                i      23 08.50  27kmX
                e      23 27.00
UPP    76.75  31 iP    22 59.40  -0.2
FVI    76.75  45 P     23 00.00   0.1
GEC2   76.89  43 ePd   23 00.90   0.1
       1.3s     9.98nm          4.7mb
                ePP    23 05.00  13km
                ePcP   23 10.10
                e      23 13.30
                e      23 16.80
                e      23 21.80
GEC2   76.89  43 e(P)  23 12.30  11.5X
       0.8s     6.70nm
KBA    77.03  45 iPc   23 01.00  -0.7
       1.2s    57.60nm          5.5mb
                i      23 09.60  28kmX
RUV    77.15 249 eP    23 08.40   5.9X
       1.4s   404.30nm          6.3mb
PRU    77.18  41 Pc    23 02.50   0.3
                e      23 08.70  20km
TPT    77.28 250 eP    23 07.50   4.2X
       1.4s   227.40nm          6.0mb
VAH    77.39 249 eP    23 09.00   5.1X
       1.4s   331.10nm          6.2mb
ASS    77.43  49 Pd    23 03.10  -0.7
PMO    77.53 250 eP    23 07.40   2.7
       1.7s   649.90nm          6.4mb
TRI    77.61  46 eP    23 04.90   0.2
VOY    77.63  45 ePc   23 05.20   0.3
CEY    78.06  46 eP    23 07.50   0.3
LJU    78.06  45 eP    23 08.00   0.8
KSP    78.07  40 eP    23 07.00  -0.1
                e      23 13.40  20km
SDF    78.46  23 iP    23 08.80  -0.1
SDI    78.57  50 P     23 09.10  -1.1
VRAC   78.63  42 iPc   23 10.40   0.2
VBY    78.68  46 ePc   23 10.00  -0.6
VKA    78.71  43 e(P)  23 11.00   0.3
PTJ    79.06  45 eP    23 12.70  -0.1
ZAG    79.09  45 eP    23 13.50   0.7
ZST    79.24  43 eP    23 13.30  -0.2
NUR    79.95  30 iP    23 17.00  -0.1
SGO    79.95  51 P     23 17.60   0.1
PPT    80.00 248 eP    23 06.40 -11.7X
       1.5s   766.80nm
     Z  21s  1375.00um          8.3MszX
SRO    80.12  43 iP    23 18.70   0.4
KAF    80.18  28 iP    23 18.60   0.3
MGR    80.24  51 Pc    23 18.70  -0.4
OJC    80.40  40 eP    23 20.90   1.2
                e      23 27.00  19km
UZD    80.63  44 e(P)  23 21.00   0.0
TDS    80.95  51 Pc    23 22.40  -0.5
SPC    80.97  41 eP    23 24.60   1.6
PSZ    81.11  43 eP    23 24.20   0.5
BRT    81.25  50 P     23 24.00  -0.5
ADK    82.13 322 (P)   23 33.07   4.4X
UZH    82.43  41 iPc   23 31.70   1.3
       1.1s    60.00nm          5.6mb
                i      23 38.20  21km
AIA    83.48 175 eP    23 43.00   7.8X
MNK    83.73  35 eP    23 36.00  -0.9
OHR    83.78  49 iP    23 39.00   1.4
       1.5s   152.00nm          6.0mb
                i      23 45.70  21km
SKO    83.97  48 iP    23 38.90   0.4
       1.3s    60.00nm          5.7mb
COZ    84.85  44 eP    23 42.00  -1.0
GRG    84.98  49 iP    23 45.14   1.6
VAY    84.98  48 iP    23 44.00   0.5
KNT    85.27  48 eP    23 45.76   0.8
CMP    85.32  44 ePd   23 47.00   1.8
LIT    85.33  49 eP    23 45.68   0.3
MTUR   85.35  44 eP    23 47.50   2.1
AGG    85.57  51 eP    23 47.92   1.3
SOH    85.71  49 eP    23 48.04   0.8
SRS    85.78  48 eP    23 48.04   0.5
MLR    85.84  44 ePc   23 49.00   1.1
CVO    85.87  43 eP    23 50.00   2.1
VRI    86.21  43 eP    23 50.00   0.4
PAIG   86.25  49 eP    23 50.32   0.5
OUR    86.32  49 eP    23 51.20   1.0
KIS    87.14  41 eP    23 55.00   1.0
OBN    87.97  32 iPc   23 57.00  -0.9
       1.5s    98.00nm          5.9mb
                i      24 04.00  22km
NRI    92.20   5 iPc   24 18.00   0.6
       1.4s    36.00nm          5.6mb
                e      24 28.00  31kmX
                e      41 21.00
MGD    93.31 338 eP    24 22.00  -0.7
                e      28 06.00
BCAO   93.51  84 iPc   24 25.00   0.6
       1.6s    72.00nm          5.8mb
YAK    97.61 348 eP    24 42.10  -0.2
       1.4s    32.00nm          5.7mb
     Z  18s     0.70um          5.2Msz
     N  18s     0.70um
                e      28 39.00
BOD   103.95 354 ePdiff25 11.60   1.0X
HHC   121.01 353 ePKP  30 01.60   0.3
BJI   121.09 349 ePKP  30 06.00   4.8X
GTA   122.84   3 ePKP  30 04.50  -0.3
TIY   123.98 351 ePKP  30 06.80  -0.3
     Z  20s     1.12um          5.5Msz
     N  17s     0.97um
LZH   126.25 360 PKPd  30 11.80   0.1
NDI   127.17  29 ePKP  30 13.50   0.1
XAN   128.03 354 PKP   30 14.50  -0.4
                sPKP   30 23.50
NJ2   128.12 343 ePKP  30 10.00  -5.1X
GKN   130.83  22 PKP   30 19.30  -1.3
KKN   131.25  22 PKP   30 20.94  -0.5
GUN   131.34  21 PKP   30 21.02  -0.8
DMN   131.35  22 PKP   30 21.04  -0.7
CD2   131.42 360 ePKP  30 21.30  -0.2
PKI   131.50  21 PKP   30 21.04  -1.0
GYA   135.74 356 PKP   30 29.80  -0.1
HYB   137.17  36 ePKP  30 31.80  -0.9
KMI   137.18   1 ePKP  30 30.50  -2.3
RMQ   137.36 250 ePKP  30 33.20   0.4
       1.5s    50.00nm
TOO   138.37 233 ePKP  30 27.20  -7.2X
       0.8s     9.00nm
GBA   139.50  41 PKPd  30 37.00   0.1
CHG   143.20   7 ePKP  30 41.20  -2.3
ADE   144.38 235 iPKPd 30 43.60  -1.5
BDT   144.75   7 iPKPd 30 46.00  -0.1
       0.9s    54.50nm
LOE   144.82   3 ePKP  30 45.00  -1.2
NST   146.43   6 ePKP  30 58.50   9.6X
KHT   147.12   9 ePKP  30 53.00   3.0
WB2   150.69 261 iPKPd 31 00.30   4.8X
       0.6s    23.30nm
WRA   150.70 261 PKP   30 55.80   0.3
       0.9s     3.40nm
     S.D. = 1.1  on 337 of 391 obs.
-----------------------------------
?  JAN  13, 1993  17h 44m 02.28± 8.22s
   32.574 S ±42.8km   72.106 W ±53.6km
   DEPTH =  33.0km  (normal)
 OFF COAST OF CENTRAL CHILE        (134)
      MD 3.8 (SAN).

ROCH     1.00 114 iPd    44 19.47  -0.8
                (S)     44 28.38
LCCH     1.01 154 iPd    44 19.80  -0.3
                iS      44 29.88
JACH     1.28  95 iPd    44 24.31   0.2
                iS      44 39.16
PEL      1.32 116 iPd    44 24.68   0.0
                iS      44 38.95
TACH     1.46 138 i(P)   44 26.41  -0.1
                iS      44 41.26
LNV      1.50 157 iP     44 27.10   0.0
                iS      44 43.32
PCH      1.70 128 iPd    44 30.34   0.3
FCH      1.70 117 iP+    44 30.57   0.2
                iS      44 49.77
CHCH     1.82 138 iP     44 32.36   0.5
                iS      44 52.13
CACH     1.99 141 iP     44 35.53   1.1X
     S.D. = 0.4  on   9 of  10 obs.
-----------------------------------
&  JAN  13, 1993  17h 56m 25.21s
   63.313 N          147.598 W
   DEPTH =  72.8km
 CENTRAL ALASKA                    (  1)
      <AEIC>.

RND      0.57 280 iP     56 39.13  -0.1
                eS      56 49.66
MCK      0.73 306 iP     56 40.82  -0.1
                S       56 52.39
THY      0.84  82 eP     56 42.61   0.4
HUR      0.98 251 eP     56 43.60  -0.3
                eS      56 57.48
PAX      1.03 109 eP     56 44.33  -0.2
                eS      56 59.19
HDA      1.13  14 iP     56 45.78   0.0
                eS      57 00.98
SDG      1.23 129 iP     56 46.72  -0.4
                eS      57 03.70
CCB      1.34 356 iP     56 48.10  -0.4
                eS      57 04.93
TOA      1.38 151 iP     56 49.04  -0.1
                eS      57 08.07
NEA      1.43 333 eP     56 49.26  -0.4
                S       57 06.98
SCM      1.49 175 eP     56 49.91  -0.7
                eS      57 09.58
SML      1.55 193 eP     56 50.37  -1.0
```

S • 57 09.74
FBA 1.60 357 iP 56 51.66 -0.3
S 57 11.46
TZL 1.62 141 eP 56 52.43 0.1
DOT 1.62 76 eP 56 51.70 -0.7
GHO 1.66 202 iP 56 52.28 -0.7
eS 57 16.05
MDM 1.68 351 iP 56 52.79 -0.3
S 57 13.13
GLM 1.68 3 iP 56 52.77 -0.4
S 57 12.99
PLRM 1.87 203 eP 56 55.38 -0.3
KNK 1.95 192 eP 56 56.52 -0.3
eS 57 21.42
PWA 1.98 213 eP 56 57.25 0.1
KLU 1.99 156 eP 56 56.67 -0.7
eS 57 21.89
SKT 2.26 235 eP 57 00.30 -0.7
VLZ 2.27 164 eP 57 00.73 -0.4
PMS 2.27 205 eP 57 01.91 0.7
VZW 2.31 167 eP 57 01.30 -0.6
SUA 2.36 220 eP 57 02.78 0.1
eS 57 32.23
GLI 2.45 174 eP 57 02.76 -1.0
PTE 2.55 196 eP 57 04.27 -0.8
FID 2.63 168 eP 57 05.36 -0.8
CGLM 2.88 228 eP 57 10.09 0.3
CVA 2.91 162 eP 57 09.09 -1.0
MPA 2.95 197 eP 57 11.61 0.9
CRP 2.96 228 eP 57 09.73 -1.2
HIN 2.97 169 eP 57 11.89 0.9
KNIM 2.98 181 eP 57 09.80 -1.2
SPU 2.99 226 eP 57 12.05 0.8
CP2 2.99 229 eP 57 11.93 0.5
CKN 3.00 228 eP 57 11.08 -0.3
CKT 3.02 228 eP 57 12.68 0.9
BGL 3.04 230 eP 57 13.21 1.2
CKL 3.07 228 eP 57 11.34 -1.1
SLKM 3.08 205 eP 57 12.80 0.3
RAGM 3.25 153 eP 57 12.90 -2.0
LTI 3.29 182 eP 57 14.06 -1.3
MTU 3.34 180 eP 57 14.48 -1.6
FYU 3.42 16 eP 57 16.81 -0.4
DFR 3.64 224 eP 57 20.93 0.6
48 obs. associated

? JAN 13, 1993 18h 21m 44.65± 4.27s
36.469 S ±28.6km 179.087 E ±32.7km
DEPTH = 101.2 ± 24.2 km
3.5mb (1 obs.)
OFF E. COAST OF N. ISLAND, N.Z. (160)

HBZ 1.29 209 eP 22 08.30 -0.4
PUZ 1.73 202 P 22 15.20 0.9
S 22 44.70
NOZ 2.30 201 eP 22 22.20 0.5
URZ 2.38 221 P 22 23.60 0.8
S 23 00.10
TAZ 2.71 229 eP 22 29.10 1.9
KUZ 2.72 263 eP 22 25.00 -2.4
MAHZ 2.88 199 eP 22 29.20 -0.3
PAHZ 2.88 213 eP 22 30.20 0.6
MOH 3.07 209 P 22 32.50 0.4
WLZ 3.12 242 P 22 33.20 0.4
WHH 3.17 220 P 22 34.30 0.7
NGZ 3.86 225 P 22 42.80 -0.3
WAHZ 3.88 213 P 22 43.80 0.6
CNZ 3.91 225 eP 22 44.00 0.3
TEHZ 3.95 206 eP 22 41.40 -2.7
MOZ 3.97 238 eP 22 45.30 0.9
PGZ 4.69 207 eP 22 50.90 -3.5X
MNG 5.01 213 eP 22 56.20 -2.7
eS 23 58.10
WRA 42.33 280 P 29 30.90 0.7
0.5s 0.40nm 3.5mb
S.D. = 1.4 on 18 of 19 obs.

• JAN 13, 1993 18h 41m 39.41± 0.93s
22.263 S ±12.8km 68.591 W ± 8.7km
DEPTH = 130.9 ± 9.3 km
4.4mb (4 obs.)
NORTHERN CHILE (123)

ANT 2.21 229 eP 42 15.70 -0.8
iS 42 40.50
YJA 2.86 89 ePc 42 28.20 2.8
SLA 3.76 131 ePc 42 41.80 4.9X
FSA 4.47 149 eP 42 51.00 4.7X
CNCB 5.46 6 P 42 58.30 -1.9
LPB 5.72 5 P 43 22.30 18.6X
1.1s 220.25nm
ARE 6.39 334 eP 43 16.00 3.3X
iS 44 09.00
VAO 19.97 96 eP 46 02.70 -1.0
BAO 20.56 75 e(P) 46 08.00 -1.7
e 46 09.80
e 46 22.00
e 46 34.70
ALQ 67.29 327 ePc 52 21.80 -0.5
1.0s 12.25nm 4.7mb
LIC 68.32 73 P 52 28.40 -0.4
TIC 68.51 73 P 52 30.00 0.0
KIC 68.63 73 P 52 30.70 -0.1
SRU 72.57 327 eP 52 54.38 0.2
MSU 72.97 326 eP 52 57.25 0.6
pP 53 27.25 119kmX
ARUT 73.11 324 ePc 52 58.71 1.3
RSSD 73.61 334 eP 52 59.99 -0.2
0.8s 5.39nm 4.4mb
BW06 74.92 330 eP 53 07.57 -0.2
0.6s 1.36nm 3.9mb
HHAI 76.65 329 eP 53 18.21 0.8
LCCM 78.34 331 eP 53 27.70 1.0
LBFM 80.27 322 (P) 53 37.97 0.7
DPW 82.78 329 eP 53 50.68 0.7
YKA 92.00 340 eP 54 33.90 0.0
0.6s 1.80nm 4.5mb
WRA 132.44 210 PKP 00 39.00 -1.5
1.4s 6.30nm
S.D. = 1.2 on 20 of 24 obs.

JAN 13, 1993 18h 50m 42.51± 0.15s
50.791 S ± 4.5km 139.505 E ± 4.2km
DEPTH = 9.9km (geophysicist)
5.9mb (57 obs.) 6.3Msz (53 obs.)
SOUTH OF AUSTRALIA (437)
Mw 6.3 (GS), 6.3 (HRV). Two events about 3 seconds apart. Depth from broadband displacement seismograms, based on second event.
FAULT PLANE SOLUTION: P-Waves
NP1:Strike=184 Dip=85 Slip= 10
NP2: 93 80 175
Principal Axes:
T Plg=11 Azm= 49
P 3 318
Comment: The focal mechanism is moderately well controlled and corresponds to strike-slip faulting with a small reverse component. The preferred fault plane is not determined.
RADIATED ENERGY
No. of sta: 10 Focal mech. F
Energy 1.2±0.3•10••15 Nm
MOMENT TENSOR SOLUTION
Dep 16 No. of sta: 13
Moment Tensor; Scale 10••18 Nm
Mrr= 0.20 Mtt= 0.66
Mff=-0.86 Mrt=-0.22
Mrf=-0.08 Mtf=-3.43
Principal axes:
T Val= 3.42 Plg= 2 Azm=219
N 0.20 86 92
P -3.62 3 309
Best Double Couple:Mo=3.5•10••18
NP1:Strike=354 Dip=86 Slip= -1
NP2: 84 89 -176
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 31S, 75C M.W.: 28S, 49C
Centroid Location:
Origin Time 18:50:48.9 0.1
Lat 51.04S 0.01 Lon 139.23E 0.02
Dep 15.0 FIX Half-duration 4.5
Moment Tensor; Scale 10••18 Nm
Mrr=-0.07 0.03 Mtt= 0.30 0.04
Mff=-0.23 0.03 Mrt=-0.52 0.10
Mrf= 0.15 0.08 Mtf=-3.31 0.03
Principal Axes:
T Val= 3.42 Plg= 8 Azm=222
N -0.12 81 72
P -3.30 4 313
Best Double Couple:Mo=3.4•10••18
NP1:Strike=358 Dip=81 Slip= 3
NP2: 268 87 171

TAU 9.52 37 ePnc 53 02.52 -0.1
i 53 04.30
BFD 13.78 10 iPc 54 02.20 2.0
1.1s 581.00nm 6.4mb
TOO 13.89 20 iPd 54 02.20 0.6
1.2s 1083.00nm 6.6mb
Z 20s 443.10um
eS 57 24.00
ADE 15.83 358 iPd 54 27.20 0.3
DRV 15.92 179 eP 54 27.00 -0.9
CAN 16.92 28 eP 54 43.50 2.7X
ipP 54 51.10
CNB 17.04 29 eP 54 44.20 1.9
1.5s 571.00nm 5.5mb
ipP 54 58.50
BWA 17.60 25 eP 54 51.30 2.0
i 54 53.40
STK 18.96 5 eP 55 06.50 0.5
0.8s 82.40nm 5.0mb
CMS 19.85 16 eP 55 16.80 0.5
1.6s 523.00nm 5.6mb
MSZ 19.99 83 eP 55 16.80 -0.9
TLC 20.48 86 P 55 22.30 -0.8
TUZ 20.51 88 eP 55 21.20 -1.9
MMCZ 20.60 85 P 55 21.50 -2.8
MHZ 20.67 86 eP 55 23.10 -1.9
SBCZ 20.68 86 P 55 24.20 -0.8
LSCZ 20.70 86 eP 55 23.00 -2.3
MSCZ 20.74 86 P 55 24.90 -0.7
CSY 21.36 213 P 55 28.50 -3.2X
ODZ 21.54 87 P 55 33.50 -0.2
eS 59 40.40
FORT 21.74 333 eP 55 34.00 -1.8
0.6s 111.00nm 5.5mb
ARMA 22.28 29 eP 55 40.80 -0.5
1.2s 752.00nm 6.0mb
i 55 43.70
e 56 12.00
MOZ 23.44 85 eP 55 50.00 -2.5
LTZ 23.67 83 eP 55 54.80 0.1
DSZ 23.92 80 eP 55 55.60 -1.6
QLP 24.44 10 iPc 56 04.20 1.9
THZ 24.61 82 eP 56 04.30 0.4
KHZ 24.66 83 P 56 04.30 0.0
BRS 25.46 28 iPc 56 11.00 -1.1
1.5s 48.00nm 5.0mb
iS 59 42.00
MUN 25.49 309 iPd 56 09.50 -2.8
Z 20s 144.10um 6.5Msz
N 20s 82.40um
E 20s 69.10um
eS 00 40.00
MRW 26.03 82 eP 56 16.40 -0.8
CAW 26.32 82 eP 56 17.90 -2.1
BAL 26.37 311 eP 56 17.50 -3.0
WARB 26.47 333 eP 56 20.00 -1.5
MTW 26.57 83 eP 56 20.30 -1.9
MNG 26.86 82 eP 56 23.00 -1.9
PGZ 27.36 83 P 56 29.60 0.2
MRWA 27.86 312 eP 56 31.50 -2.7
MEEK 28.91 319 eP 56 40.00 -3.6X
QIS 30.17 0 eP 56 55.70 0.8
1.0s 6.00nm 4.4mb X
WB2 31.05 351 iPc 57 00.50 -2.2
e 00 01.50
WRA 31.05 351 P 57 01.00 -1.7
1.4s 23.40nm 4.9mb X
WRA 31.05 351 P 57 21.00 18.3X
1.6s 41.90nm
CTA 31.10 12 iPd 57 04.00 0.9
1.0s 85.00nm 5.6mb
iS 01 57.00
CTAO 31.10 12 ePc 57 03.01 -0.1
ec 57 05.82
ed 57 09.79
ed 57 11.04
NANU 33.81 318 eP 57 26.00 -0.7
DZM 35.56 46 iPc 57 41.90 0.1
MTN 38.45 347 eP 58 04.00 -2.1
SPA 39.39 180 iPc 58 09.45 -4.3X
0.8s 395.83nm 6.1mb
Z 20s 23.24um 6.0Msz
ec 58 12.68

```
                    ed   58 15.33
                    ed   58 17.73
MAW    39.65 216 iPc    58 12.30  -3.2X
       1.1s   152.17nm          5.6mb
     Z  20s    81.82um          6.6Msz
BKM    40.21  45 iPc    58 20.00  -0.7
PMG    41.74  11 eP     58 34.50   1.3
PAF    43.00 244 eP     58 45.00   1.8
                    ePP  00 30.00
                    eS   05 12.00
                    eSS  08 42.00
HNR    44.55  29 eP     58 57.00   0.8
                    e(S) 05 20.00
RAB    47.64  17 eP     59 21.00   0.3
NVL    53.09 199 eP     00 00.00  -1.6
       1.4s   121.00nm          5.6mb
     Z  16s    42.00um          6.6MszX
     N  16s    42.00um
     E  17s    17.50um
                    ePcP 01 10.00
                    ePP  02 00.00
                    ePPP 03 06.00
                    eS   07 34.00
                    ePS  07 35.00
                    eSS  10 48.00
                    eSSS 12 40.00
MNI    53.52 342 ePc    00 07.00   1.6
CRZF   54.82 238 ePc    00 17.00   2.3
                    ePP  02 25.00
                    iS   07 20.00
                    eSS  09 42.00
                    eSSS 11 35.00
TSM    57.93 334 eP     00 38.00   0.9
DAV    58.89 344 eP     00 43.50  -0.3
KKM    60.07 333 ePd    00 52.50   0.4
KGM    60.99 318 eP     01 01.10   2.8X
KLM    62.69 316 eP     01 12.00   2.3
AIA    62.85 169 eP     01 11.10   1.0
GUA    64.23   6 eP     01 22.00   2.3
     Z  21s    17.92um          6.2Msz
                    eS   10 02.00
IPM    64.28 316 ePd    01 19.20  -1.0
       1.1s    87.70nm          5.9mb
AFR    64.44  87 iPc    01 25.20   4.0X
       1.3s   456.30nm          6.5mb
PAE    64.48  87 iPc    01 24.90   3.4X
       1.3s   511.20nm          6.6mb
PPT    64.55  87 iPc    01 25.50   3.5X
       1.4s  1104.80nm          6.9mb
TVO    64.59  87 iPc    01 26.10   3.8X
       1.3s   569.00nm          6.6mb
PPN    64.67  87 iPc    01 26.50   3.8X
       1.4s   934.00nm          6.8mb
TGY    66.63 340 ePd    01 40.00   4.9X
SNG    66.78 317 eP     01 35.60  -0.6
       1.3s   173.08nm          6.1mb
                    eS   10 28.00
VAH    67.52  87 iPc    01 42.80   1.9
       1.5s   537.20nm          6.5mb
PMO    67.53  86 iPc    01 43.00   2.0
       1.6s  1213.90nm          6.8mb
RUV    67.71  87 iPc    01 44.00   1.8
       1.6s   830.80nm          6.7mb
TPT    67.72  86 iPc    01 44.30   2.1
       1.8s  1274.00nm          6.8mb
BAG    68.94 341 eP     01 47.00  -2.9
                    eS   10 42.00
CVP    69.95 342 ePc    01 55.00  -0.8
PIP    70.79 341 eP     02 01.50   0.6
QIZ    74.26 331 P      02 23.50   2.1
     N  20s     5.54um
     E  17s     4.55um
                    S    11 50.00
QIZ    74.26 331 (P)    02 20.08  -1.3
     N  20s     5.54um
     E  17s     4.55um
                    e    02 23.15
                    ec   02 26.13
                    ec   02 28.19
                    S    11 50.00
KHT    74.45 319 eP     02 21.70  -0.9
NST    74.62 321 eP     02 32.00   8.5X
LOE    75.57 323 eP     02 30.60   1.7
HKC    76.13 336 eP     02 32.00   0.0
                    S    12 18.00
HKC    76.13 336 P      02 36.00   4.0X
BDT    76.50 320 eP     02 34.50   0.4
       1.1s    58.30nm          5.6mb
GZH    77.10 335 Pc     02 40.00   2.6X
     Z  32s    13.70um          6.1MszX
     N  14s     1.34um
     E  13s     1.70um
                    PP   05 35.00
                    eS   12 22.00
                    iS   12 28.00
GRM    77.57 232 iPc    02 41.00   0.9
       1.0s   180.00nm          6.1mb
OZH    77.63 341 P      02 41.00   0.7
     Z  25s     6.90um          5.9MszX
     E  19s     3.94um
                    S    12 36.00
CHG    77.93 321 ePd    02 41.00  -1.1
       1.1s    94.94nm          5.8mb
                    eS   12 44.00
CHTO   77.93 321 eP     02 40.61  -1.5
                    e    02 43.59
                    ec   02 46.65
BLE    80.90 226 iPc    02 59.00   0.9
       1.1s   150.00nm          5.9mb
SEK    81.01 236 iPc    02 57.00  -2.0
       1.0s    80.00nm          5.7mb
CER    81.05 227 iP     02 44.50 -14.4X
       1.4s   140.00nm
FRS    81.06 233 iPc    02 57.70  -1.3
       0.7s    22.00nm          5.3mb
BLF    81.13 234 eP     03 00.30   0.7
SUR    81.14 229 eP     02 58.83  -0.8
RPN    81.59 123 (P)    03 05.82   4.0X
                    ec   03 07.89
BFT    81.82 239 iPc    03 04.50   1.2
       1.0s    40.00nm          5.5mb
KIM    82.15 234 iPc    03 02.80  -2.1
       0.7s    95.00nm          6.0mb
GYA    82.21 331 P      03 05.00   0.1
       1.6s   210.00nm          6.0mb
     Z  24s    10.10um          6.1MszX
     N  20s     5.44um
     E  20s     5.80um
                    PP   06 11.00
                    S    13 24.00
PRY    82.21 237 eP     03 03.20  -2.1
       1.0s    60.00nm          5.7mb
KMI    82.26 327 (P)    03 05.69   0.3
       1.6s   400.00nm          6.3mb
     Z  18s    19.90um          6.5Msz
     N  19s    13.30um
                    e    03 08.09
                    ec   03 11.15
SLR    82.73 238 ePc    03 06.17  -1.8
       1.1s    60.00nm          5.7mb
     Z  18s    56.20um          7.0Msz
SSE    83.12 344 Pd     03 10.00   0.6
     Z  20s     9.20um          6.1Msz
     N  20s     4.80um
     E  20s     6.10um
KSR    83.37 237 iPc    03 09.20  -2.1
       0.6s    61.00nm          6.0mb
GBA    83.77 300 Pd     03 13.00  -0.1
WHN    83.98 338 eP     03 14.50   0.7
     Z  24s     8.74um          6.1MszX
     N  18s     5.56um
POF    84.03 230 iPc    03 13.40  -1.0
       1.0s    90.00nm          6.0mb
NJ2    84.48 342 Pc     03 16.20   0.0
       1.5s    45.00nm          5.5mb
     Z  20s     5.33um          5.9Msz
     N  20s     6.26um
                    iS   13 43.00
HYB    86.31 303 eP     03 21.50  -4.3X
       1.4s   625.00nm          6.6mb
SHL    86.86 318 iP     03 27.20  -1.3
       1.1s   102.53nm          6.0mb
                    eSKS 13 52.00
                    iS   14 10.00
MAJO   86.97 359 eP     03 29.91   1.4
                    ec   03 33.31
                    ec   03 35.46
                    ed   03 38.77
MAT    86.97 359 eP     03 29.00   0.5
       1.6s   193.33nm          6.1mb
     Z  21s    10.75um          6.2Msz
                    eS   14 10.00
BUL    87.03 242 iPd    03 26.30  -3.3X
       1.0s    53.00nm          5.7mb
     Z  18s    33.68um          6.8Msz
     N  18s    13.75um
     E  19s    19.44um
                    i    03 31.00
CD2    87.26 330 P      03 32.00   1.9
     Z  20s    14.90um          6.4Msz
     E  18s     9.74um
                    SKS  13 56.00
                    S    14 14.00
NIIJ   87.66 360 P      03 33.20   1.5
YAMJ   88.59   0 P      03 37.50   1.3
XAN    88.67 335 P      03 38.00   1.2
       1.8s   120.00nm          5.9mb
     Z  40s    19.50um          6.2MszX
     N  19s     4.81um
     E  17s     4.59um
                    sP   03 50.00
                    SKS  14 05.00
                    S    14 22.00
                    SS   20 10.00
TIA    88.85 342 eP     03 38.00   0.5
       2.0s    70.00nm          5.6mb
     Z  18s    10.90um          6.3Msz
     N  16s     4.08um
     E  16s     2.30um
                    sP   03 49.00
                    SKS  14 10.00
                    S    14 29.00
OFUJ   89.51   2 P      03 47.10   6.5X
POO    89.76 300 iPc    03 40.20  -2.2
HON    90.35  56 P      04 00.00  15.1X
     Z  20s    17.85um          6.5Msz
DL2    90.69 346 eP     03 46.00   0.0
     Z  22s     6.01um          6.0Msz
     N  18s     5.29um
                    SKS  14 17.00
                    S    14 42.00
                    sS   14 52.00
LSA    90.80 319 (P)    03 46.83  -0.6
       1.4s    50.00nm          5.6mb
     Z  39s    32.30um          6.5MszX
     N  38s    21.40um
                    PP   07 21.00
                    SKS  14 19.00
                    SS   20 48.00
WIN    91.12 231 eP     03 47.50  -1.5
       1.1s    20.00nm          5.4mb
     Z  22s    64.80um          7.0Msz
TIY    91.29 339 eP     03 49.20   0.2
     Z  24s    10.10um          6.2MszX
     N  18s     6.07um
                    SKS  14 21.00
PKI    91.45 314 P      03 48.44  -1.9
       1.3s   162.00nm          6.2mb
GUN    91.53 315 P      03 49.16  -1.5
DMN    91.62 314 P      03 49.32  -1.7
       1.1s   145.00nm          6.3mb
KKN    91.70 314 P      03 49.72  -1.6
       1.0s   141.00nm          6.3mb
LZH    92.03 332 (P)    03 51.02  -1.5
       1.5s   170.00nm          6.2mb
     Z  25s    10.40um          6.2MszX
     E  16s     2.93um
                    ec   03 54.17
                    ec   03 57.72
                    SKS  14 24.00
GKN    92.17 314 P      03 51.50  -1.9
       1.2s   200.00nm          6.4mb
PEL    92.28 155 eP     03 55.00   1.0
ERM    92.48   3 ePc    03 59.41   5.3X
                    ed   04 05.29
BJI    92.74 342 eP     03 56.00   0.6
       1.8s   100.00nm          5.9mb
     Z  20s     6.59um          6.1Msz
     E  18s     2.59um
                    ePP  07 37.00
                    eSKS 14 28.00
                    eS   14 56.00
                    eSS  21 08.00
MDZ    93.01 156 eP     04 00.50   3.2X
SNY    93.28 348 Pc     03 55.30  -2.6
       1.6s    43.00nm          5.6mb
     Z  25s     7.61um          6.1MszX
     N  18s     3.57um
LPA    93.29 166 eP-    04 00.00   1.5
     Z  22s    10.37um          6.2Msz
HHC    94.48 339 eP     04 04.40   0.8
```

13d 19h

```
        1.6s     37.00nm          5.5mb
      Z  22s      9.30um          6.2Msz
      N  19s      4.02um
      E  20s      4.65um
                   SKS    14 37.00
                   SS     21 34.00
BTO     94.60 338 eP     04 04.00   -0.2
      N  17s      4.33um
      E  19s      2.60um
CN2     95.00 350 eP     04 06.20    0.4
        1.2s     25.00nm          5.5mb
      Z  24s     15.30um          6.4MszX
      N  16s      2.99um
      E  16s      0.89um
                   epP    04 11.50   17kmX
                   SKS    14 40.00
                   eS     15 18.00
                   SS     21 49.00
MDJ     95.41 353 eP     04 08.10    0.5
        1.5s     23.00nm          5.4mb
      Z  26s      6.50um          6.0MszX
      N  16s      2.60um
      E  18s      2.60um
                   SKS    14 41.00
                   S      15 21.00
                   SS     21 56.00
KUR     95.92   6 (P)    04 18.00    8.1X
                   eS     14 54.00
NDI     96.29 309 eP     04 10.00   -2.1
                   eSKS   14 46.00
                   eS     15 30.00
                   ePS    16 45.00
                   eSS    22 12.00
GTA     96.33 330 eP     04 12.00   -0.1
        1.5s     56.00nm          5.9mb
      Z  30s     16.10um          6.3MszX
      E  18s      5.43um
                   pP     04 22.00   31kmX
                   SKS    14 48.00
                   S      15 30.00
YSS     97.46   2 (P)    04 22.00    5.2X
      Z  22s      7.60um          6.1Msz
      N  22s      5.90um
                   e      08 22.00
                   i      14 56.00
                   iS     15 48.00
                   ePS    17 14.00
                   eSS    22 23.00
                   eSSS   26 15.00
YSS     97.46   2 (P)    04 16.25   -0.6
      Z  22s      7.60um          6.1Msz
      N  22s      5.90um
                   ec     04 20.14
                   e      04 24.69
                   e      08 22.00
                   iS     14 56.00
                   iS     15 48.00
                   ePS    17 14.00
                   eSS    22 23.00
                   eSSS   26 15.00
WMQ    104.43 324 ePdiff04 47.50   -0.9
      Z  28s     10.20um          6.2MszX
      N  14s      5.38um
                   PP     09 12.00
PET    104.68  12 ePdiff04 54.00    4.8X
      Z  20s      4.50um          6.0Msz
                   e      09 12.00
                   e      15 30.00
                   ePS    18 28.00
                   e      19 20.00
                   eSS    24 00.00
                   eSSS   28 10.00
CIT    104.74 344 ePdiff05 00.50   10.9X
ZAK    105.42 337 ePdiff04 54.00    1.5
KSH    105.67 314 ePKP  09 04.00   -3.2X
MOY    107.19 336 ePdiff05 04.10    3.7X
SMY    107.20  21 PKP   09 20.00   10.6X
      Z  21s     23.52um          6.7Msz
CNCB   108.49 152 PKP   09 16.10    2.4X
LPB    108.72 152 (PKP) 09 30.00   16.1X
      Z  22s      5.19um          6.1Msz
                   LR     38 20.00
BOD    110.26 346 ePKP  09 27.50   12.5X
MGD    110.91   6 ePKP  09 26.00    9.8X
      Z  20s      6.20um          6.2Msz
      N  20s      5.80um
      E  20s      2.00um
                   e      16 00.00
                   e      19 28.00
MAIO   111.50 301 ePKP  09 19.00    0.8
BCAO   112.64 248 iPKPc 09 03.00  -17.9X
        1.0s     15.00nm
                   ic     10 06.50
                   id     17 37.50
YAK    112.73 355 ePKP  09 15.40   -4.2X
                   e      16 00.00
ELT    112.92 328 ePKP  09 04.00  -16.2X
        1.6s     18.00nm
      Z  16s      1.70um          5.7MszX
                   e      10 10.00
                   e      16 03.00
                   e      19 41.00
ASH    113.33 302 ePKP  09 22.00    0.4
BRVK   118.70 320 ePKP  09 29.00   -2.3
        1.1s     18.00nm
TIK    122.35 356 iPKP  09 35.00   -2.7
        1.5s     72.00nm
      Z  20s      7.00um          6.3Msz
                   i      11 16.00
                   ePPP   13 53.00
                   e      21 09.00
                   ePPS   22 34.00
SVW    123.00  32 ePKP  09 38.72   -0.6
MTA    123.44 297 ePKP  09 41.00    0.3
      N  18s      1.50um
      E  18s      2.00um
ISA    123.79  73 PKP   09 50.00    8.2X
      Z  20s      8.61um          6.4Msz
GRO    124.02 299 ePKP  09 41.00   -0.8
        1.5s    160.00nm
CMB    124.20  70 PKP   09 50.00    7.5X
      Z  19s      6.35um          6.3Msz
BGL    124.20  33 (PKP) 09 41.13   -0.7
CP2    124.25  33 (PKP) 09 41.99   -0.1
SLKM   124.44  34 ePKP  09 41.22   -1.0
ORV    124.53  68 ePKP  09 42.83   -0.1
GSC    124.57  75 ePKP  09 43.68    0.4
WDC    124.58  66 PKP   09 50.00    7.0X
      Z  20s      8.87um          6.4Msz
MEMM   124.83  71 (PKP) 09 43.75    0.2
MTUM   124.85  72 ePKP  09 42.89   -1.0
MRCM   125.09  72 (PKP) 09 45.74    1.3
BONR   125.40  71 ePKP  09 46.24    1.1
LBFM   125.45  66 ePKP  09 46.41    1.4
PMR    125.57  34 ePKP  09 45.80    1.5
        1.4s    178.40nm
      Z  22s      8.60um          6.4Msz
NRI    125.63 340 ePKP  09 42.00   -2.2
ARU    125.91 317 (PKP) 09 48.00    2.9X
      Z  18s      8.00um          6.4Msz
      N  18s      4.00um
      E  18s      3.50um
PYA    125.92 298 ePKP  09 45.00   -0.6
KIV    126.08 297 (PKP) 09 45.40   -0.6
TNP    126.13  72 ePKP  09 45.30   -1.2
KVN    126.22  71 ePKP  09 46.56    0.0
TUC    126.32  82 ePdiff06 25.42   -0.7X
TUC    126.32  82 (PKP) 09 47.73    0.9
      Z  18s      4.94um          6.2Msz
                   e      29 36.27
KIC    126.66 226 PKP   09 48.00    0.2
KLU    126.66  35 ePKP  09 46.54    0.0
LIC    126.67 226 PKP   09 47.80    0.0
TOA    126.96  35 ePKP  09 50.10    3.0X
TIC    127.03 226 PKP   09 48.40   -0.2
IMA    127.13  28 ePKP  09 46.30   -1.1
        1.4s     71.60nm
BALM   127.70  37 ePKP  09 49.00    0.4
SIT    128.17  44 PKP   10 00.00   10.6X
      Z  21s      6.39um          6.3Msz
FBA    128.20  31 ePKP  09 50.30    1.1
ARUT   128.24  75 ePKP  09 51.49    1.1
LON    128.83  61 ePKP  09 51.72    0.6
MSU    129.47  75 ePKP  09 52.45   -0.4
BRW    129.86  22 ePKP  09 52.70    0.5
DUG    130.12  73 ePKP  09 54.34    0.5
ALQ    130.77  82 ePKP  09 55.31    0.0
      Z  18s      1.19um          5.6Msz
SRU    130.85  75 ePKP  09 55.86    0.5
HVU    131.10  71 ePKP  09 56.58    0.9
EMUT   131.11  74 ePKP  09 56.99    1.1
DAU    131.20  73 (PKP) 09 58.01    1.9
SDV    131.38 139 ePKP  09 54.50   -2.5
PTI    131.99  70 (PKP) 10 00.17    2.8X
HHAI   132.23  70 ePKP  09 59.43    1.7
BW06   133.62  72 (PKP) 10 01.32    0.7
CAR    134.34 142 ePKP  10 04.00    1.4
GLD    134.51  78 PKP   10 10.00    7.7X
      Z  18s      4.45um          6.2Msz
WMOK   135.49  88 ePKP  09 57.90   -6.2X
WMOK   135.49  88 ePKP  10 03.27   -0.8
      Z  19s      9.09um          6.5Msz
OBN    135.55 307 ePKP  10 04.50    1.0
      Z  24s      6.60um          6.3MszX
      N  20s      4.00um
      E  24s      4.60um
                   i      10 06.50
MEO    135.64  88 iPKPc 10 01.80   -2.6
KIS    135.78 293 ePKP  10 07.00    2.9X
      Z  22s      3.60um          6.1Msz
VRI    136.43 291 ePKP  10 04.50   -1.0
                   e      12 48.50
VAY    136.46 283 ePKP  10 02.40   -3.2X
CLI    136.46 292 ePKP  10 08.00    2.5X
                   e      13 20.00
FNO    136.69  88 iPKPc 10 09.00    2.7X
MLR    136.70 290 ePKP  10 05.00   -1.2
                   e      12 44.00
CVO    136.73 290 ePKP  10 05.00   -1.1
                   e      12 44.00
SES    136.81  62 ePKP  09 54.00  -12.1X
OHR    137.44 282 iPKP  09 54.00  -13.6X
        1.6s     25.00nm
SKO    137.52 283 ePKP  10 07.50   -0.2
      Z  21s      5.24um          6.2Msz
                   i      10 21.00
                   LR     08 00.00
RSSD   137.71  73 ePKP  09 57.36  -10.9X
      Z  21s      5.59um          6.3Msz
TUL    138.12  89 ePKP  10 03.00   -6.0X
        1.4s     73.80nm
      Z  20s      8.21um          6.5Msz
                   LR     50 10.00
LNO    138.13  89 ePKP  10 02.80   -6.1X
                   LR     24 05.50
MIAR   138.67  92 (PKP) 10 10.86    0.9
      Z  21s      4.29um          6.2Msz
TDS    139.40 277 PKP   10 12.20    1.0
MNK    139.75 302 ePKP  10 06.00   -5.3X
      Z  22s      7.00um          6.4Msz
YKA    139.91  44 ePKP  10 26.80   15.5X
        0.2s      0.10nm
MGR    140.17 277 PKP   10 12.20   -0.3
UZH    140.42 292 ePKP  10 08.30   -4.4X
PUL    140.54 311 (PKP) 10 13.00    0.5
        1.8s    140.00nm
      Z  22s      5.80um          6.3Msz
      N  22s      4.60um
      E  22s      3.00um
SGO    140.56 277 PKP   10 16.90    3.7X
APA    141.39 324 iPKPd 10 15.60    1.7
UZD    141.68 287 e(PKP)10 13.00   -2.0
SPC    141.88 292 ePKP  09 57.50  -18.1X
SDI    142.13 278 PKP   10 12.60   -3.5X
SRO    142.41 289 ePKP  10 16.60    0.3
OJC    142.59 293 ePKP  10 15.50   -1.0
                   e      10 17.50
                   i      10 25.80
AQU    142.74 278 PKP   10 20.80    3.7X
FVM    142.79  90 ePKP  10 12.85   -4.4X
      Z  18s     14.72um          6.8Msz
ZAG    142.89 285 ePKP  10 16.50   -0.6
PTJ    142.95 285 ePKP  10 13.70   -3.7X
KAF    143.09 314 iPKP  10 12.50   -4.5X
        0.9s     46.50nm
ELC    143.13  92 ePKP  10 12.60   -5.2X
VBY    143.19 284 ePKP  10 14.40   -3.3X
                   i      10 26.50
SLM    143.30  90 PKP   10 30.00   11.9X
      Z  19s      4.23um          6.2Msz
ZST    143.31 289 ePKP  10 12.70   -5.1X
NUR    143.47 311 ePKP  10 17.80    0.2
ARV    143.63 280 PKP   10 18.80    0.3
RIY    143.65 283 e(PKP)10 16.50   -1.9
CEY    143.81 284 ePKP  10 17.50   -1.3
VKA    143.81 289 ePKP  10 19.00    0.3
LJU    143.89 284 ePKP  10 17.00   -1.9
KEV    144.00 327 ePKP  10 14.00   -4.3X
SDF    144.00 323 iPKP  10 17.70   -0.7
VRAC   144.09 290 ePKP  10 16.60   -2.4
RSM    144.15 280 PKP   10 17.20   -2.1
```

```
TRI    144.20 283 ePKP*  10 16.00  -3.4X
                  e      24 16.00
VOY    144.28 284 ePKP   10 17.30  -2.3
CRE    144.31 279 PKPc   10 16.90  -2.9
SFI    144.52 280 PKP    10 17.00  -2.9
FIR    144.82 279 ePKP   10 19.00  -1.5
KSP    144.89 293 ePKP   10 17.80  -2.6
        1.7s   311.00nm
                  i      10 20.40
KMR    145.04 287 iPKP+  10 18.90  -1.9
KBA    145.09 285 iPKPd  10 17.70  -3.4X
        0.9s    79.30nm
                  i      10 23.30
                  i      10 31.00
FVI    145.22 284 PKP    10 18.90  -2.1
GBTN   145.30  99 ePKP   10 20.68  -0.9
PRM    145.42 103 ePKP   10 19.84  -2.0
ULM    145.48  69 ePKP   10 23.50   2.1
TKL    145.57  99 ePKP   10 20.09  -2.0
PRU    145.59 291 ePKP   10 20.30  -1.3
        2.2s   434.10nm
      Z  22s     4.30um          6.2Msz
                  e      10 27.10
                  e      10 41.00
PGF    145.62 276 PKP    10 19.14  -2.9
GEC2   145.63 288 ePKPc  10 19.50  -2.4
        0.7s     9.72nm
                  e      10 22.80
                  e      10 25.70
                  e      10 29.30
                  e      10 37.20
                  e      10 46.00
BHG    145.66 286 iPKPd  10 19.70  -2.1
CTI    145.67 283 PKP    10 20.40  -1.6
KHC    145.82 289 PKP    10 20.00  -2.1
        1.5s   138.30nm
                  e      10 22.40
                  e      10 28.00
HBF    145.86 106 ePKP   10 23.59   1.0
SGS    145.96 106 ePKP   10 23.91   1.2
SAL    146.16 281 PKP    10 22.00  -0.7
WTTA   146.22 285 iPKPd  10 21.70  -1.3
                  ipPKP  10 33.80
JSC    146.23 103 ePKP   10 22.00  -1.2
WET    146.25 288 iPKPc  10 22.30  -0.5
BRG    146.28 292 iPKP   10 22.40  -0.3
        1.9s   380.00nm
                  i      10 29.00
OGA    146.42 284 iPKPd  10 22.90  -0.5
BOB    146.44 279 PKP    10 22.10  -1.2
SOTA   146.46 284 iPKPd  10 22.40  -0.9
                  i      10 28.80
                  i      10 35.80
LHS    146.64 104 ePKP   10 23.63  -0.2
MDI    146.75 281 PKP    10 22.50  -1.1
UPP    146.75 309 iPKP   10 25.90   2.8X
FUR    146.82 286 iPKPc  10 23.00  -0.7
        1.3s   188.00nm
OSS    146.89 283 PKP    10 26.62   2.5X
PCP    146.90 279 PKP    10 25.95   1.9
FIN    146.95 278 PKP    10 25.26   1.2
CLL    146.99 292 iPKPc  10 24.10   0.3
        1.9s   270.00nm
                  i      10 33.10
!MI    147.00 277 PKP    10 23.89  -0.3
CKI    147.01 278 PKP    10 26.20   2.1
BSD    147.09 299 iPKP   10 32.50   8.7X
        1.0s   231.00nm
ROB    147.20 278 PKP    10 26.82   2.3
SAOF   147.25 277 PKP    10 24.38  -0.2
SBF    147.27 277 PKP    10 25.12   0.5
AUTN   147.34 277 PKP    10 25.99   1.0
AURF   147.35 277 PKP    10 25.73   0.9
ENR    147.45 277 PKP    10 25.72   0.8
GRF    147.46 289 ePKPc  10 26.70   2.0
      Z  22s     7.00um          6.4Msz
TOUF   147.46 277 PKP    10 26.59   1.5
MVIF   147.46 277 PKP    10 25.99   0.9
RES    147.47  24 ePKP   10 24.00   0.1
        0.9s    86.00nm
                  pP     10 29.50
STV    147.52 277 PKP    10 26.27   1.2
CALN   147.56 276 PKP    10 26.96   1.7
MOX    147.57 290 ePKP   10 23.90  -0.9
        1.6s   187.00nm
      Z  22s     5.30um          6.3Msz
LMR    147.59 275 ePKP   10 25.60   0.5
        1.2s   147.00nm
FRF    147.62 276 ePKP   10 25.80   0.7
        1.4s   359.00nm
LLS    147.68 283 PKP    10 25.87   0.5
DOI    147.70 278 PKP    10 26.90   1.6
LRG    147.74 275 ePKP   10 26.40   1.1
        1.3s   282.30nm
ORO    147.76 280 PKP    10 27.00   1.6
ORX    147.76 280 PKP    10 26.32   0.9
PZZ    147.79 278 PKP    10 26.54   1.0
BHB    147.85 278 PKP    10 27.14   1.7
ANTZ   147.92 238 iPKPd  10 28.20   2.1
MMK    147.96 281 PKP    10 26.11   0.2
ESEL   147.98 267 ePKP   10 27.15   1.3
RSP    147.99 279 PKP    10 27.55   1.7
RRL    148.18 278 PKP    10 27.78   1.5
LSD    148.20 279 PKP    10 27.32   1.0
ZLA    148.31 283 PKP    10 27.67   1.5
BNI    148.31 278 PKP    10 31.20   4.8X
DIX    148.32 280 PKP    10 26.72   0.2
LPG    148.47 279 ePKP   10 28.10   1.3
        1.0s    85.20nm
NAV    148.47 100 ePKP   10 27.36   0.6
LPL    148.49 279 ePKP   10 28.00   1.2
        1.1s   148.00nm
EMS    148.61 280 PKP    10 28.53   1.6
CEH    148.63 103 (PKP)  10 29.14   2.2
      Z  21s     4.28um          6.2Msz
                  ec     10 31.46
RSL    148.63 279 PKP    10 28.12   1.2
BLA    148.64 100 ePKP   10 27.16   0.1
FEL    148.70 284 PKP    10 27.89   1.0
HFS    148.75 309 ePKP   10 28.90   2.5X
        0.6s     5.20nm
      Z  19s  3609.00um          9.2MszX
                  LR     04 06.00
FCC    148.85  54 ePKP   10 30.00   3.4X
IFR    148.99 250 ePKP   10 32.00   4.1X
                  i      10 39.00
LIBD   149.07 284 PKP    10 28.34   1.1
HOFF   149.15 286 PKP    10 29.81   2.5X
LOMF   149.22 282 PKP    10 26.66  -1.0
MOF    149.24 283 PKP    10 28.59   0.9
LANF   149.26 286 PKP    10 29.81   2.2
TNS    149.32 288 ePKPd  10 31.90   4.2X
                  e      13 51.00
WLS    149.32 285 PKP    10 29.36   1.6
ECH    149.37 284 PKP    10 29.66   1.9
CDF    149.37 284 PKP    10 28.55   0.7
ETER   149.38 271 ePKP   10 27.05  -0.9
BSF    149.44 283 ePKP   10 29.50   1.5
        1.0s    79.60nm
ENIJ   149.51 258 iPKPc  10 35.15   6.8X
EALH   149.57 260 iPKPc  10 36.05   7.7X
SSB    149.76 277 PKP    10 30.68   2.2
HAU    149.78 283 ePKP   10 29.60   1.2
        1.3s   161.75nm
      Z  23s     4.95um          6.2MszX
MTHF   149.91 272 PKP    10 34.24   5.5X
TRGS   150.05 271 PKP    10 35.43   6.2X
CFTV   150.06 232 iPKPd  10 32.00   2.6X
EBR    150.09 267 ePKP   10 35.00   6.0X
VITF   150.09 283 PKP    10 31.95   3.1X
AVE    150.19 247 ePKP   10 36.00   6.6X
                  i      11 03.00
NAO    150.22 310 PKP    10 33.00   4.4X
        1.4s   201.10nm
EGUA   150.27 256 ePKP   10 32.71   3.3X
EHUE   150.28 259 ePKP   10 31.47   1.9
EHUE   150.28 259 iPKPd  10 35.24   5.7X
ECHE   150.32 263 iPKPc  10 36.02   6.5X
PAND   150.32 270 PKP    10 38.28   8.7X
BNS    150.33 289 iPKPc  10 39.50  10.4X
      Z  21s    10.70um          6.6Msz
CVL    150.34 101 ePKP   10 33.00   3.5X
MCWV   150.47  97 (PKP)  10 35.66   6.0X
      Z  19s     4.34um          6.3Msz
GRBF   150.49 271 PKP    10 37.18   7.5X
WLF    150.52 286 PKPc   10 36.00   6.7X
ECOG   150.55 257 ePKP   10 35.21   5.2X
MUD    150.55 301 iPKPd  10 34.40   5.2X
        1.3s   148.00nm
MAL    150.72 255 iPKPc  10 35.50   5.4X
EVIA   150.72 260 ePKP   10 33.36   3.1X
LESF   150.75 271 PKP    10 37.86   7.9X
SMF    150.79 279 ePKP   10 30.50   0.6
        1.0s    73.80nm
LBF    150.85 280 ePKP   10 30.80   0.7
        1.2s   229.10nm
OJEN   151.00 253 ePKP   10 38.00   7.3X
LOR    151.04 281 ePKP   10 31.10   0.8
        1.0s    48.20nm
      Z  20s     7.90um          6.5Msz
PLAT   151.14 253 iPKP   10 38.00   7.2X
CBN    151.15 101 ePKP   10 31.00   0.3
ELUQ   151.16 257 iPKPc  10 36.77   5.9X
AVF    151.16 279 ePKP   10 31.30   0.9
        1.1s    52.25nm
CAF    151.16 275 ePKP   10 32.10   1.5
        1.2s   102.65nm
SSF    151.17 280 ePKP   10 31.60   1.1
        1.2s   134.50nm
EJIF   151.19 254 ePKP   10 36.50   5.7X
EBAN   151.24 258 iPKPc  10 37.42   6.5X
ENSF   151.24 270 PKP    10 38.46   7.6X
EGRA   151.34 268 ePKP   10 35.33   4.5X
EPF    151.35 270 ePKP   10 34.80   3.9X
        1.1s    75.95nm
EPRU   151.37 255 iPKPc  10 37.67   6.5X
BGF    151.38 279 ePKP   10 32.40   1.6
        1.1s   136.75nm
ALJ    151.41 254 iPKP   10 38.00   6.7X
MAF    151.42 278 ePKP   10 32.30   1.4
        1.5s    79.40nm
LPO    151.61 274 ePKP   10 33.20   2.0
        1.2s   119.60nm
DOU    151.61 286 PKP    10 32.60   1.6
                  e      10 37.80
TCF    151.67 278 ePKP   10 32.90   1.6
RJF    151.68 275 ePKP   10 33.10   1.8
        1.1s    81.55nm
      Z  23s     7.95um          6.5MszX
ETOR   151.70 264 ePKP   10 39.21   7.6X
GIBL   151.72 254 ePKP   10 40.50   8.8X
EHOR   151.93 256 ePKP   10 35.40   3.5X
EHOR   151.93 256 iPKPc  10 40.91   9.0X
LFF    152.01 274 ePKP   10 34.00   2.2
LSF    152.08 277 ePKP   10 33.70   1.8
DAG    152.60 349 ePKP   10 23.40  -8.3X
        1.1s    83.54nm
GUD    152.93 262 ePKP   10 42.13   8.7X
ECRI   152.94 267 ePKP   10 41.93   8.7X
EPLA   153.80 259 iPKPd  10 45.94  11.4X
EEO    154.41  84 ePKP   10 40.50   5.4X
RSNY   156.39  92 ePKP   10 39.60   1.8
      Z  21s     7.25um          6.5Msz
                  ePKPab11 05.38
HRV    157.26  99 PKP    10 50.00  11.0X
      Z  20s     7.68um          6.5Msz
CBM    161.47  91 PKP    10 50.00   6.6X
      Z  19s     7.55um
LMN    163.13  98 ePKP   10 51.50   6.4X
      S.D. = 1.4  on 297 of 425 obs.
-----------------------------------------
%  JAN  13, 1993  18h 52m 05.48± 1.84s
   18.101 N ±15.3km   76.650 W ±11.8km
   DEPTH =  19.4 ± 14.3 km
 JAMAICA REGION                    ( 86)
      MD 3.1 (HOJ). Felt (IV) in the
      Kingston area.

GWJ      0.09 253 iP     52 09.25  -0.2
                  S      52 12.21
HOJ      0.14 224 iP     52 09.97   0.2
STH      0.16 262 iP     52 10.07   0.0
                  S      52 14.03
YHJ      0.26 144 iP     52 11.45   0.0
PCJ      0.61 234 P      52 17.31   0.0
                  S      52 25.85
BBJ      0.65 296 iP     52 18.11   0.0
                  S      52 26.76
      S.D. = 0.2  on   6 of   6 obs.
-----------------------------------------
?  JAN  13, 1993  19h 26m 33.21± 3.50s
   14.590 N ±40.0km   95.126 W ±16.2km
   DEPTH =  33.0km  (normal)
 OFF COAST OF OAXACA, MEXICO       ( 67)

TPX      2.79  83 eP     27 16.50   0.0
OXX      2.92 328 iP     27 18.50   0.0
                  iS     27 48.50
SCX      3.21  48 iP     27 22.50   0.0
                  iS     27 55.00
PPM      5.57 324 eP     27 56.50   0.0
```

13d 19h

```
     S.D. = 0.0  on  *4 of   4 obs.
-------------------------------------
   JAN  13, 1993  19h 34m 50.31± 0.15s
   19.454 N ± 2.5km   64.526 W ± 2.8km
   DEPTH =  33.0km  (normal)
   5.0mb ( 35 obs.)
 VIRGIN ISLANDS                    ( 91)

LPR      1.71 228 iP     35 18.50    0.2
CPD      1.93 223 iP     35 22.20    0.8
SJG      2.04 229 iP     35 23.30    0.3
APR      2.31 245 iP     35 27.00    0.2
CLLP     2.38 235 P      35 28.10    0.3
PORP     2.44 235 iP     35 29.00    0.3
LRS      2.48 243 iP     35 29.00   -0.3
MGP      2.82 240 iP     35 34.20    0.1
NEV      2.96 141 eP     35 37.54    1.4
CPB      3.13 125 eP     35 36.32   -2.2
BPA      3.49 133 eP     35 41.50   -2.1
MGH      3.50 141 eP     35 43.00   -0.7
PAG      4.35 141 eP     35 55.00   -1.0
MGG      4.66 138 eP     35 58.00   -2.2
FDF      5.70 145 eP     36 13.83   -1.1
BIM      5.92 146 eP     36 16.97   -1.1
MVM      5.98 144 eP     36 18.60   -0.4
TCE      9.11 163 eP     37 04.99    2.4
TRN      9.26 161 eP     37 04.86    0.2
                  eS     38 52.86
MORO     9.28 204 iP     37 05.10    0.1
GUAN     9.50 187 iP     37 07.90   -0.2
TBH      9.52 159 eP     37 12.21    3.9X
TOV     10.88 209 eP     37 28.50    1.6
CEOS    11.00 200 eP     37 29.20    0.6
SDV     12.06 210 eP     37 43.00    0.0
BMG     14.85 215 iPd    38 31.00   11.2X
BOG     17.43 213 eP     38 58.00    5.0X
                  iS     42 12.00
ECO     17.77 238 eP     38 57.00    0.0
HBF     19.52 317 eP     39 17.06   -0.9
SGS     19.78 317 eP     39 19.92   -0.7
BRU     20.42 241 eP     39 26.44   -1.6
LHS     20.80 319 (P)    39 37.76    6.4X
CEH     20.80 325 eP     39 30.60   -0.7
        1.3s   133.25nm          5.2mb
JSC     20.95 318 eP     39 31.69   -1.1
PRM     21.54 316 (P)    39 39.48    0.7
CBN     21.77 332 eP     39 41.00    0.0
                  e     43 30.00
                  e     43 46.00
PSO     22.06 216 eP     39 44.50   -0.1
CVL     22.09 330 eP     39 43.76   -0.5
BLA     22.50 325 eP     39 48.71    0.3
        1.4s   177.13nm          5.3mb
NAV     22.78 325 eP     39 51.36    0.3
                  eS     43 53.94
TKL     23.42 318 eP     39 57.31    0.0
GBTN    23.70 317 eP     39 59.84   -0.3
HRV     23.74 347 (P)    40 03.03    2.7X
        0.6s    37.06nm          5.1mb
MCWV    24.08 330 (P)    40 10.41    6.7X
        0.6s   165.98nm          5.7mb
MIM     25.99 353 (P)    40 18.45   -3.3X
ELC     27.94 315 eP     40 38.02   -1.7
OLY     28.63 309 (P)    40 45.62   -0.3
FVM     29.12 315 eP     40 49.48   -0.8
        1.7s    51.01nm          5.0mb
EEO     29.63 340 eP     40 56.50    1.7
FNO     32.98 305 iPd    41 25.30    0.9
MEO     33.75 304 iPc    41 30.20   -0.9
WMOK    33.89 304 eP     41 28.46   -3.9X
        0.8s    13.26nm          4.9mb
ACO     34.81 307 iPc    41 40.00   -0.2
LPB     35.93 186 P      41 50.00   -0.3
CNCB    36.20 186 P      41 51.90   -0.8
ARE     36.34 191 eP     41 54.00    0.4
BAO     38.48 154 e(P)   42 11.00   -0.4
                  e     42 12.50
                  e     42 23.00
                  e     42 25.60
                  e     42 45.20
ULM     39.54 328 ePd    42 22.20    2.5X
RSSD    41.06 316 (P)    42 32.65    0.0
        0.8s     3.42nm          4.1mb
SRU     44.11 306 eP     42 57.63    0.1
BW06    44.35 312 ePc    42 59.19   -0.4
        0.9s    12.48nm          4.7mb
EMUT    44.49 307 eP     43 00.94    0.2
FCC     44.74 339 ePd    43 04.40    2.3
MSU     45.25 305 eP     43 05.61   -1.2
VAO     45.55 157 eP     43 10.50    1.5
DUG     46.07 307 eP     43 13.59    0.5
        0.8s     5.75nm          4.6mb
HVU     46.39 310 P      43 15.56   -0.1
HHAI    46.49 312 eP     43 16.46    0.1
LCCM    46.87 315 eP     43 20.00    0.6
SES     47.94 321 ePc    43 27.20   -0.4
        1.0s    40.00nm          5.4mb
NEW     51.00 317 eP     43 50.02   -1.1
        0.8s    37.72nm          5.4mb
DPW     51.60 316 eP     43 54.47   -1.2
PEL     52.63 187 eP     44 01.50   -2.0
MAL     54.91  58 iPd    44 22.00    1.7
YKA     54.94 334 eP     44 18.70   -1.4
        1.0s    19.40nm          5.1mb
DCN     55.18  38 iPd    44 22.40    0.4
        0.8s    63.00nm          5.7mb
DMU     55.53  37 iPd    44 24.80    0.3
        0.6s    60.00nm          5.8mb
RES     57.62 351 eP     44 39.00   -0.1
        1.0s     3.00nm          4.3mb
EKA     57.99  36 P      44 42.00    0.0
        0.8s    11.00nm          5.0mb
LPF     58.12  45 eP     44 43.20    0.2
        1.0s    35.00nm          5.4mb
GRR     58.28  45 eP     44 44.20    0.1
        0.8s    15.30nm          5.1mb
FLN     58.57  44 eP     44 46.30    0.2
        1.3s    80.50nm          5.7mb
EPF     58.74  51 eP     44 45.70   -1.8
LDF     58.79  44 eP     44 48.00    0.3
        0.8s    17.20nm          5.2mb
TIC     59.09  94 P      44 50.20   -0.1
LIC     59.22  94 P      44 51.20    0.1
KIC     59.44  94 P      44 52.90    0.2
RJF     59.67  48 eP     44 53.10   -0.8
        0.7s     9.25nm          5.0mb
LSF     59.73  47 eP     44 54.20    0.0
TCF     60.20  47 eP     44 57.60    0.1
        0.9s    12.80nm          5.1mb
AVF     61.01  47 eP     45 02.70   -0.2
        1.0s    13.80nm          5.0mb
SSF     61.12  46 eP     45 03.60   -0.1
        1.0s    16.60nm          5.1mb
SMF     61.34  47 eP     45 05.20    0.0
        1.0s    17.80nm          5.2mb
DAG     61.72  11 eP     45 06.10   -1.2
        0.9s    10.08nm          4.9mb
LPL     63.35  48 eP     45 19.40    0.5
LPG     63.36  48 eP     45 19.80    0.7
CDF     63.69  45 eP     45 22.50    1.6
        0.7s     3.10nm          4.5mb
PGF     65.12  51 eP     45 30.00   -0.3
        0.9s     9.65nm          4.9mb
NAO     66.08  31 P      45 36.20    0.2
        1.1s    12.80nm          4.9mb
KHC     67.83  44 eP     45 47.50    0.1
        1.0s     3.50nm          4.4mb
                  e     46 18.60
KBA     67.84  46 iPd    45 47.50   -0.2
        0.8s     3.90nm          4.6mb
GEC2    67.93  44 ePd    45 48.00   -0.1
        0.7s     1.83nm          4.3mb
                  e     45 54.30
                  e     46 03.90
VOY     68.32  47 eP     45 50.80    0.2
PRU     68.39  43 eP     45 51.50    0.7
CEY     68.72  48 e(P)   45 53.00    0.0
VBY     69.32  48 eP     45 57.00    0.4
FBA     69.72 333 eP     45 57.90   -0.8
ZST     70.25  45 eP     46 01.80   -0.4
                  e     13 48.40
IMA     72.06 335 ePc    46 12.03   -1.0
        1.1s    14.59nm          4.9mb
BGL     72.13 330 (P)    46 10.94   -2.5
KAF     73.40  29 iP     46 20.30   -0.4
        0.6s     5.90nm          4.8mb
OHR     74.04  52 eP     46 20.30   -4.6X
SKO     74.33  51 eP     46 27.50    1.0
MLR     76.71  46 eP     46 42.00    1.8
                  e     05 25.00
CVO     76.79  46 eP     46 42.50    2.0
                  e     05 26.00
OBN     80.43  35 eP     47 00.00    0.0
BCAO    82.01  88 iPc    47 10.40    1.3
        0.9s    18.00nm          5.1mb
GKN    124.18  33 PKP    53 48.04    0.1
KKN    124.68  33 PKP    53 48.94    0.0
DMN    124.74  33 PKP    53 49.00   -0.1
GUN    124.89  32 PKP    53 49.64    0.1
PKI    124.93  33 PKP    53 49.12   -0.5
ARMA   145.58 244 iPKPc  54 28.70    1.2
        0.7s    40.00nm
CNB    146.21 235 ePKP   54 30.30    2.0
        0.8s    33.00nm
CAN    146.49 235 ePKP   54 30.80    2.1
TOO    148.24 229 ePKP   54 35.30    3.9X
        0.8s    27.00nm
CMS    150.19 240 iPKPc  54 41.00    6.4X
        0.7s     7.00nm
BFD    150.50 228 ePKP   54 38.80    4.0X
        0.7s    11.00nm
STK    153.48 237 ePKP   54 48.40    9.1X
        0.8s     3.30nm
WB2    162.22 265 iPKPd  54 51.00    1.0
        0.8s     3.90nm
                  i     55 00.50
WRA    162.23 265 PKP    54 51.50    1.5
        0.9s     2.00nm
     S.D. = 1.0  on 117 of 131 obs.
-------------------------------------
% JAN  13, 1993  19h 35m 50.24± 1.63s
   38.047 N ±18.7km   14.152 E ± 7.7km
   DEPTH =  10.0km  (geophysicist)
 SICILY                            (398)

GIB      0.11 240 P      35 52.20   -1.0
                  eSg    35 54.60
MNO      0.44 105 P      35 59.40    0.0
                  eSg    36 07.10
MCT      0.58 225 P      36 03.30    1.1
ATN      1.04  83 P      36 10.10    0.2
MEU      1.13 147 P      36 11.00   -0.5
     S.D. = 1.1  on   5 of   5 obs.
-------------------------------------
   JAN  13, 1993  19h 53m 34.15± 0.20s
   19.488 N ± 3.6km   64.465 W ± 3.6km
   DEPTH =  33.0km  (normal)
   4.9mb ( 18 obs.)
 VIRGIN ISLANDS                    ( 91)

LPR      1.77 229 iP     54 02.90   -0.1
CPD      1.99 224 iP     54 06.40    0.2
SJG      2.10 230 iP     54 07.80    0.0
APR      2.38 245 iP     54 11.90    0.3
CDP      2.40 237 iP     54 07.00   -5.1X
PORP     2.50 236 i(P)   54 13.00   -0.5
NEV      2.95 142 eP     54 20.98    1.2
CPB      3.11 126 eP     54 20.75   -1.2
BPA      3.47 134 eP     54 26.00   -1.2
MGH      3.49 142 eP     54 27.00   -0.4
PAG      4.34 142 eP     54 37.50   -2.2
MGG      4.65 139 eP     54 43.00   -0.9
TOV     10.93 209 eP     56 12.50    1.0
SDV     12.11 210 eP     56 26.90   -0.7
HBF     19.54 316 (P)    58 01.35   -0.6
SGS     19.79 317 (P)    58 04.55   -0.1
CEH     20.81 325 eP     58 14.97   -0.2
        0.3s   111.51nm          5.7mb
                  eS     01 51.60
LHS     20.81 319 (P)    58 10.16   -5.1X
JSC     20.96 318 (P)    58 09.99   -6.8X
CBN     21.77 332 eP     58 25.00    0.2
                  e     02 24.00
CVL     22.09 329 (P)    58 22.73   -5.4X
                  eS     02 21.04
BLA     22.50 325 (P)    58 29.01   -3.3X
        1.4s    80.51nm          5.0mb
NAV     22.78 325 (P)    58 35.23    0.2
                  eS     02 44.46
TKL     23.43 317 (P)    58 40.50   -0.8
GBTN    23.72 317 (P)    58 44.28    0.2
                  eS     03 02.12
MCWV    24.08 330 (P)    58 52.17    4.7X
        0.8s   228.84nm          5.8mb
ELC     27.96 315 (P)    59 23.50   -0.2
UYO     30.36 305 iPd    59 45.00   -0.3
LPB -   35.97 186 eP     00 37.00    2.5X
CNCB    36.23 186 P      00 35.80   -1.0
BAO     38.48 154 Pc     00 56.00    0.8
ULM     39.54 328 ePd    01 06.00    2.4X
BW06    44.37 312 eP     01 43.15   -0.4
```

```
        1.2s      8.68nm          4.5mb
FCC     44.73 339 ePc    01 48.40   2.6X
MSU     45.28 305 eP     01 50.65  -0.2
DUG     46.10 307 eP     01 57.35   0.2
        0.8s      3.10nm          4.3mb
HVU     46.42 310 eP     01 58.36  -1.3
HHAI    46.51 312 (P)    01 58.44  -1.9
LCCM    46.89 315 eP     02 03.20  -0.2
SES     47.94 321 eP     02 11.00  -0.5
GSC     48.53 300 eP     02 17.00   0.7
TNP     49.13 304 (P)    02 19.03  -2.0
        1.0s      7.24nm          4.7mb
BONR    49.97 304 eP     02 28.31   0.7
NEW     51.01 317 eP     02 34.66  -0.4
        0.9s     18.30nm          5.0mb
KMPM    54.69 306 eP     03 02.79   0.2
YKA     54.94 334 eP     03 02.40  -1.5
        0.6s     11.30nm          5.1mb
DCN     55.12  38 eP     03 05.70   0.3
        0.8s     47.00nm          5.6mb
DMU     55.47  37 eP     03 08.20   0.3
        0.6s     45.00nm          5.7mb
DLF     55.54  38 eP     03 06.50  -1.9
EPF     58.67  51 eP     03 31.70   0.8
        0.5s      3.65nm          4.7mb
TIC     59.03  94 P      03 33.40  -0.3
LIC     59.16  94 P      03 34.20  -0.4
KIC     59.39  94 P      03 36.00  -0.2
      Z  17s      0.00um          1.5MszX
RJF     59.61  48 eP     03 37.50   0.2
LSF     59.66  47 eP     03 38.00   0.4
TCF     60.14  47 eP     03 41.20   0.3
AVF     60.94  47 eP     03 45.50  -0.8
        0.9s      9.50nm          4.9mb
SSF     61.06  46 eP     03 47.10   0.0
        1.0s     16.00nm          5.1mb
LOR     61.31  46 eP     03 48.00  -0.8
DAG     61.68  11 eP     03 50.80  -0.1
        1.0s      9.00nm          4.9mb
      Z  24s      9.77um          5.9MszX
      N  22s      5.04um
      E  21s      4.44um
NAO     66.02  31 P      04 19.40  -0.1
        1.0s      8.70nm          4.8mb
GEC2    67.87  44 eP     04 31.40  -0.1
        0.6s      1.07nm          4.1mb
                   e     04 39.80
VBY     69.26  48 eP     04 42.10   2.0
IMA     72.06 335 eP     04 57.00   0.2
        0.7s      7.90nm          4.8mb
VRI     77.08  46 eP     05 27.00   1.1
BCAO    81.95  88 iPc    05 54.00   1.3
        0.9s     16.00nm          5.0mb
GKN    124.12  33 PKP    12 32.20   0.5
KKN    124.62  33 PKP    12 33.20   0.5
DMN    124.68  33 PKP    12 33.20   0.3
ARMA   145.65 244 ePKP   13 12.70   1.3
        0.8s     29.00nm
CNB    146.28 235 ePKP   13 13.70   1.4
        1.0s     32.00nm
CAN    146.56 235 ePKP   13 14.60   1.9
BWA    147.30 236 ePKP   13 16.20   2.3
TOO    148.30 229 ePKP   13 16.70   1.3
        0.8s     14.00nm
RMQ    148.70 251 ePKP   13 21.30   5.0X
        0.7s     21.00nm
CMS    150.26 240 ePKP   13 24.60   6.1X
        0.9s      6.00nm
BFD    150.56 228 ePKP   13 24.80   6.0X
        0.5s      5.00nm
STK    153.55 237 ePKP   13 31.80   8.5X
        1.0s      1.50nm
WRA    162.29 265 PKP    13 35.20   1.3
        0.9s      1.30nm
     S.D. = 1.0  on  66 of  79 obs.
-----------------------------------------
*  JAN  13, 1993  20h 15m 20.28± 0.94s
   19.261 N ±17.8km   64.320 W ± 9.3km
   DEPTH =  33.0km  (normal)
   4.2mb (  1 obs.)
 VIRGIN ISLANDS                     ( 91)

LPR     1.75 237 iP      15 49.30   0.5
CPD     1.94 231 iP      15 52.50   0.9
APR     2.42 251 iP      15 57.50  -0.9
BPA     3.22 133 eP      16 08.00  -1.7
TOV    10.80 210 eP      18 01.40   5.5X
SDV    11.99 212 eP      18 16.10   4.0X
ALQ    40.32 302 eP      22 54.90  -1.7
        1.0s      5.00nm          4.2mb
LIC    59.01  94 P       25 20.50   0.8
KIC    59.23  94 P       25 22.00   0.8
WRA   162.40 265 PKP     35 21.40   1.2
        0.6s      0.20nm
     S.D. = 1.4  on   8 of  10 obs.
-----------------------------------------
*  JAN  13, 1993  21h 31m 39.19± 0.87s
   19.526 N ± 9.7km   64.315 W ± 8.5km
   DEPTH =  33.0km  (normal)
   4.4mb (  2 obs.)
 VIRGIN ISLANDS                     ( 91)

LPR     1.91 231 iP      32 09.20  -0.8
CPD     2.12 226 iP      32 13.00   0.0
APR     2.52 245 iP      32 18.00  -0.7
PORP    2.64 237 iP      32 19.30  -1.1
MGP     3.03 241 iP      32 25.10  -0.9
BPA     3.40 136 eP      32 30.50  -0.7
PAG     4.29 144 eP      32 44.00   0.1
TOV    11.04 209 eP      34 19.00   1.0
SDV    12.22 211 eP      34 36.50   2.4
LPB    36.02 186 eP      38 45.00   5.1X
CNCB   36.29 186 eP      38 43.00   0.7
BAO    38.45 154 e(P)    38 59.00  -1.0
                  e      39 01.00
                  e      39 08.70
                  e      39 18.00
ALQ    40.18 301 eP      39 15.00   0.6
        1.0s      7.25nm          4.4mb
SES    48.00 321 eP      40 19.00   2.0
YKA    54.97 334 eP      41 07.70  -1.5
        0.8s      2.70nm          4.3mb
     S.D. = 1.3  on  14 of  15 obs.
-----------------------------------------
%  JAN  13, 1993  23h 04m 34.96± 1.18s
   39.577 N ± 9.5km   23.333 E ± 8.7km
   DEPTH =  10.0km  (geophysicist)
 AEGEAN SEA                         (365)

PAIG    0.44  37 iPg     04 43.85  -0.1
                  iSg    04 49.52
LIT     0.83 309 ePg     04 51.36   0.3
                  iSg    05 03.12
OUR     0.91  33 iPg     04 52.38   0.1
                  eSg    05 06.04
AGG     0.95 235 ePg     04 53.20   0.0
                  eSg    05 07.68
SOH     1.24   1 ePb     04 58.50   0.4
GRG     1.55 333 ePb     05 02.16  -0.5
KNT     1.62 348 ePb     05 03.40  -0.2
     S.D. = 0.4  on   7 of   7 obs.
-----------------------------------------
%  JAN  13, 1993  23h 54m 20.71± 0.68s
   26.413 S ± 5.7km   27.451 E ± 7.5km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA           (584)
      ML 2.3 (PRE).

PRY     0.51 178 eP      54 31.00   0.0
                  S      54 36.00
KSR     0.74 317 eP      54 36.00   0.5
                  S      54 49.00
SLR     1.01  48 eP      54 39.60  -0.7
                  S      54 50.00
SEK     1.91 175 eP      54 55.50   1.1
                  S      55 18.50
BFT     2.44  73 eP      55 02.50   0.4
                  S      55 32.00
BLF     2.91 202 eP      55 08.00  -0.7
                  S      55 42.50
KIM     3.32 225 eP      55 14.00  -0.6
     S.D. = 0.9  on   7 of   7 obs.
-----------------------------------------
   JAN  13, 1993  23h 56m 01.67± 0.28s
   19.485 N ± 4.0km   64.443 W ± 4.6km
   DEPTH =  33.0km  (normal)
   4.8mb ( 16 obs.)
 VIRGIN ISLANDS                     ( 91)

LPR     1.79 229 iP      56 30.90   0.1
CPD     2.00 224 iP      56 34.00   0.1
SJG     2.12 230 iP      56 34.80  -0.7
APR     2.40 245 iP      56 39.20  -0.2
PORP    2.52 236 iP      56 40.90  -0.3
LRS     2.56 243 P       56 34.79  -7.1X
LRS     2.56 243 iP      56 41.00  -0.9
MGP     2.91 240 iP      56 46.30  -0.3
NEV     2.94 142 eP      56 47.07   0.0
CPB     3.09 126 iPc     56 47.30  -1.9
                  e      56 57.36
BPA     3.45 134 eP      56 53.00  -1.5
MGH     3.47 142 eP      56 54.31  -0.4
PAG     4.33 142 eP      57 06.00  -0.9
FDF     5.68 146 eP      57 28.20   2.2
MVM     5.96 145 eP      57 29.40  -0.6
TRN     9.26 161 eP      58 20.12   4.1X
TBH     9.52 160 eP      58 22.07   2.4
TPP     9.56 162 eP      58 24.71   4.6X
OLLA    9.68 194 iP      58 21.70  -0.2
TOV    10.94 209 eP      58 40.50   1.4
SDV    12.12 210 eP      58 55.80   0.5
BOG    17.50 214 eP      00 08.00   2.7
                  eS     03 23.00
ECO    17.86 238 eP      00 09.51   0.1
UPA    17.95 237 eP      00 08.03  -2.5
HBF    19.56 316 eP      00 31.04   1.4
SGS    19.81 317 eP      00 32.48   0.2
CEH    20.82 325 eP      00 41.96  -0.9
        1.2s     67.82nm          4.9mb
LHS    20.83 319 eP      00 41.45  -1.5
JSC    20.98 318 eP      00 43.47  -1.0
PRM    21.57 316 eP      00 50.90   0.4
CBN    21.78 332 eP      00 50.00  -2.5
                  e      04 32.00
                  e      04 52.00
CVL    22.10 329 eP      00 57.65   1.9
PSO    22.13 216 eP      00 56.00  -0.6
BLA    22.52 325 eP      00 59.89   0.0
        1.3s    140.90nm          5.3mb
NAV    22.80 325 eP      01 04.13   1.5
TKL    23.45 317 eP      01 10.64   1.6
MCWV   24.09 330 (P)     01 22.03   6.9X
        0.7s     87.07nm          5.4mb
UYO    30.38 305 iPc     02 14.20   1.2
NNA    33.57 202 eP      02 38.50  -2.5
        0.5s      6.34nm          4.8mb
      Z  17s      5.10um          5.3MszX
MEO    33.80 304 iPc     02 41.80  -1.1
WMOK   33.94 304 (P)     02 37.69  -6.4X
        0.6s      3.80nm          4.5mb
ZOBO   35.73 186 P       03 01.00   0.8
      Z  22s      0.50um          4.2Msz
                  S      08 48.00
                  LR     13 04.00
LPB    35.97 186 P       03 04.00   2.0
      Z  16s      1.68um          4.9MszX
                  LR     15 16.00
CNCB   36.23 186 P       03 03.70  -0.7
ARE    36.39 191 eP      03 15.00   9.7X
BAO    38.47 154 e(P)    03 22.00  -0.7
                  e      03 23.00
                  e      03 30.00
                  e      03 34.00
                  e      03 39.00
ULM    39.56 328 ePc     03 33.10   1.9
ALQ    40.10 301 eP      03 36.12  -0.1
        0.9s      9.30nm          4.5mb
SRU    44.16 306 (P)     04 04.42  -4.9X
BW06   44.39 312 eP      04 09.95  -1.3
        1.2s     11.74nm          4.6mb
FCC    44.74 339 eP      04 16.00   2.6
MSU    45.30 305 eP      04 18.75   0.2
HVU    46.43 310 eP      04 27.11  -0.2
LCCM   46.90 315 ePc     04 31.30   0.3
SES    47.96 321 ePd     04 38.60  -0.5
GSC    48.55 300 eP      04 45.14   1.2
TNP    49.15 304 eP      04 47.22  -1.5
        0.7s      2.87nm          4.4mb
NEW    51.03 317 eP      05 01.45  -1.2
        0.8s     27.31nm          5.3mb
MDZ    52.24 185 eP      05 11.50  -0.4
ORV    52.63 305 eP      05 14.68  -0.2
MAL    54.83  58 iPc     05 33.00   1.9
YKA    54.95 334 eP      05 27.20  -4.4X
        0.8s      5.90nm          4.7mb
DMU    55.46  37 eP      05 35.10  -0.3
TIC    59.01  94 P       06 01.00  -0.1
LIC    59.14  94 P       06 01.40  -0.6
      Z  20s      0.06um          3.7Msz
KIC    59.37  94 P       06 03.20  -0.3
        1.0s     12.50nm          5.0mb
```

14d 00h

```
NAO     66.01  31 P     06 48.50   1.6
        0.9s      6.90nm          4.8mb
GEC2    67.85  44 eP    06 57.80  -1.2
        0.7s      0.78nm          3.9mb
                  e     07 00.50
VBY     69.25  48 eP    07 07.50   0.0
ZST     70.17  45 eP    07 11.90  -1.2
PMR     70.55 330 eP    07 14.01  -1.1
        1.1s     16.45nm          5.0mb
IMA     72.07 335 eP    07 23.40  -1.0
        1.3s     21.30nm          5.0mb
SKO     74.25  51 eP    07 35.00  -2.4
MLR     76.63  46 eP    07 50.00  -1.1
OBN     80.36  35 eP    08 12.00   1.0
BCAO    81.93  88 iPd   08 22.90   2.8
        1.2s     14.00nm          4.9mb
ARMA   145.67 244 ePKP  15 40.00   1.0
        1.0s     29.00nm
CAN    146.58 235 e(PKP)15 42.20   2.0
TOO    148.31 229 ePKP  15 38.20  -4.7X
        1.0s     31.00nm
RMO    148.72 251 ePKP  15 49.20   5.3X
        0.8s     10.00nm
BFD    150.57 228 ePKP  15 43.20  -3.1X
        0.8s      7.00nm
      S.D. = 1.4  on  70 of  81 obs.
-----------------------------------
*  JAN  14, 1993  00h 19m 05.31± 1.01s
   19.612 N ± 7.7km   64.297 W ±12.2km
   DEPTH =  33.0km  (normal)
   4.1mb (  2 obs.)
 VIRGIN ISLANDS                    ( 91)

LPR      1.97 229 iP     19 36.80  -0.3
CPD      2.19 225 iP     19 40.50   0.4
SJG      2.30 230 iP     19 41.50  -0.3
APR      2.57 244 iP     19 45.20  -0.4
PORP     2.70 235 iP     19 47.00  -0.4
LRS      2.75 242 iP     19 47.80  -0.2
MGP      3.09 239 iP     19 52.20  -0.7
PAG      4.35 145 eP     20 10.00  -0.9
TOV     11.12 209 eP     21 47.60   2.4
SDV     12.30 211 eP     22 04.40   3.1X
HBF     19.56 316 eP     23 31.67  -1.7
SGS     19.81 316 eP     23 36.09   0.1
CEH     20.80 324 eP     23 52.17   5.9X
LHS     20.83 319 (P)    23 55.36   8.8X
JSC     20.98 318 (P)    23 46.46  -1.7
PRM     21.57 316 (P)    24 00.32   6.2X
CVL     22.07 329 (P)    24 00.52   1.5
NAV     22.77 324 (P)    24 10.60   4.5X
TKL     23.45 317 eP     24 15.42   2.8
ALQ     40.15 301 ePc    26 43.80   3.5X
        1.0s      5.00nm          4.2mb
YKA     54.90 334 eP     28 34.20  -0.6
        0.7s      1.00nm          4.0mb
      S.D. = 1.4  on  15 of  21 obs.
-----------------------------------
   JAN  14, 1993  00h 30m 44.11± 0.55s
   19.477 N ± 6.6km   64.353 W ± 7.4km
   DEPTH =  33.0km  (normal)
   4.3mb (  2 obs.)
 VIRGIN ISLANDS                    ( 91)

LPR      1.85 231 iP     31 13.70  -0.4
CPD      2.06 226 iP     31 17.30   0.2
SJG      2.18 232 iP     31 18.50  -0.3
APR      2.47 246 iP     31 22.00  -0.9
PORP     2.59 237 iP     31 24.00  -0.6
LRS      2.64 244 iP     31 24.60  -0.7
MGP      2.98 241 iP     31 29.50  -0.6
BPA      3.39 135 eP     31 35.00  -1.0
PAG      4.27 143 eP     31 48.00  -0.6
TOV     10.98 209 eP     33 23.20   1.1
SDV     12.16 211 eP     33 40.40   2.2
HBF     19.62 316 eP     35 13.64   0.8
SGS     19.87 317 eP     35 10.30  -5.1X
CEH     20.88 325 (P)    35 26.44   0.6
LHS     20.89 319 (P)    35 30.82   4.8X
JSC     21.04 318 (P)    35 28.50   0.9
PRM     21.63 316 (P)    35 36.59   3.0X
CVL     22.15 329 eP     35 40.47   1.8
NAV     22.85 324 eP     35 43.38  -2.3
RSNY    26.40 343 (P)    36 30.49  11.1X
FVM     29.22 315 (P)    36 49.75   4.7X
        0.6s      3.66nm          4.3mb
ZOBO    35.73 186 P      37 42.00  -0.7
LPB     35.97 186 P      37 52.00   7.6X
CNCB    36.23 186 P      37 47.00   0.2
SRU     44.23 306 (P)    38 59.10   6.8X
MSU     45.37 305 (P)    39 06.07   4.5X
SES     48.02 321 eP     39 22.00   0.0
YKA     55.00 334 eP     40 11.60  -2.7
        0.8s      2.60nm          4.3mb
KIC     59.28  94 P      40 46.00   0.6
MLR     76.58  46 ePc    42 35.00   1.8
CVO     76.65  46 eP     42 31.50  -2.0
WRA    162.39 265 PKP    50 46.30   2.3
        0.8s      0.40nm
      S.D. = 1.4  on  24 of  32 obs.
-----------------------------------
   JAN  14, 1993  00h 39m 53.73± 0.34s
   45.561 N ± 5.2km   6.058 E ± 3.7km
   DEPTH =  10.0km  (geophysicist)
 FRANCE                            (538)
      ML 2.6 (LDG).

LPL      0.48  95 Pg     40 03.90   0.4
                  Sg     40 10.00
LPG      0.49  97 Pg     40 04.10   0.3
                  Sg     40 10.80
BNI      0.67 139 Pd     40 06.30  -0.8
                  eSg    40 13.60
LSD      0.78  97 P      40 08.98  -0.1
                  S      40 18.42
RRL      0.82 141 P      40 09.27  -0.5
                  S      40 19.61
RSP      0.94 115 P      40 11.93   0.2
BHB      1.12 130 P      40 14.89   0.2
PZZ      1.29 145 P      40 17.68   0.0
ORO      1.35  87 P      40 19.50   0.8
                  eSg    40 37.50
DOI      1.35 141 P      40 18.50  -0.2
SMF      1.89 306 Pn     40 27.20   0.9
                  Pg     40 30.20
                  Sg     40 54.60
SBF      1.96 149 Pg     40 31.60   4.2X
                  Sg     40 55.20
LBF      2.03 315 Pn     40 27.90  -0.5
                  Pg     40 32.70
                  Sg     40 59.70
FRF      2.04 168 Pg     40 31.90   3.3X
                  Sn     40 52.70
                  Sg     40 57.40
LRG      2.12 174 Pg     40 33.20   3.6X
                  Sn     40 54.30
                  Sg     41 00.10
AVF      2.25 304 Pn     40 32.30   0.8
                  Pg     40 37.60
                  Sg     41 06.10
LOR      2.29 319 Pn     40 31.60  -0.5
                  Pg     40 38.50
                  Sg     41 07.50
SSF      2.32 311 Pg     40 39.20   6.6X
                  Sg     41 08.50
BGF      2.45 295 Pn     40 34.40   0.0
                  Pg     40 41.20
                  Sg     41 12.20
HAU      2.45   5 Pn     40 32.80  -1.6
MAF      2.53 286 Pn     40 35.60   0.1
                  Sg     41 13.80
TCF      2.78 287 Pg     40 46.70   7.5X
                  Sn     41 10.90
                  Sg     41 22.60
CAF      2.89 259 Pn     40 41.00   0.3
                  Pg     40 50.10
                  Sn     41 14.20
                  Sn     41 24.00
      S.D. = 0.7  on  18 of  23 obs.
-----------------------------------
   JAN  14, 1993  00h 41m 26.87± 0.51s
   41.903 N ± 4.6km   23.088 E ± 4.6km
   DEPTH =  10.0km  (geophysicist)
 GREECE-BULGARIA BORDER REGION     (363)
      ML 3.0 (SKO).

VTS      0.69   7 iPgc   41 39.00  -1.7
VAY      0.70 214 iPg    41 39.60  -1.1
                  iSg    41 49.30
KNT      0.75 191 iPg    41 41.16  -0.5
                  eSg    41 51.24
SRS      0.87 154 iPg    41 43.80   0.2
                  eSg    41 56.40
PGB      1.03  51 iPgc   41 46.00  -0.4
GRG      1.08 209 ePg    41 46.44  -0.7
                  eSg    42 01.08
SOH      1.10 169 iPg    41 47.72   0.2
                  iSg    42 03.62
PLD      1.22  80 iPg    41 51.00   1.4
SKO      1.23 274 iPn    41 51.20   1.4
                  iSn    42 05.70
                  i(Sg)  42 10.20
RZN      1.24  99 iPg    41 51.00   1.0
THE      1.27 184 iPb    41 50.62   0.1
                  iSb    42 07.72
FNA      1.71 230 ePb    41 57.88   1.0
                  eSb    42 18.20
OUR      1.71 156 ePb    41 56.80   0.0
KDZ      1.76  97 iP     41 57.00  -0.6
LIT      1.86 194 ePb    41 59.32   0.3
                  iSb    42 22.68
OHR      1.89 246 iPn    42 00.30   0.7
PAIG     2.02 167 iPn    42 01.12  -0.3
                  eSn    42 26.52
AGG      2.94 192 iPn    42 13.24  -1.2
      S.D. = 1.0  on  18 of  18 obs.
-----------------------------------
&  JAN  14, 1993  00h 50m 11.81s
   40.322 N          124.615 W
   DEPTH =  19.3km
 NEAR COAST OF NORTHERN CALIF.     ( 35)
      <GM-P>. MD 3.0 (GM).

KMPM     0.39  76 ePd    50 20.13   0.1
                  eS     50 25.66
FHC      0.68  45 iPc    50 24.42  -0.4
LBFM     2.31  63 eP     50 48.48  -1.2
LMEM     2.33  84 eP     50 48.88  -1.1
ORV      2.51 107 (P)    50 50.95  -1.5
         5 obs. associated
-----------------------------------
?  JAN  14, 1993  00h 52m 38.41± 4.00s
   18.116 N ±32.8km   76.641 W ±15.1km
   DEPTH =  10.0km  (geophysicist)
 JAMAICA REGION                    ( 86)
      MD 2.2 (HOJ). Felt at Mona and
      Barbican.

GWJ      0.10 246 iP     52 41.36   0.1
                  S      52 44.43
HOJ      0.15 223 iP     52 42.00   0.0
                  S      52 44.50
STH      0.17 257 iP     52 42.19  -0.1
                  S      52 44.81
YHJ      0.26 148 iPd    52 43.97   0.0
      S.D. = 0.1  on   4 of   4 obs
-----------------------------------
?  JAN  14, 1993  01h 43m 42.20± 3.79s
   18.111 N ±31.6km   76.639 W ±15.0km
   DEPTH =  10.0km  (geophysicist)
 JAMAICA REGION                    ( 86
      MD 2.3 (HOJ). Felt (III) at
      Barbican.

GWJ      0.10 249 iP     43 45.08   0.0
                  S      43 48.25
HOJ      0.15 224 iP     43 45.73   0.0
                  S      43 49.26
STH      0.17 259 iP     43 46.03   0.0
                  S      43 48.58
YHJ      0.26 147 iP     43 47.68   0.0
                  S      43 53.16
      S.D. = 0.1  on   4 of   4 obs.
-----------------------------------
?  JAN  14, 1993  02h 03m 28.50± 3.55s
   19.463 N ±23.5km   64.277 W ±46.6km
   DEPTH =  33.0km  (normal)
   3.5mb (  1 obs.)
 VIRGIN ISLANDS                    ( 91)

LPR      1.90 233 iP     03 59.00  -0.2
CPD      2.10 228 iP     04 03.10   1.0
PORP     2.64 238 iP     04 09.20  -0.5
LRS      2.70 245 iP     04 10.00  -0.5
MGP      3.03 242 iP     04 15.40   0.1
CEH     20.93 324 (P)    08 11.69   0.9
                  e      08 19.62
YKA     55.04 334 eP     12 58.20  -0.8
        0.6s      0.30nm          3.5mb
      S.D. = 0.9  on   7 of   7 obs.
-----------------------------------
```

```
%  JAN  14, 1993  02h 27m 16.66± 0.96s
   18 011 N ±10.7km   76.677 W ± 7.7km
   DEPTH =  10.0km  (geophysicist)
 JAMAICA REGION                        ( 86)
      MD 2.1 (HOJ). Felt (III) in the
      Kingston area.

HOJ      0.07 263 iP     27 19.72   0.7
                  S      27 22.36
GWJ      0.09 317 iPc    27 19.12  -0.2
                  S      27 20.35
STH      0.15 297 iP     27 19.90  -0.2
                  S      27 22.94
YHJ      0.21 124 iPd    27 21.27   0.0
                  S      27 25.72
PCJ      0.54 240 iP     27 27.26  -0.3
                  S      27 37.71
     S.D. = 0.6  on   5 of   5 obs.
-----------------------------------------
?  JAN  14, 1993  02h 44m 24.95± 2.72s
   19.498 N ±17.4km   64.418 W ±36.1km
   DEPTH =  33.0km  (normal)
   3.3mb (  1 obs.)
 VIRGIN ISLANDS                        ( 91)

LPR      1.81 230 iP     44 54.40   0.0
CPD      2.03 225 iP     44 58.00   0.5
APR      2.42 245 iP     45 03.30   0.2
PORP     2.55 236 iP     45 04.40  -0.5
LRS      2.59 243 iP     45 05.30  -0.2
HBF     19.56 316 (P)    48 57.26   4.2X
CEH     20.83 325 (P)    49 06.53   0.3
                  e      49 15.16
YKA     54.95 334 eP     53 54.50  -0.3
        0.6s     0.20nm          3.3mb
     S.D. = 0.4  on   7 of   8 obs.
-----------------------------------------
•  JAN  14, 1993  03h 31m 15.85± 0.69s
   14.152 S ± 9.9km   166.988 E ±13.5km
   DEPTH =  33.0km  (normal)
   4.7mb (  5 obs.)
 VANUATU ISLANDS                       (186)

BKM      3.70 161 iPd    32 12.70   0.6
                  iS     32 52.80
DZM      7.89 184 iPc    33 10.90  -0.4
                  iS     34 36.50
RMQ     21.01 231 eP     36 00.90   1.7
        0.6s    17.00nm          4.6mb
ARMA    21.50 219 eP     36 04.00  -0.2
        1.0s    18.00nm          4.4mb
CMS     25.96 225 iPd    36 45.70  -1.5
        0.4s    10.00nm          4.8mb
STK     29.17 228 iPd    37 15.70  -0.7
        0.4s     7.90nm          4.8mb
WRA     31.70 255 P      37 40.00   1.0
        1.0s     0.20nm          2.9mb X
ASPA    32.63 248 eP     37 46.50  -0.6
        0.4s     5.90nm          4.8mb
LBF    144.31 340 ePKP   50 49.10  -1.2
SSF    144.40 340 ePKP   50 49.80  -0.6
        0.8s     7.40nm
LPL    144.56 336 ePKP   50 51.00   0.0
        0.5s     1.45nm
LPG    144.57 336 ePKP   50 51.00  -0.1
        0.6s     2.70nm
LSF    145.74 342 ePKP   50 54.10   1.4
BCAO   147.45 256 ePKPc  50 57.00   0.5
        0.9s     5.00nm
     S.D. = 1.0  on  14 of  14 obs.
-----------------------------------------
•  JAN  14, 1993  03h 46m 36.34± 0.92s
   6.214 N ±11.8km   82.496 W ±12.2km
   DEPTH =  33.0km  (normal)
   4.2mb (  2 obs.)
 SOUTH OF PANAMA                       ( 83)
      MD 4.1 (UPA).

DVD      2.21   1 iP     47 10.46  -0.9
BRU      2.58 359 iP     47 16.30  -0.8
UPA      4.02  47 iP     47 38.41   1.2
                  eS     48 22.58
ECO      4.18  41 iP     47 39.63   0.1
                  eS     48 29.26
ALQ     36.13 326 ePc    53 39.20   1.5
        1.0s     5.50nm          4.4mb
SRU     41.38 326 ePc    54 22.82   1.5
YKA     60.91 344 eP     56 46.50  -1.5
        0.8s     0.80nm          3.9mb
TIC     76.91  85 P      58 27.50  -0.3
LIC     76.94  85 P      58 27.70  -0.2
KIC     77.21  85 P      58 29.30  -0.1
WRA    141.72 246 PKP    06 06.70  -0.5
        0.7s     0.40nm
     S.D. = 1.1  on  11 of  11 obs.
-----------------------------------------
?  JAN  14, 1993  04h 43m 12.08± 2.31s
   11.442 S ±22.1km  165.256 E ±26.9km
   DEPTH =  33.0km  (normal)
   4.1mb (  5 obs.)
 SANTA CRUZ ISLANDS                    (184)

HNR      5.59 290 eP     44 36.00   0.9
                  eS     45 35.00
DZM     10.63 174 iPd    45 45.20  -0.1
RMQ     21.58 224 eP     48 03.00   1.9
        0.7s     6.00nm          4.1mb
CMS     26.83 219 eP     48 52.00   0.5
        0.7s     3.00nm          4.0mb
WB2     30.89 250 iPc    49 26.80  -1.2
        1.1s     4.40nm          4.2mb
WRA     30.90 250 P      49 27.00  -1.1
        0.8s     0.40nm          3.3mb
ASPA    32.19 244 eP     49 38.30  -1.2
        0.8s     3.20nm          4.3mb
BCAC   146.34 261 iPKPd  02 51.30   0.3
        1.0s     8.00nm
     S.D. = 1.3  on   8 of   8 obs.
-----------------------------------------
?  JAN  14, 1993  05h 22m 13.76± 1.73s
   31.235 S ±37.9km   68.505 W ±17.3km
   DEPTH = 100.0km  (geophysicist)
 SAN JUAN PROVINCE, ARGENTINA          (137)

RTLL     0.10 162 iPc    22 28.20   0.0
                  S      22 39.30
RTCB     0.36 225 iPd    22 29.00   0.0
                  S      22 40.00
RTCV     0.62 183 eP     22 30.80   0.0
                  S      22 43.70
TCA      3.35  93 eP     23 05.20   0.0
                  S      23 42.00
     S.D. = 0.1  on   4 of   4 obs.
-----------------------------------------
   JAN  14, 1993  05h 26m 27.49± 0.19s
    6.625 S ± 3.7km  130.517 E ± 5.8km
   DEPTH =  32.3km  (  4 depth phases)
   5.2mb ( 36 obs.)
 BANDA SEA                             (280)

MTN      6.21 174 eP     28 01.00   1.6
MNI      9.82 325 eP     28 55.20   5.7X
WB2     13.75 165 iPd    29 38.70  -3.9X
                  eS     32 01.00
DAV     14.49 340 eP     30 03.10  10.9X
QIS     16.42 148 eP     30 16.00  -1.2
        0.2s     7.00nm          4.4mb
                  eS     33 06.80
PMG     16.71 101 eP     30 22.00   1.1
ASPA    17.25 169 iPd    30 25.60  -2.2
      Z  19s     0.70um
                  eS     33 23.40
MAP     18.05 339 iPd    30 43.00   5.4X
PLP     18.51 343 ePd    30 46.00   2.7
KKM     19.03 311 ePc    30 51.50   1.8
        0.7s   172.50nm          5.4mb
                  e      30 58.50  27km
WARB    19.80 190 eP     30 58.50   0.2
        0.4s    42.00nm          5.1mb
                  eS     34 25.00
CTA     20.31 133 iPc    31 04.50   0.9
        1.0s    27.50nm          4.6mb
                  i      31 07.50  11kmX
                  i      31 18.00
NANU    21.45 221 iPd    31 16.80   1.6
MEEK    22.90 208 eP     31 30.50   0.8
        0.4s    53.00nm          5.4mb
BAG     24.91 337 eP     31 50.00   0.6
CVP     25.65 341 ePc    31 49.00  -7.1X
COOL    25.68 199 iPc    31 56.20  -0.2
RMQ     26.31 141 eP     32 03.00   0.8
        0.6s    24.00nm          5.0mb
                  i      32 28.30 118kmX
                  eS     36 55.80
MRWA    26.32 210 iPc    32 02.80   0.5
                  eS     37 02.00
BAL     27.15 207 iPc    32 10.00   0.1
STK     27.17 159 iPd    32 09.80  -0.3
        0.3s    11.30nm          5.0mb
                  eS     37 13.20
KLB     27.56 204 iPd    32 13.70   0.1
MUN     28.54 206 iPc    32 22.40  -0.1
                  e      32 45.50 104kmX
CMS     28.58 152 eP     32 22.30  -0.5
                  eS     37 50.00
ADE     29.20 166 iPd    32 28.80   0.4
BRS     29.55 137 iPd    32 30.70  -1.0
        0.7s    10.00nm          4.7mb
                  e      32 52.00  94kmX
ARMA    30.88 143 eP     32 44.20   0.8
        0.8s    13.00nm          4.8mb
                  e      33 40.00 285kmX
BWA     32.23 152 iPKP   33 05.30  10.1X
BFD     32.33 162 iPc    32 56.20   0.3
        0.6s    14.00nm          5.0mb
OIZ     32.63 322 eP     32 58.80   0.0
CAN     33.23 152 iPKP   33 04.20   0.3
CNB     33.40 151 eP     33 06.00   0.6
        1.0s    30.00nm          5.2mb
TOO     33.68 158 eP     33 08.20   0.4
        0.6s    21.00nm          5.2mb
NNT     36.06 302 eP     33 29.30   1.0
NST     37.37 307 eP     33 45.00   5.8X
DZM     37.91 118 iPc    33 44.90   1.0
KHT     38.14 304 iPc    33 46.80   1.1
SSE     38.55 347 Pc     33 50.00   1.0
        1.0s    32.00nm          5.1mb
NJ2     40.04 345 Pd     34 03.00   1.7
        0.8s    33.00nm          5.1mb
                  pP     34 20.00  68kmX
                  ScP    39 47.80
WHN     40.07 338 ePc    34 03.00   1.4
        1.0s    27.00nm          5.0mb
CHG     40.10 310 iPc    34 03.60   1.5
        1.0s    70.00nm          5.4mb
KMI     41.55 320 Pc     34 15.50   1.3
        1.4s    60.00nm          5.1mb
                  pP     34 26.20  37km
MAT     43.54   9 eP     34 29.00  -1.0
        0.9s    17.65nm          4.8mb
CD2     45.27 327 Pd     34 44.40   0.4
        0.7s    22.00nm          5.2mb
XAN     45.32 335 P      34 44.00  -0.4
        0.8s    25.00nm          5.2mb
TIY     47.22 340 Pc     34 59.50   0.1
        0.8s    24.00nm          5.3mb
BJI     48.28 345 eP     35 07.50   0.0
        1.0s    55.00nm          5.5mb
SNY     48.63 353 iPc    35 10.10  -0.1
        1.0s    35.00nm          5.3mb
LZH     49.32 331 Pc     35 16.30   0.5
        1.5s    73.00nm          5.5mb
HHC     50.35 341 P      35 24.00   0.4
        1.0s    27.00nm          5.2mb
CN2     50.40 355 P      35 23.00  -0.7
        0.6s    23.00nm          5.4mb
BTO     50.64 340 eP     35 25.80   0.0
MDJ     51.01 359 eP     35 28.00  -0.4
LSA     52.29 316 Pc     35 39.60   0.7
        0.9s    39.00nm          5.4mb
GTA     53.89 331 P      35 50.00  -0.2
        1.0s    38.00nm          5.4mb
                  pP     36 00.00  33km
PKI     55.28 310 Pc     35 59.76  -1.0
        0.7s    81.00nm          5.9mb
KKN     55.49 310 Pc     36 01.44  -0.7
        0.8s   147.00nm          6.1mb
DMN     55.53 310 Pc     36 01.82  -0.7
GKN     56.08 310 Pc     36 05.66  -0.7
        0.6s   203.00nm          6.3mb X
GBA     56.40 291 Pc     36 07.00  -1.6
HYB     56.61 296 iPc    36 08.70  -1.5
        0.8s    38.50nm          5.5mb
POO     61.20 295 iPd    36 39.80  -2.2
NDI     62.17 307 iPc    36 47.00  -1.3
        0.7s    58.22nm          5.8mb
WMQ     63.36 327 Pc     36 56.60   0.6
        1.2s    36.00nm          5.4mb
                  pP     37 06.80  33km
YAK     68.44 360 iPc    37 27.90  -0.1
        1.0s   106.00nm          5.9mb
```

14d 05h

```
QUE     71.00 305 eP    37 45.00   0.3
MAIO    78.85 309 iPc   38 29.80   0.4
IMA     90.30  23 eP    39 25.52  -0.9
         0.6s      1.57nm          4.5mb
SLKM    90.46  29 (P)   39 26.37  -0.7
YKA    107.19  26 ePdiff40 42.00  -0.5
         1.0s      0.80nm          4.7mb
YKA    107.19  26 ePKP  44 50.40  -1.3
         0.5s      0.30nm
VBY    112.31 317 ePdiff41 14.70   9.0X
VBY    112.31 317 ePKP  45 01.90   0.0
GEC2   112.46 320 ePKP  45 01.60  -0.6
         0.8s      1.93nm
                   e    45 12.60
BSF    117.15 321 ePKP  45 09.90  -1.4
         0.7s      3.95nm
LPG    118.02 319 ePKP  45 12.30  -1.0
         0.7s      4.20nm
LPL    118.03 319 ePKP  45 12.20  -1.0
         0.7s      4.20nm
LOR    119.20 321 ePKP  45 14.10  -1.0
         0.8s      4.45nm
LBF    119.24 321 ePKP  45 14.20  -1.0
         0.5s      1.70nm
SMF    119.46 321 ePKP  45 14.80  -0.8
SSF    119.50 321 ePKP  45 14.90  -0.7
         0.9s      7.20nm
RSSD   119.63  42 ePKP  45 15.57  -0.7
AVF    119.71 321 ePKP  45 15.00  -1.0
BGF    120.12 321 ePKP  45 16.10  -0.7
         0.7s      8.25nm
TCF    120.64 321 ePKP  45 17.30  -0.5
ALQ    120.67  53 ePKP  45 18.90   0.4
         1.0s      5.75nm
LDF    121.01 324 ePKP  45 17.60  -0.8
FLN    121.14 324 ePKP  45 18.00  -0.7
CAF    121.30 319 ePKP  45 18.80  -0.4
LPF    121.82 324 ePKP  45 19.40  -0.6
MFF    121.96 322 ePKP  45 19.60  -0.7
         0.6s      6.75nm
LFF    122.15 320 ePKP  45 20.40  -0.3
KIC    135.56 272 PKP   45 39.00  -8.3X
                   e    45 48.00
                   e    49 09.80
FSA    143.74 154 ePKPd 46 00.10  -1.6
SLA    145.15 154 ePKPc 46 04.80   0.4
NNA    147.10 124 iPKPc 46 10.60   2.9
         0.5s     14.79nm
ARE    148.37 137 ePKP  46 15.00   5.0X
CNCB   150.39 142 PKP   46 15.00   1.6
                   i    46 20.80
VAO    150.45 185 ePKP  46 18.40   5.6X
LPB    150.53 142 ePKP  46 15.00   1.6
         0.9s     70.59nm
                   i    46 20.30
ZOBO   150.69 141 PKP   46 15.00   1.0
         0.9s     38.93nm
                   i    46 20.30
     S.D. = 1.0  on  90 of 101 obs.
-----------------------------------
%  JAN  14, 1993  05h 34m 46.26± 1.87s
   18.136 N ±13.0km   76.638 W ±10.8km
   DEPTH =  10.0km  (geophysicist)
 JAMAICA REGION                  ( 86)
      MD 2.4 (HOJ). Felt (III) at
      Cherry Gardens.

GWJ     0.11 238 iP     34 49.78   0.5
                 S      34 53.00
HOJ     0.17 219 iP     34 50.43   0.3
                 S      34 53.13
STH     0.18 251 iP     34 50.59   0.3
                 S      34 53.38
YHJ     0.28 150 iPd    34 52.12   0.0
                 S      34 59.47
PCJ     0.64 232 iP     34 58.06  -1.0
                 S      35 06.41
BBJ     0.65 292 iP     34 59.15  -0.1
                 S      35 08.44
     S.D. = 0.7  on   6 of   6 obs.
-----------------------------------
?  JAN  14, 1993  05h 45m 04.71± 3.46s
   30.941 N ±86.5km   49.877 E ±48.1km
   DEPTH =  33.0km  (normal)
 WESTERN IRAN                    (347)

MJMA    6.48 220 eP     46 40.33   0.0
RYD     6.84 206 eP     46 53.50   8.2X
QASM    7.38 231 eP     46 52.93   0.0
                 eS     48 18.00
GKN    30.33  87 P      51 15.60  -0.1
KKN    30.94  87 P      51 25.40   4.3X
PKI    31.10  87 P      51 22.60  -0.1
GUN    31.42  86 P      51 25.80   0.3
     S.D. = 0.2  on   5 of   7 obs.
-----------------------------------
   JAN  14, 1993  06h 08m 02.09± 0.35s
   30.486 N ± 7.0km   50.237 E ± 4.5km
   DEPTH =  33.0km  (normal)
   4.6mb ( 17 obs.)
 NORTHERN IRAN                   (348)
      Felt at Behbahan.

KER     4.68 326 eP     09 25.00  12.7X
TEH     5.32  10 e(P)   09 30.00   8.5X
MJMA    6.35 225 ePd    09 35.40  -0.5
                 eS     10 47.67
RYD     6.58 210 eP     09 40.50   1.4
                 iS     11 49.00
QASM    7.36 235 eP     09 48.33  -1.6
                 eS     11 08.67
MAIO    9.67  51 eP     10 24.00   2.0
                 eS     12 11.00
AYN    12.49 266 ePd    10 59.27  -1.0
MLR    24.18 315 eP     13 20.00   3.5X
VAY    24.78 303 eP     13 23.60   1.4
SKO    25.78 304 eP     13 32.20   0.6
OHR    26.01 302 iP     13 34.70   0.9
OBN    26.46 342 iPd    13 37.50  -0.2
         1.1s     59.00nm          5.1mb
SPC    29.37 318 eP     14 02.90  -1.5
SRO    29.92 314 eP     14 09.00   0.0
GKN    30.05  86 Pc     14 09.50  -1.2
DMN    30.55  87 Pc     14 14.14  -1.0
         1.0s     47.00nm          5.2mb
KKN    30.65  86 Pd     14 15.42  -0.6
         1.0s     51.00nm          5.3mb
ZST    30.82 314 eP     14 14.60  -2.3
PKI    30.82  87 Pd     14 16.78  -0.8
         1.2s     37.00nm          5.1mb
VBY    31.10 309 eP     14 17.20  -2.3
GUN    31.14  86 Pc     14 19.72  -0.8
         0.8s     40.00nm          5.3mb
ASS    32.35 303 P      14 31.80   1.3
WMQ    32.40  55 P      14 31.20   0.2
KBA    32.82 311 iPd    14 35.10   0.3
         1.1s     14.10nm          4.8mb
                 i      14 47.20  46kmX
SFI    33.08 305 P      14 38.70   1.9
GEC2   33.16 314 eP     14 36.90  -0.7
         0.7s      1.19nm          3.9mb
                 e      14 39.50   9kmX
                 e      14 46.00
                 e      14 48.70
KHC    33.33 314 eP     14 38.60  -0.4
         1.1s      4.00nm          4.2mb
                 e      14 42.00  12kmX
LPG    36.93 306 eP     15 11.60   1.6
         0.7s      4.95nm          4.5mb
LPL    36.95 306 eP     15 11.80   1.7
         0.9s      9.50nm          4.7mb
HFS    38.36 331 eP     15 19.60  -1.8
         0.4s      2.60nm          4.4mb
SMF    39.10 308 eP     15 27.30  -0.6
         0.6s      6.50nm          4.6mb
LOR    39.17 309 eP     15 27.80  -0.7
SSF    39.38 308 eP     15 29.80  -0.4
         0.7s      4.65nm          4.4mb
BCAO   39.55 235 iPd    15 33.00   1.0
         1.0s      8.00nm          4.4mb
GTA    41.16  64 P      15 46.50   1.4
         1.0s      5.00nm          4.2mb
KMI    46.41  83 Pd     16 27.50  -0.3
         1.0s     30.00nm          5.2mb
BTO    48.85  61 eP     16 47.00   0.5
XAN    49.17  70 P      16 48.70  -0.3
HHC    49.98  60 eP     16 56.00   0.8
TIY    51.19  64 eP     17 04.50   0.2
KIC    56.77 257 P      17 46.30   0.7
TIC    56.86 257 P      17 46.80   0.6
LIC    57.09 257 P      17 48.50   0.7
YKA    86.55 353 eP     20 42.40  -0.3
         1.0s      1.60nm          4.2mb
KLU    87.41   8 eP     20 47.15   0.1
     S.D. = 1.1  on  42 of  45 obs.
-----------------------------------
%  JAN  14, 1993  06h 59m 14.64± 0.61s
   26.381 S ± 6.6km   27.659 E ± 6.8km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA        (584)
      ML 2.6 (PRE).

BPI     0.39  58 eP     59 22.70   0.2
                 S      59 28.30
PRY     0.57 197 eP     59 25.50  -0.6
                 S      59 31.50
SLR     0.85  41 eP     59 31.00  -0.7
                 S      59 40.20
KSR     0.86 307 eP     59 32.00   0.3
                 S      59 44.00
SEK     1.93 181 eP     59 49.90   1.2
                 S      00 14.00
SWZ     2.23 249 eP     59 54.00   1.0
                 S      00 12.10
BFT     2.25  73 eP     59 53.50   0.1
                 S      00 23.00
BLF     3.01 205 iPc    00 04.10   0.0
KIM     3.48 227 eP     00 09.00  -1.7
     S.D. = 1.0  on   9 of   9 obs.
-----------------------------------
%  JAN  14, 1993  07h 09m 08.79± 0.76s
   44.473 N ± 6.2km    7.322 E ± 7.7km
   DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                  (545)
      ML 1.5 (GEN).

PZZ     0.16 281 P      09 12.72   0.1
                 S      09 14.85
STV     0.23 180 P      09 13.68  -0.1
                 S      09 16.61
ENR     0.26 164 P      09 14.19  -0.1
                 S      09 17.58
BHB     0.37 354 P      09 16.30  -0.1
                 S      09 21.33
ROB     0.43 114 P      09 17.76   0.1
                 S      09 24.15
     S.D. = 0.2  on   5 of   5 obs.
-----------------------------------
   JAN  14, 1993  07h 17m 06.03± 0.31s
   33.391 N ± 6.4km   59.721 E ± 4.0km
   DEPTH =  33.0km  (normal)
   4.8mb ( 34 obs.)  4.7Msz (  2 obs.)
 NORTHERN IRAN                   (348)
      Felt at Qaen.

MAIO    2.91 356 iPnc   17 50.80  -0.3
         0.6s     83.61nm
                 eSn    18 26.00
ASH     4.68 347 P      18 15.50  -0.7
         0.6s    420.00nm
                 iS     19 08.00
KAT     6.43 335 eP     18 31.00  -9.9X
                 eS     19 55.00
TEH     7.26 291 eP     18 51.00  -1.7
KSH    14.41  61 P      20 28.00  -1.7
         1.0s     40.00nm          4.9mb
       Z  10s      2.03um          3.5Msz
                 epP    20 32.00
                 ePP    20 38.00
GRO    14.82 316 eP     20 33.00  -1.8
         1.0s    160.00nm          5.4mb
FRU    15.02  47 eP     20 35.00  -2.6
         1.6s     70.00nm          4.7mb
                 (S)    23 22.00
NDI    15.71 103 eP     20 44.00  -2.5
PYA    16.76 314 eP     20 59.00  -0.8
BOM    18.59 138 eP     21 22.50  -0.1
                 e(S)   25 06.50
POD    19.47 136 iPc    21 32.50  -0.6
HRI    20.03 276 eP     21 40.10   1.0
BHL    20.04 278 P      21 40.00   0.8
                 S      25 28.00
BRVK   21.07  18 iPd    21 49.00  -0.5
         1.0s     46.00nm          4.8mb
MBH    21.45 267 eP     21 54.70   1.0
RMN    21.48 269 eP     21 55.40   1.5
GKN    22.06  97 P      21 58.60  -1.3
         0.6s     58.00nm          5.2mb
DMN    22.59  98 P      22 04.54  -0.7
         0.9s     79.00nm          5.2mb
KKN    22.67  97 P      22 05.30  -0.7
```

```
        0.8s   120.00nm          5.4mb
PKI     22.86  98 P      22 07.00  -0.9
        1.0s   165.00nm          5.5mb
ARU     23.02 358 (P)    22 10.00   1.1
GUN     23.13  97 P      22 09.98  -0.6
        0.9s   211.00nm          5.6mb
HYB     23.23 129 eP     22 12.00   0.8
        1.0s    35.00nm          4.8mb
WMO     24.11  56 P      22 21.80   2.1
        1.2s    29.00nm          4.7mb
                  pP     22 34.50  51kmX
GBA     25.46 137 P      22 33.00   0.4
LSA     26.98  89 eP     22 48.10   0.9
OBN     27.07 330 eP     22 47.00  -0.1
        1.3s    52.00nm          5.0mb
                  i      23 40.00
CLI     27.91 308 eP     23 05.50  10.6X
VRI     28.10 306 eP     23 04.50   7.9X
MLR     28.54 305 ePc    23 03.00   2.2
UZH     31.72 310 eP     23 28.00  -0.8
GTA     32.63  68 Pd     23 38.00   1.0
        1.2s    16.00nm          4.8mb
      Z  12s     0.60um          4.5MszX
                  pP     23 44.00  21kmX
MOY     34.90  46 eP     23 58.60   2.3
ZAK     36.01  49 eP     24 07.50   1.8
        1.6s    14.00nm          4.6mb
                  e      25 32.00
LZH     36.13  73 eP     24 08.00   0.8
        2.0s    34.00nm          4.9mb
CD2     37.16  82 Pd     24 16.40   0.7
        1.2s    30.00nm          5.0mb
GEC2    37.34 308 eP     24 16.00  -1.1
        0.8s     2.58nm          4.2mb
                  e      24 18.00
                  e      24 27.50
                  e      26 34.70
BRG     37.49 312 e(P)   24 19.40   1.2
CHG     37.86 103 eP     24 21.20  -0.5
        0.9s    10.50nm          4.7mb
KMI     38.21  91 Pc     24 25.00   0.2
        1.0s    12.00nm          4.7mb
                  pP     24 30.50  19kmX
GRF     39.05 309 eP     24 29.60  -1.8
NRI     39.39  15 eP     24 35.00   1.1
      Z  21s     2.60um          5.0Msz
HFS     40.10 326 eP     24 38.70  -1.1
        0.5s     2.50nm          4.2mb
BTO     40.36  65 eP     24 45.00   2.6
XAN     40.61  75 P      24 44.80   0.4
        1.0s     7.00nm          4.4mb
GYA     40.99  87 iPc    24 47.60  -0.2
        1.0s    40.00nm          5.1mb
HHC     41.49  64 eP     24 52.90   1.2
SBF     41.55 300 eP     24 51.80  -0.2
        0.8s    14.50nm          4.8mb
CDF     41.56 307 eP     24 52.70   0.6
NBO     41.76 327 P      24 54.70   1.3
        0.7s     3.80nm          4.2mb
NNT     41.91 110 eP     24 56.40   1.2
LPG     41.95 303 eP     24 55.10  -0.5
        0.8s     4.05nm          4.2mb
LPL     41.96 303 eP     24 55.20  -0.4
        0.6s     2.55nm          4.1mb
TIY     42.64  69 eP     25 01.80   0.7
      Z  18s     0.49um          4.4Msz
CIT     42.65  47 eP     24 55.00  -6.0X
BOD     43.71  39 iPc    25 08.20  -1.1
        0.7s    12.00nm          4.8mb
LBF     43.81 305 eP     25 10.40   0.0
        0.6s     3.95nm          4.4mb
LOR     43.88 306 eP     25 11.70   0.8
SMF     43.92 305 eP     25 11.70   0.4
        0.6s     5.05nm          4.5mb
SSF     44.13 305 eP     25 14.10   1.2
        1.2s    20.85nm          4.8mb
BCAO    47.95 242 iPd    25 42.80  -0.8
        1.2s     7.00nm          4.6mb
EKA     48.13 317 P      25 45.00   0.5
        0.9s    10.90nm          4.9mb
YSS     62.01  50 (P)    27 24.40  -0.8
      Z  15s     0.30um          4.6MszX
      N  15s     0.30um
KIC     65.24 261 P      27 45.70  -1.2
YKA     84.34 357 eP     29 34.50  -1.1
        0.9s     3.60nm          4.5mb
WRA     88.68 115 P      29 57.70   0.2
```

```
        0.5s     0.20nm          3.7mb X
WB2     88.69 115 iPc    29 57.50  -0.1
        0.6s     2.40nm          4.7mb
ZOBO   130.22 277 ePKP   36 13.00  -2.7
LPB    130.31 276 (PKP)  36 08.00  -7.6X
CNCB   130.35 276 ePKP   36 12.00  -3.9X
      S.D. = 1.2  on  64 of  70 obs.
-----------------------------------
% JAN  14, 1993  08h 16m 42.34± 0.79s
   40.160 N ± 6.3km   19.999 E ± 6.9km
   DEPTH =  10.0km  (geophysicist)
 ALBANIA                          (391)
      ML 2.5 (TIR).

TPE      0.13   4 iPgc   16 46.00   0.5
                  iSg    16 48.00
SRN      0.28 180 iPgc   16 48.50   0.3
                  iSg    16 53.80
LSK      0.46  91 ePg    16 51.00  -0.7
VLO      0.49 309 ePg    16 51.90  -0.4
                  iSg    17 02.70
KBN      0.76  52 ePg    16 57.80   0.6
PHP      1.56  12 ePn    17 10.00  -0.2
      S.D. = 0.7  on   6 of   6 obs.
-----------------------------------
   JAN  14, 1993  08h 23m 05.69± 0.25s
   45.530 N ± 2.6km   20.959 E ± 2.9km
   DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION       (383)
      MD 4.1 (TRI), 3.7 (TTG), 3.6
      (LJU).

TIM      0.28  42 iPd    23 12.00   0.5
BEO      0.79 207 ePg    23 21.50   0.4
                  iSg    23 34.00
GZR      1.29  95 iP     23 29.00  -0.6
DEV      1.41  75 iPc    23 31.00  -0.3
UZD      1.97 304 iPn    23 39.80   0.4
TNR      2.33  86 ePd    23 36.00  -8.7X
COZ      2.39  94 iPc    23 48.50   2.8
PLE      2.47 208 iPnd   23 47.01   0.3
                  iSn    24 18.38
PSZ      2.50 343 iPnc   23 46.50  -0.6
IVA      2.77 196 iPnd   23 51.82   0.9
                  iSn    24 26.62
BMR      2.77  38 ePd    23 58.00   7.1X
CMP      2.89  94 ePc    23 59.00   6.4X
MTUR     2.91  95 ePc    24 00.00   7.1X
SRO      2.92 322 i(Pn)  23 53.60   0.6
                  i      24 55.50
PVY      3.02 194 iPnc   23 55.22   0.7
                  iSn    24 32.72
NKY      3.06 208 iPnc   23 55.11   0.0
                  iSn    24 32.29
BRY      3.15 214 iPnd   23 56.05  -0.3
                  iSn    24 33.92
TTG      3.33 202 iPnc   23 59.19   0.3
                  iSn    24 39.51
VTS      3.36 150 iPd    23 59.00  -0.4
ZAG      3.50 276 iPn    24 17.80  16.6X
                  iSg    25 03.70
MLR      3.50  89 ePc    24 03.00   1.6
PTJ      3.52 278 ePn    24 17.20  15.6X
                  eSg    24 53.20
HCY      3.56 211 iPnc   24 01.84  -0.2
                  iSn    24 44.15
SKO      3.57 174 iPn    24 12.50  10.2X
                  i      24 13.20
                  iSg    25 03.50
                  i      25 13.40
BDV      3.59 206 iPnd   24 02.48  -0.1
                  iSn    24 45.41
SDA      3.63 197 ePn    24 09.50   6.3X
CVO      3.67  84 eP     24 09.50   5.8X
SPC      3.69 353 i(Pn)  24 04.30   0.1
                  i      24 16.90
                  e      25 04.20
SOP      3.72 307 eP     24 04.00  -0.4
ZST      3.76 317 i(P)   24 04.40  -0.5
                  i      24 10.90
                  e      24 59.50
PGB      3.77 141 iPd    24 05.00  -0.2
ULC      3.77 200 iPnc   24 05.54   0.3
                  iSn    24 50.11
PVL      3.90 125 eP     24 07.00   0.1
ISR      3.96  94 eP     24 12.00   4.2X
HVAR     4.00 236 ePn    24 08.10  -0.2
```

```
VBY      4.01 272 ePn    24 09.10   0.7
                  i      24 30.30
                  i      24 48.40
VRI      4.05  83 eP     24 03.50  -5.6X
VKA      4.20 312 i(Pn)  24 12.60   1.5
                  i      25 24.10
                  i      25 30.30
TIR      4.26 191 ePn    24 19.70   7.7X
                  eSn    25 08.50
BRD      4.28  88 eP     24 12.00  -0.4
VAY      4.37 164 iPn    24 12.40  -1.2
OHR      4.42 182 iPn    24 14.30  -0.1
                  i      25 10.90
                  i      25 29.60
CLI      4.52  75 eP     24 19.00   3.3X
LJU      4.52 279 eP     24 40.50  24.7X
                  eSn    25 06.60
                  e      25 32.00
CEY      4.59 275 eP     24 33.00  16.3X
                  e      24 45.20
                  eSn    25 07.00
KNT      4.59 161 ePn    24 15.16  -1.6
                  eSn    25 30.68
GRG      4.69 167 ePn    24 10.00  -8.2X
OJC      4.76 351 eP     24 18.80  -0.3
                  i      24 20.20
VRAC     4.80 323 iPnc   24 18.70  -1.0
      0.3s    24.40nm
                  i      24 25.90
                  eS     25 12.10
DIM      4.80 135 eP     24 21.00   1.3
SRS      4.81 156 iPn    24 18.64  -1.3
                  iSn    25 38.60
VOY      4.97 278 ePn    24 23.20   1.0
                  e      24 46.00
                  eSn    25 45.20
TRI      5.05 275 e(Pn)  24 23.80   0.6
                  e(PgPg24 44.90
                  e(Sn)  25 20.00
                  e(Sg)  25 47.00
KDZ      5.05 139 eP     24 23.00  -0.3
CFR      5.08  91 eP     24 42.00  18.3X
TPE      5.28 188 ePn    24 38.00  11.5X
KBA      5.50 289 i(Pn)  24 30.60   0.8
      0.5s    16.70nm          5.0mb X
                  iSn    25 29.80
ALN      5.94 139 ePn    24 34.16  -1.5
KSP      6.16 331 ePn    24 37.50  -1.4
                  iPg    24 45.00
KHC      6.17 308 Pn     24 38.40  -0.7
                  e      24 46.00
                  e      26 14.50
PRU      6.21 318 Pn     24 38.00  -1.6
                  e      24 54.00
                  eSn    25 48.20
      S.D. = 0.9  on  43 of  61 obs
-----------------------------------
   JAN  14, 1993  08h 25m 34.85± 0.53s
   26.349 S ± 5.3km   27.462 E ± 5.6km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA         (584)
      ML 3.2 (PRE). mbLg 3.1 (BUL)

BPI      0.54  71 eP     25 46.20   0.5
PRY      0.58 179 eP     25 45.90  -0.5
                  S      25 52.50
KSR      0.70 313 eP     25 50.10   1.2
BFS      0.82 228 eP     25 51.10  -0.1
SLR      0.96  51 iPd    25 54.00   0.3
                  S      26 06.50
SEK      1.97 176 eP     26 09.90   0.5
                  S      26 33.00
SWZ      2.08 246 eP     26 11.50   0.5
BFT      2.41  75 eP     26 16.50   0.6
                  S      26 43.50
BLF      2.97 202 eP     26 23.90   0.2
                  S      26 53.70
KIM      3.38 224 iPc    26 29.20  -0.2
                  S      27 03.30
FRS      3.88 209 eP     26 35.90  -0.5
                  S      27 19.00
BUL      6.27  10 iPn    27 07.90  -2.5
                  iSg    28 51.20
CER      9.95 223 e(P)   27 57.50  -4.1X
      S.D. = 1.0  on  12 of  13 obs.
-----------------------------------
•  JAN  14, 1993  08h 27m 40.10± 0.40s
```

14d 08h

```
   18.176 S ± 9.9km  172.853 W ± 9.0km
   DEPTH =  46.0km  (  2 depth phases)
   4.9mb ( 17 obs.)  4.8Msz (  2 obs.)
 TONGA ISLANDS REGION                (174)

MBU      8.13 277 eP     29 40.20   1.8
SVA      8.26 269 eP     29 44.10   3.9X
BKM     18.00 269 iPc    31 50.00   1.4
DZM     19.82 255 iPc    32 10.10   0.1
WCZ     21.01 210 eP     32 22.30   0.2
                  e      32 34.10  49km
KUZ     21.06 206 eP     32 23.90   1.3
                  e      32 34.70  43km
PUZ     21.29 200 eP     32 26.10   1.2
URZ     21.85 202 eP     32 29.50  -0.9
WLZ     22.07 205 P      32 36.20   3.5X
        0.6s    32.00nm          4.9mb
MOZ     22.94 205 eP     32 44.50   3.3X
MNG     24.52 202 eP     32 57.00   0.5
        0.6s    36.00nm          5.1mb
ORZ     25.84 206 eP     33 13.30   4.4X
        0.6s    36.00nm          5.1mb
THZ     26.48 204 eP     33 20.10   5.2X
KHZ     26.80 203 eP     33 23.60   5.9X
DSZ     26.91 206 eP     33 24.00   5.2X
LTZ     27.59 204 eP     33 31.50   6.5X
        0.6s    42.00nm          5.3mb
CNB     37.54 235 eP     34 51.20  -0.6
        1.0s    13.00nm          4.8mb
CTA     38.62 260 iP     34 59.00  -1.9
TOO     41.18 233 eP     35 21.20  -0.7
        0.8s    15.00nm          4.8mb
STK     43.17 243 eP     35 38.20   0.0
        0.7s     2.10nm          4.0mb
WB2     49.76 259 iPc    36 28.20  -2.2
        0.6s     4.80nm          4.7mb
WRA     49.77 259 P      36 27.89  -2.6
ASPA    49.81 254 eP     36 28.40  -2.3
        1.2s    13.60nm          4.9mb
                  eS     43 31.80
MAT     71.39 320 eP     38 56.00  -1.5
                  eS     48 20.00
TUC     77.75  50 eP     39 34.36   0.1
        1.2s     6.93nm          4.6mb
ARUT    78.81  44 eP     39 40.09   0.0
LON     79.28  33 (P)    39 42.45   0.1
MSU     80.04  44 eP     39 47.40   0.6
SRU     81.45  44 eP     39 53.88  -0.2
DPW     81.89  34 (P)    39 55.00  -1.0
ALO     82.18  49 eP     39 58.17   0.1
        0.9s     2.76nm          4.3mb
HHAI    82.52  40 eP     39 59.69   0.2
CN2     83.54 320 eP     40 05.00   0.5
        0.8s    48.00nm          5.6mb
      Z  20s     0.24um          4.6Msz
BW06    83.99  41 eP     40 05.35  -1.8
        1.3s    11.35nm          4.8mb
LCCM    84.21  38 eP     40 07.50  -0.6
FBA     85.01  10 eP     40 09.98  -1.5
        0.9s     9.10nm          4.9mb
SES     87.18  34 eP     40 23.00   0.5
                  pP     40 32.00  28kmX
BJI     87.75 313 eP     40 26.50   1.1
        2.0s    99.00nm          5.7mb
MEO     87.93  52 iPc    40 26.50   0.0
SNG     88.93 278 eP     40 35.00   3.4X
TIY     89.43 310 Pc     40 35.00   1.4
      Z  18s     0.49um          5.0Msz
                  SKS    50 53.00
                  S      51 11.00
HHC     91.29 313 eP     40 43.00   0.8
BTO     92.28 312 eP     40 49.40   2.7
YKA     92.42  23 eP     40 45.40  -1.3
        0.7s     0.80nm          4.3mb
KMI     92.69 295 Pd     40 52.00   2.9X
        2.0s    70.00nm          5.7mb
      E  10s     0.50um
CUM    110.82  85 ePKP   46 12.00   1.4
KSP    146.60 349 ePKP   47 18.50   2.0
        1.2s    34.00nm
                  e      48 00.00
CLL    146.62 353 iPKP   47 17.70   1.2
        1.3s    53.00nm
                  i      47 19.50
BRG    146.93 352 iPKP   47 20.00   3.0X
        1.4s    29.00nm
SPC    147.30 344 ePKP   47 22.80   4.9X
MOX    147.41 355 ePKP   47 20.60   2.8X
        2.2s    82.00nm
PRU    147.71 351 ePKP   47 21.70   3.4X
GRF    148.39 355 ePKP   47 24.50   5.1X
KHC    148.69 352 ePKP   47 24.50   4.6X
        1.0s     8.90nm
                  e      47 27.50
                  e      47 45.50
GEC2   148.95 352 ePKPc  47 24.60   4.2X
        0.8s     2.59nm
                  e      47 26.50
                  e      47 30.00
                  e      47 40.90
ZST    148.98 347 ePKP   47 26.00   5.7X
SRO    149.06 345 ePKP   47 24.90   4.4X
VBY    151.93 348 e(PKP)47 29.00   4.1X
                  iPKPbc47 34.00
                  iPKPab47 43.90
SKO    153.33 336 ePKP   47 37.50  10.5X
OHR    154.31 336 ePKP   47 31.50   3.1X
BCAO   162.38 221 iPKPd  47 43.00   4.5X
        1.0s     8.00nm
      S.D. = 1.3  on  38 of  61 obs.
-----------------------------------
?  JAN  14, 1993  08h 29m 43.36± 2.70s
   19.501 N ±16.0km   64.349 W ±35.2km
   DEPTH =  33.0km  (normal)
   3.2mb (  1 obs.)
 VIRGIN ISLANDS                     ( 91)

LPR      1.87 231 iP     30 13.60   0.0
CPD      2.08 226 iP     30 17.20   0.6
SJG      2.20 231 iP     30 18.00  -0.3
PORP     2.60 237 iP     30 24.00   0.0
LRS      2.65 243 iP     30 24.60  -0.2
MGP      2.99 241 iP     30 29.40  -0.2
SGS     19.86 317 (P)    34 14.91   0.4
YKA     54.98 334 eP     39 13.10  -0.3
        0.8s     0.20nm          3.2mb
      S.D. = 0.4  on   8 of   8 obs.
-----------------------------------
?  JAN  14, 1993  08h 41m 22.35± 1.52s
    7.603 S ±26.0km  128.510 E ±44.7km
   DEPTH =  33.0km  (normal)
 BANDA SEA                          (280)

MTN      5.81 154 eP     42 51.00   2.4
        0.3s    89.00nm          5.8mb X
                  eS     44 01.00
WB2     13.51 156 iPd    44 32.00  -2.3
                  eS     46 53.10
ASPA    16.79 163 eP     45 16.20  -0.5
      Z  20s     0.50um
                  eS     48 15.80
WARB    18.56 185 eP     45 39.00   0.3
CTA     21.20 128 eP     46 12.00   4.4X
GUN     54.25 312 P      50 48.00   0.0
PKI     54.41 312 P      50 49.40   0.2
GKN     55.21 312 P      50 54.80  -0.1
CNCB   150.77 146 ePKP   01 19.00  10.3X
LPB    150.93 146 ePKP   01 22.00  13.2X
ZOBO   151.11 145 PKP    01 19.00   9.7X
                  LR     14 06.00
      S.D. = 1.7  on   7 of  11 obs.
-----------------------------------
   JAN  14, 1993  08h 41m 33.42± 0.42s
    1.553 S ± 8.1km   80.799 W ±10.3km
   DEPTH =  33.0km  (normal)
   4.7mb ( 11 obs.)  4.1Msz (  1 obs.)
 NEAR COAST OF ECUADOR              (105)

NNA     11.08 159 iP     44 12.50  -0.3
        1.1s    31.65nm          5.4mb
                  iS     46 14.50
SDV     14.50  44 eP     44 59.40   1.0
TOV     15.72  44 eP     45 14.40   0.2
ARE     17.42 149 eP     45 40.00   4.0X
ZOBO    19.24 140 iPc    45 58.20  -0.4
        1.1s    37.70nm          4.6mb
      Z  16s     0.67um          3.5Msz
                  LR     52 28.00
LPB     19.44 141 P      46 02.00   1.2
        1.0s   100.00nm          5.0mb
                  LR     53 48.00
CNCB    19.72 141 iPc    46 04.90   0.9
BAO     35.24 115 Pd     48 26.70  -0.7
TUL     39.81 341 e(P)   49 07.00   1.7
        1.2s    19.40nm          4.7mb
LNO     39.81 341 e(P)   49 06.80   1.6
FVM     40.33 348 eP     49 07.53  -2.1
        1.4s    21.11nm          4.7mb
ALO     43.54 329 eP     49 36.14   0.0
        0.8s     5.52nm          4.4mb
SRU     48.82 329 eP     50 18.28   0.5
ARUT    49.42 326 (P)    50 23.87   1.4
RSSD    49.99 338 eP     50 26.95   0.1
        0.9s     7.10nm          4.7mb
BW06    51.17 333 (P)    50 36.50   0.7
        1.3s     4.64nm          4.3mb
HHAI    52.89 331 (P)    50 48.30  -0.3
ULM     53.20 348 ePd    50 51.20   0.6
LCCM    54.60 334 eP     50 59.70  -1.5
LMEM    55.98 323 (P)    51 12.79   1.5
SES     57.86 338 eP     51 23.00  -1.3
NEW     58.79 332 eP     51 30.00  -0.9
        1.3s    16.98nm          5.0mb
GMW     61.08 329 eP     51 46.46  -0.1
YKA     68.79 344 eP     52 33.20  -2.9
        0.8s     2.90nm          4.4mb
LIC     76.03  83 P      53 19.40  -0.5
      Z  20s     0.10um          4.1Msz
TIC     76.06  83 P      53 19.50  -0.6
KIC     76.32  83 P      53 21.00  -0.6
        0.8s    11.00nm          4.9mb
LZH    145.37 353 PKP    01 09.00  -1.3
        1.5s    54.00nm
                  pP     01 31.50
GKN    150.24  27 PKP    01 17.90  -0.4
KKN    150.70  26 PKP    01 20.52   1.5
DMN    150.78  26 PKP    01 19.98   0.7
GUN    150.86  25 PKP    01 24.32   4.9X
PKI    150.95  26 PKP    01 20.42   0.8
HYB    154.30  51 ePKP   01 24.00  -0.2
      S.D. = 1.2  on  32 of  34 obs.
-----------------------------------
?  JAN  14, 1993  09h 10m 02.59± 2.09s
   41.755 N ±10.3km   20.613 E ±20.8km
   DEPTH =  10.0km  (geophysicist)
 ALBANIA                            (391)
      ML 2.1 (TIR).

PHP      0.15 241 iPgc    10 05.00  -1.0
                  iSg    10 08.50
TIR      0.69 234 ePg     10 17.50   1.2
                  iSg    10 28.50
BCI      0.73 327 ePg     10 17.00   0.0
                  iSg    10 31.00
SDA      0.88 290 ePg     10 25.80   6.3X
LSK      1.60 180 ePn     10 31.00  -0.1
      S.D. = 1.6  on   4 of   5 obs.
-----------------------------------
•  JAN  14, 1993  09h 31m 33.66± 1.33s
   40.338 N ±11.2km   21.842 E ± 7.4km
   DEPTH =  10.0km  (geophysicist)
 GREECE                             (364)

LIT      0.55 115 iPg     31 45.02   0.2
                  eSg    31 55.70
FNA      0.57 322 ePg     31 44.37  -0.9
                  eSg    31 53.78
GRG      0.75  34 ePg     31 49.12   0.7
                  eSg    32 03.54
OHR      1.11 315 ePn     31 55.00   0.5
VAY      1.13  29 ePn     31 55.40   0.6
KNT      1.15  44 ePb     31 54.18  -1.0
                  eSb    32 13.22
SOH      1.25  67 iPb     31 56.42  -0.5
      S.D. = 0.9  on   7 of   7 obs.
-----------------------------------
•  JAN  14, 1993  09h 34m 39.93± 0.82s
   17.095 N ±17.7km   94.328 W ±11.0km
   DEPTH = 139.8 ± 14.0 km
   3.2mb (  1 obs.)
 CHIAPAS, MEXICO                    ( 61)

SCX      1.66 102 iP      35 11.00   0.2
                  iS     35 33.50
EVV      1.67 324 iP      35 10.50  -0.4
                  iS     35 32.00
OXX      2.29 270 iP      35 17.50  -1.2
                  iS     35 45.00
TPX      2.95 137 eP      35 27.00   0.2
PPM      4.53 296 iP      35 49.50   1.1
MRX      7.01 293 eP      36 22.00   0.6
```

```
YKA     47.52 347 eP   43 02.00  -0.5
         0.4s      0.20nm          3.2mb
      S.D. = 1.1  on   7 of   7 obs.
-----------------------------------------
?  JAN  14, 1993  09h 38m 20.55± 1.37s
   37.938 N ±24.8km   15.181 E ± 8.0km
   DEPTH =  10.0km  (geophysicist)
 SICILY                              (398)

ATN      0.31  45 P      38 27.10   0.0
                  eSg    38 31.80
MNO      0.38 269 Pc     38 28.60   0.1
                  eSg    38 35.00
SOI      0.70  79 Pc     38 34.40   0.0
                  eSg    38 45.90
GIB      0.91 274 Pd     38 38.00  -0.1
      S.D. = 0.1  on   4 of   4 obs.
-----------------------------------------
%  JAN  14, 1993  09h 58m 19.41± 1.57s
   18.067 N ±17.4km   76.647 W ±12.4km
   DEPTH =  10.0km  (geophysicist)
 JAMAICA REGION                      ( 86)
      MD 2.4 (HOJ). Felt at Kingston.

GWJ      0.09 275 iP     58 21.97  -0.1
                  S      58 24.91
HOJ      0.12 237 iP     58 22.62   0.3
                  S      58 25.58
STH      0.16 274 iP     58 22.77  -0.3
                  S      58 24.78
YHJ      0.23 140 iPd    58 24.29   0.0
                  S      58 28.78
BBJ      0.67 298 iPd    58 32.96   0.2
                  S      58 40.40
      S.D. = 0.4  on   5 of   5 obs.
-----------------------------------------
   JAN  14, 1993  10h 53m 32.60± 0.58s
   19.452 N ± 7.0km   64.432 W ± 9.0km
   DEPTH =  33.0km  (normal)
   4.4mb (  8 obs.)
 VIRGIN ISLANDS                      ( 91)

LPR      1.77 230 P      54 01.70   0.2
LRS      2.56 244 iP     54 12.20  -0.5
MGP      2.90 241 iP     54 17.00  -0.5
PAG      4.30 142 eP     54 36.50  -0.9
OLLA     9.65 194 iP     55 53.70   1.2
TOV     10.92 209 eP     56 13.60   3.9X
                  eS     58 13.60
SDV     12.10 211 iPc    56 30.20   4.3X
                  eS     58 42.70
BMG     14.90 215 eP     57 16.00  13.2X
HBF     19.59 316 eP     58 04.19   3.3X
SGS     19.84 317 eP     58 07.68   4.1X
CEH     20.86 325 eP     58 14.44   0.3
LHS     20.86 319 eP     58 15.54   1.3
JSC     21.01 318 (P)    58 16.19   0.4
PRM     21.60 316 eP     58 21.50  -0.2
                  e      58 32.12
CVL     22.14 329 (P)    58 27.51   0.5
BLA     22.55 325 eP     58 32.81   1.6
         0.6s     42.82nm          5.1mb
NAV     22.83 325 (P)    58 32.45  -1.5
RSNY    26.40 344 (P)    59 14.53   6.6X
         0.5s      5.51nm          4.4mb
ELC     28.00 315 eP     59 21.42  -1.1
FVM     29.18 315 (P)    59 32.94  -0.2
         0.6s      5.13nm          4.4mb
ULM     39.59 328 eP     01 04.50   2.1
ALQ     40.13 301 eP     01 07.97   0.6
         0.8s      3.28nm          4.1mb
TUC     43.31 297 (P)    01 36.00   2.6X
BW06    44.42 312 eP     01 42.98   0.6
         0.8s      3.10nm          4.2mb
FCC     44.78 339 eP     01 48.00   3.3X
LCCM    46.94 315 eP     01 59.40  -2.8
SES     47.99 321 eP     02 11.00   0.7
TNP     49.18 304 (P)    02 20.51   0.7
         0.9s      2.70nm          4.3mb
NEW     51.06 317 eP     02 33.44  -0.4
         0.7s      8.07nm          4.8mb
ORV     52.66 305 (P)    02 49.82   3.8X
YKA     54.99 334 eP     02 59.90  -2.8
         0.8s      2.70nm          4.3mb
RES     57.64 351 eP     03 28.00   6.5X
LIC     59.13  94 P      03 33.80   1.0
KIC     59.35  94 P      03 34.20  -0.2
```

```
ARMA   145.66 244 ePKP  13 06.30  -3.6X
TOO    148.30 229 ePKP  13 08.30  -5.5X
         0.7s      9.00nm
      S.D. = 1.3  on  24 of  36 obs.
-----------------------------------------
&  JAN  14, 1993  10h 55m 55.12s
   33.894 N          120.343 W
   DEPTH =  10.0km  (geophysicist)
 OFF COAST OF CALIFORNIA             ( 38)
      <PAS-P>. ML 3.1 (PAS).

ABL      1.33  44 (P)    56 19.97   0.1
SSK      2.22  81 (P)    56 30.81  -1.9
PEC      2.65  89 (P)    56 36.09  -2.6
GSC      3.24  63 eP     56 44.93  -2.1
MEMM     3.93  16 (P)    56 56.74  -0.1
         5 obs. associated
-----------------------------------------
   JAN  14, 1993  11h 30m 40.98± 0.90s
   49.192 N ± 7.5km    6.842 E ± 7.9km
   DEPTH =  10.0km  (geophysicist)
 GERMANY                             (543)
      MD 2.5 (UCC).

RUP      0.53  16 ePg    30 51.45  -0.3
WLF      0.65 317 iPd    30 54.16   0.2
                  iS     31 03.60
ABH      0.83  33 ePg    30 56.54  -0.5
TNS      1.47  45 ePnd   31 08.40   0.9
                  ePgd   31 26.00
                  eSb    32 09.40
                  eSg    32 16.30
FEL      1.53 149 ePg    31 08.31  -0.2
DOU      1.72 303 P      31 11.00  -0.1
                  i      31 13.70
                  iS     31 33.00
      S.D. = 0.6  on   6 of   6 obs.
-----------------------------------------
   JAN  14, 1993  12h 02m 03.65± 0.46s
   28.704 S ± 4.9km   67.580 W ± 8.5km
   DEPTH = 143.3 ±  9.2 km
 LA RIOJA PROVINCE, ARGENTINA        (138)

CYA      1.59  81 iPc    02 33.90  -0.2
RTPR     1.85 150 ePd    02 37.00   0.1
RTLL     2.73 196 iPd    02 48.30   0.4
                  S      03 20.50
CFA      2.95 191 ePd    02 51.00   0.3
                  S      03 26.10
FSA      2.96  28 iPc    02 51.10   0.4
                  (S)    03 20.00
RTCB     2.97 201 iPc    02 51.70   0.7
                  S      03 26.50
RTCV     3.25 195 iPc    02 55.20   0.5
                  S      03 30.50
TCA      3.69 136 iP     03 00.00  -0.4
                  S      03 35.50
MRA      4.03 157 ePd    03 05.00   0.2
MDZ      4.31 194 eP     03 07.60  -1.0
SLA      4.38  26 ePc    03 09.70   0.1
PEL      5.17 210 eP     03 20.00  -0.1
                  iS     04 18.00
RFA      6.10 187 eP     03 31.80  -0.8
                  S      04 03.70
CNCB    11.84 358 eP     04 49.00  -0.6
ZOBO    12.37 358 P      05 05.00   8.5X
KIC     69.76  70 P      13 01.00   0.6
      S.D. = 0.6  on  15 of  16 obs.
-----------------------------------------
&  JAN  14, 1993  12h 36m 00.52s
   62.105 N          150.292 W
   DEPTH =  60.6km
 CENTRAL ALASKA                      (  1)
      <AEIC>. ML 2.5 (AEIC).

PWA      0.50 157 P      36 12.60   0.0
                  S      36 21.70
SKT      0.60 258 iP     36 13.14  -0.6
                  eS     36 23.19
SUA      0.68 199 eP     36 14.66  -0.1
GHO      0.73 117 iP     36 14.74  -0.6
                  eS     36 26.12
PLRM     0.75 133 eP     36 14.72  -0.8
                  eS     36 27.01
HUR      0.93  19 iP     36 17.03  -0.7
                  eS     36 29.94
PMS      0.93 158 P      36 17.30  -0.6
```

```
SML      0.97 107 eP     36 17.50  -0.9
                  eS     36 32.02
KNK      1.12 128 eP     36 19.90  -0.4
                  S      36 35.32
CGLM     1.14 226 eP     36 20.59  -0.2
CRP      1.22 227 eP     36 21.54  -0.4
SPU      1.25 223 eP     36 21.65  -0.5
                  eS     36 38.74
CP2      1.26 229 eP     36 22.07  -0.3
CKN      1.26 226 eP     36 22.71   0.4
CKT      1.29 226 eP     36 22.38  -0.3
                  S      36 38.22
BGL      1.31 231 eP     36 22.98   0.0
CKL      1.34 228 eP     36 23.37   0.0
PTE      1.39 153 eP     36 23.20  -0.7
SCM      1.43 100 iP     36 24.01  -0.6
NKA      1.44 199 eP     36 25.24   0.5
RND      1.46  26 eP     36 24.10  -1.0
SLKM     1.60 179 eP     36 26.85  -0.2
MPA      1.68 164 eP     36 27.84  -0.2
                  eS     36 47.73
DFR      1.91 218 eP     36 30.70  -0.6
TOA      1.94  88 P      36 32.00   0.3
GLI      1.97 127 eP     36 30.84  -1.2
REF      2.00 217 eP     36 33.05   0.4
                  S      36 57.63
RSO      2.03 217 eP     36 33.43   0.3
RS2      2.03 217 eP     36 33.97   0.8
SEW      2.05 168 eP     36 33.60   0.5
VZW      2.07 119 eP     36 32.79  -0.8
VLZ      2.13 116 eP     36 32.83  -1.4
KNIM     2.15 144 eP     36 32.60  -2.0
KLU      2.17 105 eP     36 33.50  -1.4
SDG      2.26  77 eP     36 35.85  -0.3
FID      2.28 125 eP     36 34.73  -1.7
LTI      2.39 149 eP     36 37.22  -0.7
PAX      2.40  67 eP     36 37.80  -0.4
ILIM     2.41 214 eP     36 38.00  -0.3
INE      2.45 214 eP     36 38.13  -0.9
INW      2.47 215 eP     36 38.17  -1.0
HIN      2.51 131 eP     36 38.16  -1.5
CVA      2.69 124 eP     36 41.30  -0.9
SVW      2.74 251 P      36 42.50  -0.4
TTA      2.78 290 eP     36 41.47  -2.1
MLY      2.94 356 eP     36 43.51  -2.4
GLB      3.15  99 eP     36 46.84  -2.0
RAGM     3.22 120 eP     36 49.79   0.1
CROM     3.69 108 eP     36 54.61  -1.9
TGL      3.83 107 eP     36 56.06  -2.3
BALM     3.95 102 eP     36 57.16  -2.9
YAH      4.48 109 eP     37 05.19  -2.5
         52 obs. associated
-----------------------------------------
   JAN  14, 1993  12h 51m 28.58± 0.61s
   41.923 N ± 4.8km   23.042 E ± 5.7km
   DEPTH =  10.0km  (geophysicist)
 GREECE-BULGARIA BORDER REGION       (363)
      ML 2.0 (SKO).

KKB      0.06 151 iPgd   51 31.00   0.1
MMB      0.61 123 iPgd   51 31.00 -10.0X
VTS      0.68  10 iPgc   51 41.00  -1.2
VAY      0.70 211 iPg    51 42.20  -0.2
                  iSg    51 50.70
KNT      0.77 188 iPg    51 43.12  -0.5
                  eSg    51 53.20
SRS      0.91 153 iPg    51 45.62  -0.3
PGB      1.04  53 iPgd   51 48.00  -0.3
GRG      1.08 207 ePg    51 48.48  -0.4
                  eSg    52 03.16
SOH      1.13 168 ePg    51 49.24  -0.5
PLD      1.25  81 eP     51 53.00   1.2
RZN      1.27 100 eP     51 53.00   0.6
THE      1.29 183 ePb    51 52.68   0.2
                  eSb    52 09.68
OUR      1.74 156 ePb    51 58.80  -0.2
OHR      1.87 245 ePn    52 02.70   1.8
PAIG     2.05 166 ePn    52 03.12  -0.4
      S.D. = 0.8  on  14 of  15 obs.
-----------------------------------------
?  JAN  14, 1993  13h 07m 39.18± 4.74s
   33.245 S ±11.8km   72.037 W ±39.1km
   DEPTH =  33.0km  (normal)
 OFF COAST OF CENTRAL CHILE          (134)
      MD 3.6 (SAN).

LCCH     0.45 121 iP+    07 49.16   0.0
```

14d 13h

```
                    iS    07 54.36
LNV     0 88 144 iPd    07 55.14    0.0
                    iS    08 05.08
ROCH    0.90  73 iPd    07 55.60   -0.1
                    iS    08 05.96
TACH    1.01 114 iPd    07 56.51   -0.5
                    iS    08 07.30
PEL     1.14  85 iPd    07 59.07    0.2
                    iS    08 11.21
PCH     1.33 107 iP+    08 01.84    0.2
                    iS    08 17.21
JACH    1.34  66 iPd    08 01.84    0.0
                    iS    08 17.58
CHCH    1.34 121 iP     08 02.11    0.3
                    iS    08 17.65
FCH     1.47  94 iP+    08 03.80   -0.1
                    iS    08 20.46
CACH    1.48 126 (P)    08 05.66    1.7X
                    iS    08 22.02
      S.D. = 0.3  on   9 of  10 obs.
-------------------------------------
   JAN  14, 1993  13h 32m 27.26± 0.30s
    8.595 S ± 5.4km  122.968 E ± 8.1km
   DEPTH =  24.3km  (  3 depth phases)
   5.0mb ( 25 obs.)
 FLORES REGION, INDONESIA          (286)

MTN     9.06 118 eP     34 34.50  -5.2X
        0 4s   152.00nm          6.6mb X
                    eS    36 10.00
NANU   15.62 206 eP     36 07.00   -0.5
WRA    15.76 137 P      36 03.00   -6.4X
WB2    15.77 137 iPd    36 02.70   -6.8X
                    eS    38 47.50
DAV    15.79  10 eP     36 07.60   -2.2
WARB   17.84 169 eP     36 33.50   -2.1
       0.4s    16.00nm          4.5mb
MEEK   18.41 192 eP     36 43.50    0.8
PLP    19.73   6 ePd    37 02.00    3.6X
MRWA   21.54 197 iPc    37 16.50   -0.4
KGM    22.24 297 ePc    37 31.30    7.2X
MUN    24.10 194 eP     37 42.00    0.0
CTA    25.25 119 iPd    37 53.00   -0.2
IPM    25.50 300 ePd    37 56.90    1.3
STK    28.92 146 eP     38 26.30   -0.4
       0.6s     6.00nm          4.5mb
ADE    29.95 153 eP     38 36.70    0.7
RMO    30.24 129 eP     38 40.00    1.4
       0.7s    10.00nm          4.8mb
                    e     39 27.80 239kmX
CMS    31.17 140 eP     38 47.10    0.4
       0.7s     2.00nm          4.1mb
NNT    31.24 312 eP     38 48.30    0.9
NST    33.06 317 eP     39 11.00    7.7X
KHT    33.52 314 eP     39 08.40    1.0
BFD    33.53 151 eP     39 07.00   -0.3
       0.7s     9.00nm          4.8mb
BRS    33.81 127 iP     39 10.20    0.4
ARMA   34.47 133 eP     39 16.30    0.7
       0.8s     9.00nm          4.7mb
BWA    34.74 141 eP     39 18.40    0.6
BDT    34.93 317 eP     39 21.50    2.0
TOO    35.31 148 eP     39 23.00    0.4
       0.7s    14.00nm          5.0mb
CHG    36.10 319 eP     39 30.00    0.6
       1.3s    25.96nm          5.0mb
GYA    38.27 336 P      39 49.00    1.3
KMI    38.88 330 eP     39 54.50    1.5
       1.8s    50.00nm          5.0mb
                    pP    40 03.50   30km
                    sP    40 08.50
NJ2    40.61 355 Pc     40 08.50    1.7
       1.0s    16.00nm          4.7mb
CD2    43.39 336 Pc     40 31.10    1.4
       1.0s    20.00nm          4.8mb
DZM    43.85 113 iPc    40 34.10    0.4
XAN    44.45 343 Pc     40 38.80    0.5
       1.0s     7.00nm          4.5mb
                    pP    40 45.50   22km
                    sP    40 50.00
TIY    47.11 349 Pd     40 59.50    0.1
LZH    47.95 339 eP     41 07.00    0.8
       1.8s    42.00nm          5.2mb
                    pP    41 13.00   20km
                    sP    41 17.50
BJI    48.80 353 eP     41 11.50   -0.8
       1.0s    15.00nm          5.0mb
LSA    48.86 322 P      41 14.10    0.5
       1.3s    18.00nm          4.9mb
SNY    50.18   1 Pc     41 22.00   -0.9
GBA    50.29 296 P      41 24.00   -0.2
HYB    50.93 301 eP     41 26.50   -2.7
GUN    51.02 317 P      41 28.64   -1.4
       0.9s    65.00nm          5.6mb
PKI    51.13 316 P      41 28.82   -2.1
       1.0s    31.00nm          5.2mb
KKN    51.36 316 P      41 31.60   -0.9
       1.2s    57.00nm          5.4mb
DMN    51.36 316 P      41 31.44   -1.1
       1.1s    72.00nm          5.5mb
GKN    51.93 316 P      41 35.36   -1.4
       1.1s    69.00nm          5.5mb
GTA    52.37 337 P      41 40.00    0.1
       1.0s    18.00nm          5.0mb
MDJ    53.30   6 eP     41 45.10   -1.3
       1.0s    24.00nm          5.1mb
WMQ    61.19 332 P      42 43.50    1.1
       1.2s    23.00nm          5.2mb
                    sP    42 53.50
KSH    64.64 321 P      43 07.00    1.5
       1.0s    20.00nm          5.2mb
YAK    70.59   3 iP     43 41.00   -1.1
       1.4s    70.00nm          5.6mb
MAIO   74.38 311 eP     44 05.00   -0.2
BCAO  104.90 272 ePdiff46 46.80   12.3X
       0.3s     3.00nm
YKA   112.19  25 ePKP   51 00.40   -1.7
       0.8s     0.20nm
VAO   147.09 197 (PKP)  52 14.00    5.5X
CNCB  152.53 157 PKP    52 20.00    2.4X
LPB   152.74 156 ePKP   52 28.00   10.3X
ZOBO  152.95 156 PKP    52 20.80    2.6X
SIV   155.25 171 ePKP   52 28.00    7.4X
                    i     52 50.80
      S.D. = 1.2  on  46 of  58 obs.
-------------------------------------
%  JAN  14, 1993  14h 13m 04.92± 0.58s
   44.773 N ± 4.1km    7.265 E ± 8.2km
   DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                    (545)
      ML 1.8 (GEN).

BHB     0.07 359 P      13 08.31    1.0
                    S     13 09.87
PZZ     0.29 204 P      13 11.79    0.7
                    S     13 16.09
RRL     0.37 293 P      13 12.44   -0.2
                    S     13 17.19
RSP     0.38 359 P      13 12.71    0.0
                    S     13 17.66
STV     0.53 175 P      13 15.18   -0.5
                    S     13 22.02
ENR     0.56 168 P      13 15.95   -0.4
                    S     13 23.09
ROB     0.65 138 P      13 18.10    0.2
                    S     13 26.91
LSD     0.69 354 P      13 17.90   -0.8
                    S     13 26.53
      S.D. = 0.7  on   8 of   8 obs.
-------------------------------------
   JAN  14, 1993  14h 30m 41.22± 0.30s
   23.377 N ± 5.1km  143.553 E ± 5.2km
   DEPTH =  24.2km  (  7 depth phases)
   5.0mb ( 40 obs.)
 VOLCANO ISLANDS REGION            (213)

PJG     9.82 172 e(P)   33 14.55   10.6X
IIDJ   13.02 339 eP     33 45.80   -1.6
KAKJ   13.11 348 eP     33 45.60   -2.9
CHJJ   13.23 344 eP     33 46.30   -3.8X
KAGJ   13.68 307 eP     34 05.30    9.2X
MAT    13.91 342 eP     33 55.00   -4.1X
       0.7s    13.01nm          4.8mb
                    eS    36 36.00
NIIJ   14.36 345 P      34 01.00   -4.0X
KUMJ   14.47 312 P      34 08.60    2.2
YAMJ   15.05 349 eP     34 10.80   -3.2X
SHNJ   15.27 317 eP     34 24.40    7.5X
OFUJ   15.74 355 eP     34 19.50   -3.4X
AOMJ   17.34 352 eP     34 44.40    1.2
HOOJ   18.96 359 eP     35 03.90    0.8
MRRJ   19.11 354 eP     35 05.90    1.0
KUSJ   19.69   3 eP     35 13.30    1.6
ASAJ   20.70 358 eP     35 23.20    1.0
CVP    21.11 259 eP     35 27.00    0.5
SSE    21.30 296 P      35 27.50   -0.8
       0.7s    51.00nm          5.1mb
     Z  20s     0.90um          4.2Msz
                    pP    35 33.00   20km
                    S     39 24.00
PLP    21.46 239 ePc    35 33.00    2.9
PIP    22.00 261 ePd    35 38.00    2.5
BAG    22.67 256 eP     35 36.00   -6.3X
NJ2    23.47 297 eP     35 46.00   -3.8X
     Z  20s     0.59um          4.0Msz
YSS    23.60 359 eP+    35 51.50    0.6
       0.6s    10.00nm          4.5mb
     Z  16s     0.50um          4.1MszX
     N  16s     0.70um
     E  16s     0.40um
                    e     36 06.30   63kmX
DAV    23.68 230 eP     35 43.00   -9.0X
MDJ    24.07 335 eP     35 55.90    0.3
       1.2s   100.00nm          5.2mb
SNY    24.83 323 eP     36 01.60   -1.3
       1.0s    53.00nm          5.1mb
     Z  22s     0.63um          4.1Msz
CN2    25.24 328 eP     36 07.00    0.2
       1.0s    13.00nm          4.5mb
     Z  20s     0.92um          4.3Msz
     N  17s     0.83um
     E  17s     0.32um
                    epP   36 14.00   25km
TIA    26.17 305 Pc     36 14.60   -0.9
       0.9s    66.00nm          5.3mb
WHN    26.94 292 P      36 25.00    2.4
BJI    28.45 312 eP     36 33.50   -2.7
     Z  20s     0.48um          4.1Msz
TIY    30.21 305 eP     36 48.00   -4.2X
     Z  25s     0.69um          4.2MszX
HHC    31.98 311 Pd     37 06.60   -1.1
       1.0s    21.00nm          5.0mb
     Z  22s     1.03um          4.5Msz
XAN    32.04 297 Pc     37 07.00   -1.3
BTO    32.97 309 eP     37 15.00   -1.4
CD2    36.05 291 Pc     37 42.60   -0.3
       1.0s    20.00nm          5.0mb
LZH    36.49 300 Pc     37 45.60   -1.1
       2.0s    44.00nm          5.0mb
     Z  18s     0.49um          4.3Msz
                    pP    37 55.00   32km
CIT    36.65 329 eP     37 48.00    0.4
MGD    37.05   6 eP     37 51.00    0.2
                    e     46 00.00
KMI    37.15 281 Pc     37 54.50    2.1
       1.8s    70.00nm          5.2mb
                    pP    38 01.50   24km
YAK    39.76 350 iPc    38 12.90   -0.6
       0.9s    80.00nm          5.4mb
     Z  16s     0.40um          4.4Mszx
     N  16s     0.40um
GTA    40.20 304 eP     38 17.00   -0.6
       1.0s    20.00nm          4.8mb
     Z  20s     0.58um          4.4Mszx
                    pP    38 25.00   27km
ZAK    41.24 321 eP     38 26.00    0.3
       2.0s    44.00nm          4.8mb
     Z  16s     0.30um          4.3Mszx
     N  14s     0.28um
NST    41.51 267 eP     38 37.00    8.6x
IRK    41.53 324 ePc    38 27.70   -0.5
       1.4s    26.00nm          4.8mb
                    e     38 34.10   22km
CHG    41.74 272 ePc    38 30.70    0.3
       1.2s    27.34nm          4.9mb
BDT    42.10 270 eP     38 35.50    2.3
       0.8s    26.00nm          5.0mb
NNT    42.89 263 eP     38 41.00    1.3
MOY    43.11 322 eP     38 40.10   -0.9
KHT    43.20 267 eP     38 43.50    1.3
WB2    43.98 193 iPc    38 47.30   -1.2
       0.5s    18.20nm          5.2mb
                    iS    44 21.40
IPM    45.06 252 eP     38 52.30   -5.0X
LSA    46.98 289 iPc    39 14.80    1.9
       1.1s    47.00nm          5.4mb
WMQ    49.80 308 P      39 34.50    0.4
       1.2s    78.00nm          5.6mb
DZM    50.37 152 iPc    39 39.20    0.5
BRS    51.25 169 iP     39 44.00   -1.2
GUN    51.79 288 Pc     39 50.04    0.2
```

```
WARB    51.92 199 eP     39 49.50  -0.8
ELT     52.14 320 eP     39 51.00  -0.6
        1.2s     26.00nm          5.0mb
PKI     52.25 288 Pc     39 52.86  -0.5
        0.6s     27.00nm          5.3mb
KKN     52.33 288 Pc     39 53.42  -0.4
DMN     52.51 288 Pc     39 54.90  -0.3
GKN     52.86 288 Pc     39 57.40  -0.2
STK     54.98 182 eP     40 11.20  -1.5
        0.4s      3.30nm          4.7mb
SVW     55.78  31 eP     40 19.40   1.1
NRI     56.40 340 iPd    40 21.50  -1.1
        1.3s     20.00nm          5.0mb
                  e      40 28.00  21km
BGL     57.34  31 (P)    40 29.32  -0.3
BRW     58.47  19 eP     40 37.45   0.3
KSH     58.59 303 P      40 40.20   1.5
        0.8s     40.00nm          5.6mb
MRWA    58.63 208 iPd    40 37.20  -1.6
PMR     58.94  31 eP     40 39.19  -1.4
        0.8s     17.39nm          5.2mb
NDI     59.17 290 iPc    40 42.50  -0.2
FRU     59.32 307 eP     40 44.00   0.4
        1.6s     70.00nm          5.5mb
                  e      40 57.00  46kmX
                  e      41 29.00
FBA     60.03  27 eP     40 47.47  -0.6
        0.8s      4.11nm          4.6mb
TOO     60.65 178 eP     40 51.30  -1.3
        0.7s      9.00nm          5.0mb
HYB     60.78 278 iPc    40 53.10  -0.8
        0.8s     24.60nm          5.4mb
BRVK    61.69 319 iPc    40 58.80  -0.8
        1.0s     60.00nm          5.7mb
BALM    62.15  32 eP     41 01.75  -0.9
GBA     63.00 274 Pc     41 08.00  -0.8
POO     64.72 280 iPd    41 18.90  -1.2
SVE     66.93 324 ePd    41 33.00  -0.6
OUE     67.56 294 eP     41 38.80   0.5
ARU     68.11 323 iPc    41 40.00  -1.0
        1.0s     50.00nm          5.6mb
MAIO    71.98 302 iPc    42 05.40   0.3
ASH     72.40 304 eP     42 08.00   0.5
YKA     74.82  28 eP     42 20.70  -0.3
        0.6s      9.60nm          5.0mb
RES     75.37  14 eP     42 25.00   1.0
        1.0s      8.00nm          4.7mb
VGB     77.48  46 eP     42 37.06   0.6
LBFM    78.19  50 eP     42 41.91   1.3
DPW     78.29  43 eP     42 41.27   0.4
SDF     78.35 339 iP     42 40.40  -0.3
NEW     78.81  42 eP     42 44.36   0.6
        0.9s     22.09nm          5.2mb
KAF     81.35 335 eP     42 55.80  -1.1
KIV     81.50 314 eP     42 59.00   0.8
        2.1s     93.00nm          5.4mb
SES     81.55  39 ePc    42 58.80   0.5
LCCM    83.08  43 eP     43 07.10   0.7
HHAI    83.89  45 eP     43 12.63   2.1
DUG     84.97  48 eP     43 17.06   1.0
        0.6s      3.10nm          4.7mb
FCC     85.39  26 eP     43 21.00   3.4X
ARUT    85.59  51 eP     43 19.60   0.3
DAU     85.93  48 eP     43 21.89   0.8
BW06    85.96  45 eP     43 21.14   0.0
        1.0s      2.64nm          4.4mb
EMUT    86.51  48 (P)    43 25.08   1.2
SRU     87.03  49 eP     43 26.84   0.5
HFS     87.32 337 eP     43 24.50  -2.6
        0.4s      1.30nm          4.5mb
      Z  16s    159.00um          7.5MszX
                 LR      20 24.00
NAO     87.80 339 P      43 28.10  -1.3
        0.9s      6.00nm          4.9mb
ULM     89.86  34 eP     43 43.00   3.6X
VBY     96.89 326 eP     44 03.00  -8.7X
BCAO   119.70 290 ePKPd  49 23.50  -8.2X
        1.2s      7.00nm
                  ic     50 47.30
TIC    137.18 310 PKP    50 04.60  -0.5
KIC    137.19 310 PKP    50 04.40  -0.7
LIC    137.48 310 PKP    50 05.20  -0.4
ZOBO   149.42  83 iPKPc  50 32.00   5.2X
LPB    149.53  83 PKP    50 32.20   5.6X
CNCB   149.72  83 PKP    50 32.00   4.9X
     S.D. = 1.2  on  93 of 114 obs.
-----------------------------------------
```

```
    JAN  14, 1993   15h 24m 22.87± 0.28s
    37.154 N ± 4.1km    28.223 E ± 3.4km
    DEPTH =  10.0km  (geophysicist)
    4.5mb ( 32 obs.)
  TURKEY                                (366)
        MD 4.6 (HLW), 4.3 (ISK). ML 4.3
        (CSS). Felt in the Mugla area.

YER      0.05 112 iPg    24 27.10   2.0
ELL      1.41 106 iPn    24 51.00   2.3
                  eSg    25 09.00
IZM      1.46 329 iPn    24 49.90   0.7
KHL      1.56  41 iPn    24 50.30  -0.4
BCK      1.91  80 iPn    24 57.10   1.2
ALT      2.41  38 iPn    25 02.50  -0.6
DST      2.47   7 iPn    25 04.30   0.5
EZN      3.05 331 iPn    25 12.50   0.5
KCT      3.09   2 iPn    25 12.70   0.1
EDC      3.20 355 ePn    25 14.00  -0.2
BNT      3.21 356 iPn    25 14.70   0.5
GPA      3.53  27 ePn    25 19.00   0.1
EYL      3.73  23 ePn    25 21.70  -0.1
GBZT     3.75  14 ePn    25 20.00  -2.0
                  iSg    26 25.00
ISK      3.96   9 ePn    25 26.00   1.1
PPCY     4.04 123 eP     25 28.00   2.0
                  eS     26 16.50
ALN      4.10 336 eP     25 27.20   0.3
BBTK     4.46  52 iP     25 33.10   1.0
                  eS     26 44.00
PAIG     4.51 309 eP     25 34.84   2.1
OUR      4.59 315 eP     25 34.80   0.9
DMK      4.67 356 iPn    25 34.00  -1.1
CSS      4.68 116 eP     25 37.20   1.9
                  eS     26 32.40
KDZ      4.99 335 iPg    26 40.00  60.5X
AGG      5.01 294 iP     25 36.17  -3.7X
FAM      5.15 113 eP     25 45.00   3.1X
                  eS     26 45.90
SOH      5.27 315 eP     25 44.96   1.3
RZN      5.28 330 iPgc   27 00.00  76.2X
SRS      5.35 319 eP     25 39.05  -5.6X
LIT      5.37 305 eP     25 46.72   1.8
THE      5.37 312 eP     25 46.84   1.8
JMB      5.45 347 eP     26 44.00  57.9X
PLD      5.64 332 eP     26 49.00  60.2X
KNT      5.76 316 eP     25 51.92   1.5
GRG      5.91 312 eP     25 54.60   2.0
VAY      6.05 315 iPn    25 56.50   2.1
PGB      6.23 331 eP     26 57.00  60.0X
PVL      6.45 341 iPc    27 00.00  59.9X
FNA      6.45 306 iP     26 03.32   3.1X
IGT      6.64 293 eP     26 11.84   8.9X
VTS      6.66 326 eP     26 04.00   0.7
LSK      6.67 299 iPc    26 09.40   6.0X
OHR      6.99 307 iP     26 10.20   2.3
SRN      7.00 295 eP     26 12.20   4.3X
SKO      7.11 315 iPn    26 11.30   1.8
      Z  12s      1.23um
                  LR     29 18.00
TPE      7.14 299 eP     26 12.50   2.6
ATZ      7.22 125 eP     26 09.40  -1.6
                  eS     27 26.50
BUC1     7.37 348 eP     27 16.00  62.9X
VLO      7.57 299 eP     26 19.00   3.1X
SHMJ     7.60 123 P      26 15.20  -1.2
TIR      7.72 305 eP     26 22.50   4.5X
HLW      7.73 159 ePn    26 18.30   0.2
                  e      26 25.00
                  eSn    27 42.00
SALJ     8.01 128 P      26 21.50  -0.6
CFR      8.02 360 eP     26 20.00  -2.2
ISR      8.08 352 eP     26 14.00  -9.0X
DSI      8.12 131 eP     26 23.00  -0.7
MASJ     8.22 129 P      26 24.60  -0.5
SDA      8.32 309 eP     26 27.50   1.1
MTUR     8.41 345 ePc    26 47.00  19.3X
LISJ     8.42 132 P      26 27.90   0.2
CMP      8.45 345 ePd    26 29.00   0.8
MLR      8.50 349 ePc    26 29.00   0.0
VRI      8.78 353 eP     26 12.00 -20.7X
SIM      8.97  28 eP     26 54.00  18.7X
                  e      28 11.00
SHWJ     9.07 136 P      26 35.50  -1.5
MBH      9.22 141 eP     26 37.10  -1.9
CLI      9.41 356 eP     26 40.00  -1.5
SOI      9.70 279 P      26 46.60   1.2
```

```
                                        14d  14h
MGR     10.35 291 P      26 55.80   1.4
AYN     10.52 139 eP     26 55.67  -1.1
SGO     10.63 293 P      26 59.80   1.6
VBY     12.82 315 ePc    27 28.50   0.8
KIV     12.92  54 eP     27 35.50   6.2X
        1.8s     71.00nm          5.6mb X
VOY     13.90 314 ePc    27 43.00   0.8
SFI     14.15 304 P      27 57.00  11.6X
KBA     14.82 317 i(P)   27 58.70   4.4X
        1.3s     19.90nm          4.5mb
                  i      28 12.30
PGF     15.71 296 eP     28 05.20  -0.6
        1.2s     35.70nm          4.5mb
GEC2    15.76 322 ePnc   28 13.10   6.7X
        1.2s     18.89nm          4.2mb
                  e      28 19.10
                  e      28 24.60
KHC     16.01 323 eP     28 15.40   5.8X
                  e      28 23.00
KSP     16.12 332 eP     28 16.50   5.5X
PRU     16.18 327 eP     28 23.50  11.8X
WET     16.36 322 iPc    28 19.80   5.7X
        1.3s     42.00nm          4.4mb
BRG     17.09 328 eP     28 28.50   5.3X
        1.5s     25.00nm          4.1mb
GRF     17.54 321 eP     28 33.80   4.9X
      Z  14s      0.50um
FRF     17.62 298 eP     28 29.60  -0.4
LMR     17.67 297 eP     28 30.60   0.1
LRG     17.80 297 eP     28 31.60  -0.6
      Z  18s      0.15um
CLL     17.81 327 e(P)   28 52.00  19.8X
MOX     17.97 324 eP     28 37.50   3.2X
        2.0s     74.00nm          4.5mb
LPG     18.11 304 eP     28 37.20   0.8
        1.0s     18.40nm          4.2mb
LPL     18.13 304 eP     28 37.20   0.7
        1.4s     41.40nm          4.4mb
OBN     18.84  15 iPc    28 45.70   0.9
        1.2s     44.00nm          4.5mb
CDF     18.99 313 eP     28 44.90  -1.9
        1.1s     13.65nm          4.1mb
BSF     19.01 311 eP     28 46.30  -0.8
        1.3s     13.70nm          4.0mb
HAU     19.35 311 eP     28 49.10  -2.2
      Z  18s      0.25um
MOS     19.65  16 eP     28 55.00   0.4
        1.8s    120.00nm          4.9mb
WLF     20.24 315 Pc     29 05.00   4.2X
SMF     20.41 305 eP     29 01.20  -1.4
        1.6s     76.50nm          4.8mb
LBF     20.43 306 eP     29 02.20  -0.7
        1.1s     14.15nm          4.2mb
LOR     20.61 307 eP     29 04.30  -0.4
        1.5s     34.45nm          4.5mb
      Z  19s      0.20um          3.5Msz
SSF     20.76 306 eP     29 06.10  -0.1
        1.3s     67.15nm          4.8mb
AVF     20.77 305 eP     29 03.50  -2.8
        1.1s     19.55nm          4.4mb
BGF     21.03 305 eP     29 08.00  -1.0
        1.5s     48.05nm          4.6mb
MAF     21.12 303 eP     29 08.00  -1.9
        1.5s     26.10nm          4.4mb
CAF     21.14 300 eP     29 08.30  -1.9
        1.2s     25.00nm          4.5mb
DOU     21.33 315 Pc     29 15.70   3.7X
        0.9s     35.00nm          4.7mb
TCF     21.38 303 eP     29 10.50  -2.0
        1.2s     22.30nm          4.4mb
RJF     21.60 301 eP     29 12.90  -1.9
        1.5s     56.40nm          4.8mb
      Z  18s      0.20um          3.6Msz
LPO     21.70 299 eP     29 14.10  -1.7
        1.4s     41.40nm          4.7mb
LSF     21.82 303 eP     29 16.00  -1.0
        1.6s     50.35nm          4.7mb
LFF     22.06 299 eP     29 18.20  -1.2
        1.3s     52.00nm          4.8mb
MFF     23.03 303 eP     29 26.20  -2.7
        1.7s     85.30nm          5.0mb
LDF     23.57 308 eP     29 31.80  -2.4
        1.4s     62.75nm          5.0mb
FLN     23.85 308 eP     29 34.40  -2.5
GRR     23.98 307 eP     29 35.90  -2.2
        1.2s     52.05nm          5.0mb
LPF     23.99 306 eP     29 36.10  -2.1
```

14d 15h

```
        1.0s    18.20nm          4.6mb
ENIJ   24.24 279 eP     29 43.80   3.0X
EVIA   24.24 283 iPc    29 44.00   3.1X
KAF    25.01 358 eP     29 51.80   3.8X
MAIO   25.03  82 eP     29 49.00   0.5
EGUA   25.33 279 eP     29 53.50   2.2
BCAO   33.75 198 iPd    31 08.50   1.7
        0.8s    21.00nm          5.1mb
TIC    42.87 233 P      32 24.00   0.9
KIC    42.91 233 P      32 24.30   0.9
LIC    43.19 233 P      32 26.70   1.0
GKN    47.80  84 P      33 03.20   0.6
HYB    48.25 100 eP     33 06.00   0.0
DMN    48.35  84 P      33 07.80   0.8
KKN    48.41  84 P      33 07.80   0.4
PKI    48.61  84 P      33 09.60   0.5
GUN    48.83  83 P      33 11.40   0.6
GBA    49.61 105 P      33 17.00   0.6
CHG    63.73  86 eP     34 57.00  -0.2
YKA    76.29 343 eP     36 11.70  -1.4
        1.0s     1.10nm          3.9mb
WRA   114.37  97 PKP    43 03.70  -1.2
        0.8s     0.10nm
      S.D. = 1.4  on  97 of 134 obs.
-----------------------------------
?  JAN  14, 1993  15h 29m 41.02± 4.65s
   19.295 N ±34.5km   63.813 W ±55.6km
   DEPTH =  33.0km  (normal)
   3.6mb (  1 obs.)
 LEEWARD ISLANDS                  ( 92)

LPR     2.18 244 iP     30 15.20  -0.6
CPD     2.35 238 iP     30 19.20   1.0
LRS     3.04 251 iP     30 27.40  -0.6
MGP     3.36 248 iP     30 28.50  -4.0X
JSC    21.52 317 eP     34 29.93   0.6
YKA    55.38 334 eP     39 13.50  -0.5
        0.6s     0.40nm          3.6mb
      S.D. = 1.1  on   5 of   6 obs.
-----------------------------------
*  JAN  14, 1993  16h 51m 42.47± 0.76s
   42.027 N ±11.9km   73.816 E ±11.3km
   DEPTH =  33.0km  (normal)
   4.0mb (  3 obs.)
 KYRGYZSTAN                       (716)

MAIO   12.49 247 eP     54 41.00   0.2
                eS      57 01.00
GKN    16.54 144 P      55 33.80   0.1
        0.7s    11.00nm          4.1mb
DMN    17.09 144 P      55 40.60   0.0
PKI    17.26 143 P      55 42.60  -0.2
NAO    41.65 319 P      59 28.30  -0.6
        0.6s     1.60nm          3.9mb
YKA    75.61   4 eP     03 25.80   0.5
        0.5s     1.00nm          4.1mb
      S.D. = 0.5  on   6 of   6 obs.
-----------------------------------
&  JAN  14, 1993  17h 06m 10.45s
   36.595 N          98.275 W
   DEPTH =   5.0km  (geophysicist)
 OKLAHOMA                         (499)
      <TUL>. mbLg 3.1 (TUL), 3.1 (GS).
      Felt (IV) at Jet and Wakita.
      Felt (III) at Cherokee, Dacoma,
      Helena and Nash.

ACO     0.71 279 iPg    06 22.80  -1.8
SIO     1.80 117 Pn     06 41.28  -1.1
                Lg      07 07.73
WMOK    1.90 193 ePc    06 43.15  -0.7
                (S)     07 08.62
TUL     2.12 108 Pn     06 47.03   0.0
                Pg      06 49.30
                Sn      07 15.85
LNO     2.12 108 Pn     06 47.13   0.2
                Sn      07 15.85
RLO     2.66  98 Pn     06 52.90  -1.8
                Pg      06 58.45
                Lg      07 32.15
MIAR    4.34 117 eP     07 16.68  -1.9
BUTX    4.95 171 Pn     07 49.00  21.8
                Lg      08 50.00
OLY     5.62  99 ePn    07 32.95  -3.8
GOL     6.39 301 (Pn)   07 43.59  -4.3
                ePg     08 04.35
ALQ     6.85 258 (Pn)   07 52.73  -1.6
                ePg     08 20.20
        11 obs. associated
-----------------------------------
*  JAN  14, 1993  17h 08m 49.31± 0.69s
   42.923 N ± 5.7km   19.718 E ± 4.5km
   DEPTH =   5.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION       (383)
      MD 2.6 (TTG). ML 2.3 (TIR).

IVA     0.14 111 iPgc   08 51.17  -1.1
                iSg     08 52.96
PVY     0.38 150 iPgc   08 55.94  -1.0
                iSg     09 00.93
PLE     0.47 330 iPgd   08 58.92   0.2
                iSg     09 06.30
NKY     0.54 259 iPgd   09 00.42   0.3
                iSg     09 08.97
TTG     0.60 215 iPgc   09 00.59  -0.7
                iSg     09 09.90
BRY     0.86 269 iPgc   09 06.17  -0.3
                iSg     09 19.66
SDA     0.89 191 iPgc   09 07.90   1.2
                iSg     09 20.40
BDV     0.92 226 iPgc   09 06.84  -0.5
                iSg     09 20.77
HCY     1.02 243 iPgc   09 08.90  -0.1
                iSg     09 24.47
ULC     1.02 200 iPgd   09 08.40  -0.7
                iSg     09 23.42
TIR     1.58 176 ePn    09 19.00   1.0
                eSn     09 44.00
SKO     1.59 126 iPn    09 18.80   0.6
                iSg     09 43.20
OHR     1.98 156 ePn    09 25.00   1.1
HVAR    2.41 277 iPn    09 34.30   4.3X
      S.D. = 0.9  on  13 of  14 obs.
-----------------------------------
%  JAN  14, 1993  17h 11m 05.33± 0.99s
   42.933 N ± 6.5km   19.843 E ± 7.1km
   DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION       (383)
      ML 1.7 (TTG).

IVA     0.07 147 iPgc   11 07.92   0.1
                iSg     11 09.76
PVY     0.35 164 iPgd   11 12.65   0.0
                iSg     11 17.72
PLE     0.51 320 iPgc   11 15.70  -0.1
                iSg     11 23.29
NKY     0.63 259 iPgc   11 17.55  -0.6
                iSg     11 26.82
TTG     0.66 221 iPgd   11 17.88  -0.6
                iSg     11 27.93
BRY     0.95 268 ePg    11 23.93   0.3
                iSg     11 38.10
BDV     0.99 229 iPgd   11 24.40   0.3
                iSg     11 39.52
ULC     1.06 205 ePg    11 25.33  -0.1
                iSg     11 41.67
HCY     1.10 244 iPgc   11 26.68   0.6
                iSg     11 42.96
      S.D. = 0.5  on   9 of   9 obs.
-----------------------------------
?  JAN  14, 1993  17h 26m 55.31± 4.39s
   41.428 N ±32.2km   23.010 E ± 8.4km
   DEPTH =  10.0km  (geophysicist)
 GREECE-BULGARIA BORDER REGION    (363)

KNT     0.28 198 ePg    27 01.22   0.0
                eSg     27 05.02
SRS     0.54 125 ePg    27 05.86  -0.3
                eSg     27 12.54
GRG     0.66 224 ePg    27 08.42   0.0
                eSg     27 18.02
SOH     0.66 157 ePg    27 07.85  -0.6
                iSg     27 16.50
THE     0.80 182 ePg    27 10.73   0.0
                eSg     27 21.18
OUR     1.32 146 ePb    27 20.62   1.0
      S.D. = 0.7  on   6 of   6 obs.
-----------------------------------
%  JAN  14, 1993  17h 55m 42.58± 0.51s
   26.894 S ± 5.7km   26.638 E ± 4.9km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA         (584)
      ML 3.1 (PRE).

BFS     0.13  92 iPd    55 45.60   0.2
PRY     0.75  93 iPd    55 56.50  -1.0
                S       56 05.50
KSR     1.05  13 iPd    56 02.90  -0.1
                S       56 15.90
SWZ     1.21 256 eP     56 05.90   0.3
                S       56 22.10
BPI     1.44  60 eP     56 09.80   0.3
                S       56 29.20
SEK     1.67 149 eP     56 14.00   1.2
                S       56 36.00
SLR     1.87  52 iPd    56 15.90   0.2
                S       56 39.60
BLF     2.24 190 iPc    56 21.00  -0.1
                S       56 48.00
KIM     2.48 221 iPd    56 24.00  -0.4
                S       56 53.00
FRS     3.07 202 iPc    56 32.00  -0.6
                S       57 06.50
BFT     3.28  69 eP     56 35.90   0.0
                S       57 16.50
      S.D. = 0.6  on  11 of  11 obs.
-----------------------------------
   JAN  14, 1993  18h 01m 09.55± 0.56s
   40.399 N ± 6.7km   21.392 E ± 4.6km
   DEPTH =  10.0km  (geophysicist)
 GREECE                           (364)
      MD 2.4 (TIR).

FNA     0.38 358 iPg    01 17.24  -0.2
                eSg     01 23.60
LSK     0.65 248 ePg    01 21.50  -1.2
                iSg     01 28.90
OHR     0.84 328 iPg    01 24.50  -1.3
                iSg     01 38.00
LIT     0.89 109 ePg    01 26.24  -0.4
                eSg     01 38.95
GRG     0.95  54 iPg    01 27.46  -0.2
TPE     1.06 265 ePn    01 27.50  -2.0
SRN     1.19 245 ePn    01 33.30   1.7
IGT     1.19 224 ePb    01 31.60  -0.1
                eSb     01 49.56
THE     1.22  78 ePb    01 32.04  -0.2
VAY     1.28  44 iPn    01 34.40   1.1
KNT     1.37  56 ePb    01 33.82  -0.9
                eSb     01 56.36
VLO     1.45 273 ePn    01 37.10   1.3
TIR     1.50 310 ePn    01 38.50   2.1
SOH     1.55  74 ePb    01 36.92  -0.4
SKO     1.57   1 iPn    01 37.00  -0.5
                i       01 39.00
                iSg     01 58.40
SRS     1.82  66 ePb    01 42.44   1.3
SDA     2.18 320 ePn    01 49.80   3.4X
      S.D. = 1.3  on  16 of  17 obs.
-----------------------------------
   JAN  14, 1993  18h 03m 58.67± 0.48s
   40.980 N ± 4.6km   22.405 E ± 3.8km
   DEPTH =  10.0km  (geophysicist)
 GREECE                           (364)
      ML 1.5 (SKO).

GRG     0.02 187 iPg    04 01.52   0.8
                eSg     04 02.92
VAY     0.36  20 iPg    04 06.20   0.1
                iSg     04 11.40
KNT     0.41  64 ePg    04 07.40   0.3
                eSg     04 13.44
THE     0.55 129 ePg    04 09.08  -0.7
                eSg     04 16.84
SOH     0.74 102 ePg    04 12.88  -0.3
FNA     0.80 256 iPg    04 14.20  -0.1
                eSg     04 24.88
LIT     0.88 176 ePg    04 15.36  -0.2
SRS     0.91  81 ePg    04 15.92  -0.1
                eSg     04 28.56
OHR     1.22 277 ePg    04 21.10  -0.3
                eSg     04 36.70
OUR     1.36 118 ePb    04 24.26   0.6
PAIG    1.43 137 ePb    04 24.76   0.1
      S.D. = 0.5  on  11 of  11 obs.
-----------------------------------
%  JAN  14, 1993  18h 05m 24.63± 1.17s
   44.275 S ± 5.1km  167.945 E ± 9.8km
   DEPTH =  10.0km  (geophysicist)
 SOUTH ISLAND, NEW ZEALAND        (162)
      ML 3.7 (WEL).
```

```
MSZ      0.40 183 P     05 32.50  -0.2
                  S     05 36.30
MMCZ     1.12 131 P     05 45.40  -0.3
TLC      1.22 139 Pd    05 46.60  -0.8
MHZ      1.24 130 Pd    05 47.50  -0.2
SBCZ     1.27 130 P     05 48.10  -0.2
LRCZ     1.27 129 P     05 48.30  -0.1
CMCZ     1.29 133 P     05 48.20  -0.4
                  eS    06 02.90
LSCZ     1.32 130 P     05 48.90  -0.1
MSCZ     1.33 129 P     05 49.20   0.0
BWZ      1.41 101 P     05 51.90   1.6
BCZ      1.73 182 eP    05 55.60   0.7
TUZ      2.06 145 P     05 59.80   0.1
                  eS    06 23.10
ODZ      2.07 113 eP    06 00.60   0.7
                  S     06 24.50
EWZ      2.24  71 eP    06 04.10   1.9
MQZ      3.44  82 eP    06 18.80  -0.6
LTZ      3.48  66 eP    06 18.90  -1.0
DSZ      3.79  50 eP    06 23.90  -0.5
QRZ      4.83  46 P     06 38.50  -0.6
      S.D. = 0.8  on  18 of  18 obs.
-----------------------------------
   JAN  14, 1993  18h 22m 47.21± 0.57s
   19.471 N ± 6.7km   64.437 W ± 8.0km
   DEPTH =  33.0km  (normal)
   4.5mb (  8 obs.)  3.8Msz (  2 obs.)
 VIRGIN ISLANDS                    ( 91)

LPR      1.78 230 iP    23 17.00   0.8
SJG      2.11 230 iP    23 21.70   0.7
APR      2.39 245 iP    23 25.00   0.0
PORP     2.52 236 iP    23 27.50   0.8
LRS      2.56 243 iP    23 28.00   0.6
MGP      2.90 240 iP    23 33.00   0.8
BPA      3.44 134 eP    23 39.00  -0.8
MGH      3.46 142 eP    23 41.00   0.9
PAG      4.31 142 eP    23 53.00   0.7
MORO     9.33 204 eP    25 07.10   4.5X
TOV     10.93 209 eP    25 40.70  16.1X
                  eS    27 25.70
SDV     12.11 211 eP    25 38.00  -2.7
HBF     19.57 316 (P)   27 12.31  -3.0
SGS     19.82 317 eP    27 09.19  -8.8X
CEH     20.84 325 eP    27 26.02  -2.5
         0.8s    18.04nm          4.5mb
LHS     20.84 319 eP    27 28.35  -0.3
JSC     20.99 318 eP    27 28.97  -1.2
PRM     21.58 316 eP    27 37.29   1.1
                  e     27 46.93
CVL     22.12 329 (P)   27 44.56   3.1X
BLA     22.53 325 eP    27 46.80   1.2
         1.3s    80.51nm          5.0mb
                  e     28 02.67
NAV     22.81 325 eP    27 49.41   1.1
                  e     28 06.35
TKL     23.46 317 eP    27 57.86   3.2X
ELC     27.99 315 (P)   28 38.77   1.8
                  e     29 14.06
FVM     29.16 315 (P)   28 41.50  -6.1X
WMOK    33.95 304 eP    29 28.07  -1.7
         0.9s     4.89nm          4.4mb
SIV     35.39 174 iP    29 46.80   4.6X
                  i     29 59.00
ZOBO    35.72 186 eP    29 41.00  -4.6X
      Z  20s     0.29um          4.0Msz
                  S     35 38.00
                  LR    40 36.00
LPB     35.96 186 eP    29 52.00   4.6X
CNCB    36.22 186 P     29 47.00  -2.8
ALQ     40.11 301 eP    30 22.60   0.7
         0.8s     3.38nm          4.2mb
TUC     43.30 297 eP    30 50.71   2.9X
         0.7s     2.31nm          4.0mb
BW06    44.41 312 eP    30 57.06   0.2
         0.9s     4.13nm          4.3mb
SES     47.97 321 eP    31 25.00   0.2
NEW     51.04 317 eP    31 48.08  -0.3
         1.0s    15.45nm          4.9mb
YKA     54.97 334 eP    32 18.50   1.3
         0.6s     4.50nm          4.7mb
LIC     59.13  94 P     32 50.60   3.1X
      Z  19s     0.04um          3.5Msz
KIC     59.36  94 P     32 49.60   0.6
ARMA   145.67 244 ePKP  42 26.30   1.8
         0.7s     8.00nm
```

```
      S.D. = 1.5  on  27 of  38 obs.
-----------------------------------
*  JAN  14, 1993  18h 40m 49.80± 1.15s
   19.283 N ±14.6km   64.258 W ± 8.1km
   DEPTH =  33.0km  (normal)
   4.0mb (  1 obs.)
 VIRGIN ISLANDS                    ( 91)

LPR      1.81 238 iP    41 20.10   0.9
PORP     2.57 242 iP    41 30.00   0.0
LRS      2.64 249 iP    41 30.90  -0.2
MGP      2.97 245 iP    41 35.10  -0.6
BPA      3.19 134 eP    41 40.00   1.2
PAG      4.06 142 eP    41 50.00  -1.3
SDV     12.04 212 eP    43 46.80   4.5X
SIV     35.19 175 eP    47 50.00   6.9X
YKA     55.21 334 eP    50 21.50   0.0
         0.7s     1.00nm          4.0mb
      S.D. = 1.0  on   7 of   9 obs.
-----------------------------------
*  JAN  14, 1993  18h 44m 21.70± 1.72s
   3.930 N ± 8.7km  125.570 E ±11.8km
   DEPTH =  28.4 ± 12.4 km
   4.9mb (  9 obs.)
 TALAUD ISLANDS, INDONESIA         (263)

MNI      2.58 196 ePc   45 02.80   0.4
                  eS    45 32.70
PLP      7.21 355 ePd   46 07.50  -0.4
PCI      7.48 230 iPc   46 09.60  -2.0
KKM      9.55 283 ePc   46 40.50  -0.1
IPM     24.48 272 ePd   49 42.30   2.4
CHG     29.93 302 eP    50 30.00   0.2
WARB    29.95 178 eP    50 29.00  -0.9
MEEK    31.12 192 eP    50 38.00  -2.2
XAN     33.73 335 eP    51 00.00  -2.9
LZH     37.75 331 eP    51 44.00   6.8X
         1.6s    22.00nm          4.8mb
                  sP    51 54.00
                  PP    52 49.00
LZH     37.75 331 eP    51 40.00   2.8
         1.6s    22.00nm          4.8mb
                  sP    51 54.00
STK     38.74 158 iPc   51 45.10  -0.2
         0.5s    14.50nm          5.0mb
MDJ     40.67   4 eP    52 01.00  -0.2
BRS     40.73 141 iPd   52 01.10  -0.8
         1.0s     4.00nm          4.1mb
LSA     41.44 312 Pc    52 10.50   2.2
ARMA    42.28 146 iPd   52 15.80   1.2
         0.9s    35.00nm          5.1mb
BWA     43.81 152 iPc   52 28.60   1.6
BFD     43.85 160 eP    52 27.80   0.6
         0.5s     7.00nm          4.7mb
GUN     44.67 306 P     52 33.62  -0.9
CAN     44.81 153 iPc   52 35.80   0.7
PKI     44.91 306 P     52 36.06  -0.4
KKN     45.11 306 P     52 37.56  -0.3
DMN     45.17 306 P     52 37.00  -1.4
TOO     45.25 158 eP    52 39.30   0.7
         0.7s    16.00nm          5.0mb
GKN     45.71 306 P     52 41.64  -0.9
HYB     47.96 290 eP    53 00.40   0.2
GBA     48.45 285 P     53 05.00   1.0
WMQ     51.90 326 eP    53 33.00   2.9
YAK     58.04   2 iPd   54 12.40  -1.8
         1.1s    30.00nm          5.3mb
YKA     99.79  24 eP    58 03.00  -1.5
         0.9s     0.70nm          4.2mb
      S.D. = 1.6  on  29 of  30 obs.
-----------------------------------
?  JAN  14, 1993  19h 44m 50.46± 2.58s
   37.261 N ±19.7km   72.061 E ±10.3km
   DEPTH = 109.3 ± 33.7 km
   4.4mb (  4 obs.)
 TAJIKISTAN                        (715)

QUE      8.24 213 eP    46 50.70   1.7
                  eS    48 17.70
MAIO    10.13 268 eP    47 14.00  -0.3
                  eS    49 00.00
GKN     14.04 127 P     48 05.56  -0.3
         0.5s    21.00nm          4.7mb
KKN     14.60 127 P     48 12.48  -0.5
DMN     14.61 127 P     48 12.78  -0.5
PKI     14.83 127 P     48 15.34  -0.7
         0.5s    11.00nm          4.3mb
```

```
GUN     14.91 125 P     48 16.76  -0.3
GBA     24.04 167 P     49 56.00  -0.5
                  S     54 31.00
BJI     34.30  71 eP    51 31.00   2.9
HFS     43.00 321 eP    52 39.20  -0.9
         0.4s     3.00nm          4.4mb
NAO     44.46 322 P     52 51.20  -0.7
         0.7s     3.10nm          4.2mb
      S.D. = 1.4  on  11 of  11 obs.
-----------------------------------
*  JAN  14, 1993  22h 06m 44.60± 0.70s
   51.830 N ±12.0km  158.367 E ±13.8km
   DEPTH =  33.0km  (normal)
   4.6mb ( 16 obs.)
 NEAR EAST COAST OF KAMCHATKA      (218)

MAT     20.93 231 eP    11 27.00   0.3
         0.5s    16.90nm          4.7mb
YKA     44.81  41 eP    14 55.90  -0.7
         0.4s     0.50nm          3.7mb
GUN     57.97 275 P     16 36.40  -0.1
KKN     58.43 276 P     16 39.60   0.0
PKI     58.50 275 P     16 39.80  -0.4
DMN     58.66 276 P     16 41.40   0.1
GKN     58.67 276 P     16 41.20   0.0
HFS     64.82 341 eP    17 19.90  -1.9
         0.4s     1.20nm          4.4mb
GBA     73.84 271 P     18 17.00  -0.7
WRA     74.49 203 P     18 21.20  -0.1
         0.8s     0.40nm          3.5mb X
GEC2    75.27 337 eP    18 25.00  -0.7
         0.6s     0.66nm          3.8mb
KBA     77.00 336 iPc   18 35.60   0.1
         0.8s     5.30nm          4.6mb
LOR     78.89 343 eP    18 45.40  -0.3
         0.7s     7.30nm          4.8mb
LBF     79.14 342 eP    18 46.70  -0.4
SSF     79.15 343 eP    18 47.00  -0.1
         0.6s     4.95nm          4.7mb
AVF     79.44 343 eP    18 48.70   0.0
         0.6s     5.05nm          4.7mb
LPL     80.00 340 eP    18 52.60   0.6
         0.5s     2.50nm          4.5mb
LPG     80.01 340 eP    18 52.80   0.6
         0.6s     3.00nm          4.5mb
TCF     80.13 343 eP    18 52.60   0.2
         0.4s     3.20nm          4.7mb
MAF     80.13 343 eP    18 53.00   0.6
         0.5s     5.60nm          4.8mb
LSF     80.29 344 eP    18 53.50   0.3
         0.6s     6.20nm          4.8mb
CAF     81.48 343 eP    19 00.40   0.9
         0.6s     2.80nm          4.5mb
LFF     81.69 344 eP    19 01.50   0.9
         0.6s     3.95nm          4.6mb
LPO     81.87 344 eP    19 02.40   0.9
         0.7s     5.30nm          4.7mb
      S.D. = 0.7  on  24 of  24 obs.
-----------------------------------
?  JAN  14, 1993  22h 23m 30.45± 6.36s
   21.067 S ±53.7km   69.754 W ±25.3km
   DEPTH = 120.0km  (geophysicist)
 NORTHERN CHILE                    (123)

CNCB     4.56  22 iPc   24 38.80  -0.2
LPB      4.78  19 P     24 43.00   1.1
         1.0s   100.00nm
ARE      4.87 340 eP    24 43.00   0.0
                  iS    25 34.50
ZOBO     5.00  18 iPc   24 44.10  -1.0
         0.8s    27.28nm
SIV      9.66  60 iPc   25 47.80   0.0
      S.D. = 1.1  on   5 of   5 obs.
-----------------------------------
   JAN  14, 1993  22h 34m 54.70± 0.26s
   18.928 S ± 6.8km  175.112 W ± 8.4km
   DEPTH = 157.8km  (  7 depth phases)
   5.1mb ( 30 obs.)
 TONGA ISLANDS                     (173)

SVA      6.15 277 ePc   36 30.20   5.8X
MBU      6.18 287 eP    36 29.80   4.9X
PVC     15.78 272 iPc   38 34.90   5.2X
BKM     15.86 272 iPc   38 35.20   4.6X
DZM     17.56 257 iPc   38 56.40   5.0X
KUZ     19.50 203 eP    39 13.80   2.1
PUZ     19.93 196 eP    39 16.80   0.5
```

14d 22h

```
URZ     20.42 198 eP    39 20.60  -0.5
MNG     23.08 199 eP    39 45.90  -1.3
QRZ     24.26 203 eP    40 00.10   1.6
THZ     24.95 202 eP    40 05.60   0.6
KHZ     25.32 200 eP    40 08.20  -0.1
DSZ     25.33 203 eP    40 07.90  -0.6
LTZ     26.07 201 eP    40 14.10  -1.1
BRS     30.63 248 iP    40 46.50  -9.7X
ARMA    32.20 243 iPc   41 10.40   0.4
        0.7s    20.00nm          5.0mb
RMO     34.09 251 iPc   41 26.90   0.8
        0.8s    62.00nm          5.4mb
CNB     35.35 235 eP    41 36.80  -0.1
        0.8s    34.00nm          5.1mb
CAN     35.64 235 eP    41 38.70  -0.5
BWA     35.84 237 eP    41 38.00  -2.9
CTA     36.38 262 P     41 46.59   1.0
CMS     37.30 243 iPc   41 53.20   0.1
        0.9s    24.00nm          4.9mb
TOO     39.01 233 eP    42 06.50  -0.9
        0.9s    37.00nm          5.1mb
WB2     47.52 260 iPd   43 15.10  -1.0
        0.6s   125.30nm          5.7mb
WRA     47.53 260 P     43 15.10  -1.1
        0.8s     8.30nm          4.4mb
ASPA    47.54 255 iPd   43 15.40  -0.8
        1.2s   102.50nm          5.3mb
                i       49 59.70
MTN     51.90 268 eP    43 48.00  -1.5
        0.7s   153.00nm          5.8mb
FORT    52.42 245 eP    43 51.50  -1.6
WARB    53.90 251 eP    44 03.00  -1.2
MEEK    61.01 250 eP    44 52.00  -2.0
NANU    64.44 254 iPd   45 16.00  -0.6
        0.4s    28.00nm          5.5mb
CSY     66.54 205 iPc   45 30.30   1.0
        0.7s    28.20nm          5.2mb
OFUJ    70.46 326 eP    45 52.90  -0.8
MAT     70.62 322 iPd   45 53.50  -1.3
        0.8s    10.45nm          4.7mb
YSS     75.82 332 eP    46 24.00  -0.8
        1.0s    10.00nm          4.5mb
ORV     76.72  40 eP    46 29.02  -1.0
                epP     47 07.24 155km
TUC     79.88  51 eP    46 47.80   0.3
        1.6s    29.52nm          4.8mb
MDJ     80.84 324 eP    46 52.10   0.0
        1.0s    18.00nm          4.8mb
NJ2     81.01 308 Pd    46 55.20   1.9
GMW     81.10  33 (P)   46 53.36  -0.1
CN2     82.76 321 P     47 02.20   0.1
        1.2s    20.00nm          4.8mb
HVU     83.41  42 eP    47 05.70   0.0
                epP     47 45.56 159km
SRU     83.48  45 eP    47 06.06  -0.1
                epP     47 46.49 162km
DPW     83.71  35 eP    47 06.34  -0.6
                epP     47 46.52 161km
BALM    83.93  15 eP    47 06.65  -1.2
MAW     83.94 199 P     47 09.80   2.0
ALO     84.30  50 eP    47 10.56   0.2
        1.0s     8.11nm          4.5mb
                epP     47 49.46 155km
IPM     85.68 276 ePc   47 18.60   1.2
        0.9s    45.60nm          5.3mb
BW06    85.97  42 eP    47 17.94  -0.6
        1.1s     3.90nm          4.1mb
                epP     47 56.70 154km
FBA     86.15  11 eP    47 16.96  -1.7
        0.8s    23.81nm          5.1mb
                epP     47 57.18 160km
BJI     86.72 314 eP    47 22.50   0.6
        2.0s    87.00nm          5.3mb
GYA     88.26 299 P     47 31.60   1.8
        1.0s    19.00nm          5.1mb
TIY     88.29 311 Pd    47 30.40   0.8
SES     89.02  35 eP    47 32.00  -0.7
XAN     89.37 306 P     47 36.00   1.2
        1.0s     8.00nm          4.7mb
NNT     89.53 283 iPd   47 28.70  -7.0X
RSSD    90.15  43 eP    47 37.20  -1.1
        1.3s     9.82nm          4.7mb
NST     90.18 286 eP    47 48.00   9.3X
HHC     90.23 313 Pc    47 40.00   1.4
        1.2s    34.00nm          5.3mb
KMI     91.08 296 Pd    47 45.00   2.0
        1.4s    80.00nm          5.6mb
BTO     91.20 313 eP    47 44.90   1.8
BDT     91.72 288 iPd   47 49.00   3.2X
        0.8s    57.10nm          5.7mb
CD2     92.26 302 eP    47 50.00   1.9
CHG     92.29 289 iPd   47 50.90   2.5X
        1.1s    45.89nm          5.5mb
YKA     93.97  24 eP    47 52.20  -3.0
        0.9s     1.70nm          4.3mb
LZH     94.00 307 eP    47 57.00   0.8
        1.5s    19.00nm          5.1mb
BRVK   119.67 321 iPKPd 53 25.00  -2.1
        0.8s     8.00nm
KAF    134.34 346 iPKP  53 53.10  -1.8
        0.6s     7.40nm
NUR    136.14 346 iPKP  53 57.80  -0.5
WIT    146.15 358 ePKP  54 18.50   2.2
KSP    146.89 347 iPKPd 54 19.70   2.1
        0.8s    35.00nm
                e       55 01.40
WTS    146.97 358 ePKP  54 19.50   1.9
        1.0s    65.00nm
CLL    147.06 351 iPKP  54 19.90   2.1
        1.2s    69.00nm
                i       55 03.60
UZH    147.19 339 iPKPd 54 20.30   2.2
        1.0s    90.00nm
BRG    147.32 349 iPKPd 54 20.20   2.0
        0.9s    30.00nm
                e       54 31.00
SPC    147.37 341 ePKP  54 19.30   0.7
MOX    147.90 352 ePKPd 54 22.20   3.0X
        1.4s    24.00nm
PRU    148.06 348 PKPd  54 23.00   3.5X
        1.0s    14.70nm
HOF    148.19 351 iPKPc 54 23.50   3.8X
        0.7s    17.00nm
ENN    148.22 359 ePKP  54 23.00   3.4X
        0.8s    16.00nm
SNF    148.48   1 PKP   54 22.90   2.8X
GRF    148.89 352 iPKPd 54 25.50   4.7X
                e       54 29.00
DOU    148.90   0 PKP   54 25.10   4.3X
HRI    148.97 304 iPKPd 54 26.20   4.6X
KHC    149.06 349 PKPd  54 26.00   4.9X
                e       54 30.00
                e       55 04.00
ZST    149.16 344 ePKP  54 24.00   2.8X
SRO    149.18 342 iPKP  54 26.20   4.9X
GEC2   149.32 349 e(PKP)54 26.00   4.4X
        0.7s    11.60nm
WLF    149.32 358 iPKPc 54 26.77   5.4X
ZNT    149.87 302 iPKPd 54 28.20   5.4X
FLN    149.92   7 ePKP  54 22.40   0.1
LDF    150.13   7 ePKP  54 22.70   0.0
        0.9s     9.00nm
CSS    150.18 308 ePKP  54 28.40   5.2X
GRR    150.24   8 ePKP  54 23.00   0.2
FUR    150.38 351 iPKPd 54 28.60   5.5X
        0.7s    63.00nm
BHG    150.55 349 iPKPc 54 29.20   5.8X
        1.1s    19.00nm
LPF    150.57   8 ePKP  54 23.60   0.3
MBH    150.70 297 iPKPd 54 30.40   6.2X
PPCY   150.94 309 e(PKP)54 29.50   5.2X
KBA    151.08 348 iPKPc 54 23.60  -0.8
        0.6s    13.20nm
                i       54 29.50
                i       54 33.40
                i       54 38.50
                ipPKP   55 11.50
SLE    151.09 355 ePKPd 54 29.90   5.7X
WTTA   151.20 350 iPKPc 54 24.30  -0.3
        0.6s    52.80nm
                i       54 30.50
                i       54 35.70
                ipPKP   55 12.30
SOTA   151.31 351 iPKPc 54 24.40  -0.3
        0.7s    20.50nm
                i       54 30.50
                i       54 36.40
                ipPKP   55 12.60
PTJ    151.58 344 ePKP  54 23.10  -2.0
FVI    151.65 348 PKPd  54 30.40   5.4X
ZAG    151.65 344 iPKPd 54 31.10   6.1X
LOR    151.72   1 ePKP  54 25.50   0.4
        0.7s     4.85nm
LJU    151.81 346 ePKP  54 25.00  -0.3
                ePKPbc54 31.50
                epP'bc55 14.00
SSF    151.92   2 ePKP  54 25.90   0.5
        1.0s    11.60nm
LLS    151.93 354 ePKPd 54 32.10   6.4X
VOY    151.96 347 ePKP  54 25.30  -0.3
                iPKPbc54 31.50
                e(PKPa54 38.30
                epP'bc55 14.60
OSS    151.98 352 iPKPd 54 32.60   6.8X
LBF    152.01   1 ePKP  54 26.00   0.4
MFF    152.09   7 ePKP  54 26.40   0.7
CEY    152.12 346 ePKP  54 25.50  -0.3
CEY    152.12 346 ePKP  54 32.40   6.6X
                ePKPab54 42.00
VBY    152.13 344 ePKP  54 26.00   0.2
                iPKPbc54 32.90
                epP'bc55 15.00
VDL    152.26 353 ePKPd 54 33.00   6.8X
TRI    152.30 347 ePKP  54 25.60  -0.4
TRI    152.30 347 PKPd  54 32.40   6.4X
CTI    152.38 350 PKP   54 32.50   6.2X
TCF    152.62   4 ePKP  54 26.90   0.4
TMA    152.70 354 iPKPd 54 33.80   7.0X
MMK    152.83 355 PKPd  54 34.80   7.7X
DIX    152.84 356 PKPd  54 35.00   7.9X
EMS    152.88 357 ePKPc 54 35.00   7.9X
VAI    152.94 354 PKPd  54 33.70   6.9X
VAY    153.05 330 ePKP  54 26.40  -0.8
                i       54 34.30
SKO    153.06 332 ePKP  54 25.00  -2.2
                i       54 34.50
OHR    154.03 332 ePKP  54 28.50  -0.1
BCAO   160.38 224 iPKPc 54 37.30   0.2
        0.9s    20.00nm
                ic      55 19.60
LIC    164.10 141 PKP   54 40.60  -0.1
KIC    164.38 142 PKP   54 40.90  -0.1
TIC    164.44 140 PKP   54 41.00  -0.1
      S.D. = 1.2  on  91 of 134 obs.
-----------------------------------------
%  JAN  15, 1993  00h 11m 30.88± 0.88s
   44.465 N ± 6.2km     7.369 E ± 9.7km
   DEPTH =   5.0km  (geophysicist)
 NORTHERN ITALY                      (545)
      ML 1.5 (GEN).

PZZ      0.20 282 P      11 34.81  -0.1
                  S      11 37.09
STV      0.22 188 P      11 35.49   0.0
                  S      11 38.15
ENR      0.24 171 P      11 36.09   0.3
                  S      11 39.43
BHB      0.38 349 P      11 38.70   0.1
                  S      11 43.68
IMI      0.67 146 P      11 44.01  -0.3
                  S      11 53.39
      S.D. = 0.3  on   5 of   5 obs.
-----------------------------------------
?  JAN  15, 1993  00h 19m 28.85± 1.13s
    7.601 S ±28.9km  104.543 E ±27.6km
   DEPTH =  33.0km  (normal)
   4.3mb (  1 obs.)
 SOUTHWEST OF SUMATERA, INDONESIA(273)

CHG     26.82 348 eP     25 07.30  -0.9
WB2     31.38 116 eP     25 49.40   0.3
        0.7s     3.70nm          4.3mb
                  e      25 58.70
                  i      27 45.40
GBA     34.18 308 P      26 13.00  -0.5
PKI     39.56 333 P      27 00.08   0.9
GUN     39.65 334 P      27 00.08   0.2
DMN     39.74 332 P      27 00.88   0.4
KKN     39.81 333 P      27 01.04   0.0
GKN     40.29 332 P      27 05.26   0.3
YKA    118.25  19 ePKP   38 13.30  -0.7
        0.7s     0.20nm
SIV    152.57 211 PKP    39 30.00  12.8X
                  i      39 40.00
      S.D. = 0.7  on   9 of  10 obs.
-----------------------------------------
%  JAN  15, 1993  00h 59m 55.13± 0.57s
   26.410 S ± 5.1km   27.469 E ± 6.0km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA            (584)
      ML 2.4 (PRE).
```

```
PRY      0.52 180 eP    00 05.00  -0.5
                  S     00 11.00
KSR      0.75 316 eP    00 10.00  -0.1
                  S     00 19.50
SLR      0.99  48 iPd   00 14.00  -0.5
                  S     00 26.50
SEK      1.91 176 eP    00 29.00   0.2
                  S     00 52.90
SWZ      2.06 248 eP    00 31.70   0.7
                  S     00 55.90
BFT      2.43  73 eP    00 37.00   0.7
                  S     01 06.00
BLF      2.92 203 eP    00 43.10  -0.1
                  S     01 18.00
KIM      3.34 225 eP    00 49.00  -0.2
     S.D. = 0.6  on   8 of   8 obs.
-----------------------------------
&  JAN  15, 1993  01h 44m 42.81s
   60.553 N          147.245 W
   DEPTH =  15.3km
   2.5mb (  1 obs.)
 SOUTHERN ALASKA                    (  2)
      <AEIC>. ML 2.9 (AEIC).

KNIM     0.32 230 iPc   44 49.22  -0.5
                  eS    44 54.59
GLI      0.34  13 iPd   44 49.49  -0.5
                  eS    44 55.26
HIN      0.40 113 iPc   44 50.70  -0.4
                  eS    44 57.66
FID      0.43  62 iPc   44 50.28  -1.2
                  iS    44 55.93
LTI      0.60 211 iPd   44 53.79  -0.6
                  eS    45 02.52
MTU      0.60 200 iPd   44 54.03  -0.5
                  iS    45 03.56
VZW      0.61  33 eP    44 53.68  -1.0
VLZ      0.73  37 iPd   44 55.59  -1.1
                  eS    45 05.16
CVA      0.74  90 iPc   44 55.74  -1.1
PTE      0.93 290 iPc   44 58.92  -1.1
                  iS    45 11.57
KNK      1.05 326 ePc   45 00.99  -1.1
                  eS    45 15.08
MPA      1.05 267 eP    45 00.78  -1.3
                  eS    45 14.88
KLU      1.14  34 iPd   45 02.29  -1.5
                  iS    45 16.94
SEW      1.19 249 ePc   45 02.78  -1.6
                  eS    45 17.89
MID      1.22 158 P     45 04.00  -0.9
RAGM     1.28  96 ePc   45 04.08  -2.0
SCM      1.29 358 ePd   45 04.78  -1.4
                  eS    45 21.78
PMS      1.33 303 P     45 05.40  -1.3
SML      1.37 338 ePc   45 06.28  -1.0
PLRM     1.39 319 ePc   45 06.29  -1.2
                  eS    45 24.35
GHO      1.47 327 eP    45 07.88  -0.9
SLKM     1.47 270 iPc   45 07.25  -1.5
                  eS    45 26.39
HMT      1.50  97 ePc   45 06.78  -2.3
KAIM     1.54 113 ePc   45 08.36  -1.4
                  eS    45 27.71
TOA      1.64  18 P     45 10.80  -0.4
PWA      1.69 312 ePc   45 10.92  -0.9
TZL      1.74  30 eP    45 10.96  -1.6
GLB      1.90  60 iPc   45 13.49  -1.4
                  eS    45 36.75
SUA      1.93 300 eP    45 14.14  -1.4
NKA      1.98 277 eP    45 15.78  -0.2
BRLK     1.98 248 eP    45 14.36  -1.8
                  eS    45 38.15
CROM     2.03  82 ePc   45 15.01  -2.0
SDG      2.14  22 iPd   45 18.35  -0.1
TGL      2.18  83 ePc   45 16.94  -2.2
SNH      2.22  98 eP    45 16.55  -3.1
                  eS    45 43.43
SPU      2.44 287 iPc   45 20.13  -2.5
CGLM     2.45 290 ePc   45 20.57  -2.2
BALM     2.45  76 ePc   45 20.74  -2.2
                  eS    45 49.92
CRP      2.50 289 ePc   45 21.62  -2.1
CKN      2.51 288 eP    45 21.38  -2.2
CKT      2.51 287 eP    45 21.46  -2.3
SKT      2.52 307 eP    45 21.54  -2.2
CP2      2.54 288 eP    45 22.22  -2.1
RDT      2.55 273 eP    45 21.88  -2.4
PAX      2.57  18 eP    45 23.65  -1.0
CKL      2.57 287 ePc   45 22.16  -2.5
BGL      2.61 288 eP    45 22.77  -2.5
DFR      2.69 273 ePc   45 23.44  -2.8
REF      2.70 271 ePc   45 23.67  -2.9
RSO      2.73 270 ePc   45 24.10  -2.9
RS2      2.73 271 ePc   45 24.13  -2.9
RS1      2.73 270 ePc   45 24.10  -2.9
YAH      2.73  92 iPc   45 24.48  -2.6
RDW      2.75 271 eP    45 24.02  -3.3
NCT      2.81 273 eP    45 25.08  -2.9
ILIM     2.88 263 eP    45 26.18  -2.8
CTGM     2.93  79 eP    45 28.37  -1.4
INW      2.97 263 eP    45 27.52  -2.7
CDD      3.62 246 eP    45 37.64  -1.9
HDA      3.87   2 eP    45 41.48  -1.5
YKA     15.59  69 eP    48 25.50   2.3
         0.7s     0.20nm          2.5mb
         61 obs. associated
-----------------------------------
&  JAN  15, 1993  02h 02m 51.83s
   35.075 N          84.974 W
   DEPTH =   1.8km
 TENNESSEE                          (506)
      <TEIC>. MD 3.2 (TEIC). mbLg 3.1
      (GS). Felt (IV) at McDonald and
      (III) at Apison, Calhoun,
      Chattanooga, Collegedale,
      Ooltewah and Varnell. Felt in
      the Cleveland and Etowah areas.
      Also felt in parts of northern
      Georgia.

WMTN     0.17   0 iP    02 55.36   0.1
RCG      0.32 252 iP    02 58.30   0.0
GMG      0.33 130 iP    02 58.10  -0.3
TOTN     0.48  25 iPd   03 00.91  -0.6
                  iS    03 07.80
PDTN     0.74 286 iPc   03 04.07  -2.6
                  iS    03 14.60
BHT      0.77   2 iP    03 06.50  -0.7
BBG      0.98 102 iP    03 10.80  -0.4
ORT      1.00  33 iPd   03 10.19  -1.3
TKL      1.14  59 ePn   03 12.56  -1.4
                  eS    03 27.59
MSAL     1.41 261 iPc   03 15.25  -3.3
                  iS    03 33.59
TRYN     2.22  85 iP    03 32.20   1.8
PRM      2.37 114 ePn   03 31.71  -0.7
                  iPg   03 33.29
                  eS    04 04.24
JSC      3.16 103 ePn   03 42.15  -1.5
                  eSn   04 27.90
LHS      3.48  99 ePn   03 46.66  -1.5
                  ePg   03 53.98
                  eS    04 37.44
GRT      3.81 289 ePn   03 52.61  -0.3
                  ePg   03 58.34
                  eS    04 47.76
NAV      4.05  55 (P)   03 55.24  -1.1
                  eS    04 56.38
ELC      4.09 304 ePn   03 55.83  -0.9
                  ePg   04 02.28
                  eS    04 55.33
BLA      4.26  59 (P)   04 07.23   8.0
                  eSg   05 03.39
HBF      4.37 118 (Pn)  03 59.08  -1.8
                  eS    05 05.29
FVM      5.26 305 ePg   04 24.00  10.5
                  eS    05 29.08
         20 obs. associated
-----------------------------------
?  JAN  15, 1993  02h 30m 57.56± 4.26s
   28.949 N ±43.4km  139.471 E ±26.5km
   DEPTH = 435.4 ± 25.0 km
   4.2mb ( 10 obs.)
 BONIN ISLANDS REGION               (212)

MAT      7.64 352 eP    32 50.00  -0.1
         0.9s    23.53nm          4.4mb
                  iS    34 20.80
LZH     30.75 293 Pd    36 37.00  -0.1
         1.5s    40.00nm          4.6mb
GUN     46.80 282 P     38 48.58   0.3
PKI     47.29 282 P     38 51.56  -0.5
KKN     47.34 282 P     38 52.34   0.1
DMN     47.54 282 P     38 53.88   0.1
GKN     47.84 283 P     38 56.22   0.2
GBA     59.19 269 P     40 17.30  -0.1
         0.8s     3.00nm          3.8mb
MAIO    65.98 299 eP    41 02.00   0.8
RES     70.82  13 ePc   41 31.50   1.7
         0.9s     4.00nm          4.0mb
YKA     71.65  28 eP    41 34.10  -0.7
         0.7s     1.10nm          3.6mb
KAF     74.76 333 iP    41 52.50  -0.1
         0.5s     6.40nm          4.5mb
NUR     76.32 332 iP    42 01.20   0.0
         0.6s     7.90nm          4.5mb
HFS     80.77 336 eP    42 24.10  -0.8
         0.4s     1.80nm          4.1mb
NAO     81.28 337 P     42 27.20  -0.4
         0.7s     4.90nm          4.3mb
GEC2    88.68 328 ePc   43 03.90  -0.3
         0.8s     1.55nm          3.9mb
                  e     43 07.00
                  e     43 09.50
                  e     43 14.40
                  e     43 19.70
ZOBO   151.66  70 PKP   50 05.00   7.8X
                  e     51 34.00
     S.D. = 0.7  on  16 of  17 obs.
-----------------------------------
?  JAN  15, 1993  02h 31m 28.55± 0.99s
    9.002 S ±13.7km  120.690 E ±15.5km
   DEPTH =  33.0km  (normal)
   4.9mb (  4 obs.)
 SUMBA REGION, INDONESIA            (287)

MKS      3.95 342 iPd   32 29.30   0.9
KHKI     5.06 277 ePc   32 43.50  -0.7
                  e(S)  33 34.60
                  e     35 29.00
MTN     10.94 111 eP    34 08.80   2.9X
         0.3s    73.00nm          6.4mb X
                  eS    36 05.00
NANU    14.36 200 eP    34 56.00   4.4X
                  eS    37 23.00
WB2     17.11 131 iPd   35 28.00   1.0
                  eS    38 30.30
MEEK    17.65 186 eP    35 34.50   0.8
                  eS    38 43.00
WARB    18.00 162 eP    35 39.30   1.3
         0.4s    10.00nm          4.3mb
STK     29.91 143 iPc   37 33.20  -2.6
         0.5s     9.80nm          4.9mb
HKC     31.76 348 iP    38 02.80  10.8X
ARMA    35.88 131 iPd   38 26.90  -0.9
         0.7s    10.00nm          4.9mb
TOO     36.21 146 eP    38 25.30  -5.0X
         0.4s    10.00nm          5.1mb
CNCB   152.96 161 PKP   51 20.10   2.0X
LPB    153.18 161 ePKP  51 23.00   4.8X
     S.D. = 1.7  on   7 of  13 obs.
-----------------------------------
?  JAN  15, 1993  03h 29m 25.50± 2.11s
   47.437 S ±28.7km  165.208 E ±16.3km
   DEPTH =  33.0km  (normal)
   4.6mb (  8 obs.)
 OFF W. COAST OF S. ISLAND, N.Z. (161)

TAU     13.40 283 iPc   32 34.00  -1.7
                  eS    34 52.00
CNB     16.93 310 eP    33 20.20  -1.3
         1.2s    67.00nm          4.6mb
CAN     17.12 309 eP    33 22.90  -0.9
                  i     33 38.90
                  eTT   48 10.60
TOO     17.52 297 iPc   33 29.80   1.0
         0.8s    90.00nm          5.0mb
BFD     19.58 293 iPd   33 55.40   1.8
         0.8s    32.00nm          4.7mb
ARMA    19.96 324 eP    33 57.20  -0.5
         1.0s    16.00nm          4.3mb
CMS     21.76 310 eP    34 16.20   0.2
         1.1s    33.00nm          4.7mb
BRS     22.26 330 iPd   34 22.00   0.9
                  e(TT) 53 15.00
ADE     23.38 293 eP    34 35.70   3.7X
STK     23.78 302 iPd   34 39.00   3.2X
         0.9s     6.00nm          4.1mb
RMO     24.60 322 iPc   34 45.50   1.7
         0.8s    31.00nm          4.9mb
```

15d 03h

```
                    ipP  34 55.50  37kmX
DZM    25.33   3 iPc   34 50.00  -0.8
WB2    37.13 307 eP    36 29.00  -5.8X
       0.4s      2.40nm          4.4mb
                 i     36 34.40
WRA    37.14 307 P     36 28.50  -6.4X
       0.8s      0.30nm          3.2mb X
YKA   126.63  35 ePKP  48 25.30  -0.4
       0.6s      1.30nm
LMN   146.10  74 ePKP  49 06.00   3.9X
OBN   147.60 303 iPKPc 49 17.80  13.7X
       1.2s     30.00nm
                 e     49 31.00
SDF   151.00 328 iPKP  49 25.30  16.3X
NUR   153.83 315 ePKP  49 21.00   7.8X
     S.D. = 1.3  on  11 of  19 obs.
-----------------------------------------
?  JAN  15, 1993  03h 37m 12.36± 2.96s
   21.780 N ±14.0km  142.875 E ±16.0km
   DEPTH = 251.5 ± 28.5 km
   4.3mb (  2 obs.)
 MARIANA ISLANDS REGION            (215)

MAT    15.26 346 eP    40 37.00   0.1
WB2    42.30 192 eP    44 43.30   0.1
       0.3s      3.20nm          4.2mb
GUN    51.70 289 P     45 56.80   0.2
PKI    52.15 289 P     45 59.40  -0.5
KKN    52.24 289 P     46 00.40   0.0
DMN    52.41 289 P     46 01.60  -0.1
GKN    52.78 289 P     46 04.20  -0.1
BGMT   84.83  43 eP    49 19.70  -0.4
GEC2   96.37 329 eP    50 14.60   0.8
       0.9s      1.78nm          4.4mb
                 e     50 16.70
                 e     50 20.70
                 e     50 23.00
                 e     50 26.10
                 e     50 28.80
                 e     50 32.00
     S.D. = 0.5  on   9 of   9 obs.
-----------------------------------------
&  JAN  15, 1993  03h 44m 56.18s
   34.330 N          116.461 W
   DEPTH =    1.7km
 SOUTHERN CALIFORNIA                ( 43)
     <PAS-P>. ML 2.8 (PAS).

PEC     0.73 233 ePd   45 09.81  -0.9
GSC     1.01 344 eP    45 15.29  -0.8
SSK     1.03 264 eP    45 15.27  -1.2
PLM     1.03 199 ePd   45 15.36  -1.2
GLA     1.87 133 (P)   45 26.57  -2.9
BCH     3.10 287 (P)   45 48.57   1.3
MSU     5.42  38 (P)   46 19.92  -0.4
        7 obs. associated
-----------------------------------------
%  JAN  15, 1993  04h 27m 12.48± 0.67s
   37.105 N ± 5.9km    4.367 W ± 6.1km
   DEPTH =  10.0km  (geophysicist)
 SPAIN                              (377)
     mbLg 2.8 (MDD).

MAL     0.38 185 iPnc  27 18.50  -1.7
                 iSg   27 24.00
ELUQ    0.46  10 ePg   27 21.50  -0.4
                 eSg   27 27.30
ECOG    0.66  75 ePg   27 26.00   0.3
                 eSg   27 35.60
EGUA    0.70 113 ePg   27 27.00   0.7
                 eSg   27 37.00
EPRU    0.71 259 ePg   27 26.50   0.1
                 eSg   27 36.90
EHOR    1.00 316 ePg   27 31.00  -0.5
                 eSg   27 44.00
EJIF    1.10 234 ePg   27 34.70   1.6
                 eSg   27 50.80
EBAN    1.15  23 ePg   27 34.00  -0.1
                 eSg   27 49.70
     S.D. = 1.1  on   8 of   8 obs.
-----------------------------------------
   JAN  15, 1993  04h 28m 45.69± 0.55s
   37.100 N ± 5.9km    4.355 W ± 4.7km
   DEPTH =  10.0km  (geophysicist)
 SPAIN                              (377)
     mbLg 3.4 (MDD).

MAL     0.37 187 iPnc  28 52.00  -1.4
                 iSg   28 54.00
ELUQ    0.47   9 iPgd  28 55.37   0.2
                 eSg   29 02.80
ECOG    0.65  74 iPgd  28 58.47  -0.4
                 eSg   29 09.50
EGUA    0.69 113 ePg   28 58.46  -0.8
                 eSg   29 09.30
EPRU    0.71 259 ePg   28 59.36  -0.4
                 eSg   29 09.20
EHOR    1.01 316 iPgc  29 03.98  -0.9
                 eSg   29 19.10
ALJ     1.09 247 iP    29 08.00   1.8
EJIF .  1.10 234 iPgc  29 07.14   0.7
EBAN    1.15  23 iPgc  29 07.44   0.1
                 eSg   29 23.90
GIBL    1.31 258 eP    29 11.00   1.1
EHUE    1.57  62 iPnd  29 14.40   0.6
                 eSn   29 36.40
ENIJ    1.72  94 ePn   29 17.17   1.3
                 eSn   29 40.10
EVAL    1.97 285 ePn   29 17.44  -2.0
                 eSn   29 44.50
     S.D. = 1.2  on  13 of  13 obs.
-----------------------------------------
?  JAN  15, 1993  04h 31m 12.94± 2.64s
   36.932 N ±20.3km    4.583 W ±15.9km
   DEPTH =  10.0km  (geophysicist)
 STRAIT OF GIBRALTAR                (385)
     mbLg 2.6 (MDD).

ELUQ    0.68  22 eP    31 26.60   0.2
                 eS    31 34.40
EGUA    0.82  97 eP    31 28.90   0.0
                 eS    31 40.80
ECOG    0.88  67 eP    31 25.90  -4.1X
                 eS    31 38.50
EHOR    1.04 329 ePg   31 32.50   0.0
                 eSg   31 47.10
EBAN    1.38  27 eP    31 38.00  -0.3
                 eS    31 54.20
     S.D. = 0.3  on   4 of   5 obs.
-----------------------------------------
?  JAN  15, 1993  04h 31m 17.36± 1.64s
   37.090 N ±13.3km    4.398 W ±11.0km
   DEPTH =  10.0km  (geophysicist)
 SPAIN                              (377)
     mbLg 2.6 (MDD).

ELUQ    0.48  13 eP    31 27.20   0.1
                 eS    31 35.90
ECOG    0.69  74 ePg   31 31.00  -0.1
                 eSg   31 43.80
EGUA    0.71 111 eP    31 31.50   0.1
                 eS    31 42.90
EHOR    1.00 318 eP    31 36.20   0.0
                 eS    31 48.90
     S.D. = 0.1  on   4 of   4 obs.
-----------------------------------------
•  JAN  15, 1993  04h 33m 13.60± 2.91s
   42.552 N ±23.4km   21.855 E ±15.4km
   DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION         (383)

SKO     0.66 208 iPgc  33 26.80   0.1
       0.4s   161.00nm
                 iSg   33 36.00
                 Lg    33 39.00
VTS     1.00  87 iPg   33 30.00  -2.7
VAY     1.34 156 iPn   33 36.70  -1.6
       0.4s    56.00nm
                 iSn   33 54.40
                 Lg    33 56.60
KNT     1.59 150 ePb   33 41.24  -0.7
                 eSb   34 01.36
OHR     1.64 209 ePn   33 41.30  -1.4
GRG     1.65 165 ePb   33 42.44  -0.2
FNA     1.80 192 ePb   33 47.08   2.1
SRS     1.93 137 ePb   33 47.60   0.7
                 eSb   34 13.60
SOH     2.06 147 ePb   33 49.20   0.5
PLD     2.16 101 eP    33 52.00   1.9
RZN     2.30 111 iP    33 54.00   1.7
LIT     2.50 169 ePn   33 53.96  -1.0
     S.D. = 1.7  on  12 of  12 obs.
-----------------------------------------
•  JAN  15, 1993  04h 55m 27.63± 0.64s
   10.630 N ± 9.6km   86.716 W ±11.7km
   DEPTH =  33.0km  (normal)
   4.4mb (  7 obs.)  4.0Msz (  2 obs.)
 OFF COAST OF COSTA RICA            ( 77)

PPM    14.24 307 (P)   58 54.00   4.4X
SDV    15.95  95 eP    59 11.10  -0.4
MRX    16.62 305 (P)   59 28.00   8.2X
TOV    16.68  91 iPd   59 21.90   1.3
SGS    23.17  13 (P)   00 33.13   0.9
JSC    24.06  11 ePc   00 41.57   0.7
LHS    24.35  12 ePc   00 43.94   0.3
UYO    24.48 344 iPd   00 46.00   1.1
MIAR   24.62 346 ePc   00 46.18  -0.1
       0.8s      7.21nm          4.3mb
TKL    25.06   6 eP    00 50.38  -0.1
CEH    26.08  14 ePc   00 59.22  -0.8
       0.9s     37.98nm          5.0mb
MEO    26.37 338 iPc   01 04.70   1.9
WMOK   26.40 337 ePd   01 02.16  -0.9
       1.0s     45.13nm          5.0mb
TUL    26.48 343 eP    01 03.50  -0.2
       1.0s     20.90nm          4.7mb
     Z  20s      0.36um          3.9Msz
                 LR    11 15.00
LNO    26.48 343 eP    01 03.50  -0.1
NAV    27.10  10 ePd   01 09.11  -0.4
CVL    28.23  14 ePc   01 18.82  -0.8
ACO    28.28 339 e(P)  01 18.30  -1.8
ZOBO   32.46 145 Pc    01 57.60  -0.4
     Z  20s      0.35um          4.1Msz
                 LR    12 56.00
LPB    32.67 145 P     02 01.80   2.1
CNCB   32.96 146 P     02 02.10  -0.2
MSU    35.91 325 eP    02 26.80  -0.3
EEO    36.47   9 eP    02 33.00   1.5
RSSD   36.58 339 eP    02 33.18   0.5
       0.8s      2.60nm          4.2mb
SIV    36.66 136 iPc   02 38.20   4.8X
BW06   37.71 332 eP    02 41.97  -0.3
       1.2s      4.05nm          4.2mb
HHAI   39.45 330 ePc   02 57.37   0.8
LMN    39.78  24 ePd   03 00.80   1.7
BAO    46.38 124 e(P)  03 52.00  -1.2
                 e     03 53.50
                 e     04 05.00
YKA    55.55 345 eP    04 58.90  -2.9
       1.2s      1.60nm          3.9mb
LIC    80.73  85 P     07 38.00  -1.8
KIC    80.99  85 P     07 39.40  -1.8
WRA   139.42 252 PKP   14 56.20   1.9
       1.1s      0.60nm
HYB   148.56  28 iPKPd 15 14.00   4.1X
       0.8s     19.20nm
CHG   150.22 349 ePKP  15 18.00   5.6X
GBA   151.24  33 PKPc  15 21.00   7.0X
     S.D. = 1.3  on  30 of  36 obs.
-----------------------------------------
&  JAN  15, 1993  04h 56m 45.43s
   63.963 N          153.321 W
   DEPTH =  10.0km
   2.9mb (  1 obs.)
 CENTRAL ALASKA                     (  1)
     <AEIC>. ML 3.6 (PMR), 3.1
     (AEIC).

MLY     1.55  45 eP    57 12.29  -0.8
                 S     57 35.10
TTA     1.59 231 eP    57 11.75  -2.0
                 iS    57 34.91
HUR     1.93 119 eP    57 19.26   0.7
                 S     57 44.39
NEA     1.95  70 eP    57 17.85  -1.1
                 S     57 43.78
MCK     1.96  95 eP    57 18.54  -0.5
RND     2.07 104 eP    57 20.60  -0.1
SKT     2.15 157 eP    57 22.03   0.2
                 eS    57 49.47
WRH     2.34  75 eP    57 23.56  -1.0
MDM     2.42  63 eP    57 24.01  -1.7
CCB     2.50  72 eP    57 26.60  -0.1
FBA     2.58  66 eP    57 25.90  -1.9
CGLM    2.73 167 eP    57 29.96  -0.3
BGL     2.74 171 eP    57 29.98  -0.4
                 eS    58 10.97
CRP     2.76 168 ePd   57 29.94  -0.7
GLM     2.77  66 eP    57 28.81  -1.9
```

```
SUA      2.78 154 eP    57 30.71  -0.1
CKN      2.80 169 eP    57 31.70   0.6
PWA      2.81 144 P     57 33.20   2.0
CKL      2.81 170 eP    57 31.11  -0.3
CKT      2.82 169 eP    57 31.23  -0.2
HDA      2.82  78 eP    57 30.74  -0.6
SPU      2.85 168 eP    57 31.70  -0.2
GHO      2.98 136 eP    57 33.88   0.2
SVW      3.06 201 ePn   57 32.35  -2.4
                  eS    58 17.75
PLRM     3.06 139 eP    57 34.82   0.1
PMR      3.06 139 ePn   57 34.49  -0.2
                  Pg    57 42.93
SML      3.15 131 eP    57 35.89  -0.1
PMS      3.23 146 P     57 38.50   1.2
DFR      3.40 175 eP    57 38.85  -0.8
KNK      3.40 137 eP    57 40.28   0.7
NCT      3.42 177 eP    57 38.74  -1.2
SCM      3.48 125 eP    57 40.84   0.1
REF      3.50 175 eP    57 40.48  -0.6
RDW      3.50 176 eP    57 40.38  -0.8
RS2      3.52 175 eP    57 40.77  -0.7
RSO      3.52 175 eP    57 40.65  -0.8
RS1      3.53 175 eP    57 40.96  -0.6
PAX      3.66 102 eP    57 44.19   0.8
PTE      3.70 145 eP    57 44.27   0.5
TOA      3.75 117 P     57 45.00   0.3
SLKM     3.76 156 eP    57 45.30   0.6
SDG      3.80 109 eP    57 45.76   0.5
ILIM     3.90 177 P     57 45.00  -1.7
INW      3.91 179 eP    57 45.89  -1.0
MPA      3.95 150 eP    57 46.43  -0.9
TZL      4.08 115 eP    57 50.96   1.8
PDB      4.21 186 eP    57 49.65  -1.4
KLU      4.21 123 eP    57 52.15   1.0
GLI      4.24 134 eP    57 51.71   0.3
SEW      4.28 153 eP    57 52.41   0.4
VLZ      4.31 128 eP    57 52.55   0.2
KNIM     4.47 142 eP    57 52.95  -1.8
FID      4.53 132 eP    57 55.45  -0.2
LTI      4.70 144 eP    57 58.40   0.3
HIN      4.80 135 eP    57 58.42  -1.0
MCNL     4.82 186 eP    57 57.83  -1.9
CDD      5.05 182 eP    58 01.80  -1.2
GLB      5.06 116 eP    58 03.27   0.2
TGL      5.85 119 eP    58 13.39  -0.9
BALM     5.87 115 eP    58 13.92  -0.7
YKA     17.32  77 eP    00 49.00   0.5
        0.5s      0.50nm          2.9mb
        61 obs. associated
-----------------------------------------
?  JAN  15, 1993  04h 57m 18.76± 1.19s
   32.056 S ±15.8km  177.905 W ±18.8km
   DEPTH =  33.0km  (normal)
   4.8mb (  9 obs.)
 SOUTH OF KERMADEC ISLANDS          (179)

RAO      2.80 360 eP    58 00.90  -1.2
                  eS    58 36.50
DZM     17.10 302 iPc   01 21.80   4.8X
BRS     25.84 273 eP    02 50.00   1.0
ARMA    26.06 265 eP    02 53.00   1.9
        0.7s      8.00nm          4.4mb
RMQ     29.53 272 iPd   03 23.90   1.4
TOO     30.42 249 eP    03 28.70  -1.6
        0.7s     11.00nm          4.8mb
                  e     06 29.00
CMS     30.75 261 iPd   03 33.10  -0.1
        0.6s     12.00nm          4.9mb
                  ipP   03 45.20  46kmX
BFD     32.78 250 iPd   03 50.30  -0.6
        0.5s      5.00nm          4.7mb
CTA     34.18 282 iPc   04 04.00   0.8
        0.7s     10.27nm          4.9mb
STK     34.22 259 iPd   04 03.40  -0.1
        0.7s      6.90nm          4.7mb
ASPA    43.13 269 iPd   05 16.40  -1.5
        0.6s     19.70nm          5.0mb
WRA     44.26 274 P     05 25.60  -1.5
        0.5s      4.00nm          4.5mb
CSY     53.73 208 eP    06 38.50  -0.9
        0.7s     23.80nm          5.3mb
KAF    146.13 340 iPKP  16 55.80   0.5
        0.6s      4.10nm
OBN    146.55 324 iPKPd 16 58.20   2.0
        1.8s    140.00nm
                  e     17 28.00
NUR    147.89 339 ePKP  16 58.10  -0.1
        0.7s     19.50nm
BCAO   148.49 213 iPKPd 17 04.80   4.2X
        0.7s     21.00nm
NAO    150.65 351 PKP   17 08.20   5.7X
        0.8s      4.40nm
HFS    150.88 348 ePKP  17 08.60   5.8X
        0.5s      1.20nm
HRI    151.72 282 ePKP  17 12.40   7.3X
DSI    151.77 278 ePKP  17 11.90   6.9X
MBH    151.84 274 ePKP  17 12.30   7.0X
MMR    151.95 281 ePKP  17 12.90   7.5X
LIC    153.45 164 PKP   17 15.40   7.5X
KIC    153.65 165 PKP   17 16.00   7.8X
      S.D. = 1.3  on  15 of  25 obs.
-----------------------------------------
    JAN  15, 1993  05h 26m 39.67± 0.82s
    44.325 N ± 4.9km     7.378 E ± 5.4km
    DEPTH =  14.4 ±  8.6 km
  NORTHERN ITALY                     (545)
        ML 2.1 (LDG), 1.9 (GEN).

STV      0.09 206 P     26 42.95   0.0
                  S     26 44.83
ENR      0.10 163 P     26 43.09   0.0
                  S     26 45.15
PZZ      0.27 312 P     26 46.06   0.3
                  S     26 50.18
ROB      0.35  95 P     26 47.58   0.3
                  S     26 53.07
SBF      0.46 175 Pg    26 48.50  -0.6
                  Sg    26 54.20
BHB      0.52 351 P     26 49.45  -0.6
                  S     26 56.16
IMI      0.55 138 P     26 50.23  -0.4
                  S     26 57.37
FIN      0.61 101 P     26 51.74   0.2
                  S     26 59.52
FRF      0.93 215 Pg    26 57.30   0.3
                  Sg    27 07.80
LRG      1.14 221 Pg    27 00.60   0.0
                  Sg    27 15.10
      S.D. = 0.5  on  10 of  10 obs.
-----------------------------------------
&  JAN  15, 1993  05h 56m 58.10s
    40.395 N          124.605 W
    DEPTH =   4.0km
  NEAR COAST OF NORTHERN CALIF.      ( 35)
        <BRK>. ML 3.1 (BRK).

KMPM     0.37  86 iPc   57 05.64   0.1
FOX      0.48  75 iPd   57 08.44   0.6
                  eS    57 15.27
FHC      0.62  49 iPc   57 10.77   0.2
                  eS    57 20.10
ARC      0.63  40 ePc   57 10.47  -0.2
                  eS    57 18.97
WDC      1.59  83 ePc   57 24.34  -2.7
LBFM     2.27  64 eP    57 34.84  -2.3
MIN      2.29  90 iPc   57 34.36  -3.1
ORV      2.53 108 iPc   57 37.99  -2.6
                  eS    58 08.72
        8 obs. associated
-----------------------------------------
&  JAN  15, 1993  06h 25m 09.97s
    60.109 N          153.074 W
    DEPTH = 121.7km
    2.8mb (  1 obs.)
  SOUTHERN ALASKA                    (  2)
        <AEIC>.

INE      0.05 173 eP    25 26.12   0.7
                  eS    25 39.21
INW      0.05 215 iP    25 26.06   0.7
                  eS    25 38.55
ILIM     0.06 117 eP    25 26.09   0.8
                  eS    25 39.07
RS1      0.39  24 eP    25 27.10  -0.9
                  eS    25 40.91
RS2      0.39  24 eP    25 27.12  -0.9
                  eS    25 41.31
RSO      0.39  24 eP    25 27.11  -0.9
                  eS    25 41.64
RDW      0.40  19 eP    25 27.00  -1.0
                  eS    25 40.30
REF      0.42  26 eP    25 26.97  -1.2
                  eS    25 40.84
RDN      0.43  21 eP    25 27.72  -0.4
NCT      0.46   9 iP    25 27.40  -0.9
                  eS    25 40.83
OPT      0.46 190 eP    25 27.74  -0.4
                  eS    25 41.61
DFR      0.52  22 eP    25 27.52  -1.1
                  eS    25 41.91
RDT      0.57  35 eP    25 27.96  -1.0
PDB      0.65 241 eP    25 28.56  -0.8
AUL      0.75 194 eP    25 29.84  -0.3
AUE      0.77 191 eP    25 29.83  -0.4
AUW      0.77 195 eP    25 29.95  -0.3
AUH      0.77 194 eP    25 29.74  -0.7
AUI      0.80 193 eP    25 30.53   0.0
                  S     25 45.29
NKA      1.11  54 eP    25 34.22   0.7
MCNL     1.13 215 eP    25 32.91  -0.8
                  eS    25 50.68
CKL      1.15  18 iP    25 33.28  -0.8
                  eS    25 51.33
BRLK     1.15 106 eP    25 33.51  -0.6
                  eS    25 50.97
CKT      1.18  21 eP    25 33.28  -1.1
                  S     25 51.69
SPU      1.19  25 eP    25 33.32  -1.1
CKN      1.20  21 eP    25 33.76  -0.8
BGL      1.21  16 eP    25 33.88  -0.8
CDD      1.22 194 eP    25 33.85  -0.9
CRP      1.25  21 eP    25 34.42  -0.8
                  eS    25 53.67
CGLM     1.31  23 eP    25 35.04  -0.8
                  S     25 54.40
SLKM     1.48  73 eP    25 36.40  -1.2
                  S     25 56.53
SYI      1.54 167 eP    25 37.17  -1.2
SVW      1.61 310 eP    25 37.43  -1.8
SUA      1.78  39 iP    25 40.62  -0.7
                  eS    26 04.43
SEW      1.82  89 eP    25 39.88  -1.7
MPA      1.89  77 eP    25 41.12  -1.4
SKT      2.02  21 eP    25 43.01  -1.3
                  eS    26 09.35
PMS      2.07  55 eP    25 43.42  -1.5
PTE      2.14  68 eP    25 44.82  -0.9
PWA      2.20  44 eP    25 46.03  -0.4
KDC      2.39 172 eP    25 46.66  -2.2
PLRM     2.44  51 eP    25 46.95  -2.6
KNK      2.62  58 eP    25 49.49  -2.4
LTI      2.62  89 eP    25 49.79  -2.1
GHO      2.62  49 eP    25 49.40  -2.7
KNIM     2.67  83 eP    25 49.69  -3.0
MTU      2.72  90 eP    25 51.71  -1.6
SML      2.87  52 eP    25 52.69  -2.6
GLI      3.06  73 eP    25 54.47  -3.3
TTA      3.16 335 eP    25 57.29  -1.9
FID      3.33  76 eP    25 58.80  -2.6
VLZ      3.48  70 eP    26 01.11  -2.2
CVA      3.67  80 eP    26 03.78  -2.1
KLU      3.77  65 eP    26 04.35  -3.0
GLB      4.73  70 eP    26 17.42  -3.0
TGL      5.12  78 eP    26 23.70  -2.0
BALM     5.37  75 eP    26 27.06  -2.1
YAH      5.65  83 iP    26 31.65  -1.4
CTGM     5.86  77 eP    26 34.07  -1.8
YKA     18.44  66 eP    29 15.10  -3.2
        0.4s      0.20nm          2.8mb
        60 obs. associated
-----------------------------------------
*  JAN  15, 1993  06h 42m 44.44± 0.75s
   22.476 S ±19.6km  171.967 E ±13.6km
   DEPTH =  33.0km  (normal)
   4.4mb (  9 obs.)
 LOYALTY ISLANDS REGION             (189)

DZM      5.13 273 iPc   44 01.50   0.4
                  iS    45 02.00
BKM      5.93 323 iPc   44 19.80   7.5X
SVA      7.48  56 eP    44 34.20   0.2
MBU      8.39  50 ePc   44 48.60   1.8
BRS     18.08 250 iPc   46 58.20   3.4X
        1.2s      5.00nm          3.5mb
ARMA    19.84 242 eP    47 15.70   0.1
        0.9s     17.00nm          4.4mb
RMQ     21.49 255 iPc   47 34.20   1.7
        1.0s     79.00nm          5.1mb
                  ipP   47 49.60  68kmX
CAN     23.77 232 iPc   47 56.10   1.2
```

e 48 07.00
CTA 24.07 271 e(P) 48 05.00 7.1X
CMS 24.91 243 iPc 48 06.00 0.0
1.1s 17.00nm 4.6mb
TOO 27.30 231 eP 48 28.30 0.3
1.0s 22.00nm 4.8mb
STK 28.52 244 eP 48 38.60 -0.5
0.7s 1.80nm 3.9mb
CN2 78.54 328 eP 54 45.30 1.3
0.8s 3.80nm 4.5mb
epP 54 51.50 20kmX
TIY 81.93 316 eP 55 01.40 -0.9
XAN 82.16 312 P 55 03.50 -0.1
HHC 84.32 318 eP 55 12.60 -2.0
FBA 92.44 16 eP 55 52.90 0.2
1.0s 2.10nm 4.5mb
YKA 102.37 27 ePdiff56 36.70 -1.0
0.9s 0.50nm 4.2mb
GEC2 148.53 332 ePKP 02 33.10 7.4X
0.9s 1.24nm
BCAO 148.65 239 iPKPd 02 24.10 -2.7
0.6s 22.00nm
ic 02 28.00
S.D. = 1.3 on 16 of 20 obs.

• JAN 15, 1993 08h 14m 11.97± 1.71s
53.607 N ±24.2km 165.682 W ±13.1km
DEPTH = 33.0km (normal)
4.4mb (5 obs.)
FOX ISLANDS, ALEUTIAN ISLANDS (9)

SDN 3.49 58 eP 15 05.78 0.6
MCNL 8.41 44 eP 16 14.59 0.1
KDC 8.53 56 eP 16 12.04 -4.0X
CDD 8.56 47 eP 16 15.73 -0.8
PDB 8.84 41 eP 16 20.99 0.6
SYI 8.95 51 eP 16 20.34 -1.5
SVW 9.27 32 (P) 16 25.75 -0.6
INW 9.43 42 eP 16 30.02 1.4
RDW 9.82 40 eP 16 35.70 1.7
NCT 9.82 40 eP 16 34.01 0.0
CKL 10.45 38 eP 16 43.38 0.7
BGL 10.48 38 eP 16 43.02 0.0
SPU 10.55 39 eP 16 43.79 -0.1
CRP 10.57 38 eP 16 44.22 0.0
TTA 10.63 25 eP 16 44.64 -0.4
CGLM 10.65 38 eP 16 45.48 0.2
SLKM 10.87 44 eP 16 45.81 -2.5
SEW 11.00 47 eP 16 46.78 -3.1X
MPA 11.23 46 eP 16 50.22 -2.8X
SKT 11.26 36 P 16 53.74 0.2
PMS 11.55 42 eP 16 54.65 -2.8X
KLU 13.18 45 eP 17 15.23 -4.0X
BALM 14.57 50 eP 17 34.51 -3.0X
YKA 27.74 51 eP 19 59.40 0.4
0.5s 1.10nm 3.8mb
FCC 38.42 53 ePc 21 34.90 3.3X
KAF 64.24 354 iP 24 45.00 -0.3
0.4s 2.20nm 4.6mb
NUR 65.93 354 iP 24 56.10 -0.1
0.3s 2.60nm 4.8mb
HFS 66.61 0 eP 25 00.00 -0.6
0.4s 2.40nm 4.7mb
GEC2 77.92 0 ePKP 26 08.60 0.8
0.5s 0.52nm 3.8mb
S.D. = 0.9 on 22 of 29 obs.

? JAN 15, 1993 08h 21m 14.17± 1.23s
7.677 S ±14.8km 129.306 E ±16.7km
DEPTH = 33.0km (normal)
4.0mb (1 obs.)
BANDA SEA (280)

MTN 5.44 161 eP 22 35.00 -0.1
0.3s 159.00nm 6.1mb X
eS 23 34.00
WB2 13.14 159 eP 24 15.40 -5.7X
eS 26 34.00
WARB 18.58 188 eP 25 30.00 -0.7
NANU 19.87 220 eP 25 46.40 0.8
eS 29 16.00
CTA 20.54 129 iP 25 53.00 0.4
STK 26.66 156 eP 26 59.60 7.6X
0.3s 1.10nm 4.0mb
eS 32 16.00
GUN 54.88 312 P 30 44.20 -0.3
CNCB 150.26 145 PKP 41 07.10 7.3X
LPB 150.42 144 ePKP 41 08.00 8.2X
ZOBO 150.59 144 PKP 41 06.00 5.6X
S.D. = 0.9 on 5 of 10 obs.

? JAN 15, 1993 08h 41m 25.85± 1.33s
34.442 N ±28.3km 80.003 E ±50.6km
DEPTH = 33.0km (normal)
3.9mb (4 obs.)
XIZANG (306)

GKN 7.54 147 P 43 17.12 0.7
KKN 8.02 144 P 43 22.82 -0.4
DMN 8.10 146 P 43 25.76 1.5
GUN 8.23 141 P 43 26.82 0.6
PKI 8.27 144 P 43 24.34 -2.4
GEC2 50.05 308 eP 50 23.80 4.5X
1.0s 1.32nm 3.9mb
NAO 50.60 324 P 50 22.90 -0.3
0.9s 3.60nm 4.4mb
FBA 74.19 19 eP 53 00.00 -0.6
WRA 74.79 128 P 53 08.60 3.9X
1.0s 0.30nm 3.2mb
YKA 82.69 7 eP 53 48.00 1.0
0.6s 0.80nm 4.0mb
S.D. = 1.5 on 8 of 10 obs.

% JAN 15, 1993 08h 47m 53.42± 2.88s
38.427 N ±26.2km 13.457 E ± 7.6km
DEPTH = 10.0km (geophysicist)
SICILY (398)

GIB 0.63 134 P 48 05.00 -1.1
eSg 48 15.00
ERC 0.79 241 P 48 08.60 -0.2
eSg 48 20.00
MCT 0.81 170 P 48 09.60 0.4
eSg 48 22.20
CVT 0.91 215 P 48 11.00 0.1
eSg 48 25.00
MNO 1.09 117 P 48 14.80 0.7
eSg 48 30.40
S.D. = 1.0 on 5 of 5 obs.

• JAN 15, 1993 09h 26m 34.23± 0.50s
57.804 S ±11.9km 29.680 W ±16.0km
DEPTH = 33.0km (normal)
5.0mb (7 obs.)
SOUTH SANDWICH ISLANDS REGION (153)

NVL 21.61 143 eP 31 23.00 0.2
1.4s 71.00nm 4.9mb
VAO 36.95 333 eP 33 43.20 1.3
BAO 44.28 334 Pc 34 44.00 1.5
e 34 49.80
e 34 55.50
e 35 07.80
e 35 13.10
e 35 16.00
CNCB 49.82 309 P 35 25.00 -1.5
LPB 50.12 309 eP 35 23.00 -5.6X
i 35 56.00
ZOBO 50.35 309 iPc 35 29.70 -0.9
1.1s 10.44nm 4.8mb
Z 24s 0.11um 3.8MszX
LR 50 14.00
LIC 66.87 27 P 37 24.20 -0.7
0.8s 15.50nm 5.2mb
KIC 67.07 27 P 37 25.30 -0.9
0.8s 11.50nm 5.0mb
TIC 67.28 27 P 37 26.80 -0.7
0.9s 20.50nm 5.2mb
BCAO 73.09 51 iPc 38 03.00 0.1
0.9s 14.00nm 5.0mb
id 38 16.10
TOO 84.90 176 eP 39 05.20 -1.5
0.8s 7.00nm 4.9mb
BFD 85.15 174 eP 39 08.30 0.4
LCCM 123.58 304 ePKP 45 29.80 0.8
YKA 136.56 318 ePKP 45 44.90 -8.1X
0.9s 3.70nm
GTA 142.93 97 ePKP 46 06.00 0.6
NJ2 146.49 127 ePKP 46 12.00 0.5
TIY 148.17 113 PKPd 46 14.80 0.7
BTO 149.14 106 ePKP 46 20.00 4.4X
HHC 150.11 108 ePKP 46 21.40 4.3X
PMS 150.26 302 ePKP 46 23.00 6.5X
FBA 150.64 310 ePKP 46 22.80 5.9X
0.9s 34.30nm
SVW 152.99 300 ePKP 46 28.90 8.4X
TTA 153.66 304 ePKP 46 30.80 9.3X
S.D. = 1.0 on 15 of 23 obs.

& JAN 15, 1993 10h 42m 07.71s
61.422 N 149.947 W
DEPTH = 34.8km
SOUTHERN ALASKA (2)
<AEIC>. ML 2.5 (AEIC).

PWA 0.23 8 iP 42 14.82 0.0
PMS 0.26 134 eP 42 15.09 -0.1
eS 42 20.41
SUA 0.38 277 iP 42 16.46 -0.4
eS 42 24.16
PLRM 0.43 66 eP 42 16.44 -0.8
GHO 0.60 54 iP 42 19.11 -0.7
KNK 0.72 90 eP 42 20.62 -0.8
PTE 0.72 141 iP 42 20.09 -1.2
SML 0.86 63 eP 42 22.60 -0.9
NKA 0.93 223 eP 42 24.80 0.5
SLKM 0.93 188 eP 42 23.00 -1.4
SKT 0.94 307 iP 42 23.66 -0.9
eS 42 36.79
MPA 0.98 163 eP 42 23.67 -1.4
CGLM 1.00 264 eP 42 24.48 -1.0
SPU 1.05 258 eP 42 24.83 -1.3
eS 42 39.31
NCG 1.06 270 eP 42 24.86 -1.6
CRP 1.08 263 eP 42 25.99 -0.7
CKN 1.10 261 eP 42 26.12 -0.7
CKT 1.11 259 eP 42 26.09 -1.0
eS 42 40.89
CP2 1.12 263 eP 42 26.73 -0.6
CKL 1.18 260 iP 42 27.05 -1.0
BGL 1.19 263 iP 42 27.49 -0.8
SCM 1.32 71 eP 42 29.57 -0.6
S 42 47.09
SEW 1.35 169 eP 42 29.23 -1.2
GLI 1.49 110 eP 42 31.00 -1.5
KNIM 1.53 134 eP 42 30.62 -2.4
DFR 1.57 239 eP 42 32.53 -1.3
eS 42 52.72
REF 1.64 236 eP 42 33.63 -1.2
eS 42 54.01
RSO 1.67 236 eP 42 34.22 -1.1
eS 42 55.22
RS2 1.68 236 eP 42 34.30 -1.1
eS 42 55.15
RS1 1.68 236 eP 42 34.14 -1.2
eS 42 55.41
VZW 1.68 101 eP 42 34.29 -1.0
RDW 1.69 237 eP 42 34.60 -0.9
NCT 1.69 241 eP 42 34.22 -1.3
LTI 1.73 143 eP 42 35.38 -0.5
BRLK 1.73 196 eP 42 35.76 -0.2
VLZ 1.77 98 eP 42 35.02 -1.4
FID 1.82 110 eP 42 35.21 -1.9
TOA 1.92 67 eP 42 38.68 -0.1
KLU 1.94 86 eP 42 37.50 -1.4
eS 43 02.46
HIN 1.97 120 eP 42 38.14 -1.3
ILIM 2.00 229 eP 42 38.74 -1.1
INE 2.05 230 eP 42 39.59 -1.1
INW 2.07 230 eP 42 39.97 -1.0
CVA 2.23 111 eP 42 42.36 -0.6
TZL 2.24 72 eP 42 42.81 -0.4
SDG 2.36 60 eP 42 44.20 -0.7
SVW 2.76 266 eP 42 49.06 -1.6
RAGM 2.78 110 eP 42 50.96 0.1
GLB 2.95 87 eP 42 52.53 -0.8
TGL 3.52 98 eP 43 01.29 -0.2
BALM 3.70 93 eP 43 02.56 -1.4
51 obs. associated

JAN 15, 1993 11h 06m 01.96± 0.08s
42.982 N ± 2.0km 144.165 E ± 1.7km
DEPTH = 112.3km (4 depth phases)
6.1mb (113 obs.)
HOKKAIDO, JAPAN REGION (224)
Foreshock.
FAULT PLANE SOLUTION: P-Waves
NP1:Strike= 80 Dip=85 Slip= 102
NP2: 192 13 23
Principal Axes:
T Plg=49 Azm= 3

```
        P                 `      39       159
      Comment: The focal mechanism is
        moderately well controlled and
        corresponds to reverse
        faulting with a small left-
        lateral strike-slip component.
        The preferred fault plane is
        NP2.
SAP     2.08 273 iP     06 36.80   0.3
                 eS     07 05.00
KUR     3.49  49 iPnc+  06 55.00  -0.3
      Z  14s  1158.00um
      N  14s  1752.00um
      E  14s  1752.00um
AOMJ    3.73 231 iP+    06 57.00  -1.5
YSS     4.16 346 (P)    07 04.06  -0.4
      N  11s  1890.00um
      E  11s  1610.00um
OFUJ    4.33 207 iP+    07 03.60  -3.2X
YAMJ    5.74 215 iP+    07 23.80  -2.3
NIIJ    6.97 216 P      07 40.70  -2.2
                 S      08 59.90
KAKJ    7.43 206 P      07 44.40  -4.9X
MAJO    7.90 217 (P)    07 53.45  -2.2
MAT     7.90 217 iPd    07 53.40  -2.2
                 eS     09 25.00
CHJJ    7.99 212 P      07 53.50  -3.4X
MTMJ    8.05 220 iPd    07 56.20  -1.5
IIDJ    8.92 215 P      08 06.60  -2.9
VLA     8.99 275 iPnd   08 10.00  -0.3
TSRJ    9.77 223 P      08 19.80  -1.0
                 S      10 14.90
OKH    10.61 356 iPn    08 30.40  -1.5
MDJ    10.66 284 Pc     08 32.00  -0.8
        1.8s   260.00nm          5.7mb
WKYJ   11.02 220 P      08 33.80  -3.7X
SKR    11.21  43 iPnc   08 35.60  -4.4X
      Z  16s   689.00um          4.1Msz
      N  16s   522.00um
      E  16s   595.10um
                 iS     10 39.60
YONJ   11.38 230 P      08 41.30  -1.0
TKSJ   11.97 225 P      08 47.70  -2.3
SHK    12.30 231 iP     08 53.00  -1.3
        1.1s   151.90nm          5.6mb
SHNJ   13.50 233 eP     09 08.90  -1.0
CN2    13.64 280 eP     09 10.00  -1.7
      N  15s  1760.00um
      E  15s  1230.00um
                 eS     11 39.00
PET    13.93  39 eP+    09 11.00  -4.4X
        1.2s   210.00nm          5.3mb
      Z  16s   460.00um          5.1Msz
      N  14s   550.00um
      E  16s   890.00um
KUMJ   14.81 230 P      09 26.30  -0.5
SNY    15.25 273 Pc     09 31.00  -1.3
        1.0s    94.00nm          5.0mb X
      N  12s   361.00um
      E  12s   410.00um
KAGJ   15.81 226 P      09 37.00  -2.4
DL2    17.49 264 Pc     09 59.00  -1.1
        1.0s  2920.00nm          6.5mb
      N  18s   386.00um
      E  15s   883.00um
                 S      13 09.00
MGD    17.62  11 ePc+   09 57.00  -4.4X
        1.6s  4090.00nm          6.4mb
      Z  16s   377.00um          4.7MszX
      N  16s   273.00um
      E  16s   241.00um
                 iS     13 18.00
HIA    18.02 299 eP     10 06.39   0.0
SEY    20.53  11 iPc    10 29.80  -3.1X
        1.4s  3140.00nm          6.5mb
                 eS     14 17.00
YAK    20.90 341 iPc+   10 32.20  -4.4X
        1.0s  2466.00nm          6.5mb
                 iSS    15 02.00
BJI    21.13 272 ePc    10 38.00  -1.1
      N  17s   989.00um
SSE    21.77 245 eP     10 45.20  -0.3
TIA    21.85 261 Pc     10 45.50  -0.8
      N  17s   112.00um
      E  17s   459.00um
                 S      14 38.50
SMY    22.18  54 eP     10 49.03  -0.3
        0.9s  1759.55nm          6.4mb
CIT    22.39 304 eP     10 50.00  -1.5
NJ2    22.76 250 Pd     10 56.00   0.8
        1.4s   270.00nm          5.4mb
      N  16s  1590.00um
      E  17s  1670.00um
                 iS     14 57.00
BOD    23.95 319 iPc    11 04.30  -2.1
        0.7s  2040.00nm          6.7mb
HHC    24.27 276 iPc    11 10.60   0.7
      N  18s  1040.00um
TIY    24.66 268 iPc    11 14.00   0.5
        0.8s   190.00nm          5.6mb
TIY    24.66 268 Pd     11 14.60   1.1
      Z  24s   124.00um          6.3MszX
      E  20s   295.00um
BTO    25.47 276 iPd    11 21.50   0.4
        1.0s   660.00nm          6.1mb
      N  11s    88.80um
      E  11s    79.90um
                 S      15 42.00
TATO   25.87 233 (P)    11 25.45   0.7
TATO   25.87 233 (P)    11 25.78   1.1
WHN    26.77 252 Pd     11 33.80   0.9
        1.0s   330.00nm          5.8mb
      E  17s   885.00um
                 S      16 04.00
QZH    27.65 238 eP     11 42.00   1.1
ADK    27.65  57 eP     11 37.97  -2.7
IRK    28.10 303 iPc    11 45.00   0.2
                 eS     16 12.00
ZAK    28.71 299 iPc+   11 50.50   0.3
        1.8s  1445.00nm          6.3mb
                 eS     16 28.00
XAN    28.81 264 iPc    11 51.00  -0.4
        1.4s   250.00nm          5.7mb
      Z  16s   129.00um          6.6MszX
      N  12s   324.00um
      E  12s   228.00um
PJG    29.30 179 e(P)   11 56.80   1.1
                 TT     41 26.40
GUA    29.35 179 eP     11 54.00  -2.2
        0.8s   298.51nm          6.0mb
                 e      12 03.10  32kmX
                 eS     16 34.00
TIK    29.70 350 iPc+   11 54.00  -4.8X
        2.0s  3100.00nm          6.7mb
      Z  15s   270.00um          7.0MszX
                 i      13 08.00 405kmX
MOY    30.15 302 ePc    12 03.00   0.1
                 eS     17 01.00
LZH    31.62 271 ePc    12 16.70   0.5
        2.0s  3710.00nm          6.8mb
      E  18s   492.00um
                 PP     13 20.00
                 S      17 21.00
                 S      19 07.00
ILT    31.77  26 iPd    12 12.40  -4.6X
                 i      13 40.00 504kmX
                 iS     17 16.00
                 i      19 38.00
GZH    32.31 242 P      12 23.50   1.4
HKC    32.34 240 iP     12 24.70   2.3
                 iS     17 40.00
BAG    33.26 224 ePd-   12 30.00  -0.6
        1.1s   258.23nm          5.9mb
                 eS     18 22.00
GTA    33.27 279 P      12 30.50   0.0
CD2    34.16 263 iPc    12 38.30   0.2
        0.6s   370.00nm          6.4mb
      N  14s   459.00um
UER    34.45 302 iPc    12 39.50  -0.8
        1.5s  2070.00nm          6.7mb
      Z  14s    67.90um          6.5MszX
      E  11s    63.20um
                 iS     18 04.50
                 e      20 15.00
                 e      20 40.00
QCP    34.51 222 iP     12 41.50   0.4
QVP    34.56 222 P      12 43.00   1.5
GYA    34.62 254 iPc    12 41.60  -0.6
SDN    37.25  51 eP     13 01.21  -2.7
        0.6s   151.01nm          6.1mb
QIZ    37.48 241 ePd    13 14.81   8.6X
      E  12s   441.00um
                 ic     13 44.44 131kmX
KMI    38.22 256 ePc    13 13.69   1.0
        1.5s   600.00nm          6.2mb
      N  12s   305.00um
      E  12s   267.00um
                 PP     14 44.00
NRI    38.71 332 iPc+   13 12.00  -3.9X
        2.7s  2190.00nm          6.5mb
                 e      14 54.00 595kmX
                 e      15 28.00
                 eS     19 04.00
ELT    38.98 306 iPc    13 17.50  -0.9
                 i      15 00.00 598kmX
                 iS     19 15.00
                 e      22 00.00
DAV    39.32 210 eP     13 22.50   0.9
                 eS     19 51.10
TTA    39.39  39 eP     13 20.65  -1.1
SVW    39.57  41 ePc    13 23.24   0.0
BRW    40.13  25 ePd    13 25.91  -1.7
WMQ    40.35 291 P      13 30.00   0.1
        1.0s   250.00nm          6.0mb
      N  14s   542.00um
IMA    40.53  34 ePc    13 29.25  -1.9
BGL    41.13  41 ePc    13 35.87  -0.2
CP2    41.20  41 eP     13 36.77   0.0
CRP    41.24  41 ePc    13 36.92  -0.1
KDC    41.42  46 ePc    13 36.48  -1.8
SLKM   42.25  42 eP     13 43.74  -1.4
PWA    42.30  40 eP     13 45.50   0.0
PMS    42.49  41 ePc    13 46.70  -0.5
PMR    42.66  40 eP+    13 46.92  -1.5
COL    42.99  35 ePc    13 51.26   0.2
      N  11s    54.00um
      E  12s    65.30um
FBA    42.99  35 P      13 47.60  -3.5X
        1.3s    72.62nm          5.3mb
LSA    44.03 271 (P)    14 01.67   1.2
KLU    44.20  40 iPc    14 00.30  -0.7
KKM    44.29 222 ePd    14 04.00   1.7
        1.2s   126.80nm          5.6mb
                 e      14 31.00 117kmX
                 e      15 28.50
CHG    44.98 252 iPc    14 08.20   0.6
        0.9s   220.59nm          5.9mb
                 eS     20 48.00
CHTO   44.98 252 eP     14 08.59   1.0
TSM    45.04 219 ePd    14 08.80   0.8
        1.0s   457.70nm          6.2mb
                 e      14 51.50 196kmX
BALM   45.98  40 eP     14 14.33  -0.8
PRZ    47.16 293 eP     14 26.00   1.2
        1.8s  4000.00nm          6.9mb
      Z  17s   700.00um          7.7MszX
                 eS     21 16.00
                 e      21 54.00
                 e      24 12.00
RAB    47.51 169 eP     14 28.00   0.5
KHT    48.00 248 iPd    14 32.90   1.6
GUN    48.87 272 Pc     14 37.86  -0.6
KKN    49.38 272 Pc     14 41.48  -0.7
PKI    49.41 272 Pc     14 41.66  -0.9
FRU    49.55 295 iPc+   14 42.80  -0.3
      Z  17s   300.00um          7.4MszX
                 iS     21 52.00
                 i      24 29.00
                 iSS    25 09.00
DMN    49.61 272 Pc     14 43.50  -0.5
AAK    49.71 295 eP     14 44.74   0.3
GKN    49.73 273 Pc     14 44.00  -0.8
KSH    50.13 291 Pd     14 48.00   0.4
        1.4s  1920.00nm          6.9mb
      Z  16s    95.50um          6.9MszX
      N  12s    53.90um
      E  12s    30.30um
                 PcP    16 10.00
                 PP     16 44.00
SIT    50.58  44 ePc    14 50.33  -0.2
OPA    52.19  95 eP     15 03.81   0.6
PMG    52.20 176 eP     15 02.00  -1.2
SVE    52.21 316 iP+    15 03.00   0.1
                 iS     22 35.00
                 i      24 35.00
SNG    52.26 240 eP     15 05.30   1.5
        2.5s  4666.67nm          7.0mb
                 eS     22 35.40
KIP    52.35  95 (P)    15 06.73   2.3
DHH    52.60  95 (P)    15 07.44   1.2
```

15d 11h

MKS	52.94	211	iPd	15 09.00	0.3
ARU	53.40	316	iPc	15 02.00	-9.7X
			ePPP	18 17.00	
			iS	22 33.30	
			ePS	22 53.00	
IPM	54.01	237	ePc	15 17.60	1.0
	0.8s		24.50nm		5.2mb
			e	15 57.10	173kmX
HKL	54.08	95	(P)	15 19.29	1.7
HNR	54.11	161	eP	15 16.00	-1.3
			e(S)	22 50.00	
KGM	54.65	233	iPc	15 22.70	1.4
	0.6s		57.40nm		5.7mb
			i	15 50.10	114km
KKH	54.91	95	eP	15 22.68	-0.5
HPO	55.61	96	eP	15 28.56	0.4
RES	56.32	16	ePc	15 31.90	-0.8
	0.5s		74.00nm		5.9mb
MTN	56.82	195	eP	15 35.70	-1.1
KHKI	57.34	214	ePc	15 39.50	-0.9
			e	38 56.20	
YKA	57.64	33	eP	15 41.00	-1.1
	0.9s		283.90nm		6.3mb
APA	58.20	335	iPc	15 44.60	-1.3
DAG	60.04	356	iPd+	15 56.10	-2.4
SDF	60.36	337	iP	15 59.80	-1.0
HYB	60.57	267	ePc	16 01.50	-1.4
	1.0s		78.00nm		5.7mb
			i	16 08.20	22kmX
			iPP	18 28.00	
			iS	24 16.00	
			eP'P'	45 11.50	
MCW	61.11	49	ePd	16 05.67	-0.5
QUE	61.28	286	iPc+	16 08.50	0.7
			eS	24 27.50	
ONR	61.57	51	P	16 10.06	0.8
GMW	61.76	50	eP	16 10.12	-0.4
JCW	61.88	49	P	16 10.65	-0.7
BMW	62.10	51	eP	16 12.64	-0.3
RMW	62.36	50	eP	16 13.90	-0.7
KMOR	62.42	52	P	16 15.45	0.4
ASH	62.72	297	P	16 17.00	0.0
			i	16 37.00	77kmX
			i	16 47.00	
			isP	16 52.00	
			i	18 36.00	
			iPPP	20 10.00	
			iS	24 40.00	
			i	25 17.00	
FMW	62.73	50	P	16 16.70	-0.5
LON	62.76	50	ePc+	16 16.35	-0.9
CTA	62.78	178	iPd-	16 16.00	-1.4
	1.0s		120.00nm		5.8mb
			ipP	16 24.00	26kmX
			e	16 42.00	
CTAO	62.78	178	eP	16 15.77	-1.6
SHW	62.83	51	ePc	16 18.50	0.7
MAIO	62.91	295	iPc	16 18.00	-0.4
	1.4s		288.46nm		6.0mb
			eS	24 46.00	
ASR	63.22	51	Pc	16 19.98	-0.4
RNO	63.25	54	P	16 20.81	0.3
WTV	63.25	49	P	16 19.46	-1.0
KAT	63.35	300	iP+	16 22.00	0.9
			e	18 45.00	784kmX
			ePPP	20 24.00	
			iS	24 55.00	
OIS	63.36	185	eP	16 22.20	1.0
	0.5s		3.00nm		4.5mb X
SSOR	63.46	53	P	16 21.87	-0.1
SUF	63.64	333	iP	16 21.10	-1.6
MOS	63.76	323	iPc	16 23.00	-0.6
	2.2s		********nm		7.7mb X
Z	18s		162.00um		7.2Msz
N	18s		159.50um		
E	18s		153.70um		
			e	16 55.00	132kmX
			e	18 45.00	
			ePPP	20 14.00	
			eS	24 52.00	
BOM	63.84	272	iPc	16 22.80	-1.8
			iS	24 54.40	
VBEM	63.85	52	P	16 24.24	-0.3
GBA	63.85	264	Pc	16 23.80	-0.9
	0.8s		50.00nm		5.5mb
DBO	64.00	54	P	16 25.38	-0.1
KAF	64.01	332	iP	16 23.50	-1.6

WAH2	64.02	49	P	16 24.81	-0.6
VGB	64.05	51	eP	16 25.39	-0.3
DPW	64.11	48	ePc	16 25.28	-0.8
PUL	64.17	329	ePc	16 26.00	-0.1
	2.0s		570.00nm		6.2mb
			e	16 58.00	132kmX
			e	18 52.00	
			eS	24 58.00	
			ePS	25 35.00	
			e	26 14.00	
			eSS	29 10.00	
			eSSS	32 02.00	
CROR	64.24	52	P	16 26.67	-0.3
KEF	64.45	333	iP	16 26.20	-1.7
NEW	64.46	47	eP	16 27.53	-0.8
VAF	64.54	335	eP	16 27.20	-1.3
JBO	64.62	51	Pc	16 28.85	-0.5
OBN	64.62	323	iPc+	16 28.10	-1.0
	1.2s		3200.00nm		7.1mb
Z	18s		270.00um		7.5Msz
N	14s		346.00um		
E	17s		204.00um		
			i	16 56.00	113km
			iPPP	20 32.00	
			iS	25 04.00	
			iPS	25 42.00	
			i	26 08.00	
			iSS	29 14.00	
			iSSS	32 14.00	
FHC	64.90	57	iPc	16 31.76	0.5
KMPM	65.04	57	ePc	16 32.70	0.5
FOX	65.06	57	iPc	16 32.73	0.5
LNOR	65.25	50	P	16 33.13	-0.3
PVF	65.26	331	iP	16 32.00	-1.1
NUR	65.71	332	iP	16 34.60	-1.4
			ePP	19 01.00	
			ePPP	20 50.00	
			eS	25 20.00	
LBFM	65.86	55	ePc	16 37.54	0.0
WDC	65.92	56	ePc	16 38.02	0.3
	0.7s		68.46nm		5.7mb
PKK	66.11	331	iP	16 37.50	-1.1
SES	66.30	43	iPc	16 38.80	-1.2
	1.2s		2599.00nm		7.0mb
			pP	17 19.00	169kmX
MAK	66.51	307	iPc+	16 41.00	-0.4
	1.5s		5000.00nm		7.2mb X
Z	24s		541.00um		7.7MszX
N	24s		570.00um		
E	24s		855.00um		
			i	17 17.20	150kmX
			iS	25 28.00	
			iPS	26 08.00	
			iSS	29 48.30	
			iSSS	32 49.00	
LMEM	66.53	56	eP	16 41.38	-0.5
MIN	66.63	56	iPc	16 41.52	-0.9
ASPA	66.99	190	iPd	16 44.20	-0.3
	0.9s		1423.00nm		6.9mb
			e	16 52.00	25kmX
			eS	26 23.40	
NTYM	67.16	58	eP	16 45.34	-0.2
ORV	67.17	57	iPc	16 44.85	-0.8
SHE	67.24	305	iPc	16 46.00	-0.1
Z	18s		230.00um		7.4Msz
N	18s		250.00um		
E	18s		280.00um		
			iS	25 38.00	
GRO	67.31	309	iPc+	16 47.00	0.5
	1.0s		4500.00nm		7.3mb X
N	18s		693.00um		
E	13s		455.00um		
			ipP	17 16.00	117km
			iS	25 40.00	
MBU	67.59	144	eP	16 50.20	1.8
ZSP	67.68	59	eP	16 48.59	-0.3
BKS	67.74	59	iPc	16 48.77	-0.5
Z	20s		31.00um		6.5Msz
			ePP	21 10.09	
			eS	25 44.09	
			eScS	26 35.09	
			ePPS	27 15.09	
			eSS	30 06.09	
			eLQ	33 27.09	
			eLR	37 07.09	
FCC	67.76	29	ePc	16 50.50	1.5
PCC	67.88	59	eP	16 49.27	-0.8

HRY	68.24	46	iPc	16 52.00	-0.4
BUT	68.30	47	ePc	16 52.10	-0.7
PYA	68.37	310	iPc	16 53.00	-0.1
	1.0s		2100.00nm		7.0mb
			i	17 24.00	126kmX
			i	19 28.00	
			iPPP	21 06.00	
			eS	25 40.00	
GCC	68.41	59	iPc	16 52.85	-0.5
HBMT	68.42	47	iPc	16 53.20	-0.5
MHC	68.44	59	eP	16 53.28	-0.5
	1.5s		3010.00nm		6.9mb
Z	19s		34.00um		6.6Msz
			ePP	21 18.28	
			eS	25 53.28	
			eScS	26 37.28	
			ePPS	27 34.28	
			eSS	30 17.28	
			eLQ	33 39.28	
			eLR	37 15.28	
COE	68.47	59	eP	16 53.85	0.0
LRM	68.48	47	iPc	16 53.60	-0.5
SVA	68.49	145	eP	16 55.10	1.2
ARN	68.50	59	eP	16 53.42	-0.6
TEH	68.53	299	eP	16 51.00	-3.4X
UPP	68.53	334	iP	16 52.50	-1.2
			iS	25 54.00	
KIV	68.63	311	ePc	16 55.07	0.3
	2.2s		2427.00nm		6.7mb
			e	19 31.80	
			e	21 09.10	
			S	25 55.60	
LCCM	68.78	47	iPc	16 55.30	-0.5
CMB	68.79	57	iPc	16 55.70	-0.1
	1.2s		3100.00nm		7.0mb
Z	20s		31.00um		6.5Msz
			ePP	21 21.70	
			eS	25 56.70	
			eScS	26 34.70	
			ePPS	27 37.70	
			eSS	30 21.70	
			eLQ	33 45.70	
			eLR	37 21.70	
MTA	68.85	308	iPc+	16 55.00	-1.0
	0.8s		690.00nm		6.5mb
			iS	25 59.00	
			iPS	26 19.00	
MCMT	68.91	48	iPc	16 55.80	-0.9
SXM	68.93	46	ePc	16 56.20	-0.6
BGMT	69.08	47	iPc	16 57.40	-0.3
PRS	69.23	59	iPc	16 58.13	-0.4
RMO	69.25	176	iPd	16 59.00	0.5
			eP'P'	45 11.00	
MNK	69.32	326	iPc	16 54.00	-4.6X
			eS	25 56.00	
LLA	69.33	59	iPc	16 59.05	0.0
GRS	69.33	305	eP	16 59.00	-0.2
	1.4s		2580.00nm		6.9mb
Z	19s		110.00um		7.1Msz
N	16s		65.30um		
E	16s		81.20um		
			i	19 32.00	
			iS	26 06.00	
			iPS	26 38.00	
MEMT	69.42	46	iPc	16 59.20	-0.5
LTMT	69.50	48	eP	16 57.00	-3.4X
HFS	69.53	336	eP	16 58.90	-1.0
	0.5s		481.10nm		6.6mb
Z	20s		172.74um		7.3MszX
			LR	40 30.00	
KVN	69.55	55	eP	17 00.56	-0.1
TPMT	69.61	48	iPc	17 00.90	-0.1
NAO	69.79	338	P	17 00.00	-1.5
	1.0s		4824.00nm		7.3mb X
PRI	69.80	59	eP	17 02.12	0.0
MMPM	69.90	57	P	17 03.10	0.2
MEMM	69.92	57	ePc	17 03.19	0.6
BONR	70.12	56	ePc	17 04.37	0.1
HHAI	70.15	49	(P)	17 04.66	0.5
MRCM	70.18	57	eP	17 04.80	0.3
PKEM	70.20	59	P	17 04.36	0.0
TAB	70.24	304	eP	17 06.00	1.2
			ic	17 11.00	16kmX
MTUM	70.34	57	eP	17 05.11	-0.4
NANU	70.35	208	eP	17 05.40	0.2
PTI	70.44	49	ePc	17 06.27	0.3
BRS	70.47	172	iPc+	17 06.00	0.1

```
        1.0s     10.00nm          4.6mb X
                 i       17 10.00  13kmX
                 i       17 35.00
                 i       17 46.00
                 eS      26 00.00
SOC     70.51 312 iPc+   17 06.40   0.3
        3.0s     *******nm        7.4mb X
                 e       19 50.00
                 ePPP    21 30.00
                 iS      26 15.00
                 eSS     30 44.00
WARB    70.69 197 eP     17 07.40   0.1
TNP     70.70  56 ePc    17 07.39  -0.3
BCH     70.77  60 eP     17 07.86  -0.1
AKU     70.80 352 iP     17 07.80   0.4
        1.5s   8055.56nm        7.3mb X
                 i       17 16.00  26kmX
HVU     70.92  50 eP     17 08.86   0.0
ANN     70.95 314 iP+    17 08.50  -0.2
                 i       19 54.00
                 iPPP    21 34.00
                 iS      26 25.00
ISA     71.48  58 eP     17 10.95  -1.2
        0.7s     39.81nm        5.3mb
DUG     71.94  52 ePc    17 14.95   0.0
        0.7s     75.95nm        5.6mb
BW06    72.05  48 ePc    17 15.10  -0.6
TBZ     72.19 310 eP     17 16.00  -0.2
SIM     72.56 316 eP+    17 18.00  -0.3
      Z  16s   365.00um        7.7MszX
                 i       20 08.00
                 iPPP    21 42.00
                 iS      26 44.00
                 iPS     27 18.00
PAS     72.64  59 ePc    17 18.27  -0.7
REY     72.66 354 iP     17 17.40  -1.1
                 i       17 23.10  18kmX
DAU     72.69  51 ePc    17 19.55   0.0
GSC     72.75  58 ePc    17 19.43  -0.3
SSK     72.90  59 eP     17 20.85   0.1
MEEK    73.16 204 eP     17 21.00  -0.9
        0.8s     294.00nm       6.1mb
                 e       17 28.00  23kmX
ARUT    73.16  54 eP     17 22.08  -0.1
BSD     73.19 332 iP     17 22.00   0.3
        0.6s     290.00nm       6.3mb
EMUT    73.34  51 ePc    17 23.13  -0.1
ARMA    73.36 173 iPc    17 23.80   0.7
        1.5s   2176.00nm        6.7mb
                 ipP     17 31.30  24kmX
                 eP'P'   44 54.30
ULM     73.41  35 ePc    17 24.60   1.5
MSU     73.42  53 ePc    17 24.02   0.3
PEC     73.44  59 ePc    17 22.96  -0.7
        0.6s     43.89nm        5.4mb
COP     73.55 334 iPc    17 24.30   0.5
KIS     73.69 320 iPc+   17 25.00   0.2
        1.8s     *******nm        7.5mb X
      Z  14s   285.00um        7.7MszX
      N  14s   148.10um
      E  13s   147.30um
                 i       20 16.00
                 iPPP    22 04.00
                 iPS     27 32.00
                 iSS     31 36.00
MUD     73.92 336 iPd    17 26.30   0.4
        0.7s     246.00nm       6.1mb
SRU     73.98  51 iPc    17 26.64  -0.2
PLM     73.98  59 ePc    17 26.75  -0.3
RSSD    74.04  44 ePd+   17 26.39  -0.8
        0.6s     127.42nm       5.9mb
PFO     74.07  59 ePc    17 27.57   0.1
CMS     74.12 179 iPc    17 28.00   0.7
        1.6s   1700.00nm        6.6mb
                 e       44 46.60
                 eP'P'   48 35.20
IAS     74.18 321 eP     17 29.00   1.4
KVT     74.21 312 iP     17 30.00   2.0
STK     74.53 182 iPd    17 29.60  -0.1
        0.9s     65.20nm        5.4mb
                 eS      26 57.10
SVST    74.61 310 eP     17 31.10   0.7
TRHT    74.64 311 iP     17 31.50   0.9
BZK     74.70 313 iP     17 31.00   0.3
FORT    74.87 194 eP     17 32.00   0.3
CFR     75.36 319 eP     17 34.00  -0.4
UZH     75.45 324 eP     17 34.50  -0.3
```

```
      Z  16s   542.50um        7.9MszX
                 i       17 46.50  40kmX
                 i       20 29.00
                 iPPP    22 16.00
                 iS      27 05.00
                 i       27 43.00
                 iPS     27 52.00
                 iPPS    28 16.00
VRI     75.54 320 iPc    17 36.00   0.5
BRD     75.65 320 ePc    17 31.50  -4.6X
CVO     75.83 320 iPc    17 36.50  -0.7
BNN     75.85 310 iP     17 34.50  -3.0X
SPC     75.88 326 eP     17 38.80   1.3
      Z  13s   163.50um        7.5MszX
                 eS      27 21.40
                 LR      11 57.00
BRNL    75.91 331 eP     17 38.20   0.8
BRN     75.98 332 eP     17 39.00   1.3
ISR     76.17 320 iPc    17 40.00   0.9
MLR     76.19 320 iPc    17 40.50   1.2
GAZ     76.25 308 iP     17 40.50   0.9
MRWA    76.37 205 iPc    17 41.00   0.8
PSN     76.45 318 iP     17 34.00  -6.6X
GOL     76.45  48 ePc    17 41.09   0.0
        1.1s     21.36nm        4.9mb X
COOL    76.48 200 iPc    17 40.90   0.1
GLD     76.50  48 ePc    17 41.89   0.7
        1.5s     356.23nm       6.0mb
EDR     76.61 342 eP     17 40.90  -0.3
CMP     76.78 321 iPd    17 45.00   2.6X
BBTK    76.86 313 iP     17 43.50   0.4
CLL     76.96 331 iPc    17 43.10  -0.1
        0.8s   1500.00nm        6.8mb
      Z  25s   370.00um        7.6MszX
                 i       17 49.00  19kmX
                 eS      27 24.00
BRG     76.98 330 iP     17 43.10  -0.3
        2.0s   3800.00nm        6.9mb
                 i       17 48.50  17kmX
                 i       17 53.00
                 iS      27 40.00
PSZ     77.02 325 ePc    17 43.10  -0.6
EDU     77.05 342 eP     17 44.00   0.3
VRAC    77.25 328 iPc    17 45.60   0.8
        2.5s   7844.70nm        7.1mb
                 i       17 46.20   2kmX
                 i       17 51.70
                 i       17 56.70
                 e       18 00.70
                 i       18 40.30
                 e       23 45.70
                 e       27 15.80
                 S       27 39.40
ELO     77.28 342 eP     17 44.80  -0.2
ADAT    77.39 309 eP     17 47.30   1.4
EBH     77.44 342 eP     17 45.60  -0.2
PRU     77.48 329 Pc     17 46.40   0.2
        2.2s   9330.00nm        7.2mb X
      Z  23s   385.00um        7.7MszX
      N  27s   377.00um
      E  22s   290.00um
                 e       17 52.60  20kmX
                 e       18 20.90
                 PP      20 48.50
                 PPP     22 32.00
                 S       27 36.90
ESY     77.54 342 eP     17 46.20  -0.2
EAB     77.68 343 eP     17 47.20   0.1
GZR     77.72 322 iPd    17 48.00   0.3
BUD     77.72 325 iP     17 47.70   0.2
EYL     77.73 315 eP     17 47.90   0.1
ADE     77.73 185 iPd    17 48.60   1.0
                 e       18 26.40 153kmX
SRO     77.75 326 iP     17 48.80   1.1
      Z  14s   137.60um        7.4MszX
                 i       17 54.90  19kmX
                 i       20 41.80
                 iS      27 41.20
EBL     77.77 342 eP     17 48.10   0.4
WIT     77.79 335 eP     17 49.50   1.7
                 ePcP    17 55.00
GPA     77.85 314 eP     17 47.00  -1.4
ITU     77.92 316 iP     17 50.00   1.3
ISK     77.93 316 eP     17 49.50   0.7
ISK     77.93 316 iP     17 39.40  -9.4X
GBZT    77.93 315 eP     17 48.40  -0.4
MOX     78.00 331 eP     17 49.00   0.0
```

```
      Z  22s   140.00um        7.2Msz
                 eS      27 44.00
DMK     78.04 317 eP     17 49.30  -0.1
CAN     78.05 176 iPd    17 50.10   0.8
                 ipP     17 58.60  27kmX
                 ePKKP   36 58.90
KLB     78.07 203 iPc    17 50.00   0.5
CNB     78.07 176 eP     17 50.30   0.9
        1.3s     738.00nm       6.3mb
                 ipP     17 58.20  25kmX
                 iPP     18 27.00
                 eS      27 40.00
                 eP'P'   44 47.00
BZS     78.07 323 ePc    17 44.50  -4.9X
HOF     78.19 331 iPc    17 50.00  -0.1
                 i       17 55.20  17kmX
CTT     78.19 316 iP     17 50.90   0.7
EKA     78.20 342 Pc     17 50.00   0.0
        0.6s     126.80nm       5.9mb
WTS     78.46 335 iPc    17 51.30  -0.1
        0.7s     185.00nm       6.0mb
                 ePcP    17 56.00
                 ePP     20 52.00
TUC     78.47  57 ePc    17 52.57   0.6
        0.8s      60.50nm       5.5mb
SOP     78.57 327 iP     17 53.00   0.8
UZD     78.61 325 iP     17 52.00  -0.4
GEC2    78.73 329 ePc    17 53.00  -0.2
        1.1s     243.98nm       5.9mb
                 e       17 59.10  19kmX
                 e       18 02.50
                 e       18 04.50
                 e       18 06.40
                 ec      18 09.90
                 e       18 17.10
                 e       19 40.10
                 e       19 50.70
                 ePP     20 44.60
                 e       20 54.70
                 e       24 07.50
                 eS      27 50.50
                 e       27 57.20
                 e       28 30.40
                 e       29 18.00
                 eSS     32 53.00
                 e       36 41.40
                 e       36 46.60
                 e       36 50.30
                 ePKKPd36 52.40
                 e       37 00.00
RYD     78.77 293 iPc    17 53.00  -0.7
                 iS      27 47.00
RUWJ    78.79 304 P      17 53.74   0.0
WET     78.79 330 iPc    17 53.70   0.3
                 iS      27 52.50
ALT     78.85 314 iP     17 54.40   0.4
MUN     78.88 204 iPc    17 54.80   0.9
        1.1s     775.00nm       6.4mb
KCT     78.89 315 iP     17 53.90  -0.2
MJMA    78.90 295 ePc    17 53.67  -0.7
GRF     78.94 331 iPc    17 54.80   0.6
        1.7s     *******nm        7.4mb X
      Z  29s   336.00um        7.5MszX
GRFO    78.94 331 ePc    17 54.08  -0.1
BNT     79.04 316 iP     17 54.90   0.0
EDC     79.07 316 iP     17 55.00  -0.1
BEO     79.20 323 iP     17 56.50   0.9
ANMO    79.20  52 ePc    17 57.91   1.8
KMR     79.22 328 iP+    17 55.00  -0.7
                 i       18 00.70  18kmX
DST     79.23 315 iP     17 55.50  -0.5
BNS     79.23 334 ePc    17 55.20  -0.5
                 ipPc    18 00.80  18kmX
                 iPP     20 47.00
                 iPPP    24 08.00
                 iS      27 52.00
                 iSS     33 14.00
                 iSSS    41 00.00
BHL     79.43 307 P      17 57.00  -0.2
                 S       28 04.00
TNS     79.45 333 iPc    17 57.20   0.2
                 i       18 02.50  17kmX
                 i       20 52.40
                 i       28 07.10
ALN     79.58 317 iP     17 58.57   0.8
KHL     79.70 313 iP     17 58.40  -0.2
BCK     79.76 312 eP     17 58.40  -0.5
```

15d 11h

KLL	79.78	334	iPc *	17 57.90	-0.8
BFD	79.79	181	iPd	17 58.80	0.2
	1.2s	360.00nm			6.1mb
			i	18 06.70	25kmX
			eP'P'	44 54.00	
QASM	79.90	296	eP	17 59.70	-0.1
MEM	79.91	334	iPc	17 59.56	0.3
			id	18 05.45	19kmX
			i	18 07.61	
			S	28 01.00	
BHG	79.97	329	iPc	18 00.30	0.6
	0.7s	182.00nm			6.0mb
CSS	80.03	309	eP	18 00.50	0.2
TOO	80.18	179	eP	18 01.80	1.0
	0.6s	221.00nm			6.1mb
			ipP	18 08.70	22kmX
			eS	28 02.00	
			eP'P'	44 44.30	
FUR	80.20	330	iPc	18 01.90	1.0
			i	18 07.30	17kmX
			eS	28 08.70	
WME	80.25	341	eP	18 01.20	0.2
	1.4s	1581.00nm			6.6mb
EZN	80.25	316	iP	18 00.80	-0.5
PTJ	80.26	326	iPc	18 01.30	-0.1
UCC	80.26	335	Pd-	18 01.40	0.3
			e	18 07.10	18kmX
			PP	21 13.00	
			S	27 59.00	
ZAG	80.31	326	iPc	18 02.20	0.7
KBA	80.33	328	iPc	18 02.90	1.0
	1.2s	3822.00nm			7.1mb
			i	18 08.60	18kmX
			i	18 15.90	
			i	20 55.40	
			i	28 12.30	
DMU	80.36	343	eP	18 01.70	0.0
YRC	80.44	342	eP	18 04.30	2.2
YLL	80.45	341	eP	18 02.70	0.6
SNF	80.53	335	iPc	18 02.87	0.3
			i	18 08.32	17kmX
SRS	80.62	319	eP	18 03.85	0.6
ELL	80.65	312	iP	18 03.70	0.0
PPCY	80.65	309	eP	18 03.20	-0.3
WLF	80.68	334	iPc	18 04.00	0.6
			i	18 10.90	22kmX
			e	45 05.00	
			e	45 37.00	
PRK	80.71	316	eP	18 04.00	0.2
LJU	80.71	327	eP	18 03.40	-0.3
			iPcP	18 09.00	
			eS	28 09.50	
LANF	80.73	333	P	18 04.18	0.5
SRBF	80.77	333	P	18 05.15	1.3
DOU	80.80	335	Pc	18 03.80	-0.2
			e	18 10.10	20kmX
			PP	21 15.00	
			S	28 07.00	
WTTA	80.82	329	iPc	18 04.80	0.3
	1.0s	3074.00nm			7.1mb
			i	18 10.80	19kmX
			i	18 15.70	
			i	20 59.50	
			i	28 16.90	
IZM	80.84	315	iP	18 04.30	-0.2
DLF	80.84	343	eP	18 04.40	0.2
PLE	80.85	323	iP	18 05.30	0.7
VBY	80.86	326	iPc	18 04.00	-0.4
			iPcP	18 09.50	
KNT	80.92	319	eP	18 05.69	0.8
FVI	80.95	328	P	18 04.30	-0.5
			eS	28 17.00	
MOTA	80.95	330	iPc	18 05.30	0.2
VAY	80.95	319	iPc	18 05.40	0.4
	1.0s	236.00nm			5.9mb
			i	18 11.00	18kmX
DCN	80.96	343	eP	18 05.60	0.8
SOH	80.96	319	iP	18 05.62	0.5
VOY	80.98	327	eP	18 04.20	-1.0
			i	18 04.80	2kmX
			e(PcP)	18 10.20	
SKO	80.98	321	iP	18 06.00	0.8
	1.5s	6350.00nm			7.2mb X
			iPcP	18 12.00	68kmX
			i	18 24.60	
			i	18 34.00	
			i	19 16.50	

			iS	28 12.00	
			i	28 17.50	
			iScS	28 26.50	
			i	28 52.00	
			iPS	29 29.40	
IVA	80.98	322	iP	18 06.20	1.0
CEY	81.01	327	eP	18 03.50	-1.7
SOTA	81.02	330	iPc	18 05.40	0.0
	1.3s	5257.00nm			7.2mb X
			i	18 11.70	20kmX
			i	18 16.50	
OUR	81.03	318	iP	18 05.57	0.2
HAE	81.07	340	eP	18 06.00	0.6
HCG	81.08	341	eP	18 06.10	0.6
PVY	81.17	322	iP	18 07.10	0.8
HTR	81.21	340	eP	18 06.70	0.5
YER	81.24	313	iP	18 08.00	1.3
KSL	81.29	312	eP	18 07.00	0.2
TRI	81.29	327	ePc	18 06.40	-0.3
			ePP	21 24.70	
			e	22 39.50	
			ePPP	23 05.40	
			eS	28 12.90	
THE	81.30	319	eP	18 06.48	-0.3
GRG	81.32	319	eP	18 07.84	0.9
ETA	81.33	342	eP	18 07.30	0.6
RIY	81.35	327	eP	18 06.30	-0.6
WLS	81.37	333	P	18 07.07	0.0
OGA	81.38	330	iPc	18 07.80	0.4
	1.0s	100.00nm			5.6mb
			i	18 14.00	20kmX
CDF	81.40	333	P	18 07.16	-0.1
NKY	81.43	323	iP	18 07.50	-0.1
AFIF	81.49	295	ePc	18 10.53	2.4
PAIG	81.49	318	eP	18 08.24	0.4
HGH	81.50	340	eP	18 08.20	0.6
LIBD	81.51	332	P	18 08.51	0.8
SLE	81.53	332	ePc	18 07.60	-0.3
BRY	81.57	323	iPc	18 07.78	-0.6
ECH	81.60	333	P	18 08.00	-0.3
FEL	81.60	332	P	18 08.18	-0.3
TTG	81.62	322	iP	18 08.10	-0.3
ECB	81.77	342	eP	18 09.70	0.7
ZLA	81.81	331	ePc	18 09.40	0.0
SDA	81.81	322	eP	18 10.00	0.6
CTI	81.83	329	P	18 08.60	-1.0
			eS	28 22.90	
ECP	81.85	342	eP	18 10.10	0.7
			e	21 21.00	
			e	28 23.00	
OSS	81.86	330	ePc	18 10.00	0.1
MOF	81.93	332	P	18 09.87	-0.2
BDV	81.93	322	iP	18 09.80	-0.3
LIT	81.94	319	eP	18 10.40	0.2
FNA	81.94	320	eP	18 10.48	0.2
HCY	81.95	323	iPc	18 09.50	-0.7
OHR	81.95	320	iPc	18 10.20	-0.1
	0.8s	281.00nm			6.1mb
			i	18 16.20	19kmX
			i	18 24.60	
ULC	82.00	322	iP	18 10.90	0.4
VITF	82.00	333	P	18 10.73	0.4
HAU	82.06	333	eP	18 10.40	-0.3
	0.9s	64.55nm			5.4mb
BSF	82.06	333	P	18 10.73	-0.1
RAR	82.07	129	ePc	18 14.39	3.4X
			ed	18 40.71	100kmX
			ec	18 51.97	
			S	28 28.00	
LLS	82.12	331	iPc	18 10.90	-0.3
KZN	82.12	319	eP	18 11.00	-0.2
BBS	82.13	332	P	18 11.25	0.2
TIR	82.20	321	iPd	18 11.70	0.2
			iS	28 22.00	
HVAR	82.26	324	iPd	18 10.70	-1.1
VDL	82.28	330	iPc	18 12.30	0.2
LOMF	82.46	332	P	18 13.03	0.1
MRSJ	82.62	304	P	18 06.52	-7.5X
SAL	82.63	329	P	18 13.20	-0.4
			eS	28 33.00	
AYN	82.78	303	iPc	18 15.40	0.7
MDI	82.79	330	P	18 13.90	-0.5
			eS	28 29.90	
LSK	82.80	320	eP	18 15.20	0.4
TMA	82.82	330	iPc	18 14.50	-0.3
EEO	82.88	28	ePc	18 16.40	1.5
VAL	82.89	344	iP	18 13.70	-1.1

			S	28 35.00	
TPE	82.97	320	eP	18 14.00	-1.5
ATH	82.98	317	iPc	18 14.00	-1.5
VAI	83.06	330	P	18 15.40	-0.4
			eS	28 30.30	
VLO	83.07	321	eP	18 16.50	0.5
PCO	83.14	45	iPc	18 16.60	0.2
MMK	83.19	331	ePc	18 17.20	0.4
RSM	83.29	327	P	18 18.00	1.0
			eS	28 27.20	
SRN	83.30	320	eP	18 17.10	0.0
DIX	83.36	331	iPc	18 18.70	1.0
IGT	83.42	320	eP	18 17.52	-0.3
CME	83.44	341	eP	18 17.70	0.0
ARV	83.45	327	P	18 18.00	0.1
			eS	28 40.50	
FLN	83.50	337	eP	18 18.50	0.5
	0.7s	92.15nm			5.8mb
LOR	83.52	334	eP	18 18.00	-0.2
	0.8s	111.20nm			5.8mb
KEK	83.53	320	eP	18 18.70	0.4
EMS	83.54	332	ePc	18 18.40	-0.1
SFI	83.54	327	P	18 19.40	1.1
			eS	28 30.20	
ORX	83.54	331	P	18 18.43	0.0
LDF	83.55	337	eP	18 18.50	0.2
	0.7s	76.50nm			5.7mb
CPZ	83.55	341	eP	18 18.80	0.5
ORO	83.55	331	Pd	18 18.60	0.1
			eS	28 35.30	
PGD	83.63	328	P	18 20.00	1.0
			eS	28 41.80	
WMOK	83.66	48	eP	18 19.55	0.4
	0.8s	97.46nm			5.8mb
LBF	83.73	334	eP	18 19.00	-0.3
	0.8s	99.15nm			5.8mb
MEO	83.73	47	iPd	18 19.10	-0.4
BAI	83.74	323	Pc	18 20.00	0.7
CRE	83.74	327	P	18 19.90	0.4
			eS	28 43.90	
BOB	83.75	329	P	18 19.60	0.1
			eS	28 40.90	
MME	83.76	328	P	18 21.00	1.3
OCO	83.77	46	iPc	18 20.70	1.1
BRT	83.79	322	P	18 20.20	0.6
	1.6s	******nm			7.5mb X
SSF	83.82	334	eP	18 19.60	-0.1
	0.8s	106.90nm			5.8mb
FIR	83.89	328	eP	18 21.00	0.9
BDI	83.91	328	P	18 20.10	-0.2
			eS	28 49.40	
ASS	83.92	327	P	18 20.70	0.3
			eS	28 42.80	
GRR	83.94	337	eP	18 20.30	0.0
	0.8s	148.85nm			5.9mb
LSD	83.99	331	P	18 21.17	0.3
NPS	84.07	314	eP	18 20.60	-0.6
SMF	84.08	334	eP	18 21.10	0.1
	0.8s	153.65nm			6.0mb
LPL	84.09	331	eP	18 21.70	0.3
	0.8s	85.95nm			5.7mb
LPG	84.10	331	eP	18 21.90	0.4
	0.9s	127.45nm			5.8mb
AVF	84.10	334	eP	18 21.20	0.1
	0.8s	211.15nm			6.1mb
SIO	84.21	45	ePc	18 22.10	0.2
AQU	84.22	326	P	18 23.10	1.3
RSP	84.22	331	P	18 21.29	-0.6
PII	84.22	328	P	18 21.10	-0.6
PCP	84.27	330	P	18 21.33	-0.7
LPF	84.32	337	eP	18 22.30	0.2
VLI	84.34	316	eP	18 20.50	-2.0
WAJH	84.34	301	iPc	18 23.33	0.7
LNO	84.35	45	iPc	18 22.40	0.0
			PP	21 52.50	
			PPP	23 58.30	
			S	28 44.90	
			LR	47 01.20	
LNO2	84.35	45	ePc	18 22.50	0.0
LNO3	84.35	45	ePc	18 22.60	0.0
TUL	84.35	45	iPc+	18 22.40	-0.2
	0.6s	243.20nm			6.3mb
	Z 22s	108.02um			7.2MszX
	N 20s	79.84um			
	E 18s	58.55um			
			PP	21 57.00	
			PPP	24 06.00	

			S	28 54.00	
			SS	34 30.00	
			LR	47 04.00	
VLS	84.36	319	eP	18 22.20	-0.4
CKI	84.47	330	P	18 22.70	-0.3
			eS	28 44.20	
BGF	84.47	334	eP	18 23.10	0.1
	0.7s	80.90nm			5.7mb
BHB	84.48	331	P	18 21.89	-1.2
BNI	84.51	331	P	18 24.00	0.6
			eS	28 49.40	
RLO	84.55	44	iPc	18 23.30	-0.3
			PP	21 54.50	
			S	28 52.50	
			LR	50 28.60	
SDI	84.58	325	P	18 23.30	-0.4
RRL	84.58	331	P	18 24.05	0.2
GRN	84.67	332	P	18 24.46	0.4
FIN	84.68	330	P	18 23.04	-1.1
ROB	84.73	330	P	18 23.48	-0.9
PLDF	84.74	334	P	18 25.40	1.0
ORI	84.78	322	P	18 25.30	0.7
AGO	84.83	334	P	18 25.14	0.3
PZZ	84.83	331	P	18 23.27	-1.7
RFI	84.84	325	P	18 25.50	0.6
MAF	84.86	334	eP	18 25.60	0.7
	0.8s	233.20nm			6.1mb
HLW	84.88	306	eP+	18 26.00	0.7
SGO	84.88	323	P	18 24.80	-0.3
TCF	84.91	335	eP	18 25.60	0.4
	0.8s	87.85nm			5.7mb
ENR	84.96	330	P	18 23.43	-2.1
RMP	84.96	326	P	18 25.60	0.1
SLM	84.96	40	P+	18 26.23	0.7
STV	84.98	330	P	18 23.59	-2.1
RDP	84.99	326	P	18 25.90	0.2
SSB	85.05	333	P	18 26.16	0.2
IMI	85 06	330	P	18 25.49	-0.5
SAOF	85.11	330	P	18 26.92	0.6
COLF	85.12	333	P	18 26.84	0.5
MGR	85.12	323	P	18 25.90	-0.4
PYM	85.14	334	P	18 26.99	0.6
AUTN	85.15	330	P	18 26.27	-0.4
TDS	85.16	322	P	18 26.90	0.4
LSF	85.16	335	eP	18 26.80	0.4
	0.8s	127.90nm			5.9mb
TOUF	85.20	330	P	18 26.40	-0.5
SBF	85.26	330	P	18 26.60	-0.5
AURF	85.28	330	P	18 26.83	-0.4
MVIF	85.34	330	P	18 27.20	-0.4
MFF	85.35	336	eP	18 27.90	0.5
	0.9s	148.75nm			5.9mb
FVM	85.39	40	ePc+	18 27.39	-0.3
	0.6s	175.43nm			6.2mb
LBL	85.52	333	P	18 28.94	0.6
TAU	85.55	178	iPc	18 30.10	2.1
			i	18 34.80	15kmX
			ePP	21 52.00	
			eS	28 52.00	
			eSS	34 24.00	
			eSSS	37 52.00	
CALN	85.56	330	P	18 29.20	0.6
DHJN	85.69	290	ePc	18 31.33	1.5
KMTA	85.77	291	ePc	18 31.33	1.2
ABHA	85.79	291	ePc	18 32.13	1.8
PGF	85.81	329	P	18 30.19	0.3
FRF	85.81	331	eP	18 29.50	-0.2
	1.1s	134.30nm			5.8mb
LRG	86.01	331	eP	18 30.70	0.1
	0.8s	235.35nm			6.2mb
RJF	86.01	335	eP	18 31.20	0.5
	0.9s	116.30nm			5.9mb
CBM	86.01	22	eP	18 30.43	-0.2
	0.9s	61.08nm			5.6mb
LMR	86.06	330	eP	18 30.90	0.0
	0.8s	216.00nm			6.2mb
CAF	86.17	334	eP	18 32.60	1.1
	0.8s	190.20nm			6.1mb
RSNY	86.25	27	eP	18 31.00	-0.9
	0.7s	41.26nm			5.5mb
UYO	86.39	45	iPc	18 32.20	-0.5
ELC	86.52	40	ePc	18 33.26	0.0
MIAR	86.55	44	ePc	18 33.72	0.2
	0.7s	112.12nm			6.0mb
SOI	86.58	322	P	18 33.20	-0.3
LFF	86.58	335	eP	18 34.30	0.9
	0.9s	248.30nm			6.2mb

LPO	86.67	335	eP	18 34.70	0.8
	1.0s	204.00nm			6.1mb
ATN	86.78	322	P	18 33.20	-1.3
GRT	87.25	41	eP	18 37.19	0.4
MIM	87.31	23	eP	18 37.02	0.1
LMN	87.87	20	ePc	18 42.40	2.7X
MEU	87.89	322	P	18 40.30	0.3
EPF	88.42	334	eP	18 42.40	0.0
	0.9s	67.15nm			5.7mb
OGE	88.56	335	P	18 44.33	1.3
MCWV	88.61	32	ePc	18 43.86	0.6
	0.6s	253.57nm			6.5mb
ESCF	88.67	335	P	18 45.02	1.4
MADF	88.68	335	P	18 43.20	-0.4
ISSF	88.78	335	P	18 45.05	0.8
LHE	88.83	335	P	18 45.59	1.1
ELIZ	88.88	336	eP	18 45.50	0.9
HRV	89.04	26	ePc	18 45.43	0.1
TBR	89.38	28	ePc	18 47.63	0.7
PNJ	89.62	28	iP	18 47.10	-0.9
			PcP	18 48.80	
			PP	22 34.49	
GMTN	89.63	28	iP	18 48.10	0.0
KCHT	90.06	325	iPd	18 49.50	-0.7
MBZ	90.12	324	iPd	18 50.00	-0.4
ATA	90.15	286	eP+	18 52.51	1.7
NAV	90.23	34	eP	18 50.89	-0.1
ARO	90.36	286	eP+	18 53.91	2.0
BLA	90.47	34	eP	18 51.46	-0.6
	0.8s	48.63nm			5.7mb
DAF	90.53	286	eP+	18 55.24	2.7X
SGH	90.57	286	eP+	18 55.24	2.4
CVL	90.60	32	eP	18 53.12	0.5
ZGN	90.61	325	iPc	18 51.50	-1.3
KSU	90.65	286	eP+	18 55.81	2.7X
CBN	90.82	31	eP	18 54.00	0.4
			e	19 22.00	105km
			e	22 35.00	
GBR	90.89	286	eP+	18 56.08	1.8
GHAT	91.27	326	iPc	18 54.30	-1.4
PRM	92.30	37	eP	19 00.36	-0.1
SYA	92.59	325	iPd	19 01.30	-0.6
JSC	92.62	36	eP	19 01.73	-0.2
LHS	92.64	36	eP	19 01.76	-0.3
SGNT	93.02	323	iPd	19 02.30	-1.5
PAB	93.04	336	eP	19 04.24	0.3
MRX	93.48	59	(P)	19 08.50	2.4
SGS	93.87	36	eP	19 07.95	0.3
HBF	94.15	36	eP	19 09.18	0.2
UNM	95.01	58	(P)	19 16.50	3.0X
PPM	95.55	58	(P)	19 17.50	1.2
MAL	95.66	335	iPc	19 17.00	1.1
ACX	96.42	60	(P)	19 22.00	2.3
OXX	98.23	58	(P)	19 30.00	2.0
AVE	99.75	336	eP	19 37.00	2.5
			i	19 40.20	10kmX
			i	22 59.00	
			i	23 31.00	
TIO	101.91	335	iPdiff	19 50.50	6.3X
			i	23 24.00	
			i	24 57.40	
ANTZ	104.99	336	iPdiff	20 03.50	5.8X
			i	20 10.00	
LWI	109.91	286	iPdiff	20 26.90	6.7X
PAG	116.66	28	ePKP	24 40.00	5.3X
MTD	117.70	273	ePdiff	21 00.50	5.8X
MTD	117.70	273	iPKP	24 42.20	5.5X
			iPP	25 54.50	
			i	35 09.90	
			i	39 00.50	
FDF	118.05	28	ePdiff	21 00.35	4.2X
SDV	119.42	40	ePdiff	21 13.40	10.9X
MBO	120.34	339	ePKP	24 42.20	0.6
CIR	120.36	269	iPKP	24 46.90	5.3X
			i	35 01.30	
			i	38 56.10	
			i	42 39.30	
KDS	120.64	333	iPKP	24 46.80	4.6X
CUM	120.85	33	ePKP	24 54.00	11.4X
TIC	123.23	323	PKP	24 45.40	-1.8
KIC	123.36	322	PKP	24 45.50	-2.0
			PP	26 15.00	
LIC	123.61	322	PKP	24 45.80	-2.2
SLR	125.61	267	(PKP)	24 52.19	0.4
SEK	127.57	264	ePdiff	21 38.00	-0.4X
	1.0s	610.00nm			
SWZ	128.61	267	ePKP	24 58.60	1.2

NNA	133.00	61	ePKP	25 01.90	-4.1X
	1.0s	115.00nm			
POF	133.77	268	iPKPc	25 02.00	-4.9X
	1.5s	320.00nm			
CER	136.30	264	ePKP	25 10.00	-1.7
	1.5s	480.00nm			
			e	28 04.00	
BLE	137.03	263	iPKPc	25 11.00	-2.0
	1.0s	500.00nm			
ARE	139.77	60	ePKP	25 20.00	1.1
ZOBO	141.73	56	ePKPc	25 19.19	-3.7X
			ec	25 44.02	
CNCB	142.22	56	PKP	25 19.80	-3.8X
ANT	145.63	67	iPKP+	25 28.80	0.3
SLA	149.60	63	e(PKP)	25 40.00	5.0X
FSA	150.18	65	ePKP	25 37.00	1.4
			i	25 42.00	
BAO	150.82	25	e(PKP)	25 36.00	-1.0
			e	25 38.00	
			e	25 42.30	
			e	25 44.00	
			e	25 46.00	
			e	30 34.00	
			e	31 12.00	
			e	31 42.00	
			e	32 15.00	
			e	34 49.50	
			e	36 26.20	
			e	37 20.90	
RTCB	151.53	77	ePKPd	25 44.00	6.3X
RTLL	151.68	77	ePKPd	25 44.20	6.4X
RTCV	151.92	78	ePKPc	25 44.00	5.8X
CFA	152.00	77	e(PKP)	25 44.00	5.7X
MDZ	152.23	80	i(PKP)	25 40.40	1.8
			i	26 23.20	
			i	29 32.80	
			i	33 56.50	
RTPR	152.49	73	ePKPc	25 46.10	7.2X
RFA	153.43	83	e(PKP)	25 42.50	2.3
MRA	154.24	76	e(PKP)	25 50.00	8.8X
TCA	154.43	73	iPKP	25 49.50	7.8X
VAO	158.03	28	ePKP	25 48.90	2.3
			i	26 26.60	
			i	27 11.40	
			e	30 02.80	

S.D. = 0.9 on 595 of 649 obs.

JAN 15, 1993 11h 06m 05.95± 0.25s
43.300 N ± 7.0km 143.691 E ± 4.6km
DEPTH = 102.2km (geophysicist)
6.9mb (39 obs.)

HOKKAIDO, JAPAN REGION (224)

Mw 7.5 (GS), 7.6 (HRV). Ms 6.7 (BRK). Mo=5.5*10**20 Nm (PPT). Two people killed, 614 injured and substantial damage (VI JMA) at Kushiro, Hokkaido and Hachinohe, Honshu. Felt (V JMA) at Hiroo, Nemuro, Obihiro, Otaru and Urakawa; (IV JMA) at Hakodate and Tomakomai; (III JMA) at Sapporo, Hokkaido. Felt (IV JMA) at Aomori and Morioka; (III JMA) at Akita, Fukushima, Sendai, Tokyo and Yokohama, Honshu. Also felt (VII) on Shikotan and (VI) at Kurilsk, Kuril Islands. Landslides and subsidence occurred in the epicentral area. Depth from broadband displacement seismograms.

RADIATED ENERGY
No. of sta: 25 Focal mech. F
Energy 1.9±0.3*10**15 Nm

MOMENT TENSOR SOLUTION
Dep 99 No. of sta: 27
Moment Tensor; Scale 10**20 Nm
Mrr=-0.14 Mtt= 0.26
Mff=-0.12 Mrt= 2.12
Mrf= 0.06 Mtf=-0.32
Principal axes:
T Val= 2.20 Plg=42 Azm= 7
N -0.10 9 269
P -2.10 47 169
Best Double Couple:Mo=2.2*10**20
NP1:Strike=162 Dip= 9 Slip= -16

15d 11h

```
     NP2:        268°     87        -99
    CENTROID, MOMENT TENSOR     (HRV)
    Data Used: GDSN
    L.P.B.: 33S, 88C  M.W.: 32S, 81C
    Centroid Location:
    Origin Time        11:06:15.6 0.1
    Lat 43.06N 0.01 Lon 144.29E 0.01
    Dep 100.0 FIX Half-duration 15.2
    Moment Tensor;   Scale 10**20 Nm
      Mrr=-0.19 0.02  Mtt= 0.56 0.01
      Mff=-0.38 0.01  Mrt= 2.64 0.01
      Mrf= 0.49 0.01  Mtf=-0.07 0.01
     Principal Axes:
      T  Val=  2.88  Plg=41  Azm=354
      N       -0.32       5       259
      P       -2.55      48       164
    Best Double Couple:Mo=2.7*10**20
     NP1:Strike=133 Dip= 6 Slip= -36
     NP2:        259     86        -95

YSS     3.78 350 iPc    07 09.00   5.9X
                eS      08 01.00
MDJ    10.25 282 ePc    08 37.38   5.8X
       1.8s   260.00nm          5.8mb X
HIA    17.56 298 ePc    10 09.53   4.1X
BJI    20.77 270 (P)    10 41.57   1.2
     N  17s   989.00um
BJI    20.77 270 ePc    10 44.72   4.3X
SSE    21.60 243 (P)    10 49.73   1.1
SMY    22.28  54 eP     10 55.65   0.5
     Z  20s   253.65um          6.6Msz
                S       14 51.93
TATO   25.79 232 iPd    11 31.07   2.2
                ed      11 45.97
                ed      11 51.77
                ec      11 57.73
QZH    27.53 236 iPd    11 45.00   0.3
     N  15s   458.00um
ADK    27.77  58 eP     11 44.42  -2.3
NMCC   28.11 176 eP     11 48.00  -2.0
LZH    31.27 270 ePc    12 22.66   4.5X
                ec      12 49.81
GZH    32.15 241 iP     12 27.00   1.3
     N  14s   187.00um
     E  15s   198.00um
HKC    32.20 239 P      12 30.00   3.9X
MCO    32.72 239 iP     12 35.60   4.9X
GTA    32.88 278 iPc    12 36.00   3.9X
       1.0s  1800.00nm          6.8mb
     Z  15s   459.00um          7.3MszX
     E  12s   313.00um
                S       17 43.00
GYA    34.38 253 iPc    12 47.00   1.9
       1.0s   810.00nm          6.5mb
     N  18s   577.00um
     E  18s   517.00um
                PP      14 00.00
                S       18 06.00
                SS      20 21.00
SDN    37.32  51 eP     13 08.87  -0.6
       0.6s  1019.67nm          6.9mb
                e       19 05.67
                e       19 11.47
OIZ    37.34 240 iPd    13 10.00   0.0
     E  12s   441.00um
KMI    37.97 255 ePc    13 18.99   3.5X
                ec      13 42.99
TTA    39.36  39 eP     13 27.65   1.1
SVW    39.56  42 eP     13 30.01   1.9
                eScP    19 21.79
BRW    39.99  26 eP     13 31.75   0.3
                S       19 08.56
BGL    41.12  41 eP     13 42.73   1.8
                e       19 20.59
CRP    41.23  41 (P)    13 43.06   1.1
                eScP    19 30.72
                S       19 59.44
KDC    41.45  47 eP     13 42.66  -0.9
PMR    42.64  41 eP     13 53.81   0.5
     Z  20s   139.26um          6.8Msz
COL    42.93  36 iPc    13 56.22   0.6
                ec      13 59.37
                epPc    14 21.38 108kmX
FBA    42.93  36 iPc    13 50.79  -4.9X
LSA    43.68 270 iPc    14 07.14   4.4X
                ec      14 08.63
                ic      14 31.97
KLU    44.18  40 (P)    14 07.21   1.3
CHTO   44.75 251 ePc    14 13.73   2.9X
                ec      14 16.21
                epP     14 39.55 111kmX
BALM   45.96  41 (P)    14 21.40   1.3
NST    46.12 247 eP     14 27.50   5.9X
PCI    48.94 212 e(P)c  14 44.00   0.5
       1.0s      8.00nm          4.6mb X
AAK    49.27 294 eP     14 50.12   4.0X
SIT    50.59  44 eP     14 56.51   0.8
OPA    52.56  95 eP     15 09.72  -1.3
KIP    52.72  95 ePd    15 12.36   0.1
                ic      15 41.82
HON    52.80  95 P      15 17.28   4.6X
     Z  19s   229.02um          7.2Msz
DHH    52.97  95 eP     15 12.26  -1.8
HKL    54.45  94 eP     15 24.36  -1.0
KLM    54.68 235 eP     15 30.50   3.9X
MHA    55.03  95 (P)    15 29.88   0.8
MHA    55.03  95 eP     15 23.71  -5.4X
KKH    55.28  95 eP     15 28.61  -2.3
HPO    55.98  95 eP     15 34.00  -2.0
MCW    61.16  49 (P)    16 11.09  -0.6
GMW    61.82  50 eP     16 16.09   0.0
BMW    62.17  51 eP     16 18.87   0.4
RMW    62.42  50 eP     16 19.77  -0.3
LON    62.82  50 iPc    16 21.34  -1.4
                ec      16 23.98
                S       24 43.22
SHW    62.90  51 eP     16 25.04   1.7
POO    62.96 270 iP     16 24.50   0.5
       1.4s   709.30nm          6.4mb
                iS      24 52.00
CTAO   63.12 177 iPd    16 21.23  -3.5X
                epPd    16 45.40  96kmX
VGB    64.12  51 eP     16 31.03  -0.2
DPW    64.15  48 eP     16 30.86  -0.6
OBN    64.16 322 iPc    16 33.05   1.8
                epPc    16 57.55  97kmX
NEW    64.50  47 eP     16 33.75   0.1
BKM    64.72 154 iPd    16 33.00  -2.2
PVC    64.81 154 iPc    16 35.70  -0.1
ARC    64.92  57 iPc    16 34.86  -1.5
       1.3s  4810.00nm          7.3mb
     Z  19s    28.00um          6.5Msz
                ePP     18 51.86
                eS      25 11.86
                eScS    25 45.86
                eSS     29 14.86
                eLQ     32 33.86
                eLR     35 21.86
FHC    65.02  57 eP     16 38.23   1.1
       1.3s  7588.64nm          7.5mb
KMPM   65.16  57 eP     16 38.93   0.8
LBFM   65.96  55 eP     16 43.60   0.3
WDC    66.03  56 iPc    16 42.66  -0.9
       1.3s  2323.66nm          7.0mb
                ec      16 45.47
                epPc    17 08.15 101kmX
BAK    66.16 304 iPc    16 50.00   5.7X
                iS      25 35.00
LMEM   66.64  56 eP     16 47.61  -0.1
NTYM   67.29  58 eP     16 51.79   0.3
ORV    67.29  57 (P)    16 50.86  -0.7
KIV    68.16 310 iPc    17 00.70   3.7X
                ec      17 02.69
                epPc    17 26.53 102kmX
                ec      17 29.01
STAN   68.20  59 ePc    16 54.72  -2.5
       1.4s  6770.00nm          7.4mb
     Z  18s    32.00um          6.6Msz
                ePP     21 10.72
                eS      25 46.72
                eScS    26 25.72
                ePPS    27 19.72
                eSS     30 19.72
                eLQ     33 32.72
                eLR     37 16.72
COE    68.60  59 (P)    17 00.06   0.3
                e       17 20.27
ARN    68.63  59 eP     16 59.91   0.0
CMB    68.91  57 iPc    17 00.92  -0.8
       1.1s  2108.95nm          6.9mb
                ec      17 03.24
                epPc    17 25.42  95kmX
                S       25 59.42
SAO    69.05  59 iPc    17 00.68  -1.8
       1.3s  1180.00nm          6.6mb
     Z  20s    42.00um          6.7Msz
                eS      25 57.68
                eScS    26 39.68
                ePPS    27 40.68
                eSS     30 23.68
                eLQ     33 43.68
                eLR     37 20.68
KVN    69.66  55 (P)    17 06.02  -0.4
MMPM   70.01  57 (P)    17 08.24  -0.5
MEMM   70.03  57 eP     17 10.44   2.1
HHAI   70.21  49 (P)    17 10.58   1.0
BONR   70.24  56 (P)    17 09.91  -0.2
MRCM   70.29  57 P      17 20.20   9.9X
PTI    70.49  49 (P)    17 12.19   0.8
BCH    70.90  60 eP     17 13.41  -0.5
HVU    70.99  50 eP     17 14.46   0.1
ISA    71.60  58 iPc    17 16.09  -2.0
       1.2s  1647.73nm          6.7mb
DUG    72.01  52 eP     17 20.67   0.2
       1.2s  1657.93nm          6.7mb
BW06   72.09  48 (P)    17 20.57  -0.5
SIM    72.09 315 iPc    17 30.00   9.3X
                iS      26 44.00
WAR    72.75 327 eP     17 25.00   0.7
                e       18 30.00
                e       19 00.00
                e       21 50.00
                eS      26 58.00
BSD    72.75 332 iP     17 30.00   5.7X
DAU    72.75  51 eP     17 25.65   0.6
PAS    72.78  59 iPc    17 23.51  -1.4
                ec      17 26.27
                ec      17 47.51
                epPc    17 51.24 109kmX
GSC    72.87  58 iPc    17 24.56  -1.0
                ec      17 27.21
                ec      17 48.40
SSK    73.03  59 eP     17 27.46   0.8
COP    73.11 334 iP+    17 30.00   3.6X
                iS      26 53.00
ARUT   73.25  54 eP     17 28.84   1.0
LVV    73.35 324 iP+    17 30.00   2.1
     N  16s   227.80um
     E  16s   579.60um
                i       17 59.00
                i       20 09.00
                iPPP    21 55.00
                iS      26 56.00
                iPS     27 39.00
                iSSS    34 55.00
EMUT   73.41  51 eP     17 29.63   0.9
MUD    73.49 336 iP     17 36.00   7.5X
MSU    73.51  53 (P)    17 29.76   0.4
PEC    73.58  59 eP     17 29.64   0.1
       0.9s   483.81nm          6.3mb
SRU    74.05  51 (P)    17 32.81   0.4
RSSD   74.05  44 eP     17 32.33  -0.1
       1.0s  2304.20nm          7.0mb
                PP      20 20.83
                S       27 07.10
PLM    74.12  59 eP     17 32.62  -0.3
PFO    74.20  59 iPc    17 32.03  -1.3
                ec      17 34.85
                ec      17 56.04
                epPc    18 00.01 110kmX
OJC    74.80 326 eP     17 33.90  -2.4
       1.7s  8700.00nm          7.3mb
     Z  20s    80.20um          7.0Msz
                i       17 40.30
                i       17 42.90
                i       17 56.10
                iS      27 06.90
DHR    74.90 292 iPc    17 40.00   2.8X
BRNL   75.47 331 ePc    17 43.20   3.2X
                e       17 48.40
                eS      27 23.00
RAC    75.55 327 eP     17 38.00  -2.5
     N  20s   300.00um
     E  20s   470.00um
                i       17 54.00
                iS      27 19.00
                i       27 25.50
KSP    75.68 329 iPc    17 38.50  -2.8
                i       17 44.20
                i       17 48.00
                iS      27 18.00
```

15d 11h

GOL	76.50	48	iPc	17	46.39	0.0
	1.6s	508.88nm				6.1mb
			ec	17	49.20	
BUC1	76.54	319	iPc	17	50.00	3.8X
GLD	76.54	48	eP	17	48.97	2.4X
	1.8s	8008.74nm				7.2mb
			S	27	34.76	
ZST	77.48	327	iP	17	49.10	-2.2
			i	17	54.90	
			i(PP)	20	32.20	
			eS	27	43.90	
JMB	77.67	318	iP	17	50.00	-2.5
TIM	77.69	323	iPc	17	56.00	3.5X
PVL	77.72	319	iPc	17	51.00	-1.7
PVL	77.72	319	iP	17	57.00	4.3X
VKA	77.74	327	iPc	17	51.30	-1.5
	4.5s	********nm				7.4mb X
	Z 30s	201.00um				7.3MszX
			i	18	00.00	
			i	28	54.00	
			LR	52	00.00	
ESK	77.81	341	iPc	17	56.20	3.2X
KHC	78.09	329	Pc	17	52.40	-2.3
	1.3s	904.00nm				6.4mb
			e	17	57.50	
			e	18	00.00	
GEC2	78.28	329	e(P)	18	02.50	6.6X
	0.3s	26.50nm				5.5mb X
DBN	78.43	335	iP+	18	01.00	4.6X
	Z 20s	184.60um				7.4Msz
			ePP	21	00.00	
			eS	27	56.00	
			eSS	33	36.00	
DIM	78.50	318	iP	17	55.00	-2.0
TUC	78.58	56	iPc	17	57.53	-0.2
			ec	18	00.02	
			epPc	18	22.69	96kmX
PGB	78.78	319	iP	17	57.00	-1.7
SHBJ	78.79	304	P	18	01.34	2.4X
KDZ	78.86	318	iP	17	57.00	-2.0
PLD	78.86	318	iP	17	58.00	-1.0
RZN	79.17	318	iP	17	59.00	-2.0
VTS	79.21	320	iP	17	59.00	-2.1
ANMO	79.28	52	iPc	18	03.21	1.5
			ec	18	05.36	
			epPc	18	28.70	97kmX
ENN	79.36	334	iPc	17	58.60	-2.9
	0.7s	112.00nm				5.8mb X
			ePcP	18	04.00	
			ePP	20	53.00	
HRI	79.36	306	iPc	18	00.00	-2.0
ARTJ	79.43	304	P	18	03.71	1.3
MMB	79.73	319	iP	18	02.00	-1.7
SHMJ	79.73	305	P	18	05.37	1.5
KKB	79.82	319	iP	18	02.00	-2.2
ATZ	79.96	306	iPc	18	03.20	-1.9
MML	80.15	305	iPc	18	04.30	-1.8
MDSJ	80.21	304	P	18	07.09	0.5
SALJ	80.29	305	P	18	08.11	1.2
KFNJ	80.39	305	P	18	08.93	1.6
FVI	80.49	328	eP	18	10.00	2.4X
JVI	80.54	305	iPc	18	06.30	-2.0
QTRJ	80.59	304	P	18	08.98	0.4
MKRJ	80.64	305	P	18	10.30	1.5
TRI	80.84	327	eP	18	11.70	2.2
BGIO	80.85	305	iPc	18	07.90	-2.0
ETA	80.92	342	iPd	18	11.80	2.0
			e	21	19.00	
GHZJ	80.95	303	P	18	12.20	1.7
CDF	80.95	332	eP	18	12.60	2.4X
LISJ	80.95	305	P	18	12.23	2.0
YTIR	81.09	305	iPc	18	09.20	-2.0
JRDJ	81.20	304	P	18	19.45	7.6X
ECB	81.36	342	iPd	18	14.30	2.3
CTI	81.38	328	eP	18	14.50	2.1
SHWJ	81.55	304	P	18	14.88	1.2
BSF	81.62	332	eP	18	15.70	2.1
HAU	81.62	333	eP	18	15.80	2.3
	1.2s	1418.60nm				6.7mb
	Z 21s	111.00um				7.2Msz
HITJ	81.80	303	P	18	15.97	1.0
NAOJ	81.82	304	P	18	16.50	1.4
PRNI	81.88	304	iPc	18	13.30	-1.9
MDRJ	82.02	303	P	18	17.15	1.1
SAL	82.18	329	eP	18	18.40	2.0
AOBJ	82.29	304	P	18	19.04	1.7
MDI	82.34	329	eP	18	19.30	2.1

MBH	82.36	304	iPc	18	15.60	-2.2
RAR	82.54	128	P	18	20.00	1.5
			S	28	28.00	
VAI	82.61	330	eP	18	22.20	3.6X
RSM	82.84	327	eP	18	24.20	4.3X
ARV	83.00	326	eP	18	24.10	3.3X
FLN	83.07	337	eP	18	23.90	2.9X
	0.8s	812.40nm				6.7mb
	Z 21s	118.00um				7.2Msz
LOR	83.08	334	eP	18	23.40	2.3
	1.3s	4089.90nm				7.2mb
	Z 23s	67.00um				7.0MszX
SFI	83.08	327	eP	18	25.20	4.1X
ORO	83.10	330	eP	18	24.20	2.8X
PGD	83.17	327	eP	18	26.10	4.3X
CRE	83.29	327	eP	18	25.90	3.5X
LBF	83.29	334	eP	18	24.50	2.2
BRT	83.32	322	P	18	25.40	3.0X
SSF	83.38	334	eP	18	25.00	2.4X
ASS	83.47	326	eP	18	26.40	3.2X
GRR	83.51	337	eP	18	25.70	2.4X
SMF	83.64	333	eP	18	26.50	2.5X
LPL	83.64	331	eP	18	27.20	2.9X
LPG	83.65	331	eP	18	27.40	3.0X
AVF	83.67	334	eP	18	26.70	2.6X
WMOK	83.70	47	ePc	18	24.72	0.2
			ec	18	27.07	
LPF	83.89	337	eP	18	27.80	2.6X
BGF	84.04	334	eP	18	28.40	2.4X
BNI	84.06	331	eP	18	30.10	3.8X
MAF	84.42	334	eP	18	31.10	3.2X
TCF	84.48	334	eP	18	31.00	2.8X
LSF	84.73	335	eP	18	32.20	2.8X
SBF	84.82	330	eP	18	32.00	2.0
MFF	84.92	336	eP	18	33.30	2.9X
SLM	84.94	39	P	18	40.00	9.4X
	Z 20s	43.00um				6.8Msz
SLM	84.94	39	P+	18	31.37	0.8
	Z 20s	215.01um				7.5Msz
PMO	85.19	116	iPc	18	32.40	0.4
	1.4s	2697.50nm				7.0mb
PGF	85.36	328	eP	18	34.90	2.1
	1.4s	2411.75nm				7.0mb
TPT	85.36	115	iPc	18	33.30	0.4
	1.6s	3820.90nm				7.1mb
FRF	85.36	330	eP	18	34.90	2.3
FVM	85.37	40	eP	18	33.25	0.5
	0.6s	743.18nm				6.8mb
	Z 21s	121.07um				7.3Msz
			PP	21	47.38	
			S	28	52.94	
VAH	85.54	116	iPc	18	33.90	0.2
	1.6s	2358.20nm				6.9mb
LRG	85.56	330	eP	18	36.20	2.6X
	1.0s	2816.20nm				7.2mb
	Z 22s	129.00um				7.3Msz
RJF	85.57	334	eP	18	38.10	4.4X
	Z 21s	98.00um				7.2Msz
LMR	85.61	330	eP	18	36.10	2.2
RUV	85.67	115	iPc	18	34.70	0.3
	1.4s	2495.40nm				7.0mb
CAF	85.74	334	eP	18	38.10	3.6X
AFR	85.83	119	eP	18	35.90	0.7
	1.6s	1592.00nm				6.8mb
CBM	85.84	21	iPc	18	35.40	0.4
	1.1s	1135.51nm				6.8mb
	Z 19s	68.68um				7.1Msz
			ec	18	38.05	
			epPc	19	03.54	107kmX
TAU	85.89	177	ePd	18	34.14	-0.7
			ed	18	36.29	
			ed	18	58.48	
			ec	19	10.56	
PPT	85.98	119	eP	18	36.20	0.3
	1.6s	1905.50nm				6.9mb
PPN	86.04	118	eP	18	36.30	0.1
	1.1s	734.50nm				6.6mb
PAE	86.05	119	eP	18	36.40	0.2
	1.4s	1286.00nm				6.8mb
RSNY	86.12	26	eP	18	36.69	0.3
	1.8s	3291.36nm				7.1mb
LFF	86.15	335	eP	18	39.80	3.3X
MSI	86.23	322	P	18	38.63	1.6
	0.7s	619.40nm				6.7mb
LPO	86.23	334	eP	18	40.20	3.3X
TVO	86.35	118	eP	18	38.40	0.6
	1.4s	2620.90nm				7.1mb

ELC	86.50	40	(P)	18	39.40	1.1
MIAR	86.57	44	iPc	18	38.52	-0.2
			ec	18	41.66	
			epPc	19	05.00	100kmX
GIB	87.10	322	P	18	43.10	1.7
MIM	87.15	22	eP	18	42.77	1.4
			ePP	22	13.41	
GRT	87.23	40	(P)	18	43.01	1.1
MCT	87.57	323	P	18	45.93	2.2
ERC	87.69	323	P	18	46.00	1.8
MZX	87.75	60	(P)	18	45.00	0.4
ETER	87.81	332	iPd	18	42.41	-2.1
EPF	87.99	334	eP	18	47.90	2.4X
	0.8s	492.15nm				6.6mb
MCWV	88.52	32	ePc	18	48.82	0.8
	0.7s	1781.34nm				7.3mb
			epPc	19	13.99	94kmX
HRV	88.90	25	iPc	18	50.57	0.8
			ec	18	53.21	
			epPc	19	15.89	94kmX
EGRA	88.95	334	iPd	18	47.28	-2.7
PTS	88.98	323	P	18	51.90	1.7
ECRI	89.25	336	iPd	18	49.17	-2.4
EMON	89.83	339	eP	18	52.20	-2.0
EROQ	89.95	333	iPd	18	52.06	-2.7
ESEL	90.04	331	iPd	18	52.70	-2.5
BLA	90.40	34	eP	18	58.22	1.3
	0.9s	676.73nm				6.8mb
CVL	90.51	32	eP	18	58.62	1.3
STS	90.66	340	eP	18	56.52	-1.5
ETOR	90.75	335	iPc	18	55.42	-3.1X
ERUA	90.76	339	eP	18	55.44	-3.0
AGX	91.30	58	(P)	19	03.00	1.8
EZAM	91.39	340	eP	18	58.68	-2.7
ECHE	91.51	333	iPc	18	59.75	-2.3
GUD	91.54	336	eP	18	58.82	-3.4X
CGX	92.18	60	(P)	19	07.00	1.4
PRM	92.25	37	(P)	19	06.36	0.9
JSC	92.57	36	eP	19	07.35	0.5
LHS	92.58	35	eP	19	07.53	0.6
PAB	92.61	336	iPc	19	09.21	2.1
			ec	19	11.69	
			epPc	19	37.68	107kmX
EPLA	92.64	337	eP	19	03.71	-3.5X
EVIA	92.87	334	iPd	19	06.23	-2.2
EALH	93.23	333	eP	19	07.42	-2.5
EHUE	93.65	334	eP	19	09.47	-2.5
EBAN	93.71	335	eP	19	09.87	-2.3
SGS	93.81	36	(P)	19	13.52	0.9
HBF	94.09	36	(P)	19	14.73	0.8
ENIJ	94.30	333	iPd	19	11.36	-3.5X
ECOG	94.46	334	eP	19	12.26	-3.5X
EHOR	94.47	336	eP	19	12.71	-2.9
AAE	94.54	287	P	19	20.50	3.9X
EGUA	94.86	334	eP	19	14.17	-3.3X
EVAL	95.13	337	eP	19	15.39	-3.3X
EPRU	95.26	335	iPd	19	16.73	-2.6
LIJA	95.38	336	iP	19	23.00	3.1X
GIBL	95.60	336	iP	19	24.00	3.1X
ALJ	95.64	336	iP	19	22.00	0.8
EJIF	95.81	335	eP	19	18.11	-3.7X
SFS	96.02	336	iP	19	28.00	5.3X
CNIL	96.06	336	iP	19	26.00	3.1X
OJEN	96.15	335	eP	19	24.00	0.6
PLAT	96.20	336	iP	19	27.00	3.4X
EVV	98.13	55	(P)	19	34.50	2.0
IFR	98.41	334	iP	19	35.00	1.2
			i	19	40.50	
PDA	98.76	351	eP	19	38.00	3.0X
GGC	106.44	341	iPKP	24	27.00	6.9X
DRV	109.67	182	iPdiff	20	20.20	-2.6
			PP	24	55.00	
			SKS	31	03.00	
			SP	34	05.00	
			SS	40	00.00	
PAF	112.41	223	iPdiff	20	45.00	9.6X
			PP	25	27.00	
			SKS	31	24.00	
			SP	34	39.00	
			SS	40	42.00	
TOV	119.00	38	ePdiff	21	25.50	19.9X
CRZF	120.64	233	ePdiff	21	27.00	14.9X
BOG	121.38	46	ePdiff	21	20.00	3.4X
			ePP	26	22.00	
BUL	121.65	271	iPKPc	24	50.20	0.8
	Z 23s	89.39um				7.4MszX
	N 23s	53.03um				

15d 11h

```
     E  19s     47.22um
                iPP    25 30.50
                i      26 53.50
                iSS    42 18.20
SBA   121.71 174 iPKPd 24 49.00   1.3
TIC   122.77 322 Pdiff 21 37.60  15.2X
KIC   122.89 322 Pdiff 21 37.20  14.3X
LIC   123.14 322 Pdiff 21 38.40  14.4X
     Z  20s     47.20um          7.1Msz
BFT   123.97 265 ePdiff21 10.50 -17.3X
       1.0s    220.00nm
SLR   125.29 266 ePdiff21 38.00   4.5X
       0.5s    345.00nm
SLR   125.29 266 ePKP  24 57.49   1.2
MAW   125.91 208 iPKP  24 58.10   2.0
       1.1s    239.13nm
     Z  16s     35.42um          7.1MszX
KSR   126.37 267 ePdiff21 54.50  16.1X
PRY   126.57 266 ePdiff21 53.00  13.8X
BFS   127.05 266 ePKP  25 02.20   2.5X
GRM   130.71 259 ePdiff22 15.50  18.2X
JACH  151.16  80 ePKPd 25 42.53   0.2
PEL   151.33  81 iPKPd 25 42.60   0.1
AIA   153.04 154 ePKP  25 52.70   8.9X
AIA   153.04 154 ePKP  25 47.40   3.6X
LPA   161.28  71 ePKP+ 25 53.00  -1.8
                 ePP   30 16.00
     S.D. = 1.5  on 203 of 302 obs.
-----------------------------------
&  JAN  15, 1993  11h 13m 49.40s
   37.920 N          122.288 W
   DEPTH =   5.0km
 CENTRAL CALIFORNIA                ( 39)
      <BRK>. ML 3.2 (BRK). Felt at
      Albany, Berkeley, El Cerrito,
      Kensington and Richmond.

ZSP     0.04  45 iPd   13 50.59  -0.1
                 eS    13 52.25
BKS     0.06 136 iPd   13 50.69  -0.3
                 iS    13 52.11
PCC     0.43 190 iPd   13 57.69  -0.3
                 eS    14 05.89
STAN    0.52 170 iPd   13 59.71  -0.2
NTYM    0.55 328 ePc   14 00.32  -0.2
MHC     0.77 138 iPc   14 04.41  -0.6
                 iS    14 18.05
COE     0.82 143 ePd   14 05.47  -0.3
                 eS    14 18.35
ARN     0.83 133 eP    14 05.22  -0.7
                 eS    14 17.56
GCC     0.92 165 iPd   14 06.09  -1.3
                 eS    14 18.99
SAO     1.33 150 ePc   14 11.83  -2.7
                 eS    14 15.19
CMB     1.51  85 ePc   14 15.24  -1.9
                 eS    14 35.86
LLA     1.69 140 iPd   14 17.75  -1.9
ORV     1.75  20 eP    14 19.84  -0.7
PRS     1.75 155 iPd   14 18.38  -2.2
MMPM    2.60  96 (Pn)  14 31.95  -1.2
MEMM    2.66  94 ePn   14 32.15  -1.6
       16 obs. associated
-----------------------------------
*  JAN  15, 1993  11h 47m 45.72± 1.49s
   31.609 S ±19.0km   70.142 W ±16.9km
   DEPTH = 130.0km  (geophysicist)
 CHILE-ARGENTINA BORDER REGION    (127)
      MD 3.7 (SAN).

JACH    1.14 200 iPd   48 10.60   0.2
                 iS    48 27.83
ROCH    1.55 208 iPd   48 15.09   0.2
                 iS    48 35.52
PEL     1.60 197 iP    48 15.25  -0.1
                 iS    48 35.99
CFA     1.62  90 ePd   48 15.50  -0.1
                 S     48 34.70
FCH     1.72 184 iPd   48 17.46   0.4
                 iS    48 39.64
PCH     2.03 189 iP    48 20.86   0.3
                 iS    48 45.94
LCCH    2.22 213 iP    48 23.05   0.2
                 iS    48 49.35
CHCH    2.36 190 iP    48 24.30  -0.4
                 iS    48 52.41
CACH    2.53 189 iP    48 27.07   0.1
```

```
LNV     2.57 204 iP    48 26.55  -0.8
                 iS    48 55.58
RTPR    3.38  68 ePc   48 38.00   0.0
     S.D. = 0.4  on  11 of  11 obs.
-----------------------------------
*  JAN  15, 1993  12h 15m 00.05± 0.32s
   36.495 N ± 7.1km   43.676 E ± 3.9km
   DEPTH =  33.0km  (normal)
   4.7mb ( 36 obs.)
 IRAQ                              (375)

TAB     2.63  53 iPc   15 40.20  -1.1
GAZ     5.23 279 iP    16 17.50  -0.5
RUWJ    5.92 229 P     16 47.27  19.5X
SVST    6.23 304 eP    16 36.30   4.0X
TEH     6.29  95 e(P)  16 36.00   3.0X
BNN     6.62 293 eP    16 34.00  -3.8X
TRHT    7.03 305 eP    17 00.00  16.6X
BHL     7.06 251 P     16 41.00  -2.8
HRI     7.27 246 eP    16 50.20   3.4X
SHMJ    7.53 242 P     17 00.18   9.9X
MASJ    8.13 237 P     16 42.91 -15.9X
MKRJ    8.29 236 P     16 56.09  -4.9X
ZNT     8.31 242 eP    17 04.80   3.6X
                 eS    19 25.20
CSS     8.55 263 eP    17 12.30   7.8X
MBH     9.96 230 eP    17 20.60  -3.5X
AYN     9.98 223 eP    17 32.87   8.7X
OASM   10.37 181 eP    17 28.07  -1.6
                 eS    19 25.00
MJMA   10.70 172 eP    17 31.00  -3.1X
                 eS    19 28.66
RYD    12.00 167 iPc   17 50.70  -1.1
                 eS    19 00.00
MAIO   12.75  86 eP    18 04.00   2.2
ISR    15.56 309 eP    18 34.00  -4.5X
VRI    15.80 312 eP    18 40.00  -1.6
MLR    16.10 309 eP    18 47.50   2.0
VAY    17.11 293 iP    19 02.00   3.8X
SKO    18.06 294 iP    19 13.00   3.1X
OHR    18.40 291 eP    19 16.80   2.6
QUE    20.41 101 eP    19 40.00   2.8
SPC    21.25 314 eP    19 45.40  -0.2
ARU    22.31  22 eP    19 44.00 -11.9X
MGR    22.32 288 P     19 57.20   1.0
ATN    22.47 283 P     19 58.20   0.6
SGO    22.52 289 P     19 59.40   1.3
ZST    22.74 309 eP    20 00.60   0.4
VBY    23.16 302 ePc   20 05.00   0.6
LJU    23.78 303 eP    20 12.00   1.7
VOY    24.21 302 eP    20 15.50   0.9
KSP    24.27 315 eP    20 15.70   0.6
ASS    24.63 295 P     20 20.90   2.2
KBA    24.82 305 iPc   20 21.40   0.8
       0.9s     37.70nm          5.0mb
BRVK   24.90  40 iPc   20 20.00  -1.2
       1.1s     18.00nm          4.6mb
PRU    24.96 312 eP    20 22.50   0.8
GEC2   25.08 309 ePc   20 22.70  -0.3
       1.0s      9.88nm          4.4mb
                 e     20 27.70
                 e     20 31.50
                 e     20 34.90
CRE    25.20 296 P     20 26.60   2.4
KHC    25.25 309 eP    20 24.10  -0.4
       1.0s      7.00nm          4.2mb
                 e     20 33.50
SFI    25.30 297 Pd    20 27.10   2.2
PGD    25.39 297 Pd    20 28.20   2.2
KSH    25.56  74 P     20 31.60   3.9X
       1.0s     50.00nm          5.1mb
     Z  30s     14.00um          5.3MszX
     N  12s      7.46um
     E  12s      7.78um
BRG    25.65 313 iP    20 29.40   1.3
       0.8s     18.00nm          4.7mb
CTI    25.74 302 P     20 29.70   0.4
WTTA   26.00 304 iPc   20 31.30  -0.4
       1.0s     23.60nm          4.7mb
SOTA   26.27 304 iPc   20 33.60  -0.5
       0.6s     23.10nm          4.9mb
CLL    26.36 314 eP    20 34.00  -0.8
GRF    26.89 310 ePc   20 39.90   0.3
BOB    27.10 298 P     20 44.70   3.0X
PGF    27.29 294 eP    20 43.90   0.4
       0.7s     20.15nm          4.9mb
SBF    28.48 296 eP    20 54.50   0.3
```

```
LPG    29.07 300 eP    21 00.60   0.9
LPL    29.09 300 eP    21 00.40   0.6
CDF    29.11 306 eP    21 00.20   0.4
HAU    29.65 305 eP    21 03.70  -0.9
       0.6s      4.70nm          4.4mb
HFS    30.46 330 eP    21 09.40  -2.2
       0.4s      4.30nm          4.6mb
LBF    31.12 302 eP    21 16.40  -1.2
       0.6s      3.80nm          4.4mb
SMF    31.18 302 eP    21 17.40  -0.7
       0.7s      8.05nm          4.6mb
LOR    31.23 303 eP    21 17.30  -1.2
SSF    31.45 302 eP    21 20.30  -0.1
       0.6s      4.35nm          4.5mb
AVF    31.53 302 eP    21 20.20  -0.9
       0.7s     10.15nm          4.8mb
BGF    31.86 301 eP    21 23.90  -0.2
MAF    32.04 301 eP    21 25.20  -0.4
       0.6s      4.05nm          4.5mb
TCF    32.29 301 eP    21 27.40  -0.4
       0.8s      7.50nm          4.6mb
CAF    32.35 298 eP    21 28.10  -0.3
       0.5s      4.50nm          4.6mb
SDF    32.50 348 iP    21 28.00  -1.4
RJF    32.74 299 eP    21 31.20  -0.6
LPO    32.98 298 eP    21 33.70  -0.1
       0.5s      3.80nm          4.5mb
LFF    33.29 298 eP    21 36.50   0.0
       0.5s     12.60nm          5.1mb
EPF    33.65 295 eP    21 38.20  -1.6
       0.7s      5.75nm          4.6mb
ELT    33.92  47 eP    21 39.60  -2.2
       1.0s     30.00nm          5.2mb
MFF    33.93 301 eP    21 41.00  -1.0
       0.6s      7.05nm          4.8mb
LDF    34.01 305 eP    21 41.80  -0.9
       0.6s      6.60nm          4.7mb
WMO    34.10  64 eP    21 42.60  -1.1
FLN    34.26 305 eP    21 44.30  -0.5
       0.6s     11.45nm          5.0mb
GRR    34.48 304 eP    21 45.60  -1.2
       0.5s     12.15nm          5.1mb
LPF    34.58 304 eP    21 46.30  -1.4
       0.6s      8.55nm          4.9mb
GKN    35.45  92 P     21 55.24  -0.2
       0.5s     24.00nm          5.4mb
DMN    35.99  92 P     22 01.28   1.1
KKN    36.05  92 P     22 01.12   0.5
PKI    36.25  92 P     22 04.34   1.9
GUN    36.49  91 P     22 03.98  -0.5
GBA    37.83 118 P     22 13.00  -2.4
LSA    40.02  86 P     22 37.40   3.3X
ZAK    44.28  52 eP    23 12.00   3.9X
       1.0s      6.00nm          4.4mb
LZH    47.78  72 eP    23 38.50   2.2
       1.4s     21.00nm          5.0mb
CD2    49.60  78 Pc    23 52.70   2.5
       1.0s     15.00nm          5.0mb
BOD    49.90  41 eP    23 49.60  -2.4
       0.8s     20.00nm          5.2mb
BTO    50.94  64 eP    24 02.20   1.8
CHG    51.34  95 eP    24 04.60   1.0
XAN    52.40  72 P     24 10.50  -0.9
KIC    53.36 248 P     24 19.20   0.5
     Z  25s      0.00um          1.4Mszx
TIC    53.39 248 P     24 19.40   0.6
LIC    53.67 248 P     24 21.40   0.5
     Z  22s      0.00um          1.4Msz
GYA    53.81  82 P     24 21.00  -1.0
BRW    71.52   7 (P)   26 18.13  -0.9
LMN    75.82 317 eP    26 47.50   3.0X
IMA    76.89   7 eP    26 50.40   0.2
       0.6s      3.69nm          4.6mb
FBA    78.54   5 eP    26 58.21  -0.9
       0.8s      5.39nm          4.6mb
FCC    78.79 339 eP    27 04.00   3.4X
YKA    79.81 350 eP    27 04.70  -1.4
       1.2s      4.00nm          4.3mb
PMR    81.70   6 eP    27 16.22   0.2
       1.0s     10.97nm          4.8mb
BALM   82.69   3 eP    27 20.94  -0.5
     S.D. = 1.3  on  84 of 108 obs.
-----------------------------------
*  JAN  15, 1993  12h 22m 10.69± 0.99s
   43.580 N ±12.8km  143.285 E ±17.6km
   DEPTH =  33.0km  (normal)
   4.3mb (  5 obs.)
```

HOKKAIDO, JAPAN REGION (224)

```
ASAJ    0.71 319 eP    22 24.00   -0.3
MAT     8.03 211 eP    24 08.00    0.0
      0.7s     4.11nm          4.6mb
                eS    25 41.00
FBA    42.88  36 ePd   30 08.00    0.9
      1.1s     2.40nm          3.8mb
RES    55.92  16 ePd   31 48.00    0.9
      0.6s     5.00nm          4.7mb
YKA    57.48  33 eP    31 56.50   -1.9
      0.6s     0.50nm          3.7mb
HFS    68.72 336 eP    33 13.10    0.4
      0.4s     1.10nm          4.3mb
    S.D. = 1.3  on   6 of   6 obs.
-----------------------------------
   JAN  15, 1993  12h 46m 12.62± 0.55s
   36.895 N ± 7.0km    4.389 W ± 5.3km
   DEPTH =  33.0km  (normal)
 STRAIT OF GIBRALTAR              (385)
      mbLg 3.4 (MDD).

MAL     0.17 186 iPnc  46 19.20    0.3
                iSg    46 25.00
EGUA    0.66  95 iPgd  46 24.91   -0.6
                eSg    46 34.30
ELUQ    0.67   8 ePg   46 26.85    1.1
                eSg    46 33.90
EPRU    0.68 276 iPgd  46 25.56   -0.2
                eSg    46 34.60
ECOG    0.76  60 iPgd  46 27.98    1.0
                eSg    46 37.20
EJIF    0.97 243 ePg   46 30.16    0.2
                eSg    46 42.50
ALJ     1.00 258 iP    46 22.00   -8.5X
EHOR    1.15 324 iPgd  46 31.96   -0.5
                eSg    46 47.50
EBAN    1.36  21 iPnd  46 35.28   -0.1
                eSn    46 52.10
EHUE    1.70  57 ePn   46 40.85    0.4
                eSn    47 01.50
ENIJ    1.75  87 iPnd  46 41.04   -0.1
EVIA    2.29  40 ePn   46 47.69   -1.3
                eSn    47 14.50
    S.D. = 0.8  on  11 of  12 obs.
-----------------------------------
?  JAN  15, 1993  13h 02m 55.52±12.74s
   34.724 S ±81.4km   71.911 W ±62.9km
   DEPTH =  33.0km  (normal)
 NEAR COAST OF CENTRAL CHILE      (135)
      MD 3.9 (SAN).

LNV     0.87  29 iPd   03 11.03   -0.3
                iS     03 22.91
CACH    1.24  61 iPd   03 16.75    0.0
                iS     03 33.24
LCCH    1.28  13 iP    03 17.15    0.0
CHCH    1.31  53 iPd   03 17.61    0.0
                iS     03 34.64
TACH    1.34  37 iP+   03 18.26    0.2
                iS     03 35.27
PCH     1.60  47 iP+   03 21.91    0.0
                iS     03 42.55
PEL     1.88  33 iPd   03 26.24    0.3
                iS     03 51.29
ROCH    1.90  23 iP    03 26.87    0.4
                iS     03 51.33
FCH     1.94  44 iPd   03 27.09    0.0
                iS     03 53.47
JACH    2.31  29 eP    03 31.62   -0.6
                iS     04 02.54
RTLL    4.45  41 eP    04 02.00   -0.5
    S.D. = 0.4  on  11 of  11 obs.
-----------------------------------
•  JAN  15, 1993  13h 33m 13.36± 0.98s
   42.813 N ± 8.1km   23.839 E ±13.7km
   DEPTH =  10.0km  (geophysicist)
 BULGARIA                         (359)

SRS     1.70 186 iPb   33 43.80    0.5
                eSb    34 03.32
VAY     1.77 213 iPn   33 44.00   -0.1
SKO     1.97 246 iPn   33 52.60    5.5X
                iSg    34 22.00
SOH     2.02 190 iPb   33 48.12    0.2
OUR     2.48 177 ePn   33 53.78   -0.6
ALN     2.53 139 iPn   33 55.12    0.1
                iSn    34 25.44
MLR     3.08  29 eP    34 10.00    7.0X
BZS     3.23 331 ePc   34 05.00    0.0
    S.D. = 0.5  on   6 of   8 obs.
-----------------------------------
   JAN  15, 1993  14h 17m 57.84± 0.36s
   39.209 N ± 3.9km  116.355 W ± 3.3km
   DEPTH =  10.0km  (geophysicist)
   4.2mb (  1 obs.)
 NEVADA                           ( 37)
      ML 4.3 (GS), 4.5 (BRK). Felt
      (III) at Eureka.

TNP     1.31 211 iPd   18 22.36    0.1
KVN     1.37 264 iPd   18 23.37    0.3
BONR    1.97 231 eP    18 31.65   -0.3
MTUM    2.54 224 eP    18 39.69   -0.3
MEMM    2.55 234 eP    18 40.43    0.6
MMPM    2.64 234 eP    18 41.30   -0.2
ARUT    2.69 121 iPc   18 42.01   -0.1
DUG     2.90  69 ePc   18 45.37    0.3
MSU     3.34 101 ePnc  18 51.54    0.2
CMB     3.37 251 iPd   18 50.63   -1.0
                eS     19 42.73
FRI     3.45 231 ePd   18 59.95    7.3X
                iS     19 46.07
GSC     3.92 185 ePn   18 58.45   -1.0
ISA     3.92 206 ePnd  18 59.43    0.0
ORV     4.00 277 iPd   19 00.86    0.3
                eS     19 48.38
MIN     4.20 287 iPc   19 03.87    0.4
LMEM    4.23 290 ePn   19 04.05    0.1
PKEM    4.33 225 (Pn)  19 02.88   -2.3X
LLA     4.46 236 iPd   19 08.93    1.9
ARN     4.48 247 ePn   19 06.50   -0.8
                ePg    19 21.46
MHC     4.56 248 eP    19 08.65    0.1
PRI     4.59 229 ePd   19 10.75    1.7
COE     4.62 247 (Pn)  19 09.74    0.4
SAO     4.70 240 eP    19 11.64    1.1
                iS     19 55.32
LBFM    4.74 299 ePn   19 11.89    0.6
ZSP     4.79 257 eP    19 27.73   15.9X
BKS     4.80 256 ePd   19 10.69   -1.2
PRS     4.90 236 eP    19 12.86   -0.5
WDC     4.95 288 eP    19 13.29   -0.7
NTYM    4.99 263 ePn   19 12.98   -1.6
BCH     5.00 218 ePn   19 14.71   -0.1
PCC     5.04 252 iPc   19 09.03   -6.1X
SSK     5.10 193 eP    19 16.53    0.2
PEC     5.35 187 eP    19 19.06   -0.6
PLM     5.86 184 ePd   19 26.80   -0.2
FHC     6.07 288 ePd   19 31.33    1.5
MCMT    6.19  24 ePn   19 36.30    4.6X
BW06    6.26  53 eP    19 35.04    2.3X
GLA     6.27 168 eP    19 31.69   -1.0
TPMT    6.53  31 ePn   19 41.90    5.4X
BGMT    6.82  27 ePn   19 46.00    5.5X
VGB     7.10 334 eP    19 46.70    2.4X
LCCM    7.40  25 ePn   19 55.70    7.1X
HRY     8.20  22 ePn   20 03.20    3.5X
LON     8.53 334 eP    20 03.27   -1.0
NEW     9.07 357 eP    20 15.65    4.0X
RSSD   10.44  58 eP    20 29.55   -1.3
MEO    14.87 102 iPc   21 37.00    7.2X
UYO    18.25  99 iPd   22 15.10    2.3
CP2    31.20 327 (P)   24 21.79    2.5X
IMA    34.22 334 eP    24 45.34   -0.2
      1.0s     3.05nm          4.2mb
    S.D. = 0.9  on  36 of  50 obs.
-----------------------------------
?  JAN  15, 1993  15h 27m 01.08± 1.21s
   50.309 N ±19.2km   18.958 E ± 7.5km
   DEPTH =  10.0km  (geophysicist)
 POLAND                           (548)
      ML 3.1 (WAR).

OJC     0.55  99 iPg   27 11.90   -0.2
                iSg    27 20.50
SPC     1.40 143 ePn   27 27.10    0.3
                i(Sg)  27 50.00
KSP     1.78 288 iPg   27 32.60    0.5
                iS     27 55.00
VRAC    1.83 238 iPn   27 33.70    0.9
      0.3s    12.60nm
                iSg    27 57.90
ZST     2.44 211 eP    28 19.70   38.1X
PRU     2.86 265 ePn   27 41.60   -5.9X
      0.7s     9.00nm
                Pg     27 53.80
                Sg     28 30.50
KHC     3.68 253 Pn    28 05.00    5.7X
                ePg    28 16.90
                e      28 43.00
                eSg    28 52.50
GEC2    3.72 249 Pn    27 58.40   -1.5
                Pg     28 12.40
                Sg     28 55.80
    S.D. = 1.3  on   5 of   8 obs.
-----------------------------------
   JAN  15, 1993  16h 37m 41.39± 0.18s
   42.100 N ± 3.3km   84.570 E ± 3.0km
   DEPTH =  23.1km  (  9 depth phases)
   4.9mb ( 52 obs.)
 NORTHERN XINJIANG, CHINA         (332)
      ML 5.2 (BJI).

WMQ     2.87  52 Pn    38 30.40    3.7X
PRZ     4.59 277 eP    38 54.00    2.6
      0.4s   150.00nm
                eS     39 49.00
KSH     7.03 251 Pn    39 26.50    0.8
      0.7s    40.00nm          5.6mb
                Pg     39 44.00
                Sg     41 12.70
FRU     7.40 279 eP    39 19.40  -11.3X
ELT    11.21   5 eP    40 21.60   -1.6
      1.5s   268.00nm          6.3mb X
                e      42 25.00
GTA    11.87  98 P     40 30.50   -1.9
     Z  10s     3.84um
     N  10s     1.13um
LSA    13.47 155 P     40 56.10    2.1
GKN    14.06 180 P     41 02.40    0.9
GUN    14.20 175 P     41 02.40   -1.1
KKN    14.29 177 P     41 03.80   -0.7
DMN    14.46 178 P     41 06.00   -0.9
PKI    14.51 177 P     41 06.40   -1.2
BRVK   14.57 324 eP    41 07.00   -0.8
      1.0s    42.00nm          4.9mb
NDI    14.66 206 eP    41 05.50   -3.6X
                eS     43 42.00
MOY    14.73  44 eP    41 17.00    7.1X
ZAK    15.34  51 ePc   41 19.00    1.1
      1.0s    32.00nm          4.5mb
                eS     44 00.50
LZH    16.11 106 P     41 32.00    3.9X
      1.5s    40.00nm          4.3mb
     Z  18s     0.99um          4.1MszX
                pP     41 37.00
                sP     41 41.00
                PP     41 46.50
IRK    16.79  46 ePc   41 38.30    1.9
      1.7s    51.00nm          4.4mb
QUE    18.50 236 eP    41 55.50   -2.5
                eS     45 18.50
CD2    19.00 120 Pd    42 08.00    4.1X
BTO    19.15  86 eP    42 05.00   -0.8
     N  11s     0.46um
     E  11s     0.95um
                eS     45 39.00
HHC    20.24  84 Pc    42 17.40   -0.4
      1.4s    56.00nm          4.7mb
     Z  11s     2.09um          4.7MszX
     N  11s     0.34um
     E  10s     0.91um
MAID   20.24 262 iPc   42 17.30   -0.5
ASH    20.47 267 eP    42 20.50    0.5
      1.5s   150.00nm          5.1mb
XAN    20.74 105 P     42 22.00   -0.9
     N  12s     1.04um
     E  12s     0.77um
                pP     42 27.00   19km
                eS     46 14.00
SVE    21.26 322 ePc   42 20.00   -7.9X
      2.8s   160.00nm          5.0mb
                e      43 03.80
TIY    21.78  92 eP    42 33.00   -0.4
                pP     42 42.00   32km
                sS     46 41.00
CIT    21.98  53 eP    42 32.00   -3.3X
ARU    22.00 319 eP    42 30.00   -5.4X
                e      42 37.00   25km
KMI    22.63 133 Pd    42 42.50    0.4
```

15d 16h

```
        2.0s    80.00nm          4.9mb
                  pP    42 47.00  16km
BJI     23.85  84 eP    42 55.00   1.4
        1.4s    24.00nm          4.5mb
GYA     23.91 124 P     42 56.40   1.9
        1.2s    35.00nm          4.8mb
                  pP    43 05.60  33km
BOD     24.44  40 eP    42 58.70  -0.5
        1.0s    28.00nm          4.8mb
HYB     25.13 194 ePc   43 05.90  -0.3
        1.0s    60.00nm          5.2mb
                  eS    47 38.00
POO     25.20 204 eP    43 11.50   4.6X
TIA     25.82  92 eP    43 14.80   2.3
NRI     27.43   3 iPd   43 26.00  -0.9
        1.4s    26.00nm          4.7mb
                  e     43 32.00  21km
                  i     44 28.00
GBA     29.06 194 Pc    43 41.10  -0.9
        0.5s     5.00nm          4.5mb
MOS     33.05 311 eP    44 16.00  -0.9
                  e     44 27.00  40kmX
YAK     33.22  38 eP    44 16.80  -1.5
        1.0s    25.00nm          5.1mb
                  eS    49 40.00
OBN     33.59 310 iPc   44 20.50  -1.1
        1.0s    42.00nm          5.3mb
TIK     36.65  22 eP    44 46.00  -1.4
        1.5s    12.00nm          4.5mb
      Z  16s     2.00um          5.0MszX
                  e     44 53.00  24km
                  e     46 10.00
KAF     39.33 321 eP    45 10.30   0.3
        0.4s     6.00nm          4.7mb
SDF     39.86 329 iP    45 14.80   0.5
NUR     40.09 318 eP    45 16.60   0.3
        0.4s     9.60nm          4.9mb
MGD     43.25  42 eP    45 42.00  -0.2
UPP     43.64 318 iP    45 45.50   0.2
OJC     44.30 304 iP    45 51.60   0.7
                  i     45 53.80   7kmX
SPC     44.31 302 eP    45 52.60   1.4
VAY     45.37 291 eP    46 00.50   1.0
HFS     45.55 319 eP    46 00.40  -0.3
        0.4s     5.60nm          4.9mb
KSP     46.28 305 iPc   46 07.30   0.7
ZST     46.59 302 eP    46 09.60   0.5
NAO     46.81 320 P     46 10.30  -0.4
        0.6s    14.10nm          5.2mb
PRU     47.61 305 eP    46 17.80   0.7
        1.3s    19.60nm          5.0mb
BRG     47.69 306 iP    46 18.60   0.9
        1.3s    25.00nm          5.1mb
CLL     48.11 307 iPc   46 21.10   0.1
        1.0s    30.00nm          5.3mb
PTJ     48.12 299 eP    46 21.40   0.1
KHC     48.48 304 Pd    46 25.00   1.0
        1.1s     6.30nm          4.6mb
                  e     46 30.00  17km
GEC2    48.50 304 ePc   46 24.80   0.6
        1.1s     3.31nm          4.3mb
                  e     46 31.40  22km
VBY     48.72 299 ePc   46 25.50  -0.3
MOX     49.16 306 eP    46 30.10   1.0
        2.5s   109.00nm          5.4mb
GRF     49.73 305 iPc   46 35.00   1.5
        1.4s    79.00nm          5.5mb
MGR     50.71 292 P     46 41.20   0.1
CDF     52.62 305 eP    46 54.80  -0.8
BSF     53.15 305 eP    46 59.50   0.0
HAU     53.35 305 eP    47 00.80  -0.1
PGF     54.05 298 iPc   47 06.20   0.0
        0.6s     3.25nm          4.5mb
LPG     54.18 302 iPc   47 07.90   0.6
        0.6s    17.25nm          5.3mb
LPL     54.18 302 iPc   47 07.80   0.5
        0.5s    21.05nm          5.4mb
BNI     54.42 302 P     47 08.80  -0.2
SBF     54.47 300 iPc   47 09.30   0.0
        0.6s    10.75nm          5.1mb
FRF     55.12 300 eP    47 14.00   0.1
LOR     55.19 305 eP    47 13.40  -1.0
        0.7s     5.50nm          4.7mb
SMF     55.48 304 iPc   47 16.00  -0.5
        0.5s    12.55nm          5.2mb
SSF     55.49 305 eP    47 15.90  -0.7
        0.5s     4.25nm          4.7mb
AVF     55.71 305 iPc   47 17.60  -0.5
        0.9s    11.80nm          4.9mb
BGF     56.13 305 eP    47 20.90  -0.2
MAF     56.46 304 iPc   47 23.50   0.0
        0.6s     5.95nm          4.8mb
TCF     56.64 305 iPc   47 24.70  -0.2
        0.6s     9.75nm          5.0mb
LDF     56.96 308 iPc   47 26.40  -0.7
        0.4s     3.55nm          4.7mb
FLN     57.09 308 eP    47 27.30  -0.7
CAF     57.38 303 eP    47 30.30   0.2
        0.4s     1.80nm          4.5mb
GRR     57.49 308 eP    47 30.20  -0.6
        0.6s    11.00nm          5.1mb
RJF     57.54 304 iPc   47 31.40   0.2
        0.6s     7.95nm          4.9mb
LPF     57.77 308 eP    47 32.00  -0.7
MFF     57.92 306 eP    47 33.40  -0.5
LPO     58.04 303 iPc   47 34.90   0.2
        0.6s     9.30nm          5.0mb
LFF     58.20 304 iPc   47 36.10   0.3
        0.6s    16.50nm          5.3mb
IMA     63.25  23 eP    48 09.30  -0.7
        1.1s     4.71nm          4.5mb
FBA     65.78  22 eP    48 25.88  -0.4
        0.7s     2.69nm          4.5mb
CRP     67.20  26 (P)   48 35.15  -0.4
BCAO    69.35 257 iPc   48 48.10  -1.3
        0.2s    28.00nm          6.1mb X
WRA     76.96 133 P     49 34.50   0.7
        0.7s     1.30nm          4.1mb
WB2     76.96 132 iPd   49 33.90   0.1
        1.0s     7.20nm          4.7mb
ASPA    79.74 135 P     49 50.40   1.4
KIC     85.27 274 Pc    50 17.80   0.0
TIC     85.29 275 P     50 18.00   0.1
LIC     85.58 274 P     50 19.20  -0.1
NEW     88.00  14 eP    50 31.70   1.0
        0.8s     5.00nm          4.9mb
VGB     89.88  18 eP    50 40.15   0.5
RSNY    91.73 345 (P)   50 48.15   0.0
        0.6s     4.36nm          5.0mb
RSSD    93.82   6 eP    50 58.38   0.3
        1.0s     9.70nm          5.2mb
SIV    140.69 301 ePKP  57 14.00   2.8X
ZOBO   145.21 309 PKPc  57 19.00  -0.8
LPB    145.39 309 PKP   57 19.00  -0.8
CNCB   145.54 309 PKP   57 21.00   0.8
ARE    147.22 314 ePKP  57 27.00   4.4X
        S.D. = 0.9  on  96 of 108 obs.
-----------------------------------
%  JAN  15, 1993  17h 13m 33.79± 0.53s
   44.873 N ± 4.1km    7.635 E ± 5.0km
   DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                    (545)
      ML 2.4 (GEN).

BHB      0.27 263 P     13 40.92   1.5
                  S     13 45.40
RSP      0.39 316 P     13 42.47   0.7
                  S     13 47.74
PZZ      0.53 226 P     13 44.03  -0.5
                  S     13 50.37
ROB      0.60 164 P     13 46.41   0.4
                  S     13 54.92
RRL      0.61 275 P     13 45.70  -0.5
                  S     13 53.71
ENR      0.66 193 P     13 46.41  -0.7
                  S     13 54.90
STV      0.67 200 P     13 46.13  -1.0
                  S     13 54.30
LSD      0.68 330 P     13 46.93  -0.5
                  S     13 55.79
PCP      0.73 117 P     13 48.54   0.4
                  S     13 58.45
FIN      0.78 148 P     13 49.57   0.6
                  S     14 00.05
ORX      0.80  18 P     13 48.70  -0.7
                  S     13 58.63
IMI      0.98 169 P     13 52.68   0.2
                  S     14 05.22
        S.D. = 0.8  on  12 of  12 obs.
-----------------------------------
%  JAN  15, 1993  18h 24m 49.74± 1.00s
   26.356 S ±12.0km   27.675 E ±13.7km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA          (584)
      ML 2.6 (PRE).

BPI      0.37  61 e(P)  24 58.20   1.1
PRY      0.60 197 eP    25 01.20  -0.5
                  S     25 08.00
SLR      0.82  42 eP    25 05.00  -1.3
                  S     25 15.90
SEK      1.96 181 eP    25 25.00   0.9
                  S     25 49.00
SWZ      2.26 248 eP    25 29.40   1.0
                  S     25 56.30
BLF      3.04 205 eP    25 38.50  -1.1
        S.D. = 1.4  on   6 of   6 obs.
-----------------------------------
   JAN  15, 1993  18h 41m 11.23± 0.35s
   19.544 N ± 4.5km   64.384 W ± 5.2km
   DEPTH =  24.7km  (  2 depth phases)
 VIRGIN ISLANDS                    ( 91)

LPR      1.87 229 P     41 42.10  -0.1
SJG      2.20 230 iP    41 46.80  -0.1
APR      2.47 244 P     41 50.40  -0.3
PORP     2.60 236 P     41 52.30  -0.3
LRS      2.64 242 P     41 53.00  -0.2
MGP      2.98 240 P     41 58.00   0.0
BPA      3.45 136 eP    42 03.70  -1.1
MGH      3.48 143 eP    42 06.00   0.8
PAG      4.34 143 eP    42 16.00  -1.4
MGG      4.64 140 eP    42 21.50  -0.1
HBF     19.55 316 eP    45 44.96   4.8X
SGS     19.80 317 eP    45 42.46  -0.4
                  e     45 48.36  23km
CEH     20.81 325 eP    45 54.31   1.0
                  e     46 01.58  27km
LHS     20.82 319 eP    45 53.48   0.0
JSC     20.97 318 eP    45 54.41  -0.6
PRM     21.56 316 (P)   46 01.04   0.0
                  e     46 11.76  42kmX
CVL     22.08 329 (P)   46 04.22  -1.9
BLA     22.50 325 (P)   46 11.25   0.9
NAV     22.78 324 eP    46 14.19   1.1
                  e     46 30.78  73kmX
TKL     23.44 317 eP    46 15.03  -4.5X
                  e     46 37.80 107kmX
RSNY    26.33 344 (P)   46 46.10  -0.8
                  e     47 22.22 179kmX
ELC     27.97 314 eP    47 01.30  -0.7
                  e     47 38.25 181kmX
FVM     29.15 315 (P)   47 11.08  -1.5
                  e     47 55.28 220kmX
SIV     35.46 175 P     48 11.00   3.1X
ZOBO    35.80 186 P     48 10.70  -0.7
LPB     36.04 186 eP    48 16.00   2.8X
CNCB    36.30 186 P     48 17.00   1.4
BAO     38.50 154 Pd    48 34.10   0.5
BDF     38.56 154 Pd    48 34.40   0.3
SRU     44.17 306 eP    49 19.82  -0.2
EMUT    44.54 307 (P)   49 13.55  -9.6X
ARUT    46.17 304 (P)   49 37.95   1.9
SES     47.95 321 eP    49 50.00   0.3
KIC     59.31  94 P     51 14.20   0.3
ARMA   145.74 244 ePKP  00 51.50   1.6
         0.8s     6.00nm
        S.D. = 0.9  on  30 of  35 obs.
-----------------------------------
*  JAN  15, 1993  19h 05m 20.65± 0.99s
   23.529 S ± 6.5km   70.682 W ±15.7km
   DEPTH =  73.5 ± 14.0 km
 NEAR COAST OF NORTHERN CHILE     (122,
      Felt (III) at Antofagasta.

ANT      0.30 126 iPd   05 32.20  -0.1
                  iS    05 39.50
YJA      4.97  75 e(P)  06 35.00   0.2
ARE      7.07 354 iPc   07 03.50  -0.4
                  eS    08 21.00
CNCB     7.15  21 P     07 06.70   1.4
LPB      7.37  20 eP    07 17.00   8.8X
ZOBO     7.59  19 P     07 11.00  -0.4
RTLL     8.01 166 ePd   07 16.30  -0.4
                  S     11 05.00
RTCB     8.10 169 eP    07 18.40   0.5
SIV     11.75  52 iP    08 06.60  -0.8
                  i     08 19.00
        S.D. = 0.9  on   8 of   9 obs.
-----------------------------------
&  JAN  15, 1993  19h 57m 52.24s
```

```
   60.895 N          150.159 W
   DEPTH =  31.2km
 KENAI PENINSULA, ALASKA                ( 14)
     <AEIC>. ML 2.7 (AEIC).

SLKM    0.39 185 iPd    58 00.63  -0.5
                 eS     58 07.49
PMS     0.46  39 P      58 01.70  -0.4
                 S      58 09.50
NKA     0.55 254 iPd    58 04.44   0.9
PTE     0.56  93 iPc    58 02.58  -1.0
                 eS     58 10.98
MPA     0.57 136 iPc    58 02.76  -1.0
                 eS     58 11.86
SUA     0.64 334 iPc    58 04.08  -0.9
                 eS     58 13.93
PWA     0.77  10 P      58 06.00  -0.8
                 S      58 17.20
PLRM    0.86  35 iPc    58 06.80  -1.2
                 eS     58 19.15
SEW     0.87 156 eP     58 06.19  -2.0
                 eS     58 19.54
SPU     0.97 288 iPc    58 08.64  -1.0
                 eS     58 21.68
KNK     0.98  57 iPc    58 08.70  -1.1
                 eS     58 22.21
CGLM    0.99 296 iPc    58 09.18  -0.9
CKN     1.04 289 eP     58 10.22  -0.5
CRP     1.04 292 ePc    58 10.11  -0.7
CKT     1.04 288 eP     58 09.90  -0.9
                 eS     58 23.84
GHO     1.06  34 iPc    58 10.06  -1.0
                 eS     58 25.12
CP2     1.08 291 eP     58 10.85  -0.6
CKL     1.10 287 iPc    58 10.78  -0.9
                 eS     58 25.33
BGL     1.15 290 ePc    58 11.71  -0.6
BRLK    1.19 198 eP     58 12.05  -0.8
SML     1.27  43 iPc    58 13.18  -0.8
SKT     1.27 329 iPc    58 13.53  -0.5
                 eS     58 30.49
DFR     1.28 257 iPc    58 13.13  -1.0
KNIM    1.31 114 iPd    58 12.12  -2.4
                 eS     58 28.58
REF     1.32 253 iPc    58 13.85  -0.9
                 eS     58 31.20
RDN     1.34 255 P      58 15.60   0.6
RSO     1.35 252 iPc    58 14.38  -0.9
RS2     1.35 252 ePc    58 14.38  -0.9
RS1     1.35 252 iPc    58 14.44  -0.9
RDW     1.37 254 eP     58 14.47  -1.1
NCT     1.40 257 eP     58 14.95  -1.0
LTI     1.43 126 eP     58 13.99  -2.2
GLI     1.50  89 iPd    58 14.87  -2.4
                 eS     58 33.42
MTU     1.54 125 eP     58 16.46  -1.4
ILIM    1.61 241 eP     58 17.49  -1.4
SCM     1.66  54 eP     58 17.95  -1.7
INE     1.66 241 eP     58 19.40  -0.4
INW     1.69 242 eP     58 18.91  -1.2
VZW     1.77  83 eP     58 19.32  -1.8
FID     1.81  93 eP     58 18.68  -3.1
HIN     1.87 104 eP     58 19.54  -3.1
VLZ     1.88  81 eP     58 20.76  -2.0
OPT     1.97 232 eP     58 25.60   1.4
HUR     2.11   7 eP     58 25.59  -0.4
KLU     2.14  72 iPd    58 24.54  -2.0
                 eS     58 49.61
CVA     2.20  97 eP     58 24.01  -3.2
AUL     2.23 229 eP     58 28.09   0.3
AUH     2.25 228 eP     58 28.39   0.3
TOA     2.26  56 P      58 29.60   1.3
PDB     2.29 243 eP     58 28.72   0.1
SGAM    2.47  97 iPc    58 27.50  -3.7
SYI     2.56 207 eP     58 31.22  -1.2
RND     2.59  13 eP     58 34.16   1.1
RAGM    2.75  98 eP     58 31.32  -3.8
PAX     3.04  45 ePc    58 38.31  -1.1
GLB     3.12  77 iPc    58 37.89  -2.6
CROM    3.44  89 iPc    58 41.66  -3.5
TGL     3.59  89 eP     58 43.52  -3.7
BALM    3.81  84 ePc    58 46.86  -3.4
        59 obs. associated
-----------------------------------------
*  JAN  15, 1993  20h 03m 17.32± 0.60s
    7.177 N ±10.8km   76.514 W ± 8.4km
   DEPTH =  33.0km  (normal)
    4.4mb (  3 obs.)
 NORTHERN COLOMBIA                      ( 99)
      MD 4.6 (UPA).

BMG     3.41  92 iPc    04 24.50  14.8X
UPA     3.49 301 eP     04 10.84   0.3
                 iS     04 50.44
BOG     3.52 136 eP     04 13.00   1.7
                 iS     04 56.00
ECO     3.82 305 iPc    04 14.27  -1.1
                 eS     04 57.95
PSO     6.00 188 eP     04 52.00   5.4X
SDV     6.07  73 iPnd   04 49.90   2.6
                 iSn    05 55.60
BRU     6.20 286 eP     04 50.60   1.1
CEOS    8.31  77 iP     05 17.90  -0.7
MORO    8.89  65 eP     05 24.30  -2.3
GUAC    9.62  71 eP     05 39.90   3.2X
ARE    24.01 168 eP     08 31.00   0.5
ZOBO   24.75 160 P      08 35.10  -3.0
        1.0s     12.50nm          4.4mb
                 e      15 21.00
LPB    24.99 161 P      08 42.00   1.9
                 e      16 46.00
CNCB   25.28 161 P      08 42.10  -1.0
                 e      16 44.00
SIV    27.63 146 P      09 04.00  -0.2
ALQ    39.00 319 eP     10 43.90   1.1
        1.0s     10.00nm          4.5mb
KIC    71.21  86 P      14 36.30   0.6
GEC2   84.80  42 ePd    15 57.50   7.6X
        1.0s      1.83nm          4.2mb
                 e      15 59.90
                 e      16 07.50
ASPA  146.52 237 ePKP   22 54.60  -1.7
        0.9s      4.20nm
GBA   146.91  51 PKP    23 04.00   7.0X
WB2   147.50 244 ePKP   22 58.50   0.6
        0.7s      2.20nm
WRA   147.51 244 PKP    22 57.50  -0.4
        1.0s      0.70nm
      S.D. = 1.6  on  17 of  22 obs.
-----------------------------------------
    JAN  15, 1993  21h 49m 56.47± 0.82s
    41.122 N ± 6.9km   22.432 E ± 6.6km
    DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION             (383)
      ML 2.1 (SKO).

VAY     0.23  28 iPg    50 01.50   0.2
                 iSg    50 04.60
THE     0.63 140 ePg    50 08.84  -0.3
                 eSg    50 17.33
SOH     0.76 113 iPg    50 11.40   0.0
                 eSg    50 21.36
FNA     0.87 247 iPg    50 12.96  -0.2
                 eSg    50 24.84
SRS     0.88  90 iPg    50 13.17  -0.2
                 iSg    50 24.57
LIT     1.02 177 ePg    50 16.32   0.5
                 eSg    50 31.76
      S.D. = 0.4  on   6 of   6 obs.
-----------------------------------------
?  JAN  15, 1993  22h 01m 12.10± 1.04s
    48.690 N ± 9.8km    7.243 E ±15.1km
    DEPTH =  10.0km  (geophysicist)
 FRANCE                                 (538)
      MD 2.9 (UCC).

FEL     0.96 147 ePg    01 30.35  -0.2
RUP     1.02 353 ePg    01 30.76  -0.7
ABH     1.21   9 ePg    01 35.36   0.7
WLF     1.21 324 iPd    01 33.70  -0.9
                 iS     01 44.31
TNS     1.73  27 ePgd   01 48.70   6.3X
                 iSn    02 07.30
                 eSb    02 10.40
                 eSg    02 12.80
DOU     2.23 310 P      01 50.60   1.0
                 i      01 53.10
                 iS     02 14.60
SNF     2.65 315 iP     02 01.00   5.4X
KHC     4.20  82 ePg    03 18.40  60.8X
                 e      03 30.00
                 Sg     03 43.00
GEC2    4.27  85 Pn     02 28.90  10.1X
                 Sn     03 22.80
                 Sg     03 42.80
      S.D. = 1.2  on   5 of   9 obs.
-----------------------------------------
%  JAN  15, 1993  22h 17m 50.45± 1.25s
    18.042 N ±16.2km   76.684 W ±10.4km
    DEPTH =  10.0km  (geophysicist)
 JAMAICA REGION                         ( 86)
      MD 2.7 (HOJ). Felt (III) at
      Barbican, Cherry Gardens and
      Mona.

GWJ     0.06 303 iP     17 53.00   0.2
                 iS     17 56.42
HOJ     0.07 238 iP     17 53.60   0.7
                 iS     17 56.14
STH     0.13 286 iP     17 53.88   0.3
                 iS     17 56.79
YHJ     0.24 129 iPd    17 55.28  -0.2
SPJ     0.83 267 eP     18 05.74  -0.9
      S.D. = 0.9  on   5 of   5 obs.
-----------------------------------------
*  JAN  15, 1993  23h 58m 20.51± 0.91s
    49.192 N ± 7.5km    6.896 E ± 8.8km
    DEPTH =  10.0km  (geophysicist)
 GERMANY                                (543)
      MD 2.5 (UCC).

RUP     0.52  12 ePg    58 31.21   0.1
WLF     0.68 315 iPd    58 33.84  -0.1
                 iS     58 43.45
ABH     0.81  31 ePg    58 36.12  -0.1
FEL     1.51 150 ePg    58 47.77   0.0
DOU     1.75 302 P      58 51.10   0.1
                 i      58 53.10
                 iS     59 13.70
SNF     2.15 309 iP     59 04.20   7.4X
GRF     2.87  78 e(Pg)  59 18.70  11.6X
                 eSg    59 53.60
      S.D. = 0.1  on   5 of   7 obs.
-----------------------------------------
*  JAN  16, 1993  00h 19m 21.32± 0.53s
    11.671 S ± 8.2km  118.052 E ±10.3km
    DEPTH =  33.0km  (normal)
    4.3mb (  3 obs.)
 SOUTH OF SUMBAWA, INDONESIA            (291)

KHKI    4.07 324 eP     20 21.80  -1.1
                 eS     21 06.70
                 e      24 34.50
NANU   11.10 192 eP     22 00.40  -0.4
                 eS     23 54.00
MTN    12.84  97 eP     22 25.00   0.7
                 eS     24 38.00
MEEK   14.90 178 eP     22 51.50   0.1
        0.2s      5.00nm          4.5mb
                 eS     25 16.00
WARB   16.55 152 eP     23 13.50   0.8
        0.3s      6.00nm          4.2mb
                 eS     26 04.00
WB2    17.70 120 eP     23 25.40  -1.7
                 eS     26 34.90
ASPA   19.22 130 eP     23 48.60   2.9X
        1.2s     18.60nm          4.2mb
                 eS     27 10.30
GUN    50.19 322 P      28 16.20  -0.4
PKI    50.23 321 P      28 17.40   0.5
DMN    50.44 321 P      28 19.20   0.8
KKN    50.47 322 P      28 19.60   1.1
GKN    51.01 321 P      28 22.00  -0.6
      S.D. = 1.0  on  11 of  12 obs.
-----------------------------------------
&  JAN  16, 1993  01h 48m 26.00s
    60.091 N          152.934 W
    DEPTH = 102.3km
 SOUTHERN ALASKA                        (  2)
      <AEIC>.

ILIM    0.02 230 iPc    48 39.68   0.8
                 eS     48 51.21
INE     0.07 245 iPc    48 39.75   0.7
INW     0.10 257 iPc    48 39.81   0.8
                 eS     48 50.82
RS1     0.38  13 iPc    48 41.06  -0.7
                 eS     48 52.17
RSO     0.38  13 iPc    48 41.06  -0.7
RS2     0.38  13 iPc    48 41.09  -0.7
RDW     0.40   9 iPc    48 41.03  -0.8
```

16d 01h

			eS	48 54.03	
REF	0.42	16	iPc	48 41.26	-0.7
			eS	48 53.49	
RDN	0.43	11	iPc	48 41.33	-0.6
OPT	0.46	199	iPc	48 41.45	-0.6
			eS	48 53.17	
NCT	0.47	0	iPc	48 41.47	-0.7
			eS	48 53.88	
DFR	0.52	14	iPc	48 41.64	-0.9
PDB	0.70	245	iPd	48 42.74	-1.1
			eS	48 56.49	
AUL	0.76	200	iPd	48 43.63	-0.7
AUE	0.77	197	ePd	48 43.71	-0.8
AUW	0.77	201	iPd	48 43.78	-0.8
AUH	0.77	200	iPd	48 43.85	-0.8
AUI	0.80	198	eP	48 43.50	-1.3
			eS	48 57.83	
XLV	0.89	136	ePc	48 44.97	-0.7
NKA	1.07	51	iPc	48 48.48	0.9
BRLK	1.08	107	eP	48 46.90	-0.9
			eS	49 03.65	
CKL	1.15	15	iPd	48 47.93	-0.7
MCNL	1.15	219	iPd	48 47.14	-1.5
			eS	49 03.80	
CKT	1.17	18	iPd	48 47.97	-0.9
			eS	49 05.45	
SPU	1.18	21	ePd	48 47.97	-1.0
CKN	1.20	18	ePd	48 48.50	-0.6
BGL	1.21	13	iPd	48 48.43	-0.9
CP2	1.23	16	iPd	48 48.79	-0.9
CRP	1.24	18	ePd	48 48.45	-1.3
			eS	49 06.77	
CGLM	1.30	20	iPd	48 49.64	-0.8
SLKM	1.41	72	eP	48 50.67	-1.1
SYI	1 51	169	ePd	48 51.61	-1.3
			eS	49 11.21	
SVW	1.67	309	eP	48 52.33	-2.7
			eS	49 11.67	
SEW	1.75	88	eP	48 54.10	-1.7
SUA	1.75	37	iPc	48 55.33	-0.7
			eS	49 18.85	
MPA	1.82	76	iPc	48 55.48	-1.4
SKT	2.02	19	ePd	48 58.07	-1.3
			eS	49 23.56	
PMS	2.02	54	P	48 58.50	-1.0
PTE	2.09	66	ePc	48 58.38	-1.9
PWA	2.16	42	P	49 00.60	-0.7
KDC	2.36	174	eP	49 00.55	-3.3
			S	49 29.53	
PLRM	2.39	49	eP	49 02.30	-2.1
PMR	2.39	49	eP	49 02.17	-2.2
LTI	2.55	89	iPc	49 04.28	-2.1
KNK	2.57	57	iPc	49 04.44	-2.3
GHO	2.58	48	eP	49 04.97	-2.0
KNIM	2.61	82	iPc	49 04.17	-3.1
MTU	2.65	90	eP	49 06.05	-1.8
SML	2.83	51	iPc	49 07.97	-2.3
GLI	3.00	72	eP	49 08.79	-3.7
TTA	3.21	334	eP	49 12.17	-3.3
HIN	3.22	82	eP	49 12.01	-3.6
SCM	3.24	55	eP	49 13.57	-2.4
FID	3.27	76	ePc	49 12.20	-4.0
VZW	3.30	70	eP	49 13.34	-3.3
MID	3.40	98	P	49 16.30	-1.7
VLZ	3.42	69	ePc	49 15.12	-3.1
CVA	3.60	80	eP	49 18.36	-2.4
KLU	3.71	65	iPc	49 19.38	-3.0
RND	3.85	28	eP	49 22.64	-1.6
TOA	3.85	55	P	49 22.20	-2.1
SGAM	3.87	81	iPc	49 21.99	-2.4
MCK	4.11	26	eP	49 26.55	-1.3
RAGM	4.13	82	eP	49 25.56	-2.5
KAIM	4.28	89	ePc	49 27.92	-2.1
SDG	4.32	52	eP	49 28.47	-2.2
PAX	4.59	48	eP	49 32.20	-2.3
GLB	4.67	69	ePc	49 32.15	-3.4
CROM	4.90	78	eP	49 36.47	-2.3
SNH	5.05	85	eP	49 38.42	-2.3
TGL	5.05	78	eP	49 38.36	-2.5
MLY	5.06	11	eP	49 38.08	-2.8
HDA	5.15	30	ePd	49 39.41	-2.7
CCB	5.16	25	eP	49 39.30	-2.8
BALM	5.31	75	eP	49 40.76	-3.6
FBA	5.38	24	eP	49 41.88	-3.4
GLM	5.54	25	eP	49 44.83	-2.7
YAH	5.58	82	eP	49 45.97	-2.3
CTGM	5.80	76	eP	49 49.03	-2.1

IMA	6.01	357	eP	49 51.70	-2.4

80 obs. associated

JAN 16, 1993 02h 10m 14.94± 0.59s
40.112 N ± 5.4km 19.883 E ± 5.7km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
MD 3.1 (ATH). ML 2.9 (TIR).

TPE	0.21	28	iPgc	10 16.50	-3.0
			iSg	10 21.00	
SRN	0.25	159	iPgc	10 20.00	-0.2
			iSg	10 25.00	
KEK	0.40	189	ePb	10 22.00	-1.2
VLO	0.46	320	ePg	10 23.00	-1.4
			iSg	10 29.00	
LSK	0.55	86	iPgd	10 26.20	0.0
			iSg	10 35.40	
OHR	1.22	35	iPn	10 38.20	0.6
	0.7s	90.00nm			
			iSn	10 57.70	
			Lg	11 02.40	
TIR	1.23	359	iPnd	10 39.00	1.1
			iSn	11 00.50	
KZN	1.46	82	ePn	10 42.50	1.1
SDA	1.96	352	ePn	10 48.00	-0.5
VLS	2.01	164	ePg	10 53.50	4.2X
SKO	2.20	32	iPn	10 53.30	1.3
	0.9s	89.00nm			
			iSn	11 23.00	
			iSg	11 27.00	
			Lg	11 29.20	
VAY	2.37	59	iPn	10 57.30	2.8X
ORI	2.63	270	P	11 04.10	5.9X
			eSn	11 41.20	
MGR	3.32	272	P	11 09.20	1.2
SGO	3.52	279	P	11 10.70	-0.1
SOI	3.61	237	P	11 12.10	0.1
			eSn	11 51.50	
SDI	4.87	291	P	11 30.80	0.8

S.D. = 1.3 on 14 of 17 obs.

JAN 16, 1993 02h 29m 39.36± 0.37s
30.151 N ± 5.4km 131.132 E ± 4.5km
DEPTH = 34.2km (12 depth phases)
4.9mb (35 obs.) 4.7Msz (3 obs.)
KYUSHU, JAPAN (235)

KAGJ	1.05	349	iP+	29 59.60	1.8
KUMJ	2.39	354	iP+	30 18.40	1.4
			eS	30 47.00	
SHNJ	3.96	360	eP	30 40.00	0.7
TKSJ	4.55	32	P	30 47.30	-0.4
			S	31 35.90	
SHK	4.56	16	eP	30 48.50	0.7
YONJ	5.39	21	eP	30 59.30	-0.3
			S	31 58.60	
WKYJ	5.55	42	P	31 00.30	-1.5
			S	32 00.70	
TSRJ	6.74	36	eP	31 16.50	-2.1
MTMJ	8.50	39	eP	31 43.50	0.3
SSE	8.62	279	Pc	31 45.00	0.3
	1.4s	22.00nm		5.1mb	
Z	20s	2.30um			
N	12s	1.40um			
E	12s	5.40um			
			pP	31 51.00	
MAT	8.70	41	eP	31 45.00	-0.8
	0.8s	11.94nm		5.1mb	
			eS	33 30.00	
NJ2	10.69	283	Pd	32 14.00	0.8
	1.0s	11.00nm		5.0mb	
Z	14s	2.07um		4.8MszX	
N	11s	1.33um			
E	14s	2.10um			
			S	34 18.00	
SNY	13.15	334	Pc	32 49.00	2.8
Z	16s	4.00um			
N	12s	1.19um			
E	15s	2.01um			
TIA	13.19	301	eP	32 51.00	4.2X
Z	15s	4.91um			
E	13s	3.12um			
CN2	14.36	343	eP	33 03.00	0.9
	1.0s	58.00nm		5.1mb	
Z	14s	3.95um		4.0MszX	
N	14s	2.83um			

E	14s	0.64um			
			esP	33 18.00	
			eS	35 44.00	
BJI	15.70	313	eP	33 25.00	5.4X
	1.3s	48.00nm			4.5mb
Z	14s	4.12um			7.3MszX
E	12s	2.52um			
BAG	16.75	218	eP	33 37.00	3.8X
TIY	17.24	301	Pd	33 40.20	1.1
Z	14s	4.05um			
N	13s	0.83um			
E	13s	1.77um			
YSS	19.08	25	eP	34 02.80	1.2
Z	16s	1.00um			4.1Msz
N	17s	0.70um			
E	16s	1.00um			
HHC	19.14	309	eP	34 04.60	2.2
Z	14s	3.55um			
N	14s	1.64um			
E	13s	1.62um			
XAN	19.21	287	eP	34 02.00	-1.3
N	13s	1.49um			
E	12s	0.77um			
			pP	34 09.00	26km
			sP	34 14.00	
BTO	20.08	307	eP	34 13.00	0.2
N	14s	1.24um			
E	14s	1.80um			
GYA	21.84	266	P	34 31.60	0.7
	0.6s	53.00nm			5.1mb
Z	20s	1.13um			4.3Msz
LZH	23.57	292	eP	34 47.50	-0.3
	1.5s	27.00nm			4.5mb
Z	16s	2.50um			4.8MszX
E	14s	1.45um			
			sP	35 02.00	
CD2	23.57	279	iPd	34 48.40	0.6
Z	14s	2.69um			4.9MszX
E	12s	1.71um			
CIT	25.39	334	eP	35 05.00	0.0
KMI	25.61	266	eP	35 06.50	-1.1
Z	15s	1.80um			4.7MszX
N	12s	0.80um			
E	12s	1.00um			
GTA	27.22	298	eP	35 21.50	-0.6
Z	12s	2.65um			5.0MszX
E	12s	1.05um			
ZAK	29.05	322	eP	35 36.50	-1.8
	1.7s	21.00nm			4.6mb
Z	13s	2.16um			4.9MszX
N	15s	1.06um			
E	15s	1.82um			
IRK	29.63	326	eP	35 42.00	-1.6
	1.5s	12.00nm			4.4mb
Z	14s	1.18um			4.7MszX
N	14s	0.62um			
E	13s	0.83um			
BOD	30.08	342	eP	35 46.20	-1.3
	0.9s	10.00nm			4.6mb
CHG	31.29	256	eP	35 58.00	-0.6
	0.7s	14.55nm			4.9mb
MGD	32.74	18	eP	36 10.00	-0.8
Z	16s	0.30um			4.1MszX
N	16s	0.30um			
			e	36 23.00	50kmX
			e	41 20.00	
LSA	34.53	280	P	36 27.50	0.2
WMQ	36.86	304	P	36 46.60	0.2
	1.5s	29.00nm			4.9mb
Z	18s	1.52um			4.8Msz
			pP	36 55.00	28km
			sP	37 04.00	
GUN	39.44	278	P	37 08.80	0.3
ELT	39.79	319	eP	37 09.00	-1.6
	2.1s	26.00nm			4.6mb
Z	18s	1.50um			4.9Msz
			eS	43 15.00	
PKI	39.93	278	P	37 12.00	-0.5
	0.8s	40.00nm			5.2mb
KKN	39.98	278	P	37 12.60	-0.2
	0.6s	32.00nm			5.3mb
DMN	40.18	278	P	37 14.20	-0.3
	0.6s	13.00nm			4.9mb
GKN	40.48	279	P	37 16.60	-0.2
TIK	41.55	359	eP	37 24.80	0.0
	0.6s	9.00nm			4.7mb
Z	15s	0.60um			4.6MszY

```
                    e     37 36.00  40km
                    e     39 08.00
NRI     46.25 340 ePc     38 01.50  -1.3
        1.4s     16.00nm          4.8mb
      Z  16s      2.50um          5.3MszX
      E  16s      2.70um
FRU     46.36 302 iPd     38 05.00   0.9
        2.0s     70.00nm          5.3mb
      Z  16s      1.10um          4.9MszX
BRVK    49.22 316 iPc     38 24.50  -1.7
        1.3s     41.00nm          5.3mb
WRA     49.90 176 P       38 31.50  -0.2
        0.6s      0.80nm          3.9mb
WB2     49.90 176 eP      38 31.80   0.1
        0.8s      6.00nm          4.7mb
GBA     52.02 264 P       38 47.00  -0.9
ASPA    53.57 177 P       39 01.90   2.6
SVE     54.80 321 ePc     39 06.00  -2.0
      Z  14s      1.50um          5.2MszX
      N  14s      0.60um
      E  14s      1.00um
ARU     55.95 320 eP      39 10.00  -6.2X
MAIO    59.00 297 iPd     39 39.20   1.1
PMR     59.16  33 eP      39 37.58  -1.2
        1.2s     16.61nm          5.0mb
BALM    62.48  33 (P)     40 01.99   0.5
GRS     67.83 304 eP      40 36.00  -0.4
        1.2s     20.00nm          5.1mb
OBN     68.31 322 eP      40 38.00  -0.9
        1.0s     21.00nm          5.2mb
                    e     40 50.00  41km
KIV     68.74 309 eP      40 42.00   0.0
KAF     70.32 331 iP      40 50.40  -0.7
        0.6s     16.40nm          5.3mb
RES     71.22  12 eP      40 57.50   1.1
        0.6s      4.00nm          4.6mb
NUR     71.78 330 eP      40 59.40  -0.5
        0.6s     12.00nm          5.1mb
UPP     75.10 331 iP      41 17.30  -2.0
HFS     76.53 333 eP      41 27.10  -0.3
        0.5s      7.20nm          5.0mb
      Z  16s    368.00um          7.8MszX
                    LR    16 54.00
NAO     77.20 334 P       41 30.60  -0.6
        0.6s      7.90nm          4.9mb
DPW     80.58  40 eP      41 50.56   0.7
                    epP   42 01.32  35km
NEW     80.95  39 eP      41 52.49   0.7
        0.8s      9.87nm          4.9mb
                    e     42 03.69  36km
CLL     82.37 326 eP      42 04.00   5.0X
SES     82.81  35 eP      42 02.00   0.6
                    pP    42 13.00  35km
GEC2    83.59 324 ePd     42 05.30  -0.2
        0.7s      1.09nm          4.1mb
                    e     42 06.90   5kmX
                    e     42 13.60
                    e     42 16.50
                    e     42 21.90
                    e     42 26.50
FCC     83.77  22 eP      42 10.00   4.0X
                    pP    42 20.00  32km
VBY     84.87 321 P       42 13.00   1.2
LCCM    85.27  39 eP      42 15.00   0.9
WLF     86.72 328 P       42 25.00   4.1X
TNP     86.86  47 eP      42 24.00   1.8
        0.8s      3.53nm          4.6mb
HVU     87.32  42 eP      42 25.30   1.0
                    epP   42 36.99  38km
DUG     88.29  44 eP      42 28.29  -0.6
BW06    88.51  40 eP      42 30.53   0.5
        1.0s      6.94nm          4.9mb
                    epP   42 41.51  35km
ULM     89.77  28 eP      42 39.00   3.4X
                    pP    42 49.50  33km
RSSD    90.55  36 eP      42 40.17   0.6
        0.8s      7.53nm          5.1mb
                    epP   42 50.70  33km
KIC    124.26 303 PKP     48 37.00   0.1
LIC    124.56 303 PKP     48 37.60   0.2
ZOBO   157.60  56 PKP     49 46.00  11.4X
SIV    162.00  41 ePKP    49 44.00   5.5X
     S.D. = 1.1  on  72 of  82 obs.
-----------------------------------
&  JAN  16, 1993  02h 48m 55.31s
   63.500 N          150.647 W
   DEPTH =  15.5km
```

```
CENTRAL ALASKA                          (  1)
      <AEIC>. ML 3.0 (PMR), 2.6
      (AEIC).

HUR     0.70 138 iP     49 08.71   0.1
                eS      49 18.54
MCK     0.80  72 eP     49 10.67   0.3
RND     0.81  96 eP     49 10.96   0.3
                eS      49 22.82
NEA     1.28  32 eP     49 17.56  -1.0
                eS      49 35.42
MLY     1.54 359 eP     49 22.10  -0.1
                S       49 41.73
SKT     1.58 195 iP     49 22.44  -0.3
                eS      49 43.83
CCB     1.70  46 eP     49 24.70   0.2
                eS      49 48.24
MDM     1.81  35 eP     49 25.92  -0.1
                eS      49 50.69
HDA     1.87  59 eP     49 25.90  -1.0
FBA     1.88  40 eP     49 25.37  -1.7
PWA     1.89 169 eP     49 28.40   1.2
GHO     1.91 155 eP     49 27.61   0.0
SML     2.01 147 eP     49 28.78  -0.2
                S       49 55.70
PLRM    2.04 159 eP     49 29.38   0.0
PMR     2.04 159 eP     49 29.00  -0.4
SUA     2.04 181 eP     49 29.78   0.2
GLM     2.06  42 eP     49 29.47  -0.3
                S       49 58.19
CGLM    2.29 197 eP     49 32.10  -1.0
PMS     2.32 167 eP     49 35.60   2.1
KNK     2.33 153 eP     49 34.32   0.7
CRP     2.35 198 eP     49 32.96  -1.1
                eS      50 05.53
CP2     2.36 199 eP     49 33.23  -1.0
                S       50 05.25
BGL     2.39 201 ePn    49 34.09  -0.4
CKN     2.39 198 eP     49 34.39  -0.1
PAX     2.40 100 eP     49 35.92   1.2
SPU     2.42 196 eP     49 33.92  -1.0
CKT     2.42 198 eP     49 34.41  -0.5
CKL     2.44 200 eP     49 34.84  -0.4
TOA     2.49 122 eP     49 38.20   2.3
TTA     2.50 259 eP     49 36.58   0.6
                S       50 07.68
SDG     2.52 110 eP     49 37.16   0.8
PTE     2.75 163 eP     49 40.47   0.9
IMA     2.89 335 eP     49 37.55  -4.1
KLU     2.98 130 eP     49 43.88   1.1
SLKM    3.01 176 eP     49 43.54   0.3
DFR     3.07 199 eP     49 42.98  -1.2
GLI     3.11 146 eP     49 45.50   0.8
VLZ     3.12 138 eP     49 45.49   0.8
NCT     3.14 201 eP     49 46.47   1.3
RSO     3.21 199 P      49 46.90   0.7
SVW     3.34 226 (P)    49 50.86   2.9
FID     3.38 143 eP     49 49.21   0.7
LTI     3.72 158 eP     49 52.49  -0.8
GLB     3.79 120 eP     49 55.39   1.1
SGAM    3.95 137 eP     49 56.81   0.2
BALM    4.60 119 eP     50 06.51   0.6
        46 obs. associated
-----------------------------------
?  JAN  16, 1993  02h 54m 53.87± 2.03s
   51.110 N ±22.0km    15.660 E ± 9.5km
   DEPTH =  10.0km  (geophysicist)
 POLAND                            (548)

BRG     1.11 258 iPg    55 14.20  -0.5
                iSg     55 33.50
PRU     1.33 213 ePg    55 19.50   1.1
                e       55 27.50
                Sn      55 42.70
                eSg     55 46.90
VRAC    1.90 161 Pn     55 25.50  -1.1
                eSg     55 56.20
KHC     2.39 215 ePn    55 39.00   5.3X
                e       55 46.50
                e       56 07.50
                Sg      56 17.00
OJC     2.78 107 eP     55 39.70   0.5
                eS      56 15.80
     S.D. = 1.7  on   4 of   5 obs.
-----------------------------------
%  JAN  16, 1993  03h 55m 04.70± 0.56s
   37.100 N ± 5.4km     4.373 W ± 5.0km
```

```
   DEPTH =  10.0km  (geophysicist)
 SPAIN                             (377)
      mbLg 3.0 (MDD).

MAL     0.37 185 iPnc   55 10.80  -1.6
                iSg     55 16.00
ELUQ    0.47  10 iPgd   55 13.44  -0.8
                eSg     55 20.40
ECOG    0.67  74 ePg    55 18.56   0.5
                eSg     55 29.60
EGUA    0.70 112 ePg    55 16.75  -1.8
                eSg     55 27.90
EPRU    0.70 259 ePg    55 18.67   0.1
                eSg     55 28.90
EHOR    1.00 316 iPgd   55 22.86  -0.8
                eSg     55 36.10
EJIF    1.09 234 ePg    55 26.57   1.4
                eSg     55 42.00
EBAN    1.16  24 iPgd   55 26.05  -0.3
                eSg     55 41.70
EHUE    1.59  63 ePn    55 33.94   1.0
                eSn     55 54.60
ENIJ    1.74  94 ePn    55 36.82   1.7
                eSn     55 59.80
EVAL    1.95 285 ePn    55 39.34   1.1
                eSn     56 03.10
EVIA    2.13  43 ePn    55 41.57   0.6
                eSn     56 07.60
EPLA    3.25 336 ePn    55 55.56  -1.2
                eSn     56 34.00
GUD     3.54   3 ePn    56 01.02   0.1
                eSn     56 40.60
     S.D. = 1.2  on  14 of  14 obs.
-----------------------------------
?  JAN  16, 1993  05h 03m 54.60± 1.02s
   20.337 S ±26.6km    66.318 E ±17.0km
   DEPTH =  10.0km  (geophysicist)
   4.8mb (  3 obs.)
 MAURITIUS-REUNION REGION          (427)

HYB    39.39  19 eP     11 25.00  -1.4
PKI    51.08  22 P      13 00.00   0.2
BCAO   52.97 292 iPc    13 13.20  -0.8
       0.6s      6.00nm          4.7mb
                id      13 20.00
WRA    63.41 103 P      14 26.60  -0.5
       1.3s     40.00nm          5.4mb
WB2    63.42 103 eP     14 27.70   0.5
       0.8s      3.30nm          4.6mb
KIC    74.65 283 P      15 36.00  -0.5
LIC    74.86 283 P      15 37.20  -0.5
ZST    81.18 329 eP     16 14.70   3.0
                e       44 10.90
     S.D. = 1.6  on   8 of   8 obs.
-----------------------------------
   JAN  16, 1993  05h 16m 46.73± 0.39s
   19.374 N ± 5.1km    64.378 W ± 5.2km
   DEPTH =  33.0km  (normal)
   4.1mb (  4 obs.)  3.9Msz (  1 obs.)
 VIRGIN ISLANDS                    ( 91)

LPR     1.77 233 P      17 15.70   0.2
CPD     1.97 228 P      17 19.10   0.6
SJG     2.10 233 iP     17 20.00  -0.3
APR     2.41 248 P      17 24.50  -0.2
PORP    2.51 239 P      17 25.40  -0.8
LRS     2.57 246 P      17 26.50  -0.5
NEV     2.81 142 eP     17 33.90   3.5X
MGP     2.91 243 P      17 31.30  -0.4
BPA     3.33 134 eP     17 35.21  -2.6
MGH     3.35 142 eP     17 39.00   1.0
PAG     4.20 142 eP     17 50.00  -0.2
OLLA    9.59 194 eP     19 06.00   0.3
TOV    10.87 210 eP     19 26.50   3.2X
SDV    12.06 211 eP     19 42.50   3.0X
HBF    19.68 316 (P)    21 16.32   0.3
SGS    19.93 317 eP     21 19.77   1.1
CEH    20.95 325 eP     21 29.80   0.6
LHS    20.95 319 eP     21 28.19  -1.1
JSC    21.10 318 (P)    21 33.30   2.5X
CVL    22.23 329 (P)    21 43.58   1.5
BLA    22.64 325 eP     21 45.50  -0.7
SIV    35.29 174 P      23 44.60   3.8X
ZOBO   35.63 186 eP     23 44.00  -0.4
     Z  20s      0.20um          3.9Msz
                LR      34 40.00
LPB    35.87 186 eP     23 48.00   1.8
```

16d 05h

BAO	38.34	154	Pc	24 07.10	0.4
			e	24 08.00	
BDF	38.41	154	Pc	24 07.80	0.6
ALO	40.21	301	(P)	24 21.89	-0.3
	0.8s	2.23nm		4.0mb	
BW06	44.51	312	eP	24 57.29	0.0
	0.8s	1.64nm		3.9mb	
NEW	51.15	317	eP	25 46.50	-2.2
	0.7s	6.40nm		4.7mb	
LIC	59.07	94	P	26 46.50	0.0
KIC	59.30	94	P	26 48.00	-0.1
IMA	72.20	335	eP	28 10.00	-0.2
	0.7s	2.47nm		4.3mb	
ARMA	145.67	244	ePKP	36 25.70	1.7
	0.5s	4.00nm			

S.D. = 1.0 on 28 of 33 obs.

& JAN 16, 1993 05h 18m 55.82s
62.099 N 149.614 W
DEPTH = 46.8km
CENTRAL ALASKA (1)
<AEIC>. ML 2.9 (AEIC).

CUT	0.43	315	eP	19 05.63	-0.5
			eS	19 13.83	
GHO	0.46	135	iP	19 06.17	-0.4
			eS	19 15.01	
PWA	0.47	196	P	19 06.30	-0.2
PLRM	0.56	156	iP	19 06.91	-0.7
			eS	19 16.66	
SML	0.67	115	iP	19 08.33	-0.9
			eS	19 19.62	
SUA	0.83	221	iP	19 11.01	-0.5
PMS	0.86	178	P	19 10.80	-0.9
HUR	0.88	359	iP	19 11.23	-0.8
			eS	19 23.50	
KNK	0.88	141	iP	19 11.49	-0.6
SKT	0.91	263	iP	19 11.23	-1.2
			eS	19 24.49	
SCM	1.11	103	iP	19 14.48	-0.8
			eS	19 30.67	
PTE	1.27	167	eP	19 16.92	-0.5
RND	1.36	15	eP	19 17.65	-1.1
CGLM	1.39	236	iP	19 18.28	-0.9
CRP	1.47	237	eP	19 19.45	-1.0
			eS	19 39.15	
SPU	1.48	233	iP	19 19.64	-0.9
			eS	19 39.67	
CKN	1.51	235	eP	19 20.39	-0.5
CP2	1.51	237	eP	19 19.96	-1.0
CKT	1.53	235	eP	19 20.20	-1.0
BGL	1.57	239	eP	19 20.78	-1.0
NKA	1.57	211	eP	19 23.18	1.5
CKL	1.58	236	eP	19 20.96	-1.0
TOA	1.62	88	P	19 22.60	0.2
MPA	1.62	176	eP	19 21.10	-1.3
			eS	19 42.02	
SLKM	1.62	191	eP	19 20.82	-1.7
MCK	1.67	10	eP	19 22.59	-0.5
GLI	1.72	134	eP	19 22.94	-0.9
VZW	1.80	124	eP	19 23.96	-1.0
VLZ	1.84	120	iP	19 24.19	-1.3
			eS	19 47.14	
KLU	1.86	107	iP	19 24.78	-1.0
			eS	19 47.73	
SDG	1.95	75	iP	19 26.98	-0.1
TZL	1.97	90	eP	19 27.19	-0.2
KNIM	1.98	152	eP	19 25.55	-1.9
SEW	2.00	178	eP	19 27.86	0.1
FID	2.03	131	eP	19 26.83	-1.3
PAX	2.11	64	eP	19 29.31	-0.1
			eS	19 56.22	
DFR	2.12	226	eP	19 28.73	-0.8
REF	2.20	224	eP	19 30.01	-0.7
THY	2.21	52	eP	19 30.38	-0.5
NCT	2.22	227	eP	19 30.53	-0.5
RSO	2.24	224	eP	19 30.57	-0.7
LTI	2.24	157	eP	19 28.99	-2.1
RS2	2.24	224	eP	19 30.58	-0.7
RDW	2.24	225	eP	19 30.64	-0.7
RS1	2.24	224	eP	19 30.52	-0.8
HIN	2.28	137	eP	19 29.98	-1.7
CVA	2.43	128	eP	19 32.46	-1.4
HDA	2.61	26	eP	19 35.06	-1.5
INW	2.66	222	eP	19 35.57	-1.8
CCB	2.68	17	eP	19 35.84	-1.7
GLB	2.84	101	eP	19 38.08	-1.7
FBA	2.93	15	P	19 39.40	-1.6
MDM	2.94	12	eP	19 39.59	-1.6
RAGM	2.94	124	eP	19 39.18	-2.1
MLY	2.99	351	eP	19 39.93	-1.9
SVW	3.04	254	P	19 41.20	-1.4
GLM	3.07	18	eP	19 41.18	-1.8
TTA	3.08	289	P	19 40.70	-2.5
AUW	3.33	216	eP	19 46.87	0.2
CROM	3.39	111	eP	19 45.79	-1.9
TGL	3.53	109	eP	19 47.17	-2.4
BALM	3.64	104	iP	19 48.64	-2.5
MCNL	3.74	221	eP	19 51.38	-1.1
SYI	3.76	203	P	19 48.00	-4.8
SNH	3.81	117	eP	19 51.44	-2.1
CTGM	4.12	102	eP	19 55.67	-2.4
YAH	4.18	111	eP	19 56.50	-2.5
IMA	4.37	338	P	19 59.20	-2.2
BCPM	5.31	109	eP	20 11.87	-2.7
PNL	5.55	111	eP	20 16.65	-1.4
HQN	5.89	112	eP	20 19.05	-3.7

71 obs. associated

• JAN 16, 1993 05h 42m 13.70± 1.85s
51.257 N ±19.1km 15.794 E ± 9.3km
DEPTH = 10.0km (geophysicist)
POLAND (548)
ML 3.2 (VIE).

KSP	0.52	143	iPd	42 22.60	-1.6
	0.5s	61.00nm			
			iS	42 32.00	
			eLR	42 39.00	
BRG	1.23	252	iPg	42 37.60	1.1
			iSg	42 57.60	
PRU	1.50	213	Pg	42 43.00	2.4X
	0.4s	24.00nm			
			Sg	43 06.50	
			i	43 13.50	
CLL	1.75	273	iPn	42 42.40	-1.9
			iPg	42 45.10	
			iSg	43 11.40	
VRAC	2.02	165	ePn	42 47.90	-0.2
	0.3s	19.80nm			
			eSg	43 19.70	
KHC	2.56	215	ePn	42 56.50	0.5
			e	43 05.00	
			e	43 29.50	
			eSg	43 39.50	
MOX	2.71	259	ePg	43 05.50	7.4X
			iSg	43 44.90	
OJC	2.75	111	iP	43 00.10	1.5
			iS	43 36.30	
GEC2	2.77	210	Pn	42 59.60	0.6
			Pg	43 06.70	
			Sg	43 49.60	
VKA	3.01	173	iPgd	43 10.60	8.2X
			eSg	43 54.00	
GRF	3.31	244	ePg	43 22.00	15.3X
			eSg	44 05.40	

S.D. = 1.6 on 7 of 11 obs.

% JAN 16, 1993 06h 12m 27.16± 0.78s
40.415 N ± 6.9km 23.780 E ± 9.9km
DEPTH = 10.0km (geophysicist)
GREECE (364)

OUR	0.17	117	iPg	12 31.17	0.1
			eSg	12 33.64	
PAIG	0.49	189	ePg	12 37.04	-0.1
			eSg	12 43.92	
SOH	0.52	322	ePg	12 37.32	-0.4
SRS	0.72	349	ePg	12 41.04	-0.2
			eSg	12 50.36	
KNT	1.00	318	ePg	12 46.80	0.6
			eSg	12 59.16	

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

& JAN 16, 1993 06h 29m 34.90s
37.025 N 121.458 W
DEPTH = 5.0km
4.8mb (14 obs.) 4.4Msz (3 obs.)
CENTRAL CALIFORNIA (39)
<BRK>. ML 5.3 (BRK). Minor damage in the Gilroy area. Felt (V) at Ben Lomond and San Bruno; (IV) at Alamo, Fremont, Hayward, La Selva Beach, Los Gatos, Millbrae, Mount Hermon, Oakland, Patterson, San Francisco, San Jose, San Lorenzo, Saratoga and Tres Pinos. Felt as far north as Santa Rosa and south to central Monterey County. Also felt at Modesto and Sacramento.

SAO	0.26	178	iPc	29 40.32	0.1
COE	0.29	324	iPd	29 41.06	0.3
MHC	0.35	335	iPc	29 41.81	-0.1
			eS	29 47.45	
GCC	0.43	271	iPc	29 43.07	-0.5
LLA	0.58	134	iPc	29 45.75	-0.8
PRS	0.70	174	iPd	29 47.90	-0.9
PCC	0.88	303	iPc	29 50.82	-1.4
BKS	1.05	324	iPd	29 53.98	-1.2
			eS	30 09.66	
PRI	1.09	144	iPc	29 55.17	-0.7
ZSP	1.12	326	iPd	29 55.00	-1.3
HMR	1.16	347	iPd	29 56.46	-0.6
CMB	1.32	40	iPc	29 58.37	-1.4
			eS	30 16.17	
PKEM	1.45	131	eP	30 00.02	-1.8
NTYM	1.66	325	eP	30 01.94	-2.8
MMPM	2.02	72	iPc	30 09.99	-0.4
MEMM	2.11	72	iPc	30 11.64	0.4
BCH	2.15	148	iPd	30 09.39	-2.6
MTUM	2.33	81	iPc	30 14.70	-0.1
MRCM	2.44	74	eP	30 16.31	0.0
ORV	2.53	359	eP	30 14.89	-2.4
BONR	2.68	69	iPc	30 19.69	0.0
ISA	2.77	119	eP	30 19.04	-1.8
			eS	30 54.31	
MIN	3.32	358	eP	30 27.23	-1.4
KVN	3.33	52	eP	30 28.08	-0.9
LMEM	3.51	359	eP	30 30.02	-1.4
TNP	3.53	71	ePc	30 30.86	-0.9
WDC	3.65	347	eP	30 29.86	-3.3
KMPM	3.98	329	iPd	30 35.76	-2.2
GSC	4.14	113	eP	30 37.43	-2.8
SSK	4.16	131	eP	30 38.20	-2.4
FHC	4.25	333	ePc	30 40.06	-1.8
PEC	4.70	130	eP	30 44.98	-3.2
PLM	5.25	133	eP	30 52.80	-3.4
DBO	6.24	348	P	31 11.59	1.7
ARUT	6.43	81	eP	31 11.74	-1.0
HSO	6.61	350	P	31 17.10	1.9
NCOR	6.68	2	P	31 18.50	2.3
GLA	6.73	124	eP	31 12.54	-4.3
RNO	7.10	347	P	31 22.77	0.8
GMO	7.42	3	P	31 28.76	2.2
DUG	7.47	62	eP	31 27.76	0.4
MSU	7.50	76	ePn	31 27.80	-0.1
VIPM	7.50	5	P	31 29.09	1.3
BPO	7.62	359	P	31 30.30	0.8
MPOR	7.64	349	P	31 30.13	0.5
SSOR	7.86	355	P	31 34.58	1.9
CROR	7.96	2	P	31 37.33	3.3
VBEM	8.03	359	P	31 36.84	1.7
GT2	8.15	356	P	31 39.34	2.7
HVU	8.23	52	ePn	31 36.49	-1.4
			eSg	33 51.13	
VFP	8.29	360	P	31 39.95	1.2
VLL	8.43	359	P	31 41.96	1.2
TKO	8.47	350	P	31 41.43	0.2
VGB	8.50	3	ePn	31 41.55	0.0
JBO	8.52	8	P	31 43.75	1.9
VLMM	8.52	357	P	31 43.91	2.0
DAU	8.66	64	ePn	31 44.92	0.8
			eSg	34 05.66	
KMOR	8.74	351	P	31 45.04	0.1
EMUT	8.80	68	ePn	31 47.26	1.2
			eSg	34 12.61	
SRU	8.87	73	eP	31 47.82	0.9
			eSg	34 07.25	
GL2	8.94	3	P	31 49.16	1.5
PTI	9.10	47	(P)	31 51.55	1.6
			eSg	34 22.54	
ASR	9.12	359	P	31 52.47	2.3
LNOR	9.15	14	P	31 53.21	2.6
RVW	9.17	354	P	31 51.08	0.3
SHW	9.18	357	eP	31 55.34	4.3
HHAI	9.35	45	(P)	31 53.91	0.5
CZM	9.44	356	P	31 54.91	0.4
RSW	9.46	8	P	31 56.98	2.1
BRVW	9.52	6	P	31 57.34	1.7

```
WIW      9.54   9 P      31 59.40   3.6
MXC      9.58   5 P      31 58.47   2.0
MDW      9.66   7 P      31 59.43   1.8
WPW      9.67 360 P      31 59.37   1.6
GBL      9.68   8 P      31 59.70   1.9
LON      9.72 359 eP     31 58.77   0.3
REMR     9.79 358 P      32 00.66   1.1
WAH2     9.83   8 P      32 01.48   1.7
OT2      9.83   9 P      32 01.60   1.7
RCS      9.84 359 P      32 02.16   1.8
BVW      9.85   6 P      32 01.73   1.5
CRF      9.91   8 P      32 02.26   1.3
RVC      9.92 358 P      32 02.17   1.0
TUC      9.97 115 eP     31 57.51  -4.4
CPW     10.02 353 P      32 03.00   0.4
TBM     10.16   3 P      32 05.65   1.2
GSM     10.17 359 P      32 06.00   1.3
RMW     10.43 359 eP     32 08.70   0.5
OD2     10.56  10 P      32 10.71   0.8
GMW     10.56 355 ePc    32 09.41  -0.5
ETW     10.61   4 P      32 11.27   0.6
WTV     10.72   5 P      32 13.20   1.0
BW06    10.79  54 eP     32 13.00  -0.4
DPW     11.10  11 eP     32 18.47   1.1
LCCM    11.36  36 eP     32 22.50   1.5
NEW     11.67  14 (P)    32 26.02   0.9
MCW     11.69 356 eP     32 24.70  -0.7
PGC     11.71 353 eP     32 27.00   1.5
        1.1s     65.00nm          5.9mb X
ALQ     12.33  95 eP     32 33.94  -0.3
GOL     12.91  73 eP     32 41.52  -0.5
GLD     13.03  73 eP     32 44.19   0.7
RSSD    15.00  56 eP     33 10.27   0.8
        0.8s     17.39nm          4.6mb
SES     15.32  26 ePd    33 18.70   5.3
        1.5s    179.00nm          5.2mb
ACO     17.86  84 iPc    33 46.10   0.4
WMOK    18.51  90 eP     33 53 56  -0.3
        0.9s     16.75nm          4.2mb
OCO     19.39  87 iPd    34 04.70   0.2
SIO     20.28  86 e(P)   34 12.80  -1.3
TUL     20.66  85 eP     34 16.20  -1.9
        1.0s     33.60nm          4.6mb
      Z  20s      0.90um          4.1Msz
                  S      38 05.00
                  LR     40 21.00
LNO     20.66  85 eP     34 16.20  -1.8
LNO2    20.66  85 eP     34 16.70  -1.3
LNO3    20.66  85 eP     34 16.70  -1.4
VVO     20.81  87 eP     34 19.50  -0.2
RLO     21.22  84 e(P)   34 20.70  -3.2
ULM     22.61  46 eP     34 38.50   0.9
MIAR    22.72  88 eP     34 38.00  -0.9
        1.9s    265.60nm          5.4mb
FVM     24.58  78 (P)    34 59.08   2.1
        0.9s     11.45nm          4.5mb
ELC     25.63  80 eP     35 05.73  -1.1
BALM    27.41 338 eP     35 22.33  -0.9
FCC     28.10  31 eP     35 31.00   1.7
TOA     29.42 336 e(P)   35 44.60   3.4
PMR     30.06 334 eP     35 45.86  -1.0
        1.1s     24.67nm          5.0mb
CRP     30.97 331 eP     35 53.91  -1.2
PRM     31.79  83 eP     36 02.53   0.1
SVW     32.25 329 eP     36 05.20  -1 0
EEO     32.66  59 eP     36 16.00   6.1
TTA     33.41 332 eP     36 15.07  -1.3
        1.0s     12.95nm          4.8mb
CEH     33.89  79 (P)    36 20.25  -0.4
        0.6s     14.28nm          5.1mb
IMA     34.55 337 eP     36 24.73  -1.5
        1.1s      9.65nm          4.6mb
MGD     57.68 324 eP     39 27.00  -1.3
NRI     71.68 349 iPd    40 58.80  -0.3
        1.5s     18.00nm          5.0mb
ZOBO    73.03 126 P      41 08.60   0.0
      Z  20s      0.18um          4.3Msz
                  LR     06 26.00
LPB     73.23 127 P      41 19.00   9.5
CNCB    73.51 127 eP     41 12.00   0.7
BOD     74.62 333 eP     41 14.60  -2.0
        0.9s      8.00nm          4.7mb
SIV     77.51 121 eP     41 37.00   3.5
GRF     84.05  29 eP     42 10.50   2.8
      Z  20s      0.40um          4.8Msz
MOY     84.17 335 eP     42 10.10   1.9
ZAK     84.45 333 eP     42 08.00  -1.6
```

```
        1.1s      8.00nm          4.9mb
GEC2    85.69  28 eP     42 17.90   1.9
        1.1s      1.89nm          4.2mb
                   e     42 21.70
                   e     42 29.70
                   e     42 38.50
        139 obs. associated
-----------------------------------
%  JAN  16, 1993  07h 10m 37.98± 2.21s
   31.305 S ±13.4km   68.718 W ±23.0km
   DEPTH = 119.2 ± 17.6 km
 SAN JUAN PROVINCE, ARGENTINA     (137)

RTCB     0.19 201 iPd    10 55.00  -0.1
                   S     11 06.20
CFA      0.51 126 ePc    10 56.20   0.0
                   S     11 08.80
RTCV     0.57 165 iPd    10 56.70   0.1
                   S     11 09.20
RFA      3.46 177 eP     11 31.20   0.0
                   S     12 06.20
TCA      3.53  92 iP     11 32.10  -0.1
                   S     12 11.00
CYA      3.82  42 eP     11 36.00   0.0
      S.D. = 0.1  on   6 of   6 obs.
-----------------------------------
   JAN  16, 1993  07h 49m 30.01± 0.47s
   41.944 N ± 4.1km   22.989 E ± 3.9km
   DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION       (383)
      ML 3.1 (SKO).

KKB      0.10 138 iPgd   49 34.00   1.2
MMB      0.66 122 iPgc   49 43.00  -0.1
VTS      0.67  14 iPgc   49 43.00  -0.4
VAY      0.70 207 iPg    49 43.70  -0.1
                   i     49 51.60
                   iSg   49 53.60
KNT      0.78 185 iPg    49 44.85  -0.4
                   eSg   49 55.02
SRS      0.94 151 iPg    49 47.54  -0.4
                   eSg   50 00.10
PGB      1.06  55 iPgc   49 49.00  -1.1
GRG      1.08 204 iPg    49 50.30  -0.1
                   iSg   50 04.90
SOH      1.15 166 iPg    49 51.46  -0.2
SKO      1.16 272 ePg    49 51.50  -0.1
        0.6s    134.00nm
                   i     49 54.80
                   i     50 09.20
                   i     50 14.20
PLD      1.29  82 iPgc   49 55.00   1.1
THE      1.31 181 ePb    49 54.41   0.2
                   iSb   50 11.41
RZN      1.32 101 iPgc   49 55.00   0.5
FNA      1.68 227 ePb    50 00.74   1.1
                   iSb   50 23.26
OUR      1.77 155 ePb    50 00.54  -0.4
OHR      1.84 244 ePn    50 02.70   0.7
LIT      1.88 192 ePb    50 01.38  -1.1
                   eSb   50 26.58
PAIG     2.08 165 iPn    50 04.85  -0.5
MLR      4.14  30 ePc    50 38.50   3.7X
VRI      4.76  33 eP     50 47.50   4.0X
      S.D. = 0.7  on  18 of  20 obs.
-----------------------------------
   JAN  16, 1993  10h 41m 47.24± 1.42s
    6.536 S ± 6.0km  129.897 E ± 8.1km
   DEPTH = 137.0 ± 15.7 km
   4.8mb ( 16 obs.)
 BANDA SEA                        (280)

MTN      6.39 169 iPd    43 20.70   0.5
WRA     14.01 162 P      44 58.29  -2.7
        0.8s     13.10nm          4.3mb
WB2     14.01 162 iPd    44 58.10  -2.9
                   eS    47 24.50
KHKI    14.28 262 iPd    45 05.70   1.3
                   i(S)  47 40.10
                   e     49 47.50
QIS     16.82 147 eP     45 37.80   1.8
        0.3s      3.00nm          4.1mb
                   eS    48 30.00
PMG     17.33 101 eP     45 44.00   1.7
        1.1s    113.92nm          5.1mb
ASPA    17.46 168 eP     45 42.90  -1.0
                   eS    48 39.90
```

```
PLP     18.25 344 ePc    45 52.50  -0.5
KKM     18.51 312 ePc    45 56.00   0.1
WARB    19.78 189 iPd    46 09.70   0.6
        0.3s     17.00nm          4.9mb
CTA     20.82 132 P      46 22.89   3.3X
NANU    21.12 220 eP     46 23.50   1.0
                   eS    50 18.00
PGP     21.80 336 ePd    46 31.50   2.3
MEEK    22.70 207 eP     46 39.00   1.0
FORT    24.18 184 eP     46 52.00  -0.2
        0.5s     26.00nm          5.0mb
COOL    25.58 198 iPc    47 05.20  -0.1
MRWA    26.10 209 eP     47 10.50   0.5
                   e     47 42.00
RMO     26.77 140 eP     47 15.00  -1.2
                   i     47 50.90
BAL     26.96 206 eP     47 18.00   0.2
KLB     27.39 203 iPc    47 22.10   0.4
STK     27.48 158 iPd    47 22.40  -0.1
        0.4s      7.60nm          4.7mb
MUN     28.36 205 eP     47 30.00  -0.4
                   e     48 10.50
CMS     28.95 151 eP     47 35.60  -0.2
        1.0s      5.00nm          4.2mb
ADE     29.44 165 iPd    47 40.80   0.7
BRS     30.04 136 iPc    47 44.00  -1.5
                   i     48 21.50
ARMA    31.32 142 iPc    47 57.60   0.8
        1.0s     14.00nm          4.7mb
BWA     32.60 151 iPd    48 09.70   1.9
CAN     33.61 151 iPd    48 17.40   0.9
CNB     33.78 151 eP     48 18.80   0.8
        1.0s     22.00nm          4.9mb
KHT     37.58 304 eP     48 50.60   0.4
CHG     39.57 310 iPc    49 07.00   0.3
        1.0s     14.00nm          4.7mb
GYA     39.79 326 P      49 08.80   0.2
KMI     41.09 321 Pc     49 20.00   0.6
        1.5s     40.00nm          4.9mb
CD2     44.86 328 eP     49 49.00  -0.6
XAN     44.98 335 P      49 49.20  -1.3
        1.0s     71.00nm          5.3mb
LZH     48.95 332 eP     50 21.50  -0.2
        1.5s     19.00nm          4.7mb
                   pP    50 33.50  43kmX
                   PP    52 13.50
LSA     51.79 316 Pc     50 44.00   0.2
        0.9s     12.00nm          4.7mb
GTA     53.52 331 P      50 55.00  -0.9
        1.0s     14.00nm          4.8mb
GBA     55.79 291 P      51 11.00  -1.6
HYB     56.02 296 eP     51 12.50  -1.8
WMO     62.95 327 P      52 01.00  -0.4
        0.8s     16.00nm          5.0mb
CNCB   150.83 143 PKP    01 28.10   7.4X
ZOBO   151.15 142 PKP    01 27.30   6.1X
      S.D. = 1.2  on  40 of  43 obs.
-----------------------------------
•  JAN  16, 1993  10h 55m 08.14± 0.88s
   20.798 S ±11.6km  179.006 W ± 8.6km
   DEPTH = 622.3 ±  9.7 km
   4.6mb ( 16 obs.)
 FIJI ISLANDS REGION              (181)

SVA      3.58 318 ePc    56 32.90   0.0
BKM     12.44 282 iP     57 52.50   1.4
DZM     13.61 262 iPc    58 03.10   0.6
CTA     32.52 265 P      00 52.40   0.7
ASPA    43.54 257 P      02 20.50  -0.2
WB2     43.61 263 eP     02 20.20  -1.1
        0.3s     28.70nm          5.2mb
                   eS    08 05.50
WRA     43.63 263 P      02 20.50  -0.9
        0.5s      2.20nm          3.9mb
DHH     46.66  28 eP     02 42.97  -1.5
MTN     48.23 271 eP     02 55.00  -1.5
WARB    49.84 253 eP     03 07.00  -1.2
NANU    60.41 255 iPd    04 20.80  -0.6
        0.5s     25.00nm          4.7mb
SPA     69.33 180 iPc    05 15.70  -0.7
        0.7s     10.94nm          4.4mb
MAT     69.89 324 eP     05 19.00  -0.9
        0.7s     13.01nm          4.5mb
NJ2     79.35 310 Pd     06 13.00   0.8
KMPM    79.46  39 eP     06 13.67   1.0
MDJ     80.22 326 eP     06 17.90   1.4
AIA     81.06 157 eP     06 21.00   0.5
```

16d 11h

```
GLA     81.34  50 iPc   06 23.81    1.3
BONR    81.62  44 eP    06 24.92    0.8
CN2     81.96 323 P     06 25.60    0.3
         1.0s     12.00nm          4.4mb
TNP     82.40  45 eP    06 27.56   -0.3
         0.7s      8.07nm          4.4mb
SLKM    84.32  14 eP    06 35.54   -1.1
BGL     84.54  13 eP    06 36.97   -0.8
CP2     84.57  13 eP    06 37.11   -1.0
PMR     85.53  14 eP    06 41.16   -1.2
         0.4s      7.25nm          4.7mb
GYA     85.98 300 iPd   06 46.20    0.7
         0.8s      9.40nm          4.6mb
BALM    86.73  17 eP    06 47.70   -0.6
TIY     86.78 312 eP    06 49.40    0.4
DPW     87.35  36 iPd   06 51.67    0.3
SRU     87.41  46 iPd   06 52.44    0.4
XAN     87.57 308 P     06 53.80    1.1
         0.8s     11.00nm          4.7mb
HHAI    88.29  42 eP    06 56.97    1.0
ALQ     88.32  52 eP    06 56.56    0.2
         1.0s      4.44nm          4.2mb
IMA     88.70  10 iPd   06 56.88   -0.5
         0.8s      5.94nm          4.5mb
FBA     88.74  13 ePd   06 55.95   -1.4
         0.8s     21.71nm          5.1mb
BW06    89.83  44 ePd   07 03.15   -0.1
         0.7s      5.16nm          4.6mb
LCCM    89.89  40 eP    07 13.90   10.6X
LZH     92.20 308 eP    07 15.00    0.8
         1.0s     15.00nm          5.0mb
SES     92.67  36 eP    07 16.00    0.2
RSSD    94.02  44 eP    07 21.41   -1.0
         0.5s      2.02nm          4.6mb
KAF    135.17 343 iPKP  13 18.90   -0.2
         0.4s      7.00nm
NUR    136.95 343 iPKP  13 23.20    0.7
         0.4s      7.20nm
NAO    139.41 353 PKP   13 18.20   -8.8X
         0.6s      2.40nm
HFS    139.68 350 ePKP  13 18.50   -9.0X
         0.3s      4.40nm
EKA    145.38   4 PKP   13 38.00    0.6
         0.9s     18.70nm
DMU    146.41   8 ePKP  13 41.00    1.9
CLI    146.55 326 iPKPd 13 42.50    2.8X
HRI    146.81 299 ePKP  13 43.50    2.9X
OJC    147.09 338 iPKP  13 43.50    3.1X
JVI    147.41 297 ePKP  13 45.10    3.6X
CVO    147.61 326 ePKP  13 45.00    3.6X
KSP    147.69 342 iPKPd 13 45.10    3.8X
         0.7s     33.00nm
                   i    13 50.00
SPC    147.77 336 ePKP  13 45.90    4.1X
MLR    147.95 326 ePKP  13 45.50    3.4X
CLL    148.13 346 iPKP  13 46.10    4.1X
         0.9s     29.00nm
                   i    13 51.00
RMN    148.28 295 ePKP  13 47.10    4.1X
BRG    148.30 344 iPKP  13 46.60    4.3X
         1.2s     25.00nm
                   i    13 51.80
PRU    148.95 343 PKPd  13 48.00    4.7X
         0.9s     10.70nm
                   e    13 55.20
MOX    149.06 347 ePKP  13 47.90    4.5X
         1.3s     20.00nm
                   e    13 55.10
ZST    149.74 338 ePKP  13 50.20    5.7X
KHC    149.99 343 PKPd  13 50.70    5.8X
         0.9s      7.70nm
                   e    13 59.50
GRF    150.04 347 iPKPd 13 51.00    6.1X
                   e    14 00.00
TNS    150.05 350 ePKPd 13 50.20    5.2X
GEC2   150.22 343 ePKP  13 45.20   -0.2
         0.8s      0.58nm
GEC2   150.22 343 ePKPd 13 50.90    5.5X
         0.6s      7.25nm
                   e    13 52.30
                   e    14 01.00
DOU    150.62 355 iPKPc 13 52.10    6.3X
                   e    14 01.40
WLF    150.90 353 PKPc  13 51.00    4.8X
FUR    151.47 346 iPKPc 13 54.00    6.9X
                   i    14 05.90
CDF    151.99 351 ePKP  13 54.70    6.8X
         0.5s      7.05nm
FLN    152.07   2 ePKP  13 54.50    6.6X
         0.5s      6.50nm
LDF    152.25   2 ePKP  13 54.80    6.6X
         0.4s      2.85nm
GRR    152.43   3 ePKP  13 55.40    7.0X
         0.3s      4.35nm
HAU    152.51 352 ePKP  13 55.70    7.1X
         0.4s      3.85nm
BSF    152.63 351 ePKP  13 55.80    6.9X
         0.6s      5.50nm
VOY    152.70 340 ePKP  13 56.00    7.0X
                     epP'bc14 10.00
VBY    152.70 338 iPKP  13 54.00    5.1X
                     ipP'bc14 10.60
LPF    152.78   3 ePKP  13 56.20    7.3X
         0.6s      9.30nm
CTI    153.34 343 PKP   13 57.90    8.0X
LOR    153.49 356 ePKP  13 57.90    7.9X
         0.4s      3.05nm
SSF    153.72 356 ePKP  13 58.30    8.1X
         0.6s      3.25nm
LBF    153.77 355 ePKP  13 58.40    8.0X
AVF    154.00 356 ePKP  13 58.60    8.0X
MAF    154.61 357 ePKP  14 01.00    9.5X
LPL    154.90 350 ePKP  14 01.60    9.4X
LPG    154.91 350 ePKP  14 01.80    9.5X
         0.2s      0.55nm
      S.D. = 0.9  on  44 of  85 obs.
-------------------------------------
?  JAN  16, 1993  11h 46m 12.46± 9.38s
   15.720 N ±46.3km   60.630 W ±90.4km
   DEPTH =  33.0km  (normal)
 LEEWARD ISLANDS                  ( 92)
      ML 2.9 (FDF).

DOG      1.00 288 eP    46 30.23    0.0
PAG      1.06 287 eP    46 31.04    0.0
FDF      1.10 207 iPc   46 31.58   -0.1
MVM      1.19 193 iPc   46 32.75   -0.1
BIM      1.27 200 iPd   46 34.19    0.2
      S.D. = 0.1  on   5 of   5 obs.
-------------------------------------
?  JAN  16, 1993  11h 53m 10.75± 3.29s
   44.715 N ±21.9km    2.074 E ±18.9km
   DEPTH =  10.0km  (geophysicist)
 FRANCE                           (538)
      ML 2.3 (LDG).

CAF      0.21 358 Pg    53 15.00   -0.4
                  Sg    53 21.90
LPO      0.63 267 Pg    53 23.20   -0.3
                  Sg    53 34.30
RJF      0.71 326 Pg    53 24.90    0.1
                  Sg    53 39.30
LFF      0.98 284 Pg    53 29.50    0.2
                  Sg    53 46.60
MAF      1.55  13 Pg    53 38.60    0.2
                  Sg    54 01.90
      S.D. = 0.4  on   5 of   5 obs.
-------------------------------------
?  JAN  16, 1993  12h 46m 43.04± 1.05s
   26.893 S ± 7.4km   26.842 E ±18.6km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA         (584)

KSR      1.02   3 eP    47 03.00    0.0
                  S     47 17.50
SEK      1.59 154 eP    47 12.00    0.0
                  S     47 32.50
SLR      1.73  49 iPc   47 14.10    0.0
                  S     47 37.40
BLF      2.28 195 eP    47 22.10    0.0
                  S     47 48.50
      S.D. = 0.0  on   4 of   4 obs.
-------------------------------------
&  JAN  16, 1993  13h 48m 44.49s
   60.266 N          153.587 W
   DEPTH = 172.1km
 SOUTHERN ALASKA                  (  2)
      <AEIC>.

INW      0.30 131 iPd   49 07.13    0.7
                  eS    49 24.82
INE      0.33 128 iPd   49 07.25    0.6
                  eS    49 25.63
ILIM     0.36 120 iPd   49 07.28    0.7
                  eS    49 25.07
NCT      0.44  47 iPd   49 07.60    0.7
                  eS    49 26.16
RDW      0.44  60 iPd   49 07.66    0.6
                  eS    49 26.68
RS1      0.46  64 iPd   49 07.74    0.7
                  eS    49 25.81
RS2      0.46  64 iPd   49 07.75    0.6
                  eS    49 26.87
RSO      0.46  64 iPd   49 07.74    0.6
REF      0.49  63 ePd   49 07.86    0.6
                  eS    49 26.74
DFR      0.55  53 ePd   49 07.85   -1.1
                  eS    49 26.66
PDB      0.57 213 iPd   49 07.77   -1.2
AUL      0.89 175 ePd   49 10.16   -0.7
AUW      0.90 176 eP    49 10.23   -0.7
AUH      0.91 175 eP    49 10.29   -0.8
AUE      0.92 173 ePd   49 10.16   -0.9
AUI      0.94 175 eP    49 10.37   -0.8
                  eS    49 30.25
CKL      1.12  33 iPc   49 11.99   -0.8
MCNL     1.15 200 iPd   49 11.85   -1.0
CKT      1.16  35 iPc   49 12.06   -1.0
BGL      1.16  30 iPc   49 12.58   -0.5
CKN      1.18  35 eP    49 12.15   -1.1
SPU      1.19  39 iPc   49 12.03   -1.3
CP2      1.20  33 ePc   49 13.11   -0.5
CRP      1.23  34 ePc   49 12.88   -0.9
NKA      1.26  67 ePc   49 13.83    0.0
CGLM     1.30  36 iPc   49 13.18   -1.2
SVW      1.31 311 P     49 13.50   -0.9
CDD      1.34 181 iPd   49 13.43   -1.2
                  eS    49 35.63
BRLK     1.45 109 ePc   49 14.70   -0.9
                  eS    49 36.84
SLKM     1.69  80 eP    49 15.84   -2.2
SYI      1.77 159 ePd   49 17.09   -1.8
                  eS    49 42.50
SUA      1.84  48 ePc   49 17.88   -1.9
                  eS    49 45.49
SKT      1.99  29 iPc   49 20.12   -1.2
                  eS    49 47.61
SEW      2.07  93 eP    49 20.27   -1.9
MPA      2.11  82 eP    49 20.39   -2.2
PMS      2.21  62 P     49 20.20   -3.6
PWA      2.28  51 P     49 23.80   -0.7
PTE      2.33  73 eP    49 22.80   -2.3
PLRM     2.55  57 eP    49 24.81   -2.9
GHO      2.73  54 ePc   49 26.88   -3.1
KNK      2.76  63 eP    49 27.25   -3.1
LTI      2.88  92 eP    49 29.58   -2.1
KNIM     2.91  86 iPd   49 29.92   -2.3
MTU      2.98  93 eP    49 31.58   -1.5
SML      2.99  57 eP    49 30.19   -3.0
GLI      3.26  76 eP    49 34.16   -2.4
SCM      3.43  60 eP    49 35.93   -2.7
FID      3.55  79 ePd   49 37.73   -2.4
VZW      3.55  74 eP    49 38.59   -1.7
VLZ      3.67  73 eP    49 39.08   -2.6
RND      3.87  33 eP    49 41.74   -2.6
CVA      3.90  82 eP    49 42.37   -2.2
KLU      3.94  69 eP    49 42.54   -2.8
TOA      4.04  60 P     49 44.70   -1.8
MCK      4.11  30 eP    49 46.23   -1.2
TZL      4.34  62 eP    49 49.32   -1.0
SDG      4.48  56 eP    49 50.44   -1.8
PAX      4.73  51 eP    49 53.32   -2.2
NEA      4.81  24 eP    49 53.41   -3.0
GLB      4.92  72 eP    49 56.02   -2.0
MLY      4.96  14 eP    49 55.66   -2.8
CCB      5.15  29 eP    49 58.00   -2.9
HDA      5.18  34 ePc   49 58.53   -2.1
MDM      5.32  25 ePc   50 00.42   -2.8
TGL      5.34  80 eP    50 02.02   -1.5
FBA      5.36  27 P     50 01.10   -2.7
GLM      5.53  28 eP    50 03.29   -2.8
BALM     5.59  77 eP    50 04.81   -2.0
DOT      5.63  49 eP    50 04.81   -2.5
IMA      5.83 360 P     50 08.50   -1.5
YAH      5.89  84 eP    50 09.71   -1.2
CTGM     6.07  78 eP    50 10.51   -2.8
        72 obs. associated
-------------------------------------
   JAN  16, 1993  15h 15m 16.63± 0.33s
   27.470 S ± 3.9km   71.112 W ± 8.4km
   DEPTH =  35.3km  (  2 depth phases)
```

5.4mb (9 obs.)
NEAR COAST OF NORTHERN CHILE (122)
Felt (IV) at Copiapo and Diego de Almagro; (II) at Caldera.

ANT	3.80	10	iP+	16 12.00	-2.3
			iS	16 53.80	
RTCB	4.48	154	iPd	16 26.50	2.5
RTLL	4.48	150	ePd	16 26.10	2.1
CFA	4.82	149	e(P)	16 31.00	2.1
RTCV	4.92	154	ePc	16 32.00	1.8
JACH	5.21	175	iP	16 34.05	-0.4
			(S)	17 30.65	
ROCH	5.48	179	iP	16 36.41	-1.9
			iS	17 34.87	
PEL	5.67	176	iP	16 38.80	-1.9
SLA	5.74	63	e(P)	16 46.00	4.1X
FCH	5.88	173	iP	16 43.87	-0.2
LCCH	6.00	184	iP+	16 42.34	-3.0
PCH	6.15	175	iP	16 46.67	-1.0
TACH	6.17	179	iP+	16 45.72	-2.0
CHCH	6.45	177	eP	16 50.18	-1.7
LNV	6.47	182	iP	16 48.29	-3.7X
MRA	6.80	138	ePd	16 57.00	0.4
TCA	6.87	126	iP	16 57.00	-0.7
			S	18 10.00	
YJA	7.33	45	ePd	17 05.50	1.0
RFA	7.62	163	eP	17 07.30	-0.9
ARE	10.96	358	eP	17 52.00	-2.4
CNCB	11.00	16	P	17 53.80	-1.4
CCH	11.04	26	eP	17 51.00	-4.5X
LPB	11.24	15	P	17 57.40	-0.9
Z 20s	1.99um				
			LR	21 38.00	
ZOBO	11.47	15	P	17 59.10	-2.5
SIV	14.74	41	eP	18 43.00	-1.4
VAO	22.28	84	eP	20 12.50	0.1
			e	20 22.40	37km
			e	20 26.90	
BAO	24.47	66	Pd	20 33.50	-0.3
			e	20 34.50	4kmX
			e	20 43.00	
			e	20 57.10	
			e	21 09.20	
			e	21 17.10	
			e	21 21.60	
OLY	65.52	342	eP	25 58.45	-0.1
ELC	66.62	344	ePc	26 05.25	-0.4
RLO	67.19	339	eP	26 09.60	0.3
TUL	67.20	338	ePc	26 09.60	0.3
1.0s	47.50nm			5.5mb	
			e	26 25.80	59kmX
LNO	67.20	338	ePc	26 09.10	-0.1
			e	26 25.40	60kmX
LNO2	67.20	338	eP	26 09.50	0.2
LNO3	67.20	338	eP	26 09.90	0.6
SIO	67.22	338	e(P)	26 09.10	-0.4
FVM	67.58	344	iPc	26 11.53	-0.2
0.9s	57.26nm			5.7mb	
			e	26 27.97	60kmX
ACO	69.06	336	iPc	26 21.10	0.1
RSNY	71.74	357	eP	26 37.60	0.6
0.9s	17.94nm			5.1mb	
LIC	72.02	73	P	26 39.10	-0.2
0.7s	15.00nm			5.1mb	
Z 20s	0.11um			4.1Msz	
TIC	72.24	72	P	26 40.70	0.0
KIC	72.33	73	P	26 41.10	-0.1
0.8s	29.00nm			5.3mb	
LMN	73.20	5	eP	26 49.50	4.0X
EEO	74.11	354	eP	26 55.00	4.1X
SRU	75.77	329	eP	27 01.88	1.1
MSU	76.05	328	eP	27 03.97	1.5
ARUT	76.09	327	eP	27 04.73	2.1
RSSD	77.36	336	ePd	27 10.94	1.3
1.1s	11.17nm			4.8mb	
WIN	78.42	109	eP	27 10.20	-5.8X
HVU	78.94	330	eP	27 19.48	1.2
ULM	80.43	344	eP	27 29.50	3.6X
LCCM	81.81	333	eP	27 34.80	1.3
BLF	82.92	119	iPd	27 39.70	0.0
0.7s	33.00nm			5.5mb	
SEK	84.40	119	eP	27 47.50	0.2
0.5s	16.00nm			5.4mb	
SES	85.21	336	eP	27 52.00	1.5
DPW	86.10	330	eP	27 56.04	1.1
SLR	86.14	117	eP	27 48.10	-7.8X
FCC	88.01	348	ePd	28 08.50	4.6X
BCAO	91.71	86	iPc	28 24.20	1.9
1.1s	33.00nm			5.7mb	
			id	28 35.00	34km
WB2	126.81	210	ePKP	34 18.60	-0.3
0.8s	4.30nm				
WRA	126.81	210	PKP	34 19.10	0.2
0.5s	1.90nm				
GBA	147.59	109	PKPd	34 58.00	1.3
HYB	150.30	103	ePKPc	35 06.60	5.6X
1.0s	50.00nm				
NDI	152.07	80	iPKPc	35 10.80	7.5X
S.D. = 1.4 on 52 of 63 obs.					

• JAN 16, 1993 15h 36m 23.63± 0.76s
43.166 N ± 7.4km 0.319 E ±12.1km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
mbLg 3.0 (MDD). ML 2.8 (LDG).

EPF	0.14	174	Pg	36 28.50	1.6
			Sg	36 30.70	
EGRA	1.08	206	iPd	36 40.90	-3.0
			eS	36 52.00	
ELIZ	1.35	271	eP	36 50.00	1.5
			eS	37 07.00	
LPO	1.64	22	Pn	36 53.80	1.2
			Pg	36 59.00	
			Sg	37 22.50	
LFF	1.80	10	Pn	36 54.40	-0.5
			Pg	37 01.90	
			Sg	37 27.50	
ECRI	2.15	256	eP	37 01.20	1.1
			eS	37 24.50	
CAF	2.16	35	Pn	37 00.30	0.1
			Pg	37 08.30	
			Sg	37 37.80	
RJF	2.30	22	Pn	37 01.30	-0.9
			Pg	37 11.80	
			Sg	37 43.10	
EROQ	2.34	178	eP	37 04.00	1.2
			eS	37 32.50	
ETOR	2.94	218	eP	37 10.00	-1.3
			eS	37 45.10	
LSF	3.20	15	Pg	37 27.60	12.6X
			Sg	38 12.20	
TCF	3.40	23	Pg	37 32.70	14.9X
			Sg	38 15.70	
MAF	3.45	27	Pg	37 32.50	14.0X
			Sg	38 20.00	
MFF	3.45	355	Pn	37 17.50	-1.0
			Pg	37 32.30	
			Sg	38 17.90	
BGF	3.84	27	Pg	37 39.20	15.2X
			Sg	38 31.60	
S.D. = 1.6 on 11 of 15 obs.					

& JAN 16, 1993 17h 04m 52.50s
36.832 N 121.585 W
DEPTH = 7.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 2.5 (BRK).

SAO	0.13	121	iPc	04 54.94	-0.4
			eS	04 56.80	
GCC	0.38	301	iPc	04 59.87	-0.4
			eS	05 05.22	
COE	0.43	351	iPd	05 01.91	0.7
MHC	0.51	355	iPc	05 02.90	0.1
			eS	05 10.49	
PRS	0.53	161	iPd	05 02.60	-0.5
			eS	05 13.15	
LLA	0.56	112	iPc	05 03.44	-0.3
			eS	05 12.07	
STAN	0.74	321	eP	05 06.93	-0.3
			eS	05 19.32	
PCC	0.92	317	eP	05 09.21	-1.2
			eS	05 23.82	
PRI	1.01	133	eP	05 12.11	0.1
BKS	1.16	334	eP	05 12.93	-1.6
			eS	05 30.84	
ZSP	1.23	334	iPc	05 16.39	0.7
			eS	05 34.05	
PKEM	1.42	122	(P)	05 19.55	0.9
FRI	1.51	83	iPd	05 19.50	-0.5
CMB	1.53	38	eP	05 18.66	-1.7
			eS	05 37.62	
NTYM	1.77	332	(P)	05 24.07	0.3
BCH	2.04	143	eP	05 26.00	-1.8
BONR	2.84	66	(P)	05 38.90	-0.6
17 obs. associated					

• JAN 16, 1993 17h 32m 55.88± 0.80s
42.179 N ± 5.3km 22.968 E ± 9.3km
DEPTH = 10.0km (geophysicist)
BULGARIA (359)
ML 3.0 (SKO).

KKB	0.32	165	iPgc	33 03.00	0.4
VTS	0.45	23	iPgc	33 05.00	-0.1
MMB	0.82	136	iPgc	33 12.00	0.2
VAY	0.91	199	iPgc	33 13.00	-0.2
			iSg	33 22.30	
			i	33 24.30	
KNT	1.02	183	iPg	33 14.38	-0.8
			eSg	33 24.42	
SKO	1.16	260	ePg	33 23.00	5.5X
0.5s	34.00nm				
			i	33 24.60	
			e(Sg)	33 36.80	
SRS	1.16	156	iPg	33 16.98	-0.6
			eSg	33 29.62	
GRG	1.29	199	ePg	33 19.74	-0.1
			eSg	33 34.62	
SOH	1.39	168	iPg	33 20.98	-0.3
			eSg	33 36.85	
RZN	1.39	110	iPg	33 24.00	2.5X
THE	1.55	180	ePb	33 23.90	0.4
			eSb	33 41.38	
FNA	1.84	221	ePb	33 30.34	2.6X
			eSb	33 51.66	
DIM	1.91	93	iP	33 36.00	7.2X
OHR	1.94	237	ePn	33 34.00	4.7X
OUR	2.00	157	iPb	33 30.06	0.1
PVL	2.03	58	iPd	33 37.00	6.5X
LIT	2.11	190	ePb	33 32.62	1.0
			eSb	33 56.02	
S.D. = 0.6 on 11 of 17 obs.					

? JAN 16, 1993 17h 42m 25.86± 2.10s
51.202 N ±24.2km 15.838 E ± 8.9km
DEPTH = 10.0km (geophysicist)
POLAND (548)

BRG	1.24	255	iPg	42 48.60	-0.3
			iSg	43 08.40	
PRU	1.47	215	ePg	42 53.00	0.6
			e	42 58.00	
			eSg	43 17.00	
VRAC	1.96	165	Pn	42 58.90	-0.5
			eSg	43 30.60	
KHC	2.53	216	Pn	43 13.00	5.3X
			Pg	43 22.00	
			Sn	43 41.80	
			eSg	43 51.50	
OJC	2.70	110	eP	43 10.30	0.2
			eS	43 46.50	
MOX	2.73	260	ePg	43 16.30	5.8X
			iSg	43 56.10	
S.D. = 0.9 on 4 of 6 obs					

? JAN 16, 1993 17h 54m 11.42± 1.19s
37.066 N ±11.9km 50.575 E ±15.4km
DEPTH = 33.0km (normal)
3.6mb (1 obs.)
CASPIAN SEA (338)
Felt at Rudbar, Iran.

TEH	1.48	153	iPc	54 36.50	0.4
TAB	3.52	288	eP	55 06.00	0.7
KER	3.91	227	eP	55 10.00	-0.8
MAIO	7.21	93	ePn	56 06.00	8.7X
			eSn	57 36.00	
OBN	20.41	337	eP	58 47.00	-1.0
GEC2	29.16	306	eP	00 12.40	0.7
0.8s	0.90nm			3.6mb	
S.D. = 1.2 on 5 of 6 obs.					

JAN 16, 1993 19h 04m 33.91± 0.94s
37.041 N ± 8.6km 22.171 E ± 6.9km
DEPTH = 33.0km (normal)
SOUTHERN GREECE (368)
MD 3.2 (ATH).

16d · 19h

```
VLI      0.69 117 iPc    04 47.00  -0.2
ATH      1.54  52 eP     05 00.50   1.1
                  eS     05 20.00
VLS      1.69 313 eP     05 02.20   0.6
AGG      1.98   4 ePb    05 06.32   0.5
                  eSb    05 31.92
LIT      3.07   5 ePn    05 21.16   0.0
PAIG     3.12  22 ePn    05 20.82  -1.0
KZN      3.28 355 eP     05 26.50   2.3X
OUR      3.58  23 ePn    05 27.24  -1.2
SOH      3.89  13 ePn    05 33.68   0.9
KNT      4.15   8 ePn    05 37.04   0.5
                  eSn    06 24.56
OHR      4.20 346 ePn    05 36.50  -0.8
SRS      4.22  15 ePn    05 37.32  -0.2
                  iSn    06 28.04
VAY      4.29   4 ePn    05 27.70 -10.7X
SKO      4.96 354 e(P)   05 44.20  -3.8X
SOI      4.97 284 P      05 48.00  -0.2
                  eSn    06 42.00
     S.D. = 0.8  on  12 of  15 obs.
-----------------------------------
*  JAN  16, 1993  19h 45m 40.76± 1.79s
   15.587 N ±20.9km   95.930 E ±10.2km
   DEPTH =  33.0km  (normal)
   4.3mb (  1 obs.)
 NEAR SOUTH COAST OF MYANMAR      (298)

KHT      2.69 107 iPn    46 22.70   0.0
                  ePg    46 33.00
                  eSg    47 12.70
BDT      3.38  60 ePg    46 32.00  -0.5
                  eSg    46 54.00
NST      4.05  88 ePn    46 49.00   7.0X
                  ePg    47 03.00
                  eSg    48 03.00
CHG      4.31  41 ePn    46 44.00  -1.8
                  ePg    46 59.70
                  eSg    48 02.10
LOE      5.85  71 ePn    47 13.90   6.4X
                  ePg    48 09.30
                  eSg    48 41.70
KMI     11.43  33 eP     48 36.50  11.4X
KMI     11.43  33 eP     48 26.50   1.4
GUN     15.40 324 P      49 15.14  -2.5
PKI     15.41 322 P      49 17.72  -0.1
DMN     15.62 322 P      49 20.84   0.4
KKN     15.65 323 P      49 22.66   1.9
GKN     16.19 322 P      49 27.16  -0.5
HYB     16.76 279 eP     49 42.00   7.2X
LZH     21.60  18 eP     50 31.00   0.9
        1.2s     15.00nm          4.3mb
     Z  14s      0.74um          4.2MszX
     N  10s      0.60um
XAN     21.79  30 eP     50 32.50   0.7
     S.D. = 1.5  on  11 of  15 obs.
-----------------------------------
?  JAN  16, 1993  20h 47m 31.64± 4.11s
   40.090 N ±21.6km   20.763 E ±26.6km
   DEPTH =  10.0km  (geophysicist)
 GREECE-ALBANIA BORDER REGION     (392)
      ML 2.4 (TIR).

LSK      0.14 296 iPgc   47 34.00  -1.0
                  iSg    47 36.20
KBN      0.53   2 ePg    47 42.60   0.2
TPE      0.61 290 ePg    47 43.50  -0.5
SRN      0.62 251 iPgd   47 44.30   0.2
                  iSg    47 54.80
VLO      1.04 292 ePg    47 52.40   1.1
TIR      1.43 332 ePn    48 01.50   3.9X
                  iSn    48 24.50
PHP      1.61 351 ePn    48 03.50   3.3X
     S.D. = 1.1  on   5 of   7 obs.
-----------------------------------
?  JAN  16, 1993  22h 05m 20.37± 1.19s
   37.465 N ± 8.7km    1.921 W ±11.7km
   DEPTH =  10.0km  (geophysicist)
 SPAIN                            (377)
      mbLg 2.5 (MDD).

ENIJ     0.54 205 iPgc   05 31.60   0.2
                  eSg    05 40.00
EALH     0.56  45 ePg    05 31.30  -0.4
                  eSg    05 40.00
EHUE     0.64 303 ePg    05 32.20  -1.0
                  eSg    05 42.80
EVIA     1.26 339 ePn    05 45.00   1.2
                  eSn    06 02.00
ECOG     1.32 262 ePn    05 49.00   4.1X
                  eSn    06 07.80
     S.D. = 1.6  on   4 of   5 obs.
-----------------------------------
?  JAN  17, 1993  00h 52m 06.85± 7.36s
   39.396 N ±49.4km   26.251 E ±41.2km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                           (366)

ALN      1.51 354 iPb    52 33.88   0.0
                  eSb    52 53.84
OUR      1.98 299 ePb    52 40.24  -0.5
PAIG     2.05 286 ePb    52 42.23   0.4
SOH      2.64 304 iPn    52 50.96   0.7
SRS      2.66 311 ePn    52 50.56   0.0
                  eSn    53 20.76
LIT      2.98 285 ePn    52 54.72  -0.4
                  eSn    53 29.52
KNT      3.11 306 ePn    52 56.40  -0.5
                  eSn    53 30.68
GRG      3.34 299 iPn    53 00.44   0.3
                  eSn    53 38.32
     S.D. = 0.5  on   8 of   8 obs.
-----------------------------------
   JAN  17, 1993  01h 06m 15.28± 0.74s
   31.731 S ± 9.8km   69.781 W ± 7.1km
   DEPTH = 130.0km  (geophysicist)
 SAN JUAN PROVINCE, ARGENTINA     (137)
      MD 3.8 (SAN).

RTCB     0.87  74 iPc    06 37.50   0.1
                  S      06 51.60
RTCV     1.07  97 iPc    06 39.00  -0.2
                  S      06 43.00
JACH     1.17 216 iP     06 40.63   0.3
                  iS     06 58.76
RTLL     1.19  71 iPd    06 41.00   0.6
                  S      06 56.00
CFA      1.32  85 iPd    06 42.00   0.2
                  S      07 00.80
MDZ      1.39 146 i(P)   06 42.80   0.2
PEL      1.60 208 iP+    06 44.79  -0.2
                  iS     07 06.06
ROCH     1.62 220 iP+    06 45.12  -0.2
                  iS     07 06.64
FCH      1.65 195 iP+    06 46.69   0.9
                  iS     07 08.98
PCH      1.98 198 iP+    06 50.22   0.6
                  iS     07 15.47
TACH     2.15 207 iPd    06 51.36  -0.2
                  iS     07 16.57
LCCH     2.30 220 iP     06 53.18  -0.3
CHCH     2.32 198 iP     06 53.93   0.2
                  iS     07 21.99
CACH     2.48 196 eP     06 56.00   0.2
                  iS     07 26.66
LNV      2.61 211 iP     06 56.26  -1.1
                  iS     07 26.15
RFA      3.23 160 eP     07 05.30  -0.3
MRA      3.52 102 eP     07 09.30  -0.1
TCA      4.45  86 iP     07 21.20  -0.8
                  S      08 08.20
     S.D. = 0.5  on  18 of  18 obs.
-----------------------------------
%  JAN  17, 1993  01h 11m 20.65± 0.68s
   43.660 N ± 6.6km   12.053 E ± 5.7km
   DEPTH =  10.0km  (geophysicist)
 CENTRAL ITALY                    (381)

CRE      0.08 246 Pc     11 23.10  -0.1
                  eSg    11 25.10
SFI      0.30 331 P      11 27.00   0.1
                  eSg    11 31.70
PGD      0.32 312 P      11 27.50   0.1
                  eSg    11 33.60
RSM      0.39  47 P      11 28.30  -0.4
                  eSg    11 34.80
ARV      0.67 104 P      11 34.50   0.6
                  eSg    11 43.30
ASS      0.74 143 P      11 34.90  -0.3
     S.D. = 0.5  on   6 of   6 obs.
-----------------------------------
%  JAN  17, 1993  01h 31m 52.14± 0.73s
   40.080 N ± 5.5km   23.642 E ± 6.5km
   DEPTH =  10.0km  (geophysicist)
 GREECE                           (364)

PAIG     0.16 169 iPg    31 55.82   0.1
                  eSg    31 58.70
OUR      0.36  46 ePg    31 59.50  -0.1
                  iSg    32 05.14
THE      0.76 317 iPg    32 07.70   0.8
SOH      0.77 344 ePg    32 07.58   0.3
LIT      0.88 272 ePg    32 08.90  -0.2
                  iSg    32 20.22
SRS      1.04 358 ePg    32 11.90   0.2
                  eSg    32 26.14
KNT      1.22 333 ePb    32 13.82  -1.0
GRG      1.29 313 ePb    32 15.98  -0.1
                  eSb    32 33.78
     S.D. = 0.6  on   8 of   8 obs.
-----------------------------------
?  JAN  17, 1993  02h 16m 01.29± 5.07s
   13.460 N ±48.8km   91.642 W ±20.6km
   DEPTH =  33.0km  (normal)
 NEAR COAST OF GUATEMALA          ( 71)

TPX      1.56 337 iP     16 27.50   0.5
                  iS     16 46.00
SCX      3.39 344 iP     16 57.50   4.3X
                  iS     17 32.00
OXX      6.08 307 iP     17 32.00   0.5
                  iS     18 35.00
EVV      6.11 325 eP     17 31.00  -0.7
PPM      8.72 311 iP     18 08.50  -0.2
UYO     20.77 353 iPd    20 42.10   0.1
MEO     22.14 345 iPc    20 55.70  -0.1
MCMT    36.11 334 ePc    23 06.30   3.9X
     S.D. = 0.6  on   6 of   8 obs.
-----------------------------------
?  JAN  17, 1993  02h 33m 57.87± 0.99s
   45.565 N ± 6.6km   14.332 E ± 9.5km
   DEPTH =   5.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION       (383)
      MD 2.2 (LJU), 1.5 (TRI).

CEY      0.19  21 ePg    34 01.80   0.1
                  eSg    34 04.30
RIY      0.22 170 iPg    34 02.40   0 0
                  iSg    34 05.80
TRI      0.42 290 ePg    34 06.50   0.1
                  eSg    34 13.20
VOY      0.56 327 ePg    34 08.90  -0.2
                  eSg    34 18.30
     S.D. = 0.2  on   4 of   4 obs.
-----------------------------------
   JAN  17, 1993  02h 42m 19.21± 0.54s
   41.730 N ± 4.6km   19.584 E ± 7.3km
   DEPTH =  10.0km  (geophysicist)
 ALBANIA                          (391)
      ML 3.0 (TIR). MD 2.9 (TTG).

SDA      0.33 349 iPgd   42 26.00   0.0
                  iSg    42 31.80
ULC      0.34 313 iPc    42 26.19  -0.1
                  iSg    42 31.41
TIR      0.44 151 iPgd   42 28.20   0.1
                  iSg    42 36.00
TTG      0.74 341 iPgd   42 33.06  -0.6
                  iSg    42 44.03
BDV      0.79 315 iPgd   42 34.17  -0.4
                  iSg    42 46.06
PVY      0.91  18 iPgd   42 36.14  -0.6
                  iSg    42 49.73
HCY      1.08 312 iPgc   42 39.69   0.2
                  iSg    42 55.67
IVA      1.16  11 iPgc   42 40.91  -0.1
                  iSg    42 57.99
NKY      1.17 338 iPgd   42 40.93  -0.1
                  iSg    42 58.30
BRY      1.40 327 iPgd   42 45.36   0.4
                  iSg    43 06.13
TPE      1.47 167 ePn    42 45.50  -0.2
PLE      1.61 355 iPnc   42 49.29   1.5
                  iSn    43 12.64
     S.D. = 0.6  on  12 of  12 obs.
-----------------------------------
?  JAN  17, 1993  02h 52m 49.86± 3.21s
   19.516 N ±37.8km   64.404 W ± 8.3km
   DEPTH =  33.0km  (normal)
 VIRGIN ISLANDS                   ( 91)
```

```
LPR      1.83 229 P      53 19.50  -0.2
CPD      2.05 224 P      53 23.10   0.4
SJG      2.16 230 i(P)   53 24.00  -0.3
APR      2.44 245 P      53 28.80   0.5
PORP     2.57 236 P      53 30.50   0.4
LRS      2.61 243 P      53 30.70   0.0
MGP      2.95 240 P      53 34.70  -0.8
MGH      3.47 143 eP     53 43.00   0.0
TOV     10.99 209 eP     55 37.30   9.4X
SDV     12.17 211 eP     55 47.20   3.1X
BAO     38.48 154 Pd     00 10.90   0.0
                  e      03 12.10
      S.D. = 0.5  on   9 of  11 obs.
-----------------------------------------
&  JAN  17, 1993  03h 00m 27.80s
   39.947 N          120.905 W
   DEPTH =    9.0km
 NORTHERN CALIFORNIA                ( 36)
      <BRK>. ML 3.1 (BRK), 3.1 (GS).

ORV      0.60 230 iPc    00 38.84  -1.1
                  iS     00 47.25
WDC      1.40 297 eP     00 52.42  -1.1
LBFM     1.59 332 eP     00 55.80  -0.5
                  eS     01 16.90
HMR      1.92 202 eP     01 02.16   1.2
CMB      1.95 168 ePc    01 00.60  -0.9
                  eS     01 26.97
NTYM     2.07 222 eP     01 02.77  -0.3
ZSP      2.26 208 eP     01 06.31   0.4
                  eS     01 32.21
BKS      2.31 207 eP     01 06.03  -0.6
                  eS     01 35.44
KVN      2.35 112 eP     01 08.92   1.6
                  eS     01 40.63
MHC      2.66 193 eP     01 11.19  -0.6
                  eS     01 47.15
PCC      2.70 206 eP     01 12.57   0.4
MEMM     2.75 145 ePn    01 14.37   1.6
COE      2.75 193 eP     01 14.59   1.7
BONR     2.84 134 eP     01 14.09  -0.4
MRCM     2.94 140 ePn    01 15.56  -0.3
                  ePg    01 20.92
FRI      3.10 162 eP     01 17.35  -0.4
MTUM     3.17 144 eP     01 18.47  -0.6
LLA      3.33 181 eP     01 25.73   4.7
TNP      3.42 122 eP     01 21.13  -1.5
                  eS     02 09.38
PRS      3.63 186 iPc    01 24.62  -0.7
MSU      6.93  99 ePd    02 10.28  -1.9
      21 obs. associated
-----------------------------------------
%  JAN  17, 1993  03h 07m 41.01± 1.08s
   43.033 N ± 7.7km   18.729 E ± 6.5km
   DEPTH =   10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION         (383)
      ML 1.6 (TTG).

BRY      0.19 226 iPgd   07 45.44   0.1
                  iSg    07 48.64
NKY      0.30 138 iPgc   07 47.33   0.1
                  iSg    07 51.93
PLE      0.57  58 iPgc   07 52.52  -0.1
                  iSg    08 00.66
HCY      0.61 196 iPgd   07 53.23  -0.1
                  iSg    08 02.14
TTG      0.72 147 iPgd   07 54.42  -0.7
                  iSg    08 05.30
BDV      0.75 174 ePg    07 55.46  -0.3
                  iSg    08 06.60
IVA      0.87 100 iPgd   07 57.87   0.0
                  iSg    08 10.46
PVY      1.02 115 ePg    08 00.66   0.4
                  iSg    08 15.03
ULC      1.14 160 iPgc   08 02.89   0.6
                  iSg    08 19.42
      S.D. = 0.4  on   9 of   9 obs.
-----------------------------------------
?  JAN  17, 1993  03h 59m 34.80± 1.33s
   34.589 N ±25.3km  105.026 E ±21.2km
   DEPTH =   10.0km  (geophysicist)
   3.2mb (  1 obs.)
 GANSU, CHINA                       (322)
      ML 3.6 (BJI).

LZH      1.78 327 iPgd   00 07.00   1.0
                  Sn     00 28.50

XAN      3.27  99 Pn     00 27.00  -0.2
                  Pg     00 34.80
                  Sn     01 10.00
                  Sg     01 18.50
GTA      6.37 321 Pn     01 10.00  -1.1
                  Sn     02 20.00
                  Sg     02 51.00
TIY      6.75  60 ePg    01 40.00  23.5X
BTO      7.19  32 ePg    01 47.20  24.6X
WRA     60.98 148 P      09 50.80   0.2
        0.5s     0.10nm          3.2mb
      S.D. = 1.5  on   4 of   6 obs.
-----------------------------------------
*  JAN  17, 1993  04h 01m 48.90± 0.71s
   21.233 S ± 7.6km   68.684 W ±10.1km
   DEPTH = 154.2 ± 10.4 km
 CHILE-BOLIVIA BORDER REGION        (124)

ANT      2.94 213 eP     02 36.10   0.0
YJA      3.10 108 ePc    02 38.90   0.2
CNCB     4.45   9 iPc    02 57.00   0.5
CCH      4.52  33 (P)    02 50.10  -7.0X
LPB      4.71   7 P      03 00.00   0.3
        1.0s   100.00nm
ZOBO     4.95   6 Pc     03 02.60  -0.5
ARE      5.44 330 eP     03 09.00  -0.4
                  eS     04 05.00
SIV      8.90  55 eP     03 55.80   0.3
BAO     20.40  78 e(P)   06 14.00  -1.7
                  e      06 15.20
                  e      06 17.80
                  e      06 23.00
LIC     68.11  74 P      12 35.00   0.5
KIC     68.43  74 P      12 37.20   0.8
WRA    133.29 210 PKP    20 53.70   4.9X
        0.6s     0.80nm
      S.D. = 0.9  on  10 of  12 obs.
-----------------------------------------
%  JAN  17, 1993  04h 57m 30.66± 0.96s
   43.619 N ± 8.5km   12.071 E ± 8.1km
   DEPTH =   10.0km  (geophysicist)
 CENTRAL ITALY                      (381)

CRE      0.09 276 P      57 32.60  -0.7
                  eSg    57 34.90
SFI      0.34 332 P      57 38.80   1.1
                  eSg    57 42.50
PGD      0.36 315 P      57 37.90  -0.2
                  eSg    57 44.10
RSM      0.41  42 P      57 38.50  -0.6
ASS      0.70 142 P      57 44.90   0.4
                  eSg    57 53.70
      S.D. = 1.1  on   5 of   5 obs.
-----------------------------------------
   JAN  17, 1993  05h 36m 06.35± 0.30s
   19.722 S ± 7.9km  168.875 E ± 8.3km
   DEPTH =   30.9km  (  7 depth phases)
   5.0mb ( 22 obs.)  4.8Msz (  5 obs.)
 VANUATU ISLANDS                    (186)
      Mw 5.2 (HRV).
      CENTROID, MOMENT TENSOR       (HRV)
      Data Used: GDSN
      L.P.B.: 14S, 21C
      Centroid Location:
      Origin Time        05:36: 8.5 0.9
      Lat 19.59S  FIX;Lon 168.80E  FIX
      Dep  41.5 8.4 Half-duration  1.0
      Moment Tensor:   Scale 10**16 Nm
        Mrr=-2.37 0.50  Mtt= 2.86 0.62
        Mff=-0.49 0.80  Mrt=-5.63 0.97
        Mrf= 0.15 0.60  Mtf= 1.08 0.50
       Principal Axes:
        T  Val=  6.54   Plg=32   Azm=172
        N       -0.49      10       268
        P       -6.05      56        13
      Best Double Couple:Mo=6.3*10**16
       NP1:Strike=230 Dip=16 Slip=-129
       NP2:         90      78       -80

PVC      2.04 345 iPd    36 40.20   0.9
                  iS     37 04.10
BKM      2.13 344 iP     36 41.00   0.5
                  iS     37 04.50
DZM      3.26 224 iPc    36 54.70  -1.9
                  iS     37 29.90
BRS     16.61 240 eP     40 00.50   1.9
ARMA    18.88 232 eP     40 27.80   0.9

        1.0s    34.00nm          4.5mb
                  e      40 40.00
RMO     19.68 246 iPc    40 36.90   0.8
        0.4s    11.00nm          4.5mb
CTA     21.27 265 iPd    40 53.60   1.1
        1.0s    55.00nm          4.9mb
CNB     23.19 224 eP     41 13.70   2.2
        1.0s    85.00nm          5.2mb
BWA     23.31 227 iPd    41 12.20  -0.4
                  epP    41 22.30  38km
                  esP    41 28.70
CAN     23.43 224 iPd    41 15.50   1.7
                  epP    41 24.10  31km
                  esP    41 32.40
CMS     23.80 236 iPc    41 18.60   1.2
        1.0s    16.00nm          4.5mb
TOO     27.04 224 eP     41 47.80  -0.1
        1.0s    34.00nm          4.9mb
STK     27.30 238 iPc    41 50.60   0.3
        0.7s     3.80nm          4.2mb
WB2     32.44 264 eP     42 33.80  -2.4
        0.6s    14.60nm          5.1mb
WRA     32.45 264 P      42 34.30  -2.0
        1.0s     2.30nm          4.0mb
ASPA    32.68 257 P      42 37.20  -1.1
MEEK    46.48 252 eP     44 32.00  -0.7
MUN     48.52 244 eP     44 48.00  -0.6
NANU    49.62 257 eP     44 57.00  -0.2
        0.5s    11.00nm          5.1mb
MAT     63.02 333 (P)    46 31.00  -1.7
SPA     70.40 180 iPd    47 18.90  -0.5
        1.0s    16.00nm          5.1mb
MDJ     73.38 332 eP     47 36.80  -0.3
TIA     74.08 319 eP     47 40.90  -0.4
CN2     74.69 329 eP     47 44.50  -0.2
        1.0s    14.00nm          4.9mb
                  epP    47 53.00  27km
BJI     77.10 321 eP     47 58.00  -0.4
      Z  18s     0.29um          4.6Msz
TIY     77.95 317 eP     48 04.00   0.7
      Z  20s     0.62um          4.9Msz
XAN     78.18 313 P      48 04.50  -0.1
        1.0s    11.00nm          4.8mb
                  sP     48 21.20
KMI     78.24 302 Pc     48 06.40   1.1
        1.8s    70.00nm          5.4mb
                  pP     48 16.50  32km
CHG     78.54 295 eP     48 14.40   7.6X
CD2     80.26 308 eP     48 16.30   0.3
HHC     80.36 320 P      48 17.40   1.0
        1.0s     8.50nm          4.7mb
LZH     82.80 312 Pd     48 30.00   0.7
        1.5s    54.00nm          5.4mb
                  pP     48 41.00  35km
SLKM    86.51  19 (P)    48 45.70  -1.5
YAK     87.20 343 eP     48 46.00  -4.4X
        1.5s    83.00nm          5.8mb
GTA     87.21 314 P      48 51.50   0.3
        1.0s    24.00nm          5.4mb
ORV     87.66  46 ePc    48 53.62   0.5
CMB     87.73  48 eP     48 53.09  -0.5
        0.9s     9.68nm          5.1mb
                  e      49 01.52  26km
LBFM    88.24  45 eP     48 57.05   0.9
LSA     89.49 302 P      49 03.30   0.6
        1.4s    11.00nm          5.0mb
SHW     90.32  40 eP     49 07.24   1.5
FBA     90.64  17 eP     49 05.19  -1.4
        0.9s     5.00nm          4.8mb
GMW     90.64  39 eP     49 07.91   0.9
RMW     91.18  39 eP     49 09.74   0.1
TUC     92.56  57 eP     49 16.64   0.3
        1.0s     7.55nm          5.1mb
                  e      49 25.20  27km
ARUT    92.61  51 eP     49 17.36   0.8
GUN     93.13 298 P      49 19.60   0.2
PKI     93.40 298 P      49 20.40  -0.2
KKN     93.58 298 P      49 21.60   0.3
DMN     93.66 298 P      49 22.20   0.5
GKN     94.19 298 P      49 24.00   0.0
LMN    129.04  46 ePKP   55 14.00   1.1
BAO    129.52 131 PKPd   55 13.90  -0.9
                  e      55 21.30
OBN    129.70-326 ePKP   55 14.00   0.2
                  e      55 21.00
SPC    141.34 327 ePKP   55 35.80  -0.2
BRG    143.15 333 ePKP   55 35.20  -3.7X
```

17d 05h

```
        1.2s     22.00nm
                   i      55 38.00
CLL   143.20 335 ePKP   55 38.00   -0.9
        1.8s     40.00nm
SRO   143.21 326 ePKP   55 37.00   -2.0
PRU   143.54 332 ePKP   55 36.50   -3.1X
ZST   143.58 328 ePKP   55 38.50   -1.2
SRS   143.59 314 ePKP   55 36.36   -3.6X
OUR   143.65 312 ePKP   55 36.53   -3.5X
SOH   143.88 313 iPKP   55 37.44   -3.1X
PAIG  144.02 312 ePKP   55 37.00   -3.7X
KNT   144.04 314 ePKP   55 37.76   -3.0
VAY   144.20 314 iPKP   55 38.20   -2.7
        0.9s     65.00nm
MOX   144.27 335 ePKPc  55 38.90   -1.9
        1.9s     88.00nm
HOF   144.43 334 iPKPc  55 39.50   -1.6
GRG   144.47 314 ePKP   55 38.64   -2.9
KHC   144.60 332 PKPc   55 40.00   -1.5
        1.3s     18.00nm
                   e      55 46.00
                   e      55 53.50
SKO   144.64 316 iPKPd  55 40.50   -1.2
        1.0s    179.00nm
                   i      55 45.90
GEC2  144.75 331 ePKP   55 39.90   -1.9
        0.8s      4.83nm
                   e      55 42.50
                   e      55 46.50
                   e      55 49.80
                   e      55 55.20
LIT   144.78 313 ePKP   55 39.84   -2.2
WET   144.90 332 iPKPc  55 41.30   -0.6
GRF   145.18 334 ePKPd  55 42.20   -0.2
                   e      55 49.00
FNA   145.24 314 ePKP   55 41.28   -1.6
AGG   145.35 311 ePKP   55 41.64   -1.4
OHR   145.48 315 ePKP   55 42.50   -0.7
        1.0s    156.00nm
PTJ   145.67 326 ePKP   55 43.10   -0.4
ZAG   145.71 326 ePKP   55 43.00   -0.4
DMU   145.73 356 ePKP   55 42.70   -0.5
SDA   145.85 317 ePKP   55 44.80    1.1
BHG   145.95 331 iPKPc  55 44.70    0.9
TiR   145.98 316 ePKP   55 44.70    0.7
LSK   146.06 314 ePKP   55 44.50    0.2
KBA   146.19 329 iPKPc  55 42.90   -1.5
        1.2s     24.30nm
ENN   146.21 340 ePKP   55 45.00    1.0
        1.3s     98.00nm
VBY   146.30 326 ePKP   55 43.60   -0.8
VBY   146.30 326 iPKP   55 46.10    1.7
DCN   146.31 356 ePKP   55 44.60    0.5
LJU   146.32 327 ePKP   55 44.30   -0.1
FUR   146.33 333 iPKP   55 45.90    1.5
TPE   146.39 314 ePKP   55 44.50   -0.2
IGT   146.53 313 ePKP   55 46.16    1.2
CEY   146.58 327 ePKP   55 44.50   -0.4
VOY   146.66 328 ePKP   55 44.30   -0.8
FVI   146.81 329 PKP    55 44.60   -0.5
WTTA  146.85 331 iPKPd  55 45.40   -0.1
        1.1s     38.10nm
                   i      55 47.20
SNF   146.93 342 PKPc   55 47.50    2.3
TRI   146.94 327 ePKP   55 44.70   -0.7
SOTA  147.08 332 iPKPc  55 45.00   -0.7
        1.0s     39.30nm
                   i      55 47.30
WLF   147.09 339 iPKPc  55 48.41    3.0X
                   i      55 55.95
HVAR  147.10 321 ePKP   55 46.80    1.1
DOU   147.21 341 PKP    55 48.00    2.3
BCAO  147.35 246 iPKPd  55 46.00   -1.0
        1.2s     77.00nm
                   id     55 49.20
                   id     55 56.20
CTI   147.74 330 PKP    55 49.45    2.6
CDF   147.75 337 ePKP   55 49.10    2.4
        1.2s     71.00nm
SLE   147.81 335 PKPd   55 49.10    2.3
OSS   147.96 332 iPKPd  55 50.20    3.0X
LLS   148.31 333 ePKPd  55 50.80    3.0X
VDL   148.41 332 ePKPc  55 51.70    3.7X
BSF   148.41 337 ePKP   55 50.80    3.0X
        0.9s     22.60nm
HAU   148.43 337 ePKP   55 50.80    3.1X
        1.1s     47.60nm
```

```
        Z  21s      0.15um          4.8Msz
RSM   148.84 326 PKP    55 49.00    0.6
RSM   148.84 326 PKP    55 52.50    4.1X
ORI   148.86 317 PKP    55 53.24    4.6X
ORI   148.86 317 PKP    55 49.70    1.0
ARV   148.87 325 PKP    55 48.81    0.2
ARV   148.87 325 PKP    55 52.30    3.7X
TMA   148.97 333 iPKPd  55 52.40    3.5X
TDS   149.15 316 PKP    55 46.27   -2.8
SFI   149.16 327 PKP    55 49.31    0.4
VAI   149.20 332 PKP    55 50.70    1.8
PGD   149.26 327 PKP    55 54.10    4.7X
ASS   149.31 325 PKP    55 45.65   -3.7X
ASS   149.31 325 PKP    55 52.50    3.2X
CRE   149.31 326 PKP    55 51.70    2.3
SGO   149.31 318 PKP    55 51.70    2.4
AQU   149.37 323 PKP    55 52.80    3.4X
MGR   149.40 317 PKP    55 52.50    3.0X
MMK   149.40 333 ePKPc  55 54.30    4.7X
GRI   149.53 315 PKP    55 54.72    5.0X
SDI   149.54 321 PKP    55 52.80    3.1X
MME   149.55 328 PKP    55 54.40    4.5X
FIR   149.57 327 ePKP   55 54.00    4.4X
DIX   149.61 334 ePKPd  55 54.60    4.7X
RFI   149.69 321 PKP    55 55.31    5.5X
BDI   149.70 328 PKP    55 51.70    1.8
ORX   149.72 333 PKP    55 53.38    3.4X
BOB   149.73 330 PKP    55 54.20    4.3X
FLN   149.78 346 ePKP   55 53.90    4.2X
        1.4s    112.40nm
        Z  22s      0.20um          4.9Msz
EMS   149.81 335 ePKPd  55 54.70    4.6X
LDF   149.86 345 ePKP   55 54.00    4.1X
        1.1s     38.10nm
LOR   149.93 339 ePKP   55 54.50    4.4X
        1.1s     43.95nm
        Z  23s      0.15um          4.7MszX
PII   149.98 328 PKP    55 54.06    3.9X
RMP   150.12 323 PKP    55 55.60    5.1X
LBF   150.14 339 ePKP   55 55.00    4.6X
        0.8s     12.35nm
RDP   150.14 323 PKP    55 55.84    5.2X
SOI   150.16 314 PKP    55 55.90    5.3X
LSD   150.21 334 PKP    55 55.99    5.1X
GRR   150.22 346 ePKP   55 55.00    4.6X
        1.1s     36.65nm
SSF   150.22 340 ePKP   55 55.50    5.0X
        1.1s     48.35nm
GMB   150.24 314 PKP    55 56.06    5.1X
PCP   150.32 331 PKP    55 54.94    4.2X
LPL   150.34 334 ePKP   55 56.20    5.2X
        0.9s     30.45nm
LPG   150.35 334 ePKP   55 56.20    5.1X
        1.0s     43.40nm
RSP   150.42 333 PKP    55 56.08    5.1X
SMF   150.48 339 ePKP   55 55.70    4.8X
        1.2s     40.45nm
AVF   150.51 340 ePKP   55 55.60    4.7X
        1.0s     12.20nm
LPF   150.60 346 ePKP   55 56.00    5.0X
        1.1s     54.20nm
BHB   150.66 333 PKP    55 54.62    3.4X
LPI   150.70 315 PKP    55 56.74    5.2X
FIN   150.73 331 PKP    55 55.49    4.1X
BNI   150.74 334 PKPc   55 57.30    5.8X
RRL   150.80 333 PKP    55 57.14    5.4X
ROB   150.82 331 PKP    55 56.04    4.5X
BGF   150.88 340 ePKP   55 56.80    5.3X
        1.2s     35.70nm
PZZ   151.00 333 PKP    55 56.77    4.9X
ENR   151.08 332 PKP    55 56.08    4.1X
STV   151.11 332 PKP    55 56.50    4.5X
IMI   151.11 331 PKP    55 57.05    5.0X
SURF  151.14 333 PKP    55 58.70    6.5X
MNO   151.15 314 PKP    55 58.68    6.2X
MAF   151.27 340 ePKP   55 57.80    5.7X
        1.2s     29.75nm
TCF   151.33 341 ePKP   55 57.90    5.7X
        1.2s     43.15nm
SBF   151.35 331 ePKP   55 57.70    5.3X
        1.0s     51.60nm
LSF   151.57 341 ePKP   55 58.10    5.6X
        1.0s     22.20nm
PGF   151.60 328 ePKP   55 58.50    5.7X
        0.9s     86.80nm
MFF   151.72 344 ePKP   55 58.70    6.0X
FRF   151.95 332 ePKP   55 59.10    5.9X
```

```
        1.1s     37.35nm
LRG   152.16 332 ePKP   55 59.70    6.3X
        1.0s     34.40nm
LMR   152.19 332 ePKP   55 59.70    6.2X
        0.9s     25.05nm
RJF   152.42 341 ePKP   56 00.30    6.5X
        1.3s     36.80nm
        Z  22s      0.15um          4.8Msz
LFF   152.99 341 ePKP   56 01.60    7.0X
        1.1s     25.90nm
LPO   153.08 340 ePKP   56 01.90    7.2X
        0.9s      7.35nm
      S.D. = 1.3  on 107 of 184 obs.
-----------------------------------------
*  JAN  17, 1993  06h 46m 47.68± 0.75s
   34.707 N ± 9.4km  105.107 E ±11.7km
   DEPTH =  10.0km  (geophysicist)
 GANSU, CHINA                        (322)
      ML 3.8 (BJI).

LZH     1.72 324 iPgd   47 19.00    1.0
                 Sg     47 41.20
XAN     3.22 101 Pn     47 40.00    0.6
                 Pg     47 47.50
                 Sn     48 18.50
                 Sg     48 31.00
CD2     3.95 197 ePn    47 50.70    1.0
                 ePg    48 03.40
                 Sn     48 38.40
GTA     6.32 320 Pn     48 22.00   -1.3
                 Sn     49 32.00
                 Sg     50 02.00
TIY     6.64  61 ePg    48 51.80   24.0X
BTO     7.05  32 ePg    48 55.60   22.1X
GYA     8.33 170 P      48 50.80   -0.7
                 S      50 20.60
WMO    16.24 309 P      50 37.80    0.3
WRA    61.04 148 P      57 03.00   -0.9
        1.0s      0.20nm          3.2mb
      S.D. = 1.2  on   7 of   9 obs.
-----------------------------------------
?  JAN  17, 1993  07h 39m 19.93± 1.02s
   43.891 N ± 9.6km   11.830 E ± 8.3km
   DEPTH =  10.0km  (geophysicist)
 CENTRAL ITALY                       (381)

SFI     0.03  28 P      39 20.90   -1.0
                 eSg    39 22.80
CRE     0.28 161 P      39 25.40   -0.4
                 eSg    39 31.00
RSM     0.45  85 P      39 30.00    0.9
BDI     0.91 281 P      39 37.70    0.4
                 eSg    39 47.30
      S.D. = 1.5  on   4 of   4 obs.
-----------------------------------------
   JAN  17, 1993  07h 58m 26.25± 0.32s
   9.911 S ± 5.2km  161.402 E ± 7.7km
   DEPTH =  51.5km  (  6 depth phases
   4.8mb ( 17 obs.)
 SOLOMON ISLANDS                     (193

BKM    10.18 140 iPd    00 51.50   -1.1
                 iS     02 42.50
DZM    13.02 159 iPc    01 31.10    0.2
                 iS     03 49.90
CTA    17.77 234 P      02 34.50    2.8
BRS    19.20 204 iPc    02 49.00    0.1
        0.9s      6.00nm          3.8mb
RMO    20.37 214 iPd    03 02.10    0.8
        1.0s    138.00nm          5.2mb
ARMA   22.35 203 eP     03 21.70    0.4
        0.8s     15.00nm          4.5mb
                 e      03 36.80   66kmX
CMS    25.88 212 eP     03 54.60   -0.4
        0.9s      4.00nm          3.9mb
BWA    27.14 204 e(P)   04 05.30   -1.4
CAN    27.71 202 eP     04 12.20    0.4
WB2    27.93 246 iPd    04 13.00   -0.9
        0.8s     12.40nm          4.6mb
WRA    27.94 246 P      04 13.19   -0.9
STK    28.54 217 eP     04 20.70    1.4
        0.7s      2.70nm          4.0mb
ASPA   29.59 239 P      04 27.50   -1.4
TOO    31.05 205 eP     04 41.50   -0.1
        0.7s     15.00nm          4.8mb
MUN    47.14 235 eP     06 55.00   -0.5
CN2    62.64 331 eP     08 46.80   -0.9
```

```
        0.8s     14.00nm          5.1mb
                   epP    08 56.50  31kmX
XAN    66.23 314 P       09 10.00  -1.3
        0.6s      6.10nm          4.8mb
                   pP     09 24.90  54km
LZH    70.86 314 eP      09 40.00  -0.2
        1.5s     19.00nm          4.8mb
                   pP     09 55.00  54km
GTA    75.22 315 P       10 05.50  -0.1
        1.0s     14.00nm          4.8mb
                   pP     10 21.00  55km
                   sP     10 26.00
YAK    75.84 345 eP      10 07.20  -1.2
SVW    78.43  20 eP      10 24.11   1.2
        0.8s     52.51nm          5.6mb
                   epP    10 39.11  53km
CRP    79.73  21 eP      10 30.48   0.4
SLKM   79.91  22 (P)     10 30.96   0.0
SPA    80.15 180 iPd     10 31.30  -1.0
        0.6s      7.32nm          4.8mb
PMR    81.02  22 eP      10 36.42  -0.3
        0.7s      8.93nm          4.8mb
GUN    82.05 300 PKP     10 48.00   4.7X
PKI    82.36 300 PKP     10 46.20   1.3
KKN    82.53 300 PKP     10 46.00   0.4
IMA    82.62  17 eP      10 45.72   0.6
        1.0s      4.67nm          4.5mb
DMN    82.63 300 PKP     10 46.80   0.6
GKN    83.13 300 PKP     10 47.80  -0.8
FBA    83.63  19 ePc     10 49.74  -0.5
        0.7s     16.61nm          5.2mb
                   epP    11 03.58  47km
                   e      11 11.08
BRW    85.71  12 (P)     11 00.86   0.4
NEW    91.70  41 eP      11 30.28   0.9
        0.8s      7.59nm          5.2mb
                   epP    11 44.29  47km
LCCM   94.75  44 eP      11 44.90   1.2
GEC2  132.73 331 ePKP    17 37.30   0.0
        0.6s      0.44nm
BCAO  142.78 264 ePKPc   17 52.50  -4.2X
        0.8s      4.00nm
      S.D. = 1.0  on  35 of  37 obs.
-----------------------------------
   JAN  17, 1993  08h 47m 49.29± 0.54s
   42.137 N ± 1.8km  125.798 W ± 5.8km
   DEPTH =  10.0km  (geophysicist)
   4.0mb (  4 obs.)
 OFF COAST OF OREGON                ( 30)
      ML 3.9 (BRK).

FHC     1.91 134 iPd     48 22.29   0.1
                 eS      48 44.69
FOX     2.11 139 iPd     48 25.41   0.3
                 eS      48 50.94
DBO     2.13  62 Pc      48 25.25  -0.2
KMPM    2.13 143 P       48 24.72  -0.8
RNO     2.33  40 Pc      48 28.13  -0.2
HSO     2.43  54 Pc      48 29.45  -0.3
WDC     2.90 121 eP      48 36.64   0.2
LBFM    3.03 104 ePn     48 38.26  -0.1
LMEM    3.56 115 eP      48 46.28   0.4
                 eS      49 27.58
MIN     3.63 118 iPd     48 47.28   0.4
                 eS      49 29.18
SSOR    3.64  41 P       48 47.28   0.2
TCO     3.65  56 Pc      48 47.18   0.0
TKO     3.65  27 P       48 48.00   0.9
KMOR    3.88  25 P       48 50.81   0.6
BPO     3.91  49 P       48 50.58  -0.3
GT2     3.96  39 P       48 52.15   0.8
PGO     4.12  35 P       48 54.47   0.9
ORV     4.16 127 eP      48 54.76   0.6
GMO     4.22  55 P       48 54.58  -0.6
VBEM    4.23  45 Pc      48 55.11  -0.3
TDH     4.29  41 P       48 56.05  -0.1
NLO     4.30  22 P       48 57.05   0.8
VLMM    4.35  37 P       48 57.41   0.3
NTYM    4.45 146 eP      48 57.44  -0.8
VIPM    4.46  56 P       48 58.08  -0.6
VLL     4.47  40 P       48 59.04   0.4
VFP     4.47  43 P       48 58.72   0.0
CROR    4.51  49 P       48 58.17  -1.0
RVW     4.57  28 P       49 01.16   1.1
LVP     4.63  31 P       49 01.02   0.1
MTMW    4.67  32 P       49 01.36  -0.2
BMW     4.71  22 eP      49 01.23  -0.9
                 eSg     49 51.82
FL2     4.76  30 P       49 03.09   0.3
JLK     4.79  32 P       49 03.41   0.1
SHW     4.80  31 eP      49 03.23  -0.2
                 eSg     49 56.14
HSR     4.80  32 P       49 03.96   0.5
CDFW    4.81  33 P       49 03.37  -0.1
REMW    4.82  31 P       49 04.19   0.3
YEL     4.83  31 P       49 04.20   0.3
ESD     4.83  32 P       49 04.29   0.3
STD     4.84  31 P       49 04.13   0.2
GULW    4.85  37 P       49 04.28   0.2
ERK     4.85  30 P       49 04.35   0.2
CZM     4.90  28 P       49 05.41   0.6
TDL     4.94  30 P       49 05.73   0.4
VGB     4.96  45 eP      49 04.22  -1.4
                 eSg     49 59.76
ASR     5.03  36 P       49 06.72   0.1
BKS     5.06 146 ePc     49 06.44  -0.5
                 eS      50 02.96
LMW     5.18  28 P       49 09.79   1.0
CPW     5.20  21 P       49 09.06   0.1
GL2     5.24  41 P       49 09.62   0.0
PCC     5.33 149 iPc     49 09.50  -1.2
GLK     5.35  33 P       49 11.08  -0.1
LON     5.42  30 ePc     49 12.10  -0.1
JBO     5.45  50 P       49 12.01  -0.5
SMW     5.47  18 P       49 12.84   0.0
REMR    5.47  30 P       49 13.15   0.2
WPW     5.48  32 P       49 12.81  -0.3
GHW     5.51  26 P       49 13.87   0.5
RVC     5.53  28 P       49 14.42   0.7
RCS     5.55  30 P       49 14.37   0.1
FMW     5.63  30 P       49 15.45   0.3
OOW     5.71  11 P       49 16.26   0.0
PATW    5.74  47 P       49 16.09  -0.5
MHC     5.76 145 ePd     49 16.54  -0.5
                 eS      50 20.89
GSM     5.81  28 P       49 18.40   0.7
COE     5.82 146 eP      49 17.73   0.0
                 eSg     50 23.71
GMW     5.82  21 eP      49 16.47  -1.2
                 eS      50 10.37
HDW     5.85  19 P       49 17.60  -0.5
GCC     5.88 149 iPc     49 17.22  -1.4
PRW     5.99  45 P       49 19.60  -0.5
RMW     6.03  27 eP      49 20.19  -0.5
EBG     6.06  36 P       49 21.19   0.1
RSW     6.16  44 P       49 21.73  -0.8
MDW     6.22  42 P       49 22.82  -0.6
TBM     6.25  35 P       49 24.05   0.2
BVW     6.30  40 P       49 24.56   0.0
WIW     6.34  45 P       49 24.38  -0.7
GBL     6.36  43 P       49 24.71  -0.7
MJ2     6.39  44 P       49 25.08  -0.6
WAH2    6.42  42 P       49 25.94  -0.2
CRF     6.56  42 P       49 27.25  -0.8
OT2     6.56  43 P       49 27.34  -0.9
LNOR    6.58  53 P       49 27.08  -1.4
BONR    7.11 124 eP      49 36.90   0.8
TNP     7.72 119 eP      49 45.38   0.7
NEW     8.66  42 eP      49 56.99  -0.6
HVU     9.71  88 eP      50 12.84   0.6
DUG     9.98  97 eP      50 16.71   0.8
ARUT   10.43 111 eP      50 21.37  -0.7
LCCM   10.69  65 eP      50 25.00  -0.6
MSU    11.01 105 eP      50 31.30   1.2
DAU    11.08  94 eP      50 31.48   0.3
SRU    11.99 100 eP      50 44.86   1.4
BW06   12.02  81 eP      50 43.42  -0.4
GOL    15.63  92 eP      51 30.83  -0.6
        0.7s      2.08nm          3.5mb
GLD    15.73  92 (P)     51 33.00   0.4
        0.8s     16.47nm          4.3mb
RSSD   16.01  76 (P)     51 33.29  -3.0X
        1.3s      8.55nm          3.7mb
ACO    21.25  96 iPd     52 39.00   1.2
ULM    22.13  58 eP      52 49.00   2.6X
UYO    25.79  98 iPc     53 23.40   1.4
FCC    25.81  39 eP      53 27.00   5.1X
FVM    27.27  87 (P)     53 36.67   1.2
        0.6s      6.59nm          4.5mb
JSC    35.54  88 eP      54 48.28  -0.1
      S.D. = 0.6  on 101 of 104 obs.
-----------------------------------
   JAN  17, 1993  08h 56m 51.66± 0.91s
   41.731 N ± 7.8km   19.565 E ± 6.9km
   DEPTH =  10.0km  (geophysicist)
 ALBANIA                            (391)
      ML 2.6 (TIR), 2.4 (TTG).

SDA     0.32 351 iPgd    56 58.80   0.4
                 iSg     57 04.50
ULC     0.33 315 iPgc    56 58.62   0.1
                 iSg     57 04.64
TTG     0.73 342 iPgd    57 05.52  -0.5
                 iSg     57 17.49
BDV     0.78 315 iPgd    57 06.25  -0.6
                 iSg     57 19.16
PVY     0.91  19 iPgd    57 08.57  -0.7
                 iSg     57 22.32
HCY     1.07 312 iPgc    57 11.73   0.0
                 iSg     57 28.67
OHR     1.12 123 ePn     57 12.60   0.0
NKY     1.16 339 iPgc    57 13.22  -0.2
                 iSg     57 31.23
IVA     1.17  12 iPgd    57 13.30  -0.2
                 iSg     57 30.76
BRY     1.39 327 iPgd    57 17.56   0.3
                 iSg     57 39.22
SKO     1.42  80 ePn     57 19.30   1.8X
                 iSg     57 40.10
PLE     1.60 356 iPnd    57 21.53   1.3
                 iSn     57 45.12
      S.D. = 0.6  on  11 of  12 obs.
-----------------------------------
&  JAN  17, 1993  08h 57m 46.26s
   34.275 N          116.741 W
   DEPTH =   0.6km
 SOUTHERN CALIFORNIA                ( 43)
      <PAS-P>. ML 2.8 (PAS).

PEC     0.52 222 ePd     57 56.21  -0.4
SSK     0.79 266 ePc     58 01.31  -0.8
GSC     1.03 357 ePd     58 05.61  -1.0
ISA     1.99 315 ePn     58 21.15  -0.3
BCH     2.90 289 eP      58 32.94  -1.7
TNP     3.82 354 eP      58 52.29   4.5
BONR    3.88 341 (Pn)    58 53.34   4.6
ARUT    4.41  36 eP      58 54.65  -1.5
MSU     5.61  40 ePg     59 29.81  16.6
        9 obs. associated
-----------------------------------
•  JAN  17, 1993  09h 19m 13.41± 1.27s
   38.287 N ± 8.2km   27.072 E ±10.6km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                             (366)
      MD 3.9 (ATH), 3.6 (ISK). Felt in
      the Izmir area.

IZM     0.19  53 iPg     19 17.30  -0.3
PRK     1.14 327 ePb     19 38.00   3.2X
                 eSb     19 55.20
YER     1.50 140 ePn     19 39.80  -0.6
EZN     1.64 340 iPn     19 43.20   0.8
DST     1.79  42 iPn     19 43.90  -0.7
KHL     1.93  88 iPn     19 47.00   0.3
EDC     2.15  16 ePn     19 50.00   0.3
BNT     2.17  17 iPn     19 49.00  -1.1
KCT     2.20  27 iPn     19 50.00  -0.5
ALT     2.50  71 ePn     19 56.30   1.5
KSL     2.95 136 ePn     20 05.50   4.4X
CTT     3.04  20 ePn     20 04.00   1.6
ISK     3.17  28 ePn     20 04.00  -0.2
GPA     3.21  50 ePn     20 05.00   0.1
EYL     3.30  45 ePn     20 06.00  -0.3
DMK     3.57   8 ePn     20 09.00  -0.9
      S.D. = 0.9  on  14 of  16 obs.
-----------------------------------
•  JAN  17, 1993  09h 47m 52.49± 1.63s
   40.609 N ±21.2km   41.684 E ± 8.1km
   DEPTH =  33.0km  (normal)
   4.3mb (  2 obs.)
 TURKEY                             (366)

MTA     2.59  64 iPnc    48 33.00   0.0
                 i       49 10.60
                 i       49 15.40
KIV     3.43  12 ePn     48 45.90   0.9
                 eS      49 29.30
PYA     3.57  16 ePn     48 58.50  11.6X
                 i       49 03.00
                 iS      49 35.00
GRS     3.74 106 ePn     48 58.00   8.6X
```

17d 09h

		e	49	47.00	
GRO	4.05	46	ePn	49	07.50	13.8X
ANN	5.35	324	iPnd	49	11.00	-1.1
			eS	50	13.50	
KAS	6.04	280	eP	49	22.00	0.0
SIM	7.06	310	eP	49	35.00	-1.1
			eS	50	52.00	
VRI	12.11	301	eP	50	46.00	0.5
			e	22	21.00	
GEC2	21.43	302	ePn	52	39.10	-0.6
	0.8s		1.08nm			3.3mb X
			e	52	41.90	
			e	52	46.60	
			e	52	49.60	
			e	52	53.40	
			e	52	56.00	
CLL	22.49	308	eP	52	52.00	1.9
	1.6s		32.00nm			4.5mb
NUR	22.54	338	eP	52	55.90	5.4X
KAF	23.45	342	eP	53	04.80	5.4X
HFS	26.13	328	eP	53	25.50	0.5
	0.5s		2.10nm			4.0mb
BOD	47.91	43	eP	56	28.10	-1.0

S.D. = 1.1 on 10 of 15 obs.

& JAN 17, 1993 10h 25m 33.75s
64.958 N 149.180 W
DEPTH = 17.1km
4.2mb (3 obs.)
CENTRAL ALASKA (1)
<AEIC>. ML 4.8 (PMR), 4.7 (AEIC). Felt (IV) at Fairbanks and Minto; (III) at Clear, Manley Hot Springs and Nenana. Also felt at Chena Hot Springs, Fox, North Pole and Two Rivers.

NEA	0.38	173	P	25	41.50	-0.3
MDM	0.40	89	P	25	42.00	-0.1
FBA	0.59	95	iPc	25	45.02	-0.3
CCB	0.67	117	iPc	25	46.64	0.1
MLY	0.67	277	iPc	25	46.66	0.1
GLM	0.76	87	iPc	25	48.39	0.2
HDA	1.11	119	iPc	25	53.58	-0.5
MCK	1.24	175	iPd	25	55.71	-0.5
RND	1.56	175	iPd	26	00.63	-0.3
PRP	1.64	68	eP	26	02.04	0.0
HUR	2.00	186	ePd	26	07.15	0.0
			eS	26	32.48	
THY	2.16	134	eP	26	09.34	-0.1
			eS	26	36.97	
IMA	2.18	303	ePn	26	08.90	-1.0
FYU	2.29	43	ePc	26	10.63	-0.7
PAX	2.58	139	ePc	26	15.25	-0.3
DOT	2.59	118	eP	26	13.26	-2.4
SDG	2.93	145	eP	26	20.74	0.4
TOA	3.17	153	P	26	24.50	0.7
TMW	3.17	118	eP	26	24.07	0.3
SKT	3.17	200	ePd	26	22.85	-1.0
SML	3.19	173	ePd	26	22.97	-1.1
			eS	27	03.70	
GHO	3.20	178	ePd	26	23.35	-1.0
SCM	3.25	164	ePd	26	24.05	-0.9
PWA	3.34	186	P	26	25.20	-0.9
TZL	3.37	148	eP	26	27.65	1.0
PLRM	3.38	180	ePd	26	26.03	-0.7
PMR	3.38	180	iPnc	26	25.59	-1.1
KNK	3.57	174	ePd	26	29.11	-0.5
			eS	27	11.92	
SUA	3.58	192	ePd	26	28.74	-1.0
TTA	3.64	239	ePn	26	27.47	-3.1
PMS	3.73	183	P	26	31.20	-0.7
KLU	3.78	156	eP	26	33.21	0.7
CGLM	3.88	201	eP	26	32.83	-1.2
CRP	3.94	201	iPc	26	33.32	-1.6
CP2	3.96	202	eP	26	33.95	-1.2
BGL	3.98	203	eP	26	34.86	-0.6
CKN	3.99	201	eP	26	34.81	-0.6
SPU	4.01	200	ePd	26	34.62	-1.1
CKT	4.01	201	ePd	26	34.76	-1.1
VLZ	4.05	160	eP	26	35.81	-0.5
PTE	4.11	179	eP	26	37.27	0.2
GLI	4.20	166	eP	26	38.34	-0.2
GLB	4.28	143	eP	26	40.06	0.4
FID	4.40	162	eP	26	41.29	0.0
MPA	4.49	181	eP	26	42.98	0.5
SLKM	4.49	187	eP	26	42.32	-0.3
DFR	4.67	202	eP	26	43.88	-1.3
KNIM	4.67	171	eP	26	44.46	-0.7
CVA	4.70	159	eP	26	44.45	-1.1
HIN	4.74	164	eP	26	45.62	-0.5
REF	4.77	201	eP	26	45.62	-1.1
RSO	4.80	202	eP	26	46.07	-1.1
SVW	4.85	220	eP	26	45.49	-2.2
SEW	4.87	182	eP	26	48.50	0.6
LTI	4.97	172	eP	26	49.52	0.2
BALM	5.02	139	ePc	26	50.79	0.7
TGL	5.12	143	eP	26	50.71	-0.8
ILIM	5.20	201	eP	26	52.77	0.2
CTGM	5.37	135	eP	26	54.91	-0.2
CDD	6.40	201	eP	27	09.69	0.1
BRW	6.97	339	eP	27	15.85	-1.5
KDC	7.41	194	(P)	27	20.93	-2.6
ADK	19.25	240	eP	29	58.58	-1.0
RMW	22.90	127	eP	30	37.82	0.4
NEW	23.90	119	eP	30	48.00	1.0
	0.9s		7.02nm			4.2mb
LCCM	27.91	115	eP	31	25.20	0.6
BW06	31.38	116	iPc	31	55.40	-0.3
	0.9s		5.03nm			4.4mb
RSSD	32.44	108	eP	32	04.19	-0.7
	0.8s		2.40nm			4.2mb
MSU	34.13	123	ePd	32	20.53	0.9

69 obs. associated

JAN 17, 1993 10h 51m 23.75± 0.25s
43.633 N ± 2.4km 12.283 E ± 2.2km
DEPTH = 11.3 ± 1.8 km
4.4mb (1 obs.)
CENTRAL ITALY (381)
MD 4.2 (TRI), 4.1 (FIR), 3.8 (ROM). ML 4.2 (VIE). mbLg 4.1 (UCC).

CRE	0.24	269	Pc	51	28.00	-1.0
			eSg	51	31.50	
RSM	0.32	23	Pc	51	31.60	1.2
SFI	0.42	313	Pc	51	31.60	-0.9
			eSg	51	39.50	
PGD	0.47	301	Pc	51	32.50	-1.0
ARV	0.50	105	Pd	51	33.50	-0.4
			eSg	51	42.00	
ASS	0.63	154	P	51	36.00	-0.2
FIR	0.76	281	ePg	51	37.00	-1.4
			iSg	51	50.00	
MME	1.27	297	P	51	47.80	0.4
PII	1.28	275	P	51	46.90	-0.4
			eSg	52	03.90	
BDI	1.29	290	P	51	47.40	-0.2
			eSg	52	06.00	
AOU	1.52	147	P	51	51.40	0.5
			eSg	52	11.00	
RMP	1.85	170	P	51	56.20	0.6
RDP	1.90	170	P	51	55.50	-0.9
SDI	2.23	149	P	52	01.39	0.2
RIY	2.28	41	iPnc	52	01.60	-0.2
TRI	2.33	26	ePnc	52	01.70	-0.8
			ePg	52	07.40	
			i	52	17.40	
			iRRPg	52	22.50	
			iSn	52	31.40	
			iSg	52	40.70	
			i	53	03.20	
BOB	2.33	300	Pc	52	03.00	0.3
SAL	2.34	328	P	52	04.30	1.7
			eSn	52	31.00	
CTI	2.46	350	P	52	04.40	0.0
			eSn	52	33.50	
CEY	2.60	35	iPnc	52	05.90	-0.5
			iSn	52	39.50	
RFI	2.65	151	P	52	07.53	0.5
VOY	2.66	25	iPn	52	06.50	-0.8
			e	52	12.20	
			eSn	52	45.30	
MDI	2.82	320	P	52	10.90	1.4
VBY	2.83	48	iPnc	52	09.50	-0.2
			eSn	52	48.00	
LJU	2.89	33	iPnc	52	10.60	0.1
			iSn	52	46.60	
FVI	2.98	7	P	52	11.80	0.1
			eSg	52	48.00	
CKI	2.99	287	P	52	10.60	-1.3
			eSn	52	44.00	
VAI	3.35	313	P	52	18.20	1.2
OGA	3.35	345	iPnc	52	19.10	1.8
OSS	3.41	334	iPd	52	20.40	2.4
ZAG	3.42	49	ePn	52	19.20	1.2
			iPg	52	29.40	
			eSg	53	16.00	
SCE	3.43	353	iPnc	52	20.00	1.7
PTJ	3.46	48	ePn	52	19.40	0.7
			iSg	53	17.00	
TMA	3.46	317	ePd	52	19.40	0.6
VDL	3.48	326	iPd	52	20.90	1.9
KBA	3.53	12	iPnc	52	19.80	0.1
			iPg	52	33.40	
			iSn	53	00.80	
			iSg	53	22.20	
WTTA	3.66	353	iPnc	52	23.20	1.6
			i	52	34.00	
			i	52	41.00	
			i	53	10.80	
			iSg	53	30.20	
ORO	3.66	304	P	52	20.30	-1.3
SOTA	3.67	348	iPnc	52	23.40	1.7
			i	52	34.10	
			i	53	04.30	
			i	53	11.10	
			iSg	53	31.30	
DOI	3.73	285	P	52	21.90	-0.7
SGO	3.81	143	P	52	23.20	-0.3
LLS	3.98	326	iPd	52	27.50	1.4
BHG	4.11	6	iPnc	52	28.30	0.5
BAI	4.22	125	P	52	30.00	0.6
DIX	4.24	307	ePd	52	29.80	-0.1
MGR	4.26	144	P	52	30.50	0.5
BNI	4.27	291	P	52	32.40	2.2
EMS	4.52	304	iPd	52	35.50	1.7
BRT	4.57	125	Pd	52	33.90	-0.5
FUR	4.59	352	iPn	52	35.90	1.3
BRY	4.63	97	ePn	52	35.50	0.2
			eSn	53	26.50	
HCY	4.71	102	ePn	52	36.50	0.2
			eSn	53	27.00	
ZLA	4.72	326	ePd	52	37.20	0.6
ORI	4.73	137	P	52	36.00	-0.7
SLE	4.91	329	ePd	52	39.40	0.2
NKY	4.98	97	ePn	52	40.50	0.3
			eSn	53	34.50	
BDV	4.99	103	ePn	52	40.00	-0.3
			eSn	53	33.50	
TDS	5.00	141	P	52	39.50	-0.9
SOP	5.04	35	ePn	52	41.80	0.9
BBS	5.09	320	P	52	42.29	0.6
PLE	5.18	91	ePn	52	44.50	1.4
			eSn	53	41.00	
FEL	5.19	326	eP	52	42.77	-0.4
FEL	5.19	326	P	52	43.14	-0.1
TTG	5.25	101	ePn	52	44.00	0.0
			eSn	53	40.50	
GEC2	5.31	10	Pn	52	43.20	-1.6
			Pg	53	06.90	
			Sn	53	49.30	
LOMF	5.34	316	P	52	45.18	-0.2
UZD	5.35	54	e(P)	53	06.00	20.6X
ULC	5.39	106	ePn	52	45.50	-0.5
			eSn	53	42.50	
VKA	5.42	30	iPnd	52	45.30	-1.1
			iPg	53	10.60	
			iSn	53	46.90	
			i	54	26.30	
WET	5.53	4	iPnd	52	46.30	-1.6
MOF	5.55	321	P	52	47.61	-0.7
KHC	5.57	9	Pn	52	46.70	-1.8
			e	53	02.50	
			e	53	12.50	
			Sn	53	53.00	
LIBD	5.57	326	P	52	48.21	-0.3
IVA	5.61	95	ePn	52	50.00	0.8
			eSn	53	50.00	
BSF	5.69	319	P	52	49.60	-0.7
PVY	5.72	98	ePn	52	51.00	0.2
			eSn	53	52.50	
GIB	5.79	166	P	52	53.60	1.9
ECH	5.81	324	P	52	51.29	-0.6
STR	5.86	329	P	52	52.33	-0.2
WLS	5.88	326	P	52	52.29	-0.6
CDF	5.92	326	P	52	52.89	-0.5
SRO	5.94	43	eP	53	01.80	8.2X
			e	53	13.80	
			i	53	52.20	

```
HOFF     6.09 332 P      52 55.27  -0.5
GRF      6.11 354 ePn    52 55.20  -0.8
                  e(Sg)  54 05.00
LANF     6.18 331 P      52 56.29  -0.8
VITF     6.35 318 P      52 58.58  -0.9
PRU      6.54  13 Pn     53 00.00  -2.2
                  Sn     54 15.50
HOF      6.69 358 eP     53 03.30  -1.0
OHR      6.79 109 iPn    53 05.00  -0.7
       0.8s     82.00nm          5.8mb X
SKO      6.94 101 iPn    53 07.60  -0.1
                  i      54 06.80
MOX      7.03 357 ePn    53 07.50  -1.5
ABH      7.04 334 eP     53 09.03  -0.2
RUP      7.05 331 eP     53 09.43   0.1
TNS      7.10 340 ePnd   53 10.60   0.6
                  eSn    54 32.00
BRG      7.33   8 e(P)   53 10.00  -3.2X
                  i      54 33.00
                  i      55 30.00
WLF      7.36 327 iPd    53 14.19   0.6
CLL      7.70   3 ePn    53 17.00  -1.3
                  e      55 47.00
KSP      7.71  19 ePn    53 01.00 -17.5X
       1.2s     34.00nm
                  ePg    53 14.80
                  eS     54 21.00
VAY      7.95 103 iPn    53 20.50  -1.4
DOU      8.34 324 P      53 26.70  -0.6
                  i      53 34.30
                  iS     54 59.60
NAO     17.24 358 P      55 38.60  12.9X
       0.9s      6.30nm
NUR     18.48  20 eP     55 33.00  -8.0X
BCAO    39.43 170 iPc    58 55.70   0.3
       1.1s     11.00nm          4.4mb
     S.D. = 1.0  on  97 of 103 obs.
-----------------------------------------
%  JAN  17, 1993  11h 03m 12.24± 0.63s
   43.572 N ± 6.7km   12.255 E ± 4.8km
   DEPTH =  10.0km  (geophysicist)
 CENTRAL ITALY                      (381)

CRE      0.23 284 P      03 17.10  -0.1
                  eSg    03 22.20
RSM      0.38  22 P      03 20.70   0.6
SFI      0.45 320 P      03 20.70  -0.8
                  eSg    03 26.70
PGD      0.49 308 P      03 22.10  -0.2
                  eSg    03 28.60
ARV      0.51  98 P      03 22.00  -0.5
                  eSg    03 29.80
ASS      0.58 149 P      03 24.30   0.2
                  eSg    03 33.70
PII      1.27 277 P      03 35.60  -0.1
                  eSg    03 53.00
BDI      1.30 293 P      03 37.10   0.8
                  eSg    03 54.00
     S.D. = 0.6  on   8 of   8 obs.
-----------------------------------------
?  JAN  17, 1993  11h 06m 13.73± 2.10s
   43.473 N ±18.1km   12.280 E ± 8.8km
   DEPTH =  10.0km  (geophysicist)
 CENTRAL ITALY                      (381)

CRE      0.28 303 P      06 19.10  -0.6
                  eSg    06 24.50
RSM      0.47  15 P      06 22.80  -0.5
ARV      0.48  87 P      06 23.70   0.2
                  eSg    06 33.50
SFI      0.54 325 P      06 25.70   1.0
                  eSg    06 29.80
     S.D. = 1.3  on   4 of   4 obs.
-----------------------------------------
   JAN  17, 1993  12h 10m 35.93± 0.68s
   43.573 N ± 7.1km   12.250 E ± 5.3km
   DEPTH =  10.0km  (geophysicist)
 CENTRAL ITALY                      (381)

CRE      0.22 284 P      10 40.60  -0.2
                  eSg    10 44.90
RSM      0.38  22 P      10 44.50   0.7
                  eSg    10 48.10
SFI      0.45 320 P      10 44.50  -0.6
                  eSg    10 51.00
PGD      0.49 308 P      10 45.50  -0.4
                  eSg    10 51.90
ARV      0.51  98 P      10 45.80  -0.5
                  eSg    10 54.50
ASS      0.59 149 P      10 47.90   0.1
                  eSg    10 57.00
PII      1.26 277 P      11 00.20   0.9
                  eSg    11 17.30
VOY      2.72  25 e(Pn)  11 26.50   5.9X
VBY      2.89  47 e(Pn)  11 37.80  15.0X
     S.D. = 0.7  on   7 of   9 obs.
-----------------------------------------
%  JAN  17, 1993  13h 45m 47.75± 3.47s
   40.087 N ±21.4km   20.640 E ±21.2km
   DEPTH =  10.0km  (geophysicist)
 GREECE-ALBANIA BORDER REGION       (392)
      ML 2.7 (TIR).

LSK      0.07 334 iPgc   45 48.10  -2.1
                  iSg    45 50.60
TPE      0.53 294 ePg    45 58.00  -0.4
                  iSg    46 08.60
SRN      0.53 247 iPgd   45 58.40  -0.1
                  iSg    46 08.80
KBN      0.55  12 ePg    45 57.80  -1.0
VLO      0.96 294 ePn    46 06.40   0.5
TIR      1.39 335 ePn    46 15.00   1.9
                  iSn    46 38.00
PHP      1.60 355 ePn    46 17.70   1.5
SDA      2.14 337 ePn    46 28.70   4.7X
     S.D. = 1.7  on   7 of   8 obs.
-----------------------------------------
   JAN  17, 1993  13h 49m 45.97± 0.34s
   12.318 N ± 5.7km   87.338 W ± 4.7km
   DEPTH =  83.4km  ( 13 depth phases)
   4.8mb ( 16 obs.)
 NEAR COAST OF NICARAGUA            ( 74)
      Felt along the Pacific coast of
      Nicaragua.

TPX      5.43 299 (P)    51 07.00   0.8
OXX     10.24 299 (P)    52 12.50   0.2
STH     11.66  59 iPd    52 32.90   1.8
PPM     12.77 303 (P)    52 47.50   1.2
ACX     12.93 292 (P)    52 50.00   2.1
UNM     13.36 303 (P)    53 05.00  11.3X
MRX     15.20 301 (P)    53 20.50   3.2X
SDV     16.77 100 eP     53 35.80  -1.5
CGX     17.14 297 (P)    53 48.00   6.1X
AGX     17.16 306 (P)    53 34.00  -7.9X
TOV     17.40  97 eP     53 45.20   0.2
HBF     21.49  16 (P)    54 30.90   1.5
PRM     22.14  11 eP     54 36.98   1.1
                  e      54 56.13  89km
JSC     22.55  13 eP     54 41.00   1.1
                  e      54 59.00  81km
UYO     22.70 345 iPc    54 41.90   0.6
LHS     22.85  14 eP     54 44.18   1.4
TKL     23.46   7 eP     54 49.38   0.6
VVO     24.15 343 eP     54 55.40   0.0
MEO     24.59 337 iPc    54 59.70   0.0
SIO     24.69 342 e(P)   55 00.00  -0.6
TUL     24.70 343 ePc    54 59.90  -0.8
       0.6s    107.60nm          5.5mb
     Z  18s      0.11um          3.4Msz
                  e      55 01.90   7kmX
                  e      55 16.40
                  LR     02 59.00
LNO     24.70 343 ePc    54 59.70  -0.9
                  e      55 16.40  73km
LNO2    24.70 343 ePc    54 59.90  -0.7
LNO3    24.70 343 eP     55 00.00  -0.7
RLO     24.73 345 eP     55 00.70  -0.3
OCO     24.86 340 iPc    55 02.30   0.1
ELC     24.92 356 eP     55 02.02  -0.7
NAV     25.57  12 eP     55 09.17   0.3
FVM     25.71 354 eP     55 08.50  -1.6
       0.8s     11.94nm          4.4mb
NNA     26.30 156 eP     55 15.00  -0.7
       1.0s     10.00nm          4.3mb
ACO     26.50 338 iPd    55 16.60  -0.8
CVL     26.76  16 eP     55 19.46  -0.2
                  e      55 36.66  74km
TUC     29.31 317 eP     55 43.65   0.7
       1.0s     16.40nm          4.6mb
GLD     31.57 333 eP     56 02.00  -0.8
       1.2s     24.80nm          4.9mb
GOL     31.59 333 eP     56 02.29  -0.9
       0.7s      2.71nm          4.1mb
SRU     33.69 326 ePc    56 20.95  -0.3
                  e      56 42.30  92km
RSNY    33.94  16 eP     56 21.94  -1.3
       1.1s     45.45nm          5.3mb
                  e      56 40.17  76km
MSU     34.19 324 eP     56 26.18   0.5
                  eScP   02 40.54
ZOBO    34.19 146 eP     56 15.00 -11.3X
     Z  24s      0.15um          3.6MszX
                  e      56 25.00  35kmX
                  LR     07 36.00
EMUT    34.35 327 ePc    56 27.25   0.2
                  e      56 48.10  89km
LPB     34.40 146 (P)    56 35.00   7.1X
CNCB    34.69 146 P      56 31.20   0.7
                  e      59 03.00
RSSD    34.79 339 ePc    56 30.96   0.2
       0.6s     24.87nm          5.3mb
                  eScP   02 40.68
EEO     34.92  10 eP     56 34.50   3.0X
DAU     35.01 327 ePc    56 33.29   0.5
                  e      56 46.66  51kmX
                  e      56 54.28
GSC     35.12 316 eP     56 34.40   0.9
SSK     35.16 313 iPc    56 45.48  11.5X
DUG     35.70 326 eP     56 39.15   0.7
       1.1s     22.45nm          5.0mb
BW06    35.95 332 eP     56 40.00  -0.6
       0.7s     16.51nm          5.1mb
                  eScP   02 45.04
ISA     36.47 315 eP     56 44.70  -0.1
       0.7s      3.43nm          4.4mb
HVU     36.79 328 eP     56 47.47  -0.1
TNP     36.98 319 eP     56 49.98   0.8
       0.5s      3.63nm          4.6mb
PTI     37.38 329 eP     56 52.44   0.0
MTUM    37.44 317 eP     56 53.81   0.7
BONR    37.60 318 eP     56 55.69   1.1
KVN     38.10 320 (P)    57 00.02   1.3
ULM     38.47 351 ePc    57 01.80   0.5
LMN     38.51  25 eP     57 04.50   2.8
LCCM    39.37 333 iPc    57 09.40   0.3
                  e      57 31.00  91km
YJA     40.42 148 e(P)   57 18.00  -0.2
ORV     40.57 318 eP     57 20.05   1.2
                  e      57 41.47  90km
NTYM    40.74 316 eP     57 21.32   1.1
LBFM    41.80 320 eP     57 29.38   0.2
SES     42.64 338 ePc    57 35.00  -0.7
       0.5s     11.00nm          4.9mb
                  pP     57 53.00  73km
KMPM    42.74 318 eP     57 37.36   0.7
ET3     43.31 328 P      57 40.17  -0.9
PRW     43.46 327 P      57 42.02  -0.4
NEW     43.57 331 eP     57 42.32  -1.0
       0.6s     17.93nm          5.1mb
VGB     43.60 326 eP     57 43.64   0.1
                  e      58 03.95  84km
                  e      58 14.12
WAH2    43.75 328 P      57 44.14  -0.5
MDW     43.76 328 P      57 44.41  -0.4
VBEM    43.77 325 P      57 45.34   0.2
BRVW    43.80 327 P      57 45.09  -0.1
DPW     43.82 330 eP     57 44.67  -0.6
                  e      58 06.19  90km
                  e      58 19.09
SSOR    44.15 324 P      57 47.15  -1.0
EPH     44.16 329 P      57 47.67  -0.4
EBG     44.38 328 P      57 49.84   0.0
ASR     44.45 326 P      57 50.99   0.5
TBM     44.56 328 P      57 51.22  -0.1
WTV     44.57 329 P      57 51.34  -0.1
DHW2    44.67 329 P      57 51.63  -0.6
LON     44.93 327 eP     57 53.61  -0.7
FMW     44.97 327 P      57 54.30  -0.5
NLW     45.02 329 P      57 54.38  -0.7
RMW     45.38 327 eP     57 56.45  -1.4
                  e      58 33.08 165kmX
RPW     45.86 329 P      58 00.51  -1.0
GMW     45.95 327 eP     58 00.76  -1.5
                  e      58 17.61  67kmX
                  e      58 21.88
OSD     46.61 327 P      58 07.27  -0.4
FCC     46.63 355 ePc    58 08.50   1.1
MCW     46.68 328 eP     58 06.95  -1.1
BAO     47.83 124 e(P)   58 12.00  -5.5X
                  e      58 13.90   6kmX
```

17d 13h

```
                    e      58 44.80
KLU     64.51 333 eP     00 14.27  -1.7
FBA     66.59 336 eP     00 26.75  -2.4
        0.6s      3.85nm          4.5mb
                    e      00 47.90  81km
ADK     80.02 321 (P)    01 47.14  -0.5
        1.0s     41.25nm          5.3mb
TOO    126.72 232 ePKP   08 42.30   0.5
        0.8s     17.00nm
GKN    139.17  11 PKP    09 00.52  -5.3X
ASPA   139.32 248 ePKP   09 01.60  -4.4X
        0.6s      3.10nm
GUN    139.47   9 PKP    09 03.08  -3.5X
KKN    139.49  10 PKP    09 01.84  -4.6X
DMN    139.64  10 PKP    09 01.42  -5.4X
PKI    139.73  10 PKP    09 01.50  -5.6X
HYB    147.33  26 ePKP   09 19.00  -0.9
CHG    148.45 349 ePKP   09 23.40   1.8
BDT    149.97 348 ePKP   09 28.00   4.1X
        0.5s     29.90nm
GBA    150.15  31 PKP    09 24.00  -0.2
MUN    150.82 224 ePKP   09 26.00   1.1
        0.7s     30.00nm
      S.D. = 0.9  on  90 of 106 obs.
-----------------------------------
&  JAN  17, 1993  13h 56m 40.79s
   34.240 N          117.440 W
   DEPTH =  12.8km
 SOUTHERN CALIFORNIA                ( 43)
      <PAS-P>. ML 3.2 (PAS). Felt.

PEC      0.42 146 P      56 48.63  -0.8
GSC      1.18  26 iPd    57 02.16  -0.5
                  eS     57 18.29
ISA      1.65 329 eP     57 08.89  -0.8
BCH      2.37 294 eP     57 19.70  -0.4
MTUM     3.24 344 ePn    57 30.28  -2.2
TNP      3.84   3 ePg    57 51.74  10.7
         6 obs. associated
-----------------------------------
%  JAN  17, 1993  14h 09m 32.94± 0.78s
   43.602 N ± 7.4km   12.265 E ± 6.3km
   DEPTH =  10.0km  (geophysicist)
 CENTRAL ITALY                      (381)

CRE      0.23 277 P      09 38.00   0.1
                  eSg    09 41.80
RSM      0.35  23 P      09 40.60   0.4
SFI      0.44 317 P      09 41.50  -0.3
                  eSg    09 47.60
PGD      0.48 305 P      09 46.40   3.7X
                  eSg    09 49.50
ARV      0.50 102 P      09 42.70  -0.4
                  eSg    09 50.20
ASS      0.61 151 P      09 45.50   0.3
                  eSg    09 53.90
      S.D. = 0.5  on   5 of   6 obs.
-----------------------------------
   JAN  17, 1993  14h 40m 04.84± 0.48s
   38.042 N ± 6.0km   14.180 E ± 4.2km
   DEPTH =  10.0km  (geophysicist)
 SICILY                             (398)

GIB      0.13 247 P      40 06.70  -1.4
                  eSg    40 08.60
MNO      0.42 105 P      40 13.50   0.0
                  eSg    40 21.00
MCT      0.60 227 P      40 17.80   0.8
                  eSg    40 26.10
ATN      1.02  83 P      40 24.70   0.6
MSI      1.10  81 P      40 25.90   0.5
MEU      1.11 147 P      40 25.10  -0.7
                  eSg    40 41.60
CVT      1.16 252 P      40 27.30   0.9
ERC      1.26 270 P      40 28.30   0.1
                  eSg    40 46.20
TDS      2.33  46 P      40 43.30  -0.6
MGR      2.35  27 P      40 42.90  -1.2
SGO      2.66  19 P      40 48.90   0.4
                  eSn    41 19.00
ORI      2.68  40 P      40 49.50   0.7
      S.D. = 0.9  on  12 of  12 obs.
-----------------------------------
?  JAN  17, 1993  14h 44m 30.46±16.07s
   18.253 N ±56.3km   76.605 W ±90.4km
   DEPTH =  10.0km  (geophysicist)
 JAMAICA REGION                     ( 86)
      MD 2.2 (HOJ). Felt in the
      Kingston area.

GWJ      0.22 216 iP     44 35.15  -0.1
                  iS     44 37.17
STH      0.26 229 iP     44 35.95  -0.1
                  iS     44 39.03
HOJ      0.29 209 iP     44 35.78  -0.7
                  iS     44 38.40
PCJ      0.74 227 iPd    44 46.37   1.4
                  S      44 53.59
SPJ      0.94 254 eP     44 47.97  -0.5
                  S      44 57.18
      S.D. = 1.2  on   5 of   5 obs.
-----------------------------------
?  JAN  17, 1993  14h 55m 53.93± 2.10s
   38.434 N ±17.8km  142.092 E ±14.9km
   DEPTH = 102.8 ± 17.5 km
   4.6mb (  2 obs.)
 NEAR EAST COAST OF HONSHU, JAPAN(228)

MAT      3.62 240 eP     56 49.00   0.0
                  (S)    57 42.00
GUN     47.56 275 P      04 21.62   0.2
        0.7s      8.00nm          4.6mb
FBA     47.64  33 (P)    04 21.00   0.0
KKN     48.09 275 P      04 25.56   0.3
PKI     48.09 275 P      04 24.20  -1.2
DMN     48.31 275 P      04 27.18   0.2
GKN     48.49 276 P      04 28.44   0.2
WB2     58.52 189 eP     05 41.60  -0.1
        0.7s      4.40nm          4.6mb
GBA     61.87 265 P      06 05.00   0.3
AIA    149.07 159 ePKP   15 47.20  21.2X
      S.D. = 0.6  on   9 of  10 obs.
-----------------------------------
?  JAN  17, 1993  14h 56m 58.88± 1.23s
   22.687 S ±13.5km   68.230 W ±15.7km
   DEPTH = 120.0km  (geophysicist)
 NORTHERN CHILE                     (123)

ANT      2.25 243 eP     57 35.70  -0.3
                  iS     58 01.50
CCH      5.63  21 eP     58 20.00  -1.8
CNCB     5.85   2 P      58 27.60   2.4X
LPB      6.12   1 eP     58 29.00   0.2
ZOBO     6.37   1 P      58 33.70   1.4
                  eS     59 32.00
SIV      9.49  47 P      59 18.00   4.1X
                  S      01 57.00
VAO     19.60  95 eP     01 20.70   0.5
      S.D. = 1.7  on   5 of   7 obs.
-----------------------------------
&  JAN  17, 1993  15h 15m 52.51s
   61.613 N          146.656 W
   DEPTH =  23.8km
 SOUTHERN ALASKA                    (  2)
      <AEIC>. ML 2.7 (AEIC).

KLU      0.37 109 iPc    16 00.27  -0.4
                  iS     16 06.79
SCM      0.39 305 iPc    16 00.64  -0.3
                  S      16 07.04
VLZ      0.51 162 iPc    16 01.71  -1.0
                  S      16 09.08
TOA      0.54  25 P      16 02.70  -0.7
TZL      0.73  53 iPc    16 05.49  -1.0
GLI      0.77 196 ePc    16 05.74  -1.4
SML      0.82 285 iPc    16 06.37  -1.7
                  S      16 17.59
FID      0.87 174 ePc    16 07.92  -1.0
                  S      16 20.39
KNK      0.89 258 ePc    16 08.03  -1.1
                  iS     16 20.32
SDG      1.06  29 iPc    16 09.92  -1.9
                  eS     16 23.32
GHO      1.09 279 ePc    16 10.47  -1.9
CVA      1.16 157 ePd    16 11.88  -1.3
PLRM     1.18 270 ePc    16 12.18  -1.4
                  eS     16 28.06
HIN      1.22 176 ePc    16 12.88  -1.3
PTE      1.37 238 eP     16 15.23  -1.0
GLB      1.37  96 ePc    16 14.27  -2.1
                  eS     16 32.05
KNIM     1.37 203 ePc    16 15.14  -1.2
                  S      16 33.06
PMS      1.44 256 P      16 16.80  -0.6
PAX      1.47  22 ePc    16 15.84  -2.0
                  eS     16 34.61
PWA      1.54 273 P      16 17.70  -1.0
RAGM     1.56 141 eP     16 18.08  -1.0
LTI      1.68 201 eP     16 20.41  -0.4
MPA      1.73 231 eP     16 21.07  -0.4
HMT      1.73 137 eP     16 20.34  -1.2
CROM     1.91 115 eP     16 23.19  -1.0
SUA      1.96 267 ePc    16 24.45  -0.5
SEW      2.04 223 eP     16 25.68  -0.2
SLKM     2.06 239 eP     16 26.09  -0.2
RND      2.07 331 eP     16 25.66  -0.8
BALM     2.16 104 eP     16 25.88  -1.9
SKT      2.34 281 eP     16 29.16  -1.1
MCK      2.37 335 eP     16 30.26  -0.4
CGLM     2.59 266 eP     16 32.79  -1.1
SPU      2.63 263 eP     16 32.83  -1.6
CTGM     2.65 102 eP     16 33.08  -1.7
YAH      2.70 115 eP     16 34.71  -0.9
HDA      2.81 357 eP     16 35.55  -1.3
CCB      3.09 351 eP     16 39.88  -1.0
         38 obs. associated
-----------------------------------
&  JAN  17, 1993  15h 41m 48.30s
   36.832 N          121.583 W
   DEPTH =   6.0km
 CENTRAL CALIFORNIA                 ( 39)
      <BRK>. ML 3.0 (BRK).

SAO      0.13 121 iPc    41 50.77  -0.3
                  eS     41 52.79
GCC      0.39 301 iPc    41 55.75  -0.3
COE      0.43 350 ePd    41 57.80   0.8
MHC      0.51 355 iPd    41 58.89   0.3
                  eS     42 06.45
PRS      0.53 161 iPd    41 58.45  -0.4
LLA      0.56 113 iPc    41 59.28  -0.2
                  eS     42 07.80
STAN     0.74 320 eP     42 02.65  -0.4
                  eS     42 15.07
PCC      0.92 317 iPc    42 05.11  -1.2
                  eS     42 19.87
PRI      1.01 133 eP     42 07.17  -0.7
BKS      1.17 334 ePc    42 08.53  -1.9
                  eS     42 26.66
ZSP      1.23 334 eP     42 12.20   0.6
                  eS     42 30.02
HMR      1.33 353 ePn    42 13.85   0.6
PKEM     1.42 122 (P)    42 14.54  -0.1
FRI      1.51  83 eP     42 14.19  -1.7
                  eS     42 36.18
CMB      1.53  38 ePd    42 14.52  -1.8
                  eS     42 35.66
NTYM     1.78 331 ePn    42 17.66  -2.0
BCH      2.04 143 ePn    42 21.89  -1.9
MTUM     2.47  77 ePn    42 29.77  -0.2
MRCM     2.59  70 (Pn)   42 32.42   0.7
ORV      2.72   1 iPc    42 33.89   0.6
TNP      3.69  69 ePg    42 55.22   7.9
         21 obs. associated
-----------------------------------
   JAN  17, 1993  17h 44m 29.53± 0.46s
   45.465 N ± 7.2km  151.218 E ± 6.8km
   DEPTH =  33.0km  (normal)
   5.0mb ( 51 obs.)
 KURIL ISLANDS                      (221)

KUR      2.37 266 iPnd   45 09.00   2.1
      Z  12s      8.50um
      E  12s     10.60um
                  eS     45 41.50
KUSJ     5.24 245 iP+    45 46.10  -1.4
                  eS     46 44.20
YSS      6.10 288 ePnc   46 02.00   2.3
      Z  17s      2.50um
      N  17s      1.20um
      E  17s      1.20um
                  e      47 18.70
SKR      6.15  30 ePn    45 58.50  -1.9
      Z  14s      7.60um
      N  14s      5.40um
      E  14s     14.10um
HOOJ     6.50 245 eP     46 05.30   0.0
                  eS     47 19.80
MRRJ     7.93 251 eP     46 26.20   0.9
                  eS     47 55.20
PET      8.98  30 ePn    46 46.00   6.2X
```

```
                    eS    48 30.00
AOMJ     9.33 242 eP    46 41.90   -2.8
                    eS    48 21.50
OFUJ     9.52 231 eP    46 42.50   -4.9X
                    eS    48 23.20
OKH      9.72 329 iPnd  46 54.00    4.1X
     Z  15s      1.00um
YAMJ    11.07 233 eP    47 04.80   -3.7X
MAT     13.25 232 eP    47 35.00   -2.8
        0.9s     13.45nm          4.9mb
                    eS    49 53.00
MGD     14.66 359 eP    47 56.00   -0.1
        1.2s     70.00nm          5.0mb
     Z  16s      0.50um           4.7Msz
     N  16s      0.50um
     E  16s      0.40um
MDJ     15.31 275 Pc    48 05.20    0.5
        1.0s     37.00nm          4.6mb
SEY     17.48   2 eP    48 44.00   11.9X
CN2     18.40 274 eP    48 42.60   -0.9
        0.8s     27.00nm          4.5mb
     Z  15s      1.06um           7.3MszX
     N  14s      0.19um
     E  14s      0.51um
                    epP   48 58.00
SHNJ    19.10 241 eP    48 52.10    0.0
SNY     20.29 270 Pc    49 04.60   -0.4
        1.3s     87.00nm          4.9mb
     Z  16s      0.94um           4.2MszX
     E  13s      0.52um
KUMJ    20.37 238 P     49 06.10    0.2
YAK     20.72 331 eP    49 07.40   -1.9
        1.0s    101.00nm          5.2mb
                    e     49 33.00
                    e     52 58.00
KAGJ    21.31 235 eP    49 16.30    0.8
BOD     25.74 312 eP    49 55.60   -2.8
BJI     26.16 271 eP    50 03.00    0.6
        1.2s     82.00nm          5.2mb
     Z  16s      0.58um           4.2MszX
     E  14s      0.41um
TIA     27.23 262 eP    50 12.70    0.5
ILT     27.37  24 eP    50 13.00   -0.2
SSE     27.41 249 Pd    50 14.00    0.1
        1.0s     21.00nm          4.7mb
     Z  20s      0.90um           4.3Msz
TIK     28.34 345 eP    50 19.40   -2.5
        0.6s      9.00nm          4.6mb
NJ2     28.36 253 Pd    50 27.00    4.5X
     Z  18s      0.29um           3.9Msz
HHC     29.08 275 Pc    50 29.60    0.5
        1.0s     40.00nm          5.1mb
     Z  16s      1.19um           4.6MszX
     E  15s      0.56um
TIY     29.79 269 Pd    50 36.20    0.8
     Z  20s      0.62um           4.2Msz
BTO     30.26 276 eP    50 39.50   -0.1
     N  12s      0.46um
     E  12s      0.56um
ZAK     32.05 296 eP    50 52.50   -2.5
        1.7s     15.00nm          4.6mb
     Z  14s      0.88um           4.6MszX
     E  14s      0.86um
XAN     34.10 265 P     51 12.70   -0.4
        0.8s     11.00nm          4.8mb
                    pP    51 19.50   23kmX
LZH     36.62 272 iPc   51 35.60    1.0
        1.4s    110.00nm          5.6mb
     Z  20s      0.32um           4.1Msz
                    sP    51 52.00
GTA     37.88 280 iPd   51 46.00    0.9
        1.0s     34.00nm          5.2mb
     Z  12s      0.60um           4.6MszX
FBA     37.99  37 ePc   51 45.80    0.2
        1.0s      2.00nm          3.9mb X
CD2     39.46 265 iPc   51 58.70    0.4
        0.8s     50.00nm          5.3mb
GYA     40.15 257 P     52 04.20    0.1
        0.8s      7.80nm          4.5mb
WMQ     44.17 292 P     52 38.00    1.2
        1.0s      9.30nm          4.6mb
                    pP    52 43.00   17kmX
                    sP    52 49.00
LSA     49.02 273 Pc    53 17.20    1.5
        1.4s     33.00nm          5.2mb
GUN     53.80 275 P     53 51.18   -0.3
        0.5s     34.00nm          5.6mb
KSH     53.95 292 P     53 53.40    1.2
        1.0s     20.00nm          5.1mb
KKN     54.29 275 P     53 54.82   -0.2
        0.6s     46.00nm          5.6mb
PKI     54.33 275 P     53 55.14   -0.3
DMN     54.52 275 P     53 56.78    0.0
        0.9s     61.00nm          5.6mb
GKN     54.61 276 P     53 57.02   -0.3
        0.6s     42.00nm          5.7mb
DAG     57.88 357 eP    54 17.80   -2.0
NDI     59.36 281 iPc   54 30.50   -0.3
        0.5s     31.69nm          5.7mb
FCC     63.06  32 eP    54 56.50    1.2
KAF     64.05 335 eP    55 00.30   -1.5
        0.9s     11.40nm          5.0mb
HYB     65.70 270 eP    55 12.50   -0.6
NUR     65.80 334 eP    55 11.90   -1.2
        0.4s      5.00nm          5.0mb
ASH     65.97 300 eP    55 12.50   -2.0
MAIO    66.32 298 eP    55 17.00    0.1
WB2     66.88 197 eP    55 14.60   -5.8X
        0.7s      5.50nm          4.8mb
                    i     55 18.80
                    i     55 32.40
POO     68.26 275 eP    55 33.00    3.7X
GBA     69.07 268 Pc    55 34.00   -0.3
HFS     69.19 339 eP    55 32.40   -2.0
        0.7s     18.00nm          5.3mb
NAO     69.29 340 P     55 33.40   -1.6
        0.9s     13.10nm          5.0mb
ASPA    70.58 197 eP    55 42.50   -0.8
        0.9s      5.20nm          4.6mb
KIV     70.74 313 (P)   55 43.60   -0.7
MTA     71.22 311 iP    55 47.40    0.4
WARB    74.74 203 eP    56 07.90    0.2
OJC     75.79 330 eP    56 13.40   -0.2
KSP     76.45 332 iPc   56 16.50   -0.7
CLL     77.07 335 iPc   56 20.30   -0.4
        1.0s     34.00nm          5.3mb
BRG     77.17 334 iP    56 20.40   -0.8
PRU     77.75 333 Pc    56 24.60    0.2
                    e     56 35.30
MOX     78.07 335 ePc   56 26.00   -0.2
        1.6s     33.00nm          5.1mb
WTS     78.20 338 eP    56 27.00    0.2
        0.7s     14.00nm          5.1mb
SRO     78.35 330 eP    56 28.20    0.5
ZST     78.45 331 iP    56 28.40    0.1
KHC     78.81 333 Pc    56 30.30    0.0
        1.0s     11.10nm          4.8mb
                    e     56 34.60
GEC2    79.02 333 ePc   56 30.90   -0.6
        0.9s      4.32nm          4.5mb
                    e     56 35.60
                    e     56 41.00
                    e     56 46.80
GRF     79.04 335 iPc   56 32.00    0.5
        1.0s     23.00nm          5.1mb
ENN     79.55 338 eP    56 34.50    0.3
        1.0s     11.00nm          4.8mb
DOU     80.50 339 Pc    56 41.30    2.0
KBA     80.68 332 iPc   56 41.10    0.5
        1.1s     21.60nm          5.1mb
                    i     56 45.30
                    i     56 57.90
WTTA    81.07 333 iPc   56 42.60    0.0
        0.4s      6.60nm          4.9mb
                    i     56 54.00
SOTA    81.24 334 iPc   56 43.60    0.2
CDF     81.33 337 eP    56 43.80    0.0
VAY     82.17 324 iP    56 48.70    0.5
FLN     82.95 342 eP    56 52.20    0.1
LDF     83.03 341 eP    56 52.50   -0.1
OHR     83.08 325 eP    56 52.70   -0.3
LOR     83.30 338 eP    56 54.20    0.2
        0.5s      3.05nm          4.7mb
GRR     83.39 342 eP    56 54.80    0.4
        0.5s      5.90nm          5.0mb
LBF     83.53 338 eP    56 55.70    0.5
        0.6s      6.20nm          4.9mb
SSF     83.58 338 eP    56 55.60    0.2
        0.6s      4.70nm          4.8mb
LPF     83.77 342 eP    56 57.70    1.4
AVF     83.87 338 eP    56 57.30    0.4
        1.3s     34.30nm          5.3mb
SMF     83.88 338 eP    56 57.40    0.4
        1.2s     34.50nm          5.4mb
LPL     84.12 336 eP    56 59.30    0.8
        1.0s     18.20nm          5.2mb
LPG     84.13 336 eP    56 59.40    0.8
        0.8s     12.75nm          5.1mb
BGF     84.22 339 eP    56 59.20    0.5
MAF     84.60 339 eP    57 01.70    1.1
        0.6s      8.85nm          5.1mb
TCF     84.63 339 eP    57 01.60    0.8
LSF     84.84 339 eP    57 02.60    0.8
        0.6s      6.95nm          5.0mb
MFF     84.91 341 eP    57 03.60    1.5
SBF     85.42 335 eP    57 05.00    0.2
RJF     85.73 339 eP    57 07.10    0.9
        0.7s      3.95nm          4.7mb
FRF     85.93 335 eP    57 07.80    0.6
CAF     85.94 339 eP    57 08.60    1.3
        0.7s      6.85nm          5.0mb
LRG     86.11 335 eP    57 08.60    0.5
PGF     86.12 333 eP    57 08.50    0.1
LMR     86.18 335 eP    57 09.00    0.5
LFF     86.26 339 eP    57 10.00    1.2
LPO     86.39 339 eP    57 10.70    1.2
LPB    136.31  62 ePKP  03 57.00    6.8X
CNCB   136.60  62 ePKP  03 50.00   -0.9
SIV    140.06  53 PKP   04 00.30    3.7X
      S.D. = 1.1  on 101 of 111 obs.
-----------------------------------
&  JAN  17, 1993  17h 53m 52.29s
   34.056 N            117.248 W
   DEPTH =  13.4km
 SOUTHERN CALIFORNIA                ( 43)
      <PAS-P>. ML 3.0 (PAS). Felt.

PEC      0.18 156 iPc    53 56.37   -0.3
SSK      0.40 293 ePc    54 00.01   -0.9
PLM      0.77 155 eP     54 06.27   -0.9
GSC      1.30  16 ePd    54 15.41   -0.6
ISA      1.89 328 eP     54 23.34   -1.3
GLA      2.26 116 ePn    54 27.21   -2.6
BCH      2.60 297 (P)    54 31.22   -3.5
TNP      4.02   0 ePg    55 05.70   10.8
ARUT     4.84  39 (Pg)   55 20.98   14.4
         9 obs. associated
-----------------------------------
?  JAN  17, 1993  18h 11m 45.96± 5.23s
   29.790 S ±25.8km   69.766 W ±47.0km
   DEPTH = 130.0km  (geophysicist)
 CHILE-ARGENTINA BORDER REGION    (127)

RTCB     1.89 154 eP     12 20.00    0.9
                    S    12 47.00
RTLL     1.90 144 eP     12 17.40   -1.8
                    S    12 44.00
CFA      2.24 144 ePc    12 23.10   -0.3
RTCV     2.32 153 ePd    12 24.80    0.4
CYA      3.73  70 eP     12 43.00    0.1
MRA      4.35 128 ePc    12 52.30    1.1
TCA      4.72 110 iP     12 56.00   -0.4
      S.D. = 1.2  on   7 of   7 obs.
-----------------------------------
   JAN  17, 1993  18h 24m 51.54± 0.23s
   58.634 S ± 6.8km   26.177 W ± 5.8km
   DEPTH = 110.2km  (  3 depth phases)
   5.4mb ( 23 obs.)
 SOUTH SANDWICH ISLANDS REGION    (153)
      Mw 5.6 (HRV).
      CENTROID, MOMENT TENSOR     (HRV)
      Data Used: GDSN
      L.P.B.: 15S, 23C
      Centroid Location:
      Origin Time        18:24:54.3 0.4
      Lat 58.30S 0.05 Lon  26.57W 0.12
      Dep  33.0 FIX Half-duration  1.5
      Moment Tensor;   Scale 10**17 Nm
        Mrr=-0.94 0.07  Mtt= 1.67 0.11
        Mff=-0.74 0.09  Mrt= 1.78 0.16
        Mrf=-0.68 0.15  Mtf= 0.42 0.11
       Principal Axes:
        T  Val=  2.58  Plg=27  Azm=359
        N       -0.32      25      102
        P       -2.25      52      229
      Best Double Couple:Mo=2.4*10**17
       NP1:Strike= 45 Dip=29 Slip=-150
       NP2:        289     76      -64

AIA     18.84 234 eP     29 05.30    0.2
NVL     19.83 143 eP     29 14.00   -1.3
```

17d 18h

```
        1.4s     57.00nm          4.7mb
      Z  15s      1.50um
      N  15s      0.90um
                    ePP    29 27.00
                    eS     32 50.00
                    ePcP   32 59.00
                    eSS    33 42.00
SPA     31.54 180 iPd    31 05.10    0.2
        0.7s    265.63nm          6.1mb
      Z  16s      0.70um          4.4MszX
MAW     37.76 141 iPc    31 59.80    2.2
        1.0s     75.00nm          5.5mb
VAO     38.58 328 eP     32 06.70    1.6
                  e      32 32.70  114km
PEL     39.04 291 iPd    32 09.20    0.5
RTCV    39.05 294 iPd    32 08.80   -0.1
CFA     39.12 295 eP     32 09.30   -0.1
CER     39.33  70 eP     32 10.00   -1.1
        0.7s     44.00nm          5.4mb
RTLL    39.46 295 iPd    32 12.40    0.2
RTCB    39.49 295 iPc    32 12.70    0.2
POF     42.91  68 iPc    32 42.50    2.1
        0.7s     13.00nm          4.8mb
FRS     45.26  73 iPc    32 59.10   -0.1
        0.7s     50.00nm          5.4mb
BAO     45.88 330 e(P)   33 03.00   -1.4
                  e      33 04.90    6kmX
                  e      33 12.10
                  e      33 22.20
BLF     46.21  74 iPc    33 07.50    0.5
        0.6s     66.00nm          5.6mb
WIN     47.37  59 eP     33 17.20    0.9
        1.4s     50.00nm          5.1mb
SEK     47.58  75 iPd    33 18.50    0.7
        0.6s     85.00nm          5.7mb
PRY     48.65  73 eP     33 25.50   -0.5
        1.0s     80.00nm          5.5mb
KSR     49.24  72 eP     33 30.30   -0.3
        0.5s     37.00nm          5.5mb
SIV     49.76 314 iPc    33 38.00    3.6X
SLR     50.04  73 iPd    33 36.30   -0.3
        0.7s     27.00nm          5.3mb
CCH     50.52 307 eP     33 32.00   -8.5X
                  e      34 10.00  168kmX
BFT     50.96  75 iPc    33 45.00    1.3
        1.0s     30.00nm          5.2mb
CNCB    51.80 306 P      33 50.60    0.1
LPB     52.10 306 P      33 52.00   -0.6
ARE     53.63 302 eP     34 04.00    0.3
BUL     54.89  70 iPc    34 11.70   -1.1
        1.0s     35.00nm          5.3mb
CIR     55.63  73 iPd    34 17.20   -0.7
MTD     59.21  71 iPc    34 40.90   -2.3
NNA     59.98 299 eP     34 47.50   -0.9
        1.0s     15.00nm          5.0mb
LIC     66.85  23 P      35 33.50    0.2
      Z  20s      0.77um          4.9Msz
                  PcP    35 59.00
KIC     67.04  23 P      35 34.60    0.1
        0.7s     26.50nm          5.3mb
                  PcP    36 00.60
TIC     67.26  23 P      35 36.10    0.2
                  PcP    36 01.40
LWI     70.55  60 iPc    35 58.30    1.8
KDS     71.86  14 iP     36 04.50    0.6
BCAO    72.23  47 iPd    36 06.50    0.3
        0.8s     49.00nm          5.4mb
                  id     36 36.30  119km
                  id     45 19.80
TAU     78.68 175 eP     36 42.00   -0.3
TOO     83.90 173 iPc    37 10.00    0.2
        0.8s     67.00nm          5.6mb
BFD     84.08 171 eP     37 10.00   -0.7
                  e      37 36.00   98km
MUN     84.43 149 eP     37 12.00   -0.5
        0.8s     42.00nm          5.4mb
ADE     85.90 168 eP     37 20.40    0.5
CAN     86.31 176 eP     37 22.20    0.3
CNB     86.33 176 eP     37 21.50   -0.5
        0.8s     29.00nm          5.3mb
BWA     87.18 176 eP     37 27.10    1.0
FORT    88.36 158 eP     37 32.00    0.2
        0.6s     64.00nm          5.9mb
STK     89.25 170 eP     37 36.10    0.1
        0.7s     22.60nm          5.4mb
CMS     89.97 173 eP     37 49.60   10.3X
        0.7s      7.00nm
ARMA    91.27 178 eP     37 44.70   -0.8
        1.0s     21.00nm          5.3mb
WARB    92.53 156 eP     37 51.00   -0.2
HYB    112.37  93 ePKP   43 15.50   -0.2
                  e      43 44.00
ULM    122.48 314 ePKP   43 36.50    2.5
BDT    122.62 112 ePKP   43 36.00    0.8
APO    122.89  22 ePKP   43 32.50   -2.0
        0.5s      1.50nm
CHG    123.93 111 ePKP   43 38.50    0.7
DMN    124.15  92 PKPc   43 37.42   -0.9
        0.8s     44.00nm
GKN    124.22  92 PKPc   43 37.12   -1.2
        0.7s     45.00nm
PKI    124.28  93 PKPc   43 37.60   -1.1
        0.7s     35.00nm
KKN    124.39  92 PKPc   43 37.72   -1.0
        0.7s     47.00nm
GUN    124.80  93 PKPc   43 38.92   -0.8
        0.7s     51.00nm
NUR    125.25  28 ePKP   43 38.70   -0.3
KAF    127.04  28 iPKP   43 41.20   -1.3
        0.5s      9.10nm
KSH    128.66  76 ePKP   43 47.90    1.4
FCC    128.67 322 ePKP   43 47.00    1.3
LSA    128.98  96 PKP    43 47.40   -0.4
GYA    134.15 114 PKP    43 58.80    1.5
DAG    135.23   2 ePKP   43 56.00   -1.7
        0.8s     20.90nm
                  esP    47 15.50
BRVK   135.65  59 ePKP   43 58.00   -1.1
        1.0s      6.00nm
CD2    136.40 107 ePKP   44 03.40    2.1
LZH    140.56 102 ePKP   44 06.50   -2.5
XAN    141.49 110 PKP    44 05.20   -5.4X
ELT    143.25  68 iPKPc  44 09.00   -3.8X
        1.0s     33.00nm
NJ2    144.50 123 PKPc   44 15.00   -0.7
SSE    144.67 127 PKPd   44 14.00   -2.0
TIY    146.14 110 ePKP   44 18.80    0.4
BTO    147.13 104 PKP    44 22.50    2.6
TIA    147.19 117 PKPd   44 22.50    2.5
HHC    148.10 105 PKPd   44 24.80    3.3X
KAGJ   148.43 140 PKP    44 25.70    3.6X
KUMJ   149.64 139 PKP    44 29.40    5.4X
MOY    149.73  80 ePKPd  44 23.60    0.2
        1.0s     60.00nm
                  e      44 29.10
BJI    149.78 111 ePKP   44 29.00    5.1X
ZAK    150.18  84 ePKP   44 24.00   -0.2
        1.7s     22.00nm
                  e      44 30.00
NRI    150.84  41 ePKPc  44 29.00    4.4X
                  e      44 42.00
TOA    151.06 303 ePKP   44 32.30    7.0X
SHNJ   151.19 138 ePKP   44 33.40    7.2X
DL2    151.46 120 ePKP   44 33.00    6.5X
IRK    151.77  81 ePKPc  44 33.70    7.1X
        0.9s     37.00nm
                  e      44 42.60
FBA    152.60 308 ePKP   44 33.40    6.1X
        0.9s     26.50nm
MAT    155.64 148 ePKP   44 29.00   -3.4X
CN2    157.08 118 ePKP   44 34.70    0.7
BOD    159.32  75 ePKP   44 34.20   -1.9
        0.9s      8.00nm
PET    173.75 208 ePKP   44 40.00   -6.9X
      Z  20s      0.40um
                  e      46 16.00
      S.D. = 1.2  on  75 of  92 obs.
-----------------------------------
&  JAN  17, 1993  19h 08m 52.79s
   62.001 N          149.542 W
   DEPTH =  44.7km
   3.9mb (  1 obs.)
 CENTRAL ALASKA                  (  1)
      <AEIC>. ML 3.9 (PMR), 3.6
      (AEIC).

GHO      0.37 128 iPd    09 01.92   -0.4
                  eS     09 09.67
PWA      0.39 205 P      09 02.20   -0.2
PLRM     0.45 154 iPc    09 02.32   -0.9
                  eS     09 11.03
PMR      0.45 154 ePd    09 01.88   -1.3
                  eS     09 10.26
CUT      0.53 320 eP     09 03.56   -0.6
                  eS     09 12.28
SML      0.60 108 iPc    09 04.32   -0.9
                  eS     09 14.44
PMS      0.76 181 P      09 06.40   -0.9
KNK      0.79 138 iPc    09 06.93   -0.7
                  eS     09 18.41
SUA      0.79 227 iPc    09 07.17   -0.6
                  eS     09 19.64
SKT      0.94 270 iPc    09 08.72   -1.0
                  eS     09 21.80
HUR      0.98 357 iPd    09 09.70   -0.7
SCM      1.06  98 iPc    09 10.72   -0.8
PTE      1.17 167 iPd    09 12.28   -0.6
                  eS     09 29.03
CGLM     1.37 240 iPc    09 15.20   -0.7
RND      1.45  12 ePc    09 16.11   -0.9
                  eS     09 34.52
CRP      1.45 241 eP     09 15.84   -1.2
SPU      1.46 237 ePc    09 16.61   -0.5
                  eS     09 36.06
CKN      1.48 239 eP     09 17.38   -0.1
CP2      1.49 241 eP     09 16.61   -1.0
NKA      1.50 214 ePc    09 19.08    1.4
CKT      1.51 239 eP     09 17.22   -0.6
MPA      1.52 177 ePc    09 17.03   -0.9
                  eS     09 36.62
SLKM     1.53 193 eP     09 17.32   -0.8
                  eS     09 37.03
BGL      1.55 243 eP     09 17.92   -0.5
CKL      1.56 240 eP     09 17.67   -1.0
TOA      1.59  85 P      09 19.10    0.1
GLI      1.63 133 iPd    09 19.02   -0.4
MCK      1.76   9 eP     09 21.07   -0.3
VLZ      1.77 118 ePd    09 20.49   -0.9
                  eS     09 41.24
KLU      1.80 105 iPc    09 21.27   -0.7
                  eS     09 44.17
KNIM     1.87 151 ePd    09 21.08   -1.9
SEW      1.90 179 eP     09 23.55    0.2
FID      1.94 129 ePd    09 22.87   -1.0
TZL      1.94  87 eP     09 24.10    0.2
SDG      1.94  72 iPc    09 23.97    0.0
                  eS     09 48.73
DFR      2.07 228 iPc    09 25.38   -0.5
PAX      2.13  61 ePc    09 26.58    0.0
LTI      2.13 157 ePd    09 24.84   -1.8
REF      2.15 227 eP     09 26.29   -0.8
RDN      2.16 228 eP     09 26.74   -0.3
HIN      2.18 136 ePd    09 26.10   -1.2
NCT      2.18 230 eP     09 26.82   -0.6
                  eS     09 54.40
RSO      2.19 227 eP     09 26.91   -0.7
RS2      2.19 227 eP     09 27.16   -0.5
RS1      2.19 227 eP     09 27.16   -0.5
RDW      2.19 227 eP     09 27.09   -0.6
THY      2.25  49 eP     09 28.77    0.4
CVA      2.34 127 eP     09 28.54   -1.0
                  eS     09 58.53
ILIM     2.55 222 ePc    09 32.01   -0.6
                  eS     10 02.89
SGAM     2.58 124 eP     09 31.61   -1.4
INE      2.59 223 eP     09 32.68   -0.7
                  eS     10 03.76
NEA      2.60   4 eP     09 31.97   -1.3
INW      2.61 224 eP     09 32.83   -0.7
                  eS     10 04.33
HDA      2.68  25 eP     09 33.27   -1.2
CCB      2.77  16 eP     09 34.09   -1.6
                  eS     10 06.91
GLB      2.79  99 ePc    09 34.57   -1.4
RAGM     2.86 122 eP     09 36.76   -0.3
DOT      3.01  54 eP     09 38.52   -0.7
FBA      3.01  14 eP     09 37.23   -2.0
MDM      3.03  11 eP     09 37.99   -1.4
                  eS     10 12.42
SVW      3.04 256 iPc    09 37.66   -2.0
HMT      3.06 121 eP     09 38.05   -1.8
MLY      3.09 351 eP     09 38.68   -1.7
TTA      3.15 290 eP     09 38.68   -2.5
GLM      3.15  17 eP     09 39.47   -1.7
                  eS     10 15.48
PDB      3.18 228 eP     09 39.75   -1.8
AUL      3.25 218 eP     09 42.78    0.2
AUE      3.25 217 eP     09 42.86    0.3
AUH      3.27 218 eP     09 43.40    0.5
AUW      3.27 218 eP     09 43.20    0.4
CROM     3.32 109 eP     09 42.82   -1.0
```

```
                    eS    10 30.24
TGL      3.46 108 eP    09 44.27  -1.4
BALM     3.58 102 ePc   09 45.27  -2.1
MCNL     3.68 222 eP    09 47.04  -1.6
SYI      3.69 204 eP    09 47.59  -1.0
CDD      3.69 215 ePc   09 48.23  -0.5
                  eS    10 30.42
CTGM     4.07 101 eP    09 52.77  -1.6
YAH      4.12 110 eP    09 53.55  -1.5
IMA      4.47 338 ePd   09 57.37  -2.5
FYU      4.95  20 eP    10 04.68  -1.8
RSSD    31.81 103 eP    15 13.00  -2.2
        0.5s     1.01nm          3.9mb
        81 obs. associated
-----------------------------------------
%  JAN  17, 1993  19h 13m 10.33± 1.05s
   33.895 S ± 5.9km   70.505 W ± 9.1km
   DEPTH =  10.0km  (geophysicist)
 CHILE-ARGENTINA BORDER REGION    (127)
      MD 3.6 (SAN).

CHCH     0.13 253 iPd   13 14.35   0.9
                  iS    13 16.55
CACH     0.24 200 iP+   13 15.34  -0.1
                  iS    13 18.54
PCH      0.27 358 iPd   13 17.24   1.1
                  iS    13 22.19
TACH     0.43 304 iPd   13 19.73   0.5
                  iS    13 26.44
FCH      0.59  18 iPd   13 22.65   0.1
LNV      0.76 265 iPd   13 24.40  -0.7
                  iS    13 34.68
PEL      0.76 349 iPd   13 23.58  -1.7
                  iS    13 37.17
LCCH     0.98 295 iP+   13 28.65  -0.3
                  iS    13 42.09
ROCH     1.01 335 iP    13 29.95   0.3
                  iS    13 44.01
JACH     1.21 356 iP    13 32.94   0.0
                  iS    13 49.82
      S.D. = 0.9  on  10 of  10 obs.
-----------------------------------------
%  JAN  17, 1993  20h 18m 59.98± 0.59s
   43.583 N ± 6.7km   12.249 E ± 5.2km
   DEPTH =  10.0km  (geophysicist)
 CENTRAL ITALY                      (381)

CRE      0.22 282 P     19 04.70  -0.1
                  eSg   19 10.10
RSM      0.37  23 P     19 08.20   0.5
SFI      0.44 320 Pc    19 08.30  -0.7
                  eSg   19 15.60
PGD      0.48 307 P     19 09.40  -0.4
                  eSg   19 17.30
ARV      0.51  99 P     19 09.70  -0.6
                  eSg   19 17.50
ASS      0.59 149 P     19 11.40  -0.6
                  eSg   19 21.30
PII      1.26 277 P     19 22.90  -0.5
                  eSg   19 40.00
BDI      1.29 292 P     19 25.20   1.3
AQU      1.49 145 P     19 28.00   1.1
      S.D. = 0.9  on   9 of   9 obs.
-----------------------------------------
&  JAN  17, 1993  20h 36m 00.77s
   62.629 N          148.815 W
   DEPTH =  55.5km
 CENTRAL ALASKA                     (  1)
      <AEIC>. ML 2.9 (AEIC).

HUR      0.51 313 iPc   36 12.65   0.0
                  eS    36 21.95
RND      0.78 359 iPc   36 15.68  -0.3
                  eS    36 27.30
SML      0.85 164 iPc   36 16.67  -0.2
                  eS    36 29.65
GHO      0.86 183 iPc   36 16.84  -0.2
                  eS    36 29.84
PLRM     1.05 188 iPc   36 19.20  -0.3
                  eS    36 34.62
PMR      1.05 188 eP    36 18.85  -0.6
                  eS    36 33.32
SCM      1.06 138 ePc   36 19.28  -0.4
                  eS    36 35.69
PWA      1.10 207 P     36 20.50   0.3
MCK      1.11 357 iPc   36 20.21  -0.1
                  eS    36 34.76
KNK      1.23 172 iPc   36 22.22   0.2
                  eS    36 39.85
TOA      1.34 112 P     36 23.80   0.2
SKT      1.43 244 eP    36 24.95   0.2
                  eS    36 43.62
PMS      1.43 195 P     36 25.10   0.3
SUA      1.48 219 ePc   36 26.01   0.4
SDG      1.52  92 iPd   36 26.11   0.1
                  eS    36 47.44
PAX      1.58  76 ePd   36 26.78  -0.1
                  eS    36 47.18
THY      1.60  59 eP    36 27.73   0.5
TZL      1.69 109 ePd   36 29.00   0.7
PTE      1.77 183 ePc   36 29.25  -0.3
KLU      1.78 129 ePc   36 29.08  -0.6
                  eS    36 52.59
VLZ      1.91 141 iPc   36 30.39  -1.0
                  eS    36 53.70
GLI      1.94 154 eP    36 30.98  -0.9
NEA      1.96 357 ePc   36 30.80  -1.3
HDA      1.97  24 eP    36 31.53  -0.8
CGLM     2.01 230 eP    36 33.06   0.1
CCB      2.08  12 ePc   36 32.35  -1.4
CRP      2.09 231 eP    36 33.98  -0.1
SPU      2.11 228 eP    36 34.36   0.0
CP2      2.12 231 eP    36 34.63   0.0
CKN      2.13 230 eP    36 35.57   1.0
CKT      2.15 230 eP    36 35.99   1.1
MPA      2.16 187 eP    36 34.73  -0.3
BGL      2.18 233 eP    36 35.98   0.7
FID      2.19 148 ePc   36 34.44  -1.0
SLKM     2.23 198 eP    36 36.73   0.7
FBA      2.33  11 iPc   36 35.67  -1.6
                  Sg    37 02.32
KNIM     2.35 167 eP    36 36.28  -1.3
MDM      2.35   6 ePc   36 36.55  -1.2
DOT      2.39  63 eP    36 37.89  -0.3
GLM      2.45  14 eP    36 37.52  -1.6
HIN      2.50 153 eP    36 38.35  -1.4
CVA      2.55 144 eP    36 39.48  -1.0
SEW      2.55 187 eP    36 40.53   0.1
LTI      2.64 169 eP    36 41.45  -0.3
GLB      2.64 115 ePc   36 41.08  -0.7
SGAM     2.75 139 eP    36 41.70  -1.6
DFR      2.76 224 eP    36 45.23   1.7
NCT      2.86 225 eP    36 46.23   1.2
TTA      3.32 278 eP    36 49.51  -2.0
TGL      3.41 121 eP    36 51.69  -1.2
BALM     3.46 115 eP    36 51.70  -1.8
IMA      4.05 331 eP    36 59.46  -2.3
        52 obs. associated
-----------------------------------------
&  JAN  17, 1993  20h 38m 52.23s
   61.291 N          150.532 W
   DEPTH =  57.0km
 SOUTHERN ALASKA                    (  2)
      <AEIC>. ML 3.0 (AEIC).

SUA      0.20 330 iPc   39 01.49  -0.1
                  eS    39 08.89
PMS      0.47  95 P     39 03.50  -0.3
PWA      0.48  41 P     39 03.40  -0.4
CGLM     0.71 272 ePc   39 06.11  -0.6
PLRM     0.74  65 iPc   39 06.00  -0.9
                  eS    39 17.37
PMR      0.74  65 ePd   39 05.64  -1.2
                  eS    39 16.75
SPU      0.74 262 iPc   39 06.39  -0.6
                  eS    39 17.84
CRP      0.78 269 iPc   39 06.36  -1.3
                  eS    39 18.18
CKN      0.80 266 iPc   39 07.26  -0.5
SLKM     0.80 169 iPd   39 06.75  -1.0
                  eS    39 18.86
CKT      0.81 264 iPc   39 07.19  -0.8
                  iS    39 19.09
CP2      0.83 269 eP    39 07.32  -0.9
SKT      0.84 326 iPd   39 07.49  -0.7
                  eS    39 19.94
PTE      0.85 120 iPc   39 07.56  -0.7
                  eS    39 20.05
CKL      0.88 265 ePc   39 08.03  -0.8
BGL      0.90 269 iPc   39 08.07  -1.0
GHO      0.91  57 iPc   39 08.42  -0.8
                  eS    39 21.56
MPA      0.99 144 ePd   39 09.31  -0.8
                  iS    39 22.95
KNK      1.01  82 iPc   39 09.76  -0.7
                  eS    39 23.95
SML      1.17  63 iPc   39 11.75  -1.0
DFR      1.26 237 iPc   39 13.10  -0.9
SEW      1.31 155 eP    39 13.05  -1.4
REF      1.33 234 iPc   39 14.13  -0.9
                  eS    39 31.53
RDN      1.34 235 eP    39 14.28  -0.8
                  eS    39 31.50
RS2      1.37 234 ePc   39 14.63  -1.0
                  eS    39 32.91
RSO      1.37 234 ePc   39 14.70  -0.9
                  eS    39 32.35
RS1      1.37 234 ePc   39 14.76  -0.8
                  eS    39 32.32
RDW      1.38 235 ePc   39 14.80  -0.9
                  eS    39 33.07
NCT      1.38 239 iPc   39 14.85  -0.8
                  eS    39 32.76
BRLK     1.54 187 ePc   39 16.53  -1.3
SCM      1.63  69 ePc   39 17.76  -1.3
                  eS    39 38.17
KNIM     1.66 123 ePc   39 17.06  -2.4
ILIM     1.70 226 ePc   39 19.61  -0.5
GLI      1.72 102 ePc   39 18.04  -2.2
HUR      1.74  14 eP    39 20.54  -0.1
INE      1.75 226 ePc   39 20.17  -0.7
                  eS    39 41.87
INW      1.77 227 eP    39 20.17  -0.9
                  eS    39 42.56
LTI      1.82 132 ePc   39 19.35  -2.3
VLZ      2.04  93 ePc   39 22.71  -2.0
                  eS    39 47.29
FID      2.05 104 eP    39 21.88  -3.0
HIN      2.17 113 eP    39 24.38  -2.2
KLU      2.23  83 iPc   39 25.47  -2.0
TOA      2.23  67 P     39 26.70  -0.8
PDB      2.36 232 eP    39 27.54  -1.6
SVW      2.47 268 iPc   39 28.75  -2.1
TZL      2.55  71 eP    39 30.76  -1.2
SDG      2.67  60 eP    39 32.64  -1.0
SGAM     2.72 105 eP    39 31.26  -3.1
CDD      2.83 215 eP    39 34.89  -1.1
SYI      2.85 200 eP    39 34.69  -1.5
TTA      3.06 305 eP    39 37.14  -2.1
GLB      3.24  84 eP    39 39.25  -2.6
FBA      3.83  18 (P)   39 47.89  -2.1
BALM     3.97  90 eP    39 48.91  -3.3
IMA      5.00 345 eP    40 03.99  -2.6
        55 obs. associated
-----------------------------------------
*  JAN  17, 1993  22h 15m 18.92± 0.77s
   11.829 N ±11.8km  123.860 E ±16.7km
   DEPTH =  33.0km  (normal)
   4.3mb (  2 obs.)
 CEBU, PHILIPPINE ISLANDS           (255)

PLP      1.28 121 iPc   15 40.00  -0.6
                  iS    15 55.00
MAP      1.50 175 iPc   15 44.00   0.2
                  iS    16 08.00
OCP      3.89 316 eP    16 17.00  -0.9
BAG      5.56 325 eP    16 46.00   4.3X
BJI     28.91 348 eP    21 18.00   1.0
WB2     33.22 162 eP    21 54.70  -0.5
        0.6s     2.60nm          4.3mb
ASPA    36.62 164 eP    22 24.90   0.7
        1.1s     4.80nm          4.3mb
      S.D. = 1.0  on   6 of   7 obs.
-----------------------------------------
%  JAN  17, 1993  22h 32m 20.62± 1.41s
   38.037 N ±25.5km   14.138 E ± 7.5km
   DEPTH =  10.0km  (geophysicist)
 SICILY                             (398)

GIB      0.10 242 P     32 22.60  -0.8
                  eSg   32 25.10
MNO      0.45 103 P     32 29.90   0.0
                  eSg   32 37.40
MCT      0.57 225 P     32 32.50   0.2
ATN      1.05  83 P     32 40.50   0.0
CVT      1.12 252 P     32 42.20   0.5
      S.D. = 0.7  on   5 of   5 obs.
-----------------------------------------
*  JAN  18, 1993  00h 43m 48.01± 1.31s
   31.726 S ±13.2km   68.060 W ± 6.3km
   DEPTH = 126.0 ± 15.4 km
```

18d 00h

SAN JUAN PROVINCE, ARGENTINA (137)
MD 4.1 (SAN).

```
CFA     0.19 308 iPd   44 05.40  -0.5
RTCV    0.43 252 iPc   44 06.10  -0.4
RTLL    0.53 318 eP    44 07.20   0.1
RTCB    0.67 290 ePc   44 08.40   0.2
MDZ     1.33 210 iP    44 14.50   0.1
                 iS    44 31.30
MRA     2.11 110 iPc   44 24.00   0.4
                 S     44 43.20
JACH    2.35 245 iP+   44 27.56   0.8
                 iS    44 57.66
FCH     2.47 229 iPd   44 29.50   1.0
                 iS    45 01.85
PEL     2.63 237 iP+   44 30.63   0.3
                 iS    45 03.41
ROCH    2.79 243 eP    44 32.23  -0.4
                 eS    45 05.96
PCH     2.80 227 iP+   44 33.17   0.5
TCA     2.99  83 iP    44 35.00  -0.1
                 S     45 07.00
RFA     3.06 186 iP    44 35.00  -1.0
                 S     45 09.60
TACH    3.10 231 iP+   44 36.23  -0.2
                 iS    45 12.96
CHCH    3.10 224 eP    44 36.87   0.3
CACH    3.20 221 iPd   44 39.32   1.4
                 iS    45 17.86
LCCH    3.44 239 iPd   44 39.91  -1.0
LNV     3.59 231 iPd   44 41.30  -1.7
     S.D. = 0.8  on  18 of  18 obs.
-----------------------------------
?  JAN  18, 1993  00h 48m 31.82± 1.22s
   37.645 N ±10.3km   23.525 E ±21.8km
   DEPTH =  27.9 ± 14.1 km
 SOUTHERN GREECE                (368)
     MD 3.0 (ATH).

ATH     0.36  25 ePn   48 40.20   0.2
                 eSn   48 48.00
VLI     1.04 207 ePn   48 50.80   0.3
AGG     1.67 326 ePn   49 03.76   4.2X
                 eSn   49 39.68
LIT     2.58 342 ePn   49 14.40   1.7
PRK     2.68  53 ePn   49 15.00   0.9
OUR     2.71   7 ePn   49 12.76  -1.6
SOH     3.18 358 ePn   49 20.80  -0.3
KNT     3.55 352 ePn   49 26.80   0.5
     S.D. = 1.5  on   7 of   8 obs.
-----------------------------------
   JAN  18, 1993  01h 18m 06.34± 0.12s
   18.414 N ± 2.9km  145.734 E ± 2.9km
   DEPTH = 151.1km  (geophysicist)
   5.6mb (110 obs.)
 MARIANA ISLANDS                (216)
     Mw 6.4 (GS), 6.2 (HRV), mb 6.1
     (BRK). Felt (IV) on Saipan and
     (II) on Guam. Depth from
     broadband displacement
     seismograms.
     FAULT PLANE SOLUTION: P-Waves
      NP1:Strike=237 Dip=65 Slip=-145
      NP2:        131      59       -30
      Principal Axes:
       T                Plg= 4  Azm=  2
       P                   42        96
     Comment: The focal mechanism is
       moderately well controlled and
       corresponds to strike-slip
       faulting with a large normal
       component. The preferred fault
       plane is not determined.
     RADIATED ENERGY
      No. of sta:  14  Focal mech.  F
      Energy        9.4±1.9*10**12 Nm
     MOMENT TENSOR SOLUTION
     Dep 150            No. of sta: 18
     Moment Tensor;   Scale 10**18 Nm
       Mrr= 0.13        Mtt= 3.20
       Mff=-3.34        Mrt=-1.32
       Mrf= 1.77        Mtf= 1.42
      Principal axes:
       T  Val=  3.78  Plg=17  Azm=173
       N        0.74      60       295
       P       -4.51      24        75
     Best Double Couple:Mo=4.1*10**18
      NP1:Strike=216 Dip=61 Slip=-175
      NP2:        123      85       -29
     CENTROID, MOMENT TENSOR     (HRV)
     Data Used: GDSN
     L.P.B.: 39S, 90C
     Centroid Location:
     Origin Time        01:18:10.9 0.2
     Lat 18.38N 0.02 Lon 146.07E 0.01
     Dep 157.9 0.5 Half-duration  2.9
     Moment Tensor;   Scale 10**18 Nm
       Mrr=-0.75 0.03  Mtt= 1.71 0.03
       Mff=-0.96 0.03  Mrt=-0.83 0.03
       Mrf= 1.33 0.03  Mtf= 0.08 0.03
      Principal Axes:
       T  Val=  2.01  Plg=20  Azm=188
       N        0.28      39       295
       P       -2.29      44        77
     Best Double Couple:Mo=2.2*10**18
      NP1:Strike=233 Dip=43 Slip=-159
      NP2:        127      76       -49

PAGV    0.29 173 iP    18 31.00   2.9
NMCC    3.25 180 iPc   19 02.00   4.6X
PJG     4.87 190 P     19 21.29   2.4
GUMO    4.87 190 P     19 21.29   2.4
GUA     4.91 189 eP    19 21.70   2.2
                 eS    20 16.20
MAJO   19.24 341 ePc   22 20.84  -0.5
                 ec    22 22.50   6kmX
MAT    19.24 341 iPc   22 20.80  -0.5
       1.2s   245.31nm          5.4mb
                 iS    25 46.50
SHK    19.82 327 eP    22 29.30   2.0
DAV    22.63 243 eP    23 00.00   4.8X
RAB    23.34 164 eP    23 02.00  -0.1
TATO   23.44 290 (P)   23 05.23   2.3
MDG    23.51 180 eP    23 04.10   0.3
ERM    23.63 355 ePc   23 08.01   3.4X
                 ec    23 09.00   4kmX
PIP    23.83 274 iPc   23 06.50  -0.3
       1.0s   140.00nm          5.4mb
OCP    23.93 265 eP    22 58.50  -9.2X
BAG    24.08 269 eP+   23 12.00   2.6
       1.8s   209.09nm          5.4mb
PGP    24.31 262 iPd   23 13.20   1.8
       0.6s    90.00nm          5.5mb
FINC   24.96 175 eP    23 17.00  -0.4
SEO    25.18 323 P     23 23.00   3.7X
SSE    25.55 304 ePc   23 24.13   1.3
       1.0s   180.00nm          5.6mb
     Z  20s     2.90um          4.8Msz
     N  14s     4.50um
     E  14s     6.10um
QZH    26.02 289 eP    23 28.50   1.4
       0.8s    79.00nm          5.4mb
                 S     27 44.00
                 SS    29 08.00
KUR    26.80   3 iPc   23 35.00   1.0
       0.7s   340.00nm          6.1mb
                 e     24 10.00 171kmX
                 eS    27 58.00
VLA    27.27 338 iPd   23 20.00 -18.3X
       1.8s   123.00nm
                 iPPP  24 38.00
                 iS    28 06.00
PPR    27.53 256 iPc   23 43.60   2.7
       1.0s   152.00nm          5.6mb
PMG    27.68 177 eP    23 40.10  -2.1
NJ2    27.76 304 eP    23 41.00  -1.8
     Z  20s     7.10um          5.2Msz
     N  14s     1.02um
     E  14s     9.46um
                 S     28 16.00
YSS    28.63 356 iPc   23 49.80  -0.7
       0.7s    50.00nm          5.4mb
     Z  15s     2.00um          4.8MszX
     N  15s     3.30um
     E  15s     5.40um
                 pP    24 24.00 165kmX
                 sP    24 39.60
                 ePPP  24 49.60
                 eS    28 26.00
                 (SS)  29 24.00
DL2    29.24 319 eP    24 00.00   4.0X
       0.8s    65.00nm          5.4mb
     Z  18s     2.73um          4.9Msz
     N  13s     1.53um
     E  13s     3.84um
                 S     28 34.00
MDJ    29.41 336 ePc   23 55.86  -1.6
       1.5s    56.00nm          5.1mb
     Z  30s     7.60um          5.1MszX
     N  14s     6.27um
     E  14s     4.46um
                 ic    24 39.81 218kmX
HKC    29.81 283 eP    24 04.00   2.8
                 S     28 09.00
SNY    30.03 326 eP    24 02.00  -0.9
       1.0s    41.00nm          5.1mb
     Z  16s     4.00um          5.2MszX
     N  12s     3.12um
     E  13s     4.46um
                 pP    24 37.60 171kmX
CN2    30.53 330 eP    24 09.00   1.7
       0.8s     5.80nm          4.4mb X
     Z  18s     5.61um          5.3Msz
     N  13s     3.35um
     E  13s     2.77um
                 ePcP  27 00.50
                 eS    28 54.00
GZH    30.61 284 Pd    24 10.00   1.8
     Z  18s     6.66um          5.3Msz
                 iS    29 00.00
                 sS    30 00.00
                 SS    31 00.00
TIA    30.82 311 eP    24 09.90  -0.1
     Z  24s     7.74um          5.3MszX
     N  12s     6.49um
     E  12s     4.02um
                 PP    25 13.50
                 sS    30 03.00
WHN    30.90 299 P     24 11.50   0.7
     Z  18s    17.50um          5.8Msz
     N  12s    10.90um
     E  12s     4.37um
HNR    31.02 152 eP    24 19.00   7.2X
                 e(S)  28 59.00
KKM    31.30 251 ePc   24 16.50   2.1
       0.8s   114.60nm          5.7mb
                 e     25 08.00 259kmX
BJI    33.36 316 eP    24 31.50  -0.5
       1.3s    56.00nm          5.1mb
                 ePP   25 48.00
                 eS    29 40.00
                 eScS  34 40.00
QIZ    33.96 277 P     24 37.50   0.1
     N  15s     5.43um
     E  16s     3.86um
                 iS    29 54.00
MTN    34.24 206 iPc   24 39.30  -0.4
       0.4s   400.00nm          6.5mb
TIY    34.86 310 P     24 45.20   0.3
     Z  16s     7.37um          5.5MszX
     N  12s     5.22um
                 S     30 04.00
                 PcS   31 03.00
PET    35.97  13 eP-   24 55.00   1.0
       1.0s   115.00nm          5.6mb
     Z  16s     4.00um          5.3MszX
     N  16s     3.80um
     E  16s     1.60um
                 epP   25 30.00 159kmX
                 esP   25 48.00
                 e     26 22.00
                 ePPP  27 16.00
                 iS    30 21.00
                 e     34 56.00
XAN    36.28 303 ePc   24 54.45  -2.5
       0.4s    15.00nm          5.1mb
     Z  18s     7.14um          5.5Msz
     N  12s     6.48um
     E  11s     2.33um
                 ec    24 56.60
                 ipPc  25 29.04 157kmX
                 ec    25 35.50
                 ed    25 52.55
                 S     30 22.00
HHC    36.82 315 Pd    25 02.00   0.5
       1.0s    20.00nm          4.8mb
     Z  26s     5.65um          5.2MszX
     N  11s     1.19um
     E  13s     2.88um
                 PcP   27 22.00
                 S     30 32.00
```

```
GYA     36.88 290 iPc   25 04.00    1.9
         1.0s     67.00nm          5.3mb
      Z  30s      5.86um          5.2MszX
      N  13s      3.49um
      E  13s      2.35um
                   pP     25 40.00 163kmX
                   sP     25 59.00
                   PcP    27 22.00
                   S      30 40.00
                   sS     31 40.00
                   ScS    34 58.00
HIA     37.23 332 ePc   25 03.70   -0.9
                   ic     25 50.22 218kmX
                   ec     25 53.36
BTO     37.77 313 P     25 09.50    0.1
         0.7s     29.00nm          5.1mb
      N  17s      4.12um
      E  14s      3.91um
                   pP     25 46.00 169kmX
CTA     38.27 179 iPd   25 13.00   -0.6
         1.0s     62.50nm          5.3mb
                   i      25 42.00 129kmX
                   i      25 52.00
                   e(PP)  26 45.00
                   eS     30 27.00
                   i      30 51.00
CTAO    38.27 179 iPc   25 12.76   -0.8
                   epPc   25 47.36 158kmX
                   ec     26 00.43
                   ec     26 03.91
WB2     39.72 197 iPc   25 25.30   -0.3
         1.0s    146.20nm          5.7mb
                   iPP    26 13.00
                   iScP   31 00.40
                   eS     31 18.30
WRA     39.72 197 P     25 25.50   -0.1
         1.3s     64.50nm          5.2mb
CD2     39.90 296 P     25 28.40    1.3
      Z  22s      8.29um          5.5Msz
      N  12s     10.20um
                   pP     26 02.00 152kmX
                   sP     26 23.00
                   S      31 21.00
KMI     40.35 287 Pc    25 32.50    1.4
         2.0s    130.00nm          5.3mb
      Z  20s      4.50um          5.3Msz
      N  14s      3.60um
      E  13s      2.80um
                   pP     26 06.50 154kmX
                   sP     26 27.00
                   S      31 28.00
                   iS     31 30.00
SMY     40.77   26 eP   25 34.28    0.4
         0.8s    303.10nm          6.0mb
      Z  20s      6.25um          5.5Msz
LZH     40.83 304 ePc   25 35.60    0.8
         1.0s    120.00nm          5.5mb
      Z  24s      6.77um          5.4MszX
      N  16s      7.37um
                   epPc   26 08.88 150kmX
                   ec     26 14.67
                   ed     26 29.90
                   ed     26 31.89
                   S      27 20.00
                   S      31 33.00
TRT     41.71 234 ePc   25 42.50    0.5
         1.0s     13.50nm          4.5mb X
MGD     41.79    4 ePd  25 42.00   -0.1
         1.0s    320.00nm          5.9mb
      Z  16s      2.70um          5.2MszX
      N  16s      1.50um
      E  17s      2.50um
                   ipP    26 17.00 158kmX
                   isP    26 35.00
                   e      27 32.00
                   iPPP   28 00.00
                   eS     31 52.00
LOE     41.81 276 eP    25 40.00   -2.8
BKM     42.14 147 iPc   25 48.50    3.1X
SJI     42.41 235 iPc   25 47.60   -0.1
         0.4s     10.50nm          4.8mb
                   e      32 49.00
ASPA    43.39 196 iPc   25 55.00   -0.6
         0.7s    231.60nm          5.9mb
      Z  18s      3.70um          5.3Msz
                   eS     32 07.60
                   eScS   35 37.30
```

```
NST     43.60 274 eP    26 08.00   10.6X
CHG     44.24 278 iPd   26 05.00    2.4
         1.8s    256.82nm          5.6mb
                   eS     31 21.00
CHTO    44.24 278 iPc   26 03.59    1.0
                   ipPc   26 36.20 145kmX
                   ed     26 53.42
BDT     44.41 276 eP    26 06.60    2.8
         0.7s     55.90nm          5.3mb
ADK     44.54  33 iPc   26 05.08    0.6
         1.0s    576.25nm          6.2mb
                   epP    26 43.73 176kmX
NNT     44.61 269 eP    26 08.00    2.5
KGM     44.64 254 ePc   26 09.80    4.0X
RMO     44.73 176 iPc   26 04.80   -1.4
                   eS     32 28.00
GTA     44.75 308 P     26 06.50    0.0
         1.5s     70.00nm          5.1mb
      Z  20s     11.30um          5.8Msz
      N  13s      3.82um
                   S      32 30.00
QLP     44.75 182 eP    26 04.30   -2.0
         1.2s    469.00nm          6.0mb
YAK     44.99 349 iPd+  26 07.10   -0.7
         1.1s    580.00nm          6.1mb
      Z  16s      3.20um          5.3MszX
      N  14s      3.40um
      E  17s      2.20um
                   ipP    26 42.00 156kmX
                   e      27 43.00
                   e      28 00.00
                   iS     32 30.00
                   isS    33 30.00
                   eSS    35 41.00
DZM     45.05 152 iPc   26 08.70   -0.2
                   iS     32 33.30
KHT     45.23 273 eP    26 10.20   -0.2
BOD     45.74 337 eP    26 13.50   -0.3
         0.9s     45.00nm          5.1mb
IPM     45.77 258 ePc   26 18.00    3.3X
         0.9s    103.30nm          5.5mb
ZAK     46.40 323 iPc   26 18.30   -0.8
         1.4s     48.00nm          4.9mb
                   epP    26 58.30 181kmX
                   e      27 58.00
                   e      35 55.00
IRK     46.75 326 eP    26 20.50   -1.5
         1.5s     42.00nm          4.8mb
                   e      27 18.60 276kmX
                   e      27 57.80
                   e      28 13.00
                   ePPP   29 03.00
                   eS     32 56.00
                   e      33 07.00
                   esS    33 55.00
MBU     47.85 135 eP    26 32.10    1.2
WARB    48.06 203 iPc   26 32.80    0.5
MOY     48.28 324 eP    26 33.70    0.0
                   eS     33 21.00
ARMA    48.88 173 iPc   26 37.80   -0.9
         1.0s    152.00nm          5.7mb
                   e      27 16.20 171kmX
                   i      28 08.30
SHL     50.16 288 eP    26 48.60   -0.2
                   eS     33 48.00
STK     50.16 185 eP    27 02.20   13.9X
         0.6s      2.70nm
NANU    50.30 217 iPc   26 50.20    0.6
LSA     50.69 294 ePc   26 54.58    1.5
         1.0s     33.00nm          5.0mb
      Z  32s      4.68um          5.3MszX
                   ipPc   27 28.52 148kmX
                   ec     27 35.31
                   esPd   27 47.22
                   S      34 00.00
                   sS     35 00.00
MEEK    51.95 211 iPc   27 01.40   -0.6
         0.4s     61.00nm          5.7mb
BWA     52.61 177 iPc   27 06.00   -0.7
                   ePP    27 44.70
KIP     52.74  77 (P)   27 07.42   -0.5
HON     52.76  77 P     27 20.00   11.9X
      Z  21s      2.33um          5.2Msz
HON     52.76  77 P-    27 05.15   -2.9
      Z  21s      2.33um          5.2Msz
                   S      34 28.78
DHH     52.95  77 eP    27 08.38   -1.1
```

```
ADE     53.50 187 iPd   27 13.10   -0.2
CAN     53.53 177 iPc   27 12.40   -1.0
                   i      27 37.00 101kmX
                   iPP    27 48.80
CNB     53.54 176 iPd   27 13.00   -0.6
         1.2s    122.00nm          5.6mb
                   iPP    27 49.80
TIK     54.14 353 iPc   27 15.50   -2.0
         1.2s     80.00nm          5.4mb
                   ipP    27 56.00 178kmX
                   e      29 24.00
                   iS     34 39.60
                   esS    35 41.50
                   i      36 45.00
COOL    54.42 206 eP    27 19.00   -1.1
         0.5s     39.00nm          5.5mb
HKL     54.46  77 eP    27 20.63   -0.4
WMO     54.52 311 iPd   27 20.80    0.0
         1.5s     12.00nm          4.5mb X
      Z  18s      4.19um          5.5Msz
                   S      34 49.00
SDN     54.67  34 eP    27 20.11   -1.5
         1.1s   2490.70nm          7.0mb X
KKH     54.84  79 eP    27 22.64   -0.7
MHA     54.87  78 eP    27 23.64    0.2
HPO     55.36  79 eP    27 26.06   -1.0
BFD     55.37 183 iPd   27 25.20   -1.5
         0.5s     29.00nm          5.4mb
MRWA    55.38 212 iPc   27 26.10   -0.8
         0.7s    190.00nm          6.1mb
GUN     55.38 292 P     27 27.46   -0.1
         0.7s     74.00nm          5.6mb
TOO     55.68 180 eP    27 28.20   -0.8
         0.8s    100.00nm          5.8mb
                   ipP    28 04.20 155kmX
                   iPP    28 25.30
PKI     55.82 291 P     27 29.90   -0.8
KKN     55.92 291 P     27 30.74   -0.6
         0.8s     95.00nm          5.8mb
DMN     56.08 291 P     27 31.78   -0.8
BAL     56.17 210 iPc   27 31.90   -0.7
         0.4s    196.00nm          6.4mb
GKN     56.47 292 P     27 34.60   -0.5
KLB     56.50 209 iPc   27 34.20   -0.8
         0.3s     16.00nm          5.4mb
ELT     57.26 322 iPd   27 38.50   -1.5
         1.0s     46.00nm          5.4mb
      Z  15s      3.00um          5.5MszX
                   e      28 20.00 181kmX
                   eS     35 18.00
MUN     57.55 210 iPc   27 41.70   -0.5
         0.7s    156.00nm          6.0mb
SVW     59.04  29 iPd   27 52.36   -0.1
         0.7s    390.72nm          6.4mb
TTA     59.49  27 iPd   27 54.92   -0.6
         0.9s    118.22nm          5.8mb
KDC     59.62  33 iPd   27 55.55   -0.7
         0.9s    152.35nm          5.9mb
                   epP    28 35.73 172kmX
BGL     60.58  29 eP    28 02.36   -0.6
                   epP    28 42.54 172kmX
CP2     60.65  29 eP    28 03.02   -0.6
                   epP    28 42.36 168kmX
CRP     60.69  29 eP    28 02.81   -1.0
TAU     61.03 179 eP    28 04.00   -2.0
PRZ     61.19 309 eP    28 09.00    1.5
         1.0s    130.00nm          5.8mb
                   (S)    36 21.00
SLKM    61.42  30 eP    28 06.69   -1.8
                   pP     28 46.56 170kmX
IMA     61.52  24 iPd   28 08.65   -0.6
         1.0s    112.03nm          5.7mb
                   epP    28 48.94 172kmX
NRI     61.74 340 ePc   28 08.00   -2.5
         2.0s    130.00nm          5.5mb
      Z  18s      5.10um          5.7Msz
      E  18s      4.10um
                   e      28 51.00 184kmX
                   e      29 04.00
                   e      30 25.00
                   eS     36 18.00
                   e      37 46.00
                   eSS    40 25.00
PWA     61.85  29 ePd   28 10.40   -0.9
PMS     61.90  30 iPd   28 11.20   -0.5
PMR     62.18  29 iPc-  28 12.02   -1.5
         0.9s    500.73nm          6.4mb
```

18d 01h

Z 20s 4.12um 5.6Msz
S 37 01.49
BRW 62.51 18 ePc 28 15.39 -0.1
epP 28 54.09 164kmX
NDI 62.91 293 iP 28 18.50 -0.4
0.7s 17.12nm 5.1mb
eS 36 36.00
KSH 63.06 305 eP 28 20.50 0.6
1.0s 20.00nm 5.0mb
Z 20s 4.35um 5.6Msz
N 15s 4.66um
E 16s 5.13um
ScP 32 40.00
esS 37 52.00
COL 63.54 26 ePd 28 21.76 -0.6
FBA 63.54 26 iPc 28 21.15 -1.3
0.9s 115.20nm 5.8mb
(pP) 29 01.97 173kmX
HYB 63.58 281 eP 28 22.70 -0.8
1.0s 35.00nm 5.2mb
eS 36 44.00
TOA 63.66 29 eP 28 23.70 0.4
KLU 63.67 30 iPd 28 22.88 -0.5
FRU 63.98 309 iPd 28 26.00 0.3
2.0s 90.00nm 5.4mb
e 28 55.00 118kmX
i 29 25.00
BALM 65.31 31 iPc 28 33.11 -0.9
epP 29 13.25 169kmX
GBA 65.50 277 P 28 36.00 0.2
BRVK 66.78 321 iPc 28 42.00 -1.4
1.0s 203.00nm 5.9mb
eS 37 20.00
POO 67.71 283 iPc 28 51.20 1.4
iS 38 36.00
SIT 68.75 35 eP 28 55.72 0.2
Z 19s 1.80um 5.3Msz
AFR 72.78 116 iPd 29 20.70 0.4
0.8s 840.30nm 6.5mb
PPT 72.96 116 iPd 29 21.90 0.5
1.4s 1282.60nm 6.5mb
PAE 73.00 116 iPd 29 21.90 0.3
0.9s 207.00nm 5.9mb
PPN 73.07 115 iPd 29 22.40 0.4
1.0s 483.20nm 6.2mb
PMO 73.32 112 iPd 29 23.60 0.1
1.1s 1226.80nm 6.5mb
TVO 73.33 116 iPd 29 24.30 0.7
1.0s 1097.60nm 6.5mb
TPT 73.56 112 iPd 29 24.90 0.1
1.2s 1171.00nm 6.5mb
VAH 73.65 113 iPd 29 25.20 -0.2
1.2s 545.10nm 6.2mb
MAIO 76.39 304 iPc 29 40.20 -0.7
0.9s 12.79nm 4.7mb
eS 39 14.00
OTR 76.48 44 P 29 42.37 1.3
OBC 76.66 44 P 29 43.26 1.1
OSR 76.86 44 P 29 44.45 1.2
STW 76.91 43 P 29 44.64 1.3
ASH 76.91 306 eP 29 44.00 0.4
0.9s 170.00nm 5.8mb
PGC 76.94 43 eP 29 44.50 1.0
1.2s 318.00nm 5.9mb
OSD 76.96 44 P 29 44.92 1.0
ONR 77.13 45 P 29 45.86 1.3
SMW 77.31 44 P 29 46.93 1.2
MCW 77.33 43 iPd 29 46.46 0.7
BLN 77.39 43 P 29 47.20 1.1
HDW 77.42 44 P 29 47.60 1.2
NLO 77.52 45 P 29 48.19 1.3
CPW 77.53 45 P 29 47.78 0.9
BMW 77.58 45 ePc 29 47.58 0.3
KMOR 77.60 46 P 29 47.90 0.5
GMW 77.62 44 iPd 29 48.38 1.0
epP 30 30.13 170kmX
MEW 77.80 44 P 29 50.03 1.8
MPOR 77.83 47 P 29 49.55 0.9
RNO 77.84 48 P 29 49.87 1.2
MBW 77.90 43 P 29 49.54 0.5
JCW 78.03 43 P 29 50.41 0.8
YKA 78.22 28 P 29 49.70 -0.6
0.8s 121.00nm 5.7mb
RPW 78.23 43 P 29 50.95 0.2
RMW 78.29 44 iPd 29 51.70 0.6
epP 30 32.19 164kmX
SHW 78.32 45 iPd 29 52.37 1.0

ARC 78.33 51 ePc 29 50.86 -0.5
1.4s 570.00nm 6.1mb
epPc 30 29.86 158kmX
ed 32 19.86
eS 39 35.86
eScS 39 49.86
ePS 40 12.86
eSP 40 24.86
ed 55 33.86
DBO 78.38 48 P 29 52.27 0.6
HSO 78.39 48 P 29 52.54 0.8
KMPM 78.41 51 ePd 29 53.05 1.1
FHC 78.41 51 iPd 29 53.21 1.3
LON 78.46 45 iPd 29 52.19 0.1
e 30 47.77 232kmX
FOX 78.48 51 eP 29 54.46 2.3
RCS 78.49 44 P 29 53.37 0.8
SSOR 78.50 47 P 29 52.80 0.4
GT2 78.55 46 P 29 53.33 0.8
TDH 78.85 46 P 29 54.76 0.5
BPO 79.08 47 P 29 56.03 0.4
NAC 79.12 44 P 29 56.28 0.7
ETW 79.22 43 P 29 56.55 0.3
TCO 79.28 47 P 29 57.43 0.7
VGB 79.48 46 iPd 29 58.03 0.5
epP 30 38.79 165kmX
DHW2 79.48 43 P 29 57.47 -0.1
WDC 79.53 51 iPd- 29 58.35 0.5
1.7s 455.55nm 5.9mb
Z 21s 5.77um 5.9Msz
e 39 39.51
WDC 79.53 51 (P) 29 54.86 -3.0X
2.0s 870.00nm 6.1mb
epPc 30 31.94 149kmX
iS 39 46.04
eSS 45 00.04
eLQ 50 37.04
ec 56 25.04
GMO 79.64 47 P 29 59.07 0.5
LBFM 79.81 50 iPd 30 00.07 0.5
ePP 33 01.89
VIPM 79.86 47 P 30 00.16 0.4
NTYM 80.02 53 ePd 30 00.77 0.3
PATW 80.06 45 P 30 01.55 1.0
OT2 80.18 44 P 30 01.52 0.3
LMEM 80.26 51 P 29 59.80 -2.2
MIN 80.28 51 iPd 30 01.96 -0.1
ZSP 80.45 53 eP 30 03.62 0.9
PCC 80.47 54 iPd 30 02.90 0.0
BKS 80.48 53 iPc 30 03.07 0.1
1.8s 1300.00nm 6.4mb
epPc 30 42.09 157kmX
iS 39 54.09
iSP 41 04.09
eLQ 51 19.09
DPW 80.52 43 iPd 30 03.27 0.2
epP 30 44.79 168kmX
ORV 80.58 52 iPd 30 03.64 0.2
STAN 80.66 54 eP 30 02.71 -1.2
1.6s 990.00nm 6.3mb
esP 31 07.71
eSS 45 38.71
GCC 80.90 54 iPd 30 05.36 0.2
COE 81.08 54 eP 30 06.69 0.6
MHC 81.08 54 eP 30 00.28 -6.0X
1.8s 860.00nm 6.2mb
epPc 30 49.28 201kmX
iS 40 02.28
eLQ 51 09.28
NEW 81.10 42 iPc 30 06.30 0.3
0.9s 422.70nm 6.2mb
Z 21s 3.52um 5.7Msz
epP 30 48.06 169kmX
APA 81.32 339 iPc 30 05.70 -1.0
SAO 81.40 54 ePc 30 05.68 -2.1
1.6s 320.00nm 5.8mb
iS 40 05.68
eSS 45 26.68
eLQ 51 15.68
PRS 81.58 55 iPd 30 09.44 0.7
LLA 81.83 54 iPd 30 10.61 0.6
CMB 81.84 53 iPd 30 10.26 0.1
1.5s 540.00nm 6.1mb
ePP 30 51.69 201kmX
ec 30 59.26
iS 40 09.69
iScS 40 24.69

eSS 45 32.69
eLQ 51 28.69
PRI 82.18 55 iPd 30 12.98 1.0
KEV 82.21 342 iP 30 10.50 -0.8
PKEM 82.63 55 eP 30 15.66 1.5
FRI 82.66 54 iPd 30 14.58 0.3
BCH 82.91 55 ePd 30 16.32 0.5
epP 30 57.97 168kmX
KVN 83.25 51 ePd 30 18.17 0.6
epP 30 58.49 162kmX
MRCM 83.37 53 (P) 30 18.03 -0.2
MTUM 83.42 53 ePd 30 18.84 0.4
BONR 83.44 52 eP 30 19.15 0.5
epP 31 01.36 170kmX
SDF 83.69 340 iP 30 17.80 -1.1
ISA 84.02 55 eP 30 19.95 -1.4
1.7s 406.70nm 6.0mb
Z 19s 2.11um 5.5Msz
S 40 33.60
SES 84.13 39 iPd 30 21.40 -0.1
0.8s 360.00nm 6.3mb
pP 31 04.00 171kmX
TNP 84.21 52 ePd 30 22.77 0.4
0.7s 65.58nm 5.6mb
epP 31 05.62 172kmX
DAG 84.56 356 iPc 30 22.80 -0.3
1.0s 64.00nm 5.4mb
GRO 84.61 314 iPd 30 24.00 0.0
2.0s 240.00nm 5.7mb
i 31 04.00 160kmX
iS 40 40.00
MOS 84.72 327 eP 30 26.00 1.8
e 31 20.00 222kmX
PAS 84.73 56 iPd 30 24.91 0.1
ed 30 41.63
epPc 31 02.49 149kmX
LCCM 85.29 43 ePd 30 27.60 0.0
e 30 29.50 6kmX
GSC 85.42 54 iPd 30 27.25 -1.1
epP 31 09.08 167kmX
GRS 85.47 310 eP 30 25.00 -3.6X
1.5s 70.00nm 5.3mb
e 31 19.00 222kmX
OBN 85.52 327 iPd 30 28.40 0.1
2.0s 272.00nm 5.7mb
Z 16s 4.30um 5.9MszX
E 16s 3.40um
i 31 11.90 175kmX
i 40 34.00
i 41 36.00
PEC 85.61 56 eP 30 29.33 0.1
0.8s 64.57nm 5.5mb
epP 31 11.33 168kmX
MTA 85.80 313 iP 30 30.00 0.1
0.8s 70.00nm 5.5mb
eS 40 50.00
HHAI 85.89 46 ePd 30 31.66 1.1
epP 31 13.86 169kmX
PLM 86.02 56 eP 30 32.09 0.6
PTI 86.05 46 iPd 30 32.16 0.8
epP 31 14.26 168kmX
PYA 86.15 315 eP 30 31.00 -0.7
Z 20s 2.00um 5.5Msz
iS 40 48.00
HVU 86.16 47 iPd 30 32.65 0.7
epP 31 14.86 169kmX
PFO 86.26 56 iPd 30 32.45 -0.1
KIV 86.42 315 eP 30 31.40 -1.7
1.2s 52.00nm 5.3mb
Z 17s 2.90um 5.7MszX
e 40 45.80
KER 86.65 305 eP 30 33.00 -1.4
KAF 86.69 336 iP 30 31.40 -2.5
0.6s 15.70nm 5.1mb
DUG 86.71 49 iPd 30 35.01 0.4
0.8s 160.99nm 6.0mb
ipP 31 17.89 172kmX
ARUT 87.12 51 eP 30 37.31 0.6
ipP 31 19.80 170kmX
GLA 87.73 56 eP 30 39.75 0.2
epP 31 22.11 169kmX
ePP 34 05.90
DAU 87.73 48 ePd 30 39.94 0.2
epP 31 22.31 169kmX
MSU 87.78 50 ePd 30 40.56 0.6
ipP 31 23.67 172kmX
BW06 88.00 45 eP 30 40.31 -0.6

```
        1.0s     56.24nm          5.5mb
                 epP    31 22.20 167kmX
                 ePP    34 10.16
NUR     88.26 335 eP    30 39.00  -2.5
        0.6s     17.90nm          5.3mb
EMUT    88.27  49 ePd   30 42.61   0.3
                 epP    31 25.03 169kmX
SRU     88.75  49 iPd   30 44.47   0.0
                 epP    31 26.92 169kmX
FCC     88.90  27 ePc   30 47.00   2.5
MNK     90.70 329 eP    30 49.00  -3.9X
RSSD    91.07  43 ePc-  30 54.52  -0.7
        0.8s     57.00nm          5.8mb
      Z  20s      1.20um          5.3Msz
                 epP    31 36.94 168kmX
                 ePP    34 32.31
                 SP     43 05.71
MJMA    91.08 298 eP    30 54.00  -1.4
TUC     91.17  55 iPd   30 56.51   0.8
        1.3s    308.38nm          6.3mb
      Z  21s      1.25um          5.3Msz
                 epP    31 39.10 169kmX
                 ePP    34 32.15
UPP     91.41 337 iP    30 53.90  -2.2
GOL     92.15  47 ePd   31 00.62   0.3
        1.1s     66.23nm          5.7mb
      Z  20s      0.53um          5.0Msz
                 epPc   31 39.19 151kmX
                 ec     31 44.00
                 ePP    34 43.25
GLD     92.23  47 ePc   31 02.03   1.5
        1.0s    279.64nm          6.4mb
      Z  19s      4.09um          5.9Msz
                 epP    31 44.85 170kmX
                 ePP    34 43.42
HFS     92.66 338 eP    30 59.10  -2.8
        0.9s     15.30nm          5.2mb
      Z  17s   1129.00um          8.4MszX
                 LR     09 33.00
ULM     92.81  34 ePc   31 05.20   2.4
NAO     93.14 340 P     31 02.00  -2.1
        0.8s      7.80nm          5.0mb
ANMO    93.41  52 ePd   31 08.24   2.1
                 epP    31 45.65 146kmX
PAF     94.72 219 eP    31 27.00  15.7X
                 ePP    35 12.00
                 eS     43 45.00
                 eSS    49 06.00
ACO     97.88  47 iPc   31 25.90  -0.3
WMOK    99.11  49 (PDIF)31 32.04   0.2
        0.9s     31.60nm          5.8mb
      Z  20s      2.14um          5.6Msz
                 epP    32 10.26 150kmX
                 ec     32 26.67
                 ePP    35 35.24
                 e      44 20.11
MEO     99.23  49 iPc   31 32.40   0.0
OCO     99.64  48 iPd   31 31.10  -3.1X
KHC    100.48 330 ePdiff31 36.00  -1.6
                 e      32 37.00
                 e      33 14.60
GEC2   100.62 330 ePdiff31 36.70  -1.6
        0.8s      2.70nm          4.9mb
                 e      31 43.00
                 e      36 28.60
                 e      36 35.30
                 e      36 46.70
SKO    100.94 321 iPdiff31 39.00  -0.8
                 i      32 26.70
GRF    101.16 332 ePdiff31 39.60  -1.0
      Z  19s      0.80um          5.3Msz
OHR    101.84 321 iPdiff31 42.30  -1.6
FVM    103.02  42 Pdiff 32 00.00  10.9X
      Z  20s      3.29um          5.8Msz
CRZF   105.73 226 ePKP  36 30.00  16.8X
                 e      04 06.00
RSNY   107.37  29 PKP   36 30.00  13.6X
      Z  21s      0.82um          5.3Msz
CBM    108.16  24 PKP   36 30.00  12.2X
      Z  21s      2.90um          5.8Msz
MCWV   108.27  35 PKP   36 30.00  11.7X
      Z  20s      3.07um          5.9Msz
SPA    108.29 180 ePdiff32 12.09   0.1
LMN    110.30  22 ePKP  36 24.00   2.1
CEH    111.32  38 PKP   36 30.00   5.9X
      Z  21s      2.38um          5.8Msz
HBF    112.56  41 Pdiff 32 41.10   9.6X
```

```
ETOR   113.91 334 ePKP  36 28.00  -1.1
GUD    114.91 335 ePKP  36 30.00  -1.1
EVIA   115.91 333 ePKP  36 31.50  -1.5
EHUE   116.63 332 ePKP  36 33.00  -1.4
MTD    117.53 260 iPKPd 36 33.50  -3.2X
EHOR   117.76 334 ePKP  36 35.00  -1.4
CIR    118.35 256 iPKPc 36 37.20  -0.9
EPRU   118.48 334 ePKP  36 36.80  -1.1
EVAL   118.57 335 ePKP  36 37.00  -1.0
EJIF   119.02 334 ePKP  36 38.00  -0.9
BUL    120.94 257 iPKPc 36 41.60  -1.5
                 i      46 48.30
IFR    121.35 332 iPKPd 36 45.50   1.9
SLR    122.03 251 ePKP  36 44.20  -0.9
        0.7s     22.00nm
      Z  20s      4.00um          6.1Msz
                 e      46 42.50
SEK    122.86 248 ePKP  36 45.50  -1.1
        0.6s     19.00nm
PRY    122.87 249 ePKP  36 45.00  -1.7
BCAO   123.24 288 iPKPd 36 46.90  -0.7
        1.2s     14.00nm
                 ic     37 45.00
BLF    124.17 247 ePKP  36 48.60  -0.6
FRS    124.96 246 iPKPc 36 49.30  -1.1
        0.7s     11.00nm
CER    130.08 242 ePKP  36 46.00 -14.2X
        1.0s     80.00nm
WIN    131.89 256 ePKP  36 56.80  -7.4X
      Z  20s      4.00um          6.1Msz
SDV    135.01  56 ePKP  36 54.80 -15.5X
TOV    135.12  54 ePKP  37 01.20  -9.1X
NNA    138.49  87 ePKP  37 07.90  -8.7X
        1.3s     82.69nm
      Z  20s      3.55um          6.1Msz
                 i      37 16.90
TCE    140.35  45 ePKP  37 10.79  -9.1X
                 e      37 18.33
TRN    140.62  45 ePKP  37 11.24  -9.1X
TPP    140.82  45 ePKP  37 14.02  -6.7X
                 e      37 21.95
KDS    142.30 323 iPKPd 37 19.80  -3.6X
LCCH   143.47 122 iPKP  37 21.80  -3.1X
LNV    143.48 123 iPKPd 37 21.67  -3.2X
TACH   143.94 122 iPKPd 37 23.45  -2.2
ROCH   144.05 121 iPKP  37 24.13  -2.1
CACH   144.08 123 iPKP  37 24.22  -1.9
CHCH   144.09 123 iPKP+ 37 24.30  -1.7
SAN    144.21 122 iPKP  37 24.78  -1.4
PEL    144.28 121 iPKP+ 37 25.06  -1.3
PCH    144.29 122 iPKP+ 37 25.13  -1.3
JACH   144.47 121 iPKP+ 37 25.62  -1.1
ARE    144.47  93 iPKPd 37 27.00  -0.4
FCH    144.55 122 iPKP  37 26.86  -0.3
RFA    145.56 125 ePKP  37 28.60   0.1
MDZ    145.83 122 i(PKP)37 30.60   1.6
                 i      37 51.50
ANT    145.92 105 ePKP  37 28.00  -1.3
                 i      38 10.50
RTCB   146.24 119 iPKPc 37 31.20   1.4
RTCV   146.36 120 iPKPd 37 30.70   0.8
RTLL   146.55 119 iPKPd 37 31.50   1.3
CFA    146.67 120 ePKPd 37 31.40   1.0
ZOBO   147.63  92 ePKPc 37 31.91  -1.1
LPB    147.70  92 PKP   37 34.10   1.2
        1.2s    465.63nm
      Z  17s      1.36um          5.8MszX
                 LR     50 42.00
CNCB   147.85  92 iPKPc 37 34.20   0.9
CYA    149.48 115 ePKP  37 34.00  -0.9
CCH    149.67  93 PKP   37 37.60   1.8
FSA    149.70 110 ePKP  37 36.50   1.3
                 i      37 41.00
TCA    149.74 121 ePKP  37 40.80   5.6X
SLA    150.33 108 e(PKP)37 37.80   1.4
YJA    150.49 103 ePKPd 37 38.00   0.9
SIV    154.29  89 iPKPc 37 46.80   4.7X
                 i      37 55.00
BAO    166.58  80 e(PKP)37 54.00  -1.4
                 e      37 55.80
                 e      37 56.20
                 e      38 42.00
                 e      38 51.00
                 e      38 52.70
                 e      39 00.20
                 e      39 03.10
                 e      39 13.80
```

```
                 e      39 41.20
                 e      42 49.00
      S.D. = 1.2  on 308 of 349 obs.
-----------------------------------------
?  JAN  18, 1993  01h 56m 07.64± 6.25s
   39.332 N ±47.0km   16.978 E ±22.8km
   DEPTH =  10.0km  (geophysicist)
 SOUTHERN ITALY                    (390)

TDS      0.59 304 P     56 18.90  -0.7
                 eSg    56 25.90
ORI      0.84 331 P     56 24.10   0.3
                 eSg    56 36.00
MGR      1.36 307 P     56 32.90   0.3
                 eSn    56 50.40
BRT      1.55   6 P     56 35.10  -0.3
SGO      1.77 314 P     56 39.00   0.5
      S.D. = 0.7  on   5 of   5 obs.
-----------------------------------------
•  JAN  18, 1993  02h 37m 57.52± 0.98s
    7.012 S ± 9.8km  154.506 E ± 8.5km
   DEPTH = 121.1 ±  9.3 km
   4.3mb (  2 obs.)
 SOLOMON ISLANDS                   (193)

RAB      3.64 320 eP    38 54.00   0.8
                 eS     39 43.00
HNR      5.90 114 eP    39 24.00   0.1
                 eS     40 28.00
PMG      7.65 251 eP    39 46.00  -1.8
WB2     23.40 235 iPc   42 58.10   1.6
        0.5s      7.80nm          4.4mb
ASPA    25.80 228 eP    43 19.40   0.2
        0.6s      5.00nm          4.2mb
WARB    32.68 231 eP    44 20.80   0.5
GYA     57.08 308 iPd   47 33.80   0.1
CD2     61.46 311 P     48 03.20  -0.5
LSA     70.88 305 P     49 03.90  -0.2
GUN     74.71 301 P     49 26.44  -0.1
        0.7s     45.00nm          5.4mb X
PKI     75.02 301 P     49 27.52  -0.7
KKN     75.19 301 P     49 28.86  -0.2
DMN     75.28 301 P     49 29.78   0.1
        0.8s     54.00nm          5.4mb X
GKN     75.79 301 P     49 32.10  -0.3
        0.8s     41.00nm          5.2mb X
FBA     83.31  21 (P)   50 11.10  -0.6
KSH     85.63 310 eP    50 26.00   2.0
GEC2   126.81 329 ePKPc 56 48.10  -0.5
        0.6s      0.70nm
BAO    148.33 135 e(PKP)57 28.00  -0.5
                 e      57 31.00
                 e      57 34.00
      S.D. = 0.9  on  18 of  18 obs.
-----------------------------------------
&  JAN  18, 1993  03h 20m 04.80s
   40.464 N          124.497 W
   DEPTH =  17.1km
 NEAR COAST OF NORTHERN CALIF.    ( 35)
      <GM-P>. MD 3.0 (GM).

KMPM     0.29  99 iPc   20 11.48   0.2
FHC      0.52  49 iPc   20 15.21   0.2
LBFM     2.16  65 eP    20 39.78  -1.0
ORV      2.47 111 eP    20 43.16  -1.8
        4 obs. associated
-----------------------------------------
•  JAN  18, 1993  04h 10m 28.81± 1.21s
   36.491 N ± 6.0km   10.078 W ±10.3km
   DEPTH =  33.0km  (normal)
 NORTH ATLANTIC OCEAN              (402)
      mbLg 3.2 (MDD).

EVAL     2.88  67 iPnc  11 14.00   0.6
                 eSn    11 45.00
CNIL     3.25  91 iP    11 22.00   3.4X
PLAT     3.51  95 eP    11 22.00  -0.4
ALJ      3.61  86 iP    11 24.00   0.2
EJIF     3.72  89 iPnc  11 26.00   0.8
                 eSn    12 05.00
AVE      3.87 145 iPnd  11 27.80   0.4
                 iSn    12 08.00
                 i      12 14.00
EPRU     3.92  82 iPnd  11 29.00   0.8
                 eSn    12 10.00
EHOR     4.08  70 iPnd  11 30.80   0.3
EPLA     4.76  40 iPnc  11 40.00   0.0
```

18d 04h

```
                 eSn   12 30.00
ELUO    4.77  75 iPnd  11 40.20  -0.1
                 eSn   12 30.00
IFR     5.03 125 iPn   11 43.00  -1.2
                 iSn   12 34.00
EGUA    5.25  84 iPnd  11 47.80   0.8
                 eSn   12 42.00
ECOG    5.28  80 ePn   11 47.80   0.3
                 eSn   12 43.00
EBAN    5.29  70 iPnc  11 47.60   0.1
EZAM    5.75  10 ePn   11 54.50   0.4
                 eSn   12 55.00
EHUE    6.12  75 ePn   11 59.00  -0.5
                 eSn   13 03.00
GUD     6.22  46 ePn   12 00.10  -0.8
                 eSn   13 05.50
ERUA    6.32  20 ePn   12 02.50   0.5
EVIA    6.39  68 ePn   12 02.10  -1.1
STS     6.49  10 ePn   12 04.30  -0.2
                 eSn   13 13.00
ETOR    7.62  53 ePn   12 19.50  -0.9
                 eSn   13 39.50
     S.D. = 0.7  on  20 of  21 obs.
-----------------------------------
*  JAN  18, 1993  04h 38m 08.20± 1.75s
   43.498 N ±15.3km   11.229 E ± 5.6km
   DEPTH =  10.0km  (geophysicist)
 CENTRAL ITALY                     (381)
      MD 2.5 (FIR).

FIR     0.28   4 ePg   38 14.50   0.4
                 iSg   38 19.00
PGD     0.52  43 P     38 18.70  -0.1
                 eSg   38 26.10
CRE     0.54  76 P     38 19.40   0.2
                 eSg   38 27.60
PII     0.56 294 P     38 19.60   0.1
                 eSg   38 27.60
SFI     0.62  47 P     38 20.10  -0.5
                 eSg   38 31.00
BDI     0.73 321 P     38 22.20  -0.3
                 eSg   38 34.60
     S.D. = 0.5  on   6 of   6 obs.
-----------------------------------
%  JAN  18, 1993  04h 58m 32.81± 0.64s
   46.999 N ± 7.1km    5.735 E ± 5.7km
   DEPTH =  10.0km  (geophysicist)
 FRANCE                            (538)
      ML 2.2 (LDG).

HAU     1.09  22 Pg    58 53.00  -0.3
                 Sg    59 08.20
BSF     1.10  40 Pg    58 52.80  -0.7
                 Sg    59 07.90
LBF     1.20 270 Pg    58 55.20  -0.1
                 Sg    59 10.60
LOR     1.31 283 Pn    58 55.10  -1.9
                 Pg    58 57.30
                 Sn    59 11.80
                 Sg    59 14.30
SMF     1.35 255 Pg    58 57.50  -0.1
                 Sg    59 14.80
SSF     1.53 273 Pg    59 01.30   1.2
                 Sg    59 20.80
LPL     1.64 155 Pg    59 01.50  -0.4
                 Sg    59 21.60
AVF     1.65 264 Pg    59 03.00   1.1
                 Sg    59 23.90
LPG     1.66 154 Pg    59 02.30   0.0
                 Sg    59 22.80
CDF     1.76  36 Pg    59 04.90   1.3
                 Sg    59 27.50
     S.D. = 1.1  on  10 of  10 obs.
-----------------------------------
%  JAN  18, 1993  05h 24m 22.89± 2.54s
   17.274 N ±15.9km  100.547 W ±21.9km
   DEPTH =  10.0km  (geophysicist)
 GUERRERO, MEXICO                  ( 59)

ACX     0.77 121 iP    24 38.00   0.0
                 iS    24 50.00
III     1.50  43 iP    24 51.00   0.9
                 iS    25 10.00
UNM     2.42  32 iP    25 04.00   0.6
                 (S)   25 36.00
MRX     2.49 346 iP    25 04.00  -0.1
                 (S)   25 30.50
PPM     2.55  45 iP    25 04.00  -1.5
                 (S)   25 38.50
OXX     3.66  92 (P)   25 46.50  25.5X
CGX     3.67 312 (P)   25 23.00   1.9X
     S.D. = 1.3  on   5 of   7 obs.
-----------------------------------
?  JAN  18, 1993  05h 41m 22.59± 0.95s
   13.401 N ±23.3km  144.126 E ±16.8km
   DEPTH =  33.0km  (normal)
   4.2mb (  1 obs.)
 MARIANA ISLANDS                   (216)
      Felt (III) on Guam.

PJG     0.74  75 Pg    41 36.30  -0.3
GUA     0.78  80 eP    41 35.90  -1.2
                 eS    41 42.00
NMCC    2.32  41 eP    42 01.00   1.7
                 eS    42 21.00
WB2    34.50 196 eP    48 11.20   1.3
        0.5s     1.70nm          4.2mb
KIC   143.38 301 PKP   00 55.00  -1.4
TIC   143.46 301 PKP   00 55.40  -1.1
LIC   143.69 301 PKP   00 56.00  -0.9
LPB   148.73 100 ePKP  01 10.00   4.3X
CNCB  148.84 100 PKP   01 08.00   2.0
     S.D. = 1.7  on   8 of   9 obs.
-----------------------------------
%  JAN  18, 1993  06h 31m 11.01± 0.94s
   32.901 S ±11.3km   68.138 W ± 9.6km
   DEPTH =  33.0km  (normal)
 MENDOZA PROVINCE, ARGENTINA       (139)

MDZ     0.60 271 i(P)  31 23.80   0.7
RTCV    1.09 342 eP    31 29.20  -0.9
                 S     31 45.00
RFA     1.88 188 eP    31 41.20  -0.3
                 S     32 09.70
MRA     2.11  77 ePc   31 43.60  -1.0
                 S     32 08.30
TCA     3.39  64 eP    32 04.50   1.5
                 S     32 47.00
     S.D. = 1.5  on   5 of   5 obs.
-----------------------------------
?  JAN  18, 1993  08h 00m 05.62± 6.08s
   32.322 S ±38.7km   71.814 W ±26.9km
   DEPTH =  10.0km  (geophysicist)
 NEAR COAST OF CENTRAL CHILE       (135)
      MD 3.5 (SAN).

ROCH    0.94 134 iP    00 23.50  -0.2
JACH    1.09 110 iPd   00 25.83  -0.4
                 iS    00 40.95
LCCH    1.17 170 iP    00 26.96  -0.5
                 iS    00 43.08
PEL     1.26 131 iP    00 29.38   0.4
                 iS    00 46.25
TACH    1.52 151 iP    00 32.97   0.1
FCH     1.63 128 iP    00 34.56  -0.2
                 iS    00 56.50
LNV     1.66 168 eP    00 34.98   0.1
PCH     1.70 140 iP    00 36.17   0.7
                 eS    00 59.02
CHCH    1.88 149 eP    00 39.45   1.3X
     S.D. = 0.5  on   8 of   9 obs.
-----------------------------------
?  JAN  18, 1993  08h 11m 49.21± 0.97s
   18.065 N ± 9.4km   76.747 W ± 9.4km
   DEPTH =  10.0km  (geophysicist)
 JAMAICA REGION                    ( 86)
      MD 2.4 (HOJ). Felt (III) at
      Mona.

GWJ     0.01  41 iPd   11 51.20   0.0
                 S     11 53.21
HOJ     0.06 182 iP    11 51.50   0.0
                 S     11 53.75
STH     0.06 282 iP    11 51.55   0.0
                 S     11 54.09
BBJ     0.59 303 iPd   12 01.12   0.0
                 S     12 03.83
     S.D. = 0.0  on   4 of   4 obs.
-----------------------------------
*  JAN  18, 1993  08h 52m 41.36± 1.04s
   41.896 N ± 9.2km   20.403 E ± 7.2km
   DEPTH =  10.0km  (geophysicist)
 ALBANIA                           (391)
PHP     0.21 172 iPgc  52 46.00   0.0
                 iSg   52 50.00
TIR     0.68 217 ePg   52 55.50   0.7
SDA     0.69 283 ePg   52 54.70  -0.3
SKO     0.78  84 ePg   52 56.80   0.3
                 iSg   53 09.80
OHR     0.84 159 ePg   52 57.00  -0.6
                 eSg   53 10.20
     S.D. = 0.7  on   5 of   5 obs.
-----------------------------------
?  JAN  18, 1993  09h 13m 57.32± 1.10s
   10.454 N ±14.5km   62.226 W ± 7.2km
   DEPTH =  10.0km  (geophysicist)
 NEAR COAST OF VENEZUELA           ( 97)
      MD 3.5 (TRN).

TCE     0.52  63 iPd   14 07.08  -0.9
TPP     0.78 100 eP    14 11.95  -0.5
                 eS    14 31.41
TRN     0.83  77 eP    14 12.16  -1.2
                 eS    14 27.28
TBH     1.14  88 eP    14 19.67   1.0
TPR     1.60  63 eP    14 25.88   0.2
BOT     1.64  64 eP    14 27.95   1.6
GRW     1.78  18 eP    14 28.43   0.0
                 eS    14 53.99
CUM     1.91 270 eP    14 30.00  -0.2
     S.D. = 1.1  on   8 of   8 obs.
-----------------------------------
%  JAN  18, 1993  09h 24m 07.75± 2.04s
   37.174 N ±13.0km    1.700 W ±15.5km
   DEPTH =  10.0km  (geophysicist)
 SPAIN                             (377)
      mbLg 3.0 (MDD).

ENIJ    0.45 244 iPgc  24 16.41  -0.6
                 eSg   24 22.60
EALH    0.72  18 iPgc  24 21.95   0.1
                 eSg   24 29.90
EHUE    0.96 312 ePg   24 25.61  -0.4
                 eSg   24 38.60
ECOG    1.49 275 ePn   24 34.96   0.2
                 eSn   24 55.60
EGUA    1.53 258 ePn   24 35.54   0.4
                 eSn   24 56.40
EVIA    1.59 337 ePn   24 35.66  -0.5
                 eSn   24 56.60
EBAN    1.93 301 ePn   24 41.72   0.8
                 eSn   25 05.30
     S.D. = 0.6  on   7 of   7 obs.
-----------------------------------
&  JAN  18, 1993  09h 30m 33.54s
   34.613 N          116.634 W
   DEPTH =   5.2km
 SOUTHERN CALIFORNIA               ( 43)
      <PAS-P>. ML 3.5 (PAS), 3.2 (GS).

GSC     0.70 349 iPd   30 46.70  -0.9
PEC     0.84 211 iPd   30 48.83  -1.5
SSK     0.96 246 eP    30 51.45  -1.0
PLM     1.27 189 iPd   30 56.74  -0.9
ISA     1.84 305 ePn   31 04.87  -1.2
                 eS    31 31.04
GLA     2.16 135 eP    31 07.73  -3.0
BCH     2.89 282 ePn   31 20.73  -0.5
MTUM    3.15 331 ePn   31 24.09  -0.8
                 ePg   31 32.34
                 eS    32 11.24
TNP     3.49 352 ePn   31 28.53  -1.3
MEMM    3.57 329 ePn   31 30.10  -0.6
                 ePg   31 40.00
BONR    3.60 338 ePn   31 30.54  -0.8
                 ePg   31 41.11
CMB     4.56 320 eP    31 43.84  -1.0
MSU     5.29  41 ePn   31 54.41  -1.0
NTYM    6.15 310 (P)   32 06.19  -0.9
       14 obs. associated
-----------------------------------
   JAN  18, 1993  10h 13m 30.51± 0.51s
   38.814 N ± 4.3km   25.667 E ± 4.3km
   DEPTH =  10.0km  (geophysicist)
 AEGEAN SEA                        (365)
      MD 3.6 (ATH).

PRK     0.64  47 iPbc  13 43.50   0.2
ATH     1.75 242 ePn   14 01.30   0.3
PAIG    1.90 306 iPb   14 02.66  -0.6
```

```
OUR      2.00 320 iPb * 14 04.57  -0.1
                  iSb   14 28.82
ALN      2.10   8 ePn   14 08.01   1.9
CIN      2.26 122 eP    14 08.00  -0.5
AGG      2.61 276 ePn   14 14.10   0.6
SOH      2.68 319 iPn   14 14.69   0.2
LIT      2.77 299 iPn   14 15.85   0.0
                  eSn   14 48.38
SRS      2.80 326 ePn   14 15.90  -0.2
KDZ      2.84 356 iPd   14 16.00  -0.7
RZN      2.96 346 iPd   14 18.00  -0.6
VLI      3.01 227 ePn   14 19.00  -0.1
MMB      3.14 332 eP    14 20.00  -1.0
KNT      3.17 319 ePn   14 21.54   0.2
                  eSn   14 58.10
DIM      3.23 358 eP    14 22.00  -0.3
GRG      3.30 311 ePn   14 22.66  -0.6
                  eSn   15 01.66
KZN      3.36 298 ePn   14 24.50   0.3
PLD      3.37 348 eP    14 24.00  -0.2
ITU      3.44  47 ePn   14 35.00   9.8X
                  iSg   15 30.00
VAY      3.45 317 iPn   14 25.70   0.3
GBZT     3.52  55 ePn   14 36.20   9.9X
                  iSg   15 25.00
KKB      3.63 328 iPd   14 28.00   0.0
VTS      4.21 334 iPd   14 36.00  -0.3
PVL      4.41 357 eP    14 38.00  -0.9
SKO      4.51 316 ePn   14 40.80   0.4
MTUR     6.42 356 eP    15 14.00   6.5X
COZ      6.58 352 eP    15 11.20   1.5
     S.D. = 0.7  on  25 of  28 obs.
-----------------------------------
%  JAN  18, 1993  10h 46m 43.05± 0.83s
   31.933 S ± 8.5km  117.293 E ± 7.6km
   DEPTH =  10.0km  (geophysicist)
 WESTERN AUSTRALIA                (590)

KLB      0.52  50 iPc   46 54.20   0.6
MUN      0.92 267 iPd   47 00.10  -0.6
BAL      1.41 339 eP    47 09.80   1.0
                  eS    47 28.40
RKG      2.64 185 eP    47 27.10   0.7
                  eS    48 03.00
MRWA     2.93 337 eP    47 30.00  -0.5
                  eS    48 04.00
COOL     3.46  73 eP    47 36.90  -1.1
                  eS    48 17.00
WARB     9.98  57 eP    49 05.10  -4.5X
                  eS    50 52.00
     S.D. = 1.1  on   6 of   7 obs.
-----------------------------------
&  JAN  18, 1993  11h 47m 22.28s
   60.555 N          140.717 W
   DEPTH =   3.4km
 SOUTHEASTERN ALASKA              ( 19)
     <AEIC>. ML 4.3 (PMR), 4.3 (PGC),
     4.2 (AEIC).

CTGM     0.51 324 iPc   47 33.35   0.8
                  eS    47 40.81
PCA      0.51 153 iPc   47 33.42   0.9
                  eS    47 41.49
YAH      0.54 250 iPd   47 33.78   0.6
                  eS    47 41.65
BCPM     0.81 138 iPc   47 37.59  -0.8
BALM     0.93 302 iPc   47 39.64  -1.2
                  eS    47 52.52
CYK      1.00 242 eP    47 41.61  -0.2
                  iS    47 56.46
TGL      1.06 282 iPc   47 41.46  -1.5
PNL      1.11 143 iPc   47 42.01  -1.7
SNH      1.12 251 ePc   47 42.80  -1.1
                  eS    47 58.87
YKU      1.12 153 P     47 44.00   0.1
CROM     1.21 281 iPc   47 43.53  -2.0
HON      1.44 139 iPc   47 46.95  -2.3
HYT      1.60  79 P     47 50.40  -1.3
GLB      1.75 302 iPc   47 52.25  -1.5
                  eS    48 15.03
HMT      1.77 264 ePc   47 52.70  -1.3
KAIM     1.95 253 ePc   47 55.34  -1.2
RAGM     1.97 267 eP    47 55.53  -1.3
SGAM     2.22 271 ePc   47 58.90  -1.6
PLBC     2.45 115 P     48 01.30  -2.4
CVA      2.49 272 ePd   48 02.35  -1.9
KLU      2.70 293 iPc   48 06.23  -1.2
TZL      2.72 305 eP    48 07.29  -0.3
WHC      2.77  84 Pd    48 06.35  -2.1
                  S     48 38.97
VLZ      2.81 284 ePc   48 07.24  -1.6
HIN      2.87 269 eP    48 07.26  -2.5
TMW      2.98 340 eP    48 09.70  -1.6
SDG      3.04 313 ePc   48 11.14  -1.0
MID      3.04 251 P     48 09.60  -2.5
TOA      3.05 303 P     48 11.60  -0.8
PAX      3.31 319 eP    48 14.98  -1.1
SCM      3.45 295 ePc   48 16.32  -1.7
DOT      3.48 335 eP    48 16.73  -1.7
DWY      3.56   9 Pd    48 18.50  -1.0
                  S     49 11.50
KNK      3.87 286 eP    48 22.38  -1.6
SML      3.90 292 eP    48 22.33  -2.0
PTE      4.09 278 eP    48 25.06  -2.0
GHO      4.16 291 ePc   48 26.31  -1.7
PLRM     4.22 288 eP    48 27.27  -1.5
PMR      4.22 288 eP    48 26.56  -2.2
                  eSg   49 27.73
MPA      4.27 273 eP    48 26.57  -3.0
SEW      4.36 268 eP    48 27.82  -3.1
PMS      4.37 283 ePd   48 30.70  -0.4
SIT      4.49 139 eP    48 30.00  -2.7
PWA      4.58 288 P     48 32.00  -1.9
SLKM     4.70 274 eP    48 32.50  -3.2
RND      4.79 310 eP    48 35.20  -1.8
HDA      4.83 326 eP    48 35.53  -2.0
SUA      4.96 285 eP    48 37.70  -1.8
CCB      5.25 325 eP    48 39.86  -3.6
SKT      5.41 290 eP    48 43.82  -2.0
FBA      5.44 326 (P)   48 43.38  -2.8
       2.1s    14.01nm          4.3mb X
CGLM     5.56 283 eP    48 45.73  -2.2
SPU      5.58 281 eP    48 45.35  -2.8
CRP      5.63 282 eP    48 45.85  -3.1
CKN      5.64 282 eP    48 47.07  -2.0
CKT      5.65 282 eP    48 46.73  -2.5
CP2      5.67 282 eP    48 46.39  -3.2
CKL      5.71 282 eP    48 46.90  -3.3
BGL      5.74 282 eP    48 47.20  -3.3
REF      5.92 275 eP    48 50.27  -2.8
NCT      6.03 275 eP    48 51.56  -2.9
KDC      6.68 250 eP    49 01.64  -1.9
SVW      7.31 281 eP    49 08.28  -4.2
TTA      7.64 295 iPc   49 12.85  -4.3
IMA      8.03 319 eP    49 18.77  -3.9
     65 obs. associated
-----------------------------------
&  JAN  18, 1993  11h 55m 33.69s
   34.611 N          116.636 W
   DEPTH =   8.9km
 SOUTHERN CALIFORNIA              ( 43)
     <PAS-P>. ML 3.6 (PAS), 3.3 (GS).

GSC      0.70 349 iPd   55 46.82  -0.9
PEC      0.84 211 iPd   55 49.03  -1.0
SSK      0.96 246 eP    55 51.16  -1.0
                  eS    56 04.51
PLM      1.27 189 iPd   55 56.90  -0.6
ISA      1.84 305 ePn   56 03.92  -1.8
                  ePg   56 07.82
GLA      2.16 135 ePn   56 07.51  -3.0
BCH      2.89 282 ePn   56 19.02  -1.9
MTUM     3.15 331 ePn   56 23.47  -1.1
TNP      3.50 352 ePn   56 28.50  -1.0
MEMM     3.57 329 (Pn)  56 30.25  -0.1
BONR     3.60 339 ePn   56 30.29  -0.8
                  ePg   56 41.31
CMB      4.56 320 Pg    57 02.48  17.9
MSU      5.30  41 ePn   56 55.02  -0.1
NTYM     6.15 310 eP    57 04.30  -2.5
     14 obs. associated
-----------------------------------
*  JAN  18, 1993  12h 24m 20.75± 1.58s
   22.993 S ± 9.6km  176.115 W ± 8.3km
   DEPTH =  86.8 ± 13.9 km
   4.7mb ( 10 obs.)
 SOUTH OF FIJI ISLANDS            (171)

RAO      6.44 194 eP    25 54.00  -0.8
                  eS    27 02.30
SVA      7.03 313 eP    26 03.40   0.5
DZM     16.14 270 iPc   28 10.00   6.1X
BRS     28.45 255 iP    30 11.00   1.5
ARMA    29.68 249 eP    30 21.80   1.2
       1.0s    16.00nm          4.7mb
RMQ     32.04 256 iPc   30 42.40   1.2
       0.9s    40.00nm          5.2mb
CMS     34.74 248 eP    31 04.80   0.2
       0.6s     5.00nm          4.6mb
CTA     35.06 267 P     31 08.00   0.6
TOO     35.94 237 eP    31 15.00   0.3
       0.9s    22.00nm          5.1mb
PMG     37.64 285 eP    31 29.00  -0.1
STK     38.37 247 eP    31 36.60   1.5
       0.3s     4.10nm          4.8mb
ASPA    45.71 259 P     32 35.09   0.0
WB2     46.03 264 iPc   32 35.90  -1.7
       0.7s    55.10nm          5.5mb
WRA     46.04 264 P     32 36.70  -1.0
       0.7s     5.90nm          4.6mb
MTN     50.97 272 eP    33 14.00  -1.8
WARB    51.79 254 eP    33 20.20  -1.8
NANU    62.46 256 eP    34 37.00  -0.3
BONR    81.36  43 eP    36 29.94   0.4
TNP     82.12  43 eP    36 33.88   0.5
       0.9s     7.57nm          4.6mb
TUC     83.16  51 eP    36 39.54   0.8
RMW     85.44  34 eP    36 50.48   0.7
BGL     86.12  11 eP    36 51.77  -1.1
CRP     86.16  11 eP    36 52.28  -0.9
SRU     87.00  45 iPd   36 57.82   0.0
DPW     87.57  35 eP    37 00.28   0.1
ALQ     87.61  50 eP    37 00.66  -0.2
       1.3s     7.13nm          4.6mb
FBA     90.30  12 eP    37 11.79  -0.8
       0.8s     4.06nm          4.7mb
SES     92.86  36 ePd   37 24.50  -0.2
HFS    142.25 352 ePKP  43 38.50  -5.7X
       0.4s     1.40nm
KAS    148.99 313 ePKP  44 01.00   4.9X
CLI    149.85 327 ePKP  44 02.90   5.8X
HRI    150.20 297 ePKP  44 04.20   6.0X
KSP    150.57 344 iPKP  44 04.20   6.2X
VRI    150.60 326 ePKP  44 09.00  10.7X
JVI    150.78 295 ePKP  44 05.40   6.4X
CLL    150.86 348 iPKPc 44 04.40   6.0X
       0.8s    24.00nm
BRG    151.09 347 iPKP  44 05.00   6.2X
       0.8s    24.00nm
                  i     44 10.20
MLR    151.26 327 ePKP  44 07.00   7.6X
RMN    151.61 292 ePKP  44 07.30   6.9X
CSS    151.72 302 ePKP  44 07.10   6.8X
PRU    151.79 345 PKPd  44 07.00   7.1X
ZST    152.73 340 ePKP  44 14.10  12.8X
KHC    152.81 346 PKP   44 09.40   8.0X
       0.6s     2.00nm
                  e     44 41.50
GEC2   153.05 346 ePKP  44 02.60   0.8
       0.7s     0.47nm
GEC2   153.05 346 ePKPc 44 09.50   7.7X
       0.6s     2.48nm
                  e     44 14.40
                  e     44 21.70
VBY    155.71 340 ePKP  44 06.20   0.8
                  iPKPbc44 15.50
BCAO   156.74 220 iPKPc 44 14.00   6.2X
       0.7s     9.00nm
                  ic    44 20.20
                  ic    44 31.60
                  ic    44 38.80
     S.D. = 1.0  on  29 of  47 obs.
-----------------------------------
   JAN  18, 1993  12h 42m 07.87± 0.15s
   30.837 N ± 3.4km   90.373 E ± 2.6km
   DEPTH =  33.0km  (normal)
   5.7mb (101 obs.)  5.7Msz ( 39 obs.)
 XIZANG                           (306)
      Mw 5.9 (HRV). Ms 5.6 (BRK). Felt
      at Lhasa.
      CENTROID, MOMENT TENSOR     (HRV)
      Data Used: GDSN
      L.P.B.: 15S, 27C
      Centroid Location:
      Origin Time        12:42:12.6 0.4
      Lat 30.34N 0.04 Lon  90.28E 0.06
      Dep  15.0 BDY Half-duration  1.9
      Moment Tensor;    Scale 10**17 Nm
        Mrr=-6.99 0.26  Mtt=-2.50 0.40
        Mff= 9.49 0.39  Mrt=-2.37 0.76
        Mrf= 0.69 1.36  Mtf= 0.57 0.26
```

18d 12h

```
        Principal Axes:
         T  Val=  9.54  Plg= 2  Azm=272
         N       -1.49      23      181
         P       -8.06      66        7
       Best Double Couple:Mo=8.8*10**17
        NP1:Strike= 25 Dip=48 Slip= -57
        NP2:        161      51     -121

LSA     1.32 149 Pg     42 27.80  -2.7
                Sg     42 44.30
GUN     4.89 234 Pd     43 23.22   1.9
KKN     5.38 237 P      43 29.16   1.0
PKI     5.42 234 Pd     43 30.24   1.4
DMN     5.61 236 Pd     43 32.42   0.9
GKN     5.74 242 Pd     43 33.32   0.1
CD2    11.50  86 iPd    44 51.20  -1.7
     Z  12s    54.90um
     E  12s    55.50um
GTA    11.52  40 P      44 51.00  -2.2
     Z  10s    99.30um
     N  10s    67.60um
                pP     44 57.00
                SS     47 09.00
NDI    11.63 263 iPc    44 53.50  -1.1
        0.6s  293.33nm          6.6mb
                eS     46 52.00
KMI    12.32 114 Pc     45 02.00  -2.0
        1.0s  180.00nm          6.2mb
     Z  11s    54.10um
     N  11s    40.40um
     E  11s    32.70um
                pP     45 09.50
                S      47 18.00
LZH    12.40  61 eP     45 02.00  -3.1X
        2.5s  760.00nm          6.4mb
     Z  12s    32.10um
     N  11s    57.60um
                pP     45 06.00
                S      47 17.00
WMO    13.13 351 P      45 14.00  -0.7
        1.2s  130.00nm          5.8mb
     Z  16s    18.10um          4.8MszX
                sP     45 26.80
                S      47 42.00
CHG    14.27 145 iPc    45 26.80  -2.8
        1.4s  232.56nm          5.6mb
                eS     48 02.00
KSH    14.57 310 P      45 35.00   1.5
        1.0s  170.00nm          5.5mb
                S      48 18.00
GYA    14.95 103 iPc    45 35.00  -3.6X
     Z  14s    81.80um
     N  12s    34.70um
     E  12s    51.90um
                S      48 20.00
PRZ    15.06 324 eP     45 43.00   3.0
        1.8s 1300.00nm          5.9mb
     Z  14s    63.00um          7.3MszX
     N  14s    86.20um
                eS     48 31.00
BDT    15.65 148 eP     45 46.00  -1.6
        1.0s  207.00nm          5.3mb
XAN    15.98  74 eP     45 49.10  -2.8
        0.6s   92.00nm          5.1mb
     N  10s    47.00um
     E  10s    50.20um
                PP     46 03.00
                S      48 43.00
                PcP    50 49.00
LOE    16.90 140 eP     46 05.00   1.5
HYB    17.15 222 ePc    46 02.50  -4.2X
        1.0s  360.00nm          5.5mb
                eS     49 28.00
FRU    17.36 318 eP     46 12.20   3.1X
        1.8s 1390.00nm          5.8mb
     Z  14s    38.00um          3.4Msz
     N  11s    26.00um
     E  12s    49.00um
                eS     49 24.00
NST    17.54 147 eP     46 18.50   7.0X
KHT    17.67 153 eP     46 09.80  -3.3X
BTO    18.66  53 P      46 22.00  -3.2X
     N  11s    26.30um
     E  11s    31.90um
                S      49 42.00
                SS     50 05.00
POO    19.35 235 iPd    46 35.40   1.8
        0.9s  226.89nm          5.4mb
                iS     50 40.00
TIY    19.46  63 iPd    46 32.00  -2.7
        0.9s  140.00nm          5.2mb
     Z  12s    38.10um          4.3Msz
     N  10s    30.10um
                S      50 03.00
                sS     50 18.00
HHC    19.83  54 Pc     46 36.00  -2.7
        1.0s  160.00nm          5.3mb
     Z  16s   131.00um          4.8MszX
     N  13s    74.10um
     E  13s    62.00um
                S      50 12.00
NNT    20.11 152 eP     46 41.60  -0.2
OUE    20.19 274 eP     46 43.20   0.5
                eS     50 32.00
WHN    20.62  85 Pc     46 45.50  -1.4
        1.0s  120.00nm          5.2mb
     Z  20s    31.10um          5.7Msz
     N  12s    46.30um
     E  10s    27.80um
                S      50 36.00
GBA    20.88 218 P      46 49.30  -0.4
                S      50 43.00
QIZ    21.17 119 P      46 52.40  -0.3
     N  10s     9.51um
                iS     50 39.00
ZAK    21.79  23 iPd-   46 58.50   0.0
        1.9s  663.00nm          5.7mb
     Z  12s    82.32um          6.4MszX
     N  13s    43.22um
     E  13s    42.24um
                eS     51 04.00
GZH    21.86 105 Pd     46 59.50   0.0
     Z  10s    48.90um          6.2MszX
     N  10s    40.50um
MOY    22.26  18 ePd    47 07.00   3.8X
        1.5s  312.00nm          5.5mb
ELT    22.60 354 iPd    47 05.00  -1.6
        1.4s  290.00nm          5.6mb
BJI    22.88  59 eP     47 10.00   0.6
        1.5s  520.00nm          5.8mb
     Z  14s    20.60um          5.7MszX
     N  11s    37.30um
HKC    22.89 106 iP     47 10.80   1.1
                iS     51 12.00
TIA    22.90  69 eP     47 08.10  -1.7
     Z  22s    34.00um          5.7Msz
     N  18s    76.50um
IRK    23.74  22 eP-    47 19.00   1.2
        2.5s 1056.00nm          5.9mb
     Z  14s    44.23um          6.1MszX
     N  13s    25.73um
                e      47 29.10
                ePPP   47 56.00
NJ2    24.30  80 Pc     47 23.40   0.0
        1.4s  160.00nm          5.4mb
     Z  16s    14.60um          5.6MszX
     E  10s    27.60um
                S      51 42.00
SNG    25.42 156 eP     47 45.40  11.2X
        1.4s  813.95nm
                eS     51 50.00
QZH    25.58  96 Pc     47 38.00   2.4
     Z  18s    35.10um          5.9Msz
     N  13s    29.30um
                S      52 00.00
MAIO   26.23 290 iPd    47 42.80   1.1
        1.2s  156.25nm          5.5mb
                eS     52 10.00
SSE    26.38  81 Pd     47 44.00   1.0
        1.5s  240.00nm          5.6mb
     Z  20s    16.50um          5.6Msz
     N  10s    14.60um
     E  10s    11.60um
                S      52 10.00
                isS    52 24.00
BRVK   26.59 332 iPd    47 44.90   0.2
        1.5s  150.00nm          5.4mb
DL2    26.78  64 P      47 47.00   0.4
        1.0s  180.00nm          5.6mb
     Z  14s    16.60um          5.7MszX
     N  14s    29.50um
     E  10s     3.39um
                S      52 24.00
CIT    27.18  32 eP     47 51.00   0.8
     N  14s    14.60um
ASH    27.27 294 eP     47 53.00   2.0
     Z  13s    25.80um          6.0MszX
     E  13s    11.00um
                i      48 38.00
                PPP    48 51.00
                e      51 16.00
                eS     52 29.00
                iSS    53 46.00
                iSSS   54 05.00
                i      58 41.00
IPM    27.98 157 ePd    47 57.70   0.0
        1.2s   74.00nm          5.3mb
SNY    28.75  58 eP     48 04.00  -0.3
        1.1s  110.00nm          5.5mb
     Z  16s    20.10um          5.8MszX
     N  10s    20.70um
     E  15s     8.35um
                PcP    51 15.00
                iS     52 52.00
KAT    29.02 296 iP-    48 08.00   1.2
                e      49 17.00
CN2    30.52  55 P      48 20.40   0.3
        1.3s   79.00nm          5.4mb
     Z  14s    20.70um          5.9MszX
     N  14s    56.70um
     E  14s     8.18um
                ePP    49 24.00
                ePcP   51 19.50
                eS     53 22.00
BAG    31.06 111 eP-    48 26.80   1.5
                eS     53 30.00
KGM    31.18 154 eP     48 23.50  -2.6
CVP    31.39 107 eP     48 28.20   0.2
BOD    31.59  24 iPd    48 27.80  -1.6
        0.9s  125.00nm          5.8mb
PGP    33.00 115 ePc    48 50.70   8.6X
SVE    33.20 330 eP     48 39.00  -4.4X
     Z  14s    23.50um          6.1MszX
     N  14s    18.00um
     E  14s    12.00um
                eSS    51 31.00
MDJ    33.60  55 Pc     48 47.50   0.4
                PP     49 56.00
                S      54 02.00
BAK    34.00 298 iPc    48 54.00   3.4X
KKM    34.59 130 ePc    48 56.50   0.5
SHE    34.98 298 iPc    49 02.00   3.0
        1.2s  100.00nm          5.6mb
VLA    35.02  58 iP     49 00.00   0.7
        2.0s  124.00nm          5.5mb
                ePPP   50 30.00
                eS     54 20.00
GRS    36.72 296 eP     49 12.00  -2.0
                e      50 44.00
                eS     55 02.00
TSM    36.99 130 eP     49 16.80   0.6
GRO    37.35 302 eP     49 21.00   2.0
        2.0s  480.00nm          6.0mb
     N  16s    34.00um
     E  18s    33.00um
                i      50 54.00
                iPPP   51 13.00
MTA    37.92 300 eP     49 21.00  -2.7
     Z  16s     4.50um          5.4MszX
     E  16s     4.00um
                eSS    57 55.00
NRI    38.63 359 iPc    49 29.50   0.2
        1.4s  208.00nm          5.7mb
     Z  19s    26.00um          6.1Msz
     N  16s     8.10um
     E  20s    18.00um
                e      49 36.00
                i      51 04.00
                e      51 20.00
                e      51 42.00
                eS     55 28.00
RYD    39.01 272 eP     49 32.70  -0.5
                eS     55 34.00
PYA    39.29 303 eP     49 41.00   5.7X
        1.0s  100.00nm          5.5mb
                i      51 14.00
                i      58 26.00
KIV    39.56 303 eP     49 38.90   1.3
        2.1s  448.00nm          5.9mb
                eS     55 43.00
MTMJ   39.56  69 eP     49 38.90   1.2
```

```
MJMA   39.79 274 eP    49 38.53  -1.1
MAT    39.88  69 eP    49 40.00  -0.3
       1.7s   173.08nm          5.5mb
     Z  22s    12.96um          5.7Msz
                eS     55 42.00
YAK    40.23  28 iPc-  49 43.00   0.3
       1.5s   200.00nm          5.6mb
     Z  18s    21.30um          6.0Msz
     N  17s     6.90um
     E  14s    13.40um
                iPPP   51 24.00
                i      51 54.00
                iPS    55 50.00
DAV    40.53 118 eP    49 47.80   2.1
CHJJ   40.57  69 eP    49 42.50  -3.4X
YAMJ   41.17  66 eP    49 50.60  -0.2
KAKJ   41.50  69 eP    49 52.60  -0.9
SOC    41.70 302 eP    49 49.00  -6.0X
     Z  20s     8.50um          5.6Msz
     N  18s     6.50um
     E  16s     5.10um
                e      51 39.00
                e      59 10.00
AFIF   42.16 273 eP    50 02.33   3.1X
OFUJ   42.37  64 eP    50 01.50   0.9
ASAJ   42.87  57 eP    50 05.90   1.3
YSS    42.99  53 iP-   50 06.00   0.5
       1.2s    30.00nm          4.9mb
     Z  13s    12.50um          6.0MszX
     N  13s     6.20um
     E  13s     5.90um
                e      51 50.00
                (PPP)  52 26.00
                eS     56 24.00
                eSSS   59 59.00
HOOJ   43.38  59 eP    50 10.30   1.6
ANN    43.44 304 eP    50 11.00   1.8
                e      59 48.00
SJI    43.49 148 ePc   50 10.50   0.6
       0.6s     3.00nm          4.2mb X
                e      53 13.00
TRT    43.86 147 ePd   50 11.30  -1.6
       1.2s    13.60nm          4.6mb X
GAZ    44.04 293 eP    50 11.00  -3.2X
MOS    44.35 320 eP    50 17.00   0.6
       2.0s  1200.00nm          6.4mb
     Z  12s    21.60um          6.3MszX
DHJN   44.41 264 eP    50 17.67  -0.1
KMTA   44.73 265 ePd   50 20.53   0.3
ABHA   44.79 265 eP    50 23.00   2.2
OBN    44.80 319 iPc   50 20.00  -0.1
       1.5s   350.00nm          6.0mb
     Z  20s     6.60um          5.6Msz
     E  16s     7.20um
                i      50 36.00
                eS     56 50.00
                i      57 08.00
                iSS    00 16.00
CTK    45.47 298 eP    50 28.00   2.2
SIM    45.70 304 eP    50 32.00   4.6X
     Z  24s    10.00um          5.7MszX
     N  24s     8.00um
     E  24s     7.00um
                e      52 20.00
                eS     57 15.00
                eSS    00 30.00
TIK    45.80  16 iPd-  50 27.00  -0.8
       1.6s   162.00nm          5.7mb
     Z  12s    17.50um          6.2MszX
                e      52 03.50
                eS     57 17.00
                iPS    57 35.50
                i      00 27.00
BHL    45.86 289 P     50 27.00  -1.9
                S      57 12.00
HRI    45.93 288 eP    50 29.70   0.2
KAS    46.20 299 eP    50 33.50   2.0
DSI    46.61 286 eP    50 34.90   0.1
AYN    46.81 282 eP    50 36.33   0.0
FAM    46.98 291 e(P)  50 39.00   1.4
BBTK   47.14 298 eP    50 39.00   0.0
RMN    47.51 285 eP    50 42.10   0.1
CSS    47.52 291 eP    50 43.00   1.0
PPCY   48.33 291 eP    50 47.70  -0.5
PUL    48.91 324 ePd   50 53.00   0.7
       2.0s   710.00nm          6.4mb
                eS     58 02.00
EYL    49.01 299 eP    50 53.00  -0.5
MGD    49.15  35 eP    50 52.50  -1.6
     Z  11s    10.00um          6.1MszX
     E  12s    11.00um
                e      52 48.00
                ePPP   53 36.00
                eS     58 00.00
                ePS    58 10.00
                e      00 35.00
ALT    49.29 297 eP    50 55.00  -0.7
APA    49.41 335 iPc   50 57.60   1.6
KHL    49.87 296 iP    50 58.70  -1.4
ELL    49.88 294 iP    50 59.50  -0.8
MNK    49.93 317 eP    51 00.00  -0.2
     Z  18s    13.30um          6.0Msz
PSN    50.05 303 iPc   51 03.00   1.7
KSL    50.27 293 eP    51 02.00  -1.0
DST    50.32 298 iP    51 02.80  -0.7
CLI    50.37 307 ePc   51 04.50   0.7
HLW    50.42 285 eP-   51 05.00   0.7
                e      53 03.00
                eS     58 20.00
DMK    50.61 301 eP    51 03.00  -2.6
VRI    50.83 306 ePd   51 08.00   0.8
ISR    51.04 305 eP    51 11.00   2.1
KAF    51.17 327 eP    51 09.80   0.3
       1.1s   149.60nm          5.9mb
JMB    51.38 302 eP    51 12.00   0.6
MLR    51.41 306 ePd   51 12.50   0.7
NUR    51.81 325 eP    51 16.00   1.6
       1.0s   104.30nm          5.8mb
     Z  20s    24.00um          6.2Msz
                e      10 10.00
SDF    51.96 334 iP    51 15.20  -0.3
EZN    52.03 299 eP    51 15.00  -1.4
ALN    52.04 300 iP    51 28.92  12.5X
MTUR   52.06 305 ePc   51 17.00   0.3
CMP    52.08 306 ePc   51 20.00   3.3X
PVL    52.17 303 iP    51 20.00   2.7
KEV    52.24 337 iP    51 20.10   2.6
       1.3s   208.70nm          5.9mb
     Z  18s    14.10um          6.0Msz
                e      10 20.00
AAE    52.61 257 eP    51 23.00   1.6
RZN    52.88 301 iPd   51 22.00  -0.9
PGB    53.12 302 eP    51 24.00  -0.6
PET    53.22  44 eP    51 24.00  -1.0
     Z  16s     9.00um          5.9MszX
     E  14s    10.00um
                e      53 28.00
                eS     58 54.00
                e      01 10.00
UZH    53.51 310 iPc   51 26.70  -0.5
     Z  14s    12.50um          6.1MszX
     E  14s    15.00um
                e      51 42.70
                e      52 37.50
                eSS    02 40.00
NPS    53.61 293 eP    51 25.00  -3.1X
MMB    53.62 301 eP    51 27.00  -1.2
OUR    53.69 300 eP    51 29.52   0.9
VTS    53.81 303 iPd   51 29.00  -0.7
PAIG   54.00 299 eP    51 30.32  -0.6
KKB    54.04 302 iP    51 30.00  -1.2
SOH    54.06 300 eP    51 31.64   0.3
KNT    54.32 301 eP    51 32.20  -1.1
BZS    54.40 306 eP    51 28.00  -5.8X
ATH    54.42 297 eP    51 38.00   4.0X
                eS     59 14.00
VAY    54.53 301 iP    51 35.00   0.2
GRG    54.73 301 iP    51 35.20  -1.2
SPC    54.78 311 eP    51 36.40  -0.4
                i      51 43.30
LIT    54.85 300 eP    51 35.76  -1.5
OJC    54.92 312 iP    51 38.00   0.4
                i      51 41.40
                i      51 46.90
PSZ    55.20 309 eP    51 39.90   0.2
SKO    55.22 302 iP    51 38.00  -1.9
       1.3s   137.00nm          5.8mb
     Z  18s     4.07um          5.5Msz
                eSS    03 55.00
                i      04 11.00
                iSSS   05 52.00
                LR     21 32.00
AGG    55.22 298 eP    51 38.24  -1.7
UPP    55.31 324 iP    51 40.10  -0.1
                i      51 42.30
                i      51 44.20
VLI    55.33 296 eP    51 38.00  -2.7
KZN    55.34 300 eP    51 39.00  -1.9
BUD    55.85 309 eP    51 43.00  -1.3
OHR    55.88 301 eP    51 43.80  -0.9
PHP    56.01 302 eP    51 42.60  -3.0
LSK    56.25 300 eP    51 47.50   0.1
SRO    56.26 310 eP    51 49.20   1.9
UZD    56.31 308 eP    51 46.00  -1.6
TIR    56.51 302 eP    51 47.70  -1.4
SDA    56.62 303 eP    51 48.60  -1.2
TPE    56.66 300 eP    51 44.50  -5.7X
SRN    56.77 300 eP    51 47.50  -3.4X
ZST    56.99 310 e(P)  51 51.00  -1.5
                i      51 52.90
                e      18 14.50
KSP    57.04 313 eP    51 52.20  -0.6
       1.2s    77.00nm          5.6mb
                i      51 54.40
VRAC   57.12 312 iP    51 53.40   0.1
       1.4s   695.90nm          6.5mb
SOP    57.45 310 eP    51 54.90  -0.8
PRU    58.30 313 ePd   52 01.40  -0.2
       1.0s    53.40nm          5.6mb
     Z  14s    10.50um          6.1MszX
     N  17s    10.60um
     E  17s     4.10um
                e      54 11.50
NANU   58.32 153 eP    52 01.00  -1.0
BRG    58.50 314 iPc   52 02.20  -0.8
       1.4s    85.00nm          5.6mb
                i      52 54.40
BRT    58.58 302 P     52 04.40   0.8
NAO    58.59 326 P     52 02.90  -0.6
       1.0s   141.40nm          6.0mb
VBY    58.80 307 iPc   52 04.80  -0.3
                i      52 06.60
CLL    58.99 314 iPc   52 05.90  -0.5
       1.7s    80.00nm          5.6mb
                e      52 52.00
GEC2   59.08 311 e(P)  52 16.50   9.3X
       0.8s    41.40nm          5.6mb
GEC2   59.08 311 ePc   52 07.00  -0.2
       0.8s    97.54nm          6.0mb
                e      52 08.80
                e      52 13.60
KHC    59.09 312 P     52 06.50  -0.7
       1.2s    35.00nm          5.4mb
                e      52 13.00
LJU    59.17 308 eP    52 07.00  -0.7
CEY    59.31 308 eP    52 08.00  -0.7
ORI    59.35 301 P     52 10.80   1.8
WET    59.54 312 iPc   52 10.40   0.2
                i      52 12.00
TDS    59.55 301 P     52 10.10  -0.2
VOY    59.60 308 eP    52 09.80  -1.0
                i      52 11.70
KBA    59.72 310 iPc   52 10.60  -1.1
       0.9s    32.60nm          5.5mb
                i      52 12.40
                i      52 16.60
                i      52 20.10
                i      52 45.80
GRI    59.72 300 P     52 11.69   0.1
       0.1s     5.20nm          5.6mb
TRI    59.77 308 P     52 11.07  -0.7
       0.9s  1063.03nm          7.0mb X
BHG    59.87 310 iPc   52 12.30  -0.2
                i      52 14.00
MGR    59.99 301 P     52 11.80  -1.6
MOX    59.99 314 ePc   52 13.40   0.1
       1.8s   118.00nm          5.7mb
                eS     00 35.00
NAI    60.04 248 ePd   52 15.10   0.7
     Z  20s     2.23um          5.3Msz
                S      00 01.60
SGO    60.05 302 P     52 13.20  -0.5
FVI    60.21 309 P     52 13.70  -1.1
GMB    60.33 299 P     52 15.46  -0.5
       0.7s    20.70nm          5.4mb
GRF    60.46 313 eP    52 16.90   0.4
       1.6s   260.00nm          6.1mb
     Z  22s     5.00um          5.6Msz
                e      52 18.60
                eS     00 38.70
ATN    60.64 299 P     52 16.68  -1.1
```

18d 12h

	1.2s	80.80nm		5.7mb	
WTTA	60.80	310	iPc	52 17.80	-1.3
	0.9s	110.00nm		6.0mb	
			i	52 19.70	
			i	52 23.90	
			i	53 03.60	
RFI	60.80	303	P	52 19.05	0.2
	1.5s	230.10nm		6.1mb	
FUR	60.80	311	iPc	52 19.50	0.6
			i	52 21.10	
SDI	60.80	303	P	52 17.90	-1.1
AOU	60.91	304	P	52 19.70	0.0
ARV	60.92	306	P	52 19.10	-0.6
SOTA	61.09	310	iPc	52 19.70	-1.3
	0.8s	52.20nm		5.7mb	
			i	52 21.60	
			i	52 26.10	
CTI	61.11	309	P	52 20.10	-1.0
RSM	61.14	306	P	52 21.20	0.1
ASS	61.24	305	P	52 23.70	1.8
MNO	61.28	299	P	52 22.02	-0.5
	0.2s	50.10nm		6.3mb	
OGA	61.31	310	iPc	52 21.40	-1.2
			i	52 23.30	
SFI	61.56	306	P	52 24.30	0.3
CRE	61.57	306	P	52 23.10	-1.2
RDP	61.58	304	P	52 24.40	0.1
PGD	61.66	306	P	52 25.05	0.1
	1.0s	97.80nm		5.9mb	
GIB	61.77	299	P	52 23.80	-1.8
OSS	61.94	310	iPc	52 25.90	-0.9
SAL	61.99	308	P	52 27.50	0.6
FIR	62.01	306	eP	52 28.00	0.9
TNS	62.06	314	ePd	52 28.60	1.2
MME	62.27	307	P	52 29.36	0.2
	1.1s	110.20nm		5.9mb	
BDI	62.38	307	P	52 29.20	-0.5
VDL	62.44	310	ePc	52 29.30	-0.9
SMY	62.48	43	eP	52 30.60	0.5
MDI	62.48	309	P	52 28.70	-1.5
PII	62.54	306	P	52 29.30	-1.2
WTS	62.58	316	eP	52 31.00	0.3
	1.0s	53.00nm		5.6mb	
BNS	62.64	315	iPd	52 32.00	0.8
LLS	62.64	310	ePc	52 30.50	-1.0
SLE	62.71	311	ePc	52 31.20	-0.5
LANF	62.81	313	P	52 32.08	-0.2
ZLA	62.86	311	ePc	52 31.90	-0.9
TMA	62.95	309	ePc	52 32.20	-1.3
BOB	62.96	308	P	52 33.70	0.2
FEL	62.99	312	P	52 32.76	-0.9
VAI	63.09	309	P	52 32.80	-1.3
LIBD	63.17	312	P	52 34.32	-0.4
MEEK	63.21	152	iPc	52 33.50	-1.7
	1.0s	86.00nm		5.8mb	
WLS	63.26	312	P	52 34.64	-0.7
CDF	63.31	312	P	52 34.82	-0.9
ECH	63.44	312	P	52 35.60	-0.9
ENN	63.46	315	eP	52 36.50	-0.1
	0.9s	23.00nm		5.3mb	
MOF	63.56	312	P	52 37.03	-0.4
MMK	63.57	310	ePc	52 36.90	-0.8
PCP	63.64	308	P	52 36.73	-1.2
WLF	63.64	314	iPc	52 38.52	0.8
ORX	63.68	309	P	52 35.36	-2.9
ORO	63.69	309	P	52 37.70	-0.6
BSF	63.79	312	P	52 38.22	-0.7
LOMF	63.91	311	P	52 38.81	-0.9
DIX	63.92	310	iPc	52 40.00	-0.1
PGF	63.96	306	P	52 39.17	-1.0
FIN	63.98	308	P	52 37.97	-2.2
ROB	64.18	308	P	52 40.26	-1.2
EMS	64.24	310	iPc	52 41.70	-0.4
LSD	64.29	309	P	52 42.09	-0.4
IMI	64.29	307	P	52 40.53	-1.7
RSP	64.32	309	P	52 41.58	-0.9
BHB	64.41	308	P	52 40.53	-2.4
DAG	64.45	346	eP	52 29.00	-13.7X
Z	20s	6.67um		5.8Msz	
			epP	52 42.00	45kmX
DOU	64.47	315	P	52 42.80	-0.4
			e	08 45.00	
SAOF	64.49	307	P	52 42.70	-0.8
ENR	64.51	308	P	52 41.95	-1.7
MRWA	64.52	155	eP	52 42.00	-1.7
	0.5s	8.00nm		5.1mb	
DOI	64.54	308	P	52 42.30	-1.6

STV	64.57	308	P	52 41.63	-2.4
RSL	64.57	310	P	52 43.56	-0.6
AUTN	64.58	308	P	52 43.91	-0.4
SBF	64.62	307	P	52 43.67	-0.7
PZZ	64.63	308	P	52 41.95	-2.6
AURF	64.68	307	P	52 43.91	-0.9
TOUF	64.69	308	P	52 44.28	-0.7
RRL	64.71	309	P	52 42.96	-2.2
BNI	64.74	309	P	52 46.20	1.0
MVIF	64.80	307	P	52 44.89	-0.8
GRN	65.30	309	P	52 48.67	-0.1
WRA	65.83	134	P	52 51.50	-0.8
	1.0s	5.00nm		4.6mb	X
BAL	66.03	155	eP	52 50.00	-3.4X
SSB	66.09	310	P	52 52.87	-0.9
EDR	66.26	323	ePc	52 56.30	1.6
PLDF	66.45	311	P	52 55.62	-0.5
WARB	66.47	145	eP	52 44.90	-11.4X
EDU	66.64	323	ePc	52 58.70	1.6
	1.4s	92.00nm		5.7mb	
ESY	66.65	322	ePc	52 58.60	1.4
	0.9s	62.00nm		5.7mb	
AGO	66.74	311	P	52 57.42	-0.5
PYM	66.93	311	P	52 58.82	-0.4
EDI	66.95	322	ePc	53 00.60	1.6
LBL	66.96	310	P	52 59.08	-0.3
LWI	67.08	253	iPc	52 59.90	-0.9
LWI	67.08	253	iP+	53 03.00	2.2
MUN	67.10	156	eP	52 58.00	-2.2
	1.0s	154.00nm		6.1mb	
EAU	67.12	322	ePc	53 01.90	1.8
	0.9s	97.00nm		5.9mb	
EKA	67.15	322	P	53 02.00	1.7
	1.1s	99.00nm		5.8mb	
KLB	67.30	155	eP	52 59.00	-2.5
BRW	67.98	19	eP	53 06.10	0.8
MTHF	68.28	308	P	53 08.93	1.2
ETER	68.31	307	eP	53 08.50	0.7
ASPA	68.39	137	eP	53 07.50	-1.1
	1.2s	110.60nm		5.8mb	
LSPF	68.71	308	P	53 11.65	1.3
TRGS	68.84	308	P	53 12.56	1.2
GRBF	69.00	308	P	53 13.01	0.8
LESF	69.09	308	P	53 13.72	1.0
ESEL	69.26	305	iPc	53 14.00	0.3
AKU	69.43	335	iPc	53 18.00	3.7X
	1.6s	213.33nm		6.0mb	
DMU	69.72	321	iPc	53 18.50	2.2
	1.2s	238.00nm		6.1mb	
DLF	69.76	321	eP	53 18.70	2.2
ENSF	69.82	308	P	53 19.13	1.8
DCN	70.15	321	iPc	53 21.00	2.1
	1.2s	204.00nm		6.1mb	
EGRA	70.51	308	iPd	53 19.00	-2.3
EBR	70.52	306	eP	53 22.00	0.6
EROQ	70.58	306	iPc	53 22.50	0.8
ELIZ	70.93	309	eP	53 25.00	1.1
IMA	71.81	23	ePc	53 29.50	0.6
	1.4s	65.60nm		5.5mb	
ECRI	71.81	309	eP	53 30.00	0.7
BCAO	72.15	264	iPd	53 30.00	-1.6
	0.8s	81.00nm		5.8mb	
			ic	53 36.00	
			ic	56 11.40	
			iS	01 57.00	
			id	02 53.60	
ETOR	72.27	307	iPd	53 31.00	-1.1
TTA	72.79	26	eP	53 36.90	2.2
EALH	73.12	304	iPc	53 38.00	1.1
EVIA	73.54	305	iPd	53 40.50	1.0
CTA	73.78	126	P	53 42.09	1.1
GUD	73.78	308	iPd	53 40.50	-0.4
EHUE	73.97	305	eP	53 42.50	0.5
SVW	73.98	27	eP	53 44.40	2.8
ENIJ	74.07	304	iPc	53 43.50	1.0
FBA	74.47	22	eP	53 45.00	0.7
	1.0s	78.90nm		5.7mb	
EBAN	74.65	305	eP	53 46.00	0.1
ECOG	74.90	304	eP	53 46.50	-1.0
ERUA	74.97	310	iPc	53 49.00	1.4
BGL	75.15	26	eP	53 49.37	1.0
EPLA	75.36	308	iPc	53 50.50	0.6
EHOR	75.83	306	iPc	53 53.00	0.4
PMR	76.16	25	eP	53 56.40	2.4
	1.2s	119.90nm		5.8mb	
Z	21s	3.60um		5.7Msz	
EPRU	76.22	305	iPc	53 55.00	0.1

CIR	76.43	235	iPc	53 57.00	0.8
SLKM	76.45	26	eP	53 56.17	0.5
ALJ	76.63	305	eP	53 56.00	-1.2
EJIF	76.64	304	iPc	53 56.50	-0.6
TOA	76.87	24	eP	54 01.30	3.2X
EVAL	76.99	306	eP	53 59.90	0.8
PLAT	77.00	304	eP	53 58.00	-1.2
SFS	77.15	305	eP	53 55.00	-5.0X
KDC	77.28	29	eP	54 01.10	0.9
KLU	77.38	24	eP	54 02.08	1.2
IFR	77.79	302	iPc	54 05.00	1.2
BUL	78.01	238	iPc	54 04.20	-0.8
	1.0s	99.00nm		5.8mb	
BALM	78.93	23	(P)	54 11.11	1.6
AVE	79.57	302	eP	54 11.00	-2.3
			i	54 35.00	
RMO	79.75	129	eP	54 15.20	0.9
	0.7s	35.00nm		5.5mb	
BFT	80.54	233	iPc	54 19.00	0.2
	1.2s	160.00nm		5.9mb	
CMS	81.28	135	eP	54 22.90	0.7
	1.6s	90.00nm		5.5mb	
SLR	81.79	234	iPc	54 25.30	0.1
	1.2s	90.00nm		5.7mb	
Z	18s	17.60um		6.5Msz	
KSR	82.83	234	iPd	54 31.00	0.4
	1.2s	120.00nm		5.9mb	
BRS	83.06	127	iP	54 32.00	0.4
PRY	83.10	233	iPd	54 32.00	0.0
	0.5s	41.00nm		5.8mb	
BFD	83.43	141	iPc	54 34.40	1.2
	0.9s	26.00nm		5.4mb	
SEK	83.89	232	iPc	54 35.50	-0.4
	1.0s	240.00nm		6.3mb	
ARMA	84.24	130	eP	54 38.20	0.6
	0.9s	21.00nm		5.3mb	
SIT	84.32	23	P	54 50.00	12.5X
Z	19s	3.61um		5.8Msz	
CRZF	84.42	206	eP	54 40.00	2.0
			eSP	05 24.00	
BWA	84.88	135	eP	54 42.90	2.3
TOO	85.34	139	eP	54 44.00	1.1
	0.8s	47.00nm		5.7mb	
BLF	85.36	232	eP	54 42.70	-0.6
	1.2s	240.00nm		6.3mb	
CAN	85.83	136	eP	54 44.80	-0.6
CNB	86.05	135	eP	54 50.00	3.5X
	0.9s	22.00nm		5.4mb	
FRS	86.35	232	eP	54 46.30	-1.6
	0.9s	50.00nm		5.7mb	
GRM	87.75	229	e(P)	55 03.00	8.2X
WIN	88.04	242	iPc	54 58.10	1.6
	1.5s	180.00nm		6.1mb	
Z	18s	8.81um		6.2Msz	
POF	89.85	235	iPc	55 07.00	2.3
	1.0s	30.00nm		5.5mb	
DZM	89.91	116	iPc	55 07.80	2.5
TAU	90.08	142	eP	55 05.00	-0.5
FCC	90.66	2	eP	55 12.50	4.4X
KIC	91.15	278	PKP	55 13.20	2.1
	1.0s	35.00nm		5.7mb	
TIC	91.24	278	PKP	55 13.80	2.2
LIC	91.46	278	PKP	55 14.40	1.8
CER	92.62	232	eP	55 04.50	-13.0X
	1.0s	100.00nm			
HON	96.38	61	P	55 50.00	14.9X
Z	20s	1.34um		5.4Msz	
SES	96.93	14	eP	55 39.00	1.8
ULM	99.08	4	eP	55 51.50	4.7X
CBM	100.19	345	Pdiff	56 00.00	8.3X
Z	21s	3.94um		5.9Msz	
BGMT	101.59	16	ePdiff	56 01.10	2.8
WDC	102.68	25	Pdiff	56 10.00	7.1X
Z	21s	1.77um		5.5Msz	
RSNY	103.72	349	Pdiff	56 20.00	12.5X
Z	21s	1.83um		5.6Msz	
CMB	105.71	25	PKP	00 40.00	10.5X
Z	20s	0.80um		5.2Msz	
SAO	106.44	26	ePdiff	56 29.68	9.9X
Z	19s	2.00um		5.7Msz	
N	20s	1.00um			
E	19s	1.40um			
			ePP	00 49.68	
			ePPP	03 04.68	
			ePS	09 58.68	
			ePPS	11 09.68	
			eSPP	11 21.68	

```
                    e      26 53.68
                   eLQ     30 18.68
                   eLR     34 01.68
GLD   108.29  13 PKP   00 40.00   5.4X
      Z  19s     3.87um          6.0Msz
GOL   108.31  13 PKP   00 50.00  15.3X
      Z  19s     0.73um          5.3Msz
ISA   108.51  24 PKP   00 50.00  15.1X
      Z  19s     1.67um          5.6Msz
MCWV  109.28 352 PKP   00 50.00  13.8X
      Z  20s     1.96um          5.7Msz
SLM   110.88   1 PKP   00 50.00  10.8X
      Z  18s     1.88um          5.7Msz
FVM   111.53   1 PKP   00 50.00   9.5X
      Z  20s     8.58um          6.3Msz
ACO   112.23   8 iPKPc 00 41.60  -0.3
ALQ   112.68  15 (PKP) 00 44.16   1.1
      Z  20s     0.40um          5.0Msz
                    e      01 37.52
CEH   112.89 351 PKP   00 50.00   6.9X
      Z  18s     2.24um          5.8Msz
TUC   114.08  20 ePKP  00 42.04  -3.7X
      Z  18s     2.05um          5.8Msz
WMOK  114.21   8 PKP   01 00.00  14.2X
      Z  19s     2.71um          5.9Msz
MIAR  114.86   4 PKP   01 00.00  13.0X
      Z  20s     3.12um          5.9Msz
SPA   120.66 180 iPKPd 00 56.80  -0.4
       1.1s     24.40nm
      Z  20s     1.62um          5.7Msz
MRX   128.54  14 (PKP) 01 16.00   2.5
PPM   129.64  11 (PKP) 01 16.00  -0.4
EVV   130.68   7 (PKP) 01 18.00   0.4
OXX   131.87   9 (PKP) 01 23.00   2.8
SIV   150.03 293 PKPc  01 56.50   4.5X
LPA   153.13 253 ePKP- 01 58.00   2.0
      Z  20s     1.42um          5.8Msz
CCH   154.79 297 ePKP  02 05.00   5.9X
LPB   155.74 301 PKP   02 03.10   2.5
                  LR   59 24.00
CNCB  155.83 300 PKP   02 03.60   2.7
NNA   157.82 325 ePKP  02 04.30   1.5
MDZ   162.23 258 i(PKP)02 10.10   3.1X
      S.D. = 1.3  on 355 of 412 obs.
-----------------------------------
?  JAN  18, 1993  12h 46m 56.61± 4.48s
   18.176 N ±18.6km   76.696 W ±31.7km
   DEPTH =  10.0km  (geophysicist)
 JAMAICA REGION                    ( 86)
      MD 2.4 (HOJ). Felt (II) at
      Portland.

GWJ    0.11 202 iPc    46 59.47  -0.1
                  S    47 02.52
STH    0.15 229 iP     47 00.21   0.1
                  S    47 03.09
HOJ    0.18 197 iP     47 00.16  -0.5
                  S    47 02.86
BBJ    0.58 291 iP     47 08.75   0.3
                  S    47 16.95
PCJ    0.62 226 iPd    47 09.83   0.7
                  S    47 17.72
SPJ    0.84 258 iP     47 11.89  -1.0
                  S    47 18.08
      S.D. = 0.8  on   6 of   6 obs.
-----------------------------------
?  JAN  18, 1993  13h 02m 02.24± 4.95s
   40.603 N ±41.4km   22.991 E ± 9.1km
   DEPTH =  10.0km  (geophysicist)
 GREECE                            (364)

THE    0.04 326 ePg    02 04.04  -0.2
                  eSg  02 05.60
SOH    0.35  51 ePg    02 09.56   0.0
                  iSg  02 14.72
KNT    0.56 353 ePg    02 13.56  -0.1
                  eSg  02 21.80
GRG    0.57 308 iPg    02 14.08   0.2
                  eSg  02 23.00
      S.D. = 0.4  on   4 of   4 obs.
-----------------------------------
   JAN  18, 1993  13h 16m 14.16± 0.96s
   41.264 N ± 9.5km   22.741 E ± 6.0km
   DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION        (383)
      ML 1.0 (SKO).

VAY    0.14 294 iPg    16 17.30  -0.2
                  iSg  16 19.80
KNT    0.16 131 iPg    16 17.60  -0.2
                  eSg  16 19.88
GRG    0.40 220 iPg    16 22.64   0.3
                  iSg  16 29.28
SOH    0.64 133 ePg    16 27.08   0.0
THE    0.65 165 iPg    16 26.92  -0.3
                  eSg  16 36.72
SRS    0.66 103 ePg    16 27.60   0.3
                  eSg  16 34.68
      S.D. = 0.3  on   6 of   6 obs.
-----------------------------------
   JAN  18, 1993  13h 28m 06.62± 0.50s
   30.817 N ± 8.5km   90.439 E ± 6.2km
   DEPTH =  33.0km  (normal)
   4.2mb (  8 obs.)
 XIZANG                            (306)

LSA    1.27 151 Pg     28 26.50  -2.1
                  Sg   28 42.60
GUN    4.92 235 P      29 21.26   0.7
KKN    5.42 237 P      29 27.72   0.3
PKI    5.46 235 P      29 28.34   0.3
DMN    5.65 237 P      29 31.10   0.4
GKN    5.79 242 P      29 33.38   0.8
NDI   11.69 263 eP     30 53.50  -0.6
       0.5s    10.56nm          5.3mb X
                  eS   32 56.00
WMO   13.16 351 eP     31 12.60  -1.2
GYA   14.89 103 P      31 36.00  -0.6
       0.8s     9.40nm          4.2mb
XAN   15.93  74 P      31 52.50   2.5
       0.4s     4.00nm          3.9mb
HYB   17.18 222 eP     32 03.00  -2.7
TIY   19.41  63 eP     32 31.70  -1.3
WHN   20.56  85 P      32 44.80  -0.3
GBA   20.90 218 P      32 50.00   1.3
NAO   58.64 326 P      38 02.80   0.2
       0.9s     5.30nm          4.6mb
GEC2  59.13 311 ePc    38 05.90  -0.4
       0.7s     0.86nm          4.0mb
WRA   65.78 134 P      38 51.50   0.8
       0.6s     0.30nm          3.6mb
WB2   65.78 134 eP     38 50.60  -0.2
       0.8s     4.30nm          4.6mb
ASPA  68.34 137 eP     39 09.00   2.0
       0.8s     4.30nm          4.6mb
YKA   84.86  11 eP     40 39.00   0.1
       0.8s     0.50nm          3.8mb
      S.D. = 1.3  on  20 of  20 obs.
-----------------------------------
*  JAN  18, 1993  14h 42m 00.39± 0.70s
    5.839 N ± 7.9km   71.676 W ±13.3km
   DEPTH =  33.0km  (normal)
 COLOMBIA                          (103)

BMG    1.85 311 iPc    42 47.00  16.5X
BOG    2.67 243 iPd    42 42.00  -0.3
                  iS   43 13.00
SDV    3.20  19 iPnd   42 51.10   1.4
                  iSn  43 29.20
TOV    4.34  25 ePn    43 05.60  -0.3
                  iSn  43 55.80
CEOS   4.59  46 iP     43 15.00   5.6X
MORO   6.00  33 iP     43 28.30  -1.1
OLLA   6.37  49 iP     43 38.60   4.1X
GUAN   7.24  55 iP     43 51.70   5.0X
LPB   22.51 171 (P)    47 00.00   0.9
CNCB  22.80 171 P      47 01.10  -1.1
CCH   23.71 167 (P)    47 11.40   0.7
SIV   24.10 154 P      47 18.00   3.8X
BAO   31.71 133 Pd     48 23.60  -0.1
      S.D. = 1.1  on   8 of  13 obs.
-----------------------------------
   JAN  18, 1993  14h 49m 43.73± 0.42s
   30.865 N ± 7.5km   90.450 E ± 5.6km
   DEPTH =  33.0km  (normal)
   4.5mb ( 15 obs.)
 XIZANG                            (306)

LSA    1.31 152 Pg     50 05.00  -1.3
                  Sg   50 21.50
GUN    4.96 235 P      50 59.44   1.3
KKN    5.46 237 P      51 05.62   0.6
PKI    5.49 235 P      51 06.40   0.7
DMN    5.69 237 P      51 08.58   0.2

GKN    5.82 242 P      51 09.70  -0.4
CD2   11.43  86 eP     52 29.30   1.5
NDI   11.70 263 eP     52 30.00  -1.4
       0.5s    10.56nm          5.3mb
                  eS   54 32.00
WMO   13.12 351 eP     52 48.60  -1.7
CHG   14.25 145 eP     53 04.00  -1.3
KSH   14.60 310 eP     53 17.30   7.5X
       0.5s    20.00nm          4.8mb
GYA   14.89 103 P      53 13.00  -0.7
       0.8s     9.40nm          4.2mb
                  pP   53 21.40
XAN   15.91  74 P      53 29.80   3.0
       0.4s     3.50nm          3.9mb
                  sP   53 36.80
HYB   17.22 222 eP     53 39.00  -4.4X
TIY   19.38  63 eP     54 09.00  -0.8
POO   19.42 235 eP     54 14.50   4.3X
HHC   19.76  54 eP     54 12.00  -1.9
       1.2s    12.00nm          4.1mb
WHN   20.55  85 eP     54 19.50  -2.6
GBA   20.95 218 P      54 27.00   0.8
                  S    58 01.00
BJI   22.80  59 eP     54 47.00   2.4
       1.2s    16.00nm          4.4mb
MAIO  26.29 290 eP     55 14.00  -4.1X
HFS   57.28 325 eP     59 29.70  -0.5
       0.5s     2.00nm          4.4mb
NAO   58.61 326 P      59 39.00  -0.5
       0.7s     5.80nm          4.8mb
GEC2  59.11 311 ePd    59 43.30   0.1
       0.7s     4.82nm          4.7mb
                  e    59 46.90
GRF   60.49 313 eP     59 53.00   0.4
WRA   65.80 134 P      00 28.50   0.5
       0.7s     0.50nm          3.7mb
WB2   65.81 134 iPc    00 28.00  -0.1
       0.8s     6.60nm          4.8mb
ASPA  68.37 137 eP     00 44.20  -0.1
       1.1s     7.40nm          4.7mb
FBA   74.42  22 eP     01 22.00   2.2
       0.6s     3.20nm          4.5mb
BUL   78.08 238 iPd    01 41.00  -0.3
       0.8s     7.46nm          4.8mb
YKA   84.81  11 eP     02 15.70   0.0
       0.9s     0.80nm          3.9mb
      S.D. = 1.4  on  27 of  31 obs.
-----------------------------------
&  JAN  18, 1993  14h 59m 41.51s
   33.200 N          115.596 W
   DEPTH =   4.4km
 SOUTHERN CALIFORNIA               ( 43)
      <PAS-P>. ML 3.1 (PAS). Felt.

GLA    0.66 103 iPd    59 53.46  -1.3
PEC    1.48 298 eP     00 05.87  -3.0
SSK    2.02 301 eP     00 15.43  -1.4
                  eSg  00 44.60
GSC    2.32 335 eP     00 23.61   2.4
BONR   5.23 336 ePn    01 05.03   2.4
                  ePg  01 19.93
MSU    5.99  27 ePn    01 16.88   3.7
SRU    7.18  33 (Pn)   01 32.75   2.7
       7 obs. associated
-----------------------------------
?  JAN  18, 1993  15h 35m 32.06± 2.61s
   31.164 N ±19.8km   89.811 E ±38.5km
   DEPTH =  33.0km  (normal)
   4.0mb (  1 obs.)
 XIZANG                            (306)

GUN    4.72 228 P      36 42.78  -0.3
KKN    5.19 231 P      36 49.34  -0.3
PKI    5.25 228 P      36 50.14  -0.5
DMN    5.42 230 P      36 52.82  -0.1
GKN    5.50 236 P      36 54.84   0.9
GBA   20.86 216 P      40 14.00   0.4
GEC2  58.50 311 eP     45 27.20  -0.1
       0.9s     1.24nm          4.0mb
                  e    45 30.10
      S.D. = 0.6  on   7 of   7 obs.
-----------------------------------
   JAN  18, 1993  15h 39m 33.99± 0.27s
    5.172 S ± 6.0km  153.884 E ± 5.5km
   DEPTH =  68.3km  (  2 depth phases)
   5.4mb ( 17 obs.)
 NEW IRELAND REGION, P.N.G.        (190)
```

18d 15h

```
RAB      1.97 299 eP    40 10.00   4.2X
                eS    40 35.00
HNR      7.35 125 eP    41 22.00   1.0
                eS    42 36.00
PMG      7.89 237 eP    41 30.00   1.6
BKM     18.75 133 iPd   43 50.90   0.6
DZM     20.74 145 iPc   44 09.10  -2.3
RMO     21.76 192 iPc   44 21.30  -0.3
        0.4s    10.00nm          4.6mb
BRS     22.12 183 iP    44 25.40   0.2
WB2     24.02 231 eP    44 43.70   0.0
        0.5s    17.10nm          4.8mb
                i     44 56.60
ARMA    25.20 185 eP    44 55.00  -0.1
        0.8s    15.00nm          4.5mb
CMS     27.25 195 eP    45 12.90  -0.8
        0.4s     3.00nm          4.2mb X
AFR     56.39 108 iPd   49 11.30   0.3
        0.9s    78.30nm          5.8mb
PPT     56.58 108 iPd   49 12.90   0.4
        0.8s    46.20nm          5.6mb
PPN     56.72 107 iPd   49 14.00   0.6
        0.8s    48.60nm          5.6mb
TVO     56.91 108 iPd   49 15.50   0.7
        0.7s    64.40nm          5.8mb
TIY     57.49 321 eP    49 18.20  -0.4
XAN     57.64 316 P     49 19.00  -0.6
        0.4s     5.00nm          5.0mb
                pP    49 36.30  66km
PMO     58.00 104 iPd   49 22.40   0.0
        0.9s    65.20nm          5.8mb
TPT     58.26 104 iPd   49 24.20   0.0
        1.0s    44.40nm          5.5mb
VAH     58.27 105 iPd   49 24.20  -0.1
        1.0s    49.60nm          5.6mb
KHT     58.27 291 eP    49 24.50   0.2
RUV     58.50 105 iPd   49 25.70  -0.2
        0.9s    30.50nm          5.4mb
CHG     59.12 295 eP    49 30.50   0.3
CD2     59.80 310 eP    49 35.00   0.3
BTO     60.74 323 eP    49 43.60   2.6
LZH     62.25 315 eP    49 51.00  -0.4
        1.4s    26.00nm          5.2mb
                pP    50 09.50  71km
GTA     66.66 317 P     50 20.00   0.1
        1.0s    14.00nm          4.9mb
YAK     69.53 348 eP    50 37.00  -0.1
GUN     73.24 301 P     51 00.32  -0.2
        0.7s    34.00nm          5.4mb
PKI     73.55 301 P     51 01.70  -0.6
        0.8s    16.00nm          5.0mb
KKN     73.72 301 P     51 02.82  -0.3
DMN     73.82 301 P     51 03.54  -0.2
GKN     74.32 301 P     51 06.10  -0.4
        0.9s   340.00nm          6.3mb
WMQ     76.75 317 P     51 20.00   0.1
FBA     81.83  22 ePc    51 46.80   0.1
        1.0s     2.50nm          4.1mb X
QUE     89.92 300 eP    52 35.00   7.4X
GEC2   124.93 329 ePKP  58 25.80  -2.2
        0.5s     0.66nm
                e     58 29.40
                e     58 37.20
      S.D. = 0.9  on  34 of  36 obs.
-----------------------------------
&  JAN  18, 1993  16h 29m 59.24s
   36.175 N          118.034 W
   DEPTH =   0.1km
 CENTRAL CALIFORNIA                ( 39)
      <PAS-P>. ML 2.9 (PAS), 2.7 (GS).

ISA      0.62 215 ePc    30 10.76  -0.9
                eS    30 19.04
MTUM     1.25 340 iPc    30 22.00  -1.5
GSC      1.33 131 eP     30 23.70  -1.0
MRCM     1.54 346 eP     30 27.56  -0.7
                eS    30 48.18
BONR     1.79 353 ePn    30 30.91  -1.0
BCH      1.94 240 eP     30 33.52  -0.4
                eS    30 57.40
SSK      1.98 172 ePn    30 34.55   0.0
                eS    31 01.60
TNP      2.01  19 ePn    30 32.79  -2.2
PEC      2.39 162 eP     30 39.26  -1.1
CMB      2.64 315 ePn    30 43.68  -0.2
                eS    31 18.15
COE      3.12 291 (Pn)   30 51.91   1.3

        11 obs. associated
-----------------------------------
*  JAN  18, 1993  18h 05m 37.37± 0.96s
   41.618 N ± 6.8km   19.806 E ± 8.1km
   DEPTH =  10.0km  (geophysicist)
 ALBANIA                           (391)
      ML 2.3 (TIR).

TIR      0.27 171 iPgc   05 43.10   0.0
                iSg   05 48.70
PHP      0.48  82 iPgc   05 46.90  -0.2
                iSg   05 55.90
SDA      0.49 332 iPgc   05 47.30   0.0
                iSg   05 55.00
OHR      0.90 124 iPg    05 54.80   0.1
                iSg   06 09.80
SKO      1.27  73 ePn    06 01.20   0.2
                i     06 02.50
VAY      2.10  97 ePn    06 16.40   3.4X
      S.D. = 0.2  on   5 of   6 obs.
-----------------------------------
%  JAN  18, 1993  18h 08m 00.82± 1.87s
   33.738 S ± 8.5km   71.202 W ± 8.6km
   DEPTH =  55.2 ± 22.4 km
 NEAR COAST OF CENTRAL CHILE       (135)
      MD 3.5 (SAN).

TACH     0.24  69 iP+    08 10.13   0.1
                iS    08 17.27
LNV      0.28 219 iP     08 10.35   0.0
                iS    08 17.59
LCCH     0.40 310 iP     08 11.26  -0.2
CHCH     0.50 113 iP+    08 12.47  -0.1
                iS    08 21.08
SAN      0.53  58 (P)    08 11.14  -1.8X
                iS    08 22.52
PCH      0.59  79 iP     08 13.27  -0.3
                iS    08 23.37
CACH     0.63 127 iP     08 14.38   0.2
                iS    08 25.40
PEL      0.73  36 iP     08 15.83   0.4
                iS    08 26.93
ROCH     0.78  12 iPd    08 16.24   0.1
                iS    08 28.27
FCH      0.86  62 iP     08 17.09  -0.3
                iS    08 29.96
JACH     1.17  26 iP     08 21.28   0.0
                iS    08 37.05
      S.D. = 0.3  on  10 of  11 obs.
-----------------------------------
   JAN  18, 1993  18h 45m 24.46± 0.55s
   42.580 N ± 5.2km   19.492 E ± 4.5km
   DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION        (383)
      MD 2.2 (TTG).

TTG      0.23 229 iPgc   45 29.56   0.2
                iSg   45 34.26
PVY      0.36  87 iPgc   45 30.96  -0.9
                iSg   45 36.04
IVA      0.42  46 iPgd   45 32.98   0.0
                iSg   45 39.17
NKY      0.43 303 iPgc   45 33.88   0.6
                iSg   45 41.89
BDV      0.57 239 iPgd   45 35.83  -0.3
                iSg   45 45.46
ULC      0.64 196 iPgd   45 36.39  -0.9
                iSg   45 46.46
HCY      0.75 260 iPgd   45 38.83  -0.2
                iSg   45 51.41
PLE      0.75 355 iPgc   45 39.36   0.1
                iSg   45 51.16
BRY      0.77 295 iPgd   45 39.33  -0.2
                iSg   45 52.63
OHR      1.76 146 ePn    45 57.00   1.7
      S.D. = 0.9  on  10 of  10 obs.
-----------------------------------
   JAN  18, 1993  19h 08m 37.25± 0.66s
   42.594 N ± 6.2km   19.479 E ± 5.4km
   DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION        (383)
      ML 1.7 (TTG).

TTG      0.23 225 iPgc   08 42.17   0.0
                iSg   08 46.54
PVY      0.37  90 iPgc   08 43.59  -1.2
                iSg   08 48.81

IVA      0.42  48 iPgd   08 45.56  -0.2
                iSg   08 52.27
NKY      0.42 302 iPgd   08 46.45   0.7
                iSg   08 54.56
BDV      0.57 237 iPgd   08 48.42  -0.5
                iSg   08 57.54
ULC      0.65 195 iPgd   08 48.97  -1.3
                iSg   08 57.95
PLE      0.74 355 iPgd   08 51.90   0.1
                iSg   09 04.09
HCY      0.74 259 iPgc   08 51.66  -0.1
                iSg   09 03.75
BRY      0.75 294 iPgd   08 51.96  -0.1
                iSg   09 05.10
OHR      1.78 146 ePn    09 11.00   2.7
      S.D. = 1.3  on  10 of  10 obs.
-----------------------------------
   JAN  18, 1993  19h 19m 08.31± 0.18s
   41.584 N ± 2.2km   19.613 E ± 1.8km
   DEPTH =  10.0km  (geophysicist)
   4.2mb (  4 obs.)
 ALBANIA                           (391)
      ML 4.0 (TIR), 4.0 (ROM). MD 3.6
      (TTG).

TIR      0.30 141 iPgc   19 16.50   1.9
                iSg   19 21.80
ULC      0.47 324 iPgd   19 20.44   2.6
                iSg   19 27.12
SDA      0.48 350 iPgd   19 20.30   2.3
                iSg   19 28.10
PHP      0.63  81 iPgd   19 19.90  -1.1
                iSg   19 28.40
TTG      0.88 343 iPgc   19 26.62   1.4
                iSg   19 38.72
BDV      0.91 320 iPgd   19 28.03   2.3
                iSg   19 41.43
OHR      1.01 117 iPgc   19 27.30  -0.2
      0.7s  1986.00nm
                iSg   19 42.50
                Lg    19 47.50
PVY      1.05  15 iPgd   19 28.23   0.1
                iSg   19 41.98
VLO      1.12 185 iPnd   19 21.50  -7.8X
                iSn   19 49.00
HCY      1.20 316 iPgc   19 32.99   2.4
                iSg   19 51.00
IVA      1.30   9 iPgd   19 33.24   0.7
                iSg   19 50.50
NKY      1.31 340 iPgd   19 34.19   1.6
                iSg   19 52.58
TPE      1.32 167 iPnd   19 32.00  -0.7
                iSn   19 50.00
SKO      1.42  74 iPnd   19 34.00  -0.2
      0.6s  2284.00nm
                i     19 35.50
                iSn   19 52.00
                i     19 53.30
                Lg    19 54.00
BRY      1.54 329 iPgc   19 38.15   2.2
                iSg   19 59.74
FNA      1.55 120 ePb    19 36.78   0.7
                eSb   19 57.60
LSK      1.62 152 iPnc   19 38.30   1.3
                iSn   20 01.60
SRN      1.73 170 ePn    19 40.80   2.3
                iSn   20 04.90
PLE      1.75 355 iPnd   19 40.70   1.7
                iSn   20 03.55
LCI      1.77 226 P      19 40.00   0.8
KEK      1.87 176 ePg    19 41.40   0.7
BRT      1.95 250 P      19 43.20   1.4
KZN      2.07 127 ePb    19 45.10   1.5
BAI      2.12 258 P      19 45.30   1.1
IGT      2.12 165 ePn    19 45.16   0.9
                eSn   20 12.72
GRG      2.19 106 ePn    19 45.80   0.4
                eSn   20 12.40
VAY      2.24  96 iPnd   19 45.70  -0.3
      0.8s  1440.00nm
                i     20 12.00
                i     20 17.40
                Lg    20 24.00
KNT      2.51  99 iPn    19 49.42  -0.4
                eSn   20 20.72
KKB      2.61  83 iPd    19 52.00   0.7
LIT      2.64 123 iPn    19 52.72   1.0
```

THE	2.71	109	iPn	19	52.65	0.0
			eSn	20	22.96	
HVAR	2.83	305	iPn	19	54.70	0.3
ORI	2.84	239	P	19	55.00	0.4
VTS	2.86	68	iPd	19	55.00	0.1
SOH	2.92	104	ePn	19	55.80	0.1
SRS	3.03	98	ePn	19	56.92	-0.3
MMB	3.09	89	iPd	19	58.00	0.0
TDS	3.15	233	P	19	58.70	-0.2
			eSn	20	35.50	
AGG	3.30	140	ePn	20	02.00	1.0
			eSn	20	40.80	
MGR	3.40	246	P	20	03.50	1.0
			eSn	20	41.20	
SGO	3.41	254	P	20	03.40	0.8
			eSn	20	41.20	
VLS	3.48	167	ePn	20	01.90	-1.8
PAIG	3.50	117	iPn	20	03.42	-0.5
			eSn	20	43.56	
PGB	3.52	73	iPd	20	04.00	-0.3
OUR	3.54	109	ePn	20	04.04	-0.3
GRI	3.69	223	P	20	06.03	-0.6
RZN	3.83	87	iPd	20	08.00	-0.7
PLD	3.84	81	iPd	20	09.00	0.3
RFI	4.24	268	P	20	15.73	1.4
BZS	4.29	19	iPc	20	09.00	-6.0X
SDI	4.35	274	Pd	20	17.00	1.0
			eSn	21	04.00	
KDZ	4.35	87	iPc	20	15.00	-1.0
DIM	4.45	82	eP	20	17.00	-0.3
SOI	4.45	219	P	20	16.00	-1.3
			eSn	21	08.00	
GMB	4.47	221	P	20	16.97	-0.8
PVL	4.54	67	iPc	20	17.00	-1.6
ATN	4.68	224	P	20	19.70	-1.0
			eSn	21	10.30	
AOU	4.69	281	P	20	21.50	0.6
ATH	4.80	137	ePn	20	19.00	-3.3X
ALN	4.90	96	ePn	20	22.72	-1.0
			eSn	21	15.84	
DEV	4.91	28	ePc	20	32.00	8.1X
ZAG	4.98	329	i(Pn)	20	25.20	0.4
VBY	5.04	323	ePn	20	26.40	0.7
			e	22	05.00	
PTJ	5.06	330	iPnd	20	25.90	-0.2
			iSn	21	18.20	
UZD	5.06	352	ePn	20	25.30	-0.7
COZ	5.08	41	iPc	20	27.00	0.6
MNO	5.26	228	P	20	29.60	0.5
JMB	5.27	78	iPc	20	28.00	-0.9
ARV	5.29	293	P	20	28.80	-0.5
RIY	5.35	316	ePn	20	29.80	-0.2
ASS	5.36	288	P	20	30.50	0.1
MTUR	5.39	46	iPc	20	31.00	0.3
EZN	5.39	107	ePn	20	31.00	0.3
CMP	5.40	45	ePd	20	31.00	0.1
VLI	5.50	151	ePn	20	31.00	-1.3
CEY	5.60	320	iPnc	20	33.60	-0.1
			eSn	21	37.00	
RSM	5.77	296	P	20	35.70	-0.3
			eSn	21	39.30	
LJU	5.78	322	ePn	20	36.00	-0.1
			eSn	21	43.00	
BUD	5.91	356	ePn	20	36.50	-1.5
TRI	5.92	316	P	20	36.80	-1.2
CRE	6.01	292	P	20	39.10	-0.4
MLR	6.03	48	eP	20	40.00	0.2
VOY	6.07	319	iPn	20	39.50	-0.8
			eSn	21	46.90	
SFI	6.17	295	P	20	41.60	-0.1
			eSn	21	46.90	
ISR	6.17	53	ePc	20	43.10	1.3
SRO	6.30	352	eP	20	45.30	1.9
PSZ	6.34	2	ePn	20	42.70	-1.4
CVO	6.37	46	ePc	20	45.50	1.0
SOP	6.48	341	e(P)	21	05.00	19.0X
FIR	6.54	292	ePn	20	49.00	2.1
			e(Sn)	22	06.00	
PSN	6.66	69	eP	20	47.00	-1.6
VRI	6.70	48	ePc	20	49.50	0.4
ZST	6.85	346	eP	20	55.70	4.5X
FVI	7.02	318	P	20	52.20	-1.3
PII	7.03	291	P	20	53.00	-0.8
MME	7.05	295	P	20	53.40	-0.8
BDI	7.08	293	P	20	53.00	-1.5
KBA	7.10	323	iPnd	20	54.10	-0.7
			iSn	22	13.50	

			iSgSg	23	04.60	
DST	7.14	103	ePn	20	54.50	-0.9
CTI	7.28	310	P	20	55.40	-2.0
CLI	7.42	45	ePc	20	59.00	-0.3
SPC	7.62	3	eP	21	02.00	-0.1
SAL	7.72	304	P	21	01.90	-1.6
BHG	7.79	324	eP	21	04.20	-0.2
PGF	7.96	280	Pn	21	06.30	-0.6
WTTA	8.05	318	iPnc	21	06.90	-1.3
			i	21	28.50	
			iSn	22	38.40	
			iSgSg	23	39.00	
BOB	8.08	297	P	21	07.00	-1.6
OGA	8.12	313	eP	21	07.20	-2.0
SOTA	8.24	316	iPnd	21	10.00	-0.8
			i	21	24.80	
			i	22	26.20	
			i	22	43.50	
KHC	8.66	333	ePn	21	15.50	-1.0
			ePg	21	44.50	
			eSn	22	24.50	
			eSg	23	03.50	
VAI	8.94	302	P	21	17.30	-3.1X
PRU	9.12	339	ePn	21	22.00	-0.8
			e	23	17.00	
ORO	9.35	299	P	21	22.30	-3.9X
FRF	9.77	286	Pn	21	30.40	-1.5
LMR	9.84	285	Pn	21	31.50	-1.4
LRG	9.96	285	Pn	21	33.30	-1.2
BNI	10.05	295	P	21	35.70	-0.1
LPG	10.12	297	Pn	21	33.30	-3.7X
			Sn	23	21.60	
LPL	10.14	297	Pn	21	33.30	-3.9X
			Sn	23	18.40	
BSF	11.05	309	Pn	21	46.50	-3.0X
CDF	11.08	312	Pn	21	46.20	-3.7X
HAU	11.40	309	Pn	21	50.90	-3.2X
SMF	12.41	299	Pn	22	03.30	-4.5X
			Sn	24	14.80	
LBF	12.43	301	Pn	22	04.80	-3.3X
			Sn	24	15.10	
LOR	12.61	302	Pn	22	06.90	-3.5X
			Sn	24	19.90	
SSF	12.76	301	Pn	22	08.10	-4.4X
AVF	12.77	300	Pn	22	08.60	-4.0X
BGF	13.04	298	Pn	22	13.20	-3.0X
NUR	19.20	8	eP	23	31.00	-3.6X
	0.7s		10.50nm			4.2mb
NAO	20.00	347	P	23	38.90	-4.7X
	0.6s		2.20nm			3.7mb
KAF	20.95	9	iP	23	49.50	-3.9X
	0.6s		7.30nm			4.2mb
IMA	72.56	357	eP	30	35.70	-1.4
	1.0s		2.00nm			4.2mb
	S.D. = 1.1		on 110 of 132 obs.			

JAN 18, 1993 19h 25m 28.97± 0.35s
41.546 N ± 4.3km 19.701 E ± 3.4km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
MD 3.3 (ATH). ML 3.0 (TIR), 3.0 (TTG).

SDA	0.53	343	iPgc	25	40.20	0.6
ULC	0.54	321	iPgd	25	40.28	0.5
			iSg	25	47.94	
PHP	0.57	76	iPgd	25	29.40	-11.2X
			iSg	25	47.40	
OHR	0.93	117	iPg	25	46.50	-0.3
	0.6s		154.00nm			
			iSg	26	01.50	
			Lg	26	03.60	
TTG	0.94	340	iPgc	25	46.78	-0.1
			iSg	26	01.04	
BDV	0.98	319	iPgc	25	48.08	0.4
			iSg	26	02.66	
PVY	1.07	11	iPgd	25	48.31	-0.8
			iSg	26	04.40	
HCY	1.27	316	iPgc	25	53.04	0.5
			iSg	26	11.38	
IVA	1.33	6	iPgc	25	53.53	-0.1
			iSg	26	13.38	
NKY	1.37	338	iPgd	25	54.63	0.5
			iSg	26	14.06	
SKO	1.37	71	ePn	25	53.70	-0.4
	1.0s		518.00nm			
			i	25	55.00	

			iSn	26	13.30	
			Lg	26	15.30	
FNA	1.48	121	ePb	25	56.94	1.3
			eSb	26	17.06	
BRY	1.60	328	iPgd	25	58.11	0.6
			iSg	26	21.33	
LCI	1.79	228	P	26	02.50	2.3
PLE	1.80	353	iPnd	26	01.75	1.4
			iSn	26	25.80	
KEK	1.83	178	ePn	26	05.00	4.3X
KZN	2.00	128	ePn	26	06.00	2.8
			eSn	26	32.00	
BRT	2.00	251	P	26	03.20	0.0
IGT	2.07	166	ePn	26	08.06	3.9X
GRG	2.12	105	ePn	26	05.22	0.3
			eSn	26	31.62	
VAY	2.17	95	iPn	26	05.40	-0.2
BAI	2.18	260	P	26	05.00	-0.7
KNT	2.44	98	iPn	26	09.10	-0.4
LIT	2.56	123	ePn	26	11.46	0.2
			eSn	26	45.18	
SOH	2.85	104	ePn	26	13.30	-2.1
HVAR	2.91	305	i(Pn)	26	15.30	-0.9
SRS	2.96	97	ePn	26	16.54	-0.4
MGR	3.45	247	Pd	26	22.80	-1.0
			eSn	26	56.00	
OUR	3.46	109	ePn	26	22.74	-1.2
SGO	3.46	255	P	26	22.90	-1.1
SDI	4.41	274	P	26	36.90	-0.7
ASS	5.44	289	P	26	51.00	-1.1
	S.D. = 1.1		on 29 of 32 obs.			

JAN 18, 1993 19h 27m 10.03± 0.51s
41.655 N ± 5.1km 19.846 E ± 4.0km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
ML 2.8 (TTG), 2.4 (TIR).

PHP	0.45	86	iPgd	27	18.90	-0.2
			iSg	27	26.90	
SDA	0.47	327	ePg	27	21.00	1.3
ULC	0.54	305	iPgd	27	19.86	-1.1
			iSg	27	28.32	
TTG	0.89	331	iPgd	27	26.67	-0.4
			iSg	27	41.26	
OHR	0.90	127	ePg	27	26.50	-0.8
	0.6s		74.00nm			
			iSg	27	41.20	
			Lg	27	43.20	
PVY	0.94	6	iPgc	27	28.26	0.2
			iSg	27	44.07	
BDV	0.99	310	iPgc	27	27.97	-0.8
			iSg	27	42.98	
IVA	1.22	2	iPgc	27	33.30	0.6
			iSg	27	52.80	
SKO	1.23	75	ePn	27	33.60	0.6
	1.0s		218.00nm			
			i	27	34.80	
			iSn	27	53.30	
			Lg	27	55.00	
HCY	1.28	309	iPgc	27	32.80	-0.9
			iSg	27	51.78	
NKY	1.32	332	iPgc	27	34.11	-0.3
			iSg	27	55.08	
BRY	1.58	323	iPnc	27	38.07	-0.1
			iSn	28	01.18	
PLE	1.71	349	iPnd	27	40.61	0.5
			iSn	28	05.31	
LCI	1.95	228	P	27	43.50	0.1
VAY	2.07	98	iPn	27	45.00	-0.3
BRT	2.14	250	P	27	48.00	1.8
			eSn	28	17.00	
	S.D. = 0.9		on 16 of 16 obs.			

---

* JAN 18, 1993 19h 55m 44.64± 0.96s
41.591 N ± 6.9km 19.826 E ± 8.0km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
ML 2.2 (TIR).

TIR	0.24	173	iPgc	55	50.00	0.2
			iSg	55	56.00	
PHP	0.47	78	iPgc	55	54.00	-0.2
SDA	0.52	332	ePg	55	55.10	-0.1
OHR	0.88	123	ePg	56	01.20	-0.3
			eSg	56	16.00	
SKO	1.27	72	ePn	56	08.60	0.4

18d 19h

```
                    e     56 10.00
      S.D. = 0.4  on   5 of   5 obs.
-----------------------------------
   JAN  18, 1993  19h 56m 05.21± 0.49s
   11.843 N ± 6.9km  124.300 E ±10.5km
   DEPTH =  30.9km  (  3 depth phases)
   4.7mb ( 15 obs.)  4.2Msz (  5 obs.)
 LEYTE, PHILIPPINE ISLANDS        (256)

PLP      0.95 135 iPc    56 23.00    0.7
                  eS     56 35.00
MAP      1.54 192 iPc    56 29.00   -1.9
                  iS     56 51.00
PGP      3.66 297 eP     56 59.00   -2.1
       1.0s   238.00nm
DAV      4.89 165 eP     57 23.50    5.0X
BAG      5.80 322 eP     57 31.40   -0.2
                  eS     58 55.00
CVP      6.30 338 eP     57 50.00   11.5X
SSE     19.37 352 eP     00 52.00   20.5X
     Z  16s      1.80um
                  eS     04 24.00
PJG     20.14  83 e(P)   00 56.30   16.6X
NJ2     20.73 347 Pd     00 47.00    1.3
     Z  20s      0.30um          3.7Msz
WHN     20.77 335 eP     00 47.00    0.8
SJI     23.10 213 ePc    01 11.50    2.0
                   e     03 44.00
IPM     24.12 255 ePd    01 19.90    0.4
       1.3s    65.40nm          5.0mb
KMI     24.29 306 Pc     01 23.50    2.1
       2.0s    90.00nm          5.0mb
     Z  20s      1.20um          4.4Msz
TIA     25.11 346 eP     01 28.90    0.0
     Z  20s      0.73um          4.2Msz
XAN     26.17 330 P      01 37.70   -1.1
       1.0s    11.00nm          4.4mb
                  pP     01 47.00   33km
                  sP     01 51.20
CD2     26.85 318 eP     01 44.00   -1.1
BJI     28.99 347 eP     02 03.50   -0.8
       1.1s    22.00nm          4.8mb
     Z  20s      0.30um          3.9Msz
LZH     30.39 326 eP     02 16.50   -0.6
       1.0s    22.00nm          4.9mb
     Z  18s      0.79um          4.4Msz
     E  15s      0.51um
                  pP     02 25.00   29km
HHC     30.99 341 eP     02 21.80   -0.4
WB2     33.10 163 eP     02 40.10   -0.6
       1.2s     4.10nm          4.2mb
GTA     35.00 326 eP     02 55.00   -2.1
       1.0s     9.00nm          4.7mb
     Z  16s      1.43um          4.8MszX
                  pP     03 04.00   31km
ASPA    36.52 165 eP     03 09.00   -1.0
       1.3s    12.70nm          4.7mb
GUN     39.31 300 P      03 33.80    0.0
       1.1s    37.00nm          5.1mb
PKI     39.62 299 P      03 38.60    2.3
KKN     39.79 299 P      03 38.20    0.6
DMN     39.89 299 P      03 38.50    0.0
GKN     40.39 299 P      03 41.60   -0.9
WMQ     44.80 322 eP     04 20.80    2.7
STK     46.52 160 eP     04 32.50    0.8
       0.5s     1.80nm          4.3mb
CMS     47.77 155 eP     04 46.10    4.5X
       0.8s     4.00nm          4.5mb
YAK     50.24   3 eP     05 00.00   -0.2
       1.8s    30.00nm          5.0mb
MAIO    62.82 305 eP     06 31.00    0.4
OBN     79.08 324 eP     08 07.60   -0.4
       1.0s    28.00nm          5.2mb
                   e     08 10.00
                   i     13 10.00
                   i     13 31.00
                   i     14 23.00
                   e     15 02.00
YKA     93.10  23 eP     09 16.50   -0.7
       1.0s     1.10nm          4.2mb
GEC2    94.27 322 ePKP   09 23.10    0.2
       1.4s     2.88nm          4.5mb
      S.D. = 1.3  on  30 of  35 obs.
-----------------------------------
& JAN  18, 1993  20h 54m 39.81s
   61.491 N          148.833 W
   DEPTH =  40.7km
```

```
 SOUTHERN ALASKA                    (  2)
      <AEIC>. ML 2.8 (AEIC).

PLRM     0.18 306 iPd     54 46.53   -0.4
                  iS     54 51.94
KNK      0.20 113 iPd     54 46.82   -0.4
                  eS     54 52.29
GHO      0.29 351 iPd     54 47.63   -0.5
                  iS     54 54.07
SML      0.40  37 iPd     54 48.63   -0.7
PMS      0.43 235 iPc     54 49.35   -0.4
PWA      0.53 288 iPc     54 50.55   -0.4
PTE      0.64 188 iPc     54 51.77   -0.6
                  S      55 00.77
PWL      0.68 159 iPc     54 51.19   -1.9
                  eS     55 01.59
SCM      0.80  64 iPc     54 54.12   -0.6
SUA      0.92 269 iPc     54 56.13   -0.4
MPA      1.04 195 ePc     54 57.39   -0.7
                  eS     55 11.83
SLKM     1.20 215 ePc     55 00.01   -0.4
                  S      55 15.90
VLZ      1.26 106 iPc     55 00.73   -0.5
                  S      55 17.21
SKT      1.37 292 iPc     55 03.02    0.1
                  S      55 21.06
KLU      1.40  89 iPc     55 02.84   -0.4
                  eS     55 21.97
TOA      1.41  63 iPc     55 04.03    0.7
                  eS     55 22.26
SEW      1.42 193 eP      55 02.28   -1.3
                  S      55 20.54
CGLM     1.54 265 ePc     55 05.73    0.5
HUR      1.54 346 eP      55 05.84    0.6
                  S      55 25.39
HIN      1.58 133 ePc     55 05.77   -0.1
SPU      1.58 260 ePc     55 05.98    0.1
                  eS     55 26.95
CRP      1.62 263 ePc     55 07.09    0.6
                  S      55 27.36
CKN      1.64 262 eP      55 07.28    0.7
CKT      1.65 261 ePc     55 07.25    0.4
                  eS     55 28.85
CP2      1.66 264 eP      55 07.91    0.8
TZL      1.71  70 iPc     55 08.61    0.9
CKL      1.71 262 eP      55 07.98    0.2
BGL      1.73 264 eP      55 08.14    0.2
CVA      1.78 121 eP      55 08.58    0.1
SDG      1.87  55 iPc     55 10.65    0.7
RND      1.92 360 eP      55 11.80    1.1
BRLK     2.01 211 eP      55 12.16    0.2
SGAM     2.03 118 eP      55 11.41   -0.8
TRF      2.08 342 eP      55 13.79    0.6
DFR      2.08 246 eP      55 12.74   -0.4
REF      2.14 244 eP      55 13.95    0.0
PAX      2.17  45 ePc     55 14.89    0.6
RSO      2.17 243 eP      55 14.29   -0.2
RS2      2.17 243 eP      55 14.20   -0.3
RS1      2.18 243 eP      55 13.76   -0.8
RDW      2.19 244 eP      55 14.31   -0.4
NCT      2.20 247 eP      55 14.28   -0.6
GLB      2.41  89 ePc     55 17.14   -0.6
CROM     2.86 102 eP      55 22.95   -1.2
TGL      3.00 102 eP      55 25.53   -0.7
BALM     3.17  95 ePc     55 27.37   -1.2
SVW      3.30 266 eP      55 29.58   -0.7
YAH      3.64 105 eP      55 34.88   -0.5
CTGM     3.66  95 eP      55 34.90   -0.7
        49 obs. associated
-----------------------------------
* JAN  18, 1993  21h 06m 27.56± 3.66s
   32.735 S ±13.4km   71.801 W ±27.0km
   DEPTH =  10.0km  (geophysicist)
 NEAR COAST OF CENTRAL CHILE      (135)
      MD 4.0 (SAN).

IHA      0.32 155 iPc     06 31.20   -3.0
                  iS     06 42.30
ROCH     0.71 110 iPd     06 42.34    0.7
LCCH     0.76 165 iPd     06 44.43    2.0X
JACH     1.02  87 iPd     06 46.39   -0.5
                  iS     06 58.41
PEL      1.02 114 iPd     06 47.44    0.5
TACH     1.17 142 iP+     06 50.39    1.0
                  iS     07 04.48
SAN      1.19 127 iP      06 50.25    0.4
                  iS     07 04.72
```

```
LNV      1.26 165 eP      06 51.67    0.7
PCH      1.39 130 iPd     06 53.46    0.3
                  iS     07 11.41
FCH      1.40 115 iP+     06 53.16   -0.3
                  iS     07 10.46
CHCH     1.53 141 iP      06 56.14    1.1
                  iS     07 15.48
CACH     1.70 144 iP      07 00.05    2.4X
                  iS     07 22.36
MDZ      2.49  94 iP      07 12.60    3.8X
                  iS     07 43.30
RTCB     2.83  65 ePc     07 22.00    8.2X
                  S      07 54.00
RTCV     2.90  73 e(P)    07 17.20    2.6X
                  S      07 51.50
RTLL     3.16  65 ePc     07 22.60    4.3X
                  S      07 54.00
CFA      3.22  71 eP      07 20.30    1.1
                  S      08 02.00
RFA      3.44 127 eP      07 24.70    2.3X
MRA      5.15  88 e(P)    07 46.00   -0.6
TCA      6.28  79 eP      08 01.00   -1.6
      S.D. = 1.3  on  13 of  20 obs.
-----------------------------------
?  JAN  18, 1993  21h 20m 26.55± 9.78s
   17.640 N ±47.3km   60.754 W ±68.7km
   DEPTH =  33.0km  (normal)
 LEEWARD ISLANDS                  ( 92)
      MD 3.4 (TRN).

CPB      1.02 270 eP      20 44.31   -0.3
                  eS     20 57.88
BPA      1.21 241 iP      20 46.60   -0.6
                  eS     21 02.02
MGH      1.67 237 eP      20 54.00    0.1
DOG      1.80 207 eP      20 56.08    0.3
NEV      1.81 254 eP      20 56.62    0.7
                  eS     21 20.46
PAG      1.83 209 eP      20 56.10   -0.2
      S.D. = 0.6  on   6 of   6 obs.
-----------------------------------
*  JAN  18, 1993  23h 13m 42.01± 1.11s
   18.705 S ±15.6km  169.260 E ±17.9km
   DEPTH = 250.4 ±  6.7 km
   4.6mb ( 10 obs.)
 VANUATU ISLANDS                  (186)

PVC      1.32 317 iP      14 19.80    0.5
                  iS     14 47.90
BKM      1.41 317 iP      14 19.80   -0.2
                  iS     14 49.50
DZM      4.26 218 iPc     14 48.80   -0.7
                  iS     15 40.00
BRS     17.45 237 iP      17 31.50    0.3
       0.8s     8.00nm          4.2mb
                   i     17 35.00
ARMA    19.80 231 iPc     17 56.30    1.0
       0.8s    15.00nm          4.6mb
RMO     20.44 244 iPd     18 02.90    1.4
       0.6s    31.00nm          5.0mb
CTA     21.74 263 iPc     18 15.00    0.8
       1.0s    15.00nm          4.5mb
CMS     24.68 234 eP      18 41.60   -0.4
       0.7s     8.00nm          4.4mb
STK     28.15 237 iPc     19 13.10   -0.3
       0.5s    10.30nm          4.7mb
WB2     32.93 262 iPd     19 53.70   -1.5
       0.6s    15.80nm          4.8mb
                  eS     24 46.40
ASPA    33.28 255 iPd     19 57.20   -1.6
       0.5s   242.50nm          6.1mb
                  eS     24 57.20
MTN     37.10 273 eP      20 30.30   -0.1
       0.4s    50.00nm          5.4mb
WARB    39.95 251 iPd     20 53.60   -0.2
       0.2s     5.00nm          4.6mb
YKA    100.19  27 ePdiff26 59.90   -0.4
       0.7s     1.20nm          4.5mb
CVO    139.27 320 ePKP    32 41.50    0.6
GEC2   144.03 332 ePKPd   32 47.40   -1.8
       0.9s     2.34nm
                   e     32 51.20
                   e     32 55.50
GRF    144.42 335 ePKP    32 49.80    0.1
DOU    146.36 342 PKPd    32 54.70    1.8
      S.D. = 1.0  on  18 of  18 obs.
-----------------------------------
```

```
&  JAN  18, 1993  23h 27m 10.70s
   38.855 N            122.777 W
   DEPTH =   3.0km
 NORTHERN CALIFORNIA                    ( 36)
      <BRK>. ML 3.9 (BRK), 3.6 (GS).
      Felt (IV) at Cobb and (III) at
      Cloverdale, Finley, Kelseyville
      and Middletown.

NTYM     0.47 169 ePc    27 19.99  -0.2
ZSP      1.00 156 iPc    27 29.34  -0.9
                  eS     27 44.91
HMR      1.04 132 eP     27 30.54  -0.4
BKS      1.07 156 iPc    27 29.96  -1.5
                  eS     27 45.74
ORV      1.21  54 iPd    27 32.91  -1.0
JEGM     1.36 169 eP     27 34.14  -2.4
PCC      1.39 167 iPc    27 34.59  -2.3
                  eS     27 55.35
WDC      1.73   6 eP     27 40.80  -1.1
MIN      1.74  31 ePd    27 41.08  -1.1
MHC      1.76 149 eP     27 39.99  -2.4
                  eS     28 06.06
COE      1.82 151 eP     27 41.24  -1.9
KMPM     1.87 327 ePn    27 44.06   0.1
FOX      1.91 331 iPc    27 50.38   6.0
LMEM     1.92  29 (P)    27 43.06  -1.7
GCC      1.92 161 eP     27 41.66  -3.0
CMB      2.05 113 iPc    27 45.02  -1.5
                  eS     28 11.85
LGPM     2.06 359 (P)    27 47.84   1.2
FHC      2.16 335 (P)    27 47.65  -0.4
SAO      2.34 153 eP     27 47.70  -3.0
LBFM     2.58  15 eP     27 54.63   0.4
FRI      3.06 127 iPd    27 59.87  -1.0
MEMM     3.25 110 eP     28 03.84   0.4
MRCM     3.56 108 (P)    28 04.20  -4.1
BONR     3.63 103 (P)    28 10.36   1.1
MTUM     3.65 113 eP     28 09.11  -0.3
BCH      4.25 149 eP     28 14.31  -3.6
TNP      4.43  98 (Pn)   28 19.85  -0.7
ISA      4.68 132 eP     28 22.77  -1.3
SSK      6.18 137 eP     28 42.37  -2.9
ARUT     7.42  95 (P)    29 04.11   1.4
DUG      7.82  77 eP     29 07.98  -0.3
MSU      8.30  89 eP     29 13.88  -1.2
EMUT     9.32  80 eP     29 30.59   1.4
SRU      9.55  85 eP     29 32.74   0.5
BW06    10.76  64 eP     29 51.43   2.4
ACO     18.80  89 iPc    31 34.00   0.6
YKA     24.19   9 eP     32 33.00   4.1
        0.8s      0.30nm          3.0mb
        37 obs. associated
-----------------------------------------
%  JAN  18, 1993  23h 28m 51.57± 1.17s
   43.071 N ± 8.1km    18.753 E ± 7.0km
   DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION          (383)
      ML 1.7 (TTG).

BRY      0.23 222 iPgd   28 56.87   0.3
                  iSg    28 59.90
NKY      0.31 145 iPgd   28 58.15   0.0
                  iSg    29 03.01
PLE      0.54  61 iPgd   29 02.26  -0.2
                  iSg    29 10.51
HCY      0.65 197 iPgd   29 04.16  -0.4
                  iSg    29 13.91
TTG      0.74 150 iPgd   29 05.50  -0.6
                  iSg    29 16.77
BDV      0.79 176 iPgd   29 06.74  -0.2
                  iSg    29 18.47
IVA      0.86 103 iPgd   29 08.52   0.3
                  iSg    29 20.97
PVY      1.02 117 iPgd   29 11.01   0.1
                  iSg    29 26.16
ULC      1.17 161 iPgc   29 14.02   0.7
                  iSg    29 30.82
      S.D. = 0.4   on   9 of   9 obs.
-----------------------------------------
*  JAN  18, 1993  23h 31m 20.43± 0.95s
   40.711 N ±12.2km    27.445 E ± 7.1km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                              (366)

ALN      1.08 280 ePg    31 40.38  -0.3
                  eSg    31 54.82
GBZT     1.52  86 ePn    31 47.50  -0.2
                  iPg    31 49.00
                  iSg    32 11.80
KDZ      1.80 302 eP     31 52.00   0.3
JMB      1.87 340 eP     31 58.00   5.3X
DIM      1.96 314 eP     31 54.00  -0.1
RZN      2.28 296 iPd    31 58.00  -0.9
OUR      2.67 263 ePn    32 02.42  -1.7
MMB      2.94 289 eP     32 15.00   6.9X
SRS      2.95 279 iPn    32 09.78   1.6
PVL      2.96 329 eP     32 09.00   0.8
PAIG     2.98 256 ePn    32 10.34   1.7
SOH      3.11 273 ePn    32 10.74   0.3
KNT      3.47 279 ePn    32 15.26  -0.4
KKB      3.48 291 eP     32 15.00  -0.8
VTS      3.69 302 eP     32 19.00   0.1
VAY      3.74 281 ePn    32 19.00  -0.4
      S.D. = 1.0   on  14 of  16 obs.
-----------------------------------------
&  JAN  18, 1993  23h 45m 00.20s
   61.521 N            151.221 W
   DEPTH =   4.6km
 SOUTHERN ALASKA                     (  2)
      <AEIC>. ML 2.7 (AEIC).

SUA      0.24 104 iPc    45 05.91   0.9
                  eS     45 09.49
CGLM     0.43 241 iPc    45 09.22   0.3
SKT      0.48 342 iPd    45 10.50   0.6
                  eS     45 17.52
CRP      0.52 241 ePc    45 10.23  -0.3
SPU      0.53 230 iPc    45 10.92   0.2
                  eS     45 18.06
CKN      0.55 238 iPc    45 11.78   0.6
CP2      0.55 243 ePc    45 11.18  -0.1
CKT      0.57 236 iPc    45 11.81   0.1
BGL      0.62 246 iPc    45 12.19  -0.4
CKL      0.63 239 iPc    45 12.78   0.0
PWA      0.66  78 P      45 13.10  -0.2
                  S      45 22.30
NKA      0.78 181 ePd    45 17.12   1.3
PMS      0.85 108 P      45 16.30  -0.8
PLRM     1.00  85 iPc    45 18.90  -0.8
                  eS     45 32.15
PMR      1.00  85 ePd    45 18.60  -1.1
                  eS     45 31.25
GHO      1.13  76 eP     45 21.39  -0.5
SLKM     1.13 154 iPd    45 20.77  -1.1
                  eS     45 35.47
DFR      1.17 218 iPc    45 21.47  -1.2
PTE      1.25 121 ePd    45 23.49  -0.4
REF      1.26 216 iPc    45 23.10  -1.2
                  eS     45 39.38
NCT      1.27 222 ePc    45 23.20  -1.2
                  eS     45 39.71
RDW      1.30 217 iPc    45 23.70  -1.2
                  eS     45 40.32
RS2      1.30 216 iPc    45 23.72  -1.2
                  eS     45 41.20
RSO      1.30 216 iPc    45 23.65  -1.2
RS1      1.30 216 iPc    45 23.76  -1.2
                  eS     45 40.85
KNK      1.33  93 ePd    45 25.13  -0.2
                  eS     45 41.89
MPA      1.38 138 eP     45 25.23  -0.8
SML      1.41  77 eP     45 26.28  -0.3
PWL      1.55 114 eP     45 30.42   1.9
HUR      1.64  26 eP     45 29.55  -0.3
ILIM     1.68 211 ePd    45 30.15  -0.3
INE      1.72 212 ePd    45 30.77  -0.4
                  eS     45 52.35
INW      1.73 214 eP     45 30.95  -0.3
SCM      1.88  79 eP     45 34.65   1.2
TRF      1.99  12 eP     45 36.02   1.0
VLZ      2.39  97 eP     45 41.64   1.0
MCK      2.46  24 eP     45 43.18   1.5
TOA      2.47  74 ePd    45 44.62   2.8
KLU      2.54  88 ePc    45 43.98   1.1
                  eS     46 16.78
SDG      2.86  67 eP     45 49.89   2.5
SYI      2.98 192 eP     45 50.97   2.0
GLB      3.56  88 eP     45 57.71   0.5
BALM     4.31  93 eP     46 08.23   0.2
      43 obs. associated
-----------------------------------------
&  JAN  19, 1993  00h 15m 01.74s
   59.693 N            151.812 W
   DEPTH =  60.5km
 KENAI PENINSULA, ALASKA             ( 14)
      <AEIC>. ML 2.5 (AEIC).

XLV      0.24 169 eP     15 10.49  -1.1
BRLK     0.47  81 eP     15 13.10  -0.5
                  eS     15 21.95
ILIM     0.70 304 eP     15 15.08  -1.1
OPT      0.72 267 eP     15 15.49  -0.9
INE      0.73 301 eP     15 15.36  -1.3
                  eS     15 26.11
INW      0.76 300 eP     15 16.04  -1.0
                  eS     15 26.89
AUE      0.86 248 iP     15 17.41  -0.7
AUL      0.88 250 iP     15 17.79  -0.6
AUH      0.89 249 iP     15 17.94  -0.7
AUI      0.90 247 eP     15 17.69  -0.9
                  eS     15 30.45
RS1      0.90 329 iP     15 18.17  -0.7
                  eS     15 31.36
AUW      0.91 250 eP     15 18.18  -0.5
RSO      0.90 329 iP     15 18.17  -0.7
                  eS     15 30.98
RS2      0.91 329 iP     15 18.19  -0.7
                  eS     15 31.03
REF      0.91 331 iP     15 18.28  -0.7
                  eS     15 31.36
RDW      0.94 328 eP     15 18.46  -0.8
                  eS     15 31.30
RDN      0.95 330 eP     15 18.71  -0.7
                  eS     15 31.95
DFR      1.00 335 iP     15 19.20  -0.9
                  eS     15 33.17
NCT      1.04 328 eP     15 19.73  -0.8
SYI      1.13 196 eP     15 20.61  -1.0
SLKM     1.14  44 eP     15 21.24  -0.6
PDB      1.21 276 eP     15 21.70  -1.1
MCNL     1.39 250 eP     15 23.81  -1.4
                  eS     15 41.35
MPA      1.47  56 eP     15 26.54   0.3
SPU      1.50 356 iP     15 26.23  -0.6
CKT      1.53 353 eP     15 26.52  -0.7
                  eS     15 46.57
CKL      1.53 350 eP     15 26.83  -0.5
CKN      1.55 353 eP     15 27.20  -0.3
CRP      1.59 354 eP     15 27.82  -0.3
CP2      1.59 352 eP     15 28.10  -0.1
BGL      1.60 350 eP     15 28.08  -0.2
CGLM     1.62 357 eP     15 28.19  -0.4
PTE      1.82  49 eP     15 30.92  -0.2
SUA      1.85  16 eP     15 32.02   0.2
PMS      1.92  35 P      15 32.40  -0.2
SKT      2.30   3 eP     15 37.89   0.0
KNK      2.39  42 eP     15 38.29  -1.0
GHO      2.52  33 eP     15 40.43  -0.7
SML      2.72  37 eP     15 43.04  -0.9
SCM      3.07  44 eP     15 48.24  -0.7
VLZ      3.08  60 eP     15 47.93  -1.0
KLU      3.42  56 eP     15 52.16  -1.7
      42 obs. associated
-----------------------------------------
&  JAN  19, 1993  00h 24m 29.30s
   38.848 N            122.782 W
   DEPTH =   3.0km
 NORTHERN CALIFORNIA                    ( 36)
      <BRK>. ML 3.6 (BRK), 3.4 (GS).
      Felt at Kelseyville.

NTYM     0.47 168 ePc    24 38.57  -0.1
ZSP      0.99 155 iPc    24 47.86  -0.9
                  eS     25 03.60
HMR      1.04 132 eP     24 49.24  -0.2
BKS      1.06 156 ePc    24 48.48  -1.5
                  eS     25 04.85
ORV      1.22  54 iPd    24 51.40  -1.3
JEGM     1.36 169 eP     24 52.70  -2.3
PCC      1.38 167 iPc    24 53.21  -2.2
STAN     1.52 161 ePc    24 55.56  -1.8
                  eS     25 18.46
WDC      1.74   6 eP     24 59.17  -1.4
MIN      1.75  31 iPd    24 59.64  -1.2
MHC      1.75 149 eP     24 58.46  -2.4
                  eS     25 24.55
COE      1.81 151 (P)    25 02.09   0.4
KMPM     1.88 327 (Pn)   25 03.03   0.4
FOX      1.91 331 eP     25 04.65   1.6
GCC      1.92 161 ePc    24 59.89  -3.3
```

19d 00h

```
LMEM     1.93  29 eP    25 02.70  -0.8
CMB      2.05 113 iPc   25 03.51  -1.6
                eS     25 30.05
FHC      2.16 335 (P)   25 07.80   1.1
SAO      2.33 153 eP    25 06.06  -3.2
LBFM     2.59  15 eP    25 13.52   0.5
LLA      2.66 146 eP    25 11.77  -2.1
PRS      2.75 156 iPd   25 12.53  -2.6
FRI      3.06 126 iPd   25 18.87  -0.5
PHAM     3.56 147 eP    25 26.09  -0.5
MRCM     3.56 108 eP    25 26.55  -0.3
BONR     3.63 103 ePn   25 26.57  -1.3
MTUM     3.65 113 (Pn)  25 27.79  -0.2
KVN      3.66  85 ePn   25 27.71  -0.5
BCH      4.25 149 (P)   25 33.45  -3.0
TNP      4.43  98 (Pn)  25 39.06  -0.2
ISA      4.68 131 eP    25 41.52  -1.1
MSU      8.30  89 eP    26 32.54  -1.2
SRU      9.55  85 eP    26 50.61  -0.3
UYO     23.20  93 iPd   29 38.90   0.7
        34 obs. associated
-----------------------------------------
?  JAN  19, 1993  00h 53m 48.36± 1.45s
   11.367 N ±22.6km   87.721 W ±29.1km
   DEPTH =  33.0km  (normal)
   4.2mb (  5 obs.)
 NEAR COAST OF NICARAGUA          ( 74)

PRM     23.14  11 eP    58 52.88   0.2
UYO     23.51 346 iPd   58 57.40   1.1
MIAR    23.68 348 eP    58 58.06   0.1
        0.8s      7.39nm          4.3mb
TKL     24.45   8 eP    59 05.19  -0.2
MEO     25.32 339 iPd   59 14.20   0.4
WMOK    25.35 338 eP    59 14.11   0.1
        1.0s     10.55nm          4.4mb
                e       59 23.62
TUL     25.50 345 Pc    59 15.30  -0.1
        0.8s     45.00nm          5.1mb
                e       59 21 90
LNO     25.51 345 ePc   59 15.10  -0.2
                e       59 22.00
ACO     27.25 340 iPc   59 34.80   3.3X
BW06    36.61 333 (P)   00 54.50   0.8
        1.2s      2.97nm          4.1mb
SIV     37.87 135 P     01 10.60   6.3X
LCCM    40.04 334 eP    01 30.90   8.6X
BAO     47.61 124 Pc    02 23.90   0.3
                e       02 29.40
                e       02 39.40
YKA     54.58 345 eP    03 13.10  -2.5
        1.0s      1.00nm          3.8mb
WRA    138.70 253 PKP   13 22.50   8.7X
        0.8s      0.20nm
      S.D. = 1.0  on  11 of  15 obs.
-----------------------------------------
%  JAN  19, 1993  01h 00m 03.74± 0.74s
   37.922 N ±10.4km   14.127 E ± 5.4km
   DEPTH =  10.0km  (geophysicist)
 SICILY                           (398)

GIB      0.10 311 Pd    00 06.20  -0.4
                eSg    00 08.80
MNO      0.45  89 Pd    00 12.50  -0.5
                eSg    00 20.50
MCT      0.49 234 P     00 12.20  -1.5
MEU      1.04 142 P     00 24.50   1.1
                (Sg)   00 41.50
ATN      1.08  77 P     00 23.90  -0.2
CVT      1.08 257 P     00 27.40   3.3X
ERC      1.22 276 P     00 28.00   1.5
SOI      1.53  84 P     00 31.00  -0.1
      S.D. = 1.2  on   7 of   8 obs.
-----------------------------------------
?  JAN  19, 1993  01h 01m 16.89± 3.04s
   50.624 N ±38.2km   18.904 E ±11.0km
   DEPTH =  10.0km  (geophysicist)
 POLAND                           (548)
      ML 3.0 (WAR).

OJC      0.70 125 ePg   01 30.50  -0.2
                iSg    01 39.20
SPC      1.68 148 ePn   01 46.90   0.3
                e(Sg)  02 08.00
VRAC     1.99 229 ePn   01 50.90   0.0
        0.4s     20.00nm
                eSn    02 15.30
PRU      2.87 259 ePn   02 04.00   0.5
                ePg    02 12.70
                eSg    02 45.70
KHC      3.75 249 Pn    02 15.50  -0.6
                Pg     02 30.00
                e      02 54.40
                Sg     03 10.70
UZD      4.04 183 ePn   02 46.50  26.4X
      S.D. = 0.6  on   5 of   6 obs.
-----------------------------------------
?  JAN  19, 1993  02h 10m 49.24± 0.95s
   39.180 N ±13.5km   54.737 E ±12.5km
   DEPTH =  33.0km  (normal)
   3.7mb (  3 obs.)
 TURKMENISTAN                     (340)
      Felt at Nebit-Dag.

TEH      4.35 219 eP    11 55.00   0.1
MAIO     4.74 126 iPc   12 00.20  -0.1
        0.8s     12.81nm
                eS     13 37.00
CLI     21.36 299 eP    15 39.00   3.3X
CVO     22.01 297 eP    15 39.00  -3.2X
GEC2    30.72 302 ePc   17 02.90  -0.4
        0.6s      0.50nm          3.5mb
                e      17 06.60
                e      17 18.00
BCAO    47.65 233 iPd   19 19.00  -5.4X
        0.8s      4.00nm          4.5mb
YKA     78.31 355 eP    22 47.50   0.4
        0.6s      0.30nm          3.5mb
      S.D. = 0.6  on   4 of   7 obs.
-----------------------------------------
   JAN  19, 1993  02h 29m 45.19± 1.30s
   32.654 N ± 9.9km   71.712 E ± 8.3km
   DEPTH =  72.8 ± 14.9 km
   4.6mb ( 11 obs.)
 PAKISTAN                         (710)

NDI      6.18 128 iPnc  31 18.00   2.2
        0.5s     31.69nm          5.0mb
                eS     32 25.00
                eSg    33 05.50
KSH      7.62  26 Pn    31 36.00   0.2
        0.5s     30.00nm          5.2mb
                Sn     32 59.00
MAIO    10.72 293 eP    32 18.00  -0.2
GKN     12.09 109 P     32 36.60   0.1
DMN     12.63 110 P     32 43.20  -0.6
KKN     12.69 109 P     32 43.00  -1.5
PKI     12.89 110 P     32 45.60  -1.7
GUN     13.12 107 P     32 50.20  -0.1
HYB     16.38 156 eP    33 38.50   6.5X
WMO     16.76  44 eP    33 37.80   1.2
GBA     19.67 163 P     34 24.00  13.0X
GTA     23.65  65 eP    34 55.00   4.3X
CHG     28.04 113 eP    35 39.40   7.8X
NUR     41.32 327 eP    37 25.00   0.2
        0.5s      6.60nm          4.7mb
HFS     46.49 324 eP    38 06.10  -0.4
        0.5s      3.50nm          4.6mb
NAO     47.99 325 P     38 17.20  -1.1
        0.7s      6.20nm          4.7mb
LPG     50.74 305 eP    38 40.00   0.1
        0.8s      4.15nm          4.5mb
LPL     50.75 305 eP    38 40.00   0.1
        0.7s      4.65nm          4.6mb
SMF     52.54 306 eP    38 52.50  -0.7
        0.6s      3.80nm          4.6mb
AVF     52.85 307 eP    38 54.70  -0.7
BCAO    56.95 252 iPd   39 26.40   0.8
        0.4s      8.00nm          5.2mb
WRA     79.47 122 P     41 46.00   0.6
        1.5s      0.10nm          2.5mb X
WB2     79.48 122 eP    41 49.50   4.0X
        0.5s      3.20nm          4.5mb
YKA     85.05   3 eP    42 15.00   1.4
        0.4s      1.00nm          4.2mb
      S.D. = 1.1  on  19 of  24 obs.
-----------------------------------------
%  JAN  19, 1993  03h 08m 21.19± 1.42s
   31.581 S ± 8.8km   67.982 W ±11.2km
   DEPTH = 115.3 ± 18.8 km
 SAN JUAN PROVINCE, ARGENTINA     (137)

CFA      0.22 263 iPd   08 37.20  -0.6
RTLL     0.49 301 iPd   08 39.00   0.2
RTCV     0.55 239 iPc   08 39.30   0.0
RTCB     0.70 278 iPc   08 40.70   0.2
MDZ      1.49 209 iP    08 49.10   0.4
                iS     09 09.10
MRA      2.10 114 iPd   08 56.80   0.6
                S      09 17.50
TCA      2.91  86 iP    09 06.50  -0.4
                S      09 37.00
RFA      3.21 187 iP    09 10.40  -0.5
                (S)    09 38.00
CYA      3.66  32 eP    09 17.00   0.1
      S.D. = 0.5  on   9 of   9 obs.
-----------------------------------------
   JAN  19, 1993  04h 03m 44.48± 0.26s
   42.926 N ± 4.6km  143.953 E ± 4.9km
   DEPTH =  99.7km  (  6 depth phases)
   4.7mb ( 32 obs.)
 HOKKAIDO, JAPAN  REGION          (224)

KUSJ     0.58  73 iPd   04 02.40   1.4
                S      04 14.30
HOOJ     0.73 222 P     04 03.60   1.2
                eS     04 16.70
ASAJ     1.53 322 P     04 13.20   1.8
                S      04 33.50
MRRJ     2.18 258 P     04 20.80   0.9
                eS     04 46.50
AOMJ     3.57 230 P     04 38.90   0.1
                S      05 18.00
KUR      3.64  49 iPnd  04 41.00   1.3
                iS     05 25.00
YSS      4.18 348 iPnc+ 04 46.30  -0.9
                iS     05 32.70
OFUJ     4.21 205 P     04 46.50  -1.1
                eS     05 31.30
YAMJ     5.61 213 iPd   05 06.20  -0.7
                eS     06 07.70
NIIJ     6.83 215 P     05 22.70  -1.0
KAKJ     7.32 205 P     05 26.90  -3.5X
                eS     06 43.30
MAT      7.76 217 eP    05 35.00  -1.4
        0.6s     45.33nm          5.3mb
                eS     07 00.00
CHJJ     7.86 211 eP    05 36.20  -1.7
                eS     06 58.90
MTMJ     7.91 219 eP    05 37.90  -0.6
                eS     07 05.50
MGD     17.70  11 eP    07 43.00  -2.7
        1.0s     60.00nm          4.8mb
SEY     20.61  11 iPd   08 15.30  -2.0
        0.9s     96.00nm          5.1mb
                i      08 38.00
BJI     20.97 272 eP    08 20.00  -1.1
        1.0s     26.00nm          4.5mb
SSE     21.60 244 P     08 19.60  -7.9
        0.8s      9.00nm          4.2mb
                pP     08 27.00  27km
SSE     21.60 244 P     08 29.60   2.
        0.8s      9.00nm          4.2mb
TIA     21.69 261 eP    08 27.00  -1.3
CIT     22.30 305 eP    08 36.10   1.9
HHC     24.13 276 P     08 54.00   1.9
TIY     24.50 268 eP    08 55.80   0.1
BTO     25.32 276 P     09 04.30   0.9
WHN     26.61 252 P     09 15.70   0.6
ZAK     28.60 299 iPc   09 32.00  -0.9
        1.0s     18.00nm          4.7mb
XAN     28.65 264 P     09 33.30  -0.4
LZH     31.46 271 eP    09 59.00   0.4
        1.4s     34.00nm          4.9mb
ILT     31.89  26 iPd   09 59.00  -2.7
UER     34.34 302 eP    10 22.50  -0.7
ELT     38.89 306 eP    11 01.00  -0.4
        0.9s     31.00nm          5.1mb
IMA     40.67  34 eP    11 15.98   0.0
        0.7s      4.80nm          4.4mb
                epP    11 39.12  99km
CRP     41.38  41 eP    11 22.70   0.7
PMR     42.80  40 (P)   11 34.20   0.8
FBA     43.13  35 eP    11 35.75  -0.2
        0.7s     15.24nm          4.9mb
                epP    11 59.45 101km
                e      12 11.10
CHG     44.81 252 eP    11 50.80   0.7
                eSg    43 15.00
GUN     48.72 272 P     12 21.10   0.0
KKN     49.23 272 P     12 24.88   0.0
```

```
PKI     49.26 272 P     12 25.52   0.3
DMN     49.46 272 P     12 26.56  -0.1
GKN     49.58 273 P     12 28.16   0.7
YKA     57.77  33 eP    13 25.30  -1.5
         0.6s     3.70nm          4.6mb
KEV     58.65 339 iP    13 32.00  -0.9
         0.8s    26.40nm          5.4mb
DAG     60.08 355 iPd   13 40.70  -2.0
         0.7s     6.16nm          4.8mb
WB2     63.18 190 eP    14 02.70  -1.2
         0.6s     3.40nm          4.5mb
WRA     63.18 190 P     14 03.50  -0.4
         0.7s     0.70nm          3.7mb
KAF     63.98 332 iP    14 07.10  -1.7
         0.8s    11.40nm          4.9mb
NEW     64.62  47 eP    14 13.19   0.0
         0.9s     7.02nm          4.6mb
                 epP    14 38.00  98km
NUR     65.68 332 iP    14 18.10  -1.6
         0.3s     6.20nm          5.0mb
ASPA    66.90 190 P     14 28.39   0.5
ORV     67.33  57 eP    14 31.29   0.7
                 epP    14 56.50  99km
KIV     68.55 310 (P)   14 37.90  -0.3
         0.7s    26.00nm          5.2mb
LCCM    68.93  47 ePc   14 40.80   0.2
HFS     69.52 336 eP    14 42.00  -1.7
         0.5s     9.00nm          4.9mb
NAO     69.79 338 P     14 44.10  -1.3
         0.8s    13.50nm          4.8mb
HHAI    70.31  49 (P)   14 48.98   0.0
WARB    70.59 196 eP    14 51.90   1.3
TNP     70.86  56 eP    14 54.00   1.4
         0.6s     2.41nm          4.2mb
BW06    72.20  48 iPc   15 00.55   0.0
         0.5s     3.01nm          4.4mb
                 epP    15 25.79  98km
MSU     73.58  53 eP    15 09.43   0.8
RSSD    74.19  44 eP    15 11.22  -0.8
         0.7s     5.25nm          4.5mb
                 epP    15 37.86 104km
KSP     76.10 329 eP    15 22.30  -0.2
PRU     77.45 329 eP    15 30.00   0.1
KHC     78.51 329 eP    15 36.00   0.1
         1.0s     3.50nm          4.1mb
                  e     15 44.50
GEC2    78.70 329 ePc   15 36.70  -0.3
         0.6s     1.15nm          3.9mb
                  e     15 39.60
LOR     83.50 334 eP    16 01.90  -0.2
         0.8s     4.85nm          4.5mb
LBF     83.71 334 eP    16 03.40   0.2
SSF     83.80 334 eP    16 04.40   0.8
GRR     83.93 337 eP    16 04.90   0.7
SMF     84.06 334 eP    16 04.80  -0.1
LPL     84.06 331 eP    16 06.20   1.0
LPG     84.07 331 eP    16 06.50   1.1
AVF     84.09 334 eP    16 05.20   0.2
         1.0s     6.20nm          4.5mb
BGF     84.46 334 eP    16 07.00   0.1
LNO     84.50  45 eP    16 07.90   0.7
LNO2    84.50  45 eP    16 08.00   0.8
LNO3    84.50  45 eP    16 08.10   0.8
TUL     84.50  45 eP    16 08.10   0.8
         0.6s     7.00nm          4.8mb
RLO     84.70  44 e(P)  16 07.00  -1.3
MAF     84.84 334 eP    16 09.50   0.7
MFF     85.34 336 eP    16 12.80   1.5
CAF     86.16 334 eP    16 16.60   1.2
LFF     86.57 335 eP    16 18.30   0.9
         0.9s     9.65nm          4.8mb
LPO     86.65 334 eP    16 18.80   1.0
         0.7s     5.75nm          4.7mb
SIV    145.68  46 PKP   23 18.40   5.5X
      S.D. = 1.1  on  82 of  85 obs.
-----------------------------------------
% JAN  19, 1993  04h 15m 38.15± 0.81s
   43.668 N ±10.8km   12.242 E ± 7.5km
   DEPTH =  10.0km  (geophysicist)
 CENTRAL ITALY                      (381)

CRE      0.21 259 Pc    15 42.60  -0.3
SFI      0.38 312 P     15 46.00   0.1
                 eSg    15 52.60
PGD      0.43 299 P     15 47.10   0.1
                 eSg    15 53.60
ARV      0.54 108 P     15 48.80  -0.2
                 eSg    15 56.60
ASS      0.67 153 P     15 51.80   0.3
                 eSg    15 59.10
      S.D. = 0.3  on   5 of   5 obs.
-----------------------------------------
? JAN  19, 1993  04h 32m 32.30± 0.74s
   15.754 S ±29.7km  172.849 W ±25.2km
   DEPTH =  33.0km  (normal)
   4.6mb (  7 obs.)
 SAMOA ISLANDS REGION               (169)

DZM     20.56 249 iPd   37 12.20   1.1
CNB     38.96 233 eP    39 55.70  -1.5
         1.0s    17.00nm          4.8mb
CMS     40.71 240 iPc   40 10.70  -0.9
         0.7s     9.00nm          4.6mb
TOO     42.66 231 eP    40 26.30  -1.3
         1.0s    25.00nm          4.9mb
STK     44.33 240 eP    40 41.10  -0.1
         0.7s     4.10nm          4.4mb
WB2     50.27 257 eP    41 28.50   0.6
         0.4s     2.20nm          4.5mb
WRA     50.28 257 P     41 28.90   0.9
         0.5s     0.30nm          3.6mb X
ASPA    50.51 252 iPc   41 29.30  -0.4
         1.0s    12.50nm          4.9mb
WARB    57.02 249 eP    42 17.40  -0.3
CRP     78.52  10 ePd   44 31.42  -0.3
PMR     79.36  11 ePd   44 36.04   0.0
LCCM    82.31  38 eP    44 51.90  -0.3
FBA     82.64  10 iPc   44 53.45   0.1
!MA     82.84   8 (P)   44 52.13  -2.3
SES     85.19  34 eP    45 06.00  -0.6
YKA     90.21  23 eP    45 28.70  -1.7
         0.9s     2.70nm          4.5mb
KSP    144.23 350 ePKPc 52 04.60  -1.8
SPC    144.98 345 ePKP  52 08.70   0.7
MOX    145.01 355 ePKP  52 07.20  -0.6
         1.3s    29.00nm
PRU    145.33 352 PKPc  52 08.50   0.2
         1.0s    13.80nm
DOU    145.68   3 PKP   52 09.80   0.9
GRF    145.99 355 iPKPd 52 11.60   2.1X
WLF    146.17   1 PKP   52 10.00   0.3
KHC    146.30 352 PKP   52 11.40   1.4
         1.0s     5.40nm
                  e     52 33.40
FLN    146.49   9 ePKP  52 11.20   0.9
         1.0s    24.60nm
GEC2   146.57 352 ePKPc 52 12.00   1.5
         0.9s     4.37nm
                  e     52 18.20
                  e     52 23.40
ZST    146.63 348 ePKP  52 11.10   0.6
LDF    146.71   9 ePKP  52 11.80   1.2
         1.2s    55.95nm
SRO    146.73 346 iPKP  52 13.70   3.0X
GRR    146.80  10 ePKP  52 12.20   1.4
         1.1s    37.60nm
LPF    147.11  10 ePKP  52 13.20   1.9X
         0.9s    35.85nm
CDF    147.43 360 ePKP  52 14.40   2.5X
HAU    147.83   1 ePKP  52 15.50   3.0X
         1.0s    17.80nm
BSF    148.01   0 ePKP  52 15.80   2.9X
         0.7s     3.65nm
WTTA   148.36 354 iPKPc 52 16.90   3.3X
         0.6s     6.90nm
                  i     52 32.30
LOR    148.46   4 ePKP  52 17.10   3.6X
         0.9s    12.30nm
SSF    148.64   5 ePKP  52 17.70   3.9X
         0.9s    19.65nm
MFF    148.65  10 ePKP  52 17.20   3.4X
         0.9s    13.75nm
LBF    148.75   4 ePKP  52 17.90   3.9X
         1.1s    16.35nm
AVF    148.89   5 ePKP  52 18.00   3.8X
         0.8s     8.85nm
SMF    149.08   4 ePKP  52 18.40   3.9X
         1.1s    13.45nm
BGF    149.08   6 ePKP  52 18.60   4.1X
         0.9s    15.05nm
LSF    149.23   8 ePKP  52 18.60   3.9X
         0.8s    16.10nm
TCF    149.28   7 ePKP  52 18.90   4.1X
         1.0s    10.60nm
MAF    149.38   6 ePKP  52 19.50   4.5X
         1.0s    22.40nm
RJF    150.16   8 ePKP  52 21.10   4.9X
LPL    150.33   1 ePKP  52 22.90   6.2X
         0.8s     7.95nm
LPG    150.35   1 ePKP  52 23.00   6.2X
         0.7s     7.40nm
LFF    150.41   9 ePKP  52 21.80   5.3X
         0.8s    11.15nm
CAF    150.60   7 ePKP  52 22.30   5.4X
         1.0s     7.20nm
LPO    150.72   9 ePKP  52 22.40   5.4X
         0.8s    10.50nm
SKO    151.12 338 ePKP  52 22.00   4.3X
OHR    152.10 338 ePKP  52 26.00   6.7X
      S.D. = 1.1  on  28 of  53 obs.
-----------------------------------------
   JAN  19, 1993  04h 55m 19.65± 0.73s
   19.591 N ± 6.2km   64.570 W ±10.3km
   DEPTH =  33.0km  (normal)
   4.4mb (  2 obs.)
 VIRGIN ISLANDS                      ( 91)

LPR      1.77 224 P     55 48.20  -0.3
CPD      2.00 220 P     55 51.90   0.1
SJG      2.10 226 iP    55 52.70  -0.5
APR      2.34 241 P     55 56.00  -0.5
PORP     2.48 232 P     55 58.20  -0.5
LRS      2.51 239 P     55 58.30  -0.8
BPA      3.61 134 eP    56 26.00  11.3X
MGH      3.63 142 eP    56 14.00  -0.9
TOV     10.98 208 eP    57 57.40  -0.2
SDV     12.15 210 iPc   58 16.40   2.7
HBF     19.40 316 (P)   59 51.21   5.3X
CEH     20.67 325 eP    59 58.90  -0.4
         0.4s    18.35nm          4.8mb
LHS     20.67 319 (P)   00 00.68   1.4
PRM     21.41 316 (P)   00 08.15   1.3
CVL     21.95 330 eP    00 10.38  -1.8
NAV     22.64 325 (P)   00 22.39   3.3X
TBR     23.01 341 (P)   00 23.96   1.3
TKL     23.29 317 (P)   00 25.84   0.4
SIV     35.53 174 P     02 17.40   1.7
ZOBO    35.83 186 eP    02 22.00   3.0X
      Z  22s     0.08um          3.4Msz
                  LR     13 08.00
LPB     36.06 186 P     02 21.00   0.3
CNCB    36.33 186 P     02 22.00  -1.1
YKA     54.80 334 eP    04 46.50  -2.0
         0.5s     0.90nm          4.1mb
      S.D. = 1.3  on  19 of  23 obs.
-----------------------------------------
? JAN  19, 1993  04h 55m 39.98± 0.92s
    2.506 N ±26.4km  125.382 E ±39.5km
   DEPTH =  33.0km  (normal)
   4.8mb (  7 obs.)
 TALAUD ISLANDS, INDONESIA           (263)

WB2     23.99 159 iPc   00 52.90   0.2
         0.6s     5.10nm          4.2mb
                  eS     04 55.40
                  iPcP   05 06.70
ASPA    27.31 163 iPd   01 23.40  -0.4
         0.5s    13.10nm          4.8mb
STK     37.50 157 iPd   02 52.40  -0.2
         0.7s     7.10nm          4.6mb
LZH     38.90 332 eP    03 04.50   0.0
         1.0s    17.00nm          4.8mb
BFD     42.58 160 iPc   03 35.10   0.5
         0.2s     3.00nm          4.7mb
TOO     44.02 157 eP    03 46.20  -0.1
         1.0s    23.00nm          4.9mb
GUN     45.38 308 P     03 57.86   0.1
         0.5s    22.00nm          5.3mb
PKI     45.60 307 P     03 59.36  -0.2
KKN     45.80 307 P     04 01.28   0.3
GKN     46.40 307 P     04 05.46  -0.2
      S.D. = 0.3  on  10 of  10 obs.
-----------------------------------------
   JAN  19, 1993  05h 08m 49.42± 0.36s
   44.261 N ± 2.6km    7.179 E ± 3.5km
   DEPTH =  11.9 ±  3.6 km
 NORTHERN ITALY                      (545)
      ML 2.2 (LDG), 2.0 (GEN).

STV      0.11  99 P     08 52.72   0.2
                  S     08 54.52
```

19d 05h

```
ENR      0.18 101 P    08 53.78   0.1
                  S    08 56.53
DOI      0.25  11 P    08 55.50   0.6
                  eSg  08 59.50
PZZ      0.25 347 P    08 55.11   0.2
                  S    08 58.73
SBF      0.44 155 Pg   08 58.40  -0.1
                  Sg   09 05.60
ROB      0.50  86 P    08 59.92   0.3
                  S    09 07.06
BHB      0.58   6 P    09 00.35  -0.8
                  S    09 08.11
IMI      0.62 124 P    09 01.84   0.1
                  S    09 09.85
RRL      0.72 337 P    09 02.76  -0.8
FIN      0.74  94 P    09 04.03   0.2
                  S    09 13.65
FRF      0.80 209 Pg   09 04.60  -0.2
                  Sg   09 15.20
RSP      0.89   4 P    09 05.45  -1.0
LRG      1.00 217 Pg   09 08.30   0.1
                  Sg   09 22.10
PCP      1.02  74 P    09 08.15  -0.4
                  S    09 22.48
LMR      1.05 208 Pg   09 09.20   0.2
                  Sg   09 22.40
LPG      1.27 346 Pg   09 13.80   0.7
                  Sg   09 29.20
LPL      1.29 346 Pg   09 14.30   0.9
                  Sg   09 30.50
PGF      2.17 142 Pn   09 25.40  -0.5
                  Sn   09 51.00
     S.D. = 0.6  on  18 of  18 obs.
-------------------------------------
?  JAN  19, 1993  05h 23m 55.94± 1.27s
   41.792 N ±11.1km   20.121 E ± 7.8km
   DEPTH =  10.0km  (geophysicist)
 ALBANIA                            (391)
      ML 2 3 (TIR).

PHP      0.26 114 iPgc  24 01.70   0.2
                  iSg   24 07.70
LACI     0.35 243 ePg   24 04.00   0.9
                  iSg   24 08.50
TIR      0 48 203 ePg   24 05.00  -0.8
                  iSg   24 14.50
SDA      0.53 299 iPgd  24 06.30  -0.4
                  iSg   24 14.70
BCI      0.58 356 ePg   24 12.70   5.1X
     S.D. = 1.3  on   4 of   5 obs.
-------------------------------------
%  JAN  19, 1993  05h 31m 03.08± 0.68s
   46.194 N ± 6.7km    2.936 E ± 5.9km
   DEPTH =  10.0km  (geophysicist)
 FRANCE                             (538)
      ML 2.7 (LDG).

MAF      0.26 276 Pg    31 08.50  -0.1
                  Sg    31 12.20
BGF      0.37 350 Pg    31 10.70   0.0
                  Sg    31 15.80
TCF      0.51 281 Pg    31 13.20  -0.3
                  Sg    31 20.40
AVF      0.66  26 Pg    31 16.00  -0.3
                  Sg    31 24.50
                  Sn    31 27.70
SMF      0.77  54 Pg    31 17.80  -0.4
                  Sg    31 28.20
SSF      0.95  24 Pg    31 21.30   0.1
                  Sg    31 33.60
LSF      0.98 274 Pg    31 21.60  -0.1
                  Sg    31 34.50
LBF      1.07  42 Pg    31 23.50   0.3
                  Sg    31 37.00
LOR      1.25  30 Pg    31 26.70   0.4
                  Sg    31 42.50
RJF      1.33 229 Pg    31 27.40  -0.3
                  Sg    31 44.60
CAF      1.41 206 Pn    31 27.20  -1.6
                  Pg    31 29.40
                  Sg    31 47.30
LPO      1.95 220 Pg    31 40.10   3.6X
                  Sg    32 04.20
LFF      1.99 232 Pg    31 39.80   2.7
                  Sg    32 05.80
MFF      2.17 282 Pn    31 39.10  -0.7
                  Pg    31 44.50
                  Sg    32 11.00
LPL      2.74 103 Pg    31 54.70   6.6X
LPG      2.76 103 Pg    31 55.40   7.0X
     S.D. = 1.0  on  13 of  16 obs.
-------------------------------------
*  JAN  19, 1993  06h 14m 53.72± 1.13s
   19.652 N ±12.0km   64.462 W ±13.4km
   DEPTH =  33.0km  (normal)
   3.7mb (  1 obs.)
 VIRGIN ISLANDS                     ( 91)

LPR      1.89 225 P     15 24.50   0.2
CPD      2.11 221 P     15 27.80   0.3
APR      2.45 241 P     15 32.00  -0.3
PORP     2.60 233 P     15 34.70   0.3
LRS      2.63 239 P     15 34.40  -0.4
MGP      2.98 237 P     15 39.70   0.0
SIV     35.58 174 eP    21 50.00  -0.2
YKA     54.79 334 eP    24 22.60   0.1
        0.7s     0.50nm          3.7mb
     S.D. = 0.3  on   8 of   8 obs.
-------------------------------------
   JAN  19, 1993  07h 56m 37.72± 0.85s
   19.254 N ± 5.4km  145.428 E ± 6.2km
   DEPTH = 160.2 ±  8.6 km
   4.5mb ( 12 obs.)
 MARIANA ISLANDS                    (216)

NMCC     4.09 176 eP    57 41.00   0.9
                  eS    58 27.00
PJG      5.66 186 eP    58 01.00   0.1
                  e     58 03.70
GUA      5.70 185 eP    58 00.70  -0.8
        0.9s   436.97nm          5.7mb X
                  e(S)  59 04.20
MAT     18.35 341 eP    00 42.00  -0.7
        0.5s     7.04nm          4.3mb
WB2     40.44 196 iPd   04 01.50  -0.5
        0.4s    37.60nm          5.4mb
WRA     40.44 196 P     04 01.90  -0.1
ASPA    44.12 195 P     04 32.20   0.3
DZM     45.92 152 iPc   04 45.00  -1.3
WARB    48.71 203 eP    05 08.00   0.1
STK     50.98 184 eP    05 24.30  -0.6
        0.4s     1.70nm          4.1mb
GUN     54.80 291 P     05 54.32   0.5
PKI     55.25 291 P     05 58.02   1.0
KKN     55.34 291 P     05 58.68   1.1
DMN     55.51 291 P     05 58.90   0.0
GKN     55.89 291 P     06 01.38  -0.1
BGL     60.00  30 eP    06 29.59   0.2
SLKM    60.84  31 eP    06 33.81  -1.3
BRW     61.80  18 eP    06 41.66   0.4
FBA     62.91  26 eP    06 47.99  -0.7
        0.5s     4.62nm          4.6mb
KLU     63.09  30 eP    06 49.55  -0.5
YKA     77.62  28 eP    08 16.70  -0.6
        0.5s     4.00nm          4.4mb
VGB     79.10  46 ePd   08 26.76   0.9
LBFM    79.49  50 eP    08 29.01   0.7
DPW     80.11  43 eP    08 31.39   0.2
ORV     80.28  52 eP    08 31.96  -0.3
CMB     81.57  53 ePd   08 39.53   0.5
        0.9s    12.14nm          4.6mb
BONR    83.16  52 eP    08 47.93   0.4
SES     83.66  39 ePd   08 49.70   0.2
TNP     83.92  52 eP    08 51.54   0.2
        0.6s     4.91nm          4.5mb
LCCM    84.88  43 iPd   08 56.30   0.4
HHAI    85.51  46 eP    08 59.98   1.0
HVU     85.81  47 eP    09 01.51   0.9
KAF     85.81 336 iP    08 58.40  -1.5
        0.4s     3.30nm          4.5mb
DUG     86.37  49 eP    09 03.81   0.5
        0.6s     3.87nm          4.4mb
NUR     87.38 335 iP    09 06.10  -1.4
        0.3s     2.20nm          4.6mb
DAU     87.39  48 ePc   09 08.25  -0.2
MSU     87.47  50 eP    09 08.48  -0.3
BW06    87.62  45 eP    09 08.74  -0.6
        0.4s     0.83nm          4.0mb
EMUT    87.94  48 eP    09 11.13   0.1
SRU     88.42  49 eP    09 13.07  -0.2
ALQ     93.12  51 eP    09 35.36   0.3
        1.1s     5.06nm          4.6mb
ZOBO   147.94  90 ePKP  16 04.00   0.3
LPB    148.01  91 PKP   16 04.00   0.4
CNCB   148.17  91 PKP   16 08.00   4.0X
CCH    149.99  92 PKP   16 12.30   5.8X
     S.D. = 0.7  on  43 of  45 obs.
-------------------------------------
%  JAN  19, 1993  08h 18m 17.77± 0.54s
   42.320 N ± 4.4km   18.910 E ± 3.9km
   DEPTH =   5.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION         (383)
      ML 1.4 (TTG).

BDV      0.07 239 iPgd  18 19.63   0.1
                  iSg   18 20.61
TTG      0.28  67 iPgd  18 23.90   0.4
                  iSg   18 28.33
HCY      0.33 293 iPgc  18 24.45   0.0
                  iSg   18 29.31
ULC      0.44 145 iPgd  18 26.51   0.0
                  iSg   18 33.03
NKY      0.50   7 iPgc  18 27.88   0.1
                  iSg   18 35.42
BRY      0.64 335 iPgc  18 30.41  -0.2
                  iSg   18 39.80
PVY      0.83  70 iPgd  18 34.11  -0.4
                  iSg   18 46.63
IVA      0.91  53 iPgd  18 35.58  -0.2
                  iSg   18 49.41
PLE      1.07  19 iPgc  18 38.57   0.1
                  iSg   18 54.47
     S.D. = 0.3  on   9 of   9 obs.
-------------------------------------
   JAN  19, 1993  08h 24m 24.03± 0.48s
   23.983 S ± 5.8km   66.759 W ± 9.1km
   DEPTH = 212.2 ±  5.5 km
   4.4mb (  4 obs.)
 JUJUY PROVINCE, ARGENTINA          (128)

SLA      1.37 123 iPd   24 59.20   1.0
                  S     25 25.00
YJA      2.14  33 iPd   25 05.70  -0.1
FSA      2.20 162 iPd   25 06.80   1.0
                  (S)   25 37.50
ANT      3.36 274 iPc   25 18.30  -0.7
                  iS    25 57.50
CYA      4.53 169 ePc   25 34.50   1.1
CCH      6.59   5 P     26 01.00   0.9
                  S     27 14.00
CNCB     7.23 351 iPc   26 09.10   0.5
                  S     27 30.00
LPB      7.52 350 P     26 12.10  -0.2
                  S     27 35.00
TCA      7.57 166 eP    26 11.00  -1.7
                  i     27 35.00
ZOBO     7.76 350 P     26 15.00  -0.8
                  S     27 48.00
MRA      8.45 174 e(P)  26 23.00  -0.9
ARE      8.70 328 eP    26 25.00  -2.6
                  iS    27 58.50
SIV      9.58  35 P     26 41.00   2.3
VAO     18.18  91 eP    28 21.80  -1.7
                  e     28 23.40
                  e     28 25.30
BAO     19.50  68 Pd    28 35.90  -1.3
                  e     28 36.90
                  e     29 06.80
MIAR    63.53 335 eP    34 32.56  -1.3
        0.6s     3.18nm          4.3mb
UYO     63.54 334 iPc   34 33.60  -0.3
FVM     65.53 340 ePd   34 45.49  -1.1
        0.6s    13.91nm          4.9mb
KIC     67.54  72 P     34 58.30  -1.5
CBM     70.59 359 (P)   35 17.33  -0.4
SRU     74.93 326 eP    35 44.34   0.9
RSSD    75.89 333 eP    35 49.42   0.6
        0.9s     5.99nm          4.3mb
BW06    77.25 329 eP    35 56.92   0.5
HHAI    78.99 328 (P)   36 06.63   0.9
LCCM    80.66 330 eP    36 16.00   1.4
DPW     85.12 328 eP    36 38.32   1.2
YKA     94.18 340 eP    37 19.20   0.0
        0.6s     2.00nm          4.4mb
WB2    131.73 207 iPKPd 43 15.30   1.4
        0.2s     6.30nm
WRA    131.74 207 PKP   43 15.10   1.2
        0.6s     1.50nm
GBA    144.66 100 PKP   43 37.00  -0.5
     S.D. = 1.2  on  30 of  30 obs.
-------------------------------------
```

```
* JAN  19, 1993  09h 05m 01.88± 0.42s
  45.118 S ± 8.8km   34.996 E ±10.5km
  DEPTH =  10.0km  (geophysicist)
  5.4mb ( 30 obs.)  5.5Msz ( 24 obs.)
PRINCE EDWARD ISLANDS REGION      (431)
     Mw 5.9 (HRV).
     CENTROID, MOMENT TENSOR      (HRV)
     Data Used: GDSN
     L.P.B.: 31S, 70C
     Centroid Location:
     Origin Time        09:05: 9.8 0.1
     Lat 45.02S 0.02 Lon  35.40E 0.03
     Dep  15.0 FIX Half-duration  2.0
     Moment Tensor;    Scale 10**17 Nm
       Mrr= 0.04 0.14   Mtt= 4.30 0.21
       Mff=-4.34 0.14   Mrt=-1.51 0.42
       Mrf=-0.27 0.44   Mtf= 6.36 0.13
      Principal Axes:
       T  Val=  7.94   Plg=10   Azm=152
       N        -0.20      79       313
       P        -7.74       4        62
     Best Double Couple:Mo=7.8*10**17
      NP1:Strike=197 Dip=80 Slip= 175
      NP2:        288     85        10

CRZF   11.85 102 eP     08 09.00   15.2X
GRM    13.46 328 e(P)   08 15.00   -0.4
       0.5s   523.00nm          6.8mb X
BLE    16.84 306 iPd    09 01.70    2.6
       1.2s   286.00nm          5.3mb
CER    16.87 309 eP     08 59.80    0.2
       1.0s   400.00nm          5.5mb
                 i      11 53.00
FRS    17.14 330 iPd    09 01.20   -1.7
       0.7s    61.00nm          4.8mb
BLF    17.44 333 iPd    09 05.60   -1.2
       1.0s   400.00nm          5.5mb
SEK    17.76 338 iPc    09 11.00    0.1
       0.7s   166.00nm          5.3mb
KIM    18.24 330 iPc    09 15.50   -1.3
       0.3s   165.00nm          5.7mb
PRY    19.13 339 iPd    09 27.00   -0.7
       0.7s    77.00nm          5.1mb
BFS    19.34 337 eP     09 31.40    1.1
SWZ    19.50 333 eP     09 31.80   -0.4
POF    19.70 318 iPc    09 34.00   -0.2
       1.3s   100.00nm          5.0mb
BFT    19.80 347 eP     09 35.00   -0.5
       1.2s   230.00nm          5.4mb
SLR    20.08 342 iPd    09 37.30   -1.2
       1.3s   220.00nm          5.3mb
                 i      13 04.50
KSR    20.29 339 iPd    09 39.40   -1.2
       1.1s   240.00nm          5.5mb
CIR    24.21 352 iPc    10 19.60    0.1
                 i      10 29.10
BUL    25.46 346 iPc    10 30.40   -1.3
       1.0s    35.00nm          5.0mb
                 i      10 41.00
                 i      15 12.10
NVL    28.12 196 eP     10 53.00   -2.4
       2.0s   113.00nm          5.3mb
     Z  16s     1.50um          4.7MszX
     N  16s     1.00um
     E  14s     0.80um
                 e      11 02.00
                 ePP    11 17.00
                 ePcP   12 28.00
                 eS     15 44.00
NAI    43.69   3 ePd    13 13.00    4.2X
     Z  18s     7.39um          5.6Msz
                 PP     14 47.00
                 S      19 52.90
                 LQ     22 07.90
SPA    45.07 180 iPc    13 16.10   -3.5X
       1.3s    60.00nm          5.4mb
     Z  20s     3.51um          5.3Msz
                 i      26 17.30
BCAO   51.48 339 iPd    14 09.70    0.1
       0.9s    68.00nm          5.6mb
                 id     14 19.90
                 id     14 27.00
                 id     14 48.00
                 id     15 06.60
AAE    54.00   5 eP     14 32.50    3.9X
DRV    54.92 152 eP     14 36.00    1.4
                 S      22 06.00

KIC    62.39 314 P      15 28.60    1.4
LIC    62.42 314 P      15 28.70    1.4
     Z  20s     0.15um          4.2MszX
TIC    62.77 314 P      15 30.70    1.0
       0.6s    11.00nm          5.2mb
BMA    66.80 261 (P)    16 06.00   10.1X
LPA    68.13 242 eP-    16 09.00    5.0X
     Z  20s     2.84um          5.5Msz
VAO    68.56 259 (P)    16 16.00    9.0X
GBA    69.94  44 P      16 13.00   -2.2
BOM    72.41  38 iP     16 22.40   -7.6X
POO    72.54  39 eP     16 35.00    4.1X
                 iS     26 04.00
HYB    73.75  43 ePc    16 39.00    1.0
       1.4s   625.00nm          6.5mb X
BAO    74.19 264 e(P)   16 49.00    8.2X
                 e      16 51.00
                 e      17 02.80
                 e      17 16.10
                 e      17 22.70
                 e      17 28.90
BFD    75.26 128 eP     16 50.00    3.4X
TOO    76.60 130 eP     16 46.20   -8.0X
       1.0s    20.00nm          5.2mb
STK    78.51 124 eP     17 02.90   -1.9
       0.5s     2.30nm          4.5mb
BHL    78.65   1 P      17 08.00    2.7
                 S      27 10.00
ASPA   79.55 113 eP     17 08.40   -2.2
       1.5s     4.90nm          4.3mb X
CNB    80.36 131 eP     17 16.50    1.7
       1.0s    12.00nm          4.8mb
QUE    80.40  28 eP     17 32.50   17.5X
WRA    82.46 111 P      17 24.60   -1.3
       1.1s     1.00nm          3.9mb X
WRA    82.46 111 P      17 45.00   19.1X
       0.6s     1.60nm
WB2    82.46 111 eP     17 27.30    1.4
       0.5s     4.30nm          4.8mb
NDI    82.90  37 eP     17 28.00    0.1
                 eS     27 52.00
SIV    83.03 254 eP     17 35.00    6.1X
MAIO   84.02  20 eP     17 41.00    7.5X
NST    84.42  61 eP     17 50.00   14.2X
GRS    84.85   9 eP     17 38.00    0.3
       1.4s    40.00nm          5.5mb
                 eS     28 07.00
ASH    85.33  18 eP     17 44.00    4.1X
CCH    85.47 250 P      17 52.50   10.9X
DMN    85.56  43 PKP    17 41.48   -0.2
       1.0s    69.00nm          5.8mb
GKN    85.66  43 PKP    17 41.80   -0.2
       1.3s   168.00nm          6.1mb
PKI    85.68  43 PKP    17 43.44    1.1
KKN    85.80  43 PKP    17 41.72   -1.0
CHG    86.09  59 eP     17 44.90    0.7
       1.0s    15.75nm          5.1mb
BAK    86.16  11 eP     17 53.00    9.1X
GUN    86.19  43 PKP    17 43.70   -1.2
SHE    86.24  10 iPd    17 57.00   12.7X
       1.0s   120.00nm
     Z  18s     2.00um          5.6Msz
     E  18s     4.00um
                 iS     28 23.00
VAY    86.77 351 iP     17 55.40    8.5X
OHR    86.78 349 iP     17 55.20    8.1X
MTA    86.88   7 eP     17 47.00   -0.4
                 e      17 52.00
                 e      21 16.00
                 eS     28 20.00
                 e      28 34.00
SOC    88.42   3 eP     18 04.00    9.3X
       1.2s    70.00nm          5.8mb
     Z  18s     1.60um          5.5Msz
     N  18s     1.40um
     E  12s     0.50um
                 e      21 28.00
                 eS     28 26.00
KIV    88.95   6 eP     17 59.40    1.9
       2.1s    67.00nm          5.5mb
                 e      18 06.10
PYA    89.05   6 eP     18 02.00    4.1X
     Z  20s     1.50um          5.4Msz
SIM    89.68 359 eP     18 10.00    9.3X
     Z  20s     1.00um          5.2Msz
                 e      28 35.00
LSA    90.29  46 P      18 06.00    1.4

       1.5s    26.00nm          5.3mb
     Z  36s     5.32um          5.7MszX
     N  20s     4.01um
MLR    90.58 354 eP     18 08.00    2.9X
VRI    90.90 354 eP     18 08.00    1.6
CEY    92.28 346 e(P)   18 22.00    9.2X
VOY    92.66 345 eP     18 24.40    9.8X
KMI    93.16  57 eP     18 19.50    1.9
       1.5s    50.00nm          5.7mb
     Z  14s     4.70um          6.1MszX
     N  17s     1.60um
     E  17s     1.60um
UZH    94.03 352 eP     18 29.50    8.8X
     Z  20s     1.50um          5.5Msz
ZST    94.24 348 eP     18 30.30    8.6X
WTTA   94.26 344 iPc    18 31.80    9.7X
       1.2s    23.90nm          5.5mb
                 i      22 11.70
                 i      22 24.20
SPC    94.80 350 e(P)   18 33.50    9.0X
GRF    96.67 345 eP     18 40.00    7.2X
     Z  22s     2.00um          5.6Msz
                 e(PP)  22 30.00
NAO   107.40 348 Pdiff  19 21.90    1.3
       0.7s     6.00nm          5.8mb
NRI   120.67  19 ePKP   24 01.50    7.4X
       1.5s    29.00nm
                 e      24 10.00
                 e      25 33.00
BOD   121.72  38 ePKP   24 02.30    5.8X
       1.2s    10.00nm
CBM   128.64 301 PKP    24 10.00   -0.2
     Z  19s     1.51um          5.7Msz
CEH   130.30 284 PKP    24 20.00    6.3X
     Z  18s     0.70um          5.4Msz
RSNY  131.52 296 PKP    24 20.00    4.3X
     Z  20s     0.72um          5.4Msz
TIK   133.23  26 ePKP   24 22.50    4.4X
FVM   139.21 280 PKP    24 30.00   -0.4
     Z  18s     1.35um          5.7Msz
MIAR  139.73 273 PKP    24 30.00   -1.5
     Z  19s     0.65um          5.4Msz
MGD   139.96  45 iPKP   24 30.00   -1.0
       1.2s    20.00nm
     Z  19s     0.90um          5.5Msz
     E  19s     0.90um
                 e      24 40.00
                 ePPP   30 32.00
                 eSS    46 30.00
                 eSSS   51 00.00
PET   143.11  57 ePKP   24 35.00   -1.8
     Z  20s     1.40um          5.7Msz
                 e      47 04.00
MEO   143.40 270 iPKPc  24 37.00   -1.6
WMOK  143.51 270 ePKP   24 31.02   -7.1
     Z  18s     0.96um          5.6Msz
ACO   144.74 273 iPKPc  24 38.70   -1.5
FCC   146.65 313 ePKP   24 51.50    8.9
ALQ   149.04 264 ePKP   24 53.01    5.5
     Z  18s     0.12um          4.7Msz
GLD   150.37 274 PKP    24 50.00    0.7
     Z  19s     1.16um          5.7Msz
TUC   150.62 256 (PKP)  24 54.55    4.8
     Z  19s     1.00um          5.6Msz
RSSD  151.04 283 ePKP   24 54.04    3.8
     Z  19s     0.92um          5.6Msz
SMY   152.38  59 PKP    25 00.00    8.4X
     Z  20s     2.60um          6.0Msz
BRW   153.13   8 (PKP)  24 55.40    3.3X
BRW   153.13   8 ePKP   25 00.80    8.7X
SRU   153.86 269 ePKP   24 59.69    5.3X
HON   153.97 151 PKP    25 00.00    5.3X
     Z  21s     0.49um          5.3Msz
BW06  154.49 277 (PKP)  25 00.00    4.8X
MSU   154.78 266 (PKP)  25 03.30    7.6X
DAU   154.89 271 ePKP   25 01.66    5.8X
YKA   155.37 326 ePKP   24 58.50    3.2X
       1.3s     1.70nm
LCCM  156.85 284 ePKP   25 18.20   20.1X
ISA   157.78 254 PKP    25 00.00    0.5
     Z  19s     0.99um          5.6Msz
IMA   158.48  10 e(PKP)25 11.00   11.6X
       1.2s     9.60nm
TTA   161.07  16 e(PKP)25 08.20    6.1X
WDC   162.93 263 PKP    25 10.00    5.4X
     Z  20s     1.06um
PMR   163.32   7 PKP    25 10.00    5.7X
```

19d 09h

```
     Z  19s      1.09um*          6.1MszX
SIT   166.61 337 PKP   25 10.00   2.7
     Z  20s      1.23um           4.8Msz
     S.D. = 1.4  on  54 of 112 obs.
-----------------------------------
   JAN  19, 1993  09h 07m 44.25± 0.90s
   36.961 N ± 9.8km  141.757 E ±10.4km
   DEPTH =  24.2km  (  2 depth phases)
   5.1mb (  7 obs.)  4.6Msz (  1 obs.)
 NEAR EAST COAST OF HONSHU, JAPAN(228)

KAKJ     1.48 240 iPd    08 09.90   0.4
                  S      08 26.40
YAMJ     1.83 312 P      08 14.50  -0.1
                  S      08 34.50
OFUJ     2.12 358 P      08 19.20   0.4
NIIJ     2.22 278 iPd    08 20.50   0.3
CHJJ     2.40 249 iPd    08 22.90   0.1
                  S      08 50.40
MAT      2.88 263 iPd    08 30.50   0.9
                  eS     09 04.00
MTMJ     3.19 264 P      08 35.00   0.8
IIDJ     3.44 246 P      08 39.80   2.2
                  eS     09 18.90
AOMJ     3.75 344 eP     08 43.00   1.1
TSRJ     4.88 255 eP     08 58.10   0.2
MRRJ     5.48 355 eP     09 06.70   0.3
                  eS     10 12.40
HOOJ     5.54  12 eP     09 08.80   1.5
                  eS     10 07.20
WKYJ     5.72 243 P      09 10.40   0.5
KUSJ     6.53  19 eP     09 19.60  -1.7
                  eS     10 28.50
YONJ     6.94 258 P      09 27.70   0.6
TKSJ     6.95 247 eP     09 27.50   0.3
ASAJ     7.18   5 eP     09 31.80   1.5
KUMJ    10.02 247 eP     10 11.90   2.2
CN2     14.17 304 eP     11 09.00   3.5X
     Z  20s      1.22um           5.6Msz
SNY     14.87 295 eP     11 15.00   0.4
     Z  20s      1.46um
TIY     23.29 281 eP     12 47.70  -3.4X
     Z  15s      2.01um           4.7MszX
     E  18s      1.46um
XAN     26.82 274 eP     13 22.40  -2.1
     Z  20s      1.52um           4.6Msz
     N  18s      1.09um
                  pP     13 29.50  25km
                  sP     13 35.20
                  PP     14 11.20
LZH     30.35 280 eP     13 51.50  -5.0X
     Z  24s      1.45um           4.5MszX
     E  20s      1.73um
                  ePP    14 55.00
GYA     31.48 261 iPd    14 04.00  -2.4
     0.8s     16.00nm            5.0mb
CD2     31.95 270 eP     14 07.80  -2.6
GUN     47.44 276 P      16 28.60   9.3X
     0.4s     17.00nm            5.4mb
SNG     47.71 242 eP     16 11.00 -10.1X
PKI     47.96 276 P      16 22.00  -1.4
KKN     47.97 276 P      16 22.40  -0.9
     0.4s     10.00nm            5.2mb
DMN     48.18 276 P      16 24.00  -1.0
GKN     48.39 277 P      16 25.20  -1.2
     0.6s     23.00nm            5.4mb
FBA     49.02  32 (P)    16 33.00   2.4
YKA     63.73  30 eP     18 15.10  -0.7
     0.4s      0.20nm            3.6mb X
KAF     68.50 333 eP     18 44.60  -1.6
     0.5s      6.30nm            5.0mb
NUR     70.14 332 eP     18 55.00  -1.3
     0.6s      8.20nm            5.0mb
KSP     80.31 328 ePd    19 54.60   0.1
KHC     82.75 329 eP     20 07.30   0.0
GEC2    82.92 328 ePd    20 07.90  -0.4
     0.6s      1.83nm            4.4mb
                  e      20 15.30  23km
                  e      20 19.90
VBY     84.80 325 eP     20 17.00  -0.7
ZOBO   146.49  60 ePKP   27 27.00   2.2
CNCB   146.95  61 PKP    27 29.10   3.7X
SIV    150.92  50 (PKP)  27 42.00  11.1X
     S.D. = 1.4  on  35 of  42 obs.
-----------------------------------
*  JAN  19, 1993  09h 28m 25.95± 2.22s
   22.435 S ±17.4km   66.405 W ±14.2km
   DEPTH = 235.6 ± 28.1 km
 JUJUY PROVINCE, ARGENTINA        (128)

YJA      0.88  73 iPd    28 59.50  -0.1
ANT      3.90 250 iPc    29 28.50   0.1
                  iS     30 16.10
CCH      5.03   3 P      29 43.00   0.4
                  S      30 41.00
CNCB     5.79 345 P      29 53.00   0.6
                  S      31 03.40
LPB      6.08 344 P      29 55.00  -0.9
ZOBO     6.33 345 P      29 59.20   0.0
                  S      31 10.90
SIV      8.15  39 P      30 22.00   0.0
     S.D. = 0.7  on   7 of   7 obs.
-----------------------------------
%  JAN  19, 1993  09h 40m 17.31± 0.59s
   44.271 N ± 5.3km    7.440 E ± 4.6km
   DEPTH =   5.0km  (geophysicist)
 NORTHERN ITALY                   (545)
      ML 1.8 (GEN).

ENR      0.05 198 P      40 18.40  -0.4
                  S      40 19.50
STV      0.09 253 P      40 19.45   0.1
                  S      40 21.38
ROB      0.31  85 P      40 23.94   0.4
                  S      40 28.73
PZZ      0.34 314 P      40 24.63   0.5
                  S      40 29.84
IMI      0.48 138 P      40 27.42   0.4
FIN      0.56  96 P      40 28.01  -0.4
BHB      0.58 348 P      40 28.56  -0.5
     S.D. = 0.5  on   7 of   7 obs.
-----------------------------------
   JAN  19, 1993  11h 08m 21.16± 0.15s
    4.260 S ± 3.2km  152.404 E ± 5.4km
   DEPTH = 122.6km  (  2 depth phases)
   4.9mb ( 26 obs.)
 NEW BRITAIN REGION, P.N.G.       (192)

RAB      0.25 286 iPd    08 40.00   0.3
     0.4s   1762.71nm
                  iS     08 50.00
MDG      6.67 261 eP     10 02.70   4.6X
PMG      7.30 225 eP     10 10.00   3.4X
                  eS     11 27.00
HNR      9.08 125 eP     10 25.00  -5.7X
                  eS     12 10.00
CTA     16.83 200 iPc    12 12.00   1.1
     1.0s     42.50nm            4.7mb
GUA     19.18 337 eP     12 39.90   1.9
     1.0s   1000.00nm            6.1mb X
PJG     19.25 337 eP     12 40.30   1.7
DZM     22.33 144 iPd    13 10.20   0.5
RMQ     22.38 189 iPd    13 11.10   1.1
     0.4s     10.00nm            4.5mb
BRS     23.01 179 iPd    13 17.50   1.4
     1.0s     29.00nm            4.6mb
WB2     23.50 227 iPd    13 21.80   0.8
     0.4s     96.30nm            5.6mb
                  i      13 47.30 123km
ARMA    26.03 182 eP     13 45.00   0.2
     0.5s     18.00nm            4.9mb
CMS     27.78 192 eP     14 00.00  -0.5
     1.0s      9.00nm            4.4mb
STK     29.29 199 iPd    14 13.00  -1.1
     0.8s      6.80nm            4.4mb
BWA     30.24 187 eP     14 22.40  -0.1
CNB     31.03 185 iPc    14 30.00   0.6
     0.5s     14.00nm            4.9mb
WARB    32.92 226 iPd    14 40.30  -5.7X
TOO     33.75 190 eP     14 53.20   0.2
     1.0s     34.00nm            5.1mb
BFD     33.98 194 eP     14 54.00  -1.0
     0.6s      9.00nm            4.7mb
                  e      15 21.20 123km
TAU     38.75 186 iPc    15 36.50   1.5
MEEK    39.22 232 iPd    15 38.90  -0.3
     0.4s     15.00nm            5.1mb
NANU    40.04 240 iPc    15 45.60  -0.3
     0.4s     12.00nm            5.0mb
KLB     42.39 226 eP     16 03.00  -2.1
MRWA    42.48 230 eP     16 05.30  -0.6
     0.3s      5.00nm            4.7mb
BAL     42.64 228 eP     16 06.00  -1.1
MUN     43.71 227 eP     16 15.50  -0.3
CN2     53.65 336 eP     17 32.00   0.0
     1.0s     17.00nm            4.9mb
BJI     55.23 326 eP     17 43.50  -0.1
TIY     55.86 322 eP     17 47.80  -0.6
CD2     58.09 311 iPc    18 04.60   0.5
HHC     58.38 324 P      18 05.40  -0.7
     1.4s     19.00nm            4.9mb
LZH     60.57 316 Pd     18 22.00   0.8
     1.5s     27.00nm            5.0mb
GTA     64.99 317 eP     18 51.00   0.6
     1.0s     19.00nm            5.0mb
GUN     71.51 301 P      19 31.36   0.1
PKI     71.82 301 P      19 32.62  -0.5
KKN     71.99 301 P      19 32.92  -1.0
DMN     72.09 301 P      19 34.74   0.1
GKN     72.59 301 P      19 37.10  -0.3
WMQ     75.08 317 P      19 52.00   0.6
HYB     75.94 289 eP     19 56.50  -0.2
SVW     76.48  23 eP     20 00.80   1.9
TTA     77.41  22 eP     20 04.80   0.7
SLKM    78.35  25 ePd    20 08.23  -1.0
PMS     79.01  25 eP     20 12.60  -0.2
     0.9s     33.40nm            5.1mb
PMR     79.36  25 eP     20 12.30  -2.3
     1.1s     19.19nm            4.8mb
IMA     80.08  20 ePd    20 18.19  -0.4
     0.9s      6.43nm            4.4mb
KLU     80.66  25 eP     20 21.17  -0.5
TOA     80.84  25 eP     20 23.50   1.0
FBA     81.53  22 eP     20 24.62  -1.4
     0.8s     17.10nm            4.9mb
BRW     82.34  15 eP     20 30.90   0.8
GMW     89.61  42 ePc    21 06.56   0.3
MEMM    91.51  53 (P)    21 17.62   2.5X
TNP     92.90  52 eP     21 21.65  -0.2
     0.8s     10.09nm            5.2mb
NEW     93.46  42 eP     21 23.81  -0.2
     0.8s     11.83nm            5.3mb
YKA     95.14  28 eP     21 31.10  -0.2
     0.5s      4.20nm            5.1mb
HVU     96.41  49 eP     21 37.50  -0.3
SRU     98.16  51 eP     21 45.58  -0.2
BW06    98.78  48 eP     21 47.31  -1.3
     0.8s      6.12nm            5.2mb
RSSD   102.69  46 ePdiff22 05.25  -0.8
     0.7s      4.71nm            5.4mb
NUR    111.48 335 ePKP   26 42.00  -0.1
HFS    116.03 338 ePKP   26 49.20  -1.7
     0.5s      2.50nm
NAO    116.56 340 PKP    26 51.70  -0.2
     0.7s      3.60nm
PRM    121.24  52 ePKP   27 01.63   0.0
JSC    122.05  52 ePKP   27 03.24   0.1
CLL    122.19 331 iPKP   27 03.00   0.1
LHS    122.34  52 ePKP   27 03.94   0.2
CEH    123.18  49 ePKP   27 05.32   0.1
KHC    123.28 329 ePKP   27 05.50   0.4
     1.1s      5.90nm
GEC2   123.39 329 ePKPd  27 05.10  -0.3
     0.6s      4.61nm
                  e      27 06.80
                  e      27 09.20
                  e      30 30.40
GRF    124.11 331 ePKP   27 07.00   0.3
VBY    124.51 325 iPKP   27 07.60   0.0
VOY    124.99 326 ePKP   27 08.30  -0.3
DOU    126.87 335 PKP    27 12.70   0.7
CDF    126.88 332 ePKP   27 11.80  -0.4
     0.3s      1.00nm
BSF    127.52 331 ePKP   27 13.20  -0.3
     0.8s     11.95nm
HAU    127.61 332 ePKP   27 13.30  -0.2
     0.5s      6.40nm
LPL    129.16 329 ePKP   27 16.90   0.1
     0.5s      4.30nm
LPG    129.17 329 ePKP   27 17.00   0.1
     0.5s      4.65nm
LOR    129.30 333 ePKP   27 16.90   0.1
     0.5s      4.90nm
LBF    129.46 332 ePKP   27 17.20   0.1
     0.4s      2.35nm
SSF    129.62 333 ePKP   27 17.70   0.3
     0.7s      9.15nm
SMF    129.77 332 ePKP   27 17.50  -0.2
     0.4s      4.20nm
AVF    129.89 333 ePKP   27 17.70  -0.2
     0.4s      2.25nm
```

```
PGF    129.90 325 ePKP  27 17.50  -0.7
        0.4s      4.60nm
LDF    129.99 336 ePKP  27 17.90  -0.1
        0.5s      3.00nm
FLN    129.99 337 ePKP  27 18.10   0.1
        0.8s     14.50nm
BGF    130.29 333 ePKP  27 19.00   0.3
        0.5s      4.25nm
GRR    130.44 337 ePKP  27 18.70  -0.2
        0.6s      8.05nm
FRF    130.54 327 ePKP  27 18.60  -0.6
        0.5s      4.45nm
MAF    130.67 333 ePKP  27 19.90   0.5
        0.3s      0.70nm
LRG    130.77 328 ePKP  27 19.20  -0.4
        0.6s      7.95nm
LMR    130.77 327 ePKP  27 18.90  -0.7
        0.5s      4.50nm
TCF    130.79 333 ePKP  27 20.00   0.4
        0.7s      7.60nm
LPF    130.80 337 ePKP  27 20.10   0.6
        0.3s      7.85nm
LSF    131.12 333 ePKP  27 20.40   0.1
MFF    131.58 335 ePKP  27 21.30   0.2
        0.4s      2.40nm
CAF    131.88 332 ePKP  27 22.60   0.8
LPO    132.47 332 ePKP  27 23.80   0.9
        0.4s      2.70nm
EPF    134.13 331 ePKP  27 26.10   0.0
AVE    145.51 329 iPKP  27 47.50   0.6
BAO    151.74 135 PKPc  28 03.90   6.7X
                  e     28 09.20
KIC    157.15 276 PKP   28 04.70   0.2
     S.D. = 0.8  on  96 of 102 obs.
-----------------------------------
*  JAN  19, 1993  11h 17m 56.14± 1.00s
   19.661 S ± 9.0km   70.983 W ±11.4km
   DEPTH =  33.0km  (normal)
   4.8mb (  4 obs.)
 NEAR COAST OF NORTHERN CHILE     (122)

ARE      3.22 351 eP     18 46.00   0.2
                  iS     19 20.00
CNCB     4.02  46 P      18 58.10   0.6
ANT      4.06 173 eP     18 57.80   0.3
LPB      4.15  42 P      19 00.20   1.0
        1.0s    630.00nm
ZOBO     4.31  39 iPc    19 02.00   0.3
CCH      5.12  65 P      19 13.50   0.6
YJA      5.70 117 ePd    19 21.50   0.3
NNA      9.48 323 eP     20 20.30   6.7X
        0.6s      8.00nm          5.1mb
                  eS     21 51.20
SIV     10.12  70 eP     20 20.00  -2.3
FVM     60.18 342 eP     28 01.03  -2.1
        0.6s      9.52nm          5.1mb
ALQ     63.91 328 (P)    28 30.70   2.4X
        1.0s      4.25nm          4.5mb
MSU     69 58 327 eP     29 05.41   1.2
YKA     88.82 341 eP     30 52.20   4.5X
        0.7s      1.60nm          4.5mb
GBA    149.18  96 PKP    37 43.00   3.8X
GKN    156.23  65 PKP    38 00.00  10.8X
     S.D. = 1.4  on  10 of  15 obs.
-----------------------------------
*  JAN  19, 1993  11h 27m 43.23± 1.27s
   19.667 S ± 8.7km   70.934 W ±14.1km
   DEPTH =  59.1 ± 14.6 km
   4.0mb (  1 obs.)
 NEAR COAST OF NORTHERN CHILE     (122)

ARE      3.23 350 eP     28 32.00  -0.9
                  iS     29 07.50
CNCB     3.99  45 P      28 45.00   1.1
ANT      4.05 173 eP     28 44.00   0.0
LPB      4.12  41 P      28 48.00   2.5X
        1.0s    360.00nm
ZOBO     4.29  39 iPc    28 48.50   0.4
CCH      5.08  64 P      29 01.50   2.5X
YJA      5.65 117 e(P)   29 07.50   0.4
NNA      9.52 322 eP     29 51.70  -8.6X
                  eS     31 40.10
SIV     10.08  70 P      30 07.00  -0.9
KIC     70.05  75 P      38 50.20  -1.1
YKA     88.84 341 eP     40 33.00   1.3
        0.6s      0.60nm          4.0mb
     S.D. = 1.3  on   8 of  11 obs.
-----------------------------------
?  JAN  19, 1993  11h 48m 15.50± 7.31s
   40.945 N ±32.9km   24.188 E ±52.7km
   DEPTH =  10.0km  (geophysicist)
 AEGEAN SEA                       (365)

SRS      0.48 291 ePg    48 24.66  -0.6
                  eSg    48 35.50
OUR      0.63 195 ePg    48 28.05  -0.1
SOH      0.64 259 iPg    48 28.42   0.0
                  eSg    48 39.94
KNT      1.00 283 iPg    48 35.21   0.8
                  eSg    48 51.38
     S.D. = 1.0  on   4 of   4 obs.
-----------------------------------
&  JAN  19, 1993  12h 23m 55.65s
   62.552 N          151.220 W
   DEPTH =  92.8km
   2.4mb (  1 obs.)
 CENTRAL ALASKA                   (  1)
      <AEIC>.

SKT      0.59 194 iP     24 11.56  -0.1
                  eS     24 23.53
HUR      0.84  59 iP     24 13.79  -0.3
                  eS     24 27.35
PWA      1.10 145 P      24 17.60   0.6
                  S      24 33.70
SUA      1.12 168 iP     24 17.20  -0.1
                  eS     24 33.99
CGLM     1.30 197 eP     24 19.22  -0.3
GHO      1.33 125 iP     24 20.04   0.1
                  eS     24 38.59
CRP      1.36 199 eP     24 19.69  -0.7
PLRM     1.38 133 eP     24 20.03  -0.3
PMR      1.38 133 eP     24 19.72  -0.6
CP2      1.38 201 eP     24 20.32  -0.3
RND      1.38  51 iP     24 19.98  -0.5
                  eS     24 38.19
BGL      1.41 204 eP     24 21.04   0.2
CKN      1.41 199 eP     24 21.30   0.5
                  S      24 40.55
SPU      1.43 196 eP     24 21.00  -0.1
CKT      1.43 199 eP     24 21.39   0.2
CKL      1.46 202 eP     24 21.75   0.2
PMS      1.53 148 P      24 22.10  -0.2
SML      1.55 118 iP     24 22.32  -0.3
                  eS     24 43.06
MCK      1.58  40 eP     24 23.41   0.5
KNK      1.74 130 eP     24 24.44  -0.6
                  eS     24 46.76
NKA      1.82 180 eP     24 28.34   2.3
SCM      1.96 110 eP     24 27.16  -0.9
PTE      1.99 147 eP     24 27.54  -0.8
DFR      2.09 200 eP     24 29.75   0.0
SLKM     2.11 166 eP     24 29.76  -0.2
NCT      2.16 203 eP     24 31.00   0.3
PWL      2.19 140 eP     24 29.38  -1.6
RDW      2.21 201 eP     24 32.10   0.6
RS2      2.22 200 eP     24 31.82   0.2
TTA      2.24 282 eP     24 30.28  -1.5
NEA      2.25  24 eP     24 31.22  -0.6
MPA      2.25 156 eP     24 30.99  -0.9
TOA      2.40  99 P      24 33.40  -0.5
SVW      2.54 237 eP     24 35.09  -0.7
CCB      2.60  34 eP     24 35.32  -1.2
SEW      2.60 160 eP     24 36.46  -0.1
SDG      2.63  88 eP     24 36.62  -0.4
HDA      2.67  44 iP     24 36.83  -0.7
PAX      2.68  78 eP     24 37.73   0.0
KLU      2.72 111 eP     24 36.49  -1.7
VLZ      2.72 119 eP     24 36.40  -1.8
TZL      2.76  98 eP     24 38.22  -0.5
MDM      2.76  27 eP     24 37.85  -0.9
FBA      2.81  31 eP     24 38.00  -1.4
GLM      2.98  33 eP     24 40.98  -0.8
PDB      3.13 209 eP     24 43.84   0.1
HIN      3.13 132 eP     24 42.05  -1.8
GLB      3.67 104 eP     24 49.63  -1.7
IMA      3.69 344 ePc    24 50.17  -1.5
BALM     4.48 106 (P)    25 01.31  -1.2
YKA     16.76  74 eP     27 43.40  -2.1
        0.7s      0.20nm          2.4mb
        51 obs. associated
-----------------------------------
    JAN  19, 1993  12h 30m 53.81± 0.79s
     4.741 S ± 5.7km  152.587 E ± 6.9km
    DEPTH =  75.2 ±  7.2 km
    4.6mb ( 12 obs.)
  NEW BRITAIN REGION, P.N.G.      (192)

RAB      0.69 322 iPd    31 09.00  -0.2
        0.4s   1803.39nm
                  iS     31 22.00
PMG      7.11 229 eP     32 37.00  -0.2
                  eS     33 55.00
HNR      8.66 123 eP     32 59.00   0.3
DZM     21.84 143 iPd    35 41.20  -0.5
RMQ     21.93 189 iPc    35 42.10  -0.4
        0.3s      7.00nm          4.6mb
WB2     23.32 228 iPc    35 56.10   0.0
        0.3s     25.30nm          5.1mb
                  eS     40 05.30
WRA     23.32 228 P      35 56.79   0.6
        0.5s      1.50nm          3.7mb
ARMA    25.56 182 eP     36 18.20   0.7
        1.0s     14.00nm          4.4mb
ASPA    26.05 222 iPd    36 21.50  -0.6
        0.5s      8.70nm          4.5mb
                  eS     40 59.50
CMS     27.35 193 eP     36 35.40   1.6
        0.8s      4.00nm          4.0mb
WARB    32.72 227 eP     37 20.90  -0.6
MEEK    39.07 233 iPc    38 14.80  -0.6
        0.5s     11.00nm          5.0mb
CHG     57.77 296 eP     40 40.70   0.9
GUN     71.91 301 P      42 11.60  -0.1
PKI     72.22 301 P      42 13.42  -0.1
KKN     72.39 301 P      42 14.34   0.0
DMN     72.49 301 P      42 15.18   0.1
GKN     72.99 301 P      42 17.72  -0.1
SLKM    78.71  25 iPc    42 48.72  -0.6
PMS     79.36  25 eP     42 53.30   0.5
        0.6s     12.10nm          5.0mb
PMR     79.72  24 eP     42 53.70  -0.9
        0.8s      6.90nm          4.6mb
IMA     80.47  19 eP     42 59.20   0.4
        0.8s      4.70nm          4.5mb
TOA     81.20  25 eP     43 03.60   1.0
FBA     81.91  22 ePc    43 04.86  -1.3
        0.8s     12.75nm          4.9mb
BALM    82.37  26 eP     43 09.39   0.6
BRW     82.76  15 eP     43 11.70   1.3
YKA     95.47  28 eP     44 10.70  -0.5
        0.8s      2.80nm          4.8mb
GEC2   123.89 328 ePKPd  49 45.70   0.7
        0.6s      1.89nm
                   e     49 49.50
                   e     50 03.30
LPB    134.56 119 PKP    50 01.00  -5.7X
ZOBO   134.63 118 PKP    50 07.80   0.7
SIV    140.84 122 ePKP   50 15.00  -2.9
     S.D. = 0.9  on  30 of  31 obs.
-----------------------------------
%  JAN  19, 1993  13h 52m 04.17± 1.34s
   41.318 N ±13.9km   24.294 E ± 7.0km
   DEPTH =  10.0km  (geophysicist)
 GREECE-BULGARIA BORDER REGION    (363)

SRS      0.57 250 iPg    52 15.06  -0.6
SOH      0.87 235 ePg    52 20.78  -0.1
OUR      1.01 194 iPg    52 24.14   0.9
KNT      1.06 262 ePg    52 24.34   0.1
                  eSg    52 41.10
ALN      1.39 107 ePb    52 29.50   0.0
PAIG     1.47 199 ePb    52 29.70  -0.9
GRG      1.47 256 iPb    52 31.42   0.6
     S.D. = 0.8  on   7 of   7 obs.
-----------------------------------
%  JAN  19, 1993  14h 26m 03.34± 0.51s
   26.357 S ± 5.8km   27.719 E ± 5.8km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA         (584)
      ML 2.8 (PRE).

BPI      0.33  57 eP     26 10.00  -0.1
                  S      26 13.50
PRY      0.61 201 eP     26 15.90   0.3
                  S      26 23.00
SLR      0.80  39 iPd    26 19.00  -0.4
                  S      26 27.40
KSR      0.89 303 eP     26 20.90  -0.1
                  S      26 31.00
BFS      1.00 237 eP     26 23.50   0.7
```

```
'9d  14h

                 S      26 43.20
SEK      1.96 182 eP     26 38.00    0.3
                 S      27 05.50
BFT      2.19  73 eP     26 41.90    0.7
                 S      27 08.50
SWZ      2.29 248 eP     26 42.90    0.3
                 S      27 17.70
BLF      3.06 206 eP     26 53.00   -0.4
                 S      27 29.50
FRS      3.99 212 e(P)   27 05.00   -1.5
     S.D. = 0.7  on  10 of  10 obs.
-------------------------------------
   JAN  19, 1993  14h 39m 26.17± 0.08s
   38.649 N ± 2.1km  133.465 E ± 1.8km
   DEPTH = 448.3km  (geophysicist)
   6.0mb (201 obs.)
 SEA OF JAPAN                      (660)
      Mw 6.6 (GS), 6.5 (HRV). mb 6.2
      (BRK). Depth from broadband
      displacement seismograms.
      FAULT PLANE SOLUTION: P-Waves
       NP1:Strike=315 Dip=78 Slip= -34
       NP2:         53      57      -166
       Principal Axes:
        T                Plg=14  Azm=  8
        P                     32      269
      Comment: The focal mechanism is
        moderately well controlled and
        corresponds to strike-slip
        faulting with a large normal
        component. The preferred fault
        plane is not determined.
      RADIATED ENERGY
       No. of sta:  12  Focal mech.  F
       Energy        3.1±0.9*10**13 Nm
      MOMENT TENSOR SOLUTION
      Dep 453            No. of sta: 22
      Moment Tensor;   Scale 10**19 Nm
        Mrr=-0.24        Mtt= 0.99
        Mff=-0.74        Mrt= 0.20
        Mrf=-0.32        Mtf=-0.32
       Principal axes:
        T  Val=  1.09  Plg=11  Azm= 12
        N       -0.17      64      125
        P       -0.92      23      277
      Best Double Couple:Mo=1.0*10**19
       NP1:Strike= 56 Dip=65 Slip=-171
       NP2:        323      82       -25
      CENTROID, MOMENT TENSOR    (HRV)
      Data Used: GDSN
      L.P.B.: 30S, 83C  M.W.: 26S, 54C
      Centroid Location:
      Origin Time        14:39:32.6 0.1
      Lat 38.70N 0.01 Lon 133.96E 0.01
      Dep 461.6 1.0 Half-duration  4.4
      Moment Tensor;   Scale 10**18 Nm
        Mrr=-1.53 0.04  Mtt= 5.77 0.06
        Mff=-4.25 0.06  Mrt= 1.51 0.05
        Mrf=-2.98 0.05  Mtf=-1.38 0.05
       Principal Axes:
        T  Val=  6.45  Plg=15  Azm= 11
        N       -0.28      54      122
        P       -6.18      32      272
      Best Double Couple:Mo=6.3*10**18
       NP1:Strike= 56 Dip=56 Slip=-166
       NP2:        319      79       -34
                                        
SHK      4.16 189 iPc    40 44.50    1.2
      1.0s  4000.00nm
MAT      4.31 118 iPd    40 44.00   -0.7
                 eS     41 47.00
MDJ      6.63 335 iPc    41 09.74    1.9
                 S      42 32.00
                 ScP    49 54.00
                 ScS    53 27.50
SAP      7.41  51 iP     41 15.00   -1.3
                 eS     42 40.00
CN2      7.93 313 iPc    41 24.20    2.1
                 sP     42 46.00
                 S      42 58.00
                 ScP    49 55.00
                 ScS    53 28.00
ERM      8.13  63 eP     41 20.81   -3.4X
SNY      8.20 296 iPd    41 27.80    2.8
                 sP     42 52.00
                 iS     42 58.00
                 ScS    53 29.20
```

```
DL2      9.25 275 iP     41 39.00    2.4
      1.0s  3630.00nm          6.7mb
                 S      43 20.00
                 ScS    53 28.50
YSS     10.77  36 iPc    41 50.09   -3.2X
      Z  12s     14.20um
      N  12s     19.20um
      E  12s     11.70um
                 ic     43 22.79
                 iS     43 43.60
KUR     12.57  54 iPc+   42 11.50   -1.4
      0.5s  4180.00nm          7.1mb X
      Z  14s     43.20um
      N  14s     59.40um
      E  14s     37.80um
                 iS     44 24.00
SSE     12.58 237 iPd    42 13.52    0.5
      1.0s   760.00nm          6.1mb
                 ed     42 15.72
                 ec     44 24.57
TIA     13.22 264 Pd     42 20.60    0.8
                 S      44 43.40
                 ScS    53 37.90
BJI     13.46 281 iPd    42 22.43    0.1
      1.5s  1900.00nm          6.3mb
                 ed     42 23.92
                 sP     44 04.00
                 eS     44 44.00
                 eScS   53 38.50
NJ2     13.61 246 iPd    42 25.00    1.0
      0.6s   770.00nm          6.4mb
HIA     14.48 322 ePc    42 32.83   -0.2
TIY     16.56 273 iPd    42 54.50    0.0
                 S      45 41.00
HHC     16.98 284 Pd     42 58.70    0.0
      1.2s   710.00nm          6.1mb
                 sP     44 56.00
                 S      45 56.00
TATO    16.99 220 ePc    42 59.82    1.2
WHN     17.67 249 Pd     43 04.70   -0.6
      1.5s  1840.00nm          6.4mb
                 iS     46 04.00
                 ScS    53 50.00
BTO     18.16 284 iPc    43 10.00   -0.3
      1.2s  1010.00nm          6.2mb
                 sP     45 09.00
                 iS     46 14.00
QZH     18.58 227 Pd     43 15.00    0.7
      0.8s   500.00nm          6.1mb
SKR     20.00  46 iPc+   43 27.00   -0.8
      0.7s  2520.00nm          6.9mb
      Z  20s     22.20um          4.7MszX
      N  18s      9.80um
      E  18s     16.40um
                 iS     46 42.00
XAN     20.28 264 iPd    43 30.93    0.2
      0.8s   300.00nm          5.9mb
                 id     43 32.58    6kmX
                 PcP    47 30.00
PET     22.52  42 iPd+   43 51.00   -0.4
      1.1s  1070.00nm          6.3mb
      Z  18s     17.50um          5.5Msz
      N  15s     10.40um
      E  17s     16.00um
                 eS     47 25.00
                 e      54 07.00
BOD     22.96 333 iPc    43 54.10   -1.2
      1.3s   499.00nm          5.9mb
PIP     23.14 213 iPc    43 56.50   -0.8
      1.0s      1.46nm         3.5mb X
GZH     23.14 234 iPc    43 58.00    0.8
      1.2s   840.00nm          6.1mb
                 sP     46 10.00
                 S      47 36.00
                 iS     47 40.00
HKC     23.20 231 P      43 58.70    0.9
                 S      47 40.00
YAK     23.51 356 iPc+   43 59.00   -1.3
      1.6s  3576.00nm          6.6mb
      N  16s     24.68um
      E  11s     18.47um
                 epP    45 02.00
                 ePP    46 02.00
                 iS     47 37.00
                 ePcP   47 51.00
                 esS    49 32.00
                 iScS   54 16.00
```

```
LZH     23.64 273 iPd    44 01.83   -0.1
      1.5s  2430.00nm          6.5mb
                 ed     44 03.32    5kmX
MGD     24.11  21 iPc+   44 04.00   -1.8
      0.7s  1400.00nm          6.6mb
      Z  14s     10.00um          5.4MszX
      N  14s     11.00um
                 iS     47 46.00
ZAK     24.34 309 iPd-   44 08.00    0.1
      1.4s   506.00nm          5.9mb
                 eS     47 56.00
IRK     24.37 313 iP-    44 08.00   -0.2
      1.3s   223.00nm          5.5mb
                 esP    46 01.00
                 iS     47 57.00
BAG     24.87 211 ePc    44 11.90   -1.3
      0.9s   211.76nm          5.7mb
CD2     25.51 261 eP     44 17.20   -1.6
                 sP     46 33.00
GYA     25.55 250 iPd    44 17.60   -1.7
      1.0s  1000.00nm          6.2mb
                 S      48 10.00
                 ScS    54 18.00
GTA     26.07 282 iPc    44 23.50   -0.3
      1.5s   440.00nm          5.7mb
                 sP     46 34.00
                 S      48 20.00
MOY     26.11 311 iPd    44 23.50   -0.3
      1.3s   372.00nm          5.7mb
PJG     26.93 155 eP     44 29.80   -1.5
                 e      44 38.90   32kmX
                 e      45 47.20
GUA     26.99 155 eP     44 30.20   -1.7
      1.0s  1800.00nm          6.5mb
                 e      44 38.80   30kmX
                 e      45 47.00
                 eS     48 34.00
PGP     27.39 207 ePd    44 35.00   -0.4
QIZ     28.32 233 iPd    44 44.75    1.2
      1.2s  1060.00nm          6.1mb
                 ed     44 46.40    6kmX
                 id     46 03.65
                 ic     46 53.04
                 sP     46 58.00
                 iS     49 00.00
KMI     29.22 252 iPd    44 50.59   -1.0
      2.0s   950.00nm          5.9mb
                 ed     44 52.25
                 ic     46 11.43
                 pP     46 16.00
                 ec     47 03.57
                 sP     47 04.00
MAP     29.46 199 ePd    44 52.00   -1.4
      1.0s   248.00nm          5.6mb
SMY     31.23  50 ePc    45 07.98   -0.4
      1.0s  2219.75nm          6.5mb
      Z  19s      3.57um          5.0Msz
                 PP     46 26.84
                 ePcP   47 48.89
DAV     32.22 195 ePc    45 16.40   -0.8
TIK     33.14 357 iPc+   45 23.00   -1.4
      0.7s   900.00nm          6.3mb
      Z  16s     21.00um          5.9MszX
                 ipP    46 51.00 499kmX
                 isP    47 50.00
                 iS     50 11.00
WMQ     34.46 294 iPd    45 36.30    0.4
      1.5s   360.00nm          5.6mb
                 pP     47 04.00 489kmX
                 S      50 32.00
LOE     34.84 242 iPd    45 39.60    0.4
ELT     35.23 310 iPd    45 41.80   -0.3
      1.3s   664.00nm          5.9mb
                 e      47 15.00 511kmX
                 e      47 56.00
                 iS     50 41.00
CHTO    35.86 246 iPd    45 48.27    0.5
                 ed     45 49.93    6kmX
                 ePcP   47 24.28
LSA     35.87 269 iPd    45 48.99    0.7
      1.3s   790.00nm          6.0mb
                 ed     45 50.64    6kmX
                 i      47 23.07
KKM     36.02 210 iP     45 50.00    0.8
      1.0s     47.90nm         4.9mb X
ADK     36.77  52 ePc    45 52.98   -1.9
      1.2s   893.94nm          6.1mb
```

```
                ePcP  48 04.09
                eS    51 03.88
BDT   36.85 244 iPd   45 57.80   1.9
      0.8s   415.30nm          5.9mb
TSM   37.02 206 iPd   45 58.10   0.8
      1.2s  3080.90nm          6.6mb
NST   37.14 241 iPd   46 08.00   9.7X
KHT   38.82 242 iPc   46 13.00   0.9
NRI   39.07 336 iPc   46 11.80  -1.7
      1.0s  1174.00nm          6.3mb
    Z  16s     9.80um          5.7MszX
    E  19s    12.00um
                e     48 09.00
                iS    51 34.00
ILT   39.23  26 iPc   46 13.50  -1.3
                iS    51 35.00
SWI   39.37 183 iPc   46 16.50   0.0
NNT   39.60 238 iPd   46 19.40   0.9
GUN   40.80 269 Pd    46 28.68   0.1
PCI   41.31 201 ePc   46 32.40   0.1
KKN   41.32 270 Pd    46 32.54  -0.1
PKI   41.33 269 Pd    46 32.48  -0.4
PRZ   41.39 293 iPc   46 34.00   1.0
      1.2s  2900.00nm          6.6mb
    Z  11s     6.70um          5.8MszX
    E  11s     8.60um
                ePPP  48 22.00
                iS    52 14.00
DMN   41.54 270 Pd    46 34.32  -0.2
GKN   41.73 270 Pd    46 35.56  -0.3
SNG   43.12 232 iPd   46 48.00   1.3
      1.0s   920.00nm          6.2mb
                eS    53 43.60
KSH   43.98 290 Pd    46 55.20   1.7
      1.0s   170.00nm          5.4mb
                S     52 52.00
FRU   44.00 295 iPd-  46 54.20   0.7
      1.4s  2340.00nm          6.4mb
                ipP   48 47.00 667kmX
                iS    52 52.00
                isS   56 00.00
AAK   44.14 295 iPd   46 55.01   0.2
                ed    46 56.42   5kmX
BRVK  44.84 310 iPd   46 59.00  -0.9
      1.0s   350.00nm          5.7mb
                eS    52 59.00
IPM   44.92 229 ePd   47 01.00   0.1
      1.0s   486.20nm          5.9mb
                e     48 33.00 487kmX
MDG   45.14 163 eP    47 02.80   0.2
KGM   45.70 225 ePd   47 07.00   0.1
      1.1s   888.70nm          6.1mb
                e     48 37.00 470kmX
KLM   45.75 227 eP    47 08.00   0.7
RAB   46.01 154 eP    47 09.00  -0.2
SDN   46.20  46 eP    47 07.81  -2.5
      0.4s   391.70nm          6.2mb
                epP   48 36.02 457kmX
NDI   47.22 275 eP    47 18.00  -0.5
      0.6s    90.00nm          5.4mb
                eS    47 36.50
BRW   47.47  24 ePd   47 19.73  -0.1
                ePcP  48 42.30 497kmX
                e     48 54.36
                eScP  51 51.38
                e     53 41.05
TTA   47.74  36 ePc   47 21.57  -0.6
      1.0s   204.82nm          5.5mb
                e     48 54.65 485kmX
                ePP   49 20.06
                eScP  51 52.93
SVW   48.08  38 ePc   47 24.94   0.2
      0.7s   446.05nm          6.0mb
                ePcP  48 44.75
                eScP  51 54.40
IMA   48.55  31 ePc   47 27.30  -1.0
                ePcP  48 45.48
                (pP)  48 58.06 467kmX
                eScP  51 55.84
                e     53 53.49
PMG   49.48 162 eP    47 34.00  -1.7
BGL   49.62  38 ePc   47 36.23  -0.2
                e     54 12.45
WSI   49.62 197 ePc   47 32.00  -4.7X
KHKI  49.64 203 ePd   47 35.90  -1.0
                e     56 42.00
CP2   49.69  38 ePc   47 36.80  -0.3
```

```
                eScP  52 00.26
SVE   49.71 316 iPd-  47 37.00   0.0
      2.1s  1380.00nm          5.9mb
    Z  16s     4.00um          5.5MszX
    N  16s     2.20um
    E  16s     2.70um
                i     49 38.00 703kmX
                iS    54 09.00
                i     56 32.00
CRP   49.73  38 ePc   47 36.52  -0.8
                epP   49 06.70 459kmX
                eScP  52 00.23
                e     54 14.64
TRT   50.02 207 iPd   47 38.40  -1.3
      0.7s    22.30nm          4.6mb X
KDC   50.18  42 ePc   47 38.83  -1.6
      0.6s   254.44nm          5.7mb
                ePcP  48 51.03
                eScP  52 02.78
SLKM  50.79  38 eP    47 43.10  -1.9
PMR   51.10  37 ePd+  47 45.72  -1.4
      0.7s   703.79nm          6.1mb
    Z  21s     4.20um          5.4Msz
                ePcP  48 54.96
                PP    49 44.76
                eScP  52 06.07
                e     54 28.57
                e     56 57.24
COL   51.11  33 iPc   47 46.88  -0.3
                ec    47 48.26   5kmX
                ePP   49 51.30
                e     50 09.24
FBA   51.11  33 ePc   47 46.38  -0.8
                epP   49 17.81 463kmX
MTN   51.27 183 eP    47 47.20  -1.6
HYB   52.07 262 iPd   47 54.20  -0.7
      1.0s  1140.00nm          6.2mb
                i     48 41.00 210kmX
                iS    54 44.00
TOA   52.37  36 iPc   47 56.90   0.3
KLU   52.63  37 ePc   47 57.10  -1.4
MID   52.93  39 eP    48 01.00   0.4
BALM  54.42  37 ePd   48 10.03  -1.3
POO   55.09 266 iPd   48 19.00   2.5
      1.4s  1865.12nm          6.2mb
                iS    55 26.00
GBA   55.19 259 Pd    48 17.00  -0.2
BOM   55.70 267 iPc   48 20.40  -0.3
                iS    55 30.60
MAIO  57.23 293 iPd   48 31.20  -0.1
      1.2s   204.86nm          5.4mb
                eS    55 54.00
ASH   57.32 295 iPd   48 32.00   0.2
      1.4s  2470.00nm          6.4mb
                PPP   52 15.00
                iS    55 55.00
                SP    56 15.00
                i     57 34.00
KAT   58.24 297 iP-   48 38.00   0.0
                e     49 25.00 206kmX
                i     50 46.00
                i     52 28.00
                iS    56 07.00
WB2   58.29 179 iPd   48 36.40  -2.0
      0.8s     1.60nm          3.5mb X
                ipP   50 12.50 469kmX
                eS    56 01.10
                eP'P' 17 23.50
WRA   58.29 179 P     48 36.80  -1.6
      0.7s    59.60nm          5.1mb
APA   58.58 334 iPd   48 39.30  -0.6
                i     49 23.00 190kmX
SIT   59.21  39 eP    48 44.23  -0.1
      0.7s   232.81nm          5.7mb
    Z  20s     3.07um          5.4Msz
                ePcP  49 28.30
                S     56 22.36
KEV   59.61 337 iP    48 46.00  -0.9
                e     51 05.00 780kmX
                eS    56 20.00
                e     57 48.00
                e     00 08.00
                e     03 25.00
CTA   59.64 166 iPc   48 45.20  -2.4
      1.5s   555.56nm          5.8mb
                i     48 58.50  48kmX
                i     50 18.00
```

```
                e     51 09.00
                iS    56 12.00
                i     59 06.00
OPA   60.32  85 eP    48 51.56  -0.6
                epP   50 25.38 450kmX
HON   60.53  85 P     49 00.00   6.5X
    Z  21s     2.82um          5.4Msz
DHH   60.71  85 eP    48 53.69  -1.1
                ePcP  49 34.01
SDF   60.99 335 iP    48 55.00  -1.0
ASPA  61.99 180 iPd   49 01.80  -1.2
      1.1s   365.10nm          5.8mb
    Z  22s     1.80um          5.2Msz
                e     50 38.90 465kmX
                eS    56 48.10
BAK   62.07 301 iPd   49 05.00   1.6
    Z  14s     5.48um          5.9MszX
    N  12s     6.88um
    E  14s     6.57um
                iS    56 55.00
MOS   62.10 320 eP    49 03.00  -0.4
      1.8s   118.00nm          5.1mb
    Z  16s     6.00um          5.9MszX
    N  19s     6.60um
    E  19s     6.00um
                e     51 11.00 673kmX
                eS    56 48.00
                e     58 07.00
MAK   62.45 304 iPd-  49 05.00  -0.8
      1.0s   924.00nm          6.3mb
    Z  15s    11.00um          6.1MszX
    N  15s     8.00um
    E  15s     9.00um
                e     51 37.00
                ePPP  53 06.50
                iS    56 54.00
                i     58 14.00
SHE   62.80 302 iPd   49 08.50   0.4
      1.0s  1000.00nm          6.3mb
                ipP   49 42.00 139kmX
                i     51 30.00
                iS    57 00.00
OBN   62.92 320 iPd   49 07.59  -1.1
      1.0s   470.00nm          6.0mb
    Z  14s     7.80um          6.0MszX
    N  16s     3.50um
    E  14s     3.20um
                ed    49 08.58   3kmX
                esP   51 37.00
                iS    56 59.00
                i     58 14.00
KKH   62.99  86 eP    49 09.19  -0.5
NANU  63.17 199 eP    49 10.00  -0.5
TEH   63.29 296 eP    49 12.00   0.4
GRO   63.41 305 iPd-  49 12.00   0.0
      1.0s  1200.00nm          6.4mb
                iS    57 07.00
PUL   63.49 327 ePd-  49 12.00  -0.3
      1.2s  1650.00nm          6.5mb
    Z  20s     2.00um          5.3Msz
    N  20s     1.20um
    E  18s     1.60um
                e     49 39.00 109kmX
                e     51 20.00
                eS    57 07.00
                e     58 16.00
                eSS   01 30.00
DAG   63.53 353 iPd+  49 11.20  -1.2
      1.0s   940.00nm          6.3mb
HPO   63.67  86 eP    49 13.67  -0.3
KAF   63.88 330 iP    49 13.30  -1.4
PYA   64.74 307 iPd   49 19.00  -1.6
    Z  18s     2.50um          5.4Msz
    N  18s     2.50um
    E  18s     3.50um
                i     49 48.00 118kmX
                iS    57 20.00
                iPS   58 30.00
                eSS   01 52.00
MTA   64.80 304 iPd-  49 29.40   8.5X
      0.8s   750.00nm          6.4mb
                iS    57 25.00
                iPPS  57 59.00
WARB  64.81 187 eP    49 20.20  -0.8
BKM   64.81 143 iPc   49 24.20   3.0X
GRS   64.89 301 iPd   49 21.60  -0.2
      1.4s   950.00nm          6.2mb
```

19d 14h

```
                e      51 54.00
                ePPP   53 35.00
                iS     57 26.00
                i      58 28.00
KIV     65.00 307 iPd  49 21.69  -0.7
        1.1s  3028.00nm        6.8mb
                esPc   51 44.33
                iS     57 26.50
                i      58 31.30
NUR     65.45 329 iP   49 23.40  -1.3
                ePPP   57 30.00
                eS     58 25.00
                e      01 45.00
                e      05 10.00
YKA     65.48  28 eP   49 25.70   0.8
        0.9s   289.40nm        5.9mb
TAB     65.62 300 iPd  49 27.00   0.6
QLP     65.67 169 eP   49 25.30  -1.1
        0.8s   204.00nm        5.8mb
                ePP    51 03.80
RMO     66.36 165 iPd  49 30.10  -0.6
        0.4s   126.00nm        5.9mb
                ipP    51 10.00 472kmX
                eP'P'  17 51.50
MEEK    66.42 194 eP   49 19.50 -11.6X
        0.4s    46.00nm
KER     67.01 296 iPd  49 33.80  -1.2
SOC     67.04 308 iPd- 49 34.00  -0.9
        1.1s  1200.00nm        6.4mb
      Z  16s     2.00um        5.4MszX
      N  12s     1.00um
      E  14s     1.50um
                e      53 56.00
                iS     57 50.00
                e      58 44.00
ANN     67.81 310 iPd- 49 39.00  -0.5
        0.9s   330.00nm        6.0mb
                i      50 09.00 121kmX
                ePPP   54 04.00
                iS     57 58.00
                i      58 34.00
DZM     67.86 147 iPc  49 40.10   0.0
MNK     68.01 322 iP   49 38.00  -2.6
        1.0s  1320.00nm        6.5mb
                eS     57 56.00
BRS     68.13 162 iPc- 49 41.00  -0.6
        1.0s    87.00nm        5.3mb
                i      49 58.00  63kmX
                i      50 33.00
                i(PP)  51 20.00
                eS     58 02.00
                e      01 54.00
UPP     68.61 331 iP   49 42.30  -1.8
        1.0s  1100.00nm        6.4mb
                ipP    51 25.90 488kmX
                iS     58 07.00
                iScS   58 55.00
DHR     69.16 287 iPd  49 47.00  -1.0
                iS     58 12.60
FORT    69.25 185 eP   49 47.00  -1.3
MRWA    69.46 196 iPd  49 48.80  -0.8
        0.4s    38.00nm        5.4mb
PGC     69.64  44 ePd  49 49.00  -1.5
        0.6s   120.00nm        5.7mb
OOW     69.76  45 P    49 52.66   1.3
MCW     69.95  43 eP   49 52.88   0.4
OSR     70.02  45 P    49 53.53   0.6
COOL    70.12 191 eP   49 52.10  -1.4
        0.4s    65.00nm        5.6mb
MBW     70.39  43 P    49 54.82  -0.4
NAO     70.41 334 P    49 53.70  -1.2
        0.6s   250.70nm        6.0mb
HDW     70.44  44 P    49 55.90   0.5
SMW     70.47  45 P    49 56.24   0.6
CMW     70.49  43 P    49 55.80   0.1
STK     70.58 173 iPd  49 55.80  -0.3
        0.9s    49.40nm        5.1mb
                ePP    51 36.00
                eS     58 33.50
PGW     70.58  44 P    49 57.91   1.8
GMW     70.64  44 ePc  49 56.69   0.1
                epP    51 34.90 454kmX
BAL     70.65 195 eP   49 55.50  -1.1
        0.4s    68.00nm        5.6mb
KVT     70.69 307 iP   49 56.70  -0.3
CMS     70.72 169 iPd  49 56.70  -0.3
        1.2s   130.00nm        5.4mb
                ipP    51 37.20 466kmX
                iP'P'  17 48.60
ARMA    70.77 163 iPd  49 57.80   0.3
        1.0s   339.00nm        5.9mb
SVST    70.87 306 iP   49 58.10  -0.1
TRHT    71.02 307 iP   49 58.80  -0.2
BMW     71.04  45 P    49 57.80  -1.1
NLO     71.14  46 P    50 00.23   0.7
RMW     71.23  44 ePc  50 00.13   0.0
                epP    51 37.93 450kmX
KMOR    71.39  46 P    50 01.20   0.2
KLB     71.40 194 eP   49 59.00  -1.9
        0.4s    17.00nm        5.0mb
KIS     71.43 316 iPd- 50 00.00  -1.0
        1.0s  1100.00nm        6.4mb
                iS     58 40.00
BZK     71.44 309 iP   49 57.00  -4.2X
FMW     71.62  44 P    50 02.44  -0.1
NLW     71.64  43 P    50 02.36  -0.2
LON     71.66  44 eP   50 01.78  -0.7
                epP    51 41.00 457kmX
                ePP    52 55.40
                S      58 42.95
CTK     71.67 308 iP   50 03.00   0.2
SHW     71.76  45 eP   50 03.80   0.6
KAS     71.93 309 iPd  50 05.60   1.4
ETW     71.94  43 P    50 03.87  -0.4
DHW2    72.00  43 P    50 04.10  -0.4
PGO     72.07  46 P    50 05.44   0.6
MUN     72.08 195 iPd  50 04.00  -0.9
        0.6s    85.00nm        5.6mb
BNN     72.08 306 iP   50 03.00  -2.2
GAZ     72.18 303 iP   50 05.50  -0.1
LVV     72.24 320 iP   50 05.00  -0.7
      Z  18s     6.10um        5.9Msz
      N  17s     5.00um
      E  17s     4.40um
                iS     58 49.00
                iPS    59 25.00
VLMM    72.26  46 P    50 06.17   0.1
RNO     72.27  48 P    50 06.87   0.7
GT2     72.36  46 P    50 06.90   0.3
SSOR    72.44  46 P    50 07.40   0.2
BVW     72.67  44 P    50 08.15  -0.2
RYD     72.68 288 iPd  50 07.40  -1.4
                iS     58 53.00
HSO     72.88  48 P    50 10.64   0.9
DPW     72.90  42 ePc  50 09.46  -0.3
                epP    51 47.64 449kmX
BSD     72.90 328 iP   50 08.80  -0.7
        0.6s   300.00nm        6.1mb
                i      51 53.00 483kmX
CFR     72.93 314 eP   50 07.00  -2.8
OD2     72.93  43 P    50 09.32  -0.5
VGB     72.98  45 ePc  50 09.97  -0.2
BPO     73.00  46 P    50 10.77   0.2
MJMA    73.01 290 iPd  50 09.13  -1.5
NEW     73.21  41 ePd  50 11.13  -0.4
        0.6s   284.10nm        6.1mb
                epP    51 49.91 452kmX
VRI     73.30 316 ePd  50 12.50   0.5
                e      58 12.00
BBTK    73.45 308 iP   50 12.90  -0.2
COP     73.50 330 iPd  50 13.30   0.4
        1.0s   760.00nm        6.3mb
                iS     59 06.00
CVO     73.63 316 iPd  50 14.90   1.0
                e      58 59.50
AKU     73.68 348 iP   50 15.50   1.8
        1.0s   312.00nm        5.9mb
                i      51 58.00 472kmX
PSN     73.84 313 iP   50 26.00  11.0X
ISR     73.85 315 ePd  50 16.50   1.3
                e      59 08.00
UZH     73.87 320 iPd- 50 15.30   0.2
                i      50 30.50  54kmX
BMR     73.88 319 ePd  50 18.00   2.8
ARC     73.90  50 eP   50 09.86  -5.5X
        1.8s   423.00nm        5.8mb
                e      51 24.86 329kmX
                eS     59 02.86
                eScS   59 10.86
                eSP    59 36.86
                esS    01 49.86
                eSS    03 07.86
                e(SSS)05 55.86
                eLQ    09 52.86
MLR     73.96 316 ePd  50 16.00   0.1
                e      59 09.00
FHC     74.00  50 iPc  50 16.87   0.8
BWA     74.02 167 eP   50 16.90   0.9
                iPcP   51 58.90
                ePP    52 14.30
OJC     74.05 322 iP   50 16.20   0.0
        0.8s  1450.00nm        6.7mb
                i      50 19.80  12kmX
                i      50 25.50
                i      52 01.00
                iS     59 10.00
KMPM    74.15  51 eP   50 17.44   0.5
                epP    51 57.51 458kmX
FOX     74.16  51 eP   50 18.24   1.3
OASM    74.16 291 iPd  50 16.67  -0.6
MUD     74.19 332 iPc  50 16.20  -0.5
        1.0s   440.00nm        6.0mb
RKG     74.43 194 eP   50 18.10  -0.2
SPC     74.52 321 iP   50 20.20   1.1
                i      52 02.50 469kmX
BUC     74.56 315 iPd  50 20.00   1.0
BUC     74.56 315 ePd  50 10.00  -9.0X
EYL     74.60 310 iP   50 19.80   0.3
CMP     74.60 316 iPc  50 22.00   2.7
MTUR    74.61 316 eP   50 20.00   0.5
                e      59 11.00
GPA     74.68 309 eP   50 18.00  -1.9
SES     74.80  37 iPc  50 20.10  -0.3
        0.8s   520.00nm        6.2mb
                pP     50 43.00  87kmX
GBZT    74.89 310 iPd  50 20.50  -0.5
RAC     74.91 323 iP   50 21.80   0.9
        1.0s     1.80nm        3.7mb X
                i      50 26.50  15kmX
                eS     59 21.00
                i      59 23.40
ISK     74.95 311 iP   50 20.70  -0.6
ITU     74.95 311 iPd  50 20.00  -1.3
CAN     74.99 167 iPc  50 22.10   0.6
                iPcP   52 03.90
                ePP    52 18.80
WDC     75.00  50 eP   50 13.04  -8.6X
        1.2s    32.00nm        4.8mb X
                epP    51 52.04 450kmX
                esP    52 51.04
                eS     59 20.04
                ePS    59 52.04
                esS    02 09.04
                eSS    04 18.04
                esSS   06 46.04
                eLQ    10 08.04
WDC     75.00  50 iPc  50 21.77   0.1
                epPc   51 59.16 442kmX
                isPd   52 46.06
CNB     75.05 167 eP   50 22.00   0.2
        1.3s   205.00nm        5.6mb
                i      52 05.50 475kmX
QTFJ    75.12 299 P    50 23.70   1.2
BHL     75.12 302 P    50 20.00  -2.5
                S      59 19.00
FCC     75.20  23 ePc  50 24.90   2.5
DMK     75.24 312 iP   50 22.00  -0.9
CTT     75.27 311 eP   50 22.80  -0.3
KSP     75.27 324 eP   50 22.70  -0.2
        1.0s   636.00nm        6.2mb
                id     50 23.80   4kmX
                i      52 03.50
                eS     59 22.00
                e      59 50.00
ARTJ    75.31 300 P    50 24.50   0.9
DEV     75.35 317 iPd  50 20.00  -3.4X
HRI     75.44 301 iPd  50 24.10  -0.2
BRNL    75.45 327 eP   50 24.00   0.2
JMB     75.51 313 iPd  50 25.00   0.6
PSZ     75.55 320 iPd  50 25.10   0.5
ALT     75.55 309 iP   50 24.50  -0.3
FAM     75.56 303 eP   50 24.20  -0.6
AFIF    75.58 289 iPd  50 27.00   1.8
LMEM    75.61  49 eP   50 25.26   0.0
                epP    52 06.29 461kmX
MIN     75.71  50 iPc  50 25.09  -0.6
REY     75.71 349 iP   50 24.60  -0.5
GZR     75.73 317 iPc  50 25.00  -0.7
PVL     75.75 314 iPd  50 27.00   1.4
SHMJ    75.75 300 P    50 26.87   1.0
KCT     75.87 310 iP   50 26.20  -0.3
```

BFD 75.91 173 iPd 50 26.00 -0.4
0 6s 45 00nm 5.3mb
JARJ 75.92 300 P 50 27.81 0.9
CSS 76.02 304 eP 50 27.40 0.1
BNT 76.07 311 iP 50 27.70 0.2
EDC 76.11 311 iP 50 26.00 -1.7
DST 76.11 310 iP 50 26.70 -1.1
VRAC 76.20 323 iP 50 29.10 1.1
1.3s 2971.70nm 6.8mb
i 50 31.80 9kmX
iS 59 36.90
BCK 76.24 307 iP 50 27.00 -1.6
ORV 76.26 50 iPc 50 28.03 -0.6
NTYM 76.28 52 eP 50 28.87 0.2
BRG 76.31 325 iPd 50 29.00 0.4
1.5s 460.00nm 5.9mb
iS 59 36.00
TIM 76.33 318 iPd 50 30.00 1.2
KHL 76.37 308 iP 50 28.60 -0.7
MASJ 76.38 300 P 50 30.25 0.8
DIM 76.38 313 iP 50 30.00 0.8
SRO 76.40 321 iPd 50 31.20 2.0
CLL 76.41 326 iPd 50 28.50 -0.6
0.8s 690.00nm 6.3mb
iS 59 35.00
TOO 76.65 170 iPd 50 31.70 1.2
0.7s 274.00nm 6.0mb
i 52 15.20 472kmX
PRU 76.67 325 Pd 50 31.70 1.1
1.0s 289.00nm 5.9mb
esP 52 58.00
iS 59 40.20
e 01 40.00
eSS 04 49.00
DSI 76.70 300 iPd 50 31.00 -0.1
KDZ 76.70 313 iPd 50 38.00 7.0X
PPCY 76.71 304 eP 50 30.60 -0.5
ZST 76.73 322 iP 50 32.30 1.3
0.9s 172.20nm 5.7mb
i 52 13.50 460kmX
ZSP 76.81 52 eP 50 32.16 0.6
PLD 76.82 314 iPd 50 33.00 1.4
ALN 76.82 312 eP 50 31.38 -0.2
PGB 76.83 314 iPd 50 33.00 1.3
BKS 76.87 52 eP 50 29.09 -2.8
0.9s 22.00nm 4.8mb X
e 52 10.09 458kmX
eS 59 38.09
eScS 59 44.09
esS 02 36.09
eLQ 10 43.09
JEGM 76.95 52 eP 50 32.15 -0.3
HMR 76.96 52 eP 50 33.54 1.1
PCC 77.01 52 ePc 50 32.34 -0.4
VKA 77.05 322 iPd 50 33.40 0.6
2.8s 1609.00nm 6.2mb
i 50 53.10 73kmX
RZN 77.08 313 iPd 50 34.00 0.7
UZD 77.10 320 iPc 50 32.70 -0.3
ELL 77.11 307 iP 50 33.00 -0.4
VTS 77.34 315 iPd 50 35.00 0.4
SOP 77 35 322 iP 50 35.00 0.6
EZN 77.35 311 iP 50 33.10 -1.4
MOX 77.49 326 iPd 50 35.60 0.5
1.1s 366.00nm 5.9mb
Z 20s 1.50um 5.3Msz
eS 59 50.00
LCCM 77.51 41 ePc 50 35.60 0.1
e 52 16.20 455kmX
GCC 77.55 52 iPc 50 35.40 -0.2
MHC 77.57 52 eP 50 35.28 -0.7
2.6s 1092.00nm 6.0mb
epP 52 13.28 441kmX
esP 53 06.28
eS 59 48.28
esS 02 45.28
eSS 05 04.28
eLQ 10 49.28
COE 77.60 52 eP 50 36.12 0.2
epP 52 17.69 460kmX
HOF 77.62 326 eP 50 36.10 0.3
0.9s 275.00nm 5.9mb
IZM 77.70 309 iP 50 35.70 -0.8
MMB 77.71 314 iPd 50 37.00 0.5
KSL 77.71 306 iPd 50 35.90 -0.6
KHC 77.72 324 Pd 50 36.50 0.1
1.3s 356.00nm 5.8mb

Z 18s 4.00um 5.8Msz
N 16s 3.50um
E 16s 2.50um
e 50 47.60 36kmX
e 51 19.00
e 52 42.00
S 59 50.00
PRK 77.75 311 iPd 50 36.70 0.0
EDR 77.81 337 eP 50 36.70 0.0
GEC2 77.87 324 e(P) 50 37.60 0.3
0.7s 103.30nm 5.6mb
GEC2 77.87 324 ePd 50 36.90 -0.4
0.9s 255.09nm 5.8mb
e 50 40.50 12kmX
e 50 42.20
e 52 22.80
e 52 26.60
eS 59 52.20
eScS 00 11.10
e 00 24.40
e 00 29.70
e 00 32.80
e 00 44.60
e 00 51.20
epS 02 00.20
e 02 38.60
esS 02 59.60
e 03 43.00
eSS 04 04.60
e 07 39.40
ePKKP 09 24.40
ePKKP 09 33.40
e 09 43.80
ePPP 20 26.60
e 20 35.00
GEC2 77.87 324 e(P) 50 44.10 6.8X
0.3s 4.10nm 4.5mb X
YER 77.88 308 iP 50 37.20 -0.3
KKB 77.89 314 iPd 50 38.00 0.6
CMB 77.90 51 eP 50 33.69 -3.9X
0.9s 16.00nm 4.7mb X
epP 52 11.69 441kmX
esP 53 05.69
eS 59 45.69
eScS 59 51.69
ePS 00 15.69
eSP 00 33.69
esS 02 47.69
eSS 05 02.69
esSS 07 36.69
eLQ 11 01.69
eLR 15 00.69
CMB 77.90 51 iPc 50 24.31 -13.3X
WIT 77.90 330 eP 50 38.50 1.3
e 50 50.00 38kmX
AYN 77.91 297 iPd 50 37.33 -0.3
WET 78.03 325 eP 50 38.40 0.3
1.2s 347.00nm 5.9mb
SAO 78.06 52 eP 50 34.68 -3.7X
2.1s 195.00nm 5.4mb
epP 52 07.68 414kmX
eS 59 51.68
esS 02 50.68
eSS 05 01.68
eLQ 10 58.68
SRS 78.09 313 iP 50 38.10 -0.4
MBH 78.13 299 iPd 50 38.70 -0.3
KMR 78.24 323 iP- 50 40.70 1.5
HOL 78.32 298 iPd 50 39.67 -0.2
GRF 78.37 326 iPd 50 41.10 1.3
1.2s 1381.00nm 6.5mb
Z 18s 2.00um 5.5Msz
epPc 52 21.60 453kmX
iS 59 58.20
PRS 78.38 53 iPc 50 39.98 -0.1
OUR 78.38 313 iP 50 40.26 0.2
SOH 78.42 313 eP 50 40.18 -0.2
KNT 78.46 314 eP 50 40.66 0.2
LLA 78.46 52 iPc 50 40.74 0.2
WTS 78.47 330 iPd 50 40.50 0.2
1.0s 674.00nm 6.2mb
e 50 53.50 44kmX
e 53 47.00
VAY 78.54 314 iP 50 41.00 0.2
1.0s 628.00nm 6.2mb
ELO 78.54 337 eP 50 41.00 0.4
KVN 78.61 49 eP 50 42.13 0.6

e 51 55.11
epP 52 22.99 455kmX
EBH 78.67 337 eP 50 41.50 0.2
0.9s 306.00nm 5.9mb
ESY 78.67 337 eP 50 41.10 -0.2
0.9s 477.00nm 6.1mb
SKO 78.73 315 iP 50 42.50 0.6
1.0s 493.00nm 6.1mb
i 50 47.50 16kmX
i 52 23.00
i 53 09.00
i 00 02.00
i 12 13.00
THE 78.77 313 eP 50 41.94 -0.1
PAIG 78.83 312 eP 50 42.38 0.0
EDI 78.84 337 eP 50 42.30 0.1
GRG 78.87 314 eP 50 42.86 0.2
PTJ 78.89 321 iPd 50 43.00 0.2
PLE 78.92 317 iPd 50 43.43 0.4
EBL 78.92 337 eP 50 42.90 0.3
PRI 78.94 52 ePd 50 44.03 0.8
ZAG 78.94 321 iPd 50 43.00 0.1
IVA 78.96 317 iPd 50 43.75 0.6
EAB 78.97 338 eP 50 43.00 0.1
FRI 78.98 51 ePc 50 43.10 -0.2
HHAI 78.99 43 ePc 50 44.33 0.9
epP 52 25.43 456kmX
EAU 78.99 337 eP 50 43.20 0.2
0.9s 353.00nm 6.0mb
MEMM 79.01 50 eP 50 44.62 1.2
epP 52 26.17 458kmX
BHG 79.06 324 iPd 50 44.10 0.6
1.1s 627.00nm 6.2mb
PVY 79.11 316 iPd 50 44.56 0.5
BNS 79.12 329 iPd 50 43.80 0.1
0.9s 286.00nm 5.9mb
Z 13s 4.00um 5.9MszX
WAJH 79.15 295 iPd 50 44.00 -0.3
TNS 79.16 328 iPd 50 44.50 0.4
DHJN 79.17 284 iPd 50 45.20 0.3
BONR 79.21 50 P 50 44.42 -0.4
BCI 79.21 316 iP 50 43.20 -1.3
MRCM 79.27 50 eP 50 45.80 0.7
epP 52 25.92 450kmX
PTI 79.28 43 eP 50 46.15 1.1
epP 52 26.51 451kmX
ePP 53 52.94
PHAM 79.30 53 eP 50 46.12 1.1
epP 52 27.69 458kmX
KBA 79.31 323 iPd 50 45.40 0.3
1.3s 466.00nm 6.0mb
i 50 52.20 22kmX
i 53 37.80
i 53 50.30
i 00 09.50
EKA 79.33 336 Pc 50 44.70 0.0
1.3s 512.50nm 6.0mb
PKEM 79.33 52 eP 50 46.12 1.0
KMTA 79.34 285 iPd 50 46.00 0.3
ESK 79.35 336 eP 50 45.20 0.3
1.0s 320.00nm 5.9mb
ABHA 79.38 285 ePd 50 47.40 1.4
LIT 79.39 313 eP 50 45.42 0.0
MTUM 79.44 50 ePc 50 46.24 0.3
FUR 79.47 325 iPd 50 46.50 0.8
1.0s 1187.00nm 6.5mb
eS 00 10.40
PHP 79.47 315 iPd 50 45.30 -0.5
NKY 79.48 317 iPd 50 46.13 0.2
LJU 79.49 322 ePd 50 45.30 -0.5
e 51 45.50
epP 52 26.50 455kmX
e 53 29.00
e 55 32.00
eS 00 02.00
esS 03 00.00
e 11 52.00
VBY 79.52 321 ePd 50 45.70 -0.2
i 50 46.40 2kmX
i 50 49.60
i 50 54.60
FNA 79.57 314 eP 50 46.14 -0.2
TTG 79.61 317 iPd 50 46.30 -0.1
BRY 79.66 317 iPd 50 46.25 -0.7
KZN 79.66 314 iPd 50 46.50 -0.4
OHR 79.67 315 iPd 50 46.60 -0.3
1.2s 2279.00nm 6.7mb

19d 14h

		i	50 53.20	21kmX	
KLL	79.72	329 iPd	50 46.60	-0.3	
SDA	79.74	316 iPd	50 47.30	0.2	
CEY	79.76	322 ePd	50 46.90	-0.3	
		epP	52 22.50	426kmX	
TNP	79.77	49 ePc	50 48.05	0.4	
	0.7s	89.58nm		5.5mb	
		epP	52 28.61	452kmX	
ENN	79.78	329 eP	50 47.00	-0.1	
	1.0s	551.00nm		6.1mb	
		e	52 41.00	525kmX	
VOY	79.81	322 iPd	50 47.10	-0.5	
		e	50 50.70	11kmX	
HVU	79.81	44 ePc	50 48.12	0.4	
		epP	52 29.88	458kmX	
MEM	79.87	329 iPc	50 47.40	-0.2	
BCH	79.91	53 eP	50 48.77	0.4	
		epP	52 29.21	451kmX	
FVI	79.93	323 Pd	50 47.70	-0.3	
ULC	79.93	316 iPd	50 48.47	0.3	
BDV	79.94	317 iPd	50 48.21	0.0	
WTTA	79.97	324 iPd	50 48.90	0.4	
	0.9s	217.00nm		5.8mb	
		i	50 54.50	18kmX	
		i	00 14.40		
HCY	80.00	317 eP	50 48.06	-0.5	
TIR	80.02	316 iPc	50 49.50	0.9	
RIY	80.06	321 iPd	50 48.60	-0.1	
ATH	80.10	311 iPd	50 48.80	-0.3	
		eS	00 13.20		
		eSS	05 28.00		
TRI	80.10	322 eP	50 47.80	-1.1	
		e	53 20.00	765kmX	
		e	58 08.00		
		e	00 13.00		
		e	05 28.00		
		e	11 36.00		
		e	15 04.00		
SQTA	80.20	324 iPc	50 49.70	0.1	
	0.7s	124.00nm		5.7mb	
		i	51 06.30	59kmX	
HOFF	80.34	327 P	50 50.75	0.6	
UCC	80.37	330 Pd	50 50.70	0.5	
LANF	80.38	327 P	50 50.75	0.4	
HLW	80.49	301 eP-	50 52.00	0.7	
		ePcP	50 57.00		
		epP	52 35.00	463kmX	
		esP	53 18.00		
		ePP	54 02.00		
		eS	00 18.00		
		eScS	00 29.00		
		ePS	02 12.00		
		eSS	05 44.00		
		eSSS	08 59.00		
WLF	80.54	328 iPc	50 51.61	0.5	
		e	51 05.00	46kmX	
OGA	80.55	324 iPd	50 52.00	0.5	
		i	50 54.50	8kmX	
HVAR	80.57	319 iP	50 50.80	-0.6	
ISA	80.60	52 iPc	50 51.03	-0.8	
		ipPc	52 28.15	433kmX	
		esPd	53 18.91		
SNF	80.63	330 iPd	50 51.62	0.0	
TPE	80.66	315 iPd	50 51.40	-0.6	
NPS	80.73	308 iPd	50 51.90	-0.6	
VLO	80.83	315 iP	50 53.90	1.1	
BW06	80.83	42 eP	50 52.64	-0.5	
	0.8s	301.88nm		6.0mb	
		epP	52 33.09	450kmX	
DOU	80.83	329 iPd	50 52.70	0.0	
	1.0s	383.30nm		6.0mb	
		S	00 18.00		
CTI	80.86	323 Pd	50 52.60	-0.5	
DUG	80.88	45 ePc	50 53.89	0.6	
	0.8s	92.81nm		5.5mb	
		epP	52 34.47	450kmX	
		ePP	54 07.64		
SRN	80.95	314 iPc	50 55.00	1.5	
WLS	81.01	327 P	50 53.82	0.1	
SLE	81.01	326 ePd	50 53.70	0.0	
CDF	81.04	327 P	50 53.99	0.1	
OSS	81.08	324 iPd	50 54.90	0.6	
LIBD	81.10	327 P	50 54.59	0.5	
FEL	81.13	326 P	50 54.24	-0.2	
KEK	81.18	314 iPd	50 55.50	0.8	
ECH	81.24	327 P	50 54.84	0.0	
ZLA	81.27	326 iPd	50 55.20	0.1	

WME	81.32	336 eP	50 55.20	0.1	
	1.1s	566.00nm		6.1mb	
VLI	81.40	310 iPd	50 54.20	-1.6	
ULM	81.41	30 ePc	50 58.20	2.5	
LLS	81.46	325 iPd	50 56.60	0.3	
YRC	81.53	336 eP	50 56.50	0.3	
MOF	81.53	327 P	50 56.46	0.0	
VDL	81.54	325 iPc	50 57.30	0.6	
DAU	81.59	44 eP	50 57.33	0.1	
		epP	52 38.64	453kmX	
BBS	81.67	326 P	50 57.31	0.2	
BSF	81.69	327 P	50 56.97	-0.3	
DMU	81.70	338 eP	50 57.10	0.0	
	0.9s	432.00nm		6.1mb	
SAL	81.72	323 P	50 57.40	0.1	
VITF	81.74	328 P	50 57.31	-0.1	
HAU	81.75	327 eP	50 56.70	-0.8	
	1.0s	286.40nm		5.9mb	
PAS	81.78	53 ePc	50 58.42	0.5	
		ipPc	52 36.92	438kmX	
VLS	81.78	313 iPd	50 56.80	-1.0	
BRT	81.79	317 P	50 58.11	0.3	
	0.9s	831.80nm		6.4mb	
BAI	81.80	317 Pc	50 58.00	0.2	
YRH	81.90	336 eP	50 58.10	0.0	
MDI	81.97	324 P	50 57.90	-0.6	
RSM	82.04	321 P	51 00.30	1.3	
LOMF	82.05	327 P	50 59.01	-0.1	
TMA	82.10	325 iPd	50 59.50	0.0	
DLF	82.10	337 eP	50 59.00	-0.1	
	0.9s	408.00nm		6.1mb	
ARV	82.11	321 P	51 00.10	0.7	
TAU	82.15	170 iPc	51 01.20	2.0	
		e	52 45.00	465kmX	
		e	53 27.00		
		e	00 36.00		
EMUT	82.25	44 ePc	51 00.69	0.2	
DCN	82.29	337 eP	51 00.00	-0.1	
	0.9s	413.00nm		6.1mb	
VAI	82.33	325 P	50 59.70	-0.7	
SFI	82.34	322 P	51 02.30	1.8	
MSU	82.40	46 ePc	51 02.30	1.1	
		epP	52 42.97	449kmX	
PGD	82.44	322 P	51 02.40	1.2	
CRE	82.51	321 P	51 02.14	0.6	
	0.9s	304.70nm		6.0mb	
ETA	82.52	337 iPd	51 01.60	0.4	
MMK	82.55	325 iPd	51 02.40	0.5	
ASS	82.57	321 P	51 02.46	0.7	
	0.5s	156.50nm		6.0mb	
PEC	82.58	52 eP	51 01.81	-0.2	
	0.8s	150.05nm		5.7mb	
		epP	52 42.82	450kmX	
RSSD	82.62	38 ePd+	51 02.05	-0.2	
	0.7s	301.25nm		6.1mb	
Z	21s	1.42um		5.3Msz	
		epP	52 43.54	452kmX	
		ePP	54 18.57		
		S	00 54.79		
MME	82.69	322 P	51 03.56	1.0	
	0.9s	984.80nm		6.5mb	
AQU	82.72	320 P	51 03.60	1.1	
FIR	82.73	322 ePd	51 03.50	1.0	
		iS	00 42.00		
DIX	82.77	325 iPd	51 03.40	0.4	
ORI	82.78	316 P	51 04.15	1.4	
	1.0s	2433.60nm		6.9mb	
BDI	82.84	322 P	51 03.08	0.0	
	0.9s	52.40nm		5.2mb	
BOB	82.85	323 P	51 03.80	0.6	
ORO	82.87	325 P	51 02.80	-0.5	
SRU	82.90	45 eP	51 03.40	-0.3	
SDI	82.98	319 P	51 04.10	0.2	
EMS	83.00	326 iPd	51 04.10	0.1	
ECP	83.01	336 iPd	51 04.10	0.4	
	1.0s	1624.00nm		6.7mb	
SGO	83.03	317 P	51 04.50	0.5	
MKL	83.04	279 ePd	51 05.48	1.1	
TDS	83.12	316 P	51 05.60	1.1	
PLM	83.12	53 ePd	51 05.24	0.3	
		ePP	54 22.66		
PII	83.13	322 P	51 04.10	-0.3	
ATA	83.15	279 ePd	51 05.94	1.0	
RFI	83.19	319 P	51 04.98	0.2	
	1.4s	1253.10nm		6.5mb	
MGR	83.20	317 P	51 04.28	-0.6	
	0.9s	284.60nm		6.0mb	

LOR	83.37	328 eP	51 04.80	-0.8	
	0.9s	212.95nm		5.9mb	
LSD	83.37	325 P	51 06.77	0.8	
ARO	83.38	279 ePd	51 07.47	1.2	
ARO	83.38	279 iPd	51 07.80	1.5	
RSL	83.43	326 P	51 06.03	-0.1	
PCP	83.44	324 P	51 05.87	-0.2	
RMP	83.47	320 P	51 06.70	0.5	
RDP	83.50	320 P	51 06.90	0.4	
LPL	83.51	325 eP	51 06.10	-0.6	
	0.9s	465.20nm		6.2mb	
LPG	83.52	325 eP	51 06.50	-0.3	
	0.9s	432.40nm		6.2mb	
LBF	83.55	328 eP	51 05.60	-1.0	
	1.2s	230.30nm		5.8mb	
RSP	83.56	325 P	51 05.84	-0.9	
DAF	83.58	280 ePd	51 08.41	1.2	
SGH	83.60	279 ePd	51 08.74	1.4	
CKI	83.65	324 P	51 06.50	-0.6	
GRI	83.68	316 P	51 08.10	0.8	
	0.8s	414.50nm		6.2mb	
SSF	83.68	328 eP	51 06.40	-0.8	
	1.1s	298.90nm		5.9mb	
KSU	83.70	280 ePd	51 09.01	1.2	
BHB	83.80	325 P	51 06.25	-1.6	
FIN	83.85	324 P	51 07.34	-0.8	
FLN	83.87	331 eP	51 07.10	-1.0	
	0.9s	202.45nm		5.9mb	
SMF	83.87	328 eP	51 07.50	-0.7	
	1.1s	348.70nm		6.0mb	
LDF	83.87	331 eP	51 07.10	-1.0	
	1.1s	327.20nm		6.0mb	
BNI	83.90	325 Pd	51 08.60	0.1	
GBR	83.91	279 ePd	51 09.80	0.9	
ROB	83.94	324 P	51 08.19	-0.4	
RRL	83.95	325 P	51 09.06	0.2	
AVF	83.96	328 eP	51 08.00	-0.6	
	1.1s	423.90nm		6.1mb	
DOI	84.07	325 P	51 07.40	-1.9	
PZZ	84.13	325 P	51 08.18	-1.5	
ENR	84.20	324 P	51 08.18	-1.8	
IMI	84.23	324 P	51 09.46	-0.6	
STV	84.23	324 P	51 08.18	-1.9	
GRR	84.32	331 eP	51 09.50	-0.8	
	0.8s	303.05nm		6.1mb	
SAOF	84.32	324 P	51 09.39	-1.1	
BGF	84.35	328 eP	51 09.90	-0.7	
	1.1s	191.95nm		5.7mb	
AUTN	84.37	324 P	51 10.25	-0.8	
VAL	84.39	338 Pc	51 11.10	0.5	
		S	01 00.00		
SOI	84.41	315 P	51 12.30	1.4	
TOUF	84.44	324 P	51 10.73	-0.6	
GMB	84.45	315 P	51 09.85	-1.5	
	1.0s	336.50nm		6.0mb	
SBF	84.47	324 P	51 10.36	-0.9	
AURF	84.50	324 P	51 10.36	-1.1	
MVIF	84.58	324 P	51 11.34	-0.6	
REVF	84.60	324 P	51 11.36	-0.5	
SSB	84.66	327 P	51 12.05	-0.1	
ATN	84.67	316 P	51 11.00	-1.3	
	1.2s	96.20nm		5.4mb	
LPF	84.69	331 eP	51 11.40	-0.7	
	0.7s	292.80nm		6.1mb	
MAF	84.74	328 eP	51 12.30	-0.2	
	1.2s	595.05nm		6.2mb	
PGF	84.75	322 P	51 12.49	-0.2	
CALN	84.81	324 P	51 11.71	-1.3	
COLF	84.83	327 P	51 13.17	0.2	
TCF	84.83	328 eP	51 12.50	-0.5	
	1.0s	180.00nm		5.8mb	
FRF	85.07	324 eP	51 13.00	-1.1	
	1.1s	201.20nm		5.8mb	
LSF	85.14	329 eP	51 13.80	-0.6	
	0.9s	196.55nm		5.8mb	
GOL	85.23	41 iPc	51 16.73	1.4	
	1.8s	240.08nm		5.6mb	
Z	22s	0.50um		4.9Msz	
MNO	85.26	316 P	51 15.56	0.2	
	1.0s	250.20nm		5.9mb	
GLD	85.27	41 eP	51 16.45	1.0	
	1.4s	547.76nm		6.1mb	
Z	20s	3.85um		5.8Msz	
		e	52 58.27	451kmX	
		S	01 21.36		
LRG	85.28	324 eP	51 14.40	-0.7	
	1.0s	291.20nm		6.0mb	

```
LMR     85.31 324 eP     51 14.40  -0.9
        1.1s   313.55nm          6.0mb
MFF     85.52 330 eP     51 15.70  -0.5
        1.2s   332.05nm          5.9mb
GIB     85.58 316 P      51 17.50   0.7
MEU     85.73 315 P      51 18.30   0.8
RJF     85.91 328 eP     51 18.10  -0.1
        1.1s   199.25nm          5.8mb
CAF     85.99 328 eP     51 19.00   0.4
        1.1s   241.25nm          5.8mb
ERC     86.31 317 P      51 20.18  -0.1
        0.6s    41.80nm          5.3mb
LFF     86.53 328 eP     51 21.40   0.3
        0.5s    97.40nm          5.8mb
LPO     86.56 328 eP     51 21.40   0.1
        1.0s   110.40nm          5.5mb
MTHF    87.40 326 P      51 25.48   0.1
PTS     87.54 317 P      51 26.90   0.8
TUC     87.55  50 iPc     51 27.40   1.1
        1.6s   438.32nm          6.0mb
                  ipPc   53 06.40 433kmX
                  esPd   53 55.39
ETER    87.77 326 iPd    51 26.67  -0.4
LESF    87.86 327 P      51 27.50   0.0
GRBF    87.91 327 P      51 27.45  -0.4
MRW     87.95 150 P      51 28.00   0.3
                  e      53 15.80 478kmX
AAE     88.07 280 P      51 30.50   1.2
SALF    88.12 327 P      51 27.42  -1.4
ANMO    88.15  45 iPc     51 31.08   1.8
                  ipPc   53 11.73 441kmX
                  esPd   53 58.74
ALQ     88.15  45 ePc     51 30.13   0.8
        1.3s   224.04nm          5.8mb
      Z  20s     1.32um          5.3Msz
                  epP    53 12.87 452kmX
                  e      01 18.13
                  S      01 41.78
EPF     88.26 328 eP     51 28.30  -1.2
        1.0s   105.20nm          5.6mb
ELIZ    88.92 329 iPd    51 32.60   0.1
EGRA    89.22 328 iPd    51 33.12  -0.7
ESEL    89.79 324 iPc    51 36.47   0.0
EBR     90.00 326 iP     51 37.20  -0.2
                  iS     01 45.00
EROQ    90.04 326 iPc    51 37.15  -0.5
EEO     90.23  22 ePd    51 40.00   1.6
PMO     90.63 109 iPd    51 42.40   1.9
        1.6s   594.50nm          6.3mb
ACO     90.69  40 iPd    51 41.10   0.4
TPT     90.82 108 iPd    51 43.40   2.0
        1.6s   445.30nm          6.1mb
AFR     90.87 112 iPd    51 43.70   2.1
        1.4s   515.80nm          6.3mb
EMON    90.91 333 iPc    51 41.53  -0.1
VAH     90.97 109 iPd    51 43.80   1.7
        1.8s   511.00nm          6.2mb
PPT     91.03 112 iPd    51 44.60   2.2
        1.0s   201.60nm          6.0mb
ETOR    91.09 328 iPd    51 42.43  -0.2
PAE     91.09 112 iPd    51 44.70   2.1
        1.3s   201.40nm          5.9mb
PPN     91.11 112 iPd    51 44.80   2.1
        1.2s   249.90nm          6.0mb
RUV     91.13 108 iPd    51 44.70   1.9
        1.5s   392.80nm          6.1mb
TVO     91.41 112 iPd    51 46.70   2.5
        1.1s   420.00nm          6.3mb
ERUA    91.75 332 iPd    51 45.34  -0.2
STS     91.83 333 iPd    51 45.24  -0.6
GUD     92.10 329 iPc    51 46.83  -0.4
WMOK    92.41  41 ePc     51 49.88   1.2
        1.8s   989.80nm          6.5mb
      Z  20s     2.22um          5.6Msz
                  ipPc   53 30.85 440kmX
                  esPd   54 19.19
                  PP     55 28.59
                  e      59 30.74
                  e      01 39.89
                  sP     03 33.25
OCO     92.45  39 iPc     51 49.70   0.9
MEO     92.47  41 iPd     51 48.50  -0.5
EZAM    92.52 333 iPd     51 49.31   0.2
CBM     92.64  15 ePc     51 50.56   1.1
        0.8s   121.78nm          6.0mb
      Z  19s     2.48um          5.7Msz
                  epPc   53 33.74 451kmX
```

```
                  PP     55 36.01
                  e      59 29.65
                  sP     03 24.72
FNO     92.70  39 iPc     51 51.60   1.6
SIO     92.85  38 eP      51 51.20   0.6
                  pP     53 35.30 456kmX
LNO     92.96  38 ePd     51 51.50   0.5
                  e      51 57.80
                  pP     53 35.80 457kmX
                  PP     55 42.90
LNO2    92.96  38 eP      51 51.60   0.5
                  pP     53 35.90 457kmX
LNO3    92.96  38 eP      51 51.70   0.5
                  pP     53 36.20 458kmX
TUL     92.96  38 ePd     51 51.70   0.5
        0.8s   295.90nm          6.4mb
                  e      51 58.20
                  pP     53 35.80 456kmX
                  sP     54 28.00
                  ePP    55 43.20
                  e      56 56.00
                  e      59 39.00
                  SKS    01 37.00
EVIA    93.10 327 iPd     51 51.94   0.0
EALH    93.28 326 iPd     51 52.85   0.2
CCM     93.30  34 iPc     51 53.73   1.1
                  ePPc   53 37.03 452kmX
EPLA    93.36 330 iPc     51 52.88  -0.1
RSNY    93.41  20 eP      51 53.00  -0.1
        0.8s    76.60nm          5.8mb
      Z  20s     1.42um          5.4Msz
                  SP     03 41.18
FVM     93.71  33 eP      51 54.97   0.4
        0.8s   136.50nm          6.1mb
      Z  18s     3.23um          5.8Msz
                  pP     53 35.48 437kmX
                  ePP    55 42.60
EBAN    94.04 328 iPc     51 56.02  -0.1
MIM     94.06  16 eP      51 55.99  -0.1
LMN     94.29  13 eP      52 00.50   3.3X
ENIJ    94.37 326 iPc     51 56.43  -1.2
ECOG    94.70 327 eP      51 57.85  -1.4
ELC     94.81  33 eP      51 59.93   0.3
EHOR    94.94 328 iP      51 59.73  -0.5
UYO     95.01  38 iPd     52 00.50  -0.1
EGUA    95.07 327 iP      51 59.64  -1.2
MIAR    95.13  37 ePc     52 01.87   0.8
        0.9s   153.36nm          6.1mb
      Z  20s     1.42um          5.4Msz
                  ipPc   53 42.52 438kmX
                  esP    54 32.51
                  ePP    55 59.08
MAL     95.52 327 iPc     52 01.60  -1.2
                  iS     02 35.00
GRT     95.59  34 eP      52 04.77   1.7
EPRU    95.67 328 iP      52 03.31  -0.2
EVAL    95.75 329 iPc     52 03.70  -0.2
LIJA    95.80 328 eP      52 06.00   1.8
NAI     96.00 273 ePd     52 07.00   1.5
                  e      14 56.00
                  S      15 02.00
                  e      20 30.00
ALJ     96.07 328 iP      52 06.00   0.6
HRV     96.08  18 ePc     52 05.43   0.2
                  (pP)   53 47.23 444kmX
EJIF    96.20 328 iPc     52 05.41  -0.5
MCWV    96.30  25 eP      52 06.83   0.5
        0.6s    67.73nm          6.1mb
CNIL    96.52 328 eP      52 06.00  -1.3
OJEN    96.53 328 eP      52 08.00   0.5
TBR     96.66  21 eP      52 07.80  -0.1
NAV     98.08  27 eP      52 14.69   0.2
CVL     98.28  25 ePc     52 16.68   1.4
BLA     98.30  27 eP      52 16.33   0.8
        0.8s    24.32nm          5.6mb
AVE     99.73 328 eP      52 20.00  -1.9
                  i      56 25.00
CEH     99.96  26 (P)     52 23.66   0.8
        0.7s    20.46nm          5.7mb
      Z  19s     1.93um          5.6Msz
                  e      02 05.95
                  e      04 46.13
PRM    100.37  30 ePdiff52 25.10   0.6
LHS    100.61  28 ePdiff52 26.70   1.1
JSC    100.62  29 ePdiff52 26.03   0.4
LWI    102.84 277 iPdiff52 35.80  -0.4
BCAO   106.34 290 iPdiff52 50.00  -1.5
```

```
        0.9s     9.00nm          5.8mb
                  ic     53 18.90
                  ic     53 39.90
BUL    113.67 263 iPdiff53 23.50  -0.6
BFT    115.60 257 iPKPc 57 18.00   0.0
        0.7s    22.00nm
SLR    116.97 258 iPKPc 57 19.00  -1.6
        0.6s    95.00nm
      Z  18s     6.77um          6.3Msz
                  i      58 38.00
KSR    118.10 258 iPKPc 57 20.00  -2.7
        0.5s    16.00nm
PRY    118.21 257 ePKP  57 21.50  -1.4
        1.0s   100.00nm
SEK    118.82 255 iPKPc 57 23.00  -1.0
        0.7s   138.00nm
BLF    120.30 255 iPKPc 57 25.70  -1.1
        0.5s   183.00nm
TIC    120.73 310 PKP   57 24.00  -3.8X
KIC    120.78 310 PKP   57 24.00  -3.9X
        0.8s    49.50nm
                  e      58 55.00
LIC    121.06 310 PKP   57 24.50  -3.9X
      Z  21s     0.52um          5.2Msz
KIM    121.19 256 iPKPd 57 28.10  -0.4
        1.1s   140.00nm
                  i      59 06.00
FRS    121.27 255 iPKPc 57 25.70  -2.7
        0.6s   109.00nm
                  i      59 01.30
GRM    122.04 251 iPKPc 57 31.50   1.7
        0.8s    61.00nm
FDF    125.16  17 ePKP  57 35.80  -0.6
POF    125.19 258 iPKPc 57 35.50  -0.5
        1.0s    30.00nm
                  i      59 28.00
CRM    125.20  17 iPKPc 57 35.42  -1.0
BIM    125.39  17 iPKPd 57 36.48  -0.3
MVM    125.40  17 iPKPc 57 36.47  -0.3
TOV    127.16  29 ePKP  57 39.50  -0.8
CER    127.50 254 ePKP  57 34.00  -6.4X
        1.0s   120.00nm
                  i      59 34.00
CAR    127.53  26 ePKP  57 32.00  -9.1X
                  i      59 43.00
SPA    128.46 180 iPKPc 57 40.60  -0.7
        0.6s    85.37nm
                  i      59 40.80
                  i      01 27.20
TCE    128.90  19 ePKP  57 42.44  -1.1
TRN    129.03  19 ePKP  57 43.72   0.0
TBH    129.28  19 ePKP  57 45.76   1.5
TPP    129.34  19 ePKP  57 45.10   0.8
ARE    148.91  52 ePKP  58 21.00   1.4
ZOBO   150.76  46 ePKPd 58 21.91  -0.9
                  e      58 28.20
                  e      58 35.15
                  ipP'df00 11.50
                  eSKP   01 05.79
LPB    150.97  47 iPKPc 58 24.30   1.5
        1.0s  1040.00nm
      Z  18s     2.06um          6.0Msz
                  LR     14 31.00
CNCB   151.26  47 PKP   58 24.90   1.5
AIA    151.42 164 ePKP  58 28.50   7.0X
SIV    154.07  34 iPKPc 58 31.80   5.1X
YJA    156.89  50 ePKPc 58 32.00   1.2
BAO    157.04   4 PKPd  58 31.00   0.3
                  e      58 33.00
                  e      58 41.90
                  e      58 47.80
                  e      58 55.10
                  e      58 56.10
                  e      59 03.90
                  e      59 05.20
                  e      59 17.10
                  e      59 18.00
                  e      59 48.20
                  e      59 53.50
                  e      02 43.90
                  e      02 45.30
CFA    160.93  75 e(PKP)58 34.20  -0.2
MDZ    161.02  79 ePKP  58 36.20   1.7
CYA    161.03  63 ePKPc 58 35.00   0.4
MRA    163.21  74 ePKP  58 36.20  -0.4
BMA    163.97 352 ePKP  58 37.70   0.0
                  e      58 48.40
```

19d 14h

```
                    e      59 35.00
                    e      59 42.00
VAO    164.40    1 ePKP   58 38.70    0.6
                    e      59 35.90
LPA    170.13   71 ePKP-  58 43.00    1.4
                    epPKP  00 36.00
                    ePP    03 54.00
      S.D. = 0.9  on 657 of 684 obs.
-----------------------------------------
    JAN  19, 1993  15h 17m 16.99± 0.17s
     2.077 S ± 3.4km  125.196 E ± 4.1km
    DEPTH =  34.5km  ( 12 depth phases)
    5.6mb ( 59 obs.)
 CERAM SEA                          (270)

PCI      5.48 282 iPd    18 40.50    2.0
                    iS   19 39.50
SWI      6.18  79 ePd    18 46.50   -1.9
                    iS   19 57.00
WSI      8.99 213 ePd    19 26.00   -1.5
TSM      9.67 311 ePc    19 35.50   -1.5
KKM     12.06 312 ePd    20 10.20    0.6
        1.3s   144.20nm          6.0mb
MTN     12.21 152 eP     20 12.00    0.5
        0.5s   270.00nm          6.6mb X
                    e    20 24.00
MAP     12.38 354 eP     20 13.00   -0.7
PLP     13.16 359 ePd    20 24.50    0.4
        1.0s   152.00nm          6.0mb
TRT     13.70 245 ePc    20 30.50   -0.8
PGP     16.04 345 ePd    21 05.00    3.3X
        0.9s    83.00nm          4.9mb
WB2     19.89 154 iPd    21 44.80   -3.7X
        0.6s    48.70nm          5.0mb
                    i    21 53.40   33km
CVP     19.93 351 eP     21 47.50   -1.5
        1.3s   446.00nm          5.6mb
PIP     20.77 348 ePc    21 55.00   -2.7
MDG     20.78  99 eP     21 58.60    0.8
KGM     22.25 280 ePd    22 13.50    0.9
NANU    22.42 204 eP     22 13.70   -0.6
PMG     23.02 109 eP     22 21.00    0.8
ASPA    23.06 159 iPc    22 19.30   -1.3
        0.9s    96.00nm          5.3mb
                    e    22 25.70   23kmX
                    ePcP 26 09.30
                    eS   26 28.40
                    ePcS 29 46.50
WARB    24.01 177 eP     22 30.00    0.3
IPM     25.04 285 ePc    22 40.60    0.8
        1.0s   153.70nm          5.5mb
MEEK    25.23 194 eP     22 40.00   -1.4
        1.0s   129.00nm          5.5mb
OIZ     25.84 325 P      22 47.30    0.1
RAB     27.01  95 eP     22 58.00    0.0
FORT    28.68 175 eP     23 11.00   -1.9
NNT     29.18 301 iPc    23 17.30   -0.4
LOE     30.17 311 eP     23 25.50   -1.0
NST     30.42 306 iPc    23 36.50    7.9X
KHT     31.22 303 iPc    23 36.00    0.3
BDT     32.19 308 iPc    23 45.00    0.9
        1.0s   124.20nm          5.8mb
CHG     33.13 310 ePc    23 52.00   -0.4
        1.2s   100.00nm          5.6mb
RMQ     33.18 139 iPd    23 51.00   -1.8
                    ipP  23 59.70   30km
SSE     33.21 354 eP     23 52.80   -0.1
        1.0s    15.00nm          4.8mb
STK     33.43 154 eP     23 53.10   -1.8
        0.9s     6.40nm          4.5mb X
                    i    24 02.10   31km
                    e    26 35.10
KAGJ    33.52   9 P      23 57.60    2.0
GYA     33.54 329 iPd    23 56.00    0.0
        0.8s    25.00nm          5.2mb
                    PcP  26 37.40
WHN     34.05 343 eP     23 57.00   -3.2X
NJ2     34.47 350 Pd     24 03.50   -0.3
KUMJ    34.83   8 eP     24 06.00   -0.9
CMS     35.14 148 iPd    24 09.10   -0.5
        1.3s    35.00nm          5.1mb
                    ipP  24 17.60   29km
HNR     35.31 103 eP     24 16.00    4.8X
SHNJ    36.44   8 eP     24 19.60   -0.8
BRS     36.48 136 iPc    24 19.00   -2.0
                    ipP  24 28.50   32km
                    e    25 53.00
```

```
                    i    26 43.00
ARMA    37.71 141 eP     24 31.10   -0.3
        0.8s    46.00nm          5.4mb
                    i    24 40.50   32km
BFD     38.41 157 iPd    24 35.90   -1.2
CD2     38.64 330 P      24 38.00   -1.1
BWA     38.79 149 eP     24 41.10    0.8
                    ipP  24 50.80   33km
                    esP  24 56.50
TIA     38.83 350 eP     24 39.30   -1.3
XAN     39.05 338 Pc     24 40.50   -2.0
        0.7s    16.00nm          4.9mb
                    pP   24 52.20   43km
                    sP   24 57.50
CAN     39.79 149 eP     24 48.40   -0.2
                    ipP  24 58.20   33km
                    esP  25 05.10
TOO     39.95 155 eP     24 50.00    0.1
        0.7s    22.00nm          5.0mb
                    e    26 33.20 598kmX
CNB     39.97 149 eP     24 50.00   -0.2
        0.9s    50.00nm          5.3mb
                    e    25 00.70   37km
MAT     40.29  16 eP     24 51.00   -1.7
        0.7s    22.60nm          5.0mb
DL2     40.91 356 eP     24 58.00    0.3
        0.8s   180.00nm          5.9mb
TIY     41.32 345 Pc     25 00.40   -0.8
YAMJ    42.33  17 eP     25 10.70    1.3
BJI     42.72 350 eP     25 12.00   -0.5
        1.0s    55.00nm          5.2mb
LZH     42.88 334 eP     25 14.00   -0.1
        1.2s    53.00nm          5.1mb
                    pP   25 17.50   12kmX
OFUJ    43.67  19 P      25 21.00    0.7
SNY     43.72 358 Pc     25 20.60    0.0
        1.0s    48.00nm          5.2mb
HHC     44.50 345 eP     25 26.40   -0.7
        1.6s    69.00nm          5.2mb
AOMJ    44.64  16 eP     25 29.10    1.0
BTO     44.68 344 eP     25 24.30   -4.2X
DZM     44.73 120 iPc    25 29.40    0.1
LSA     45.35 317 P      25 34.90    0.4
        0.7s    30.00nm          5.3mb
CN2     45.67   0 eP     25 35.00   -1.2
        0.8s    12.00nm          4.9mb
                    epP  25 46.50   41km
                    PcP  27 14.30
MDJ     46.65   4 Pd     25 44.30    0.4
        1.0s    31.00nm          5.2mb
HOOJ    47.18  18 eP     25 49.60    1.4
GTA     47.41 333 P      25 49.00   -1.3
        1.5s    90.00nm          5.6mb
                    pP   25 55.00   20kmX
GUN     48.13 311 P      25 55.54   -0.8
        0.7s   175.00nm          6.2mb
KUSJ    48.28  19 eP     25 57.10    0.3
PKI     48.31 310 P      25 56.32   -1.4
        0.7s    36.00nm          5.5mb
KKN     48.52 311 P      25 58.12   -1.0
        0.8s    63.00nm          5.7mb
DMN     48.56 310 P      25 58.74   -0.8
        0.7s    77.00nm          5.8mb
ASAJ    48.57  17 eP     25 58.60   -0.4
GKN     49.12 310 P      26 02.66   -1.0
        0.6s   101.00nm          6.0mb
GBA     49.85 290 Pc     26 08.00   -1.3
HYB     49.88 295 iPc    26 08.80   -0.8
        1.2s   271.40nm          6.2mb
YSS     51.26  15 iPc    26 18.70   -0.8
        0.8s    20.00nm          5.1mb
POO     54.49 294 iP     26 45.00    0.9
        1.2s    71.88nm          5.6mb
CIT     54.76 351 eP     26 46.00    0.4
ZAK     55.53 343 iPc    26 53.00    1.9
        1.5s   100.00nm          5.6mb
WMQ     56.70 328 P      26 59.00   -0.7
        1.0s   110.00nm          5.8mb
IRK     56.95 345 eP     27 00.00   -1.3
        1.7s   116.00nm          5.6mb
                    e    27 12.00   42km
MOY     57.37 342 iPc    27 04.80    0.7
        1.4s   200.00nm          6.0mb
BOD     60.39 353 iPc    27 24.70   -0.3
        0.7s    59.00nm          5.8mb
FRU     63.74 321 iPc    27 49.00    1.2
        2.0s   250.00nm          6.0mb
```

```
                    i    28 17.20 114kmX
ELT     64.00 335 iPc    27 48.40   -0.8
        1.5s   226.00nm          6.0mb
      Z  14s     0.90um          5.1MszX
                    eS   36 20.00
YAK     64.01   2 iPc    27 48.50   -0.6
        1.0s   141.00nm          6.0mb
QUE     64.06 305 iPc    27 52.50    2.2
MGD     65.14  14 iPc+   27 56.00   -0.5
        0.8s    70.00nm          5.8mb
                    e    28 03.00   22kmX
BRVK    71.46 329 iPc    28 36.00    0.1
        1.0s   119.00nm          5.9mb
                    eS   37 52.00
MAIO    71.88 309 iPc    28 39.20    0.2
        1.3s    55.56nm          5.4mb
TIK     73.62   1 iPc    28 47.00   -1.3
        1.5s   132.00nm          5.7mb
                    i    29 06.00   71kmX
NRI     75.61 347 iPc    28 59.00   -0.9
        1.0s    57.00nm          5.5mb
SVE     78.11 329 iPc    29 14.00    0.0
        1.9s   210.00nm          5.8mb
MJMA    81.83 296 ePc    29 35.33    0.7
DHJN    82.73 288 ePc    29 41.00    1.3
GRS     82.73 310 iPc    29 40.00    0.8
        1.6s   170.00nm          5.9mb
ABHA    83.47 289 ePc    29 45.73    2.2
GRO     83.80 314 iPd    29 45.00    0.7
        2.0s   240.00nm          6.0mb
PYA     85.78 314 iPc    29 54.50    0.2
        1.0s   100.00nm          6.0mb
KIV     86.03 314 eP     29 55.60   -0.1
        1.9s    68.00nm          5.6mb
SVW     86.58  29 eP     29 58.00    0.1
        0.7s     2.03nm          4.5mb X
TTA     86.74  27 eP     29 59.80    1.1
IMA     88.28  24 eP     30 06.24    0.1
        0.9s     6.73nm          4.9mb
                    e    30 24.45   65kmX
SLKM    89.12  30 ePc    30 09.15   -0.9
PMS     89.51  29 eP     30 11.90    0.0
PMR     89.75  28 eP     30 12.00   -0.9
        0.8s     7.59nm          5.0mb
FBA     90.59  25 eP     30 17.00    0.2
        0.7s     3.78nm          4.8mb
OBN     90.88 325 iPc    30 17.30   -1.0
        1.5s    77.00nm          5.8mb
TOA     91.18  28 eP     30 20.90    1.3
CIR     92.64 249 iPd    30 27.40    0.3
BALM    93.00  29 eP     30 27.89   -0.2
BUL     95.47 250 iPd    30 40.20   -0.1
        1.0s     8.50nm          5.1mb
MLR     97.97 315 eP     30 44.00   -7.1X
UZH    100.07 319 ePdiff31 00.00   -0.4
        1.2s    45.00nm          5.9mb
VBY    105.38 317 ePKP   35 39.00    1.0
GEC2   105.60 320 ePKP   35 34.70   -3.8X
        0.7s     1.31nm
                    e    35 38.70
                    e    35 50.60
                    e    35 54.70
BSF    110.30 321 ePKP   35 47.10   -0.3
        0.6s     4.70nm
LPG    111.12 318 ePKP   35 49.40    0.1
        0.7s     3.30nm
LPL    111.13 318 ePKP   35 49.30    0.1
        0.7s     3.95nm
LOR    112.35 321 ePKP   35 51.30    0.1
LBF    112.39 321 ePKP   35 51.30    0.0
SSF    112.66 321 ePKP   35 52.00    0.3
        0.5s     3.20nm
AVF    112.86 321 ePKP   35 52.10    0.0
        0.9s     4.90nm
BGF    113.27 321 ePKP   35 53.30    0.4
        0.7s     6.85nm
TCF    113.78 321 ePKP   35 54.20    0.2
        0.7s     3.75nm
HHAI   114.57  43 ePKP   35 57.18    1.4
MFF    115.13 322 ePKP   35 56.70    0.2
        0.7s     6.85nm
FCC    115.71  21 ePKPd  36 00.00    2.8
MSU    116.43  48 ePKP   36 00.98    1.4
SRU    117.42  46 ePKP   36 01.81    0.4
                    e    37 01.69
ULM    120.75  29 ePKP   36 09.50    2.4
GOL    120.84  44 ePKP   36 08.85    0.9
```

```
ALQ    122.00  49 ePKP   36 11.14    0.9
MIAR   131 56  44 ePKP   36 29.25    0.9
                  eSKP   39 53.34
NAV    137.55  31 ePKP   36 39.83    0.1
CEH    139.52  31 ePKP   36 45.52    2.3
YJA    153.73 157 ePKPc  37 09.50    2.3
NNA    154.02 123 ePKP   37 08.20    0.9
        0.9s     13.45nm
ARE    155.28 139 e(PKP)37 21.00   11.8X
CNCB   157.17 146 PKP    37 14.10    2.0
LPB    157.32 145 (PKP)  37 20.00    7.9X
                  i      37 45.20
ZOBO   157.50 145 PKPc   37 14.00    1.4
CCH    157.66 150 ePKP   37 16.00    3.7X
                  i      37 47.60
SIV    161.01 161 PKP    37 21.40    5.8X
                  e      38 03.00
      S.D. = 1.1  on 134 of 146 obs.
-----------------------------------
?  JAN  19, 1993  15h 43m 02.85± 2.00s
    8.662 S ±17.3km  124.282 E ±13.7km
   DEPTH =  89.3 ± 21.3 km
   3.9mb (  1 obs.)
 TIMOR REGION, INDONESIA          (289)

WSI      4.07 255 ePd    44 04.40    0.4
                  eS     44 41.30
MTN      7.91 122 iPd    44 58.30    1.2
        0.3s   142.00nm          6.1mb X
                  eS     46 19.00
WB2     14.86 140 eP     46 26.90   -2.7
                  i      46 35.00
                  eS     48 52.90
ASPA    17.53 149 eP     47 02.70   -0.4
                  eS     50 01.50
WARB    17.57 173 eP     47 03.40   -0.1
                  eS     50 06.00
STK     28.15 148 eP     48 49.70    1.0
        1.9s     1.30nm          3.2mb X
CMS     30.29 142 eP     49 09.10    1.3
        0.8s     2.00nm          3.9mb
GUN     51.97 316 P      52 05.70    0.1
PKI     52.09 315 P      52 06.12   -0.3
        0.5s     17.00nm         5.4mb X
KKN     52.31 315 P      52 07.80   -0.2
DMN     52.32 315 P      52 07.94   -0.2
GKN     52.89 315 P      52 11.98   -0.2
        0.4s     14.00nm         5.4mb X
      S.D. = 1.2  on  12 of  12 obs.
-----------------------------------
   JAN  19, 1993  15h 56m 05.97± 0.30s
   40.080 N ± 3.6km   21.331 E ± 2.5km
   DEPTH =  10.0km  (geophysicist)
 GREECE                           (364)
      MD 3.4 (ATH). ML 3.3 (TIR).

KZN      0.41  56 iPbd   56 13.90   -0.4
LSK      0.56 277 iPgc   56 16.30   -1.2
                  iSg    56 24.00
FNA      0.70   3 ePg    56 19.06   -0.8
                  eSg    56 29.66
LIT      0 89  88 ePg    56 22.50   -0.6
IGT      0.94 235 ePg    56 22.86   -1.1
                  eSg    56 37.62
TPE      1.03 282 ePn    56 24.20   -1.3
                  iSn    56 40.50
SRN      1.04 259 ePn    56 25.50   -0.1
                  iSn    56 42.20
OHR      1.11 339 iPg    56 25.80   -1.0
        0.8s   969.00nm
                  iSg    56 42.40
                  Lg     56 46.40
GRG      1.20  43 ePb    56 27.98   -0.3
                  eSb    56 45.94
KEK      1.23 253 ePb    56 29.00    0.1
AGG      1.31 144 ePb    56 30.10   -0.1
                  eSb    56 48.42
THE      1.36  66 ePb    56 31.10    0.1
                  eSb    56 50.14
VLO      1.46 286 iPn    56 34.40    2.1
VAY      1.56  37 iPn    56 33.70    0.0
        0.8s   182.00nm
                  iSn    56 58.40
                  Lg     57 06.30
KNT      1.61  47 iPb    56 34.57    0.1
TIR      1.69 319 iPnc   56 37.00    1.4
                  iSn    57 03.50
SOH      1.71  64 iPb    56 36.50    0.5
                  eSb    57 00.66
PHP      1.74 337 ePn    56 35.40   -1.0
                  iSn    57 01.40
PAIG     1.81  94 iPb    56 37.14   -0.3
SKO      1.89   2 iPn    56 39.80    1.2
        1.2s   256.00nm
                  iSn    57 04.00
                  iSg    57 08.50
                  Lg     57 13.50
VLS      1.99 197 ePn    56 40.00    0.0
SRS      2.01  58 ePn    56 40.60    0.3
                  iSn    57 06.58
OUR      2.05  82 iPn    56 40.46   -0.4
SDA      2.41 325 ePn    56 47.00    1.0
BCI      2.47 338 ePn    56 50.60    3.6X
                  iSn    57 28.70
LCI      2.60 277 P      56 50.00    1.3
                  eSn    57 19.00
BRT      3.25 286 P      56 58.00    0.0
VLI      3.59 159 ePn    57 04.00    1.2
MGR      4.43 273 P      57 15.00    0.3
                  eSn    58 03.50
SOI      4.57 246 P      57 16.00   -0.7
SGO      4.63 278 P      57 17.00   -0.5
                  eSn    58 06.70
HVAR     4.79 312 e(Pn)  57 16.30   -3.6X
SDI      5.92 288 P      57 36.00    0.1
      S.D. = 0.9  on  31 of  33 obs.
-----------------------------------
?  JAN  19, 1993  18h 22m 25.91± 1.12s
   37.953 N ±15.1km   49.410 E ± 8.4km
   DEPTH =  33.9 ± 15.8 km
   4.0mb (  4 obs.)
 CASPIAN SEA                      (338)

TAB      2.44 274 iPc    23 02.60   -1.8
TEH      2.72 144 eP     23 08.00   -0.3
SHE      2.74 348 iPd    23 13.00    4.5X
        0.8s    40.00nm
                  i      23 48.50
GRS      2.86 304 eP     23 12.00    1.6
        0.6s   280.00nm
                  e      23 58.00
KER      4.05 208 eP     23 32.00    4.8X
MTA      5.16 318 eP     23 49.00    6.2X
        0.6s    20.00nm         4.7mb X
GRO      6.09 333 eP     24 07.00   11.1X
                  i      25 12.00
ASH      7.07  87 eP     24 09.00   -0.6
KIV      7.86 322 eP     24 25.90    5.0X
MAIO     8.22  99 iPnc   24 25.60   -0.3
        0.8s    11.35nm         5.0mb X
                  eSn    25 58.00
CVO     18.96 302 eP     26 52.00    5.2X
MLR     19.02 301 eP     26 48.50    0.8
MTUR    19.56 300 eP     26 52.00   -1.8
BRVK    20.91  37 iPc    27 09.00    1.3
SPC     23.78 308 eP     27 43.90    7.6X
ZST     25.55 304 eP     27 53.40    0.3
VBY     26.43 298 e(P)   28 03.90    2.7
NUR     27.45 333 eP     28 09.00   -1.3
GEC2    27.89 304 ePd    28 12.90   -1.7
        0.5s     1.05nm         3.7mb
                  e      28 18.90
                  e      28 20.60
                  e      28 26.00
                  e      28 29.60
NAO     33.21 326 P      29 00.70   -0.7
        0.5s     7.00nm         4.8mb
BCAO    43.65 228 ePc    30 30.40    1.3
        0.5s     3.00nm         4.3mb
YKA     79.07 353 eP     34 27.60   -0.2
        0.8s     0.20nm         3.2mb
      S.D. = 1.5  on  15 of  22 obs.
-----------------------------------
•  JAN  19, 1993  18h 47m 01.08± 0.89s
   43.968 N ±12.9km   28.974 W ±11.0km
   DEPTH =  10.0km  (geophysicist)
   4.5mb ( 11 obs.)  4.0Msz (  1 obs.)
 NORTHERN MID-ATLANTIC RIDGE      (403)

GUD     18.64  92 iPd    51 21.00    0.2
EHOR    18.93 101 eP     51 24.80    0.6
LPF     19.78  68 eP     51 34.00   -0.1
        1.2s    30.35nm         4.5mb
MAL     20.02 103 iPc    51 38.00    1.2
ETOR    20.10  90 eP     51 36.90   -0.8
FLN     20.18  66 eP     51 38.90    0.6
        1.2s    21.40nm          4.4mb
      Z  23s     0.55um          3.8MszX
ECOG    20.37 100 eP     51 40.00   -0.5
LDF     20.41  67 eP     51 40.90    0.2
EGRA    20.97  85 iPc    51 50.70    4.2X
LFF     21.18  77 eP     51 57.90    9.2X
        1.1s    26.60nm          4.5mb
EPF     21.24  82 eP     51 49.30   -0.1
        1.3s    26.00nm          4.5mb
LPO     21.54  78 eP     51 51.60   -0.7
        1.1s    17.10nm          4.4mb
LSF     21.59  73 eP     51 52.50   -0.3
        1.2s    25.60nm          4.5mb
EBR     21.94  88 eP     51 57.00    0.7
TCF     22.05  73 eP     51 57.60    0.1
        1.2s    19.65nm          4.4mb
CAF     22.12  77 eP     51 57.60   -0.6
MAF     22.31  73 eP     52 00.30    0.3
        1.0s    12.20nm          4.3mb
BGF     22.47  72 eP     52 01.70    0.1
        1.2s    23.80nm          4.5mb
AVF     22.80  72 eP     52 05.00    0.2
SSF     22.88  71 eP     52 06.10    0.5
        1.0s    13.20nm          4.4mb
LOR     23.11  70 eP     52 07.40   -0.5
      Z  22s     0.63um          4.0Msz
LBF     23.21  71 eP     52 08.70   -0.2
BCAO    57.36 119 iPd    56 50.50   -1.4
        0.8s     4.00nm          4.5mb
ZOBO    69.83 220 P      58 15.00    0.5
WRA    152.28  36 PKP    07 03.00   11.3X
        1.2s     0.40nm
      S.D. = 0.6  on  22 of  25 obs.
-----------------------------------
?  JAN  19, 1993  18h 51m 19.28± 0.61s
   14.093 S ±29.1km  170.657 E ±25.6km
   DEPTH = 500.0km  (geophysicist)
   4.7mb (  6 obs.)
 VANUATU ISLANDS REGION           (185)

BRS     21.29 229 iP     55 31.50    0.8
CMS     28.59 229 iPd    56 35.30   -0.6
        0.4s    13.00nm          4.8mb
STK     31.93 231 iPd    57 04.70    0.2
        0.3s     9.50nm          4.8mb
TOO     32.36 219 eP     57 07.50   -0.6
        0.7s    14.00nm          4.6mb
WB2     35.15 255 eP     57 32.00    0.3
        0.5s     8.50nm          4.5mb
WRA     35.16 255 P      57 32.70    0.9
        0.8s     0.70nm          3.2mb X
ASPA    35.97 249 iPd    57 38.40   -0.1
        0.3s    17.70nm          5.1mb
WARB    42.84 247 eP     58 34.10    0.0
        0.4s     8.00nm          4.6mb
PLM     83.57  53 ePd    02 57.42    1.8
CDF    143.12 341 ePKP   09 54.40   -2.9
        0.7s     6.40nm
HAU    143.76 342 ePKP   09 56.30   -2.0
        0.5s     2.25nm
BSF    143.78 342 ePKP   09 56.30   -2.2
FLN    144.66 350 ePKP   09 58.80   -1.0
LDF    144.76 349 ePKP   09 59.00   -0.9
GRR    145.09 350 ePKP   10 00.20   -0.3
        0.3s     2.45nm
LOR    145.14 344 ePKP   10 00.40   -0.3
        0.4s     1.45nm
LBF    145.36 344 ePKP   10 01.20    0.1
SSF    145.42 344 ePKP   10 01.30    0.2
        0.4s     1.70nm
LPF    145.47 350 ePKP   10 01.40    0.3
        0.5s     4.10nm
AVF    145.71 344 ePKP   10 01.60    0.0
SMF    145.71 344 ePKP   10 01.90    0.3
LPL    145.85 340 ePKP   10 02.90    0.7
        0.4s     0.80nm
LPG    145.86 340 ePKP   10 03.10    0.8
        0.6s     1.55nm
BGF    146.06 345 ePKP   10 02.80    0.6
        0.5s     2.60nm
TCF    146.47 345 ePKP   10 04.00    1.1
        0.6s     2.00nm
LSF    146.66 346 ePKP   10 04.30    1.2
        0.3s     2.95nm
MFF    146.68 348 ePKP   10 04.50    1.4
```

19d 19h

```
        0.6s      3.45nm
      S.D. = 1.1   on  27 of  27 obs.
-------------------------------------
?  JAN  19, 1993  19h 28m 39.56± 7.49s
   35.188 S ±64.7km   71.387 W ±24.2km
   DEPTH = 100.0km  (geophysicist)
 CENTRAL CHILE                     (136)
      MD 3.8 (SAN).

LNV      1.23 359 iPd    29 03.33   0.5
                  iS     29 23.56
CACH     1.25  31 iP     29 03.17  -0.1
                  iS     29 23.60
CHCH     1.39  26 iP+    29 04.75  -0.1
                  iS     29 26.75
TACH     1.58  14 iPd    29 07.10  -0.1
LCCH     1.71 355 iPd    29 08.44  -0.5
PCH      1.72  25 iP     29 09.04  -0.1
FCH      2.07  26 iP+    29 13.99   0.1
                  eS     29 42.48
PEL      2.12  16 iPd    29 14.66   0.4
                  iS     29 43.91
ROCH     2.23   8 iPd    29 16.04   0.1
JACH     2.59  15 iPd    29 20.32  -0.2
                  iS     29 54.90
      S.D. = 0.3   on  10 of  10 obs.
-------------------------------------
*  JAN  19, 1993  20h 16m 19.99± 0.87s
   51.587 N ± 6.5km    6.782 E ±12.2km
   DEPTH =  10.0km  (geophysicist)
 GERMANY                           (543)
      MD 2.5 (UCC).

WTS      0.41   2 iPgc  16 28.40   0.0
       0.5s     39.00nm
ENN      0.98 214 ePg   16 39.00   0.4
       0.4s     13.00nm
                  eSg    16 52.00
MEM      1.09 207 iP     16 55.01  14.5X
ABH      1.78 164 ePn    16 50.47  -0.5
RUP      1.90 175 ePn    16 53.33   0.6
SNF      1.91 237 iP     16 53.10   0.3
DOU      2.04 224 P      16 53.90  -0.8
                  iS     17 23.50
      S.D. = 0.7   on   6 of   7 obs.
-------------------------------------
   JAN  19, 1993  20h 21m 03.93± 0.18s
   41.940 N ± 2.2km   20.137 E ± 1.9km
   DEPTH =  10.0km  (geophysicist)
 ALBANIA                           (391)
      ML 3.1 (TTG), 2.9 (TIR).

PHP      0.34 138 iPgd   21 10.00  -1.0
                  iSg    21 15.50
BCI      0.43 353 iPg    21 13.20   0.5
                  iSg    21 20.20
SDA      0.49 283 iPgc   21 13.90   0.1
                  iSg    21 22.40
TIR      0.63 199 iPgc   21 16.20  -0.3
                  iSg    21 26.50
ULC      0.66 272 iPgc   21 16.57  -0.6
                  iSg    21 25.99
PVY      0.67 350 iPgc   21 17.10  -0.2
                  iSg    21 26.66
TTG      0.81 307 iPgc   21 19.12  -0.6
                  iSg    21 30.76
IVA      0.95 349 iPgc   21 21.80  -0.2
                  iSg    21 35.96
OHR      0.97 149 iPg    21 21.70  -0.6
       1.1s    491.00nm
                  iSg    21 35.60
                  Lg     21 42.60
SKO      0.97  88 iPgc   21 22.00  -0.4
       0.5s    334.00nm
                  i      21 24.00
                  i      21 35.50
                  iSg    21 38.20
                  Lg     21 38.50
BDV      1.03 290 iPgc   21 22.87  -0.6
                  iSg    21 37.85
NKY      1.21 316 iPgc   21 26.01  -0.6
                  iSg    21 43.67
HCY      1.32 293 iPgc   21 27.96  -0.3
                  iSg    21 47.36
FNA      1.49 141 iPb    21 31.06   0.3
                  eSb    21 51.32
PLE      1.49 339 iPgc   21 31.45   0.6
                  iSg    21 53.12
BRY      1.52 310 iPgc   21 31.56   0.3
                  iSg    21 53.22
VLO      1.55 198 ePn    21 31.90   0.4
TPE      1.65 183 ePn    21 33.00   0.0
LSK      1.82 169 ePn    21 39.60   4.0X
VAY      1.93 108 iPn    21 37.00   0.0
       0.7s    109.00nm
                  iSn    22 01.00
                  Lg     22 10.70
GRG      1.97 119 ePb    21 38.06   0.4
KNT      2.21 110 iPn    21 41.25   0.0
                  eSn    22 07.76
BRT      2.45 245 P      21 46.00   1.4
                  (Sn)   22 14.50
THE      2.50 121 ePn    21 45.88   0.6
LIT      2.56 135 ePn    21 46.10  -0.1
                  eSn    22 14.52
SOH      2.67 114 ePn    21 48.20   0.5
SRS      2.72 106 ePn    21 48.72   0.2
                  eSn    22 21.92
OUR      3.32 118 ePn    21 56.60  -0.3
PAIG     3.35 126 iPn    21 57.06  -0.4
                  eSn    22 35.04
AGG      3.36 149 ePn    21 57.88   0.3
                  eSn    22 37.12
SGO      3.89 251 P      22 05.20   0.2
                  eSn    22 45.80
MGR      3.91 244 P      22 05.20   0.0
                  eSn    22 49.50
SDI      4.73 269 P      22 17.40   0.4
                  eSn    23 08.50
VBY      5.02 317 e(Pn)  22 21.00   0.0
                  e(Sn)  23 15.00
CEY      5.61 315 e(P)   22 30.00   0.6
                  e(S)   23 35.50
ASS      5.64 284 P      22 29.40  -0.5
                  eSn    23 32.00
VOY      6.08 314 ePn    22 36.10   0.0
                  e(Sn)  23 47.00
      S.D. = 0.5   on  36 of  37 obs.
-------------------------------------
   JAN  19, 1993  21h 14m 49.96± 0.16s
   18.123 S ± 6.0km  178.066 W ± 3.7km
   DEPTH = 593.3km  (  3 depth phases)
   5.2mb ( 57 obs.)
 FIJI ISLANDS REGION               (181)
      Mw 5.4 (HRV).
      CENTROID, MOMENT TENSOR     (HRV)
      Data Used: GDSN
      L.P.B.:  9S, 10C
      Centroid Location:
      Origin Time        21:14:54.6 2.2
      Lat 18.01S 0.10 Lon 178.00W 0.18
      Dep 625.0 9.6 Half-duration  1.4
      Moment Tensor;    Scale 10**16 Nm
        Mrr=-4.90 1.09   Mtt=-3.24 2.12
        Mff= 8.15 1.66   Mrt=-8.10 1.65
        Mrf=-6.51 1.56   Mtf=-3.03 1.89
       Principal Axes:
        T  Val= 10.85  Plg=23  Azm= 92
        N        3.49      34      198
        P      -14.34      47      334
      Best Double Couple:Mo=1.3*10**17
       NP1:Strike=137 Dip=37 Slip=-157
       NP2:         28      76      -55

MBU      3.27 290 iPd    16 13.20   2.5
                  eS     17 20.40
SVA      3.31 270 iPc    16 12.10   1.3
PVC     12.97 270 iPc    17 39.20   0.9
BKM     13.04 270 iPd    17 39.80   0.8
                  iS     20 03.50
DZM     15.07 252 iPc    17 59.80   0.9
                  iS     20 35.40
AFR     26.93  93 iPc    19 46.70  -0.5
        0.6s   244.60nm          6.0mb
PAE     27.10  93 iPc    19 48.20  -0.5
        0.6s   169.50nm          5.9mb
PPT     27.12  93 iPc    19 48.50  -0.4
        0.7s   317.50nm          6.1mb
PPN     27.26  93 iPc    19 49.60  -0.5
TVO     27.40  94 iPc    19 51.10  -0.3
        0.6s   165.90nm          5.8mb
BRS     28.37 246 iPc    20 00.40   0.7
        1.0s     8.00nm          4.3mb
PMO     29.07  88 iPc    20 05.60  -0.1
        1.2s   816.40nm          6.2mb X
VAH     29.28  89 iPc    20 07.00  -0.5
        0.8s   285.80nm          6.0mb
TPT     29.33  88 iPc    20 07.90  -0.1
        1.0s   446.40nm          6.0mb
RUV     29.52  89 iPc    20 09.30  -0.3
        0.8s   462.10nm          6.2mb
ARMA    30.12 240 iPc    20 15.60   0.8
        0.7s    31.00nm          5.0mb
CNB     33.56 233 iPd    20 44.80   1.2
        0.6s    77.00nm          5.5mb
CTA     33.73 261 iPc    20 45.00  -0.1
        1.0s    12.50nm          4.5mb
                  e      22 20.00
CMS     35.20 241 eP     20 58.00   0.8
        0.6s    26.00nm          5.0mb
TOO     37.29 231 iPd    21 10.60  -3.6X
        0.8s    61.00nm          5.3mb
TAU     38.30 222 eP     21 18.00  -4.3X
STK     38.82 241 eP     21 27.60   0.9
        0.7s     8.00nm          4.4mb
                  ePcP   23 21.50
                  eS     26 42.30
BFD     39.37 233 eP     21 31.40   0.3
        0.7s     4.00nm          4.1mb X
WB2     44.90 260 iPc    22 13.70  -1.1
        0.3s    20.80nm          5.1mb
                  iPcP   23 42.90
                  eS     28 00.80
WRA     44.91 260 P      22 14.10  -0.8
        0.4s     3.10nm          4.2mb X
ASPA    45.05 254 iPd    22 15.50  -0.5
        1.0s    91.50nm          5.3mb
                  iPcP   23 43.30
                  iS     28 10.10
                  iScS   31 08.20
GUA     48.20 308 eP     22 40.00   0.1
        0.7s   509.59nm          6.2mb
PJG     48.26 308 eP     22 40.20  -0.1
MTN     49.12 269 eP     22 45.20  -1.5
FORT    50.21 245 eP     22 53.00  -1.5
WARB    51.52 251 iPd    23 03.10  -1.1
SWI     52.61 283 iPd    23 13.00   0.9
MEEK    58.66 249 iPd    23 52.30  -1.5
        0.7s    29.00nm          4.6mb
KLB     59.02 244 iPd    23 54.80  -1.3
BAL     59.99 245 eP     24 01.00  -1.5
MUN     60.32 243 eP     24 04.00  -0.6
MRWA    60.72 246 eP     24 06.00  -1.3
NANU    61.98 254 iPd    24 15.20  -0.3
KAKJ    66.93 324 iPd    24 45.50  -0.6
CHJJ    67.48 323 iPd    24 48.90  -0.6
OFUJ    68.24 327 P      24 53.00  -1.1
MAT     68.27 323 eP     24 51.00  -3.4X
        0.7s    23.29nm          4.8mb
NIIJ    68.32 324 iPd    24 54.00  -0.6
YAMJ    68.43 326 P      24 54.70  -0.6
MTMJ    68.53 323 iPd    24 55.40  -0.6
TSRJ    68.88 321 P      24 57.90  -0.1
ADK     69.72   1 iPd    25 00.80  -1.7
        0.5s    91.43nm          5.6mb
KUSJ    69.87 332 P      25 02.90  -0.7
HOOJ    69.96 330 eP     25 06.00   1.8
KUR     70.25 335 iPd    25 05.30  -0.5
        0.9s   220.00nm          5.7mb
SMY     70.88 355 eP     25 07.60  -1.7
        0.6s   103.54nm          5.5mb
ASAJ    71.60 331 P      25 14.50   0.8
SKR     72.17 343 eP     25 14.10  -2.8
        0.8s   140.00nm          5.5mb
                  e      25 28.50  51kmX
PET     73.66 346 eP     25 24.00  -1.2
YSS     73.82 333 iPd    25 26.00  -0.2
        1.0s    70.00nm          5.1mb
SSE     76.13 310 Pc     25 39.00  -0.3
        1.0s    32.00nm          4.8mb
PHAM    76.52  45 eP     25 42.95   1.5
PLM     77.63  49 eP     25 48.27   0.6
ISA     77.73  46 eP     25 48.75   0.7
        1.0s    25.59nm          4.6mb
CMB     77.77  43 iPd    25 48.61   0.5
        0.8s    20.49nm          4.6mb
ORV     77.94  41 iPd    25 49.41   0.5
NJ2     78.33 309 Pd     25 52.00   0.9
        1.0s    67.00nm          5.0mb
MEMM    78.51  44 (P)    25 54.55   2.6
KDC     78.52  14 eP     25 50.83  -0.7
```

	1.2s	85.10nm			5.1mb
MDJ	78.55	325	eP	25 51.00	-1.0
LBFM	78.75	40	eP	25 54.66	1.2
GLA	78.94	50	eP	25 56.17	1.8
BONR	79.09	44	ePd	25 56.35	0.9
KVN	79.83	43	eP	26 00.06	1.0
DL2	79.97	317	eP	26 00.00	0.5
	1.0s	89.00nm			5.1mb
SNY	80.36	320	Pd	26 01.80	0.3
SVW	80.99	11	eP	26 04.10	-0.3
WHN	80.99	306	Pd	26 06.50	1.5
	1.0s	70.00nm			5.1mb
SHW	81.45	36	eP	26 08.41	1.3
SLKM	81.52	14	iPd	26 06.33	-0.7
TUC	81.57	52	eP	26 09.53	1.5
	0.9s	16.09nm			4.6mb
TIA	81.63	312	eP	26 08.70	0.6
	1.4s	32.00nm			4.7mb
BGL	81.75	12	eP	26 06.74	-1.5
CP2	81.78	12	iPd	26 07.32	-1.2
CRP	81.80	12	ePd	26 07.11	-1.5
VGB	81.86	37	eP	26 09.65	0.5
MGD	81.94	345	ePd	26 13.00	3.9X
	0.7s	70.00nm			5.3mb
ARUT	82.29	46	eP	26 12.68	1.1
PMS	82.33	13	iPd	26 11.10	0.0
	1.1s	139.70nm			5.4mb
RMW	82.45	35	iPd	26 12.94	0.9
TTA	82.63	10	iPd	26 12.61	0.0
	1.0s	50.90nm			5.0mb
PMR	82.73	13	iPc	26 12.10	-0.9
	0.5s	34.44nm			5.1mb
KLU	83.39	15	eP	26 15.63	-0.9
MSU	83.51	46	eP	26 19.18	1.4
TOA	83.86	14	eP	26 19.10	0.3
BALM	83.93	17	iPc	26 18.86	-0.3
SNG	84.03	280	eP	26 22.90	2.5
BJI	84.17	315	eP	26 21.00	0.4
	1.6s	240.00nm			5.6mb
DPW	84.67	36	iPd	26 23.30	0.3
HVU	84.71	43	eP	26 24.00	0.5
DAU	85.05	45	eP	26 24 98	-0.3
GYA	85.43	300	iPd	26 28.00	0.8
	1.0s	33.00nm			5.0mb
NEW	85.49	36	iPc	26 26.90	0.0
	0.8s	28.13nm			5.0mb
		(pP)		28 32.93	585km
PV09	85.61	47	ePd	26 28.60	0.6
PV10	85.62	47	eP	26 28.33	0.3
TIY	85.65	312	iPc	26 29.00	1.1
	1.0s	80.00nm			5.4mb
IMA	85.93	10	iPd	26 28.12	-0.6
	0.7s	8 66nm			4.6mb
FBA	85.95	12	ePd	26 27.40	-1.3
	0.6s	40.49nm			5.3mb
			epP	28 37.47	608km
ALQ	85.97	51	eP	26 30.85	1.1
	1.0s	11.33nm			4.6mb
			epP	28 37.62	588km
PV08	85.98	47	eP	26 30.61	0.7
NNT	86.62	284	eP	26 34.70	1.8
LCCM	87.29	40	iPd	26 36.30	0.6
BW06	87.29	43	ePd	26 36.32	0.5
	0.7s	16.38nm			4.9mb
HHC	87.66	314	P	26 38.60	1.2
	1.4s	140.00nm			5.6mb
KMI	88.22	297	Pc	26 40.00	-0.5
	1.8s	130.00nm			5.5mb
KHT	88.38	286	iPd	26 42.60	1.5
BTO	88.60	314	eP	26 42.00	0.2
CHG	89.38	290	iPd	26 46.70	1.0
	0.9s	38.45nm			5.3mb
CD2	89.46	303	eP	26 47.00	1.1
YAK	89.87	338	iPd	26 46.00	-1.0
	1.2s	95.00nm			5.6mb
SES	90.00	36	eP	26 48.00	0.1
	1.0s	61.00nm			5.5mb
BRW	90.40	7	ePc	26 48.77	-0.4
LZH	91.28	308	iPd	26 55.30	1.0
	1.4s	94.00nm			5.6mb
CIT	91.49	325	eP	26 56.10	1.4
RSSD	91.49	44	ePc	26 55.11	0.0
	0.7s	13.88nm			5.1mb
BOD	93.94	330	eP	27 05.10	-0.6
	1.9s	31.00nm			5.2mb
YKA	94.39	25	eP	27 07.30	-0.4
	0.6s	6.60nm			5.0mb

GTA	95.42	310	eP	27 13.50	0.4
	1.0s	19.00nm			5.3mb
TIK	96.43	345	iPd	27 15.40	-1.3
	1.0s	18.00nm			5.3mb
ZAK	96.76	321	eP	27 19.00	0.4
	1.0s	10.00nm			5.1mb
GBA	107.68	279	PKP	32 12.00	-0.6
BRVK	117.28	321	iPKPd	32 28.60	-1.2
	1.0s	18.00nm			
QUE	120.16	295	ePKP	32 41.80	5.5X
DAG	120.38	5	ePKP	32 33.50	-1.6
	0.9s	7.56nm			
			esP	34 07.00	
KEV	126.13	349	iPKP	32 46.00	-0.4
MAIO	126.46	302	iPKPd	32 47.50	-0.7
			e	34 51.00	
ASH	127.24	304	ePKP	32 49.50	0.0
	1.2s	90.00nm			
KAF	132.86	345	ePKP	32 51.40	-8.0X
	0.6s	14.70nm			
OBN	134.63	333	iPKPc	33 03.00	0.1
	0.8s	31.00nm			
			i	35 39.00	
NUR	134.65	344	ePKP	32 51.10	-11.7X
	0.3s	1.80nm			
NAO	136.88	354	PKP	32 54.50	-12.6X
	0.8s	2.20nm			
KIV	137.23	316	ePKP	33 10.60	2.2
MNK	139.17	337	ePKP	33 02.00	-9.4X
EKA	142.65	5	PKPd	33 13.20	-4.3X
	0.8s	14.60nm			
SVST	142.88	313	iPKP	33 17.00	-1.6
KVT	142.90	315	iPKP	33 16.00	-2.5
TRHT	143.15	314	iPKP	33 16.90	-2.1
DMU	143.64	9	iPKPd	33 17.30	-1.9
	0.6s	145.00nm			
KIS	143.67	328	iPKP	33 18.00	-1.4
	1.2s	600.00nm			
GAZ	143.72	309	ePKP	33 17.00	-2.9X
CTK	143.90	315	iPKP	33 20.00	-0.3
BNN	144.03	312	iPKP	33 19.50	-1.1
DCN	144.13	9	iPKPd	33 18.90	-1.1
	0.8s	198.00nm			
KAS	144.26	317	iPKPc	33 20.80	0.0
DLF	144.28	9	ePKP	33 19.40	-0.9
	1.0s	370.00nm			
WME	144.46	6	ePKP	33 20.40	-0.2
	0.8s	131.00nm			
YRC	144.58	7	ePKP	33 20.60	-0.2
BRNL	144.61	348	ePKP	33 21.00	0.1
CLI	144.77	329	iPKPd	33 22.50	1.1
ETA	144.91	9	ePKP	33 21.70	0.3
OJC	144.93	340	iPKP	33 21.70	0.2
	1.0s	216.00nm			
			i	33 26.00	
YRH	144.98	7	ePKP	33 21.70	0.2
	0.8s	56.00nm			
KWE	145.05	4	ePKP	33 22.50	0.9
WIT	145.18	355	ePKP	33 23.50	1.7
CFR	145.28	327	ePKP	33 22.00	-0.2
UZH	145.37	336	ePKPc	33 22.70	0.4
ECP	145.39	9	ePKP	33 22.90	0.7
	0.9s	211.00nm			
KSP	145.41	344	ePKP	33 21.60	-0.7
	1.0s	226.00nm			
			id	33 23.80	
			e	36 08.00	
KUF	145.53	3	ePKP	33 23.50	1.1
VRI	145.53	329	ePKPc	33 22.00	-0.7
RAC	145.55	341	iPKP	33 24.30	1.8
SPC	145.66	339	ePKP	33 22.20	-0.8
BBTK	145.70	316	iPKP	33 23.00	-0.3
CLL	145.74	348	iPKPc	33 22.90	0.1
	1.0s	250.00nm			
			i	33 24.30	
CVO	145.83	329	ePKP	33 22.00	-1.2
BRG	145.95	346	iPKP	33 22.80	-0.4
	1.0s	120.00nm			
			i	33 25.00	
WTS	145.98	355	ePKP	33 23.00	-0.1
	0.8s	140.00nm			
			id	33 25.00	
			e	33 35.00	
BHL	146.05	304	PKP	33 24.00	0.0
ISR	146.14	328	ePKPc	33 27.00	3.3X
MLR	146.18	329	ePKPc	33 23.50	-0.4
HRI	146.19	303	ePKP	33 22.30	-2.0

PSN	146.26	325	iPKPd	33 26.00	2.1
SHMJ	146.33	302	PKP	33 28.16	3.8
SALJ	146.60	301	PKP	33 28.89	4.0
PRU	146.64	345	ePKP	33 23.50	-0.8
	1.0s	66.50nm			
			i	33 27.00	
			e	33 30.10	
			e	35 43.50	
MOX	146.64	349	iPKPc	33 24.40	0.1
	1.6s	37.00nm			
MASJ	146.65	300	PKP	33 29.01	4.0
LWI	146.69	235	iPKPd	33 29.10	3.3
VRAC	146.71	342	iPKPd	33 27.50	3.1
	1.5s	619.70nm			
CMP	146.78	330	ePKPc	33 30.00	5.3
MTUR	146.80	330	ePKP	33 27.00	2.2
PSZ	146.86	338	iPKPd	33 27.60	2.8
HOF	146.91	348	ePKP	33 24.50	-0.3
FAM	146.95	307	ePKP	33 27.40	2.2
BNS	146.97	354	iPKPd	33 27.80	3.0
	0.9s	129.00nm			
EYL	147.00	319	ePKP	33 24.50	-0.8
GPA	147.06	318	ePKP	33 24.00	-1.3
ZNT	147.07	302	ePKP	33 24.70	-0.9
DHLJ	147.15	299	PKP	33 29.27	3.6X
ENN	147.28	355	ePKP	33 25.50	0.2
	0.7s	55.00nm			
			e	33 28.50	
			e	33 31.50	
UCC	147.34	357	PKP	33 29.00	3.6X
KLL	147.36	355	ePKPd	33 28.60	3.1X
CSS	147.47	307	ePKP	33 29.00	2.9
SRO	147.50	339	ePKP	33 25.20	-0.5
			i	33 30.20	
BUD	147.54	338	iPKP	33 28.50	2.7
TNS	147.55	352	iPKPd	33 29.10	3.2X
ZST	147.55	341	ePKP	33 25.30	-0.5
			i	33 30.10	
			e	35 46.00	
GRF	147.63	349	ePKP	33 26.30	0.4
			i	33 30.10	
			e	33 33.80	
SNF	147.63	357	iPKPd	33 29.48	3.6X
			i	33 33.56	
KHC	147.67	346	PKPd	33 26.00	-0.1
	1.0s	51.80nm			
			i	33 30.00	
			e	33 34.30	
VKA	147.73	342	iPKPd	33 30.10	4.0X
WET	147.81	346	iPKPc	33 26.60	0.3
			i	33 30.30	
			i	33 35.10	
RMN	147.88	299	ePKP	33 26.80	-0.3
GEC2	147.90	345	ePKP	33 26.10	-0.4
	0.8s	2.81nm			
			ed	33 30.20	
			e	33 33.30	
GEC2	147.90	345	e(PKP)	33 33.20	6.7X
	0.7s	12.90nm			
GEC2	147.90	345	e(PKP)	33 30.30	3.8X
	0.8s	56.00nm			
DOU	148.03	357	PKP	33 30.80	4.3X
SOP	148.18	341	iPKP	33 31.30	4.5X
PPCY	148.24	308	ePKP	33 30.40	3.1X
KCT	148.30	320	iPKP	33 30.90	3.6X
WLF	148.35	355	iPKPd	33 31.96	5.0X
UZD	148.46	338	ePKP	33 31.00	3.7X
KMR	148.53	344	iPKP+	33 32.20	4.8X
DIM	148.80	325	iPKPd	33 33.00	5.1X
LANF	148.85	353	PKP	33 32.74	4.9X
HOFF	148.87	352	PKP	33 33.17	5.3X
SRBF	148.91	352	PKP	33 33.00	5.1X
FUR	149.08	348	ePKP	33 28.60	0.4
			i	33 33.50	
			i	33 40.30	
BHG	149.15	346	ePKP	33 33.20	4.9X
			i	33 40.80	
ELL	149.18	313	ePKP	33 31.50	2.6
PGB	149.18	327	iPKPd	33 33.00	4.4X
STR	149.25	352	PKP	33 33.68	5.3X
ALN	149.28	323	iPKP	33 32.93	4.2X
FLN	149.38	3	ePKP	33 28.00	-0.6
	1.3s	53.05nm			
WLS	149.47	353	PKP	33 33.85	5.0X
CDF	149.48	353	ePKP	33 28.10	-0.8
CDF	149.48	353	PKP	33 34.01	5.1X
RZN	149.49	325	iPKPd	33 34.00	4.7X

19d 21h

```
LDF   149.56   3 ePKP  33 28.30  -0.6
       0.9s    14.10nm
KBA   149.63 344 iPKPc 33 28.50  -0.8
       0.8s    55.20nm
                  i    33 33.70
                  i    33 43.10
VTS   149.64 328 iPKPd 33 36.00   6.6X
ECH   149.68 353 PKP   33 34.11   5.0X
LIBD  149.70 352 PKP   33 34.53   5.4X
GRR   149.73   4 ePKP  33 28.70  -0.4
EZN   149.80 321 iPKP  33 34.00   4.5X
VITF  149.80 355 PKP   33 34.80   5.5X
WTTA  149.86 347 iPKPc 33 29.40  -0.3
       0.6s    96.00nm
                  i    33 35.00
FEL   149.91 352 PKP   33 34.94   5.3X
SLE   149.95 351 ePKPc 33 29.40  -0.2
PTJ   149.95 340 e(PKP)33 29.60  -0.1
HAU   149.98 354 ePKP  33 29.10  -0.5
SQTA  150.00 347 iPKPc 33 29.60  -0.2
       0.8s    85.30nm
                  i    33 35.30
                  i    33 43.80
ZAG   150.02 340 iPKPd 33 35.70   6.1X
MOF   150.05 353 PKP   33 35.12   5.3X
LPF   150.07   4 ePKP  33 29.40  -0.3
IZM   150.07 318 ePKP  33 29.50  -0.6
MMB   150.09 326 iPKPd 33 35.00   5.0X
BSF   150.10 353 ePKP  33 29.10  -0.8
       1.2s    15.45nm
BSF   150.10 353 PKP   33 35.37   5.5X
FVI   150.23 345 PKP   33 29.56  -0.3
FVI   150.23 345 PKPc  33 35.10   5.2X
KKB   150.23 327 iPKPd 33 36.00   5.8X
LJU   150.26 342 ePKP  33 29.50  -0.5
                 iPKPbc33 35.80
OGA   150.37 347 iPKPc 33 30.80   0.3
                  i    33 36.70
                  i    33 45.90
BBS   150.38 352 PKP   33 36.03   5.8X
VOY   150.45 343 ePKP  33 30.00  -0.5
                 iPKPbc33 35.80
                  e    34 03.60
SRS   150.50 326 iPKP  33 35.44   4.9X
VBY   150.53 341 ePKP  33 30.70   0.2
                 iPKPbc33 36.80
                 iPKPab33 45.50
CEY   150.57 342 ePKP  33 30.00  -0.6
                 ePKPbc33 36.40
                 ePKPab33 45.50
LOMF  150.58 353 PKP   33 36.49   5.9X
OSS   150.72 348 ePKPc 33 31.10   0.1
LLS   150.75 350 ePKPc 33 31.10   0.1
TRI   150.79 343 ePKP  33 36.90   6.1X
                  e    33 46.30
OUR   150.83 324 ePKP  33 36.40   5.4X
SOH   150.83 325 ePKP  33 35.92   4.8X
KNT   150.84 326 ePKP  33 36.16   5.1X
PLE   150.86 333 iPKPd 33 37.40   6.2X
LOR   150.89 357 ePKP  33 30.60  -0.4
       1.1s    12.70nm
VAY   150.89 327 iPKP  33 36.40   5.3X
       1.2s    98.00nm
                  i    33 48.50
RIY   150.94 342 iPKPd 33 37.10   6.1X
SKO   150.98 329 ePKP  33 31.00  -0.3
       1.1s   100.00nm
                  i    33 37.50
                  i    33 48.80
IVA   151.00 332 iPKPd 33 37.59   6.2X
CTI   151.01 346 PKP   33 31.00  -0.3
VDL   151.04 349 PKPc  33 31.80   0.3
SSF   151.11 358 ePKP  33 31.00  -0.3
       1.4s    27.90nm
LBF   151.17 357 ePKP  33 31.00  -0.4
       1.1s    10.00nm
THE   151.18 325 ePKP  33 36.96   5.4X
PVY   151.19 332 iPKPd 33 37.74   6.0X
GRG   151.25 327 ePKP  33 37.20   5.5X
PAIG  151.27 324 iPKP  33 37.04   5.3X
BCI   151.33 331 iPKP  33 37.10   5.3X
AVF   151.39 358 ePKP  33 31.20  -0.5
NKY   151.44 333 iPKPd 33 38.40   6.4X
TMA   151.51 350 ePKPc 33 32.10   0.0
SMF   151.51 357 ePKP  33 31.40  -0.5
       1.3s    17.35nm
MFF   151.55   3 ePKP  33 31.50  -0.4
       1.0s    17.60nm
BRY   151.57 334 iPKPd 33 38.40   6.2X
BGF   151.63 359 ePKP  33 31.80  -0.2
       0.7s     7.95nm
TTG   151.64 332 iPKPd 33 38.67   6.5X
PHP   151.68 330 iPKPd 33 38.10   5.8X
MMK   151.70 351 PKPc  33 33.40   0.9
DIX   151.75 352 ePKPc 33 33.50   0.9
VAI   151.76 350 PKP   33 32.20   0.0
LIT   151.81 325 ePKP  33 38.48   5.9X
EMS   151.83 353 PKPd  33 33.80   1.2
SDA   151.83 332 iPKPd 33 39.70   7.3X
FNA   151.90 328 ePKP  33 39.20   6.5X
TCF   151.91 360 ePKP  33 32.10  -0.4
       0.9s    14.10nm
BDV   151.95 333 iPKPd 33 39.22   6.6X
OHR   151.95 329 iPKP  33 32.00  -0.7
       0.8s   139.00nm
                  i    33 39.50
                  i    33 51.00
LSF   151.95   1 ePKP  33 31.90  -0.6
       1.0s    19.60nm
HCY   151.96 333 iPKPd 33 38.67   6.0X
HCY   151.96 333 iPKPd 33 38.97   6.3X
MAF   151.98 359 ePKP  33 32.30  -0.3
ULC   152.02 332 iPKPd 33 39.38   6.6X
ORX   152.11 351 PKP   33 38.52   5.6X
ORO   152.12 351 PKP   33 39.60   6.7X
TIR   152.22 330 ePKP  33 40.00   7.0X
LPL   152.40 353 ePKP  33 33.70   0.2
       0.8s     4.85nm
LSD   152.40 352 PKP   33 41.36   7.8X
LPG   152.41 353 ePKP  33 33.80   0.2
       0.9s     5.55nm
AGG   152.65 324 ePKP  33 40.36   6.6X
RSP   152.69 352 PKP   33 40.35   6.6X
BOB   152.70 348 PKP   33 41.20   7.5X
BNI   152.86 353 PKP   33 35.60   1.6
RJF   152.90   1 ePKP  33 33.70  -0.2
       1.1s    22.95nm
TPE   152.96 329 ePKP  33 44.50  10.4X
RRL   152.98 352 PKP   33 40.13   5.8X
BHB   152.99 352 PKP   33 40.77   6.7X
PCP   153.08 350 PKP   33 41.41   7.2X
FIR   153.24 345 ePKP  33 34.00  -0.3
LFF   153.24   2 ePKP  33 34.20  -0.1
CAF   153.28 360 ePKP  33 34.30  -0.1
       1.1s    14.15nm
PZZ   153.34 352 PKP   33 38.66   4.0X
ROB   153.43 350 PKP   33 42.00   7.3X
FIN   153.46 350 PKP   33 41.64   6.9X
LPO   153.51   1 ePKP  33 34.70   0.0
       1.0s    12.80nm
STV   153.57 351 PKP   33 42.00   7.1X
ENR   153.57 351 PKP   33 42.00   7.1X
IMI   153.81 350 PKP   33 42.69   7.5X
AQU   153.95 340 PKP   33 43.90   8.5X
SDI   154.39 339 PKP   33 44.20   8.1X
EPF   155.13   3 ePKP  33 37.10   0.1
       1.4s    20.90nm
BCAO  158.81 232 iPKPd 33 41.70  -0.6
       0.5s    15.00nm
                  ic   34 22.50
                  ic   36 42.00
LIC   166.36 149 PKP   33 49.30  -0.1
KIC   166.62 150 PKP   33 49.40  -0.2
TIC   166.73 148 PKP   33 49.70   0.0
     S.D. = 1.0  on 239 of 342 obs.
-----------------------------------
?  JAN  19, 1993  22h 49m 46.98± 1.00s
   31.865 S ±19.4km  178.663 W ±17.8km
   DEPTH =  33.0km  (normal)
   4.9mb (  3 obs.)
 KERMADEC ISLANDS REGION          (177)

RAO     2.68  14 eP    50 28.90   0.2
                  eS   51 03.80
DZM    16.46 303 iPc   53 45.90   8.8X
BRS    25.19 273 eP    55 15.00   3.9X
CMS    30.14 261 eP    55 57.40   1.3
CTA    33.51 282 eP    56 25.00  -0.6
ASPA   42.49 269 eP    57 40.60  -0.3
       0.6s    14.80nm          4.9mb
WB2    43.60 274 iPd   57 49.60  -0.3
       0.4s    28.90nm          5.4mb
                  i    58 01.40
WRA    43.61 274 P     57 50.00   0.0
       0.4s     3.30nm          4.5mb
KAF   145.73 339 ePKP  09 21.10  -1.8
       0.5s     3.50nm
OBN   146.02 324 ePKP  09 25.00   1.4
       0.7s    49.00nm
NUR   147.48 339 ePKP  09 25.10  -0.6
       0.7s    10.60nm
BCAO  148.30 214 iPKPd 09 28.00  -0.5
       0.9s    14.00nm
                  ic   09 31.00
                  ic   10 08.00
NAO   150.36 351 PKP   09 34.80   4.6X
       0.5s     0.90nm
HFS   150.55 347 ePKP  09 31.90   1.4
       0.4s     1.70nm
     S.D. = 1.1  on  11 of  14 obs.
-----------------------------------
   JAN  19, 1993  23h 06m 10.29± 1.42s
    1.221 N ± 2.8km  126.072 E ± 3.5km
   DEPTH =  26.5 ±  9.9 km
   5.8mb ( 95 obs.)  5.4Msz ( 43 obs.)
 NORTHERN MOLUCCA SEA              (266)
      Mw 5.9 (HRV). Felt (IV) at
      Manado, Sulawesi.
      CENTROID, MOMENT TENSOR     (HRV)
      Data Used: GDSN
      L.P.B.: 31S, 61C
      Centroid Location:
      Origin Time        23:06:18.0 0.2
      Lat  1.47N 0.03 Lon 126.28E 0.03
      Dep  47.5 1.9 Half-duration  2.3
      Moment Tensor;   Scale 10**17 Nm
        Mrr= 7.19 0.18  Mtt=-2.60 0.25
        Mff=-4.59 0.32  Mrt=-1.27 0.37
        Mrf=-1.33 0.34  Mtf=-3.89 0.21
       Principal Axes:
        T  Val=  7.42  Plg=83  Azm=140
        N        0.42       2        38
        P       -7.84       7       308
      Best Double Couple:Mo=7.6*10**17
       NP1:Strike= 36 Dip=38 Slip=  88
       NP2:        219     52        92

SWI     5.58 112 ePd   07 35.00   1.2
                  e    08 01.00
DAV     5.85 355 eP    07 38.40   0.9
PCI     6.58 251 ePc   07 53.00   5.1X
TSM     8.74 291 iPc   08 19.00   1.0
       0.3s   690.20nm          7.3mb X
PLP     9.94 354 ePd   08 34.50   0.0
KKM    10.94 296 ePd   08 50.70   2.3
       0.5s   148.70nm          6.5mb
PPR    11.20 320 eP    08 56.00   4.1X
                  iS   09 45.00
WSI    12.26 208 ePc   09 10.10   3.9X
PGP    13.21 338 eP    09 23.00   4.2X
KHKI   14.12 227 ePc   09 35.70   4.9X
                  e    16 52.60
MTN    14.85 160 iPc   09 38.90  -1.5
BAG    16.03 341 eP    09 58.00   2.1
                  eS   13 00.00
TRT    16.07 236 ePc   09 57.20   1.0
       1.1s    11.30nm          3.9mb X
PJG    22.29  56 eP    11 07.00  -0.3
GUA    22.30  56 eP    11 06.60  -0.8
       0.8s   214.93nm          5.7mb
WRA    22.54 159 P     11 08.80  -1.0
       1.1s    29.50nm          4.7mb X
WB2    22.55 159 iPd   11 08.30  -1.5
       0.5s   392.50nm          6.1mb
                  eS   15 08.20
KGM    22.76 272 ePd   11 13.50   1.6
       1.4s   827.80nm          6.0mb
                  e    12 27.00
PMG    23.51 117 eP    11 19.20   0.0
QIZ    23.80 319 iPc   11 23.00   1.0
       0.8s    94.00nm          5.4mb
     N  10s     3.05um
     E  10s     2.77um
HKC    23.94 332 eP    11 23.50   0.2
                  S    15 41.00
KLM    24.48 275 eP    11 33.00   4.4X
QZH    24.67 344 Pd    11 29.50  -0.8
       1.0s   180.00nm          5.6mb
     Z  24s    13.50um          5.4MszX
     N  20s     6.31um
                  S    15 40.00
```

```
GZH     25 00 331 iPc    11 34.00    0.4
        1.2s    480.00nm          6.0mb
      Z  22s      9.70um          5.3Msz
      N  18s      5.21um
IPM     25.23 278 eP     11 36.20    0.3
        1.2s    434.40nm          6.0mb
NANU    25.78 203 eP     11 40.90    0.1
ASPA    25.88 163 iPc    11 40.90   -1.0
        1.1s    429.50nm          6.0mb
      Z  21s      3.30um          4.8Msz
                 eS      16 03.20
                 eScS    22 34.30
SNG     26.06 284 eP     11 45.60    2.1
        1.6s    573.33nm          5.9mb
                 eS      16 28.00
RAB     26.62 102 eP     11 50.00    1.2
WARB    27.25 179 eP     11 54.50    0.1
NNT     28.44 295 eP     12 04.70   -0.6
MEEK    28.62 194 iPc    12 05.80   -1.0
        0.5s     54.00nm          5.5mb
LOE     28.84 305 eP     12 09.00    0.2
CTA     28.98 138 iPc    12 10.00   -0.1
        1.5s     97.22nm          5.3mb
                 i       12 15.00
                 eS      17 00.00
NST     29.34 301 eP     12 22.50    9.1X
SSE     30.07 352 Pc     12 20.00    0.3
        1.0s     34.00nm          5.1mb
      Z  20s      9.60um          5.4Msz
      N  14s      1.20um
      E  14s      1.10um
KAGJ    30.15   8 eP     12 20.00   -0.4
KHT     30.31 298 iPc    12 21.70   -0.3
BDT     31.02 302 eP     12 29.80    1.6
        1.2s    136.90nm          5.7mb
WHN     31.21 340 Pc     12 29.50   -0.3
        0.7s     50.00nm          5.5mb
      Z  24s     10.10um          5.4MszX
      N  18s      5.56um
GYA     31.27 325 iPc    12 30.00   -0.5
        0.8s     78.00nm          5.6mb
      Z  22s      6.08um          5.2Msz
      N  16s      3.17um
      E  16s      3.06um
                 PP      13 30.00
                 S       17 30.00
                 PcS     19 05.60
                 ScS     23 01.00
NJ2     31.41 348 Pc     12 31.00   -0.5
        0.8s     39.00nm          5.3mb
      Z  26s      2.92um          4.8MszX
      N  10s      1.00um
      E  12s      1.07um
                 S       17 33.00
                 ScS     23 03.00
KUMJ    31.47   8 eP     12 32.00    0.0
MRWA    31.77 197 eP     12 34.00   -0.7
        0.5s     29.00nm          5.4mb
CHG     31.83 305 eP     12 34.10   -1.3
        1.2s     94.53nm          5.6mb
FORT    31.88 177 eP     12 34.80   -0.8
        0.5s    103.00nm          6.0mb
KMI     32.74 318 Pc     12 43.50    0.0
        2.0s    180.00nm          5.6mb
      Z  20s     15.70um          5.7Msz
      N  20s      8.00um
      E  20s      6.80um
                 pP      12 57.00   53kmX
                 PP      13 58.00
                 eS      17 50.00
BAL     32.88 195 eP     12 43.30   -1.1
        0.4s     34.00nm          5.6mb
SHNJ    33.07   8 P      12 45.50   -0.4
SHNJ    33.07   8 eP     12 47.00    1.1
TKSJ    33.44  12 P      12 48.60   -0.6
KLB     33.57 193 eP     12 49.50   -0.9
        0.6s     58.00nm          5.7mb
WKYJ    34.01  14 P      12 54.30    0.0
MUN     34.32 195 eP     12 56.20   -0.6
        0.9s     97.00nm          5.7mb
YONJ    34.49  11 P      12 58.30    0.0
HNR     35.36 108 eP     13 04.00   -2.0
TSRJ    35.36  14 P      13 07.00    1.3
TIA     35.79 348 eP     13 09.60    0.2
        0.8s     32.00nm          5.3mb
      Z  24s      6.39um          5.3MszX
      E  15s      2.37um
                 sP      13 27.20
STK     36.06 157 iPc    13 10.70   -1.0
        1.0s     78.60nm          5.6mb
                 eS      18 42.40
CD2     36.32 327 iPd    13 12.40   -1.5
      Z  22s      9.95um          5.5Msz
      N  16s      4.67um
                 PP      14 34.00
                 SS      21 12.00
XAN     36.38 336 Pd     13 12.50   -1.9
        0.8s    140.00nm          5.9mb
      Z  22s      8.68um          5.5Msz
      N  16s     19.40um
      E  20s      6.48um
                 pP      13 27.00   56kmX
                 sP      13 35.00
                 PcP     15 40.00
                 S       18 46.00
                 SS      21 17.00
                 ScS     23 22.00
RKG     36.60 193 eP     13 17.00    0.8
CHJJ    36.67  18 P      13 16.10   -0.7
MTMJ    36.83  16 P      13 18.30    0.1
MAT     36.90  16 eP     13 17.00   -1.7
        1.3s    226.92nm          5.9mb
      Z  20s      3.55um          5.1Msz
                 eS      18 56.00
KAKJ    37.18  19 P      13 19.50   -1.5
CMS     37.55 152 eP     13 23.80   -0.4
        0.7s     21.00nm          5.1mb
DL2     37.72 354 P      13 26.30    0.8
        1.0s    400.00nm          6.2mb
      Z  20s      2.95um          5.1Msz
      N  19s      3.11um
                 S       19 11.00
NIIJ    37.78  17 P      13 25.00   -1.0
BRS     38.33 140 iPc-   13 30.00   -0.9
        0.7s     14.00nm          4.9mb
      Z  14s     21.00um          6.1MszX
                 ipP     13 38.00   27kmX
                 e(PP)   14 57.00
                 eS      19 15.00
                 e       19 30.00
TIY     38.42 342 Pd     13 30.60   -1.0
        0.8s     95.00nm          5.6mb
      Z  25s      9.93um          5.5MszX
      N  20s      6.22um
                 pP      13 41.50   39kmX
                 PP      15 03.00
                 S       19 24.00
YAMJ    38.95  18 eP     13 36.30    0.4
BJI     39.67 348 eP     13 41.00   -0.8
        1.0s    110.00nm          5.5mb
      Z  22s      3.39um          5.1Msz
      N  14s      1.47um
                 ScP     19 35.00
                 ScS     23 48.50
ARMA    39.78 144 eP     13 43.20    0.2
        0.8s    150.00nm          5.8mb
                 epP     14 08.20 108kmX
                 ePP     15 25.30
OFUJ    40.29  19 P      13 47.70    0.8
LZH     40.35 332 Pd     13 47.50   -0.2
        1.6s    350.00nm          5.8mb
      Z  22s      8.51um          5.6Msz
      E  20s      5.77um
                 pP      14 03.50   63kmX
                 ePP     15 22.00
                 PcP     15 51.00
                 ScP     19 37.00
                 PcS     19 43.00
                 sS      20 10.00
                 ScS     23 50.00
SNY     40.49 357 iPc    13 50.00    1.5
        1.0s    390.00nm          6.1mb
      Z  24s      7.20um          5.4MszX
      N  23s      7.00um
      E  23s      6.75um
                 pP      14 02.00   44kmX
                 PP      15 21.00
BFD     41.14 160 iPc    13 53.80   -0.2
        0.7s     98.00nm          5.6mb
BWA     41.19 151 eP     13 55.90    1.4
                 i       14 00.20
                 epP     14 12.10   64kmX
                 ePcP    15 36.30
HHC     41.58 343 P      13 56.80   -0.9
        1.0s     68.00nm          5.3mb
      Z  13s      6.78um          5.7MszX
      N  17s      2.99um
      E  17s      1.49um
                 PP      15 34.00
                 S       20 06.00
BTO     41.81 342 P      14 01.00    1.4
      N  18s      3.28um
      E  17s      1.75um
                 PP      15 42.00
                 S       20 15.00
CAN     42.20 152 iPc    14 03.10    0.4
                 epP     14 20.00   68kmX
                 ePcP    15 40.60
                 ePP     15 47.20
CNB     42.37 151 iPc    14 05.10    1.0
        1.0s    142.00nm          5.7mb
                 epP     14 41.50 165kmX
                 ePP     15 42.60
CN2     42.40 359 Pc     14 04.80    0.6
        0.8s     42.00nm          5.2mb
      Z  22s      3.78um          5.2Msz
      N  15s      0.89um
                 eScP    19 46.00
                 eScS    24 00.00
TOO     42.58 157 iPc    14 06.50    0.7
        1.3s    185.00nm          5.7mb
                 ePP     15 47.70
                 eS      20 25.00
MDJ     43.32   4 Pd     14 12.50    0.8
        0.9s    170.00nm          5.8mb
      Z  24s      5.95um          5.4MszX
                 S       20 32.00
LSA     43.64 314 iPd    14 17.20    2.1
        1.8s    340.00nm          5.8mb
      Z  32s      5.15um          5.2MszX
      N  20s      3.77um
                 PP      16 03.00
                 PcS     19 51.00
                 S       20 40.00
                 ScS     24 10.00
HOOJ    43.80  18 eP     14 17.00    1.4
KUSJ    44.90  19 eP     14 25.40    0.9
GTA     44.93 331 P      14 23.50   -1.5
        1.0s    120.00nm          5.8mb
      Z  20s     11.50um          5.8Msz
      E  20s      5.00um
                 pP      14 39.00   60kmX
                 PP      16 10.00
                 ScP     19 54.00
                 S       20 55.00
                 ScS     24 18.00
ASAJ    45.18  17 eP     14 27.70    1.0
BKM     45.57 116 iPc    14 30.00   -0.2
DZM     45.68 123 iPc    14 30.00   -1.1
                 i       16 09.00
GUN     46.71 308 P      14 37.92   -1.6
PKI     46.92 308 P      14 39.80   -1.4
KKN     47.12 308 P      14 41.32   -1.3
DMN     47.18 308 P      14 42.34   -0.8
GKN     47.73 308 P      14 45.90   -1.4
KUR     47.86  21 eP     14 47.00   -0.8
      Z  18s      3.00um          5.3Msz
      E  18s      4.20um
                 eS      21 43.00
TAU     47.91 159 eP     14 49.00    0.7
HYB     49.39 292 ePc    14 58.20   -1.9
        0.8s    246.20nm          6.3mb
                 i       15 28.00
                 eS      21 54.00
GBA     49.66 287 P      15 01.00   -1.2
CIT     51.67 350 eP     15 18.30    1.3
ZAK     52.67 342 eP     15 23.00   -1.5
        2.4s    555.00nm          6.1mb
      Z  22s      3.17um          5.3Msz
      N  24s      2.52um
      E  21s      5.80um
                 e       16 38.00
                 ePPP    18 23.00
                 eS      22 44.00
                 e       25 10.00
NDI     53.98 305 eP     15 32.00   -2.5
        0.6s     90.00nm          6.0mb
POO     54.00 292 iPc    15 34.50   -0.3
                 iS      22 50.00
IRK     54.04 344 ePc    15 33.50   -1.0
        2.5s    286.00nm          5.9mb
```

19d 23h

```
     Z  23s      2.05um          5.1MszX
     N  21s      1.67um
     E  20s      1.13um
                  e      15 48.00
                  eS     23 03.00
                  e      25 18.00
WMQ    54.41 326 P      15 36.50  -1.0
       1.5s    87.00nm          5.6mb
     Z  22s      7.42um          5.7Msz
                  pP     15 53.00  63kmX
MOY    54.53 341 eP     15 37.80  -0.3
       1.8s   240.00nm          5.9mb
                  eS     23 19.00
BOM    55.04 292 eP     15 42.10  -0.3
                  eS     23 17.50
BOD    57.25 352 iPc    15 56.60  -1.0
       1.5s   394.00nm          6.2mb
PET    58.27  22 eP     16 04.00  -0.9
     Z  24s      1.60um          5.1MszX
                  ePPP   19 40.00
                  eS     24 04.00
                  ePS    24 28.00
PRZ    59.19 320 eP     16 13.00   1.3
       1.0s   200.00nm          6.2mb
     Z  20s      3.70um          5.5Msz
     N  20s      1.40um
     E  20s      4.00um
                  eS     24 14.00
KSH    59.34 316 P      16 13.30   0.6
       1.2s   130.00nm          5.9mb
     Z  22s      3.62um          5.5Msz
     N  25s      3.55um
                  S      24 22.00
                  eScS   25 59.00
YAK    60.71   2 iPc+   16 20.70  -0.7
       0.8s   433.00nm          6.6mb
     Z  24s      3.40um          5.4MszX
     N  24s      2.30um
     E  21s      1.60um
                  e      18 37.00
                  iS     24 34.00
                  ePS    24 43.00
                  e      26 07.00
                  eSS    28 38.00
MRW    61.02 140 P      16 21.80  -2.2
ELT    61.42 334 eP     16 24.40  -2.0
       1.7s   240.00nm          6.0mb
     Z  18s      1.90um          5.3Msz
                  e      17 14.00
                  e      18 43.00
                  e      20 15.00
                  eS     24 40.00
                  e      26 05.00
                  eSS    28 40.00
MGD    61.75  14 ePc+   16 28.00  -0.7
       0.8s   180.00nm          6.3mb
     Z  20s      1.30um          5.1Msz
     N  20s      1.20um
                  ePPP   20 16.00
                  eS     24 46.00
                  e      26 08.00
                  eSS    28 54.00
                  eSSS   31 28.00
FRU    61.80 319 eP     16 29.60   0.3
     Z  21s      4.00um          5.6Msz
     E  21s      4.00um
                  e      16 49.00
                  e      17 11.00
                  (S)    24 46.00
MCQ    61.80 159 eP     16 27.60  -1.4
SMY    64.95  30 eP     16 50.00   0.2
CSY    68.27 187 eP     17 11.20   0.5
       0.6s    90.40nm          6.1mb
DRV    68.46 174 eP     17 10.00  -1.8
BRVK   69.14 328 eP     17 14.00  -2.3
       1.0s    28.00nm          5.3mb
                  eS     26 16.00
ADK    69.40  34 eP     17 17.10  -0.7
TIK    70.33   1 iPc    17 21.40  -1.7
       1.2s   220.00nm          6.2mb
     Z  20s      2.50um          5.5Msz
                  i      17 35.00
                  e      17 41.00
                  e      19 55.00
                  iS     26 29.00
                  ePS    26 52.00
                  e      27 18.00
MAIO   70.52 308 eP     17 24.00  -1.2
       0.8s    22.69nm          5.3mb
                  eS     26 36.00
ASH    71.78 310 eP     17 32.40  -0.3
       1.4s   190.00nm          5.9mb
NRI    72.62 347 iPc    17 35.50  -1.5
       1.7s   341.00nm          6.1mb
     Z  20s      3.50um          5.6Msz
     E  20s      4.80um
                  e      17 51.00
                  e      20 14.00
                  ePPP   21 59.00
                  iS     26 56.00
                  ePPS   27 44.00
                  eSSS   34 56.00
KAT    73.65 311 iP+    17 44.00   0.4
                  e      18 02.00
                  iS     27 50.00
SVE    75.74 329 iPc    17 54.50  -0.8
       2.7s   720.00nm          6.2mb
     Z  24s      2.50um          5.4MszX
     N  24s      1.00um
     E  24s      1.50um
                  eS     27 27.00
HON    76.45  68 P      18 10.00  10.1X
     Z  22s      2.16um          5.4Msz
BAK    78.69 311 iPd    18 16.00   4.1X
                  iS     28 28.00
SDN    79.62  34 eP     18 17.20   0.6
       0.7s   297.70nm          6.4mb
SHE    79.68 311 eP     18 18.00   0.7
       1.0s   160.00nm          6.0mb
                  iS     28 16.00
CRZF   80.05 223 eP     18 24.00   4.8X
                  eS     28 24.00
KER    80.20 305 iPc    18 21.80   1.3
MAK    80.86 313 iP+    18 24.70   1.2
     Z  19s      1.80um          5.4Msz
     N  19s      1.50um
     E  19s      1.70um
                  e      18 45.00
                  e      21 34.70
                  iS     28 25.00
                  ePS    29 08.00
MJMA   81.17 296 ePc    18 25.47  -0.2
TAB    81.17 308 eP     18 28.00   2.5
GRS    81.30 310 eP     18 26.00  -0.2
       1.1s   230.00nm          6.1mb
                  eS     28 30.00
GRO    82.17 313 iPc    18 30.00  -0.4
       5.0s     2.00nm          3.4mb X
                  eS     28 45.00
DHJN   82.56 288 eP     18 34.33   1.1
MTA    82.67 312 iPc+   18 33.20   0.2
       0.8s    80.00nm          5.9mb
                  e      21 45.00
                  iS     28 44.80
                  iPS    29 39.60
KMTA   83.17 288 eP     18 37.67   1.4
ABHA   83.28 288 ePc    18 38.40   1.5
SVW    83.29  29 ePc    18 37.90   2.0
       1.0s    91.60nm          5.9mb
TTA    83.42  27 ePc    18 37.90   1.3
       1.1s   105.90nm          5.9mb
PYA    84.12 314 iPc    18 40.00  -0.5
       1.0s   250.00nm          6.4mb
     Z  20s      1.50um          5.4Msz
                  eS     29 00.00
                  ePS    29 48.00
KIV    84.39 314 ePc    18 41.60  -0.3
     Z  24s      1.90um          5.4MszX
                  i      29 03.60
KDC    84.39  32 P      18 41.60   0.2
       1.0s    39.65nm          5.6mb
BRW    84.75  18 eP     18 44.90   1.9
AFR    84.79 108 iPc    18 45.90   1.8
       0.9s    81.20nm          5.9mb
BGL    84.86  29 P      18 44.20   0.3
IMA    84.93  24 eP     18 45.30   1.1
       1.4s    84.70nm          5.8mb
CP2    84.93  29 P      18 44.30   0.0
CRP    84.97  29 P      18 44.20  -0.3
SLKM   85.84  30 P      18 47.90  -0.8
PMS    86.22  29 eP     18 50.50  -0.1
PMR    86.45  29 P      18 51.60   0.0
       0.8s    44.62nm          5.7mb
     Z  21s      0.96um          5.2Msz
PMO    86.48 105 iPc    18 54.00   1.4
       0.8s    48.60nm          5.8mb
SOC    86.52 313 iPc+   18 52.50   0.2
       2.5s   600.00nm          6.4mb
     Z  24s      0.50um          4.8MszX
     N  24s      1.00um
                  eS     29 14.00
VAH    86.74 105 iPc    18 55.00   1.1
       0.8s    19.10nm          5.4mb
TPT    86.74 105 iPc    18 55.30   1.4
       0.9s    26.20nm          5.5mb
RUV    86.98 105 iPc    18 56.40   1.4
       0.8s    21.50nm          5.4mb
AAE    87.15 279 eP     18 58.00   1.6
FBA    87.25  25 P      18 56.00   0.5
       0.9s     8.61nm          5.0mb
TOA    87.87  28 eP     18 59.50   0.9
KLU    87.98  29 P      18 58.60  -0.5
MOS    88.12 326 iPd    19 02.00   2.2
       2.0s   650.00nm          6.6mb
     Z  21s      3.50um          5.8Msz
     N  20s      3.70um
     E  20s      3.10um
                  e      19 16.00
                  eS     29 41.00
QTFJ   88.17 302 P      19 02.83   2.2
ANN    88.27 315 eP     18 59.00  -1.7
       1.6s   170.00nm          6.1mb
                  eS     29 22.00
GAZ    88.36 307 eP     19 01.00  -0.3
SVST   88.56 310 eP     19 03.00   0.6
OBN    88.70 325 iPd    19 02.00  -0.6
       1.5s   270.00nm          6.4mb
     Z  20s      3.30um          5.8Msz
     N  20s      1.10um
     E  20s      2.20um
                  e      22 40.00
                  e      29 24.00
                  iS     29 44.00
ARTJ   88.72 302 P      19 05.35   2.0
WAJH   89.03 296 eP     19 05.00   0.3
TRHT   89.14 310 eP     19 05.00  -0.2
KVT    89.23 311 iP     19 00.00  -5.5X
JARJ   89.46 302 P      19 08.06   1.2
AYN    89.48 299 eP     19 06.67  -0.2
SHMJ   89.61 303 P      19 09.08   1.7
HRI    89.62 303 iPc    19 07.70   0.1
MASJ   89.67 302 P      19 09.13   1.3
BHL    89.68 304 P      19 06.00  -1.8
                  SKS    29 36.00
SALJ   89.69 302 P      19 08.74   0.9
BALM   89.71  29 P      19 07.60   0.2
LISJ   89.88 301 P      19 09.76   1.2
DHLJ   89.96 301 P      19 09.28   0.3
JVI    89.98 302 eP     19 09.20   0.0
CTK    90.16 311 eP     19 09.00  -1.0
HQL    90.30 299 eP     19 10.33  -0.3
PRNI   90.32 300 iPc    19 10.90   0.1
SIM    90.53 315 eP     19 11.00  -0.4
     Z  25s      1.50um          5.3MszX
                  eS     29 40.00
KAS    90.94 311 eP     19 13.50   0.1
SPA    91.21 180 iPc    19 14.40   0.1
       1.9s   418.75nm          6.5mb
     Z  20s      0.99um          5.2Msz
CSS    91.56 305 eP     19 15.80  -0.6
BBTK   91.77 310 eP     19 16.00  -1.4
PUL    91.86 330 eP     19 23.00   5.9X
     Z  22s      2.00um          5.5Msz
     E  22s      1.60um
                  e      29 46.00
                  e      30 10.00
KEV    92.01 340 ePKP   19 24.00   6.3X
PPCY   92.37 305 eP     19 19.00  -1.1
SDF    92.60 338 iP     19 24.20   3.7X
KAF    93.50 332 eP     19 23.60  -1.1
       0.5s     7.70nm          5.4mb
EYL    93.71 311 eP     19 23.00  -3.3X
KIS    94.04 317 eP     19 22.00  -5.4X
     Z  22s      1.80um          5.5Msz
                  e      19 41.00
MNK    94.04 324 eP     19 24.00  -3.3X
     Z  22s      4.20um          5.9Msz
     E  22s      3.50um
                  e      29 59.00
                  eS     30 20.00
NUR    94.56 331 eP     19 27.70  -1.9
```

```
MTD     94.65 253 eP     19 29.00   -2.0
CLI     95.17 317 eP     19 36.50    3.7X
VRI     95.64 316 ePd    19 35.50    0.6
CVO     96.03 316 eP     19 36.50   -0.2
IZM     96.16 309 eP     19 34.50   -3.0X
MLR     96.24 316 ePc    19 37.50   -0.3
CMP     96.90 316 ePd    19 41.00    0.3
BUL     97.42 250 iPc    19 43.20   -0.4
SLR     97.55 244 eP     19 35.00   -9.1X
RZN     97.67 312 iPd    19 47.00    2.6
PGB     97.94 313 iPd    19 45.00   -0.4
SEK     98.02 242 eP     19 53.50    7.3X
         1.0s    40.00nm          5.9mb
UPP     98.13 331 eP     19 49.00    3.2X
UZH     98.17 319 iPc    19 46.00   -0.2
         1.0s   115.00nm          6.4mb
                e      20 03.20
MMB     98.41 312 iPd    19 46.00   -1.6
VTS     98.63 313 iPd    19 47.00   -1.7
KKB     98.85 313 iPd    19 48.00   -1.5
NVL     98.97 198 eP     19 51.00    1.6
         1.6s    38.00nm          5.7mb
BLF     99.23 241 e(P)   19 39.00  -12.7X
VAY     99.32 312 iP     19 50.00   -1.6
SPC     99.38 320 eP     19 51.20   -0.8
OJC     99.42 321 eP     19 52.50    0.6
                e      19 56.20
DAG     99.65 352 iPd    19 51.00   -1.5
         1.0s    38.00nm          5.9mb
PSZ     99.89 319 eP     19 54.70    0.5
SKO    100.03 313 iPdiff19 53.50   -1.4
BUD    100.56 319 e(Pdif19 55.00   -2.1
OHR    100.67 312 ePdiff19 55.30   -2.5
SRO    100.95 319 ePdiff19 58.50   -0.3
NAO    100.98 333 Pdiff 19 56.20   -2.4
         0.9s     6.00nm          5.1mb
UZD    101.06 318 e(Pdif20 01.00    1.7
KSP    101.43 323 ePdiff20 01.30    0.4
                e      24 23.00
ZST    101.64 320 e(Pdif20 02.50    0.6
                e      20 07.80
                e      23 45.40
                e      24 06.60
VRAC   101.66 321 iPdiff20 05.10    3.2X
         3.5s   2129.80nm          7.2mb X
YKA    102.04  24 ePdiff20 02.70   -0.6
         0.8s     2.60nm          4.9mb
PRU    102.75 322 ePdiff20 07.50    0.7
     Z  24s      2.00um          5.6MszX
                e      23 22.50
                PP     24 24.00
BRG    102.84 323 ePdiff20 06.80   -0.4
         1.2s    15.00nm          5.6mb
     Z  20s      3.00um          5.8Msz
     N  20s      0.50um
     E  20s      0.50um
                i      20 14.80
CLL    103.26 324 ePdiff20 15.00    6.0X
         1.9s    32.00nm          5.8mb
VBY    103.58 317 ePdiff20 10.50   -0.1
KHC    103.61 321 ePdiff20 14.00    3.3X
     Z  26s      3.20um          5.7MszX
     N  26s      1.00um
     E  26s      2.40um
                e      20 31.00
                e      23 27.40
                e      23 50.50
                PP     24 33.00
                e      25 34.50
GEC2   103.62 321 ePdiff20 11.50    0.7
         0.8s     1.24nm          4.7mb X
                e      20 17.00
                e      20 19.60
                e      20 25.30
                e      20 31.80
                e      20 37.20
CEY    104.07 318 e(Pdif20 15.50    2.7
MOX    104.31 323 ePdiff20 12.90   -0.8
         1.8s    25.00nm          5.8mb
VOY    104.34 318 ePdiff20 14.50    0.4
GRF    104.88 322 ePdiff20 14.00   -2.3
     Z  22s      2.40um          5.7Msz
WDC    105.31  47 PKP   24 40.00    7.5X
     Z  21s      1.37um          5.5Msz
BCAO   107.38 275 ePdiff20 30.00    1.7
         1.0s    10.00nm          5.8mb
CMB    107.60  49 PKP   24 50.00   13.0X
     Z  21s      0.86um          5.3Msz
LPG    109.23 319 ePdiff20 42.30    6.2X
         1.0s     5.00nm
LPL    109.23 320 ePdiff20 42.10    6.0X
         0.8s     3.10nm
ISA    109.73  51 PKP   24 50.00    8.8X
     Z  19s      0.98um          5.4Msz
HVU    111.89  44 PKP   24 45.50    0.3
FCC    112.34  21 ePKP  24 47.50    2.3
                pP     25 38.00
DAU    113.48  44 PKP   24 48.80    0.3
MSU    113.56  47 PKP   24 49.30    0.7
RSSD   116.56  38 PKP   24 53.10   -1.0
     Z  21s      0.80um          5.3Msz
TUC    116.85  53 PKP   24 54.80   -0.1
     Z  21s      1.18um          5.5Msz
ULM    117.46  29 ePKP  24 57.50    2.2
GOL    117.86  43 PKP   24 56.80    0.0
GLD    117.94  43 PKP   25 10.00   13.1X
     Z  20s      2.22um          5.8Msz
ALQ    119.18  48 PKP   24 59.70    0.3
     Z  19s      0.75um          5.3Msz
ACO    123.60  43 iPKPc 25 07.90    0.3
AVE    124.38 313 iPKP  25 09.50    0.4
WMOK   124.87  45 PKP   25 08.00   -2.1
MEO    124.98  45 iPKPc 25 08.70   -1.6
TUL    126.30  42 e(PKP)25 12.20   -0.6
         1.6s    32.50nm
LNO    126.31  42 e(PKP)25 11.90   -0.8
EEO    127.46  22 ePKP  25 22.50    7.8X
UYO    128.19  43 iPKPc 25 16.50    0.1
MIAR   128.57  42 PKP   25 17.10   -0.1
ELC    129.65  37 PKP   25 18.40   -0.7
KIC    130.33 279 PKP   25 21.40    0.3
         0.9s    22.00nm
                PKS    28 41.50
TIC    130.57 280 PKP   25 22.00    0.5
                PKS    28 42.20
LIC    130.63 279 PKP   25 22.20    0.6
                PKS    28 42.40
LMN    132.15  10 ePKP  25 27.50    3.9X
TKL    133.94  34 PKP   25 26.30   -1.0
NAV    134.29  30 PKP   25 28.30    0.3
LHS    136.45  33 PKP   25 31.20   -0.9
RFA    143.97 159 e(PKP)25 44.20   -1.5
PEL    144.56 155 iPKP+ 25 45.60   -1.1
MDZ    145.52 157 iPKPc 25 49.30    0.9
                i      26 06.90
RTCV   146.55 157 ePKPd 25 50.80    0.7
RTCB   146.77 156 iPKPd 25 51.60    1.1
CFA    146.89 157 ePKPd 25 51.00    0.4
RTLL   147.04 157 iPKPd 25 52.50    1.6
TCA    148.39 162 ePKP  25 54.00    0.9
SPJ    149.90  50 iPKP  25 46.72   -9.0X
PCJ    150.35  49 iPKP  25 43.70  -12.6X
CYA    150.65 158 ePKPd 25 57.00    0.4
ANT    152.52 146 ePKP  26 00.70    1.3
FSA    152.68 156 e(PKP)26 05.50    6.0X
NNA    154.88 116 ePKP  26 03.40    0.5
         0.8s    16.42nm
YJA    156.33 152 ePKPc 26 07.00    1.8
ARE    157.01 132 ePKP  26 18.00   12.0X
VAO    157.32 197 ePKP  26 13.60    7.6X
                e      26 38.30
CNCB   159.23 139 iPKPc 26 11.00    2.1
LPB    159.35 138 PKP   26 11.00    2.2
     Z  22s      1.48um          5.8Msz
                LR     21 52.00
ZOBO   159.51 138 iPKPc 26 10.50    1.2
         1.3s    50.47nm
                LR     21 32.00
CCH    159.94 144 ePKP  25 58.00  -11.3X
                e      26 50.00
SDV    160.56  59 ePKP  26 10.10    0.2
TOV    160.79  55 ePKP  26 10.60    0.6
SIV    163.72 155 PKP   26 08.30   -4.5X
     S.D. = 1.1  on 267 of 308 obs.
-----------------------------------
%  JAN  19, 1993  23h 10m 13.61± 2.38s
   33.744 S ± 9.5km   71.314 W ±12.8km
   DEPTH =  49.3 ± 25.1 km
 NEAR COAST OF CENTRAL CHILE      (135)
      MD 3.4 (SAN).

LNV      0.23 201 iP+    10 22.09    0.0
                iS      10 29.09
TACH     0.33  74 iP+    10 23.15    0.1
                iS      10 30.39
LCCH     0.34 321 iP+    10 22.95   -0.2
                iS      10 30.45
CHCH     0.58 109 iP+    10 25.84   -0.1
                iS      10 35.36
PCH      0.68  80 eP     10 26.83   -0.4
                iS      10 37.55
CACH     0.70 122 iPd    10 27.82    0.2
                iS      10 39.41
PEL      0.80  41 iP+    10 29.17    0.4
                iS      10 40.97
ROCH     0.81  18 iP     10 29.18    0.0
                iS      10 41.38
FCH      0.95  64 iP+    10 31.05   -0.1
                iS      10 44.81
JACH     1.22  30 iP     10 34.65    0.0
                iS      10 50.66
     S.D. = 0.3  on  10 of  10 obs.
-----------------------------------
   JAN  19, 1993  23h 23m 33.99± 1.51s
   23.876 S ±11.6km  179.979 E ± 6.0km
   DEPTH = 546.4 ± 24.4 km
   5.0mb ( 16 obs.)
 SOUTH OF FIJI ISLANDS            (171)

DZM     12.60 276 iPc    26 19.20    0.0
PUZ     14.23 186 eP     26 37.50    2.0
NOZ     14.79 186 eP     26 42.60    1.6
PGZ     16.98 190 eP     27 01.30   -1.1
QRZ     18.02 199 eP     27 12.30   -0.2
THZ     18.79 197 eP     27 19.30   -0.6
KHZ     19.25 195 eP     27 22.10   -2.0
BRS     24.76 256 iPc    28 15.00    0.6
         0.8s     6.00nm          4.3mb
ARMA    26.01 249 eP     28 26.30    0.7
         0.6s    23.00nm          5.0mb
CNB     28.85 240 eP     28 50.80    0.6
         1.0s    50.00nm          5.1mb
PPT     29.12  83 iPc    28 52.20   -0.4
         0.8s    75.00nm          5.4mb
CTA     31.46 270 iPd    29 13.00    0.5
         0.9s    52.52nm          5.2mb
PMO     31.49  80 iPc    29 12.60   -0.2
         0.9s    39.00nm          5.0mb
VAH     31.65  80 iPc    29 13.70   -0.4
         1.0s    35.60nm          4.9mb
TPT     31.75  80 iPc    29 14.80   -0.1
         0.8s    50.00nm          5.2mb
RUV     31.89  80 iPc    29 15.90   -0.2
         0.7s    24.50nm          4.9mb
TOO     32.45 237 iPd    29 21.30    0.6
PMG     34.47 289 eP     29 38.00    0.2
         1.0s   100.00nm          5.4mb
STK     34.72 248 iPd    29 40.20    0.4
         0.5s     5.90nm          4.5mb
ASPA    42.02 261 iPd    30 38.90   -0.3
         0.6s    50.70nm          5.2mb
                e      33 42.10
                eScP   35 23.90
                eS     36 17.10
WB2     42.38 266 iPc    30 41.30   -0.7
                e      33 14.90
                iScP   35 26.00
                eS     36 20.60
WRA     42.39 266 P      30 41.50   -0.6
         0.6s    10.00nm          4.5mb
FORT    46.30 250 iPd    31 11.20   -1.2
         0.5s    40.00nm          5.2mb
MTN     47.44 274 eP     31 20.00   -1.2
WARB    48.10 256 iPd    31 25.00   -1.2
NANU    58.77 257 iPd    32 41.90    0.0
         0.5s     4.00nm          4.0mb
CHG     89.65 291 eP     35 37.00    2.0
ALQ     90.96  52 eP     35 42.00    1.1
         1.0s     7.75nm          4.7mb
BAO    118.86 125 PKPd   41 14.50   -8.1X
                e      42 10.10
                e      42 14.70
                e      42 23.00
                e      45 59.20
                e      46 04.00
     S.D. = 1.0  on  28 of  29 obs.
-----------------------------------
   JAN  19, 1993  23h 33m 02.32± 0.51s
   46.889 N ± 4.8km    8.966 E ± 5.0km
   DEPTH =  10.0km  (geophysicist)
 SWITZERLAND                      (544)
```

19d 23h

```
      ML 2.6 (VIE), 2.5 (LDG).
LLS      0.03 133 iPd    33 03.40  -1.1
VDL      0.53 139 iPd    33 12.20  -0.9
ZLA      0.71 327 ePd    33 16.30  -0.1
TMA      0.79 185 ePc    33 17.10  -0.6
OSS      0.83 104 ePc    33 17.80  -0.8
SLE      0.93 340 ePd    33 20.30   0.1
VAI      1.03 188 P      33 25.10   3.3X
                  eSn    33 33.80
MMK      1.09 220 iPd    33 22.00  -0.9
MDI      1.23 155 P      33 26.40   1.3
                  eSn    33 38.60
DIX      1.34 234 iPc    33 26.80  -0.5
ORO      1.44 209 P      33 29.00   0.5
                  eSg    33 46.10
SOTA     1.57  77 iPnc   33 32.00   1.6
                  iPg    33 33.10
                  iSg    33 56.00
BSF      1.75 303 Pn     33 32.80  -0.2
                  Pg     33 36.80
                  Sn     33 52.30
                  Sg     33 57.20
WTTA     1.86  77 iPgc   33 38.00   3.3X
                  iSg    34 04.20
CDF      1.90 324 Pn     33 35.30   0.1
                  Pg     33 40.10
                  Sn     33 57.60
LPL      2.07 229 Pn     33 39.50   1.7
                  Pg     33 42.40
                  Sg     34 09.90
LPG      2.07 229 Pn     33 39.60   1.7
                  Pg     33 42.30
                  Sg     34 09.00
HAU      2.10 303 Pn     33 37.90  -0.1
                  Sg     34 08.10
BGF      4.22 268 Pn     34 06.30  -1.8
     S.D. = 1.1  on  17 of  19 obs.
-----------------------------------
%  JAN  19, 1993  23h 48m 42.37± 3.06s
   36.638 N ±25.4km    2.647 W ± 9.7km
   DEPTH =   5.0km  (geophysicist)
 STRAIT OF GIBRALTAR              (385)
      mbLg 3.1 (MDD).

ENIJ     0.48  47 iPgc   48 52.10   0.0
                  eSg    48 57.90
EGUA     0.76 285 iPgd   48 57.50  -0.2
                  eSg    49 07.10
ECOG     0.97 311 ePg    49 01.30  -0.1
                  eSg    49 15.00
EHUE     1.17   2 eP     49 04.50  -0.3
                  eS     49 22.30
EBAN     1.77 330 eP     49 14.50   0.6
                  eS     49 37.70
EVIA     2.00   3 eP     49 17.30   0.0
                  eS     49 42.50
     S.D. = 0.4  on   6 of   6 obs.
-----------------------------------
?  JAN  20, 1993  00h 29m 29.91± 0.85s
   11.538 S ± 9.3km  117.389 E ±16.2km
   DEPTH =  33.0km  (normal)
   4.6mb (  4 obs.)
 SOUTH OF SUMBAWA, INDONESIA      (291)

KHKI     3.61 331 iPd    30 24.50  -0.4
                  iS     31 02.20
                  e      31 12.50
NANU    11.11 189 iPd    32 09.10  -0.4
                  iS     34 01.00
MEEK    15.06 176 eP     33 00.00  -2.1
        0.3s    31.00nm          5.1mb
                  eS     35 33.00
WARB    16.98 150 iPc    33 27.00   0.3
                  eS     36 25.00
MRWA    17.64 184 eP     33 35.00   0.2
        0.3s     7.00nm          4.3mb
                  eS     36 35.00
WB2     18.33 119 iPc    33 43.10  -0.4
                  eS     36 50.20
BAL     18.99 182 eP     33 52.00   0.6
        0.3s    13.00nm          4.6mb
                  eS     37 03.00
KLB     19.96 179 eP     34 04.00   1.7
        0.3s     6.00nm          4.5mb
MUN     20.37 183 eP     34 13.00   6.5X
                  eS     37 38.50
YKA    117.14  24 ePKP   48 13.30   0.4
        0.5s     0.10nm
     S.D. = 1.2  on   9 of  10 obs.
-----------------------------------
   JAN  20, 1993  02h 03m 06.45± 1.03s
   31.366 S ±11.2km   69.389 W ± 9.3km
   DEPTH = 131.3 ± 12.8 km
 SAN JUAN PROVINCE, ARGENTINA     (137)
      MD 3.9 (SAN).

RTCB     0.52 104 iPd    03 25.70  -0.4
                  S      03 35.00
RTLL     0.79  88 iPc    03 27.60  -0.4
RTCV     0.88 124 iPd    03 38.90  10.2X
                  (S)    03 44.00
CFA      1.01 104 iPc    03 30.30   0.4
                  S      03 46.00
JACH     1.66 218 iP+    03 37.35   0.4
                  iS     03 59.77
PEL      2.09 211 iP+    03 42.12   0.1
                  iS     04 08.01
FCH      2.10 201 iPd    03 43.56   1.1
                  eS     04 10.71
ROCH     2.11 220 iP     03 42.44  -0.1
                  iS     04 08.21
PCH      2.44 203 iP+    03 47.16   0.6
                  iS     04 18.10
TACH     2.63 209 iPd    03 48.69  -0.2
                  iS     04 19.89
CHCH     2.77 202 iP+    03 50.88   0.1
                  iS     04 24.56
LCCH     2.80 221 iP+    03 50.51  -0.6
                  eS     04 22.64
CACH     2.93 200 iP     03 53.78   0.9
                  iS     04 29.23
LNV      3.09 213 iPd    03 53.65  -1.3
                  iS     04 28.73
RFA      3.48 167 iP     03 59.50  -0.7
                  (S)    04 37.20
TCA      4.10  91 eP     04 08.50   0.0
                  i      04 53.00
CYA      4.27  48 ePc    04 11.00   0.3
     S.D. = 0.7  on  16 of  17 obs.
-----------------------------------
*  JAN  20, 1993  02h 17m 27.84± 0.86s
   32.115 S ±14.4km  177.862 W ±14.3km
   DEPTH =  33.0km  (normal)
   5.1mb ( 13 obs.)
 SOUTH OF KERMADEC ISLANDS        (179)

RAO      2.85 359 eP     18 10.90  -1.1
                  eS     18 48.40
DZM     17.17 302 iPd    21 33.10   6.2X
BRS     25.88 273 iPc    23 00.50   2.1
                  i      24 11.00
                  eS     27 30.00
ARMA    26.09 266 eP     23 02.20   1.7
        0.8s    19.00nm          4.7mb
CNB     27.38 254 eP     23 12.20   0.0
        0.9s    14.00nm          4.6mb
                  e      23 56.00
                  e      26 24.70
RMQ     29.57 272 eP     23 33.10   1.2
        1.0s    59.00nm          5.3mb
TOO     30.44 249 eP     23 39.00  -0.5
        0.8s    18.00nm          4.9mb
                  e      26 37.00
CMS     30.78 261 eP     23 43.00   0.5
BFD     32.79 250 eP     23 59.60  -0.5
        1.1s    27.00nm          5.1mb
CTA     34.22 282 iPd+   24 14.00   1.3
        1.1s    34.81nm          5.2mb
                  i      24 27.00
                  e(PP)  25 36.00
                  eS     29 39.00
                  e      32 30.00
STK     34.24 259 eP     24 12.70  -0.1
        1.0s     7.40nm          4.6mb
WB2     44.29 274 iPc    25 33.30  -3.1
        0.3s    72.10nm          6.0mb
                  i      25 47.50
                  eS     31 16.00
WRA     44.30 274 P      25 33.80  -2.7
        1.0s     5.10nm          4.3mb
CSY     53.69 208 eP     26 47.10  -1.1
        0.7s    50.20nm          5.6mb
SPA     58.06 180 iPc    27 18.40  -1.6
        1.5s    70.45nm          5.5mb
NVL     77.18 183 eP     29 21.00   1.6
        1.8s    41.00nm          5.2mb
PEL     85.55 126 eP+    30 04.00  -0.2
NJ2     87.45 311 eP     30 17.00   3.8X
MDJ     90.10 325 eP     30 29.10   3.6X
CN2     91.57 323 eP     30 35.00   2.7X
        1.0s    12.00nm          5.3mb
YKA    106.93  26 ePKP   35 53.00   2.1
        0.7s     0.40nm
GBA    109.45 274 PKPd   35 52.00  -5.0X
MAIO   132.97 292 ePKP   36 46.00   4.4X
KAF    146.20 340 ePKP   37 03.90  -0.6
        0.4s     7.10nm
NUR    147.96 339 ePKP   37 08.60   1.3
        0.9s    53.40nm
BCAO   148.46 213 iPKPc  37 12.70   3.1X
        0.8s    53.00nm
                  ic     37 17.80
                  id     37 27.00
UPP    150.39 344 iPKP   37 18.30   7.2X
NAO    150.72 351 PKP    37 14.30   2.7X
        1.0s    11.40nm
SVST   150.94 295 ePKP   37 20.00   7.2X
HFS    150.94 348 ePKP   37 17.00   5.0X
        0.4s     1.10nm
MDRJ   151.01 274 PKP    37 21.20   8.0X
JARJ   151.45 279 PKP    37 24.00  10.3X
TRHT   151.47 296 ePKP   37 23.00   9.4X
SHWJ   151.49 275 PKP    37 22.50   8.5X
MASJ   151.56 278 PKP    37 24.00  10.1X
SALJ   151.63 279 PKP    37 22.00   8.0X
DSI    151.82 278 ePKP   37 21.70   7.5X
PRNI   151.90 275 ePKP   37 22.00   7.6X
BHL    151.91 283 PKP    37 20.00   5.6X
MMR    152.00 281 ePKP   37 23.00   8.4X
RMN    152.25 275 ePKP   37 22.90   7.9X
CTK    152.46 297 ePKP   37 23.00   8.0X
KAS    153.15 299 ePKP   37 27.50  11.6X
LIC    153.39 164 PKP    37 21.80   4.9X
KIC    153.58 164 PKP    37 20.50   3.3X
CSS    153.90 285 ePKP   37 28.40  11.4X
BBTK   154.14 296 ePKP   37 27.00   9.6X
     S.D. = 1.6  on  19 of  47 obs.
-----------------------------------
   JAN  20, 1993  02h 30m 54.73± 0.09s
   3.144 N ± 2.6km   97.633 E ± 2.1km
   DEPTH =  67.8km  (geophysicist)
   6.2mb (184 obs.)
 NORTHERN SUMATERA, INDONESIA     (706)
      Mw 6.2 (GS), 6.1 (HRV). Ms 6.0
      (BRK). Felt at Medan. Depth from
      broadband displacement
      seismograms.
      FAULT PLANE SOLUTION: P-Waves
       NP1:Strike=295 Dip=82 Slip= -90
       NP2:        115      8      -90
       Principal Axes:
        T                Plg=37  Azm= 25
        P                  53       205
      Comment: The focal mechanism is
        poorly controlled and
        corresponds to normal
        faulting. The preferred fault
        plane is NP1.
      RADIATED ENERGY
       No. of sta:   7  Focal mech.  M
       Energy        9.7±3.5*10**12 Nm
      MOMENT TENSOR SOLUTION
      Dep  63            No. of sta:  9
      Moment Tensor;    Scale 10**18 Nm
        Mrr=-0.89        Mtt= 1.39
        Mff=-0.50        Mrt= 1.27
        Mrf=-0.87        Mtf= 0.28
       Principal axes:
        T  Val=  1.96  Plg=25  Azm=  3
        N        0.04      27       106
        P       -2.00      52       237
      Best Double Couple:Mo=2.0*10**18
       NP1:Strike= 50 Dip=32 Slip=-150
       NP2:        294      75       -62
      CENTROID, MOMENT TENSOR     (HRV)
      Data Used: GDSN
      L.P.B.: 34S, 84C  M.W.: 24S, 36C
      Centroid Location:
      Origin Time        02:30:57.3 0.2
      Lat  3.04N 0.01 Lon  97.56E 0.02
```

```
      Dep  57.0 0.8 Half-duration  2.9
      Moment Tensor;   Scale 10**18 Nm
        Mrr=-1.16 0.02  Mtt= 0.83 0.02
        Mff= 0.33 0.02  Mrt= 1.21 0.03
        Mrf=-0.83 0.03  Mtf=-0.38 0.02
      Principal Axes:
       T  Val=  1.77  Plg=27  Azm= 31
       N        0.13       2       122
       P       -1.90      63       217
      Best Double Couple:Mo=1.8*10**18
       NP1:Strike=115 Dip=19 Slip= -98
       NP2:        303      72       -87

IPM     3.67  67 iPc   31 52.60   2.2
                e     35 32.20
KLM     4.01  90 eP    31 58.20   3.2X
                eS    32 58.50
SNG     4.99  36 eP    32 11.40   2.6
                eS    33 40.00
KGM     5.79 101 iPd   32 21.40   1.3
                i     32 46.00
                i     33 26.00
KHT    11.61   5 eP    33 42.00   2.2
NST    12.69  11 iPc   34 05.00  10.9X
                i     39 01.50
BDT    14.08   5 eP    34 15.50   3.2X
       0.5s  241.90nm          5.9mb
CHG    15.63   5 iPc   34 34.70   2.3
       0.8s  195.90nm          5.3mb
                eS    37 30.00
CHTO   15.63   5 iPc   34 34.51   2.2
KKM    18.74  80 iPc   35 12.10   1.0
       0.5s  593.50nm          6.1mb
                e     36 03.00
                e     43 03.60
OIZ    19.80  36 iPc   35 23.20   0.8
       0.6s  180.00nm          5.6mb
     N  14s   16.80um
     E  12s   17.40um
                pP    35 40.00  86kmX
                sP    35 49.00
TSM    20.23  86 iPc   35 27.80   0.9
       0.6s  836.60nm          6.2mb
PPR    21.96  72 iPd   35 45.00   0.6
KMI    22.40  12 iPc   35 50.41   1.4
       1.5s 2160.00nm          6.4mb
     Z  16s   56.80um          6.1MszX
     N  13s   31.70um
     E  13s   16.00um
                pP    36 08.00  79kmX
                sP    36 17.50
                S     39 50.00
PCI    22.56 100 ePc   35 53.00   2.7
       0.7s    4.90nm          4.0mb X
HYB    23.49 308 iPc   36 00.60   1.2
       0.8s  530.80nm          6.0mb
                iS    40 08.50
GYA    24.75  20 iPc   36 11.00  -0.6
       1.0s  500.00nm          5.9mb
     Z  16s   61.20um          6.2MszX
     N  13s   39.90um
     E  13s   11.70um
                pP    36 28.00  74kmX
                PP    36 50.00
                S     40 32.00
                sS    41 02.00
HKC    24.91  39 iP    36 14.50   1.6
                S     40 37.00
GZH    24.99  36 iPc   36 14.00   0.3
       1.0s  150.00nm          5.4mb
     Z  14s   18.70um          5.7MszX
     N  11s    6.72um
     E  13s   14.30um
                S     40 35.00
                sS    40 55.00
                SS    41 33.00
PGP    25.23  65 ePc   36 18.00   1.9
TGY    25.45  63 ePc   36 17.50  -0.6
QCP    25.79  62 eP    36 06.00 -15.2X
BAG    26.13  58 ePc+  36 24.00  -0.6
       1.2s  656.25nm          6.0mb
                eS    40 51.00
PKI    26.95 336 P     36 30.44  -1.8
GUN    27.06 337 P     36 31.78  -1.5
PIP    27.10  55 eP    36 33.20   0.0
DMN    27.11 335 P     36 31.86  -1.7
LSA    27.12 348 iPc   36 32.96  -0.9
       0.6s  120.00nm          5.6mb
                sP    37 00.00
KKN    27.20 336 P     36 32.52  -1.8
GKN    27.66 335 P     36 36.66  -1.8
POO    27.85 305 iPd   36 43.20   3.0X
       1.2s  234.38nm          5.7mb
                iS    41 24.00
DAV    28.10  81 ePc   36 44.50   2.1
CD2    28.22  11 iPc   36 41.20  -2.1
       0.8s  330.00nm          6.0mb
     Z  20s   36.30um          6.0Msz
     E  12s   23.00um
                S     41 16.00
PLP    28.26  72 iPc   36 46.00   2.3
QZH    29.62  41 Pc    36 56.00   0.1
       1.4s  360.00nm          5.9mb
     Z  14s   22.60um          6.0MszX
     N  12s   11.90um
     E  14s   11.60um
                S     41 44.00
NANU   30.96 146 eP    37 06.80  -0.9
WHN    31.50  28 Pc    37 12.00  -0.4
       1.0s  120.00nm          5.6mb
     Z  16s   18.90um          5.9MszX
     E  12s   12.30um
                ePcP  40 05.50
                S     42 16.00
TATO   31.60  44 ePc   37 13.32  -0.1
                ed    37 39.22 118kmX
NDI    31.98 325 eP    37 14.50  -2.1
       0.5s  204.23nm          6.2mb
                eS    42 20.00
XAN    32.49  18 iPc   37 19.09  -2.0
       0.5s  280.00nm          6.3mb
     Z  16s   29.60um          6.1MszX
     N  13s   17.60um
     E  11s   12.60um
                epPc  37 36.48  73kmX
                ec    37 37.30
                ed    37 43.51
                ed    37 44.50
                PcP   40 10.00
                S     42 26.00
LZH    33.28   9 iPc   37 26.68  -1.4
       1.5s  380.00nm          6.0mb
     Z  20s   22.30um          5.9Msz
     N  13s    6.22um
                epPc  37 44.47  74kmX
                esPd  37 51.84
                PP    38 40.00
                PcP   40 11.00
                S     42 41.00
                ScP   43 47.00
                PcS   43 51.50
                SS    44 46.00
                ScS   47 47.00
NJ2    35.00  32 Pc    37 42.00  -0.6
       0.8s  110.00nm          5.8mb
     Z  15s   13.90um          5.8MszX
     N  12s   12.10um
     E  12s   13.50um
                S     43 10.00
SSE    35.59  36 iPc   37 47.57  -0.1
       1.0s  140.00nm          5.8mb
     Z  20s   14.60um          5.7Msz
     N  14s   10.80um
     E  14s    8.10um
                epPc  38 05.04  71kmX
                esPd  38 11.82
                PP    39 07.00
                PcP   40 17.00
                iScP  43 53.50
MEEK   35.89 147 iPd   37 49.50  -0.8
       0.7s  233.00nm          6.2mb
GTA    36.15   3 P     37 51.50  -1.0
       1.0s  200.00nm          6.0mb
     Z  28s   20.30um          5.7MszX
     E  12s    3.92um
                pP    38 08.00  66kmX
MRWA   36.68 153 iPd   37 57.10   0.2
       0.6s   88.00nm          5.9mb
MTN    36.86 116 eP    37 56.50  -2.1
TIY    36.98  20 iPd   37 58.70  -0.7
       0.8s  120.00nm          5.9mb
TIA    37.50  26 Pc    38 02.80  -1.0
       1.0s  250.00nm          6.1mb
     Z  15s   32.20um          6.2MszX
     N  12s   14.00um
     E  13s    9.55um
                S     43 40.00
                ScP   44 01.70
                ScS   48 09.20
BAL    38.18 153 iPd   38 09.40  -0.1
       0.6s  146.00nm          6.1mb
BTO    38.93  15 P     38 15.00  -0.8
       1.0s  150.00nm          5.8mb
     N  11s   13.50um
     E  11s    5.23um
                pP    38 30.50  61kmX
                S     44 05.00
                ScS   48 17.50
MUN    39.13 155 eP    38 17.30  -0.1
       0.9s  790.00nm          6.6mb
KLB    39.50 153 iPd   38 20.10  -0.4
       0.4s  115.00nm          6.1mb
QUE    39.58 316 eP    38 28.00   6.6X
                eS    44 27.00
HHC    39.58  17 Pc    38 21.80   0.6
       0.8s  140.00nm          5.9mb
     Z  15s   31.30um          6.3MszX
     N  12s   17.20um
     E  11s    1.98um
                sP    38 47.00
                PP    39 58.00
                PcS   44 14.00
                S     44 16.00
BJI    40.39  22 iPc   38 27.75   0.1
       0.8s  320.00nm          6.2mb
     Z  34s   13.40um          5.6MszX
     N  12s    2.74um
     E  12s    5.05um
                ipPc  38 45.62  73kmX
                esPd  38 52.25
                ePP   40 06.00
                eScP  44 12.50
                eS    44 26.00
                esS   45 00.00
                eScS  48 26.00
WARB   40.47 138 iPd   38 27.00  -1.6
COOL   40.59 148 eP    38 28.50  -1.0
       0.6s  196.00nm          6.1mb
KSH    41.15 334 iPd   38 34.80   0.7
       0.7s  190.00nm          6.0mb
     Z  25s   12.40um          5.7MszX
     N  11s    3.49um
     E  11s    2.79um
                pP    38 53.00  74kmX
                sP    39 02.00
                PP    40 14.00
                PcP   40 34.00
                S     44 43.00
                sS    45 14.00
                SS    47 40.00
                ScS   48 30.00
WMQ    41.45 349 iPd   38 37.00   0.5
       1.0s  150.00nm          5.7mb
     Z  32s   14.40um          5.6MszX
     N  15s    4.35um
                pP    38 53.00  63kmX
                PP    40 10.00
                S     44 40.00
RKG    41.71 156 eP    38 39.00   0.4
DL2    41.77  28 P     38 39.00   0.0
       1.0s  530.00nm          6.3mb
     Z  24s    6.09um          5.4MszX
     N  13s    3.44um
     E  14s    8.53um
                S     44 56.00
KAGJ   41.95  45 P     38 40.40  -0.3
KUMJ   42.70  43 P     38 47.00   0.3
WRA    42.73 124 P     38 45.80  -1.3
       0.5s   16.70nm          5.1mb X
WB2    42.74 124 eP    38 45.20  -2.0
       0.4s  317.60nm          6.5mb
                ipP   39 03.20  73kmX
                iScP  44 22.30
                iS    45 00.10
PRZ    42.77 339 eP    38 48.00   0.6
       1.0s  370.00nm          6.1mb
     Z  24s    5.50um          5.4MszX
                eS    45 00.00
                e     48 45.00
SHNJ   43.83  41 P     38 56.00   0.1
SHNJ   43.83  41 eP    38 56.30   0.4
```

20d 02h

```
ASPA    44.24 129 iPc    38 57.70  -1.7
         0.8s   164.00nm          5.9mb
      Z  23s      3.80um          5.3MszX
                   eScP   44 27.50
                   ePcS   44 33.90
                   iS     45 22.10
AAK     44.41 336 iPc    39 00.25  -0.5
FORT    44.50 142 eP     39 00.00  -1.3
FRU     44.52 336 iP     39 00.00  -1.4
         2.0s   750.00nm          6.2mb
                   eS     45 32.00
                   eSS    48 54.00
                   e      49 37.00
SNY     44.99  28 iPc    39 03.50  -1.5
         1.0s   210.00nm          5.9mb
      Z  15s     10.70um          5.9MszX
      N  14s      5.61um
                   PP     40 49.00
                   iS     45 35.00
                   SS     48 54.00
SHK     45.12  42 iP     39 04.80  -1.4
         1.0s   520.00nm          6.3mb
TKSJ    45.73  44 P      39 10.90  -0.2
YONJ    46.02  42 P      39 12.30  -1.1
WKYJ    46.93  44 P      39 19.00  -1.7
ZAK     47.31   5 iPc    39 22.00  -1.3
         1.6s    92.00nm          5.5mb
      Z  18s     13.39um          6.0Msz
      N  18s     10.03um
      E  14s      5.84um
                   e      40 54.50 482kmX
                   e      41 13.00
                   eS     46 13.00
                   e      49 06.00
CN2     47.39  27 Pc     39 22.40  -1.6
         1.0s   160.00nm          5.9mb
      Z  14s     11.00um          6.0MszX
      N  12s      1.89um
      E  12s      5.27um
                   epP    39 41.50  77kmX
                   esP    39 49.00
                   ePcP   40 54.40
                   ePP    41 12.40
                   eScP   44 39.40
                   PcS    44 49.00
                   eS     46 06.00
                   ScS    49 08.00
                   eSS    49 30.00
PJG     47.78  75 eP     39 26.80  -0.7
GUA     47.82  75 eP     39 26.50  -1.3
         0.5s   507.04nm          6.7mb
TSRJ    47.92  43 P      39 28.30   0.0
MAIO    48.20 318 iPc    39 29.90  -0.7
         0.8s    58.57nm          5.6mb
                   eS     46 24.00
MOY     48.45   3 eP     39 31.60  -0.5
         1.1s    80.00nm          5.6mb
                   eS     46 24.70
MDG     48.81 100 eP     39 35.50   0.0
IRK     49.28   5 ePc    39 37.00  -1.5
         2.0s   310.00nm          6.0mb
      Z  20s     14.13um          6.0Msz
      N  19s      9.90um
      E  22s      2.47um
                   e      39 52.50  60kmX
                   e      41 34.00
                   iS     46 40.00
                   e      49 22.00
                   eSSS   51 28.00
HIA     49.67  19 iPc    39 40.40  -1.2
                   epPc   39 58.27  71kmX
                   esPd   40 04.89
ASH     49.88 319 P      39 43.00  -0.4
         1.0s  1120.00nm          6.8mb
                   e      39 58.00  57kmX
                   e      41 04.00
                   e      41 43.00
                   S      46 48.00
                   PS     47 04.00
                   e      49 29.00
                   SS     50 20.00
                   SSS    51 44.00
MDJ     49.97  30 iPc    39 43.76  -0.2
         1.0s   130.00nm          5.9mb
      Z  32s     11.20um          5.7MszX
      N  24s     18.20um
      E  24s     33.20um
```

```
                   ipPc   40 01.23  69kmX
                   isPd   40 08.10
                   S      46 50.00
MAJO    49.98  43 ePc    39 42.36  -1.8
                   epPc   39 59.08  65kmX
                   esPd   40 07.35
MAT     49.98  43 iPc+   39 42.10  -2.1
         0.8s   141.04nm          6.0mb
      Z  21s      4.30um          5.4Msz
                   eS     46 49.00
CHJJ    50.26  44 P      39 44.90  -1.4
CIT     50.48  13 eP     39 48.00   0.2
      Z  14s      9.49um          6.0MszX
      N  15s      6.54um
      E  14s      9.11um
                   eS     47 00.00
ELT     50.82 351 iPc    39 48.80  -1.4
         1.1s   210.00nm          6.1mb
      Z  14s      2.50um          5.4MszX
                   e      42 42.00
                   eS     47 00.00
                   i      49 29.00
NIIJ    50.89  43 P      39 49.70  -1.3
PMG     50.90 105 eP     39 50.00  -1.4
DHR     50.98 302 iPd    39 52.10   0.2
                   iS     47 02.00
FINC    51.07 101 eP     39 52.30  -0.4
KAKJ    51.16  45 P      39 49.90  -3.2X
KAT     51.93 319 iP+    39 59.00   0.1
      Z  13s      1.30um          5.1MszX
      N  13s      1.80um
      E  13s      1.80um
                   e      40 16.00  66kmX
                   ePPP   43 02.00
                   iS     47 13.50
                   ePS    47 28.00
                   e      49 42.00
                   eSSS   52 26.00
YAMJ    52.07  42 P      39 59.90  -0.1
CTA     53.00 118 iPd    40 06.00  -1.2
         0.7s    47.95nm          5.6mb
                   i      40 26.00  80kmX
                   i      45 05.00
                   iS     47 24.00
CTAO    53.00 118 (P)    40 06.33  -0.8
                   epPc   40 22.55  62kmX
RYD     53.57 299 iPd    40 10.50  -0.8
                   iS     47 38.00
TEH     53.60 313 eP     40 11.00  -0.5
OFUJ    53.63  42 P      40 10.10  -1.4
QLP     53.84 126 eP     40 12.20  -1.0
         0.7s   364.00nm          6.5mb
ADE     54.05 138 eP     40 13.80  -0.8
STK     54.35 133 iPd    40 15.40  -1.5
         0.6s   157.20nm          6.2mb
                   iS     47 45.40
BRVK    54.64 340 iPc    40 17.00  -1.7
         1.0s   399.00nm          6.4mb
                   iS     47 50.00
ARO     54.89 282 iPd    40 21.40   0.2
DHJN    54.96 289 ePd    40 21.93   0.0
RAB     54.98  97 eP     40 21.00  -0.8
MRRJ    55.01  38 eP     40 21.40  -0.1
MJMA    55.02 299 ePd    40 21.33  -0.7
KMTA    55.63 290 ePd    40 26.93   0.3
ABHA    55.75 290 ePd    40 28.33   0.8
BOD     56.09  11 eP     40 27.20  -1.9
         0.6s   235.00nm          6.4mb
KER     56.24 310 ePd    40 28.50  -2.2
HOOJ    56.38  40 eP     40 31.50   0.1
QASM    56.61 299 eP     40 32.33  -1.1
BAK     56.76 317 iPc    40 39.00   4.9X
      N  20s     10.64um
      E  12s      1.72um
                   iS     48 20.00
ASAJ    56.89  37 eP     40 33.60  -1.4
CMS     57.29 131 iPd    40 36.90  -1.1
PAF     57.42 201 eP     40 39.00   0.4
                   S      48 51.00
                   SS     51 54.00
KUSJ    57.64  39 eP     40 38.70  -1.6
SHE     57.73 317 iPc    40 40.00  -0.9
         1.0s   550.00nm          6.6mb
      Z  16s      1.20um          5.1MszX
      N  16s      2.00um
      E  16s      3.00um
                   iS     48 32.00
```

```
BFD     57.86 138 iPd    40 40.70  -1.2
         1.0s   121.00nm          6.0mb
                   eS     48 43.00
TAB     58.25 314 eP     40 45.00   0.1
YSS     58.52  35 eP+    40 45.40  -1.0
         1.0s   330.00nm          6.4mb
      Z  17s      3.50um          5.5MszX
      N  15s      1.60um
      E  17s      2.10um
                   eS     48 47.00
                   e      50 24.00
AAE     58.77 279 P      40 49.50   0.5
GRS     58.83 315 iPd    40 47.00  -1.9
         1.2s    70.00nm          5.7mb
                   eS     48 44.00
MAK     59.61 319 iPd-   40 53.40  -0.6
         1.0s   231.00nm          6.3mb
                   iS     48 53.00
                   isS    50 39.00
                   iSS    52 53.00
TOO     60.05 137 iPd    40 56.80  -0.3
         0.7s   103.00nm          6.1mb
      Z  18s     19.20um          6.3Msz
                   ipP    41 05.00  27kmX
                   iPP    41 07.30
                   eS     49 12.00
BWA     60.58 133 eP     41 00.70  -0.1
                   i      41 21.60  82kmX
KUR     60.67  39 eP     41 00.50  -0.6
         1.0s   340.00nm          6.4mb
      Z  16s      5.60um          5.8MszX
      N  16s      7.80um
      E  16s      5.60um
                   eS     49 20.00
MTA     60.80 317 iPc    41 00.60  -1.5
         0.8s   410.00nm          6.6mb
                   i      41 19.60  73kmX
                   i      41 39.60
                   i      43 19.60
                   ePPP   44 41.00
                   iS     49 09.60
                   iPS    49 41.60
                   i      50 45.60
                   eSS    53 15.00
                   eSSS   55 45.00
GRO     60.91 319 eP     41 00.00  -2.8
         1.0s   330.00nm          6.4mb
                   i      41 19.50  75kmX
                   iS     49 11.00
SVE     61.04 338 iPc    41 02.50  -1.0
      Z  21s      5.50um          5.7Msz
      N  21s      2.50um
      E  21s      3.00um
                   i      41 21.10  71kmX
                   e      41 47.50
                   e      43 23.00
                   iS     49 13.00
                   ePS    49 23.00
                   eSS    53 12.00
BRS     61.15 124 iPc    41 04.00  -0.8
         1.0s    47.00nm          5.6mb
                   eS     49 20.00
ARMA    61.34 127 eP     41 06.20   0.1
         1.0s   111.00nm          5.9mb
                   ipP    41 28.50  88kmX
CAN     61.42 133 iPd    41 05.30  -1.2
                   i      41 26.10  81kmX
CNB     61.68 133 eP     41 04.50  -3.8X
         1.1s   491.00nm          6.5mb
                   e      41 26.20  85kmX
WAJH    62.75 298 iPd    41 15.46   0.1
PYA     62.92 319 iPc    41 14.00  -2.3
         1.0s   450.00nm          6.5mb
      Z  20s      2.00um          5.3Msz
                   iS     49 34.00
                   i      50 08.00
                   i      51 00.00
KIV     63.14 318 ePc    41 16.41  -1.4
         1.2s   662.00nm          6.6mb
      Z  26s      2.30um          5.2MszX
                   ipPc   41 33.88  66kmX
                   eS     49 39.00
                   ePS    50 06.00
HNR     63.33 102 e(P)d  41 17.00  -2.4
YAK     63.44  16 iPc+   41 17.50  -1.9
         1.0s   580.00nm          6.5mb
      Z  16s     15.30um          6.3MszX
```

```
     N  16s      8.50um
     E  16s      9.70um
                  i     41 51.00 139kmX
                  iS    49 44.00
                  ePS   50 18.00
                  i     51 00.00
                  iSS   53 48.00
CRZF   63.74 214 iP     41 27.00   5.4X
                  ePP   43 51.00
                  iS    50 15.00
                  eSS   54 12.00
                  eSSS  57 00.00
AYN    63.75 301 ePd    41 21.67  -0.3
MDRJ   64.02 301 P      41 24.00   0.1
TAU    64.05 141 eP     41 23.00  -0.6
SHWJ   64.49 302 P      41 29.00   1.9
JARJ   64.52 304 P      41 28.20   1.1
MASJ   64.59 304 P      41 27.50   0.0
HQL    64.65 301 iPd    41 27.33  -0.5
SALJ   64.68 304 P      41 28.60   0.5
LISJ   64.68 303 P      41 28.00   0.0
GAZ    64.76 310 iP     41 23.80  -4.6X
ARVI   64.81 302 iPd    41 28.40  -0.5
PRNI   64.90 302 eP     41 29.30  -0.2
SOC    64.99 317 iPc+   41 28.00  -1.8
        1.4s   400.00nm          6.2mb
     Z  20s      0.50um          4.7MszX
     N  22s      1.00um
     E  20s      0.50um
                  e     44 00.00
                  iS    50 00.00
                  ePS   50 28.00
                  e     51 18.00
MMR    65.12 305 iPd    41 31.30   0.3
BHL    65.14 306 P      41 28.00  -3.1X
                  S     50 10.00
ZNT    65.27 304 eP     41 31.70  -0.1
SVST   65.70 312 iP     41 34.10  -0.5
BNN    66.24 311 iP     41 36.50  -1.6
TRHT   66.43 313 iP     41 38.50  -0.8
NRI    66.45 356 iPc+   41 36.70  -2.0
        1.0s   735.00nm          6.6mb
     Z  20s      5.70um          5.8Msz
     E  22s     16.00um
                  e     42 03.00 105kmX
                  iS    50 20.00
                  e     51 20.00
                  eSS   54 44.00
                  eSSS  57 40.00
FAM    66.72 307 eP     41 40.60  -0.4
KVT    66.74 314 iP     41 41.00  -0.1
ANN    67.07 318 P      41 42.00  -1.0
        1.0s    30.00nm          5.2mb X
                  eS    50 23.00
                  eSS   54 44.00
CSS    67.25 307 eP     41 44.00  -0.4
CTK    67.52 313 iP     41 45.00  -1.2
HLW    67.93 301 eP-    41 49.00   0.3
                  ePcP  42 05.00
                  esP   42 26.00
                  eS    50 52.00
                  ePS   51 11.00
                  esS   51 25.00
                  ePPS  51 34.00
                  e     52 14.00
PPCY   68.03 306 eP     41 48.60  -0.6
MTD    68.12 251 iPd    41 46.90  -3.3X
                  i     42 03.50  61kmX
BZK    68.46 314 iP     41 50.60  -1.2
KAS    68.48 313 iPc    41 50.80  -1.2
BBTK   68.82 312 iP     41 53.00  -1.3
CIR    68.95 246 iPd    41 53.90  -1.3
                  i     42 16.00  85kmX
LWI    69.01 266 iPd    41 54.80  -1.2
LWI    69.01 266 iP-    41 55.00  -1.0
SIM    69.23 317 eP+    41 56.00  -0.5
     Z  28s      3.00um          5.4MszX
                  e     44 28.00
                  ePPP  46 10.00
                  iS    50 53.00
                  ePS   51 20.00
MGD    69.69  25 eP     41 57.00  -2.0
        0.8s   140.00nm          5.9mb
     Z  15s      5.30um          5.9MszX
     N  16s      4.70um
     E  16s      2.70um
                  e     42 07.00  32kmX
```

```
                  e     42 16.00
                  i     42 21.00
                  e     44 37.00
                  ePPP  46 14.00
                  eS    50 56.00
                  ePS   51 22.00
                  e     51 50.00
CSY    69.89 174 eP     41 59.60  -0.4
        0.8s   117.10nm          5.9mb
BCK    69.95 309 eP     41 58.90  -2.2
ELL    70.34 308 iP     42 03.30  -0.3
PET    70.38  34 eP     42 02.50  -0.8
        1.2s   640.00nm          6.4mb
     Z  20s      2.50um          5.5Msz
                  epP   42 28.00 100kmX
                  eS    51 12.00
                  esP   51 58.00
KSL    70.48 307 eP     42 03.00  -1.3
ALT    70.64 310 iP     42 04.90  -0.5
EYL    70.93 312 eP     42 05.50  -1.6
KHL    70.95 309 iP     42 06.00  -1.2
OBN    71.18 328 iPc    42 06.60  -1.5
        1.0s   370.00nm          6.3mb
     Z  24s      3.80um          5.6MszX
     N  24s      3.30um
     E  26s      1.30um
                  i     42 34.00 108kmX
                  i     44 48.00
                  ePPP  46 30.00
                  iS    51 15.00
                  iPS   51 48.00
                  i     52 00.00
                  eSS   55 50.00
TIK    71.20  10 iPc+   42 05.70  -2.2
        1.6s   480.00nm          6.2mb
     Z  16s      6.50um          6.0MszX
                  i     42 25.00  72kmX
                  e     44 45.00
                  ePPP  46 23.00
                  iS    51 15.00
                  e     51 47.00
                  i     51 58.40
BFT    71.34 242 iPd    42 09.00  -0.9
        0.7s   222.00nm          6.2mb
BUL    71.50 248 iPc    42 09.80  -1.1
        0.9s   175.63nm          6.0mb
                  i     42 29.30  73kmX
GBZT   71.51 312 iPd    42 09.00  -1.4
DZM    71.67 114 iPc    42 11.10  -0.7
YER    71.69 308 iP     42 10.00  -1.6
ISK    71.85 312 iP     42 12.20  -0.2
DST    71.88 311 iP     42 11.20  -1.5
ITU    71.89 312 iPd    42 12.00  -0.7
KCT    72.21 311 iP     42 14.20  -0.4
BNT    72.56 311 iP     42 15.20  -1.5
BKM    72.57 109 iPd    42 16.40  -0.6
EDC    72.60 311 iP     42 15.00  -1.9
IZM    72.71 309 eP     42 17.60   0.0
SLR    72.90 242 iPd    42 16.96  -2.1
        0.8s   446.00nm          6.4mb
                  isPc  42 41.87
DMK    72.96 313 iP     42 17.80  -1.2
PSN    73.03 315 iPd    42 19.00  -0.3
KIS    73.31 318 iPc+   42 20.00  -0.8
        1.0s   400.00nm          6.3mb
     Z  20s      1.60um          5.3Msz
                  i     42 36.00  58kmX
                  e     45 04.00
                  ePPP  46 52.00
                  iS    51 38.00
                  ePS   52 30.00
CFR    73.38 316 eP     42 20.00  -1.3
NPS    73.53 306 eP     42 22.30  -0.1
PRK    73.61 310 eP     42 22.10  -0.7
EZN    73.67 311 iP     42 21.70  -1.4
SEK    74.02 240 iPd    42 25.00  -0.6
        0.8s   446.00nm          6.4mb
ALN    74.06 312 eP     42 24.96  -0.4
KSR    74.15 242 iPd    42 25.00  -1.4
        0.5s   175.00nm          6.2mb
CLI    74.27 318 iPc    42 26.80   0.3
BFS    74.45 241 iPd    42 27.50  -0.6
ISR    74.48 316 ePc    42 28.50   0.7
VRI    74.50 317 iPc    42 28.50   0.6
DIM    74.64 313 iPd    42 28.00  -0.7
BUC    74.65 315 iPd    42 30.00   1.3
KDZ    74.65 312 iPd    42 28.00  -0.8
```

```
MAW    74.69 193 P      42 28.60   0.2
CVO    74.87 317 ePc    42 30.00   0.0
MLR    74.97 316 ePd    42 30.50  -0.2
PVL    74.98 314 iPd    42 31.00   0.4
RZN    75.18 312 iPd    42 32.00  -0.1
PLD    75.26 313 iPd    42 32.00  -0.2
ATH    75.40 308 eP     42 32.00  -1.1
BLF    75.42 239 iPd    42 32.10  -1.5
        0.5s   175.00nm          6.2mb
OUR    75.52 311 iP     42 33.17  -0.6
MTUR   75.53 316 ePc    42 33.00  -0.8
CMP    75.55 316 iPd    42 36.00   2.1
PAIG   75.70 310 iP     42 34.24  -0.5
PGB    75.72 313 iPd    42 35.00   0.1
SWZ    75.79 241 iPc    42 34.80  -0.9
MNK    75.80 325 eP     42 34.00  -1.0
        1.0s   660.00nm          6.5mb
                  eS    52 06.00
VLI    75.87 307 eP     42 34.00  -1.8
DRV    75.88 164 iP     42 34.00  -1.3
MMB    75.90 312 iPd    42 35.00  -0.9
SRS    75.93 312 iP     42 35.08  -1.0
PUL    76.00 331 ePc    42 37.00   0.9
        1.0s   800.00nm          6.6mb
     Z  28s      3.80um          5.6MszX
     N  23s      2.20um
     E  28s      3.00um
                  e     42 54.00  62kmX
                  eS    52 09.00
                  e     52 42.00
GRM    76.02 235 iPd    42 40.00   3.2X
        0.8s   384.00nm          6.4mb
SOH    76.07 311 eP     42 35.92  -1.0
FRS    76.29 239 iPd    42 35.70  -2.6
        0.5s   212.00nm          6.3mb
THE    76.33 311 eP     42 37.12  -1.2
KKB    76.41 312 iPd    42 38.00  -0.8
VTS    76.42 313 iPd    42 38.00  -1.0
KNT    76.45 311 iP     42 38.04  -1.0
KIM    76.56 240 iPc    42 39.50  -0.5
        0.4s   506.00nm          6.8mb
AGG    76.61 309 eP     42 38.08  -1.9
LIT    76.62 310 iP     42 38.84  -1.2
VAY    76.72 312 iPd    42 39.60  -0.9
        0.8s   257.00nm          6.2mb
GRG    76.80 311 eP     42 39.84  -1.2
BMR    77.02 318 ePd    42 46.00   4.0X
LVV    77.05 320 eP     42 42.00  -0.1
                  e     52 21.00
                  e     52 50.00
                  eS    53 15.00
DEV    77.13 316 iPd    42 44.00   1.3
GZR    77.15 316 iPc    42 45.00   2.1
KZN    77.20 310 eP     42 41.50  -1.8
APA    77.49 339 iPd    42 43.60  -0.6
FNA    77.55 311 eP     42 43.72  -1.5
VLS    77.88 308 eP     42 46.00  -1.0
UZH    77.97 319 iPc    42 47.00  -0.2
     Z  18s      1.20um          5.3Msz
                  i     42 59.30  41kmX
                  iS    52 32.00
                  i     53 01.00
                  ePS   53 17.00
                  eSPP  53 32.00
BZS    77.99 316 eP     42 42.00  -5.4X
OHR    78.02 311 iP     42 46.00  -1.8
        0.8s   195.00nm          6.1mb
                  i     42 48.60   8kmX
LSK    78.07 310 iPd    42 47.90  -0.2
IGT    78.21 310 eP     42 47.96  -0.8
TTM    78.28 316 iPd    42 50.00   1.1
PHP    78.35 312 iPd    42 47.20  -2.3
SRN    78.50 310 eP     42 49.40  -0.9
TPE    78.53 310 iPd    42 48.00  -2.5
KAF    78.56 333 iP     42 49.70  -0.5
KEK    78.64 310 eP     42 50.40  -0.7
BCI    78.70 312 iP     42 49.20  -2.2
TIR    78.75 311 eP     42 50.70  -0.9
PVY    78.79 313 iPc    42 51.33  -0.7
IVA    78.88 313 iPc    42 52.06  -0.4
BCAO   78.90 274 iPc    42 51.90  -1.2
        0.9s   194.00nm          6.0mb
                  ic    43 11.00  70kmX
                  id    43 28.00
NUR    78.93 331 iP     42 51.40  -0.8
        0.6s   161.50nm          6.1mb
VLO    78.94 310 iPc    42 52.90   0.2
```

20d 02h

```
SDA     79.09 312 iPd    42 53.00  -0.5
ULC     79.27 312 iPc    42 53.39  -1.1
PLE     79.29 313 iPc    42 55.06   0.3
TTG     79.30 312 iPc    42 53.88  -0.7
SMY     79.32  37 eP     42 55.00   0.5
        0.9s  1236.80nm          6.8mb
SPC     79.39 319 iP     42 55.40   0.2
                  e      45 47.30
                  e      52 46.40
NKY     79.53 313 iPc    42 55.68  -0.4
BDV     79.61 312 iPc    42 56.07  -0.3
OJC     79.81 320 iP     42 57.30   0.1
        0.9s   538.00nm          6.5mb
                  i      42 58.70   4kmX
                  i      43 18.10
                  eS     52 52.00
HCY     79.87 312 iPc    42 56.97  -0.7
BRY     79.87 313 iPc    42 57.07  -0.8
SDF     79.96 338 iP     42 57.60  -0.1
BUD     79.99 318 eP     42 57.60  -0.6
UZD     80.20 317 iP     43 00.00   0.7
KEV     80.42 341 iP     43 00.00  -0.1
        1.0s   320.00nm          6.2mb
      Z  26s     8.30um          6.0MszX
SRO     80.50 318 iP     43 02.10   1.2
                  e(S)   53 06.60
SUR     80.58 237 (P)    43 02.49   0.5
                  esPc   43 27.48
BRT     80.71 311 P      43 02.28   0.1
        0.9s   425.10nm          6.4mb
RAC     80.82 320 eP     43 03.00   0.5
        1.0s     0.40nm          3.3mb X
                  eS     53 06.00
POF     80.83 240 iPd    43 03.50   0.5
        0.6s    71.00nm          5.8mb
BAI     80.98 311 Pc     43 03.00  -0.6
GRI     81.19 309 P      43 05.63   0.9
        0.7s   269.30nm          6.3mb
ORI     81.24 310 P      43 06.34   1.4
        0.7s   539.20nm          6.6mb
TDS     81.30 309 P      43 06.96   1.7
        0.8s   158.20nm          6.0mb
ZST     81.35 318 iP     43 05.70   0.3
                  i      43 08.10   8kmX
                  i      43 27.70
HVAR    81.43 313 iPd    43 05.10  -0.8
SOI     81.44 308 P      43 07.05   1.0
        0.8s   119.10nm          5.9mb
GMB     81.59 308 P      43 07.80   0.8
        0.8s   143.10nm          6.0mb
SOP     81.67 318 eP     43 07.50   0.5
VRAC    81.78 319 P      43 07.50   0.0
MSI     81.84 308 P      43 09.18   1.1
        0.7s   344.30nm          6.4mb
VKA     81.88 318 iPd    43 08.80   0.7
        1.0s   672.00nm          6.6mb
                  i      43 11.30   8kmX
ATN     81.91 308 P      43 09.00   0.5
        0.9s    88.30nm          5.7mb
MGR     81.92 310 P      43 08.30  -0.2
        0.7s   357.50nm          6.4mb
ZAG     81.93 316 iPd    43 09.30   0.9
PTJ     81.95 316 eP     43 08.50  -0.2
CER     82.01 236 iPd    43 09.50   0.4
        0.9s   383.00nm          6.4mb
KSP     82.10 321 iPc    43 09.50   0.3
        0.8s   290.00nm          6.3mb
                  i      43 12.30   9kmX
SGO     82.13 310 Pd     43 10.20   0.6
GIO     82.17 307 P      43 11.92   2.1
UPP     82.27 330 iPc    43 09.40  -0.4
        0.8s   700.00nm          6.7mb
                  i      43 11.10   5kmX
                  i      43 28.70
                  iS     53 16.00
MEU     82.29 307 P      43 11.97   1.3
        0.8s    45.90nm          5.5mb
PZI     82.30 307 P      43 11.39   0.7
        0.9s   505.50nm          6.5mb
VBY     82.42 315 iP     43 11.60   0.6
                  iPcP   43 16.30  65kmX
                  i      43 29.70
WIN     82.47 247 iPd    43 12.80   0.9
        0.7s   318.00nm          6.4mb
MNO     82.51 308 P      43 13.14   1.3
        0.7s   234.10nm          6.3mb
LJU     82.95 316 eP     43 14.50   0.7
```

```
                  epP    43 35.00  75kmX
                  eS     53 25.00
                  esS    54 00.80
CEY     83.01 316 eP     43 14.40   0.3
RIY     83.03 315 iPd    43 13.90  -0.2
GIB     83.04 308 P      43 14.20  -0.3
PRU     83.16 320 P      43 15.10   0.4
        1.0s   125.20nm          5.8mb
      Z  22s     1.80um          5.4Msz
                  i      43 17.60   8kmX
                  e      43 32.30
                  e      45 37.50
                  SKS    53 28.00
RFI     83.16 311 P      43 15.18   0.3
        1.8s   998.00nm          6.5mb
BSD     83.27 325 iPc    43 16.00   0.9
        0.7s    88.00nm          5.8mb
SDI     83.30 311 Pd     43 15.60  -0.1
KMR     83.33 318 iP-    43 17.30   1.7
MCT     83.34 307 P      43 18.37   2.2
        1.3s   376.10nm          6.2mb
VOY     83.40 316 iPc    43 16.10  -0.1
                  e      44 08.50 215kmX
                  eS     53 30.00
TRI     83.48 315 e(P)   43 16.00  -0.4
                  e(S)   53 28.10
                  e      54 04.50
                  e(SP)  54 12.00
                  e(SS)  59 00.00
                  e      14 32.00
BRG     83.59 321 iPd    43 17.00   0.1
        1.0s   260.00nm          6.2mb
                  i      43 19.80   9kmX
                  iS     53 32.00
AQU     83.63 312 P      43 18.10   0.8
GEC2    83.65 319 ePc    43 17.60   0.2
        1.2s   250.87nm          6.1mb
                  e      43 20.40   9kmX
                  e      43 23.40
                  e      52 08.50
                  eSKS   53 30.60
                  eScS   53 48.00
                  e      53 53.70
                  e      54 06.90
KHC     83.74 319 P      43 18.00   0.2
        0.8s    42.30nm          5.5mb
      Z  22s     1.80um          5.4Msz
      N  22s     1.10um
      E  22s     1.10um
                  e      43 20.70   9kmX
                  e      43 48.00
                  e      44 27.60
                  S      53 33.60
KBA     83.82 317 iPd    43 17.90  -0.5
        0.9s   130.00nm          5.9mb
                  i      43 23.30  17kmX
                  i      46 40.90
                  i      53 34.00
                  i      53 43.20
ARV     84.00 313 P      43 20.20   1.1
CVT     84.01 307 P      43 20.26   1.0
        1.1s   994.10nm          6.8mb
BRNL    84.03 322 eP     43 37.00  18.0X
RDP     84.13 311 P      43 20.20   0.3
RMP     84.14 312 P      43 20.00   0.1
BHG     84.16 317 iPd    43 19.90   0.1
        0.9s    88.00nm          5.8mb
ERC     84.17 308 P      43 20.76   0.6
        0.8s   100.60nm          5.9mb
FVI     84.19 316 P      43 20.00   0.1
ASS     84.19 313 P      43 19.90  -0.3
CLL     84.20 321 iPd    43 20.20   0.3
        1.1s   210.00nm          6.1mb
                  i      43 39.00  68kmX
                  eS     53 35.00
WET     84.20 319 iPc    43 20.50   0.5
                  i      43 23.40   9kmX
HFS     84.26 330 eP     43 19.90  -0.2
        0.6s   261.40nm          6.4mb
      Z  20s  1766.00um          8.4MszX
                  LR     16 59.00
RSM     84.36 314 P      43 22.50   1.6
VVI     84.42 316 P      43 22.02   0.8
        1.0s   153.70nm          6.0mb
PTS     84.64 307 P      43 23.62   1.2
        0.9s   246.70nm          6.3mb
COP     84.71 325 iPc    43 24.50   2.2
```

```
        0.8s   268.66nm          6.3mb
                  eS     53 46.00
CRE     84.72 313 P      43 23.10   0.3
SFI     84.79 314 P      43 24.70   1.7
ADK     84.87  38 eP     43 23.80   0.5
        1.1s   958.50nm          6.8mb
                  i      43 25.20   4kmX
HOF     84.88 320 eP     43 24.00   0.6
                  i      43 26.30   7kmX
PGD     84.89 314 P      43 24.95   1.2
        0.9s   286.40nm          6.3mb
CTI     84.96 316 Pd     43 24.60   0.6
WTTA    84.99 317 iPc    43 23.60  -0.6
        0.7s   201.00nm          6.3mb
                  i      43 29.00  17kmX
                  i      46 41.10
                  i      53 42.70
MOX     85.06 320 iPd    43 24.60   0.3
        1.4s   179.00nm          5.9mb
      Z  22s     1.10um          5.2Msz
                  eS     53 49.00
FIR     85.22 313 eP     43 25.50   0.3
                  iS     53 47.00
FUR     85.24 318 iPd    43 25.50   0.2
                  i      43 28.50   9kmX
SQTA    85.28 317 iPc    43 25.00  -0.6
        0.5s    98.70nm          6.1mb
                  i      43 30.40  17kmX
                  i      46 40.70
                  i      53 46.10
GRF     85.30 319 ePc    43 26.40   0.9
      Z  19s     1.00um          5.2Msz
                  e      43 29.10
                  e      43 31.00
                  epP    43 44.70  66kmX
                  esP    43 53.80
OGA     85.40 317 eP     43 26.30   0.0
        0.8s    80.00nm          5.8mb
MME     85.63 314 P      43 28.29   0.7
        0.7s   117.40nm          6.1mb
BDI     85.70 314 P      43 27.37  -0.3
NAO     85.71 331 P      43 27.10  -0.2
        0.6s   152.50nm          6.3mb
SAL     85.75 315 P      43 29.20   1.4
PII     85.75 313 P      43 27.10  -0.7
OSS     86.01 316 iPd    43 29.50   0.2
MDI     86.32 316 P      43 30.70   0.1
VDL     86.47 316 iPd    43 32.00   0.4
BOB     86.52 314 P      43 32.50   0.8
MUD     86.55 326 iPc    43 38.80   7.3X
        0.8s   322.00nm          6.5mb
LLS     86.79 317 ePd    43 32.90  -0.3
PGF     86.89 312 P      43 34.22   0.6
TMA     86.89 316 iPd    43 33.50  -0.2
VAI     86.97 316 P      43 33.40  -0.3
TNS     87.08 320 iPd    43 34.80   0.5
                  iPcP   43 35.90  82kmX
                  id     43 57.00
SLE     87.11 318 iPd    43 34.70   0.2
PCP     87.17 314 P      43 34.70  -0.1
ZLA     87.19 317 iPd    43 35.30   0.4
CKI     87.36 314 P      43 35.70   0.0
FIN     87.42 314 P      43 36.35   0.3
HOFF    87.43 319 P      43 36.67   0.8
FEL     87.44 318 P      43 36.01  -0.1
MMK     87.53 316 ePd    43 37.30   0.5
ORX     87.53 315 P      43 35.66  -1.0
ORO     87.53 315 P      43 35.70  -0.9
LANF    87.54 319 P      43 36.94   0.5
STR     87.58 318 P      43 37.36   0.7
ROB     87.66 314 P      43 37.40   0.2
IMI     87.66 314 P      43 37.81   0.6
LIBD    87.70 318 P      43 37.44   0.2
BBS     87.79 317 P      43 37.44  -0.3
WLS     87.86 318 P      43 38.12   0.1
BNS     87.87 321 ePd    43 38.50   0.5
        1.0s   146.00nm          6.1mb
SAOF    87.90 314 P      43 38.60   0.3
CDF     87.91 318 P      43 38.04  -0.3
DIX     87.91 316 iPc    43 39.50   0.8
ENR     87.98 314 P      43 38.41  -0.4
AUTN    87.99 314 P      43 39.19   0.2
SBF     87.99 314 P      43 38.97   0.2
ECH     88.00 318 P      43 38.55  -0.2
MOF     88.03 318 P      43 39.15   0.2
REVF    88.04 314 P      43 39.55   0.5
STV     88.05 314 P      43 38.54  -0.6
```

WTS	88.05	322	iPd	43 40.10	1.3
	1.0s	770.00nm			6.8mb
			e	43 59.00	68kmX
RSP	88.06	315	P	43 38.04	−1.2
AURF	88.06	314	P	43 39.46	0.3
BHB	88.07	315	P	43 38.13	−1.0
DOI	88.10	314	P	43 37.90	−1.4
WIT	88.10	323	eP	43 41.00	2.0
TOUF	88.12	314	P	43 39.83	0.2
LSD	88.12	315	P	43 40.28	0.6
MVIF	88.19	314	P	43 40.18	0.3
PZZ	88.20	314	P	43 38.63	−1.3
EMS	88.25	316	iPd	43 40.90	0.7
LOMF	88.26	317	P	43 39.83	−0.2
BSF	88.26	318	P	43 39.92	−0.2
CALN	88.39	314	P	43 41.52	0.7
LPG	88.40	315	eP	43 41.50	0.4
	0.8s	279.40nm			6.5mb
RRL	88.40	315	P	43 40.88	−0.1
SURF	88.41	314	P	43 41.82	0.8
LPL	88.41	315	eP	43 41.50	0.5
	0.9s	297.45nm			6.5mb
KLL	88.43	320	ePd	43 41.30	0.6
BNI	88.48	315	P	43 41.40	0.2
HAU	88.55	318	iPd	43 41.40	0.0
	0.8s	174.10nm			6.3mb
Z	22s	0.60um			5.0Msz
FRF	88.57	313	iPd	43 42.20	0.7
	0.6s	92.00nm			6.2mb
WLF	88.59	319	iPc	43 43.14	1.7
			i	43 45.89	9kmX
MEM	88.63	320	iPd	43 42.39	0.8
			id	43 45.19	9kmX
ENN	88.67	321	eP	43 42.50	0.7
	1.0s	230.00nm			6.4mb
LMR	88.68	313	iPd	43 42.60	0.6
	0.9s	89.75nm			6.0mb
SBA	88.73	169	iPc	43 43.00	1.4
VITF	88.78	318	P	43 42.63	0.2
LRG	88.79	313	iPd	43 43.30	0.8
	0.9s	189.35nm			6.3mb
Z	23s	1.00um			5.2MszX
GRN	89.12	315	P	43 44.82	0.6
DOU	89.57	320	Pc	43 43.20	−2.9
	1.0s	175.00nm			6.3mb
			i	43 49.80	21kmX
			S	54 37.00	
			e	55 06.00	
UCC	89.66	321	Pc	43 50.20	3.7X
SNF	89.73	320	iPd	43 47.67	0.9
LBF	90.22	317	iPd	43 49.80	0.5
	1.1s	212.95nm			6.3mb
LOR	90.28	317	iPd	43 50.00	0.5
	1.0s	355.20nm			6.6mb
Z	23s	0.73um			5.0MszX
SMF	90.34	317	iPd	43 50.30	0.5
	0.7s	147.30nm			6.4mb
SSF	90.54	317	iPd	43 51.30	0.7
	1.0s	144.40nm			6.2mb
COLF	90.54	315	P	43 51.52	0.8
AVF	90.67	317	iPd	43 51.90	0.7
	1.0s	214.40nm			6.4mb
BGF	91.03	317	eP	43 54.00	1.0
	1.0s	215.20nm			6.5mb
MAF	91.26	316	iPd	43 55.00	1.0
	0.8s	83.55nm			6.2mb
PERF	91.41	312	P	43 55.48	0.7
ETER	91.44	312	iPd	43 55.96	1.1
TCF	91.50	316	eP	43 56.20	1.1
	1.0s	132.80nm			6.3mb
NVL	91.56	199	iPd	43 57.60	2.8
	1.8s	453.00nm			6.6mb
Z	18s	2.00um			5.6Msz
N	18s	1.60um			
E	18s	1.50um			
			e	44 06.00	26kmX
			e	44 12.00	
			e	44 34.00	
			ePP	47 15.00	
			e	54 13.00	
			e	54 46.00	
			e	55 13.00	
MTHF	91.62	313	P	43 57.00	1.3
ESEL	91.65	310	iPd	43 57.45	1.5
CAF	91.75	315	eP	43 57.50	1.2
	1.1s	138.70nm			6.3mb
VDCF	91.77	313	P	43 57.43	0.9

LSF	91.97	316	iPd	43 58.10	0.8
	0.9s	140.20nm			6.4mb
BRW	92.01	18	iPc	43 58.40	1.4
LSPF	92.07	313	P	43 59.06	1.2
TRGS	92.08	313	P	43 59.53	1.5
RJF	92.09	315	iPd	43 59.20	1.4
	1.0s	133.60nm			6.3mb
Z	21s	1.05um			5.3Msz
GRBF	92.35	313	P	43 59.88	0.7
PAND	92.38	313	P	44 00.66	1.2
LPO	92.39	315	iPd	44 00.70	1.5
	0.9s	232.60nm			6.6mb
LESF	92.52	313	P	44 00.82	1.0
SALF	92.62	313	P	44 00.80	0.4
LFF	92.68	315	iPd	44 02.00	1.5
	0.8s	100.20nm			6.3mb
LDF	92.79	319	iPd	44 01.70	0.7
	0.9s	172.95nm			6.5mb
DAG	92.82	348	iPd	43 59.90	−0.7
	0.8s	97.01nm			6.3mb
CWF	92.93	323	eP	44 02.50	1.0
FLN	93.00	319	eP	44 02.60	0.7
	0.9s	139.55nm			6.4mb
Z	20s	0.55um			5.0Msz
MFF	93.08	317	iPd	44 03.20	0.9
	0.9s	207.05nm			6.6mb
ESY	93.15	326	eP	44 05.30	2.8
EPF	93.20	313	iPd	44 03.60	0.5
	0.6s	19.55nm			5.7mb
KWE	93.20	323	eP	44 04.00	1.2
ENSF	93.24	313	P	44 04.91	1.6
GRR	93.31	319	eP	44 04.10	0.8
	1.1s	114.30nm			6.2mb
EBR	93.37	311	iPc	44 05.20	1.4
			eS	55 08.00	
EROQ	93.43	311	iPd	44 05.60	1.5
EDI	93.47	326	ePc	44 07.00	3.1X
	1.0s	137.00nm			6.3mb
LPF	93.48	318	iPd	44 05.20	1.1
	0.9s	111.70nm			6.3mb
EKA	93.56	326	Pd	44 05.20	0.8
	0.7s	99.40nm			6.4mb
EBH	93.58	327	ePc	44 07.50	3.0X
ESK	93.59	326	eP	44 05.50	1.0
	0.8s	150.00nm			6.5mb
EAU	93.63	326	ePc	44 08.60	3.9X
ELO	93.65	327	eP	44 07.40	2.6
EGRA	93.79	312	iPd	44 04.69	−1.0
EAB	94.05	327	ePc	44 09.70	3.1X
	1.1s	64.00nm			6.0mb
SDN	94.16	34	eP	44 07.20	0.1
	0.8s	753.10nm			7.2mb
ELIZ	94.54	314	iPc	44 10.36	1.2
IMA	94.63	23	eP	44 10.20	0.9
ECHE	94.63	310	iPd	44 11.62	1.9
ETOR	95.28	311	iPd	44 13.60	0.9
ECRI	95.34	313	iPd	44 14.57	1.6
ETA	95.86	324	iPd	44 18.70	3.7X
DLF	95.92	324	eP	44 16.50	1.3
	0.8s	134.00nm			6.5mb
EVIA	95.95	309	iPd	44 16.92	1.0
ENIJ	95.97	307	eP	44 15.78	−0.1
DMU	96.00	325	eP	44 18.70	3.1X
	0.8s	95.00nm			6.4mb
ECP	96.08	323	eP	44 19.40	3.5X
	0.8s	269.00nm			6.8mb
EHUE	96.15	308	iPd	44 17.67	0.9
DCN	96.34	324	eP	44 19.30	2.2
	0.9s	115.00nm			6.4mb
BGL	96.73	27	eP	44 18.79	−0.1
CP2	96.80	27	eP	44 19.81	0.5
			epP	44 41.27	78kmX
CRP	96.83	27	eP	44 17.30	−2.2
			(pP)	44 42.26	92kmX
GUD	96.88	311	iPd	44 21.47	1.4
ECOG	97.00	308	iPd	44 20.54	−0.1
EBAN	97.02	309	iPc	44 21.68	1.1
EGUA	97.07	308	iPd	44 21.52	0.7
FBA	97.35	23	eP	44 20.87	−0.6
	1.0s	15.88nm			5.5mb
AKU	97.47	338	iP	44 25.90	3.9X
	1.0s	32.00nm			5.8mb
			i	48 22.00	
SLKM	97.98	28	ePc	44 23.14	−1.3
PMS	98.02	27	eP	44 25.10	0.5
	0.9s	106.90nm			6.4mb
PMR	98.08	26	eP	44 24.08	−0.7

	1.0s	73.46nm			6.2mb
Z	22s	1.99um			5.6Msz
			epP	44 47.56	86kmX
EHOR	98.22	309	eP	44 26.20	0.3
EPRU	98.36	308	iPd	44 26.94	0.3
EPLA	98.44	311	iPd	44 27.99	1.1
EJIF	98.64	307	eP	44 28.00	0.1
ERUA	98.75	314	eP	44 29.44	1.2
IFR	98.88	304	eP	44 31.00	1.7
			i	44 32.00	3kmX
TOA	99.16	25	eP	44 31.20	1.4
EVAL	99.43	309	iPd	44 32.15	0.7
KLU	99.53	26	eP	44 29.95	−1.6
			e	44 38.35	26kmX
AVE	100.80	305	ePdiff	44 38.00	0.3
BALM	101.28	25	ePdiff	44 39.17	−0.2
KIC	101.93	277	Pdiff	44 43.30	0.1
			e	48 54.00	
TIC	102.18	277	Pdiff	44 44.30	0.0
			e	48 12.00	
			e	48 57.00	
HON	102.20	68	Pdiff	44 50.00	5.8X
Z	19s	2.26um			5.7Msz
LIC	102.22	277	Pdiff	44 44.20	−0.3
			e	48 57.00	
SIT	106.44	27	PKP	49 20.00	6.9X
Z	20s	1.84um			5.6Msz
YKA	110.11	15	ePdiff	45 18.20	−0.3
	0.7s	2.30nm			
PPN	112.80	108	iPKPd	49 32.70	6.4X
TVO	112.96	108	iPKPd	49 32.90	6.2X
PMO	114.44	105	iPKPd	49 30.40	0.8
	1.1s	80.10nm			
VAH	114.68	105	iPKPd	49 30.60	0.6
	1.2s	86.90nm			
TPT	114.71	105	iPKPd	49 30.90	0.8
	1.0s	72.40nm			
RUV	114.92	105	iPKPd	49 31.10	0.6
	1.0s	56.80nm			
OOW	117.52	31	PKP	49 36.78	2.1
FCC	117.58	7	ePKP	49 36.50	2.2
CMW	118.08	29	PKP	49 36.01	0.3
HDW	118.15	30	PKP	49 36.89	1.0
JCW	118.33	29	PKP	49 36.77	0.6
GMW	118.35	30	iPKPc	49 37.03	0.8
BLH	118.53	29	PKP	49 36.95	0.5
CPW	118.56	31	PKPd	49 37.45	0.8
RMW	118.90	29	ePKP	49 37.27	0.0
			ePKKP359	47.08	
			ePKKP259	51.23	
GSM	119.08	30	PKP	49 37.87	0.2
NLW	119.17	28	PKP	49 37.69	−0.2
LMW	119.20	30	PKP	49 38.52	0.6
CZM	119.25	31	PKP	49 38.82	0.9
FMW	119.33	30	PKPd	49 38.45	0.1
LON	119.39	30	ePKP	49 37.97	−0.3
			PP	51 12.44	
			SP	00 33.81	
ERK	119.42	31	PKP	49 39.00	0.6
FL2	119.49	31	PKP	49 39.87	1.3
DHW2	119.51	28	PKP	49 38.12	−0.3
CBSW	119.51	28	PKP	49 38.21	−0.3
ETW	119.51	29	PKP	49 38.31	−0.2
SHW	119.55	31	ePKP	49 39.79	1.1
			eSKKP	03 30.43	
WPW	119.55	30	PKPd	49 39.03	0.4
REMW	119.57	31	PKP	49 40.29	1.5
GLK	119.61	30	PKP	49 38.99	0.2
WTV	119.63	28	PKPd	49 38.41	−0.3
MTMW	119.68	31	PKP	49 39.37	0.5
TBM	119.69	29	PKP	49 38.90	0.1
SAW	119.88	28	PKP	49 38.91	−0.2
NAC	119.88	30	PKP	49 39.54	0.4
EBG	119.89	29	PKP	49 39.54	0.4
EPH	120.04	28	PKP	49 39.37	0.0
VLMM	120.09	31	PKP	49 40.21	0.5
BVW	120.29	29	PKP	49 40.19	0.3
DPW	120.31	27	ePKP	49 39.77	−0.2
			e	49 43.04	
			epPKP	50 00.17	
			ePKKP359	44.15	
			ePKKP259	45.86	
VLL	120.33	31	PKP	49 40.84	0.7
GL2	120.43	30	PKP	49 40.67	0.4
OD2	120.43	28	PKP	49 40.19	0.0
BRVW	120.47	29	PKP	49 40.86	0.5
WAH2	120.48	29	PKP	49 40.53	0.3

20d 02h

MDW	120.49	29	PKP	49	40.69	0.4
NEW	120.51	26	ePKP	49	39.60	-0.7
	Z 21s		4.22um			6.1Msz
			epPKP	50	01.84	
			ePKKP	359	43.48	
			ePKKP	259	45.01	
CRF	120.52	29	PKP	49	40.81	0.5
LOCW	120.58	29	PKP	49	40.86	0.5
GBL	120.65	29	PKP	49	41.10	0.6
OT2	120.67	29	PKP	49	41.12	0.5
RSW	120.73	29	PKP	49	41.49	0.7
VGB	120.76	31	ePKP	49	41.32	0.5
PRW	120.81	29	PKP	49	41.88	1.0
WIW	120.85	29	PKP	49	41.74	0.8
SES	121.25	21	iPKPd	49	40.90	-0.7
	1.1s		48.00nm			
VIPM	121.53	31	PKP	49	43.29	0.7
LNOR	121.74	29	PKP	49	42.76	0.0
WDC	123.08	36	PKP	50	00.00	14.6X
	Z 21s		4.51um			6.1Msz
LMEM	123.67	35	ePKP	49	47.72	0.9
ORV	124.35	36	ePKP	49	40.54	-7.4X
ORV	124.35	36	ePKP	49	45.97	-2.0
			pP	50	09.14	
NTYM	124.39	38	ePKP	49	47.60	-0.4
			epPKP	50	08.88	
LCCM	124.65	25	ePKP	49	48.60	0.1
			e	50	09.00	
ULM	125.56	11	ePKPc	49	52.60	2.7
COE	125.71	38	ePKP	49	48.22	-2.4
COE	125.71	38	ePKP	49	51.68	1.0
			epPKP	50	12.39	
ARN	125.74	38	ePKP	49	51.43	0.7
			epPKP	50	11.07	
CMB	126.00	37	iPKP	49	51.68	0.4
	Z 18s		1.17um			5.6Msz
			ipPKP	50	12.83	
HHAI	126.45	27	ePKP	49	53.34	1.3
			epPKP	50	13.34	
KVN	126.65	35	ePKP	49	53.53	0.9
			epPKP	50	13.53	
PTI	126.78	27	ePKP	49	53.65	0.9
			epPKP	50	14.15	
MEMM	127.10	36	ePKP	49	53.18	-0.1
BONR	127.28	36	ePKP	49	54.25	0.2
			eSKKP	02	57.54	
MRCM	127.35	36	ePKPc	49	55.56	1.5
			epPKP	50	15.14	
PHAM	127.40	39	PKP	49	58.60	4.7X
PHAM	127.40	39	ePKP	49	55.55	1.6
			epPKP	50	12.80	
			epPKP	50	12.90	
PHAM	127.40	39	ePKP	49	51.20	-2.7
HVU	127.44	28	ePKP	49	53.93	-0.1
			epPKP	50	14.78	
MTUM	127.53	36	ePKP	49	55.29	0.9
			ipPKP	50	14.95	
TNP	127.82	35	ePKP	49	56.00	1.1
			eSKKP	02	58.31	
BCH	128.01	39	ePKP	49	50.86	-4.4X
BCH	128.01	39	iPKP	49	57.03	1.8
			epPKP	50	15.77	
BW06	128.10	25	ePKP	49	53.34	-2.0
			ipPKP	50	17.36	
CBM	128.58	348	ePKP	49	54.41	-1.4
	Z 20s		1.65um			5.7Msz
			epPKP	50	16.20	
DUG	128.64	30	ePKP	49	57.14	0.8
			epPKP	50	17.69	
ISA	128.70	38	ePKP	49	44.88	-11.6X
ISA	128.70	38	ePKP	49	55.41	-1.1
	Z 19s		3.65um			6.1Msz
			e	50	00.43	
			epPKP	50	16.76	
LMN	128.79	344	ePKP	49	59.50	3.3X
RSSD	129.09	20	ePKP	49	56.92	-0.3
	Z 19s		5.58um			6.3Msz
			iSKP	53	11.23	
RSSD	129.09	20	ePKP	49	48.59	-8.6X
DAU	129.22	28	ePKP	49	52.63	-5.1X
DAU	129.22	28	ePKP	49	58.14	0.5
			epPKP	50	20.32	
			iSKP	53	12.15	
			eSKKP	02	54.81	
EMUT	129.90	29	ePKP	49	56.96	-1.9
GSC	129.96	37	ePKP	49	49.34	-9.6X
GSC	129.96	37	ePKP	50	00.45	1.5

			epPKP	50	20.41	
			iSKP	53	14.69	
ARUT	130.12	32	ePKP	49	59.74	0.5
			e	50	03.72	
			epPKP	50	22.58	
			iSKP	53	15.54	
MSU	130.23	31	ePKP	49	59.61	0.1
			iSKP	53	15.27	
			e	53	47.35	
			eSKKP	02	53.17	
EEO	130.34	357	ePKP	50	01.50	2.3
SRU	130.59	29	ePKP	50	01.08	0.9
			epPKP	50	23.37	
			iSKP	53	16.73	
PEC	130.68	39	ePKP	50	02.00	1.7
			iSKP	53	17.10	
			e	53	50.66	
PLM	131.22	39	ePKP	50	01.17	-0.3
			iSKP	53	19.70	
			e	53	52.60	
RSNY	132.01	352	ePKP	50	01.73	-0.7
			ipPKP	50	22.96	
			ePP	52	19.97	
			iSKP	53	21.77	
			i	53	57.34	
GOL	132.41	24	ePKP	50	04.45	0.8
			epPKP	50	24.77	
			iSKP	53	23.92	
GLD	132.43	24	ePKP	50	04.40	0.8
	Z 21s		5.14um			6.2Msz
			iSKP	53	24.40	
			i	54	01.21	
			P'P'	08	10.64	
GLA	132.69	38	ePKP	49	55.50	-8.6X
GLA	132.69	38	ePKP	50	05.72	1.6
			iSKP	53	24.70	
TBR	135.30	351	ePKP	50	09.03	0.3
			epPKP	50	29.39	
			ePP	52	37.58	
			eSKP	53	32.24	
PNJ	135.52	351	PKP	50	06.55	-2.6
GMTN	135.55	351	ePKP	50	09.72	0.5
TUC	135.62	35	ePKP	49	59.24	-10.5X
TUC	135.62	35	ePKP	50	10.83	1.1
	Z 20s		1.84um			5.8Msz
			PP	52	52.58	
			iSKP	53	34.64	
ALQ	135.87	29	PKP	50	20.00	9.7X
	Z 20s		3.56um			6.1Msz
MCWV	137.35	357	PKP	50	20.00	7.3X
	Z 22s		2.86um			6.0Msz
SLM	137.80	9	PKP	50	20.00	6.4X
	Z 19s		1.81um			5.8Msz
BMA	138.20	239	ePKP	50	02.20	-12.6X
			e	50	14.80	
			e	50	35.60	
			e	53	41.90	
FVM	138.40	10	ePKP	50	03.53	-11.2X
	Z 21s		13.55um			6.7Msz
			eSKP	53	41.96	
CBN	138.60	354	PKP	50	16.00	1.0
CVL	138.92	355	ePKP	50	15.87	0.3
			epPKP	50	38.06	
OCO	139.01	19	iPKPd	50	08.10	-7.8X
LNO	139.17	17	ePKP	50	06.50	-9.5X
			e	50	19.80	
			e	50	38.50	
TUL	139.17	17	ePKP	50	06.80	-9.3X
	0.4s		6.10nm			
	Z 20s		17.52um			6.8MszX
			e	50	17.60	
			e	50	39.00	
			e	53	04.00	
			e	53	42.80	
			e	56	14.00	
			e	58	44.00	
			e	59	49.00	
			e	13	17.00	
			LR	44	03.00	
ELC	139.27	8	ePKP	50	07.26	-9.0X
ELC	139.27	8	ePKP	50	17.32	1.0
WMOK	139.28	21	ePKP	50	06.30	-10.1X
	Z 21s		4.63um			6.2Msz
			ePP	53	05.78	
			eSKP	53	46.12	
MEO	139.31	21	iPKPc	50	07.30	-9.2X
NAV	139.72	358	ePKP	50	07.42	-9.7X

			ipPKP	50	39.44	
			ePP	53	07.82	
			eSKP	53	42.13	
BLA	139.81	358	ePKP	50	15.90	-1.4
			epPKP	50	37.79	
			ePP	53	12.10	
VAO	140.46	237	ePKP	50	08.60	-10.3X
			e	50	19.20	
			e	50	38.60	
			e	50	54.30	
			e	53	47.80	
OLY	140.62	12	ePKP	50	11.81	-7.0X
OLY	140.62	12	(PKP)	50	20.59	1.8
CEH	141.05	356	ePKP	50	12.15	-7.4X
	Z 19s		2.46um			6.0Msz
			ePP	53	20.84	
			eSKP	53	49.30	
MIAR	141.06	15	ePKP	50	19.34	-0.2
LPA	141.09	213	ePKP+	50	14.00	-5.6X
			ePP	53	20.00	
UYO	141.18	16	iPKPc	50	13.30	-6.5X
TKL	141.38	2	ePKP	50	20.83	0.7
			epPKP	50	43.55	
			ePP	53	17.95	
			eSKP	53	49.65	
LHS	142.55	358	ePKP	50	17.39	-4.8X
JSC	142.76	358	ePKP	50	18.74	-3.8X
			ePP	53	28.17	
			eSKP	53	52.29	
PRM	142.97	360	ePKP	50	19.41	-3.5X
			ePP	53	28.56	
			eSKP	53	53.19	
BAO	143.96	248	PKPc	50	22.20	-3.1X
			e	50	23.80	
			e	50	24.30	
			e	50	26.90	
			e	50	35.10	
			e	50	45.60	
			e	50	47.00	
			e	51	08.30	
			e	51	19.10	
			e	51	37.00	
			e	52	13.00	
			e	53	58.00	
			e	54	16.00	
			e	54	28.00	
			e	54	47.00	
HBF	144.07	357	ePKP	50	22.98	-1.8
MZX	144.84	41	(PKP)	50	26.05	-0.3
RFA	145.98	201	iPKP	50	28.20	0.1
MRA	146.95	206	e(PKP)	50	30.00	0.4
CACH	147.29	198	iPKP	50	30.07	-0.3
			i	50	31.97	
TCA	147.33	209	iPKP	50	31.00	0.6
CHCH	147.48	198	iPKP	50	29.99	-0.5
			i	50	32.31	
LNV	147.69	197	iPKP	50	29.91	-0.8
			i	50	33.07	
PCH	147.72	199	iPKP	50	30.58	-0.4
			i	50	32.92	
TACH	147.82	198	iPKP	50	30.48	-0.6
			i	50	32.55	
FCH	147.92	199	iPKP	50	31.48	-0.2
			i	50	33.84	
LCCH	148.18	197	iPKP	50	29.79	-1.8
			i	50	34.03	
PEL	148.22	199	iPKP+	50	31.49	-0.3
			i	50	34.13	
AGX	148.40	37	(PKP)	50	39.11	6.9X
ROCH	148.48	198	iPKP	50	31.95	-0.5
			i	50	36.09	
JACH	148.61	199	iPKP	50	32.35	-0.1
			i	50	35.23	
RTCV	148.61	203	ePKPc	50	32.60	0.2
CFA	148.72	204	ePKPc	50	32.20	-0.4
ZON	148.94	203	ePKP	50	31.80	-1.2
RTCB	149.04	203	iPKPc	50	33.60	0.4
RTLL	149.05	204	iPKPd	50	33.00	-0.1
CGX	149.26	42	(PKP)	50	41.93	8.0X
MRX	150.71	38	(PKP)	50	37.85	2.1
PAG	152.05	314	ePKP	50	44.00	6.0X
UNM	152.21	36	(PKP)	50	39.00	0.6
CRM	152.29	310	ePKP	50	38.80	0.6
FSA	152.31	213	ePKPc	50	39.00	1.0
FDF	152.48	311	ePKP	50	39.30	0.7
BIM	152.55	310	ePKP	50	38.30	-0.4
PPM	152.74	35	(PKP)	50	41.31	1.8

```
III    152.78  38 (PKP) 50 50.07   10.9X
ACX    153.66  40 (PKP) 50 46.61    6.5X
YJA    154.99 219 ePKPd 50 43.50    1.1
EVV    155.02  30 (PKP) 50 43.50    1.6
OXX    155.41  35 (PKP) 50 49.46    6.7X
SIV    155.47 237 PKP   50 47.00    4.4X
ANT    156.52 208 ePKP  50 44.00    0.2
CCH    158.70 227 PKP   50 47.40    0.4
                  i     51 23.20
CAR    159.50 312 iPKP  51 06.00   18.3X
CNCB   160.40 225 PKP   50 50.00    0.9
                  i     50 51.10
LPB    160.67 226 iPKPc 50 51.00    1.8
        1.1s    126.58nm
                  LR    46 18.00
ZOBO   160.85 226 ePKPd 50 49.61   -0.1
                  (pP'df51 07.49
                  ePKPab51 32.32
                  e     51 56.99
TOV    162.06 316 ePKP  50 50.90    0.7
ARE    162.99 218 ePKP  50 53.00    1.6
SDV    163.28 316 iPKPc 50 51.80    0.2
NNA    169.65 212 iPKPc 50 57.00    0.7
        0.9s     46.22nm
      Z  18s      0.34um
      S.D. = 1.1  on 659 of 730 obs.
-----------------------------------------
*  JAN  20, 1993  03h 03m 38.75± 0.66s
   32.263 S ±12.2km  178.178 W ±12.0km
   DEPTH =  16.5km  (  4 depth phases)
   5.3mb ( 14 obs.)  5.5Msz (  4 obs.)
 SOUTH OF KERMADEC ISLANDS          (179)
      Mw 5.9 (HRV).
      CENTROID, MOMENT TENSOR      (HRV)
      Data Used: GDSN
      L.P.B.: 16S, 22C
      Centroid Location:
      Origin Time        03:03:41.9 1.2
      Lat 32.77S  FIX;Lon 178.12W  FIX
      Dep  15.0 FIX Half-duration  1.7
      Moment Tensor;    Scale 10**17 Nm
        Mrr= 2.05 0.41  Mtt=-1.16 0.50
        Mff=-0.89 0.35  Mrt= 1.01 0.91
        Mrf= 7.29 0.74  Mtf=-0.26 0.51
       Principal Axes:
        T  Val=  8.06  Plg=51  Azm=276
        N       -1.08      2        9
        P       -6.98     39      101
      Best Double Couple:Mo=7.5*10**17
       NP1:Strike=210 Dip= 6 Slip= 111
       NP2:          9     84       88

RAO      3.01   4 eP    04 24.10   -2.4
                  eS    04 56.00
DZM    17.02 303 iPd   07 45.00    7.4X
BRS    25.62 273 iPc   09 14.50    5.4X
        0.7s      4.00nm          4.2mb X
                  i     09 19.00   16km
ARMA   25.82 266 eP    09 14.80    3.9X
        0.8s     23.00nm          4.9mb
CNB    27.08 255 eP    09 26.30    3.8X
        0.6s     11.00nm          4.7mb
                  e     12 46.80
CAN    27.38 255 eP    09 25.20    0.0
                  e     09 40.40   63kmX
TAU    29.15 239 eP    09 41.00    0.0
RMQ    29.31 273 eP    09 44.70    2.0
        0.4s     15.00nm          5.1mb
TOO    30.13 250 eP    09 49.00   -0.9
        0.8s     28.00nm          5.1mb
                  e     12 53.50
BFD    32.49 250 eP    10 11.10    0.5
        1.0s     26.00nm          5.1mb
STK    33.95 260 eP    10 27.10    3.7X
        0.8s      7.80nm          4.7mb
CTA    33.99 282 iPc   10 25.00    1.2
        1.0s     40.00nm          5.3mb
                  i     10 29.00   14km
                  iS    16 00.00
ASPA   42.89 269 eP    11 37.30   -0.9
        0.6s     67.00nm          5.5mb
      Z  20s      5.30um          5.4Msz
                  eS    18 00.60
WB2    44.04 274 iPc   11 46.20   -1.3
        0.4s    144.60nm          6.2mb
                  i     11 49.30   10km
                  i     12 01.50
                  iScP  17 30.40
                  eS    18 17.90
WRA    44.05 274 P     11 46.80   -0.8
        0.5s     20.20nm          5.2mb
FORT   45.45 257 eP    11 57.00   -1.7
        0.5s     46.00nm          5.7mb
WARB   48.10 262 eP    12 18.00   -1.7
MTN    50.15 281 eP    12 36.60    1.1
SPA    57.91 180 iPc   13 30.40   -1.7
        0.8s     54.17nm          5.6mb
NVL    77.01 183 eP    15 33.00    1.2
        1.8s     60.00nm          5.4mb
      Z  20s      2.70um          5.6Msz
      N  20s      1.60um
      E  16s      1.50um
                  e     15 46.00   44kmX
                  e     17 22.00
                  eS    25 22.00
MAT    79.68 326 (P)   15 48.00    1.1
PEL    85.67 127 eP+   16 17.50   -0.6
NJ2    87.34 311 Pd    16 27.00    1.0
      Z  20s      0.89um          5.2Msz
MDJ    90.07 326 eP    16 46.70    8.0X
CN2    91.53 323 eP    16 48.00    2.6X
        1.0s     14.00nm          5.3mb
      Z  24s      1.31um          5.3MszX
                  eS    27 50.00
BJI    94.14 315 eP    17 01.00    3.5X
      Z  26s      0.93um          5.1MszX
                  eSKS  27 28.00
                  eS    28 10.00
ALQ    94.85  52 eP    17 02.10    0.9
                  pP    17 10.50   26km
TIY    94.99 312 eP    17 03.40    1.8
FBA    99.71  13 (P)   17 30.00    7.7X
KAF   146.24 339 ePKP  23 17.30   -0.7
        0.6s     17.30nm
OBN   146.58 323 iPKPc+23 20.00    1.3
        2.0s    272.00nm
OBN   146.58 323 iPKP  23 27.50    8.8X
        2.0s    400.00nm
      Z  20s      1.20um          5.7Msz
                  i     23 48.00
                  i     23 55.00
                  i     24 17.00
                  i     24 28.50
                  e     25 08.00
                  ePP   27 11.00
                  e     29 36.00
                  e     32 48.00
                  i     36 12.00
                  e     39 08.00
                  e     43 06.00
                  eSS   46 32.00
                  eSSS  51 32.00
NUR   148.00 339 ePKP  23 21.50    0.7
        0.7s     30.90nm
BCAO  148.19 213 iPKPc 23 26.00    3.4X
        0.7s     29.00nm
                  id    23 53.00
UPP   150.46 344 iPKP  23 31.50    6.9X
SVST  150.76 295 ePKP  23 33.50    7.5X
NAO   150.82 351 PKP   23 31.70    6.5X
        0.7s      6.50nm
TRHT  151.30 296 ePKP  23 31.70    5.0X
HMDT  151.57 279 ePKP  23 34.20    7.0X
MMR   151.76 281 ePKP  23 34.90    7.2X
CTK   152.29 297 ePKP  23 36.00    7.8X
KAS   152.98 299 ePKP  23 39.00    9.9X
LIC   153.32 165 PKP   23 36.00    5.8X
                  e     23 50.00
KIC   153.51 165 PKP   23 36.00    5.5X
                  e     23 50.00
CSS   153.68 285 ePKP  23 39.40    9.2X
BBTK  153.96 296 ePKP  23 38.00    7.4X
SKO   161.63 307 ePKP  23 43.00    3.6X
                  i     24 37.50
      S.D. = 1.4  on  23 of  47 obs.
-----------------------------------------
%  JAN  20, 1993  03h 34m 11.23± 3.38s
   44.850 N ±23.3km    2.937 E ±20.9km
   DEPTH =  10.0km  (geophysicist)
 FRANCE                              (538)
      ML 2.5 (LDG).

CAF      0.62 277 Pg    34 23.20   -0.6
                  Sg    34 32.20
RJF      1.10 295 Pg    34 32.30    0.3
                  Sg    34 47.70
LPO      1.26 263 Pg    34 35.60    1.0
                  Sg    34 51.50
MAF      1.40 349 Pg    34 37.70    1.0
                  Sg    34 56.60
TCF      1.53 341 Pn    34 38.40   -0.2
                  Pg    34 40.40
                  Sg    35 00.80
LFF      1.56 274 Pn    34 38.30   -0.8
                  Pg    34 41.60
                  Sg    35 01.70
BGF      1.71 358 Pg    34 43.80    2.6X
                  Sg    35 05.90
LSF      1.71 325 Pn    34 40.90   -0.4
                  Sn    35 03.20
                  Sg    35 06.30
SMF      1.90  19 Pn    34 46.80    2.8X
                  Sg    35 11.40
AVF      1.96   8 Pn    34 44.50   -0.4
                  Pg    34 47.80
                  Sg    35 12.70
SSF      2.25  10 Pg    34 52.80    3.8X
                  Sg    35 21.50
LBF      2.25  18 Pg    34 52.60    3.4X
                  Sg    35 21.10
LOR      2.50  15 Pg    34 58.00    5.4X
                  Sg    35 28.40
EPF      2.61 227 Pg    34 58.40    4.1X
                  Sn    35 23.30
                  Sg    35 34.50
      S.D. = 0.8  on   8 of  14 obs.
-----------------------------------------
   JAN  20, 1993  04h 00m 58.43± 0.41s
   38.076 N ± 3.7km   26.998 E ± 4.1km
   DEPTH =   9.7 ±  2.2 km
 AEGEAN SEA                          (365)
      ML 4.1 (ISK). MD 3.9 (ATH). Felt
      at Izmir, Turkey.

PRK      1.30 334 ePn   01 22.50    0.0
BNT      2.39  17 ePn   01 38.80    0.6
KCT      2.41  26 eP    01 38.30   -0.3
ATH      2.59 269 ePn   01 40.60   -0.6
KSL      2.84 133 ePn   01 45.00    0.3
ALN      2.91 346 ePn   01 45.50   -0.2
                  eSn   02 32.86
NPS      3.02 202 ePn   01 48.50    1.3
PAIG     3.18 307 ePn   01 50.22    0.8
                  eSn   02 41.46
OUR      3.25 315 iPn   01 50.25   -0.2
                  iSn   02 44.98
CTT      3.26  19 ePn   01 51.30    0.7
GBZT     3.31  34 ePn   01 59.40    8.1X
                  iSg   02 47.20
EYL      3.49  44 ePn   01 59.80    5.8X
VLI      3.51 248 ePn   01 53.00   -1.1
KDZ      3.77 342 iPc   01 58.00    0.1
AGG      3.78 286 iPn   01 57.74   -0.3
SOH      3.93 315 ePn   01 59.70   -0.5
RZN      4.01 335 iPc   02 01.00   -0.4
SRS      4.02 320 ePn   02 01.18   -0.2
LIT      4.05 301 ePn   02 01.62   -0.2
DIM      4.13 345 iPc   02 02.00   -0.8
PLD      4.39 337 iPc   02 07.00    0.3
KNT      4.42 316 ePn   02 07.26    0.2
GRG      4.57 310 ePn   02 09.42    0.1
VAY      4.71 315 iPn   02 12.90    1.7
PPCY     5.36 125 eP    02 23.80    3.4X
VTS      5.36 328 iP    02 20.00   -0.6
OHR      5.67 304 ePn   02 21.00   -3.8X
SKO      5.77 314 ePn   02 26.50    0.3
CSS      5.97 119 eP    02 28.00   -1.0
MLR      7.45 354 eP    02 49.00   -0.9
                  e     24 52.00
CVO      7.76 356 eP    02 54.50    0.3
      S.D. = 0.7  on  27 of  31 obs.
-----------------------------------------
   JAN  20, 1993  04h 08m 26.57± 0.18s
    8.318 S ± 3.5km  121.377 E ± 5.2km
   DEPTH =  33.0km  (normal)
   5.8mb ( 77 obs.)  5.3Msz ( 21 obs.)
 FLORES REGION, INDONESIA            (286)
      Mw 5.8 (HRV).
      CENTROID, MOMENT TENSOR      (HRV)
      Data Used: GDSN
      L.P.B.: 32S, 62C
```

20d 04h

```
      Centroid Location:
      Origin Time        04:08:36.4 0.4
      Lat  7.79S 0.03 Lon 121.72E 0.05
      Dep  58.4 3.5 Half-duration  1.9
      Moment Tensor;   Scale 10**17 Nm
        Mrr= 3.05 0.33  Mtt=-6.36 0.33
        Mff= 3.31 0.59  Mrt=-1.44 0.43
        Mrf=-1.00 0.31  Mtf=-3.24 0.32
       Principal Axes:
        T  Val=  4.53  Plg=24  Azm= 77
        N        3.08      65      233
        P       -7.61       9      343
      Best Double Couple:Mo=6.1*10**17
       NP1:Strike=117 Dip=67 Slip= 169
       NP2:        212     80       23

KHKI    5.71 269 ePc    09 50.80  -0.5
                eS      11 09.00
PCI     7.52 348 ePc    10 21.60   4.8X
MTN    10.59 116 eP     10 57.00  -2.2
                eS      12 54.00
TSM    13.01 344 eP     11 33.50   1.7
KKM    15.17 340 ePd    12 02.60   2.4
NANU   15.24 201 iPd    11 59.00  -2.0
DAV    15.87  15 ePc    12 11.60   2.4
WRA    17.06 134 P      12 16.10  -8.2X
WB2    17.07 134 iPd    12 19.90  -4.5X
                eS      15 21.50
PPR    18.17 352 iPc    12 41.00   2.9
MEEK   18.41 188 eP     12 40.00  -1.0
       0.4s    65.00nm          5.2mb
                eS      15 54.00
WARB   18.46 165 eP     12 41.30  -0.4
ASPA   19.41 143 iPc    12 52.30  -0.9
       0.6s   397.00nm          5.9mb
     Z  17s    34.40um          5.4Msz
                eS      16 16.70
PLP    19.68  11 iPd    12 57.00   0.9
KGM    20.73 299 ePd    13 09.40   2.4
       0.9s   369.40nm          5.8mb
MRWA   21.40 193 eP     13 14.00   0.3
TGY    22.28 359 eP     13 23.00   0.4
COOL   22.45 181 iPc    13 23.90  -0.3
       0.7s   173.00nm          5.6mb
BAL    22.60 191 eP     13 26.00   0.3
       0.5s   185.00nm          5.8mb
                eS      17 30.00
QCP    22.81 359 eP     13 32.00   4.2X
FORT   23.20 165 eP     13 32.00   0.5
KLB    23.40 188 iPc    13 34.30   0.8
       0.4s    49.00nm          5.4mb
                eS      17 46.00
IPM    24.00 302 ePd    13 41.10   1.6
       1.1s   648.10nm          6.1mb
MUN    24.03 191 iPc    13 40.20   0.7
       0.9s   274.00nm          5.8mb
     Z  18s    16.00um          5.5Msz
     N  18s     9.70um
     E  18s     9.70um
                eS      18 02.00
MDG    24.42  84 eP     13 43.00  -0.5
BAG    24.58 358 ePd    13 45.10  -0.1
       1.2s    62.50nm          5.1mb
PMG    25.50  94 eP     13 53.00  -0.8
SNG    25.79 306 eP     13 58.10   1.6
       1.4s   465.12nm          5.9mb
                eS      18 24.10
RKG    26.43 188 eP     14 03.50   1.2
PIP    26.48 358 eP     14 03.00   0.2
CTA    26.76 119 iPc+   14 05.50   0.1
       1.0s   115.00nm          5.5mb
                i       14 28.00 102kmX
                i       14 42.00
                eS      18 45.00
OLP    28.29 133 eP     14 19.20   0.0
       0.7s    35.00nm          5.2mb
                e       14 46.00 125kmX
QIZ    29.46 337 Pd     14 30.80   1.0
       1.0s   110.00nm          5.6mb
     N  14s     2.32um
     E  14s     2.34um
                iS      19 24.50
STK    30.05 144 iPc    14 34.90  -0.1
       0.6s    77.00nm          5.7mb
ADE    30.92 152 iPc    14 43.20   0.5
NST    31.80 319 eP     15 01.00  10.6X
GUA    31.90  47 eP     15 00.20   8.8X
PJG    31.90  47 eP     14 59.20   7.8X
LOE    32.10 323 eP     14 54.00   0.9
GZH    32.19 346 P      14 56.00   2.2
     Z  36s     7.69um          5.1MszX
     E  13s     1.70um
                S       20 04.00
KHT    32.21 315 iPd    14 56.00   1.9
CMS    32.40 139 iPc    14 55.80   0.2
QZH    33.17 355 eP     15 03.00   0.7
     Z  20s     3.49um          5.1Msz
BFD    34.55 149 iPc    15 14.60   0.4
       1.1s    84.00nm          5.6mb
CHG    34.88 321 ePc    15 18.40   1.2
       1.2s   246.09nm          6.0mb
                eS      20 46.40
BRS    35.23 127 iPc    15 14.80  -5.4X
BRS    35.23 127 iPd    15 21.00   0.8
       1.0s    82.00nm          5.6mb
ARMA   35.82 132 iPc    15 27.00   1.7
       0.8s    66.00nm          5.6mb
                i       15 45.80  77kmX
CAN    36.89 141 iPKPc  15 35.10   1.0
                i       17 55.30
CNB    37.12 141 iPd    15 36.80   0.7
       1.1s   153.00nm          5.8mb
                e       17 02.20 449kmX
GYA    37.40 338 iPd    15 40.00   1.4
       1.0s    67.00nm          5.5mb
     Z  16s     2.29um          5.1MszX
     N  14s     2.38um
     E  14s     2.74um
                pP      15 50.00  34kmX
                ScS     25 48.00
KMI    37.87 332 iPd    15 45.50   2.8
       1.5s   430.00nm          6.1mb
     Z  16s     6.40um          5.5MszX
     N  15s     3.90um
     E  15s     2.90um
                S       21 37.00
SSE    39.19 360 Pc     15 54.50   1.2
       1.0s    85.00nm          5.5mb
     Z  20s     3.20um          5.1Msz
     N  16s     1.50um
     E  16s     1.60um
WHN    39.22 350 iPd    15 56.00   2.4
       1.0s   210.00nm          5.9mb
     Z  18s     4.22um          5.3Msz
     N  16s     1.15um
     E  16s     1.01um
                S       21 56.00
NJ2    40.21 357 Pc     16 03.50   1.8
       1.0s   150.00nm          5.7mb
     Z  18s     1.76um          5.0Msz
     N  12s     1.47um
                sP      16 17.00
                iS      22 08.00
TAU    41.30 151 eP     16 12.00   1.5
CD2    42.51 337 iPc    16 21.30   0.6
       1.0s   390.00nm          6.1mb
     Z  18s     3.66um          5.3Msz
     E  14s     3.82um
                S       22 40.00
XAN    43.75 345 Pc     16 31.00   0.3
       1.0s    75.00nm          5.4mb
     Z  32s     5.43um          5.3MszX
     N  13s     1.19um
     E  14s     3.10um
                pP      16 42.00  39kmX
                sP      16 47.50
                PP      18 10.00
                PcS     22 10.00
                S       22 59.00
                SS      26 06.00
                ScS     26 20.00
TIA    44.47 355 Pd     16 36.90   0.4
     Z  24s     4.26um          5.3MszX
                S       23 10.00
DZM    45.41 113 iPc    16 44.50   0.1
IIDJ   46.27  19 P      16 57.50   6.6X
TIY    46.55 350 Pc     16 53.30   0.3
     Z  24s     3.51um          5.2MszX
     N  13s     1.33um
                S       23 41.00
DL2    46.98   0 eP     17 00.00   3.7X
     Z  20s     1.23um          4.9Msz
     N  14s     2.24um
     E  15s     1.06um
                S       23 45.00
LZH    47.15 341 iPc    16 59.00   1.0
       1.6s   340.00nm          6.1mb
     Z  26s     3.53um          5.2MszX
     N  14s     1.54um
                pP      17 10.00  38kmX
                sP      17 16.50
                PP      18 50.00
                S       23 50.00
                sS      24 10.00
                ScS     26 47.50
                SS      27 14.00
MTMJ   47.26  18 P      16 57.80  -0.9
MAT    47.34  18 iPc    16 57.40  -1.9
       1.5s   125.00nm          5.7mb
                eS      23 36.00
LSA    47.69 324 P      17 03.50   0.8
       1.0s   190.00nm          6.1mb
                S       23 58.00
BJI    48.35 355 eP     17 07.00   0.0
       1.2s   150.00nm          5.9mb
     Z  24s     2.90um          5.2MszX
                eS      24 00.00
GBA    48.76 296 Pc     17 08.00  -2.5
HYB    49.44 301 ePc    17 13.50  -2.4
       1.3s   130.00nm          5.8mb
                i       17 30.50  67kmX
                eS      24 16.00
HHC    49.75 350 P      17 18.00   0.0
       1.4s   180.00nm          5.9mb
     Z  24s     2.96um          5.2MszX
     N  14s     1.28um
     E  16s     1.42um
                sP      17 32.00
                PP      19 10.00
                S       24 24.00
                sS      24 41.00
                SS      27 59.00
GUN    49.75 318 P      17 17.96  -0.5
       0.8s  1046.00nm          6.9mb X
BTO    49.79 349 P      17 17.50  -0.8
       1.4s   100.00nm          5.7mb
     N  14s     1.12um
     E  14s     1.28um
                PP      19 11.00
                S       24 24.00
                eSS     27 52.00
PKI    49.85 317 P      17 18.14  -1.1
       0.9s   332.00nm          6.4mb
SNY    49.94   2 Pc     17 17.80  -1.4
       1.2s    65.00nm          5.5mb
     Z  22s     3.01um          5.3Msz
     N  17s     2.02um
                S       24 24.00
DMN    50.08 317 P      17 20.40  -0.5
       0.9s   614.00nm          6.6mb
KKN    50.07 317 P      17 19.94  -0.9
       0.9s   552.00nm          6.6mb
GKN    50.65 317 P      17 24.10  -1.0
       0.9s   546.00nm          6.6mb
OFUJ   50.79  20 P      17 25.50  -0.2
GTA    51.53 339 P      17 31.50  -0.1
       1.5s   270.00nm          6.0mb
     E  17s     2.30um
                pP      17 36.50  17kmX
                S       24 44.00
CN2    52.00   4 eP     17 33.00  -1.9
       1.0s    21.00nm          5.1mb
     Z  16s     2.06um          5.3MszX
     N  15s     1.34um
     E  15s     0.38um
MDJ    53.21   7 Pc     17 42.80  -1.1
       1.0s    46.00nm          5.4mb
POO    53.94 300 iPd    17 50.50   0.8
KUSJ   55.41  21 eP     17 59.30  -0.7
ASAJ   55.63  18 eP     18 00.60  -1.0
NDI    56.28 313 iPc    18 04.00  -2.5
                eS      25 47.00
MRW    57.31 134 P      18 13.00  -0.7
YSS    58.27  17 eP     18 18.80  -1.5
                e       18 35.50  63kmX
CSY    58.37 185 eP     18 20.30  -0.4
       0.6s    33.50nm          5.6mb
KUR    58.39  22 eP     18 20.00  -1.1
       1.0s   370.00nm          6.4mb
                eS      26 21.00
DRV    59.64 172 iP     18 30.50   1.0
```

```
WMO     60.20 332 P      18 33.20  -0.6
        1.0s    81.00nm          5.8mb
                pP       18 39.20  20kmX
                sP       18 45.50
CIT     60.45 354 eP     18 35.00  -0.3
ZAK     60.54 347 iPc    18 35.00  -0.8
        1.2s   186.00nm          6.1mb
                eS       26 50.00
                eSSS     33 20.00
IRK     62.10 348 eP     18 45.00  -1.4
        1.4s   300.00nm          6.2mb
                e        18 53.50
                epP      19 00.00  55kmX
                e        19 23.50
                iS       27 10.00
                e        28 33.00
                eSS      31 14.00
MOY     62.29 346 ePc    18 47.10  -0.5
        1.2s   288.00nm          6.3mb
                eS       27 14.20
KSH     63.45 322 P      18 55.50  -0.2
        1.0s    50.00nm          5.6mb
      Z  22s     5.05um          5.7Msz
      N  22s     3.34um
      E  24s     4.06um
                pP       19 06.00  34kmX
                sP       19 11.00
                PcP      19 30.00
                ScP      23 28.00
                S        27 25.00
                sS       27 42.00
                ScS      28 41.00
                eSS      31 31.00
PRZ     63.97 326 eP     19 06.00   6.9X
                eS       27 30.00
QUE     64.75 309 eP     19 01.50  -3.0X
FRU     66.34 324 eP     19 08.00  -6.3X
      Z  24s     4.20um          5.6MszX
                e        19 39.00 126kmX
                e        21 35.00
                e        28 04.00
ELT     68.19 338 iPc    19 23.80  -1.8
        1.2s   145.00nm          5.9mb
                e        21 52.00 794kmX
                e        23 39.00
                iS       28 21.00
                e        29 19.00
PET     68.82  23 eP     19 30.00   0.4
        1.2s    80.00nm          5.7mb
                e        19 44.00  49kmX
                eS       28 32.00
YAK     70.42   4 iPc    19 38.00  -1.2
        1.0s    30.00nm          5.3mb
                e        19 59.00  80kmX
                eS       28 48.00
                e        29 36.00
MAW     70.68 200 iPd    19 42.90   2.2
        1.1s   195.65nm          6.1mb
MGD     72.09  15 ePc+   19 49.00  -0.3
        1.2s    20.00nm          5.0mb
                i        20 03.00  49kmX
                iS       29 11.00
                e        29 43.00
MAIO    73.02 312 eP     19 54.00  -1.4
ASH     74.52 313 eP     20 14.50  10.5X
BRVK    74.90 331 iPc    20 04.00  -1.8
        1.3s   162.00nm          5.9mb
                eS       29 37.00
KAT     76.52 314 eP     20 20.00   4.7X
                eS       30 41.00
TIK     79.94   2 iPc    20 32.00  -1.3
        1.8s   148.00nm          5.7mb
                i        20 45.00  44kmX
                i        23 40.00
                iS       30 30.00
NRI     80.89 349 ePc    20 37.00  -1.4
        1.7s   139.00nm          5.7mb
                e        23 38.00
                ePPP     25 31.00
                eS       30 40.00
SPA     81.73 180 iPc    20 44.30   1.1
        0.8s   270.83nm          6.3mb
ARU     82.40 330 eP     20 45.00  -1.5
                e        21 02.00  61kmX
                e        31 04.00
GRS     83.88 311 iPd    20 54.00  -0.8
        1.1s    60.00nm          5.7mb
```

```
                e        31 14.00
HON     84.35  68 P      21 00.00   2.8
      Z  20s     0.49um          4.9Msz
GRO     85.41 315 eP     21 02.00  -0.1
        1.0s   110.00nm          6.0mb
MTA     85.60 313 iP     21 03.40   0.4
        1.0s   130.00nm          6.1mb
                i        21 20.00  59kmX
                ePPP     26 16.00
                eS       31 22.00
PAE     86.61 107 iPd    21 10.40   1.9
PPN     86.77 107 iPd    21 11.40   2.1
CIR     86.88 249 iPd    21 10.10   0.3
TVO     86.91 107 iPd    21 12.40   2.3
        1.3s   201.40nm          6.2mb
PYA     87.42 315 eP     21 11.00  -1.0
        1.3s    70.00nm          5.8mb
                iS       31 40.00
MTD     87.44 254 iPd    21 11.10  -1.6
BFT     87.64 245 iPc    21 15.00   1.3
        1.0s    30.00nm          5.5mb
KIV     87.66 315 (P)    21 25.80  12.5X
        0.7s    15.00nm
NVL     88.52 198 eP     21 21.00   4.2X
        1.2s   123.00nm          6.1mb
      Z  18s     3.80um          5.9Msz
      N  17s     1.40um
      E  18s     3.30um
                e        21 26.00  16kmX
                e        21 59.00
                e        22 28.00
PMO     88.58 105 iPc    21 20.10   2.1
        1.3s   140.80nm          6.1mb
VAH     88.80 105 iPd    21 21.10   2.0
        1.2s    94.60nm          6.0mb
TPT     88.84 105 iPd    21 21.40   2.1
        1.4s   184.70nm          6.2mb
RUV     89.04 105 iPd    21 22.20   2.0
        1.3s    70.00nm          5.8mb
SLR     89.20 244 iPc    21 21.20   0.1
        1.2s    50.00nm          5.7mb
SEK     89.38 242 iPd    21 22.50   0.5
        0.8s    33.00nm          5.7mb
GRM     89.47 237 eP     21 27.00   4.9X
BUL     89.75 250 iPd    21 23.80   0.1
        1.0s    70.00nm          5.9mb
KSR     90.42 244 iPd    21 27.50   0.7
BLF     90.50 241 iPc    21 27.20   0.1
        0.8s    26.00nm          5.6mb
FRS     91.14 240 iPd    21 29.50  -0.3
        0.7s    16.00nm          5.5mb
KIM     91.78 241 iPc    21 34.10   1.1
BGL     95.42  29 eP     21 47.72  -1.2
IMA     95.49  24 eP     21 47.93  -1.3
        1.3s     7.45nm          5.0mb
POF     95.79 239 iPc    21 51.50   0.3
        0.5s     7.00nm          5.4mb
PMR     97.01  29 P      22 00.00   4.1X
      Z  19s     0.74um          5.2Msz
FBA     97.82  25 eP     22 00.20   0.6
        0.9s     5.42nm          5.1mb
BCAO   103.32 273 iPdiff22 29.20   3.7X
        0.7s     6.00nm          5.5mb
KSP    105.93 320 ePKP   26 57.00   8.4X
BRG    107.40 321 ePKP   27 02.40  11.0X
KHC    107.88 319 ePKP   26 54.50   2.1
                e        27 09.00
                e        29 27.50
YKA    112.60  25 ePdiff23 02.10  -3.5X
        0.9s     0.50nm
YKA    112.60  25 ePKP   26 58.00  -2.8
        0.5s     0.50nm
WDC    115.12  49 PKP    27 10.00   3.5X
      Z  20s     1.25um          5.5Msz
ISA    119.22  54 PKP    27 20.00   5.5X
      Z  20s     0.97um          5.4Msz
LCCM   121.11  41 ePKP   27 16.80  -1.1
HVU    121.93  46 ePKP   27 18.47  -1.1
MSU    123.39  49 ePKP   27 22.17  -0.4
DAU    123.46  47 ePKP   27 20.75  -2.0
BW06   123.81  43 ePKP   27 21.66  -1.7
EMUT   123.98  47 ePKP   27 22.70  -1.1
SRU    124.43  48 ePKP   27 23.02  -1.6
TUC    126.19  56 PKP    27 40.00  11.9X
      Z  19s     0.75um          5.4Msz
KIC    126.56 272 PKP    27 27.40  -1.8
LIC    126.83 272 PKP    27 27.80  -1.9
```

```
RSSD   126.87  40 ePKP   27 26.88  -2.3
      Z  21s     0.54um          5.2Msz
GOL    127.92  45 ePdiff24 08.51  -6.3X
ALQ    128.88  51 PKP    27 40.00   6.7X
      Z  20s     0.82um          5.4Msz
ACO    133.64  46 e(PKP)27 41.50  -0.5
WMOK   134.78  48 PKP    27 50.00   5.8X
      Z  21s     1.19um          5.6Msz
UYO    138.21  47 iPKPc 27 49.20  -1.5
SLM    138.54  38 PKP    28 00.00   8.9X
      Z  19s     1.51um          5.7Msz
RSNY   141.35  18 PKP    28 00.00   4.0X
      Z  21s     0.47um          5.2Msz
TKL    144.38  36 ePKP   27 58.35  -3.2X
TBR    144.50  20 ePKP   27 57.69  -3.9X
                e        28 54.50
PNJ    144.73  21 PKP    28 00.40  -1.5
GMTN   144.74  21 iPKP   28 00.37  -1.6
NAV    144.83  31 ePKP   27 59.02  -3.3X
FSA    145.06 168 iPKPc 28 03.50   0.6
BLA    145.10  31 ePKP   28 00.49  -2.3
CVL    145.46  28 ePKP   28 02.05  -1.2
CBN    145.77  27 ePKP   28 03.50  -0.3
ANT    146.15 160 ePKP   28 04.50  -0.3
PRM    146.31  37 ePKP   28 04.26  -0.6
CEH    146.80  31 ePKP   28 05.40  -0.1
      Z  19s     0.56um          5.4Msz
JSC    146.82  36 ePKP   28 05.35  -0.3
VAO    146.85 200 ePKP   28 07.20   1.1
                e        28 08.80
SGS    148.03  36 ePKP   28 06.80  -0.8
                ePKPbc28 09.76
YJA    148.96 168 ePKPc 28 11.20   1.2
ARE    152.28 153 ePKP   28 22.00   7.1X
NNA    152.89 138 ePKP   28 15.40   0.0
        1.1s    26.58nm
CNCB   153.37 160 iPKPc 28 18.00   1.3
CCH    153.41 164 PKPc  28 24.80   8.4X
                i        28 38.00
LPB    153.59 159 PKPc  28 18.00   1.2
        1.2s   187.50nm
ZOBO   153.80 159 iPKPc 28 18.00   0.6
        1.2s   145.27nm
BAO    153.98 204 e(PKP)28 16.00  -1.0
                e        28 18.00
                e        28 26.00
                e        28 28.90
                e        28 40.50
                e        28 51.00
SIV    155.73 174 ePKP   28 24.00   4.8X
                i        28 52.40
      S.D. = 1.3  on 156 of 193 obs.
-----------------------------------
    JAN  20, 1993  04h 34m 52.57± 0.26s
    8.327 S ± 4.4km  121.334 E ± 6.6km
    DEPTH =  23.4km  (  3 depth phases)
    5.2mb ( 38 obs.)
 FLORES REGION, INDONESIA          (286)

KHKI     5.67 269 ePd    36 16.50  -1.0
                eS       37 46.00
                e        43 11.20
MTN     10.62 116 eP     37 25.00  -1.5
                eS       39 22.00
KKM     15.16 340 ePc    38 35.00   7.9X
NANU    15.21 201 eP     38 26.00  -1.7
                eS       41 05.00
WB2     17.09 134 iPd    38 48.00  -3.8X
                iS       41 51.00
MEEK    18.39 188 eP     39 09.00   1.1
        0.5s    36.00nm          4.8mb
                eS       42 22.00
WARB    18.46 165 eP     39 09.00   0.3
ASPA    19.43 143 iPc    39 19.20  -1.3
        0.7s   159.20nm          5.4mb
      Z  18s     8.10um
                eS       42 43.60
PLP     19.70  11 ePc    39 24.50   1.1
KGM     20.69 299 eP     39 35.50   1.7
MRWA    21.38 193 eP     39 41.00   0.3
        0.5s    24.00nm          4.9mb
PGP     21.69 359 eP     39 45.50   1.6
BAL     22.58 190 eP     39 53.50   0.8
        0.5s    45.00nm          5.2mb
FORT    23.21 165 eP     39 59.00   0.2
KLB     23.39 188 eP     40 01.00   0.4
        0.5s    18.00nm          4.9mb
```

20d 04h

```
IPM     23.97 302 ePc   40 07.90    1.5
        1.2s   150.10nm          5.4mb
MUN     24.01 191 eP    40 07.10    0.5
        0.6s    46.00nm          5.2mb
SNG     25.76 306 eP    40 25.00    1.5
CTA     26.79 119 iP    40 32.00   -1.0
STK     30.07 144 eP    41 02.00   -0.4
        0.5s    45.70nm          5.6mb
RMO     31.67 128 iPd   41 17.90    1.3
NST     31.77 319 eP    41 27.00    9.5X
BFD     34.57 149 eP    41 41.30   -0.3
        1.0s    11.00nm          4.7mb
CHG     34.86 321 ePd   41 45.90    1.6
        1.0s    20.00nm          5.0mb
BRS     35.26 127 iPd   41 49.00    1.3
ARMA    35.85 132 eP    41 54.00    1.2
        0.8s    37.00nm          5.4mb
TOO     36.41 147 iPc   41 58.20    0.9
        0.8s    67.00nm          5.6mb
                e       44 30.70
CNB     37.14 140 eP    42 04.30    0.8
        1.2s    46.00nm          5.2mb
GYA     37.40 338 P     42 07.00    1.2
        1.0s    12.00nm          4.7mb
KMI     37.86 332 Pc    42 13.00    3.2X
        2.0s   110.00nm          5.3mb
WHN     39.22 350 Pc    42 23.10    2.2
        1.1s    21.00nm          4.8mb
NJ2     40.22 357 Pc    42 31.00    1.9
CD2     42.50 337 iPd   42 48.70    0.8
        1.2s    70.00nm          5.3mb
XAN     43.75 345 P     42 58.00    0.0
        1.0s    14.00nm          4.7mb
TIA     44.48 355 eP    43 03.50   -0.3
DZM     45.45 113 iPd   43 12.20    0.2
TIY     46.55 350 eP    43 20.40    0.0
LZH     47.14 341 Pd    43 26.20    1.0
        1.5s    70.00nm          5.5mb
                pP      43 34.00   26km
LSA     47.67 324 P     43 30.80    0.9
        1.0s    40.00nm          5.4mb
BJI     48.36 355 eP    43 34.00   -0.4
GBA     48.72 296 Pc    43 36.90   -0.7
        0.5s     5.00nm          4.8mb
HYB     49.41 301 eP    43 40.00   -3.0
GUN     49.73 318 P     43 45.32   -0.3
        0.6s    13.00nm          5.1mb
HHC     49.75 350 eP    43 45.70    0.4
        1.0s    14.00nm          4.9mb
BTO     49.79 349 eP    43 44.00   -1.6
PKI     49.82 317 P     43 45.52   -0.8
        0.5s    35.00nm          5.6mb
KKN     50.05 317 P     43 47.32   -0.6
        0.8s    65.00nm          5.7mb
DMN     50.05 317 P     43 47.44   -0.6
        0.8s    70.00nm          5.7mb
GKN     50.62 317 P     43 51.44   -0.8
GTA     51.52 339 P     43 59.50    0.7
        1.5s    40.00nm          5.1mb
                pP      44 05.00   18km
MDJ     53.22   7 eP    44 11.30    0.0
WMQ     60.19 332 P     45 01.40    0.3
        1.0s    12.00nm          5.0mb
CIT     60.45 355 eP    45 02.50   -0.2
ZAK     60.54 347 iPd   45 03.00   -0.2
        1.0s    28.00nm          5.3mb
IRK     62.10 348 ePc   45 12.00   -1.8
        1.4s    42.00nm          5.4mb
                e       45 20.00   26km
                e       45 28.00
MOY     62.29 346 ePd   45 15.10    0.1
        1.4s    44.00nm          5.4mb
KSH     63.43 322 eP    45 29.00    6.1X
BOD     66.21 356 iPc   45 28.80  -11.6X
        1.3s    28.00nm
ELT     68.18 338 eP    45 51.20   -1.8
        1.5s    29.00nm          5.2mb
                iS      54 48.00
YAK     70.43   4 eP    46 05.00   -1.6
MGD     72.11  15 eP    46 16.00   -0.8
        1.0s    40.00nm          5.4mb
                e       46 31.00   53kmX
                e       49 00.00
                eS      55 40.00
                e       56 16.00
MAIO    72.99 312 eP    46 26.00    3.4X
BRVK    74.88 331 eP    46 31.00   -2.1
        1.0s    17.00nm          5.0mb
                eS      56 04.00
TIK     79.95   2 eP    46 59.00   -1.7
        1.2s    16.00nm          4.9mb
NRI     80.89 349 ePd   47 13.00    7.2X
        1.8s    31.00nm          5.0mb
SVE     81.59 331 ePd   47 25.60   15.9X
SPA     81.72 180 iPc   47 11.10    0.6
        0.6s    91.46nm          6.0mb
NVL     88.50 198 (P)   47 48.00    3.9X
BUL     89.71 250 iPc   47 51.00    0.0
        1.0s     7.50nm          4.9mb
YKA    112.63  25 ePKP  53 26.00   -2.4
        0.9s     0.60nm
FSA    145.06 168 ePKP  54 30.60    0.2
BMA    146.05 204 (PKP) 54 35.00    2.7X
VAO    146.83 200 ePKP  54 36.60    3.1X
ARE    152.29 153 ePKP  55 01.00   18.6X
CNCB   153.38 160 PKP   54 53.00    8.8X
CCH    153.41 164 ePKP  54 52.00    8.1X
LPB    153.60 159 PKP   54 54.00    9.7X
ZOBO   153.81 159 PKP   54 54.80    9.9X
                LR      24 20.00
BAO    153.95 204 e(PKP)54 54.00    9.5X
                e       55 04.50
SIV    155.72 174 (PKP) 54 58.00   11.3X
                i       55 20.00
      S.D. = 1.2  on  61 of  80 obs.
-----------------------------------
*  JAN  20, 1993  04h 42m 05.71± 0.63s
    8.330 S ±11.5km  121.412 E ±13.0km
   DEPTH =  33.0km  (normal)
   5.0mb (  4 obs.)
 FLORES REGION, INDONESIA          (286)

MTN     10.55 116 eP    44 37.00   -0.8
                eS      46 32.00
NANU    15.24 201 eP    45 39.00   -1.2
                eS      48 19.00
WB2     17.04 134 iPd   46 01.00   -2.2
                i       46 13.50
                eS      49 00.70
MEEK    18.40 188 eP    46 21.00    0.9
        0.3s     6.00nm          4.2mb
                eS      49 33.00
STK     30.02 144 iPd   48 14.60    0.7
        0.3s    12.80nm          5.2mb
BRS     35.20 127 iPd   49 01.00    2.0
                i       49 48.50
ARMA    35.79 132 eP    49 06.80    2.7X
        0.7s    10.00nm          4.9mb
TOO     36.36 147 eP    49 10.80    2.0
        0.8s    22.00nm          5.1mb
GBA     48.79 296 P     50 57.00    7.0X
GUN     49.78 318 P     50 57.92    0.0
        0.7s    60.00nm          5.8mb X
PKI     49.88 317 P     50 58.18   -0.4
        0.6s    23.00nm          5.4mb X
KKN     50.11 317 P     51 00.42    0.2
DMN     50.11 317 P     51 00.44    0.2
GKN     50.68 317 P     51 04.58    0.1
CCH    153.38 164 (PKP) 01 54.00   -1.5
ZOBO   153.78 159 ePKP  02 06.00    9.5X
      S.D. = 1.4  on  13 of  16 obs.
-----------------------------------
    JAN  20, 1993  05h 03m 41.52± 0.55s
    45.605 N ± 5.2km   15.325 E ± 4.5km
    DEPTH =  10.0km  (geophysicist)
  NORTHWESTERN BALKAN REGION      (383)
        MD 3.4 (LJU), 3.0 (TRI). ML 3.1
        (VIE). Felt at Gradac, Metlika
        and Novo Mesto, Slovenia.

VBY      0.11 206 iPgd  03 44.10   -0.3
                i       03 45.50
ZAG      0.51  65 iPg   03 51.90    0.1
                iSg     03 59.20
PTJ      0.53  56 iPg   03 51.80   -0.5
                i       03 55.00
                i(Sg)   03 59.20
CEY      0.64 282 ePgc  03 54.40   -0.1
                eSg     04 03.90
LJU      0.71 309 iPgc  03 55.50    0.0
                iSg     04 06.50
RIY      0.71 249 iPgc  03 56.10    0.6
                iSg     04 05.90
VOY      1.09 294 ePgc  04 02.20    0.2
                eSg     04 19.00
TRI      1.10 276 ePgc  04 02.50    0.3
                iSg     04 17.40
KBA      2.01 318 iPnc  04 16.60    0.5
                iPg     04 19.50
                i       04 21.80
                iSn     04 40.60
                iSg     04 46.30
FVI      2.03 300 P     04 17.30    1.2
HVAR     2.56 161 e(Pn) 04 24.90    1.2
CTI      2.61 281 P     04 27.00    2.5
BHG      2.71 322 iPnd  04 32.60    6.7X
ZST      2.86  25 e(Pn) 04 28.50    0.5
                e(Pg)   04 34.90
                e(Sn)   05 11.40
SRO      3.02  42 eP    04 30.20    0.0
WTTA     3.04 304 iPnc  04 31.80    1.1
                i       04 33.10
                i       04 39.80
                i       05 19.20
                iSg     05 25.20
PGD      3.10 237 P     04 31.80    0.3
CRE      3.12 232 P     04 35.80    4.1X
ASS      3.17 218 P     04 37.20    4.7X
OGA      3.24 294 ePn   04 40.90    7.3X
GEC2     3.43 342 Pn    04 35.60   -0.5
                Pg      04 48.00
                Sn      05 15.70
                Sg      05 30.40
KHC      3.72 342 Pn    04 39.60   -0.7
                e       04 52.50
                Sn      05 19.50
                eSg     05 38.00
VRAC     3.80  13 Pn    04 40.50   -0.9
WET      3.91 336 iPc   04 45.40    2.5
MDI      3.94 275 P     04 43.00   -0.2
PRU      4.42 353 ePn   04 48.50   -1.6
                ePg     05 04.50
                eSn     05 38.00
                Sg      06 02.50
GRF      4.94 327 ePn   04 58.80    1.3
                iPgc    05 15.00
                e(Sg)   06 20.00
BRG      5.35 351 e(P)  05 24.00   20.7X
                e       06 12.00
                e       06 29.00
PGF      5.49 238 Pn    05 06.00    0.6
LPG      6.02 272 Pn    05 13.00    0.0
LPL      6.03 272 Pn    05 13.00   -0.2
BSF      6.28 294 Pn    05 14.30   -2.2
                Sn      06 24.90
FRF      6.53 255 Pn    05 17.80   -2.1
                Sn      06 27.60
HAU      6.61 295 Pn    05 19.60   -1.6
LMR      6.70 253 Pn    05 20.30   -2.1
      S.D. = 1.2  on  30 of  35 obs.
-----------------------------------
%  JAN  20, 1993  05h 07m 31.10± 0.65s
    44.439 N ± 5.7km    7.321 E ± 6.5km
    DEPTH =  10.0km  (geophysicist)
  NORTHERN ITALY                    (545)
      ML 1.7 (GEN).

PZZ      0.17 293 P     07 35.31    0.3
                S       07 37.78
STV      0.20 179 P     07 35.45    0.0
                S       07 38.06
ENR      0.22 161 P     07 36.18    0.2
                S       07 39.16
BHB      0.40 354 P     07 39.11   -0.3
                S       07 45.06
ROB      0.42 110 P     07 40.21    0.5
                S       07 46.66
IMI      0.67 142 P     07 43.69   -0.8
FIN      0.68 110 P     07 44.65    0.1
      S.D. = 0.5  on   7 of   7 obs.
-----------------------------------
    JAN  20, 1993  05h 21m 42.66± 0.55s
    51.101 N ±12.7km  178.867 E ± 5.8km
    DEPTH =  33.0km  (normal)
    4.3mb (  9 obs.)
  RAT ISLANDS, ALEUTIAN ISLANDS    (  6)

ADK      2.89  73 eP    22 28.82    1.5
                eS      23 03.37
SMY      3.37 301 eP    22 36.12    1.9
BGL     18.79  46 eP    26 01.71    0.3
```

```
SLKM    19.58  49 eP     26 08.86  -1.7
PMS     20.09  47 eP     26 14.60  -1.3
        0.6s     9.40nm          4.3mb
IMA     20.46  33 ePc    26 19.72  -0.1
        0.8s     5.70nm          4.0mb
FBA     22.07  39 eP     26 36.23   0.3
        0.8s     6.95nm          4.1mb
BRW     23.09  20 eP     26 47.20   1.4
YKA     36.48  46 eP     28 44.50  -1.5
        0.8s     2.10nm          4.1mb
MCMT    44.66  70 eP     29 54.60   0.6
BONR    45.33  81 (P)    30 00.69   1.2
HVU     46.44  74 eP     30 08.86   0.8
BW06    47.78  71 ePc    30 18.30  -0.4
        0.8s     7.42nm          4.8mb
DAU     48.18  74 eP     30 22.42   0.5
MSU     48.78  77 (P)    30 26.59   0.1
SRU     49.42  75 eP     30 31.86   0.5
LZH     54.04 285 eP     31 06.00  -0.1
        1.5s    16.00nm          4.8mb
                  sP     31 18.00
ACO     57.83  70 iPc    31 32.10  -1.0
NAO     68.02 354 P      32 38.50  -1.7
        0.7s     1.20nm          4.1mb
GUN     70.59 290 P      32 56.82  -0.1
        1.3s    66.00nm          5.5mb X
KKN     71.03 291 P      32 59.22  -0.2
PKI     71.12 291 P      32 59.88  -0.2
GKN     71.25 291 P      33 00.34  -0.3
DMN     71.27 291 P      33 00.86   0.0
        1.0s    28.00nm          5.3mb
WRA     80.81 222 P      33 53.80  -0.5
        0.8s     0.40nm          3.5mb
      S.D. = 1.0  on  25 of  25 obs.
-----------------------------------
*  JAN  20, 1993  05h 40m 22.37± 2.53s
   43.682 N ± 8.9km   16.850 E ±24.2km
   DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION        (383)
      ML 2.5 (LJU).

HVAR     0.58 210 iPg    40 34.80   0.6
                  iSg    40 46.60
VBY      2.15 329 ePn    40 58.50  -0.2
                  eSn    41 24.90
                  i(Sg)  41 29.60
PTJ      2.31 344 ePn    41 00.10  -1.0
                  eSn    41 30.80
RIY      2.42 314 e(Pn)  41 02.10  -0.5
CEY      2.69 321 ePn    41 06.80   0.4
                  eSn    41 39.00
SDI      2.98 230 P      41 13.40   2.8X
TRI      2.99 314 eP     41 12.50   1.8
                  e      41 34.70
                  e      41 44.70
ASS      3.11 260 P      41 11.80  -0.7
VOY      3.15 319 ePn    41 12.10  -1.0
                  e(Sn)  41 46.00
CRE      3.56 271 P      41 18.40  -0.4
PGD      3.72 275 P      41 19.80  -1.4
FVI      4.09 317 P      41 26.30   0.0
CTI      4.39 304 P      41 33.00   2.3
      S.D. = 1.3  on  12 of  13 obs.
-----------------------------------
   JAN  20, 1993  05h 51m 11.63± 0.38s
    8.279 S ± 7.0km  121.462 E ± 9.5km
   DEPTH =  33.0km  (normal)
   4.8mb ( 16 obs.)
 FLORES REGION, INDONESIA          (286)

KHKI     5.79 269 ePc    52 39.20   1.6
                  eS     54 02.00
                  e      57 23.00
NANU    15.30 201 eP     54 44.50  -2.4
                  eS     57 25.50
WRA     17.03 134 P      55 06.69  -2.3
WB2     17.04 134 eP     55 06.20  -2.9
                  iS     58 09.70
MEEK    18.46 188 eP     55 27.50   0.8
        0.4s    11.00nm          4.4mb
                  eS     58 40.00
WARB    18.48 165 eP     55 28.30   1.4
                  eS     58 46.00
ASPA    19.39 144 P      55 38.59   0.6
BAL     22.65 191 eP     56 11.50   0.2
IPM     24.06 301 ePc    56 26.10   1.1
MUN     24.08 191 eP     56 26.30   1.2
CTA     26.70 119 iPc    56 51.00   1.0
        1.0s    10.00nm          4.4mb
STK     30.03 144 iPc    57 20.40   0.5
        1.5s    10.00nm          4.4mb
                  eS     03 15.10
RMO     31.60 128 eP     57 35.00   1.2
CMS     32.37 139 eP     57 41.50   1.0
        0.5s     4.00nm          4.6mb
CHG     34.90 321 eP     58 03.50   1.0
        0.9s    10.50nm          4.8mb
BRS     35.19 127 iPd    58 06.50   1.6
        1.0s    17.00nm          4.9mb
ARMA    35.78 132 eP     58 12.30   2.3X
        0.8s    15.00nm          5.0mb
TOO     36.38 147 iPc    58 16.20   1.4
        1.0s    80.00nm          5.6mb
CNB     37.09 141 eP     58 19.50  -1.4
        1.0s    18.00nm          4.9mb
GYA     37.40 338 P      58 26.00   2.4X
NJ2     40.18 357 eP     58 47.00   0.5
CD2     42.50 337 P      59 06.40   0.7
XAN     43.74 345 P      59 15.70   0.0
TIY     46.52 350 eP     59 43.50   5.6X
LZH     47.14 340 Pd     59 44.50   1.5
        1.5s    30.00nm          5.1mb
                  sP     59 55.00
LSA     47.71 324 P      59 48.60   0.7
        1.0s    15.00nm          5.0mb
BJI     48.32 355 eP     59 52.00   0.1
GBA     48.82 296 P      59 53.80  -2.3
        0.7s     4.00nm          4.6mb
HHC     49.73 350 eP     00 04.00   1.1
        1.0s    11.00nm          4.8mb
BTO     49.77 349 eP     00 04.00   0.8
GUN     49.78 318 P      00 02.64  -1.1
        0.7s    78.00nm          5.8mb X
PKI     49.88 317 P      00 02.84  -1.7
        0.6s    19.00nm          5.3mb
KKN     50.10 317 P      00 05.20  -0.9
DMN     50.11 317 P      00 05.32  -0.8
GKN     50.68 317 P      00 08.76  -1.6
GTA     51.52 339 P      00 16.50  -0.1
        1.0s    19.00nm          5.0mb
WMQ     60.21 332 P      01 19.40   0.5
SPA     81.77 180 iPc    03 29.60   1.2
        0.8s     4.58nm          4.6mb
NAO    107.19 331 PKP    09 34.00  -1.8
        0.6s     2.20nm
NAV    144.75  32 ePKP   10 44.65  -2.6
CNCB   153.38 159 ePKP   11 06.00   4.2X
CCH    153.42 164 (PKP)  11 16.00  14.5X
LPB    153.59 159 ePKP   11 12.00  10.1X
ZOBO   153.81 159 PKP    11 14.90  12.4X
      S.D. = 1.4  on  37 of  44 obs.
-----------------------------------
?  JAN  20, 1993  07h 09m 39.18± 1.21s
   23.947 N ±18.5km  122.434 E ±21.0km
   DEPTH =  10.0km  (geophysicist)
   4.0mb (  4 obs.)
 TAIWAN REGION                     (243)

QZH      3.64 287 Pn     10 35.20  -1.5
SSE      7.21 351 eP     11 18.50  -8.6X
      Z  16s     0.40um
      N  10s     0.20um
XAN     15.51 313 P      13 24.50   4.9X
TIY     16.17 330 eP     13 28.50   0.4
      Z  13s     5.99um
      N  13s     0.42um
HHC     19.16 334 eP     14 06.00   0.6
LZH     20.10 311 eP     14 18.00   2.0
        1.5s    16.00nm          4.1mb
WRA     45.14 164 P      17 58.80   1.0
        0.8s     0.30nm          3.3mb
YKA     82.74  23 eP     22 02.50  -1.8
        0.8s     0.90nm          4.0mb
GEC2    83.75 321 eP     22 09.30  -0.6
        0.8s     0.75nm          4.0mb
      S.D. = 1.7  on   7 of   9 obs.
-----------------------------------
   JAN  20, 1993  07h 26m 25.73± 0.29s
   40.949 N ± 3.0km   19.608 E ± 3.1km
   DEPTH =  10.0km  (geophysicist)
   3.7mb (  1 obs.)
 ALBANIA                           (391)
      MD 3.5 (ATH). ML 3.3 (TTG), 3.1
      (TIR).
TIR      0.44  26 iPgd   26 35.00   0.3
                  iSg    26 40.50
VLO      0.49 190 iPg    26 35.10  -0.5
                  iSg    26 43.80
TPE      0.72 155 iPgd   26 36.00  -3.9X
                  iSg    26 50.60
OHR      0.92  79 iPg    26 41.30  -2.0
        0.9s   516.00nm
                  iSg    26 55.20
                  Lg     27 04.50
PHP      0.97  40 iPgd   26 43.50  -0.6
                  iSg    26 56.50
ULC      1.05 345 iPgd   26 46.92   1.4
                  eSg    27 03.01
LSK      1.10 136 iPnc   26 45.50  -0.9
                  iSn    27 03.50
SDA      1.10 356 iPnc   26 49.60   3.2X
                  iSn    27 06.00
SRN      1.11 164 iPgc   26 47.60   1.1
KEK      1.24 173 ePb    26 48.90   0.1
FNA      1.35  96 ePb    26 49.70  -0.9
                  iSb    27 11.10
LCI      1.40 245 P      26 51.00  -0.3
BDV      1.46 337 iPc    26 52.48   0.4
                  iSn    27 14.23
BCI      1.46  14 iPn    26 53.20   1.1
TTG      1.50 350 iPnc   26 53.72   1.1
                  iSn    27 16.05
IGT      1.52 158 ePb    26 54.33   1.4
                  eSb    27 14.18
PVY      1.67   9 iPnc   26 56.28   1.1
                  iSn    27 20.75
HCY      1.71 331 iPnc   26 55.65  -0.1
                  iSn    27 20.11
KZN      1.77 111 ePb    26 57.00   0.4
BRT      1.82 269 P      26 59.50   2.1
                  eSn    27 30.00
NKY      1.92 346 iPnd   26 59.15   0.3
                  iSn    27 25.83
IVA      1.93   6 iPnd   26 59.90   0.9
                  iSn    27 27.10
BAI      2.08 276 P      27 06.00   4.9X
BRY      2.11 338 iPnc   27 01.35  -0.2
                  iSn    27 30.03
GRG      2.12  89 ePb    27 01.90   0.3
                  eSb    27 29.50
VAY      2.27  80 iPn    27 03.60  -0.2
LIT      2.35 110 iPn    27 05.50   0.4
PLE      2.38 356 iPnc   27 06.07   0.5
                  iSn    27 37.60
KNT      2.50  84 iPn    27 06.74  -0.3
                  eSn    27 37.86
ORI      2.57 251 P      27 14.00   6.0X
TDS      2.81 244 P      27 12.00   0.4
AGG      2.84 132 ePn    27 13.30   1.3
SOH      2.84  91 ePn    27 12.18   0.1
SRS      3.02  86 iPn    27 14.06  -0.4
                  eSn    27 50.30
MGR      3.19 257 P      27 16.00  -0.9
HVAR     3.24 314 e(Pn)  27 16.40  -1.2
PAIG     3.27 107 ePn    27 16.78  -1.3
                  iSn    27 54.85
OUR      3.38  99 ePn    27 18.90  -0.7
SOI      3.98 225 P      27 26.00  -2.0
SDI      4.43 282 P      27 34.50   0.0
VLI      4.96 147 ePb    27 44.00   2.0
VBY      5.55 327 ePn    27 49.10  -1.3
                  eSn    28 53.00
CEY      6.10 323 e(Pn)  27 56.50  -1.5
                  e(Sn)  29 06.50
VOY      6.56 323 ePn    28 03.50  -1.2
                  eSn    29 16.30
YKA     70.55 339 eP     37 38.20  -4.2X
        0.5s     0.30nm          3.7mb
      S.D. = 1.1  on  40 of  45 obs.
-----------------------------------
?  JAN  20, 1993  07h 27m 58.73± 0.80s
   31.642 S ±18.2km  178.930 W ±15.8km
   DEPTH =  33.0km  (normal)
   4.7mb ( 10 obs.)
 KERMADEC ISLANDS REGION           (177)

RAO      2.54  20 eP     28 37.30  -1.2
                  S      29 00.50
DZM     16.15 303 iPc    31 55.00  10.1X
ARMA    25.23 265 eP     33 26.70   3.4X
        0.8s    16.00nm          4.7mb
```

20d 07h

```
CNB     26.64 253 eP     33 36.00  -0.3
        0.6s      8.00nm          4.5mb
RMQ     28.65 272 iPd    33 56.60   2.1
        1.0s     36.00nm          5.0mb
TOO     29.76 249 eP     34 02.30  -2.1
        0.7s      9.00nm          4.7mb
CMS     29.95 261 eP     34 05.60  -0.6
        0.5s      7.00nm          4.7mb
CTA     33.24 282 iPc    34 37.00   1.9
        1.0s     10.00nm          4.7mb
STK     33.44 259 eP     34 35.80  -0.9
        0.7s      2.30nm          4.2mb
WB2     43.35 274 iPd    35 58.90  -0.8
        0.5s     37.00nm          5.4mb
WRA     43.36 274 P      35 59.00  -0.8
        0.6s      3.90nm          4.3mb
SPA     58.53 180 iPd    37 53.00  -1.2
        0.8s      9.17nm          4.9mb
NVL     77.59 184 (P)    39 45.00  -7.6X
YKA    106.90  26 ePKP   46 40.00  18.2X
        0.8s      0.30nm
KAF    145.44 339 ePKP   47 29.50  -4.6X
        0.7s     13.30nm
OBN    145.70 324 iPKPd  47 31.80  -3.0
        2.0s    288.00nm
                    i    47 43.00
                    e    47 56.00
NUR    147.19 339 ePKP   47 36.50  -0.5
        0.7s     15.00nm
BCAO   148.35 215 iPKPc  47 36.30  -4.1X
        1.0s     40.00nm
                   id    48 01.80
NAO    150.11 350 PKP    47 41.90   0.3
        0.7s      3.80nm
HRI    150.78 283 ePKP   47 45.60   2.0
DSI    150.85 279 ePKP   47 45.20   1.6
PRNI   150.95 276 ePKP   47 45.60   1.7
MMR    151.01 282 ePKP   47 46.30   2.3X
LIC    154.08 166 PKP    47 50.00   1.3
KIC    154.27 167 PKP    47 49.50   0.5
BUC    156.63 310 ePKP   48 00.00   8.8X
      S.D. = 1.6  on  18 of  26 obs.
-----------------------------------------
*  JAN  20, 1993  08h 04m 44.62± 0.91s
   45.646 N ±20.0km  146.730 E ±14.4km
   DEPTH =  33.0km  (normal)
   4.3mb (  8 obs.)
 KURIL ISLANDS                      (221)

BRW     36.93  27 eP     11 52.50   0.8
IMA     37.29  35 eP     11 55.40   0.4
        0.7s      5.60nm          4.5mb
PMS     39.28  43 eP     12 10.10  -1.5
FBA     39.75  37 eP     12 16.20   0.8
        1.0s      2.00nm          3.8mb
GUN     50.64 271 P      13 42.40  -0.6
        0.5s      9.00nm          5.0mb
KKN     51.13 272 P      13 46.20  -0.4
PKI     51.17 271 P      13 46.00  -1.0
DMN     51.36 272 P      13 48.20  -0.2
GKN     51.45 272 P      13 48.40  -0.5
YKA     54.40  34 eP     14 07.50  -2.7
        0.8s      1.60nm          4.1mb
NUR     64.22 332 iP     15 18.90   0.9
        0.4s      6.90nm          5.1mb
NAO     68.01 338 P      15 42.90   0.7
        0.5s      1.60nm          4.4mb
KHC     77.16 331 eP     16 37.50   1.2
STK     77.30 184 eP     16 38.40   1.3
        1.1s      3.50nm          4.3mb
GEC2    77.36 330 eP     16 38.40   0.9
        0.5s      1.01nm          4.1mb
      S.D. = 1.2  on  15 of  15 obs.
-----------------------------------------
?  JAN  20, 1993  08h 41m 30.42± 8.78s
   39.963 N ±44.0km   23.988 E ±57.9km
   DEPTH =  10.0km  (geophysicist)
 AEGEAN SEA                         (365)

PAIG     0.24 262 iPg    41 35.36  -0.2
                  eSg    41 42.44
OUR      0.37 359 ePg    41 37.80  -0.2
SOH      0.99 331 ePb    41 48.92  -0.2
                  eSb    42 06.60
KNT      1.46 326 ePb    41 57.40   0.6
                  eSb    42 22.96
      S.D. = 0.7  on   4 of   4 obs.
-----------------------------------------
%  JAN  20, 1993  09h 45m 48.89± 0.87s
   31.476 S ±11.6km   68.013 W ± 8.3km
   DEPTH =  31.2 ±  9.8 km
 SAN JUAN PROVINCE, ARGENTINA       (137)

CFA      0.23 236 ePc    45 55.10  -0.6
RTLL     0.42 290 iPc    45 58.00  -0.2
RTCV     0.59 229 iPc    46 00.80  -0.1
                  (S)    46 11.00
RTCB     0.67 269 eP     46 03.20   1.0
MRA      2.17 116 ePd    46 21.90  -1.6
                  S      46 48.80
TCA      2.93  88 eP     46 37.00   2.6
RFA      3.31 186 eP     46 39.80   0.0
CYA      3.58  33 eP     46 42.50  -1.2
      S.D. = 1.7  on   8 of   8 obs.
-----------------------------------------
   JAN  20, 1993  09h 46m 02.29± 0.26s
   26.703 N ± 5.7km   44.520 W ± 4.8km
   DEPTH =  10.0km  (geophysicist)
   4.8mb ( 16 obs.)  4.4Msz (  2 obs.)
 NORTHERN MID-ATLANTIC RIDGE        (403)

BAO     42.22 185 Pc     53 58.10   0.8
                   e     54 01.00
                   e     54 04.90
                   e     54 09.00
LIC     42.74 111 P      54 01.80   0.2
      Z  20s     0.43um          4.3Msz
KIC     42.90 111 P      54 03.00   0.1
UYO     43.34 292 iPc    54 07.80   1.5
LNO     44.33 295 ePc    54 27.20  13.0X
TUL     44.33 295 P      54 27.30  13.0X
        1.2s     15.10nm
      Z  20s     0.62um          4.5Msz
                   LR     07 02.00
SIV     45.38 203 P      54 27.00   4.1X
ULM     45.47 315 eP     54 26.00   2.8
MEO     46.69 294 iPc    54 32.20  -0.9
WMOK    46.86 294 ePc    54 34.66   0.2
        0.8s     11.51nm          5.0mb
FCC     46.86 327 eP     54 37.50   3.5X
ACO     46.99 296 iPc    54 35.10  -0.4
GRF     48.17  46 ePd    54 44.80   0.2
                   e     54 51.00
WTTA    48.20  49 iPd    54 45.40   0.4
        1.0s     12.80nm          5.0mb
                  ic     54 45.60
                   i     54 50.80
ZOBO    48.50 211 P      54 47.00  -1.1
        1.0s     17.50nm          5.1mb
                   LR     09 20.00
CCH     48.59 208 P      54 48.00  -0.5
LPB     48.70 211 P      54 49.40   0.0
CNCB    48.89 210 P      54 51.00   0.0
KBA     49.35  50 iPd    54 53.10  -0.8
                  ic     54 53.90
                   i     54 59.40
VAO     49.47 183 (P)    54 55.00   0.2
KHC     49.64  47 eP     54 55.50  -0.5
        1.1s      6.30nm          4.5mb
                   e     55 02.00
GEC2    49.70  47 eP     54 49.60  -6.9X
        1.1s      4.69nm          4.4mb
                   e     54 53.80
                  ec     54 56.60
                   e     55 03.50
                   e     55 12.10
BRG     50.04  45 eP     54 59.60   0.7
NAO     50.30  32 P      55 01.00   0.3
        1.0s      6.20nm          4.5mb
RSSD    50.44 306 eP     55 07.59   5.3X
VBY     50.62  52 eP     55 04.00   0.6
HFS     51.48  33 eP     55 09.20  -0.5
        0.5s      1.00nm          4.0mb
ZST     51.93  48 eP     55 12.20  -1.1
SRO     52.74  49 e(P)   55 19.40   0.0
UZD     52.93  50 e(P)   55 20.00  -0.8
BW06    54.52 305 eP     55 31.91  -0.9
        0.9s     10.09nm          4.8mb
SRU     55.68 301 eP     55 41.13  -0.1
LCCM    55.92 309 eP     55 42.80  -0.1
DAU     56.05 302 eP     55 43.98  -0.1
MSU     57.04 300 eP     55 51.49   0.3
DUG     57.26 302 eP     55 52.55   0.0
        1.0s      4.71nm          4.5mb
YKA     57.50 329 eP     55 51.80  -1.9
        1.0s      7.00nm          4.6mb
MLR     58.12  51 ePc    55 59.50   1.1
NEW     59.25 312 eP     56 05.56  -0.6
        1.0s     23.04nm          5.3mb
SHW     63.02 310 (P)    56 31.79   0.0
OBN     63.57  39 iPc    56 35.10   0.0
        1.0s     35.00nm          5.5mb
                   i     56 42.00
BCAO    63.99  99 iPd    56 37.80  -0.8
        0.9s     18.00nm          5.3mb
                  id     56 44.40
FBA     71.54 334 eP     57 24.83  -0.2
        0.8s      7.07nm          4.8mb
                   e     57 31.15
IMA     73.24 336 eP     57 35.65   0.4
        0.9s      5.54nm          4.6mb
                   e     57 41.96
PMR     73.46 331 e(P)   57 37.10   0.7
SLR     87.39 120 iPc    58 52.50   1.1
        0.7s     10.27nm          5.2mb
DZM    151.46 273 iPKPc  05 59.90   7.6X
      S.D. = 0.8  on  40 of  47 obs.
-----------------------------------------
*  JAN  20, 1993  10h 28m 10.01± 0.71s
   26.636 N ±13.4km   44.602 W ±17.5km
   DEPTH =  10.0km  (geophysicist)
   4.4mb (  7 obs.)
 NORTHERN MID-ATLANTIC RIDGE        (403)

SIV     45.29 203 eP     36 35.00   5.1X
ZOBO    48.41 211 P      36 54.90  -0.2
CCH     48.50 208 eP     37 04.00   8.5X
LPB     48.60 211 P      36 56.00  -0.4
CNCB    48.79 210 P      36 58.90   0.9
KHC     49.74  47 eP     37 10.00   5.6X
        1.3s      6.00nm          4.4mb
GEC2    49.80  47 eP     37 05.40   0.4
        1.3s      3.44nm          4.2mb
                   e     37 10.30
                   e     37 16.70
                   e     37 20.00
BW06    54.50 305 eP     37 40.23  -0.2
        0.9s      3.21nm          4.4mb
YKA     57.52 329 eP     37 59.50  -2.0
        0.7s      1.40nm          4.1mb
BCAO    64.06  98 iPc    38 46.00  -0.7
        0.8s      7.00nm          4.9mb
FBA     71.57 334 eP     39 33.40   0.4
        0.7s      2.33nm          4.4mb
IMA     73.27 336 eP     39 45.00   1.8
        0.8s      2.93nm          4.4mb
      S.D. = 1.2  on   9 of  12 obs.
-----------------------------------------
   JAN  20, 1993  11h 21m 19.31± 0.42s
   26.686 N ± 9.1km   44.535 W ± 7.6km
   DEPTH =  10.0km  (geophysicist)
   4.8mb ( 11 obs.)
 NORTHERN MID-ATLANTIC RIDGE        (403)

LIC     42.74 111 P      29 18.80   0.2
      Z  20s     0.15um          3.9Msz
UYO     43.34 292 iPc    29 23.90   0.6
SIV     45.36 203 eP     29 45.00   5.3X
ULM     45.47 315 eP     29 43.00   2.7
WMOK    46.85 294 eP     29 51.12  -0.3
        0.8s      7.33nm          4.8mb
FCC     46.86 327 eP     29 55.00   3.9X
ACO     46.98 296 iPc    29 53.00   0.5
GRF     48.19  46 eP     30 03.00   1.2
ZOBO    48.48 211 P      30 04.10  -0.9
        1.4s     20.72nm          5.0mb
CCH     48.57 208 P      30 05.00  -0.3
LPB     48.68 211 P      30 07.20   0.9
CNCB    48.87 210 P      30 08.00   0.1
GEC2    49.72  47 eP     30 13.60  -0.1
        1.1s      4.67nm          4.4mb
                   e     30 18.90
                   e     30 24.80
VBY     50.64  52 eP     30 21.00   0.4
                  epP    30 26.20  17kmX
HFS     51.50  33 eP     30 25.60  -1.3
        0.6s      1.40nm          4.0mb
ZST     51.95  48 eP     30 29.50  -1.0
                   e     57 12.80
BW06    54.52 305 eP     30 49.08  -0.8
        0.9s      5.54nm          4.6mb
```

```
SRU     55.68 301 eP     30 58.21  -0.1
LCCM    55.92 309 eP     30 59.70  -0.2
MSU     57.04 300 eP     31 08.60   0.5
YKA     57.51 329 eP     31 07.90  -2.9
        0.8s      5.70nm          4.7mb
MLR     58.14  51 eP     31 17.00   1.4
NEW     59.25 312 eP     31 22.65  -0.6
        0.9s     13.71nm          5.1mb
OBN     63.59  39 iPc    31 52.60   0.3
        1.5s     49.00nm          5.5mb
                   e      31 58.50
                   e      32 08.00
BCAO    64.00  99 iPc    31 55.00  -0.7
        0.8s     18.00nm          5.3mb
                  id      32 05.20
FBA     71.55 334 eP     32 41.90  -0.2
        1.3s     13.64nm          4.9mb
KLU     72.11 330 eP     32 45.05  -0.6
IMA     73.25 336 eP     32 53.30   0.9
        0.8s      4.90nm          4.6mb
      S.D. = 1.1  on  26 of  28 obs.
-----------------------------------------
%  JAN  20, 1993  11h 31m 20.27± 0.81s
   41.884 N ± 6.9km   20.181 E ± 8.2km
   DEPTH =  10.0km  (geophysicist)
 ALBANIA                            (391)
      ML 2.3 (TTG).

ULC      0.70 277 iPgc  31 33.53  -0.6
                  iSg   31 44.14
PVY      0.73 348 iPgc  31 33.91  -0.7
                  iSg   31 44.44
TTG      0.87 309 iPgd  31 36.71  -0.3
                  iSg   31 49.54
OHR      0.90 149 ePg   31 37.50  -0.1
                  iSg   31 50.00
IVA      1.01 348 iPgc  31 38.84  -0.6
                  iSg   31 53.86
BDV      1.08 292 iPgd  31 40.65   0.0
                  iSg   31 56.68
NKY      1.28 317 iPgd  31 44.01   0.0
                  iSg   32 02.88
HCY      1.37 295 iPgd  31 45.33  -0.1
                  iSg   32 05.96
PLE      1.56 338 iPgc  31 49.30   1.2
                  iSg   32 11.88
BRY      1.58 311 iPgc  31 49.80   1.3
                  iSg   32 12.68
      S.D. = 0.8  on  10 of  10 obs.
-----------------------------------------
%  JAN  20, 1993  12h 34m 00.56± 0.63s
   44.513 N ± 5.5km    7.243 E ± 7.2km
   DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                     (545)
      ML 1.8 (GEN).

PZZ      0.10 266 P     34 03.47   0.0
                  S     34 05.34
STV      0.27 168 P     34 06.44   0.1
                  S     34 10.70
ENR      0.31 156 P     34 07.04  -0.1
                  S     34 11.52
BHB      0.33   3 P     34 07.45   0.1
                  S     34 11.84
ROB      0.50 116 P     34 10.70   0.0
                  S     34 17.43
RRL      0.52 321 P     34 11.11  -0.1
                  S     34 17.47
      S.D. = 0.1  on   6 of   6 obs.
-----------------------------------------
&  JAN  20, 1993  13h 18m 09.70s
   40.510 N          125.503 W
   DEPTH =  17.0km
   3.3mb (  1 obs.)
 OFF COAST OF NORTHERN CALIFORNIA( 34)
      <BRK>. ML 3.9 (BRK), 3.7 (GS).

KMPM     1.06  95 eP     18 27.28  -2.0
ARC      1.15  71 iPc    18 28.84  -1.8
                  eS     18 42.31
WDC      2.26  87 eP     18 44.53  -2.3
GWKM     2.74 121 Pd     18 52.04  -1.7
LMEM     3.00  88 (P)    18 56.95  -0.5
ORV      3.22 106 eP     18 56.75  -3.7
                  eS     19 31.09
BKS      3.66 135 e(P)   19 03.15  -3.6
STAN     4.04 139 e(P)   19 08.55  -3.6
MHC      4.37 135 ePd    19 13.30  -3.6
                  eS     20 03.12
COE      4.41 136 eP     19 14.09  -3.3
ARN      4.42 134 eP     19 14.10  -3.5
CMB      4.68 120 ePc    19 19.60  -1.7
SAO      4.91 138 e(P)   19 20.62  -3.8
VGB      6.08  33 eP     19 41.49   0.5
MRCM     6.14 115 eP     19 39.79  -2.2
BONR     6.14 112 (P)    19 42.47   0.3
MTUM     6.26 118 eP     19 42.12  -1.6
GSC      8.62 124 eP     20 13.33  -3.3
LCCM    11.28  57 eP     20 52.30  -1.0
YKA     22.97  13 eP     23 15.30   1.3
        0.3s      0.30nm          3.3mb
        20 obs. associated
-----------------------------------------
    JAN  20, 1993  14h 47m 38.72± 0.14s
     7.934 S ± 3.1km   74.467 W ± 4.7km
    DEPTH = 146.7km  ( 27 depth phases)
    5.0mb ( 40 obs.)
  PERU-BRAZIL BORDER REGION         (112)
       Felt at Lima, Oxapampa, Satipo
       and Pucallpa, Peru.

NNA      4.66 210 iPc    48 48.30  -0.1
        0.5s    295.77nm
                  eS     49 15.90
ARE      8.96 161 eP     49 55.00   8.5X
ZOBO    10.36 144 P      50 04.20  -1.0
                  LR     21 00.00
LPB     10.57 145 Pc     50 08.20   0.4
        1.0s    190.00nm          5.7mb
      Z  24s      1.94um          3.3Msz
                  LR     21 16.00
CNCB    10.86 145 P      50 11.30  -0.5
CCH     12.41 140 P      50 25.50  -6.3X
SIV     15.35 123 (P)    51 15.00   6.1X
ANT     16.16 167 eP     51 19.00   0.2
YJA     16.58 150 ePc    51 22.30  -2.2
SDV     17.14  13 iPc    51 32.80   1.7
TOV     18.21  15 eP     51 39.80  -3.6X
SLA     18.77 154 eP     51 50.00   0.6
OLLA    19.40  23 eP     51 55.70  -0.2
                  eS     52 24.80
MORO    19.66  18 iP     52 00.80   2.2
                  e      52 28.90
FSA     19.76 157 iP     52 00.00   0.5
GUAN    19.82  26 iP     52 00.30  -0.1
                  eS     52 29.80
CYA     21.98 159 ePd    52 22.00   0.3
CFA     24.26 167 ePc    52 44.10   0.5
TCA     25.04 160 iP     52 50.50  -0.5
PEL     25.33 173 ePd    52 54.00   0.4
MRA     25.68 163 ePd    52 56.10  -0.6
BAO     27.00 109 Pd     53 08.00  -1.1
                  e      53 10.20   8kmX
                  e      53 20.50
                  e      53 35.10
                  e      53 36.50
                  e      53 42.90
                  e      53 58.80
                  e      54 05.10
                  e      54 16.00
                  e      55 06.00
                  e      55 52.70
                  e      59 06.00
                  e      59 14.00
                  e      00 12.40
                  e      00 39.00
                  e      00 51.10
                  e      01 10.90
                  e      02 14.20
                  e      02 21.90
                  e      02 27.90
                  e      02 39.30
                  e      02 49.90
RFA     27.27 169 eP     53 11.20  -0.1
VAO     30.36 123 (P)    53 41.00   2.0
PRM     42.45 350 P      55 20.80   0.1
NAV     45.40 353 eP     55 44.54   0.2
                  epP    56 17.76 148km
CVL     45.83 356 eP     55 48.03   0.5
                  (pP)   56 19.68 140km
UYO     45.96 337 iPd    55 48.40  -0.3
OLY     46.08 341 eP     55 47.12  -2.5
                  epP    56 21.14 151km
LNO     48.01 337 eP     56 03.90  -0.7
TUL     48.01 337 eP     56 04.10  -0.6
        0.4s      7.10nm          4.8mb
      Z  18s      0.74um          4.7Msz
                  LR     15 01.00
FVM     48.05 343 eP     56 02.75  -2.2
        0.9s     22.90nm          4.9mb
                  epP    56 36.76 150km
MEO     48.22 333 iPc    56 05.80  -0.6
WMOK    48.27 333 ePd    56 06.29  -0.5
        0.9s     12.11nm          4.6mb
                  epP    56 40.91 153km
                  ePcP   57 31.04
OCO     48.36 335 iPd    56 07.60   0.1
ACO     50.07 334 iPd    56 20.50  -0.1
ALQ     52.26 327 ePd    56 37.01  -0.3
        1.1s     27.56nm          4.9mb
                  epP    57 10.93 147km
TUC     52.92 321 eP     56 41.81  -0.2
        0.8s      4.10nm          4.3mb
                  epP    57 14.99 143km
GLD     55.32 331 eP     57 00.18   0.6
        1.5s     56.26nm          5.2mb
                  pP     57 32.05 135kmX
PV08    56.14 328 eP     57 05.11  -0.6
PV10    56.20 328 eP     57 04.40  -1.6
                  pP     57 38.55 146km
PV09    56.34 328 eP     57 06.24  -0.8
PLM     57.50 318 eP     57 15.16   0.0
                  epP    57 49.91 148km
SRU     57.53 327 eP     57 14.52  -0.7
                  pP     57 48.62 145km
MSU     58.01 326 eP     57 18.59  -0.1
                  pP     57 52.96 146km
PEC     58.03 318 eP     57 18.55  -0.1
                  (pP)   57 52.47 144km
RSSD    58.31 335 iPd    57 20.61   0.0
        0.8s     16.24nm          5.0mb
                  epP    57 55.62 149km
GSC     58.67 320 (P)    57 23.22   0.1
                  pP     57 57.20 144km
DAU     58.86 328 iPd    57 24.43  -0.2
DUG     59.54 327 iPd    57 29.05   0.0
        1.2s     34.60nm          5.2mb
                  pP     58 03.32 144km
BW06    59.74 331 iPd    57 29.31  -1.2
        1.3s     25.99nm          5.0mb
HVU     60.64 328 eP     57 36.11  -0.4
TNP     60.67 322 (P)    57 37.10   0.2
        1.1s     13.02nm          4.8mb
ULM     60.86 344 ePc    57 38.50   0.8
PTI     61.21 329 (P)    57 40.18  -0.2
BONR    61.26 321 iPc    57 41.59   0.6
MEMM    61.48 321 (P)    57 42.93   0.9
LCCM    63.13 332 eP     57 52.60  -0.5
                  e      58 37.90 194kmX
ORV     64.22 321 iP     58 00.35   0.3
                  pP     58 34.94 144km
SES     66.18 335 ePd    58 12.10  -0.5
        1.1s     86.00nm          5.6mb
NEW     67.37 331 eP     58 19.48  -0.6
        1.0s     44.31nm          5.3mb
                  pP     58 54.35 144km
GBL     67.43 328 P      58 20.66   0.2
OD2     67.57 329 P      58 21.58   0.3
MDW     67.60 328 P      58 21.86   0.4
VBEM    67.60 326 P      58 22.42   0.7
DPW     67.64 330 eP     58 22.53   0.8
                  (pP)   58 58.28 148km
BRVW    67.64 328 P      58 22.49   0.7
MXC     67.86 328 P      58 24.00   0.9
EPH     68.00 329 P      58 25.63   1.6
SAW     68.13 329 P      58 24.89   0.1
WTV     68.41 329 P      58 26.58   0.0
DHW2    68.50 329 P      58 27.05  -0.1
ETW     68.54 329 P      58 27.75   0.3
MTMW    68.55 326 P      58 28.61   1.1
WPW     68.60 327 P      58 28.83   1.0
NLW     68.85 329 P      58 29.44   0.1
RMW     69.22 328 P      58 31.41  -0.1
RPW     69.69 329 P      58 34.16  -0.2
GMW     69.80 327 iPc    58 34.92  -0.1
                  (pP)   59 10.45 146km
CMW     69.99 328 P      58 36.13  -0.1
MBW     70.10 329 P      58 36.86  -0.2
OBC     70.78 327 P      58 41.99   1.0
YKA     76.69 342 eP     59 13.40  -1.4
        0.9s      7.30nm          4.4mb
```

20d 14h

```
SPA     82.12 180 iPd    59 44.90   0.8
        0.9s    67.27nm          5.4mb
                  i      00 00.70  56kmX
EPF     84.43  45 eP     59 56.70   0.7
        1.3s    36.80nm          5.1mb
LPF     84.95  40 eP     59 58.20  -0.2
        0.9s    13.75nm          4.8mb
MFF     85.11  42 eP     59 59.40   0.1
        1.0s    20.40nm          4.9mb
GRR     85.17  40 eP     59 59.30  -0.3
        0.7s     7.30nm          4.6mb
LFF     85.23  44 eP     00 00.20   0.3
        1.2s    63.05nm          5.3mb
LPO     85.47  44 eP     00 01.20   0.1
        1.0s    29.00nm          5.1mb
FLN     85.53  40 eP     00 01.30   0.0
        1.0s    22.20nm          5.0mb
LDF     85.70  40 eP     00 02.10  -0.1
        1.0s    17.80nm          4.9mb
RJF     85.86  43 eP     00 03.00  -0.1
        1.1s    22.45nm          4.9mb
CAF     86.14  44 eP     00 04.50   0.0
        1.0s    13.40nm          4.8mb
BGF     87.08  42 eP     00 08.70  -0.3
        1.2s    29.75nm          5.1mb
AVF     87.48  42 eP     00 10.10  -0.7
        1.0s     8.80nm          4.7mb
SSF     87.65  42 eP     00 11.70   0.0
        1.2s    16.35nm          4.9mb
SMF     87.77  42 eP     00 11.70  -0.6
        1.1s    20.50nm          5.0mb
KLU     88.23 333 eP     00 13.97  -0.3
                  epP    00 50.62 144km
TOA     88.55 333 eP     00 16.90   1.1
                  e      00 55.20 151km
DOU     89.07  39 P      00 18.70   0.3
        1.0s    33.30nm          5.3mb
LPL     89.48  44 eP     00 21.00   0.3
        0.9s    18.65nm          5.1mb
LPG     89.49  44 eP     00 21.20   0.4
        0.9s    18.35nm          5.1mb
PMR     89.72 333 eP     00 19.69  -1.4
        0.6s    15.94nm          5.2mb
                  epP    00 58.16 151km
PMS     89.82 332 eP     00 22.50   0.8
        1.0s    33.10nm          5.3mb
                  e      01 00.80 150km
WLF     89.96  40 P      00 23.00   0.5
BSF     89.99  42 eP     00 22.00  -0.9
        1.0s    11.00nm          4.8mb
FBA     90.16 336 eP     00 23.80   0.7
                  e      01 02.20 151km
DAG     90.28  11 eP     00 23.20  -0.3
        1.0s    11.00nm          4.9mb
                  ipP    01 01.00 148km
CDF     90.43  41 eP     00 24.20  -0.6
        1.1s    14.90nm          5.0mb
CRP     91.03 332 eP     00 26.44  -1.0
                  epP    01 02.13 139km
IMA     92.84 336 (P)    00 34.60  -1.0
        1.0s     5.39nm          4.7mb
                  epP    01 13.57 153km
NAO     94.57  29 P      00 40.70  -2.8
        1.0s    11.10nm          5.1mb
GEC2    94.71  41 eP     00 43.20  -1.3
        0.8s     0.81nm          4.1mb
                  e      00 51.80  27kmX
                  e      01 00.10
VBY     95.40  45 eP     00 48.10   0.5
KSH    138.93  36 ePKP   06 51.00   1.1
WB2    140.35 225 ePKP   06 46.00  -6.9X
        1.3s    11.90nm
WB2    140.35 225 iPKP   06 52.70  -0.2
WRA    140.36 225 PKP    06 46.20  -6.7X
        0.9s     2.00nm
DL2    145.93 337 ePKP   07 01.70  -0.2
NDI    146.27  49 iPKPc  07 03.50   0.7
BJI    146.64 345 ePKP   07 03.50   0.5
      Z  24s     0.64um          5.3MszX
HHC    146.79 352 ePKP   07 04.80   1.4
BTO    147.23 354 PKP    07 06.00   1.9
MTN    147.24 231 ePKP   07 05.00   0.3
POO    147.47  68 iPKPc  07 11.00   6.0X
GTA    148.24   8 PKP    07 06.00   0.2
TIY    149.70 349 ePKP   07 09.00   1.0
      Z  26s     1.27um          5.6MszX
      N  13s     0.83um
```

```
      E  14s     0.75um
TIA    149.93 341 PKPc  07 13.00   4.7X
GBA    151.84  76 PKP   07 12.00   0.3
GKN    151.92  42 PKP   07 11.66  -0.1
LZH    151.94   3 PKPd  07 18.50   6.9X
      Z  16s     0.63um          5.5MszX
                 sPKP   07 59.50
HYB    152.08  68 ePKP  07 12.00  -0.1
                 e      07 53.00
KKN    152.49  42 PKP   07 12.48  -0.2
DMN    152.49  42 PKP   07 11.96  -0.8
SSE    152.71 330 PKPd  07 19.50   7.0X
      Z  20s     0.60um          5.4Msz
PKI    152.72  42 PKP   07 12.36  -0.8
GUN    152.80  41 PKP   07 13.00  -0.3
NJ2    152.99 334 PKPc  07 20.00   7.1X
XAN    153.83 354 PKP   07 14.50   0.4
LSA    154.48  30 PKP   07 16.60   0.9
CHG    167.43  30 ePKP  07 30.00   1.1
      S.D. = 0.8  on 131 of 142 obs.
-----------------------------------
   JAN  20, 1993  14h 49m 12.31± 0.27s
   38.541 N ± 5.0km   29.276 W ± 2.7km
   DEPTH =  10.0km  (geophysicist)
   5.0mb ( 63 obs.)  4.6Msz (  9 obs.)
 AZORES ISLANDS                  (405)
      Mw 5.4 (HRV). Felt (VI) on
      Faial, (IV) on Pico and (III) on
      Sao Jorge, Graciosa and
      Terceira.
      CENTROID, MOMENT TENSOR    (HRV)
      Data Used: GDSN
      L.P.B.: 17S, 32C
      Centroid Location:
      Origin Time        14:49:18.8 0.5
      Lat 38.39N 0.06 Lon  29.34W 0.11
      Dep  15.0 FIX Half-duration  1.2
      Moment Tensor;   Scale 10**17 Nm
        Mrr=-0.74 0.09  Mtt= 1.04 0.06
        Mff=-0.31 0.10  Mrt= 0.61 0.26
        Mrf=-0.09 0.19  Mtf=-0.60 0.10
       Principal Axes:
        T  Val=  1.43  Plg=16  Azm= 20
        N       -0.49      16      285
        P       -0.94      67      151
      Best Double Couple:Mo=1.2*10**17
       NP1:Strike=132 Dip=33 Slip= -59
       NP2:        276      63     -109

CALA     0.45  85 iPd   49 22.00   0.5
HOR      0.51  91 iPd   49 22.50  -0.1
PICO     0.67  93 iPd   49 25.60   0.0
ADH      1.60  85 iPc   49 40.00  -0.7
PDA      2.96 104 iPd   50 23.60  23.5X
                 iS     50 55.40
TBT     13.64 133 iPd   52 24.10  -4.1X
CHIE    14.34 135 iPd   52 33.60  -3.8X
GGC     15.41 128 eP    52 49.20  -2.2
EZAM    16.10  71 eP    53 04.50   4.3X
CFTV    16.19 124 eP    52 59.00  -2.4
STS     16.29  68 eP    53 05.40   2.7X
EMON    17.26  67 eP    53 14.50  -0.4
ERUA    17.27  70 eP    53 16.70   1.7
AVE     18.45 100 iP    53 30.00   0.3
                 i      53 48.00
ALJ     18.84  88 eP    53 41.00   6.4X
PLAT    18.85  90 iP    53 40.00   5.4X
EHOR    18.90  85 eP    53 35.71   0.6
ANTZ    19.02 116 iPc   53 37.00   0.3
                 i      53 49.00
OJEN    19.03  90 eP    53 46.00   9.1X
EPRU    19.07  87 eP    53 37.94   0.6
MAL     19.76  88 iPc   53 47.00   1.7
                 iS     56 42.00
EBAN    19.98  83 eP    53 48.33   0.7
IFR     20.14  97 iP    53 51.00   1.4
EGUA    20.40  87 eP    53 52.35   0.3
EVIA    20.91  81 eP    53 57.14  -0.2
EHUE    20.97  84 eP    53 58.56   0.6
ETOR    21.05  75 iPc   53 58.71   0.0
DCN     21.16  38 eP    54 05.70   6.0X
DLF     21.50  39 eP    54 03.30   0.2
DMU     21.67  38 eP    54 05.70   0.9
EGRA    22.32  71 eP    54 16.98   5.6X
LPF     22.53  56 iPc   54 14.70   1.3
         1.0s    51.80nm          5.0mb
GRR     22.74  55 iPc   54 16.60   1.1
```

```
         1.0s    51.00nm          5.0mb
ENSF    22.80  70 P     54 17.64   1.3
EPF     22.81  69 eP    54 17.70   1.4
         1.1s    82.55nm          5.2mb
MFF     22.82  60 eP    54 15.90  -0.4
         1.0s    73.50nm          5.1mb
EROQ    22.91  75 eP    54 17.14  -0.1
EBR     22.98  75 eP    54 19.00   1.1
                eS     58 37.00
FLN     23.08  54 eP    54 18.90   0.1
         1.0s    27.20nm          4.7mb
      Z  20s     2.35um          4.6Msz
LFF     23.21  64 eP    54 20.80   0.7
         1.0s    65.00nm          5.1mb
LDF     23.26  55 eP    54 21.30   0.7
         0.8s    34.40nm          4.9mb
SALF    23.43  70 P     54 23.70   1.3
LPO     23.50  65 iPc   54 23.50   0.5
         1.2s    75.85nm          5.1mb
RJF     23.79  64 eP    54 25.60  -0.2
         1.4s    62.75nm          5.0mb
LSF     23.91  61 iPc   54 27.50   0.6
         0.9s    66.15nm          5.2mb
TRGS    24.00  71 P     54 29.07   1.0
CAF     24.14  65 eP    54 29.60   0.3
         1.0s    32.40nm          4.9mb
EKA     24.28  38 P     54 31.00   0.6
         0.9s    19.20nm          4.7mb
TCF     24.38  61 iPc   54 31.90   0.3
         0.8s    83.30nm          5.4mb
MAF     24.62  62 eP    54 34.00   0.2
         0.9s    58.65nm          5.2mb
ETER    24.67  71 eP    54 34.83   0.5
PERF    24.68  71 P     54 34.54   0.1
BGF     24.85  61 iPc   54 36.00  -0.1
         0.8s    92.40nm          5.5mb
PYM     24.88  63 P     54 36.81   0.4
AGO     24.99  62 P     54 37.50   0.1
LBL     25.00  64 P     54 37.76   0.2
AVF     25.23  60 iPc   54 39.20  -0.4
         0.8s    27.95nm          5.0mb
PLDF    25.32  62 P     54 40.79   0.2
COLF    25.34  63 P     54 40.66  -0.1
SSF     25.37  60 iPc   54 40.50  -0.4
         1.0s    44.00nm          5.1mb
SMF     25.54  61 iPc   54 42.50  -0.1
         0.9s    75.00nm          5.4mb
LOR     25.63  59 iPc   54 42.90  -0.6
         0.8s    20.55nm          4.9mb
      Z  20s     1.38um          4.5Msz
LBF     25.68  60 iPc   54 43.20  -0.7
         0.9s    25.55nm          4.9mb
SNF     26.52  52 iPc   54 50.75  -0.8
                 i      54 57.61
DOU     26.62  53 Pd    54 52.10  -0.4
         0.9s    52.50nm          5.2mb
UCC     26.63  52 P     54 51.00  -1.6
LMN     27.15 297 eP    55 01.50   4.1X
LRG     27.20  68 eP    54 57.70  -0.2
         1.0s    25.60nm          4.9mb
      Z  17s     1.40um          4.6MszX
LMR     27.32  68 eP    54 58.40  -0.5
         1.1s    21.75nm          4.8mb
HAU     27.40  58 iPc   54 58.80  -0.9
         1.0s    32.80nm          5.0mb
      Z  18s     1.30um          4.5Msz
RSL     27.40  63 P     54 59.74  -0.2
FRF     27.41  68 eP    54 59.40  -0.4
         1.0s    31.20nm          5.0mb
BNI     27.42  65 P     55 01.10   1.1
LPL     27.47  64 iPc   55 00.90   0.3
         1.0s    23.80nm          4.9mb
LPG     27.48  64 iPc   55 01.20   0.4
         1.3s    31.05nm          4.9mb
WLF     27.52  55 iPd   55 00.45  -0.2
                 i      55 06.29
                 e      55 23.00
EMS     27.63  62 ePd   55 02.32   0.3
BSF     27.67  59 iPc   55 01.30  -1.0
         0.9s    13.75nm          4.7mb
DOI     27.82  66 P     55 04.50   0.8
DIX     27.96  62 ePd   55 05.90   0.7
CDF     28.06  58 iPc   55 04.90  -0.9
         0.9s    35.55nm          5.2mb
MMK     28.35  63 ePc   55 12.31   3.7X
ZLA     28.72  60 ePc   55 12.06   0.4
SLE     28.81  59 ePd   55 12.13  -0.3
```

```
TMA     28.98  62 ePd   55 14.63   0.4
LLS     29.09  61 ePd   55 15.82   0.6
PGF     29.19  70 eP    55 15.10  -0.9
        0.9s    14.40nm          4.8mb
VDL     29.41  62 ePd   55 18.59   0.5
OSS     29.88  61 ePd   55 22.52   0.3
OGA     30.49  61 iPc   55 27.80   0.1
SQTA    30.62  60 iPd   55 28.60  -0.1
        1.1s    38.90nm          5.2mb
                  i     55 35.20
                  i     55 46.30
                  i     55 52.20
GRF     30.78  55 iPc   55 29.60  -0.4
        1.1s    38.00nm          5.2mb
      Z  18s     1.50um          4.7Msz
                ipPd    55 36.10  23kmX
WTTA    30.91  60 iPd   55 31.20  -0.2
        1.2s    47.70nm          5.3mb
                  i     55 36.60
                  i     55 42.30
CTI     30.92  63 P     55 30.00  -1.3
MOX     31.14  54 iPd   55 32.80  -0.3
        1.1s    27.00nm          5.1mb
      Z  18s     2.20um          4.9Msz
CRE     31.25  67 P     55 31.20  -3.1X
HOF     31.27  54 iPc   55 34.00  -0.3
        0.9s    38.00nm          5.3mb
                  i     55 40.70
FVI     31.69  62 P     55 37.10  -0.9
WET     31.82  57 eP    55 38.10  -1.0
ASS     31.82  68 P     55 37.10  -2.2
ARV     31.98  67 P     55 38.30  -2.3
KBA     32.08  61 iPc   55 41.00  -0.6
        1.0s    40.40nm          5.3mb
                  i     55 47.20
                  i     55 57.70
CLL     32.09  53 iP    55 40.80  -0.6
RBL     32.24  62 P     55 41.00  -1.9
KHC     32.28  57 P     55 42.30  -0.8
        1.0s     7.00nm          4.5mb
      Z  22s     1.20um          4.5Msz
      N  14s     2.00um
      E  22s     1.40um
                  e     55 48.50
GEC2    32.34  57 ePc   55 42.80  -1.0
        0.8s     7.40nm          4.7mb
                  e     55 47.60
                  e     55 49.70
AQU     32.45  69 P     55 45.00   0.2
VOY     32.48  63 e(P)  55 44.20  -0.8
                epP     55 55.50  42kmX
BRG     32.63  54 iP    55 45.60  -0.6
        1.2s    22.00nm          5.0mb
                  i     55 52.00
SDI     32.85  71 P     55 48.00  -0.2
RIY     32.86  64 eP    55 47.80  -0.4
CEY     32.86  63 e(P)  55 47.00  -1.3
LJU     32.92  63 e(P)  55 48.00  -0.8
PRU     32.95  55 Pc    55 49.00   0.1
                  e     55 55.50
NAO     33.41  35 P     55 52.60  -0.2
        0.7s     7.20nm          4.7mb
VBY     33.46  63 iP    55 53.10  -0.3
                iPP     55 56.40
                  i     55 59.40
PTJ     33.92  63 eP    55 56.80  -0.8
KSP     34.12  54 iP    55 58.50  -0.6
                  i     56 04.90
SGO     34.16  72 P     55 59.70   0.2
MGR     34.43  73 P     56 01.90   0.0
HVAR    34.56  67 eP    56 02.80  -0.1
ZST     34.60  59 eP    56 03.70   0.5
TDS     35.13  73 P     56 09.20   1.3
UZD     35.69  61 eP    56 11.60  -0.9
BUD     35.92  60 eP    56 12.00  -2.5
OJC     36.34  55 iP    56 18.30   0.3
        0.8s   113.00nm          5.8mb
                  i     56 24.20
SPC     36.65  57 eP    56 35.90  15.0X
EEO     37.01 299 eP    56 27.00   3.3X
UZH     38.04  58 ePc   56 32.50   0.3
      Z  12s     1.50um          5.0MszX
      E  12s     1.20um
                  i     56 37.40
OHR     38.12  70 iP    56 33.80   0.7
        1.1s    58.00nm          5.3mb
CVL     38.25 285 eP    56 36.36   2.2
SKO     38.40  68 iP    56 35.00  -0.4
                  i     56 41.50
TIC     38.60 139 P     56 37.80   0.5
        0.7s     7.50nm          4.5mb
                  e     58 40.30
LIC     38.95 139 P     56 40.40   0.2
      Z  21s     0.38um          4.2Msz
                  e     58 39.70
KIC     38.98 139 P     56 40.00  -0.5
        0.8s    25.50nm          4.9mb
                  e     58 41.70
                  e     59 16.80
VAY     39.37  69 iP    56 43.60   0.1
VTS     39.55  67 iPd   56 46.00   0.8
NUR     39.85  39 eP    56 46.60  -0.6
        0.9s     8.50nm          4.4mb
MMB     40.15  68 iPd   56 51.00   0.9
PGB     40.25  67 iPd   56 52.00   1.1
CMP     40.33  62 ePc   56 51.00  -0.4
PLD     40.74  67 eP    56 56.00   1.2
RZN     40.85  68 iPd   56 57.00   1.1
KAF     40.88  36 iP    56 55.70   0.0
        0.9s    13.40nm          4.7mb
MLR     40.91  62 eP    56 57.00   0.7
ISR     41.40  62 eP    57 02.00   1.8
SDF     42.00  28 iP    57 05.00   0.2
JMB     42.01  66 iP    57 05.00  -0.2
FCC     45.29 318 eP    57 35.50   3.9X
OBN     46.21  47 iPc   57 38.00  -0.9
        1.2s    40.00nm          5.3mb
      Z  16s     1.80um          5.1MszX
      N  16s     1.10um
      E  16s     1.50um
                 eS     04 32.00
ELC     46.57 288 eP    57 42.68   0.7
ANN     48.85  60 eP    58 03.00   3.3X
      Z  15s     0.90um          4.9MszX
      N  15s     0.90um
HRI     51.95  75 eP    58 24.10   0.4
DSI     52.43  77 eP    58 27.50   0.4
MBH     52.86  79 eP    58 30.80   0.3
PYA     53.03  59 iPc   58 33.00   1.5
YKA     54.61 325 eP    58 40.90  -1.9
        0.8s     2.40nm          4.3mb
BCAO    55.06 116 iPd   58 46.10  -0.6
        0.4s    18.00nm          5.5mb
                 ic     58 47.00
                 ic     00 39.30
SES     56.73 311 eP    58 47.00 -11.4X
        1.1s    60.00nm
GRS     57.05  63 eP    59 00.00  -1.0
        1.1s    40.00nm          5.4mb
ARU     57.87  41 eP    59 05.00  -1.2
SVE     58.74  40 ePd   59 12.00  -0.4
        2.1s    40.00nm          5.2mb
      Z  17s     1.50um          5.2MszX
      N  15s     0.70um
      E  15s     1.00um
                 eS     07 27.00
BW06    58.84 302 eP    59 12.52  -1.1
PV08    60.09 297 eP    59 22.96   0.6
PV10    60.45 297 eP    59 25.47   0.7
DAU     61.04 300 eP    59 29.19   0.4
SRU     61.14 299 (P)   59 28.65  -0.7
HVU     61.43 302 eP    59 31.14  -0.1
DPW     62.05 310 eP    59 34.40  -0.8
DUG     62.19 301 eP    59 36.32  -0.1
MSU     62.56 299 eP    59 39.57   0.6
NRI     63.08  21 eP    59 43.50   1.9
        1.2s    14.00nm          5.0mb
GMW     64.92 312 eP    00 05.37  11.4X
TNP     66.21 300 eP    00 02.95   0.3
        1.0s     7.13nm          4.8mb
FBA     66.33 336 eP    00 03.07   0.3
        0.9s     3.50nm          4.5mb
IMA     67.31 339 eP    00 08.32  -0.8
        0.7s     3.34nm          4.6mb
GSC     67.38 298 eP    00 11.05   1.0
MAIO    67.71  61 eP    00 13.00   0.9
TIK     69.04   7 eP    00 19.40  -0.2
        1.0s    13.00nm          5.1mb
ELT     72.98  35 eP    00 43.20  -0.4
        1.5s    12.00nm          4.8mb
      Z  12s     0.80um          5.2MszX
                 eS     10 02.00
                  e     10 42.00
FRU     73.63  48 eP    00 51.00   3.3X
      Z  20s     1.30um          5.2Msz
                  e     00 55.00
                  e     01 05.00
WIN     74.73 136 eP    00 40.00 -14.4X
      Z  20s     4.00um          5.7Msz
QUE     76.30  62 eP    01 03.80   0.4
KSH     76.53  50 eP    01 04.20  -0.2
        1.0s    30.00nm          5.3mb
YAK     78.36  10 eP    01 13.00  -0.9
        1.9s    46.00nm          5.2mb
BOD     79.20  19 eP    01 17.90  -0.7
        1.3s    18.00nm          4.9mb
WMQ     80.17  41 eP    01 25.30   1.1
ZAK     82.12  28 eP    01 34.00  -0.1
        2.0s    25.00nm          5.0mb
      Z  15s     0.60um          5.1MszX
                  e     04 42.50
SLR     83.60 130 eP    01 46.10   3.8X
      Z  18s     4.06um          5.8MszX
GTA     89.47  37 eP    02 10.50  -0.5
GKN     89.50  54 P     02 10.54  -0.8
KKN     90.06  54 P     02 14.44   0.4
DMN     90.07  54 P     02 14.86   0.7
PKI     90.29  54 P     02 16.90   1.6
GUN     90.35  53 P     02 16.32   0.7
        1.0s    31.00nm          5.5mb
LZH     94.03  36 eP    02 30.00  -2.2
        2.0s    17.00nm          5.1mb
GBA     94.26  69 P     02 41.00   7.8X
      S.D. = 0.9  on 174 of 197 obs.
-----------------------------------
%  JAN  20, 1993  15h 14m 48.73± 0.81s
   26.860 S ± 8.2km   26.682 E ±12.0km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA          (584)
      ML 2.5 (PRE).

KSR      1.01  11 eP    15 09.00   0.6
                  S     15 22.50
SEK      1.68 150 eP    15 20.00   0.9
                  S     15 39.00
SLR      1.82  52 eP    15 21.50   0.4
                  S     15 42.10
BLF      2.28 191 eP    15 28.50   0.7
                  S     15 53.50
KIM      2.53 221 eP    15 31.00  -0.2
                  S     15 59.50
FRS      3.12 202 iPc   15 38.50  -1.0
                  S     16 10.50
BFT      3.24  70 e(P)  15 40.00  -1.4
                  S     16 27.00
      S.D. = 1.1  on   7 of   7 obs.
-----------------------------------
%  JAN  20, 1993  15h 33m 21.37± 1.21s
   31.640 S ±13.4km  117.158 E ± 9.1km
   DEPTH =  33.0km  (normal)
   3.9mb (  1 obs.)
 WESTERN AUSTRALIA                 (590)

KLB      0.52  85 iPd   33 33.80   1.6
MUN      0.88 247 iPd   33 36.80  -0.5
                  eS    33 46.80
BAL      1.10 339 iPc   33 42.00   1.5
                  eS    33 54.80
MRWA     2.61 337 iPc   34 03.60   1.4
COOL     3.50  79 eP    34 16.40   1.6
MEEK     5.14  15 eP    34 37.50  -0.7
        0.2s     9.00nm          4.9mb X
                  eS    35 33.00
NANU     9.16 350 eP    35 32.40  -1.8
                  eS    37 07.00
FORT     9.38  88 eP    35 36.00  -1.2
        0.2s     4.00nm          5.3mb X
                  eS    37 16.00
WARB     9.93  59 eP    35 43.00  -1.9
ASPA    16.81  66 eP    37 12.80  -3.1X
                  eS    40 07.60
WB2     19.34  57 eP    37 43.50  -3.5X
        0.3s     2.00nm          3.9mb
                  eS    43 24.40
      S.D. = 1.7  on   9 of  11 obs.
-----------------------------------
%  JAN  20, 1993  17h 13m 56.75± 0.54s
   26.375 S ± 5.4km   27.488 E ± 5.3km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA          (584)
      ML 2.8 (PRE).
```

20d 17h

```
BPI      0.53  68 eP     14 07.50   0.2
                S      14 15.10
PRY      0.55 181 eP     14 07.40  -0.4
                S      14 14.60
KSR      0.74 314 eP     14 11.50   0.0
                S      14 20.00
BFS      0.82 230 eP     14 13.70   0.5
                S      14 22.60
SLR      0.96  48 iPc    14 14.40  -1.1
                S      14 26.40
SEK      1.94 176 eP     14 32.00   1.1
                S      14 55.50
SWZ      2.09 247 eP     14 33.50   0.4
                S      15 01.00
BFT      2.40  74 eP     14 38.50   1.0
                S      15 06.50
BLF      2.96 203 eP     14 44.50  -0.9
                S      15 18.70
KIM      3.37 225 eP     14 51.50   0.2
                S      15 30.00
FRS      3.87 209 e(P)   14 57.00  -1.2
                S      15 39.10
     S.D. = 0.9  on  11 of  11 obs.
-----------------------------------------
   JAN  20, 1993  17h 31m 15.57± 0.13s
    7.205 S ± 3.3km  128.566 E ± 3.9km
   DEPTH =  33.0km  (normal)
   6.2mb ( 83 obs.)  6.2Msz ( 50 obs.)
 BANDA SEA                          (280)
      Mw 6.4 (GS), 6.4 (HRV). Ms 6.1
      (BRK). Mo=2.0*10**19 Nm (PPT).
      Complex event observed on
      broadband displacement
      seismograms.
      RADIATED ENERGY
       No. of sta:  10  Focal mech.  M
       Energy        7.2±1.9*10**14 Nm
      MOMENT TENSOR SOLUTION
      Dep  21            No. of sta: 16
      Moment Tensor;   Scale 10**18 Nm
        Mrr= 0.06        Mtt=-4.46
        Mff= 4.39        Mrt=-0.78
        Mrf= 0.91        Mtf= 0.26
       Principal axes:
        T  Val=  4.58  Plg=11  Azm=271
        N        0.03       75       133
        P       -4.60       10         3
      Best Double Couple:Mo=4.6*10**18
       NP1:Strike= 47 Dip=75 Slip=   1
       NP2:        317      89       165
      CENTROID, MOMENT TENSOR     (HRV)
      Data Used: GDSN
      L.P.B.: 35S, 89C  M.W.: 31S, 62C
      Centroid Location:
      Origin Time        17:31:17.9 0.2
      Lat  7.15S 0.01 Lon 128.53E 0.01
      Dep  17.3 1.2 Half-duration  4.1
      Moment Tensor;   Scale 10**18 Nm
        Mrr=-0.18 0.05  Mtt=-4.44 0.04
        Mff= 4.62 0.05  Mrt=-0.99 0.19
        Mrf=-0.03 0.17  Mtf= 1.60 0.04
       Principal Axes:
        T  Val=  4.90  Plg= 2  Azm=100
        N        0.01       78       200
        P       -4.91       12         9
      Best Double Couple:Mo=4.9*10**18
       NP1:Strike=145 Dip=80 Slip=-173
       NP2:         54      83       -10

MTN      6.15 156 eP     32 46.00  -0.5
PCI     10.72 305 e(P)d  33 51.90   2.0
WRA     13.85 157 P      34 26.39  -5.5X
WB2     13.85 157 iPd    34 25.80  -6.1X
                eS      36 54.40
DAV     14.51 348 ePd    34 38.00  -2.5
        2.3s  2909.09nm          6.4mb
TSM     15.63 317 ePc    34 55.80   0.6
ASPA    17.15 163 P      35 10.00  -4.5X
MDG     17.22  85 eP     35 15.80   0.5
KKM     18.03 317 ePc    35 26.60   1.1
                e       36 35.50
PMG     18.53  98 eP     35 30.00  -1.5
PLP     18.59 349 ePc    35 33.50   1.2
WARB    18.96 185 iPc    35 33.90  -2.9
                eS      38 55.00
FINC    19.16  89 eP     35 38.80  -0.4
NANU    19.77 218 iPc    35 45.00  -0.9

CTA     21.40 129 iPc+   36 02.20  -0.7
                iS      39 51.00
CTAO    21.40 129 iPc    36 02.83   0.0
MEEK    21.52 205 iPd    36 02.70  -1.3
        0.6s   172.00nm          5.6mb
PGP     21.92 340 ePd    36 11.00   3.0X
TGY     22.48 340 ePd    36 12.50  -1.1
FORT    23.46 181 eP     36 23.00   0.0
                eS      40 40.00
RAB     23.67  84 eP     36 24.00  -1.2
OLP     24.36 144 eP     36 32.00   0.1
        0.4s   276.00nm          6.2mb
                eS      40 58.30
COOL    24.56 195 eP     36 33.30  -0.5
        0.7s   192.00nm          5.8mb
                eS      41 07.00
BAG     24.76 341 iP-    36 35.00  -0.9
                iS      40 58.00
MRWA    24.90 207 eP     36 36.50  -0.5
        0.5s    87.00nm          5.6mb
                eS      41 13.00
BAL     25.80 204 eP     36 46.20   0.7
        0.5s   146.00nm          5.8mb
                eS      41 37.00
PJG     26.24  38 eP     36 51.20   1.5
KLB     26.28 201 iPd    36 50.10   0.2
        0.7s   134.00nm          5.7mb
                eS      41 46.00
PIP     26.55 343 eP     36 56.50   4.1X
KGM     26.81 289 eP     36 55.50   0.6
        1.0s   243.80nm          5.8mb
RMQ     27.14 137 iPd    36 57.90   0.0
                e       37 55.00
                eS      42 14.50
MUN     27.21 203 iPc    36 57.50  -0.9
        0.8s   306.00nm          6.0mb
      N  18s    54.20um
      E  18s   133.30um
                e       37 32.00
                eS      42 06.00
STK     27.39 155 eP     36 58.80  -1.3
        0.5s  4514.50nm          7.4mb X
                eS      42 11.80
KLM     28.75 290 eP     37 13.00   0.5
CMS     29.04 149 iPd    37 14.40  -0.6
                eS      42 43.00
ADE     29.16 163 ePc+   37 15.00  -1.1
RKG     29.24 200 eP     37 18.00   1.3
IPM     29.87 292 ePc    37 20.50  -2.1
        0.9s    88.70nm          5.5mb
BRS     30.50 134 iPd-   37 26.00  -2.0
        1.5s    15.00nm          4.6mb X
                eS      42 00.00
HNR     31.12  96 eP     37 32.00  -1.6
                eS      42 30.00
SNG     31.32 297 eP     37 34.20  -1.2
        1.0s  1222.00nm          6.7mb
                eS      42 41.50
ARMA    31.64 140 iPc    37 39.00   0.9
        0.9s    39.00nm          5.3mb
                iPP     38 39.20
QIZ     31.94 325 P      37 41.00   0.3
      N  12s    14.90um
      E  16s    25.70um
                S       42 48.00
BFD     32.43 159 iPc    37 44.30  -0.5
        1.0s   299.00nm          6.1mb
HKC     32.54 335 eP     37 46.10   0.2
                iS      42 26.00
TATO    32.72 348 ePd    37 49.06   1.7
                ec      37 53.44
QZH     33.40 343 Pd     37 53.00  -0.3
GZH     33.59 334 P      37 54.00  -1.0
      Z  18s    28.50um          6.0Msz
      N  13s    13.80um
      E  11s     6.11um
                iS      43 14.00
                PcS     44 20.00
CNB     33.87 149 eP     37 56.20  -1.3
                i       38 07.70
                eS      42 31.20
TOO     33.91 156 iPd    37 58.30   0.5
        1.1s   382.00nm          6.2mb
      Z  18s   163.50um          6.8Msz
                ePP     38 47.80
                eS      42 52.00
                eScP    43 55.20

LOE     36.07 313 eP     38 16.00  -0.3
NST     36.19 309 eP     38 25.00   7.7X
KHT     36.89 306 eP     38 19.00  -4.2X
BDT     38.00 310 eP     38 34.00   1.5
        1.0s   179.40nm          5.9mb
SSE     38.73 350 ePd    38 38.17  -0.3
        2.0s   480.00nm          5.9mb
      Z  20s    24.40um          6.0Msz
      N  12s     8.40um
      E  12s    10.10um
                ed      38 41.65
                ec      38 47.03
                PP      40 06.00
CHG     39.01 312 iPc    38 40.90  -0.1
        1.0s   205.00nm          5.8mb
                eS      44 43.00
CHTO    39.01 312 iPc    38 40.84  -0.2
                ed      38 46.39
TAU     39.21 158 eP     38 43.00   0.6
                e       40 13.00
                eS      44 42.00
DZM     39.38 116 iPc    38 44.10  -0.1
GYA     39.64 328 iPd    38 46.80   0.5
        1.0s    67.00nm          5.4mb
      Z  20s    23.10um          6.0Msz
      N  13s    21.60um
      E  13s    23.30um
                PP      40 15.00
                S       44 44.00
WHN     39.93 341 P      38 49.50   1.0
        1.3s   110.00nm          5.5mb
      Z  24s    28.90um          6.0MszX
      N  12s     6.27um
      E  12s     6.51um
                PP      40 28.00
                iS      44 53.00
BKM     40.03 109 iPc    38 49.40  -0.1
NJ2     40.12 347 Pd     38 50.00   0.0
      Z  22s    15.20um          5.8Msz
      N  11s     9.31um
      E  12s     8.04um
                S       44 55.00
KMI     40.80 323 ePc    38 57.11   1.1
        1.0s   230.00nm          5.9mb
      Z  26s    37.90um          6.1MszX
      N  13s     5.40um
      E  13s    18.50um
                pP      39 02.00  16kmX
                ec      39 06.13
SHK     41.69   5 eP     39 02.70  -0.2
MAJO    44.45  11 eP     39 24.83  -0.5
                ec      39 32.86
MAT     44.45  11 iPd-   39 24.20  -1.1
        1.5s   227.78nm          5.8mb
      Z  20s    34.75um          6.3Msz
                eS      45 57.00
TIA     44.50 347 Pc     39 25.90   0.1
      Z  38s    34.50um          6.0MszX
      E  19s    20.40um
                S       45 58.00
CD2     44.73 329 eP     39 26.80  -0.9
      Z  18s    37.80um          6.4Msz
      E  12s    14.10um
                S       45 57.00
XAN     45.04 337 P      39 28.50  -1.7
      Z  32s    31.80um          6.0MszX
      N  12s    12.40um
      E  10s     7.36um
                pP      39 40.20  42kmX
                sP      39 44.60
                PP      41 15.00
                PcS     45 04.00
                S       46 03.00
                ScS     49 25.00
DL2     46.33 353 eP     39 40.00  -0.1
      Z  20s    12.30um          5.9Msz
      N  14s     8.06um
      E  14s    24.30um
                S       46 24.00
TIY     47.15 343 eP     39 45.20  -1.7
      Z  34s    53.40um          6.3MszX
      E  11s     7.56um
                PP      41 31.00
BJI     48.38 347 ePd    39 55.28  -1.0
        2.0s   370.00nm          6.1mb
      Z  23s    23.40um          6.1MszX
      N  14s     8.19um
```

```
                ed     39 59.09
                ec     40 04.13
                eS     46 52.00
                eScS   49 44.50
LZH    48.93 333 ePd   40 00.83    0.0
       1.5s    760.00nm          6.5mb
     Z  30s     36.90um          6.2MszX
     N  12s     11.60um
                pP     40 04.00   11kmX
                ed     40 06.05
                ec     40 09.77
                PP     41 56.00
                S      47 02.00
SNY    49.01 355 iPd   40 00.00   -1.0
       2.2s    760.00nm          6.3mb
     Z  21s     30.70um          6.3Msz
     E  13s     10.60um
                PP     41 49.50
SVA    49.73 108 eP    40 04.20   -2.8
MBU    49.87 106 eP    40 09.00    0.8
VLA    50.18   3 iPc   40 11.00    1.0
       2.0s    995.00nm          6.5mb
                i      40 26.00
                i      42 12.00
                iS     47 30.00
                i      50 02.00
HHC    50.31 343 Pd    40 10.50   -0.8
       0.8s    210.00nm          6.2mb
     Z  20s     25.00um          6.2Msz
     N  14s     11.80um
     E  12s      1.19um
                PP     42 13.00
                S      47 18.50
                SS     50 54.00
BTO    50.54 342 P     40 12.00   -1.0
     N  13s      7.67um
     E  17s      1.20um
                PP     42 10.00
                S      47 19.00
                eSS    50 47.00
ERM    50.77  14 iPd   40 17.40    2.9X
CN2    50.84 357 Pd    40 09.50   -5.6X
       1.8s    470.00nm          6.2mb
     Z  20s     22.30um          6.2Msz
     N  12s      8.51um
     E  12s      8.25um
                epP    40 26.00   64kmX
                eS     47 26.00
                eSS    51 00.00
SAP    51.35  12 eP    40 20.00    1.0
                eS     47 42.00
LSA    51.37 317 ePc   40 20.09    0.1
       1.3s    350.00nm          6.2mb
     Z  20s     20.60um          6.2Msz
     N  14s     16.60um
                S      47 33.50
MDJ    51.59   1 ePd   40 20.83    0.1
       2.2s    930.00nm          6.4mb
     Z  41s     50.30um          6.2MszX
     N  13s      2.68um
     E  14s      9.81um
                S      47 41.00
MCQ    53.10 158 P     40 38.70    6.8X
MRW    53.10 137 P     40 33.20    0.9
GTA    53.48 332 P     40 34.50   -0.6
       1.0s    270.00nm          6.2mb
     Z  56s     32.90um          5.9MszX
     N  14s      7.43um
                sP     40 50.00
                S      48 04.00
                sS     48 20.00
GUN    54.02 312 P     40 38.04   -1.5
       0.9s   1374.00nm          7.0mb
PKI    54.19 312 P     40 38.96   -1.8
       0.9s    246.00nm          6.2mb
KKN    54.40 312 P     40 40.58   -1.6
       1.1s    641.00nm          6.6mb
DMN    54.43 311 P     40 40.92   -1.6
       1.0s    736.00nm          6.7mb
GBA    54.81 292 Pd    40 43.20   -1.9
       1.0s     27.00nm          5.2mb
GKN    54.99 312 P     40 44.76   -1.7
KUR    55.00  17 eP    40 48.00    2.0
       1.0s    230.00nm          6.2mb
     Z  20s      9.50um          5.9Msz
     N  20s     12.60um
     E  20s     12.60um
```

```
                esP    41 43.00
                eS     48 40.00
HYB    55.13 297 ePc   40 44.00   -3.5X
       2.2s   1607.10nm          6.7mb
                iS     48 20.00
YSS    55.43  12 iP-   40 48.50   -0.6
       0.8s     30.00nm          5.4mb
     N  19s     16.50um
     E  17s      4.80um
                e      42 54.00
                ePPP   44 13.00
                eS     48 28.00
                eSSS   54 21.00
HIA    56.76 353 ePd   40 58.41   -0.3
POO    59.71 296 iPd   41 12.00   -7.8X
       1.0s    185.00nm          6.2mb
                iS     49 24.00
POO    59.71 296 iPd   41 20.00    0.2
       1.0s    185.00nm          6.2mb
                iS     49 24.00
DRV    59.89 175 iP    41 20.00   -0.2
                S      49 30.00
                SS     53 48.00
CIT    60.35 349 eP    41 24.00    0.3
                eS     49 40.00
                eSSS   56 00.00
BOM    60.75 296 iPd   41 27.90    1.1
                iS     49 19.50
NDI    60.99 308 iPc   41 25.30   -3.0
       1.4s    767.44nm          6.6mb
                ePP    43 33.00
                eS     49 42.00
                eSS    53 44.00
ZAK    61.40 342 iPd   41 30.50   -0.2
       2.0s    708.00nm          6.4mb
     Z  14s      8.30um          6.0MszX
     N  14s      4.29um
     E  14s      9.28um
                ePPP   45 17.00
                eS     49 52.00
                eSS    53 43.00
IRK    62.77 344 ePd   41 39.80   -0.1
       2.0s    658.00nm          6.4mb
                e      41 45.30
                e      45 33.20
                eS     50 04.00
                e      50 26.30
                e      51 20.00
WMO    62.80 328 Pc    41 39.50   -0.8
       1.0s     53.00nm          5.6mb
     Z  24s     19.30um          6.2MszX
     N  20s     32.60um
                pP     41 50.00   34kmX
                PP     44 03.00
                S      50 07.00
MOY    63.25 341 ePc   41 43.20    0.2
       2.5s   1872.00nm          6.8mb
                eS     50 17.40
PAF    64.23 218 iP    41 54.00    4.4X
                iS     50 39.00
                SS     54 45.00
                SSS    57 54.00
PET    65.20  19 eP    41 56.00    0.3
       1.5s    240.00nm          6.1mb
     Z  20s      7.74um          5.9Msz
     N  18s      4.41um
     E  20s      4.32um
                e      44 20.00
                eS     50 36.00
                eSSS   57 44.00
BOD    65.88 352 eP    42 00.30    0.3
       2.3s    121.00nm          5.6mb
KSH    67.18 318 P     42 09.50    0.7
       1.1s    410.00nm          6.4mb
     Z  24s     33.00um          6.5MszX
     N  14s     11.80um
     E  16s     13.50um
                PcP    42 35.00
                PP     44 42.00
                ScS    52 03.00
                SS     55 20.00
PRZ    67.27 322 eP    42 11.00    1.6
       1.2s    590.00nm          6.6mb
     Z  20s     13.00um          6.1Msz
                e      42 26.00
                eS     51 06.00
                eSS    55 19.00
```

```
YAK    69.02   1 iPc   42 18.90   -0.7
       2.8s    163.00nm          5.6mb
                i      42 41.00
                i      44 55.00
                ePPP   46 37.00
                iS     51 22.00
                ePS    51 57.00
                e      52 16.00
MGD    69.37  12 ePc+  42 21.00   -0.9
       0.8s    180.00nm          6.2mb
     Z  18s      6.40um          5.9Msz
     N  18s      6.20um
                i      44 56.00
                iS     51 30.00
                iPS    52 00.00
QUE    69.75 306 iPc+  42 27.00    2.0
                eS     51 38.50
FRU    69.81 321 iP    42 25.00    0.1
       3.0s   2400.00nm          6.7mb
                i      42 47.00
                iS     51 35.00
ELT    70.04 335 iPc   42 25.20   -0.8
       2.0s    941.00nm          6.5mb
                e      46 45.00
                iS     51 32.00
SMY    71.11  27 (P)   42 32.34   -0.2
       1.4s    455.99nm          6.3mb
     Z  21s     15.68um          6.2Msz
                S      51 51.76
SBA    73.32 172 ePd   42 47.00    1.7
MAW    74.24 201 iPd   42 53.30    2.5X
       1.0s     70.83nm          5.6mb
     Z  20s     45.45um          6.8Msz
ADK    75.10  32 eP    42 56.10    0.2
HON    77.37  66 P-    43 18.78    9.5X
     Z  21s      8.47um          6.0Msz
MAIO   77.71 309 iPc   43 10.70   -0.4
       2.0s    490.70nm          6.2mb
                eS     53 10.00
TIK    78.67   0 iPc+  43 14.00   -1.5
       2.0s    530.00nm          6.2mb
     Z  18s     18.00um          6.4Msz
                i      43 25.00
                e      46 21.00
                iPPP   48 05.00
                iS     53 07.00
                i      53 28.00
                iPS    53 48.00
ASH    79.09 311 eP    43 20.00    1.5
       2.4s   1640.00nm          6.6mb
     Z  22s     12.60um          6.2Msz
     N  22s      8.55um
     E  22s      7.78um
                e      43 32.00
                iS     53 25.00
                iPS    54 15.00
AFR    79.94 107 iPc   43 25.20    1.8
       1.6s    522.40nm          6.3mb
PAE    80.12 107 iPc   43 26.30    1.9
       1.7s    729.30nm          6.4mb
PPT    80.13 107 iPc   43 26.50    2.0
       1.7s    832.30nm          6.5mb
PPN    80.27 107 iPc   43 27.20    2.0
TVO    80.42 107 iPc   43 28.30    2.2
       1.9s   2238.50nm          6.8mb
KAT    81.03 311 iP-   43 30.00    1.2
     Z  18s      3.30um          5.7Msz
     N  18s      8.00um
     E  18s      6.00um
                e      43 41.00
                i      46 40.00
                iS     53 43.00
                ePS    54 39.00
NRI    81.34 347 iPc   43 28.80   -1.0
       1.5s    315.00nm          6.1mb
PMO    81.95 104 iPc   43 36.10    2.1
       1.5s    587.10nm          6.4mb
VAH    82.19 104 iPc   43 37.30    2.1
       1.4s    335.50nm          6.2mb
TPT    82.22 104 iPc   43 37.60    2.2
       1.5s    605.90nm          6.4mb
RUV    82.43 104 iPc   43 38.60    2.1
       1.5s    480.50nm          6.3mb
SPA    82.84 180 ePc   43 36.77   -1.2
       1.1s     95.24nm          5.8mb
     Z  20s     11.26um          6.2Msz
                i      44 35.70
```

20d 17h

```
DHR     82 89 298 eP     43 38.00  -0.8
                  eS     53 52.00
TEH     83.88 307 e(P)   43 50.00   6.2X
SVE     84.20 329 iPc    43 45.00   0.2
        2.5s  1050.00nm          6.6mb
                  e      46 56.00
                  iS     54 04.00
                  ePS    55 02.00
                  eSSS   03 04.00
ARU     85.10 328 iPd-   43 50.00   0.7
        2.0s   600.00nm          6.4mb
                  e      44 02.00
                  iS     54 19.00
                  ePS    55 21.00
SDN     85.25  33 e(P)   43 51.70   1.7
RYD     85.73 295 iPc    43 53.00  -0.2
                  iS     54 22.00
BAK     86.07 311 ePc    44 00.00   5.6X
      Z  16s     9.35um          6.3MszX
      N  17s    22.40um
      E  17s    22.40um
                  iS     54 28.00
KER     87.02 305 eP     44 02.00   2.5X
SHE     87.07 311 ePc    44 01.00   1.7
        1.2s    55.00nm          5.7mb
      Z  20s    10.00um          6.2Msz
      N  20s    14.00um
      E  20s    15.00um
                  i      47 20.00
                  i      54 25.00
                  iS     54 42.00
MJMA    87.10 296 eP     43 59.70  -0.2
ARO     87.26 282 eP+    44 05.00   4.2X
TAB     88.32 309 eP     44 07.00   1.4
MAK     88.42 314 eP     44 07.00   1.2
        1.7s   624.00nm          6.6mb
                  i      44 16.00
                  e      47 40.30
                  i      54 30.00
                  iS     54 52.00
                  i      55 44.00
GRS     88.58 310 eP     44 06.00  -0.8
        1.8s   320.00nm          6.3mb
                  e      54 32.00
                  iS     54 58.00
AFIF    88.72 294 eP     44 08.70   1.0
SVW     89.47  28 eP     44 11.10   0.6
GRO     89.74 314 eP     44 11.50  -0.5
        1.5s   720.00nm          6.7mb
      N  18s    20.00um
      E  14s     4.00um
                  eS     54 40.00
TTA     89.80  26 eP     44 12.50   0.5
                  e      44 17.90
MTA     90.11 312 iP     44 14.40   0.7
                  i      44 20.00
                  eS     54 47.00
                  e      55 09.00
AAE     90.92 279 P      44 23.20   4.8X
BGL     91.03  28 eP     44 17.14  -0.6
CRP     91.14  28 eP     44 16.84  -1.5
NAI     91.59 269 ePc    44 25.00   3.5X
IMA     91.60  24 eP     44 19.20  -1.1
        1.3s    61.00nm          5.6mb
                  i      44 25.50
PYA     91.73 314 eP     44 21.00  -0.2
                  iPS    54 54.00
                  iPPS   55 20.00
NVL     91.74 197 eP     44 26.00   5.2X
        2.5s   496.00nm          6.5mb
      Z  17s    24.00um          6.7MszX
      N  17s    10.00um
      E  18s    20.00um
                  ePcP   44 56.00
                  ePP    47 55.00
                  ePPP   50 18.00
                  eS     54 55.00
SLKM    91.91  29 eP     44 20.57  -1.1
                  e      44 25.68
BRW     91.92  18 eP     44 21.50   0.0
KIV     91.99 314 (P)    44 21.58  -0.9
PMS     92.36  29 eP     44 24.00   0.2
        1.3s   111.90nm          6.1mb
PMR     92.63  28 eP     44 23.71  -1.2
        1.4s   104.67nm          6.1mb
      Z  22s    11.75um          6.3Msz
                  S      55 20.38
```

```
                  e      56 13.64
CIR     93.92 248 iPc    44 33.30   1.5
                  i      45 09.20
SOC     94.08 313 eP     44 34.00   2.0
        3.5s   405.00nm          6.3mb X
      Z  20s     7.00um          6.1Msz
      N  16s     2.40um
      E  14s     2.50um
                  iS     55 07.00
KLU     94.13  29 eP     44 32.25   0.3
BFT     94.53 244 eP     44 37.00   2.2
MTD     94.58 253 eP     44 36.00   1.1
AYN     95.67 298 eP     44 39.70   0.1
BALM    95.81  29 eP     44 37.71  -2.0
ANN     95.92 314 eP     44 36.00  -4.4X
                  e      55 08.00
GRM     96.00 235 e(P)   44 45.00   3.8X
SLR     96.08 243 eP     44 40.70  -1.1
      Z  20s    68.60um          7.1Msz
SEK     96.16 241 iPc    44 43.50   1.4
        1.0s    40.00nm          5.8mb
HRI     96.26 303 eP     44 45.50   3.1X
HMDT    96.36 302 eP     44 43.50   0.8
BHL     96.38 303 P      44 40.00  -2.9
PRNI    96.66 300 eP     44 45.60   1.4
BUL     96.80 249 iPc    44 46.20   1.1
                  i      45 24.10
OBN     96.98 325 iPc    44 44.00  -0.9
        1.5s   217.00nm          6.5mb
      Z  26s    14.00um          6.3MszX
      N  21s     9.00um
      E  26s    12.00um
                  i      48 40.00
                  i      55 21.00
                  iS     56 04.00
                  iPS    57 36.00
                  iSS    02 46.00
BLF     97.23 239 eP     44 36.70 -10.2X
KSR     97.28 243 eP     44 48.00   0.7
FRS     97.83 239 eP     44 48.00  -1.4
        1.4s    20.00nm          5.5mb
SIM     98.19 314 eP     44 58.00   7.4X
                  i      48 52.00
                  e      55 32.00
APA     98.61 337 ePc    44 56.70   4.6X
PPCY    99.17 304 e(P)   44 54.00  -1.3
SIT     99.33  33 P      45 00.00   4.5X
      Z  20s     3.68um          5.9Msz
HLW     99.79 299 (P)    45 01.00   2.7X
                  eS     55 39.00
KIS    101.84 316 ePdiff45 14.00   6.9X
                  e      56 48.00
                  ePS    58 26.00
KAF    102.07 332 ePdiff45 09.90   2.2
        0.6s     7.30nm          5.5mb
MNK    102.27 324 ePdiff45 05.00  -3.8X
      Z  24s    17.70um          6.5MszX
      N  24s    10.60um
      E  24s    13.20um
                  e      55 46.00
                  e      56 46.00
MLR    103.95 315 ePdiff45 16.50  -0.2
LVV    104.84 320 ePdiff45 37.00  16.6X
                  e      49 36.00
                  e      57 16.00
                  iPS    58 55.00
UZH    106.12 318 iPdiff45 31.00   4.9X
UZH    106.12 318 ePdiff45 26.70   0.6
UPP    106.65 331 ePKP  49 27.00 -11.7X
VAY    106.73 311 ePdiff45 31.40   2.4
BZS    106.96 315 ePdiff45 26.00  -3.9X
SPC    107.38 319 ePdiff45 33.50   1.6
                  e      49 09.20
                  e      50 09.00
OJC    107.49 320 ePdiff45 37.00   4.8X
SKO    107.51 312 ePdiff45 40.00   7.5X
      Z  20s     6.59um          6.2Msz
                  e      48 06.50
                  e      48 39.50
                  e      49 42.30
                  i      50 02.00
                  i      59 18.00
                  i      00 54.00
                  LR     42 03.00
YKA    108.56  26 ePdiff45 37.20   0.6
        1.1s     2.00nm          5.2mb
YKA    108.56  26 ePKP  49 39.70  -2.5
```

```
        0.6s     2.00nm
WDC     108.99  50 PKP  49 50.00   6.2X
      Z  21s     7.90um          6.3Msz
KSP     109.56 321 ePdiff45 45.40   4.0X
                  e      49 10.00
                  e      50 19.70
NAO     109.56 333 PKP  49 43.90  -0.3
        0.8s     4.40nm
PTJ     110.83 316 ePKP  49 49.00   1.8
PRU     110.85 321 ePKP  49 49.30   2.3
        2.8s   462.60nm
      Z  21s     6.20um          6.2Msz
      N  21s     3.80um
      E  23s     4.20um
                  e      50 09.00
                  e      50 36.10
                  e      52 44.00
                  e      58 08.00
                  e      06 08.00
                  e      16 50.00
CMB     110.97  52 PKP  50 00.00  12.3X
      Z  22s     6.43um          6.2Msz
BRG     111.00 322 iPdiff45 52.00   4.3X
        1.4s    26.00nm
      Z  18s     6.00um          6.2Msz
      N  20s     5.00um
      E  20s     2.00um
                  iSDIF 58 16.00
                  ePKKP 00 48.00
                  e      01 02.00
VBY     111.39 316 ePKP  49 43.30  -4.8X
CLL     111.45 323 ePdiff45 53.00   3.2X
CLL     111.45 323 ePKP  49 50.00   2.0
      Z  17s     5.50um          6.2MszX
                  PKKP   00 04.90
GEC2    111.66 320 ePKPc 49 47.80  -0.9
        0.8s     4.41nm
                  e      49 48.00
                  e      49 55.80
                  e      49 59.00
                  e      50 27.00
                  ePP    50 33.30
                  e      50 36.60
                  e      50 40.70
                  e      56 13.70
                  e      56 18.00
                  ePKKP 00 52.40
                  e      01 05.80
KHC     111.67 320 ePKP  49 35.50 -13.1X
      Z  20s     7.30um          6.3Msz
      N  22s     5.00um
      E  22s     8.00um
                  e      49 49.50
                  e      50 21.70
                  e      50 35.00
                  e      58 16.00
                  e      17 08.00
LJU     111.77 317 e(PKP)49 50.00   1.2
                  ePP    50 34.00
                  eSDIF 58 16.00
                  eSS    05 56.00
CEY     111.91 316 e(PKP)49 51.00   1.9
                  ePP    50 35.00
VOY     112.21 317 ePKP  49 50.30   0.5
                  ePP    50 37.20
KBA     112.33 318 ePKP  49 52.00   1.9
ISA     112.80  54 PKP  50 00.00   8.8X
      Z  19s     9.06um          6.4Msz
GRF     113.00 321 ePKP  49 46.00  -5.1X
      Z  20s     7.00um          6.3Msz
                  ePP    50 40.00
WTTA    113.41 319 iPKPc 49 51.40  -0.8
        0.6s    12.10nm
                  i      50 17.30
GSC     114.20  55 ePKP  49 54.56   0.5
                  ePP    50 49.23
LCCM    115.55  42 ePKP  49 55.60  -0.8
HHAI    115.91  45 (PKP) 49 56.79  -0.3
HVU     116.02  47 ePKP  49 56.99  -0.4
PTI     116.03  46 ePKP  49 57.52   0.2
BSF     116.37 320 ePKP  49 55.50  -2.3
        0.7s    10.05nm
DUG     116.37  49 ePKP  49 58.47   0.4
LPG     117.16 318 ePKP  49 57.70  -1.9
        0.9s     7.85nm
LPL     117.17 318 ePKP  49 57.70  -1.8
        1.0s    10.60nm
```

```
MSU   117.24  50 ePKP  50 00.71   0.8
BW06  118.04  45 ePKP  50 00.85  -0.4
SRU   118.35  49 ePKP  50 01.64  -0.3
LOR   118.42 320 ePKP  49 59.70  -1.9
       1.1s     11.70nm
     Z  23s      7.10um          6.2MszX
LBF   118.45 320 ePKP  49 59.80  -1.9
       1.4s     30.05nm
SSF   118.72 320 ePKP  50 00.50  -1.6
       0.9s     15.05nm
AVF   118.92 320 ePKP  50 01.20  -1.3
       0.8s      4.05nm
FCC   119.12  24 ePKP  50 04.50   2.1
BGF   119.33 320 ePKP  50 01.80  -1.5
       0.8s     18.25nm
PV09  119.56  50 ePKP  50 04.52   0.1
TUC   119.64  57 ePKP  50 04.49   0.0
     Z  21s      9.06um          6.4Msz
                 ePP   51 27.29
PV10  119.66  50 ePKP  50 04.52   0.0
PV08  119.90  49 ePKP  50 05.14   0.0
LPO   121.13 319 ePKP  50 05.70  -1.1
       1.4s     39.65nm
MFF   121.20 321 ePKP  50 05.10  -1.7
       0.9s     13.25nm
DMU   121.27 331 ePKP  50 08.00   1.3
RSSD  121.36  42 ePKPc 50 06.74  -0.8
     Z  21s      4.62um          6.1Msz
ESEL  121.69 313 ePKP  50 07.00  -1.0
GOL   122.00  47 ePKPd 50 09.15   0.2
     Z  20s      1.04um          5.5Msz
GLD   122.09  47 PKP   50 20.00  11.0X
     Z  19s      8.08um          6.4Msz
EPF   122.34 317 ePKP  50 07.60  -1.6
       0.9s      7.35nm
ALQ   122.57  53 ePKP  50 10.17   0.1
     Z  18s      1.24um          5.6Msz
ULM   123.39  33 ePKP  50 13.00   2.1
ETOR  124.85 315 ePKP  50 14.50   0.3
EVIA  126.01 313 ePKP  50 18.00   1.4
GUD   126.37 316 ePKP  50 19.00   1.8
EBAN  127.13 313 ePKP  50 20.50   1.9
EMON  127.18 320 ePKP  50 20.50   1.9
EGUA  127.47 311 ePKP  50 20.00   0.7
ACO   127.64  49 iPKPc 50 19.20  -0.4
EPLA  127.95 316 ePKP  50 21.50   1.4
EHOR  128.32 313 ePKP  50 22.00   1.2
WMOK  128.63  51 ePKP  50 20.29  -1.3
EPRU  128.65 312 iPKPd 50 25.20   3.6X
MEO   128.77  51 iPKPd 50 21.70  -0.1
EJIF  129.03 312 iPKPc 50 23.00   0.8
EVAL  129.50 314 ePKP  50 23.50   0.4
IFR   129.87 308 iPKPd 50 35.00  10.8X
TUL   130.44  48 ePKP  50 25.10   0.2
       1.2s     35.10nm
     Z  20s      5.62um          6.3Msz
                 e     52 39.00
                 e     53 48.20
                 LR    34 28.00
LNO   130.44  48 ePKP  50 24.80   0.0
AVE   131.73 309 ePKP  50 28.00   0.5
                 i     53 56.00
UYO   132.15  50 iPKPc 50 28.50   0.3
MIAR  132.66  49 ePKP  50 29.50   0.3
     Z  20s      8.70um          6.4Msz
                 eSKP  53 55.98
SLM   133.08  42 PKP   50 40.00  10.2X
     Z  19s      4.83um          6.2Msz
FVM   133.29  43 ePKP  50 29.87  -0.4
     Z  19s     19.59um          6.8Msz
                 eSKP  53 56.91
LIC   133.92 272 PKP   50 33.00   0.9
     Z  20s      8.50um          6.5Msz
                 e     53 59.50
TIC   133.94 272 PKP   50 33.00   0.8
                 e     54 00.00
EEO   134.10  26 ePKP  50 35.00   3.4X
LPA   137.67 172 ePKP+ 50 40.00   1.3
     Z  20s     21.28um          6.9Msz
                 ePP   53 25.00
CBM   137.91  17 ePKP  50 38.22  -0.5
MCWV  138.84  34 PKP   50 50.00   9.3X
     Z  20s      5.86um          6.3Msz
TKL   139.02  42 ePKP  50 40.73  -0.4
LMN   139.80  15 ePKP  50 44.50   2.3
NAV   139.88  37 ePKP  50 41.12  -1.6
JSC   141.50  41 ePKP  50 44.12  -1.5
LHS   141.67  41 ePKP  50 44.50  -1.4
CEH   141.84  38 (PKP) 50 45.21  -1.0
     Z  18s      6.07um          6.4Msz
FSA   144.01 157 iPKPd 50 48.10  -2.0
ANT   144.12 149 iPKPd 50 48.80  -1.6
MBO   145.42 285 iPKPc 50 53.30   0.5
SLA   145.43 157 e(PKP)50 52.80  -0.1
YJA   147.71 155 ePKPc 50 58.00   1.0
NNA   148.35 127 ePKP  50 58.00   0.3
       1.2s    187.50nm
     Z  20s      5.67um          6.4Msz
ARE   149.23 140 ePKP  51 04.00   4.7X
BMA   149.44 193 ePKP  51 04.00   4.8X
                 e     51 13.50
CNCB  151.07 146 PKPc  51 03.00   0.6
LPB   151.22 145 ePKP  51 02.00  -0.5
     Z  24s      8.53um          6.5MszX
                 i     51 10.30
                 LR    43 52.00
ZOBO  151.40 145 ePKP  51 03.11   0.1
     Z  24s      4.81um          6.2MszX
                 LR    44 00.00
CCH   151.57 149 ePKP  51 02.00  -0.8
                 e     51 09.00
UPA   152.13  84 iPKPd 51 09.65   6.3X
PSO   153.51 102 ePKP  51 12.00   6.2X
SIV   155.06 158 ePKP  51 12.00   4.7X
BAO   157.05 189 e(PKP)51 10.00  -0.1
                 e     51 11.90
                 e     51 15.20
                 e     51 18.60
                 e     51 25.00
                 e     51 30.10
                 e     51 41.90
                 e     51 48.80
                 e     52 05.00
                 e     52 09.00
                 e     52 14.10
                 e     52 20.90
                 e     52 24.10
                 e     55 36.80
                 e     55 45.80
BOG   157.35  95 ePKP  51 12.00   1.1
SDV   160.92  84 ePKP  51 14.30  -0.2
TOV   161.66  81 ePKP  51 15.40   0.3
CAR   164.34  77 iPKP  51 17.00  -0.8
     S.D. = 1.2  on 256 of 314 obs.
-----------------------------------
&  JAN  20, 1993  17h 32m 21.96s
   34.132 N          116.391 W
   DEPTH =   1.9km
 SOUTHERN CALIFORNIA                ( 43)
      <PAS-P>. ML 2.8 (PAS).

PEC      0.68 250 iPc    32 34.90  -0.7
PLM      0.87 207 iPc    32 38.38  -1.1
GSC      1.22 344 eP     32 45.47   0.1
GLA      1.69 129 ePd    32 50.32  -2.4
         4 obs. associated
-----------------------------------
%  JAN  20, 1993  18h 34m 21.18± 0.94s
   44.484 N ± 6.3km     7.379 E ± 9.9km
   DEPTH =   5.0km  (geophysicist)
 NORTHERN ITALY                     (545)
      ML 1.7 (GEN).

PZZ      0.20 276 P      34 24.99  -0.3
                  S      34 27.05
STV      0.24 189 P      34 26.36   0.2
                  S      34 29.29
ENR      0.26 173 P      34 26.87   0.4
                  S      34 30.30
BHB      0.37 347 P      34 28.79   0.2
                  S      34 33.55
IMI      0.68 147 P      34 34.28  -0.5
                  S      34 44.72
     S.D. = 0.6  on    5 of    5 obs.
-----------------------------------
*  JAN  20, 1993  19h 10m 11.09± 1.15s
   19.764 N ±12.1km    64.704 W ±14.7km
   DEPTH =  33.0km  (normal)
   4.1mb (  1 obs.)
 VIRGIN ISLANDS                     ( 91)

LPR      1.82 217 P      10 40.10  -0.6
APR      2.32 236 eP     10 48.30   0.6
CLLP     2.44 227 P      10 49.50   0.0
LRS      2.50 235 P      10 50.30   0.0
PORP     2.50 227 (P)    10 50.00  -0.3
MGP      2.85 233 P      10 55.50   0.2
SIV     35.71 174 P      17 09.00   0.3
YKA     54.59 334 eP     19 38.20  -0.1
         0.7s      1.50nm          4.1mb
     S.D. = 0.4  on    8 of    8 obs.
-----------------------------------
?  JAN  20, 1993  20h 23m 47.98± 0.85s
   26.740 N ±16.5km   45.159 W ±21.3km
   DEPTH =  10.0km  (geophysicist)
   4.2mb (  3 obs.)
 NORTHERN MID-ATLANTIC RIDGE        (403)

SIV     45.20 202 (P)    32 07.00  -0.1
ZOBO    48.24 210 P      32 30.90  -0.9
LPB     48.44 210 eP     32 34.00   0.9
CNCB    48.63 210 P      32 34.60  -0.2
GEC2    50.10  47 eP     32 45.60   0.4
         1.2s      2.53nm          4.1mb
YKA     57.17 329 eP     33 34.70  -2.4
         1.1s      1.40nm          3.9mb
VGB     61.68 309 (P)    34 10.84   2.3
BCAO    64.56  98 iPd    34 28.00   0.0
         0.8s      7.00nm          4.9mb
     S.D. = 1.6  on    8 of    8 obs.
-----------------------------------
%  JAN  20, 1993  20h 44m 57.15± 1.66s
   39.888 N ±13.2km   24.199 E ± 7.7km
   DEPTH =  10.0km  (geophysicist)
 AEGEAN SEA                         (365)

PAIG     0.40 276 iPg     45 05.34   0.0
                  iSg     45 13.22
OUR      0.48 340 ePg     45 06.82   0.0
SOH      1.13 326 ePg     45 18.46   0.0
                  eSg     45 36.62
SRS      1.31 340 ePb     45 21.32  -0.1
                  eSb     45 37.50
KNT      1.61 322 ePb     45 25.82   0.1
                  eSb     45 50.62
ALN      1.73  54 ePb     45 27.46   0.0
     S.D. = 0.1  on    6 of    6 obs.
-----------------------------------
   JAN  20, 1993  22h 39m 35.88± 0.29s
   16.102 N ± 5.5km   93.910 W ± 4.6km
   DEPTH =  82.6km  ( 14 depth phases)
   4.8mb ( 39 obs.)
 CHIAPAS, MEXICO                    ( 61)

SCX      1.38  63 iP      40 04.63   4.6X
                  iS      40 24.98
TPX      1.99 127 iP      40 10.50   2.3
                  iS      40 36.00
EVV      2.72 330 iP      40 17.67  -0.5
                  iS      40 47.78
OXX      2.87 290 iP      40 19.57  -1.0
                  iS      40 50.00
IISM     4.38 311 iP      40 40.60  -0.8
PPM      5.38 304 iPd     40 56.52   0.7
                  (S)     42 00.00
ACX      5.76 278 iP      40 56.50  -4.1X
                  iS      41 57.03
III      5.77 294 iP      41 00.05  -1.0
UNM      5.96 303 iP      41 03.50  -0.2
                  (S)     42 10.00
MRX      7.80 298 iP      41 29.00   0.2
                  iS      42 55.00
CGX      9.77 293 iP      41 56.48   0.6
AGX      9.80 307 (P)     41 53.00  -3.0X
BUTX    15.83 349 Pn      43 16.55   1.3
                  Sn      45 57.58
UYO     17.99 359 iPc     43 41.70  -0.3
MIAR    18.37   1 eP      43 46.13  -0.5
         0.6s     35.51nm          4.8mb
                  epP     44 05.19
                  e       44 17.73
WMOK    19.07 348 eP      43 53.11  -1.5
         0.6s     29.55nm          4.7mb
OLY     19.44   6 eP      43 57.80  -0.7
LNO     19.80 355 e(P)    44 01.90  -0.2
ELC     21.50  10 eP      44 18.55  -1.0
ALQ     21.87 331 iPc     44 24.67   1.2
         0.8s     17.60nm          4.5mb
                  epP     44 42.31  81km
FVM     22.01   7 (P)     44 21.92  -2.7
         0.4s     11.03nm          4.6mb
```

TUC 22.25 320 eP 44 28.39 1.3
0 8s 66.24nm 5.1mb
SDV 23.81 105 eP 44 43.00 0.5
GLA 25.35 316 ePd 44 57.50 0.7
GLD 25.55 339 eP 44 59.65 0.9
1.2s 36.11nm 4.7mb
epP 45 17.95 81km
GOL 25.55 339 eP 44 59.29 0.4
1.1s 17.37nm 4.5mb
e 45 17.54 81km
CVL 25.70 29 (P) 44 57.08 -2.9X
PLM 26.91 314 iPc 45 11.93 0.6
epP 45 30.97 84km
e 45 42.99
SRU 27.15 331 eP 45 12.89 -0.6
PEC 27.42 315 eP 45 16.01 0.2
1.1s 10.09nm 4.3mb
ARUT 27.63 325 iPc 45 18.97 1.1
epP 45 37.80 83km
GSC 28.01 317 eP 45 21.59 0.5
epP 45 39.82 79km
DAU 28.53 332 iPc 45 26.75 0.7
DUG 29.10 329 eP 45 31.39 0.4
1.1s 10.06nm 4.4mb
RSSD 29.22 345 eP 45 32.34 0.2
0.8s 8.19nm 4.4mb
BW06 29.77 336 ePc 45 36.43 -0.6
0.7s 8.32nm 4.6mb
TNP 30.01 321 iPc 45 39.65 0.5
0.9s 17.23nm 4.8mb
HVU 30.31 331 iPc 45 42.08 0.4
e 46 00.60 79km
BONR 30.59 320 eP 45 45.32 1.0
epP 46 04.92 85km
PTI 31.00 333 eP 45 48.02 0.2
KVN 31.16 322 eP 45 50.15 0.9
epP 46 09.68 84km
HHAI 31.35 334 ePc 45 50.97 0.2
EEO 32.86 19 ePc 46 04.70 0.9
pP 46 26.00 92km
LCCM 33.25 337 iPc 46 08.10 0.8
SES 36.90 342 ePc 46 38.40 0.2
pP 46 58.00 81km
LON 38.35 329 eP 46 50.13 -0.3
epP 47 09.88 82km
ARE 39.19 145 eP 46 59.00 1.0
ZOBO 41 02 140 iPd 47 12.50 -0.9
Z 24s 0.10um 3.6MszX
LR 00 40.00
LPB 41.23 141 P 47 14.20 -0.7
CNCB 41.51 141 P 47 17.00 -0.4
FCC 42.59 360 ePc 47 27.00 2.0
SIV 45.47 133 iPd 47 52.40 3.7X
YJA 47.13 143 ePd 48 01.50 -0.8
YKA 48.57 347 eP 48 11.60 -0.9
0.6s 25.20nm 5.4mb
BAO 55.22 123 Pc 49 01.20 -1.8
e 49 16.60 58kmX
e 49 20.80
e 49 23.00
e 49 31.90
e 49 39.80
e 49 46.60
e 49 50.00
SLKM 59.78 332 eP 49 33.22 -1.2
VAO 60.16 129 eP 49 34.30 -3.2X
e 49 57.90 94kmX
FBA 60.59 337 eP 49 38.04 -1.8
0.8s 6.49nm 4.8mb
epP 49 59.07 82km
CP2 60.97 332 eP 49 41.01 -1.7
epP 50 02.26 83km
IMA 63.31 337 (P) 49 55.89 -2.3
0.9s 3.41nm 4.3mb
EKA 77.35 36 P 51 23.00 0.0
2.7s 365.00nm 5.8mb X
LPF 80.09 43 eP 51 38.50 0.4
0.8s 6.45nm 4.6mb
GRR 80.13 43 eP 51 38.10 -0.2
1.0s 20.80nm 5.0mb
FLN 80.29 42 eP 51 39.00 -0.2
0.7s 8.25nm 4.7mb
LSF 82.23 44 eP 51 48.60 -0.8
1.2s 16.65nm 4.8mb
EPF 82.23 48 eP 51 51.80 2.3
0.9s 6.20nm 4.5mb
TCF 82.67 44 eP 51 51.00 -0.7
MAF 82.93 44 eP 51 52.30 -0.7
1.3s 20.20nm 4.9mb
BGF 83.02 44 eP 51 53.10 -0.4
0.7s 6.50nm 4.7mb
NAO 83.08 29 P 51 54.60 1.1
0.9s 15.40nm 4.9mb
DOU 83.15 40 P 51 54.60 0.6
0.9s 35.00nm 5.3mb
AVF 83.29 43 eP 51 54.10 -0.7
0.9s 6.40nm 4.6mb
SSF 83.32 43 eP 51 54.40 -0.6
0.8s 6.45nm 4.6mb
LOR 83.49 43 eP 51 55.40 -0.5
1.0s 10.40nm 4.8mb
SMF 83.66 43 eP 51 55.80 -0.9
0.7s 4.30nm 4.5mb
WLF 84.24 40 P 52 01.00 1.5
HFS 84.66 29 eP 52 01.70 0.3
0.5s 1.10nm 4.1mb
HAU 84.88 42 eP 52 02.90 0.1
1.0s 20.80nm 5.1mb
BSF 85.22 42 eP 52 04.50 -0.1
0.9s 16.05nm 5.0mb
CDF 85.34 41 eP 52 05.10 -0.1
0.9s 16.85nm 5.1mb
LRG 86.33 46 eP 52 10.20 0.2
0.8s 11.95nm 5.0mb
LMR 86.47 46 eP 52 10.70 0.0
0.9s 20.95nm 5.2mb
FRF 86.49 46 eP 52 10.90 0.0
0.9s 11.45nm 4.9mb
UPP 86.57 28 iP 52 11.70 0.9
PGF 88.45 46 eP 52 20.00 -0.5
0.9s 10.15nm 5.0mb
BRG 88.48 37 iP 52 20.70 0.4
0.8s 12.00nm 5.1mb
KHC 88.96 39 eP 52 23.50 0.8
1.0s 3.50nm 4.5mb
GEC2 89.15 39 ePd 52 24.20 0.5
1.0s 6.83nm 4.8mb
PRU 89.19 38 eP 52 24.10 0.4
ZST 91.48 39 eP 52 34.20 -0.1
HYB 145.87 13 ePKPc 59 06.60 -0.9
e 59 27.00
KHT 146.92 337 iPKPd 59 12.00 2.8X
GBA 149.27 17 PKP 59 16.60 3.7X
0.5s 3.00nm
S.D. = 1.0 on 85 of 93 obs.

? JAN 20, 1993 23h 41m 28.07± 7.37s
42.307 N ±51.3km 23.926 E ±31.6km
DEPTH = 10.0km (geophysicist)
BULGARIA (359)

SRS 1.21 192 ePb 41 50.64 -0.1
eSb 42 08.44
KNT 1.38 214 iPb 41 53.06 -0.3
eSb 42 11.80
VAY 1.41 226 iPn 41 53.60 -0.2
SOH 1.54 196 ePb 41 55.40 -0.3
eSb 42 17.08
GRG 1.77 221 ePb 41 59.21 0.3
eSb 42 22.72
THE 1.82 204 ePb 42 00.23 0.6
eSb 42 27.48
OUR 1.97 179 ePn 42 01.84 0.0
eSn 42 31.56
S.D. = 0.4 on 7 of 7 obs.

JAN 21, 1993 01h 15m 33.39± 0.56s
12.620 N ± 8.9km 40.607 E ± 7.6km
DEPTH = 10.0km (geophysicist)
4.9mb (1 obs.)
ETHIOPIA (558)
MD 4.9 (ARO).

KSU 2.11 121 eP+ 16 08.44 -0.7
DAF 2.13 118 eP+ 16 09.39 -0.1
SGH 2.31 120 eP+ 16 12.29 0.2
GBR 2.33 129 eP+ 16 11.79 -0.6
ARO 2.44 116 eP+ 16 14.60 0.6
S 16 52.10
MKL 2.64 110 eP+ 16 19.23 2.4X
LWI 18.85 219 ePc 20 00.30 4.1X
BCAO 23.28 251 iPc 20 43.00 0.7
1.0s 40.00nm 4.9mb
id 20 50.90
ZST 40.51 336 eP 23 13.20 -0.9
GEC2 42.44 334 eP 23 29.60 -0.4
0.8s 1.32nm 3.7mb X
e 23 49.50
GKN 43.78 63 P 23 41.64 0.3
DMN 44.12 63 P 23 45.00 0.8
KKN 44.30 63 P 23 45.96 0.3
PKI 44.37 63 P 23 46.10 -0.3
GUN 44.84 63 P 23 50.54 0.3
1.3s 98.00nm 5.6mb X
S.D. = 0.6 on 13 of 15 obs.

---

* JAN 21, 1993 02h 31m 34.99± 0.50s
53.112 S ±10.1km 72.580 E ±12.7km
DEPTH = 10.0km (geophysicist)
4.8mb (7 obs.)
KERGUELEN ISLANDS REGION (433)

MAW 15.28 194 iPc 35 10.60 -1.4
0.6s 46.51nm 5.0mb
NVL 31.74 213 eP 38 02.00 1.3
STK 52.91 95 eP 40 54.30 1.1
0.8s 2.70nm 4.2mb
ASPA 54.29 82 eP 41 03.00 -0.4
0.7s 11.00nm 5.0mb
WRA 57.39 80 P 41 25.90 0.0
0.9s 2.30nm 4.2mb
WB2 57.40 80 iPc 41 26.40 0.5
1.0s 5.70nm 4.6mb
BCAO 73.04 302 iPc 43 08.00 1.1
0.3s 16.00nm 5.6mb
ic 43 24.20
CHG 75.17 26 eP 43 19.60 0.5
PKI 81.11 12 P 43 51.02 -0.9
1.0s 27.00nm 5.2mb
DMN 81.12 11 P 43 51.24 -0.6
KKN 81.32 11 P 43 52.36 -0.5
GKN 81.45 11 P 43 52.88 -0.6
GUN 81.51 12 P 43 53.96 0.0
KIC 87.50 284 P 44 28.20 4.2X
LIC 87.55 284 P 44 28.50 4.2X
TIC 87.89 284 P 44 30.20 4.3X
S.D. = 0.9 on 13 of 16 obs.

? JAN 21, 1993 02h 36m 13.76± 2.72s
14.774 N ±23.3km 60.808 W ±27.8km
DEPTH = 33.0km (normal)
WINDWARD ISLANDS (95)
ML 2.1 (FDF).

CRM 0.11 259 iPd 36 19.65 0.1
MVM 0.23 201 iPd 36 20.68 -0.1
FDF 0.33 263 eP 36 21.95 -0.1
BIM 0.36 225 eP 36 22.43 0.1
S.D. = 0.1 on 4 of 4 obs.

% JAN 21, 1993 03h 07m 57.53± 0.93s
26.432 S ± 8.9km 27.439 E ±10.3km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 2.6 (PRE).

PRY 0.50 176 eP 08 06.80 -0.7
S 08 12.70
SLR 1.03 48 eP 08 16.70 -0.8
S 08 29.40
SEK 1.89 175 eP 08 31.50 0.6
S 08 54.50
SWZ 2.03 248 eP 08 33.10 0.2
S 08 57.70
BFT 2.46 73 eP 08 40.00 0.9
S 09 09.00
BLF 2.89 202 eP 08 45.10 -0.1
S.D. = 0.9 on 6 of 6 obs.

% JAN 21, 1993 03h 37m 24.57± 1.11s
44.108 N ±16.5km 11.143 E ± 5.6km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)

MME 0.33 285 P 37 31.70 0.2
BDI 0.40 264 P 37 32.70 0.0
eSg 37 38.70
PGD 0.48 119 P 37 34.80 0.5
eSg 37 40.90
SFI 0.54 110 P 37 34.70 -0.9
eSg 37 43.60

```
PII      0.59 229 P      37 36.20  -0.3
                  eSg    37 44.40
CRE      0.76 129 P      37 40.00   0.6
                  eSg    37 50.80
     S.D. = 0.7  on   6 of   6 obs.
-----------------------------------
   JAN  21, 1993  05h 00m 15.57± 0.64s
   31.100 S ± 7.1km   67.508 W ± 6.3km
   DEPTH = 120.1 ± 11.8 km
 SAN JUAN PROVINCE, ARGENTINA      (137)
      MD 4.1 (SAN).

CFA      0.80 231 iPc    00 36.10   0.0
                  S      00 49.00
RTLL     0.85 254 iPc    00 36.20  -0.4
                  S      00 51.00
ZON      1.10 246 iPc    00 38.30  -0.6
                  eS     00 54.30
RTCV     1.16 229 iPc    00 39.60   0.0
RTCB     1.17 250 iPc    00 40.20   0.4
                  S      00 55.00
MRA      2.01 131 iPc    00 50.00   0.4
                  S      01 14.10
TCA      2.51  96 iP     00 56.00  -0.2
                  S      01 24.50
CYA      3.04  30 iPc    01 03.00  -0.1
JACH     3.06 238 iPd    01 04.54   1.1
FCH      3.24 226 ePd    01 07.33   1.3
PEL      3.38 232 iP     01 08.49   0.8
                  iS     01 37.99
ROCH     3.51 237 iP+    01 09.61   0.0
PCH      3.58 225 iPd    01 11.27   0.9
RFA      3.75 192 eP     01 12.10  -0.6
                  (S)    01 40.50
TACH     3.86 228 iP+    01 13.96  -0.2
CHCH     3.88 222 eP     01 14.69   0.3
LCCH     4.18 234 iP+    01 16.99  -1.4
LNV      4.36 228 eP     01 18.89  -1.9
FSA      5.17  15 eP     01 32.00   0.2
     S.D. = 0.9  on  19 of  19 obs.
-----------------------------------
%  JAN  21, 1993  05h 04m 13.65± 1.31s
   44.038 N ± 9.6km    8.117 E ± 9.1km
   DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                    (545)
      ML 2.0 (GEN).

FIN      0.18  21 P      04 17.61  -0.2
                  S      04 20.17
IMI      0.21 232 P      04 18.12  -0.1
                  S      04 21.27
ROB      0.31 325 P      04 19.90  -0.3
                  S      04 23.97
ENR      0.54 291 P      04 24.80   0.3
                  S      04 31.85
PCP      0.59  31 P      04 25.85   0.2
                  S      04 33.58
     S.D. = 0.3  on   5 of   5 obs.
-----------------------------------
?  JAN  21, 1993  05h 09m 30.24±18.11s
   19.403 N ±144.km   66.094 W ±34.3km
   DEPTH =  30.8 ±  7.3 km
 PUERTO RICO REGION                ( 90)

LPR      1.11 169 P      09 49.70   0.0
                  S      10 04.13
APR      1.12 213 P      09 50.00   0.2
SJG      1.29 182 iP     09 52.10  -0.1
LRS      1.31 213 P      09 52.20  -0.4
CPD      1.37 173 P      09 53.50   0.1
CLLP     1.39 199 P      09 54.00   0.3
PORP     1.44 201 P      09 54.20  -0.2
MGP      1.68 214 P      09 58.10   0.2
     S.D. = 0.3  on   8 of   8 obs.
-----------------------------------
?  JAN  21, 1993  06h 24m 47.06± 4.03s
   10.809 N ±25.9km   61.228 W ±13.8km
   DEPTH =   5.0km  (geophysicist)
 TRINIDAD                          ( 98)
      MD 3.1 (TRN).

TRN      0.24 227 iPc    24 51.72  -0.1
                  eS     24 54.15
TBH      0.36 154 eP     24 54.29   0.0
TCE      0.53 258 eP     24 57.69   0.0
TPP      0.54 204 eP     24 57.90   0.1
     S.D. = 0.2  on   4 of   4 obs.
-----------------------------------
*  JAN  21, 1993  06h 31m 53.91± 0.88s
   24.329 S ± 9.6km   67.238 W ± 9.6km
   DEPTH = 194.0 ± 10.3 km
 CHILE-ARGENTINA BORDER REGION     (127)

SLA      1.64 104 ePd    32 29.00   0.1
HJA      2.01  57 iPd    32 32.00  -0.4
FSA      2.07 148 iP     32 33.80   0.8
YJA      2.68  37 iPd    32 39.20  -1.1
ANT      2.97 281 iPc    32 42.80  -0.5
                  iS     44 40.90
CNCB     7.51 355 P      33 43.00   0.6
                  S      35 04.20
LPB      7.80 354 P      33 46.20   0.2
                  S      35 10.00
ZOBO     8.04 354 P      33 38.90 -10.5X
                  S      35 18.00
ARE      8.78 332 e(P)   34 10.00  11.4X
                  eS     35 29.00
SIV     10.11  36 P      34 17.00   1.3
                  e      35 31.00
VAO     18.62  90 (P)    35 59.00  -0.3
BAO     20.03  68 Pd     36 13.10  -0.7
                  e      36 14.00
                  e      36 19.10
                  e      36 23.30
     S.D. = 0.9  on  10 of  12 obs.
-----------------------------------
*  JAN  21, 1993  07h 09m 11.69± 2.37s
   8.970 S ± 9.1km  124.043 E ± 9.0km
   DEPTH =  57.9 ± 23.3 km
   4.9mb ( 13 obs.)
 TIMOR REGION, INDONESIA           (289)

MTN      7.95 120 iPd    11 06.90  -0.3
TSM     14.54 335 eP     12 43.50   7.7X
WB2     14.78 139 iPd    12 34.70  -4.2X
                  e      12 40.30
                  eS     15 01.90
NANU    15.79 210 eP     12 54.00   2.1
                  eS     15 35.00
KKM     16.83 332 ePc    13 12.80   7.6X
        0.4s    28.10nm          4.8mb
WARB    17.30 172 eP     13 10.10  -0.7
ASPA    17.39 148 eP     13 09.60  -2.4
      Z  22s     0.20um
                  eS     16 09.20
MEEK    18.31 196 eP     13 23.50   0.2
        0.5s     9.00nm          4.2mb
                  eS     16 33.00
MRWA    21.51 199 eP     13 57.00  -0.7
FORT    22.02 171 eP     14 02.00  -0.7
BAL     22.59 197 eP     14 08.30  -0.1
PMG     22.82  93 eP     14 14.00   3.3X
        0.9s    42.02nm          4.9mb
KLB     23.26 194 eP     14 14.80   0.0
CTA     24.14 120 iP     14 25.00   1.4
STK     28.02 147 eP     14 59.30  -0.1
        0.7s     7.40nm          4.4mb
                  eS     20 13.90
RMO     29.19 130 eP     14 56.50 -13.5X
CMS     30.20 141 iPd    15 19.10   0.2
        0.6s     9.00nm          4.7mb
BRS     32.74 128 eP     15 40.00  -1.2
ARMA    33.44 133 eP     15 48.70   1.3
        0.7s    13.00nm          4.9mb
                  e      16 06.50
TOO     34.44 149 eP     15 57.40   1.5
        0.8s    21.00nm          5.1mb
KHT     34.55 313 iPd    15 59.40   2.4
CNB     34.97 142 iPc    16 01.20   0.8
CHG     37.08 318 ePc    16 19.90   1.6
        1.0s    26.75nm          5.1mb
                  e      22 17.90
DZM     42.73 113 iPc    17 06.00   0.8
LZH     48.69 338 eP     17 52.50   0.2
        1.4s    29.00nm          5.1mb
GBA     51.41 295 Pd     18 11.00  -2.2
        0.6s     5.00nm          4.7mb
GUN     52.03 316 P      18 17.84  -0.4
        0.7s   158.00nm          6.1mb X
PKI     52.14 315 P      18 18.28  -0.7
        0.4s    59.00nm          6.0mb
KKN     52.36 316 P      18 19.96  -0.6
        0.8s   103 00nm          5.9mb
DMN     52.37 315 P      18 20.12  -0.6
        0.7s    96.00nm          6.0mb
GKN     52.94 315 P      18 24.16  -0.6
YKA    112.08  25 ePKP   27 40.80  -1.0
        0.6s     0.40nm
YJA    147.67 163 ePKPd  28 54.50   4.7X
ARE    150.42 149 ePKP   29 05.00  11.0X
CNCB   151.76 155 iPKPd  29 05.00   8.7X
LPB    151.96 155 PKP    29 05.00   8.5X
ZOBO   152.16 154 PKP    29 05.10   8.1X
SIV    154.69 168 (PKP)  29 04.00   4.3X
                  i      29 29.20
     S.D. = 1.3  on  27 of  38 obs.
-----------------------------------
*  JAN  21, 1993  07h 26m 07.14± 1.30s
   51.165 N ±13.8km   15.864 E ± 6.8km
   DEPTH =  10.0km  (geophysicist)
 POLAND                            (548)
      MG 2.9 (WAR).

KSP      0.42 140 iPd    26 14.80  -0.9
        0.4s    76.00nm
                  iS     26 24.30
BRG      1.25 257 iPg    26 30.00  -0.3
                  iSg    26 59.50
PRU      1.45 216 ePn    26 34.00   0.6
        0.4s    24.00nm
                  Sg     26 59.50
                  e      27 06.50
CLL      1.80 276 iPg    26 38.00  -0.5
                  iSg    27 04.60
KHC      2.51 217 Pn     26 49.40   0.7
                  e      26 56.50
                  Sn     27 24.00
                  eSg    27 35.00
OJC      2.67 109 eP     26 51.70   0.7
                  iS     27 30.40
MOX      2.74 261 ePg    26 58.50   6.6X
                  iSg    27 37.70
KBA      4.41 203 iPnd   27 15.50  -0.3
                  i      27 46.20
                  iSg    28 36.40
     S.D. = 0.8  on   7 of   8 obs.
-----------------------------------
&  JAN  21, 1993  07h 35m 52.91s
   58.112 N          142.738 W
   DEPTH =  10.0km  (geophysicist)
   3.5mb (  1 obs.)
 GULF OF ALASKA                    ( 15)
      <AEIC>. ML 3.7 (PGC), 3.3
      (AEIC).

CYK      1.98   4 ePd    36 22.02  -4.8
                  eS     36 43.88
KAIM     2.02 335 eP     36 22.42  -4.9
SNH      2.08 359 iPd    36 23.22  -5.0
                  eS     36 46.72
MID      2.29 307 P      36 25.60  -5.7
YAH      2.32  12 iPd    36 26.92  -5.0
PNL      2.33  47 iPd    36 26.72  -5.2
PCA      2.37  32 iPd    36 27.33  -5.1
HON      2.42  55 iPc    36 27.64  -5.5
                  eS     36 53.30
BCPM     2.45  40 ePd    36 28.29  -5.2
                  S      36 56.20
RAGM     2.49 337 eP     36 28.70  -5.5
SGAM     2.71 333 eP     36 32.98  -4.3
                  S      37 02.50
CVA      2.89 329 eP     36 34.29  -5.5
BALM     2.94   4 iPd    36 35.31  -5.3
                  eS     37 08.38
CTGM     2.95  13 iPd    36 35.47  -5.3
HIN      3.00 321 eP     36 36.04  -5.3
MTU      3.16 309 eP     36 37.92  -5.7
FID      3.26 326 eP     36 40.10  -5.0
LTI      3.27 308 eP     36 39.45  -5.8
GLB      3.38 351 iPd    36 41.13  -5.8
KNIM     3.41 313 ePc    36 41.01  -6.2
VLZ      3.54 330 eP     36 42.18  -6.7
GLI      3.55 323 P      36 46.00  -3.2
GLI      3.55 323 eP     36 42.46  -6.8
PLBC     3.58  65 Pc     36 44.10  -5.5
                  S      37 22.50
KLU      3.75 336 ePc    36 46.40  -5.8
HYT      3.81  42 P      36 47.00  -6.1
MPA      4.15 308 eP     36 51.30  -6.3
PTE      4.23 313 ePc    36 52.24  -6.5
TOA      4.36 338 eP     36 54.79  -5.9
```

21d 07h

```
SCM      4.39 330 eP     36 55.32  -5.8
KNK      4.39 321 eP     36 55.72  -5.5
SLKM     4.52 305 eP     36 57.05  -6.0
SDG      4.64 344 eP     36 59.04  -5.7
SML      4.65 325 eP     36 58.98  -5.9
PMS      4.67 315 P      37 00.10  -5.1
PLRM     4.75 320 eP     37 00.10  -6.1
GHO      4.81 322 eP     37 02.20  -5.0
PAX      5.06 346 eP     37 05.37  -5.3
SUA      5.26 313 eP     37 07.07  -6.4
REF      5.63 299 eP     37 12.23  -6.7
SPU      5.64 307 eP     37 11.91  -6.9
DFR      5.66 300 eP     37 13.24  -6.0
INE      5.67 295 eP     37 13.17  -6.2
RDW      5.68 299 eP     37 13.27  -6.3
VIB      7.54 126 P      37 38.60  -7.0
                  S      38 57.50
YKA     14.55  61 eP     39 22.80   2.4
       0.9s     1.20nm          3.5mb
       46 obs. associated
-----------------------------------------
?  JAN  21, 1993  07h 48m 55.44± 2.19s
   18.218 N ±16.0km   67.108 W ±19.7km
   DEPTH =  33.0km  (normal)
 MONA PASSAGE                        ( 89)

MGP      0.21 175 P      49 02.20   0.1
                  S      49 06.20
LRS      0.26  73 P      49 02.10  -0.7
                  S      49 06.10
APR      0.43  57 P      49 05.00   0.0
PORP     0.48 110 P      49 05.00  -0.7
CPD      1.15  99 P      49 16.00   0.7
LPR      1.18  85 P      49 16.30   0.6
     S.D. = 0.8  on   6 of   6 obs.
-----------------------------------------
?  JAN  21, 1993  08h 09m 05.47± 4.78s
   35.946 S ±44.1km   70.668 W ±21.5km
   DEPTH = 140.0km  (geophysicist)
 CHILE-ARGENTINA BORDER REGION      (127)
      MD 3.9 (SAN).

CHCH     2.01   0 iPd    09 40.82   0.3
                  eS     10 05.61
LNV      2.08 343 iP     09 41.44   0.1
                  eS     10 04.81
RFA      2.15  58 eP     09 42.20  -0.1
TACH     2.30 354 iPd    09 44.10   0.0
                  eS     10 09.37
PCH      2.32   3 iPd    09 44.88   0.4
                  iS     10 12.07
LCCH     2.57 343 iPd    09 47.47  -0.1
FCH      2.63   7 iP+    09 48.90   0.3
PEL      2.80 360 iPd    09 50.33  -0.1
                  iS     10 21.19
ROCH     2.98 354 iPd    09 52.56  -0.4
                  eS     10 24.87
JACH     3.26   1 iP+    09 56.17  -0.3
                  iS     10 31.71
     S.D. = 0.3  on  10 of  10 obs.
-----------------------------------------
   JAN  21, 1993  08h 12m 53.93± 0.79s
   42.937 N ± 6.5km   19.780 E ± 5.4km
   DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION         (383)
      ML 2.9 (TIR), 2.5 (TTG).

IVA      0.11 127 iPgc   12 56.37  -0.5
                  iSg    12 58.19
PVY      0.37 157 iPgc   13 00.90  -0.7
                  iSg    13 06.40
PLE      0.48 324 iPgd   13 03.43  -0.4
                  iSg    13 11.02
NKY      0.59 258 iPgc   13 05.62  -0.3
                  iSg    13 14.80
BCI      0.61 160 iPgd   13 05.40  -0.8
                  iSg    13 13.30
TTG      0.64 217 iPgc   13 06.17  -0.5
                  iSg    13 16.08
BRY      0.91 268 iPgc   13 11.55   0.1
                  iSg    13 25.47
SDA      0.91 193 ePg    13 12.80   1.5
BDV      0.96 227 iPgc   13 12.33   0.1
                  iSg    13 27.02
ULC      1.05 202 iPgd   13 13.77   0.0
                  iSg    13 29.59
HCY      1.06 243 iPgc   13 14.32   0.4
                  iSg    13 30.53
PHP      1.34 158 iPnc   13 18.20  -0.5
                  iSn    13 38.20
SKO      1.56 128 iPn    13 24.00   2.2
                  iSg    13 48.50
TIR      1.59 178 ePn    13 27.00   4.8X
OHR      1.98 157 ePn    13 27.00  -0.8
HVAR     2.45 277 e(Pn)  13 38.80   4.2X
                  iSg    14 12.40
     S.D. = 1.0  on  14 of  16 obs.
-----------------------------------------
%  JAN  21, 1993  08h 41m 48.31± 0.89s
   42.929 N ± 6.1km   19.833 E ± 6.4km
   DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION         (383)
      ML 1.6 (TTG).

IVA      0.07 140 Pgc    41 50.81   0.0
                  iSg    41 52.22
PVY      0.35 163 iPgc   41 55.51  -0.1
                  iSg    42 00.66
PLE      0.51 321 iPgd   41 58.77   0.0
                  iSg    42 06.42
NKY      0.62 260 iPgd   42 00.49  -0.5
                  iSg    42 09.59
TTG      0.65 220 iPgc   42 01.09  -0.2
                  iSg    42 10.41
BRY      0.95 269 iPgd   42 06.63   0.2
                  iSg    42 20.41
BDV      0.98 229 iPgc   42 06.99   0.0
                  iSg    42 21.12
ULC      1.06 204 iPgc   42 08.49   0.2
                  iSg    42 23.62
HCY      1.10 244 iPgd   42 09.23   0.3
                  iSg    42 25.03
     S.D. = 0.3  on   9 of   9 obs.
-----------------------------------------
&  JAN  21, 1993  09h 01m 20.40s
   39.712 N          110.622 W
   DEPTH =   1.3km
   3.4mb (  1 obs.)
 UTAH                                (478)
      <SLC-P>. ML 3.6 (GS). Coal bump
      in the Soldier Creek Mine near
      Price. Some damage in the mine.
      Felt at Helper.

EMUT     0.18 304 iPgd   01 24.70   0.7
SRU      0.61 173 ePgd   01 31.75  -0.7
DAU      0.85 325 ePgd   01 37.13  -0.3
PV09     1.68 136 ePnd   01 51.18  -0.1
                  ePgc   01 52.64
                  (S)    02 13.31
MSU      1.70 226 ePnd   01 51.38  -0.2
                  ePg    01 53.08
                  (S)    02 13.10
DUG      1.75 287 ePnc   01 52.00  -0.2
PV10     1.82 137 ePnd   01 54.83   1.6
PV08     1.91 126 ePnd   01 55.36   0.7
                  eS     02 20.02
HVU      2.63 322 ePn    02 04.70  -0.2
ARUT     2.92 230 ePn    02 10.21   1.1
                  e      02 14.40
BW06     3.17  14 ePnc   02 12.50   0.0
                  ePg    02 21.08
                  (S)    02 57.07
HHAI     3.82 340 ePn    02 22.48   0.8
                  ePg    02 32.69
GOL      4.05  88 (Pn)   02 25.20   0.1
                  eP*    02 33.56
                  ePg    02 39.25
                  eLg    03 28.16
GLD      4.16  88 (P)    02 28.87   2.2
                  eP*    02 36.51
                  ePg    02 41.44
                  eLg    03 29.57
TNP      5.40 255 (Pn)   02 45.54   1.3
                  e      02 59.47
ALQ      5.80 144 ePnc   02 47.57  -2.3
                  eP*    02 58.03
                  (Pg)   03 09.55
                  eSn    03 54.27
                  eS*    04 17.01
LCCM     6.19 352 eP     02 57.00   1.7
BONR     6.25 256 (Pn)   02 53.52  -2.7
                  ePg    03 20.48
RSSD     6.60  46 ePn    02 58.92  -2.2
GSC      6.60 230 ePn    03 02.68   1.7
TUC      7.39 181 (Pn)   03 12.37   0.3
                  ePg    03 36.86
                  eLg    05 14.04
GLA      7.46 208 (Pn)   03 14.79   1.7
                  (Pg)   03 38.60
ACO      9.52 105 iPd    04 17.40  35.7
GMW     11.78 316 eP     04 14.32   1.8
YKA     22.94 355 eP     06 26.30  -0.5
       0.9s     1.10nm          3.4mb
       25 obs. associated
-----------------------------------------
%  JAN  21, 1993  09h 11m 30.83± 0.88s
   39.166 N ± 7.3km   27.649 E ± 8.9km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                              (366)
      MD 2.7 (ISK).

IZM      0.82 202 ePn    11 47.00   0.2
DST      0.88  60 ePn    11 47.00  -0.7
EDC      1.19   8 ePn    11 53.00   0.0
BNT      1.21  10 ePn    11 53.00  -0.3
KCT      1.21  27 iPn    11 54.50   1.1
EZN      1.22 303 ePn    11 53.20  -0.3
     S.D. = 0.8  on   6 of   6 obs.
-----------------------------------------
&  JAN  21, 1993  09h 15m 16.90s
   50.611 N          130.081 W
   DEPTH =  10.0km  (geophysicist)
   4.2mb ( 11 obs.)
 VANCOUVER ISLAND REGION             ( 25)
      <PGC-P>. ML 4.2 (PGC).

HOLB     1.24  88 P      15 40.60   0.6
                  S      15 57.18
BPBC     1.55 106 P      15 43.57  -1.0
PHC      1.69  86 Pc     15 47.24   0.7
                  S      16 08.12
EDB      2.04 110 P      15 50.53  -1.1
BNB      2.23 333 Pd     15 53.50  -0.9
ETB      2.60 117 P      15 58.35  -1.3
GDR      2.73 106 P      16 01.26  -0.3
CWB      2.81 336 P      16 02.00  -0.8
VIB      3.05 331 P      16 04.40  -1.7
CBB      3.08  99 Pc     16 06.80   0.4
BTB      3.15 110 Pc     16 07.01  -0.7
OZB      3.40 117 P      16 09.64  -1.5
ALB      3.65 110 P      16 13.59  -0.9
LIB      4.08 335 P      16 19.00  -1.6
SHB      4.12 102 P      16 21.28  -0.1
NAB      4.17 107 P      16 21.03  -0.8
PFB      4.20 117 P      16 21.53  -0.9
WPB      4.52 100 P      16 27.01   0.1
OTR      4.52 122 P      16 27.53   0.5
BIB      4.53 103 P      16 26.22  -0.8
WHB      4.59  93 P      16 28.38   0.5
OFK      4.60 123 P      16 28.65   0.7
OBC      4.70 121 P      16 29.79   0.3
PGC      4.73 112 P      16 30.00   0.0
       0.9s     7.00nm
SNB      4.85 110 P      16 32.12   0.5
STW      4.86 118 P      16 31.45  -0.3
VGZ      4.92 114 P      16 32.30  -0.3
HNB      5.03 103 P      16 33.65  -0.4
MCW      5.09 110 eP     16 35.07   0.0
BLN      5.33 117 P      16 38.19  -0.2
VDB      5.40 104 P      16 40.04   0.6
OHW      5.43 112 P      16 40.48   0.7
HDW      5.48 120 P      16 41.05   0.4
SMW      5.53 124 P      16 41.33   0.1
ONR      5.60 129 P      16 43.31   1.1
MBW      5.62 106 P      16 43.50   0.9
CMW      5.63 110 P      16 42.96   0.2
PGW      5.64 117 P      16 44.04   1.3
GMW      5.69 120 eP     16 42.24  -1.2
JCW      5.85 111 P      16 46.06   0.4
CPW      5.86 126 P      16 46.22   0.4
BLH      5.96 115 P      16 47.65   0.5
RPW      5.98 108 P      16 48.17   0.5
HTW      6.13 114 P      16 50.12   0.4
RMW      6.29 117 eP     16 52.23   0.2
NLO      6.32 133 P      16 55.13   2.6
RVC      6.49 121 P      16 56.00   1.1
CZM      6.54 127 P      16 56.63   1.2
RVW      6.62 130 P      16 57.57   1.0
REMR     6.64 122 P      16 57.50   0.4
RCS      6.67 121 P      16 58.62   1.0
```

```
LON      6.70 122 eP     16 57.69   -0.1
ERK      6.71 127 P      16 58.77    0.8
FL2      6.78 128 P      16 59.80    0.8
LVP      6.84 129 P      17 01.02    1.3
SHW      6.84 127 eP     17 00.73    0.9
NLW      6.85 108 P      16 59.67   -0.3
YEL      6.85 127 P      17 01.09    1.1
SOSW     6.86 127 P      17 00.95    0.9
REMW     6.86 127 P      17 01.32    1.1
ESD      6.88 127 P      17 02.27    1.9
MTMW     6.97 128 P      17 02.54    1.0
TWW      7.00 116 P      17 03.76    1.8
ETW      7.07 111 P      17 03.27    0.2
TBM      7.14 115 P      17 04.34    0.4
CBSW     7.15 109 P      17 03.54   -0.6
SIT      7.16 336 (P)    17 05.08    0.9
DHW2     7.24 107 P      17 05.41    0.1
NAC      7.25 119 P      17 06.36    0.9
WTV      7.25 110 P      17 05.27   -0.2
SAW      7.58 108 P      17 09.77   -0.3
EPH      7.63 111 P      17 10.10   -0.6
VLL      7.63 129 P      17 12.45    1.6
MXC      7.64 118 P      17 11.16    0.3
TDH      7.70 131 P      17 13.24    1.4
MDW      7.92 116 P      17 14.46   -0.3
WAH2     7.96 115 P      17 14.77   -0.5
VBEM     7.97 131 P      17 16.83    1.3
CRF      8.02 114 P      17 15.29   -0.9
LOCW     8.05 115 P      17 16.24   -0.4
WRD      8.09 113 P      17 15.63   -1.5
GBL      8.10 116 P      17 17.22   -0.1
OD2      8.14 109 P      17 16.70   -1.2
RSW      8.15 117 P      17 17.92   -0.1
DPW      8.24 105 eP     17 18.77   -0.6
ET3      8.42 114 P      17 20.41   -1.3
NEW      8.77 101 eP     17 25.82   -0.8
BALM    12.49 331 eP     18 21.98    4.5
LCCM    13.03 104 eP     18 24.70   -0.1
YKA     14.59  29 eP     18 44.70   -0.3
        0.6s     10.90nm          4.6mb
HVU     14.86 120 eP     18 50.95    2.1
BONR    15.18 142 (P)    19 00.81    7.7
TNP     15.51 139 eP     18 59.67    2.3
        0.3s     1.27nm          3.7mb
DUG     15.95 124 eP     19 04.64    1.7
        1.0s     10.59nm         3.9mb
BW06    16.08 111 (P)    19 07.37    2.7
        1.3s     41.92nm         4.4mb
CRP     16.24 320 eP     19 13.02    6.5
DAU     16.63 121 eP     19 13.09    1.3
FBA     17.06 334 (P)    19 23.07    6.4
        0.8s     6.61nm          3.8mb
ISA     17.14 146 (P)    19 20.37    2.4
EMUT    17.29 121 eP     19 21.48    1.4
ARUT    17.46 131 eP     19 23.16    1.1
MSU     17.53 127 eP     19 24.49    1.5
SRU     17.95 122 eP     19 29.29    1.1
GSC     18.08 143 eP     19 30.86    1.1
RSSD    18.74 100 eP     19 38.31    0.4
        0.7s     11.01nm         4.2mb
PV09    19.14 121 eP     19 43.49    0.5
PV10    19.28 121 eP     19 45.68    1.0
PV08    19.35 120 eP     19 46.10    0.4
IMA     19.63 331 eP     19 51.60    3.3
        1.0s     8.80nm          4.0mb
GLD     20.52 112 eP     19 59.48    1.6
        1.3s     21.06nm         4.3mb
GLA     20.83 142 eP     20 01.92    0.9
ULM     21.69  78 ePd    20 12.70    3.2
FCC     22.11  54 ePd    20 19.10    5.5
TUC     23.19 135 eP     20 27.21    2.6
        0.9s     10.69nm         4.4mb
ALQ     23.22 123 eP     20 26.97    1.9
        1.0s     9.33nm          4.3mb
BRW     24.05 339 e(P)   20 37.90    5.4
WMOK    27.68 113 ePc    21 07.97    1.1
        0.8s     16.68nm         4.8mb
       117 obs. associated
-----------------------------------------
%  JAN  21, 1993  09h 18m 21.03± 0.90s
   39.123 N ± 7.7km   27.541 E ± 9.2km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                              (366)
      MD 2.8 (ISK).

IZM      0.76 197 ePg    18 36.00    0.1
DST      0.97  60 ePn    18 38.90   -0.6
EZN      1.17 307 iPn    18 42.70   -0.2
EDC      1.25  11 ePn    18 44.00   -0.2
KCT      1.29  29 ePn    18 45.80    0.9
       S.D. = 0.8  on   5 of   5 obs.
-----------------------------------------
?  JAN  21, 1993  09h 33m 58.16± 5.75s
   32.394 S ±34.4km   72.016 W ±28.6km
   DEPTH =  10.0km  (geophysicist)
 OFF COAST OF CENTRAL CHILE          (134)
      MD 3.3 (SAN).

ROCH     1.02 124 iPd    34 17.64    0.0
                  iS     34 26.79
LCCH     1.14 161 iP+    34 19.84    0.3
                  iS     34 30.31
JACH     1.24 104 iPd    34 21.52    0.3
                  iS     34 34.31
PEL      1.35 124 iPd    34 22.70   -0.3
                  iS     34 36.11
TACH     1.55 144 iP+    34 25.73   -0.1
                  iS     34 40.66
LNV      1.64 162 eP     34 26.80   -0.3
FCH      1.72 123 iP+    34 28.52   -0.2
                  iS     34 46.43
PCH      1.76 135 iPd    34 28.84   -0.1
                  eS     34 46.84
CHCH     1.91 144 iP     34 31.45    0.3
                  eS     34 52.32
       S.D. = 0.3  on   9 of   9 obs.
-----------------------------------------
?  JAN  21, 1993  09h 49m 20.52± 5.67s
   32.545 S ±32.3km   71.986 W ±30.4km
   DEPTH =  10.0km  (geophysicist)
 NEAR COAST OF CENTRAL CHILE         (135)
      MD 3.5 (SAN).

ROCH     0.93 118 iPd    49 38.37    0.0
                  eS     49 48.57
LCCH     0.99 159 iPd    49 39.30    0.0
                  iS     49 50.51
JACH     1.18  97 iPd    49 42.63    0.0
                  iS     49 56.37
PEL      1.25 119 iPd    49 43.65   -0.1
                  iS     49 57.97
TACH     1.41 142 eP     49 45.74   -0.5
                  iS     50 01.39
LNV      1.49 161 iP+    49 47.20   -0.1
                  iS     50 04.07
FCH      1.63 119 iP+    49 49.58    0.0
                  iS     50 08.44
PCH      1.64 131 iP+    49 49.70    0.2
CHCH     1.78 141 iP+    49 52.07    0.5
       S.D. = 0.3  on   9 of   9 obs.
-----------------------------------------
?  JAN  21, 1993  10h 07m 19.18± 4.88s
   33.855 S ±17.1km   71.924 W ±39.7km
   DEPTH =  40.0km  (geophysicist)
 NEAR COAST OF CENTRAL CHILE         (135)
      MD 3.6 (SAN).

LNV      0.44 103 iPd    07 29.10    0.0
                  iS     07 36.22
LCCH     0.48  38 iPd    07 29.56   -0.1
                  iS     07 37.12
TACH     0.85  76 iPd    07 34.25   -0.5
                  iS     07 46.50
CHCH     1.06  95 iP     07 38.06    0.2
                  iS     07 52.67
ROCH     1.17  41 iPd    07 39.37   -0.1
                  iS     07 54.98
PCH      1.20  79 iPd    07 39.67   -0.2
                  iS     07 54.94
PEL      1.26  56 iPd    07 41.23    0.6
                  iS     07 57.45
FCH      1.46  69 iP+    07 43.79    0.0
                  iS     08 02.70
JACH     1.62  44 iPd    07 45.72   -0.1
                  iS     08 06.00
       S.D. = 0.4  on   9 of   9 obs.
-----------------------------------------
   JAN  21, 1993  10h 17m 18.16± 0.51s
   45.464 N ± 4.4km    7.645 E ± 3.8km
   DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                      (545)
      ML 2.4 (GEN), 2.4 (LDG).

ORO      0.29  56 P      17 24.00   -0.2
                  eSg    17 27.90
ORX      0.29  54 P      17 23.99   -0.3
                  S      17 27.71
LSD      0.34 269 P      17 25.83    0.5
                  S      17 30.77
RSP      0.42 221 P      17 26.41   -0.3
                  S      17 31.87
LPG      0.63 273 Pg     17 30.80   -0.2
                  Sg     17 39.90
LPL      0.64 275 Pg     17 31.30    0.1
                  Sg     17 39.80
BHB      0.68 204 P      17 31.44   -0.2
                  S      17 41.02
BNI      0.80 239 P      17 34.20    0.4
                  eSg    17 44.70
RRL      0.82 228 P      17 34.67    0.5
                  S      17 45.71
PZZ      1.03 202 P      17 37.29   -0.5
                  S      17 50.01
PCP      1.12 145 P      17 40.65    1.4
ROB      1.18 172 P      17 41.46    1.2
STV      1.24 191 P      17 40.41   -0.9
ENR      1.25 187 P      17 40.37   -1.0
FIN      1.32 162 P      17 41.99   -0.5
BSF      2.44 346 Pg     18 10.30   11.5X
                  Sg     18 39.90
LOR      3.18 306 Pg     18 20.20   11.0X
                  Sg     18 59.70
       S.D. = 0.8  on  15 of  17 obs.
-----------------------------------------
?  JAN  21, 1993  10h 41m 13.53± 1.52s
   7.632 S ±22.3km  128.562 E ±35.0km
   DEPTH =  33.0km  (normal)
   4.3mb (  2 obs.)
 BANDA SEA                           (280)

MTN      5.77 154 eP     42 40.00    0.9
                  eS     43 55.00
WB2     13.47 156 iPd    44 21.60   -3.2X
                  eS     46 47.30
ASPA    16.75 163 eP     45 06.30   -1.1
      Z  20s     0.30um
                  e      45 12.40
                  eS     48 05.00
WARB    18.54 185 eP     45 29.90    0.3
                  eS     48 55.00
STK     27.01 155 eP     46 54.30   -0.2
        0.8s     2.10nm          3.8mb
CHG     39.29 312 eP     48 41.40    0.1
LZH     49.31 333 eP     49 58.00   -3.7X
        1.5s     14.00nm         4.8mb
CNCB   150.72 146 PKP    01 06.20    6.4X
LPB    150.88 146 (PKP)  01 04.00    4.1X
ZOBO   151.06 145 PKP    00 43.00  -17.4X
       S.D. = 1.0  on   5 of  10 obs.
-----------------------------------------
%  JAN  21, 1993  10h 47m 56.60± 2.64s
   10.546 N ±14.0km   61.968 W ±18.4km
   DEPTH =  10.0km  (geophysicist)
 TRINIDAD                            ( 98)
      MD 3.5 (TRN).

TCE      0.26  55 iPd    48 02.38    0.3
                  eS     48 11.10
TPP      0.56 114 eP     48 07.61   -0.3
                  eS     48 17.47
TRN      0.56  80 eP     48 07.37   -0.7
                  eS     48 19.55
TBH      0.89  94 eP     48 14.34    0.7
                  eS     48 33.65
SVB      2.80  14 eP     48 42.00   -0.3
                  eS     49 19.07
SVV      2.85  15 eP     48 43.10    0.1
                  eS     49 20.99
       S.D. = 0.6  on   6 of   6 obs.
-----------------------------------------
%  JAN  21, 1993  10h 53m 10.51± 2.04s
   33.789 S ± 7.0km   70.164 W ±14.6km
   DEPTH =  10.0km  (geophysicist)
 CHILE-ARGENTINA BORDER REGION       (127)
      MD 3.7 (SAN).

PCH      0.34 300 iPd    53 18.00    0.5
                  iS     53 23.04
CHCH     0.43 250 iPd    53 19.53    0.2
                  iS     53 25.67
FCH      0.47 347 iPd    53 20.21    0.0
```

21d 10h

```
CACH    0.49 228 iP+    53 20.57   0.1
TACH    0.66 282 iPd    53 23.56  -0.1
                 iS     53 32.66
PEL     0.78 326 iPd    53 25.66   0.0
                 iS     53 36.51
LNV     1.05 261 iPd    53 30.02  -0.3
                 iS     53 44.09
ROCH    1.08 319 iPd    53 30.81  -0.2
                 iS     53 45.72
JACH    1.16 342 eP     53 32.37   0.1
                 iS     53 48.15
LCCH    1.21 285 iPd    53 32.78  -0.3
                 iS     53 49.34
      S.D. = 0.3  on  10 of  10 obs.
-----------------------------------
*  JAN  21, 1993  10h 57m 04.10± 3.51s
   30.769 S ±18.1km   72.246 W ±26.4km
   DEPTH =  33.0km  (normal)
 OFF COAST OF CENTRAL CHILE       (134)

JACH    2.37 144 eP     57 41.95   0.3
                 eS     58 12.66
ROCH    2.43 155 eP+    57 42.56  -0.1
                 eS     58 18.83
PEL     2.71 151 eP     57 45.95  -0.4
                 iS     58 24.17
LCCH    2.76 168 eP     57 46.59  -0.3
                 iS     58 31.53
RTCB    3.04 104 eP     57 52.50   1.4
                 S      58 32.00
FCH     3.04 147 eP     57 50.73  -0.6
                 eS     58 32.38
TACH    3.08 159 eP     57 51.94   0.3
ZON     3.15 105 eP     57 51.80  -0.9
PCH     3.20 153 eP     57 53.77   0.4
RTLL    3.29 101 eP     57 55.00   0.4
                 (S)    58 35.50
CHCH    3.43 157 eP     57 56.97   0.3
CFA     3.53 105 ePd    57 58.90   0.8
                 S      58 42.00
RFA     5.10 142 e(P)   58 20.60   0.2
MRA     5.81 108 e(P)   58 28.30  -2.0
CYA     6.08  69 eP     58 34.00   0.0
TCA     6.59  97 eP     58 38.00  -3.3X
      S.D. = 0.9  on  15 of  16 obs.
-----------------------------------
%  JAN  21, 1993  11h 43m 51.96± 0.85s
   39.128 N ± 7.4km   27.581 E ± 8.7km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                           (366)
      MD 2.8 (ISK).

IZM     0.77 199 ePg    44 07.00   0.0
DST     0.94  59 ePn    44 09.90   0.0
EZN     1.20 306 ePn    44 14.30   0.1
BNT     1.25  12 ePn    44 14.90  -0.4
KCT     1.27  28 iPn    44 15.90   0.4
      S.D. = 0.4  on   5 of   5 obs.
-----------------------------------
%  JAN  21, 1993  12h 09m 44.93± 0.75s
   33.894 S ± 9.8km   70.503 W ±12.5km
   DEPTH = 100.0km  (geophysicist)
 CHILE-ARGENTINA BORDER REGION    (127)
      MD 3.4 (SAN).

CHCH    0.13 252 iP+    09 59.03  -0.3
                 iS     10 10.64
CACH    0.24 200 eP     10 00.09   0.4
                 iS     10 11.33
PCH     0.27 358 iP+    09 59.60  -0.2
                 iS     10 11.29
TACH    0.43 303 iP+    10 00.67   0.2
                 iS     10 13.60
FCH     0.59  18 iPd    10 01.94  -0.1
                 iS     10 15.89
LNV     0.76 265 iP+    10 02.88  -0.2
PEL     0.76 348 iP+    10 03.53   0.3
                 iS     10 18.01
LCCH    0.98 295 iP+    10 05.50   0.1
                 iS     10 21.76
ROCH    1.01 335 iP     10 05.91  -0.1
                 iS     10 22.68
JACH    1.21 356 iPd    10 08.19   0.0
                 iS     10 26.59
      S.D. = 0.3  on  10 of  10 obs.
-----------------------------------
&  JAN  21, 1993  12h 20m 26.23s
   59.814 N          153.436 W
   DEPTH = 113.9km
 SOUTHERN ALASKA                  (  2)
      <AEIC>.

OPT     0.19 147 eP     20 42.16   1.4
INW     0.30  31 iPc    20 41.89   0.7
INE     0.31  37 ePc    20 42.09   0.7
ILIM    0.36  42 iPc    20 42.08  -0.9
PDB     0.38 266 iPc    20 42.19  -0.9
                 eS     20 54.96
AUL     0.43 180 ePc    20 42.67  -0.7
AUH     0.45 180 eP     20 42.79  -0.7
AUE     0.46 176 iPc    20 42.73  -0.7
AUI     0.48 179 eP     20 42.93  -0.7
                 eS     20 56.45
RS2     0.73  27 iPc    20 44.99  -0.8
                 eS     21 00.28
RSO     0.73  27 iPc    20 44.97  -0.8
                 eS     20 59.87
RDW     0.74  25 ePc    20 44.79  -1.0
                 eS     21 01.22
REF     0.77  28 iPc    20 45.17  -0.9
                 eS     21 00.46
RDN     0.78  25 eP     20 45.82  -0.3
MCNL    0.78 216 ePc    20 45.02  -0.9
                 eS     21 00.09
NCT     0.79  18 iPc    20 45.28  -0.9
                 eS     21 00.21
DFR     0.87  25 iPc    20 45.92  -0.9
                 eS     21 01.91
CDD     0.89 187 iPd    20 46.04  -1.0
                 eS     21 01.35
XLV     0.94 112 eP     20 46.36  -1.1
BRLK    1.29  91 eP     20 49.80  -1.4
                 eS     21 07.84
SYI     1.32 156 eP     20 50.64  -0.9
CKL     1.49  21 iPd    20 52.72  -0.9
                 eS     21 14.21
CKT     1.52  23 eP     20 52.41  -1.6
SPU     1.53  26 ePd    20 52.87  -1.2
                 eS     21 15.26
BGL     1.54  19 ePd    20 53.49  -0.8
CKN     1.54  23 eP     20 53.64  -0.6
CP2     1.57  22 iPd    20 53.91  -0.8
CRP     1.59  23 eP     20 54.02  -0.9
CGLM    1.66  25 iPd    20 54.56  -1.1
SLKM    1.75  65 eP     20 55.33  -1.4
SUA     2.12  38 ePd    21 00.39  -1.2
SKT     2.37  22 eP     21 03.36  -1.3
PMS     2.39  51 P      21 03.20  -1.8
PTE     2.43  62 eP     21 03.63  -1.8
PWA     2.54  42 P      21 05.90  -1.0
PLRM    2.77  48 eP     21 07.79  -2.1
LTI     2.82  83 eP     21 08.34  -2.3
KNIM    2.91  77 ePc    21 08.84  -2.9
MTU     2.92  84 eP     21 09.27  -2.7
KNK     2.93  55 eP     21 08.99  -3.2
GHO     2.96  46 eP     21 09.48  -3.1
SML     3.20  49 eP     21 12.78  -3.0
GLI     3.33  69 eP     21 15.26  -2.2
HIN     3.52  77 eP     21 17.52  -2.6
FID     3.59  72 eP     21 17.05  -3.9
SCM     3.61  53 eP     21 18.22  -3.2
VLZ     3.76  66 eP     21 20.97  -2.2
KLU     4.06  62 eP     21 23.19  -4.3
      48 obs. associated
-----------------------------------
   JAN  21, 1993  12h 34m 36.91± 1.06s
   41.644 N ±11.5km   22.315 E ± 7.5km
   DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION       (383)
      ML 2.5 (SKO).

VAY     0.38 149 iPg    34 44.40  -0.2
                 iSg    34 50.30
KNT     0.65 137 iPg    34 49.36  -0.6
                 eSg    34 59.76
GRG     0.69 175 ePg    34 50.00  -0.6
SKO     0.73 297 iPn    34 50.80  -0.5
SRS     1.10 118 ePg    34 58.28   0.8
                 eSg    35 15.92
SOH     1.14 136 iPb    34 58.30   0.1
                 eSb    35 14.20
OHR     1.26 245 ePn    35 01.00   0.7
      S.D. = 0.7  on   7 of   7 obs.
-----------------------------------
   JAN  21, 1993  13h 01m 35.09± 0.88s
   40.334 N ±10.7km   27.409 E ± 4.5km
   DEPTH =  11.6 ±  2.9 km
 TURKEY                           (366)

ALN     1.18 299 ePb    01 58.20   1.2
ITU     1.44  57 ePg    02 02.00   1.0
                 iSg    02 20.00
GBZT    1.62  73 ePn    02 03.00  -0.5
                 iPg    02 05.00
                 iSg    02 28.50
KDZ     2.00 312 iPd    02 09.00  -0.1
DIM     2.22 321 iP     02 12.00  -0.3
RZN     2.45 304 iPd    02 16.00   0.3
OUR     2.62 271 ePn    02 17.76  -0.2
PLD     2.70 312 iPd    02 19.00  -0.1
SRS     3.00 286 iPn    02 23.46   0.1
                 eSn    03 08.28
MMB     3.06 295 iPd    02 24.00  -0.2
SOH     3.13 280 ePn    02 25.28   0.1
PVL     3.27 332 iP     02 27.00  -0.2
PGB     3.29 313 iP     02 27.00  -0.6
KNT     3.52 285 ePn    02 31.05   0.2
SKO     4.79 292 ePn    02 43.00  -5.9X
                 iSg    04 14.00
MLR     5.27 349 ePc    02 55.60   0.0
      S.D. = 0.6  on  15 of  16 obs.
-----------------------------------
?  JAN  21, 1993  13h 37m 30.41± 4.44s
   10.323 S ±44.0km  119.469 E ±26.0km
   DEPTH =  33.0km  (normal)
   4.0mb (  3 obs.)
 SUMBA REGION, INDONESIA          (287)

MTN    11.70 104 eP     40 17.00  -1.1
                 eS     42 25.00
NANU   12.74 197 eP     40 25.50  -6.6X
       0.3s      8.00nm          5.3mb X
                 eS     42 32.00
MEEK   16.25 183 eP     41 14.00  -3.9X
       0.2s      4.00nm          4.2mb
                 eS     43 57.00
WARB   17.17 158 eP     41 31.00   1.4
                 eS     44 29.00
WB2    17.25 125 eP     41 30.30  -0.2
                 eS     44 27.10
MRWA   19.08 189 eP     41 51.50  -1.5
       0.3s      2.00nm          3.8mb
                 eS     45 03.00
ASPA   19.12 136 eP     41 53.10  -0.5
       1.2s     10.40nm          3.9mb
                 eS     45 18.70
MUN    21.76 187 eP     42 21.50   0.3
                 eS     46 03.00
BRS    35.64 123 eP     44 29.00   1.5
      S.D. = 1.4  on   7 of   9 obs.
-----------------------------------
   JAN  21, 1993  13h 43m 15.24± 0.13s
   78.873 N ± 2.4km  125.638 E ± 2.4km
   DEPTH =  28.6km  ( 16 depth phases)
   5.1mb ( 90 obs.)  5.0Msz ( 35 obs.)
 EAST OF SEVERNAYA ZEMLYA, RUSSIA(654)
      Mw 5.5 (HRV).
      CENTROID, MOMENT TENSOR     (HRV)
      Data Used: GDSN
      L.P.B.: 27S, 43C
      Centroid Location:
      Origin Time        13:43:17.7 0.2
      Lat 78.74N 0.04 Lon 125.30E 0.17
      Dep  15.0 FIX Half-duration  1.4
      Moment Tensor;    Scale 10**17 Nm
        Mrr=-1.83 0.05  Mtt= 0.05 0.05
        Mff= 1.78 0.06  Mrt=-0.90 0.22
        Mrf=-0.49 0.26  Mtf=-0.56 0.06
       Principal Axes:
        T  Val=  1.96  Plg= 4  Azm= 75
        N        0.34      24      167
        P       -2.30      65      337
      Best Double Couple:Mo=2.1*10**17
       NP1:Strike=142 Dip=47 Slip=-125
       NP2:          7      53      -59

TIK     7.33 172 iPc    44 59.00  -3.9X
       0.5s     18.00nm          5.4mb
      Z  15s     9.50um          5.1Msz
                 e      46 21.00
NRI    13.60 247 ePc    46 21.00  -7.2X
```

```
      0.5s   110.00nm          6.0mb
YAK  16.99 173 iPc   46 52.40 -19.5X
      1.3s   413.00nm
ILT  18.29  95 iPc+  47 28.00   0.0
      1.0s    90.00nm          4.9mb
   Z  14s     5.90um          3.3Msz
   N  14s     2.90um
   E  14s     3.70um
BRW  19.61  70 (P)   47 45.09   1.5
MGD  20.44 142 ePd   47 53.00   0.6
      1.5s   200.00nm          5.3mb
   Z  14s     5.00um          5.0MszX
   N  14s     3.20um
   E  16s     2.30um
                e     48 14.00 108kmX
                e     48 24.00
               eS     51 42.00
              eSS     52 14.00
BOD  21.45 197 eP    48 00.50  -2.2
      1.5s   159.00nm          5.2mb
DAG  23.34 340 eP    48 21.00  -0.1
      1.1s    59.49nm          5.0mb
IMA  24.71  74 ePc   48 36.55   1.8
      0.8s    17.21nm          4.7mb
APA  25.48 297 eP    48 55.40  13.5X
SDF  26.77 302 iP    48 54.00   0.2
FBA  26.85  71 (P)   48 53.48  -1.0
      0.8s    19.30nm          4.8mb
CIT  27.32 196 eP    48 58.00  -1.0
   Z  12s     3.55um          5.2MszX
               eS     53 45.00
IRK  27.74 209 eP    49 01.90  -0.8
      2.0s    47.00nm          4.8mb
                e     49 45.00 216kmX
               eS     53 44.00
              eSS     55 22.00
MOY  28.65 213 ePd   48 56.50 -14.4X
      1.4s    96.00nm
ELT  29.04 232 eP    49 14.50   0.2
      1.0s    32.00nm          5.0mb
   Z  11s     9.90um          5.7MszX
   N  12s     5.80um
   E  12s     3.80um
               eS     54 06.00
UER  29.57 221 eP    49 18.50  -0.7
   Z  16s     3.75um          5.1MszX
                e     50 19.00 317kmX
               eS     54 15.50
               SS     55 48.00
PMR  29.63  75 P     49 30.00  10.4X
   Z  19s     2.88um          4.9Msz
ZAK  29.71 209 ePd   49 20.00  -0.4
      1.2s    20.00nm          4.8mb
   Z  16s     3.27um          5.1MszX
   N  15s     2.44um
   E  16s     6.50um
               eS     54 25.00
TOA  29.71  72 eP    49 23.40   3.0X
PMS  29.87  75 eP    49 23.20   1.3
      0.8s    21.70nm          5.0mb
SVE  30.19 262 ePc   49 25.00   0.4
      2.2s   120.00nm          5.3mb
               eS     54 27.00
ARU  30.96 264 eP    49 34.00   2.6X
                e     50 35.00 317kmX
                e     52 24.00
SMY  31.01 118 P     49 50.00  18.1X
   Z  19s     1.53um          4.7Msz
KAF  31.69 298 eP    49 34.60  -3.1X
      0.8s     9.00nm          4.7mb
YSS  32.60 158 iPd-  49 47.00   1.2
      1.0s   180.00nm          5.9mb
   Z  15s     2.30um          5.0MszX
   N  15s     2.00um
                e     51 09.00 453kmX
               (S)    55 09.00
MDJ  34.41 175 eP    50 01.80   0.3
      1.0s    17.00nm          4.9mb
   Z  14s     2.36um          5.1MszX
   N  11s     1.06um
   E  13s     3.82um
                S     55 32.00
YKA  34.51  45 eP    50 01.00  -1.2
      1.0s     3.50nm          4.2mb
CN2  35.19 180 Pd    50 07.90  -0.3
      1.2s    43.00nm          5.3mb
   Z  15s     4.82um          5.4MszX
   N  12s     2.36um
   E  12s     1.05um
               epP    50 20.00  44kmX
               ePP    51 30.00
              ePcP    52 37.00
               eS     55 42.00
NAO  35.39 310 P     50 08.50  -1.3
      0.8s    23.80nm          5.2mb
HFS  35.62 307 eP    50 09.80  -1.9
      0.5s     3.40nm          4.5mb
   Z  16s  1481.00um          7.8MszX
               LR     06 39.00
MOS  35.63 284 eP    50 12.00   0.2
   Z  18s     5.20um          5.3Msz
                e     51 32.00 415kmX
VLA  35.96 172 iPc   50 14.00  -0.7
                e     51 30.00 390kmX
SIT  36.40  65 P     50 30.00  11.7X
   Z  19s     2.41um          5.0Msz
OBN  36.43 285 iPd   50 18.20  -0.3
      1.2s    62.00nm          5.4mb
   Z  18s     3.60um          5.2Msz
   N  16s     3.00um
   E  16s     2.90um
                i     51 44.00 453kmX
              ePPP    52 09.00
                e     52 46.00
               eS     56 08.00
SNY  37.17 183 Pc    50 24.00  -0.9
      1.3s    58.00nm          5.3mb
   Z  15s     2.59um          5.1MszX
   N  13s     1.83um
               sP     50 39.00
                S     56 08.00
WMO  38.03 226 Pd    50 32.50   0.3
      1.0s    20.00nm          4.9mb
   Z  14s     7.03um          5.6MszX
               pP     50 41.00  29km
               sP     50 49.00
               PP     51 59.00
HHC  38.55 197 Pd    50 37.50   0.9
      1.2s    36.00nm          5.0mb
   Z  22s     2.32um          5.0Msz
   N  12s     1.52um
   E  11s     1.19um
BTO  38.89 199 eP    50 40.00   0.5
   N  17s     2.06um
   E  16s     5.38um
BJI  39.13 192 eP    50 42.00   0.7
      1.3s   260.00nm          5.8mb
   Z  16s     3.50um          5.3MszX
   N  12s     2.74um
               ePP    52 16.00
               eS     56 40.00
              eSS     59 24.00
MNK  39.23 292 eP    50 37.00  -5.0X
   Z  18s     4.40um          5.3Msz
MUD  39.84 309 iPc   50 47.90   0.9
      0.7s    22.00nm          5.0mb
FCC  40.59  31 eP    50 57.50   4.3X
PRZ  40.74 236 (P)   50 56.00   1.1
      1.2s    20.00nm          4.7mb
                e     52 30.00 515kmX
GTA  40.91 211 P     50 56.00  -0.2
      1.0s     9.00nm          4.5mb
   Z  22s     4.11um          5.2Msz
   E  12s     1.88um
               pP     51 06.00  34km
               PP     52 38.00
                S     57 10.00
               SS     00 10.00
FRU  41.03 241 eP    50 59.00   2.0
      3.0s   230.00nm          5.4mb
   Z  18s    10.30um          5.7Msz
   N  18s    11.00um
TIY  41.63 196 Pd    51 03.00   1.0
   Z  12s     3.13um          5.4MszX
   N  11s     1.72um
               pP     51 12.00  30km
               SS     00 23.00
EKA  42.65 319 P     51 11.00   0.9
      0.7s    11.60nm          4.7mb
MAT  42.76 165 eP    51 11.00  -0.2
               eS     57 40.00
TIA  42.92 190 eP    51 12.70   0.2
   Z  14s     4.05um          5.5MszX
   N  12s     2.62um
   E  12s     1.45um
               eS     57 32.00
               SS     00 40.00
LZH  43.84 206 Pd    51 21.00   0.8
      1.4s    71.00nm          5.3mb
   Z  14s     1.92um          5.2MszX
   E  15s     2.82um
               pP     51 29.50  28km
               sP     51 33.50
               PP     53 01.50
KSH  44.09 238 eP    51 23.00   0.8
      1.0s    30.00nm          5.1mb
KSP  44.13 301 iPd   51 22.20   0.0
      1.2s    68.00nm          5.4mb
                i     51 31.00  29km
OJC  44.13 297 eP    51 22.30   0.1
                i     51 31.00  29km
                i     51 41.60
CLL  44.21 304 iPd   51 22.90   0.0
      1.3s    57.00nm          5.2mb
BRG  44.48 303 iP    51 24.80  -0.3
                i     51 33.50  29km
DMU  44.52 322 eP    51 25.80   0.5
SPC  45.05 297 eP    51 30.20   0.3
MOX  45.08 305 eP    51 30.30   0.4
      1.6s    64.00nm          5.3mb
UZH  45.23 295 ePd   51 30.50  -0.5
      1.1s    40.00nm          5.2mb
                e     51 35.70  17kmX
PRU  45.24 302 Pd    51 31.60   0.4
      1.3s    15.70nm          4.8mb
   Z  20s     2.00um          5.0Msz
                e     52 24.00 247kmX
HOF  45.36 304 eP    51 32.20   0.1
      1.2s    28.00nm          5.1mb
XAN  45.49 200 P     51 33.00  -0.3
      1.1s    21.00nm          5.0mb
               pP     51 42.00  30km
PYA  45.77 273 eP    51 36.00   0.6
KIV  45.92 274 P     51 38.10   1.4
      0.7s    60.00nm          5.6mb
                e     53 20.40 561kmX
GRO  45.92 271 eP    51 39.00   2.5X
   N  20s     3.50um
   E  16s     4.00um
GRF  46.07 305 iPd   51 38.60   0.9
      2.0s   197.00nm          5.7mb
   Z  20s     1.00um          4.8Msz
               e(pP) 51 47.60  30km
KHC  46.23 303 iPd   51 39.80   0.8
      1.2s    15.00nm          4.8mb
                e     51 49.00  31km
                e     53 15.00
WET  46.33 303 iPd   51 40.60   0.8
PSZ  46.34 296 eP    51 40.20   0.3
GEC2 46.49 302 ePd   51 41.60   0.5
      1.0s    15.59nm          4.9mb
                e     51 47.80  21km
                e     51 50.40
                e     51 54.20
ZST  46.55 299 eP    51 41.10  -0.4
DOU  46.69 311 P     51 42.80   0.2
SRO  46.71 298 eP    51 43.80   1.1
WLF  46.88 309 P     51 45.00   1.0
NJ2  47.01 188 Pc    51 45.20   0.0
   Z  16s     1.75um          5.1MszX
   N  13s     1.34um
   E  12s     1.07um
                S     58 37.00
CVO  47.24 290 eP    51 48.50   1.5
 -              e     22 12.00
CFR  47.50 288 eP    51 49.00   0.1
                e     21 59.00
FUR  47.54 304 eP    51 50.50   1.1
MLR  47.61 290 ePc   51 50.00   0.0
UZD  47.85 297 e(P)  51 52.00   0.3
KAT  47.88 259 iP+   51 56.00   3.9X
NEW  47.90  53 eP    51 52.96   0.7
      0.8s    27.53nm          5.3mb
SSE  47.91 185 Pc    51 51.50  -0.8
      1.0s    11.00nm          4.8mb
   Z  20s     1.40um          4.9Msz
   N  14s     0.70um
   E  14s     1.90um
WLS  47.92 308 P     51 52.01  -0.3
CDF  47.93 308 P     51 52.52   0.0
CMP  47.99 291 iPc   51 54.00   1.1
```

21d 13h

```
MTUR   48.02 291 eP     51 55.00   1.8
                e       22 18.00
DPW    48.11  54 (P)     51 54.38   0.5
LIBD   48.14 307 P      51 54.30   0.4
ECH    48.14 308 P      51 54.04   0.0
KBA    48.26 302 iPd    51 56.10   0.9
       1.3s     71.70nm          5.5mb
                i       52 02.40  21km
VITF   48.32 309 P      51 55.07  -0.3
FEL    48.34 307 P      51 55.23  -0.5
WTTA   48.36 304 iPc    51 56.60   0.7
       1.2s     37.50nm          5.3mb
                i       52 10.30  51kmX
SLE    48.37 307 ePd    51 55.60  -0.2
HAU    48.47 309 eP     51 56.40  -0.2
       1.2s     22.30nm          5.1mb
     Z  18s      0.73um          4.7Msz
SQTA   48.47 304 iPc    51 57.40   0.7
MOF    48.50 308 P      51 56.18  -0.7
BSF    48.57 308 eP     51 57.10  -0.3
       1.2s     25.60nm          5.1mb
LON    48.62  58 eP     52 00.74   2.9X
WHN    48.67 193 eP     51 57.00  -1.2
     Z  20s      3.13um          5.3Msz
                S       58 59.00
ASH    48.70 256 eP     52 00.00   1.6
FLN    48.72 315 eP     51 57.40  -1.0
       0.7s     15.20nm          5.1mb
     Z  23s      0.60um          4.5MszX
ULM    48.80  34 eP     52 02.00   3.0X
BBS    48.82 307 P      51 58.81  -0.5
FVI    48.83 302 P      51 59.80   0.6
LDF    48.84 314 eP     51 58.20  -1.1
       0.9s     15.55nm          5.0mb
RBL    48.84 302 P      52 00.00   0.5
OGA    48.84 304 iPc    52 00.80   1.1
PTJ    48.97 299 eP     52 00.10  -0.4
LOMF   49.03 308 P      51 59.32  -1.7
ZAG    49.05 299 eP     52 02.00   1.0
LJU    49.07 301 eP     52 01.00  -0.2
SHW    49.09  58 (P)    52 01.51   0.0
OSS    49.16 305 ePd    52 01.90  -0.2
VOY    49.19 301 eP     52 01.60  -0.6
CEY    49.38 301 e(P)   52 03.50  -0.1
VDL    49.46 305 Pd     52 05.50   1.0
VBY    49.47 300 eP     52 04.20  -0.1
GRS    49.51 269 iPd    52 05.60   0.8
       1.2s     50.00nm          5.4mb
LPF    49.51 315 eP     52 03.90  -0.6
       1.3s     65.00nm          5.5mb
TRI    49.52 301 eP     52 04.50  -0.1
CTI    49.54 303 P      52 04.90   0.0
LOR    49.56 310 iPd    52 04.10  -0.9
       1.0s     27.60nm          5.2mb
     Z  20s      0.85um          4.7Msz
SSF    49.81 311 iPd    52 06.10  -0.8
       1.0s     24.40nm          5.2mb
LBF    49.82 310 iPd    52 06.20  -0.8
       1.3s     63.55nm          5.5mb
TMA    49.93 306 Pc     52 08.40   0.4
VGB    49.99  57 eP     52 09.69   1.4
MAIO   50.08 254 eP     52 10.00   0.8
                eS      59 28.00
AVF    50.10 311 iPd    52 08.60  -0.5
       1.1s     19.55nm          5.0mb
MMK    50.12 307 Pc     52 10.60   1.0
SMF    50.17 310 eP     52 08.90  -0.7
       1.2s     24.10nm          5.1mb
DIX    50.18 307 Pd     52 10.20   0.2
EMS    50.27 307 ePd    52 11.80   1.2
BGF    50.40 311 iPd    52 10.70  -0.7
       0.8s     22.05nm          5.2mb
TCF    50.76 312 iPd    52 13.50  -0.6
       0.9s     24.25nm          5.2mb
MAF    50.77 311 iPd    52 13.60  -0.6
       1.2s     21.70nm          5.0mb
MFF    50.79 314 eP     52 13.90  -0.4
       1.3s     44.05nm          5.3mb
LPL    50.84 307 eP     52 15.10   0.1
       1.2s     22.30nm          5.0mb
LPG    50.85 307 eP     52 15.40   0.2
       1.4s     52.30nm          5.3mb
LSF    50.90 312 iPd    52 14.50  -0.6
       1.1s     24.90nm          5.1mb
LCCM   51.06  49 eP     52 13.30  -3.3X
LSA    51.48 219 P      52 21.00   0.7
       1.2s     23.00nm          5.0mb
```

```
     Z  22s      2.75um          5.2Msz
     N  13s      2.85um
     E  12s      1.09um
SFI    51.58 302 P      52 21.20   0.9
PGD    51.64 303 P      52 22.20   1.2
CKI    51.66 306 P      52 20.50  -0.5
FIR    51.81 303 e(P)   52 22.00  -0.1
RJF    51.82 312 eP     52 21.60  -0.6
       1.2s     32.45nm          5.1mb
     Z  20s      1.15um          4.9Msz
SKO    51.83 293 iP     52 21.20  -1.0
CRE    51.85 302 P      52 22.90   0.4
CAF    52.11 311 iPd    52 24.50   0.1
       1.3s     28.90nm          5.1mb
VAY    52.25 292 eP     52 24.80  -0.7
LFF    52.29 313 eP     52 25.40  -0.3
SBF    52.34 306 eP     52 25.00  -1.2
       1.2s     33.90nm          5.2mb
LPO    52.48 312 iPd    52 27.00  -0.1
       1.2s     50.30nm          5.3mb
FRF    52.76 307 eP     52 28.10  -1.1
       1.2s     36.60nm          5.2mb
OHR    52.78 293 eP     52 27.30  -2.1
GYA    53.18 201 iPc    52 32.60   0.0
       1.2s     27.00nm          5.1mb
     Z  20s      1.25um          5.0Msz
     N  16s      1.59um
     E  16s      3.82um
                pP      52 40.40  26km
                S       00 04.00
PGF    53.38 305 eP     52 33.00  -0.9
       1.3s     22.40nm          5.0mb
RSSD   53.84  43 eP     52 34.83  -2.6X
       0.7s      7.10nm          4.8mb
     Z  20s      1.61um          5.1Msz
EEO    53.89  21 eP     52 40.50   3.0X
GUN    53.92 224 P      52 37.88  -0.4
       0.9s    216.00nm          6.2mb X
GKN    54.00 226 P      52 37.84  -0.8
       0.8s    139.00nm          6.0mb
KKN    54.12 225 P      52 39.14  -0.5
       0.9s     97.00nm          5.8mb
CBM    54.19  12 P      52 50.00  10.3X
     Z  21s      0.78um          4.7Msz
EPF    54.22 312 iPd    52 39.00  -1.0
       1.2s     26.50nm          5.1mb
PKI    54.32 225 P      52 40.46  -0.8
       1.0s     68.00nm          5.6mb
DMN    54.32 225 P      52 40.70  -0.5
       0.9s    113.00nm          5.9mb
BW06   54.40  48 eP     52 40.65  -0.9
       0.8s      8.01nm          4.8mb
WDC    54.50  60 P      52 50.00   7.9X
     Z  22s      1.59um          5.0Msz
QUE    54.68 245 eP     52 45.50   1.8
LMEM   54.71  59 (P)    52 43.82   0.0
KMI    54.80 206 Pc     52 41.00  -3.7X
       1.8s     50.00nm          5.2mb
     Z  22s      2.00um          5.1Msz
     N  13s      1.80um
     E  13s      1.20um
                pP      52 52.00  37km
                eS      00 26.00
HVU    54.90  51 eP     52 46.12   0.9
TDS    54.97 297 P      52 45.70   0.2
                eSg     52 53.90
LMN    55.38   9 eP     52 51.00   2.6X
SHL    55.47 218 iP     52 48.50  -1.0
       1.3s     43.27nm          5.3mb
                eS      00 35.00
RSNY   56.26  17 P      53 00.00   5.2X
     Z  21s      0.48um          4.6Msz
DUG    56.44  52 eP     52 56.77   0.4
       0.8s      7.08nm          4.7mb
DAU    56.47  50 eP     52 56.14  -0.6
KVN    56.73  57 (P)    52 54.56  -3.9X
EMUT   57.12  50 eP     53 02.46   1.2
CMB    57.35  59 P      53 10.00   7.3X
     Z  19s      0.84um          4.9Msz
HRI    57.60 277 eP     53 04.30  -0.2
BONR   57.77  57 eP     53 06.63   0.7
TNP    57.82  56 eP     53 06.81   0.6
       0.9s     11.14nm          4.9mb
ARN    57.82  60 (P)    53 06.79   0.8
SRU    57.85  50 eP     53 03.30  -3.0X
GLD    57.98  45 P      53 20.00  12.8X
     Z  20s      2.01um          5.2Msz
```

```
GOL    58.01  45 eP     52 53.63 -13.9X
MSU    58.19  51 eP     53 09.32   0.6
HRV    58.46  15 P      53 20.00   9.7X
     Z  20s      0.68um          4.8Msz
PV08   58.65  48 eP     53 12.69   0.6
PV09   58.65  49 (P)    53 10.99  -1.1
PV10   58.79  49 eP     53 13.08   0.1
JVI    58.97 277 eP     53 13.70  -0.4
ISA    59.98  58 P      53 30.00   9.0X
     Z  19s      1.00um          5.0Msz
GSC    60.61  56 eP     53 25.92   0.6
                e       53 34.15  27km
MCWV   60.78  22 P      53 30.00   3.7X
     Z  20s      1.03um          5.0Msz
MBH    61.16 277 eP     53 28.20  -0.9
CHG    61.39 209 eP     53 29.30  -1.4
FVM    61.50  32 P      53 40.00   8.7X
     Z  18s      2.01um          5.3Msz
ACO    61.78  40 iPd    53 31.20  -2.0
ELC    62.32  31 (P)    53 34.63  -2.0
ALQ    62.53  47 eP     53 37.47  -0.9
       1.1s     11.36nm          4.9mb
     Z  21s      1.44um          5.1Msz
GLA    63.12  55 (P)    53 40.60  -1.5
MEO    63.74  40 iPd    53 45.40  -0.7
WMOK   63.76  40 eP     53 45.33  -0.9
       0.8s     33.97nm          5.5mb
     Z  19s      1.75um          5.3Msz
TUC    64.48  51 P      54 00.00   8.9X
     Z  19s      0.65um          4.8Msz
MIAR   64.56  35 P      54 00.00   8.5X
     Z  21s      1.55um          5.2Msz
CEH    64.58  22 P      54 00.00   8.5X
     Z  21s      0.36um          4.5Msz
UYO    64.84  36 iPc    53 50.70  -2.5X
POO    64.92 235 eP     53 54.50   0.6
HYB    65.29 230 ePd    53 54.70  -1.6
       1.2s     50.00nm          5.5mb
KHT    65.41 209 eP     53 57.00   0.0
HON    66.59  99 P      54 20.00  15.5X
     Z  20s      0.36um          4.6Msz
GBA    69.20 231 Pd     54 21.00   0.1
BCAO   88.95 288 iPc    56 08.10   0.1
       0.9s     14.00nm          5.3mb
                id      56 17.00  28km
TIC    90.74 311 P      56 16.40   0.0
KIC    90.98 311 P      56 17.80   0.3
LIC    91.16 311 P      56 18.40   0.1
WRA    98.74 172 P      56 52.80   0.1
       0.9s      0.90nm          4.3mb
WB2    98.74 172 eP     56 58.00   5.3X
       0.6s      3.60nm          5.1mb
MAW   150.69 224 iPKPd 03 04.30   6.2X
       0.9s     40.00nm
     S.D. = 0.8  on 184 of 225 obs.
-----------------------------------
%  JAN  21, 1993  13h 49m 45.21± 1.62s
   41.380 N ±17.8km   24.296 E ± 7.4km
   DEPTH =  10.0km  (geophysicist)
 GREECE-BULGARIA BORDER REGION   (363)

SRS     0.59 244 iPg    49 56.56  -0.6
                eSg     50 05.72
SOH     0.90 232 ePg    50 03.04   0.5
                eSg     50 14.88
OUR     1.07 193 iPg    50 05.30  -0.1
KNT     1.08 259 ePg    50 05.68   0.2
                eSg     50 22.08
ALN     1.41 109 ePb    50 10.84   0.0
     S.D. = 0.6  on   5 of   5 obs.
-----------------------------------
   JAN  21, 1993  13h 58m 07.30± 1.42s
   15.650 N ± 4.7km  120.936 E ± 5.7km
   DEPTH = 210.3 ± 14.9 km
   4.5mb ( 16 obs.)
 LUZON, PHILIPPINE ISLANDS       (249)

QIZ    11.11 289 eP     00 33.60  -8.1X
                eS      02 47.60
SSE    15.38   1 Pc     01 34.50  -0.4
       1.0s     42.00nm          4.8mb
     Z  16s      2.60um
     N  12s      0.80um
     E  12s      0.90um
WHN    16.01 339 eP     01 42.00  -0.6
NJ2    16.44 354 Pc     01 48.50   0.7
       1.0s     23.00nm          4.6mb
```

```
GYA     17.10 311 P      01 57.00   1.4
        1.0s     29.00nm          4.7mb
LOE     18.50 278 eP     02 09.00  -1.2
TIA     20.76 351 Pd     02 32.90   0.0
XAN     21.28 332 Pd     02 38.00  -0.1
      Z  12s      2.81um          4.9MszX
      N  12s      2.38um
      E  11s      1.40um
KHT     21.58 271 eP     02 41.80   0.7
CD2     21.86 317 P      02 44.60   0.9
      Z  12s      2.58um          4.9MszX
      E  12s      2.14um
KGM     22.03 234 ePd    02 46.50   1.1
IPM     22.45 243 ePc    02 50.00   0.4
        0.9s    175.60nm          5.6mb X
TIY     23.23 343 Pd     02 57.40   0.4
BJI     24.65 351 eP     03 10.00  -0.2
        1.4s     24.00nm          4.6mb
LZH     25.43 326 eP     03 17.50  -0.1
        1.2s     15.00nm          4.5mb
SNY     26.19   4 Pd     03 23.60  -0.6
        1.0s     23.00nm          4.8mb
HHC     26.39 344 eP     03 26.00  -0.3
        1.4s     12.00nm          4.4mb
      Z  12s      2.41um          5.0MszX
CN2     28.32   7 eP     03 42.50  -0.9
        0.8s      5.80nm          4.3mb
MDJ     29.79  12 eP     03 57.00   0.6
GTA     30.03 326 eP     03 58.00  -0.8
ASAJ    33.83  29 eP     04 31.10  -0.4
KUSJ    34.08  32 eP     04 35.10   1.6
GUN     34.64 297 P      04 38.80  -0.2
PKI     34.97 296 P      04 41.06  -0.7
        0.7s     10.00nm          4.5mb
KKN     35.13 296 P      04 42.28  -0.7
DMN     35.24 296 P      04 43.28  -0.7
GKN     35.73 296 P      04 47.32  -0.6
WB2     37.75 159 iPc    05 03.90  -0.8
        0.3s      9.40nm          4.9mb
                e        05 45.70
HYB     40.61 279 eP     05 28.50   0.1
ASPA    41.08 162 iPd    05 32.10   0.0
        0.7s     12.50nm          4.5mb
WARB    41.95 172 eP     05 38.80  -0.3
GBA     42.09 273 P      05 41.00   0.6
YAK     46.73   6 iPd    05 59.60 -17.1X
        1.0s     50.00nm
STK     51.24 157 eP     06 51.40  -0.2
        0.7s      1.70nm          3.7mb
HFS     84.88 331 eP     10 19.30   0.0
        0.3s      1.80nm          4.3mb
NAO     85.90 333 P      10 23.90  -0.5
        0.8s      7.60nm          4.6mb
GEC2    89.27 321 eP     10 41.60   0.7
        0.7s      0.94nm          3.8mb
YKA     90.90  23 eP     10 48.70   0.8
        0.7s      2.40nm          4.3mb
      S.D. = 0.7  on  36 of  38 obs.
-----------------------------------------
   JAN  21, 1993  14h 15m 27.58± 0.18s
   36.617 N ± 3.9km   71.298 E ± 2.3km
   DEPTH =  93.2km  ( 12 depth phases)
   5.2mb ( 76 obs.)
 AFGHANISTAN-TAJIKISTAN BORD REG.(717)
      Felt at Islamabad, Peshawar and
      Rawalpindi, Pakistan.

KSH      4.66  51 P      16 38.40   1.4
                S       17 25.00
FRU      6.71  21 iPnc   17 05.00  -0.3
                iS      18 18.00
QUE      7.37 211 iPc    17 13.00  -1.5
        0.9s    546.22nm          6.1mb
                eS      17 38.00
PRZ      8.02  41 iPd    17 22.00  -1.4
        1.0s    280.00nm          5.9mb
NDI      9.35 146 iPc    17 37.50  -3.8X
        0.6s     53.33nm          5.6mb
                eS      19 18.00
MAIO     9.51 272 iPd    17 37.80  -5.9X
        0.8s     45.75nm          5.4mb
                eS      19 17.00
ASH     10.40 281 eP     17 50.00  -5.5X
        0.8s    170.00nm          6.0mb
KAT     12.15 287 iP+    18 12.00  -6.7X
GKN     14.17 124 P      18 40.50  -4.7X
WMO     14.43  55 P      18 45.00  -3.6X
        1.2s     56.00nm          4.7mb
DMN     14.74 124 P      18 47.78  -4.9X
KKN     14.74 123 P      18 47.40  -5.2X
PKI     14.97 123 P      18 51.14  -4.5X
GUN     15.07 121 P      18 51.42  -5.6X
TEH     16.11 273 e(P)   19 15.00   5.2X
BRVK    16.46 358 iPd    19 10.00  -3.9X
BOM     17.70 175 eP     19 42.20  12.7X
                eS      22 53.80
LSA     17.98 107 P      19 30.80  -2.5X
        1.0s     32.00nm          4.5mb
SHE     18.15 290 iPc    19 33.00  -1.7
        1.0s    120.00nm          5.1mb
POO     18.15 172 eP     19 38.00   2.9X
ELT     19.65  27 eP     19 48.20  -3.0X
        1.3s     51.00nm          4.7mb
                eS      23 26.00
GRS     19.85 286 iPd    19 52.00  -1.6
        1.1s     70.00nm          4.9mb
                e       23 27.00
TAB     19.89 282 eP     20 07.00  12.9X
HYB     20.17 160 eP     19 56.00  -0.9
                eS      23 53.50
GRO     20.70 297 iPd    20 02.00  -0.1
SHL     20.74 116 eP     20 01.80  -1.0
        1.0s     47.50nm          4.8mb
                eS      23 37.50
MTA     21.13 292 iPd    20 06.60   0.3
        0.8s    270.00nm          5.6mb
                i       20 25.40  88km
                eS      23 57.00
                e       24 40.00
SVE     21.43 344 ePd    20 08.20  -1.1
        2.0s    160.00nm          5.0mb
ARU     21.56 341 iPd    20 10.00  -0.6
        1.5s    200.00nm          5.2mb
                e       20 43.00
                e       23 58.00
                e       24 55.00
UER     22.03  40 iP     20 15.00  -0.2
        2.5s    180.00nm          5.0mb
                e       20 42.00 135kmX
                e       20 56.00
                eS      24 12.00
                e       24 42.00
GTA     22.60  74 iPd    20 21.50   0.4
        1.0s    110.00nm          5.2mb
PYA     22.69 298 iPd    20 21.00  -0.8
        1.3s    150.00nm          5.2mb
                i       20 42.00  98km
                i       21 04.00
                i       25 06.00
KIV     22.94 297 P      20 24.80   0.4
        1.3s     99.00nm          5.0mb
                e       20 46.00  98km
GBA     23.57 165 P      20 31.10   0.7
        0.3s      5.00nm          4.4mb
RYD     24.25 248 iPd    20 37.20   0.1
MJMA    24.62 252 ePd    20 40.30  -0.3
OASM    25.85 254 iPd    20 54.30   2.3
MOY     25.86  45 eP     20 37.40 -14.4X
        1.0s     60.00nm
LZH     26.15  81 Pc     20 56.00   1.1
        1.5s     73.00nm          5.0mb
      Z  12s      0.68um          4.4MszX
      E  10s      0.60um
                pP      21 13.00  74kmX
ZAK     26.74  49 eP     21 00.50   0.7
        1.4s     39.00nm          4.7mb
ANN     26.89 298 eP     21 00.00  -1.3
        1.2s     40.00nm          4.8mb
                e       21 21.00  94km
CD2     27.50  92 iPd    21 08.20   1.1
IRK     27.98  46 eP     21 11.00  -0.2
                e       21 31.10  89km
KMI     29.19 104 eP     21 26.00   3.4X
HRI     29.24 274 eP     21 23.80   1.0
KAS     29.40 291 eP     21 24.00  -0.1
MOS     29.72 321 eP     21 26.00  -0.7
                e       22 32.00 352kmX
OBN     29.98 319 iPd    21 28.80  -0.2
        1.2s     66.00nm          5.2mb
      Z  11s      1.00um          4.7MszX
                e       21 47.00  78kmX
                i       21 59.00
                i       22 11.00
                i       22 29.00
                ePP     23 03.00
                e       24 45.00
                eS      27 28.00
                eSS     30 03.00
CHG     30.06 119 eP     21 30.00  -0.1
BGIO    30.24 271 eP     21 32.70   1.1
BTO     30.35  70 P      21 33.00   0.5
AYN     30.55 266 ePd    21 34.70   0.5
XAN     30.68  84 P      21 35.50   0.1
MBH     31.10 268 eP     21 39.60   0.4
BDT     31.17 121 eP     21 45.10   5.4X
        1.0s     41.40nm          5.1mb
HHC     31.50  70 P      21 43.00   0.4
        1.4s     19.00nm          4.6mb
GYA     31.64  99 iPd    21 44.60   0.6
        1.0s     14.00nm          4.7mb
                pP      22 02.00  73kmX
TIY     32.62  75 Pc     21 52.80   0.5
KHT     32.63 125 eP     21 54.50   2.0
LOE     32.97 117 eP     22 14.10  18.6X
                e       29 30.00
ELL     33.01 283 eP     21 56.00   0.2
NST     33.03 122 eP     22 05.50   9.5X
CIT     33.42  49 eP     21 59.00  -0.1
NRI     34.10  11 eP     22 04.00  -0.7
                e       22 25.00  90km
                e       23 21.00
                e       23 45.00
                eS      27 26.00
                eSSS    30 03.00
ISR     34.52 298 eP     22 10.00   1.3
MLR     34.93 299 ePd    22 13.90   1.6
PUL     34.96 325 (P)    22 12.50   0.4
        1.2s    140.00nm          5.8mb
                i       22 39.00 119kmX
BJI     35.09  70 eP     22 14.00   0.5
BOD     35.21  39 eP     22 12.80  -1.5
        0.5s      8.00nm          4.9mb
CMP     35.58 299 iPc    22 19.00   1.4
TIA     36.61  77 eP     22 27.30   0.9
UZH     37.39 304 eP     22 33.00   0.3
        1.0s     22.00nm          5.0mb
                e       22 50.50  70kmX
                e       23 00.80
                e       24 00.00
KAF     37.66 327 eP     22 34.80   0.0
        0.9s     20.90nm          5.1mb
VAY     37.78 292 iP     22 36.70   0.6
NUR     37.87 324 eP     22 37.00   0.4
        0.4s      7.80nm          5.0mb
BZS     37.96 300 eP     22 33.50  -4.1X
SKO     38.51 294 iP     22 42.60   0.3
SPC     38.74 305 iP     22 46.40   2.1
PSZ     39.01 303 eP     22 47.70   1.3
OJC     39.02 307 iP     22 47.10   0.7
                e       23 09.70  96km
                i       23 16.60
                i       24 15.90
OHR     39.13 293 eP     22 46.50  -1.0
NJ2     39.22  82 eP     22 48.00  -0.2
BUD     39.62 303 eP     22 51.50   0.2
SDF     39.84 335 iP     22 53.20   0.3
UZD     39.99 301 e(P)   22 55.00   0.6
SRO     40.08 303 eP     22 54.60  -0.5
SNY     40.32  66 Pc     23 02.60   5.5X
ZST     40.86 304 eP     23 02.30   0.8
                i       24 35.20 506kmX
UPP     41.13 322 iP     23 22.90  19.4X
KSP     41.25 308 eP     23 05.00   0.3
                e       23 27.00  93km
SOP     41.27 303 eP     23 05.00   0.1
SSE     41.42  83 Pc     23 07.50   1.2
        1.0s     11.00nm          4.6mb
PTJ     41.87 301 eP     23 08.50  -1.5
IPM     41.96 132 ePd    23 19.00   8.1X
PRU     42.41 307 Pd     23 15.00   0.8
        1.5s     26.60nm          4.8mb
                e       29 11.50
VBY     42.42 300 ePd    23 15.30   1.0
BRG     42.74 308 iPd    23 17.40   0.5
        1.2s     42.00nm          5.1mb
                i       23 40.00  96km
                i       23 45.40
TDS     42.77 291 P      23 18.50   1.3
LJU     42.84 301 eP     23 19.00   1.2
                ePP     23 46.00
CEY     42.96 301 eP     23 19.00   0.2
```

ePP 23 44.50
GEC2 43.06 305 eP 23 20.10 0.5
1.1s 10.00nm 4.5mb
e 23 26.70 22kmX
e 23 43.40
e 23 46.10
e 23 48.40
e 23 52.00
e 23 55.90
e(PP) 24 59.50
e 25 20.10
e(PPP)25 48.60
KHC 43.11 306 iPc 23 21.50 1.5
e 23 44.20 96km
HFS 43.12 322 eP 23 18.90 -0.9
1.3s 72.30nm 5.4mb
Z 25s 61.00um 6.4MszX
LR 38 00.00
MGR 43.24 292 P 23 21.70 0.7
VOY 43.28 301 ePc 23 21.60 0.1
CLL 43.30 309 iPd 23 21.20 -0.2
1.8s 61.00nm 5.1mb
e 23 49.00 122kmX
SGO 43.32 293 P 23 22.60 0.9
TRI 43.42 301 eP 23 22.50 0.1
RBL 43.44 302 P 23 23.20 0.5
KBA 43.51 303 iPc 23 24.00 0.6
1.2s 27.10nm 5.0mb
i 23 51.00 117kmX
i 23 56.70
BHG 43.73 304 eP 23 25.20 0.2
1.6s 70.00nm 5.2mb
MOX 44.23 308 iP 23 29.70 0.7
1.8s 54.00nm 5.1mb
ARV 44.40 298 P 23 31.10 0.7
GRF 44.58 307 iPd 23 33.40 1.6
1.8s 146.00nm 5.5mb
e 23 52.60 78kmX
NAO 44.60 323 P 23 30.90 -0.9
1.0s 34.60nm 5.1mb
WTTA 44.63 303 iPd 23 31.70 -0.8
1.0s 30.10nm 5.1mb
i 23 32.50 3kmX
ASS 44.69 297 P 23 33.80 1.0
FUR 44.74 305 eP 23 34.70 1.6
CTI 44.82 302 P 23 34.40 0.5
SQTA 44.93 303 iPd 23 33.90 -0.8
1.4s 47.20nm 5.1mb
i 23 34.50 2kmX
CRE 45.08 298 P 23 37.30 1.4
SFI 45.08 299 P 23 37.20 1.4
OGA 45.11 303 iPc 23 36.10 -0.2
1.0s 23.00nm 5.0mb
PGD 45.19 298 P 23 38.30 1.4
FIR 45.54 298 e(P) 23 40.00 0.6
TIK 45.57 22 iPc 23 38.40 -0.9
1.3s 10.00nm 4.5mb
i 23 58.40 82kmX
i 24 06.00
e 26 11.00
e 30 13.50
OSS 45.74 303 ePd 23 41.00 -0.2
LLS 46.48 303 ePd 23 46.50 -0.6
BOB 46.59 300 P 23 48.90 1.1
TMA 46.71 302 ePd 23 48.20 -0.7
VAI 46.83 302 P 23 49.10 -0.4
CDF 47.34 305 eP 23 53.50 -0.2
1.1s 12.95nm 4.7mb
MMK 47.34 302 Pd 23 53.20 -0.7
PGF 47.43 297 P 23 54.01 -0.5
DIX 47.71 302 ePd 23 56.80 -0.1
BSF 47.77 305 eP 23 56.40 -0.7
1.2s 67.25nm 5.4mb
WLF 47.84 307 P 23 59.00 1.6
e 24 29.00 130kmX
HAU 48.02 305 eP 23 58.60 -0.4
1.3s 41.15nm 5.1mb
EMS 48.04 302 ePd 23 59.20 -0.1
SAOF 48.09 300 P 23 59.84 0.3
AUTN 48.18 300 P 24 01.09 0.6
SBF 48.21 299 P 24 00.58 0.1
AURF 48.28 299 P 24 01.25 0.2
LPG 48.29 302 eP 24 01.20 -0.2
1.3s 58.10nm 5.3mb
LPL 48.30 302 eP 24 01.20 -0.1
1.2s 75.25nm 5.5mb
TOUF 48.30 300 P 24 01.88 0.5

RSL 48.33 302 P 24 01.54 0.0
MVIF 48.40 300 P 24 02.17 0.2
SURF 48.49 300 P 24 04.08 1.3
CALN 48.62 299 P 24 03.74 0.0
DOU 48.76 308 Pc 24 05.40 0.9
e 24 35.80 132kmX
FRF 48.84 299 eP 24 04.60 -0.6
1.2s 69.30nm 5.5mb
LMR 48.99 299 eP 24 05.70 -0.7
1.2s 20.85nm 5.0mb
LRG 49.07 299 eP 24 06.50 -0.4
1.3s 58.50nm 5.4mb
LBF 49.82 304 eP 24 11.80 -0.9
1.3s 35.00nm 5.2mb
LOR 49.83 305 eP 24 11.80 -1.0
1.4s 30.50nm 5.1mb
SSB 49.85 302 P 24 13.06 0.0
SMF 49.99 304 eP 24 13.40 -0.6
1.2s 66.05nm 5.5mb
SSF 50.11 304 eP 24 14.30 -0.6
1.4s 72.30nm 5.5mb
AVF 50.28 304 eP 24 15.60 -0.6
1.2s 68.75nm 5.6mb
COLF 50.37 302 P 24 17.21 0.2
BGF 50.67 304 eP 24 18.60 -0.6
1.2s 34.80nm 5.3mb
MAF 50.95 304 eP 24 21.10 -0.2
1.2s 83.60nm 5.6mb
KKM 51.04 115 ePd 24 42.60 20.1X
1.3s 138.90nm
TCF 51.17 304 eP 24 22.80 -0.2
1.2s 85.10nm 5.7mb
LSF 51.63 304 eP 24 25.70 -0.8
1.2s 47.90nm 5.4mb
CAF 51.64 302 eP 24 26.40 -0.2
1.2s 55.95nm 5.5mb
RJF 51.90 303 eP 24 28.50 -0.1
1.1s 36.65nm 5.3mb
LDF 52.10 307 eP 24 28.90 -1.0
1.4s 65.35nm 5.5mb
FLN 52.29 307 eP 24 30.30 -1.0
1.2s 34.80nm 5.3mb
LPO 52.31 302 eP 24 31.10 -0.5
EKA 52.37 316 P 24 31.00 -0.9
1.2s 27.20nm 5.2mb
YSS 52.52 55 (P) 24 49.00 15.9X
e 25 05.20 62kmX
LFF 52.54 302 eP 24 33.00 -0.2
1.2s 72.90nm 5.6mb
GRR 52.62 307 eP 24 32.70 -1.2
1.3s 90.25nm 5.6mb
MFF 52.65 305 eP 24 33.00 -1.1
1.2s 58.90nm 5.5mb
MAT 52.69 69 eP 24 53.00 18.5X
0.8s 11.94nm
EPF 53.40 300 eP 24 38.40 -1.2
1.0s 15.00nm 5.0mb
MGD 54.03 37 eP 24 42.00 -2.0
e 25 04.00 89km
EGRA 54.13 300 eP 24 41.00 -3.9X
DAG 54.71 344 iPc 24 48.10 -0.7
1.0s 27.00nm 5.2mb
ECRI 55.51 301 eP 24 55.50 0.4
EVIA 56.97 296 eP 25 05.50 -0.1
EHUE 57.36 295 eP 25 08.00 -0.3
GUD 57.38 299 iPd 25 07.60 -0.9
BCAO 57.93 250 iPc 25 10.50 -2.0
0.7s 24.00nm 5.4mb
id 25 33.40 92km
ic 26 05.80
EBAN 58.08 296 eP 25 13.00 -0.3
EPLA 58.96 299 iPd 25 19.00 -0.4
EHOR 59.28 296 eP 25 21.30 -0.2
MNI 60.48 112 e(P) 25 29.00 -1.0
ILT 63.54 23 eP 25 50.00 0.2
i 26 09.50 75kmX
MTD 65.01 222 iPc 25 58.30 -1.7
i 26 28.10 121kmX
BUL 69.37 223 iPd 26 26.10 -1.3
IMA 71.94 18 eP 26 41.15 -1.2
1.0s 3.23nm 4.1mb X
e 27 01.86 78kmX
FBA 74.29 16 eP 26 55.60 -0.3
1.0s 4.29nm 4.3mb
KIC 75.03 267 P 27 00.00 -1.0
TIC 75.09 267 P 27 00.40 -0.9
LIC 75.34 267 P 27 02.00 -0.7

Z 20s 0.20um 4.4Msz
YKA 81.12 3 eP 27 33.10 -0.3
1.1s 5.00nm 4.3mb
COOL 81.80 138 eP 27 58.00 20.6X
FCC 84.20 352 eP 27 54.00 4.7X
pP 28 14.50 75kmX
FORT 85.57 134 eP 28 07.50 11.0X
UYO 108.34 348 iPKPd 33 51.50 5.0X
CNCB 139.00 288 ePKP 35 00.00 13.9X
S.D. = 0.9 on 169 of 204 obs.

JAN 21, 1993 14h 23m 02.45± 0.43s
8.418 S ± 8.2km 121.299 E ±10.6km
DEPTH = 33.0km (normal)
5.1mb (19 obs.) 4.7Msz (1 obs.)
FLORES REGION, INDONESIA (286)

MTN 10.62 115 iPc 25 33.30 -2.1
iS 27 30.00
NANU 15.12 201 eP 26 34.00 -1.3
0.3s 9.00nm 4.5mb
eS 29 14.00
WB2 17.06 134 iPc 26 56.10 -4.1X
iS 29 58.50
MEEK 18.30 188 iPc 27 17.30 1.7
0.3s 13.00nm 4.6mb
eS 30 30.00
WARB 18.38 165 eP 27 17.30 0.7
ASPA 19.38 143 iPc 27 27.80 -0.9
0.5s 79.70nm 5.2mb
Z 18s 0.90um 5.0MszX
eS 30 53.30
MRWA 21.28 193 eP 27 46.00 -2.4
e 27 50.00
eS 31 35.00
IPM 23.99 302 ePd 28 16.00 0.8
0.8s 33.90nm 4.9mb
CTA 26.78 118 iPd 28 42.00 0.5
i 29 05.00
STK 30.02 144 iPc 29 10.30 -0.3
0.4s 24.70nm 5.4mb
RMQ 31.64 128 iPd 29 25.70 0.7
KHT 32.22 316 eP 29 31.30 1.2
CMS 32.38 139 iPc 29 31.60 0.3
1.0s 22.00nm 5.0mb
BDT 33.70 319 eP 29 44.50 1.6
0.9s 24.20nm 5.1mb
BFD 34.51 149 eP 29 50.20 0.5
0.7s 8.00nm 4.8mb
CHG 34.90 321 ePc 29 54.30 1.0
0.9s 10.08nm 4.7mb
BRS 35.23 126 iPd 29 36.60 -19.5X
1.0s 26.00nm
ARMA 35.81 132 eP 30 02.20 1.1
0.6s 19.00nm 5.2mb
TOO 36.35 147 iPc 30 07.00 1.6
0.6s 41.00nm 5.5mb
e 32 09.80
KMI 37.93 332 Pd 30 21.00 2.0
1.0s 30.00nm 5.1mb
pP 30 33.00 44kmX
LZH 47.22 341 eP 31 33.50 -0.9
1.2s 20.00nm 5.0mb
sP 31 41.00
BJI 48.44 355 eP 31 43.00 -0.6
1.0s 22.00nm 5.1mb
Z 18s 0.65um 4.7Msz
GBA 48.73 296 Pd 31 43.80 -2.4X
0.6s 6.00nm 4.8mb
GUN 49.77 318 P 31 53.20 -1.4
PKI 49.87 317 P 31 53.80 -1.4
0.8s 24.00nm 5.3mb
DMN 50.10 317 P 31 55.80 -1.1
0.8s 23.00nm 5.3mb
KKN 50.10 317 P 31 55.80 -1.1
0.6s 14.00nm 5.2mb
GKN 50.67 317 P 32 00.00 -1.1
0.6s 19.00nm 5.3mb
BUL 89.64 250 iPd 36 00.00 0.9
CNCB 153.31 160 PKP 43 01.00 8.5X
LPB 153.52 159 ePKP 43 06.00 13.4X
ZOBO 153.74 159 PKP 43 04.80 11.6X
S.D. = 1.3 on 26 of 32 obs.

• JAN 21, 1993 15h 01m 06.87± 0.71s
45.608 N ± 6.9km 26.585 E ±12.9km
DEPTH = 156.4 ± 8.1 km

3.9mb (2 obs.)
ROMANIA (358)

CVO	0.36	307	iPc	01 28.00	0.0
MLR	0.47	256	iPd	01 28.60	-0.6
ISR	0.47	183	iPd	01 29.50	0.4
MTUR	1.14	251	iPd	01 33.50	-0.3
CMP	1.14	253	iPc	01 34.00	0.2
CFR	1.18	110	iP	01 34.00	-0.1
BUC1	1.32	198	iPd	01 35.90	0.5
SRS	4.99	207	eP	02 21.33	0.3
KNT	5.19	212	iP	02 23.98	0.3
SOH	5.33	207	iP	02 25.89	0.2
OUR	5.61	201	eP	02 26.84	-2.3
PAIG	6.07	202	eP	02 36.66	1.3
NUR	14.97	356	eP	04 32.40	0.9
	0.2s	0.60nm		3.6mb	
KAF	16.54	360	eP	04 50.00	-0.8
	0.5s	5.40nm		4.1mb	

S.D. = 1.0 on 14 of 14 obs.

& JAN 21, 1993 16h 04m 27.18s
33.755 N 116.130 W
DEPTH = 2.2km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 2.9 (PAS).

PLM	0.73	237	ePd	04 41.09	-0.7
PEC	0.87	279	eP	04 43.29	-1.3
			eS	04 54.49	
GLA	1.30	122	(P)	04 50.49	-1.4
GSC	1.64	340	eP	04 56.82	-0.4
ISA	2.71	315	ePg	05 18.32	5.7
TNP	4.41	349	(P)	05 43.27	6.4
ARUT	4.58	28	(Pn)	05 38.56	-0.6
MSU	5.73	33	(Pn)	05 54.94	-0.6
SRU	7.00	39	(P)	06 24.51	11.1
EMUT	7.40	34	(P)	06 19.31	0.3

10 obs. associated

JAN 21, 1993 16h 13m 22.79± 0.64s
41.742 N ± 6.1km 23.833 E ± 5.3km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)

MMB	0.17	207	iPg	13 26.00	-0.7
KKB	0.57	283	iPg	13 34.00	-0.4
SRS	0.65	196	ePg	13 34.24	-1.6
			eSg	13 42.00	
RZN	0.66	94	iPg	13 36.00	-0.1
PGB	0.84	17	iPg	13 39.00	-0.1
KNT	0.91	231	iPg	13 39.37	-0.9
SOH	0.99	202	ePg	13 41.80	0.2
			eSg	13 53.76	
VAY	1.04	247	iPn	13 43.60	1.2
KDZ	1.19	94	iP	13 45.00	0.0
THE	1.29	211	iPg	13 46.44	-0.2
			eSg	14 03.33	
DIM	1.31	76	iP	13 50.00	3.1X
GRG	1.33	234	iPb	13 48.01	0.6
			iSb	14 05.40	
OUR	1.41	175	ePb	13 48.16	-0.3
PAIG	1.82	184	ePb	13 56.52	2.2
			eSb	14 19.00	
ALN	1.87	116	iPb	13 58.52	3.5X

S.D. = 1.0 on 13 of 15 obs.

• JAN 21, 1993 18h 30m 47.50± 0.45s
53.163 S ± 9.3km 72.682 E ±12.4km
DEPTH = 10.0km (geophysicist)
5.1mb (8 obs.)
KERGUELEN ISLANDS REGION (433)

MAW	15.24	194	P	34 22.50	-1.6
	0.9s	60.00nm		5.0mb	
NVL	31.74	213	eP	37 13.00	-0.1
	1.4s	48.00nm		5.2mb	
			e	37 57.00	
SPA	37.02	180	iPd	38 00.20	1.4
	1.1s	46.43nm		5.2mb	
STK	52.85	95	eP	40 08.10	2.8X
	1.0s	2.00nm		4.0mb X	
ASPA	54.23	82	eP	40 14.50	-1.0
	0.9s	15.90nm		5.0mb	
WRA	57.34	80	P	40 38.00	0.0
	0.7s	1.10nm		4.0mb X	
WB2	57.35	80	iPd	40 38.10	0.0
	1.0s	6.00nm		4.6mb	
BRS	62.78	100	eP	41 16.50	1.3
BCAO	73.12	302	iPc	42 19.80	-0.1
	0.5s	15.00nm		5.3mb	
			id	42 27.00	
CHG	75.19	26	eP	42 31.70	0.0
	1.3s	24.04nm		5.1mb	
PKI	81.15	11	P	43 04.50	-0.1
DMN	81.15	11	P	43 03.58	-1.0
KKN	81.35	11	P	43 06.00	0.5
GKN	81.49	11	P	43 05.02	-1.1
GUN	81.54	12	P	43 06.18	-0.5
KMI	82.22	27	Pd	43 11.00	0.9
	1.8s	80.00nm		5.5mb	
KIC	87.57	284	P	43 40.00	3.1X
LIC	87.63	284	P	43 38.70	1.6
TIC	87.96	284	P	43 42.00	3.2X

S.D. = 1.0 on 16 of 19 obs.

JAN 21, 1993 18h 47m 18.99± 0.52s
31.824 S ± 6.0km 68.402 W ± 5.6km
DEPTH = 124.1 ± 7.7 km
4.1mb (1 obs.)
SAN JUAN PROVINCE, ARGENTINA (137)
MD 4.0 (SAN).

RTCV	0.12	252	iPd	47 36.00	-0.5
CFA	0.26	33	ePc	47 36.80	0.0
			S	47 48.30	
RTCB	0.48	315	iPc	47 37.70	0.1
			S	47 47.50	
RTLL	0.50	353	iPd	47 37.50	-0.2
			S	47 48.00	
MDZ	1.12	200	i(P)	47 43.70	0.7
JACH	2.04	245	eP	47 54.58	0.8
			iS	48 22.36	
FCH	2.19	226	iPd	47 56.72	0.9
			iS	48 26.03	
PEL	2.34	235	eP	47 57.63	0.2
			iS	48 26.77	
MRA	2.36	105	iPc	47 58.30	0.7
			S	48 24.00	
ROCH	2.49	242	iP	47 59.49	-0.1
			iS	48 29.58	
PCH	2.53	224	ePd	48 00.38	0.5
TACH	2.81	229	eP	48 03.50	-0.1
			iS	48 36.82	
CHCH	2.83	221	eP	48 04.10	0.2
			eS	48 38.66	
RFA	2.94	181	iP	48 04.70	-0.6
			S	48 38.70	
LCCH	3.14	238	eP	48 06.88	-1.0
TCA	3.29	83	iP	48 09.80	-0.2
			S	48 43.00	
LNV	3.31	229	iPd	48 08.58	-1.5
			iS	48 46.06	
CYA	4.06	35	eP	48 19.50	-0.8
CNCB	14.95	2	P	50 49.00	3.3X
ZOBO	15.47	1	eP	50 53.00	0.7
NNA	21.22	337	eP	52 04.80	8.5X
	0.7s	6.85nm		4.1mb	
			eS	52 51.60	

S.D. = 0.7 on 19 of 21 obs.

& JAN 21, 1993 19h 46m 19.30s
36.222 N 89.617 W
DEPTH = 13.9km
NEW MADRID, MISSOURI REGION (486)
<TEIC>. MD 3.0 (TEIC), 3.0 (SLM). mbLg 3.0 (GS). Felt (III) at Ridgely and Newbern, Tennessee. Also felt at Miston and Wynnburg, Tennessee. Felt (III) at Braggadocio and Caruthersville, Missouri.

GRT	0.16	75	iPc	46 23.33	-0.1
MFTN	0.19	108	iPd	46 23.79	-0.1
LDMO	0.19	13	iPc	46 23.88	0.0
BBTN	0.21	38	iPc	46 23.44	-0.7
DRTN	0.22	113	iPd	46 24.29	-0.1
OGTN	0.22	28	iPc	46 24.45	0.0
ACTN	0.28	63	iPd	46 25.30	-0.1
NMMO	0.37	8	iPc	46 27.10	0.0
			eS	46 32.34	
UTMA	0.52	82	iPd	46 30.10	0.4
DWM	0.59	10	iPd	46 30.70	-0.2
WGAR	0.59	232	eP	46 31.56	0.6
CRU	0.61	52	iPd	46 31.20	0.0
LRDO	0.91	254	iPd	46 36.50	0.2
ELC	1.11	16	ePc	46 39.59	-0.1
			eS	46 53.93	
GOIL	1.35	38	eP	46 44.15	0.5
MOTN	1.37	73	iPd	46 44.04	0.1
			iS	47 01.70	
AFAR	1.55	267	iPd	46 47.43	0.9
OLY	1.67	245	eP	46 47.52	-0.7
TCT	1.69	97	eP	46 48.59	0.1
			iS	47 10.00	
LGAR	1.78	209	iPc	46 50.18	0.3
FVM	1.87	340	eP	46 52.19	1.0
			eS	47 16.96	
LAL	2.58	133	eP	47 01.65	0.3
HAKY	2.59	69	eP	47 02.09	0.6
MSAL	2.77	119	iP	47 04.40	0.4
			eS	47 39.00	
ABTN	2.86	96	eP	47 04.75	-0.6
MIAR	3.64	244	eP	47 15.69	-0.7
			eS	48 13.14	
UYO	4.46	244	iPd	47 28.60	0.6

27 obs. associated

JAN 21, 1993 20h 11m 52.67± 0.97s
38.851 N ± 7.3km 142.791 E ±11.5km
DEPTH = 10.0km (geophysicist)
3.5mb (1 obs.)
NEAR EAST COAST OF HONSHU, JAPAN(228)

OFUJ	0.90	285	iPd	12 08.80	-1.2
			eS	12 18.60	
YAMJ	2.26	253	eP	12 30.00	-0.7
			S	12 56.00	
AOMJ	2.53	313	eP	12 33.70	-0.7
			eS	13 04.20	
KAKJ	3.36	219	P	12 45.70	-0.6
			S	13 23.10	
NIIJ	3.40	243	iP+	12 49.90	3.1X
HOOJ	3.55	6	eP	12 49.20	0.3
			eS	13 28.10	
MRRJ	3.80	340	eP	12 53.70	1.2
			eS	13 37.80	
CHJJ	4.12	228	iP+	12 57.80	0.8
MAT	4.30	239	eP	13 00.00	0.3
			eS	13 49.00	
KUSJ	4.48	18	eP	13 01.00	-1.1
			eS	13 50.40	
IIDJ	5.15	231	P	13 13.50	1.8
ASAJ	5.26	359	eP	13 14.30	1.1
WRA	59.02	189	P	21 53.70	-1.3
	0.7s	0.30nm		3.5mb	

S.D. = 1.2 on 12 of 13 obs.

? JAN 21, 1993 20h 13m 23.34± 0.74s
53.162 S ±21.0km 73.069 E ±15.5km
DEPTH = 10.0km (geophysicist)
5.1mb (6 obs.)
KERGUELEN ISLANDS REGION (433)

NVL	31.86	213	eP	19 48.00	-2.1
ASPA	54.00	82	eP	22 50.40	0.7
	0.7s	10.90nm		5.0mb	
WRA	57.11	79	P	23 12.90	0.7
	0.6s	1.70nm		4.3mb	
WB2	57.12	79	iPd	23 12.60	0.3
	0.8s	6.80nm		4.7mb	
GBA	66.60	5	P	24 44.00	28.3X
BCAO	73.32	302	iPd	24 55.10	-1.8
	0.8s	14.00nm		5.1mb	
CHG	75.09	25	eP	25 06.90	-0.1
PKI	81.11	11	P	25 39.56	-0.7
DMN	81.11	11	P	25 39.54	-0.6
	1.0s	58.00nm		5.5mb	
KKN	81.31	11	P	25 40.80	-0.3
GKN	81.45	10	P	25 40.66	-1.1
	1.2s	100.00nm		5.8mb	
GUN	81.50	11	P	25 41.56	-0.7
KIC	87.79	284	P	26 15.60	1.8
LIC	87.85	283	P	26 16.00	1.9
TIC	88.18	283	P	26 17.80	2.1

S.D. = 1.4 on 14 of 15 obs.

JAN 21, 1993 21h 05m 46.31± 1.11s
38.799 N ± 6.0km 69.055 E ± 6.4km
DEPTH = 63.3 ± 11.9 km

21d 21h

4.5mb (18 obs.)
TAJIKISTAN (715)

```
KSH     5.42  81 Pn    07 05.30  -1.4
        0.4s    60.00nm          5.2mb
                 Sn    08 04.50
FRU     5.83  45 ePn   07 13.50   1.2
                 i     08 27.00
MAIO    7.99 255 ePn   07 37.00  -5.3X
                 eSn   08 57.00
PRZ     8.00  60 eP    07 43.00   0.5
ASH     8.45 268 eP    07 55.40   6.9X
                 eS    09 16.00
QUE     8.76 192 eP    07 53.50   0.5
                 eS    09 35.00
NDI    12.16 144 eP    08 38.50  -0.2
                 eS    10 03.50
BRVK   14.29   3 iPc   09 11.50   4.9X
       1.0s    25.00nm          4.6mb
WMQ    14.87  64 eP    09 12.40  -2.0
GKN    16.86 125 P     09 32.76  -7.0X
KKN    17.42 124 P     09 38.50  -8.2X
DMN    17.44 125 P     09 41.02  -5.9X
GRS    17.64 279 iPd   09 45.00  -4.3X
       1.0s    20.00nm          4.3mb
PKI    17.66 124 P     09 42.38  -7.4X
GUN    17.73 123 P     09 43.16  -7.5X
GRO    18.18 292 eP    09 56.00   0.3
ELT    18.68  34 eP    10 01.00  -0.7
       1.0s    20.00nm          4.3mb
                 e     13 33.00
SVE    18.86 346 ePd   10 06.00   2.1
ARU    18.93 342 eP    10 06.00   1.4
PYA    20.15 293 eP    10 15.00  -2.7
                 i     10 30.00
LSA    20.36 110 P     10 20.20  -0.3
       0.8s     6.00nm          4.0mb
UER    21.65  46 eP    10 32.00  -0.8
       1.0s    10.00nm          4.2mb
HYB    22.86 156 eP    10 46.30   1.2
                 eS    14 43.00
GTA    23.83  79 eP    10 50.00  -4.4X
GBA    26.17 161 P     11 18.00   1.5
ZAK    26.75  53 eP    11 22.70   1.2
       0.6s    10.00nm          4.6mb
BOD    34.70  42 iPc   12 31.00  -0.7
       0.7s    10.00nm          4.9mb
KAF    34.86 326 eP    12 32.90  -0.1
       0.3s     1.10nm          4.3mb
NUR    35.06 323 eP    12 34.30  -0.4
       0.4s    12.60nm          5.2mb
HFS    40.31 320 eP    13 18.40  -0.2
       0.5s     9.90nm          4.9mb
GEC2   40.36 303 eP    13 19.50   0.2
       0.6s     0.79nm          3.7mb
                 e     13 26.20
                 e     13 29.60
                 e     13 32.30
NAO    41.79 321 P     13 30.10  -0.6
       0.6s     5.20nm          4.5mb
ILT    62.25  23 eP    16 04.00   0.7
IMA    70.39  17 iPc   16 55.22   0.0
       0.6s     2.65nm          4.3mb
FBA    72.68  16 eP    17 09.31   0.6
       0.8s     5.45nm          4.5mb
KIC    73.42 265 P     17 12.30  -1.4
YKA    79.01   2 eP    17 45.20   0.8
       0.6s     3.30nm          4.4mb
WRA    84.51 121 P     18 13.40  -0.2
       0.6s     0.70nm          3.9mb
WB2    84.51 121 iPd   18 13.30  -0.4
       0.4s     9.20nm          5.2mb
     S.D. = 1.2  on  29 of  39 obs.
-----------------------------------
?  JAN  21, 1993  21h 08m 45.55± 1.07s
   48.888 N ±26.9km  149.626 E ±34.5km
   DEPTH = 399.1 ± 20.0 km
   4.1mb (  8 obs.)
 NORTHWEST OF KURIL ISLANDS (220)

KUSJ    6.73 212 eP    10 25.90  -0.8
                 eS    11 44.80
ASAJ    6.78 228 eP    10 30.70   3.4X
HOOJ    7.87 217 eP    10 39.70   0.0
                 eS    12 07.90
MRRJ    8.81 226 eP    10 51.10   0.6
MAT    14.90 218 iPc   11 59.30   0.3
       0.9s    10.92nm          4.3mb
BRW    33.14  28 e(P)  14 47.80   0.5
IMA    33.52  38 iPc   14 50.40  -0.4
       0.5s     4.45nm          4.0mb
                 i     16 55.22
SLKM   35.38  48 eP    15 06.25  -0.1
LZH    35.57 266 eP    15 05.50  -2.9X
       1.2s    15.00nm          4.2mb
PMS    35.59  47 eP    15 11.40   3.3X
FBA    35.99  40 iPc   15 11.71   0.4
       0.6s     7.82nm          4.2mb
                 e     17 04.99
                 e     17 09.16
TOA    37.06  45 eP    15 23.90   3.6X
KLU    37.28  46 (P)   15 22.70   0.5
BALM   39.07  46 eP    15 37.90   1.1
YKA    50.61  37 eP    17 05.30  -1.7
       0.6s     2.60nm          3.7mb
LCCM   62.03  52 eP    18 27.00  -0.1
TNP    64.36  61 eP    18 42.69   0.5
       0.6s     2.60nm          4.0mb
HFS    65.61 338 eP    18 44.80  -4.7X
       0.8s     3.50nm          4.1mb
RSSD   67.21  49 eP    18 59.44  -0.5
       0.8s     5.98nm          4.4mb
PV10   68.75  56 eP    19 09.89   0.4
LNO    77.54  49 e(P)  19 58.80  -0.6
     S.D. = 0.8  on  16 of  21 obs.
-----------------------------------
%  JAN  21, 1993  21h 21m 06.87± 1.71s
   18.077 N ±13.3km   76.657 W ±10.7km
   DEPTH =  17.8 ± 11.9 km
 JAMAICA REGION (86)
     MD 3.7 (HOJ). Felt at Mona.

GWJ     0.08 268 iP    21 10.30  -0.2
                 S     21 13.91
HOJ     0.12 230 iP    21 10.97   0.2
                 S     21 15.54
STH     0.15 270 iP    21 11.17   0.0
                 S     21 14.17
YHJ     0.24 140 iP    21 12.47   0.0
                 S     21 15.93
PCJ     0.59 236 iP    21 18.38   0.0
BBJ     0.65 298 iP    21 19.63   0.1
                 S     21 25.90
SPJ     0.86 265 iP    21 22.96  -0.1
                 S     21 34.73
     S.D. = 0.2  on   7 of   7 obs.
-----------------------------------
?  JAN  21, 1993  22h 32m 56.16± 5.75s
   30.724 S ±39.2km   70.275 W ±16.1km
   DEPTH = 182.5 ± 43.0 km
 CHILE-ARGENTINA BORDER REGION (127)
     MD 4.1 (SAN).

RTCB    1.48 121 iPc   33 32.80   4.3X
                 S     33 44.50
RTLL    1.66 112 iPd   33 30.20  -0.1
                 S     33 48.60
RTCV    1.87 128 iPc   33 32.00  -0.4
                 (S)   33 52.00
CFA     1.95 117 iPd   33 33.80   0.5
JACH    1.97 188 iPd   33 33.25  -0.3
                 iS    33 54.82
ROCH    2.33 195 ePd   33 37.26  -0.4
                 iS    34 01.88
PEL     2.44 188 iPd   33 38.57  -0.2
                 iS    34 04.30
MDZ     2.47 151 iP    33 39.30   0.2
                 iS    34 06.90
FCH     2.60 180 iP+   33 41.58   0.7
                 iS    34 08.99
PCH     2.90 184 iP+   33 44.69   0.5
                 iS    34 15.06
LCCH    2.96 201 iP+   33 45.19   0.4
TACH    2.97 191 iP    33 44.89  -0.2
                 iS    34 15.51
CHCH    3.22 186 iP+   33 48.14   0.0
                 iS    34 22.14
LNV     3.36 196 iP+   33 49.66  -0.2
RFA     4.31 160 eP    34 01.60  -0.4
     S.D. = 0.4  on  14 of  15 obs.
-----------------------------------
   JAN  21, 1993  23h 24m 20.34± 0.73s
   34.563 N ± 7.3km   26.703 E ± 5.1km
   DEPTH =  37.5 ±  9.0 km
```

4.1mb (12 obs.)
CRETE (370)

```
     MD 4.1 (ATH).

NPS     1.14 308 ePn   24 40.50   0.5
KSL     2.82  56 ePn   25 05.50   1.5
CIN     3.23  20 eP    25 13.00   3.2X
VLI     3.75 306 ePn   25 18.00   0.8
PPCY    4.66  84 eP    25 33.50   3.4X
                 eS    26 30.00
CSS     5.47  84 eP    25 43.60   2.1
                 eS    26 45.60
VLS     6.11 308 ePn   25 54.00   3.4X
ZNT     7.34 106 eP    26 06.70  -1.1
                 eS    27 24.20
VAY     7.49 335 eP    26 12.00   2.1
HRI     7.62  97 eP    26 11.70  -0.2
JVI     7.70 108 eP    26 11.60  -1.4
OHR     8.03 326 eP    26 19.80   2.3
MBH     8.42 122 eP    26 21.80  -1.1
SKO     8.47 332 iP    26 28.00   4.4X
HOL     8.84 124 ePc   26 27.00  -1.6
SOI     9.28 295 P     26 33.20  -1.5
AYN     9.74 123 iPc   26 40.00  -1.0
ORI     9.84 307 P     26 43.70   1.3
MEU     9.89 288 P     26 42.00  -1.2
MGR    10.47 305 P     26 49.70  -1.3
SGO    10.84 307 P     26 53.00  -3.0X
GEC2   17.22 330 ePn   28 18.60  -1.0
       0.8s     2.33nm          3.4mb
                 e     28 21.00
                 e     28 25.90
                 e     28 32.10
                 e     28 37.80
                 e     28 44.00
KHC    17.50 330 eP    28 21.10  -1.9
VAI    17.71 315 P     28 26.60   1.1
PRU    17.81 334 eP    28 27.50   0.7
LPG    18.73 312 eP    28 38.70   0.2
       0.8s     6.45nm          3.9mb
LPL    18.75 312 eP    28 38.10  -0.5
       1.0s     7.20nm          3.8mb
CDF    20.00 320 eP    28 51.70  -0.9
       1.1s    15.65nm          4.3mb
HAU    20.27 318 eP    28 55.20  -0.1
       1.0s    10.60nm          4.1mb
LBF    21.13 313 eP    29 03.70  -0.4
       1.0s    12.40nm          4.2mb
SSF    21.45 313 eP    29 05.90  -1.4
       1.0s    11.00nm          4.2mb
OBN    21.66  16 eP    29 08.00  -1.3
DOU    22.42 321 P     29 16.90   0.0
                 i     29 21.00
MAIO   26.71  77 eP    30 05.00   6.9X
KAF    27.57 360 eP    30 03.80  -1.7
       1.1s    29.70nm          4.9mb
NAO    28.21 344 P     30 09.10  -2.2
       0.8s     2.30nm          3.9mb
BCAO   30.92 196 iPc   30 37.00   1.1
       0.5s     3.00nm          4.3mb
TIC    40.34 234 P     31 57.20   1.1
KIC    40.36 233 P     31 57.40   1.1
       0.5s     7.00nm          4.7mb
LIC    40.65 233 P     31 59.80   1.1
GKN    49.37  81 P     33 09.12   0.7
DMN    49.91  81 P     33 14.08   1.4
KKN    49.98  81 P     33 14.44   1.3
PKI    50.17  81 P     33 16.14   1.4
GUN    50.42  80 P     33 17.06   0.4
YKA    78.40 343 eP    36 18.10  -0.1
       0.8s     1.00nm          3.9mb
     S.D. = 1.3  on  40 of  46 obs.
-----------------------------------
%  JAN  21, 1993  23h 36m 10.72± 0.76s
   40.585 N ± 6.9km   23.084 E ± 6.8km
   DEPTH =  10.0km  (geophysicist)
 GREECE (364)

THE     0.10 297 ePg   36 14.00   0.6
SOH     0.31  41 ePg   36 16.98  -0.3
KNT     0.59 346 iPg   36 21.42  -1.3
GRG     0.64 306 ePg   36 22.94  -0.6
SRS     0.66  36 ePg   36 25.34   1.5
LIT     0.66 223 ePg   36 25.02   1.1
OUR     0.73 110 ePg   36 25.74   0.7
                 eSg   36 33.94
PAIG    0.80 145 ePg   36 24.54  -1.7
```

```
                    eSg   36 37.30
      S.D. = 1.4  on    8 of   8 obs.
-----------------------------------------
%  JAN  22, 1993  00h 03m 15.91± 1.17s
   39.464 N ± 7.6km   16.705 E ±11.7km
   DEPTH =  10.0km  (geophysicist)
 SOUTHERN ITALY                        (390)

TDS      0.34 305 P      03 22.40  -0.6
                  eSg    03 28.30
ORI      0.63 342 P      03 29.00   0.4
                  eSg    03 37.50
MGR      1.11 308 P      03 37.50   0.7
BRT      1.46  15 P      03 42.10  -0.2
SOI      1.48 200 P      03 42.60   0.1
SGO      1.53 316 P      03 42.90  -0.4
      S.D. = 0.7  on    6 of   6 obs.
-----------------------------------------
   JAN  22, 1993  00h 23m 55.77± 0.37s
   40.513 N ± 5.8km   24.418 E ± 2.9km
   DEPTH =  10.0km  (geophysicist)
 AEGEAN SEA                            (365)
      MD 3.6 (ISK).

OUR      0.38 242 iPg    24 03.85   0.3
PAIG     0.81 224 iPg    24 11.61   0.1
SOH      0.87 291 iPg    24 12.18  -0.3
                  iSg    24 23.73
SRS      0.87 314 iPg    24 11.82  -0.7
THE      1.11 277 iPg    24 15.93  -0.7
                  eSg    24 30.54
ALN      1.30  72 iPb    24 20.10   0.3
KNT      1.32 300 iPb    24 19.61  -0.6
                  iSb    24 36.78
LIT      1.53 255 ePb    24 23.02  -0.2
                  eSb    24 40.94
GRG      1.59 287 ePb    24 25.14   1.0
                  iSb    24 45.86
EZN      1.62 115 iPn    24 24.90   0.5
VAY      1.62 301 iPn    24 26.00   1.6
                  iSn    24 47.20
AGG      2.19 228 iPn    24 32.21  -0.6
                  eSn    24 59.45
EDC      2.64  93 ePn    24 39.00  -0.1
SKO      2.68 304 iPn    24 43.20   3.5X
                  i      24 46.30
BNT      2.68  92 ePn    24 39.70   0.0
OHR      2.81 283 ePn    24 44.30   2.7X
DMK      2.84  62 ePn    24 45.00   3.0X
KCT      3.02  94 ePn    24 44.00  -0.5
CTT      3.11  77 ePn    24 45.40  -0.4
MLR      5.10  12 eP     25 18.50   4.4X
BZS      5.50 339 ePc    25 16.00  -3.6X
      S.D. = 0.7  on   16 of  21 obs.
-----------------------------------------
   JAN  22, 1993  00h 42m 53.00± 0.63s
   40.538 N ± 6.7km   24.310 E ± 5.1km
   DEPTH =  10.0km  (geophysicist)
 AEGEAN SEA                            (365)

OUR      0.32 231 iPg    42 59.58  -0.1
                  eSg    43 04.32
PAIG     0.78 219 ePg    43 07.48  -0.7
                  eSg    43 18.60
SOH      0.78 292 iPg    43 07.89  -0.3
                  eSg    43 18.06
SRS      0.79 317 ePg    43 07.96  -0.5
                  eSg    43 18.96
KNT      1.24 301 ePb    43 16.00   0.0
                  eSb    43 33.45
ALN      1.37  74 ePb    43 17.56  -0.5
                  eSb    43 37.45
LIT      1.46 253 ePb    43 19.70   0.3
GRG      1.51 287 ePb    43 21.37   1.2
                  eSb    43 42.12
VAY      1.53 301 iPn    43 22.40   2.0X
EZN      1.70 114 ePn    43 23.40   0.6
      S.D. = 0.7  on    9 of  10 obs.
-----------------------------------------
%  JAN  22, 1993  00h 53m 56.92± 0.83s
   40.548 N ± 6.7km   24.271 E ± 6.9km
   DEPTH =  10.0km  (geophysicist)
 AEGEAN SEA                            (365)

OUR      0.31 226 iPg    54 03.44   0.1
                  eSg    54 08.56
SOH      0.75 292 ePg    54 11.72   0.1
                  eSg    54 23.24
SRS      0.77 318 ePg    54 11.68  -0.2
PAIG     0.77 216 ePg    54 11.68  -0.2
                  iSg    54 21.37
KNT      1.21 301 ePb    54 19.56   0.1
                  eSb    54 37.04
ALN      1.39  75 ePb    54 22.41   0.1
                  iSb    54 41.17
GRG      1.48 287 ePb    54 25.64   2.0X
                  eSb    54 45.56
      S.D. = 0.2  on    6 of   7 obs.
-----------------------------------------
&  JAN  22, 1993  01h 32m 38.25s
   61.729 N          151.324 W
   DEPTH =  73.5km
 SOUTHERN ALASKA                       (  2)
      <AEIC>.

SKT      0.27 339 iPd    32 49.14  -0.7
                  eS     32 57.90
SUA      0.38 134 iPd    32 50.52  -0.2
                  eS     33 00.06
CGLM     0.53 218 iPd    32 51.32  -0.7
CRP      0.61 221 iPd    32 51.62  -1.2
                  eS     33 02.60
CP2      0.64 224 eP     32 51.97  -1.3
SPU      0.65 213 iPd    32 52.32  -0.8
                  eS     33 03.48
CKN      0.65 219 iPd    32 52.62  -0.5
CKT      0.68 219 iPd    32 52.61  -0.9
                  iS     33 04.04
BGL      0.69 228 ePd    32 52.76  -0.9
PWA      0.69  96 P      32 53.00  -0.5
                  S      33 04.20
CKL      0.72 223 iPd    32 53.18  -0.8
PMS      0.98 119 P      32 56.20  -0.7
NKA      0.99 178 iPd    32 58.42   1.4
PLRM     1.06  97 iPc    32 56.92  -0.9
                  eS     33 11.88
PMR      1.06  97 iPd    32 56.63  -1.2
                  eS     33 11.33
GHO      1.14  87 ePc    32 58.51  -0.6
                  eS     33 14.76
RDT      1.27 205 P      33 00.10  -0.7
DFR      1.32 211 ePd    33 00.76  -0.6
                  eS     33 18.95
SLKM     1.34 156 eP     33 00.61  -1.0
RDN      1.41 210 eP     33 02.19  -0.4
NCT      1.41 214 iPd    33 02.19  -0.4
                  eS     33 21.09
KNK      1.41 102 ePc    33 01.35  -1.2
                  eS     33 20.02
PTE      1.41 127 ePc    33 01.47  -1.0
                  eS     33 19.53
REF      1.41 209 ePd    33 02.36  -0.4
                  eS     33 21.11
SML      1.42  85 ePc    33 01.78  -1.0
                  eS     33 20.38
RS2      1.45 209 P      33 00.10  -3.2
HUR      1.48  31 eP     33 02.76  -0.7
                  eS     33 22.37
MPA      1.57 142 eP     33 04.56   0.0
TRF      1.79  15 ePd    33 07.07  -0.8
ILIM     1.84 207 eP     33 08.16  -0.2
SEW      1.87 150 eP     33 08.41  -0.3
INE      1.88 208 eP     33 08.96  -0.1
INW      1.89 209 eP     33 09.29   0.2
SCM      1.90  85 eP     33 07.76  -1.5
                  eS     33 31.56
BRLK     1.98 174 eP     33 11.49   1.1
                  eS     33 36.84
RND      2.04  33 eP     33 10.38  -0.7
SVW      2.16 255 eP     33 10.93  -1.8
GLI      2.21 111 iPc    33 10.84  -2.6
                  eS     33 37.25
KNIM     2.23 127 eP     33 10.76  -2.9
                  eS     33 37.18
MCK      2.29  28 eP     33 14.34  -0.3
VZW      2.39 104 eP     33 13.97  -2.0
LTI      2.40 133 eP     33 13.37  -2.7
PDB      2.40 217 eP     33 15.32  -0.8
TOA      2.47  79 P      33 16.00  -1.1
TTA      2.50 301 P      33 16.60  -0.9
MTU      2.51 133 eP     33 14.94  -2.6
FID      2.54 111 eP     33 14.93  -3.1
KLU      2.59  93 ePc    33 16.45  -2.4
HIN      2.70 118 eP     33 17.38  -2.9
TZL      2.81  81 eP     33 20.65  -1.1
SDG      2.83  71 eP     33 21.49  -0.6
CVA      2.95 111 eP     33 21.57  -2.1
MCNL     2.96 212 eP     33 23.73  -0.1
PAX      3.00  63 eP     33 23.34  -1.2
CDD      3.04 203 eP     33 25.45   0.5
CCB      3.33  27 eP     33 27.02  -2.0
HDA      3.34  35 eP     33 27.31  -1.9
FBA      3.56  25 eP     33 29.74  -2.5
GLB      3.60  91 eP     33 30.39  -2.5
GLM      3.72  27 eP     33 32.75  -1.8
BALM     4.38  95 eP     33 41.07  -2.7
IMA      4.48 348 eP     33 43.60  -1.7
      62 obs. associated
-----------------------------------------
   JAN  22, 1993  01h 35m 31.54± 0.85s
   37.962 N ± 7.1km   27.644 E ± 9.2km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                                (366)
      MD 3.6 (ISK).

CIN      0.50 136 iPgc   35 41.00  -0.8
                  iSg    35 47.00
IZM      0.53 325 iPg    35 43.10   0.8
YER      0.97 148 iPg    35 50.60   0.6
                  iSg    36 02.60
KHL      1.53  76 ePn    36 00.00   1.1
EZN      2.13 331 iPn    36 07.40  -0.1
ALT      2.22  60 ePn    36 09.70   0.6
KCT      2.35  13 iPn    36 10.40  -0.4
EDC      2.39   4 ePn    36 11.10  -0.2
BCK      2.39 101 ePn    36 11.00  -0.4
BNT      2.40   5 ePn    36 10.40  -1.1
GBZT     3.15  26 ePn    36 32.20  10.1X
      S.D. = 0.8  on   10 of  11 obs.
-----------------------------------------
?  JAN  22, 1993  01h 49m 22.40± 9.26s
   39.454 N ±80.9km   28.766 E ±19.3km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                                (366)
      MD 2.8 (ISK).

DST      0.19 325 iPg    49 26.00  -0.6
                  eSg    49 28.80
KCT      0.85 338 iPg    49 38.90   0.0
BNT      1.11 324 iPn    49 44.30   1.0
EDC      1.13 322 ePn    49 43.00  -0.6
EYL      1.54  43 ePn    49 50.00   0.0
      S.D. = 0.9  on    5 of   5 obs.
-----------------------------------------
   JAN  22, 1993  02h 12m 05.75± 0.32s
    8.329 S ± 5.4km  121.371 E ± 9.0km
   DEPTH =  20.3km  (  4 depth phases)
   4.9mb ( 23 obs.)  4.5Msz (  4 obs.)
 FLORES REGION, INDONESIA              (286)

MTN     10.59 116 eP     14 38.00  -1.5
         0.5s   300.00nm          6.9mb X
                  eS     16 32.00
NANU    15.23 201 eP     15 40.10  -1.2
         0.3s     9.00nm          4.6mb
                  eS     18 20.00
WB2     17.07 134 iPc    16 00.50  -4.4X
                  eS     18 59.60
MEEK    18.40 188 eP     16 23.00   1.6
         0.3s     9.00nm          4.4mb
                  eS     19 37.00
WARB    18.45 165 eP     16 22.00  -0.1
                  eS     19 44.00
ASPA    19.41 143 eP     16 32.20  -1.6
         0.5s    64.00nm          5.1mb
      Z  17s     2.10um          5.0MszX
                  eS     19 59.40
KGM     20.73 299 eP     16 52.50   4.8X
MRWA    21.39 193 eP     16 56.00   1.6
         0.4s     6.00nm          4.4mb
                  eS     20 44.00
BAL     22.59 191 eP     17 06.00  -0.3
         0.4s    14.00nm          4.8mb
                  eS     21 05.00
IPM     24.00 302 ePd    17 20.70   0.4
MUN     24.02 191 eP     17 21.00   0.8
                  eS     21 48.00
SNG     25.79 306 eP     17 44.00   6.7X
                  eS     21 52.00
CTA     26.76 119 iPd    17 46.00  -0.3
         1.0s   125.00nm          5.5mb
```

22d 02h

```
                    eS     22 48.00
STK    30.05 144 iPd    18 15.40   -0.4
       0.5s    22.80nm          5.3mb
LOE    32.10 323 eP     18 35.00    1.0
CMS    32.40 139 iPc    18 36.80    0.3
       0.9s    11.00nm          4.8mb
CHG    34.88 321 ePc    18 58.90    0.8
       0.9s    10.50nm          4.8mb
BRS    35.23 127 iPd    19 01.30    0.2
       1.0s    19.00nm          5.0mb
TOO    36.39 147 iPd    19 11.80    1.1
       0.9s    64.00nm          5.5mb
GYA    37.41 338 P      19 20.60    1.1
       1.0s    12.00nm          4.7mb
                pP     19 32.40   43kmX
                S      25 06.00
                sS     25 22.00
KMI    37.88 332 eP     19 26.20    2.6
       1.5s    40.00nm          5.0mb
     Z  16s     1.30um          4.8MszX
                pP     19 31.50   18km
                eS     25 18.00
SSE    39.20 360 Pc     19 36.20    2.0
       1.0s    11.00nm          4.5mb
     Z  20s     0.70um          4.5Msz
                S      25 24.00
WHN    39.23 350 eP     19 34.50    0.0
NJ2    40.22 357 eP     19 43.00    0.3
CD2    42.51 337 eP     20 01.30   -0.3
       1.0s    40.00nm          5.1mb
XAN    43.76 345 P      20 11.00   -0.7
       1.0s     9.90nm          4.6mb
                sP     20 23.50
TIA    44.48 355 eP     20 16.90   -0.6
TIY    46.56 350 eP     20 34.00    0.0
     Z  18s     0.73um          4.7Msz
     N  14s     0.68um
LZH    47.16 341 eP     20 41.00    2.1
       2.5s    77.00nm          5.3mb
     Z  22s     0.48um          4.4Msz
     E  10s     0.32um
                pP     20 46.00   17km
                sP     20 50.00
                ePP    22 26.00
LSA    47.70 324 P      20 43.80    0.2
       0.8s    20.00nm          5.2mb
BJI    48.36 355 eP     20 48.00   -0.1
       1.1s    14.00nm          4.9mb
     Z  22s     0.37um          4.3Msz
GBA    48.76 296 P      20 49.00   -2.5
HYB    49.44 301 eP     20 52.50   -4.3X
GUN    49.76 318 P      20 58.02   -1.4
HHC    49.76 350 P      20 58.00   -1.0
       1.2s    10.00nm          4.7mb
BTO    49.80 349 eP     21 00.40    1.1
PKI    49.85 317 P      20 58.20   -2.0
SNY    49.95   2 eP     21 01.60    1.4
                pP     21 09.10   25km
KKN    50.08 317 P      21 00.30   -1.5
DMN    50.08 317 P      20 59.92   -1.9
GKN    50.65 317 P      21 04.40   -1.6
GTA    51.54 339 eP     21 12.00   -0.6
       1.0s     6.00nm          4.5mb
                pP     21 18.50   22km
                sP     21 25.00
MDJ    53.22   7 eP     21 23.50   -1.4
WMO    60.21 332 P      22 14.80    0.0
       0.6s     7.20nm          5.0mb
                pP     22 25.00   33kmX
                sP     22 29.00
                PcP    23 01.50
                PP     24 26.00
                PcS    27 06.00
                S      30 25.00
KSH    63.45 322 eP     22 38.00    1.3
QUE    64.75 309 eP     22 53.80    8.3X
MAIO   73.02 312 eP     23 40.00    3.6X
SPA    81.72 180 iPd    24 24.30    0.1
       0.8s    12.50nm          5.0mb
BUL    89.74 250 iPd    25 04.90    0.1
YKA   112.62  25 ePKP   30 54.90   12.9X
       0.8s     0.40nm
YJA   148.95 168 ePKPc  31 52.20    1.1
CNCB  153.37 160 PKP    32 06.20    8.4X
LPB   153.58 159 ePKP   32 07.00    9.0X
ZOBO  153.80 159 PKP    32 03.20    4.7X
     Z  24s     0.15um          4.7MszX
```

```
                    LR     25 04.00
BAO   153.96 204 e(PKP)32 16.00   17.9X
                    e      32 35.00
                    e      32 38.10
                    e      32 44.90
SIV   155.72 174 (PKP) 32 19.00   18.6X
                    e      32 29.00
      S.D. = 1.2  on  44 of  56 obs.
-----------------------------------
%  JAN  22, 1993  02h 15m 51.48± 0.93s
   38.913 N ± 6.2km   15.517 E ±18.1km
   DEPTH =  33.0km  (normal)
 SICILY                            (398)
ATN     0.75 183 P      16 05.90    0.3
                    eSg    16 17.00
SOI     0.94 153 Pc     16 08.00   -0.3
                    eSg    16 23.60
TDS     0.98  40 Pc     16 09.70    0.8
MGR     1.22   1 P      16 12.90    0.6
ORI     1.36  32 Pc     16 13.50   -0.8
SGO     1.65 354 P      16 18.00   -0.5
      S.D. = 0.8  on   6 of   6 obs.
-----------------------------------
?  JAN  22, 1993  03h 05m 12.36± 3.25s
   19.263 S ±29.8km   68.408 W ±12.8km
   DEPTH =  33.0km  (normal)
 CHILE-BOLIVIA BORDER REGION       (124)
CNCB    2.47  10 iPd    05 50.30   -1.5
                    S      06 28.00
LPB     2.73   6 P      05 56.10    0.9
                    S      06 39.00
CCH     2.85  49 eP     05 58.00    1.2
                    i      06 37.30
ZOBO    2.97   5 P      05 58.90    0.0
ARE     4.05 313 eP     06 14.00    0.1
SIV     7.71  66 P      07 04.60   -0.7
      S.D. = 1.3  on   6 of   6 obs.
-----------------------------------
   JAN  22, 1993  03h 07m 26.46± 0.39s
   39.456 N ± 4.2km   20.437 E ± 2.8km
   DEPTH =  28.8 ±  2.9 km
   4.2mb (  2 obs.)
 GREECE-ALBANIA BORDER REGION      (392)
      ML 4.1 (TIR), 3.9 (ATH), 3.7
      (TTG).
IGT     0.11 314 iPg    07 29.66   -2.1
                    eSg    07 35.32
SRN     0.54 322 iPgd   07 37.90    0.4
                    iSg    07 48.90
KEK     0.56 298 ePn    07 37.90    0.2
LSK     0.70  10 iPgc   07 39.50   -0.7
                    iSg    07 53.00
TPE     0.90 339 ePn    07 42.00   -1.1
                    iSn    08 00.50
VLO     1.24 325 iPnd   07 51.00    3.1X
                    iSn    08 16.00
VLS     1.28 175 ePb    07 47.00   -1.5
KZN     1.33  50 ePn    07 48.50   -0.8
FNA     1.51  28 ePb    07 53.56    1.7
                    eSb    08 16.84
AGG     1.53 106 iPb    07 50.62   -1.6
                    eSb    08 10.88
OHR     1.68   9 iPnc   07 57.20    2.9X
                    i      08 00.30
                    i      08 21.40
                    i      08 24.40
LIT     1.71  67 iPb    07 54.58   -0.1
                    eSb    08 20.24
TIR     1.94 347 iPnc   07 01.00  -57.0X
                    iSn    07 35.20
LCI     2.10 295 P      08 02.00    1.6
GRG     2.12  44 iPn    08 02.04    1.3
                    eSn    08 31.84
PHP     2.23   0 iPnc   08 04.40    2.3
                    iSn    08 41.30
THE     2.27  58 ePn    08 03.68    1.0
                    iSn    08 32.13
VAY     2.48  40 iPn    08 07.20    1.5
                    iSg    08 53.50
KNT     2.54  47 ePn    08 07.08    0.5
                    eSn    08 41.68
PAIG    2.55  78 ePn    08 05.92   -0.8
                    eSn    08 37.80
SOH     2.62  58 ePn    08 08.20    0.4
```

```
SKO     2.63  17 iPn    08 09.80    2.0
                iPg    08 15.20
                iSn    08 42.60
                iSb    08 48.50
                iSg    08 51.60
ULC     2.66 341 iPnc   08 09.64    1.3
                iSn    08 40.10
SDA     2.69 345 ePn    08 09.60    0.9
                iSn    08 51.00
BRT     2.86 301 P      08 12.50    1.5
OUR     2.87  71 ePn    08 10.72   -0.4
BCI     2.92 355 iPnd   08 14.00    2.0
                iSn    08 56.50
SRS     2.93  54 ePn    08 11.96   -0.1
ATH     2.96 119 ePn    08 09.00   -3.6X
BDV     3.08 337 iPnc   08 14.89    0.7
                iSn    08 49.24
TTG     3.10 344 iPnc   08 15.74    1.2
                iSn    08 51.23
ORI     3.13 282 P      08 16.10    1.1
PVY     3.16 354 iPnc   08 17.85    2.4
                iSn    08 54.84
TDS     3.18 275 P      08 17.50    1.9
GRI     3.19 260 P      08 16.52    0.7
BAI     3.20 302 P      08 16.00    0.1
HCY     3.33 334 iPnc   08 18.05    0.3
                iSn    08 54.84
VLI     3.37 143 ePn    08 18.00   -0.4
IVA     3.44 353 iPnc   08 21.68    2.3
                iSn    09 01.42
NKY     3.53 343 iPnc   08 21.53    0.8
                iSn    09 01.05
SOI     3.69 249 P      08 22.70   -0.2
BRY     3.73 338 iPnc   08 23.69    0.2
                iSn    09 05.04
GMB     3.80 252 P      08 24.22   -0.3
MGR     3.82 282 P      08 26.30    1.5
PLE     3.95 349 iPnc   08 27.99    1.3
                iSn    09 12.69
SGO     4.09 287 P      08 30.90    2.3
ATN     4.09 253 P      08 27.90   -0.8
PRK     4.53  91 ePn    08 35.00    0.2
ALN     4.53  70 ePn    08 34.36   -0.5
EZN     4.56  83 iP     08 35.00   -0.3
MNO     4.74 253 P      08 38.50    0.4
HVAR    4.78 322 iPnd   08 37.50   -0.8
                iSn    09 31.80
MEU     4.93 243 P      08 37.60   -3.0X
PZI     4.97 243 P      08 37.13   -4.1X
RFI     5.26 293 P      08 46.65    1.5
SDI     5.52 296 P      08 50.00    1.1
AQU     6.06 301 P      08 57.70    1.1
KCT     6.15  80 eP     08 57.30   -0.4
BZS     6.22   8 eP     08 54.00   -4.6X
CMP     6.73  29 ePc    09 10.00    4.1X
ASS     6.88 304 P      09 08.90    0.8
                eSn    10 29.00
ARV     6.93 308 P      09 07.82   -0.8
VBY     7.15 329 ePn    09 10.80   -1.0
                eSn    10 30.20
ZAG     7.15 334 eP     09 12.00    0.3
PTJ     7.24 334 eP     09 10.80   -2.2
MLR     7.28  32 ePc    09 15.00    1.4
RSM     7.46 309 P      09 15.60   -0.4
                eSn    10 43.00
CRE     7.61 306 P      09 17.80   -0.5
CVO     7.64  32 eP     09 19.00    0.4
CEY     7.68 327 ePn    09 18.00   -1.2
                eSn    10 44.80
SFI     7.82 308 P      09 21.90    0.8
PGD     7.88 307 P      09 23.00    0.9
LJU     7.89 329 ePn    09 20.50   -1.5
                eSn    10 49.00
TRI     7.95 324 P      09 21.00   -1.9
                eSn    10 51.00
VOY     8.14 326 ePn    09 24.10   -1.6
                eSn    10 52.60
RBL     8.61 326 P      09 30.40   -1.7
                eSn    11 07.10
BDI     8.67 305 P      09 33.00   -0.1
MME     8.67 306 P      09 34.10    0.9
VVI     8.79 321 P      09 33.20   -1.4
FVI     9.07 324 P      09 36.40   -2.0
KBA     9.21 328 iPnc   09 39.20   -1.2
                i      09 49.60
                iSn    11 18.60
CTI     9.22 318 P      09 38.70   -2.0
```

```
BOB      9.73 307 P      09 48.80   1.1
WTTA    10.09 324 iPc    09 51.50  -1.2
                  i      11 44.50
SQTA    10.26 322 iPc    09 54.30  -0.6
                  i      10 06.80
                  i      11 37.50
                  i      11 49.50
KHC     10.84 335 eP     10 02.10  -0.7
ORO     11.06 308 P      10 04.40  -1.5
LPG     11.77 305 eP     10 15.50  -0.1
        0.6s     3.50nm          4.7mb X
LPL     11.79 305 eP     10 14.30  -1.5
        0.4s     1.60nm          4.6mb X
CDF     13.03 318 eP     10 31.10  -1.1
        0.7s     3.95nm          4.6mb X
HAU     13.28 315 eP     10 34.00  -1.5
        0.3s     2.00nm          4.6mb X
OBN     19.03  29 eP     11 56.30   7.7X
        1.5s    35.00nm          4.4mb X
                  e      11 57.00
UPP     20.50 356 iP     12 01.90  -2.6X
NUR     21.24   6 eP     12 09.80  -2.3X
NAO     22.21 348 P      12 20.10  -1.8
        0.7s     6.80nm          4.2mb
EKA     22.36 323 P      12 24.00   0.7
        1.1s    17.50nm          4.4mb X
KAF     22.97   7 eP     12 28.80  -0.4
BCAO    34.90 183 ePd    14 21.70   4.1X
        0.3s     3.00nm          4.7mb X
IMA     74.71 358 eP     19 05.69   0.8
        0.9s     1.88nm          4.1mb
      S.D. = 1.2  on  87 of  99 obs.
-----------------------------------
&  JAN  22, 1993  03h 14m 30.46s
   60.549 N          151.775 W
   DEPTH =  75.2km
 KENAI PENINSULA, ALASKA          ( 14)
      <AEIC>.

RDT      0.31 275 iPd     14 41.87  -0.7
NKA      0.33  53 iPd     14 43.70   1.2
DFR      0.45 276 iPd     14 42.93  -0.7
REF      0.46 263 iPd     14 43.24  -0.6
                  eS     14 52.99
RDN      0.49 266 iPd     14 43.27  -0.7
                  eS     14 53.59
RS2      0.49 260 iPc     14 41.85  -2.3
NCT      0.57 272 ePd     14 43.95  -0.8
                  eS     14 54.51
SPU      0.65 348 iPd     14 44.61  -0.9
                  eS     14 56.33
CKT      0.69 342 iPd     14 45.19  -0.7
                  iS     14 56.83
CKL      0.71 337 iPd     14 45.35  -0.8
CKN      0.71 344 iPd     14 45.57  -0.5
CRP      0.74 346 iPd     14 46.08  -0.6
CP2      0.75 343 iPd     14 46.25  -0.5
ILIM     0.75 232 iPd     14 46.10  -0.5
                  eS     14 58.35
CGLM     0.77 352 iPd     14 46.20  -0.6
SLKM     0.77  92 iPc     14 46.17  -0.6
                  eS     14 58.51
BGL      0.78 338 iPc     14 46.30  -0.6
INE      0.81 233 eP      14 46.68  -0.7
INW      0.83 235 eP      14 46.88  -0.7
                  eS     15 00.28
BRLK     0.90 150 eP      14 48.46   0.1
                  eS     15 02.75
SUA      1.05  28 iPd     14 49.73  -0.5
MPA      1.20  92 ePd     14 51.77  -0.2
SEW      1.24 110 eP      14 51.46  -1.1
PMS      1.29  56 eP      14 53.20   0.0
                  eS     15 09.61
PTE      1.39  76 iPc     14 53.82  -0.7
                  eS     15 10.85
PDB      1.43 239 ePd     14 53.84  -1.2
                  eS     15 12.20
PWA      1.44  39 ePc     14 55.54   0.4
SKT      1.44   5 ePc     14 54.38  -0.9
                  eS     15 12.93
PLRM     1.66  50 eP      14 58.50   0.4
KNK      1.84  60 eP      14 59.20  -1.4
GHO      1.85  47 eP      15 01.78   1.0
CDD      1.88 211 eP      15 00.72  -0.5
MCNL     1.88 224 eP      15 00.36  -0.8
SVW      1.97 288 eP      15 00.44  -1.9
KNIM     2.01  94 iPc     15 00.60  -2.4
LTI      2.02 103 iPc     15 01.01  -2.0
SML      2.09  51 eP      15 02.49  -1.6
GLI      2.32  80 eP      15 04.43  -2.8
VLZ      2.73  75 eP      15 10.61  -2.2
        39 obs. associated
-----------------------------------
%  JAN  22, 1993  05h 55m 19.08± 2.46s
   40.719 N ±21.9km   30.005 E ±16.6km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                           (366)
      MD 3.0 (ISK).

GPA      0.49 151 ePg     55 29.00   0.0
                  eSg    55 37.00
CTT      1.27 290 iPn     55 42.70   0.1
KCT      1.34 250 ePn     55 44.20   0.4
BNT      1.63 258 ePn     55 48.00   0.1
EDC      1.67 258 ePn     55 48.00  -0.5
      S.D. = 0.5  on   5 of   5 obs.
-----------------------------------
•  JAN  22, 1993  06h 02m 32.79± 1.20s
   49.212 N ± 9.7km  112.403 W ±12.9km
   DEPTH =   5.0km  (geophysicist)
 ALBERTA, CANADA                  ( 24)
      MD 3.4 (BUT).

WALA     1.00 262 Pg      02 51.47  -0.9
                  Sg     03 02.40
HRY      2.53 171 ePn     03 16.00   0.6
                  eSn    03 59.00
NEW      3.26 255 e(P)    03 26.88   1.2
                  eSg    04 07.00
LRM      3.39 181 ePn     03 26.00  -1.7
LCCM     3.40 174 ePn     03 28.40   0.7
EDM      4.06 352 Pn      03 36.80  -0.1
                  S      04 19.55
      S.D. = 1.4  on   6 of   6 obs.
-----------------------------------
•  JAN  22, 1993  06h 37m 53.15± 2.11s
   16.521 N ±24.5km   98.361 W ± 9.7km
   DEPTH = 100.2 ± 15.4 km
   4.2mb (  2 obs.)
 NEAR COAST OF GUERRERO, MEXICO   ( 58)

ACX      1.48 284 iP      38 18.11  -1.4
                  iS     38 35.50
OXX      1.67  70 iP      38 22.75   0.6
                  iS     38 43.00
III      2.13 330 (P)     38 35.23   7.1X
PPM      2.54 354 iP      38 30.86  -3.1X
                  iS     39 08.99
IISM     2.63  21 (P)     38 34.41  -0.2
UNM      2.90 344 iP      38 38.00  -0.6
                  (S)    39 11.00
EVV      3.46  56 (P)     38 54.76   8.8X
MRX      4.16 320 iP      38 56.21   0.7
                  (S)    39 47.19
SCX      5.49  87 (P)     39 31.50  17.5X
CGX      5.79 304 (P)     39 20.00   1.7
                  (S)    40 53.19
AGX      6.50 326 (P)     39 32.00   4.1X
TUL     19.45   6 eP      42 14.00  -0.4
        0.6s      8.80nm          4.3mb
                  e      42 29.90
LNO     19.45   6 eP      42 13.80  -0.5
LCCM    31.34 342 eP      44 10.90   4.6X
YKA     47.32 350 eP      46 21.30   3.1X
        0.8s      2.40nm          4.1mb
      S.D. = 1.3  on   8 of  15 obs.
-----------------------------------
%  JAN  22, 1993  07h 20m 39.02± 0.59s
   28.027 S ± 5.6km   26.840 E ± 6.3km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA         (584)
      ML 2.3 (PRE).

SEK      0.75 113 eP      20 54.00  -0.2
                  S      21 03.50
BFS      1.12 357 eP      21 00.50  -0.2
                  S      21 18.40
BLF      1.22 208 iPd     21 02.60   0.3
                  S      21 19.10
PRY      1.23  27 eP      21 02.90   0.4
                  S      21 20.00
SWZ      1.59 302 eP      21 07.70  -0.3
                  S      21 27.90
KIM      1.95 248 eP      21 13.30   0.0
                  S      21 36.90
SLR      2.62  30 eP      21 22.90   0.0
      S.D. = 0.3  on   7 of   7 obs.
-----------------------------------
?  JAN  22, 1993  07h 47m 36.66± 5.96s
   37.207 S ±29.7km  178.579 E ±37.4km
   DEPTH = 158.4 ± 34.7 km
 OFF E. COAST OF N. ISLAND, N.Z. (160)

HBZ      0.45 209 Pc      47 58.30  -0.5
PUZ      0.90 196 P       48 01.90   0.2
                  eS     48 13.70
NOZ      1.47 197 eP      48 08.20   1.3
URZ      1.57 227 Pd      48 06.30  -1.6
                  S      48 20.50
TAZ      1.94 237 eP      48 10.90  -1.0
KUZ      2.33 280 Pd      48 17.20   0.6
                  eS     48 39.00
WLZ      2.46 253 eP      48 17.60  -0.6
WAHZ     3.04 214 eP      48 26.50   1.1
NGZ      3.06 229 eP      48 27.20   1.4
CNZ      3.11 229 eP      48 28.00   1.6
PGZ      3.85 207 eP      48 36.00   0.2
MTW      4.61 210 eP      48 44.90  -1.0
KIW      4.64 217 eP      48 45.70  -0.4
CAW      4.76 214 eP      48 46.70  -1.0
MRW      5.02 216 eP      48 50.90  -0.3
      S.D. = 1.1  on  15 of  15 obs.
-----------------------------------
•  JAN  22, 1993  07h 48m 43.49± 0.99s
   46.051 N ±18.9km  153.555 E ±12.0km
   DEPTH =  33.0km  (normal)
   4.5mb ( 14 obs.)
 KURIL ISLANDS                    (221)

KUR      4.07 260 iPn     49 45.50   0.5
SKR      4.92  19 ePn     49 55.30  -1.7
KUSJ     6.97 248 eP      50 22.20  -3.7X
                  eS     51 36.50
YSS      7.54 281 ePnc    50 34.30   0.5
      Z  14s      0.50um
      E  14s      0.30um
ASAJ     7.96 260 eP      50 40.00   0.2
HOOJ     8.24 247 eP      50 41.50  -2.0
                  eS     52 09.50
CN2     19.99 274 eP      53 14.00  -1.8
        0.8s      4.80nm          3.9mb
ILT     26.17  24 eP      54 17.00   0.8
HHC     30.66 276 Pd      54 57.00   0.0
        0.8s     12.00nm          4.7mb
TIY     31.44 270 eP      55 05.00   1.1
ZAK     33.25 296 eP      55 16.80  -2.6X
        1.0s      6.00nm          4.5mb
IMA     34.20  35 eP      55 27.89   0.2
        1.0s      1.98nm          4.0mb
XAN     35.77 266 eP      55 41.00  -0.3
FBA     36.52  38 eP      55 47.62   0.4
        0.8s      3.48nm          4.3mb
LZH     38.22 273 Pc      56 02.50   0.4
        1.0s     25.00nm          5.0mb
                  pP     56 10.50  27kmX
GTA     39.39 280 P       56 12.00   0.3
        1.0s      9.00nm          4.5mb
GYA     41.87 259 P       56 32.60   0.4
        0.8s      9.40nm          4.6mb
YKA     51.30  36 eP      57 46.40   0.4
        0.8s      1.30nm          3.9mb
GUN     55.37 276 P       58 17.50   0.5
KKN     55.86 276 P       58 20.24  -0.1
PKI     55.91 276 P       58 20.42  -0.4
DMN     56.09 276 P       58 22.10   0.0
GKN     56.17 277 P       58 22.50  -0.1
MSU     66.15  59 eP      59 28.91  -1.1
HFS     69.22 340 eP      59 46.80  -1.7
        0.4s      2.80nm          4.7mb
NAO     69.27 341 P       59 47.60  -1.2
        0.6s      2.80nm          4.5mb
GBA     70.72 270 P       59 45.00 -13.3X
GEC2    79.22 334 eP      00 46.50  -0.1
        0.8s      1.39nm          4.0mb
                  e      00 49.60
                  e      00 51.70
KBA     80.90 334 iPc     00 58.00   2.3
        0.5s      5.60nm          4.8mb
                  i      01 04.50
WTTA    81.25 335 iPd     00 59.80   2.3
        0.4s      6.10nm          5.0mb
```

22d 08h

```
     S.D. = 1.1  on  27 of  30 obs.
-----------------------------------------
%  JAN  22, 1993  08h 42m 51.78± 0.84s
   39.393 N ± 6.2km   26.831 E ± 7.8km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                                (366)
      MD 3.3 (ISK).

EZN      0.58 318 ePg   43 03.20  -0.4
                  eSg   43 12.20
IZM      1.05 161 iPn   43 11.80   0.2
EDC      1.24  39 ePn   43 15.00   0.2
BNT      1.28  41 ePn   43 15.00  -0.5
DST      1.41  81 ePn   43 16.90  -0.6
KCT      1.45  53 iPn   43 18.10   0.0
CTT      2.14  34 ePn   43 28.40   0.4
DMK      2.53  16 ePn   43 34.00   0.5
     S.D. = 0.5  on   8 of   8 obs.
-----------------------------------------
?  JAN  22, 1993  08h 51m 10.89± 4.07s
   33.278 S ± 8.6km   72.086 W ±34.1km
   DEPTH =  33.0km  (normal)
 OFF COAST OF CENTRAL CHILE            (134)
      MD 3.9 (SAN).

IHA      0.45  56 iPc   51 20.30  -0.4
                  iS    51 25.90
LCCH     0.47 115 iPd   51 20.24  -0.9
                  iS    51 25.50
LNV      0.88 140 iPd   51 26.89   0.0
                  iS    51 37.61
ROCH     0.95  72 iPd   51 27.75  -0.4
TACH     1.03 112 iPd   51 28.80  -0.3
                  iS    51 40.04
PEL      1.18  84 iPd   51 31.54   0.3
                  iS    51 45.91
SAN      1.20  99 eP    51 31.56   0.0
PCH      1.36 105 iPd   51 34.01   0.2
CHCH     1.36 119 iP+   51 34.30   0.5
                  iS    51 50.55
JACH     1.39  65 iPd   51 34.67   0.4
                  iS    51 51.34
FCH      1.50  92 iP+   51 36.55   0.4
                  iS    51 54.47
     S.D. = 0.5  on  11 of  11 obs.
-----------------------------------------
&  JAN  22, 1993  08h 58m 42.47s
   33.832 N          115.948 W
   DEPTH =  10.2km
 SOUTHERN CALIFORNIA                   ( 43)
      <PAS-P>. ML 2.8 (PAS).

PLM      0.90 238 eP    58 59.07  -0.7
                  eS    59 09.52
PEC      1.01 274 eP    59 00.71  -0.9
                  eS    59 13.57
GLA      1.22 129 ePn   59 03.17  -2.0
                  ePg   59 04.88
GSC      1.63 334 eP    59 12.14   0.8
                  eS    59 31.91
ISA      2.77 312 ePn   59 27.19  -0.5
                  ePg   59 32.76
        5 obs. associated
-----------------------------------------
%  JAN  22, 1993  09h 07m 46.34± 0.80s
   39.147 N ± 6.6km   27.567 E ± 8.2km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                                (366)
      MD 2.6 (ISK).

IZM      0.79 198 iPn   08 01.80   0.1
DST      0.94  61 ePn   08 03.90  -0.4
EZN      1.18 306 ePn   08 08.00  -0.3
EDC      1.22  11 ePn   08 09.00   0.0
BNT      1.24  13 ePn   08 09.60   0.3
KCT      1.26  29 iPn   08 10.00   0.3
     S.D. = 0.4  on   6 of   6 obs.
-----------------------------------------
?  JAN  22, 1993  09h 11m 22.20± 5.18s
   33.300 S ±12.1km   72.024 W ±43.2km
   DEPTH =  33.0km  (normal)
 OFF COAST OF CENTRAL CHILE            (134)
      MD 3.6 (SAN).

LCCH     0.42 115 iPd   11 30.78  -0.8
                  iS    11 36.11
LNV      0.83 142 iPd   11 37.47   0.0
                  iS    11 48.26
ROCH     0.91  69 iPd   11 38.21  -0.6
                  iS    11 49.60
TACH     0.97 111 iPd   11 39.29  -0.3
                  iS    11 51.38
PEL      1.13  82 iPd   11 42.01   0.2
                  iS    11 56.39
PCH      1.30 105 eP    11 44.64   0.3
                  iS    12 01.62
CHCH     1.31 119 iP+   11 44.85   0.5
                  iS    12 01.05
JACH     1.35  63 iP+   11 45.34   0.3
                  iS    12 01.84
FCH      1.45  92 iP+   11 47.06   0.4
     S.D. = 0.6  on   9 of   9 obs.
-----------------------------------------
%  JAN  22, 1993  09h 22m 21.02± 0.89s
   39.112 N ± 7.8km   27.664 E ± 9.1km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                                (366)
      MD 2.6 (ISK).

IZM      0.78 204 ePg   22 36.30   0.1
                  iSg   22 47.80
DST      0.90  56 ePn   22 37.90  -0.3
KCT      1.26  25 iPn   22 45.00   0.6
BNT      1.26   9 ePn   22 44.10  -0.3
EZN      1.26 305 ePn   22 44.30  -0.1
     S.D. = 0.6  on   5 of   5 obs.
-----------------------------------------
%  JAN  22, 1993  09h 22m 45.45± 0.81s
   40.534 N ± 9.7km   23.483 E ±11.3km
   DEPTH =  10.0km  (geophysicist)
 GREECE                                (364)

SOH      0.30 341 ePg   22 52.64   0.8
OUR      0.43 117 ePg   22 53.76  -0.5
                  eSg   23 02.88
PAIG     0.62 166 iPg   22 58.53   0.5
KNT      0.77 325 ePg   22 59.92  -0.5
GRG      0.92 298 ePg   23 02.76  -0.4
     S.D. = 0.9  on   5 of   5 obs.
-----------------------------------------
   JAN  22, 1993  10h 03m 46.95± 0.19s
    7.075 S ± 3.6km  128.666 E ± 5.7km
   DEPTH =  33.0km  (normal)
   5.4mb ( 53 obs.)
 BANDA SEA                             (280)
      Mw 5.3 (HRV).
      CENTROID, MOMENT TENSOR          (HRV)
      Data Used: GDSN
      L.P.B.: 18S, 29C
      Centroid Location:
      Origin Time        10:03:46.4 1.1
      Lat  7.22S 0.09 Lon 128.23E 0.08
      Dep  26.8 5.8 Half-duration  1.0
      Moment Tensor;    Scale 10**16 Nm
        Mrr=-0.28 0.46  Mtt=-8.85 0.40
        Mff= 9.13 0.74  Mrt=-5.89 1.50
        Mrf= 0.36 0.97  Mtf= 0.68 0.42
       Principal Axes:
        T  Val=  9.16  Plg= 1  Azm=272
        N        2.72       63       180
        P      -11.87       27         2
      Best Double Couple:Mo=1.1*10**17
       NP1:Strike= 44 Dip=71 Slip= -19
       NP2:        140      72      -160

MTN      6.23 157 eP    05 17.50  -1.5
         0.4s   250.00nm          6.3mb
                  eS    06 38.00
WB2     13.93 157 iPd   06 58.00  -6.4X
                  eS    09 28.80
DAV     14.40 348 e(P)  06 56.50 -14.0X
ASPA    17.25 164 eP    07 42.90  -4.2X
     Z  17s      7.50um
                  eS    10 35.80
KKM     18.00 316 ePd   07 58.40   1.8
PMG     18.45  98 eP    08 02.50   0.6
         1.7s   369.23nm          5.3mb
WARB    19.10 186 eP    08 07.00  -2.9X
                  eS    11 34.00
NANU    19.93 218 eP    08 18.00  -1.0
CTA     21.41 129 iPc+  08 34.80   0.5
         1.1s   158.23nm          5.3mb
     Z  21s     17.92um          5.4Msz
                  ipP   08 41.00  23kmX
                  iS    12 33.00
MEEK    21.68 205 eP    08 36.00  -1.0
         0.8s    63.00nm          5.1mb
OCP     22.85 341 eP    08 39.00  -9.5X
FORT    23.59 181 eP    08 56.30   0.6
         0.6s    35.00nm          5.1mb
BAG     24.67 341 eP+   09 05.00  -1.4
                  eS    13 26.00
COOL    24.71 196 eP    09 06.00  -0.6
         0.6s    15.00nm          4.7mb
MRWA    25.06 207 iPc   09 09.40  -0.5
         0.6s    19.00nm          4.9mb
KLB     26.43 201 eP    09 22.00  -0.7
         0.8s    38.00nm          5.1mb
KGM     26.86 289 eP    09 28.00   1.3
RMO     27.17 138 eP    09 30.80   1.3
MUN     27.37 204 eP    09 30.00  -1.2
STK     27.47 156 eP    09 30.80  -1.3
         0.7s     8.40nm          4.5mb
CMS     29.10 149 eP    09 47.00   0.1
ADE     29.26 163 iPd   09 48.80   0.5
IPM     29.92 292 ePd   09 55.40   1.0
         1.0s    41.50nm          5.2mb
BRS     30.52 134 iP    09 59.00  -0.6
     Z  18s     24.00um          5.9MszX
                  eS    16 24.00
SNG     31.36 296 eP    09 58.00  -9.0X
                  eS    15 14.00
ARMA    31.68 140 eP    10 10.20   0.4
         0.8s    10.00nm          4.7mb
TOO     33.99 156 iPd   10 32.30   2.5X
         0.7s    28.00nm          5.3mb
NST     36.19 309 eP    11 01.50  12.8X
BDT     37.99 310 eP    11 05.70   1.9
         1.0s    62.10nm          5.4mb
KAGJ    38.10   3 eP    11 02.90  -1.7
SSE     38.62 350 Pd    11 09.00   0.1
         2.0s   210.00nm          5.6mb
     Z  20s      0.60um          4.4Msz
CHG     38.99 312 iPd   11 12.70   0.4
         1.0s    50.00nm          5.2mb
DZM     39.34 116 iPc   11 16.00   0.7
KUMJ    39.44   3 P     11 16.00   0.2
GYA     39.58 328 P     11 17.60   0.4
         1.0s    31.00nm          5.0mb
     N  14s      1.14um
     E  14s      0.66um
                  PcP   13 27.00
                  S     17 14.00
WHN     39.84 341 eP    11 20.00   0.9
NJ2     40.02 347 Pc    11 21.50   1.0
         1.5s    75.00nm          5.2mb
     Z  18s      0.41um          4.3Msz
     E  10s      0.46um
                  S     17 24.00
KMI     40.76 323 Pd    11 28.00   1.0
         1.5s   140.00nm          5.5mb
     Z  16s      1.20um          4.8MszX
                  S     17 40.00
SHNJ    41.04   3 eP    11 29.20   0.3
TSRJ    42.94   9 P     11 43.90  -0.5
CHJJ    43.98  12 P     11 52.10  -0.8
MTMJ    44.27  11 P     11 55.40   0.1
MAT     44.30  11 iPd   11 54.70  -0.8
         1.8s   181.82nm          5.6mb
                  eS    18 28.00
KAKJ    44.39  13 P     11 56.20   0.0
TIA     44.40 347 eP    11 55.20  -1.1
         1.3s    13.00nm          4.6mb
     Z  14s      0.65um          4.7MszX
                  S     18 22.00
CD2     44.67 329 P     11 58.00  -0.6
                  S     18 29.00
XAN     44.97 337 P     11 59.50  -1.5
         0.7s     5.20nm          4.5mb
     Z  16s      0.71um          4.7MszX
                  S     18 35.00
DL2     46.21 352 eP    12 12.00   1.4
     Z  12s      0.45um          4.6MszX
                  S     18 57.00
TIY     47.06 342 eP    12 17.00  -0.5
     Z  18s      0.97um          4.8Msz
     E  13s      0.34um
                  S     19 07.00
BJI     48.28 347 eP    12 26.00  -0.9
         1.7s   160.00nm          5.8mb
     Z  20s      0.30um          4.3Msz
```

```
     N  11s      0.27um
                   eS     19 24.00
LZH    48.86 333 iPd     12 31.50  -0.2
       1.2s    140.00nm          5.9mb
     Z  20s      0.70um          4.6Msz
                   pP     12 35.50  13kmX
                   PcP    13 58.00
                   PP     14 29.50
                   S      19 34.00
                   SS     23 00.00
SNY    48.89 355 eP      12 30.00  -1.5
       1.0s     44.00nm          5.4mb
     Z  20s      0.85um          4.7Msz
                   S      19 34.00
VLA    50.04   3 iPd+    12 42.00   1.6
                   i      12 58.00
                   i      22 26.00
                   eSS    24 50.00
HHC    50.22 343 Pd      12 41.50  -0.4
       1.8s     68.00nm          5.4mb
     Z  28s      0.74um          4.5MszX
BTO    50.45 342 eP      12 42.00  -1.7
CN2    50.72 357 Pd      12 45.00  -0.5
       1.2s     25.00nm          5.1mb
     Z  20s      0.61um          4.6Msz
                   eS     19 59.00
                   eScS   22 27.00
                   eSS    23 33.00
LSA    51.35 317 P       12 51.60   0.5
       0.9s     32.00nm          5.3mb
                   S      20 08.00
MDJ    51.46   1 Pd      12 51.40   0.3
       1.5s    160.00nm          5.8mb
GTA    53.41 332 iPc     13 05.50  -0.5
       1.5s     64.00nm          5.4mb
     Z  12s      0.66um          4.9MszX
                   S      20 30.00
GUN    54.01 312 P       13 09.46  -1.4
PKI    54.17 311 P       13 10.26  -1.8
       0.8s     75.00nm          5.8mb
KKN    54.39 312 P       13 11.96  -1.6
DMN    54.42 311 P       13 12.30  -1.5
       1.0s    188.00nm          6.1mb
GKN    54.98 311 P       13 16.18  -1.6
HYB    55.16 297 eP      13 17.50  -1.6
YSS    55.28  12 eP      13 18.80  -0.6
CIT    60.24 349 eP      13 55.00   0.7
CSY    60.44 188 eP      13 56.80   1.4
       0.8s     12.80nm          5.1mb
ZAK    61.31 342 iPd     14 01.60   0.1
       2.0s    132.00nm          5.7mb
                   eS     22 20.00
                   eSS    23 46.00
                   eSS    26 19.00
IRK    62.67 343 ePd     14 10.20  -0.4
       1.6s     65.00nm          5.5mb
                   e      14 16.00
                   e      14 45.00
                   eS     22 41.00
WMO    62.74 328 iPd     14 10.80  -0.5
       1.5s     11.00nm          4.8mb
                   pP     14 22.20  38kmX
MOY    63.16 341 iPd     14 14.30   0.5
       1.6s    175.00nm          5.9mb
BOD    65.77 352 iPd     14 30.60   0.0
       1.7s     99.00nm          5.6mb
KSH    67.15 318 P       14 41.50   1.5
       1.0s     50.00nm          5.6mb
YAK    68.89   1 iPd     14 50.00  -0.2
       1.5s    127.00nm          5.8mb
MGD    69.22  12 eP-     14 52.00  -0.3
       1.5s    140.00nm          5.8mb
                   e      15 00.00
                   e      15 15.00
                   eS     24 00.00
                   ePS    24 46.00
FRU    69.77 321 eP      14 55.00  -1.1
       2.5s    270.00nm          5.9mb
                   e      15 19.00
ELT    69.96 334 iPd     14 56.30  -0.6
       2.3s    295.00nm          5.9mb
                   eS     24 08.00
BRVK   77.50 328 iPd     15 41.00   0.2
       1.2s     96.00nm          5.7mb
                   eS     25 30.00
MAIO   77.70 309 iPc     15 43.80   1.4
                   eS     25 38.00
```

```
TIK    78.55   0 iPd     15 45.40  -0.7
       2.0s     82.00nm          5.4mb
                   e      15 56.00
                   e      18 45.00
NRI    81.23 347 eP      16 00.00  -0.6
       1.2s     64.00nm          5.5mb
                   e      16 08.00
SPA    82.97 180 iPd     16 09.80  -0.2
       1.0s     32.50nm          5.4mb
ILT    83.41  18 iPd     16 12.50   0.5
       1.4s    101.00nm          5.8mb
                   iS     26 36.00
                   iPS    27 44.00
SVE    84.14 329 ePd     16 22.00   6.2X
       2.0s    400.00nm          6.2mb
ARU    85.04 328 eP      16 22.00   1.7
       1.7s    450.00nm          6.4mb
GRS    88.57 310 iPc     16 39.00   0.8
       1.7s     70.00nm          5.7mb
SVW    89.31  28 (P)     16 59.64  18.6X
GRO    89.73 314 iPd     16 45.00   1.7
       2.0s    240.00nm          6.1mb
IMA    91.44  23 eP      16 49.90  -1.1
       1.0s      5.39nm          4.9mb
YKA   108.40  26 ePdiff  18 10.20   2.9X
       0.9s      0.60nm          4.8mb
YKA   108.40  26 ePKP    22 12.10  -1.2
       0.9s      0.90nm
VBY   111.36 316 ePKP    22 20.50   1.0
GEC2  111.63 320 ePKPd   22 20.40   0.4
       0.7s      2.30nm
BSF   116.33 320 ePKP    22 29.40   0.3
       0.8s     11.80nm
HAU   116.55 321 ePKP    22 30.00   0.6
       0.9s      7.70nm
     Z  24s      0.20um          4.7MszX
LPG   117.13 318 ePKP    22 30.90   0.0
       0.7s      5.30nm
LPL   117.14 318 ePKP    22 30.90   0.1
       0.9s      7.35nm
LOR   118.39 321 ePKP    22 33.60   0.7
       0.7s      4.85nm
LBF   118.42 320 ePKP    22 33.80   0.8
       0.9s      7.85nm
SSF   118.69 320 ePKP    22 33.70   0.3
       1.0s     13.20nm
AVF   118.89 320 ePKP    22 34.20   0.4
       0.9s      5.55nm
BGF   119.30 320 ePKP    22 35.60   1.0
       0.8s     12.75nm
TCF   119.81 320 ePKP    22 36.60   1.0
       0.8s      4.85nm
CAF   120.43 319 ePKP    22 38.20   1.3
       1.0s      8.40nm
LPO   121.10 319 ePKP    22 40.30   2.2
       0.8s      8.60nm
MFF   121.17 321 ePKP    22 39.70   1.6
KIC   133.74 272 PKP     23 04.00   0.8
LIC   134.01 272 PKP     23 04.40   0.7
TIC   134.03 272 PKP     23 04.10   0.3
FSA   144.09 157 e(PKP)  23 21.00  -0.7
ANT   144.18 149 ePKP    23 20.00  -1.9
YJA   147.79 155 ePKPd   23 31.00   2.5X
NNA   148.34 127 ePKP    23 31.50   2.5X
       1.2s     62.50nm
ARE   149.26 140 ePKP    23 38.00   7.2X
BMA   149.59 193 (PKP)   23 37.00   6.2X
VAO   149.81 188 ePKP    23 37.60   6.5X
CNCB  151.12 145 PKPc    23 37.00   3.1X
LPB   151.27 145 PKP     23 37.80   3.9X
       1.0s    100.00nm
ZOBO  151.45 145 PKP     23 36.90   2.5X
       1.1s     55.10nm
                   LR     17 06.00
CCH   151.63 149 ePKP    23 42.00   7.7X
SIV   155.14 157 ePKP    23 44.00   5.2X
     S.D. = 1.0  on 101 of 122 obs.
-----------------------------------
*  JAN  22, 1993  10h 26m 30.38± 1.55s
   24.430 S ±16.9km   66.797 W ±13.5km
   DEPTH = 257.1 ± 14.9 km
 SALTA PROVINCE, ARGENTINA        (129)

SLA     1.22 104 ePd     27 08.70   0.7
                   S      27 33.60
HJA     1.76  47 iPd     27 10.90  -0.7
ANT     3.38 282 iPc     27 27.50  -0.4
```

```
                   eS     28 06.60
CCH     7.04   5 eP      28 12.00  -0.6
CNCB    7.66 351 P       28 21.90   1.2
                   S      29 42.80
LPB     7.95 351 eP      28 23.00  -1.2
ZOBO    8.20 351 P       28 28.70   1.2
SIV     9.97  34 P       28 53.40   4.0X
VAO    18.21  90 eP      30 33.20   6.1X
                   e      30 34.70
BAO    19.70  67 e(P)    30 42.00  -0.2
                   e      30 43.30
     S.D. = 1.2  on   8 of  10 obs.
-----------------------------------
&  JAN  22, 1993  10h 36m 34.05s
   57.818 N          143.102 W
   DEPTH =  10.0km  (geophysicist)
 GULF OF ALASKA                   ( 15)
     <AEIC>. ML 4.4 (PGC), 4.1
     (AEIC).

KAIM    2.22 343 iPc     37 06.45  -5.0
CYK     2.29   8 iPc     37 07.71  -4.8
                   S      37 32.69
MID     2.34 315 P       37 08.10  -5.0
                   S      37 32.40
SNH     2.37   3 ePc     37 08.50  -5.2
                   S      37 34.79
YKU     2.48  44 eP      37 10.04  -5.0
                   S      37 38.20
YAH     2.65  15 iPc     37 12.71  -5.0
                   S      37 41.30
PNL     2.68  45 iPd     37 12.39  -5.6
                   S      37 40.90
RAGM    2.70 343 iPc     37 12.94  -5.4
PCA     2.72  32 ePd     37 13.33  -5.3
                   S      37 43.40
HON     2.75  52 iPd     37 13.16  -5.8
                   S      37 43.70
BCPM    2.80  39 iPd     37 14.14  -5.5
                   S      37 43.20
SGAM    2.90 339 ePc     37 15.98  -5.1
CVA     3.06 335 iPc     37 17.36  -5.9
                   S      37 51.60
HIN     3.12 327 iPc     37 18.74  -5.5
                   eS     37 51.43
MTU     3.21 315 eP      37 19.95  -5.5
BALM    3.25   7 iPc     37 20.78  -5.4
                   eS     37 55.93
CTGM    3.28  15 iPc     37 21.26  -5.4
LTI     3.32 314 iPc     37 21.34  -5.7
FID     3.41 331 eP      37 22.94  -5.4
KNIM    3.49 319 ePc     37 23.29  -6.1
GLB     3.65 355 iPc     37 26.06  -5.8
                   S      38 06.30
GLI     3.69 328 iPc     37 26.11  -6.2
VLZ     3.71 335 iPc     37 26.37  -6.2
PLBC    3.89  62 P       37 29.00  -6.1
                   S      38 11.50
KLU     3.95 340 iPc     37 30.13  -6.0
SEW     4.01 308 eP      37 31.41  -5.3
HYT     4.16  41 Pc      37 33.50  -5.6
                   S      38 19.00
MPA     4.19 312 eP      37 33.30  -6.1
                   eS     38 15.14
SIT     4.27  97 eP      37 31.54  -9.0
                   (S)    38 14.84
PTE     4.30 318 iPc     37 34.56  -6.4
TZL     4.40 346 eP      37 37.27  -5.1
BRLK    4.50 299 eP      37 39.21  -4.5
KNK     4.51 325 iPc     37 38.41  -5.6
SLKM    4.55 309 eP      37 39.02  -5.5
SCM     4.56 334 ePc     37 38.49  -6.2
TOA     4.57 342 P       37 39.50  -5.3
PMS     4.76 319 P       37 41.20  -6.3
SML     4.79 329 ePc     37 42.16  -5.9
PLRM    4.86 324 eP      37 43.09  -5.8
PMR     4.86 324 eP      37 42.31  -6.6
SDG     4.88 347 ePc     37 43.41  -5.8
GHO     4.94 326 ePc     37 44.28  -5.8
KDC     5.03 273 eP      37 46.30  -4.9
PWA     5.15 321 P       37 48.00  -5.0
PAX     5.30 348 ePc     37 48.94  -6.3
SUA     5.33 317 ePd     37 49.04  -6.6
ILIM    5.58 298 eP      37 54.66  -4.5
AUE     5.59 290 eP      37 53.39  -5.8
AUI     5.61 290 eP      37 53.60  -5.9
REF     5.62 303 eP      37 54.76  -5.0
```

22d 10h

```
AUL      5 63 291 eP     37 54.68  -5.1
INE      5 63 298 eP     37 54.13  -5.8
AUH      5.63 290 eP     37 55.70  -4.1
DFR      5.65 303 eP     37 53.73  -6.5
CDD      5.66 286 eP     37 55.94  -4.3
INW      5.66 298 eP     37 55.31  -5.0
RDW      5.66 302 eP     37 53.78  -6.7
SPU      5.67 310 eP     37 54.02  -6.4
CGLM     5.72 311 eP     37 55.36  -5.8
CKT      5.74 310 eP     37 55.71  -5.7
CKN      5.74 310 eP     37 55.86  -5.6
NCT      5.75 303 eP     37 56.62  -4.9
CRP      5.76 311 eP     37 54.23  -7.5
CP2      5.79 310 eP     37 56.18  -6.0
CKL      5.79 310 eP     37 56.29  -5.9
BGL      5.85 310 eP     37 56.77  -6.2
DOT      5.87 356 eP     37 57.67  -5.5
SKT      5.95 318 eP     37 58.24  -6.0
MCNL     6.05 288 eP     37 59.49  -6.1
PDB      6.09 294 eP     38 00.79  -5.5
HUR      6.10 331 eP     38 00.58  -5.8
SVW      7.18 303 eP     38 15.10  -6.5
FBA      7.45 344 eP     38 17.19  -8.2
VIB      7.54 123 P      38 18.50  -8.1
                  S      39 36.00
CWB      7.84 122 P      38 24.00  -6.9
                  S      39 45.60
TTA      8.19 314 eP     38 25.36 -10.4
IMA      9.65 333 eP     38 46.97  -9.0
SDN      9.91 263 eP     38 53.54  -5.9
YKA     14.86  60 eP     39 59.40  -6.3
        0.7s      1.60nm          3.6mb
        79 obs. associated
-----------------------------------------
*  JAN  22, 1993  10h 49m 14.86± 1.63s
   33.318 S ± 6.7km   72.036 W ±12.7km
   DEPTH =  13.6 ±  4.9 km
 OFF COAST OF CENTRAL CHILE        (134)
      MD 4.6 (SAN).

LCCH     0.42 112 iPd    49 24.25   0.7
IHA      0.44  49 iPc    49 24.20   0.3
                  iS     49 29.90
LNV      0.82 141 iPd    49 30.88   0.5
ROCH     0.93  68 iPd    49 31.78  -0.6
TACH     0.98 110 iPd    49 32.82  -0.3
PEL      1.15  82 iPd    49 35.59  -0.4
                  iS     49 49.79
SAN      1.16  97 iPd    49 35.75  -0.4
CHCH     1.31 118 iP     49 38.08  -0.6
                  iS     49 53.90
PCH      1.31 104 iPd    49 38.11  -0.7
JACH     1.37  63 iPd    49 38.78  -0.8
                  iS     49 55.50
CACH     1.44 124 eP     49 41.08   0.5
                  iS     50 00.25
FCH      1.46  91 iPd    49 40.61  -0.5
MDZ      2.71  82 iP     50 03.20   4.3X
                  iS     50 38.10
RTCV     3.29  65 e(P)   50 09.00   1.9
RFA      3.30 117 iP     50 12.50   5.3X
                  S      50 57.00
RTLL     3.61  58 eP     50 13.00   1.4
                  S      51 01.80
CFA      3.63  63 e(P)   50 15.40   3.4X
                  S      51 02.00
CYA      7.24  49 ePd    50 58.00  -4.8X
FSA      8.91  38 e(P)   51 29.00   3.0X
CNCB    16.84  14 P      53 16.00   3.6X
LPB     17.09  13 eP     53 14.00  -1.3
ZOBO    17.32  13 eP     53 19.00   0.5
SIV     19.90  33 eP     53 49.00   0.1
      S.D. = 0.9  on  17 of  23 obs.
-----------------------------------------
%  JAN  22, 1993  10h 56m 23.68± 1.18s
   38.974 N ±12.4km   27.921 E ±18.4km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                            (366)
      MD 2.6 (ISK).

IZM      0.77 222 iPg    56 38.80   0.0
                  eSg    56 50.30
DST      0.84  41 ePn    56 39.80  -0.1
KCT      1.32  15 iPn    56 48.30   0.3
EDC      1.37 358 ePn    56 49.00   0.2
BNT      1.38 360 ePn    56 48.60  -0.4
      S.D. = 0.3  on   5 of   5 obs.
-----------------------------------------
*  JAN  22, 1993  10h 59m 01.67± 2.03s
   33.301 S ± 5.6km   71.819 W ±17.3km
   DEPTH =  20.7 ±  7.2 km
 NEAR COAST OF CENTRAL CHILE       (135)
      MD 4.0 (SAN).

LCCH     0.27 130 iPd    59 08.48   0.5
                  iS     59 14.19
IHA      0.31  29 iPc    59 08.70   0.1
                  iS     59 14.40
LNV      0.74 153 ePd    59 15.12  -0.6
                  iS     59 25.99
ROCH     0.75  64 iPd    59 15.94  -0.2
TACH     0.82 116 iPd    59 17.00  -0.1
                  iS     59 28.85
PEL      0.96  81 iP+    59 19.75   0.1
                  iS     59 34.05
PCH      1.14 107 eP     59 22.23  -0.3
CHCH     1.16 123 iP+    59 22.54  -0.2
                  iS     59 38.70
JACH     1.20  59 iP+    59 23.22  -0.2
                  iS     59 39.82
FCH      1.28  92 iPd    59 24.80   0.1
                  iS     59 42.86
CACH     1.30 129 iP     59 25.48   0.6
                  iS     59 44.21
MDZ      2.53  81 eP     59 47.50   5.1X
                  S      00 24.50
      S.D. = 0.4  on  11 of  12 obs.
-----------------------------------------
%  JAN  22, 1993  12h 54m 25.67± 0.58s
   28.066 S ± 5.8km   26.880 E ± 6.7km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA          (584)
      ML 2.7 (PRE).

SEK      0.71 111 eP     54 40.00   0.2
                  S      54 49.00
BLF      1.20 210 iPc    54 48.70   0.0
                  S      55 05.10
PRY      1.25  25 eP     54 49.50   0.0
                  S      55 06.00
KIM      1.97 249 iPc    55 00.30   0.1
                  S      55 24.20
FRS      2.16 219 iPd    55 02.60  -0.2
                  S      55 28.00
KSR      2.19   0 eP     55 04.00   0.5
                  S      55 30.00
SLR      2.64  29 eP     55 09.10  -0.7
                  S      55 37.00
      S.D. = 0.5  on   7 of   7 obs.
-----------------------------------------
?  JAN  22, 1993  13h 38m 35.68± 1.46s
   26.860 S ± 9.0km   26.954 E ±13.9km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA          (584)

PRY      0.47  98 eP     38 45.00  -0.1
                  S      38 53.00
KSR      0.99 357 eP     38 55.00  -0.1
                  S      39 06.00
SEK      1.57 158 eP     39 04.50   0.0
                  S      39 25.00
SLR      1.64  47 iPc    39 05.50   0.2
                  S      39 28.50
      S.D. = 0.2  on   4 of   4 obs.
-----------------------------------------
?  JAN  22, 1993  13h 48m 41.03± 3.92s
   7.424 S ±21.1km  128.277 E ±23.7km
   DEPTH =  70.8 ± 43.0 km
   4.9mb (  1 obs.)
 BANDA SEA                         (280)

MTN      6.08 153 eP     50 10.00  -0.3
        0.4s     33.00nm          5.1mb X
                  eS     51 19.00
WB2     13.77 155 iPd    51 48.50  -6.0X
                  e      52 01.30
                  eS     54 15.60
ASPA    17.03 162 iPc    52 35.40  -0.7
                  eS     55 31.90
WARB    18.72 185 eP     52 58.00   1.2
CTA     21.49 128 eP     53 26.00   0.2
CHG     38.94 312 eP     56 03.50   1.5
LZH     49.00 334 eP     57 24.50   1.8
        1.4s     16.00nm          4.9mb
                  pP     57 32.50  27kmX
                  sP     57 37.00
GUN     53.96 312 P      57 59.86  -0.6
PKI     54.12 312 P      58 00.68  -0.9
KKN     54.33 312 P      58 02.66  -0.4
DMN     54.36 312 P      58 02.84  -0.5
GKN     54.92 312 P      58 06.04  -1.3
CNCB   151.05 146 PKP    08 31.30   8.3X
LPB    151.21 146 ePKP   08 34.00  10.9X
ZOBO   151.39 145 PKP    08 31.00   7.4X
CCH    151.53 150 (PKP)  08 35.00  11.6X
      S.D. = 1.2  on  11 of  16 obs.
-----------------------------------------
   JAN  22, 1993  15h 42m 49.13± 0.49s
    8.225 S ± 8.4km  122.348 E ±10.0km
   DEPTH =  33.0km  (normal)
   4.5mb (  5 obs.)
 FLORES REGION, INDONESIA          (286)

MTN      9.78 119 iPc    45 09.10  -1.5
        0.4s    196.00nm          6.7mb X
                  eS     46 56.00
NANU    15.69 204 eP     46 22.50  -6.9X
WB2     16.46 136 iPd    46 34.20  -5.1X
                  eS     49 28.90
WARB    18.32 168 eP     47 02.50   0.0
MEEK    18.65 190 eP     47 07.50   0.9
        0.4s     10.00nm          4.4mb
                  eS     50 21.00
ASPA    18.93 146 eP     47 08.50  -1.5
      Z  19s      0.20um
                  eS     50 27.60
MRWA    21.72 195 eP     47 38.70  -0.8
        0.4s      8.00nm          4.5mb
                  eS     51 32.00
FORT    23.07 167 eP     47 52.50  -0.3
MUN     24.32 193 eP     48 05.00   0.1
CTA     25.96 120 e(P)   48 22.00   1.3
STK     29.57 145 iPc    48 53.10  -0.2
        0.5s      6.60nm          4.6mb
CMS     31.84 140 iPd    49 14.00   0.7
        0.8s      5.00nm          4.4mb
BRS     34.52 127 iPc    49 38.00   1.3
TOO     35.95 148 eP     49 49.50   0.8
        0.6s     10.00nm          4.9mb
GUN     50.34 317 P      51 46.06   0.5
PKI     50.44 316 P      51 46.34   0.0
KKN     50.67 316 P      51 46.54  -1.3
DMN     50.67 316 P      51 48.14   0.2
GKN     51.24 316 P      51 52.12   0.0
YKA    112.12  25 ePdiff57 42.40  16.4X
        0.6s      0.40nm
YJA    148.83 166 e(PKP)02 32.00  -0.3X
CNCB   153.11 158 PKP    02 49.00  10.1X
CCH    153.21 162 (PKP)  02 30.00  -8.7X
LPB    153.32 157 ePKP   02 51.00  12.0X
ZOBO   153.53 157 ePKP   02 52.00  12.4X
      S.D. = 1.0  on  17 of  25 obs.
-----------------------------------------
*  JAN  22, 1993  17h 48m 36.63± 0.42s
   56.000 S ±10.2km   23.593 W ± 8.3km
   DEPTH =  33.0km  (normal)
   5.1mb (  6 obs.)
 SOUTH SANDWICH ISLANDS REGION     (153)

NVL     21.21 148 eP     53 21.00  -0.2
        1.8s     59.00nm          4.7mb
                  e      53 41.00
SPA     34.18 180 iPc    55 20.30  -0.4
        1.0s     26.50nm          5.1mb
CFA     39.42 289 ePc    56 03.30  -1.7
PRY     46.54  73 eP     57 03.50   0.7
SLR     47.93  73 iPd    57 12.70  -1.1
        1.3s     50.00nm          5.4mb
BFT     48.92  75 eP     57 23.00   1.5
SIV     49.06 309 eP     57 26.00   3.6X
CNCB    51.52 301 P      57 42.60   0.8
LPB     51.81 301 P      57 45.00   1.1
ZOBO    52.04 301 iPd    57 45.80   0.0
        1.0s     31.50nm          5.2mb
      Z  24s      0.15um          3.9MszX
                  LR     13 32.00
BUL     52.65  69 iPc    57 50.00   0.2
        1.1s     20.25nm          5.0mb
MTD     57.00  70 iPc    58 20.00  -1.4
LIC     63.87  21 P      59 07.50  -0.6
      Z  20s      0.13um          4.1Msz
```

```
KIC     64.06  21 P      59 09.10  -0.2
TIC     64.28  21 P      59 10.50  -0.3
BCAO    69.40  46 iPc    59 43.00  -0.1
         0.5s      5.00nm          4.8mb
DMN    122.77  88 PKP    07 31.40   0.9
GKN    122.81  88 PKP    07 30.80   0.4
PKI    122.91  89 PKP    07 30.00  -0.9
KKN    123.00  88 PKP    07 31.40   0.5
GUN    123.43  89 PKP    07 32.80   0.9
YKA    137.50 317 ePKP   07 54.20  -3.1X
         1.1s      2.00nm
BJI    149.25 104 ePKP   08 23.00   4.9X
IRK    149.85  75 ePKP   08 24.10   5.5X
         1.6s     19.00nm
                   e      08 28.50
                   e      08 35.80
      S.D. = 0.9  on  20 of  24 obs.
-----------------------------------
?  JAN  22, 1993  18h 08m 28.63± 4.85s
   40.162 N ±24.5km   21.002 E ±35.7km
   DEPTH =  10.0km  (geophysicist)
 GREECE                            (364)

TPE      0.77 280 ePg   08 43.50  -0.2
SRN      0.82 250 ePg   08 44.50   0.0
                  iSg   08 59.50
TIR      1.47 324 ePn   08 54.70  -0.4
                  iSn   09 18.70
PHP      1.58 345 ePn   08 56.50  -0.2
LACI     1.77 327 ePn   09 00.00   0.6
      S.D. = 0.5  on   5 of   5 obs.
-----------------------------------
*  JAN  22, 1993  18h 47m 38.25± 1.79s
   50.496 N ±15.6km    6.771 E ±11.9km
   DEPTH =  10.0km  (geophysicist)
 GERMANY                           (543)
      mbLg 3.0 (UCC).

MEM      0 50 283 iPc   47 47.84  -0.5
                  iS    47 55.48
ABH      0.79 141 ePn   47 53.52  -0.2
RUP      0.82 167 ePn   47 54.29   0.2
WLF      0.92 206 Pc    47 55.52  -0.3
                  iS    48 08.94
DOU      1.45 255 iPd   48 05.00   0.5
                  iS    48 23.60
SNF      1 59 272 iP    48 06.80   0.4
      S.D. = 0.5  on   6 of   6 obs.
-----------------------------------
?  JAN  22, 1993  18h 47m 50.84± 7.27s
   37.045 N ±54.2km   16.480 E ±32.3km
   DEPTH =  33.0km  (normal)
 IONIAN SEA                        (399)

SOI      1 08 342 P     48 11.50   1.9
                  eSg   48 23.50
ATN      1.38 324 P     48 14.80   0.9
                  eSn   48 27.00
MNO      1.67 302 P     48 19.50   1.1
                  eSg   48 38.50
GIB      2.17 297 P     48 27.00   1.6
TDS      2.61 358 P     48 34.00   2.4
MGR      3.17 347 P     48 41.00   1.5
SGO      3.63 346 P     48 47.00   1.0
BRT      3.87   8 P     48 50.00   0.6
      S.D. = 0.7  on   8 of   8 obs.
-----------------------------------
*  JAN  22, 1993  18h 55m 27.37± 1.46s
   37.115 N ±12.5km   22.062 E ± 9.1km
   DEPTH =  10.0km  (geophysicist)
   3.9mb (  2 obs.)
 SOUTHERN GREECE                   (368)
      ML 3.5 (ATH).

VLI      0.81 119 ePg   55 42.80  -0.2
ATH      1.57  56 ePb   55 54.20  -1.1
VLS      1.58 313 ePb   55 55.80   0.4
AGG      1.92   6 ePb   56 01.28   0.9
                  iSb   56 24.29
LIT      3.00   6 ePn   56 17.64   1.8
PAIG     3.08  24 ePn   56 16.68  -0.2
KEK      3.14 326 ePg   56 28.80  11.0X
KZN      3.19 356 ePn   56 19.90   1.2
SRN      3.20 330 ePn   56 21.90   3.3X
LSK      3.24 340 ePn   56 20.00   0.7
NPS      3.42 122 ePb   56 28.60   6.8X
OUR      3.55  24 ePn   56 23.10  -0.5
TPE      3.56 334 ePn   56 21.40  -2.3
FNA      3.70 352 ePn   56 26.24   0.4
SOH      3.84  15 ePn   56 27.40  -0.4
                  iSn   57 10.82
GRG      3.84   4 iPn   56 27.89   0.0
                  eSn   57 09.42
VLO      3.90 330 ePn   56 31.00   2.4
PRK      3.94  56 ePn   56 31.10   1.9
KNT      4.09   9 ePn   56 30.48  -0.8
OHR      4.11 347 iPn   56 30.00  -1.6
SRS      4.17  16 ePn   56 32.72   0.3
VAY      4.22   5 iPn   56 32.70  -0.4
TIR      4.56 339 ePn   56 37.00  -0.9
PHP      4.73 345 ePn   56 42.40   1.9
SKO      4.87 355 ePn   56 41.50  -0.9
ALN      4.89  38 ePn   56 42.00  -0.6
BCI      5.47 344 ePn   56 48.70  -2.1
GEC2    13.21 335 ePn   58 48.60  11.0X
         0.9s      1.09nm
HFS     23.65 350 eP    00 36.00  -3.4X
         0.4s      1.40nm          3.8mb
NAO     24.78 347 P     00 46.60  -3.7X
         0.7s      2.70nm          4.0mb
      S.D. = 1.3  on  24 of  30 obs.
-----------------------------------
&  JAN  22, 1993  20h 00m 09.05s
   60.948 N          146.992 W
   DEPTH =  25.5km
 SOUTHERN ALASKA                   (  2)
      <AEIC>. ML 2.5 (AEIC).

GLI      0.08 216 iPc   00 13.15  -0.6
                  iS    00 17.13
VZW      0.24  62 iPd   00 14.88  -0.5
                  iS    00 20.06
FID      0.32 128 ePc   00 15.57  -0.9
VLZ      0.37  60 iPd   00 16.36  -0.8
                  eS    00 22.33
HIN      0.60 156 iPc   00 19.98  -1.0
                  eS    00 29.54
KNIM     0.70 212 iPd   00 20.90  -1.7
                  eS    00 30.99
CVA      0.73 123 eP    00 22.22  -0.8
KLU      0.75  43 iPd   00 21.99  -1.5
                  eS    00 32.35
KNK      0.85 304 iPc   00 23.73  -1.3
                  eS    00 35.30
SCM      0.90 350 iPd   00 24.38  -1.7
                  eS    00 36.77
SGAM     0.99 116 ePc   00 25.93  -1.3
PTE      1.00 266 ePc   00 25.81  -1.5
                  eS    00 38.49
LTI      1.01 205 iPd   00 26.16  -1.3
SML      1.08 324 iPc   00 27.23  -1.3
                  eS    00 41.72
PLRM     1.22 303 iPc   00 29.14  -1.3
                  eS    00 44.67
TOA      1.23  18 iPd   00 29.95  -0.7
GHO      1.25 312 ePc   00 29.81  -1.1
                  eS    00 47.43
MPA      1.25 249 iPd   00 29.78  -1.2
                  S     00 45.51
RAGM     1.27 115 eP    00 30.73  -0.6
PMS      1.28 285 ePc   00 30.50  -0.9
TZL      1.33  34 eP    00 31.78  -0.3
SEW      1.48 236 eP    00 32.72  -1.5
                  eS    00 51.58
PWA      1.56 298 eP    00 35.13  -0.3
GLB      1.62  71 iPc   00 35.49  -0.8
                  S     00 55.09
SLKM     1.65 256 ePc   00 35.71  -1.0
                  S     00 56.86
SDG      1.73  23 ePd   00 37.40  -0.5
                  eS    00 59.00
SUA      1.89 288 ePc   00 39.70  -0.6
NKA      2.09 266 eP    00 41.91  -1.1
PAX      2.15  19 eP    00 43.42  -0.7
BALM     2.27  86 iPc   00 44.35  -1.3
SKT      2.41 297 eP    00 46.42  -1.2
CGLM     2.46 281 eP    00 47.30  -1.1
SPU      2.47 278 eP    00 47.23  -1.3
CRP      2.53 280 eP    00 47.32  -2.2
CKL      2.61 278 eP    00 49.14  -1.5
BGL      2.64 279 eP    00 49.67  -1.3
YAH      2.65 100 eP    00 50.43  -0.8
CTGM     2.76  87 eP    00 51.46  -1.3
DFR      2.82 265 eP    00 51.67  -1.8
REF      2.84 263 eP    00 51.89  -2.0
TRF      2.95 330 eP    00 54.01  -1.4
HDA      3.47   0 eP    01 01.94  -0.8
      42 obs. associated
-----------------------------------
   JAN  22, 1993  20h 23m 29.80± 0.48s
    0.503 S ± 6.6km  121.887 E ± 8.7km
   DEPTH =  33.0km  (normal)
   4.9mb ( 12 obs.)
 MINAHASSA PENINSULA, SULAWESI     (265)

PCI      2.09 259 ePc   24 02.00  -1.2
TSM      6.23 320 iP    25 00.50  -1.4
KKM      8.62 319 ePd   25 37.00   1.6
IPM     21.44 284 ePd   28 18.00   0.5
         1.1s     74.30nm          5.0mb
NANU    22.78 195 eP    28 30.20  -0.5
WB2     22.85 148 iPd   28 32.50   1.0
         0.6s     13.40nm          4.6mb
ASPA    25.81 154 eP    29 00.00   0.1
         0.5s     10.30nm          4.7mb
      Z  21s      0.20um          3.6Msz
CHG     29.60 312 eP    29 34.20  -0.2
GYA     30.56 332 P     29 44.60   1.7
CD2     35.67 333 P     30 27.00  -0.1
XAN     36.45 342 Pd    30 33.50  -0.2
         0.7s      5.70nm          4.6mb
TIY     39.02 348 Pc    30 55.00  -0.2
MAT     39.85  21 eP    31 00.00  -2.1
LZH     40.09 337 eP    31 05.00   0.8
         1.5s     51.00nm          5.1mb
                  pP    31 17.00  44kmX
BJI     40.69 353 eP    31 08.50  -0.3
         1.0s     11.00nm          4.6mb
LSA     41.97 318 P     31 21.60   1.5
         0.8s     23.00nm          5.0mb
HHC     42.22 348 P     31 22.00   0.5
         1.2s     12.00nm          4.5mb
BTO     42.31 347 eP    31 21.60  -0.7
GTA     44.57 335 Pd    31 41.50   0.8
         1.2s     21.00nm          4.9mb
GUN     44.62 312 Pc    31 41.60   0.1
PKI     44.78 311 Pc    31 42.58  -0.3
         0.8s     25.00nm          5.2mb
KKN     45.00 312 Pc    31 43.82  -0.6
         0.9s     44.00nm          5.4mb
DMN     45.03 311 Pc    31 44.54  -0.2
GKN     45.59 311 Pc    31 48.74  -0.3
GBA     46.21 289 P     31 55.00   1.1
HYB     46.23 295 eP    31 54.00   0.0
KSH     57.78 319 eP    33 19.50  -0.9
         1.0s     20.00nm          5.1mb
QUE     60.46 305 eP    33 51.50  12.3X
MAIO    68.33 310 eP    34 30.00  -0.4
      S.D. = 0.9  on  28 of  29 obs.
-----------------------------------
&  JAN  22, 1993  20h 50m 03.34s
   59.998 N          152.219 W
   DEPTH =  82.5km
 SOUTHERN ALASKA                   (  2)
      <AEIC>.

ILIM     0.38 283 ePd   50 16.03  -0.6
                  eS    50 26.09
INE      0.43 279 eP    50 16.43  -0.7
INW      0.46 279 eP    50 16.77  -0.6
                  eS    50 27.73
RS1      0.54 330 eP    50 17.50  -0.6
RSO      0.54 330 iPd   50 17.47  -0.6
                  eS    50 28.96
RS2      0.54 330 iPd   50 17.51  -0.6
REF      0.55 334 iPd   50 17.52  -0.6
                  eS    50 29.09
RDW      0.57 329 eP    50 17.86  -0.5
RDN      0.58 333 ePd   50 17.79  -0.6
                  eS    50 29.44
XLV      0.60 155 eP    50 17.56  -0.9
OPT      0.62 236 iPc   50 17.95  -0.7
                  eS    50 29.69
DFR      0.64 339 iPd   50 18.18  -0.7
                  eS    50 30.48
NCT      0.67 328 ePd   50 18.34  -0.9
BRLK     0.71 109 eP    50 18.76  -0.8
                  eS    50 30.96
AUE      0.87 223 eP    50 20.38  -0.8
AUL      0.87 225 ePd   50 20.77  -0.5
AUH      0.89 225 ePd   50 21.01  -0.6
```

22d 20h

NKA	0.89	33	iPd	50	22.54	1.0
AUW	0.89	226	ePc	50	20.82	-0.7
AUI	0.90	223	eP	50	20.62	-1.0
			eS	50	34.48	
PDB	1.02	259	iPc	50	21.83	-1.2
			eS	50	36.57	
SLKM	1.12	62	eP	50	22.94	-1.4
SPU	1.19	4	iPd	50	24.48	-0.7
			eS	50	41.87	
CKL	1.20	357	iPd	50	24.70	-0.7
			eS	50	41.90	
CKT	1.21	0	ePd	50	24.65	-0.8
CKN	1.23	1	ePd	50	25.31	-0.4
CP2	1.27	360	ePd	50	25.81	-0.6
BGL	1.27	356	iPd	50	25.64	-0.7
CRP	1.27	1	iPd	50	25.84	-0.5
CDD	1.30	215	ePd	50	25.49	-1.0
			eS	50	42.89	
CGLM	1.32	4	iPd	50	26.26	-0.6
MCNL	1.35	234	iPc	50	25.56	-1.7
			eS	50	42.86	
SEW	1.39	84	eP	50	25.94	-1.8
MPA	1.51	70	ePc	50	27.89	-1.3
SUA	1.64	26	ePd	50	30.44	-0.7
PTE	1.81	60	eP	50	31.52	-1.7
SVW	2.02	305	eP	50	34.37	-1.8
SKT	2.02	9	ePd	50	34.92	-1.2
LTI	2.19	87	eP	50	36.21	-2.2
PLRM	2.20	42	eP	50	36.14	-2.4
KNIM	2.27	79	ePc	50	36.60	-2.9
MTU	2.30	88	eP	50	38.35	-1.5
KNK	2.33	51	eP	50	38.09	-2.3
GHO	2.40	41	eP	50	39.96	-1.4
SML	2.63	45	eP	50	42.39	-2.1
GLI	2.69	69	eP	50	42.79	-2.5
HIN	2.88	80	eP	50	45.28	-2.7
FID	2.95	73	P	50	45.50	-3.4
SCM	3.02	50	eP	50	47.76	-2.1
KLU	3.44	61	ePc	50	52.86	-2.9

50 obs. associated

& JAN 22, 1993 21h 27m 32.94s
59.812 N 153.423 W
DEPTH = 131.2km
SOUTHERN ALASKA (2)
<AEIC>.

INW	0.30	30	eP	27	50.39	0.4
			eS	28	04.45	
INE	0.31	36	eP	27	50.92	0.8
AUL	0.43	181	eP	27	51.31	-0.7
AUH	0.45	181	eP	27	51.53	-0.7
AUE	0.46	177	iP	27	51.36	-0.7
AUI	0.48	180	eP	27	51.27	-1.0
			eS	28	05.53	
RS2	0.73	27	eP	27	53.32	-0.9
RSO	0.73	27	eP	27	53.45	-0.8
RDW	0.74	24	eP	27	54.06	-0.2
REF	0.77	28	iP	27	53.49	-1.0
			eS	28	09.26	
MCNL	0.78	217	iP	27	53.38	-1.0
NCT	0.79	18	iP	27	53.66	-0.9
			eS	28	09.80	
DFR	0.86	25	eP	27	54.05	-1.1
			S	28	10.51	
CDD	0.89	187	iP	27	54.26	-1.0
BRLK	1.28	91	eP	27	57.97	-1.2
			eS	28	16.33	
NKA	1.43	48	eP	28	01.15	0.5
CKL	1.49	21	iP	28	00.67	-0.8
CKT	1.52	23	eP	28	00.81	-1.0
SPU	1.53	26	iP	28	00.79	-1.1
BGL	1.54	19	eP	28	01.39	-0.7
CKN	1.54	23	eP	28	01.25	-0.8
CP2	1.57	21	eP	28	01.85	-0.6
CRP	1.59	23	eP	28	01.92	-0.7
CGLM	1.66	24	iP	28	02.45	-0.9
SLKM	1.75	65	eP	28	02.82	-1.6
SEW	2.02	80	eP	28	05.88	-1.7
SUA	2.12	37	eP	28	07.78	-1.2
MPA	2.14	70	eP	28	07.66	-1.5
SKT	2.36	22	eP	28	11.04	-1.0
PMS	2.39	51	P	28	10.60	-1.7
PTE	2.43	62	eP	28	10.87	-1.9
PWA	2.54	42	P	28	13.30	-0.8
PLRM	2.76	48	eP	28	14.78	-2.3
LTI	2.81	83	eP	28	16.23	-1.5
KNIM	2.90	77	eP	28	16.49	-2.4
MTU	2.91	84	eP	28	17.57	-1.5
KNK	2.93	55	eP	28	16.56	-2.7
GHO	2.95	46	eP	28	17.29	-2.4
SML	3.20	49	eP	28	20.27	-2.6
HIN	3.51	77	eP	28	24.94	-2.1
FID	3.58	72	eP	28	25.39	-2.6
VLZ	3.75	66	eP	28	27.88	-2.2
KLU	4.06	62	eP	28	31.66	-2.7

43 obs. associated

& JAN 22, 1993 21h 53m 33.12s
58.985 N 154.287 W
DEPTH = 116.3km
ALASKA PENINSULA (12)
<AEIC>.

MCNL	0.20	353	iP	53	48.81	0.8
			eS	54	00.63	
CDD	0.34	99	iP	53	49.13	-0.9
			eS	54	02.96	
AUI	0.57	51	eP	53	50.43	-0.9
			eS	54	04.14	
AUH	0.58	48	eP	53	51.22	-0.3
PDB	0.81	3	iP	53	52.28	-1.0
			eS	54	07.29	
INW	1.24	28	eP	53	56.69	-1.1
			eS	54	15.37	
KDC	1.56	142	eP	53	59.56	-1.8
			eS	54	19.16	
SVW	2.23	343	eP	54	08.36	-1.6
CRP	2.53	24	eP	54	12.92	-0.9
MPA	2.92	57	eP	54	16.78	-2.0
PMR	3.66	42	(P)	54	24.95	-3.9

11 obs. associated

% JAN 22, 1993 23h 18m 49.62± 0.63s
43.557 N ± 6.5km 12.156 E ± 4.7km
DEPTH = 5.0km (geophysicist)
CENTRAL ITALY (381)

CRE	0.16	296	Pc	18	53.20	0.1
			eSg	18	55.50	
SFI	0.42	329	P	18	57.50	-0.6
			eSg	19	03.50	
RSM	0.43	30	Pc	18	58.60	0.4
			eSg	19	04.50	
ARV	0.57	96	P	19	01.00	-0.1
			eSg	19	10.20	
ASS	0.61	143	P	19	01.80	0.0
			eSg	19	15.10	
PII	1.20	278	Pd	19	12.40	0.0
BDI	1.24	295	P	19	13.40	0.3
			eSg	19	28.50	

S.D. = 0.4 on 7 of 7 obs.

& JAN 23, 1993 00h 01m 25.74s
60.232 N 152.222 W
DEPTH = 85.1km
SOUTHERN ALASKA (2)
<AEIC>.

REF	0.35	317	iPc	01	38.77	-0.6
RS1	0.35	311	ePc	01	38.88	-0.5
RSO	0.35	311	iPc	01	38.80	-0.5
			eS	01	49.03	
RS2	0.35	311	ePc	01	38.85	-0.5
RDW	0.39	311	eP	01	38.87	-0.7
RDN	0.39	317	iPc	01	38.89	-0.6
			iS	01	49.27	
ILIM	0.40	248	iPd	01	38.74	-0.7
			eS	01	49.56	
DFR	0.43	328	iPc	01	39.00	-0.7
INE	0.45	248	ePd	01	39.17	-0.8
			eS	01	50.58	
NCT	0.48	314	iPc	01	39.22	-0.9
			eS	01	50.23	
INW	0.48	250	iPd	01	39.49	-0.7
			eS	01	50.65	
NKA	0.71	43	iPc	01	43.32	1.3
BRLK	0.82	124	eP	01	42.83	-0.5
			eS	01	55.95	
XLV	0.82	162	eP	01	42.68	-0.6
SPU	0.96	5	iPc	01	44.06	-0.9
			eS	01	58.45	
CKL	0.97	357	iPc	01	44.23	-0.9
CKT	0.97	0	iPc	01	44.18	-1.0
CKN	1.00	1	ePc	01	44.65	-0.7
SLKM	1.03	74	iPc	01	44.66	-1.1
			eS	02	00.24	
CP2	1.04	359	ePc	01	44.97	-1.1
BGL	1.04	356	iPc	01	44.92	-1.0
CRP	1.04	2	ePc	01	44.54	-1.5
			eS	01	57.71	
AUL	1.05	216	iPd	01	45.32	-0.6
AUE	1.05	214	iPd	01	45.19	-0.8
AUH	1.07	216	iPd	01	45.57	-0.7
AUW	1.07	217	iPd	01	45.53	-0.7
CGLM	1.08	5	iPc	01	45.67	-0.8
PDB	1.09	247	iPd	01	45.22	-1.2
			eS	02	00.40	
AUI	1.09	215	ePd	01	45.52	-0.9
			eS	02	00.75	
SEW	1.39	94	eP	01	48.53	-1.7
SUA	1.43	30	iPc	01	50.28	-0.6
			eS	02	09.57	
MPA	1.45	78	iPc	01	49.82	-1.1
CDD	1.49	210	iPd	01	50.34	-1.3
MCNL	1.50	227	iPd	01	50.40	-1.3
			eS	02	09.10	
PMS	1.66	51	P	01	52.70	-1.1
PTE	1.70	67	iPc	01	52.78	-1.5
SKT	1.79	11	iPd	01	54.09	-1.4
			eS	02	16.19	
PWA	1.83	38	iPc	01	55.15	-0.8
SVW	1.89	299	iPd	01	54.48	-2.4
PLRM	2.04	47	ePc	01	57.10	-1.7
PMR	2.04	47	ePd	01	56.66	-2.1
			eS	02	20.03	
KNK	2.19	56	iPc	01	59.13	-1.8
			eS	02	24.74	
LTI	2.19	93	ePc	01	58.78	-2.2
GHO	2.23	45	iPc	01	59.81	-1.7
KNIM	2.24	85	iPc	01	58.70	-2.9
			eS	02	25.17	
MTU	2.30	94	eP	02	00.61	-1.8
SML	2.47	48	iPc	02	02.88	-1.9
KDC	2.50	183	eP	02	02.09	-2.9
GLI	2.61	73	eP	02	03.41	-3.3
HIN	2.85	84	eP	02	06.57	-3.4
SCM	2.87	54	ePc	02	08.24	-2.1
			eS	02	42.07	
FID	2.89	77	eP	02	06.54	-4.0
VZW	2.91	71	ePc	02	07.78	-3.1
VLZ	3.03	70	eP	02	09.69	-2.8
MID	3.08	103	P	02	12.30	-0.7
CVA	3.23	82	eP	02	11.32	-3.8
TTA	3.26	328	eP	02	12.88	-2.8
KLU	3.33	65	iPc	02	14.04	-2.6
TRF	3.36	15	eP	02	15.19	-1.9
TOA	3.48	55	P	02	17.00	-1.7
RND	3.56	25	eP	02	18.10	-1.8
KAIM	3.92	91	eP	02	22.53	-2.3
SDG	3.95	51	ePc	02	23.00	-2.2
PAX	4.24	47	ePc	02	27.22	-2.1
GLB	4.29	70	ePc	02	26.73	-3.3
SNH	4.68	87	eP	02	33.40	-2.0
HDA	4.86	28	eP	02	35.43	-2.4
MLY	4.87	7	eP	02	35.60	-2.4
CCB	4.88	23	ePc	02	35.56	-2.6
BALM	4.93	76	ePc	02	35.19	-3.8
FBA	5.11	22	eP	02	38.09	-3.3
DOT	5.16	45	eP	02	39.94	-2.1
YAH	5.21	84	eP	02	40.47	-2.5
GLM	5.27	23	ePd	02	40.73	-2.9
CTGM	5.42	77	eP	02	42.76	-3.0
IMA	5.90	354	eP	02	48.43	-4.0
YKA	18.00	66	eP	05	47.00	15.6

0.7s 0.80nm
77 obs. associated

JAN 23, 1993 00h 20m 12.40± 0.31s
39.315 N ± 3.5km 24.880 E ± 2.5km
DEPTH = 14.8 ± 1.9 km
AEGEAN SEA (365)
ML 3.6 (ATH). MD 3.7 (ISK).

PRK	1.08	93	ePn	20	33.20	0.9
PAIG	1.11	304	ePb	20	32.92	0.1
			eSb	20	48.54	
EZN	1.23	65	iPn	20	35.00	0.2
OUR	1.23	326	ePb	20	34.92	0.1
			eSb	20	52.44	
ATH	1.62	215	ePn	20	39.20	-1.3

```
ALN      1.82  29 ePb    20 43.52   0.2
SOH      1.91 323 iPn    20 44.80   0.1
THE      1.97 312 iPn    20 45.38  -0.2
AGG      2.00 262 ePn    20 46.72   0.6
LIT      2.00 294 ePn    20 45.66  -0.4
SRS      2.05 332 iPn    20 46.30  -0.5
                  eSn    21 16.30
IZM      2.07 115 ePn    20 47.60   0.5
KDZ      2.37  10 iPd    20 51.00  -0.3
RZN      2.37 357 iPc    20 52.00   0.5
KNT      2.39 321 ePn    20 51.60   0.0
                  iSn    21 22.45
MMB      2.44 339 iPc    20 51.00  -1.3
GRG      2.51 312 ePn    20 53.84   0.5
EDC      2.52  65 ePn    20 53.00  -0.4
BNT      2.56  65 ePn    20 53.60  -0.5
KZN      2.59 293 ePn    20 54.40  -0.2
VAY      2.67 319 iPn    20 55.70   0.1
KCT      2.84  70 ePn    20 58.30   0.3
KKB      2.89 332 iPc    20 58.00  -0.7
DST      2.92  83 ePn    20 58.60  -0.5
VLI      3.01 211 ePn    21 00.10  -0.3
VTS      3.51 339 iPc    21 08.00   0.4
OHR      3.60 301 ePn    21 11.00   2.1
SKO      3.73 316 iPn    21 11.00   0.4
                  i      21 14.00
KHL      3.76 104 ePn    21 11.00  -0.2
PVL      3.91   5 iPc    21 12.00  -1.2
ALT      4.07  92 ePn    21 16.00   0.4
EYL      4.24  71 ePn    21 18.00  -0.1
MLR      6.22   7 eP     21 46.00   0.0
CVO      6.57   8 eP     21 45.45  -5.4X
BZS      6.74 340 eP     21 46.50  -6.7X
     S.D. = 0.7  on  33 of  35 obs.
-----------------------------------
?  JAN  23, 1993  01h 15m 49.64± 6.42s
   14.217 S ±51.8km  167.692 E ±63.2km
   DEPTH =  33.0km  (normal)
   4.5mb (  5 obs.)
 VANUATU ISLANDS                  (186)

BKM      3.47 171 iP     16 43.10   0.4
                  iS     17 26.00
PVC      3.55 170 iP     16 47.70   3.9X
DZM      7.90 188 iPc    17 43.90  -1.3
                  iS     19 12.70
ARMA    21.88 220 eP     20 42.50   0.7
        1.2s    18.00nm          4.4mb
CMS     26.40 226 iPd    21 26.10   1.1
        0.3s     3.00nm          4.4mb
STK     29.64 229 eP     21 55.20   0.8
        0.5s     8.90nm          4.8mb
WB2     32.34 255 eP     22 17.20  -1.1
        0.6s     2.90nm          4.4mb
ASPA    33.24 248 eP     22 25.60  -0.6
        0.5s     5.00nm          4.7mb
BCAO   148.09 255 ePKPd 35 35.00   3.7X
        0.5s     3.00nm
     S.D. = 1.2  on   7 of   9 obs.
-----------------------------------
   JAN  23, 1993  01h 22m 12.34± 0.99s
   31.165 S ±10.4km   69.323 W ± 8.7km
   DEPTH = 133.4 ± 13.2 km
 SAN JUAN PROVINCE, ARGENTINA     (137)
      MD 3.9 (SAN).

RTCB     0.55 126 iPd    22 32.00  -0.4
RTLL     0.75 103 iPc    22 33.10  -0.7
RTCV     0.97 136 iP     22 35.30  -0.3
                  (S)    23 48.50
CFA      1.03 116 ePc    22 36.20   0.1
                  S      22 50.20
MDZ      1.76 167 iP     22 44.90   0.8
                  iS     23 08.90
JACH     1.86 215 iP+    22 45.99   0.7
                  iS     23 10.51
PEL      2.29 210 iPd    22 50.73   0.2
                  iS     23 18.43
ROCH     2.30 218 iPd    22 51.03   0.1
                  iS     23 18.72
FCH      2.31 201 iPd    22 52.43   1.3
                  iS     23 21.42
RTPR     2.57  71 eP     22 54.90   0.8
PCH      2.65 202 iP+    22 55.96   0.8
                  eS     23 27.79
TACH     2.83 208 iP     22 57.12  -0.4
CHCH     2.98 202 iP     22 59.65   0.2
                  iS     23 34.95
LCCH     2.99 219 iP     22 58.97  -0.5
                  iS     23 33.62
LNV      3.29 212 iPd    23 02.18  -1.3
MRA      3.32 113 ePc    23 04.10   0.2
                  S      23 40.00
RFA      3.67 169 iP     23 07.30  -1.3
                  (S)    23 48.20
TCA      4.06  94 iP     23 26.00  12.2X
                  S      24 09.50
CYA      4.09  49 iPd    23 14.00  -0.3
     S.D. = 0.8  on  18 of  19 obs.
-----------------------------------
?  JAN  23, 1993  01h 30m 11.01± 6.26s
   33.863 S ±18.4km   72.122 W ±43.7km
   DEPTH =  10.0km  (geophysicist)
 OFF COAST OF CENTRAL CHILE       (134)
      MD 3.7 (SAN).

LNV      0.60  99 iPd    30 23.86   0.8
                  iS     30 32.15
LCCH     0.60  50 iPd    30 23.59   0.4
                  iS     30 31.58
TACH     1.01  78 iPd    30 29.73  -0.4
CHCH     1.22  94 iPd    30 33.50  -0.3
                  iS     30 49.60
ROCH     1.29  47 iP+    30 34.95  -0.1
                  iS     30 53.37
CACH     1.29 102 iP+    30 35.19   0.2
                  iS     30 53.25
PCH      1.36  80 eP     30 35.45  -0.7
                  iS     30 54.10
PEL      1.40  60 iPd    30 36.75   0.2
                  iS     30 55.47
FCH      1.62  71 iP+    30 39.87  -0.1
JACH     1.74  48 iP+    30 41.73   0.2
     S.D. = 0.5  on  10 of  10 obs.
-----------------------------------
   JAN  23, 1993  02h 37m 15.82± 0.67s
   40.432 N ± 5.5km   23.692 E ± 6.5km
   DEPTH =  10.0km  (geophysicist)
 GREECE                           (364)

OUR      0.24 114 ePg    37 21.44   0.5
                  eSg    37 25.41
SOH      0.47 327 iPg    37 24.72  -0.6
                  eSg    37 31.76
PAIG     0.50 181 ePg    37 25.56  -0.5
                  eSg    37 33.20
THE      0.59 290 ePg    37 27.20  -0.5
                  eSg    37 34.72
SRS      0.69 354 ePg    37 28.88  -0.6
                  eSg    37 39.64
KNT      0.95 321 ePg    37 33.52  -0.3
                  iSg    37 47.33
LIT      0.98 251 ePg    37 34.36   0.0
GRG      1.11 299 ePg    37 37.88   1.2
                  eSg    37 52.08
VAY      1.23 317 iPn    37 39.60   0.9
     S.D. = 0.8  on   9 of   9 obs.
-----------------------------------
%  JAN  23, 1993  02h 47m 09.92± 0.86s
   39.464 N ± 7.8km   27.881 E ± 8.0km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                           (366)
      MD 2.8 (ISK).

DST      0.59  76 iPg    47 22.00   0.0
                  eSg    47 31.00
KCT      0.87  25 iPg    47 27.20   0.6
                  eSg    47 39.20
EDC      0.88 359 ePg    47 26.00  -0.8
IZM      1.17 205 iPn    47 31.60  -0.2
EZN      1.25 287 iPn    47 33.60   0.4
     S.D. = 0.8  on   5 of   5 obs.
-----------------------------------
&  JAN  23, 1993  03h 03m 28.06s
   60.059 N          151.543 W
   DEPTH =  60.4km
 KENAI PENINSULA, ALASKA          ( 14)
      <AEIC>. ML 2.6 (AEIC).

BRLK     0.44 131 eP     03 39.78   0.2
                  S      03 48.56
XLV      0.61 189 eP     03 41.04  -0.4
RDT      0.67 321 eP     03 41.57  -0.6
NKA      0.70  12 iPc    03 43.88   1.4
ILIM     0.71 272 eP     03 42.16  -0.5
                  eS     03 53.01
REF      0.72 307 iPd    03 42.22  -0.7
                  iS     03 53.43
RS1      0.73 304 iPd    03 42.39  -0.6
                  S      03 53.74
RSO      0.73 304 iPd    03 42.33  -0.6
                  S      03 53.57
RS2      0.73 304 iPd    03 42.40  -0.6
                  S      03 53.75
RDN      0.76 307 iPd    03 42.47  -0.8
                  eS     03 53.60
RDW      0.76 305 iPd    03 42.69  -0.7
                  eS     03 54.29
INE      0.76 271 iPc    03 42.65  -0.7
                  S      03 54.08
DFR      0.78 314 iPd    03 42.69  -0.8
                  eS     03 54.29
INW      0.80 271 ePc    03 43.18  -0.6
                  eS     03 54.99
SLKM     0.80  55 iPc    03 42.98  -0.7
NCT      0.85 307 iPd    03 43.79  -0.7
                  eS     03 56.34
SEW      1.05  87 eP     03 46.22  -0.7
SPU      1.15 348 iPd    03 47.78  -0.6
                  eS     04 03.52
AUE      1.16 234 eP     03 47.17  -1.3
MPA      1.17  67 ePd    03 48.12  -0.4
AUL      1.17 236 eP     03 47.18  -1.4
AUH      1.19 235 eP     03 48.52  -0.4
CKT      1.19 344 iPd    03 48.34  -0.6
                  eS     04 04.42
CKL      1.21 341 iPd    03 48.55  -0.6
CKN      1.21 345 ePd    03 48.86  -0.3
                  S      04 05.17
CRP      1.25 346 iPd    03 49.50  -0.3
CP2      1.26 344 iPd    03 49.67  -0.3
                  S      04 06.42
CGLM     1.27 350 ePd    03 49.63  -0.4
BGL      1.28 341 iPd    03 49.74  -0.4
                  S      04 06.18
PDB      1.36 260 eP     03 50.39  -0.8
                  eS     04 08.16
SUA      1.46  15 eP     03 52.44  -0.3
PTE      1.49  56 ePc    03 52.48  -0.4
PMS      1.54  39 eP     03 53.78   0.1
                  eS     04 11.69
MCNL     1.67 240 eP     03 54.80  -0.6
LTI      1.85  89 eP     03 56.89  -1.1
KNIM     1.92  80 iPc    03 57.08  -1.9
SKT      1.93   0 eP     03 58.99  -0.1
PLRM     1.94  36 eP     03 59.07  -0.1
KNK      2.04  47 ePc    03 59.64  -0.9
GHO      2.14  36 eP     04 01.50  -0.6
HIN      2.54  80 eP     04 05.28  -2.3
FID      2.61  72 eP     04 05.48  -3.1
KLU      3.11  60 iPc    04 14.07  -1.7
     43 obs. associated
-----------------------------------
   JAN  23, 1993  03h 17m 54.94± 0.69s
   36.709 N ± 6.8km    5.350 W ± 6.6km
   DEPTH =  10.0km  (geophysicist)
 STRAIT OF GIBRALTAR              (385)
      mbLg 2.7 (MDD).

LIJA     0.19 345 eP     18 03.00   3.7X
ALJ      0.21 260 iP     18 01.00   1.5
EPRU     0.27  20 ePg    18 00.80   0.1
                  eSg    18 05.30
EJIF     0.27 200 ePg    18 00.00  -0.7
                  eSg    18 04.00
EHOR     1.11   4 ePg    18 15.20  -0.6
                  eSg    18 30.40
ELUQ     1.21  45 ePn    18 18.30   0.7
                  eSn    18 35.50
EVAL     1.42 308 ePn    18 19.70  -1.0
                  eSn    18 38.00
EGUA     1.44  85 ePn    18 21.00  -0.1
                  eSn    18 41.00
ECOG     1.54  68 ePn    18 22.70   0.2
                  eSn    18 43.00
     S.D. = 1.0  on   8 of   9 obs.
-----------------------------------
?  JAN  23, 1993  03h 26m 57.22± 2.89s
   5.358 N ±25.5km   71.204 W ±23.1km
   DEPTH =  33.0km  (normal)
 COLOMBIA                         (103)
```

.3d 03h

```
BMG      2.52 313 iPc    27 37.00    0.1
BOG      2.94 256 eP     27 43.00    0.0
                  eS     28 15.00
SDV      3.55   9 iPnd   27 51.10   -0.5
                  iSn    28 29.60
TOV      4.62  18 ePn    28 07.00    0.4
                  iSn    28 57.30
CEOS     4.63  38 iP     28 16.30    9.5X
                  iS     29 12.40
     S.D. = 0.6  on   4 of   5 obs.
-----------------------------------------
*  JAN  23, 1993  03h 52m 59.85± 4.07s
   45.555 N ±27.4km   15.895 E ±23.5km
   DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION        (383)
      MD 2.9 (LJU), 2.5 (TRI). ML 2.5
      (VIE). Felt (III) at Gora,
      Croatia.

ZAG      0.27  13 iPgd   53 06.00    0.5
                  iSg    53 10.00
PTJ      0.35   7 iPgd   53 06.50   -0.6
                  iSg    53 11.00
VBY      0.45 264 iPg    53 09.00    0.0
                  e(Sg)  53 14.10
CEY      1.05 281 ePn    53 19.40   -0.2
                  eSg    53 31.40
LJU      1.07 298 ePg    53 20.30    0.3
                  iSg    53 32.90
VOY      1.48 290 ePn    53 26.50   -0.1
                  eSn    53 44.20
TRI      1.50 277 ePg    53 26.90    0.1
                  eSg    53 45.60
RBL      1.85 300 P      53 32.00    0.1
                  eSg    53 56.50
KBA      2.33 312 iPgc   53 41.90    2.9X
                  iSg    54 10.50
                  i      54 11.20
FVI      2.40 297 P      53 43.10    3.3X
     S.D. = 0.4  on   8 of  10 obs.
-----------------------------------------
?  JAN  23, 1993  04h 02m 20.01± 2.36s
   37.401 N ±26.5km   13.463 E ± 9.6km
   DEPTH =  33.0km  (normal)
 SICILY                            (398)

MCT      0.27  31 P      02 40.10   12.5X
CVT      0.60 298 P      02 32.00    0.0
GIB      0.74  37 P      02 34.00   -0.1
                  eSg    02 56.20
SOI      2.16  71 P      02 54.40    0.0
SDI      4.31   4 P      03 29.60    4.7X
                  eSg    03 37.70
SFI      6.63 350 P      03 57.60    0.1
     S.D. = 0.1  on   4 of   6 obs.
-----------------------------------------
%  JAN  23, 1993  04h 09m 59.51± 1.13s
   43.139 N ± 8.4km   13.210 E ±13.2km
   DEPTH =  10.0km  (geophysicist)
 CENTRAL ITALY                     (381)

ASS      0.41 260 P      10 08.00    0.1
                  eSg    10 14.90
ARV      0.41 332 P      10 07.50   -0.4
                  eSg    10 14.10
AQU      0.80 170 P      10 13.90   -1.2
                  eSg    10 27.00
RSM      0.96 325 P      10 18.00    0.2
SDI      1.50 162 P      10 27.70    1.2
     S.D. = 1.2  on   5 of   5 obs.
-----------------------------------------
*  JAN  23, 1993  04h 11m 09.84± 2.19s
   23.092 S ±14.0km  179.301 W ±17.7km
   DEPTH = 554.5 ± 21.4 km
   4.5mb (  8 obs.)
 SOUTH OF FIJI ISLANDS             (171)

BKM     12.86 293 iPc    13 57.60    0.0
DZM     13.21 272 iPc    14 01.00   -0.1
MNG     18.02 193 eP     14 46.50   -1.6
QRZ     18.98 199 eP     14 58.80    1.7
BRS     25.59 255 iPc    15 57.00   -0.2
        0.5s     3.50nm          4.2mb
ARMA    26.91 248 eP     16 09.20    0.3
        0.9s    17.00nm          4.7mb
RMO     29.16 257 iPd    16 28.90    0.6
CMS     31.99 247 iPd    16 52.10   -0.2
        0.6s     9.00nm          4.6mb
CTA     32.12 269 iPd    16 54.00    0.5
STK     35.63 247 iPd    17 23.10    0.5
        0.5s     6.60nm          4.5mb
ASPA    42.81 260 iPd    18 20.80    0.0
        0.5s    24.60nm          5.0mb
                  iS     24 00.50
WB2     43.10 265 iPc    18 22.50   -0.6
        0.4s     4.10nm          4.3mb
                  iPcP   19 13.10
                  eS     23 04.60
WRA     43.11 265 P      18 23.00   -0.2
        0.7s     2.20nm          3.8mb
WARB    48.94 255 eP     19 07.10   -0.7
NANU    59.59 257 eP     20 22.50   -0.1
        0.4s    10.00nm          4.5mb
NAO    141.64 352 PKP    29 39.60    0.4
        0.8s     4.40nm
HFS    141.88 349 ePKP   29 39.40   -0.2
        0.3s     7.80nm
HRI    147.62 296 iPKPc  29 57.60    7.5X
EKA    147.67   4 PKP    29 59.00    9.7X
        2.3s   160.10nm
JVI    148.14 294 ePKP   29 58.80    7.9X
MBH    148.76 290 iPKPc  30 00.30    8.3X
SPC    149.73 334 ePKP   30 04.30   11.3X
KSP    149.76 340 iPKPc  30 03.70   11.0X
CLL    150.26 344 iPKPc  30 04.50   11.1X
        0.9s    28.00nm
GEC2   152.31 341 ePKPd  30 09.20   12.6X
        0.8s     2.09nm
                  e      30 22.20
LIC    162.35 161 PKP    30 14.50    5.1X
                  e      31 06.40
KIC    162.56 162 PKP    30 15.30    5.6X
                  e      31 07.40
TIC    162.75 161 PKP    30 15.00    5.1X
     S.D. = 0.8  on  17 of  28 obs.
-----------------------------------------
&  JAN  23, 1993  04h 13m 13.12s
   62.222 N          150.195 W
   DEPTH =  57.0km
 CENTRAL ALASKA                    (  1)
      <AEIC>. ML 3.1 (AEIC), 3.1
      (PMR).

CUT      0.19 349 iPd    13 21.70   -0.5
                  eS     13 28.49
PWA      0.59 165 P      13 25.50   -0.5
                  S      13 34.90
SKT      0.67 249 iPd    13 26.23   -0.8
                  iS     13 37.01
GHO      0.75 126 iPc    13 27.46   -0.6
HUR      0.80  19 iPd    13 27.88   -0.7
                  eS     13 39.50
SUA      0.80 199 iPd    13 28.31   -0.4
PLRM     0.81 141 iPc    13 27.90   -0.7
PMR      0.81 141 iPd    13 27.59   -1.0
SML      0.97 114 iPc    13 30.08   -0.8
                  eS     13 45.34
PMS      1.03 163 P      13 31.20   -0.4
KNK      1.16 134 iPc    13 32.87   -0.5
                  eS     13 49.92
TRF      1.23 358 iPd    13 33.60   -1.0
                  eS     13 49.74
CGLM     1.26 224 iPd    13 34.17   -0.7
CRP      1.34 225 eP     13 34.62   -1.4
                  eS     13 50.34
RND      1.34  27 ePd    13 34.89   -1.0
CP2      1.37 226 eP     13 35.50   -1.0
SPU      1.37 221 eP     13 35.55   -0.8
                  eS     13 54.03
CKN      1.38 224 eP     13 36.41    0.0
CKT      1.40 224 eP     13 36.34   -0.5
SCM      1.41 105 iPc    13 36.57   -0.3
                  eS     13 55.95
BGL      1.42 228 eP     13 36.31   -0.8
CKL      1.45 226 eP     13 36.99   -0.5
PTE      1.47 157 iPd    13 37.11   -0.6
                  eS     13 56.71
CFI      1.56 131 eP     13 38.77   -0.1
NKA      1.57 199 eP     13 40.98    2.0
MCK      1.62  20 eP     13 39.10   -0.7
SLKM     1.72 180 eP     13 40.32   -0.9
MPA      1.78 167 eP     13 41.01   -1.0
                  eS     14 03.60
TOA      1.89  92 P      13 43.70    0.1
GLI      2.00 131 ePd    13 44.24   -0.9
DFR      2.03 217 eP     13 45.27   -0.3
VZW      2.09 122 eP     13 45.57   -0.9
RDN      2.11 217 eP     13 47.15    0.4
                  eS     14 13.67
REF      2.12 216 ePd    13 46.85    0.0
NCT      2.12 220 eP     13 46.86    0.0
VLZ      2.14 119 ePd    13 45.59   -1.4
RDW      2.15 217 eP     13 47.55    0.2
KLU      2.15 108 iPd    13 46.18   -1.1
RS2      2.15 216 eP     13 47.61    0.2
RSO      2.15 216 eP     13 47.54    0.1
SEW      2.16 170 eP     13 47.19    0.0
RS1      2.16 216 eP     13 47.65    0.2
                  eS     14 15.30
SDG      2.19  80 eP     13 47.68   -0.1
KNIM     2.22 147 iPd    13 46.07   -2.1
TZL      2.25  92 eP     13 48.47   -0.1
PAX      2.31  69 eP     13 49.30   -0.2
FID      2.32 128 eP     13 47.83   -1.7
NEA      2.42  12 eP     13 48.92   -2.0
LTI      2.47 152 ePc    13 49.53   -2.1
ILIM     2.53 213 eP     13 52.53   -0.1
HIN      2.56 134 eP     13 51.22   -1.7
MTU      2.56 150 eP     13 51.07   -1.9
INE      2.58 214 eP     13 54.10    0.8
INW      2.59 215 eP     13 53.84    0.4
HDA      2.64  32 iPc    13 52.73   -1.3
CCB      2.66  23 iPd    13 52.65   -1.7
CVA      2.72 126 eP     13 53.57   -1.6
TTA      2.78 287 ePd    13 54.07   -2.2
SVW      2.82 249 (P)    13 54.70   -2.0
XLV      2.88 196 eP     13 58.28    0.8
MDM      2.88  17 iPd    13 55.90   -1.7
FBA      2.90  21 eP     13 55.70   -2.1
SGAM     2.96 124 P      14 01.00    2.3
GLM      3.05  23 ePd    13 58.14   -1.8
PDB      3.12 220 eP     14 00.26   -0.7
GLB      3.13 102 ePd    13 59.28   -1.8
DOT      3.15  60 eP     14 01.97    0.6
RAGM     3.24 122 eP     14 03.00    0.4
AUL      3.26 211 P      14 04.30    1.4
AUE      3.27 210 P      14 04.50    1.5
AUH      3.28 210 eP     14 04.58    1.3
AUI      3.30 210 P      14 04.60    1.1
MCNL     3.66 216 eP     14 08.94    0.4
CDD      3.72 209 eP     14 09.13   -0.2
BALM     3.93 104 ePc    14 09.93   -2.5
SNH      4.11 117 eP     14 13.45   -1.4
IMA      4.15 340 eP     14 12.94   -2.6
CYK      4.31 116 eP     14 16.10   -1.5
CTGM     4.42 103 eP     14 17.40   -1.9
YAH      4.48 111 eP     14 18.07   -2.2
        80 obs. associated
-----------------------------------------
   JAN  23, 1993  04h 30m 30.62± 0.64s
   20.072 S ± 6.7km  169.738 E ± 7.2km
   DEPTH = 282.9 ±  5.6 km
   4.9mb ( 22 obs.)
 VANUATU ISLANDS                   (186)

PVC      2.68 330 iPd    31 22.30   -0.1
                  iS     32 01.80
BKM      2.78 329 iPd    31 22.30   -1.1
                  iS     32 01.00
DZM      3.66 237 iPc    31 33.30    0.5
                  iS     32 23.00
MBU      9.06  72 eP     32 38.60    0.5
BRS     17.14 242 iPd    34 15.00    0.5
                  i      34 19.00
ARMA    19.33 234 eP     34 38.00    1.2
        0.6s     9.00nm          4.3mb
RMQ     20.29 248 iPd    34 48.10    1.8
        0.9s    40.00nm          4.8mb
MNG     21.06 168 P      34 53.90    0.3
        0.6s    89.00nm          5.3mb
PGZ     21.23 166 P      34 55.00   -0.2
LTZ     22.74 175 P      35 09.90    0.0
        0.7s    29.00nm          4.8mb
CNB     23.51 226 iPd    35 18.00    0.8
        0.6s    17.00nm          4.7mb
PMG     24.24 293 eP     35 23.90   -0.1
        0.9s    77.31nm          5.2mb
TOO     27.36 225 eP     35 52.20    0.1
        0.5s     4.00nm          4.2mb
STK     27.82 239 iPd    35 56.30    0.0
        0.7s     3.30nm          4.0mb
```

```
WB2     33.21 264 iPc    36 41.80  -1.6
        0 5s      4.60nm          4.3mb
                   iPcP  39 18.00
                   eS    41 47.00
                   eScP  42 37.40
WRA     33.22 264 P      36 42.00  -1.5
        0.6s      3.20nm          4.1mb
ASPA    33.40 257 iPd    36 43.90  -1.0
        0.5s    137.10nm          5.8mb
                   iS    41 42.50
MTN     37.65 275 eP     37 20.00  -0.7
        0.4s    146.00nm          5.8mb
WARB    39.96 253 eP     37 39.20  -0.4
MEEK    47.14 252 iPd    38 36.30  -0.6
        0.4s     17.00nm          4.7mb
MUN     49.11 245 eP     38 51.00  -0.9
NANU    50.33 257 eP     39 01.00  -0.3
SSE     68.99 316 Pd     41 07.00  -0.6
NJ2     71.13 316 eP     41 20.50   0.0
DL2     73.96 323 eP     41 37.30   0.5
        1.0s     62.00nm          5.3mb
MDJ     74.07 331 Pc     41 37.90   0.5
        1.0s     18.00nm          4.8mb
TIA     74.87 318 Pc     41 42.30   0.2
        1.0s     28.00nm          4.9mb
CN2     75.41 329 Pd     41 45.30   0.4
        0.9s     42.00nm          5.2mb
NST     77.06 292 eP     42 04.40   9.8X
BJI     77.88 321 eP     41 59.50   0.9
        1.0s     15.00nm          4.7mb
TIY     78.76 317 Pd     42 04.80   1.2
XAN     79.02 312 Pd     42 10.30   5.3X
        0.9s     21.00nm          4.9mb
CHG     79.42 294 eP     42 08.80   1.4
HHC     81.16 319 Pc     42 17.60   1.4
        1.0s     14.00nm          4.7mb
LZH     83.63 312 iPd    42 30.50   1.5
        1.4s     42.00nm          5.1mb
GTA     88.04 313 P      42 51.00   0.6
        1.0s     22.00nm          5.0mb
GUN     94.01 298 PKP    43 19.00   0.5
PKI     94.28 298 PKP    43 20.00   0.3
KKN     94.46 298 PKP    43 20.60   0.2
DMN     94.54 298 PKP    43 21.40   0.6
GKN     95.07 298 PKP    43 23.00  -0.1
KSP    142.84 332 iPKPc  49 28.10  -3.7X
RZN    143.41 314 iPKP   49 30.00  -3.3X
CLL    143.86 335 iPKPd  49 31.40  -2.1
        1.0s     42.00nm
SRO    143.94 327 ePKP   49 32.10  -1.6
VTS    144.01 316 iPKPd  49 30.00  -4.2X
MMB    144.12 314 iPKPd  49 33.00  -1.3
PRU    144.23 332 PKPd   49 33.00  -1.2
        0.9s     14.00nm
ZST    144.30 328 ePKP   49 33.30  -1.0
EKA    144.39 353 PKPd   49 32.30  -1.9
        0.5s     13.10nm
SRS    144.42 314 ePKP   49 32.74  -2.1
KKB    144.43 315 iPKP   49 34.00  -0.8
OUR    144.48 312 iPKP   49 33.30  -1.6
SOH    144.71 313 ePKP   49 33.78  -1.6
PAIG   144.86 312 ePKP   49 34.98  -0.6
KNT    144.87 314 ePKP   49 34.22  -1.3
MOX    144.93 336 ePKP   49 35.50   0.1
        1.4s     56.00nm
                   e     49 53.00
HOF    145.09 335 ePKP   49 35.80   0.1
KHC    145.29 332 PKPd   49 36.50   0.5
        1.3s     27.20nm
                   e     49 44.50
                   e     50 20.50
GRG    145.30 314 ePKP   49 35.62  -0.7
GEC2   145.44 332 ePKPd  49 35.80  -0.6
        0.6s     12.26nm
                   e     49 39.70
                   e     49 46.70
LIT    145.62 313 ePKP   49 36.70  -0.2
GRF    145.84 335 iPKPd  49 38.40   1.5
FNA    146.07 314 ePKP   49 38.74   1.1
AGG    146.19 311 ePKP   49 37.90   0.0
OHR    146.30 315 iPKP   49 39.30   1.3
KBA    146.90 330 iPKPc  49 40.40   1.5
        0.6s     10.00nm
                   i     49 46.60
FUR    147.01 333 iPKPc  49 44.50   5.6X
VBY    147.05 326 iPKP   49 41.70   2.7X
RBL    147.25 329 PKP    49 41.20   1.8
```

```
VOY    147.38 328 iPKP   49 41.70   2.1
SNF    147.51 343 PKP    49 42.70   3.2X
FVI    147.52 330 PKP    49 41.50   1.9
                  eSg    49 45.70
WLF    147.70 340 PKPc   49 44.00   4.2X
DOU    147.80 342 PKP    49 43.60   3.6X
BCAO   147.94 245 iPKPd  49 44.00   2.6X
        0.3s     18.00nm
                  ic     49 47.80
CDF    148.39 337 iPKPd  49 44.80   3.7X
        0.9s     10.95nm
CTI    148.45 330 PKP    49 45.50   4.2X
SLE    148.46 335 ePKPd  49 44.40   3.2X
OSS    148.65 333 iPKPd  49 45.80   4.1X
LLS    148.99 334 ePKPd  49 46.30   4.0X
BSF    149.05 337 iPKPd  49 46.30   4.1X
        1.0s     11.60nm
HAU    149.06 338 iPKPd  49 46.40   4.3X
        0.7s      9.25nm
VDL    149.09 333 ePKPd  49 46.80   4.4X
RSM    149.58 327 PKP    49 48.70   5.8X
                  eSg    49 56.00
TMA    149.65 333 ePKPd  49 47.80   4.5X
VAI    149.88 333 PKP    49 47.80   4.5X
                  eSg    49 55.10
SFI    149.90 327 PKP    49 49.60   6.2X
                  eSg    49 56.40
MMK    150.07 334 PKPd   49 49.30   5.3X
SGO    150.11 319 PKP    49 48.40   4.6X
AQU    150.13 323 PKP    49 49.40   5.5X
MGR    150.20 318 PKP    49 48.30   4.3X
                  eSg    49 52.60
DIX    150.27 335 ePKPd  49 49.90   5.6X
FLN    150.31 347 ePKP   49 49.20   5.3X
        0.5s     13.10nm
SDI    150.31 322 PKP    49 49.20   5.0X
LDF    150.39 346 iPKPd  49 49.30   5.3X
        0.6s      9.00nm
BDI    150.42 329 PKP    49 48.60   4.3X
EMS    150.47 335 ePKPd  49 50.00   5.5X
LOR    150.53 340 iPKPd  49 50.00   5.7X
        0.7s     11.35nm
LBF    150.75 340 ePKP   49 50.30   5.6X
        1.0s      7.80nm
GRR    150.75 347 ePKP   49 50.30   5.7X
        0.7s     16.55nm
SSF    150.83 340 iPKPd  49 50.70   5.9X
        1.0s     20.80nm
SOI    150.99 314 PKP    49 51.50   6.3X
LPL    151.00 335 iPKPd  49 51.70   6.3X
        0.7s      9.70nm
LPG    151.01 335 iPKPd  49 51.70   6.2X
        0.7s     11.25nm
LPF    151.13 347 iPKPd  49 51.30   6.2X
        0.6s     18.30nm
BGF    151.48 341 iPKPd  49 52.00   6.2X
        0.7s      8.95nm
TCF    151.92 341 iPKPd  49 53.10   6.7X
        0.8s      6.45nm
LSF    152.15 342 ePKP   49 53.30   6.5X
        0.6s      4.95nm
MFF    152.27 345 iPKPd  49 53.70   6.8X
        0.5s      1.80nm
PGF    152.33 328 iPKPd  49 54.10   6.9X
        0.6s     21.80nm
      S.D. = 1.1  on  65 of 111 obs.
-----------------------------------
%  JAN  23, 1993  04h 54m 00.70± 0.74s
   26.888 S ± 7.4km   26.729 E ± 5.9km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA          (584)
      ML 2.4 (PRE).

BFS      0.05 101 eP     54 02.60   0.3
                  S      54 03.20
PRY      0.67  94 eP     54 14.00   0.0
                  S      54 20.00
KSR      1.03   8 eP     54 20.50  -0.3
                  S      54 35.00
SWZ      1.29 257 eP     54 25.30   0.2
                  S      54 41.10
SEK      1.64 151 eP     54 30.00  -0.4
                  S      54 50.00
SLR      1.81  51 eP     54 33.00   0.2
                  S      54 56.00
      S.D. = 0.4  on   6 of   6 obs.
-----------------------------------
```

```
?  JAN  23, 1993  04h 57m 55.20± 7.04s
   27.812 S ±51.6km   68.865 W ±37.6km
   DEPTH = 202.9 ± 46.7 km
 CHILE-ARGENTINA BORDER REGION    (127)

CYA      2.78 104 iPc    58 43.00   0.1
RTPR     3.23 141 ePc    58 47.50  -0.6
RTLL     3.52 174 e(P)   58 52.00   0.2
RTCB     3.66 179 eP     58 53.80   0.3
CFA      3.82 172 ePc    58 55.50   0.1
RTCV     4.05 176 eP     58 57.90  -0.3
                  (S)    59 41.80
TCA      5.12 134 iP     59 24.20  12.3X
                  S      00 18.00
MRA      5.34 150 ePc    59 15.10   0.5
RFA      6.95 177 e(P)   59 35.20  -0.3
      S.D. = 0.5  on   8 of   9 obs.
-----------------------------------
?  JAN  23, 1993  05h 44m 32.41± 5.68s
   18.897 N ±36.8km   67.145 W ±29.9km
   DEPTH =  29.6 ±  9.2 km
 MONA PASSAGE                       ( 89)

APR      0.59 138 P      44 44.50   0.2
LRS      0.66 155 P      44 45.20  -0.3
                  S      44 56.50
MGP      0.89 177 P      44 48.80   0.1
PORP     0.97 150 P      44 50.00   0.0
SJG      1.23 129 iP     44 53.80   0.2
LPR      1.34 116 (P)    44 55.00  -0.3
CPD      1.45 126 P      44 57.00   0.2
      S.D. = 0.3  on   7 of   7 obs.
-----------------------------------
   JAN  23, 1993  05h 53m 23.98± 1.64s
    5.274 S ± 6.5km  150.674 E ±11.4km
   DEPTH = 201.2 ± 15.7 km
   4.9mb ( 17 obs.)
 NEW BRITAIN REGION, P.N.G.       (192)

PMG      5.39 220 eP     54 42.00  -2.0
        1.0s    260.00nm          5.3mb
CTA     15.34 196 iPc    56 52.00   0.4
        1.0s    100.00nm          5.2mb
GUA     19.55 343 eP     57 38.50   0.1
        0.9s    228.57nm          5.7mb
MTN     20.70 247 eP     57 50.00   0.1
        0.4s     38.00nm          5.3mb
RMO     21.18 185 iPc    57 55.70   1.1
WB2     21.56 226 iPc    57 58.90   0.6
        0.5s     83.00nm          5.5mb
                  eS     01 48.20
BRS     22.09 175 iPd    58 04.60   1.2
        0.6s     10.00nm          4.5mb
                  e      58 07.00
                  e      58 15.00
DZM     22.62 139 iPc    58 09.20   0.5
ASPA    24.40 220 eP     58 26.00   0.4
        0.8s     43.20nm          5.1mb
                  eS     02 31.50
ARMA    25.03 178 eP     58 32.10   0.7
        0.7s     11.00nm          4.6mb
MEEK    37.24 232 iPd    00 18.30   0.3
        0.4s     46.00nm          5.5mb
MRWA    40.52 230 iPd    00 45.00   0.0
        0.4s     15.00nm          4.9mb
BAL     40.68 228 eP     00 46.00  -0.3
        0.3s      6.00nm          4.6mb
KAGJ    40.89 334 eP     00 49.10   1.2
MUN     41.77 226 eP     00 55.00  -0.2
KUMJ    42.07 335 P      00 58.80   1.2
SHNJ    43.33 336 P      01 08.30   0.6
TIA     51.87 325 eP     02 13.70  -0.2
BJI     55.14 328 eP     02 38.00   0.3
        1.5s     34.00nm          4.9mb
XAN     55.53 318 P      02 40.60  -0.1
        0.8s     16.00nm          4.8mb
TIY     55.62 324 eP     02 41.40   0.1
CD2     57.45 312 eP     02 54.80   0.5
HHC     58.22 326 Pd     03 00.80   1.3
        1.2s     20.00nm          4.7mb
BTO     58.93 325 eP     03 03.80  -0.6
LZH     60.11 317 Pc     03 13.50   0.9
        1.5s     32.00nm          4.8mb
GTA     64.58 318 P      03 42.50   0.5
        1.0s      5.00nm          4.3mb
GUN     70.56 302 P      04 19.80   0.0
PKI     70.86 301 P      04 19.56  -2.0
```

23d 06h

```
KKN     71.03 302 P      04 22.30  -0.2
DMN     71.13 301 P      04 22.80  -0.3
GKN     71.64 302 P      04 25.82  -0.2
WMQ     74.66 318 eP     04 42.00  -1.1
YKA     96.83  28 eP     06 31.70  -1.0
        0.7s      0.70nm          4.1mb
GEC2   123.33 327 ePKP   11 58.20  -0.4
        0.8s      1.08nm
                  e      12 10.50
BCAO   132.31 271 iPdiff09 10.00  -1.9X
        0.7s      6.00nm
CNCB   135.94 121 ePKP   12 18.00  -6.2X
ZOBO   136.04 120 PKP    12 21.00  -3.5
VAO    147.03 149 ePKP   12 46.10   3.2X
BAO    152.19 139 e(PKP)12 57.00   6.0X
                  e      12 58.50
                  e      13 09.00
                  e      13 41.30
     S.D. = 1.0  on  35 of  39 obs.
-----------------------------------
?  JAN  23, 1993  06h 01m 18.20± 2.54s
   5.798 N ±33.4km   77.609 W ±22.2km
   DEPTH =  33.0km  (normal)
   4.2mb (  2 obs.)
 NEAR WEST COAST OF COLOMBIA      (102)

UPA      3.69 329 ePd    02 14.86   0.5
                  eS     02 57.43
BOG      3.72 108 eP     02 15.00   0.0
                  eS     03 01.50
ECO      4.10 330 ePc    02 19.73  -0.5
                  eS     03 06.64
BMG      4.68  74 iPd    02 28.50   0.0
YKA     62.75 342 eP     11 34.70  -7.6X
        0.7s      1.30nm          4.2mb
GEC2    86.54  41 ePc    13 53.70  -5.7X
        0.9s      1.33nm          4.2mb
WRA    145.92 243 PKP    21 01.50   5.3X
        0.9s      0.40nm
     S.D. = 0.7  on   4 of   7 obs.
-----------------------------------
   JAN  23, 1993  08h 59m 25.06± 0.14s
   24.114 N ± 2.9km  121.709 E ± 3.0km
   DEPTH =  28.7km  ( 13 depth phases)
   5.4mb (104 obs.)  5.4Msz ( 34 obs.)
 TAIWAN                           (244)
      Mw 5.7 (HRV). ML 5.3 (BJI).
      CENTROID, MOMENT TENSOR     (HRV)
      Data Used: GDSN
      L.P.B.: 27S, 46C
      Centroid Location:
      Origin Time        08:59:30.1 0.2
      Lat 24.22N 0.03 Lon 122.00E 0.03
      Dep  29.8 2.1 Half-duration  1.8
      Moment Tensor;   Scale 10**17 Nm
        Mrr= 1.51 0.06  Mtt= 0.34 0.10
        Mff=-1.86 0.11  Mrt= 0.45 0.14
        Mrf= 3.73 0.25  Mtf=-1.12 0.07
       Principal Axes:
        T  Val=  3.93  Plg=56  Azm=263
        N        0.62      10        9
        P       -4.55      31      106
      Best Double Couple:Mo=4.2*10**17
       NP1:Strike=228 Dip=17 Slip= 130
       NP2:          7     77       79

QZH      2.96 287 iPnc   00 10.80  -0.3
     Z  12s    135.00um
                  Sn     00 45.50
SSE      6.97 356 Pnd    01 06.20  -1.6
        0.6s    100.00nm          6.0mb
     Z  15s     20.20um
                  Sn     02 22.50
HKC      7.16 257 iP     01 10.60   0.0
                  iS     02 38.00
BAG      7.74 188 ePc    01 18.90   0.1
        1.0s    220.00nm          6.2mb
                  e      02 40.00
GZH      7.74 264 Pc     01 17.40  -1.2
     Z  14s     60.90um
     E  11s     45.00um
MCO      7.76 257 iP     01 18.20  -0.7
NJ2      8.30 343 Pc     01 24.00  -2.4
        0.5s    140.00nm          6.4mb
     Z  15s     19.20um          3.6Msz
                  S      02 55.00
WHN      9.15 316 Pc     01 36.00  -2.2
     Z  12s     57.20um
QIZ     12.14 248 P      02 20.20   1.1
        1.0s     60.00nm          5.7mb
     N  15s     10.30um
     E  13s      6.26um
                  S      04 31.40
TIA     12.69 343 eP     02 24.90  -1.4
     Z  14s     27.70um
GYA     13.81 283 iPc    02 41.00  -0.3
        1.0s    150.00nm          5.7mb
     Z  16s     48.20um
     N  12s     39.40um
     E  12s     20.20um
                  PP     02 51.80
SHK     14.11  40 eP     02 53.00   7.9X
DL2     14.75 360 P      02 57.00   3.6X
        0.8s     98.00nm          5.3mb
     Z  20s      4.92um          5.4Msz
     N  10s      3.36um
     E  11s      9.68um
XAN     14.91 314 Pc     02 55.50  -0.2
     Z  16s     28.80um
                  pP     03 03.00
TIY     15.71 332 eP     03 07.20   1.3
     Z  14s     29.20um
     N  10s     15.80um
BJI     16.55 345 eP     03 18.50   1.9
        1.5s    120.00nm          4.8mb
     Z  12s     11.50um          5.7MszX
     N  12s      7.32um
                  eS     06 22.00
KMI     17.28 277 Pc     03 26.00  -0.1
     Z  14s     65.10um
                  sP     03 40.00
CD2     17.29 297 eP     03 26.00  -0.1
     Z  15s     39.10um
DAV     17.33 167 eP     03 30.80   4.2X
SNY     17.73   5 Pc     03 32.00   0.6
     Z  14s      9.14um
     E  14s     13.80um
                  pP     03 44.20
                  S      06 45.00
                  sS     06 54.00
KKM     18.73 197 iPd    03 45.30   1.3
        1.8s   1170.70nm          5.8mb
HHC     18.73 335 Pc     03 45.50   1.7
        1.4s    110.00nm          4.9mb
     Z  18s     17.50um          4.5Msz
     N  13s      9.15um
                  pP     03 52.00
                  S      07 08.00
MAT     18.84  45 eP     03 42.00  -3.2X
        0.8s     20.90nm          4.4mb X
     Z  21s      9.68um          5.4MszX
                  eS     07 00.00
BTO     19.14 332 P      03 49.00   0.2
     N  13s     23.20um
     E  12s     14.00um
                  sP     03 58.00
                  ScP    11 47.00
LZH     19.49 312 iPc    03 53.50   0.5
        2.5s    820.00nm          5.6mb
     Z  16s     13.00um          5.3MszX
     E  13s     16.10um
                  sP     04 02.00
                  S      07 27.00
                  sS     07 37.00
LOE     19.83 254 iPd    03 58.10   1.6
                  e      10 18.00
CN2     19.88   8 eP     03 56.50  -0.4
        1.0s     66.00nm          4.9mb
     Z  16s      6.60um          5.1MszX
     N  11s      3.41um
     E  11s      5.45um
                  epP    04 01.50  19km
                  esP    04 06.00
                  eS     07 34.00
TSM     20.05 191 eP     03 58.90   0.0
VLA     20.74  21 iPd    04 06.50   0.7
        1.5s    129.00nm          5.1mb
     N  14s      9.50um
     E  14s      2.50um
                  i      04 28.00 108kmX
                  i      04 39.00
                  e      08 18.00
                  iSS    08 38.00
MDJ     21.44  16 eP     04 13.00   0.0
        1.5s    160.00nm          5.2mb
     Z  22s      8.27um          5.1Msz
     N  25s     22.60um
     E  27s     88.80um
                  S      08 06.00
CHG     21.82 260 iPc    04 18.00   1.0
        1.4s    267.44nm          5.5mb
                  eS     08 28.50
NST     21.94 251 eP     04 28.00   9.9X
BDT     22.30 256 eP     04 24.00   2.3
KHT     23.66 251 eP     04 30.00  -5.0X
GTA     23.97 315 iPc    04 39.00   0.9
        1.5s    250.00nm          5.5mb
     Z  15s     29.90um          5.9MszX
     E  12s      7.06um
                  pP     04 46.00  25km
                  S      08 54.00
                  sS     09 00.00
PJG     24.25 111 eP     04 42.50   1.7
                  TT     28 25.50
GUA     24.31 111 eP     04 41.50   0.1
        1.3s   1569.23nm          6.4mb
HOOJ    25.52  39 eP     04 42.30 -10.4X
SNG     26.32 234 eP     05 00.20  -0.1
                  eS     09 32.80
LSA     27.76 288 Pc     05 15.20   1.2
        1.2s     52.00nm          5.1mb
     Z  18s     21.90um          5.8Msz
     E  12s      7.92um
                  pP     05 28.00  51kmX
IPM     27.82 229 ePc    05 13.80  -0.3
        1.0s    189.70nm          5.7mb
KGM     28.27 222 ePd    05 18.90   0.8
YSS     28.36  31 iPd    05 16.20  -2.4
        1.0s     80.00nm          5.4mb
     Z  16s      5.90um          5.3MszX
     N  16s      3.90um
     E  16s      2.00um
                  esP    05 27.60
                  ePPP   06 25.00
                  (S)    10 00.00
CIT     28.53 349 eP     05 19.50  -0.7
     Z  14s      8.92um          5.5MszX
     N  14s      7.00um
ZAK     29.88 336 iPc    05 30.80  -1.4
     Z  16s      9.90um          5.5MszX
     N  16s      5.82um
     E  18s      6.30um
                  eS     10 20.00
IRK     31.09 339 ePc    05 41.00  -2.0
        1.4s     90.00nm          5.4mb
     Z  15s      9.66um          5.6MszX
     N  15s      6.22um
     E  14s      3.17um
                  e      05 49.00  28km
                  e      06 48.00
                  eS     10 44.00
                  e      10 59.00
MOY     31.79 335 eP     05 48.00  -1.0
        1.3s     60.00nm          5.3mb
GUN     32.35 285 P      05 54.42  -0.2
PKI     32.78 284 P      05 57.82  -0.5
KKN     32.88 284 P      05 58.70  -0.4
        0.8s    142.00nm          5.9mb
DMN     33.04 284 P      06 00.12  -0.5
GKN     33.45 285 P      06 03.14  -0.8
WMQ     34.05 314 P      06 08.50  -0.4
        2.0s     39.00nm          5.0mb
     Z  14s     13.00um          5.8MszX
     N  11s      7.32um
                  pP     06 17.00  29km
                  sP     06 22.80
                  PP     07 24.00
                  PcP    08 42.00
                  S      11 32.00
                  sS     11 49.00
                  PcS    12 30.00
                  eSS    13 38.00
BOD     34.14 353 eP     06 07.10  -2.3
        1.4s     16.00nm          4.8mb
UER     34.64 329 iPc    06 12.00  -1.7
        1.5s     56.00nm          5.3mb
     Z  14s     20.80um          6.0MszX
     N  14s      5.00um
     E  14s     16.50um
                  e      08 50.00
                  eS     11 40.00
```

23d 09h

```
MTN     37.87 165 iPc    06 39.00  -2.4
         0.5s   140.00nm          6.1mb
YAK     38.28   6 eP     06 43.40  -0.9
         1.5s    83.00nm          5.3mb
      Z  17s     4.80um          5.4MszX
      N  15s     3.00um
      E  12s     2.20um
                  e      08 07.00 446kmX
                  eS     12 32.00
                  ePS    12 50.00
                  eSS    15 15.00
                  i      16 48.00
ELT     39.46 327 iPc    06 54.50   0.2
         2.0s   129.00nm          5.3mb
      Z  14s     7.10um          5.7MszX
      N  14s     4.60um
      E  14s     6.00um
                  i      08 23.00 477kmX
                  eS     12 52.00
PRZ     40.07 308 eP     07 02.00   2.2
         1.7s   140.00nm          5.4mb
      Z  13s     6.20um          5.6MszX
      E  13s     8.40um
PET     40.10  34 eP     07 07.00   7.5X
      Z  22s     7.30um          5.5Msz
                  e      13 08.00
                  e      16 00.00
                  e      17 00.00
HYB     40.78 269 ePc    07 06.50   0.8
         1.1s    62.50nm          5.3mb
RAB     40.88 129 eP     07 08.00   1.6
MGD     41.27  22 eP     07 08.00  -1.1
         1.5s    60.00nm          5.1mb
      Z  20s     4.40um          5.3Msz
      N  18s     4.20um
      E  18s     3.00um
                  e      09 08.00
                  eS     13 18.00
KSH     41.33 303 P      07 12.50   2.5
         1.4s   190.00nm          5.6mb
      Z  16s    15.50um          6.0MszX
      N  13s     8.46um
      E  16s    13.50um
                  ePP    08 51.00
                  PcP    09 08.00
                  eS     13 20.00
                  eSS    16 20.00
                  ScS    17 10.00
PMG     41.57 140 iPd    07 12.00   0.0
         1.0s   320.00nm          6.0mb
FRU     42.88 308 eP     07 20.00  -2.6X
         2.2s   120.00nm          5.2mb
      Z  20s     5.80um          5.5Msz
      E  20s     7.50um
                  e      07 35.20  59kmX
GBA     43.02 264 Pc     07 25.00   1.0
POO     44.76 272 iPc    07 37.50  -0.7
WRA     45.49 163 P      07 42.20  -1.6
         0.5s    9.70nm          5.0mb
WB2     45.49 163 iPc    07 41.90  -1.9
         0.6s   104.20nm          5.9mb
                  eS     14 17.40
NANU    46.78 188 iPc    07 53.20  -0.7
         0.4s    19.00nm          5.4mb
TIK     47.72   3 iPd    07 59.40  -1.4
         2.0s   184.00nm          5.8mb
      Z  16s     5.00um          5.6MszX
                  i      08 09.00  32km
                  i      08 17.00
                  e      09 57.00
                  iS     14 51.00
                  i      17 45.00
BRVK    48.10 321 iPc    08 03.00  -1.1
         1.4s    72.00nm          5.5mb
                  eS     15 02.00
SMY     48.58  40 P      08 20.00  12.3X
      Z  20s     2.60um          5.2Msz
ASPA    48.95 165 eP     08 09.80  -1.1
         1.0s    65.30nm          5.6mb
      Z  20s     0.60um          4.6Msz
                  iS     15 11.60
                  eScS   17 55.70
NRI     49.51 345 iPd    08 12.00  -2.6X
         1.8s    35.00nm          5.1mb
                  e      08 20.00  27km
                  e      09 35.00
                  eS     15 34.00
CTA     50.02 149 iPd-   08 19.00  -0.1
         1.0s   650.00nm          6.6mb X
      Z  24s     9.30um          5.7MszX
                  i      08 28.00  30km
                  iS     15 30.00
HNR     50.06 127 e(P)   08 24.00   4.5X
MEEK    50.54 184 eP     08 20.00  -3.0X
         0.5s    24.00nm          5.4mb
MRWA    53.31 186 eP     08 41.00  -2.7X
         0.4s    10.00nm          5.1mb
ADK     53.98  42 e(P)   08 46.50  -1.9
MAIO    54.30 298 iPc    08 52.00   0.8
         1.2s    41.67nm          5.3mb
                  eS     16 34.00
SVE     54.38 324 iPd    08 52.00   0.6
         2.4s   200.00nm          5.7mb
      Z  16s     6.50um          5.8MszX
      N  16s     1.00um
      E  16s     4.50um
                  e      09 48.00 254kmX
                  ePS    16 28.00
                  e      18 31.00
ASH     55.06 300 eP     08 57.00   0.3
         1.5s   330.00nm          6.1mb
                  e      09 11.00  51kmX
                  e      16 43.00
ARU     55.43 323 eP     08 57.00  -2.0
      Z  16s     2.50um          5.4MszX
      E  16s     2.00um
                  e      09 02.00  16kmX
                  e      09 12.00
KLB     55.52 184 iPc    08 58.00  -1.9
         0.6s    15.00nm          5.2mb
MUN     56.02 186 iPc    09 01.60  -1.9
         1.0s    60.00nm          5.6mb
KAT     56.58 302 iP+    09 08.00   0.5
                  i      09 13.00  16kmX
                  i      09 22.00
                  e      10 02.00
                  eS     16 59.00
RMQ     56.69 151 iPc    09 08.10  -0.3
         1.2s   132.00nm          5.8mb
RKG     58.53 185 iPc    09 20.20  -1.0
         0.5s    18.00nm          5.4mb
STK     58.84 160 eP     09 21.80  -1.6
         0.6s    29.00nm          5.6mb
BRS     59.34 148 iPc    09 26.00  -1.0
         1.1s     6.00nm          4.6mb
                  e      10 34.00 309kmX
                  e      11 35.00
CMS     59.91 156 iPc    09 30.20  -0.6
         0.9s     8.00nm          4.8mb
ADE     60.93 164 eP     09 36.90  -0.8
ARMA    61.35 151 eP     09 36.80  -4.0X
         0.8s    19.00nm          5.3mb
DZM     63.24 133 iPc    09 53.10  -0.3
SDN     63.65  39 ePd    09 52.82  -2.8X
         0.6s    47.65nm          5.8mb
GRO     63.97 308 iPc    09 57.00  -1.0
         2.0s   360.00nm          6.1mb
      N  14s     3.00um
      E  18s    10.00um
                  eS     18 30.00
BFD     64.04 162 iPc    09 57.10  -1.3
         0.7s    36.00nm          5.6mb
GRS     64.16 304 iPc    09 59.00  -0.5
         1.2s    60.00nm          5.6mb
      Z  15s     0.86um          5.1MszX
      N  14s     0.58um
      E  14s     1.04um
                  eS     18 36.00
CNB     64.65 155 iPd    10 02.10  -0.4
         0.9s    47.00nm          5.6mb
BRW     64.67  21 ePc    10 01.18  -0.9
MTA     64.90 306 eP     10 02.00  -2.0
      N  18s     1.00um
      E  18s     2.00um
                  i      10 36.00 141kmX
TOO     65.31 159 iPd    10 06.30  -0.3
         0.6s    69.00nm          5.9mb
TTA     65.33  30 eP     10 05.50  -1.1
         0.6s    14.69nm          5.3mb
SVW     65.69  32 eP     10 09.20   0.4
PYA     65.73 309 eP     10 09.00  -0.4
         2.0s   220.00nm          5.9mb
      Z  20s     2.50um          5.4Msz
      N  20s     2.00um
      E  20s     3.00um
                  i      10 38.00 117kmX
                  e      18 56.00
KIV     66.00 309 P      10 11.40   0.1
         1.9s   354.00nm          6.2mb
      Z  18s     2.40um          5.4Msz
                  S      19 09.80
IMA     66.05  26 eP     10 10.28  -1.0
         0.8s    13.37nm          5.1mb
MOS     67.15 322 iPd    10 18.00  -0.2
      Z  22s     3.70um          5.6Msz
      E  17s     5.70um
                  e      10 30.00  41kmX
BGL     67.22  32 eP     10 17.79  -0.9
CP2     67.29  32 eP     10 18.81  -0.5
CRP     67.33  31 ePc    10 18.69  -0.8
RYD     67.50 288 ePc    10 19.50  -1.5
KDC     67.74  35 eP     10 21.05  -0.8
         0.9s    35.79nm          5.5mb
OBN     67.84 322 iPd    10 22.00  -0.5
         1.8s   132.00nm          5.8mb
      Z  20s     3.00um          5.5Msz
      N  18s     1.80um
      E  18s     2.40um
                  i      10 36.00  49kmX
                  e      10 50.00
MJMA    68.31 290 ePc    10 25.00  -1.1
SLKM    68.39  32 eP     10 24.58  -1.4
PMS     68.57  31 eP     10 26.30  -0.7
         1.1s   131.10nm          6.0mb
FBA     68.65  27 ePc    10 26.77  -0.7
         0.9s    31.16nm          5.4mb
PMR     68.70  31 eP     10 25.75  -2.0
         0.6s    39.97nm          5.7mb
      Z  20s     1.35um          5.2Msz
TOA     69.96  30 eP     10 36.00   0.4
         1.0s   350.50nm          6.4mb
SDF     70.00 336 iP     10 35.70   0.1
KLU     70.23  31 eP     10 36.09  -1.1
TAU     70.74 160 eP     10 40.00  -0.4
SVST    71.15 306 eP     10 44.00   0.7
KAF     71.45 330 iP     10 43.90  -0.6
         0.5s     7.10nm          5.0mb
BALM    72.01  31 eP     10 47.55  -0.5
DHJN    72.52 282 ePc    10 51.30  -0.7
NUR     72.69 329 eP     11 04.00  12.1X
KAS     73.01 308 eP     10 55.00   0.7
HON     73.11  74 P      11 00.00   5.0X
      Z  21s     2.58um          5.5Msz
MNK     73.24 322 eP     10 53.00  -2.2
BHL     73.87 300 P      11 00.00   0.6
HRI     74.00 300 iPd    11 05.10   4.9X
BBTK    74.21 307 eP     11 01.00  -0.3
KIS     74.62 315 eP     11 05.00   1.7
      Z  18s     2.90um          5.6Msz
                  e      11 10.00  16kmX
                  e      11 22.00
DSI     74.84 298 iPd    11 09.70   4.8X
CSS     75.35 302 eP     11 07.70  -0.1
PPE     75.70 314 eP     11 14.00   4.4X
MBH     75.84 296 iPd    11 15.00   4.2X
UPP     76.20 330 iP     11 11.40  -0.7
BRD     76.31 314 eP     11 14.10   1.0
VRI     76.40 314 eP     11 14.90   1.3
DAG     76.53 351 eP     11 13.00  -0.7
         0.9s    10.92nm          4.9mb
CVO     76.77 314 eP     11 16.00   0.3
ISR     76.77 314 eP     11 00.00 -15.7X
MLR     77.04 314 eP     11 14.00  -3.3X
DST     77.29 308 eP     11 19.00   0.3
ELL     77.35 305 eP     11 12.00  -7.2X
JMB     77.71 311 iP     11 21.00   0.1
CMP     77.72 314 ePc    11 21.00   0.1
HFS     77.86 331 eP     11 20.30  -1.0
         0.4s     5.30nm          4.9mb
      Z  17s  7588.00um          9.1MszX
                  LR     45 55.00
UZH     78.18 318 ePc    11 25.00   1.7
         1.3s    35.00nm          5.2mb
                  e      11 31.00  19km
                  e      11 37.20
DIM     78.59 311 iP     11 26.00   0.3
NAO     78.78 332 P      11 25.20  -1.2
         0.7s     9.40nm          4.9mb
OJC     79.04 320 iP     11 28.10   0.1
                  i      11 39.00  35km
PLD     79.14 311 iPd    11 29.00   0.3
```

23d 09h

```
GZR     79.15 315 ePc    11 28.50  -0.3
SPC     79.20 319 iP     11 29.50   0.4
RZN     79.29 311 iPd    11 30.00   0.2
PGB     79.33 312 iP     11 29.00  -0.8
PSZ     79.93 318 ePd    11 33.30   0.3
VTS     79.97 312 iPd    11 34.00   0.6
MMB     80.01 311 iPd    11 34.00   0.5
SRS     80.29 311 eP     11 34.30  -0.6
OUR     80.33 310 eP     11 34.78  -0.3
KKB     80.34 311 iP     11 35.00  -0.2
PAIG    80.70 310 eP     11 36.70  -0.4
KNT     80.75 311 eP     11 36.94  -0.4
KSP     80.78 322 ePd    11 37.30   0.0
                  e      11 47.00  31km
                  e      14 32.80
VAY     80.91 311 iP     11 38.20   0.0
GRG     81.18 311 eP     11 38.90  -0.8
LIT     81.47 310 eP     11 40.26  -0.9
VKA     81.94 319 eP     11 45.00   1.6
FNA     81.96 311 eP     11 43.66  -0.1
AGG     82.02 309 eP     11 43.06  -1.0
PRU     82.17 321 eP     11 45.00   0.4
        2.0s    48.00nm          5.2mb
      Z  18s     2.40um          5.6Msz
      N  19s     1.80um
      E  18s     1.60um
                  e      13 09.50 367kmX
CLL     82.40 323 iP     11 45.60  -0.1
        2.3s   100.00nm          5.5mb
                  i      12 21.00 140kmX
YKA     82.85  23 eP     11 47.70  -0.1
        0.8s    27.70nm          5.4mb
KHC     83.13 321 P      11 50.40   0.7
        1.2s    12.50nm          4.9mb
      Z  18s     3.00um          5.7Msz
      N  18s     2.00um
      E  18s     2.30um
                  e      12 01.60  36km
                  e      12 23.00
                  e      13 46.50
GEC2    83.20 321 ePd    11 50.10   0.0
        0.8s     6.34nm          4.8mb
                  e      12 00.10  32km
                  e      12 02.10
                  e      12 05.70
                  e      12 08.70
                  e      12 11.00
                  e      12 17.50
MOX     83.49 323 eP     11 51.60   0.2
      Z  19s     3.50um          5.8Msz
HOF     83.51 323 iPc    11 52.80   1.3
WET     83.53 321 iPd    11 52.50   0.9
VBY     83.87 317 eP     11 54.30   0.9
                  iPP    12 16.50
LJU     84.06 318 eP     11 54.50   0.1
GRF     84.19 322 eP     11 55.20   0.2
        1.6s    87.00nm          5.7mb
      Z  21s     2.00um          5.5Msz
                  e      12 05.20  32km
HVAR    84.20 315 eP     11 54.80  -0.3
BHG     84.23 320 eP     11 55.90   0.7
        0.8s    20.00nm          5.4mb
CEY     84.27 318 eP     11 54.00  -1.5
KBA     84.27 319 iPc    11 55.00  -0.6
        0.6s     8.50nm          5.1mb
                  i      11 56.30   4kmX
                  i      11 58.40
VOY     84.45 318 ePd    11 56.10  -0.4
TRI     84.69 318 e(P)   11 57.50   0.0
WTTA    85.19 320 iPd    11 59.90  -0.3
        1.1s    30.30nm          5.4mb
                  i      12 01.00   4kmX
OGA     85.75 320 iPc    12 04.00   0.9
        1.0s    18.00nm          5.3mb
NAI     85.86 267 iPd    12 05.40   1.2
        1.0s   622.00nm          6.8mb X
      Z  20s     0.35um          4.8Msz
                  ePS    22 41.60
SGO     86.18 313 P      12 05.30   0.3
RSM     86.38 317 P      12 08.10   2.2
AQU     86.56 315 P      12 08.00   1.0
SDI     86.61 314 P      12 07.20  -0.1
ASS     86.68 316 P      12 08.40   0.8
SFI     86.76 317 P      12 09.70   1.9
SOI     86.85 310 P      12 09.30   0.9
WLF     86.98 324 P      12 11.00   2.3
CDF     87.07 323 eP     12 09.20  -0.2
        1.2s    25.60nm          5.3mb
MCW     87.49  37 eP     12 12.73   1.4
DOU     87.56 325 Pc     12 15.10   3.5X
        0.7s    12.20nm          5.3mb
BSF     87.66 322 eP     12 11.70  -0.6
        1.2s    15.75nm          5.2mb
HAU     87.81 323 eP     12 12.50  -0.4
        0.9s     9.50nm          5.1mb
      Z  19s     2.45um          5.6Msz
CMW     88.02  37 P      12 15.54   1.6
GMW     88.15  38 eP     12 16.10   1.6
BMW     88.50  39 eP     12 17.81   1.5
RMW     88.75  37 eP     12 18.51   1.1
GSM     88.90  38 P      12 19.80   1.6
LPG     88.99 320 eP     12 19.00   0.1
        0.8s    19.75nm          5.5mb
LPL     88.99 320 eP     12 18.80   0.0
        1.0s    32.20nm          5.6mb
LON     89.15  38 eP     12 19.71   0.3
TDL     89.15  38 P      12 21.11   1.6
SHW     89.23  39 eP     12 21.46   1.6
MTMW    89.34  39 P      12 21.78   1.5
ETW     89.47  37 P      12 22.21   1.2
DHW2    89.55  36 P      12 22.41   1.2
LOR     89.61 323 eP     12 20.90  -0.6
        0.8s    10.75nm          5.2mb
      Z  21s     1.88um          5.5Msz
RNO     89.63  41 P      12 24.83   3.1X
LBF     89.71 323 eP     12 21.50  -0.5
        0.9s    19.00nm          5.4mb
SSF     89.93 323 eP     12 22.50  -0.4
        1.1s    16.35nm          5.2mb
VLL     89.97  39 P      12 25.00   1.7
SMF     89.99 322 eP     12 22.80  -0.4
        1.0s    34.60nm          5.6mb
TDH     90.00  39 P      12 25.02   1.5
GL2     90.17  38 P      12 24.99   0.8
AVF     90.17 323 eP     12 23.70  -0.3
        1.1s    28.55nm          5.4mb
DBO     90.38  42 P      12 27.20   2.0
BPO     90.43  40 P      12 27.29   1.7
VGB     90.45  39 eP     12 26.58   1.1
DPW     90.46  36 eP     12 25.54   0.1
CSY     90.52 184 P      12 27.10   2.2
GBL     90.55  37 P      12 27.61   1.8
NEW     90.79  35 ePd    12 27.88   0.9
        1.0s    37.41nm          5.7mb
MAF     90.95 323 eP     12 27.90   0.2
        1.0s    21.80nm          5.4mb
TCF     91.11 323 eP     12 28.40   0.0
        1.1s    17.60nm          5.3mb
LNOR    91.64  37 P      12 32.76   1.9
CAF     92.01 322 eP     12 33.10   0.5
        1.1s    27.10nm          5.6mb
RJF     92.09 322 eP     12 33.40   0.5
        1.0s    51.20nm          5.9mb
      Z  21s     1.50um          5.4Msz
WDC     92.24  43 P      12 40.00   6.3X
      Z  21s     1.09um          5.3Msz
FCC     92.27  18 eP     12 37.00   3.6X
SES     92.40  31 ePc    12 34.20  -0.1
ORV     93.48  44 eP     12 39.19  -0.2
CMB     95.07  44 eP     12 47.74   0.9
        0.8s     8.54nm          5.2mb
      Z  20s     1.01um          5.3Msz
LCCM    95.09  34 eP     12 46.80  -0.1
KVN     95.91  43 (P)    12 52.28   1.4
BONR    96.44  44 eP     12 53.67   0.2
TNP     97.05  43 ePc    12 57.00   1.0
        0.7s     4.26nm          5.1mb
ISA     97.71  45 P      13 10.00  11.1X
      Z  21s     1.01um          5.3Msz
RSSD   100.22  32 ePdiff13 09.87  -0.3
        0.5s     1.97nm          4.9mb
      Z  20s     0.54um          5.0Msz
MAW    101.19 200 Pdiff 13 03.70  -9.9X
TUC    104.77  44 Pdiff 13 40.00   9.5X
      Z  21s     1.16um          5.4Msz
ALQ    105.61  39 PKP   18 00.00  12.3X
      Z  20s     0.65um          5.2Msz
CBM    108.73   7 PKP   18 00.00   7.1X
      Z  20s     1.16um          5.4Msz
WMOK   109.99  35 PKP   18 10.00  14.3X
      Z  19s     1.00um          5.4Msz
RSNY   110.08  12 PKP   18 10.00  14.5X
      Z  19s     0.52um          5.1Msz
HRV    112.59  11 PKP   18 10.00   9.7X
      Z  20s     0.77um          5.3Msz
MIAR   112.73  31 PKP   18 10.00   9.1X
      Z  20s     0.53um          5.1Msz
CEH    117.16  19 PKP   18 20.00  10.7X
      Z  20s     0.47um          5.1Msz
TIC    119.74 294 PKP   18 13.40  -1.5
TOV    144.48  20 ePKP  19 00.70  -0.5
SDV    145.06  22 iPKPc 19 01.20  -1.2
TCE    145.24   6 ePKP  19 00.81  -1.6
TRN    145.32   5 ePKP  19 02.32  -0.2
TBH    145.51   5 ePKP  19 03.46   0.6
CEOS   145.63  18 iPKP  19 02.40  -0.8
TPP    145.64   6 ePKP  19 03.22   0.1
BAO    167.16 309 e(PKP)19 28.00  -1.9
                  e      19 30.00
                  e      20 35.20
                  e      20 50.80
                  e      20 56.80
ZOBO   167.92  52 PKP   19 32.00   0.9
        1.1s    13.34nm
                  i      20 38.00
LPB    168.11  52 PKP   19 34.00   3.1X
      Z  22s     1.11um          6.2Msz
                  LR     16 44.00
CNCB   168.37  53 PKP   19 33.00   1.7
                  i      20 42.00
CCH    170.06  49 ePKP  19 33.00   1.1
                  i      20 48.50
      S.D. = 1.1  on 237 of 277 obs.
-----------------------------------
?  JAN  23, 1993  09h 21m 33.18± 0.96s
   38.037 N ±10.1km   22.797 E ± 9.7km
   DEPTH =  10.0km  (geophysicist)
 GREECE                            (364)
      ML 3.1 (ATH).

ATH      0.73  95 eP     21 48.00   0.5
                  eS     22 00.00
VLI      1.32 175 eP     21 57.00  -0.6
VLS      1.75 275 eP     22 04.50   0.8
KZN      2.40 341 eP     22 12.50  -0.7
KEK      2.88 307 eP     22 23.00   3.1X
      S.D. = 1.3  on   4 of   5 obs.
-----------------------------------
?  JAN  23, 1993  09h 28m 16.69± 8.43s
   39.730 N ±54.8km   20.949 E ±40.3km
   DEPTH =  10.0km  (geophysicist)
 GREECE-ALBANIA BORDER REGION      (392)

SRN      0.75 282 ePn    28 31.30   0.0
TPE      0.92 308 ePn    28 34.60   0.4
TIR      1.82 333 ePn    28 47.50  -0.7
PHP      1.99 349 ePn    28 51.60   0.8
LACI     2.13 334 iPn    28 52.10  -0.6
      S.D. = 0.9  on   5 of   5 obs.
-----------------------------------
?  JAN  23, 1993  09h 31m 35.66± 3.00s
   17.098 N ±20.2km  100.517 W ±24.4km
   DEPTH =  33.0km  (normal)
 GUERRERO, MEXICO                  ( 59)

ACX      0.67 110 iPc    31 48.80   0.1
                  iS     31 59.60
III      1.62  38 iP     32 02.80   0.4
                  (S)    32 27.00
UNM      2.56  30 iP     32 17.30   1.3
                  (S)    32 55.00
PPM      2.66  42 iP     32 16.00  -1.6
                  (S)    33 01.50
MRX      2.67 346 iP     32 17.00  -0.2
-                 (S)    32 53.50
OXX      3.63  90 iP     32 38.50   7.4X
      S.D. = 1.5  on   5 of   6 obs.
-----------------------------------
   JAN  23, 1993  09h 39m 28.93± 0.57s
   25.790 N ± 4.1km   95.662 E ± 3.3km
   DEPTH = 108.7 ±  5.6 km
   4.5mb ( 46 obs.)
 MYANMAR-INDIA BORDER REGION       (294)

LSA      5.58 315 Pc     40 54.40   3.0
                  S      41 56.10
KMI      6.43  94 Pc     41 07.50   4.6X
        2.0s    60.00nm          4.6mb
CHG      7.58 156 ePnc   41 20.10   1.8
                  eSg    43 27.30
CD2      8.77  53 eP     41 35.00   0.5
```

```
GUN      8.99 286 P      41 37.30  -0.5
PKI      9.34 283 P      41 41.54  -1.0
KKN      9.49 284 P      41 43.38  -1.1
DMN      9.61 283 P      41 44.80  -1.3
GYA      9.91  84 P      41 51.80   1.8
         1.0s    96.00nm          5.6mb X
                  S      43 37.00
GKN     10.09 285 P      41 50.82  -1.6
NST     10.90 157 eP     42 16.50  13.5X
KHT     11.29 165 eP     42 07.50  -0.7
LZH     12.43  32 iPd    42 23.00  -0.3
         1.5s   140.00nm          5.4mb
GTA     14.02  13 P      42 43.00  -1.0
         1.2s    10.00nm          3.9mb
                  pP     42 51.00
XAN     14.13  51 P      42 44.00  -1.3
QIZ     14.73 114 Pd     42 58.80   5.7X
NDI     16.66 284 eP     43 16.00  -1.1
                  eS     46 07.60
HYB     17.94 246 eP     43 32.50  -0.5
         1.0s    75.00nm          4.9mb
                  eS     46 38.00
TIY     18.53  46 eP     43 37.90  -1.9
BTO     19.00  35 P      43 44.60  -0.2
WMQ     19.12 342 P      43 48.50   2.5
         0.8s    21.00nm          4.5mb
HHC     20.00  37 P      43 53.80  -1.4
         1.2s    12.00nm          4.1mb
GBA     20.98 238 P      44 07.00   1.9
NJ2     21.22  68 Pd     44 06.50  -0.9
KSH     21.40 314 P      44 15.50   6.2X
         0.9s    20.00nm          4.5mb
POO     21.44 255 eP     44 11.50   1.8
BJI     22.25  45 eP     44 17.50  -0.1
ZAK     25.25  11 iPc    44 47.50   1.3
         0.9s    10.00nm          4.3mb
                  e      45 23.00
OUE     25.70 286 eP     44 51.00   0.2
MOY     26.17   8 eP     45 04.00   9.3X
ELT     28.32 348 eP     45 15.00   0.9
         1.0s     8.00nm          4.3mb
CN2     30.12  46 eP     45 29.40  -0.9
         0.8s     4.80nm          4.3mb
BOD     34.64  17 eP     46 10.00   0.6
         0.7s     8.00nm          4.7mb
NRI     43.86 356 eP     47 26.00   0.4
         1.0s    10.00nm          4.6mb
                  e      47 57.00
                  e      49 10.00
KIV     46.26 307 P      47 46.50   1.3
KAF     57.90 329 eP     49 12.70   1.2
NUR     58.59 327 eP     49 16.60   0.3
WRA     58.98 137 P      49 18.90  -0.5
         0.5s     3.50nm          4.7mb
WB2     58.98 137 iPd    49 18.40  -1.1
         0.3s    33.00nm          5.9mb X
ASPA    61.54 140 eP     49 36.40  -0.5
         0.8s    24.50nm          5.3mb
HFS     64.05 327 eP     49 52.20  -0.7
         0.4s     2.00nm          4.4mb
HVAR    65.26 308 eP     49 59.80  -1.2
NAO     65.35 328 P      50 00.70  -0.6
         0.8s     5.60nm          4.5mb
GEC2    65.91 314 ePc    50 05.50   0.2
         0.7s     3.89nm          4.5mb
                  e      50 34.90
CTA     67.03 128 P      50 13.60   1.0
GRF     67.31 316 eP     50 15.20   1.2
                  e(pP)  50 36.00  80kmX
                  e(sP)  50 46.00
OSS     68.76 313 ePc    50 23.00  -0.2
VDL     69.26 313 ePc    50 26.20  -0.1
LLS     69.47 313 ePc    50 27.30  -0.3
TMA     69.76 312 ePc    50 28.80  -0.6
CDF     70.15 315 eP     50 31.30  -0.3
         0.4s     1.95nm          4.3mb
BSF     70.63 314 eP     50 34.00  -0.5
         0.5s     1.70nm          4.1mb
DIX     70.74 313 ePc    50 36.00   0.5
EMS     71.06 313 ePc    50 37.40   0.1
LPG     71.36 312 iPd    50 39.30   0.1
         0.6s     6.75nm          4.6mb
LPL     71.37 312 iPd    50 39.30   0.1
         0.6s     9.20nm          4.8mb
STK     72.18 140 eP     50 43.00  -0.8
         0.8s     5.20nm          4.4mb
LOR     72.69 315 eP     50 46.20  -0.5
         0.3s     1.15nm          4.2mb
LBF     72.71 314 eP     50 46.40  -0.4
         0.3s     2.60nm          4.5mb
SMF     72.91 314 iPd    50 47.70  -0.3
         0.5s     5.45nm          4.6mb
RMQ     72.95 131 iPc    50 49.20   0.8
         0.4s    11.00nm          5.0mb
SSF     72.99 314 iPd    50 48.20  -0.2
         0.5s     6.65nm          4.7mb
AVF     73.18 314 iPd    50 49.30  -0.2
         0.7s     6.15nm          4.5mb
MAF     73.88 314 eP     50 53.90   0.3
         0.7s     4.85nm          4.4mb
TCF     74.09 314 eP     50 55.20   0.3
         0.5s     5.10nm          4.6mb
CMS     74.43 137 iPd    50 56.90   0.0
         0.4s     3.00nm          4.5mb
IMA     74.62  23 eP     50 58.29   0.6
         0.8s     5.17nm          4.4mb
CAF     74.67 313 eP     50 58.70   0.4
         0.8s     6.30nm          4.5mb
LDF     74.74 317 eP     50 58.40  -0.1
         0.5s     4.10nm          4.5mb
RJF     74.90 313 iPd    51 00.20   0.7
         0.4s     4.40nm          4.6mb
GRR     75.27 317 eP     51 01.60   0.1
         0.5s     4.80nm          4.6mb
LPO     75.34 313 iPd    51 02.50   0.5
         0.5s     4.45nm          4.5mb
LFF     75.54 313 iPd    51 03.80   0.7
         0.5s     4.10nm          4.5mb
SVW     76.25  28 eP     51 06.84   0.0
         0.8s    17.08nm          4.9mb
BRS     76.28 130 iPc    51 07.50   0.0
BCAO    76.50 268 iPc    51 08.40  -0.7
         0.8s     7.00nm          4.5mb
BFD     76.59 143 eP     51 08.80  -0.2
         0.8s     8.00nm          4.6mb
FBA     77.32  23 eP     51 12.22  -0.4
         1.0s     8.82nm          4.5mb
TOO     78.50 142 iPd    51 20.20   0.6
         0.7s    14.00nm          4.9mb
PMR     78.67  26 eP     51 20.29   0.2
         1.0s    45.00nm          5.2mb
CNB     79.19 138 eP     51 23.30  -0.1
BUL     79.50 242 iPd    51 24.70  -0.8
         0.9s     8.40nm          4.6mb
                  i      51 55.20
BALM    81.64  25 eP     51 37.20   1.2
YKA     88.76  14 eP     52 10.30  -1.0
         0.9s     2.10nm          4.2mb
BAO    144.64 279 PKPd   58 54.20  -0.9
      S.D. = 1.0  on  80 of  85 obs.
-----------------------------------
?  JAN  23, 1993  09h 44m 38.33± 1.12s
    10.401 N ±17.3km   61.367 W ±11.2km
    DEPTH =  33.0km  (normal)
 TRINIDAD                          ( 98)
      MD 2.2 (TRN).

TPP      0.12 225 eP     44 44.14  -0.1
                  iS     44 50.91
TRN      0.25 352 iPd    44 45.26  -0.2
                  eS     44 52.34
TBH      0.31  74 eP     44 46.25   0.1
                  eS     44 52.82
TCE      0.48 308 iP     44 48.80   0.1
                  eS     44 57.75
      S.D. = 0.2  on   4 of   4 obs.
-----------------------------------
%  JAN  23, 1993  10h 02m 44.51± 1.77s
    18.112 N ±15.6km   76.760 W ±13.5km
    DEPTH =  10.0km  (geophysicist)
 JAMAICA REGION                    ( 86)
      MD 3.5 (HOJ). Felt (IV) at
      Kingston and Portland.

GWJ      0.04 150 iPd    02 46.58  -0.2
STH      0.06 236 iP     02 47.35   0.5
                  iS     02 50.14
HOJ      0.11 175 iP     02 47.24  -0.1
BBJ      0.55 299 iP     02 55.85   0.1
SPJ      0.77 261 iP     02 59.09  -0.5
      S.D. = 0.5  on   5 of   5 obs.
-----------------------------------
?  JAN  23, 1993  10h 20m 53.81± 0.97s
    39.116 N ±  8.2km   27.631 E ±  9.7km
    DEPTH =  10.0km  (geophysicist)
 TURKEY                            (366)
      MD 2.7 (ISK).

IZM      0.77 202 iPg    21 08.80  -0.1
                  iSg    21 18.80
DST      0.91  57 ePn    21 11.60   0.3
EZN      1.23 305 iPn    21 17.00   0.3
EDC      1.24   8 ePn    21 16.50  -0.4
      S.D. = 0.5  on   4 of   4 obs.
-----------------------------------
    JAN  23, 1993  10h 38m 09.94± 0.28s
    32.988 N ± 4.8km   47.411 E ± 3.9km
    DEPTH =  33.0km  (normal)
    4.7mb ( 26 obs.)
 IRAN-IRAQ BORDER REGION           (346)
      Some minor damage to houses in
      the Abdanan-Dehloran area, Iran.

KER      1.38 350 iPd    38 35.20   1.9
                  eS     38 55.00
TEH      4.28  49 eP     39 27.00  12.4X
TAB      5.14 350 eP     39 39.00  12.2X
GRS      6.56 353 eP     40 02.00  15.3X
         1.3s    60.00nm
                  eS     41 40.00
MJMA     7.34 195 eP     39 57.70   0.0
QASM     7.66 207 ePc    40 02.70   0.7
                  eS     41 19.30
RYD      8.27 185 eP     40 10.80   0.2
                  eS     42 45.00
GAZ      9.34 299 eP     40 22.00  -3.3X
AFIF     9.60 204 eP     40 30.00   1.0
HRI      9.79 275 eP     41 18.30  46.7X
BHL      9.87 279 P      41 16.00  43.3X
                  S      43 36.00
MAIO    10.49  68 eP     41 03.00  21.8X
KDZ     19.47 303 eP     42 37.00   0.1
RZN     19.98 302 iP     42 42.00  -0.5
ISR     20.17 313 eP     42 54.00   9.7X
VRI     20.44 315 eP     42 43.50  -3.5X
SRS     20.62 300 eP     42 48.24  -0.8
PGB     20.65 304 iP     42 49.00  -0.3
MMB     20.66 301 iP     42 49.00  -0.4
MLR     20.72 313 eP     42 50.00  -0.1
AGG     21.13 294 eP     42 55.52   1.3
CMP     21.17 312 ePd    42 55.00   0.4
KKB     21.20 302 iP     42 54.00  -0.9
LIT     21.20 297 eP     42 54.16  -0.8
GRG     21.46 299 eP     43 01.08   3.6X
SKO     22.41 301 eP     43 09.20   2.3
GZR     22.66 310 ePd    43 10.00   0.6
FRU     23.52  57 eP     43 20.00   2.2
KSH     23.87  66 eP     43 23.50   2.1
         0.8s    10.00nm          4.4mb
UZH     24.45 317 eP     43 27.80   1.1
                  e      43 38.00
                  e      44 10.50
MNK     25.22 332 eP     43 35.00   1.0
BRT     25.31 297 P      43 36.00   1.0
                  eSg    43 41.30
PSZ     25.53 314 eP     43 39.00   1.9
SPC     25.90 317 eP     43 41.90   1.2
SOI     25.95 290 P      43 42.30   1.4
ATN     26.42 290 P      43 43.20  -2.1
SRO     26.45 313 eP     43 45.30  -0.2
MGR     26.46 295 P      43 51.30   5.6X
OJC     26.66 318 eP     43 48.00   0.6
                  i      43 52.30
SGO     26.69 296 P      43 49.20   1.4
                  eSg    43 54.50
ZST     27.35 313 eP     43 53.40  -0.4
VBY     27.67 306 eP     43 57.10   0.4
                  ePP    44 05.90
LJU     28.30 307 e(P)   44 03.00   0.6
VOY     28.73 307 eP     44 05.50  -0.8
KSP     28.93 317 eP     44 07.60  -0.4
KBA     29.38 309 iPd    44 12.50   0.2
         1.1s    19.90nm          4.8mb
GEC2    29.70 312 eP     44 14.40  -0.6
         0.9s     1.71nm          3.8mb
                  e      44 19.70
                  e      44 21.50
SFI     29.70 302 P      44 16.90   2.0
KHC     29.87 313 eP     44 15.50  -1.0
         1.3s     7.20nm          4.3mb
                  e      44 23.00
```

23d 10h

```
                    e      45 03.00
CTI     30.25 306 P        44 19.70  -0.3
                    eSg    44 25.90
BRG     30.29 316 eP       44 19.60  -0.5
        1.2s    11.00nm          4.5mb
WTTA    30.55 308 i(P)     44 22.50  -0.2
        0.8s    14.60nm          4.8mb
CLL     31.01 316 iPd      44 26.20  -0.2
        1.3s    15.00nm          4.6mb
FUR     31.02 310 eP       44 26.10  -0.5
OSS     31.41 307 ePd      44 30.50   0.3
GRF     31.51 313 eP       44 30.90   0.0
HYB     32.01 111 eP       44 35.00  -0.6
KAF     32.12 341 eP       44 37.80   1.7
LLS     32.22 307 Pd       44 36.70  -0.6
GKN     32.35  89 P        44 37.32  -1.3
SLE     32.74 308 Pd       44 41.30  -0.4
ZLA     32.75 308 ePd      44 41.60  -0.2
SBF     32.86 301 eP       44 42.50  -0.3
        0.9s    50.45nm          5.4mb
DMN     32.87  89 P        44 42.18  -1.1
KKN     32.95  89 P        44 42.46  -1.5
WMQ     33.07  59 eP       44 45.20   0.5
                    pP     44 55.00  34kmX
PKI     33.13  89 P        44 44.56  -1.1
DIX     33.15 305 ePd      44 45.20  -0.4
GUN     33.42  88 P        44 47.22  -1.0
BNI     33.52 303 P        44 48.30  -0.4
                    eSg    44 53.50
LPG     33.53 304 eP       44 48.30  -0.6
        0.7s    17.00nm          5.1mb
LPL     33.54 304 eP       44 48.40  -0.5
        0.8s    25.65nm          5.2mb
BSF     33.87 308 eP       44 50.70  -0.9
        1.0s     9.40nm          4.7mb
HAU     34.20 308 eP       44 53.20  -1.2
        1.1s    11.70nm          4.7mb
ELT     34.27  42 eP       44 56.90   2.1
        0.8s     6.00nm          4.6mb
SLL     35.36 331 eP       45 03.10  -1.0
        0.5s     3.40nm          4.6mb
SMF     35.68 305 eP       45 06.20  -0.8
        0.8s    23.50nm          5.2mb
LOR     35.74 307 eP       45 06.50  -1.0
        1.2s    12.50nm          4.7mb
SSF     35.96 306 eP       45 08.70  -0.6
        0.9s    12.80nm          4.9mb
AVF     36.03 306 eP       45 09.20  -0.7
        1.0s    17.20nm          4.9mb
BGF     36.35 305 eP       45 12.00  -0.6
        1.0s    16.60nm          4.9mb
NAO     36.57 331 P        45 12.20  -2.1
        0.7s     1.50nm          4.0mb
EGRA    38.49 298 eP       45 29.70  -0.9
BCAO    39.16 230 iPd      45 39.00   2.5
        1.0s    10.00nm          4.5mb
                    ic     45 43.10
ETOR    39.88 296 eP       45 46.50   4.2X
EVIA    40.46 293 eP       45 33.00 -14.2X
EKA     41.43 318 P        46 00.00   5.3X
        2.4s   170.10nm          5.4mb
GUD     41.48 296 eP       45 55.00  -0.5
GTA     42.28  66 eP       46 02.00  -0.1
EPLA    43.02 295 eP       46 07.00  -1.0
LZH     46.04  70 eP       46 35.50   3.1X
        1.5s    24.00nm          4.9mb
XAN     50.59  71 eP       47 07.00  -0.7
HHC     50.87  62 P        47 10.00   0.2
TIY     52.30  65 eP       47 23.30   2.7X
IMA     79.93   9 eP       50 16.50  -0.3
        0.6s     1.72nm          4.2mb
FBA     81.71   6 (P)      50 25.62  -0.4
        0.9s     2.59nm          4.2mb
YKA     83.76 352 eP       50 37.50   0.9
        1.0s     1.10nm          4.0mb
      S.D. = 1.1  on  81 of  97 obs.
-----------------------------------------
   JAN  23, 1993  11h 03m 08.73± 0.81s
   39.479 N ± 7.2km   26.413 E ± 7.4km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                            (366)
      MD 3.2 (ISK).

EZN     0.35 349 iPg       03 15.50  -0.5
                    iSg    03 22.00
IZM     1.27 148 ePn       03 31.80  -0.5
EDC     1.41  52 ePn       03 34.00  -0.5
ALN     1.44 349 eP        03 34.52  -0.4
                    iS     03 54.10
BNT     1.45  52 ePn       03 35.80   0.8
KCT     1.68  62 ePn       03 38.80   0.5
PAIG    2.16 283 eP        03 45.76   0.6
      S.D. = 0.7  on   7 of   7 obs.
-----------------------------------------
   JAN  23, 1993  11h 18m 46.81± 0.44s
   39.728 N ± 4.1km  110.588 W ± 4.7km
   DEPTH =   1.0km  (geophysicist)
 UTAH                              (478)
      ML 3.0 (GS).

EMUT    0.20 296 iPd       18 51.20   0.5
SRU     0.62 175 iPd       18 58.33  -0.8
                    eS     19 07.00
DAU     0.85 323 eP        19 03.44  -0.5
PV09    1.67 137 eP        19 17.50  -0.1
                    eS     19 40.88
MSU     1.73 226 eP        19 17.81  -0.6
DUG     1.77 286 eP        19 19.74   0.8
PV10    1.81 138 eP        19 21.31   1.7X
PV08    1.90 127 eP        19 21.89   0.9
HVU     2.64 322 eP        19 30.97  -0.4
ARUT    2.95 230 eP        19 37.05   1.1
BW06    3.15  14 ePn       19 39.02   0.4
GLD     4.14  88 (Pn)      19 54.86   2.1X
ALQ     5.80 144 (P)       20 12.57  -3.7X
LCCM    6.18 352 eP        20 21.20  -0.4
BONR    6.28 256 (P)       20 22.58  -0.6
RSSD    6.57  46 (P)       20 26.92  -0.2
TUC     7.40 181 (Pn)      20 41.74   3.0X
      S.D. = 0.7  on  13 of  17 obs.
-----------------------------------------
?  JAN  23, 1993  11h 43m 38.00± 4.92s
   34.049 S ±20.3km   72.225 W ±33.2km
   DEPTH =  10.0km  (geophysicist)
 NEAR COAST OF CENTRAL CHILE       (135)
      MD 3.6 (SAN).

LNV     0.68  82 iPd       43 52.21   0.7
                    iS     44 00.00
LCCH    0.79  44 iPd       43 53.77   0.4
                    iS     44 03.91
TACH    1.14  70 iPd       43 58.76  -0.6
                    iS     44 13.26
CHCH    1.31  85 iPd       44 01.81  -0.5
                    iS     44 18.72
CACH    1.35  93 eP        44 03.51   0.6
                    eS     44 20.69
ROCH    1.48  44 iP+       44 04.31  -0.5
PCH     1.49  74 iPd       44 04.34  -0.5
                    eS     44 22.54
PEL     1.57  55 iPd       44 06.27   0.3
                    iS     44 26.00
FCH     1.77  67 iPd       44 08.77  -0.3
                    iS     44 31.58
JACH    1.93  46 eP        44 11.80   0.5
                    iS     44 37.32
      S.D. = 0.6  on  10 of  10 obs.
-----------------------------------------
?  JAN  23, 1993  12h 02m 03.65±14.94s
   38.605 N ±124.km   22.805 E ±14.2km
   DEPTH =  10.0km  (geophysicist)
 GREECE                            (364)

AGG     0.56 318 iPg       02 14.76  -0.2
                    eSg    02 28.70
PAIG    1.48  27 iPn       02 31.72   1.4
                    eSn    02 58.00
LIT     1.51 351 ePn       02 31.50   0.7
OUR     1.95  27 ePn       02 35.76  -1.4
SOH     2.25  11 ePn       02 41.40  -0.2
KNT     2.55   2 ePn       02 45.40  -0.4
      S.D. = 1.2  on   6 of   6 obs.
-----------------------------------------
?  JAN  23, 1993  12h 21m 39.76± 1.31s
   38.997 N ±13.0km   27.911 E ±14.7km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                            (366)
      MD 2.8 (ISK).

IZM     0.78 221 iPg       21 54.80  -0.3
                    iSg    22 06.80
DST     0.82  42 iPn       21 56.50   0.8
KCT     1.30  15 ePn       22 02.70  -1.1
EZN     1.48 304 ePn       22 07.00   0.6
      S.D. = 1.5  on   4 of   4 obs.
-----------------------------------------
*  JAN  23, 1993  12h 31m 33.25± 1.30s
   5.141 N ±10.8km   77.615 W ± 9.8km
   DEPTH =  48.5 ± 13.3 km
   4.7mb (  4 obs.)
 NEAR WEST COAST OF COLOMBIA       (102)
      MD 4.4 (UPA).

BOG     3.57  98 eP        32 30.00   2.0
                    eS     33 10.00
PSO     3.93 176 eP        32 38.00   5.0X
UPA     4.26 334 iP        32 36.17  -1.2
                    iS     33 27.26
ECO     4.67 334 eP        32 42.53  -0.6
                    eS     33 37.05
BMG     4.90  67 iPc       33 02.00  15.5X
BRU     6.11 307 eP        33 04.61   0.8
SDV     7.86  61 iPnc      33 27.50  -0.5
                    iSn    34 53.50
TOV     9.02  59 eP        33 42.70  -1.2
ARE    22.30 164 eP        36 32.00   3.6X
ZOBO   23.27 156 P         36 36.90  -1.3
      Z  22s      0.14um          3.4MszX
                    LR     44 12.00
LPB    23.50 157 P         36 39.90  -0.3
CNCB   23.80 157 P         36 43.10  -0.2
CCH    25.08 153 eP        36 55.00  -0.4
SIV    26.63 142 eP        37 11.00   1.6
VAO    40.97 134 (P)       39 08.00  -5.3X
LCCM   50.27 329 eP        40 29.30   2.3
YKA    63.37 342 eP        42 08.50   8.9X
        0.6s     1.60nm          4.3mb
TIC    72.17  85 P         42 54.90  -0.7
LIC    72.19  85 Pc        42 54.90  -0.8
        0.7s    15.50nm          5.1mb
KIC    72.46  85 P         42 56.90  -0.4
        0.8s    20.00nm          5.1mb
GEC2   87.04  41 ePKP      44 17.40   2.4
        1.2s     0.90nm          3.9mb
                    e      44 21.00
GUN   143.48  25 PKP       51 00.00  -5.4X
ASPA  144.49 236 iPKP      51 04.80  -2.0
        0.5s    38.10nm
                    e      51 17.80
WB2   145.60 242 iPKPc     51 09.00   0.2
        0.7s    21.50nm
                    e      51 22.10
WRA   145.61 242 PKP       51 09.10   0.3
        1.1s     3.50nm
GBA   149.01  53 PKP       51 23.00   8.7X
      S.D. = 1.4  on  19 of  26 obs.
-----------------------------------------
?  JAN  23, 1993  13h 15m 10.25± 2.78s
   5.540 N ±36.2km   71.687 W ±35.5km
   DEPTH = 226.7 ± 13.4 km
   3.7mb (  1 obs.)
 COLOMBIA                          (103)

BMG     2.05 318 iPc       15 52.00   0.2
BOG     2.54 249 eP        15 57.00   0.0
SDV     3.48  17 iPnd      16 06.60  -1.0
                    iSn    16 44.00
TOV     4.62  24 ePn       16 22.10   0.9
                    eSn    17 12.80
YKA    64.95 340 eP        25 27.40  -0.1
        0.6s     0.90nm          3.7mb
      S.D. = 1.3  on   5 of   5 obs.
-----------------------------------------
%  JAN  23, 1993  13h 59m 15.16± 0.80s
   43.538 N ± 7.8km   12.212 E ± 6.3km
   DEPTH =  10.0km  (geophysicist)
 CENTRAL ITALY                     (381)

CRE     0.21 296 P         59 20.00   0.2
                    eSg    59 25.00
RSM     0.43  24 P         59 24.40   0.5
SFI     0.46 326 P         59 24.00  -0.6
                    eSg    59 31.70
PGD     0.49 314 P         59 25.20   0.0
                    eSg    59 32.50
ARV     0.53  94 P         59 25.50  -0.4
                    eSg    59 33.80
ASS     0.57 145 P         59 27.00   0.2
                    eSg    59 37.10
      S.D. = 0.6  on   6 of   6 obs.
-----------------------------------------
```

```
?  JAN  23, 1993  14h 05m 13.71± 0.62s
   57.438 S ±150.km  141.329 W ±15.0km
   DEPTH =  10.0km  (geophysicist)
   4.6mb (  5 obs.)
 PACIFIC-ANTARCTIC RIDGE                (691)

CNB     50.18 265 iPd    14 13.00    1.7
CMS     55.01 265 eP     14 47.60    0.3
        0.5s      3.00nm          4.6mb
STK     56.98 261 eP     15 02.20    0.7
        0.5s      2.20nm          4.4mb
CTA     63.85 273 iP     15 48.00   -0.4
CNCB    67.03  85 eP     16 10.00    0.4
ZOBO    67.38  85 P      16 12.00    0.1
ASPA    67.61 261 eP     16 11.50   -1.1
        1.5s      8.00nm          4.7mb
WB2     70.39 264 eP     16 28.90   -0.8
        0.6s      4.40nm          4.8mb
WRA     70.40 264 P      16 29.10   -0.7
        0.7s      1.60nm          4.3mb
SIV     71.44  91 eP     16 36.00   -0.1
DAG    152.32  25 ePKP   25 16.20   13.9X
      S.D. = 0.9  on  10 of  11 obs.
-----------------------------------------
*  JAN  23, 1993  15h 18m 58.12± 0.67s
   35.968 N ± 9.5km  137.757 E ±10.2km
   DEPTH = 239.4 ±  7.3 km
   4.4mb (  4 obs.)
 EASTERN HONSHU, JAPAN                  (227)

MAT      0.68  32 iPc    19 30.70    0.0
                iS      19 55.20
GUN     44.32 275 P      26 46.60    0.1
PKI     44.84 275 P      26 50.20   -0.4
KKN     44.85 275 P      26 50.60    0.0
DMN     45.07 275 P      26 52.20   -0.1
GKN     45.28 276 P      26 53.80   -0.1
WB2     55.70 184 iPc    28 11.50   -0.4
        0.4s     26.80nm          5.2mb
WRA     55.70 184 P      28 11.90    0.0
        0.8s      6.10nm          4.2mb
GBA     58.18 264 Pc     28 30.00    0.5
ASPA    59.42 184 iPc    28 37.60   -0.1
        0.7s     11.70nm          4.6mb
WARB    62.70 191 iPd    29 00.30    0.7
RES     64.35  14 eP     29 10.50    0.7
YKA     66.19  29 eP     29 21.00   -0.7
        0.8s      0.90nm          3.6mb
      S.D. = 0.5  on  13 of  13 obs.
-----------------------------------------
   JAN  23, 1993  15h 32m 44.61± 0.32s
   40.795 N ± 3.6km   28.771 E ± 3.3km
   DEPTH =   7.5 ±  3.5 km
 TURKEY                                 (366)
      MD 3.6 (ISK).

ISK      0.35  39 iPg    32 52.00    0.3
GBZT     0.51  91 ePg    32 55.80    0.9
                iSg     33 02.60
KCT      0.63 210 iPg    32 57.60    0.3
HRT      0.68  87 iPg    32 58.10   -0.2
BNT      0.78 236 iPg    33 00.60    0.5
                eSg     33 10.60
EDC      0.82 237 iPg    33 00.00   -0.8
                iSg     33 12.00
EYL      1.08 102 iPn    33 04.50   -0.7
DST      1.19 185 iPn    33 07.40    0.3
DMK      1.28 324 iPn    33 08.60    0.0
ALT      2.02 149 iPn    33 19.60    0.1
ALN      2.07 274 eP     33 21.70    1.6
EZN      2.11 243 ePn    33 21.70    1.1
JMB      2.34 316 iPc    33 24.00    0.0
KHL      2.54 167 ePn    33 27.00    0.1
IZM      2.66 206 ePn    33 29.00    0.3
KDZ      2.67 290 eP     33 29.00    0.2
RZN      3.19 288 iPc    33 35.00   -1.2
PLD      3.33 294 iP     33 38.00    0.0
OUR      3.68 264 eP     33 41.70   -1.3
KAS      3.82  80 ePn    33 54.00    8.9X
                iSg     34 47.00
SRS      3.94 276 eP     33 47.18    0.5
                eS      34 49.90
SOH      4.11 272 iP     34 01.30   12.1X
KKB      4.41 286 iP     33 54.00    0.5
KNT      4.46 277 eP     33 54.00   -0.1
                eS      35 08.00
VTS      4.54 295 iPc    33 55.00   -0.3
VAY      4.72 278 ePn    34 01.00    3.2X
                i       35 16.40
MLR      5.13 337 eP     34 07.00    3.3X
CVO      5.37 340 eP     34 18.00   11.0X
SKO      5.64 284 ePn    34 20.00    9.2X
      S.D. = 0.7  on  23 of  29 obs.
-----------------------------------------
   JAN  23, 1993  15h 45m 01.31± 1.04s
   32.507 S ± 4.4km   71.838 W ±10.6km
   DEPTH =  33.0km  (normal)
 NEAR COAST OF CENTRAL CHILE            (135)
      MD 4.4 (SAN).

IHA      0.54 162 iPd    45 12.20   -0.3
                iS      45 22.50
ROCH     0.84 124 iPd    45 15.74   -1.1
LCCH     0.99 167 iP+    45 18.97    0.1
JACH     1.06 100 iPd    45 18.62   -1.4
PEL      1.16 124 iP+    45 20.85   -0.5
                iS      45 34.80
SAN      1.37 134 iPd    45 24.04   -0.2
                iS      45 40.60
TACH     1.37 147 iPd    45 24.55    0.2
LNV      1.49 166 iPd    45 25.99    0.0
FCH      1.54 123 iP+    45 26.45   -0.6
PCH      1.57 135 iP+    45 27.20   -0.1
CHCH     1.73 145 iP+    45 30.36    0.7
CACH     1.91 147 eP     45 33.45    1.2
                iS      45 58.23
MDZ      2.55  99 iP     45 43.80    2.5X
                i(S)    46 11.90
RTCB     2.77  69 iPc    45 45.80    1.3
                S       46 21.00
RTCV     2.87  78 iP     45 47.20    1.4
                (S)     46 23.20
RTLL     3.10  69 iPd    45 50.00    1.0
                S       46 29.00
CFA      3.18  75 ePd    45 51.30    1.0
RFA      3.61 130 iP     45 57.00    0.7
                S       46 53.70
RTPR     5.06  66 e(P)   46 16.00   -0.8
                (S)     47 21.00
MRA      5.18  91 ePd    46 17.20   -1.4
TCA      6.27  81 iP     46 43.00    9.0X
                S       46 53.00
CYA      6.60  54 eP     46 34.00   -4.6X
FSA      8.17  40 eP     47 00.20   -0.3
ANT      8.86   8 eP     47 23.00   13.0X
CNCB    16.01  14 P      48 46.00   -0.3
LPB     16.26  13 (P)    48 45.00   -4.3X
SIV     19.13  33 P      49 24.00   -0.5
BAO     27.40  58 Pc     50 42.20   -3.8X
      S.D. = 0.9  on  22 of  28 obs.
-----------------------------------------
?  JAN  23, 1993  15h 56m 40.81±13.44s
   18.145 N ±58.7km   76.643 W ±72.7km
   DEPTH =  10.0km  (geophysicist)
 JAMAICA REGION                         ( 86)
      MD 2.3 (HOJ). Felt in the
      Kingston area.

GWJ      0.11 233 iPd    56 43.38   -0.4
                S       56 46.11
HOJ      0.17 216 iPd    56 44.04   -0.7
                S       56 46.68
STH      0.18 248 iPd    56 44.15   -0.6
                S       56 46.76
PCJ      0.64 231 iPd    56 53.72    0.1
SPJ      0.88 261 iPd    57 07.45    9.6X
                S       57 10.74
      S.D. = 0.6  on   4 of   5 obs.
-----------------------------------------
%  JAN  23, 1993  16h 51m 53.68± 0.80s
   41.205 N ± 5.6km   20.127 E ±10.9km
   DEPTH =  10.0km  (geophysicist)
 ALBANIA                                (391)
      ML 3.4 (TIR).

LACI     0.53 324 iPgc   52 04.00   -0.5
                iSg     52 13.40
PHP      0.53  26 iPgc   52 04.50    0.0
                iSg     52 14.00
KBN      0.77 139 ePg    52 08.30   -0.4
                iSg     52 21.30
TPE      0.91 186 ePn    52 11.50    0.4
                iSn     52 27.50
BCI      1.16 358 ePn    52 15.90    0.5
                iSn     52 33.50
      S.D. = 0.6  on   5 of   5 obs.
-----------------------------------------
   JAN  23, 1993  17h 23m 05.84± 0.41s
   19.040 S ± 3.0km  169.355 E ± 3.0km
   DEPTH = 246.4 ±  3.9 km
   5.1mb ( 42 obs.)
 VANUATU ISLANDS                        (186)

PVC      1.63 322 iP     23 44.90   -0.2
                iS      24 15.10
BKM      1.73 322 iPd    23 45.90    0.0
                iS      24 17.00
DZM      4.07 222 iPd    24 11.40    0.6
                iS      25 05.00
SVA      8.68  85 eP     25 08.10   -0.5
MBU      9.15  78 eP     25 15.20    0.5
HNR     13.20 315 eP     26 05.00   -0.5
                eS      28 40.00
BRS     17.35 238 iPc    26 54.50    0.3
        0.7s     32.00nm          4.9mb
                i       26 59.00
                e       27 11.00
                iS      30 12.00
                iScP    34 35.50
ARMA    19.66 231 iPd    27 19.80    1.8
        1.0s    107.00nm          5.3mb
RMQ     20.37 245 iPd    27 27.00    2.0
        0.6s    122.00nm          5.6mb
NOZ     20.92 161 eP     27 30.40    0.2
        0.4s     30.00nm          5.2mb
WAHZ    21.46 165 eP     27 35.60    0.1
CTA     21.79 263 iPd    27 40.00    1.2
        1.1s    759.49nm          6.1mb
                i       31 20.00
                iS      31 26.00
                e(sS)   32 32.00
QRZ     21.88 174 eP     27 40.20    0.6
MNG     22.14 168 P      27 42.10    0.0
KIW     22.27 169 eP     27 43.30    0.0
PGZ     22.31 166 eP     27 43.10   -0.6
TCW     22.50 170 eP     27 45.90    0.4
CAW     22.53 169 eP     27 44.80   -1.1
MRW     22.59 169 eP     27 45.60   -0.8
MTW     22.67 168 eP     27 45.90   -1.2
THZ     22.85 173 eP     27 49.50    0.5
BLW     22.86 168 eP     27 48.20   -0.8
MOW     22.87 169 eP     27 48.30   -0.8
PMG     23.52 291 iPd    27 56.00    0.5
        0.9s    184.87nm          5.6mb
LTZ     23.80 175 eP     27 57.60   -0.3
CNB     23.99 223 iPc    28 00.90    1.1
        0.5s     77.00nm          5.5mb
CAN     24.23 224 eP     28 02.00    0.0
                i       28 04.60
CMS     24.56 235 iPd    28 05.00    0.0
MDG     26.76 298 eP     28 26.40    1.3
TOO     27.84 224 iPd    28 34.90    0.2
        0.7s     37.00nm          5.1mb
                epP     29 24.30 253kmX
STK     28.05 237 ePd    28 36.70    0.1
        0.7s     40.10nm          5.2mb
BFD     29.60 227 iPc    28 50.30    0.1
        1.0s     22.00nm          4.7mb
TAU     30.21 213 eP     28 55.00   -0.4
WB2     32.97 263 iPd    29 18.50   -1.2
        0.5s     62.30nm          5.5mb
WRA     32.98 263 P      29 18.60   -1.2
        0.9s      8.40nm          4.4mb
ASPA    33.28 256 iPd    29 21.80   -0.6
-       0.4s    722.50nm          6.7mb X
      Z  20s      0.30um          4.0Msz
                eS      34 22.20
MTN     37.21 274 iPd    29 55.30   -0.2
        0.5s    160.00nm          5.8mb
WARB    39.93 252 iPd    30 17.90    0.1
MEEK    47.12 251 iPc    31 14.80   -0.7
        0.4s     61.00nm          5.3mb
RKG     48.70 240 iPc    31 27.00   -0.4
MUN     49.23 244 eP     31 30.00   -1.5
NANU    50.22 256 iPd    31 39.10    0.0
        0.6s     70.00nm          5.3mb
DHH     51.36  40 (P)    31 43.76   -3.9X
MHA     51.76  43 iP     31 49.45   -1.2
MAT     62.63 332 eP     33 05.00   -1.3
        1.3s     42.31nm          5.0mb
YAMJ    63.22 334 eP     33 09.90   -0.2
```

23d 17h

```
OFUJ    63.36 336 eP     33 10.30  -0.7
KUSJ    65.86 340 eP     33 25.90  -1.0
ASAJ    67.44 339 eP     33 37.50   0.6
YSS     70.00 341 iPc    33 52.00  -0.4
        1.0s    30.00nm            5.0mb
NJ2     70.14 316 eP     33 53.00  -0.6
     Z  14s     0.59um             5.0MszX
WHN     72.30 312 eP     34 06.50   0.1
DL2     72.92 323 eP     34 10.00   0.1
        1.0s    43.00nm            5.1mb
TIA     73.87 318 eP     34 15.10  -0.4
CN2     74.35 329 Pc     34 17.60  -0.4
        1.0s    32.00nm            5.0mb
                  epP    35 14.00 239kmX
                  eS     43 34.00
GYA     75.80 305 P      34 27.00   0.2
        1.0s    12.00nm            4.6mb
BJI     76.85 321 eP     34 32.00  -0.1
        1.5s    57.00nm            5.1mb
TIY     77.76 317 eP     34 37.20  -0.1
XAN     78.06 312 Pc     34 39.20   0.2
        1.2s    16.00nm            4.6mb
KMI     78.26 302 Pc     34 41.50   1.0
        1.4s    90.00nm            5.3mb
CHG     78.67 294 ePc    34 43.00   0.5
        1.3s    28.85nm            4.8mb
HHC     80.14 319 Pc     34 50.80   0.7
        1.4s    43.00nm            5.0mb
     Z  18s     0.60um             5.0Msz
BTO     80.96 318 eP     34 55.00   0.7
LZH     82.68 312 Pc     35 04.50   1.1
        1.8s    63.00nm            5.0mb
     Z  16s     0.29um             4.7MszX
KDC     82.81  20 eP     35 02.22  -1.1
        0.9s    90.86nm            5.5mb
SVW     84.68  16 ePd    35 12.88   0.2
        1.1s    84.19nm            5.5mb
PCC     85.29  48 iPc    35 15.90  -0.3
GCC     85.34  48 iPc    35 16.55   0.1
PRS     85.47  49 iPc    35 17.86   0.7
KMPM    85.51  45 eP     35 18.47   1.1
BKS     85.57  48 iP     35 17.98   0.4
ZSP     85.59  47 ePc    35 18.32   0.7
SAO     85.61  49 iP     35 17.88   0.1
FOX     85.65  45 ePc    35 18.46   0.6
BGL     85.69  17 eP     35 17.30  -0.5
SLKM    85.73  19 eP     35 16.59  -1.3
CRP     85.76  18 eP     35 16.42  -1.8
FHC     85.79  44 iPc    35 19.64   1.0
ARN     85.82  48 iPc    35 19.45   0.6
PRI     85.89  50 iPc    35 20.17   0.9
LLA     85.90  49 ePc    35 19.76   0.5
PHAM    85.94  50 eP     35 20.21   0.7
HMR     86.01  47 eP     35 20.47   0.8
TTA     86.11  15 iPc    35 19.05  -0.8
        0.8s     6.44nm            4.5mb
WDC     86.64  45 iPc    35 23.11   0.4
YAK     86.69 342 iPc    35 21.50  -1.0
ORV     86.87  46 iPc    35 24.05   0.2
PMR     86.91  19 eP     35 21.85  -1.6
CMB     86.94  48 iPc    35 24.33   0.0
        0.9s    35.66nm            5.2mb
FRI     86.96  49 iPc    35 24.39   0.1
GTA     87.07 313 P      35 25.50   0.5
        1.0s    33.00nm            5.1mb
ILT     87.13   4 iPc    35 24.00  -0.4
        1.4s   100.00nm            5.5mb
MIN     87.16  46 ePc    35 25.27  -0.1
ISA     87.27  51 iPc    35 26.23   0.3
        0.9s    48.09nm            5.3mb
PEC     87.50  53 eP     35 27.18   0.2
        0.6s     9.57nm            4.8mb
PLM     87.50  54 ePc    35 27.01  -0.2
MTUM    87.94  49 iPc    35 29.42   0.2
MRCM    88.12  49 eP     35 30.81   0.7
GSC     88.35  52 iPc    35 31.17   0.0
BONR    88.38  49 eP     35 31.49   0.0
KMOR    88.48  40 P      35 32.04   0.6
BALM    88.68  21 iPc    35 30.82  -1.3
TCO     88.92  42 P      35 34.27   0.5
GLA     88.93  55 (P)    35 33.90   0.0
BMW     89.04  40 P      35 34.58   0.5
BOD     89.15 334 iPc    35 32.80  -1.4
        1.3s    33.00nm            5.1mb
TNP     89.21  49 iPd    35 35.64   0.4
        1.1s    45.41nm            5.3mb
OBC     89.31  38 P      35 35.83   0.5
```

```
VLMM    89.32  41 P      35 35.53   0.1
CPW     89.34  39 P      35 35.95   0.5
VBEM    89.38  41 P      35 35.81   0.0
ERK     89.50  40 P      35 36.67   0.4
VLL     89.51  41 P      35 36.56   0.2
SHW     89.51  40 eP     35 36.68   0.3
TDL     89.60  40 P      35 37.34   0.6
CROR    89.72  42 P      35 37.35   0.1
HDW     89.72  39 P      35 37.88   0.7
VIPM    89.73  42 P      35 38.00   0.5
GULW    89.78  41 P      35 37.83   0.3
GMW     89.83  39 iPc    35 37.96   0.3
FBA     89.86  17 iPc    35 35.09  -2.3
        0.9s    13.65nm            4.9mb
LON     90.03  40 iPc    35 38.32  -0.3
VGB     90.10  41 eP     35 38.68  -0.3
ZAK     90.20 324 iPc    35 39.30   0.1
        1.6s    41.00nm            5.1mb
FMW     90.20  40 P      35 39.85   0.3
GSM     90.26  39 P      35 40.03   0.3
MCW     90.35  38 P      35 40.79   0.8
RMW     90.37  39 iPc    35 40.38   0.2
NAC     90.63  40 P      35 41.89   0.5
CMW     90.64  38 P      35 41.82   0.4
MXC     90.88  41 P      35 42.78   0.3
TBM     90.96  40 P      35 43.18   0.2
BRVW    91.02  41 P      35 43.55   0.3
PRW     91.09  41 P      35 44.23   0.8
MDW     91.22  41 P      35 44.60   0.6
BVW     91.24  40 P      35 44.46   0.3
ETW     91.32  40 P      35 44.46  -0.2
GBL     91.40  41 P      35 45.36   0.5
CRF     91.55  41 P      35 45.71   0.2
EPH     91.66  40 P      35 46.26   0.2
MOY     92.10 325 eP     35 48.00   0.1
DPW     92.73  40 (P)    35 51.04   0.0
MSU     93.03  50 eP     35 53.35   0.5
BRW     93.08  10 eP     35 52.17   0.1
DUG     93.19  49 eP     35 53.52   0.1
        1.0s     4.12nm            4.4mb
GUN     93.20 298 PKP    35 54.20   0.2
PKI     93.48 298 PKP    35 55.20  -0.1
KKN     93.66 298 PKP    35 56.20   0.2
DMN     93.75 298 PKP    35 56.60   0.2
HVU     93.82  47 eP     35 55.98  -0.3
GKN     94.27 298 PKP    35 57.20  -1.5
DAU     94.38  49 eP     35 59.50   0.3
SRU     94.44  50 (P)    35 58.13  -1.2
PV09    95.25  51 eP     36 03.27   0.1
                  (pP)   36 18.79  53kmX
PV10    95.28  51 eP     36 01.45  -1.8
PV08    95.63  51 (P)    36 03.90  -1.0
LCCM    95.91  44 eP     36 05.20  -0.6
ALQ     96.10  55 iPd    36 06.80  -0.1
        1.0s     7.17nm            4.9mb
                  (pP)   36 30.79  88kmX
WMQ     97.15 314 P      36 11.80   0.5
YKA    100.44  27 ePdiff36 24.30  -1.4
        0.6s     3.30nm            5.0mb
RSSD   100.64  47 (Pdiff36 25.64  -1.7
        1.5s    15.35nm            5.3mb
NAO    135.56 345 PKP    41 57.10  -0.7
        0.7s     2.50nm
BRG    142.74 334 ePKP   42 06.80  -4.3X
        1.2s    11.00nm
CLL    142.78 335 ePKP   42 07.00  -4.2X
        1.9s    37.00nm
SRO    142.89 327 ePKP   42 08.40  -3.0X
PRU    143.15 333 ePKP   42 08.50  -3.3X
ZST    143.24 329 ePKP   42 08.20  -3.8X
SRS    143.45 314 ePKP   42 08.89  -3.8X
OUR    143.52 313 iPKP   42 09.17  -3.6X
SOH    143.74 314 ePKP   42 09.80  -3.4X
MOX    143.85 336 ePKP   42 10.50  -2.5X
        1.6s    49.00nm
KNT    143.89 315 ePKP   42 10.21  -3.2X
PAIG   143.91 313 ePKP   42 09.82  -3.6X
HOF    144.01 335 iPKPc  42 10.90  -2.4X
        1.0s    26.00nm
VAY    144.04 315 iPKP   42 11.20  -2.4X
        1.2s   109.00nm
KHC    144.21 333 PKPc   42 11.60  -2.1
        1.1s    18.90nm
                  e      42 39.00
                  e      43 25.00
GRG    144.32 315 ePKP   42 11.44  -2.7X
GEC2   144.37 332 ePKPc  42 12.10  -2.0
```

```
        1.3s    31.38nm
SKO    144.46 317 iPKPc  42 14.10  -0.2
        1.2s   267.00nm
WET    144.50 333 iPKPc  42 12.60  -1.6
LIT    144.65 314 ePKP   42 12.84  -1.9
GRF    144.76 335 iPKPc  42 13.90  -0.7
                  e(pPKP43 13.30
IVA    144.96 319 iPKPc  42 14.48  -0.8
PLE    145.01 320 iPKPc  42 15.13  -0.3
PVY    145.06 319 iPKPc  42 14.59  -0.9
FNA    145.09 315 ePKP   42 14.48  -1.0
BCI    145.13 319 ePKP   42 14.00  -1.5
AGG    145.24 312 ePKP   42 14.28  -1.5
PHP    145.25 317 iPKPc  42 14.30  -1.4
OHR    145.31 316 iPKP   42 15.00  -0.9
        1.3s   183.00nm
TNS    145.36 338 ePKPc  42 15.30  -0.4
NKY    145.54 320 iPKPc  42 16.15  -0.1
TTG    145.60 319 iPKPc  42 15.87  -0.3
SDA    145.65 318 ePKP   42 16.50   0.2
BRY    145.77 320 iPKPc  42 16.55  -0.2
TIR    145.79 317 iPKPd  42 17.00   0.4
KBA    145.83 330 iPKPd  42 16.60  -0.1
ULC    145.86 319 iPKPc  42 16.72   0.0
LSK    145.91 315 ePKP   42 18.50   1.6
FUR    145.93 333 ePKP   42 17.10   0.4
BDV    145.94 319 iPKPc  42 16.87   0.0
VBY    145.99 327 ePKP   42 17.40   0.6
                  e      43 17.50
LJU    145.99 328 ePKP   42 15.50  -1.3
                  e      43 17.00
HCY    146.06 320 ePKP   42 17.12   0.1
RBL    146.19 329 PKP    42 17.40   0.2
                  eSg    42 20.20
TPE    146.23 315 ePKP   42 15.00  -2.3
CEY    146.26 328 ePKP   42 16.10  -1.2
                  e      43 18.00
VOY    146.32 329 iPKPc  42 17.70   0.3
                  e      43 18.00
SNF    146.42 343 iPKPc  42 18.40   1.1
FVI    146.45 330 PKP    42 18.00   0.6
WTTA   146.47 332 iPKPc  42 18.60   0.8
        1.1s    41.90nm
                  i      42 38.90
VLO    146.49 316 ePKP   42 19.00   1.3
WLF    146.61 340 iPKPd  42 19.81   2.2
TRI    146.61 328 ePKP   42 18.50   0.8
                  e      43 17.70
SQTA   146.69 332 iPKPc  42 19.10   1.1
        0.7s    25.10nm
DOU    146.71 342 iPKPd  42 19.50   1.7
HVAR   146.84 322 ePKP   42 18.70   0.5
OGA    147.04 332 ePKP   42 20.50   1.8
CDF    147.30 338 iPKPc  42 20.80   1.9
        1.2s    55.95nm
SLE    147.38 336 ePKPc  42 20.70   1.7
OSS    147.57 333 iPKPc  42 21.90   2.4
ZLA    147.65 336 ePKPc  42 21.40   1.9
LLS    147.91 334 ePKPc  42 22.60   2.5X
BSF    147.96 338 iPKPc  42 22.30   2.3
        1.0s    17.20nm
HAU    147.97 338 iPKPc  42 22.60   2.7X
        0.6s    13.55nm
VDL    148.01 333 ePKPc  42 22.90   2.6X
BCAO   148.03 247 iPKPd  42 20.00  -1.0
        1.0s    45.00nm
                  ic     42 23.30
                  ic     43 23.50
TMA    148.57 334 iPKPc  42 24.10   3.0X
ARV    148.57 326 PKP    42 20.80  -0.2
VAI    148.80 333 PKP    42 24.70   3.5X
SFI    148.84 328 PKP    42 26.10   4.8X
TDS    148.97 317 PKP    42 25.60   3.9X
MMK    148.99 334 ePKPc  42 25.80   3.9X
CRE    149.00 327 PKP    42 25.40   3.6X
ASS    149.01 326 PKP    42 25.20   3.4X
AQU    149.09 324 PKP    42 26.40   4.5X
DIX    149.19 335 ePKPc  42 26.40   4.2X
FLN    149.23 347 iPKPc  42 25.40   3.6X
        1.0s    41.00nm
FIR    149.24 328 ePKP   42 25.00   3.0X
SDI    149.28 323 PKP    42 25.90   3.7X
LDF    149.31 346 iPKPc  42 25.50   3.5X
        1.0s    26.20nm
EMS    149.39 336 ePKPc  42 26.40   4.0X
LOR    149.45 340 iPKPc  42 26.20   4.0X
        0.7s    18.75nm
```

```
LBF   149.66 340 iPKPc 42 26.60   4.0X
       1.0s    18.40nm
GRR   149.67 347 iPKPc 42 26.60   4.1X
       0.8s    23.90nm
SSF   149.74 341 iPKPc 42 27.10   4.5X
       1.1s    37.60nm
LSD   149.80 335 PKP   42 27.54   4.4X
LPL   149.92 335 iPKPc 42 28.00   4.7X
       0.8s    15.05nm
LPG   149.93 335 iPKPc 42 28.20   4.8X
       1.2s    37.20nm
SMF   150.00 340 ePKP  42 27.40   4.3X
       1.0s    12.20nm
RSP   150.01 334 PKP   42 27.41   4.1X
SOI   150.01 315 PKP   42 28.70   5.4X
AVF   150.03 341 ePKP  42 27.40   4.3X
       1.2s    17.25nm
LPF   150.04 347 iPKPc 42 27.60   4.6X
       0.9s    35.55nm
BHB   150.26 334 PKP   42 26.86   3.3X
BNI   150.33 335 PKP   42 29.20   5.4X
FIN   150.36 332 PKP   42 27.27   3.6X
RRL   150.39 334 PKP   42 28.96   5.0X
BGF   150.40 341 ePKP  42 28.50   4.9X
       0.8s    15.30nm
ROB   150.44 332 PKP   42 27.77   3.9X
PZZ   150.60 334 PKP   42 30.11   5.9X
STV   150.71 333 PKP   42 28.46   4.1X
IMI   150.73 332 PKP   42 29.01   4.7X
MAF   150.78 341 iPKPc 42 29.50   5.2X
       0.9s     5.90nm
TCF   150.83 342 iPKPc 42 29.50   5.1X
       0.7s    11.25nm
LSF   151.06 342 iPKPc 42 29.80   5.1X
       0.5s     6.90nm
MFF   151.19 345 iPKPc 42 30.20   5.4X
       1.0s    23.80nm
PGF   151.26 329 ePKP  42 30.60   5.4X
       1.1s    73.25nm
FRF   151.55 333 ePKP  42 31.00   5.5X
       1.0s    22.80nm
LRG   151.76 333 ePKP  42 31.60   5.9X
       1.0s    33.40nm
RJF   151.93 342 iPKPc 42 31.90   5.9X
       0.7s     4.85nm
LFF   152.49 342 ePKP  42 33.40   6.7X
       0.8s    13.15nm
LPO   152.59 341 ePKP  42 33.70   6.8X
       1.1s    17.85nm
     S.D. = 0.9  on 210 of 273 obs.
-----------------------------------
*  JAN  23, 1993  17h 53m 30.93± 0.96s
   44.997 S ±11.5km  167.811 E ±11.5km
   DEPTH = 120.8 ± 12.2 km
   3.2mb (  1 obs.)
 SOUTH ISLAND, NEW ZEALAND        (162)

MSZ     0.34  13 Pd     53 47.60  -0.1
                eS      54 01.60
TLC     0.91 103 Pc     53 53.30   0.7
MMCZ    0.94  91 Pc     53 53.70   0.9
BCZ     1.01 179 Pc     53 50.40  -3.0
                eS      54 06.10
MHZ     1.04  94 Pc     53 54.60   0.7
CMCZ    1.05  99 Pc     53 54.60   0.7
                S       54 12.90
SBCZ    1.07  96 Pc     53 54.70   0.6
LRCZ    1.09  94 P      53 55.10   0.7
LSCZ    1.11  97 Pc     53 55.10   0.6
MSCZ    1.14  95 Pc     53 55.40   0.6
BWZ     1.55  73 Pd     54 00.00   0.7
TUZ     1.60 127 Pd     53 59.70  -0.2
                S       54 21.00
LMZ     1.65  40 P      54 00.50   0.0
ODZ     2.01  92 eP     54 05.00   0.0
EWZ     2.64  57 P      54 12.80  -0.3
MQZ     3.70  71 eP     54 26.50  -0.8
LTZ     3.91  57 eP     54 28.60  -1.6
DSZ     4.36  43 eP     54 34.60  -1.7
WRA    37.27 301 P      00 34.20   1.6
       0.8s     0.30nm          3.2mb
     S.D. = 1.2  on  19 of  19 obs.
-----------------------------------
*  JAN  23, 1993  17h 53m 54.31± 1.14s
   34.796 N ±13.1km   25.480 E ±12.0km
   DEPTH =   5.0km  (geophysicist)
 CRETE                            (370)
```

```
        MD 3.9 (ATH).

NPS     0.48  13 iPgd   54 02.80  -1.1
VLI     2.82 314 ePn    54 40.90   0.0
YER     3.26  43 iP     54 50.00   2.9X
KSL     3.60  67 ePn    54 54.20   2.3
ELL     4.09  60 eP     55 02.00   3.0X
CSS     6.45  86 eP     55 35.50   3.1X
                eS      56 45.20
VAY     6.91 341 eP     55 36.00  -2.6X
GEC2   16.53 332 eP     57 49.60   1.2
        0.8s      0.46nm          2.7mb
                e       57 59.80
                e       58 08.40
GKN    50.33  81 P      02 54.00  -0.4
DMN    50.86  81 P      02 58.40  -0.2
KKN    50.93  80 P      02 57.60  -1.4
PKI    51.13  81 P      03 00.00  -0.6
GBA    51.25 101 P      03 02.00   0.7
GUN    51.37  80 P      03 02.00  -0.5
     S.D. = 1.3  on  10 of  14 obs.
-----------------------------------
    JAN  23, 1993  18h 22m 11.68± 0.76s
    54.475 N ± 3.3km  161.633 W ± 2.1km
    DEPTH =  22.6 ±  5.0 km
    5.7mb (133 obs.)  5.1Msz ( 52 obs.)
 ALASKA PENINSULA                (12)
        Mw 5.6 (HRV). ML 5.2 (PMR). Ms
        5.0 (BRK). Felt (IV) at King
        Cove and Sand Point.
        CENTROID, MOMENT TENSOR     (HRV)
        Data Used: GDSN
        L.P.B.: 34S, 61C
        Centroid Location:
        Origin Time        18:22:16.6 0.2
        Lat 54.16N 0.03 Lon 161.50W 0.05
        Dep  32.2 2.5 Half-duration  1.6
        Moment Tensor;   Scale 10**17 Nm
          Mrr= 1.10 0.05  Mtt=-1.07 0.07
          Mff=-0.03 0.05  Mrt= 2.64 0.20
          Mrf= 1.16 0.11  Mtf=-0.46 0.07
         Principal Axes:
          T  Val=  3.05  Plg=56  Azm=335
          N        0.14      1       67
          P       -3.19     34      158
        Best Double Couple:Mo=3.1*10**17
         NP1:Strike=253 Dip=11 Slip=  97
         NP2:         66     79       89

SDN     1.09  37 ePd    22 33.27   1.8
KDC     6.07  54 eP     23 39.91  -2.4X
MCNL    6.19  37 eP     23 44.54   0.6
                eS      24 59.59
CDD     6.27  41 eP     23 45.46   0.3
AUI     6.63  39 eP     23 50.90   0.8
                S       25 10.33
AUW     6.63  39 eP     23 51.36   1.1
AUH     6.64  39 P      23 51.45   1.0
AUL     6.66  39 eP     23 51.90   1.3
AUE     6.66  39 eP     23 51.35   0.7
PDB     6.69  34 eP     23 51.54   0.5
OPT     6.92  38 eP     23 54.98   0.7
INW     7.25  36 eP     24 00.38   1.4
INE     7.27  36 eP     24 00.42   1.1
ILIM    7.32  36 eP     23 59.82  -0.1
SVW     7.38  23 eP     24 00.87   0.1
RDW     7.67  35 eP     24 06.32   1.4
RS1     7.67  35 eP     24 06.14   1.2
RS2     7.67  35 eP     24 06.33   1.4
RSO     7.67  35 eP     24 05.87   0.9
NCT     7.69  34 eP     24 06.47   1.4
RDN     7.71  35 eP     24 07.39   2.0
REF     7.71  35 eP     24 06.47   1.0
DFR     7.79  34 eP     24 06.25  -0.3
BRLK    7.89  43 eP     24 07.46  -0.4
CKL     8.36  33 eP     24 15.08   0.6
BGL     8.39  32 eP     24 15.37   0.4
NKA     8.40  37 eP     24 18.07   3.2X
CKT     8.40  33 eP     24 15.36   0.3
CKN     8.43  33 eP     24 17.00   1.6
SPU     8.44  33 eP     24 15.71   0.2
CP2     8.44  32 eP     24 15.70   0.0
CRP     8.47  33 eP     24 16.24   0.2
CGLM    8.55  33 eP     24 17.20   0.1
SLKM    8.61  41 eP     24 16.49  -1.4
SEW     8.67  45 eP     24 16.78  -1.9
MPA     8.94  43 eP     24 21.23  -1.1
```

```
TTA     8.97  17 eP     24 22.38  -0.4
SUA     9.08  35 eP     24 23.29  -1.1
SKT     9.21  31 eP     24 27.00   0.9
PTE     9.30  41 eP     24 24.78  -2.5X
PMS     9.34  39 eP     24 26.60  -1.3
ADK     9.40 260 (P)    24 29.21   0.5
PWA     9.50  36 eP     24 30.10   0.0
KNIM    9.52  46 eP     24 27.81  -2.6X
MID     9.71  53 eP     24 31.30  -1.6
PLRM    9.72  38 eP     24 30.38  -2.8X
PMR     9.72  38 eP     24 30.75  -2.4X
KNK     9.86  40 eP     24 32.45  -2.6X
GHO     9.92  37 eP     24 33.40  -2.6X
ANM    10.30 351 (P)    24 41.63   0.6
VLZ    10.52  45 eP     24 41.96  -2.1
SCM    10.54  40 eP     24 42.03  -2.4
SGAM   10.69  49 eP     24 43.38  -3.0X
RAGM   10.87  50 eP     24 46.68  -2.3
KLU    10.89  43 eP     24 46.41  -2.8X
TOA    11.14  40 eP     24 51.30  -1.3
TZL    11.39  42 eP     24 54.18  -1.8
SDG    11.63  40 eP     24 57.13  -2.1
GLB    11.73  46 eP     24 58.10  -2.5X
BALM   12.19  50 eP     25 04.08  -2.7X
YAH    12.21  53 eP     25 05.22  -2.0
IMA    12.27  15 eP     25 07.95   0.1
FBA    12.54  28 eP     25 07.37  -4.0X
PCA    12.83  55 eP     25 13.09  -2.2
BCPM   13.09  56 eP     25 16.41  -2.3
PNL    13.13  58 eP     25 16.98  -2.3
HON    13.34  59 eP     25 19.72  -2.3
FYU    14.50  27 eP     25 38.96   1.9
SIT    15.00  69 eP     25 44.78   1.2
        0.9s    33.99nm          4.7mb
ILT    15.69 336 iPc+   25 52.00  -0.5
        1.0s   220.00nm          5.3mb
     Z  20s    17.00um          4.5Msz
     N  18s     8.50um
     E  18s     7.70um
BRW    17.03   5 eP     26 08.54  -1.0
PET    23.32 283 eP     27 19.00   0.4
        1.0s   460.00nm          6.0mb
     Z  20s     9.90um          5.3Msz
     N  20s     1.40um
     E  20s     4.30um
                e       27 47.00
                eS      31 30.00
                eSS     32 28.00
PGC    24.22  88 eP     27 30.50   3.2X
        1.2s    51.00nm          5.0mb
GMW    25.15  90 eP     27 37.93   1.6
YKA    25.33  53 eP     27 39.20   1.4
        0.8s    25.90nm          4.9mb
MGD    25.84 302 eP     27 43.00   0.4
        0.9s   290.00nm          5.9mb
     Z  18s     5.50um          5.1Msz
     N  20s     3.60um
     E  18s     3.50um
                i       27 53.00
                e       28 20.00
                e       28 40.00
                e       31 06.00
LON    26.13  91 eP     27 47.27   1.7
VGB    27.40  92 eP     27 58.72   1.5
DPW    27.66  86 eP     27 59.83   0.3
NEW    28.09  84 eP     28 03.26  -0.1
        0.8s    29.32nm          5.1mb
WDC    29.40 102 eP     28 30.04  14.8X
        3.8s   540.00nm
     Z  20s     3.60um          5.0Msz
     N  20s     1.00um
     E  20s     2.50um
                iS      33 15.04
                eLQ     34 59.04
                iLR     36 00.04
SES    30.57  77 eP     28 25.00  -0.5
BKS    31.42 106 eP     28 48.09  15.0X
        1.3s    70.00nm
     Z  19s     3.50um          5.1Msz
                i       33 52.09
                eLQ     36 01.09
                eLR     36 33.09
STAN   31.79 106 ePc    28 53.70  17.4X
        1.5s   200.00nm
     Z  19s     3.90um          5.1Msz
     N  19s     2.80um
     E  20s     6.00um
```

23d 18h

```
                e      33 56.70
                eLQ    36 07.70
                eLR    36 56.70
ARN    32.19 106 (P)   28 41.33    1.5
CMB    32.36 103 ePc   28 58.70   17.4X
       1.3s     20.00nm
     Z  20s      3.50um          5.0Msz
     N  19s      1.50um
     E  20s      2.30um
                eS     34 00.70
                iLQ    36 13.70
                iLR    37 19.70
CMB    32.36 103 P     28 50.00    8.7X
     Z  20s      3.62um          5.1Msz
LCCM   32.41  85 eP    28 42.20    0.3
RES    32.43  27 eP    28 41.00   -0.5
       0.7s      5.00nm          4.6mb X
OPA    32.85 174 eP    28 45.78    0.1
KUR    33.19 275 eP    28 47.00   -1.4
       0.8s    190.00nm          6.1mb
     Z  20s      3.20um          5.0Msz
     N  20s      3.20um
     E  20s      3.20um
HON    33.21 174 P     29 00.00   11.2X
     Z  21s      4.05um          5.1Msz
TIK    33.39 327 iPc   28 48.00   -1.9
       1.2s     80.00nm          5.5mb
     Z  16s      8.00um          5.5MszX
                e      30 05.00
                ePPP   30 15.00
                i      31 30.00
MEMM   33.44 102 (P)   28 53.55    2.9X
                e      29 08.62
BONR   33.60 101 eP    28 53.32    0.9
TNP    34.13 100 eP    28 58.24    1.3
       0.8s     12.44nm          4.9mb
HVU    34.29  91 eP    28 58.93    0.7
                ePcP   31 33.34
ISA    35.12 104 P     29 20.00   14.8X
     Z  20s      2.88um          5.0Msz
YSS    35.17 281 ePc+  29 04.70   -0.7
       1.0s     40.00nm          5.3mb
     Z  20s      2.80um          5.0Msz
     N  20s      0.90um
     E  20s      2.00um
                e      30 25.00
                e      31 35.00
DUG    35.28  93 eP    29 07.31    0.6
       1.1s     22.45nm          5.0mb
                ePcP   31 36.21
YAK    35.29 310 eP    29 04.00   -2.3
       0.8s    585.00nm          6.6mb
     Z  23s      8.20um          5.4MszX
     N  23s      2.70um
     E  22s      5.50um
                e      30 27.00
                ePPP   30 44.00
                i      31 35.00
                eS     34 27.00
                i      39 21.00
BW06   35.55  87 eP    29 10.27    1.2
       0.6s      4.12nm          4.5mb X
FCC    35.98  55 eP    29 15.00    2.8
DAU    36.05  92 eP    29 14.12    0.7
                ePcP   31 38.51
KUSJ   36.28 274 P     29 12.50   -2.4
GSC    36.32 103 eP    29 16.25    0.8
                ePcP   31 39.29
ARUT   36.51  97 (P)   29 18.64    1.5
MSU    36.76  95 eP    29 20.42    1.1
                ePcP   31 41.42
ASAJ   36.87 277 P     29 19.60   -0.2
SRU    37.32  93 eP    29 24.00    0.0
HOOJ   37.54 274 eP    29 24.40   -1.1
RSSD   37.95  81 eP    29 29.01   -0.2
       1.0s     26.03nm          5.0mb
     Z  21s      1.48um          4.8Msz
                ePcP   31 43.69
PV09   38.54  92 eP    29 34.78    0.4
PV10   38.68  92 eP    29 35.49    0.0
                ePcP   31 46.85
PV08   38.77  92 eP    29 36.91    0.6
MRRJ   38.81 276 eP    29 34.80   -1.3
ULM    39.07  68 ePc   29 40.90    2.7
GLD    40.00  88 eP    29 46.49    0.2
       1.3s     37.44nm          4.9mb
     Z  19s      3.27um          5.2Msz
AOMJ   40.39 274 eP    29 49.30    0.0
OFUJ   40.60 272 P     29 50.80   -0.2
YAMJ   42.16 272 P     30 03.70   -0.1
ALQ    42.54  94 eP    30 08.59    1.4
       1.2s     12.74nm          4.5mb X
     Z  21s      0.86um          4.6Msz
                iPcP   31 59.79
                eScP   35 46.36
NIIJ   43.39 272 P     30 14.10    0.2
KAKJ   43.42 270 eP    30 13.70   -0.4
VLA    43.65 283 iPc   30 16.00    0.2
       1.0s     66.00nm          5.4mb
                i      30 23.50
                e      32 03.00
BOD    44.13 310 iPd   30 18.90   -0.7
       0.9s    146.00nm          5.8mb
CHJJ   44.22 271 P     30 20.90    0.3
MAT    44.34 272 iPc   30 21.50   -0.1
       0.8s    231.34nm          6.1mb
     Z  20s      1.06um          4.8Msz
                eS     36 51.00
MTMJ   44.54 272 eP    30 22.80   -0.5
IIDJ   45.24 271 eP    30 29.80    0.9
ACO    45.59  86 iPc   30 31.30   -0.3
TSRJ   46.33 272 P     30 37.50    0.1
NRI    46.54 333 iPc   30 37.00   -1.6
       1.0s     51.00nm          5.5mb
                e      32 12.00
                e      32 25.00
CN2    46.83 288 Pc    30 40.30   -0.9
       1.0s    130.00nm          5.9mb
     Z  22s      2.02um          5.0Msz
     N  18s      1.60um
     E  18s      1.00um
                ePP    32 29.00
                eS     37 28.00
DAG    46.92  11 iPd   30 41.10   -0.4
       0.9s    109.24nm          5.9mb
     Z  20s      3.12um          5.3Msz
WMOK   47.16  88 ePd   30 43.45   -0.6
       0.9s     16.28nm          5.1mb
MEO    47.25  88 iPc   30 44.10   -0.6
WKYJ   47.48 271 P     30 47.30    0.7
CIT    47.85 304 eP    30 49.50    0.3
SIO    47.90  85 eP    30 49.00   -0.8
YONJ   48.04 274 P     30 51.30    0.4
LNO    48.08  85 eP    30 49.80   -1.3
LNO2   48.08  85 eP    30 50.10   -1.0
LNO3   48.08  85 eP    30 50.20   -1.0
TUL    48.08  85 eP    30 50.30   -0.9
       0.4s      3.70nm          4.8mb
                e      42 00.00
                LR     46 46.00
RLO    48.35  84 eP    30 51.30   -2.0
TKSJ   48.55 272 P     30 55.60    0.8
SNY    49.16 288 iPc   30 59.00   -0.4
       1.0s    260.00nm          6.2mb
     Z  22s      2.57um          5.2Msz
     N  16s      1.20um
     E  17s      1.62um
                pP     31 10.00   38kmX
                PP     32 54.00
                S      37 56.00
                ScS    40 50.00
SLM    49.40  78 P     31 10.00    8.7X
     Z  19s      1.02um          4.8Msz
FVM    49.74  79 eP    31 01.71   -2.3
       0.8s     40.08nm          5.5mb
     Z  21s      2.30um          5.2Msz
SHNJ   50.16 275 P     31 07.70    0.5
EEO    50.17  63 eP    31 08.50    1.4
MIAR   50.33  84 eP    31 06.87   -1.6
       1.0s     20.06nm          5.1mb
     Z  18s      0.72um          4.7Msz
                ePcP   32 25.66
OLY    50.87  82 eP    31 09.57   -3.0X
ELC    50.91  78 (P)   31 11.40   -1.5
                ePcP   32 28.42
KUMJ   51.47 274 P     31 17.30    0.2
IRK    52.03 309 ePc   31 18.50   -2.7
       1.2s     61.00nm          5.4mb
     Z  19s      2.04um          5.2Msz
     N  18s      1.48um
     E  20s      1.22um
                e      32 40.20
KAGJ   52.41 272 P     31 24.30    0.0
ZAK    53.79 308 iPc   31 33.70   -0.5
       1.1s     54.00nm          5.5mb
     Z  20s      2.77um          5.3Msz
     N  20s      2.38um
                e      32 40.00
                eS     39 03.00
                e      41 22.00
RSNY   53.93  62 (P)   31 33.11   -2.2
     Z  20s      1.92um          5.2Msz
MOY    53.93 310 ePc   31 35.10   -0.1
       1.1s    104.00nm          5.8mb
BJI    54.47 291 eP    31 38.50   -0.8
       1.0s     66.00nm          5.6mb
     Z  22s      2.16um          5.2Msz
     N  15s      0.97um
                ePP    33 41.00
                eS     39 12.00
GBTN   54.91  76 eP    31 40.44   -2.3
TKL    55.17  76 eP    31 42.05   -2.5
CBM    55.47  56 eP    31 44.20   -2.4
       0.8s     22.31nm          5.2mb
     Z  19s      1.95um          5.2Msz
NAV    55.65  72 eP    31 46.27   -1.8
HHC    56.38 295 Pc    31 53.00   -0.3
       0.8s    120.00nm          6.0mb
     Z  24s      3.10um          5.3MszX
     N  16s      1.01um
     E  18s      1.64um
                sP     32 06.00
                PP     34 00.00
                eS     39 40.00
                sS     39 53.00
CVL    56.46  70 eP    31 51.95   -1.9
TIA    56.67 287 eP    31 54.30   -1.1
       1.4s    140.00nm          5.8mb
     Z  20s      1.94um          5.2Msz
     N  20s      2.79um
                S      39 45.00
CBN    56.90  69 eP    31 56.00   -0.9
HRV    56.90  62 P     32 10.00   13.1X
     Z  18s      1.61um          5.1Msz
AKU    56.99  17 iP    31 57.80    0.6
       1.0s     44.00nm          5.4mb
PRM    57.10  76 eP    31 56.44   -2.0
BTO    57.37 295 P     32 00.00   -0.4
       1.2s    130.00nm          5.8mb
     N  14s      0.62um
     E  15s      1.33um
CEH    57.63  72 eP    31 59.90   -2.2
       0.7s     37.61nm          5.5mb
     Z  18s      1.60um          5.2Msz
APA    57.78 353 iPc   32 00.80   -1.9
LMN    57.84  55 eP    32 04.50    1.0
SSE    58.10 280 Pd    32 05.20   -0.2
       1.0s    140.00nm          6.0mb
     Z  20s      0.90um          4.9Msz
                S      40 05.00
TIY    58.17 291 Pc    32 05.00   -1.0
       0.8s     62.00nm          5.7mb
     Z  24s      3.51um          5.4MszX
     N  15s      1.38um
SDF    58.28 356 iP    32 05.00   -1.2
NJ2    58.73 282 Pc    32 08.50   -1.3
       0.9s    100.00nm          5.9mb
     Z  22s      1.03um          4.9Msz
SGS    58.80  76 eP    32 07.88   -2.4
ELT    58.86 319 iPc   32 09.00   -1.5
       1.2s    141.00nm          6.0mb
     Z  18s      2.50um          5.4Msz
     N  18s      3.00um
     E  18s      1.60um
-               eS     40 10.00
HBF    59.07  76 eP    32 10.05   -2.1
WHN    62.41 285 iPc   32 33.50   -1.4
       1.0s     44.00nm          5.6mb
     Z  20s      1.25um          5.1Msz
XAN    62.80 291 Pc    32 36.50   -1.0
       1.1s     79.00nm          5.8mb
     Z  20s      1.52um          5.2Msz
     N  15s      1.64um
                pP     32 42.00   18kmX
GTA    63.50 301 iPd   32 41.00   -1.2
       1.0s    190.00nm          6.2mb
     Z  20s      4.04um          5.6Msz
     E  16s      1.45um
KAF    63.59 356 iP    32 40.70   -1.5
       0.8s     90.20nm          6.0mb
SVE    63.86 336 iPc   32 43.00   -1.1
```

```
        1.0s   160.00nm          6.1mb
     Z  18s     2.50um          5.4Msz
     N  18s     2.50um
     E  18s     0.50um
                  e      33 16.00
                  eS     41 50.00
LZH    63.97 296 iPc     32 45.00  -0.4
        1.2s   260.00nm          6.2mb
     Z  22s     2.61um          5.4Msz
     E  16s     1.21um
                  ScS    42 37.00
ARU    64.71 337 iPc     32 48.50  -1.2
        1.0s   220.00nm          6.3mb
     Z  17s     3.00um          5.6MszX
     N  18s     2.00um
NAO    64.89   4 P       32 49.60  -1.2
        1.0s    78.80nm          5.8mb
NUR    65.26 357 iP      32 51.70  -1.4
        0.8s   132.70nm          6.1mb
HFS    65.68   3 eP      32 54.10  -1.7
        0.8s    93.80nm          6.0mb
     Z  18s   708.00um          7.9MszX
                  LR     54 38.00
PUL    65.71 353 (P)     32 55.00  -1.0
        1.2s   240.00nm          6.2mb
     Z  23s     2.40um          5.3MszX
     N  25s     1.20um
     E  29s     2.20um
                  e      33 27.00
WMO    65.72 312 P       32 56.40  -0.1
        1.2s    86.00nm          5.8mb
     Z  20s     3.74um          5.6Msz
                  pP     33 00.00  12kmX
                  sP     33 08.00
UPP    66.02   0 iP      32 56.40  -1.5
CD2    67.99 292 iPc     33 10.70  -0.3
        1.0s   130.00nm          6.0mb
MOS    69.02 348 eP      33 16.00  -0.9
     Z  20s     2.00um          5.4Msz
     N  18s     4.00um
     E  18s     2.90um
EKA    69.14  13 P       33 17.00  -0.6
        0.9s    66.40nm          5.8mb
MUD    69.17   5 iPc     33 17.50  -0.3
        0.9s    98.00nm          5.9mb
BAG    69.73 270 eP      33 20.80  -1.2
        1.0s    40.00nm          5.5mb
OBN    69.76 349 iPc     33 40.00  18.6X
        1.0s   122.00nm
                  e      33 56.00
GYA    69.86 287 iPc     33 22.00  -0.6
        1.0s    85.00nm          5.8mb
     Z  18s     1.25um          5.2Msz
                  PP     36 02.00
                  S      42 31.00
                  SKS    43 14.00
DMU    69.99  16 iPd     33 22.70  -0.1
COP    70.10   4 iPd     33 25.00   1.6
        0.9s   141.18nm          6.1mb
DCN    70.47  16 iPd     33 25.80   0.1
PRZ    70.69 317 iPc     33 28.00   0.5
     Z  20s     2.10um          5.4Msz
     N  20s     1.90um
     E  20s     1.50um
MNK    71.72 354 iP      33 29.00  -4.3X
        1.0s   396.00nm          6.4mb
     Z  26s     2.90um          5.4MszX
FRU    71.85 320 iPc     33 34.60   0.3
        1.6s   290.00nm          6.1mb
     Z  18s     3.60um          5.7Msz
     N  18s     4.00um
     E  17s     1.70um
                  e      42 54.00
                  e      43 19.00
WIT    72.64   7 eP      33 40.00   1.3
KMI    73.08 289 Pc      33 41.50  -0.6
        1.5s    90.00nm          5.6mb
     Z  20s     1.90um          5.4Msz
                  pP     33 53.50  40kmX
                  eS     43 08.00
BRNL   73.39   3 ePc     33 41.80  -1.3
WTS    73.46   7 ePc     33 43.50   0.0
        1.0s   131.00nm          5.9mb
KSH    74.22 317 P       33 49.00   0.6
        1.0s    70.00nm          5.6mb
     Z  24s     4.72um          5.7MszX
     N  16s     2.73um
                  PcP    34 02.00
                  eS     43 20.00
UCC    74.45   9 P       33 49.00  -0.3
CLL    74.49   3 iPc     33 49.30  -0.2
                  i      33 52.90
BNS    74.52   7 iPc     33 49.60  -0.1
ENN    74.61   8 eP      33 50.50   0.3
        1.0s    90.00nm          5.8mb
SNF    74.72   9 iP      33 50.76  -0.1
KLL    74.77   8 ePc     33 58.80   7.6X
BRG    74.96   3 iPc     33 52.10  -0.1
        1.0s    80.00nm          5.7mb
                  i      34 24.20
KSP    75.04   1 iPc     33 52.00  -0.7
        1.0s    68.00nm          5.6mb
                  e      36 50.60
MOX    75.10   4 iP      33 53.20   0.1
        1.3s   120.00nm          5.8mb
     Z  20s     0.60um          4.9Msz
DOU    75.16   9 Pc      33 53.20  -0.2
        1.1s   111.50nm          5.8mb
TNS    75.34   7 iPc     33 54.20  -0.4
HOF    75.44   4 iPc     33 54.80  -0.3
        0.7s    21.00nm          5.3mb
LSA    75.52 301 Pc      33 56.80   0.4
        1.0s    62.00nm          5.6mb
     Z  18s     2.62um          5.6Msz
     N  17s     2.32um
OJC    75.67 359 eP      33 56.00  -0.3
        0.6s    51.00nm          5.7mb
                  i      33 57.60
WLF    75.73   8 iPc     33 56.96   0.4
PRU    75.86   3 iPc     33 57.40   0.0
        1.1s    41.30nm          5.4mb
                  e      34 08.00
FLN    75.92  13 iPc     33 57.30  -0.4
        1.2s    66.95nm          5.6mb
     Z  19s     1.05um          5.2Msz
GRF    76.03   5 iPc     33 59.00   0.6
        1.4s   186.00nm          5.9mb
     Z  22s     0.40um          4.7Msz
LDF    76.13  13 iPc     33 58.50  -0.4
        1.3s    89.15nm          5.6mb
GRR    76.24  13 iPc     33 59.30  -0.2
        1.0s    41.60nm          5.4mb
LPF    76.56  13 iPc     34 01.40   0.0
        1.2s    80.95nm          5.6mb
WET    76.65   4 iPc     34 02.40   0.5
        1.2s    90.00nm          5.7mb
KHC    76.69   3 iPc     34 02.60   0.5
        1.1s    64.90nm          5.6mb
                  e      34 14.00
                  e      34 30.60
                  e      35 17.00
SPC    76.70 359 iPc     34 03.20   0.8
PMG    76.76 232 eP      34 03.00   0.1
GEC2   76.98   3 eP      34 03.60  -0.2
        0.8s    27.58nm          5.4mb
                  e      34 05.80
                  e      34 08.00
                  e      34 09.60
                  e      34 15.50
                  e      34 19.40
CDF    77.06   8 iPc     34 04.20  -0.1
        1.1s    54.20nm          5.5mb
UZH    77.21 357 iPc     34 05.00   0.1
        1.1s   105.00nm          5.8mb
                  i      34 15.80
                  i      34 21.30
HAU    77.39   8 iPc     34 05.90  -0.1
        1.1s    70.35nm          5.6mb
     Z  19s     0.65um          5.0Msz
FUR    77.56   5 iPc     34 07.20   0.3
        0.9s    76.00nm          5.7mb
BSF    77.60   8 iPc     34 07.00  -0.3
        1.1s    71.80nm          5.6mb
VKA    77.62   1 iPc     34 07.00  -0.2
                  i      34 41.30
ZST    77.70   1 iPc     34 08.10   0.5
        0.7s    61.20nm          5.8mb
SLE    77.79   7 ePc     34 08.10  -0.1
LOR    77.89  10 iPc     34 08.70  -0.1
        1.2s    61.00nm          5.5mb
     Z  21s     1.05um          5.1Msz
PSZ    77.97 359 ePc     34 10.00   0.7
SSF    78.06  10 iPc     34 09.60  -0.1
        1.2s    79.15nm          5.6mb
ZLA    78.07   7 ePd     34 09.80   0.0
BHG    78.07   4 iPc     34 10.30   0.6
        0.9s    61.00nm          5.6mb
MFF    78.08  13 iPc     34 10.10   0.3
        1.2s   106.80nm          5.8mb
SRO    78.09   0 iP      34 10.90   1.2
        1.2s    96.00nm          5.7mb
LBF    78.18  10 iPc     34 10.00  -0.4
        1.1s    43.95nm          5.4mb
AVF    78.31  10 iPc     34 10.80  -0.2
        1.1s    49.10nm          5.5mb
WTTA   78.48   5 iPc     34 12.60   0.4
        0.8s    62.00nm          5.7mb
BGF    78.49  11 iPc     34 11.90  -0.1
        1.2s    48.80nm          5.4mb
KIS    78.49 353 iPc+    34 12.00   0.0
        1.2s   500.00nm          6.4mb
     Z  24s     2.70um          5.5MszX
     N  24s     4.00um
                  e      34 23.00
SQTA   78.50   5 iPc     34 12.70   0.5
        0.9s    91.20nm          5.8mb
SMF    78.51  10 iPc     34 11.90  -0.2
        1.2s    86.60nm          5.7mb
LSF    78.64  12 iPc     34 12.80  -0.1
        1.1s    65.20nm          5.6mb
TCF    78.68  11 iPc     34 12.90  -0.2
        1.3s    45.15nm          5.3mb
LLS    78.72   7 ePc     34 14.20   0.6
KBA    78.73   3 iPc     34 14.30   0.7
        1.1s   166.00nm          6.0mb
                  i      34 17.40
MAF    78.79  11 iPc     34 13.70   0.0
        1.0s    18.80nm          5.1mb
OGA    78.84   5 iPc     34 14.90   0.7
        1.2s    29.00nm          5.2mb
OSS    78.97   6 ePc     34 15.50   0.6
CLI    79.07 354 ePc     34 15.00  -0.2
VDL    79.13   6 ePc     34 16.60   0.8
FVI    79.20   4 P       34 15.80   0.0
UZD    79.31 360 eP      34 16.50   0.0
EMS    79.36   8 ePc     34 17.50   0.4
RBL    79.38   3 P       34 16.80  -0.2
DIX    79.39   8 Pc      34 18.20   0.9
MMK    79.46   7 ePc     34 18.80   1.1
TMA    79.47   7 ePc     34 17.90   0.3
RJF    79.57  12 iPc     34 17.70  -0.2
        1.2s    30.35nm          5.2mb
     Z  22s     1.02um          5.1Msz
GUN    79.60 304 Pc      34 19.14   0.3
PYA    79.63 342 iPc+    34 18.50   0.2
        1.0s   200.00nm          6.1mb
     Z  20s     1.00um          5.2Msz
CTI    79.69   5 P       34 18.30  -0.4
VAI    79.70   7 P       34 18.90   0.3
MAK    79.76 339 iPc+    34 22.00   3.1X
        1.5s   525.00nm          6.3mb
KIV    79.77 342 P       34 19.90   0.7
     Z  18s     1.00um          5.2Msz
                  e      34 27.70
VOY    79.80   3 iPc     34 18.70  -0.6
GRO    79.80 340 iPc     34 19.00  -0.2
        1.0s   220.00nm          6.1mb
     Z  16s     2.00um          5.6MszX
     N  17s     4.00um
     E  15s     3.00um
LOE    79.80 286 iPd     34 19.60   0.0
LJU    79.80   3 eP      34 19.00  -0.2
LFF    79.83  13 iPc     34 19.60   0.3
        1.0s    57.60nm          5.6mb
CVO    79.86 354 eP      34 20.00   0.5
ORO    79.89   7 P       34 20.80   1.0
LPL    79.89   8 iPc     34 21.00   1.0
        0.9s    18.35nm          5.1mb
LPG    79.91   8 iPc     34 21.00   0.8
        1.1s    26.60nm          5.2mb
PTJ    79.98   2 eP      34 20.40   0.2
LSD    79.99   8 P       34 21.36   0.8
KKN    79.99 304 Pc      34 20.94   0.2
        0.8s   135.00nm          6.0mb
CAF    80.01  12 iPc     34 20.40   0.1
        1.3s    43.30nm          5.3mb
EMON   80.03  19 iPd     34 21.40   0.9
ZAG    80.06   2 eP      34 20.20  -0.3
CEY    80.11   3 ePc     34 20.50  -0.3
PKI    80.11 304 Pc      34 21.50  -0.1
TRI    80.12   3 eP      34 20.50  -0.3
```

23d 18h

```
GKN     80.12 305 Pc     34 21.44    0.0
        1.0s   270.00nm          6.2mb
LPO     80.14  12 iPc    34 21.00    0.0
        1.2s    31.55nm          5.2mb
MLR     80.20 355 eP     34 22.50    1.0
CHG     80.23 289 iPc    34 21.80   -0.1
        1.0s    54.50nm          5.5mb
DMN     80.23 304 Pc     34 22.38    0.3
BZS     80.25 358 iPd    34 16.50   -5.0X
RSP     80.30   8 P      34 22.64    0.6
STS     80.32  20 eP     34 23.40    1.4
BNI     80.35   8 P      34 23.80    1.5
VBY     80.36   2 iPc    34 22.40    0.3
                i        34 25.60
CMP     80.47 355 ePc    34 24.00    1.2
RRL     80.49   8 P      34 24.66    1.5
KKM     80.55 267 ePc    34 24.00    0.3
BHB     80.61   8 P      34 22.96   -0.6
BOB     80.84   6 P      34 25.70    0.9
PZZ     80.93   8 P      34 26.26    0.9
TSM     81.00 265 ePc    34 27.00    1.1
EZAM    81.00  20 iPd    34 27.00    1.4
PCP     81.00   7 P      34 25.57   -0.1
DZM     81.02 210 iPc    34 27.90    2.0
ERUA    81.07  19 iPd    34 27.40    1.4
CKI     81.10   7 P      34 26.30    0.2
KAT     81.18 331 iP+    34 28.50    1.9
      Z  16s     1.70um          5.5MszX
      N  16s     2.20um
      E  16s     1.50um
                 e        44 42.00
                 e        45 42.00
ROB     81.20   8 P      34 26.49   -0.2
STV     81.21   8 P      34 26.12   -0.6
ENR     81.23   8 P      34 25.89   -1.0
FIN     81.31   7 P      34 26.63   -0.6
BDT     81.46 288 eP     34 24.00   -4.3X
        1.0s   110.40nm          5.8mb
MME     81.49   6 P      34 29.40    1.0
MTA     81.56 340 iPc    34 29.00    0.5
        0.8s   370.00nm          6.5mb
      N  18s     1.00um
      E  18s     1.50um
IMI     81.58   8 P      34 26.95   -1.8
BDI     81.62   6 P      34 29.20    0.3
EPF     81.66  13 iPc    34 28.70   -0.4
        1.3s    26.35nm          5.1mb
ECRI    81.66  15 eP     34 29.70    0.6
ASH     81.74 329 eP     34 31.40    1.9
        1.3s   300.00nm          6.2mb
SFI     81.82   5 P      34 31.90    2.1
RSM     81.84   4 P      34 31.30    1.4
PGD     81.86   5 P      34 31.70    1.4
FIR     81.94   5 eP     34 31.50    1.1
PII     81.95   6 P      34 30.50    0.0
NST     82.10 286 eP     34 40.00    8.4X
CRE     82.12   5 P      34 32.70    1.2
ARV     82.29   4 P      34 33.10    0.8
EGRA    82.39  14 eP     34 32.30   -0.5
PLE     82.57 359 iPc    34 35.03    1.2
ASS     82.71   4 P      34 35.20    0.6
HVAR    82.71   1 iPc    34 34.00   -0.5
MAIO    82.91 328 iPc    34 36.30    0.6
        1.1s    44.17nm          5.5mb
                eS       45 20.00
NDI     82.97 311 ePc    34 36.00    0.0
        1.0s    30.00nm          5.4mb
BRY     83.00 360 iPc    34 36.20    0.0
IVA     83.02 359 iPc    34 36.75    0.6
NKY     83.09 360 iPc    34 36.61    0.0
JMB     83.18 354 iPc    34 37.00    0.1
PVY     83.30 359 iPc    34 38.00    0.3
GUD     83.31  17 iPc    34 38.40    0.6
GRS     83.36 339 iPc    34 39.00    0.9
        1.3s   140.00nm          6.0mb
      N  20s     0.88um
      E  20s     1.47um
AOU     83.45   4 P      34 39.60    1.2
HCY     83.45 360 iPc    34 38.03   -0.3
TTG     83.47 359 iPc    34 38.57    0.2
ETOR    83.48  15 iPc    34 38.80    0.2
BCI     83.52 359 iP     34 38.30   -0.4
EPLA    83.52  19 iPc    34 39.90    1.1
BDV     83.62 360 iPc    34 39.03   -0.1
KVT     83.62 347 iP     34 40.00    0.7
PLD     83.64 355 iP     34 40.00    0.7
KHT     83.68 286 eP     34 40.00    0.2
```

```
EROQ    83.83  14 eP     34 40.00   -0.3
SDA     83.84 359 eP     34 41.00    0.7
SKO     83.89 358 iPc    34 41.50    0.9
        1.1s   177.00nm          6.2mb
ULC     83.93 359 iPc    34 40.81    0.0
KKB     83.95 356 iPc    34 41.00    0.1
RZN     84.06 355 iPc    34 42.00    0.4
KDZ     84.06 355 iPc    34 42.00    0.6
SDI     84.11   3 P      34 41.90    0.1
PHP     84.20 358 iPc    34 41.40   -0.7
MMB     84.20 356 iPc    34 43.00    0.8
VAY     84.51 357 iP     34 44.60    1.0
        1.2s    92.00nm          5.9mb
TIR     84.54 359 iPd    34 44.50    0.7
KNT     84.66 357 eP     34 45.32    0.9
SRS     84.68 356 iP     34 44.93    0.4
OHR     84.77 358 iP     34 42.70   -2.3
        1.2s   279.00nm          6.4mb
                i        34 45.10
GRG     84.88 357 iP     34 46.34    0.8
SOH     84.98 356 eP     34 46.40    0.3
BRT     85.02   1 P      34 46.90    0.7
FNA     85.08 358 eP     34 46.36   -0.2
BNT     85.19 353 iP     34 47.50    0.4
ESEL    85.19  12 iPc    34 46.50   -0.6
KCT     85.26 352 iP     34 47.30   -0.2
SGO     85.30   2 P      34 48.30    0.7
VLO     85.43 359 eP     34 48.60    0.4
OUR     85.44 356 iP     34 48.29    0.0
EVIA    85.54  16 eP     34 49.00    0.0
TPE     85.59 359 eP     34 47.50   -1.6
LSK     85.73 358 eP     34 49.30   -0.6
MGR     85.73   2 P      34 49.70   -0.1
LIT     85.73 357 eP     34 49.80    0.0
TEH     85.76 334 eP     34 52.00    1.8
EVAL    85.80  20 eP     34 51.20    1.0
ORI     85.82   1 P      34 51.60    1.3
EZN     85.82 354 eP     34 48.80   -1.4
BNN     85.84 346 iP     34 53.50    2.9
EHOR    85.85  19 eP     34 50.80    0.4
PAIG    85.86 356 eP     34 50.12   -0.3
QUE     85.87 319 eP     34 50.50   -0.4
DST     85.88 352 eP     34 50.00   -0.6
SRN     86.01 359 eP     34 52.10    1.0
KEK     86.18 359 eP     34 52.70    0.7
TDS     86.22   2 P      34 52.60    0.4
ELUQ    86.29  18 eP     34 52.80    0.1
EHUE    86.33  16 iPd    34 53.40    0.5
IGT     86.35 358 iP     35 00.46    7.6X
PRK     86.40 354 eP     34 53.00   -0.1
CTA     86.58 228 iPc    34 55.00    0.9
        1.0s   125.00nm          6.1mb
ECOG    86.68  17 iPd    34 54.70    0.0
EPRU    86.69  19 eP     34 55.40    0.8
AGG     86.81 357 eP     34 54.36   -0.8
MAL     87.07  18 iPd    34 58.00    1.6
EGUA    87.12  17 eP     34 57.00    0.3
EJIF    87.14  19 eP     34 57.80    1.0
MTN     87.66 244 iPc    35 00.20    0.8
        1.0s   100.00nm          6.1mb
VLS     87.70 358 eP     34 59.80    0.3
SOI     87.80   2 P      34 59.40   -0.5
BCK     87.83 350 eP     34 59.10   -1.1
SNG     88.70 280 eP     35 06.00    1.5
        1.1s   103.80nm          6.1mb
VLI     89.09 356 eP     35 05.50   -0.6
KSL     89.26 351 eP     35 07.30    0.4
AVE     89.80  21 iP     35 09.80    0.3
                i        35 33.50
CSS     90.00 348 eP     35 10.50    0.0
NPS     90.41 354 eP     35 12.00   -0.3
BRS     90.48 219 iP     35 16.00    3.5X
IPM     90.57 279 ePd    35 13.60    0.3
RMO     91.22 223 iPd    35 18.10    2.2
        0.7s    22.00nm          5.6mb
HRI     91.34 346 eP     35 20.80    4.0X
WB2     91.99 238 iPc    35 19.30   -0.3
        1.0s     9.90nm          5.2mb
                e        35 26.10
WRA     92.00 238 P      35 19.90    0.3
        1.1s     1.30nm          4.3mb X
HYB     92.03 304 eP     35 19.50   -0.6
        1.0s    95.00nm          6.2mb
JVI     92.71 346 eP     35 26.50    3.5X
ARMA    93.64 219 eP     35 29.70    2.6
        1.2s    34.00nm          5.6mb
MBH     94.90 346 eP     35 36.50    3.3X
```

```
ASPA    95.36 236 eP     35 34.80   -0.3
        0.8s     6.50nm          5.1mb
GBA     95.85 303 Pc     35 37.00   -0.6
TIC    116.03  26 PKP    40 53.40   -1.0
KIC    116.37  26 PKP    40 54.00   -1.1
LIC    116.43  26 PKP    40 54.00   -1.2
BCAO   121.30 360 iPKPc  41 04.00   -0.5
        0.3s     5.00nm
SPA    144.29 180 iPKPc  41 43.10   -2.9X
        1.0s    75.00nm
BUL    144.85 343 iPKPd  41 46.50   -1.9
CIR    145.12 338 iPKPd  41 47.10   -1.6
WIN    148.12   2 iPKPc  41 56.20    2.4X
        0.8s    69.00nm
      Z  22s     4.63um          6.2MszX
BFT    149.97 339 iPKPc  42 02.00    5.4X
        1.0s    70.00nm
SLR    150.37 342 iPKPc  41 56.60   -0.5
        1.0s    40.00nm
      Z  20s     6.66um          6.4MszX
PRY    151.68 343 iPKPd  42 05.20    6.1X
        0.5s    25.00nm
SEK    153.01 342 iPKPd  42 00.60   -0.3
        0.9s   108.00nm
KIM    153.88 347 iPKPc  42 02.60    0.5
        1.0s    40.00nm
BLF    154.02 344 ePKP   42 02.20   -0.1
FRS    154.78 346 iPKPc  42 01.70   -1.3
        0.7s    11.00nm
      S.D. = 1.0  on 419 of 460 obs.
-----------------------------------
?  JAN  23, 1993  18h 27m 40.02± 2.86s
   24.824 S ±17.9km  179.752 E ±22.3km
   DEPTH = 571.3 ± 30.5 km
   4.1mb (  3 obs.)
 SOUTH OF FIJI ISLANDS              (171)

DZM     12.52 280 iPc    30 23.50   -0.7
KHZ     18.28 195 eP     31 20.30    0.2
LTZ     18.95 197 eP     31 26.60    0.2
CTA     31.27 272 iPc    33 16.50    0.9
ASPA    41.67 262 eP     34 41.00    0.1
        1.0s     7.10nm          4.2mb
WB2     42.11 267 iPd    34 44.20   -0.2
        0.4s     8.90nm          4.6mb
WRA     42.13 267 P      34 44.50    0.0
        0.5s     0.80nm          3.5mb
WARB    47.67 256 eP     35 26.80   -0.5
MAT     72.53 326 eP     38 12.00    1.0
NAO    143.22 351 PKP    46 10.05   -0.3
        1.0s     6.50nm
HFS    143.40 348 ePKP   46 10.00   -0.7
        0.4s     6.00nm
CLL    151.66 342 e(PKP)46 34.00   10.0X
      S.D. = 0.7  on  11 of  12 obs.
-----------------------------------
&  JAN  23, 1993  19h 02m 56.54s
   61.249 N          139.947 W
   DEPTH =  10.0km  (geophysicist)
 SOUTHERN YUKON TERRITORY, CANADA( 18)
      <PGC-P>. ML 2.9 (PGC), 2.6
      (AEIC).

CTGM     0.73 248 iP     03 09.92   -1.1
                  iS     03 19.83
PCA      1.17 188 eP     03 17.96   -0.4
BALM     1.18 261 iP     03 18.02   -0.7
                  iS     03 34.55
YAH      1.25 226 eP     03 19.07   -0.9
                  S      03 36.16
HYT      1.26 109 Pg     03 18.60   -1.5
                  Sg     03 35.60
BCPM     1.31 173 eP     03 19.90   -0.9
                  S      03 37.40
TGL      1.49 252 iP     03 23.09   -0.4
                  S      03 42.46
PNL      1.61 170 eP     03 25.44    0.4
                  S      03 46.20
CROM     1.63 254 iP     03 24.99   -0.6
                  S      03 46.18
CYK      1.71 228 eP     03 26.03   -0.5
SNH      1.78 234 eP     03 26.97   -0.6
GLB      1.87 278 eP     03 30.23    1.3
                  S      03 54.55
HQN      1.88 163 eP     03 30.20    1.2
RAGM     2.47 252 eP     03 37.52    0.0
PLBC     2.53 134 Pg     03 42.60    4.3
```

		Sg	04	16.50	
KAIM	2.57	241	eP	03	42.61	3.7
SGAM	2.68	256	eP	03	42.58	2.1
DWY	2.83	5	ePg	03	47.20	4.7
			Sg	04	25.00	
KLU	2.89	277	eP	03	45.34	1.9
CVA	2.92	259	eP	03	42.97	-0.9
VLZ	3.09	271	eP	03	46.85	0.6
HIN	3.32	258	eP	03	50.27	0.7
GLI	3.49	267	eP	03	50.43	-1.6

23 obs. associated

JAN 23, 1993 19h 49m 34.07± 0.64s
38.420 S ± 5.1km 175.798 E ± 4.9km
DEPTH = 216.3 ± 6.5 km
NORTH ISLAND, NEW ZEALAND (159)

UTU	0.39	52	P	50	02.40	-0.4
WLZ	0.57	344	P	50	03.50	0.1
			eS	50	20.80	
TAZ	0.59	72	P	50	02.70	-0.7
WHH	0.72	131	P	50	03.30	-1.0
NGZ	0.77	191	P	50	04.10	-0.6
MOZ	0.79	263	P	50	04.70	0.2
			S	50	23.60	
CNZ	0.80	194	P	50	04.10	-0.7
URZ	1.04	82	P	50	04.90	-1.1
			S	50	23.70	
PAHZ	1.08	114	P	50	06.00	-0.4
MOH	1.27	124	P	50	07.90	0.2
WAHZ	1.35	161	Pc	50	08.60	0.3
TTH	1.38	145	P	50	09.20	0.7
BSZ	1.53	206	P	50	10.40	0.6
KUZ	1.67	358	P	50	11.80	0.8
			S	50	36.90	
NRZ	1.72	237	P	50	12.80	1.3
TEHZ	1.75	154	P	50	12.20	0.4
NOZ	1.77	97	eP	50	12.00	0.1
MAHZ	1.80	116	P	50	12.90	0.7
PUZ	1.97	81	P	50	13.70	-0.1
			S	50	38.00	
HBZ	2.14	68	P	50	16.00	0.5
MNG	2.21	186	Pc	50	16.60	0.3
			S	50	43.90	
PGZ	2.23	171	P	50	16.50	0.1
KIW	2.54	195	Pc	50	20.00	0.3
CAW	2.74	192	P	50	22.30	0.2
MTW	2.75	185	Pc	50	22.10	0.0
DIW	2.79	211	P	50	22.60	0.1
MRW	2.93	196	P	50	24.30	0.1
			S	50	58.40	
BLW	2.96	185	P	50	24.40	-0.1
WEL	2.97	195	P	50	24.90	0.3
			S	50	59.90	
TCW	3.03	202	Pc	50	25.50	0.2
			S	51	01.50	
MOW	3.03	188	P	50	25.10	-0.2
ORZ	3.49	225	P	50	30.60	-0.1
			S	51	11.90	
THZ	4.01	213	eP	50	36.90	-0.2
			eS	51	23.70	
KHZ	4.35	203	P	50	41.60	0.4
			S	51	29.70	
DSZ	4.52	221	eP	50	42.90	-0.5
LTZ	5.12	211	eP	50	50.20	-0.8
			eS	51	46.90	
MQZ	5.79	203	P	50	58.50	-1.0
			S	52	01.10	
EWZ	6.31	215	eP	51	07.30	1.1
ODZ	7.66	209	eP	51	24.00	0.4
MSCZ	8.20	214	eP	51	30.60	-0.2
LRCZ	8.20	214	eP	51	30.30	-0.7
MHZ	8.23	214	eP	51	31.10	-0.2
LSCZ	8.23	214	eP	51	30.70	-0.6
SBCZ	8.24	214	eP	51	30.90	-0.4
MMCZ	8.25	215	eP	51	31.70	0.1
CMCZ	8.30	214	eP	51	31.60	-0.6
TLC	8.42	214	eP	51	33.40	-0.4
TUZ	8.81	209	eP	51	40.00	1.4

S.D. = 0.6 on 48 of 48 obs.

JAN 23, 1993 21h 08m 39.96± 0.93s
34.933 N ± 9.8km 25.285 E ± 5.0km
DEPTH = 5.0km (geophysicist)
3.5mb (2 obs.)
CRETE (370)
ML 4.1 (ATH).

NPS	0.42	39	iPgd	08	47.00	-1.5
VLI	2.61	314	ePn	09	23.30	-0.2
YER	3.28	47	iP	09	34.00	1.0
ATH	3.29	338	ePb	09	36.50	3.4X
KSL	3.70	70	ePn	09	38.60	-0.4
IZM	3.81	24	eP	09	41.00	0.4
ELL	4.17	63	eP	09	45.50	-0.3
AGG	4.72	331	ePg	09	54.20	0.7
KHL	4.80	44	eP	09	54.00	-0.8
BCK	4.98	58	eP	09	53.00	-4.2X
PAIG	5.15	346	ePb	09	57.84	-1.7
			eSb	10	15.96	
OUR	5.49	350	ePb	10	04.96	0.6
LIT	5.62	338	ePb	10	05.70	-0.5
PPCY	5.80	88	eP	10	10.00	1.3
			eS	11	11.20	
KZN	6.05	334	ePn	10	13.20	0.9
SOH	6.07	346	ePn	10	11.64	-1.0
SRS	6.32	348	ePn	10	16.08	0.0
GRG	6.43	340	ePn	10	17.50	-0.2
KEK	6.47	319	ePn	10	18.30	0.1
KNT	6.50	344	ePn	10	19.04	0.4
CSS	6.61	87	eP	10	21.60	1.4
			eS	11	31.30	
VAY	6.73	342	i(Pn)	10	23.00	1.2
OHR	7.11	331	e(Pn)	10	32.00	4.8X
SOI	8.07	296	P	10	40.40	-0.1
MGR	9.31	307	P	10	57.20	-0.6
SGO	9.69	308	P	11	01.40	-1.6
GEC2	16.33	332	eP	12	33.30	1.7
	0.7s		0.84nm			3.0mb
			e	12	44.10	
DOU	21.39	321	P	13	31.90	1.4
GBA	51.43	101	P	17	46.00	-2.3
YKA	77.70	342	eP	20	35.90	-3.0X
	0.6s		0.70nm			3.9mb

S.D. = 1.1 on 26 of 30 obs.

% JAN 23, 1993 21h 13m 46.98± 0.79s
39.753 N ± 7.0km 22.992 E ± 6.4km
DEPTH = 10.0km (geophysicist)
GREECE (364)

LIT	0.52	312	iPg	13	57.34	-0.2
PAIG	0.56	72	ePg	13	58.08	-0.2
			eSg	14	06.76	
AGG	0.89	215	ePg	14	04.16	0.1
OUR	0.96	52	ePg	14	05.29	0.1
			eSg	14	19.08	
SOH	1.10	14	ePg	14	07.74	0.0
			eSg	14	22.56	
			iSg	14	22.93	
KNT	1.41	357	ePb	14	12.84	0.2
			eSb	14	30.88	

S.D. = 0.2 on 6 of 6 obs.

% JAN 23, 1993 21h 34m 00.39± 0.57s
40.302 N ± 4.9km 29.509 E ± 4.8km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.9 (ISK).

HRT	0.53	13	iPg	34	11.30	0.1
			eSg	34	18.30	
EYL	0.56	62	ePg	34	11.80	-0.1
ISK	0.84	336	iPg	34	16.30	-0.2
KCT	0.88	267	iPg	34	17.50	0.1
			iSg	34	31.30	
DST	0.97	225	iPn	34	18.60	-0.3
BNT	1.22	273	ePn	34	23.00	0.0
EDC	1.26	273	ePn	34	24.00	0.2
ALT	1.33	159	iPn	34	25.10	0.1

S.D. = 0.2 on 8 of 8 obs.

% JAN 23, 1993 21h 34m 08.42± 1.62s
18.179 N ± 8.0km 65.852 W ±13.5km
DEPTH = 10.0km (geophysicist)
PUERTO RICO REGION (90)

LPR	0.13	353	P	34	11.60	0.0
			S	34	22.20	
CPD	0.15	203	P	34	12.00	0.0
PORP	0.76	261	P	34	23.00	-0.2
APR	0.88	288	P	34	25.00	-0.3
LRS	0.95	277	P	34	27.00	0.4

S.D. = 0.4 on 5 of 5 obs.

• JAN 23, 1993 21h 55m 22.52± 1.40s
7.450 N ±17.8km 76.697 W ± 9.9km
DEPTH = 166.6 ± 58.4 km
NORTHERN COLOMBIA (99)
MD 4.1 (UPA).

UPA	3.19	299	eP	56	13.64	0.1
			iS	56	51.92	
ECO	3.52	303	eP	56	17.42	-0.3
			eS	56	59.97	
BMG	3.61	96	eP	56	32.00	13.0X
BOG	3.84	137	eP	56	22.00	-0.1
BRU	5.96	283	eP	56	50.33	0.2
SDV	6.17	76	ePn	56	53.50	0.8
			eSn	58	05.40	
TOV	7.21	71	eP	57	05.80	-0.7

S.D. = 0.8 on 6 of 7 obs.

JAN 23, 1993 22h 55m 16.38± 0.60s
38.227 N ± 5.2km 22.798 E ± 6.6km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 2.9 (ATH).

ATH	0.77	109	ePn	55	32.60	1.2
AGG	0.87	335	iPg	55	32.84	-0.4
			eSg	55	47.56	
VLI	1.51	176	ePn	55	42.50	-1.0
VLS	1.74	269	ePn	55	47.00	0.2
PAIG	1.83	22	ePb	55	47.72	-0.4
LIT	1.89	353	ePb	55	49.12	0.2
KZN	2.22	339	ePn	55	54.80	0.9
OUR	2.30	23	ePn	55	54.04	-0.8
SOH	2.63	9	ePn	55	59.24	-0.4
			eSn	56	31.92	
KEK	2.77	303	ePb	56	06.20	4.6X
KNT	2.93	1	ePn	56	03.80	-0.1
			eSn	56	38.60	
SRS	2.95	12	ePn	56	03.32	-0.8
VAY	3.10	357	ePn	56	07.00	0.9
OHR	3.27	332	ePn	56	09.50	0.8
SKO	3.88	345	e(Pn)	56	17.00	-0.4

S.D. = 0.8 on 14 of 15 obs.

% JAN 23, 1993 23h 15m 55.14± 1.65s
39.442 N ±10.7km 16.942 E ±14.9km
DEPTH = 10.0km (geophysicist)
SOUTHERN ITALY (390)

TDS	0.51	295	Pc	16	04.10	-1.5
			eSg	16	10.10	
ORI	0.73	329	P	16	11.60	2.2X
			eSg	16	24.80	
MGR	1.27	303	P	16	19.70	0.9
BRT	1.45	8	P	16	20.80	-0.6
SOI	1.53	207	P	16	22.50	0.0
SGO	1.68	312	P	16	25.80	1.2

S.D. = 1.5 on 5 of 6 obs.

• JAN 23, 1993 23h 25m 19.81± 1.23s
29.024 S ± 8.3km 69.801 W ±16.1km
DEPTH = 33.0km (normal)
CHILE-ARGENTINA BORDER REGION (127)

RTLL	2.57	154	eP	26	00.00	-0.1
RTCB	2.60	161	eP	26	01.00	0.4
CFA	2.91	153	e(P)	26	04.00	-0.8
RTPR	3.13	115	e(P)c	26	09.10	1.1
CYA	3.57	82	iPc	26	13.50	-0.7
TCA	5.07	118	eP	26	46.00	10.4X
-			S	27	53.00	
ANT	5.33	354	eP	26	39.20	0.1

S.D. = 0.9 on 6 of 7 obs.

• JAN 23, 1993 23h 36m 24.46± 0.91s
64.015 N ± 8.3km 148.919 W ±13.8km
DEPTH = 33.0km (normal)
CENTRAL ALASKA (1)
ML 3.1 (PMR).

FBA	1.01	28	eP	36	41.58	-0.8
TOA	2.29	146	eP	37	01.60	0.9
PWA	2.41	191	eP	37	04.70	2.2X
PMR	2.43	182	eP	37	00.50	-2.2
PMS	2.80	186	eP	37	08.90	1.0
KLU	2.88	150	eP	37	09.12	0.0
			eS	37	48.04	

23d 23h

```
IMA      2.88 318 eP     37 09.90    0.7
BALM     4.27 131 eP     37 29.37    0.5
      S.D. = 1.4  on   7 of   8 obs.
-----------------------------------
?  JAN  23, 1993  23h 43m 27.99± 8.38s
   51.382 N ±46.9km   16.242 E ±56.3km
   DEPTH =  10.0km  (geophysicist)
 POLAND                            (548)
      MG 2.8 (WAR).

KSP      0.54 177 iPd    43 38.80   -0.1
       0.3s    43.00nm
                 iS     43 47.30
BRG      1.53 252 iPg    43 54.60   -0.8
                 iSg    44 14.80
PRU      1.77 218 ePn    43 59.50    0.7
       0.5s    29.30nm
                 e      44 04.00
                 eSn    44 17.00
                 Sg     44 22.60
                 i      44 30.00
CLL      2.03 269 ePg    44 03.00    0.4
                 eSg    44 30.00
OJC      2.54 116 eP     44 17.60    7.7X
                 iS     44 52.00
KHC      2.83 218 eP     44 14.00   -0.1
                 e      44 19.00
MOX      3.01 258 ePg    44 22.70    6.1X
                 iSg    45 02.70
GRF      3.62 244 e(Pn)  44 21.60   -3.7X
                 ePg    44 38.20
                 eSg    45 22.10
      S.D. = 0.8  on   5 of   8 obs.
-----------------------------------
%  JAN  23, 1993  23h 48m 42.22± 0.64s
   10.327 N ± 6.8km   67.013 W ± 6.2km
   DEPTH =  10.0km  (geophysicist)
 NEAR COAST OF VENEZUELA           ( 97)

CAR      0.20  25 iP     48 46.70    0.1
                 iS     48 49.60
LLAV     0.25  54 iPc    48 47.40   -0.2
                 iS     48 51.50
GUAC     0.29 242 iP     48 47.90   -0.4
                 iS     48 52.00
OLLA     0.37 146 iPd    48 49.90    0.1
                 iS     48 56.30
CEOS     1.83 225 iP     49 14.20    0.1
                 iS     49 39.10
TOV      2.79 259 ePn    49 28.10    0.3
      S.D. = 0.3  on   6 of   6 obs.
-----------------------------------
   JAN  23, 1993  23h 53m 44.79± 0.56s
   42.874 N ± 5.6km   12.727 E ±12.4km
   DEPTH =  11.1 ±  6.6 km
 CENTRAL ITALY                     (381)

ASS      0.20 346 P      53 49.50    0.1
                 eSg    53 52.20
ARV      0.64  14 P      53 57.00   -0.6
                 eSg    54 07.70
AQU      0.72 136 P      53 58.60   -0.3
CRE      0.94 323 P      54 03.50    0.8
                 eSg    54 20.60
RMP      1.06 181 P      54 04.60   -0.1
                 eSg    54 22.30
RSM      1.07 349 P      54 07.30    2.5
RDP      1.11 180 P      54 05.30   -0.3
                 eSg    54 23.70
SFI      1.23 329 P      54 07.50    0.1
                 eSg    54 30.90
PGD      1.24 324 P      54 07.50   -0.4
                 eSg    54 28.10
SDI      1.42 145 P      54 12.30    1.8
PII      1.82 299 P      54 20.70    4.5X
BDI      1.95 308 P      54 18.40    0.2
TRI      2.93  14 e(Pn)  54 31.80   -0.3
                 e      55 09.20
                 e(Sg)  55 18.50
VBY      3.20  34 ePn    54 47.20   11.3X
CTI      3.27 347 P      54 36.10   -0.9
VOY      3.27  14 e(Pn)  54 36.50   -0.5
      S.D. = 1.1  on  14 of  16 obs.
-----------------------------------
   JAN  24, 1993  00h 19m 00.82± 0.77s
   45.658 N ± 8.3km   15.211 E ± 6.4km
   DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION        (383)
      MD 2.6 (LJU), 1.9 (TRI).

VBY      0.16 168 iPgd   19 04.30   -0.2
                 iSg    19 06.10
CEY      0.56 279 e(Pg)  19 11.00   -1.1
                 eSg    19 19.80
PTJ      0.58  65 iPg    19 12.60    0.0
                 iSg    19 17.70
LJU      0.61 309 ePg    19 12.80   -0.4
                 eSg    19 21.10
VOY      0.99 293 ePgd   19 19.30   -0.4
                 eSg    19 31.50
TRI      1.02 273 ePg    19 21.30    1.3
                 eSg    19 33.20
RBL      1.39 305 P      19 26.10   -0.2
FVI      1.93 300 P      19 34.90    0.9
      S.D. = 0.9  on   8 of   8 obs.
-----------------------------------
%  JAN  24, 1993  00h 25m 42.67± 1.39s
   10.521 N ±12.2km   61.035 W ±13.5km
   DEPTH =  33.0km  (normal)
 TRINIDAD                          ( 98)
      MD 3.0 (TRN).

TBH      0.05 220 iPc    25 47.96   -0.3
                 iS     25 54.48
                 i      25 55.76
TRN      0.38 289 iPd    25 50.54   -1.0
                 iS     25 56.75
                 i      25 57.74
TPP      0.46 244 eP     25 53.34    0.7
                 eS     26 01.78
TPR      0.71  21 iPd    25 55.92   -0.3
                 eS     26 04.80
TCE      0.73 284 iPc    25 56.16   -0.3
                 i      26 02.80
                 iS     26 05.17
GRW      1.74 339 eP     26 12.04    0.9
                 eS     26 35.88
      S.D. = 0.9  on   6 of   6 obs.
-----------------------------------
*  JAN  24, 1993  01h 11m 05.06± 0.91s
   41.136 N ±12.1km   25.778 E ± 6.8km
   DEPTH =  10.0km  (geophysicist)
 GREECE-BULGARIA BORDER REGION     (363)

ALN      0.31 140 iPg    11 11.14   -0.4
                 eSg    11 16.70
OUR      1.58 240 ePb    11 32.88   -0.3
                 eSb    11 56.50
DMK      1.64  65 ePn    11 34.30    0.3
SRS      1.65 270 iPb    11 34.70    0.5
PAIG     2.00 234 ePn    11 40.40    1.1
KNT      2.18 272 ePn    11 40.60   -1.2
      S.D. = 1.0  on   6 of   6 obs.
-----------------------------------
*  JAN  24, 1993  03h 03m 07.35± 0.39s
   53.100 S ± 9.2km   72.792 E ± 8.9km
   DEPTH =  10.0km  (geophysicist)
   5.1mb ( 15 obs.)
 KERGUELEN ISLANDS REGION          (433)

MAW     15.32 194 iPd    06 42.90   -2.0
         1.0s    91.67nm          5.1mb
CSY     22.71 140 eP     08 13.50    3.5X
         0.8s    18.30nm          4.6mb
NVL     31.82 213 eP     09 33.00   -0.8
         1.2s    65.00nm          5.4mb
                  e      10 22.00
                  e      20 10.00
SPA     37.08 180 iPc    10 19.80    0.6
         1.1s    59.52nm          5.3mb
MEEK    42.96  70 eP     11 09.00    1.0
         1.0s    29.00nm          5.0mb
BUL     47.20 297 iPc    11 41.00   -1.1
         1.1s    12.66nm          4.9mb
STK     52.79  95 eP     12 26.20    1.5
         0.9s     6.30nm          4.5mb
ASPA    54.16  82 iPd    12 34.50   -0.4
         1.1s    22.50nm          5.1mb
WRA     57.27  80 P      12 57.20   -0.1
         0.7s     0.90nm          3.9mb X
WB2     57.27  80 eP     12 57.00   -0.4
         0.8s    11.90nm          5.0mb
NAI     59.64 317 iPd    13 14.80    0.7
         1.0s   234.00nm          6.3mb X
ARMA    59.82 101 eP     13 15.70    0.5
         1.0s    14.00nm          5.0mb
                  e      15 10.20
BRS     62.72 100 iP     13 35.00    0.3
BRS     62.72 100 iP     13 44.00    9.3X
         1.0s     3.00nm          4.4mb
SNG     64.52  31 eP     13 45.60   -0.8
BCAO    73.14 302 iPc    14 39.00   -0.9
         0.5s    30.00nm          5.6mb
                  ic     14 53.10
CHG     75.11  26 ePc    14 51.00   -0.1
         1.3s    27.40nm          5.1mb
PKI     81.08  11 P      15 23.06   -1.0
DMN     81.08  11 P      15 23.06   -1.0
KKN     81.28  11 P      15 24.32   -0.7
GKN     81.42  11 P      15 24.52   -1.1
GUN     81.47  12 P      15 25.86   -0.3
KIC     87.62 284 P      15 59.00    2.0
LIC     87.67 283 P      15 59.20    2.0
TIC     88.01 284 P      16 01.00    2.2
         1.4s    85.00nm          5.9mb
LZH     92.83  25 eP     16 20.50   -0.5
         2.0s    34.00nm          5.4mb
BAO     94.80 236 e(P)   16 31.00    0.4
                  e      16 33.00
SIV    100.57 225 (Pdiff16 53.00   -3.6X
BRW    151.80  31 ePKP   22 57.90    2.5X
                ePKPbc23 03.37
HBF    152.15 234 ePKP   23 05.44    8.4X
JSC    153.67 235 ePKP   23 02.02    2.8X
                ePKPbc23 07.97
CEH    153.83 240 ePKP   23 08.61    9.2X
IMA    153.87  42 ePKP   23 07.30    8.6X
         1.3s    18.40nm
PMR    156.23  52 (PKP) 23 04.60    2.8X
                ePKPab23 31.48
BALM   159.53  53 (PKP) 23 08.39    2.5X
                ePKPab23 43.39
ALQ    161.84 182 ePKP   23 14.69    5.5X
                ePKPab23 59.50
CMB    162.38 144 ePKP   23 13.13    3.7X
                ePKPab23 59.74
BONR   163.01 149 ePKP   23 13.98    3.6X
                ePKPab24 03.35
TNP    163.45 151 (PKP) 23 12.88    2.2X
ARUT   164.09 162 (PKP) 23 16.11    4.8X
                ePKPab24 06.78
MSU    165.01 165 ePKP   23 15.64    3.5X
                iPKPab24 10.91
PV10   165.22 174 ePKP   23 14.69    2.3X
                ePKPab24 10.40
PV09   165.34 174 ePKP   23 15.22    2.7X
PV08   165.44 176 ePKP   23 15.22    2.5X
                ePKPab24 13.40
SRU    165.82 169 ePKP   23 15.10    2.4X
                ePKPab24 13.45
EMUT   166.48 168 ePKP   23 16.58    3.2X
                ePKPab24 16.72
DUG    166.54 161 ePKP   23 17.42    4.2X
                ePKPab24 17.18
RSSD   170.77 194 ePKP   23 17.79    1.9X
      S.D. = 1.2  on  25 of  48 obs.
-----------------------------------
   JAN  24, 1993  03h 09m 32.17± 0.55s
    4.213 S ± 3.6km  143.106 E ± 5.8km
   DEPTH = 130.6 ±  6.0 km
   4.9mb ( 15 obs.)
 NEW GUINEA, PAPUA NEW GUINEA      (202)

WWKK     0.78  41 iPd    09 53.10   -0.4
MDG      2.86 111 eP     10 17.60    0.0
FINC     5.30 117 eP     10 51.70    1.4
PMG      6.54 142 eP     11 04.00   -3.3X
RAB      9.03  90 eP     11 41.00    0.1
WB2     17.81 208 iPc    13 31.70   -1.7
         0.7s   134.60nm          5.3mb
                 eS      16 44.10
ASPA    21.28 204 eP     14 09.10   -0.6
         0.7s  4376.30nm          7.0mb X
                 i       14 15.30
                 eS      17 54.60
RMQ     22.80 167 iPc    14 25.90    1.5
WARB    26.94 214 eP     15 03.00   -0.3
CMS     27.25 175 eP     15 08.90    2.9X
STK     27.56 183 iPd    15 07.90   -0.9
         0.7s     5.70nm          4.3mb
                  e      15 47.20
```

```
DZM     28.75 130 iPd    15 18.30  -1.5
MEEK    32.34 224 eP     15 51.50   0.4
        0.8s    20.00nm          5.0mb
BFD     32.81 181 eP     15 55.30   0.3
MRWA    35.76 223 eP     16 20.70   0.3
BAL     36.18 220 eP     16 25.00   1.1
TSRJ    40.10 351 P      16 56.40   0.0
CHJJ    40.23 355 P      16 57.00  -0.5
KAKJ    40.30 356 eP     16 57.30  -0.7
MAT     40.80 354 eP     17 01.00  -1.2
        1.0s    12.00nm          4.6mb
SSE     40.87 331 Pd     17 03.50   0.7
        1.0s    19.00nm          4.8mb
MTMJ    40.89 353 P      17 02.00  -1.0
NIIJ    41.42 355 P      17 07.20   0.0
YAMJ    42.27 356 eP     17 14.50   0.4
OFUJ    43.10 358 eP     17 21.00   0.2
HOOJ    46.38   0 P      17 47.60   0.7
KUSJ    47.11   2 P      17 52.10  -0.6
ASAJ    48.11 360 P      18 00.60   0.1
SNY     49.15 341 Pc     18 08.60   0.1
        0.8s    23.00nm          5.0mb
XAN     49.88 322 P      18 14.50   0.2
CN2     50.37 343 eP     18 18.10   0.3
        1.0s    19.00nm          4.9mb
                  epP    18 49.50 136kmX
BJI     50.52 333 eP     18 19.00   0.1
        1.4s    48.00nm          5.2mb
TIY     50.52 328 eP     18 18.60  -0.5
CD2     51.28 316 eP     18 25.80   0.8
HHC     53.33 330 P      18 40.40   0.4
        1.0s     5.70nm          4.4mb
BTO     53.92 329 eP     18 43.80  -0.6
LZH     54.36 321 eP     18 48.50   0.7
        1.4s    26.00nm          4.9mb
GTA     58.92 322 eP     19 20.00   0.0
        1.0s    11.00nm          4.8mb
                  PcP    20 03.00
LSA     60.08 308 P      19 29.80   1.3
        0.8s     9.00nm          4.8mb
GUN     63.65 304 Pc     19 52.66   0.3
PKI     63.93 303 Pc     19 53.98  -0.1
KKN     64.11 304 Pc     19 55.26   0.1
        0.8s    80.00nm          5.7mb
DMN     64.19 303 Pc     19 56.08   0.4
GKN     64.72 304 Pc     19 59.12   0.2
YAK     66.84 353 iPc    20 11.40  -0.2
        1.2s    50.00nm          5.3mb
                  e      20 46.00
GBA     67.51 286 P      20 16.00  -0.7
WMQ     68.93 320 P      20 25.50   0.4
        0.8s    16.00nm          4.9mb
GEC2   118.23 325 ePKP   28 03.90  -1.7
        0.5s     0.83nm
LPG    124.02 324 ePKP   28 17.10   0.0
        0.7s     2.55nm
LPL    124.02 324 ePKP   28 17.10   0.1
        0.6s     1.55nm
PGF    124.20 320 ePKP   28 17.00  -0.3
        1.0s    12.40nm
BCAO   124.74 272 iPKPd  28 10.00  -9.0X
        0.7s     9.00nm
                  id     28 51.10
CNCB   142.85 125 PKP    28 50.10  -3.4X
LPB    142.90 125 PKP    28 51.00  -2.4X
ZOBO   143.00 124 PKP    28 50.90  -2.9X
CCH    144.02 127 PKP    28 54.00  -1.2
                  e      29 26.00
SDV    146.17  80 ePKP   28 58.50  -0.2
TOV    146.90  79 ePKP   29 01.00   1.3
KIC    147.92 275 PKP    29 04.60   3.3X
                  e      29 36.00
TIC    148.18 276 PKP    29 05.40   3.7X
                  e      29 37.00
LIC    148.21 275 PKP    29 05.40   3.7X
        0.7s    19.50nm
                  e      29 37.00
SIV    148.77 131 ePKP   29 00.00  -2.6X
                  i      29 07.40
                  i      29 11.80
VAO    151.22 160 (PKP)  29 13.00   6.8X
BAO    157.43 151 PKPc   29 15.80   0.9
     S.D. = 0.8  on  53 of  64 obs.
-----------------------------------
?  JAN  24, 1993  03h 24m 23.54± 1.02s
   39.116 N ±37.8km   28.952 E ±68.8km
   DEPTH =  10.0km  (geophysicist)
```

```
 TURKEY                                  (366)
       MD 2.7 (ISK).

DST      0.55 333 iPg    24 33.80  -0.9
                  eSg    24 42.00
KHL      0.91 150 ePn    24 41.00   0.0
KCT      1.22 338 iPn    24 47.30   1.0
BNT      1.47 328 ePn    24 51.00   0.9
EDC      1.49 326 ePn    24 51.00   0.7
     S.D. = 1.1  on   5 of   5 obs.
-----------------------------------
   JAN  24, 1993  03h 41m 20.47± 1.18s
   44.653 N ± 8.6km    8.335 E ± 6.2km
   DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                          (545)
       ML 2.3 (GEN), 2.2 (LDG).

PCP      0.19 126 P      41 24.55  -0.1
                  S      41 27.34
FIN      0.45 192 P      41 29.63  -0.1
                  S      41 36.13
ROB      0.49 223 P      41 30.32  -0.1
                  S      41 37.41
ENR      0.78 237 P      41 35.45  -0.3
                  S      41 46.25
BHB      0.79 284 P      41 35.99   0.2
                  S      41 47.44
IMI      0.81 203 P      41 36.54   0.3
                  S      41 48.03
STV      0.83 241 P      41 35.86  -0.7
                  S      41 47.89
PZZ      0.89 261 P      41 37.92   0.2
                  S      41 50.00
SBF      1.02 220 Pg     41 40.40   0.6
                  Sg     41 54.30
LPG      1.40 308 Pg     41 51.60   5.2X
LPL      1.43 308 Pg     41 51.00   4.4X
FRF      1.63 229 Pg     41 51.90   2.5X
                  Sg     42 13.40
LRG      1.86 231 Pg     41 56.20   3.6X
                  Sg     42 19.90
LMR      1.86 226 Pg     41 55.20   2.5X
                  Sg     42 19.50
     S.D. = 0.4  on   9 of  14 obs.
-----------------------------------
*  JAN  24, 1993  04h 08m 40.15± 0.80s
     6.111 S ±10.5km  131.494 E ±19.8km
   DEPTH =  33.0km  (normal)
   4.8mb (  1 obs.)
 TANIMBAR ISLANDS REG., INDONESIA(281)

MTN      6.70 183 eP     10 19.50   0.6
       0.4s    125.00nm          6.1mb X
                  eS     11 28.00
WB2     14.03 169 iPd    11 57.20  -1.6
                  eS     14 23.10
ASPA    17.61 173 eP     12 45.60   0.8
                  eS     15 47.80
CTA     19.97 135 eP     13 13.00   0.4
WARB    20.49 193 eP     13 18.00  -0.1
GUN     55.51 310 P      18 15.20   0.2
PKI     55.70 309 P      18 16.06  -0.3
        0.7s     7.00nm          4.8mb
KKN     55.91 309 P      18 17.72   0.0
DMN     55.95 309 P      18 18.14   0.0
GKN     56.50 309 P      18 22.08   0.1
CNCB   150.18 140 PKP    28 34.00   8.3X
ZOBO   150.46 139 PKP    28 37.80  11.6X
     S.D. = 0.8  on  10 of  12 obs.
-----------------------------------
%  JAN  24, 1993  04h 32m 53.11± 1.71s
   40.235 N ±13.0km   20.496 E ±14.0km
   DEPTH =   5.0km  (geophysicist)
 GREECE-ALBANIA BORDER REGION     (392)

TPE      0.38 279 ePn    33 00.10  -0.6
KBN      0.45  30 ePn    33 02.00  -0.1
SRN      0.52 227 ePn    33 03.70   0.2
PHP      1.45 358 ePn    33 19.00  -1.0
LACI     1.52 337 ePn    33 22.50   1.5
     S.D. = 1.4  on   5 of   5 obs.
-----------------------------------
   JAN  24, 1993  04h 36m 24.52± 1.30s
   38.286 N ± 7.6km   26.779 E ±11.4km
   DEPTH =  10.0km  (geophysicist)
 AEGEAN SEA                              (365)
       MD 3.2 (ISK).
```

```
IZM      0.40  73 iPg    36 32.20  -0.5
                  iSg    36 36.20
CIN      1.24 123 eP     36 47.00  -0.6
EZN      1.58 347 ePn    36 52.30  -0.3
YER      1.66 133 ePn    36 54.00   0.2
DST      1.95  47 ePn    36 57.80  -0.3
KHL      2.16  88 ePn    37 02.00   0.9
EDC      2.22  22 ePn    37 02.00   0.0
BNT      2.25  23 ePn    37 02.00  -0.3
KCT      2.31  32 ePn    37 04.00   0.8
     S.D. = 0.6  on   9 of   9 obs.
-----------------------------------
%  JAN  24, 1993  05h 00m 42.83± 1.06s
   38.030 N ±14.8km   14.213 E ± 5.4km
   DEPTH =   5.0km  (geophysicist)
 SICILY                                  (398)

GIB      0.15 255 P      00 44.60  -1.4
                  eSg    00 47.20
MNO      0.39 104 P      00 51.00   0.2
                  eSg    00 59.70
MCT      0.61 229 P      00 56.40   1.4
ATN      0.99  82 P      01 02.20   0.0
MEU      1.09 148 P      01 02.80  -1.0
CVT      1.18 253 P      01 05.70   0.4
SOI      1.45  88 P      01 10.10   0.3
     S.D. = 1.2  on   7 of   7 obs.
-----------------------------------
*  JAN  24, 1993  05h 26m 06.51± 2.15s
   19.606 N ± 9.8km   64.440 W ±27.3km
   DEPTH =  33.0km  (normal)
   3.9mb (  1 obs.)
 VIRGIN ISLANDS                          ( 91)

LPR      1.87 227 P      26 36.50  -0.3
CPD      2.09 222 P      26 40.90   0.9
SJG      2.20 228 i(P)   26 41.00  -0.5
                  S      27 07.70
APR      2.45 242 P      26 45.10   0.0
CLLP     2.53 233 P      26 46.30   0.1
PORP     2.59 234 P      26 46.90  -0.1
LRS      2.62 241 P      26 47.40  -0.1
MGP      2.97 238 P      26 52.30  -0.1
HBF     19.47 316 (P)    30 33.27  -0.3
                  i      30 39.86
SGS     19.72 317 eP     30 36.10  -0.2
                  e      30 43.13
CEH     20.73 325 eP     30 46.51  -0.2
                  e      30 56.99
JSC     20.89 318 (P)    30 49.63   1.2
                  e      30 58.77
YKA     54.84 334 eP     35 35.20  -0.4
       1.0s     1.30nm          3.9mb
     S.D. = 0.5  on  13 of  13 obs.
-----------------------------------
   JAN  24, 1993  05h 34m 15.53± 0.54s
   40.618 N ± 4.3km   22.884 E ± 4.6km
   DEPTH =  10.0km  (geophysicist)
 GREECE                                  (364)

THE      0.06  77 iPg    34 17.93   0.1
                  eSg    34 19.06
SOH      0.41  60 iPg    34 23.90  -0.1
                  iSg    34 30.38
GRG      0.50 313 iPg    34 25.69   0.0
                  eSg    34 33.58
KNT      0.54   1 iPg    34 26.38  -0.1
LIT      0.60 210 ePg    34 27.42  -0.2
                  eSg    34 35.14
SRS      0.73  47 ePg    34 29.46  -0.5
 -                iSg    34 40.98
VAY      0.74 341 iPn    34 30.40   0.4
OUR      0.88 108 ePg    34 32.86   0.4
                  eSg    34 44.22
PAIG     0.92 138 ePg    34 33.06   0.0
                  eSg    34 45.66
     S.D. = 0.3  on   9 of   9 obs.
-----------------------------------
*  JAN  24, 1993  05h 46m 20.90± 2.10s
   31.136 S ±11.4km   68.804 W ±20.4km
   DEPTH = 123.0 ± 15.3 km
 SAN JUAN PROVINCE, ARGENTINA     (137)

RTLL     0.35 124 e(P)   46 38.50  -0.4
RTCB     0.35 179 iPd    46 39.20   0.4
                  S      46 47.00
CFA      0.67 134 ePc    46 40.70   0.0
```

24d 05h

```
                    S      46 53.00
RTCV     0.76 163 iPc     46 41.30    0.0
                 (S)     46 53.50
MDZ      1.74 181 iP      46 59.20    7.3X
                 iS      47 17.50
RTPR     2.14  68 ePc     46 56.70    0.0
                 S       47 22.10
MRA      2.93 117 ePc     47 07.10    0.2
                 S       47 35.00
TCA      3.61  94 iP      47 27.60   11.4X
                 S       48 06.50
RFA      3.64 176 eP      47 16.40   -0.1
                 S       47 56.50
CYA      3.75  45 iPc     47 18.00    0.0
     S.D. = 0.3  on   8 of  10 obs.
-----------------------------------------
?  JAN  24, 1993  05h 57m 32.46± 8.85s
   39.626 N ±23.8km   25.315 E ±72.1km
   DEPTH =  10.0km  (geophysicist)
 AEGEAN SEA                          (365)
      MD 3.1 (ISK).

EZN      0.80  75 iPg     57 48.40    0.4
                 iSg     57 55.90
IZM      1.95 128 ePn     58 06.20    0.2
BNT      2.13  69 ePn     58 08.40   -0.2
KCT      2.42  74 ePn     58 13.00    0.3
DST      2.56  89 ePn     58 14.00   -0.7
     S.D. = 0.6  on   5 of   5 obs.
-----------------------------------------
?  JAN  24, 1993  06h 08m 26.83± 0.68s
   19.090 S ±36.6km  173.836 E ±13.9km
   DEPTH =  33.0km  (normal)
   4.7mb (  6 obs.)
 VANUATU ISLANDS REGION              (185)

SVA      4.49  78 eP      09 34.10   -0.2
MBU      5.10  66 eP      09 43.20    0.1
DZM      7.53 246 iPc     10 16.50   -0.8
BRS     21.02 243 iP      13 08.50   -1.7
ARMA    23.06 236 eP      13 32.00    1.4
        0.8s    11.00nm          4.4mb
RMQ     24.24 248 iPd     13 43.80    1.9
        0.3s     9.00nm          4.8mb
CTA     25.99 263 iP      13 59.50    0.9
WB2     37.17 262 eP      15 35.70   -1.1
        0.7s     6.40nm          4.6mb
                 i       15 41.70
WRA     37.18 262 P       15 36.20   -0.7
        0.6s     1.30nm          4.0mb
ASPA    37.38 256 eP      15 38.10   -0.5
        0.6s    21.20nm          5.2mb
MTN     41.45 272 eP      16 13.00    0.6
        0.6s    19.00nm          5.0mb
BRG    144.50 338 e(PKP)28 08.00    6.7X
PRU    145.01 337 ePKP  28 10.00    7.8X
SRO    145.11 331 ePKP  28 18.60   16.2X
ZST    145.37 332 ePKP  28 11.30    8.4X
KHC    146.08 337 ePKP  28 16.00   11.9X
                 e       28 25.60
GEC2   146.26 336 ePKP  28 15.20   10.7X
        0.8s     2.51nm
                 e       28 22.70
OHR    148.19 319 e(PKP)28 11.70    3.9X
BCAO   151.83 242 ePKPc 28 21.00    6.9X
        0.6s     3.00nm
     S.D. = 1.2  on  11 of  19 obs.
-----------------------------------------
%  JAN  24, 1993  08h 30m 12.55± 0.83s
   39.130 N ± 7.1km   27.499 E ± 8.5km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                              (366)
      MD 2.8 (ISK).

IZM      0.75 194 iPg     30 27.30    0.0
                 iSg     30 39.30
DST      1.00  61 ePn     30 31.60    0.1
EZN      1.14 308 ePn     30 34.00    0.1
BNT      1.27  15 ePn     30 36.00   -0.1
KCT      1.30  30 iPn     30 36.50   -0.1
     S.D. = 0.1  on   5 of   5 obs.
-----------------------------------------
%  JAN  24, 1993  09h 04m 49.12± 0.98s
   26.875 S ± 7.9km   26.561 E ±16.4km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA            (584)
      ML 2.2 (PRE).

KSR      1.05  17 eP      05 09.50    0.0
                 S       05 22.00
SEK      1.72 147 eP      05 20.00   -0.1
                 S       05 41.00
SLR      1.92  54 iPd     05 22.90    0.0
                 S       05 45.00
BLF      2.25 188 e(P)    05 28.00    0.3
FRS      3.07 201 e(P)    05 38.90   -0.2
     S.D. = 0.3  on   5 of   5 obs.
-----------------------------------------
*  JAN  24, 1993  09h 21m 42.08± 1.63s
   39.001 N ±16.2km   22.838 E ± 8.5km
   DEPTH =   5.0km  (geophysicist)
 GREECE                              (364)

AGG      0.40 273 ePg     21 47.92   -2.1
                 eSg     22 02.16
LIT      1.13 346 ePb     22 06.72    3.0X
PAIG     1.13  35 ePb     22 03.72    0.0
OUR      1.60  33 ePn     22 09.88   -1.1
SOH      1.86  12 ePn     22 15.52    0.6
                 eSn     22 48.10
KNT      2.16   1 ePn     22 19.48    0.3
VAY      2.33 355 iPn     22 20.70   -0.9
SRN      2.37 293 ePn     22 24.00    1.8
TPE      2.54 302 ePn     22 26.00    1.4
OHR      2.63 324 iPn     22 25.60   -0.3
VLO      2.96 301 ePn     22 35.80    5.1X
SKO      3.15 341 ePn     22 35.30    2.0X
PHP      3.25 326 ePn     22 39.10    4.4X
PKI     52.61  83 P       31 00.00    0.4
     S.D. = 1.3  on  10 of  14 obs.
-----------------------------------------
%  JAN  24, 1993  09h 53m 37.52± 0.80s
   39.147 N ± 6.6km   27.536 E ± 8.3km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                              (366)
      MD 2.7 (ISK).

IZM      0.78 196 iPg     53 52.80    0.1
                 iSg     54 02.80
DST      0.96  61 iPg     53 55.50   -0.4
                 eSg     54 08.50
EZN      1.16 306 ePn     53 59.00   -0.1
EDC      1.22  12 ePn     54 00.00   -0.3
BNT      1.24  14 ePn     54 00.70    0.1
KCT      1.27  30 iPn     54 01.70    0.6
     S.D. = 0.4  on   6 of   6 obs.
-----------------------------------------
%  JAN  24, 1993  10h 05m 55.44± 0.81s
   39.150 N ± 6.7km   27.616 E ± 8.3km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                              (366)
      MD 2.9 (ISK).

IZM      0.80 200 iPg     06 10.90   -0.1
                 iSg     06 22.40
DST      0.91  60 ePn     06 13.00    0.2
EZN      1.21 304 ePn     06 18.10    0.2
EDC      1.21   9 ePn     06 18.00    0.0
BNT      1.23  11 ePn     06 17.70   -0.6
KCT      1.24  27 iPn     06 18.70    0.2
     S.D. = 0.4  on   6 of   6 obs.
-----------------------------------------
%  JAN  24, 1993  10h 45m 40.67± 0.90s
   39.097 N ± 8.3km   27.613 E ±15.4km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                              (366)
      MD 2.6 (ISK).

IZM      0.75 202 iPg     45 55.40    0.0
                 iSg     46 07.40
DST      0.94  57 iPn     45 58.50   -0.1
EDC      1.26   9 ePn     46 04.00   -0.1
BNT      1.28  11 ePn     46 04.40    0.0
KCT      1.29  26 iPn     46 04.70    0.2
     S.D. = 0.2  on   5 of   5 obs.
-----------------------------------------
   JAN  24, 1993  11h 10m 06.24± 0.70s
   32.041 S ± 6.7km   71.770 W ± 8.1km
   DEPTH =  82.1 ± 13.6 km
 NEAR COAST OF CENTRAL CHILE         (135)
      MD 4.3 (SAN).

IHA      0.99 174 iPd     10 25.20   -0.3
                 iS      10 38.70
ROCH     1.13 146 iP+     10 26.81   -0.7

JACH     1.18 123 iP+     10 27.39   -0.7
PEL      1.43 141 iPd     10 31.06   -0.1
LCCH     1.44 173 iP+     10 31.30    0.1
SAN      1.69 147 iP+     10 34.51   -0.1
TACH     1.75 157 iP+     10 35.67    0.2
FCH      1.79 136 iPd     10 36.08   -0.1
PCH      1.90 146 iP+     10 37.43    0.0
LNV      1.93 171 iP+     10 37.40   -0.4
CHCH     2.11 154 iP+     10 40.62    0.4
CACH     2.29 155 iP+     10 43.76    0.9
                 iS      11 11.37
RTCB     2.59  78 iPc     10 47.90    1.0
MDZ      2.61 110 iP      10 47.80    0.7
                 i       11 03.80
RTCV     2.75  87 iP      10 50.10    1.0
RTLL     2.90  77 ePc     10 51.60    0.4
CFA      3.04  83 ePd     10 53.20    0.2
RFA      3.88 135 iP      11 05.40    0.6
RTPR     4.83  70 e(P)    11 16.50   -1.4
MRA      5.15  96 ePc     11 21.00   -1.4
TCA      6.16  85 eP      11 46.00    9.4X
                 S       12 51.00
CYA      6.29  57 eP      11 34.50   -3.8X
FSA      7.78  42 eP      11 55.30   -3.5X
CNCB    15.55  14 P       13 42.20   -0.4
LPB     15.80  13 eP      13 47.00    1.4
ZOBO    16.03  13 P       13 48.10   -0.6
SIV     18.71  34 (P)     14 28.00    7.0X
BAO     27.10  59 e(P)    15 43.00   -0.4
                 e       15 44.50
                 e       15 56.30
                 e       15 57.10
     S.D. = 0.8  on  24 of  28 obs.
-----------------------------------------
%  JAN  24, 1993  11h 11m 49.30± 1.33s
   38.042 N ±16.4km   14.162 E ± 7.3km
   DEPTH =  10.0km  (geophysicist)
 SICILY                              (398)

GIB      0.12 244 P       11 51.30   -1.1
                 eSg     11 53.70
MNO      0.44 105 P       11 58.00   -0.2
                 eSg     12 06.50
MCT      0.59 226 P       12 02.40    1.1
ATN      1.03  83 P       12 08.60   -0.2
                 eSg     12 26.00
MEU      1.12 147 P       12 09.90   -0.5
CVT      1.14 252 P       12 12.70    2.0X
SOI      1.49  88 P       12 17.00    0.9
     S.D. = 1.1  on   6 of   7 obs.
-----------------------------------------
?  JAN  24, 1993  11h 43m 49.05± 5.65s
   40.649 N ±53.5km   27.437 E ± 8.2km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                              (366)
      MD 2.8 (ISK).

EDC      0.44 133 iPg     43 58.00   -0.1
BNT      0.47 128 iPg     43 58.70    0.1
KCT      0.81 119 iPg     44 04.70    0.0
                 eSg     44 18.70
EZN      1.18 226 iPn     44 11.10    0.0
     S.D. = 0.1  on   4 of   4 obs.
-----------------------------------------
   JAN  24, 1993  12h 06m 00.73± 0.79s
   40.671 N ± 7.3km   15.727 E ± 6.2km
   DEPTH =  10.0km  (geophysicist)
 SOUTHERN ITALY                      (390)

SGO      0.34 251 P       06 08.00    0.3
                 eSg     06 13.20
MGR      0.55 194 P       06 11.00   -0.8
                 eSg     06 19.40
ORI      0.82 138 P       06 16.20   -0.4
BAI      0.97  62 P       06 18.00   -1.2
                 eSg     06 32.00
TDS      1.11 155 P       06 23.30    1.7
BRT      1.14  79 P       06 21.30   -0.8
                 eSg     06 36.90
LCI      1.73 101 P       06 33.00    2.0
SDI      1.77 306 P       06 32.10    0.4
ATN      2.52 185 P       06 41.30   -1.0
HVAR     2.56  12 ePn     06 50.90    8.0X
                 iSn     07 24.20
SOI      2.61 174 P       06 43.20   -0.4
     S.D. = 1.3  on  10 of  11 obs.
-----------------------------------------
```

```
?  JAN  24, 1993  15h 27m 36.99± 1.31s
   39.184 N ±10.0km   27.425 E ±19.8km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                                (366)
      MD 2.7 (ISK).

IZM      0.80 189 iPg   27 52.50   0.0
                  iSg   28 03.00
DST      1.02  65 ePn   27 56.20  -0.2
BNT      1.23  18 ePn   27 59.60  -0.3
KCT      1.28  34 iPn   28 01.20   0.4
      S.D. = 0.5  on   4 of   4 obs.
-----------------------------------------
*  JAN  24, 1993  16h 09m 47.95± 0.66s
   22.705 S ±12.5km  171.071 E ±11.1km
   DEPTH =  33.0km  (normal)
   5.1mb ( 14 obs.)
 LOYALTY ISLANDS REGION                (189)

DZM      4.33 278 iPc   10 52.30  -0.9
                  iS    11 39.20
BKM      5.67 332 iP    11 16.00   3.9X
                  iS    12 27.50
HNR     16.97 319 eP    13 41.00  -3.5X
BRS     17.22 251 iPc   13 49.80   2.2
ARMA    19.00 242 eP    14 11.30   1.7
        0.9s     10.00nm          4.0mb X
RMQ     20.63 255 iPd   14 29.00   1.7
        0.4s     70.00nm          5.4mb
CTA     23.25 272 iP    14 54.00   0.6
TOO     26.51 230 eP    15 25.30   0.9
        0.8s     22.00nm          4.8mb
STK     27.67 244 eP    15 35.20   0.2
        0.7s      3.70nm          4.2mb
ASPA    34.12 261 iPd   16 30.70  -1.3
        0.8s     32.90nm          5.3mb
      Z  23s      0.50um          4.2MszX
MTN     39.17 278 iPc   17 13.70  -1.0
        0.6s     38.00nm          5.3mb
WARB    40.45 256 eP    17 24.60  -0.6
        0.5s     12.00nm          4.9mb
MEEK    47.56 254 eP    18 21.00  -1.6
        1.0s     57.00nm          5.5mb
KLB     47.86 247 eP    18 23.50  -1.3
BAL     48.83 249 eP    18 30.90  -1.4
MUN     49.16 247 eP    18 34.00  -0.8
MRWA    49.57 250 eP    18 37.00  -1.0
        0.8s     14.00nm          5.0mb
SPA     67.43 180 iPd   20 42.00  -0.4
        1.0s     16.00nm          5.1mb
IPM     73.52 282 ePc   21 19.50  -0.3
        0.8s     26.10nm          5.3mb
TIA     77.65 318 eP    21 42.10  -0.7
CN2     78.29 328 eP    21 45.40  -0.7
        1.0s      4.60nm          4.5mb
                  epP   21 51.50  19kmX
TIY     81.52 317 eP    22 04.00   0.3
KMI     81.54 302 eP    22 05.00   0.7
        1.0s     30.00nm          5.3mb
                  sP    22 13.50
CHG     81.64 294 eP    22 06.30   1.7
XAN     81.70 312 P     22 07.00   2.3X
HHC     83.95 319 eP    22 16.40   0.2
        1.0s      9.90nm          4.9mb
NVL     85.64 187 eP    22 23.00  -1.1
LZH     86.30 312 eP    22 28.00  -0.1
        1.4s     13.00nm          5.0mb
KSP    145.73 331 iPKPd 29 24.00  -0.5
        1.0s     49.00nm
BRG    146.72 333 iPKP  29 27.10   1.0
        1.0s     28.00nm
CLL    146.76 335 iPKPd 29 27.20   1.1
        1.0s     29.00nm
PRU    147.13 332 ePKP  29 29.00   2.3X
        1.1s     10.30nm
                  e     29 35.00
EKA    147.13 354 PKP   29 28.00   1.4
        0.7s     11.40nm
VAY    147.72 313 ePKP  29 24.40  -3.6X
BCAO   147.82 240 iPKPd 29 31.10   2.1X
        0.7s     18.00nm
                  ic    29 41.00
MOX    147.83 335 ePKP  29 29.90   2.0X
        1.2s     16.00nm
KHC    148.18 332 PKP   29 31.60   3.1X
        1.1s     14.70nm
                  e     29 44.00
SKO    148.19 314 iPKP  29 31.80   3.1X
GEC2   148.34 331 ePKP  29 32.20   3.3X
        0.9s      8.82nm
                  e     29 37.60
                  e     29 45.70
                  e     29 52.70
GRF    148.74 334 ePKPc 29 33.60   4.2X
                  e     29 37.20
KBA    149.79 329 iPKPd 29 34.90   3.6X
        0.7s     12.40nm
                  i     29 44.70
VBY    149.91 325 iPKPd 29 36.90   5.6X
                  e     29 41.60
                  i     29 50.10
LJU    149.93 326 ePKP  29 36.00   4.7X
RBL    150.13 328 PKP   29 35.60   3.9X
CEY    150.19 326 ePKP  29 36.50   4.8X
VOY    150.26 327 iPKPd 29 36.70   4.8X
                  e     29 42.50
WTTA   150.44 331 iPKPc 29 36.90   4.6X
        1.0s     29.60nm
                  i     29 43.00
                  i     29 52.60
TRI    150.55 327 ePKP  29 37.40   5.2X
WLF    150.58 340 PKP   29 39.00   6.9X
SOTA   150.67 331 iPKPc 29 37.40   4.9X
        0.7s     20.00nm
DOU    150.67 342 PKPc  29 44.30  12.1X
CDF    151.28 337 ePKP  29 38.90   5.5X
        0.9s     15.55nm
CTI    151.34 329 PKP   29 39.10   5.6X
SLE    151.36 335 PKP   29 38.58   5.2X
OSS    151.54 332 PKP   29 40.09   6.2X
LLS    151.89 333 PKP   29 40.84   6.4X
BSF    151.95 337 ePKP  29 40.40   6.0X
        0.7s      9.70nm
HAU    151.95 338 ePKP  29 40.30   6.0X
        0.9s     17.85nm
VDL    151.99 332 ePKPc 29 40.70   6.1X
TMA    152.55 333 ePKPc 29 41.60   6.2X
SFI    152.77 326 PKP   29 43.50   8.0X
MMK    152.97 334 PKP   29 43.72   7.7X
FLN    153.14 348 ePKP  29 42.60   6.7X
        0.6s      9.20nm
EMS    153.37 335 PKPc  29 43.90   7.3X
GRR    153.58 348 ePKP  29 43.70   7.2X
        0.7s      7.95nm
LPF    153.95 348 ePKP  29 44.40   7.4X
        0.8s      7.80nm
      S.D. = 1.1  on  29 of  66 obs.
-----------------------------------------
    JAN  24, 1993  16h 43m 06.66± 0.44s
     2.164 S ± 6.7km    27.555 E ±11.3km
    DEPTH =  10.0km  (geophysicist)
    4.5mb ( 18 obs.)
  ZAIRE                                (567)
       mbLg 4.6 (BUL).

NAI      9.29  85 ePn   45 21.00  -2.8
                  ePg   45 25.10
                  iSg   47 46.60
BCAO    11.14 306 iPc   45 41.90  -7.3X
        0.3s      5.00nm          5.3mb
                  iS    46 30.00
                  Lg    47 40.00
MTD     15.06 165 iPn   46 42.40   1.1
                  iSn   49 24.50
                  iSg   51 01.50
BUL     17.90 177 iPn   47 18.10   0.5
                  iSn   50 34.00
                  iSg   52 31.20
CIR     19.14 168 iPn   47 34.10   1.3
                  iSn   51 32.00
                  iSg   53 04.00
SLR     23.45 178 eP    48 16.50  -0.8
                  S     52 49.00
SEK     26.01 180 eP    48 42.00   0.2
        1.0s     35.00nm          5.0mb
KIC     33.34 285 P     49 45.00  -2.3
LIC     33.58 285 P     49 47.40  -2.0
TIC     33.67 285 P     49 48.30  -1.9
        0.5s      8.50nm          4.9mb
LPG     50.92 341 eP    52 10.90   0.4
        0.5s      2.25nm          4.4mb
LPL     50.95 341 eP    52 11.00   0.4
        0.5s      3.65nm          4.6mb
CAF     52.09 337 eP    52 20.10   1.0
        0.5s      2.60nm          4.4mb
GEC2    52.21 348 eP    52 19.90  -0.1
        0.5s      1.11nm          4.0mb
LPO     52.23 336 eP    52 21.00   0.9
        0.5s      5.25nm          4.7mb
KHC     52.51 348 eP    52 21.00  -1.1
                  e     52 32.50
RJF     52.62 337 eP    52 23.80   0.8
        0.6s      3.05nm          4.4mb
LFF     52.63 336 eP    52 24.20   1.2
        0.5s      9.25nm          5.0mb
SMF     52.90 340 eP    52 25.40   0.3
        0.4s      1.80nm          4.4mb
MAF     53.00 338 eP    52 27.00   1.2
        0.5s      4.90nm          4.7mb
TCF     53.18 338 eP    52 28.30   1.1
        0.5s      2.75nm          4.5mb
AVF     53.20 339 eP    52 27.60   0.4
        0.5s      2.85nm          4.5mb
CDF     53.38 343 eP    52 28.80   0.2
        0.6s      2.05nm          4.3mb
SSF     53.38 340 eP    52 28.50  -0.1
        0.4s      1.90nm          4.4mb
LOR     53.44 340 eP    52 29.00   0.0
        0.5s      3.20nm          4.5mb
NAO     64.13 351 P     53 43.50   0.3
        0.6s      1.00nm          4.2mb
      S.D. = 1.2  on  25 of  26 obs.
-----------------------------------------
?  JAN  24, 1993  17h 56m 40.57± 4.68s
   38.799 N ±36.6km   22.459 E ±12.8km
   DEPTH =  10.0km  (geophysicist)
 GREECE                                (364)

AGG      0.24 336 iPg   56 45.56  -0.2
                  eSg   56 54.50
LIT      1.30   1 ePb   57 04.80   0.1
                  iSb   57 24.78
PAIG     1.47  40 ePb   57 06.72  -0.4
OUR      1.93  37 iPn   57 13.69  -0.1
SOH      2.14  19 iPn   57 17.98   1.2
                  iSn   57 46.46
GRG      2.16 359 ePn   57 16.76  -0.3
KNT      2.38   8 ePn   57 19.48  -0.8
                  eSn   57 53.70
SRS      2.47  20 ePn   57 21.64   0.1
                  iSn   57 57.14
VAY      2.52   2 iPn   57 25.40   3.2X
OHR      2.64 332 ePn   57 24.30   0.3
SKO      3.26 347 ePn   57 29.60  -3.2X
      S.D. = 0.7  on   9 of  11 obs.
-----------------------------------------
*  JAN  24, 1993  19h 34m 56.64± 1.31s
   45.277 N ± 7.7km    6.716 E ±15.8km
   DEPTH =  10.0km  (geophysicist)
 FRANCE                                (538)
      ML 2.3 (LDG).

LPG      0.22   6 Pg   34 58.00  -3.6X
                  Sg   35 00.60
BNI      0.23 187 P    35 01.60   0.0
                  eSg  35 07.50
LPL      0.24   3 Pg   34 57.80  -4.1X
                  Sg   35 00.40
SMF      2.43 305 Pg   35 35.50  -1.5
                  Sg   36 04.40
BSF      2.56   1 Pg   35 38.80  -0.1
                  Sg   36 11.00
LBF      2.56 313 Pg   35 38.80  -0.1
                  Sg   36 07.60
AVF      2.79 304 Pg   35 41.60  -0.5
                  Sg   36 14.40
LOR      2.81 316 Pg   35 43.40   1.0
                  Sg   36 14.20
SSF      2.86 310 Pg   35 43.40   0.3
                  Sg   36 16.60
BGF      2.99 297 Pg   35 45.80   0.9
                  Sg   36 21.40
      S.D. = 0.9  on   8 of  10 obs.
-----------------------------------------
?  JAN  24, 1993  20h 17m 26.86± 4.75s
   36.608 N ±42.4km    2.632 W ±13.7km
   DEPTH =  10.0km  (geophysicist)
 STRAIT OF GIBRALTAR                   (385)
      mbLg 2.6 (MDD).

ENIJ     0.50  43 iPgc  17 37.00   0.0
```

24d 20h

```
                    eSg   17 42.80
EGUA     0.78 287 iPgc   17 42.10    0.0
                    eSg   17 52.00
ECOG     1.00 312 ePg    17 46.00    0.1
                    eSg   17 57.70
EVIA     2.03   3 ePn    18 01.50   -0.1
                    eSn   18 23.50
     S.D. = 0.1  on   4 of   4 obs.
-------------------------------------
   JAN  24, 1993  20h 28m 12.11± 0.53s
   45.612 N ± 9.0km  151.407 E ± 7.3km
   DEPTH =  33.0km  (normal)
   4.7mb ( 29 obs.)
 KURIL ISLANDS                     (221)

KUR      2.52 263 ePn    28 53.00    1.4
                    iS    29 24.00
SKR      5.95  30 ePn    29 40.70    0.5
YSS      6.18 286 (Pn)   29 44.40    1.0
MAT     13.45 232 eP     31 21.00   -2.0
        0.9s     5.88nm          4.5mb
MGD     14.52 359 ePc    31 36.00   -0.8
        0.5s    30.00nm          5.1mb
CN2     18.52 274 eP     32 27.80    0.2
        0.8s    14.00nm          4.2mb
BOD     25.74 312 eP     33 51.80   10.8X
BJI     26.29 270 eP     33 47.00    0.8
        1.0s    13.00nm          4.5mb
ILT     27.18  24 eP     33 56.00    2.0
HHC     29.20 275 Pd     34 12.40   -0.3
        1.0s     9.90nm          4.5mb
ZAK     32.10 296 eP     34 38.00    0.0
        0.7s     4.00nm          4.4mb
XAN     34.24 265 P      34 56.50   -0.4
!MA     35.42  35 eP     35 06.21   -0.6
        1.2s     3.81nm          4.2mb
LZH     36.74 272 eP     35 18.50    0.2
        1.0s    17.00nm          4.9mb
CD2     39.60 265 P      35 42.80    0.7
GYA     40.31 257 P      35 48.00    0.0
KMI     43.87 259 eP     36 17.50    0.2
        1.4s    40.00nm          5.0mb
CHG     50.70 256 ePc    37 11.30    0.7
        0.9s    15.76nm          5.0mb
YKA     52.54  36 eP     37 23.20   -0.8
        0.6s     1.10nm          4.0mb
GUN     53.92 275 P      37 34.28   -0.7
        0.4s    25.00nm          5.5mb
KKN     54.41 275 P      37 37.78   -0.7
        0.6s    22.00nm          5.4mb
PKI     54.45 275 P      37 38.04   -0.9
DMN     54.64 275 P      37 39.66   -0.6
        0.6s    19.00nm          5.3mb
GKN     54.73 276 P      37 40.06   -0.7
        0.6s    34.00nm          5.6mb
RSSD    68.47  49 (P)    39 13.24    0.2
        0.5s     1.19nm          4.2mb
HFS     69.10 339 eP     39 13.70   -2.7X
        0.5s     4.20nm          4.8mb
NAO     69.19 341 P      39 14.70   -2.3
        0.6s     2.80nm          4.5mb
ASPA    70.76 197 eP     39 28.50    1.5
        1.4s     9.90nm          4.7mb
PRU     77.68 333 eP     40 06.50   -0.1
ZST     78.39 331 eP     40 11.00    0.5
KHC     78.74 333 eP     40 12.40   -0.1
GEC2    78.95 333 ePd    40 12.90   -0.8
        1.0s     3.50nm          4.3mb
GRF     78.96 335 eP     40 13.70    0.0
KBA     80.61 332 iPc    40 22.60   -0.2
        0.7s     5.00nm          4.6mb
                    i     40 23.10
CDF     81.25 337 iPd    40 25.80   -0.2
        0.6s     3.95nm          4.6mb
LOR     83.21 338 iPd    40 36.10    0.0
        0.8s     4.05nm          4.6mb
SSF     83.50 339 iPd    40 37.40   -0.2
        0.9s     6.70nm          4.8mb
AVF     83.79 339 iPd    40 39.20    0.2
        0.8s     7.40nm          4.9mb
SMF     83.80 338 iPd    40 39.20    0.1
        0.9s    10.50nm          5.0mb
LPL     84.04 336 iPd    40 41.20    0.6
        0.9s     5.40nm          4.7mb
LPG     84.05 336 iPd    40 41.40    0.6
        0.9s     4.40nm          4.6mb
MAF     84.52 339 iPd    40 43.60    0.9
        1.0s    15.40nm          5.1mb
     S.D. = 0.9  on  40 of  42 obs.
-------------------------------------
*  JAN  24, 1993  21h 02m 18.36± 1.67s
   21.874 N ± 8.7km  142.988 E ±14.3km
   DEPTH = 278.8 ± 17.0 km
   4.1mb (  5 obs.)
 MARIANA ISLANDS REGION            (215)

KAKJ    14.49 351 P      05 34.20    1.5
CHJJ    14.55 347 P      05 32.90   -0.5
MAT     15.20 345 eP     05 41.00   -0.2
        0.7s    10.27nm          4.3mb
                    eS    08 25.00
MTMJ    15.34 344 P      05 42.20   -0.8
NIIJ    15.70 348 P      05 46.60   -0.4
ASPA    46.12 192 eP     10 17.20    0.1
        1.8s    11.50nm          3.9mb
GUN     51.77 289 P      11 00.88    0.4
PKI     52.22 289 P      11 03.62   -0.2
KKN     52.31 289 P      11 04.28    0.0
DMN     52.48 289 P      11 05.72    0.1
GKN     52.85 289 P      11 08.22    0.0
MRWA    57.07 208 eP     11 37.70   -0.3
BAL     57.97 207 eP     11 44.20    0.0
YKA     76.39  28 eP     13 38.20   -0.1
        0.5s     0.50nm          3.5mb
KAF     82.49 335 eP     14 10.90    0.2
        0.5s     1.90nm          4.1mb
NUR     84.05 334 eP     14 18.50   -0.1
        0.4s     2.30nm          4.4mb
     S.D. = 0.6  on  16 of  16 obs.
-------------------------------------
&  JAN  24, 1993  21h 09m 26.26s
   35.636 N          118.455 W
   DEPTH =   8.9km
 CENTRAL CALIFORNIA                ( 39)
      <PAS-P>. ML 3.3 (PAS), 3.3 (GS).
      MD 3.5 (GM). Felt (III) at
      Bodfish and Kernville.

ISA      0.03 331 eP     09 27.63   -0.5
GSC      1.39 103 ePc    09 50.63   -1.2
PKEM     1.41 288 eP     09 51.71   -0.4
                    eS    10 08.92
PHAM     1.59 278 eP     09 53.64   -1.1
FRI      1.69 324 iPd    09 55.36   -0.7
                    iS    10 16.73
MTUM     1.72 357 eP     09 57.26    0.6
                    eS    10 19.02
PRI      1.86 286 iPc    09 57.84   -0.9
                    iS    10 21.51
MRCM     2.03 359 eP     10 02.76    1.5
                    eS    10 29.59
PEC      2.04 148 ePn    10 00.09   -1.1
MEMM     2.06 349 eP     10 02.64    1.2
                    eS    10 30.35
LLA      2.24 297 ePd    10 03.87   -0.2
                    eS    10 28.17
BONR     2.32   3 ePn    10 06.32    0.8
PRS      2.46 287 iPc    10 05.87   -1.4
PLM      2.63 150 ePn    10 08.92   -0.9
TNP      2.64  22 ePn    10 09.64   -0.3
SAO      2.67 296 eP     10 09.24   -1.0
                    eS    10 41.82
CMB      2.85 328 eP     10 13.02    0.2
                    eS    10 49.78
ARN      3.01 305 eP     10 14.53   -0.5
COE      3.06 303 (P)    10 14.77   -0.9
MHC      3.08 304 ePd    10 15.80   -0.3
                    eS    11 03.47
GCC      3.18 297 ePc    10 16.15   -1.2
KVN      3.42   5 (Pn)   10 22.74    1.7
KVN      3.42   5 ePc    10 31.11   10.1
                    eS    11 13.62
GLA      3.96 130 (P)    10 25.73   -2.8
ARUT     4.57  60 (Pn)   10 35.93   -1.3
ORV      4.60 329 ePc    10 38.93    1.4
                    eS    11 35.10
MSU      5.78  58 (Pn)   10 54.56    0.0
        27 obs. associated
-------------------------------------
   JAN  24, 1993  21h 30m 50.96± 0.10s
   45.768 N ± 2.3km  142.162 E ± 2.1km
   DEPTH = 306.4km  ( 18 depth phases)
   5.0mb (101 obs.)
 HOKKAIDO, JAPAN  REGION           (224)
   Mw 5.3 (HRV).
   CENTROID, MOMENT TENSOR    (HRV)
   Data Used: GDSN
   L.P.B.: 17S, 20C
   Centroid Location:
   Origin Time        21:30:54.5 0.6
   Lat 45.64N 0.06 Lon 142.08E 0.09
   Dep 312.3 3.2 Half-duration  1.3
   Moment Tensor;   Scale 10**16 Nm
     Mrr=-5.29 0.61  Mtt= 7.87 1.21
     Mff=-2.57 0.90  Mrt= 3.68 1.20
     Mrf=-5.80 0.73  Mtf=-0.48 0.71
    Principal Axes:
     T  Val=  9.20  Plg=18  Azm= 12
     N        1.07      31      113
     P      -10.27      53      256
   Best Double Couple:Mo=9.7*10**16
    NP1:Strike= 63 Dip=38 Slip=-147
    NP2:        306      70      -56

YSS      1.31  17 iPnd- 31 35.50    1.7
                    iS    32 08.00
ASAJ     1.68 168 iP+    31 37.80    1.5
SAP      2.77 193 iP     31 47.10    1.8
                    iS    32 29.50
KUSJ     3.23 145 P      31 49.40   -0.4
                    S     32 34.90
MRRJ     3.43 194 iP+    31 52.70    0.8
                    eS    32 39.10
HOOJ     3.48 166 iP+    31 51.40   -0.9
                    S     32 38.20
KUR      4.05  96 ePn    32 00.50    2.1
                    eS    32 52.40
AOMJ     5.37 195 iP+    32 12.40   -1.1
                    S     33 14.90
OFUJ     6.69 183 iP+    32 27.60   -1.7
                    S     33 41.20
YAMJ     7.75 193 iP+    32 41.00   -1.2
                    S     34 06.20
OKH      7.81   3 iPnd   32 45.00    2.2
VLA      7.81 254 ePn    32 44.00    1.1
                    iS    34 12.00
NIIJ     8.84 197 P      32 54.80   -0.8
MDJ      8.95 267 eP     32 59.00    2.1
        1.0s   120.00nm          4.9mb
                    S     34 37.00
KAKJ     9.67 190 P      33 03.20   -2.6X
                    S     34 46.90
MAT      9.69 199 iPc    33 04.60   -1.4
        0.8s   123.13nm          5.1mb X
                    iS    34 51.20
MTMJ     9.74 201 P      33 06.50   -0.3
CHJJ    10.00 195 P      33 08.90   -1.0
SKR     10.51  57 iPnc   33 16.80    0.7
                    iS    35 15.50
TSRJ    11.24 207 P      33 25.00   -0.1
CN2     12.04 267 eP     33 34.90    0.1
        1.0s   140.00nm          5.2mb
                    esP   34 48.00
                    eS    35 46.00
                    eScP  41 53.60
                    eScS  45 29.00
YONJ    12.46 215 P      33 38.70   -1.3
WKYJ    12.58 206 P      33 40.40   -1.1
PET     12.94  50 ePn    33 45.00   -0.7
                    eS    36 10.00
TKSJ    13.31 211 P      33 50.40    0.2
SNY     13.98 260 iPd    33 58.50    0.2
        1.6s   640.00nm          5.7mb
                    iS    36 29.00
SHNJ    14.37 220 P      34 04.60    1.6
MGD     15.25  17 iPc+   34 11.00   -1.8
        1.2s  1054.00nm          6.1mb X
      Z  12s     0.50um          4.9Msz
      N  12s     0.50um
                    eS    36 55.00
KUMJ    15.85 217 P      34 18.50   -0.9
DL2     16.63 253 iPd    34 27.50   -0.2
        1.0s   180.00nm          5.4mb
                    sP    35 46.00
                    S     37 24.00
KAGJ    17.00 215 P      34 30.90   -0.7
YAK     17.80 341 eP     34 38.00   -1.6
        0.9s    87.00nm          5.2mb
                    iS    37 44.00
SEY     18.13  15 iPc    34 43.00    0.0
        1.3s   440.00nm          5.7mb
```

```
                eS    37 53.00
CIT    19.71 299 eP    34 57.00  -1.9
                e     38 26.00
BJI    19.83 262 P     35 00.00  -0.1
       1.4s   440.00nm          5.6mb
                esP   36 24.00
                eS    38 25.00
                eScP  42 09.00
                eScS  45 52.00
BOD    20.93 315 iPd   35 10.10  -0.5
       1.5s    66.00nm          4.7mb
TIA    21.10 252 Pd    35 13.10   0.6
       1.2s   120.00nm          5.1mb
     N  11s     0.71um
                sP    36 42.00
                S     38 48.00
SSE    21.92 235 Pc    35 21.60   1.2
       1.4s   280.00nm          5.4mb
     Z  20s     0.50um          3.9Msz
                sP    36 46.00
                S     39 04.00
NJ2    22.62 241 Pd    35 27.60   0.5
       1.2s   190.00nm          5.4mb
HHC    22.72 268 Pd    35 28.60   0.4
       1.4s  1040.00nm          6.0mb X
                S     39 15.00
TIY    23.50 261 Pd    35 36.50   1.1
       1.2s   200.00nm          5.4mb
     Z  16s     0.71um          4.2MszX
     E  10s     0.30um
                PP    36 32.00
                S     39 27.00
BTO    23.90 269 P     35 39.50   0.4
       1.0s    74.00nm          5.1mb
                S     39 38.00
ZAK    26.17 294 iPd   35 59.00  -0.4
       1.4s    32.00nm          4.5mb
     Z  12s     0.49um          4.3MszX
                e     39 18.00
                eS    40 04.00
                e     46 19.00
WHN    26.46 245 P     36 02.00  -0.2
       1.0s    93.00nm          5.2mb
TIK    26.71 351 eP    36 01.00  -3.1X
       1.2s    20.00nm          4.4mb
                iS    40 12.00
MOY    27.52 297 eP    36 10.80  -0.7
       1.5s    48.00nm          4.7mb
XAN    27.86 257 Pd    36 14.10  -0.8
       1.3s    92.00nm          5.1mb
                S     40 38.00
QZH    28.12 230 Pc    36 18.30   1.2
ILT    29.95  29 iPc   36 28.80  -3.9X
       1.2s   147.00nm          5.4mb
                ipP   37 31.00 327kmX
                i     38 04.30
                iS    40 59.00
                i     46 36.00
LZH    30.27 265 iPd   36 36.50   0.4
       1.2s   260.00nm          5.6mb
                pP    37 37.00 315km
                PP    37 50.00
                sP    38 08.00
                PcP   39 29.00
                eS    41 10.00
                ScP   42 40.00
                SS    43 18.00
                ScS   46 34.00
GTA    31.53 274 iPd   36 47.00   0.0
       1.0s   190.00nm          5.6mb
     Z  10s     0.51um          4.5MszX
     E  10s     0.22um
                PcP   39 32.00
                S     41 34.00
                ScP   42 45.00
                PcS   43 16.00
                ScS   46 42.50
GZH    32.52 236 iPc   36 56.00   0.5
       1.2s   220.00nm          5.5mb
CVP    32.70 218 eP    36 55.00  -2.0
       1.0s   192.00nm          5.6mb
CD2    33.23 257 iPd   37 01.40  -0.1
       1.4s   280.00nm          5.6mb
GYA    34.17 248 iPd   37 09.00  -0.6
                S     42 09.80
NRI    35.58 330 iPd   37 18.40  -2.4
       1.2s    13.00nm          4.3mb
```

```
                e     38 24.00 327kmX
                eS    42 26.00
                eSSS  45 15.00
ELT    36.23 303 iPd   37 25.00  -1.4
       1.6s    42.00nm          4.7mb
                e     42 38.00
                i     47 05.00
SDN    36.68  54 eP    37 29.00  -1.2
PLP    37.47 208 ePc   37 36.50  -0.7
       1.0s    98.00nm          5.2mb
KMI    37.66 250 Pd-   37 39.00   0.1
       1.5s   380.00nm          5.6mb
                pP    37 58.00  79kmX
                eS    46 12.00
QIZ    37.71 236 eP    37 40.60   1.4
WMQ    38.07 287 P     37 42.30   0.3
       1.0s    15.00nm          4.4mb
TTA    38.16  41 eP    37 42.00  -0.6
BRW    38.27  27 iPc   37 42.50  -0.6
SVW    38.49  44 eP    37 45.70   0.5
IMA    39.06  36 iPc   37 49.10  -0.8
       1.1s   152.60nm          5.2mb
                e     38 06.60  71kmX
BGL    40.02  43 P     37 57.20  -0.6
CP2    40.09  43 P     37 58.10  -0.4
CRP    40.13  43 P     37 57.70  -1.1
KDC    40.59  49 eP    38 01.70  -0.6
SLKM   41.19  44 P     38 05.30  -2.0
PMS    41.38  43 iPc   38 08.30  -0.5
       0.3s    51.40nm          5.2mb
FBA    41.60  37 iPc   38 10.20  -0.3
LSA    42.67 266 Pd    38 21.80   1.6
       1.0s    46.00nm          4.7mb
TOA    42.79  41 ePc   38 20.50   0.2
KLU    43.64  42 P     38 21.20  -1.1
CHG    44.59 248 iPd   38 35.00   0.1
       0.8s    16.79nm          4.4mb
PRZ    44.81 290 eP    38 37.00   0.4
       1.6s   120.00nm          5.0mb
BALM   44.83  42 P     38 35.70  -0.8
BRVK   45.51 306 iP    38 40.00  -1.8
       1.2s    22.00nm          4.4mb
KKM    45.52 218 ePd   38 43.50   1.2
NST    46.16 243 eP    38 56.50   9.2X
FRU    47.12 292 iP    38 54.20  -0.3
       2.0s   110.00nm          4.8mb
                e     40 14.50 404kmX
                e     40 31.50
GUN    47.44 268 P     38 57.12  -0.4
       0.4s   140.00nm          5.6mb
KHT    47.80 244 iPd   39 00.50   0.6
KSH    47.87 287 P     39 01.00   0.6
       1.0s   100.00nm          5.1mb
KKN    47.93 268 Pd    39 00.72  -0.4
PKI    47.97 268 Pd    39 01.16  -0.4
DMN    48.16 268 Pd    39 02.72  -0.2
GKN    48.25 269 Pd    39 03.12  -0.4
       0.4s   167.00nm          5.7mb
NNT    48.77 241 P     39 07.70   0.4
SVE    49.22 314 ePd   39 08.10  -2.2
                e     41 12.00 736kmX
SIT    49.61  45 eP    39 14.70   1.5
       1.0s   182.80nm          5.4mb
ARU    50.41 314 eP    39 19.00  -0.3
                e     40 28.00 330kmX
                e     46 05.00
SNG    52.52 236 eP    39 37.00   1.7
NDI    53.03 275 iPd   39 38.00  -1.0
       0.6s   113.33nm          5.5mb
                eS    46 41.00
RES    54.03  16 ePc   39 44.50  -1.2
       1.0s    39.00nm          4.8mb
IPM    54.40 234 ePd   39 48.90  -0.1
       1.1s    82.70nm          5.1mb
PMG    55.10 174 eP    39 53.00  -0.9
KGM    55.26 230 eP    39 56.00   0.8
YKA    56.07  33 eP    39 59.20  -1.2
       0.7s    24.70nm          4.7mb
SDF    57.23 336 iP    40 06.50  -1.9
QUE    59.20 283 Pd    40 26.00   3.3X
                eS    48 07.00
HYB    59.37 264 iPd   40 22.00  -1.7
ASH    60.20 295 eP    40 39.30  10.2X
MAIO   60.45 293 iPd   40 30.70  -0.3
MBW    60.81  49 P     40 32.81  -0.5
KAF    60.87 331 iP    40 31.10  -2.2
       0.4s     2.00nm          4.0mb
```

```
CMW    60.91  49 P     40 33.95   0.1
GMW    61.08  50 P     40 35.35   0.5
JCW    61.15  49 P     40 35.36   0.0
OBN    61.54 321 eP    40 36.00  -1.8
       1.0s    18.00nm          4.6mb
LMW    61.89  51 P     40 40.61   0.3
POO    61.90 268 iPd   40 38.40  -2.2
FMW    62.06  50 P     40 41.65   0.1
NLW    62.06  49 P     40 41.36  -0.2
LON    62.10  51 P     40 40.50  -1.2
SHW    62.21  51 P     40 42.70   0.2
MTMW   62.33  52 P     40 43.61   0.4
ETW    62.36  49 P     40 43.06  -0.4
DHW2   62.42  49 P     40 43.26  -0.5
TBM    62.49  50 P     40 44.05  -0.2
WTV    62.50  49 P     40 43.65  -0.7
NUR    62.57 330 eP    40 42.30  -2.1
NAC    62.64  50 P     40 45.31   0.1
GBA    62.77 261 Pd    40 46.00  -0.3
       0.6s     8.00nm          4.5mb
SAW    62.79  49 P     40 45.53  -0.6
EPH    62.91  49 P     40 46.27  -0.6
SSOR   62.91  53 P     40 47.55   0.5
VLL    62.97  52 P     40 47.91   0.5
MXC    63.02  50 P     40 47.29  -0.4
GL2    63.12  51 P     40 48.79   0.4
BRVW   63.24  50 P     40 49.38   0.2
VBEM   63.27  52 P     40 49.71   0.3
MDW    63.29  50 P     40 49.26  -0.1
WAH2   63.30  50 P     40 49.28  -0.1
DPW    63.31  48 P     40 49.14  -0.4
CRF    63.35  49 P     40 49.55  -0.2
OD2    63.35  49 P     40 49.10  -0.7
VGB    63.43  51 P     40 50.62   0.3
GBL    63.46  50 P     40 50.23  -0.2
NEW    63.62  47 P     40 51.00  -0.5
       1.0s    65.63nm          5.3mb
CROR   63.65  52 P     40 52.01   0.2
JBO    63.97  51 P     40 53.88   0.1
VIPM   64.15  52 P     40 55.27   0.1
FHC    64.59  57 P     40 58.80   1.0
       1.0s   121.77nm          5.6mb
KMPM   64.75  57 P     40 59.60   0.7
SES    65.21  42 iPc   41 01.50  -0.2
       0.9s    81.00nm          5.5mb
WDC    65.57  56 P     41 03.90  -0.2
       0.9s    29.77nm          5.0mb
                pP    42 13.30 308km
CTA    65.64 176 iPc   41 04.00  -0.5
KIV    65.75 309 P     41 05.20  -0.1
WB2    65.78 188 eP    41 04.30  -1.1
       0.6s    34.90nm          5.3mb
WRA    65.78 188 P     41 04.70  -0.7
       1.0s    14.70nm          4.7mb
FCC    65.99  28 ePc   41 08.20   1.8
MTA    66.04 306 iPd   41 06.40  -0.5
       1.0s    50.00nm          5.2mb
LMEM   66.16  56 P     41 08.10   0.1
HFS    66.40 335 eP    41 06.40  -2.5X
       0.4s     8.10nm          4.8mb
GRS    66.58 303 iPd   41 10.60   0.0
       1.7s    70.00nm          5.1mb
NAO    66.67 336 P     41 08.20  -2.4
       0.4s     1.70nm          4.1mb
ORV    66.84  57 P     41 11.30  -0.8
HMR    67.58  58 P     41 17.50   0.9
LCCM   67.91  47 iPc   41 18.60  -0.1
COE    68.25  59 P     41 20.80   0.0
ARN    68.28  59 P     41 20.90   0.0
CMB    68.50  57 P     41 22.40   0.1
       0.9s    34.79nm          5.1mb
                pP    42 32.10 306km
KVN    69.15  55 P     41 26.60   0.1
ASPA   69.51 188 iPd   41 28.60   0.2
       0.9s   119.50nm          5.6mb
MEMM   69.60  57 P     41 30.20   1.3
BONR   69.77  56 P     41 30.70   0.3
                pP    42 40.80 307km
HVU    70.25  50 P     41 33.00   0.0
TNP    70.32  55 P     41 33.60   0.1
       0.8s    37.34nm          5.2mb
DZM    71.03 156 iPc   41 38.70   1.1
ISA    71.23  58 P     41 37.70  -1.1
       0.8s    16.84nm          4.8mb
                pP    42 48.80 311km
BW06   71.24  48 P     41 38.70  -0.3
       0.9s    44.25nm          5.2mb
```

24d 21h

```
                    pP    42 47.70 301km
DUG   71.33  51 P       41 39.80   0.4
      1 0s     31.18nm          5.0mb
                    pP    42 49.60 305km
ULM   71.96  35 ePc     41 44.80   2.1
DAU   72.02  50 P       41 43.80   0.1
NANU  72.18 206 eP      41 44.70   0.5
GSC   72.47  57 P       41 46.20   0.2
                    pP    42 53.30 290kmX
EMUT  72.69  50 P       41 47.50   0.1
MSU   72.87  52 P       41 49.30   0.8
                    pP    42 58.90 303km
WARB  72.99 195 eP      41 49.30   0.5
KSP   73.01 328 eP      41 49.00   0.2
RSSD  73.02  44 P       41 48.80  -0.5
      1.1s     54.01nm          5.2mb
                    pP    42 58.70 304km
PEC   73.23  59 P       41 49.70  -0.7
SRU   73.35  51 P       41 51.10  -0.1
                    pP    43 00.70 302km
BRS   73.45 170 iPd     41 52.00   0.5
      1.0s     10.00nm          4.5mb
PLM   73.78  59 P       41 53.20  -0.6
CLL   73 83 330 eP      41 53.00  -0.5
PRU   74.36 328 eP      41 57.50   1.0
PV09  74.54  50 P       41 58.40   0.2
PV10  74.68  50 P       41 59.50   0.6
                    pP    43 09.60 304km
PV08  74.74  50 P       41 59.50   0.1
                    pP    43 09.20 302km
MEEK  75.17 202 eP      42 01.00  -0.4
      0.4s      7.00nm          4.7mb
GLA   75.21  58 P       42 01.90   0.2
KHC   75.42 328 eP      42 02.50  -0.1
      1.0s      7.00nm          4.3mb
                    e     43 18.00 330kmX
GEC2  75.61 328 eP      42 03.40  -0.3
      0 4s      1.64nm          4.1mb
                    e     42 11.90  27kmX
GLD   75.68  47 P       42 05.20   0.8
      1.1s     50.30nm          5.2mb
                    pP    43 16.00 307km
GRF   75.81 330 iPc     42 06.10   1.4
      1.1s     21.00nm          4.8mb
HRI   77.05 304 iPd     42 12.20   0.3
KBA   77.21 327 iPd     42 13.00   0.3
      0.9s     21.80nm          4.9mb
                    i     43 26.60 319kmX
STK   77.29 180 iPc     42 13.80   1.0
      1.0s      6.20nm          4.3mb
RBL   77.65 326 P       42 15.30   0.3
WTTA  77.69 328 iPd     42 15.50   0.2
      0.8s     19.50nm          4.9mb
                    i     42 16.00   2kmX
                    i     43 30.00
VBY   77.75 325 ePd     42 15.40   0.0
FVI   77.82 327 P       42 15.90   0.1
SOTA  77.89 328 iPd     42 16.40   0.1
      0.9s     17.80nm          4.8mb
                    i     42 16.90   2kmX
                    i     43 30.90
HMDT  77.91 304 iPd     42 17.10   0.6
SKO   77.93 319 iPd     42 17.00   0.5
      1.2s     40.00nm          5.0mb
TRI   78.18 326 eP      42 17.50  -0.2
OGA   78.25 328 iPc     42 19.20   0.8
      1.0s     14.00nm          4.7mb
CDF   78.26 331 eP      42 18.30   0.0
      1.2s     22.90nm          4.8mb
MRWA  78.32 203 eP      42 19.00   0.4
ALQ   78.61  51 P       42 21.10   0.6
      1.1s     28.42nm          5.0mb
CTI   78.71 327 P       42 20.40  -0.4
BSF   78.93 331 eP      42 21.50  -0.4
      0.9s      7.85nm          4.5mb
VDL   79.15 329 ePc     42 23.80   0.6
BAL   79.45 202 eP      42 24.80   0.2
TMA   79.69 329 ePc     42 26.10   0.1
RMN   79.71 303 iPd     42 26.50   0.2
VAI   79.93 329 P       42 27.60   0.6
RSM   80.18 326 P       42 30.20   1.9
LOR   80.39 333 eP      42 29.20  -0.3
      1.1s     28.55nm          5.0mb
EMS   80.41 330 ePc     42 30.50   0.7
SFI   80.42 326 P       42 31.20   1.6
LBF   80.60 332 eP      42 30.30  -0.3
      1.0s     15.00nm          4.8mb
BOB   80.62 328 P       42 31.90   1.1
SSF   80.68 333 eP      42 30.90  -0.1
      1.0s     13.20nm          4.7mb
FIR   80.77 326 eP      42 32.50   1.1
BDI   80.79 327 P       42 32.80   1.1
SMF   80.94 332 eP      42 32.40   0.1
      1.1s     31.00nm          5.0mb
LPL   80.95 330 eP      42 33.10   0.4
      0.8s     13.85nm          4.8mb
LPG   80.96 330 eP      42 33.30   0.5
      0.9s     18.20nm          4.9mb
AVF   80.97 333 eP      42 32.60   0.1
      1.1s     29.30nm          5.0mb
EEO   81.09  27 eP      42 35.00   1.9
ACO   81.09  46 iPd     42 33.50   0.2
AQU   81.11 324 P       42 34.70   1.3
LPF   81.19 336 eP      42 33.80   0.2
      1.2s     41.05nm          5.1mb
SDI   81.48 324 P       42 35.20  -0.1
MAF   81.73 333 eP      42 37.00   0.6
      1.2s     58.90nm          5.3mb
TCF   81.78 333 eP      42 37.00   0.3
      1.3s     22.00nm          4.8mb
LSF   82.03 334 eP      42 38.30   0.3
      0.8s     13.85nm          4.8mb
TDS   82.09 321 P       42 39.30   0.9
MFF   82.22 335 eP      42 38.70  -0.3
      1.0s     21.60nm          4.9mb
WMOK  82.81  47 P       42 42.50   0.3
      1.0s     23.88nm          5.0mb
                    pP    43 54.30 305km
RJF   82.88 333 eP      42 42.80   0.5
      0.9s      9.15nm          4.6mb
LRG   82.88 329 eP      42 42.40   0.1
      1.2s     43.15nm          5.2mb
LMR   82.93 329 eP      42 42.50  -0.1
      1.4s     52.30nm          5.2mb
CAF   83.04 333 eP      42 44.20   1.0
      1.0s     19.60nm          4.9mb
LFF   83.45 334 eP      42 46.00   0.8
      0.9s     12.30nm          4.7mb
LPO   83.54 333 eP      42 45.70   0.1
      0.7s      6.70nm          4.6mb
FVM   84.17  39 P       42 48.50  -0.4
      0.8s     14.50nm          4.9mb
                    pP    44 01.80 311km
ELC   85.27  39 P       42 54.60   0.2
                    pP    44 07.50 309km
EPF   85.29 333 eP      42 54.80   0.3
      1.0s     11.60nm          4.7mb
MIAR  85.54  43 P       42 56.10   0.3
      0.7s     16.45nm          5.0mb
                    pP    44 07.90 303km
LMN   85.71  19 eP      42 59.50   3.0X
OLY   85.74  41 P       42 56.30  -0.5
                    pP    44 10.10 313km
ESEL  87.35 330 eP      43 05.50   1.1
ETOR  88.05 334 eP      43 07.90   0.0
NAV   88.70  33 P       43 10.90  -0.1
CVL   88.98  31 P       43 12.60   0.4
EVIA  90.18 333 eP      43 18.70   0.9
ENIJ  91.60 332 eP      43 24.50   0.2
ELUO  91.72 334 eP      43 24.40  -0.5
ECOG  91.76 333 eP      43 26.20   1.0
EGUA  92.17 333 eP      43 26.70  -0.2
EVAL  92.43 336 eP      43 29.30   1.2
ZOBO 141.22  51 PKP     49 42.00  -5.6X
                    i     52 54.20
SIV  144.50  41 iPKPc   49 56.40   3.9X
NVL  145.48 206 ePKP    49 52.00  -0.5
      1.0s     94.00nm
                    e     50 22.00
                    e     51 13.00
YJA  147.42  53 ePKPd   49 59.00   1.3
      S.D. = 0.9  on 261 of 271 obs.
-----------------------------------------
   JAN  24, 1993  21h 57m 07.59± 3.02s
   17.685 S ±44.5km  178.983 W ±36.6km
   DEPTH = 663.8 ± 33.7 km
   4.8mb (  8 obs.)
 FIJI ISLANDS REGION                (181)

DZM  14.38 250 iPc      00 09.50   0.4
BRS  27.76 245 eP       02 05.50  -3.5X
ARMA 29.58 239 eP       02 24.00  -0.6
      0.7s     17.00nm          4.8mb
RMQ  31.08 248 iPd      02 36.90  -0.2
      0.4s     12.00nm          4.9mb
CTA  32.94 260 iPd      02 52.50  -0.2
      0.9s     84.03nm          5.4mb
STK  38.26 241 iPd      03 36.40   0.3
      0.6s     18.50nm          4.8mb
WB2  44.12 259 iPd      04 21.90  -0.4
      0.7s     26.90nm          4.8mb
WRA  44.13 259 P        04 22.50   0.1
      0.8s      2.60nm          3.7mb X
ASPA 44.33 254 iPd      04 24.00   0.1
      0.7s    120.80nm          5.4mb
WARB 50.84 250 iPd      05 12.20  -0.2
      0.4s      9.00nm          4.5mb
NANU 61.26 254 eP       06 24.30   0.9
YKA  94.36  25 eP       09 19.10  -0.1
      1.0s      0.70nm          3.8mb
GEC2 147.25 344 ePKP    15 41.90   5.5X
      0.5s      0.67nm
                    e     15 51.00
      S.D. = 0.5  on  11 of  13 obs.
-----------------------------------------
   JAN  24, 1993  22h 02m 32.11± 0.80s
   22.528 S ± 6.8km   68.883 W ±10.5km
   DEPTH = 128.2 ± 11.2 km
   4.0mb (  1 obs.)
 NORTHERN CHILE                     (123)

ANT     1.83 230 iP+    03 05.10   0.7
                iS      03 28.50
YJA     3.15  84 iPc    03 21.20  -0.5
HJA     3.28 103 ePc    03 23.00   0.0
SLA     3.80 126 ePc    03 32.00   1.8
FSA     4.40 144 i(P)   03 40.00   1.9
CCH     5.73  27 P      03 56.00  -0.4
LPB     6.01   7 P      04 01.00   0.6
      1.1s    291.14nm          5.4mb X
                i       04 18.00
ZOBO    6.25   7 P      04 03.10  -0.7
ARE     6.52 337 eP     04 12.00   4.8X
CYA     6.52 155 ePc    04 06.50  -0.4
CFA     9.06 177 e(P)   04 39.00  -2.2
TCA     9.57 157 eP     04 58.00   9.9X
SIV     9.83  50 P      04 50.00  -1.6
MRA    10.24 165 e(P)   04 55.20  -1.6
NNA    12.94 323 eP     05 40.50   8.0X
                e       08 05.50
PPD    16.27  92 eP     06 15.70   1.1
VAO    20.21  96 eP     06 56.10  -3.0X
                e       06 57.50
                e       07 00.90
BDF    20.95  75 e(P)   07 03.00  -3.6X
                e       07 04.00
LIC    68.65  73 P      13 23.80  -0.1
KIC    68.97  73 P      13 25.20  -0.6
YKA    92.16 341 eP     15 29.60   1.9
      0.7s      0.70nm          4.0mb
WRA   132.08 210 PKP    21 37.00   4.2X
      0.5s      1.10nm
      S.D. = 1.4  on  16 of  22 obs.
-----------------------------------------
%  JAN  24, 1993  22h 45m 15.43± 0.88s
   39.724 N ±13.7km   28.545 E ±18.2km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                             (366)
      MD 2.7 (ISK).

DST     0.13 152 iPg    45 17.90  -0.8
                iSg     45 20.90
KCT     0.54 345 ePg    45 25.90  -0.5
                eSg     45 33.20
BNT     0.79 323 iPg    45 31.10   0.3
EDC     0.81 320 ePg    45 31.00  -0.2
ALT     1.38 118 ePn    45 41.00   0.1
      S.D. = 0.6  on   5 of   5 obs.
-----------------------------------------
*  JAN  24, 1993  23h 06m 47.76± 0.72s
   56.694 S ±15.9km   25.789 W ±18.1km
   DEPTH =  33.0km  (normal)
   5.1mb (  5 obs.)  4.3Msz (  1 obs.)
 SOUTH SANDWICH ISLANDS REGION      (153)

NVL    21.29 146 eP     11 32.00  -1.2
      Z  16s     0.80um          4.2MszX
      N  16s     0.40um
      E  16s     0.40um
                e       11 58.00
SPA    33.49 180 iPc    13 27.00   1.2
```

```
        1.0s     92.50nm          5.6mb
VAO     37.05 326 (P)    13 56.00   -0.3
SIV     48.59 312 P      15 34.00    4.1X
CCH     49.53 306 P      15 37.70    0.3
LPB     51.16 304 P      15 51.00    1.0
ZOBO    51.38 304 iPc    15 52.00    0.0
        1.1s     60.90nm          5.5mb
                  S      23 30.00
                  LR     33 00.00
ARE     52.80 300 eP     16 03.00    0.7
BUL     54.04  71 iPd    16 18.70    7.6X
        1.0s      7.00nm          4.6mb
NNA     59.24 298 eP     16 46.70   -1.5
        1.0s     15.00nm          5.1mb
LIC     64.97  23 P      17 25.00   -1.3
      Z  20s      0.17um          4.3Msz
BCAO    70.76  48 ePc    18 04.90    2.3
        0.6s      3.00nm          4.5mb
                  ic     18 15.00
YKA    137.17 317 ePKP   26 06.50   -1.2
        0.7s      1.40nm
BJI    150.23 108 ePKP   26 36.00    5.4X
        1.6s     34.00nm
      S.D. = 1.4  on  11 of  14 obs.
-----------------------------------------
%  JAN  24, 1993  23h 09m 22.69± 0.84s
   43.926 N ± 6.4km     7.695 E ± 7.5km
   DEPTH =  10.0km  (geophysicist)
 NEAR SOUTH COAST OF FRANCE        (379)
      ML 2.3 (LDG).

SBF      0.20 251 Pg     09 26.60   -0.5
                  Sg     09 29.80
FRF      0.84 245 Pg     09 39.00    0.0
                  Sg     09 49.70
LMR      1.05 236 Pg     09 42.60    0.2
                  Sg     09 57.50
LRG      1.08 244 Pg     09 43.20    0.3
                  Sg     09 57.90
PGF      1.68 145 Pn     09 52.20   -0.1
                  Sn     10 13.30
LPG      1.71 337 Pg     09 53.00    0.1
LPL      1.73 337 Pg     09 53.20    0.0
      S.D. = 0.3  on   7 of   7 obs.
-----------------------------------------
?  JAN  24, 1993  23h 21m 01.82± 1.47s
   40.119 N ±61.6km    27.038 E ±25.5km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                            (366)
      MD 2.7 (ISK).

EZN      0.62 242 iPg    21 14.30    0.0
                  iSg    21 24.30
EDC      0.67  70 ePg    21 15.00   -0.2
BNT      0.72  70 iPg    21 16.10    0.2
                  eSg    21 27.00
KCT      1.02  82 iPg    21 21.10    0.0
                  eSg    21 35.10
      S.D. = 0.2  on   4 of   4 obs.
-----------------------------------------
?  JAN  24, 1993  23h 36m 27.45± 2.38s
   18.441 N ±34.0km    65.982 W ±13.2km
   DEPTH =  33.0km  (normal)
 PUERTO RICO REGION                ( 90)

LPR      0.17 141 P      36 33.80    0.0
SJG      0.36 206 iP     36 56.90   20.8X
                  S      37 48.80
APR      0.71 271 P      36 41.30    0.3
                  S      36 57.00
PORP     0.73 238 P      36 41.80    0.5
LRS      0.83 260 P      36 42.50   -0.3
                  S      36 59.00
MGP      1.14 248 P      36 46.60   -0.5
      S.D. = 0.6  on   5 of   6 obs.
-----------------------------------------
%  JAN  25, 1993  00h 23m 12.56± 0.68s
   44.421 N ± 4.7km     6.792 E ±13.9km
   DEPTH =  10.0km  (geophysicist)
 FRANCE                            (538)
      ML 1.9 (LDG).

SBF      0.72 140 Pg     23 27.00    0.1
                  Sg     23 36.50
FRF      0.87 187 Pg     23 28.60   -0.6
                  Sg     23 40.40
LRG      1.02 198 Pg     23 32.30    0.5
                  Sg     23 46.00
LPG      1.08 358 Pg     23 33.10    0.1
LPL      1.10 358 Pg     23 33.20   -0.1
LMR      1.11 191 Pg     23 33.30    0.0
                  Sg     23 47.70
      S.D. = 0.5  on   6 of   6 obs.
-----------------------------------------
*  JAN  25, 1993  00h 26m 33.68± 0.83s
   35.258 N ±10.6km    33.874 E ± 8.1km
   DEPTH =  33.0km  (normal)
 CYPRUS REGION                     (372)
      ML 3.5 (CSS).

FAM      0.28 158 eP     26 41.60    0.4
                  eS     26 45.80
CSS      0.53 237 ePc    26 44.50   -0.3
                  eS     26 53.60
PPCY     1.31 254 eP     26 55.40   -0.3
                  eS     27 12.40
BHL      2.00 132 Pg     27 00.00   -5.8X
                  Sg     27 19.00
GAZ      3.31  54 eP     27 24.00   -0.3
CIN      5.22 298 eP     27 52.00    0.5
      S.D. = 0.6  on   5 of   6 obs.
-----------------------------------------
?  JAN  25, 1993  01h 07m 04.12± 3.77s
   37.892 S ±28.6km   176.142 E ±13.5km
   DEPTH = 215.0 ± 24.4 km
 NORTH ISLAND, NEW ZEALAND         (159)

URZ      0.85 116 P      07 33.90   -0.8
                  S      07 50.60
WHH      1.03 164 P      07 35.20   -0.8
PAHZ     1.20 144 P      07 36.70   -0.4
NGZ      1.35 198 P      07 39.10    0.7
CNZ      1.39 199 P      07 39.30    0.7
MOH      1.47 148 P      07 39.20    0.0
NOZ      1.66 116 P      07 41.40    0.6
TTH      1.73 162 P      07 41.90    0.4
WAHZ     1.81 175 Pc     07 42.30    0.0
MAHZ     1.88 134 P      07 43.50    0.6
PGZ      2.72 178 P      07 51.70   -0.1
MNG      2.77 190 P      07 52.40    0.1
                  S      08 22.70
KIW      3.12 197 P      07 56.30    0.0
MTW      3.30 188 P      07 57.90   -0.6
CAW      3.32 194 P      07 58.60   -0.1
MRW      3.52 198 P      08 00.90   -0.1
MOW      3.59 191 P      08 01.40   -0.6
TCW      3.62 203 P      08 02.40    0.2
KHZ      4.94 203 P      08 18.90    0.2
      S.D. = 0.5  on  19 of  19 obs.
-----------------------------------------
*  JAN  25, 1993  01h 15m 27.33± 0.45s
    6.010 S ± 9.9km    79.404 W ±13.6km
   DEPTH =  33.0km  (normal)
   4.7mb (  7 obs.)
 NEAR COAST OF NORTHERN PERU       (109)

NNA      6.46 157 eP     17 00.30   -2.4
        0.5s     42.25nm          5.5mb X
                  i      17 02.50
                  eS     18 18.50
ARE     12.96 144 eP     18 39.00    6.8X
ZOBO    15.04 134 P      19 00.80    0.9
        0.9s     36.76nm          4.7mb
      Z  20s      0.35um          4.4MszX
                  i      19 07.00
                  LR     24 36.00
LPB     15.23 134 P      19 04.00    1.8
        1.0s     90.00nm          5.0mb
                  LR     24 36.00
SDV     17.19  31 eP     19 25.70   -1.2
CCH     17.20 132 eP     19 31.00    3.9X
TOV     18.38  31 eP     19 37.70   -3.9X
SIV     20.53 120 P      20 08.60    2.9X
YJA     20.94 141 eP     20 09.60   -0.8
MIAR    42.50 343 eP     23 22.29    1.0
        0.7s      4.79nm          4.3mb
MEO     44.43 337 iPd    23 36.10   -0.9
ALO     48.06 330 eP     24 05.04   -0.9
        0.8s     11.01nm          4.9mb
PV08    52.00 331 eP     24 36.75    0.5
PV10    52.04 330 eP     24 36.60    0.2
PLM     52.85 320 eP     24 41.86   -0.6
SRU     53.34 330 eP     24 46.66    0.7
MSU     53.73 328 eP     24 47.82   -1.1
EMUT    54.02 330 eP     24 51.72    0.7
LCCM    59.19 334 eP     25 27.90    0.2
ORV     59.70 323 eP     25 31.89    0.8
SES     62.48 338 eP     25 50.00    0.2
NEW     63.36 333 eP     25 56.09    0.4
        1.0s      8.04nm          4.8mb
YKA     73.43 344 eP     26 56.30   -1.6
        0.7s      1.60nm          4.1mb
KIC     75.52  82 P      27 11.40    0.5
IMA     89.14 337 eP     28 21.08    0.4
        1.0s      3.05nm          4.6mb
WRA    137.97 231 PKP    34 52.50    1.0
        0.6s      0.80nm
LZH    149.92 355 PKPc   35 17.50    6.0X
        1.4s     24.00nm
GUN    154.12  31 PKP    35 00.00  -18.0X
      S.D. = 1.1  on  22 of  28 obs.
-----------------------------------------
&  JAN  25, 1993  01h 18m 32.49s
   59.490 N           152.359 W
   DEPTH =  57.9km
 SOUTHERN ALASKA                   (  2)
      <AEIC>. ML 2.6 (AEIC).

XLV      0.33  96 eP     18 42.07   -0.6
                  eS     18 50.46
OPT      0.47 291 eP     18 43.60   -0.5
AUE      0.53 256 eP     18 44.25   -0.5
                  eS     18 52.99
AUL      0.56 259 eP     18 44.70   -0.4
AUH      0.57 258 eP     18 44.82   -0.4
                  S      18 54.68
AUI      0.57 255 eP     18 44.58   -0.6
                  eS     18 54.00
AUW      0.58 259 eP     18 45.19   -0.1
ILIM     0.67 333 eP     18 45.59   -0.8
                  eS     18 56.32
INE      0.67 328 iP     18 45.68   -0.9
                  eS     18 56.42
BRLK     0.80  69 eP     18 47.24   -0.7
                  S      18 58.70
CDD      0.87 230 eP     18 47.95   -0.9
                  eS     19 00.62
PDB      0.98 289 eP     18 49.25   -1.0
                  eS     19 02.84
RS1      0.99 349 eP     18 50.27   -0.4
                  eS     19 04.49
RSO      1.00 349 eP     18 50.10   -0.6
                  S      19 03.07
RS2      1.00 349 eP     18 50.04   -0.7
                  S      19 04.00
REF      1.02 350 iP     18 50.32   -0.7
                  eS     19 04.50
RDW      1.02 347 iP     18 50.37   -0.7
MCNL     1.06 254 eP     18 50.18   -1.2
NCT      1.11 345 eP     18 51.56   -0.7
                  eS     19 06.57
DFR      1.12 352 eP     18 51.47   -0.8
                  S      19 06.89
NKA      1.38  24 eP     18 57.62    1.9
SLKM     1.48  46 eP     18 56.49   -0.8
SEW      1.59  66 eP     18 58.49   -0.3
SPU      1.70   5 eP     18 59.64   -0.7
CKL      1.71   0 eP     19 00.12   -0.4
CKT      1.72   2 eP     19 00.18   -0.4
                  S      19 20.87
KDC      1.75 182 eP     18 59.23   -1.7
BGL      1.78 360 eP     19 00.94   -0.5
CP2      1.78   2 eP     19 01.12   -0.5
                  eS     19 25.22
CRP      1.79   3 eP     19 00.55   -1.1
                  eS     19 24.38
MPA      1.81  55 eP     19 01.19   -0.6
CGLM     1.83   5 eP     19 01.97   -0.2
PTE      2.16  49 eP     19 05.37   -1.3
PMS      2.24  37 P      19 07.00   -0.9
KNIM     2.48  68 eP     19 08.39   -2.8
SKT      2.53   9 eP     19 11.68   -0.3
KNK      2.73  43 eP     19 13.06   -1.7
GHO      2.85  35 eP     19 14.40   -2.1
GLI      2.98  60 eP     19 17.35   -0.9
HIN      3.08  70 eP     19 17.67   -2.2
FID      3.20  64 eP     19 19.50   -2.0
KLU      3.77  55 eP     19 26.76   -2.7
BALM     5.22  68 eP     19 46.84   -3.1
      43 obs. associated
-----------------------------------------
```

25d 01h

```
   JAN  25, 1993  01h 40m 44.47± 0.49s
  37.931 N ±12.0km  72.314 E ± 9.1km
   DEPTH =  33.0km  (normal)
   4.0mb (  3 obs.)
 TAJIKISTAN                          (715)

MAIO   10.37 265 eP    43 14.00   0.0
                eS     45 01.00
GKN    14.30 130 P     44 06.86   0.1
KKN    14.85 129 P     44 13.76  -0.2
DMN    14.87 130 P     44 14.66   0.3
PKI    15.09 129 P     44 17.24   0.1
GUN    15.14 127 P     44 17.64  -0.2
HFS    42.61 321 eP    48 38.90   0.1
       0.4s     2.00nm          4.1mb
NAO    44.06 322 P     48 50.60   0.0
       0.7s     2.20nm          4.1mb
YKA    79.77   3 eP    52 50.10  -0.1
       0.5s     0.60nm          3.8mb
     S.D. = 0.2  on  9 of  9 obs.
-----------------------------------
&  JAN  25, 1993  03h 09m 12.64s
   36.917 N          121.668 W
   DEPTH =  11.7km
 CENTRAL CALIFORNIA                  ( 39)
      <GM-P>. MD 2.6 (GM).

COE     0.34 359 iPd   09 20.52   0.8
                eS     09 24.77
ARN     0.44  14 iPd   09 22.03   0.2
                eS     09 28.04
JEGM    0.87 313 eP    09 28.36  -0.8
HMR     1.24 355 (P)   09 36.09   0.6
PHAM    1.49 136 (P)   09 36.97  -2.3
CMB     1.51  42 ePn   09 38.82  -0.8
MEMM    2.30  70 (P)   09 52.24   1.3
ORV     2.64   3 (P)   09 55.44  -0.3
BONR    2.87  68 (Pn)  09 55.25  -4.1
        9 obs. associated
-----------------------------------
*  JAN  25, 1993  05h 00m 17.46± 2.32s
   35.721 N ±11.5km  140.795 E ±16.3km
   DEPTH =  65.3 ± 18.3 km
   4.5mb (  5 obs.)
 NEAR EAST COAST OF HONSHU, JAPAN(228)

MAT     2.25 292 iPd   00 53.00  -0.1
                (S)    01 20.00
GUN    46.80 277 P     08 44.00   1.2
KKN    47.33 277 P     08 46.20  -0.7
GKN    47.76 277 P     08 50.70   0.5
WB2    55.69 187 iPc   09 48.90  -0.5
       0.4s     5.80nm          5.0mb
WRA    55.70 187 P     09 49.20  -0.2
       0.3s     1.30nm          4.4mb
ASPA   59.42 187 eP    10 15.90   0.3
       1.4s     8.40nm          4.7mb
GBA    60.62 266 P     10 24.00   0.0
YKA    65.19  30 eP    10 54.50   0.9
       0.6s     0.20nm          3.3mb X
HFS    75.08 336 eP    11 52.80  -0.8
       0.4s     1.00nm          4.1mb
NAO    75.49 337 P     11 55.20  -0.8
       0.7s     2.60nm          4.3mb
ZOBO  147.78  61 PKP   20 00.00   5.4X
     S.D. = 0.8  on  11 of  12 obs.
-----------------------------------
   JAN  25, 1993  05h 17m 17.88± 0.50s
   40.678 N ± 6.0km   32.852 E ± 4.7km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                              (366)
      MD 3.9 (ISK).

BZK     1.55  34 iPn   17 45.80   0.3
GPA     1.98 260 ePn   17 52.70   0.9
EYL     2.05 268 ePn   17 53.70   0.7
HRT     2.42 274 ePn   17 58.40   0.2
KVT     2.45  80 iPn   17 58.50  -0.1
ALT     2.66 233 ePn   18 01.50  -0.2
ITU     2.94 280 ePn   18 03.00  -2.5
                iSg    18 55.00
DST     3.41 253 iPn   18 12.60   0.4
KHL     3.49 229 iPn   18 13.30   0.0
BCK     3.66 209 ePn   18 15.10  -0.8
EDC     3.82 267 ePn   18 18.00   0.0
DMK     4.01 288 ePn   18 21.60   1.0
CIN     4.81 232 eP    18 32.00  -0.1
GAZ     4.88 134 ePn   18 33.00   0.0
YER     5.02 227 ePn   18 35.10   0.0
EZN     5.07 262 iPn   18 36.10   0.5
CFR     5.67 324 eP    18 43.00  -1.2
ISR     6.43 316 eP    19 06.00  11.1X
VRI     6.85 321 eP    19 10.00   9.2X
MLR     6.98 316 eP    19 09.50   6.8X
CVO     7.08 319 ePd   19 14.40  10.3X
GEC2   15.83 307 ePn   21 08.90   6.5X
       0.7s     0.79nm          3.0mb
                e      21 10.60
                e      21 16.20
                e      21 19.30
YKA    73.90 345 eP    28 55.20   0.9
       0.6s     0.30nm          3.5mb
     S.D. = 0.9  on  18 of  23 obs.
-----------------------------------
*  JAN  25, 1993  05h 59m 31.86± 0.35s
   53.310 S ±11.6km   73.189 E ±10.3km
   DEPTH =  10.0km  (geophysicist)
   5.7mb ( 14 obs.)
 KERGUELEN ISLANDS REGION            (433)

MAW    15.18 195 iP    03 06.00  -1.6
       1.0s     58.33nm         4.9mb
NVL    31.78 214 eP    05 58.00   0.1
       1.6s     74.00nm         5.4mb
     Z  15s     0.90um          4.6MszX
     N  15s     0.70um
     E  15s     1.00um
                e      06 11.00
                e      06 38.00
CIR    45.22 299 iPd   07 46.00  -4.9X
BUL    47.51 297 eP    08 02.90  -6.2X
STK    52.53  95 eP    08 48.20   1.0
       1.1s     5.50nm          4.4mb X
ASPA   53.95  82 iPc   08 57.80   0.0
       1.1s     42.60nm         5.4mb
WRA    57.07  79 P     09 20.20  -0.3
       0.7s     8.30nm          4.9mb
WB2    57.08  79 eP    09 19.70  -0.8
       0.9s     18.70nm         5.1mb
NAI    59.96 317 eP    09 36.30  -4.5X
BRS    62.45  99 iPc   09 57.00  -0.4
CTA    64.06  89 iPc   10 07.00  -1.1
BCAO   73.46 302 iPc   11 02.10  -4.1X
       0.6s     34.00nm         5.6mb
                ic     11 20.90
PKI    81.24  11 P     11 46.08  -3.4X
       1.1s     63.00nm         5.6mb
DMN    81.24  11 P     11 46.32  -3.0X
       1.2s    128.00nm         5.9mb
KKN    81.44  11 P     11 47.04  -3.3X
       1.3s    156.00nm         5.9mb
GKN    81.58  10 P     11 47.52  -3.5X
       1.5s    376.00nm         6.2mb
GUN    81.63  11 P     11 48.96  -2.5X
       1.3s    420.00nm         6.3mb
KMI    82.22  27 Pc    11 53.50  -0.9
       1.7s    160.00nm         5.9mb
                pP     12 17.00  88kmX
OUE    83.32 355 eP    11 58.40  -1.6
KIC    87.90 283 P     12 22.40  -0.4
LIC    87.96 283 P     12 22.80  -0.3
VAO    88.11 233 eP    12 23.90   0.0
TIC    88.29 283 P     12 24.30  -0.4
       1.4s     98.00nm         5.9mb
LZH    92.92  24 eP    12 44.50  -1.4
                sP     13 02.00
BJI   100.11  32 ePdiff13 17.50  -1.0
       2.0s     62.00nm         5.8mb
BRW   151.86  32 ePKP  19 21.90   1.9
                ePKPbc19 27.72
TTA   152.96  50 ePKP  19 22.55   0.6
                ePKPbc19 29.94
                ePKPab19 41.39
SVW   153.02  54 ePKP  19 23.28   1.3
                ePKPbc19 31.43
                ePKPab19 43.49
IMA   153.86  43 ePKP  19 23.63   0.5
                ePKPbc19 31.96
                ePKPab19 43.84
SLKM  155.62  55 (PKP) 19 27.30   1.7
                ePKPab19 50.24
PMR   156.17  53 (PKP) 19 27.13   0.9
                ePKPab19 54.01
BALM  159.47  54 ePKP  19 30.81   0.5
                ePKPab20 09.25
MEO   160.58 201 iPKPc 19 34.90   2.7X
GSC   160.66 155 (PKP) 19 34.47   2.1X
                ePKPab20 16.61
FVM   160.94 223 (PKP) 19 33.07   0.7
                ePKPab20 15.53
ALQ   161.63 181 ePKP  19 35.60   2.1X
                ePKPab20 19.96
CMB   162.07 143 (PKP) 19 32.47  -1.1
                ePKPab20 23.09
BONR  162.70 148 ePKP  19 37.37   2.8X
                ePKPab20 25.17
ORV   162.97 138 (PKP) 19 37.41   3.0X
                ePKPab20 27.14
TNP   163.15 151 ePKP  19 37.28   2.4X
                ePKPab20 28.13
ARUT  163.81 161 ePKP  19 37.69   2.2X
                ePKPab20 29.08
PV10  164.98 173 ePKP  19 37.79   1.1
                ePKPab20 35.46
SRU   165.57 168 ePKP  19 39.05   2.0X
                ePKPab20 37.06
DUG   166.26 160 ePKP  19 40.11   2.6X
                ePKPab20 40.61
DAU   166.75 165 ePKP  19 40.87   2.7X
                e      20 03.50
                ePKPab20 41.75
BW06  169.30 169 ePKP  19 40.68   1.1
                ePKPab20 52.82
YKA   169.91  21 ePKP  19 43.70   4.7X
       1.1s     1.20nm
LCCM  171.83 154 ePKP  19 49.20   8.5X
     S.D. = 1.0  on  27 of  48 obs.
-----------------------------------
   JAN  25, 1993  06h 20m 29.41± 0.75s
   64.040 N ± 7.0km  150.624 W ± 8.4km
   DEPTH =  10.0km  (geophysicist)
 CENTRAL ALASKA                      (  1)
      ML 3.3 (PMR).

FBA     1.50  54 eP    20 55.74  -0.6
                eS     21 18.38
IMA     2.41 329 eP    21 09.64   0.0
PWA     2.42 172 eP    21 12.30   2.7X
PMR     2.55 164 eP    21 09.61  -1.8
                eS     21 41.63
TTA     2.66 248 eP    21 13.97   0.8
                eS     21 49.37
TOA     2.81 132 eP    21 16.90   1.7
PMS     2.85 170 eP    21 16.40   0.6
CRP     2.87 195 (P)   21 16.46   0.2
                eS     21 54.27
BGL     2.90 197 eP    21 15.60  -1.0
KLU     3.35 138 eP    21 23.10   0.2
                eS     22 03.57
SLKM    3.55 177 (P)   21 25.60  -0.1
     S.D. = 1.1  on  10 of  11 obs.
-----------------------------------
*  JAN  25, 1993  07h 02m 44.96± 1.02s
   23.357 S ±16.3km   69.473 W ±10.9km
   DEPTH = 102.5 ± 13.3 km
   3.9mb (  1 obs.)
 NORTHERN CHILE                      (123)

ANT     0.93 248 iP+   03 04.90  -0.2
                iS     03 19.00
HJA     3.74  89 ePc   03 42.50   0.8
YJA     3.85  73 ePc   03 44.00   0.4
CCH     6.71  28 P     04 26.30   3.4X
LPB     6.91  11 P     04 31.00   5.3X
ARE     7.12 344 eP    04 41.00  12.6X
                eS     05 42.00
ZOBO    7.15  10 P     04 28.30  -0.8
SIV    10.78  49 eP    05 18.00   0.2
VAO    20.69  93 eP    07 17.20  -1.7
YKA    92.76 341 eP    15 47.50   1.2
       0.6s     0.40nm          3.9mb
     S.D. = 1.4  on  7 of  10 obs.
-----------------------------------
   JAN  25, 1993  07h 42m 42.00± 0.49s
   47.395 N ± 4.8km    2.229 E ± 3.9km
   DEPTH =  17.5 ±  5.2 km
 FRANCE                              (538)
      ML 3.8 (LDG).

HYF     0.31 114 Pg    42 49.00   0.3
                Sg     42 52.60
```

```
SSF     0.93 110 Pg     43 00.10   0.8
                Sg     43 11.70
BGF     0.94 153 Pg     43 00.00   0.6
                Sg     43 12.50
AVF     0.98 128 Pg.    43 00.80   0.7
                Sg     43 12.80
TCF     1.11 181 Pn     43 03.00   0.7
                Pg     43 03.50
                Sg     43 17.10
LOR     1.12  96 Pg     43 03.50   1.0
                Sg     43 17.60
MAF     1.20 169 Pn     43 04.30   0.5
                Pg     43 04.70
                Sg     43 19.60
LSF     1.24 203 Pn     43 05.10   0.6
                Pg     43 05.80
                Sg     43 21.30
LBF     1.26 108 Pn     43 05.40   0.6
                Pg     43 06.10
                Sg     43 22.10
SMF     1.33 124 Pn     43 06.10   0.3
                Pg     43 07.20
                Sg     43 24.60
MFF     1.81 245 Pn     43 14.00   1.4
                Pg     43 15.50
                Sg     43 39.00
LDF     1.98 308 Pn     43 16.30   1.2
                Pg     43 20.40
                Sg     43 44.50
RJF     2.15 194 Pn     43 17.40  -0.2
                Pg     43 22.20
                Sg     43 48.40
FLN     2.28 308 Pn     43 20.30   1.0
                Pg     43 25.60
                Sg     43 53.30
CAF     2.47 183 Pn     43 21.00  -1.2
                Pg     43 28.30
                Sn     43 50.60
                Sg     43 57.30
LFF     2.66 203 Pn     43 24.20  -0.7
                Pg     43 32.10
                Sg     44 06.50
LPO     2.81 195 Pn     43 25.40  -1.5
                Pg     43 35.90
                Sn     43 58.90
                Sg     44 09.30
HAU     2.85  76 Pn     43 26.70  -0.8
                Pg     43 36.00
                Sg     44 11.60
BSF     3.12  80 Pn     43 31.00  -0.4
                Pg     43 40.00
                Sg     44 18.60
WLF     3.46  47 iPc    43 47.00  10.9X
CDF     3.54  71 Pn     43 36.00  -1.5
                Pg     43 48.40
                Sg     44 33.70
LPL     3.64 119 Pn     43 39.20   0.3
                Pg     43 52.70
                Sn     44 19.60
                Sg     44 36.80
LPG     3.66 120 Pn     43 39.70   0.4
                Sn     44 20.80
                Sg     44 37.70
EPF     4.56 198 Pn     43 49.00  -2.9X
                Pg     44 08.60
                Sn     44 38.60
                Sg     45 08.20
     S.D. = 0.9  on  22 of  24 obs.
-----------------------------------
&  JAN  25, 1993  07h 53m 59.87s
   54.827 N          160.155 W
   DEPTH =   6.2km
   5.0mb ( 35 obs.)
 ALASKA PENINSULA                ( 12)
      <AEIC>. ML 4.6 (PMR). Felt (IV)
      at Sand Point. Also felt at King
      Cove.

SDN     0.55 339 iPd    54 10.90   0.0
KDC     5.18  52 eP     55 17.50  -2.1
MCNL    5.40  34 eP     55 19.10  -3.8
CDD     5.45  38 eP     55 20.04  -3.5
                S      56 23.30
AUI     5.82  36 eP     55 25.79  -2.9
AUH     5.84  36 eP     55 26.53  -2.5
PDB     5.93  31 eP     55 26.85  -3.4
                S      56 35.30
INE     6.49  33 eP     55 35.15  -3.3
ILIM    6.54  33 eP     55 35.91  -3.1
SVW     6.74  19 P      55 36.70  -5.1
RDW     6.90  32 eP     55 40.93  -3.2
NCT     6.93  31 eP     55 41.14  -3.3
REF     6.94  32 eP     55 40.15  -4.6
RDN     6.94  32 eP     55 41.64  -3.0
DFR     7.03  32 eP     55 42.06  -3.8
CKL     7.61  30 eP     55 49.90  -4.1
BGL     7.65  29 eP     55 50.55  -4.0
CKT     7.65  30 eP     55 50.26  -4.3
CKN     7.68  30 eP     55 49.73  -5.2
SPU     7.68  31 eP     55 50.80  -4.2
CP2     7.69  30 eP     55 48.90  -6.4
CRP     7.72  30 eP     55 50.24  -5.4
SEW     7.82  43 eP     55 52.18  -4.7
MPA     8.10  41 eP     55 55.83  -4.9
SUA     8.30  33 eP     55 58.05  -5.7
TTA     8.40  13 P      55 58.00  -7.1
LTI     8.44  47 eP     56 00.33  -5.1
PMS     8.53  37 eP     56 01.30  -5.6
KNIM    8.66  45 eP     56 02.73  -5.8
PWA     8.72  34 eP     56 06.40  -2.9
PMR     8.93  36 eP     56 05.52  -6.7
KNK     9.04  38 eP     56 06.78  -7.0
HIN     9.20  47 eP     56 09.97  -6.1
VLZ     9.67  44 eP     56 16.61  -5.8
SCM     9.72  39 eP     56 17.61  -5.7
KLU    10.04  43 eP     56 21.24  -6.5
ADK    10.31 260 P      56 25.60  -5.6
TOA    10.32  39 eP     56 26.20  -5.2
SDG    10.81  39 eP     56 31.80  -6.3
CROM   10.83  50 eP     56 33.66  -4.9
GLB    10.87  46 eP     56 32.76  -6.2
TGL    10.97  50 eP     56 34.85  -5.5
BALM   11.30  49 eP     56 39.64  -5.3
IMA    11.71  13 P      56 42.00  -8.5
FBA    11.83  26 eP     56 44.16  -7.8
SIT    14.07  71 (P)    57 18.00  -3.6
BRW    16.61   4 eP     57 50.30  -4.1
YKA    24.43  53 eP     59 15.10  -4.7
       0.5s     2.20nm          4.1mb
NEW    27.20  86 (P)    59 40.97  -5.0
       1.0s    21.52nm          4.8mb
                epP     59 54.15  53kmX
HVU    33.45  93 (P)    00 38.81  -2.7
                epP     00 50.46  43kmX
DUG    34.45  95 eP     00 46.52  -3.7
       0.8s     4.25nm          4.4mb
                epP     00 58.84  46kmX
FCC    35.08  56 eP     00 52.50  -2.6
DAU    35.20  94 (P)    00 53.97  -2.9
GSC    35.57 105 eP     00 56.94  -2.9
ARUT   35.71  99 (P)    00 56.15  -4.9
RSSD   37.05  83 eP     01 07.76  -4.5
       0.8s     7.39nm          4.5mb
                epP     01 20.33  46kmX
PV09   37.70  94 eP     01 14.85  -3.1
PV10   37.84  94 eP     01 15.84  -3.2
PV08   37.93  94 eP     01 16.55  -3.4
                epP     01 27.71  40kmX
ULM    38.14  69 eP     01 19.00  -2.1
                pP      01 30.50  42kmX
MAT    45.18 273 eP     02 12.00  -7.0
       0.9s    25.21nm          5.2mb
DAG    46.41  11 iPd    02 20.10  -8.1
       0.9s    16.81nm          5.1mb
CN2    47.53 289 eP     02 28.00  -9.4
       0.8s     7.70nm          4.9mb
                epP     02 44.00  62kmX
FVM    48.83  80 (P)    02 41.77  -5.9
       0.7s     8.43nm          4.9mb
                epP     02 54.23  45kmX
EEO    49.24  64 eP     02 36.00 -14.7
SNY    49.87 288 Pd     02 47.50  -8.0
ELC    50.00  80 eP     02 50.43  -6.2
                epP     03 02.66  44kmX
LMN    56.93  56 eP     03 56.50   8.6
HHC    57.01 295 eP     03 40.30  -8.3
       0.8s     3.40nm          4.4mb
SDF    57.97 357 iP     03 45.40  -9.4
TIY    58.83 292 eP     03 52.60  -8.7
KAF    63.29 357 iP     04 21.70  -9.3
       0.5s    11.90nm          5.4mb
XAN    63.47 292 P      04 23.50  -9.2
       1.0s     5.00nm          4.7mb
GTA    64.05 302 P      04 27.00  -9.6
       1.0s    14.00nm          5.1mb
NAO    64.47   5 P      04 29.90  -8.9
       0.6s     5.10nm          4.9mb
LZH    64.58 297 eP     04 31.00  -9.1
       1.5s    27.00nm          5.2mb
NUR    64.95 357 iP     04 32.00  -9.9
       0.5s    10.20nm          5.3mb
HFS    65.28   3 eP     04 34.80  -9.2
       0.5s    12.00nm          5.4mb
WMO    66.12 313 P      04 41.40  -8.4
       0.8s     5.20nm          4.8mb
                sP      04 57.50
EKA    68.59  14 P      05 12.00   6.9
       2.2s   173.20nm          5.9mb
CD2    68.65 293 P      04 57.70  -8.1
       0.8s    21.00nm          5.4mb
GYA    70.57 288 iPd    05 09.80  -7.9
       1.0s    19.00nm          5.2mb
BRG    74.56   4 iP     05 33.30  -7.4
       1.0s    14.00nm          4.9mb
MOX    74.67   5 eP     05 34.00  -7.4
       1.8s    50.00nm          5.2mb
GRF    75.60   6 eP     05 40.20  -6.6
GRR    75.69  14 eP     05 52.00   4.7
       1.1s    19.55nm          5.1mb
LPF    76.01  14 eP     05 54.50   5.4
       0.9s    11.45nm          5.0mb
LSA    76.07 302 P      05 42.90  -7.4
       1.0s    17.00nm          5.1mb
KHC    76.28   4 P      05 43.60  -7.1
       1.0s     5.40nm          4.6mb
                e       06 01.00
                e       06 27.00
GEC2   76.57   4 eP     05 43.70  -8.7
       0.7s     1.85nm          4.3mb
                e       05 56.40
                e       05 58.10
CDF    76.59   9 eP     05 44.30  -8.2
       1.0s     9.40nm          4.8mb
HAU    76.91   9 eP     05 47.00  -7.2
       1.2s    19.65nm          5.1mb
LOR    77.39  11 eP     05 49.60  -7.2
       1.2s    14.00nm          4.9mb
MFF    77.54  14 eP     06 03.90   6.3
       1.0s    17.20nm          5.1mb
SSF    77.55  11 eP     05 50.60  -7.1
       1.1s    17.10nm          5.1mb
WATA   77.97   6 iPd    05 53.30  -6.9
WTTA   78.05   6 iPd    05 54.00  -6.6
KBA    78.32   5 iPd    05 55.80  -6.3
       1.1s    21.90nm          5.2mb
VBY    79.97   3 ePd    06 03.90  -7.0
GUN    80.11 305 P      06 04.18  -8.2
       1.0s    94.00nm          5.7mb
KKN    80.50 305 P      06 05.92  -8.4
GKN    80.62 306 P      06 06.26  -8.6
PKI    80.62 305 P      06 06.42  -8.7
DMN    80.73 305 P      06 07.44  -8.1
       0.6s    43.00nm          5.6mb
SKO    83.57 359 iP     06 22.50  -7.2
QUE    86.16 321 eP     06 36.70  -6.5
WRA    92.91 239 P      07 22.10   7.4
       1.2s     0.40nm          3.7mb X
BUL   144.74 346 iPKPc 13 30.00  -9.1
SLR   150.28 345 e(PKP)13 56.70   8.8
SEK   152.92 345 ePKP   13 52.00   0.3
       110 obs. associated
-----------------------------------
   JAN  25, 1993  08h 10m 58.10± 0.61s
   27.432 S ± 4.2km   69.681 W ± 9.9km
 - DEPTH = 125.9 ± 15.2 km
 NORTHERN CHILE                  (123)

FSA     3.54  69 ePd    11 53.00   0.5
ANT     3.77 350 eP     11 55.50   0.0
RTPR    3.99 137 ePc    11 56.90  -1.5
RTLL    4.03 165 eP     11 59.50   0.5
                S      12 43.00
RTCB    4.11 169 eP     12 01.00   0.8
                S      12 47.00
CFA     4.35 164 e(P)   12 04.00   0.7
                S      12 50.00
RTCV    4.52 168 iP     12 06.00   0.2
SLA     4.63  55 ePc    12 07.20  -0.1
MDZ     5.48 173 e(P)   12 33.30  14.6X
HJA     5.71  44 iPc    12 22.00   0.2
PEL     5.76 188 eP     12 21.50  -1.1
```

25d 08h

```
TCA      5.91 132 iP     12 34.00    9.4X
                  S      13 33.50
YJA      6.47  37 ePd    12 32.00   -0.7
LPB     10.95   8 P      13 32.00   -0.7
ZOBO    11.18   8 P      13 36.80    0.8
SIV     13.91  37 eP     14 11.00    0.1
VAO     21.01  83 eP     15 33.40    0.2
WRA    127.47 209 PKP    29 54.00    3.8X
         0.5s      1.00nm
      S.D. = 0.8  on  15 of  18 obs.
-----------------------------------------
&  JAN  25, 1993  08h 14m 53.77s
   19.417 N          155.320 W
   DEPTH =   4.2km
   4.2mb (  5 obs.)
 HAWAII                                (613)
      <HVO-P>. MD 4.4 (HVO). Felt
      (III) at Hilo, Honomu, Ninole,
      Pahala, Papaaloa, Papaikou and
      Pepeekeo. Also felt at Glenwood,
      Hawaiian Oceanview Estates,
      Mountain View, Namakani
      Campground, Volcano and Volcano
      Golf Course Subdivision.

CPK      0.02 200 iPc    14 54.95    0.1
                  eS     14 55.91
UWE      0.03  76 iPd    14 55.22    0.3
                  eS     14 56.16
NPH      0.03  93 iPd    14 55.25    0.2
                  eS     14 56.45
OUT      0.04 127 iPd    14 55.51    0.4
RIM      0.04 114 iPd    14 55.53    0.4
MLX      0.05 331 iPc    14 55.30    0.1
RSD      0.06  41 iPd    14 55.69    0.3
AHA      0.07 130 iPd    14 56.02    0.6
ESR      0.08  94 iPd    14 56.07    0.5
KNH      0.09 161 iPc    14 56.35    0.6
KFH      0.09 272 ePc    14 56.14    0.2
MLH      0.10 321 iPc    14 56.48    0.4
                  eS     14 58.67
DES      0.10 219 iPc    14 56.25    0.3
PUH      0.10 113 iPd    14 56.48    0.5
HLP      0.12 176 iPc    14 56.88    0.6
AIN      0.14 253 iPd    14 57.33    0.6
                  eS     14 59.43
MKA      0.16 108 iPd    14 57.31    0.3
PWH      0.16 146 iPd    14 57.53    0.5
PLL      0.18 311 iPc    14 57.81    0.3
STCH     0.18  99 iPd    14 57.74    0.2
HTC      0.19 203 ePc    14 57.95    0.2
TRH      0.22 270 ePc    14 58.66    0.4
KAE      0.22 126 ePd    14 58.54    0.4
KLCH     0.24  93 iPd    14 58.55   -0.1
WOH      0.24 226 iPc    14 58.92    0.3
HMH      0.24 320 iPc    14 59.10    0.3
WIH      0.25 282 ePc    14 59.29    0.3
MVH      0.26  70 e(P)   14 59.51    0.5
WHA      0.27 108 ePd    14 59.19    0.0
SWH      0.27 278 ePd    14 59.38    0.0
MWH      0.27 285 ePc    14 59.57    0.3
WOB      0.28 296 ePc    14 59.54    0.1
PPL      0.29 208 ePc    14 59.59    0.0
KHU      0.33 239 ePc    15 00.14   -0.3
DAH      0.33 260 ePd    15 00.23   -0.3
PKL      0.38  84 ePd    15 00.92   -0.5
HPU      0.38 340 ePc    15 01.33   -0.2
HPO      0.39 214 ePnc   15 01.20   -0.5
                  S      15 08.46
KIH      0.43 282 ePd    15 01.97   -0.4
KPO      0.46  80 ePd    15 02.50   -0.5
KUH      0.54 254 ePd    15 03.66   -1.0
SPT      0.54 217 ePc    15 03.75   -0.9
WKH      0.54 324 ePd    15 03.64   -1.0
HUH      0.56 299 e(P)   15 04.70   -0.3
CPH      0.57 277 ePc    15 04.27   -0.9
KKH      0.70 290 eP     15 05.29   -2.5
KOH      0.83 329 ePc    15 07.85   -2.5
                  eS     15 18.95
MHA      0.94 324 iPd    15 09.74   -2.5
                  S      15 22.00
HKL      1.56 326 ePd    15 18.37   -4.3
DHH      2.97 309 eP     15 37.45   -5.1
OPA      3.39 312 ePn    15 41.93   -6.6
DAU     43.01  51 eP     22 56.33   -0.1
PV09    44.15  54 eP     23 04.91   -0.8
BW06    44.90  48 eP     23 10.80   -0.8
         1.2s      3.42nm          4.1mb
ALQ     45.69  60 P      23 20.00    2.0
         1.0s      2.13nm          4.1mb
FBA     45.73   4 (P)    23 16.00   -1.6
         1.2s      5.30nm          4.4mb
RSSD    49.12  48 eP     23 43.25   -1.5
         1.1s      7.54nm          4.6mb
YKA     51.33  23 eP     23 58.50   -2.5
         1.0s      1.80nm          4.0mb
      58 obs. associated
-----------------------------------------
&  JAN  25, 1993  08h 54m 32.90s
   61.712 N          149.662 W
   DEPTH =  43.1km
 SOUTHERN ALASKA                     (  2)
      <AEIC>. ML 2.7 (AEIC).

PWA      0.12 239 P      54 39.70    1.4
PLRM     0.28 115 iPc    54 40.45   -0.8
                  eS     54 47.24
PMR      0.28 115 iPd    54 40.14   -1.1
                  eS     54 46.84
GHO      0.36  80 iPc    54 41.47   -0.7
                  eS     54 48.88
PMS      0.47 174 P      54 43.00   -0.5
SUA      0.57 245 ePc    54 44.21   -0.7
                  eS     54 54.39
SML      0.64  81 iPc    54 44.75   -1.0
                  eS     54 54.37
KNK      0.65 117 iPc    54 45.18   -0.7
                  S      54 55.50
PTE      0.90 160 ePc    54 48.45   -0.8
                  S      55 02.12
SKT      0.93 288 iPc    54 48.72   -0.9
                  eS     55 01.72
SCM      1.12  83 iPc    54 51.76   -0.6
                  S      55 06.86
CGLM     1.20 251 ePc    54 53.19   -0.3
MPA      1.24 173 eP     54 52.92   -1.1
                  S      55 09.40
NKA      1.24 219 eP     54 55.52    1.5
SLKM     1.24 193 eP     54 53.29   -0.8
                  eS     55 09.98
SPU      1.27 246 ePc    54 54.05   -0.4
                  eS     55 10.85
HUR      1.27   1 ePd    54 54.23   -0.3
                  eS     55 10.25
CRP      1.28 251 eP     54 54.19   -0.6
                  eS     55 11.35
CKN      1.30 249 eP     54 55.11    0.1
CP2      1.32 251 eP     54 54.59   -0.8
                  eS     55 11.85
CKT      1.33 248 ePc    54 55.00   -0.4
                  eS     55 12.72
BGL      1.38 252 eP     54 55.53   -0.7
                  S      55 14.24
CKL      1.39 249 iPc    54 55.86   -0.4
GLI      1.49 123 ePd    54 56.83   -0.8
                  S      55 15.75
SEW      1.62 176 eP     54 58.21   -1.2
KNIM     1.66 145 ePd    54 58.03   -2.0
TOA      1.70  75 ePc    55 01.01    0.4
                  S      55 23.64
VLZ      1.70 109 ePd    54 59.51   -1.1
                  eS     55 21.01
RND      1.74  12 eP     55 00.90   -0.4
TRF      1.77 351 ePc    55 01.30   -0.4
KLU      1.80  95 iPd    55 01.29   -0.8
FID      1.82 121 eP     55 00.78   -1.5
DFR      1.85 234 eP     55 01.85   -0.9
                  eS     55 26.07
LTI      1.90 151 eP     55 01.32   -2.0
REF      1.92 232 ePc    55 02.48   -1.4
RSO      1.96 232 eP     55 03.46   -1.0
RS2      1.96 232 eP     55 03.94   -0.5
RS1      1.96 231 eP     55 04.16   -0.3
NCT      1.96 235 eP     55 03.84   -0.5
RDW      1.96 232 eP     55 03.50   -1.0
HIN      2.03 129 eP     55 03.49   -1.7
TZL      2.04  79 eP     55 05.54    0.2
SDG      2.10  65 eP     55 06.40    0.1
CVA      2.23 120 eP     55 06.31   -1.8
PAX      2.33  55 eP     55 10.22    0.6
RAGM     2.77 117 eP     55 15.17   -0.7
GLB      2.81  93 eP     55 15.49   -1.0
SVW      2.93 261 P      55 16.70   -1.4
TTA      3.21 295 eP     55 19.83   -2.3
                  S      56 07.53
CROM     3.30 104 eP     55 22.73   -0.8
FBA      3.31  14 eP     55 21.20   -2.3
BALM     3.59  98 eP     55 26.42   -1.1
IMA      4.72 340 eP     55 40.93   -2.6
      53 obs. associated
-----------------------------------------
?  JAN  25, 1993  08h 55m 03.74± 1.58s
   41.564 N ±12.7km  141.209 E ±29.0km
   DEPTH =  33.0km  (normal)
   4.5mb (  5 obs.)
 HOKKAIDO, JAPAN  REGION             (224)

MAT      5.53 206 (P)    56 26.00    0.1
GUN     46.72 271 P      03 32.84    1.0X
KKN     47.24 272 P      03 36.34    0.6
PKI     47.25 271 P      03 35.38   -0.7
DMN     47.46 271 P      03 36.96   -0.6
GKN     47.60 272 P      03 39.16    0.6
         0.6s      7.00nm          4.9mb
YKA     60.00  31 eP     05 23.50   14.5X
         0.6s      0.30nm
KAF     64.23 332 iP     05 37.80    0.6
         0.4s      1.60nm          4.5mb
NUR     65.90 331 iP     05 48.50    0.5
         0.4s      3.00nm          4.7mb
HFS     69.91 335 eP     06 13.10    0.1
         0.3s      0.80nm          4.2mb
NAO     70.25 337 P      06 14.10   -1.0
         0.6s      1.10nm          4.1mb
      S.D. = 0.7  on   9 of  11 obs.
-----------------------------------------
*  JAN  25, 1993  09h 43m 16.50± 1.23s
     0.010 N ± 8.4km  123.953 E ±10.6km
   DEPTH = 100.6 ± 12.1 km
   4.9mb ( 13 obs.)
 MINAHASSA PENINSULA, SULAWESI       (265)

MNI      1.68  32 ePd    43 44.50   -0.9
                  eS     44 13.50
DAV      7.21  13 eP     45 06.90    5.8X
TSM      7.42 305 iP     45 02.80   -1.0
         0.4s    253.90nm          6.1mb X
KKM      9.78 308 ePc    45 37.30    1.3
         0.4s     48.20nm          5.8mb
                  e      47 23.00
PGP     13.73 348 ePc    46 34.00    5.9X
         1.0s     83.00nm          5.0mb
CVP     17.71 353 ePc    47 24.20    6.0X
         1.0s    198.00nm          5.3mb
PIP     18.49 350 ePc    47 28.00    0.3
         1.0s    222.00nm          5.4mb
WWKK    19.99 101 eP     47 47.50    4.0X
WB2     22.29 153 iPd    48 06.90    0.3
         0.9s     20.20nm          4.5mb
                  eS     52 00.30
IPM     23.35 282 ePc    48 17.40    0.6
         1.0s     40.20nm          4.7mb
QIZ     23.43 325 eP     48 18.50    0.9
GZH     25.15 336 eP     48 35.60    1.7
ASPA    25.44 158 eP     48 38.70    2.0
         1.1s     14.60nm          4.4mb
                  e      49 03.60
WARB    26.17 175 eP     48 43.40    0.0
GYA     31.13 329 P      49 30.00    2.1
CD2     36.22 330 iPd    50 12.40    0.9
         1.0s     26.00nm          5.1mb
TIA     36.57 351 eP     50 14.80    0.4
XAN     36.67 339 P      50 15.20   -0.1
         0.7s      4.20nm          4.5mb
MAT     38.68  19 eP     50 32.00   -0.1
         0.8s     22.39nm          5.1mb
BRS     38.84 137 iPc    50 24.50   -9.1X
TIY     38.99 345 eP     50 35.00    0.2
ARMA    40.10 141 eP     50 43.20   -0.8
         0.3s      3.00nm          4.6mb
                  e      51 12.00
BJI     40.47 351 eP     50 45.00   -1.7
LZH     40.47 335 eP     50 48.50    1.5
         1.5s     27.00nm          4.9mb
                  pP     51 11.00   95kmX
LSA     43.00 316 P      51 09.60    1.5
GTA     45.00 333 eP     51 24.00    0.2
         1.0s     14.00nm          4.7mb
GUN     45.83 310 P      51 29.58   -1.2
PKI     46.02 310 P      51 30.84   -1.4
KKN     46.23 310 P      51 32.42   -1.3
```

```
DMN     46.27 310 P      51 32.72   -1.4
GKN     46.83 310 P      51 37.08   -1.3
YAK     62.00   3 eP     53 27.00   -0.9
         0.5s    118.00nm          6.2mb X
BUL     95.02 250 iPc    56 28.00   -1.8
YKA    104.01  24 ePdiff57 23.00   13.9X
         0.4s      0.10nm
ZOBO   159.91 144 PKP    03 08.70    2.4X
      S.D. = 1.3  on  28 of  35 obs.
-----------------------------------------
&  JAN  25, 1993  09h 54m 16.66s
   60.249 N          152.930 W
   DEPTH = 133.1km
   3.9mb (  1 obs.)
 SOUTHERN ALASKA                    (  2)
      <AEIC>.

ILIM     0.17 185 P      54 34.40    0.9
                  S      54 48.30
INE      0.20 199 P      54 34.40    0.7
                  S      54 48.90
INW      0.21 209 P      54 34.50    0.8
                  S      54 48.30
RS1      0.23  22 P      54 34.50    0.7
RS2      0.23  22 P      54 34.50    0.6
RSO      0.23  22 P      54 34.50    0.7
RDW      0.24  14 P      54 34.50    0.6
REF      0.27  25 ePd    54 34.61    0.7
                  eS     54 48.92
RDN      0.28  17 P      54 34.50    0.6
NCT      0.31   0 P      54 34.70    0.7
                  S      54 48.70
DFR      0.36  19 P      54 34.70    0.5
PDB      0.78 234 iPc    54 36.92   -1.3
                  eS     54 52.63
AUL      0.91 197 ePd    54 38.55   -0.7
AUE      0.92 194 P      54 38.50   -0.9
AUH      0.93 197 P      54 38.50   -1.0
AUI      0.95 196 ePd    54 38.73   -0.9
                  eS     54 55.91
NKA      0.97  59 ePd    54 40.71    0.9
CKL      0.99  17 P      54 39.40   -0.8
CKT      1.02  20 P      54 39.40   -1.0
                  S      54 58.10
SPU      1.03  24 P      54 39.40   -1.1
                  S      54 57.70
CKN      1.05  20 iPd    54 39.84   -0.8
BGL      1.05  14 iPd    54 39.71   -1.0
CP2      1.07  18 iPd    54 40.02   -1.1
CRP      1.09  20 iPd    54 39.72   -1.5
                  eS     54 58.58
BRLK     1.14 114 eP     54 41.68    0.2
                  eS     54 59.57
CGLM     1.15  23 iPd    54 40.74   -1.0
MCNL     1.28 214 iPd    54 41.55   -1.4
                  eS     55 00.84
SLKM     1.37  78 ePc    54 42.74   -1.2
                  eS     55 03.41
CDD      1.37 196 iPd    54 42.54   -1.4
                  eS     55 03.06
SVW      1.58 304 iPc    54 43.61   -2.7
                  eS     55 04.38
SUA      1.62  40 iPd    54 45.90   -0.9
                  eS     55 09.14
SEW      1.75  93 ePc    54 46.91   -1.2
MPA      1.79  81 ePc    54 47.31   -1.3
SKT      1.87  21 iPd    54 48.25   -1.4
                  eS     55 13.59
PMS      1.93  57 P      54 49.00   -1.4
PTE      2.03  71 ePc    54 49.62   -1.9
PWA      2.05  45 eP     54 50.40   -1.4
                  i      54 52.20
                  eS     55 18.70
PLRM     2.29  52 eP     54 52.53   -2.3
PMR      2.29  52 eP     54 51.96   -2.9
GHO      2.48  50 iPd    54 54.92   -2.4
                  eS     55 24.96
KNK      2.48  60 eP     54 55.10   -2.2
KDC      2.52 175 iPd    54 54.72   -3.0
LTI      2.55  93 eP     54 56.09   -2.0
KNIM     2.59  86 iPc    54 55.98   -2.7
                  eS     55 27.31
MTU      2.66  93 eP     54 57.03   -2.5
SML      2.73  53 iPd    54 58.05   -2.5
GLI      2.95  75 eP     55 01.32   -2.0
TTA      3.07 333 eP     55 01.82   -3.1
                  eS     55 34.67
```

```
SCM      3.15  57 ePd    55 03.72   -2.4
HUR      3.16  28 eP     55 03.49   -2.6
HIN      3.20  85 eP     55 04.97   -1.7
FID      3.23  78 eP     55 04.22   -2.8
VZW      3.24  73 eP     55 06 47   -0.8
VLZ      3.36  72 eP     55 07.29   -1.4
                  eS     55 46.05
MID      3.43 101 P      55 07.50   -2.1
TRF      3.45  20 ePc    55 08.02   -2.1
CVA      3.58  82 iPc    55 09.89   -1.7
KLU      3.65  67 eP     55 10.31   -2.3
RND      3.71  30 ePc    55 11.48   -2.0
TOA      3.76  57 eP     55 13.00   -1.2
MCK      3.97  27 eP     55 15.79   -1.1
RAGM     4.11  84 eP     55 16.90   -1.9
SDG      4.22  54 eP     55 18.75   -1.5
KAIM     4.28  91 eP     55 20.42   -0.5
PAX      4.49  49 eP     55 22.03   -1.9
GLB      4.62  71 ePc    55 24.33   -1.3
NEA      4.70  21 eP     55 24.39   -2.3
CRQM     4.87  80 ePc    55 27.69   -1.4
CCB      5.01  26 ePd    55 27.91   -3.0
HDA      5.02  31 iPd    55 28.38   -2.5
TGL      5.02  80 ePc    55 29.55   -1.5
SNH      5.03  86 eP     55 30.10   -1.1
MDM      5.20  23 ePd    55 30.80   -2.7
FBA      5.24  25 eP     55 30.76   -3.1
BALM     5.27  77 iPc    55 33.09   -1.4
GLM      5.40  26 ePd    55 33.21   -2.9
YAH      5.56  84 iPc    55 37.58   -1.0
CTGM     5.76  78 iPc    55 40.03   -1.1
IMA      5.85 357 eP     55 39.29   -3.1
YKA     18.32  66 eP     58 20.00   -2.8
         0.5s     3.20nm          3.9mb
        80 obs. associated
-----------------------------------------
%  JAN  25, 1993  10h 07m 22.87± 0.69s
   26.422 S ± 6.0km   27.366 E ± 6.9km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA          (584)
      ML 2.7 (PRE).

PRY      0.51 169 eP     07 33.00   -0.2
                  S      07 39.00
KSR      0.70 323 eP     07 36.50   -0.3
                  S      07 44.50
BFS      0.70 227 eP     07 38.20    1.2
                  S      07 47.30
SLR      1.07  51 iPd    07 43.30   -0.3
                  S      07 56.90
SEK      1.91 173 iPd    07 57.50    1.0
                  S      08 21.00
SWZ      1.98 247 eP     07 58.20    0.7
                  S      08 22.40
BFT      2.52  74 eP     08 06.00    0.7
                  S      08 36.00
BLF      2.87 201 eP     08 09.00   -1.3
                  S      08 42.00
FRS      3.78 208 eP     08 21.50   -1.5
                  S      09 03.90
      S.D. = 1.1  on   9 of   9 obs.
-----------------------------------------
*  JAN  25, 1993  10h 36m 03.10± 1.87s
   36.554 N ± 8.1km    7.553 W ±15.8km
   DEPTH =  10.0km  (geophysicist)
 STRAIT OF GIBRALTAR               (385)
      mbLg 3.3 (MDD).

EVAL     1.21  32 iPg    36 25.10   -0.6
                  eSg    36 37.90
CNIL     1.22  98 iP     36 25.00   -0.9
GIBL     1.31  78 iP     36 29.00    1.6
PLAT     1.51 106 iP     36 25.00   -5.2X
EJIF     1.68  93 ePn    36 32.01   -0.7
                  eSn    36 51.50
EPRU     1.91  77 ePn    36 35.48   -0.5
                  eSn    36 55.80
EHOR     2.23  55 ePn    36 41.44    0.8
                  eSn    37 04.30
ELUQ     2.81  68 ePn    36 48.70   -0.3
IFR      3.63 146 iPn    37 01.00    0.4
                  i      37 03.00
                  iSn    37 39.00
EPLA     3.69  18 ePn    37 01.39    0.0
GUD      4.87  32 ePn    37 18.43    0.1
      S.D. = 0.9  on  10 of  11 obs.
-----------------------------------------
```

```
*  JAN  25, 1993  10h 51m 26.23± 0.77s
     7.176 N ±12.8km  123.441 E ±14.2km
    DEPTH = 656.2 ± 10.1 km
    4.6mb (  7 obs.)
  MINDANAO, PHILIPPINE ISLANDS     (259)

PLP      4.24  21 ePd    52 58.00    0.4
                  eS     53 52.00
KKM      7.27 262 ePc    53 20.40   -1.0
         0.8s    89.60nm          4.8mb
ASPA    32.31 162 eP     57 06.70    0.3
         0.4s     9.70nm          4.8mb
                  eS     01 37.30
LZH     33.91 331 eP     57 19.50   -0.2
         1.2s    25.00nm          4.7mb
                  sP     57 37.50
GUN     41.07 305 P      58 18.62    0.6
PKI     41.33 304 P      58 20.02    0.0
KKN     41.52 304 P      58 21.50    0.1
DMN     41.59 304 P      58 22.26    0.2
GKN     42.12 304 P      58 26.12    0.0
         0.5s     8.00nm          4.4mb
GBA     45.64 282 Pd     58 54.00    0.9
         0.6s     3.00nm          3.9mb
KAF     87.04 332 eP     03 04.70   -0.4
SLL     93.51 332 eP     03 33.90   -1.1
         0.5s     2.20nm          4.5mb
NAO     94.52 333 P      03 35.30   -4.2X
         0.9s     3.00nm          4.5mb
      S.D. = 0.7  on  12 of  13 obs.
-----------------------------------------
%  JAN  25, 1993  11h 11m 25.69± 2.92s
   44.720 N ±20.2km    2.085 E ±16.7km
   DEPTH =  10.0km  (geophysicist)
 FRANCE                            (538)
      ML 2.0 (LDG).

CAF      0.21 356 Pg     11 29.70   -0.5
                  Sg     11 36.30
LPO      0.64 267 Pg     11 38.10   -0.5
                  Sg     11 51.10
RJF      0.71 326 Pg     11 39.80    0.1
                  Sg     11 54.50
LFF      0.98 283 Pg     11 44.80    0.5
                  Sg     12 02.40
MAF      1.54  13 Pg     11 53.30    0.1
                  Sg     12 16.70
TCF      1.57   3 Pg     11 54.00    0.3
                  Sg     12 18.50
      S.D. = 0.5  on   6 of   6 obs.
-----------------------------------------
?  JAN  25, 1993  11h 11m 57.37± 5.51s
   31.179 S ±29.8km   68.349 W ±34.1km
   DEPTH = 102.4 ± 55.9 km
 SAN JUAN PROVINCE, ARGENTINA      (137)

RTLL     0.18 214 iPc    12 12.00   -0.3
CFA      0.44 168 ePd    12 13.60    0.3
                  S      12 25.20
RTCB     0.49 231 iPd    12 14.00    0.3
                  S      12 25.50
RTCV     0.70 193 iP     12 15.00   -0.3
RTPR     1.81  62 ePc    12 28.00    0.0
TCA      3.22  94 eP     12 58.00   10.9X
                  S      13 34.50
      S.D. = 0.6  on   5 of   6 obs.
-----------------------------------------
*  JAN  25, 1993  12h 58m 51.52± 1.22s
     4.502 N ±14.7km   74.996 W ±17.7km
    DEPTH =  85.9 ± 15.7 km
    3.9mb (  1 obs.)
  COLOMBIA                          (103)
      Felt at Cali, Manizales and
      Pereira.

BOG      0.94  83 iPc    59 12.00    1.2
                  iS     59 31.00
PSO      4.03 215 eP     59 51.50   -1.0
SDV      6.14  45 ePn    00 22.20    0.5
                  eSn    01 32.00
TOV      7.36  44 eP     00 39.60    1.2
CEOS     8.00  55 iP     00 46.40   -0.8
                  eS     02 15.70
OLLA     9.80  56 iP     01 10.40   -1.4
GUAN    10.74  59 iP     01 23.10   -1.3
ZOBO    21.74 162 eP     03 39.00    0.8
SIV     24.59 146 P      04 16.40   11.3X
```

25d 13h

```
YKA     64.81 341 eP     09 23.70   0.7
         0.4s      0.70nm          3.9mb
      S.D. = 1.4  on   9 of  10 obs.
-----------------------------------------
%  JAN  25, 1993  13h 40m 50.39± 0.90s
   39.106 N ± 7.7km   27.639 E ± 9.2km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                              (366)
      MD 2.7 (ISK).

IZM      0.77 203 iPg    41 05.20  -0.2
                  iSg    41 17.70
DST      0.91  57 iPn    41 08.30   0.4
EZN      1.25 306 ePn    41 13.90   0.4
EDC      1.25   8 ePn    41 13.00  -0.6
KCT      1.27  26 ePn    41 14.00   0.0
      S.D. = 0.6  on   5 of   5 obs.
-----------------------------------------
   JAN  25, 1993  14h 32m 56.09± 0.49s
   22.269 S ± 6.4km   66.090 W ± 9.2km
   DEPTH = 294.5 ±  9.3 km
   3.7mb (  1 obs.)
 JUJUY PROVINCE, ARGENTINA           (128)

YJA      0.55  80 iPd    33 51.60  15.8X
                  S     34 11.30
SLA      2.51 168 e(P)   33 47.20  -0.1
FSA      3.80 179 iP     34 01.20   1.0
ANT      4.23 249 iP+    34 05.10   0.0
                  iS    34 55.50
CCH      4.86 359 iP     34 12.20  -0.5
                  e     35 08.00
LPB      6.01 341 P      34 26.90   0.4
                  S     35 35.00
ZOBO     6.25 342 P      34 29.10  -0.5
                  S     35 39.20
ARE      7.70 318 eP     34 46.00  -1.0
                  iS    36 09.60
SIV      7.84  38 P      34 49.60   1.2
TCA      9.13 172 iP     35 03.80  -0.6
RFA     12.63 189 ePc    35 47.30  -0.2
PPD     13.70  92 eP     36 01.30   0.8
VAO     17.67  96 eP     36 43.50  -1.2
                  e     36 46.00
BAO     18.34  72 Pd     36 50.50  -1.1
                  e     36 52.10
                  e     36 54.50
                  e     36 55.40
                  e     36 57.00
                  e     37 03.00
BMA     20.28  95 (P)    37 12.00   1.2
LIC     66.11  72 P      43 13.50  -0.9
KIC     66.42  72 P      43 15.40  -1.0
YKA     92.80 340 eP     45 38.30   2.5
         0.6s      0.50nm          3.7mb
WRA    133.54 207 PKP    51 44.70   5.0X
         0.4s      1.10nm
GBA    144.32  98 PKP    51 54.00  -5.4X
HYB    146.44  92 ePKP   52 07.00   4.1X
      S.D. = 1.2  on  17 of  21 obs.
-----------------------------------------
   JAN  25, 1993  14h 46m 09.98± 0.16s
   15.211 S ± 4.8km  173.498 W ± 4.5km
   DEPTH =  37.3km  (  7 depth phases)
   5.4mb ( 58 obs.)  5.6Msz ( 33 obs.)
 TONGA ISLANDS                       (173)
      Mw 5.7 (HRV).
      CENTROID, MOMENT TENSOR      (HRV)
      Data Used: GDSN
      L.P.B.: 27S, 51C
      Centroid Location:
      Origin Time        14:46:16.5 0.3
      Lat 15.01S 0.05 Lon 173.36W 0.03
      Dep  41.4 3.4 Half-duration  1.9
      Moment Tensor;   Scale 10**17 Nm
        Mrr= 0.08 0.07  Mtt=-0.02 0.12
        Mff=-0.05 0.10  Mrt=-4.00 0.25
        Mrf=-2.09 0.16  Mtf= 0.63 0.09
      Principal Axes:
        T  Val=  4.82  Plg=44  Azm=149
        N       -0.56       5       243
        P       -4.26      46       338
      Best Double Couple:Mo=4.5*10**17
       NP1:Strike=169 Dip= 5 Slip=-164
       NP2:         63      89       -85

MBU      7.68 256 eP     48 10.20   7.8X
SVA      8.23 248 eP     48 17.20   7.2X
PVC     17.62 259 iP     50 32.40  17.9X
BKM     17.68 260 iPc    50 32.10  16.9X
DZM     20.18 247 iPd    50 45.00   0.6
PAE     23.07  99 iPd    51 12.10  -1.2
         1.8s   763.00nm          5.9mb
PPT     23.07  99 iPd    51 12.70  -0.6
         1.4s   486.20nm          5.8mb
PPN     23.20  99 iPd    51 13.50  -1.1
         1.8s   664.60nm          5.8mb
TVO     23.38 100 iPd    51 15.50  -1.0
         1.4s   651.70nm          5.9mb
KUZ     23.50 202 P      51 18.20   0.9
PUZ     23.91 196 P      51 24.20   2.8X
URZ     24.41 198 eP     51 28.00   1.8
NOZ     24.48 196 P      51 28.60   1.7
         0.6s    89.00nm          5.5mb
WLZ     24.55 201 P      51 30.00   2.5
PMO     24.71  93 iPd    51 29.20  -0.1
         1.3s   687.40nm          6.1mb
VAH     24.96  93 iPd    51 31.10  -0.5
         1.3s   384.10nm          5.8mb
TPT     24.98  93 iPd    51 31.80  -0.1
         1.4s   996.80nm          6.2mb
RUV     25.20  93 iPd    51 33.40  -0.5
         1.2s   462.90nm          5.9mb
MOZ     25.40 202 P      51 37.70   2.1
         0.6s    65.00nm          5.4mb
HNR     26.56 279 eP     51 47.00   0.5
MNG     27.07 199 P      51 50.30  -0.8
ORZ     28.27 203 P      52 01.70  -0.2
         0.6s    95.00nm          5.7mb
THZ     28.95 201 P      52 07.90  -0.2
         0.6s    22.00nm          5.0mb
KHZ     29.32 200 P      52 11.10  -0.2
         0.8s    44.00nm          5.2mb
LTZ     30.07 201 eP     52 16.80  -1.3
         0.6s    83.00nm          5.7mb
MSZ     33.32 204 P      52 48.20   1.8
BRS     33.57 243 iPc    52 47.00  -1.9
                   i     53 02.50  63kmX
ARMA    35.36 239 eP     53 02.70  -1.6
         0.7s    21.00nm          5.2mb
RMQ     36.89 246 iPc    53 17.70   0.6
         0.3s     6.00nm          5.0mb
CTA     38.59 257 iPc    53 31.00  -0.5
KKH     38.68  27 P      53 31.10  -1.0
CNB     38.79 232 eP     53 30.70  -2.4
         0.9s    36.00nm          5.2mb
                   i     53 47.30  67kmX
CAN     39.07 232 eP     53 33.60  -1.8
                   i     53 48.50  58kmX
MHA     39.20  27 P      53 34.40  -2.0
BWA     39.21 234 eP     53 33.90  -2.6
                   i     53 48.20  55kmX
HON     39.36  23 P      53 50.00  12.2X
      Z  20s     3.52um          5.2Msz
DHH     39.39  23 P      53 36.40  -1.6
CMS     40.44 239 eP     53 45.50  -1.2
         0.7s    24.00nm          5.1mb
                  epP    54 00.40  58kmX
TOO     42.51 230 iPd    54 02.30  -1.3
         0.9s   108.00nm          5.6mb
                  epP    54 14.00  42km
TAU     43.39 223 eP     54 10.00  -0.6
BFD     44.61 232 iPc    54 19.40  -1.2
         0.8s    21.00nm          5.0mb
ADE     47.05 236 iPd    54 39.00  -1.0
WB2     49.78 257 iPc    54 59.80  -1.6
         0.7s    28.60nm          5.4mb
WRA     49.79 257 P      54 59.90  -1.6
         0.8s     2.60nm          4.3mb X
ASPA    50.08 252 eP     55 01.50  -2.2
         0.6s    99.50nm          6.0mb
WARB    56.63 249 eP     55 50.00  -2.1
         0.6s    34.00nm          5.6mb
                   e     56 06.00  60kmX
KLB     64.24 242 eP     56 42.00  -1.9
MUN     65.54 242 eP     56 52.00  -0.3
SMY     68.50 352 P      57 20.00   9.6X
      Z  19s     7.15um          5.9Msz
MAT     68.73 320 eP     57 11.00  -1.3
         1.2s    39.06nm          5.3mb
      Z  20s     2.48um          5.4Msz
                  eS     06 15.00
KUSJ    69.53 329 eP     57 16.90   0.0
KUR     69.61 332 eP     57 17.50   0.1
                  (S)    06 25.00
ASAJ    71.31 328 P      57 28.90   1.1
KMPM    71.85  38 P      57 30.40  -0.8
PET     72.06 343 eP     57 32.00  -0.1
         1.5s   320.00nm          6.1mb
      Z  20s     2.30um          5.4Msz
                   e     06 54.00
BAG     72.25 293 eP     57 46.00  11.9X
PLM     72.44  47 P      57 35.20   0.2
-PEC    72.52  47 P      57 34.60  -0.7
         1.5s    25.42nm          5.0mb
ISA     72.58  44 P      57 35.50  -0.2
         1.1s    21.16nm          5.0mb
      Z  20s     2.63um          5.5Msz
CMB     72.69  41 P      57 35.70  -0.5
         1.0s    18.17nm          5.0mb
      Z  21s     2.37um          5.4Msz
WDC     72.89  38 P      57 37.10  -0.1
         1.2s    33.21nm          5.2mb
      Z  21s     2.93um          5.5Msz
ORV     72.89  40 P      57 37.10  -0.2
YSS     73.34 330 iPd-   57 39.10  -0.5
         1.0s    60.00nm          5.5mb
                  eS     07 06.00
                  ePPS   07 48.00
MEMM    73.41  42 P      57 41.40   1.1
GSC     73.52  45 P      57 41.20   0.0
MRCM    73.69  43 P      57 42.50   0.2
GLA     73.74  48 P      57 43.10   0.7
BONR    73.98  42 P      57 43.90  -0.2
KVN     74.73  42 P      57 48.60   0.3
TNP     74.76  43 P      57 48.30  -0.2
         1.0s    40.76nm          5.4mb
SHW     76.58  34 P      57 58.90   0.4
ARUT    77.13  45 P      58 01.90   0.1
SVW     77.39   9 P      58 01.50  -1.1
         0.9s    32.94nm          5.4mb
SLKM    77.75  12 P      58 03.40  -1.1
SSE     77.77 307 P+     58 16.00  10.8X
         8.0s     0.60nm
      Z  20s     1.80um          5.4Msz
      E  22s     1.30um
                  eS     08 02.00
SSE     77.77 307 Pc     58 06.00   0.8
      Z  20s     1.37um          5.3Msz
      E  22s     1.30um
BGL     78.05  10 P      58 04.60  -1.7
CP2     78.08  10 P      58 05.10  -1.5
CRP     78.10  10 P      58 05.00  -1.6
MSU     78.36  45 P      58 09.40   0.8
SIT     78.68  20 P      58 20.00  10.4X
      Z  19s     1.80um          5.4Msz
DUG     78.79  43 P      58 09.90  -0.9
         1.0s    22.94nm          5.1mb
MDJ     78.82 322 eP     58 12.00   1.3
      Z  24s     5.69um          5.8MszX
      N  20s     2.10um
      E  20s     2.39um
                   S     08 05.00
PMR     78.95  12 P      58 09.40  -1.6
         1.2s    88.05nm          5.6mb
TTA     79.08   8 P      58 11.50  -0.3
         1.2s    44.27nm          5.3mb
KLU     79.53  13 P      58 12.90  -1.4
HVU     79.63  42 P      58 15.40   0.0
SRU     79.78  45 P      58 16.80   0.5
DPW     79.79  34 P      58 15.50  -0.5
DAU     79.92  43 P      58 17.30   0.1
BALM    79.96  15 P      58 15.50  -1.2
NJ2     79.97 307 eP     58 19.00   1.8
-     Z  28s     1.55um          5.2MszX
                   S     08 10.00
MGD     80.38 343 ePc    58 18.00  -0.7
         1.2s    20.00nm          5.0mb
      Z  20s     1.20um          5.2Msz
      N  20s     1.10um
      E  20s     0.80um
                   e     58 28.00  32km
                   e     01 26.00
                   eS    08 20.00
                   e     08 36.00
PV09    80.44  46 P      58 20.40   0.4
PV10    80.45  46 P      58 20.00   0.0
NEW     80.61  34 P      58 19.20  -1.1
         1.2s    32.74nm          5.2mb
      Z  19s     2.35um          5.6Msz
ALQ     80.75  50 P      58 21.70   0.1
```

```
        1.0s    20.98nm          5.1mb
      Z  22s     1.71um          5.4Msz
PV08   80.81  46 P      58 22.40   0.4
CN2    80.88 320 eP      58 22.50   0.8
        1.0s    22.00nm          5.1mb
      Z  24s     2.62um          5.5MszX
      N  20s     0.67um
      E  20s     1.70um
                  epP    58 34.00  38km
                  ePP    01 32.00
                  eS     08 31.00
                  esS    08 52.00
DL2    80.98 314 P      58 25.00   2.6
      Z  25s     1.35um          5.2MszX
SNY    81.07 318 Pc     58 20.00  -2.8
        1.1s    16.00nm          4.9mb
      Z  36s     2.39um          5.3MszX
                  pP     58 35.00  52kmX
BW06   82.19  42 P      58 28.30  -0.6
        1.0s    28.73nm          5.3mb
FBA    82.23  11 P      58 27.20  -1.1
        0.9s    56.30nm          5.6mb
LCCM   82.28  38 eP     58 29.20   0.0
IMA    82.39   8 P      58 29.00  -0.3
        1.1s    13.69nm          4.9mb
ILT    82.96 358 iPd    58 31.80  -0.2
        1.5s    75.00nm          5.5mb
                  iS     08 48.00
TIA    83.01 310 eP     58 35.00   2.0
      Z  25s     2.63um          5.5MszX
                  eS     08 47.00
GLD    83.72  46 P      58 38.70   1.9
        1.3s    69.17nm          5.6mb
      Z  20s     2.91um          5.7Msz
SES    85.10  35 ePc    58 43.00  -0.3
        1.2s    79.00nm          5.8mb
BJI    85.27 313 eP     58 45.50   1.2
        1.6s    34.00nm          5.3mb
      Z  26s     1.98um          5.4MszX
                  eSKS   09 06.00
RSSD   86.38  43 P      58 50.30   0.3
        0.9s    20.05nm          5.3mb
WMOK   86.46  53 P      58 50.40   0.0
        1.1s    12.43nm          5.1mb
      Z  21s     1.08um          5.2Msz
MEO    86.63  53 iPc    58 51.60   0.4
IPM    86.83 276 ePc    58 53.40   0.8
ACO    86.90  51 iPc    58 52.80   0.4
TIY    87.06 310 eP     58 54.60   1.3
      E  20s     1.50um
                  pP     59 06.00  37km
                  S      09 18.00
GYA    87.87 298 P      59 02.00   4.5X
      Z  38s     5.07um          5.7MszX
MAW    87.94 199 P      58 58.20   1.3
XAN    88.44 306 P      59 02.00   2.0
        1.2s     8.40nm          4.9mb
      Z  40s     2.00um          5.2MszX
                  pP     59 15.00  43km
HHC    88.83 313 P      59 03.60   1.9
        1.2s    20.00nm          5.3mb
      Z  23s     1.45um          5.3MszX
      E  22s     1.07um
                  sS     10 07.00
YAK    88.88 337 eP     59 00.00  -1.3
        1.2s    50.00nm          5.7mb
                  i      59 10.00  31km
                  i      02 27.00
                  e      09 28.00
                  e      09 40.00
BTO    89.84 312 eP     59 08.00   1.5
      N  10s     0.58um
      E  12s     1.12um
YKA    89.96  23 eP     59 05.50  -0.9
        0.9s     6.80nm          4.9mb
MIAR   90.44  54 P      59 20.00  10.7X
      Z  20s     0.82um          5.2Msz
KMI    90.86 296 eP     59 15.50   3.8X
        1.4s    30.00nm          5.5mb
      Z  22s     2.00um          5.5Msz
      N  14s     0.60um
      E  14s     0.60um
CD2    91.63 301 eP     59 18.50   3.6X
      Z  30s     2.22um          5.4MszX
CIT    91.69 324 eP     59 16.50   1.8
BDT    92.09 287 eP     59 19.20   2.1X
OLY    92.38  54 P      59 19.70   1.6
LZH    93.04 306 eP     59 23.00   1.6
        1.5s    22.00nm          5.4mb
      Z  35s     2.42um          5.4MszX
      E  23s     1.17um
BOD    93.64 329 eP     59 23.90   0.5
        1.1s    13.00nm          5.3mb
FVM    93.89  52 P      59 25.80   0.8
TIK    94.79 344 eP     59 28.00  -0.5
        1.4s    17.00nm          5.3mb
                  i      59 40.00  39km
                  e      03 15.00
                  ePS    10 39.00
GTA    96.99 309 eP     59 41.00   1.7
      Z  20s     3.46um          5.8Msz
      E  24s     3.22um
                  SKS    10 10.00
ZAK    97.31 320 eP     59 41.00   0.7
        1.0s     8.00nm          5.2mb
                  e      10 16.00
                  ePS    12 23.00
MOY    99.04 321 eP     00 02.90  14.9X
LPB    99.91 110 P      59 40.00 -13.4X
                  LR     32 53.00
ZOBO   99.96 110 P      59 56.00   2.1
                  SKS    10 40.00
                  LR     33 08.00
CEH   102.26  56 Pdiff  00 10.00   6.9X
      Z  19s     0.55um          5.1Msz
MCWV  102.31  52 Pdiff  00 10.00   6.8X
      Z  21s     1.87um          5.6Msz
RSNY  106.85  48 PKP    04 40.00   6.6X
      Z  21s     1.37um          5.5Msz
HRV   108.86  50 PKP    04 50.00  12.8X
      Z  19s     1.38um          5.5Msz
CBM   111.43  45 PKP    04 50.00   8.1X
      Z  21s     2.62um          5.8Msz
KSH   115.28 307 ePKP   04 51.00   1.2
BRVK  117.73 322 ePKP   04 48.00  -5.8X
SVE   121.93 328 ePKP   05 02.50   0.9
      Z  19s     2.00um          5.8Msz
      N  19s     0.10um
      E  19s     1.00um
                  e      06 34.00
ARU   123.12 328 ePKP   05 03.00  -0.9
      Z  20s     2.00um          5.8Msz
      E  20s     1.50um
                  e      06 49.00
APA   124.86 348 ePKP   05 06.30  -0.7
MAIO  128.54 304 ePKP   05 16.00   0.8
KAF   131.09 348 iPKP   05 18.40  -0.7
        0.6s     6.30nm
NUR   132.88 348 ePKP   05 23.50   1.0
OBN   133.90 336 (PKP)  05 24.00  -0.6
        1.6s    40.00nm
      Z  20s     2.20um          5.9Msz
      N  20s     1.20um
                  i      05 40.00
                  e      07 50.00
NAO   134.35 357 PKP    05 20.20  -5.1X
        0.5s     1.00nm
HFS   134.84 355 ePKP   05 25.90  -0.4
        0.4s     1.20nm
OJC   143.45 346 ePKP   05 39.60  -2.7
KSP   143.59 350 ePKP   05 40.80  -1.7
CLL   143.61 353 ePKP   05 41.00  -1.5
                  i      05 50.90
BRG   143.92 352 ePKP   05 39.50  -3.5X
        1.6s    27.00nm
                  e      06 02.40
                  e      06 40.00
UZH   144.23 342 ePKPd  05 41.80  -1.8
        1.0s    45.00nm
      Z  23s     2.50um          5.9MszX
                  i      05 55.70
SPC   144.29 345 ePKP   05 42.80  -1.2
PPE   144.39 335 ePKP   05 49.50   5.5X
MOX   144.41 354 ePKP   05 43.60  -0.3
        1.4s    23.00nm
      Z  19s     1.00um          5.6Msz
PRU   144.70 351 ePKP   05 44.50   0.1
        0.9s    11.50nm
      Z  22s     2.30um          5.9Msz
                  e      05 56.20
KAS   144.84 323 iPKPd  05 45.60   0.6
CFR   144.98 333 ePKP   05 45.00   0.0
VRAC  145.01 348 iPKPc  05 44.70  -0.2
        2.7s   946.20nm
                  e      05 55.60
VRI   145.03 335 ePKP   05 45.50   0.4
GAZ   145.07 315 ePKP   05 44.60  -0.8
DOU   145.17   2 PKP    05 45.40   0.2
BRD   145.18 334 ePKP   05 47.00   1.6
GRF   145.40 355 ePKP   05 46.40   0.8
      Z  21s     0.80um          5.5Msz
                  e      05 57.90
PSZ   145.55 344 ePKP   05 47.00   1.0
WLF   145.64   0 iPKPc  05 47.79   1.9
MLR   145.66 335 ePKPd  05 47.00   0.6
KHC   145.68 352 PKP    05 47.00   0.8
        1.4s    53.60nm
      Z  20s     2.50um          6.0Msz
      N  20s     1.60um
      E  20s     1.40um
                  e      05 59.50
                  e      06 09.00
ISR   145.70 335 ePKPd  05 48.00   1.7
NAI   145.85 244 ePKP   05 48.80   1.1
GEC2  145.94 351 ePKPc  05 46.90   0.2
        1.5s    34.12nm
                  e      06 00.40
                  e      06 04.70
                  e      06 06.90
                  e      06 16.30
ZST   145.96 347 iPKP   05 47.90   1.3
SRO   146.05 346 ePKP   05 48.20   1.5
                  i      06 01.40
                  i      07 20.20
FLN   146.05   8 ePKP   05 47.70   1.0
        0.9s    19.65nm
      Z  21s     1.90um          5.8Msz
VKA   146.06 348 iPKPd  05 48.40   1.6
        3.5s   914.00nm
                  i      05 58.80
                  i      06 08.00
BUD   146.18 345 e(PKP) 05 48.00   1.0
LDF   146.27   8 ePKP   05 48.50   1.4
        0.7s     9.50nm
GRR   146.36   9 ePKP   05 47.60   0.4
        0.9s    22.75nm
SOP   146.57 348 ePKP   05 49.50   1.9X
KMR   146.65 351 iPKP+  06 00.70  13.0X
LPF   146.68   9 ePKP   05 48.60   0.9
        0.9s    29.15nm
CDF   146.89 359 ePKP   05 50.20   2.0X
        0.8s    17.20nm
FUR   146.90 354 iPKPc  05 51.60   3.5X
        0.8s    54.00nm
GZR   146.93 339 ePKPd  05 50.00   1.7
BZS   147.13 340 ePKP   05 43.00  -5.5X
BHG   147.16 352 iPKPc  05 52.00   3.5X
        0.9s    18.00nm
HAU   147.30   0 ePKP   05 50.80   2.0X
        0.8s    19.50nm
      Z  23s     0.82um          5.4MszX
EYL   147.41 325 ePKP   05 45.00  -4.3X
BSF   147.47 360 ePKP   05 51.80   2.6X
        1.0s    14.60nm
WATA  147.69 354 iPKPc  05 53.30   3.7X
                  i      06 04.70
                  i      06 09.30
KBA   147.72 351 iPKPd  05 52.20   2.5X
        0.8s    16.10nm
                  i      05 58.20
                  i      06 04.00
WTTA  147.76 353 iPKPd  05 52.70   2.9X
        0.7s    19.50nm
                  i      05 57.40
                  i      06 09.60
BHL   147.78 311 PKP    05 54.00   3.9X
SQTA  147.85 354 iPKPc  05 52.70   2.9X
                  i      06 09.70
LOR   147.96   3 ePKP   05 52.50   2.6X
        0.8s    14.65nm
      Z  20s     2.47um          6.0Msz
SSF   148.15   4 ePKP   05 53.20   3.1X
        0.9s    16.85nm
LBF   148.25   3 ePKP   05 53.30   2.9X
        0.9s    16.85nm
FVI   148.27 352 PKP    05 54.20   3.9X
RBL   148.31 351 PKP    05 54.60   4.1X
PTJ   148.39 347 ePKP   05 51.40   0.7
AVF   148.41   4 ePKP   05 53.40   2.9X
        0.9s    19.15nm
ZAG   148.46 347 ePKP   05 51.50   0.9
```

25d 15h

```
LJU   148.53 349 e(PKP)05 54.00   3.2X
                  e     05 55.50
SMF   148.58   4 ePKP  05 54.20   3.3X
       0.7s     6.85nm
BGF   148.60   5 ePKP  05 54.20   3.3X
       0.9s    20.45nm
MML   148.63 308 ePKP  05 50.20  -1.2
VOY   148.65 350 ePKP  05 52.00   0.9
                  e     05 54.90
LSF   148.78   7 ePKP  05 55.00   3.8X
       0.9s    26.05nm
CEY   148.84 349 e(PKP)05 53.00   1.7
CSS   148.90 314 ePKP  05 57.00   5.3X
MAF   148.91   5 ePKP  05 55.00   3.6X
       0.9s    27.35nm
VBY   148.91 348 e(PKP)05 46.80  -4.6X
                  iPKPbc05 52.40
                  iPKPab05 56.40
CTI   148.96 353 PKP   05 55.40   3.8X
TRI   148.99 350 ePKP  05 55.70   4.2X
                  e     06 07.70
                  e     18 08.00
BGIO  149.19 307 ePKP  05 57.60   5.3X
VAI   149.38 357 PKP   05 55.70   3.7X
ORO   149.66 358 PKP   05 55.60   2.9X
RJF   149.71   7 ePKP  05 56.80   4.2X
       1.3s    37.20nm
LPL   149.79 360 ePKP  05 59.00   6.0X
       0.8s    18.65nm
LPG   149.81 360 ePKP  05 59.10   6.0X
       0.9s    27.35nm
LFF   149.97   8 ePKP  05 57.70   4.7X
       1.1s    35.90nm
MBH   150.15 304 ePKP  05 59.80   6.0X
SRS   150.23 333 iPKP  05 57.72   4.2X
BNI   150.25 360 PKP   06 00.30   6.7X
LPO   150.28   8 ePKP  05 58.40   4.9X
       1.0s    16.80nm
SKO   150.38 337 iPKP  05 59.10   5.4X
       1.6s   139.00nm
     Z  20s     1.46um          5.8Msz
                  i     06 12.60
                  i     09 42.00
BOB   150.43 356 PKP   06 00.30   6.5X
KNT   150.49 334 ePKP  05 58.52   4.6X
VAY   150.49 335 iPKP  05 58.60   4.7X
SOH   150.57 333 ePKP  06 00.20   6.1X
OUR   150.69 332 ePKP  05 59.24   5.0X
GRG   150.86 335 ePKP  05 59.44   4.9X
SFI   151.02 352 PKP   06 01.80   7.2X
PGD   151.09 352 PKP   06 01.70   6.8X
FIR   151.24 353 ePKP  06 02.00   7.1X
OHR   151.36 337 iPKP  06 01.00   5.7X
       1.0s    76.00nm
                  i     06 11.60
FNA   151.42 336 ePKP  06 01.24   5.8X
SBF   151.43 359 ePKP  06 01.50   6.2X
       0.8s    18.00nm
LIT   151.54 334 ePKP  06 01.08   5.5X
BCAO  164.04 229 iPKPd 06 11.10  -0.1
       0.8s    14.00nm
                  id    07 04.00
                  id    07 19.40
LIC   165.58 127 PKP   06 11.80  -0.7
                  e     07 11.00
TIC   165.85 126 PKP   06 12.20  -0.5
                  e     07 08.20
KIC   165.89 127 PKP   06 12.00  -0.8
       1.0s    14.00nm
                  e     07 08.20
     S.D. = 1.2  on 170 of 250 obs.
-------------------------------------
   JAN  25, 1993  15h 32m 41.63± 0.87s
    2.217 N ±16.5km   84.713 W ±18.0km
   DEPTH =  33.0km  (normal)
   4.5mb (  4 obs.)  5.0Msz (  1 obs.)
 OFF COAST OF CENTRAL AMERICA     ( 76)

SDV    15.49  64 eP    36 18.70  -1.0
TOV    16.63  62 eP    36 37.60   3.6X
OXX    18.91 322 iP    37 07.00   4.5X
PPM    21.59 322 eP    37 35.60   4.3X
                (S)    37 57.50
ZOBO   24.63 139 P     38 02.00   0.7
       1.1s    69.61nm          5.1mb
LPB    24.83 139 P     38 02.00  -0.9
CCH    26.73 137 eP    38 21.00   0.4
SIV    29.55 129 P     38 49.80   4.0X
ACO    36.81 340 iPd   39 50.20   1.8
ALQ    38.33 331 ePd   40 04.33   2.9X
       0.9s     7.05nm          4.5mb
ARUT   44.14 327 eP    40 51.25   2.2X
RSSD   45.11 340 eP    40 58.61   1.7
       0.6s     3.80nm          4.5mb
BCH    46.41 319 (P)   41 04.22  -3.0
TNP    46.48 324 (P)   41 07.87   0.1
CBM    46.82  16 (P)   41 18.47   8.4X
ULM    48.79 350 eP    41 29.00   3.6X
SES    52.93 339 eP    41 58.00   1.0
FCC    56.86 354 eP    42 29.50   4.2X
YKA    64.13 345 eP    43 13.10  -1.7
       0.7s     2.50nm          4.4mb
LIC    79.51  84 P     44 47.80   0.4
     Z  21s     0.68um          5.0Msz
KIC    79.79  84 P     44 49.20   0.3
WRA   137.99 242 PKP   52 09.10   3.3X
       0.6s     0.50nm
GKN   148.26  18 PKP   52 27.16   3.7X
KKN   148.65  17 PKP   52 28.54   4.4X
GUN   148.71  16 PKP   52 29.16   4.7X
DMN   148.77  18 PKP   52 28.30   3.9X
PKI   148.89  17 PKP   52 29.32   4.6X
     S.D. = 1.5  on  12 of  27 obs.
-------------------------------------
   JAN  25, 1993  17h 28m 32.15± 1.09s
   36.256 N ± 7.0km   27.826 E ±11.9km
   DEPTH =  10.0km  (geophysicist)
 DODECANESE ISLANDS                (369)
      MD 3.5 (ISK).

YER     0.95  23 iPg   28 51.20   0.9
ELL     1.75  73 iPn   29 04.50   1.7
IZM     2.18 348 iPn   29 09.80   0.7
KHL     2.47  33 iPn   29 11.50  -1.6
ALT     3.33  32 iPn   29 24.70  -0.7
DST     3.40  10 ePn   29 26.00  -0.4
EZN     3.76 342 iPn   29 32.10   0.8
PPCY    3.93 109 eP    29 34.80   1.0
                eS     30 15.90
KCT     4.01   6 ePn   29 34.30  -0.6
EDC     4.08   0 ePn   29 36.00   0.0
CSS     4.67 104 eP    29 44.30   0.0
                eS     30 32.60
EYL     4.68  22 ePn   29 44.00  -0.5
ATZ     7.03 117 eP    30 17.70   0.0
                eS     31 28.90
ZNT     7.19 122 eP    30 19.20  -0.6
                eS     31 32.50
MKT     8.08 129 eP    30 31.90  -0.5
                eS     31 54.50
MBH     8.77 136 eP    30 41.80  -0.2
     S.D. = 0.9  on  16 of  16 obs.
-------------------------------------
% JAN  25, 1993  18h 49m 26.63± 1.72s
   33.153 S ± 5.6km   70.216 W ±13.4km
   DEPTH =  10.0km  (geophysicist)
 CHILE-ARGENTINA BORDER REGION    (127)
      MD 3.4 (SAN).

FCH     0.18 200 iPd   49 31.31   0.4
                iS     49 33.80
PEL     0.39 271 iP    49 34.86   0.1
                iS     49 40.09
PCH     0.53 208 iP+   49 37.66   0.3
                eS     49 45.11
JACH    0.57 326 iP    49 38.28   0.1
                iS     49 46.12
ROCH    0.69 285 iP+   49 40.33  -0.1
                iS     49 49.99
TACH    0.78 230 iP    49 41.89   0.0
                iS     49 52.51
CHCH    0.86 205 iP    49 42.66  -0.6
                iS     49 54.95
LCCH    1.18 254 eP    49 48.70   0.1
                iS     50 04.13
LNV     1.28 231 iP+   49 50.05  -0.3
                iS     50 06.75
     S.D. = 0.3  on   9 of   9 obs.
-------------------------------------
* JAN  25, 1993  19h 20m 22.44± 1.60s
   36.515 N ±14.1km   71.039 E ±10.5km
   DEPTH = 218.0 ± 17.3 km
   4.5mb ( 11 obs.)
 AFGHANISTAN-TAJIKISTAN BORD REG.(717)
QUE     7.18 210 eP    22 04.30  -1.7
                eS     23 23.00
MAIO    9.31 272 iPd   22 36.80   3.2X
       0.8s     6.59nm          3.9mb
                eS     24 17.00
NDI     9.38 145 iPc   22 36.00   1.6
       0.5s    35.21nm          4.9mb
GKN    14.28 123 P     23 36.42  -0.1
DMN    14.86 123 P     23 43.44  -0.2
       0.6s    66.00nm          5.3mb
KKN    14.86 122 P     23 43.12  -0.5
       0.5s    51.00nm          5.2mb
PKI    15.09 122 P     23 46.30  -0.2
       0.5s    50.00nm          5.2mb
GUN    15.20 120 P     23 47.56  -0.3
HYB    20.15 159 eP    24 42.50   1.0
GBA    23.52 164 P     25 16.00   1.8
HFS    43.07 322 eP    28 02.80   0.7
       0.4s     0.90nm          3.6mb
NAO    44.55 323 P     28 14.40   0.5
       1.1s     8.20nm          4.1mb
YKA    81.23   3 eP    32 14.80   0.2
       0.6s     1.90nm          4.0mb
WRA    81.97 122 P     32 18.20  -1.0
       0.6s     0.90nm          3.7mb
WB2    81.98 122 iPc   32 18.00  -1.3
       0.5s    11.10nm          4.8mb
ASPA   84.23 125 eP    32 29.80  -0.8
       0.6s    11.50nm          4.8mb
     S.D. = 1.1  on  15 of  16 obs.
-------------------------------------
* JAN  25, 1993  19h 59m 10.65± 4.92s
   33.082 S ±14.9km   70.527 W ±17.1km
   DEPTH =  97.2 ± 42.1 km
 CHILE-ARGENTINA BORDER REGION    (127)
      MD 3.4 (SAN).

PEL     0.15 245 eP    59 24.69  -0.1
                iS     59 34.99
FCH     0.32 141 iP+   59 25.60   0.0
                iS     59 37.23
JACH    0.40 352 iP+   59 25.85   0.0
                iS     59 37.30
ROCH    0.42 285 iP+   59 25.92  -0.2
                iS     59 37.37
PCH     0.54 179 iPd   59 26.88   0.1
                iS     59 38.89
TACH    0.67 211 iP+   59 27.69  -0.1
                iS     59 40.44
CHCH    0.86 187 iP+   59 29.89   0.3
                iS     59 44.24
LCCH    0.96 246 iP+   59 31.07   0.4
                iS     59 46.62
CACH    1.03 183 iPd   59 31.54  -0.1
                iS     59 48.51
LNV     1.14 220 iP+   59 32.35  -0.4
                iS     59 48.52
     S.D. = 0.3  on  10 of  10 obs.
-------------------------------------
   JAN  25, 1993  20h 20m 14.20± 0.70s
   18.466 S ± 8.4km   69.461 W ± 8.3km
   DEPTH = 148.6 ±  8.3 km
   4.5mb (  2 obs.)
 NORTHERN CHILE                    (123)

LPB     2.32  34 Pd    20 53.60  -0.4
ZOBO    2.51  31 iPd   20 56.10  -0.4
ARE     2.78 315 iPc   21 00.50   0.9
                iS     21 32.80
CCH     3.34  72 eP    21 07.00   0.2
                i      21 22.00
YJA     5.23 135 iPc   21 52.00  20.0X
ANT     5.29 190 eP    21 31.30  -1.0
HJA     6.06 142 ePc   21 44.00   1.4
SIV     8.38  74 P     22 14.40   0.4
NNA     9.60 311 eP    22 29.00  -1.2
                eS     24 09.00
BAO    20.72  85 e(P)  24 41.00  -3.6X
                e      24 43.20
                e      24 46.00
                e      24 49.90
                e      25 02.90
                e      25 06.10
VAO    21.51 106 eP    24 51.20  -1.2
BMA    24.05 104 eP    25 17.60   0.6
LIC    68.08  75 P     30 59.60  -0.6
TIC    68.25  75 P     31 00.80  -0.5
```

```
KIC     68.39  75 P     31 01.60  -0.6
        0.3s      8.50nm          5.1mb
YKA     88.17 341 eP    32 51.20   2.3
        0.5s      0.70nm          3.9mb
GBA    147.85  94 PKP   39 45.00   4.3X
      S.D. = 1.2  on  14 of  17 obs.
-----------------------------------------
?  JAN  25, 1993  21h 04m 52.75± 1.99s
   15.272 N ± 7.6km  120.443 E ±44.3km
   DEPTH =  10.0km  (geophysicist)
 LUZON, PHILIPPINE ISLANDS          (249)

TGY      1.26 158 eP    05 15.50  -0.6
                  eS    05 36.50
PGP      1.83 164 ePc   05 25.00   0.6
                  eS    05 49.00
CVP      2.76  28 eP    05 38.00   0.2
                  eS    06 15.00
PIP      3.04   3 eP    05 41.50  -0.3
      S.D. = 0.9  on   4 of   4 obs.
-----------------------------------------
*  JAN  25, 1993  22h 22m 35.46± 0.43s
   30.291 S ± 9.4km  177.799 W ± 9.9km
   DEPTH =  33.0km  (normal)
   5.3mb ( 17 obs.)
 KERMADEC ISLANDS, NEW ZEALAND      (178)
      Felt on Raoul Island.

RAO      1.04 354 iP    22 53.50  -0.2
HBZ      7.98 203 eP    24 29.80  -2.1
PUZ      8.42 202 eP    24 33.80  -4.4X
                  S     26 07.60
URZ      8.99 207 eP    24 40.30  -5.7X
                  S     26 21.70
THZ     13.69 211 eP    25 45.60  -3.9X
                  S     28 10.20
KHZ     13.96 208 eP    25 45.70  -7.3X
                  eS    28 11.50
DZM     16.33 296 iPd   26 30.00   6.1X
ODZ     17.31 209 eP    26 36.00   0.0
BRS     25.91 269 iPc   28 08.20   1.9
        0.7s     33.00nm          5.0mb
CNB     27.98 251 iPc   28 27.20   2.0
        0.7s     51.00nm          5.3mb
RMQ     29.61 269 iPd   28 41.30   1.4
        0.5s     93.00nm          5.8mb
TAU     30.48 236 eP    28 48.00   0.6
CMS     31.15 258 iPc   28 54.20   0.8
        0.6s     28.00nm          5.3mb
TOO     31.17 247 iPc   28 54.10   0.5
        0.4s     44.00nm          5.6mb
BFD     33.50 247 eP    29 16.30   2.4X
CTA     33.95 279 iPc   29 18.30   0.3
        0.7s     77.05nm          5.7mb
MDG     42.38 299 eP    30 28.80   0.3
ASPA    43.29 267 iPc   30 34.70  -1.3
        0.4s     64.00nm          5.7mb
      Z  19s      0.50um          4.4Msz
                  e     36 17.30
WRA     44.26 272 P     30 42.80  -1.1
        0.6s     14.30nm          5.0mb
FORT    46.24 255 eP    30 57.50  -1.9X
WARB    48.71 260 eP    31 16.00  -2.9X
MHA     54.43  26 (P)   32 01.18  -0.6
MUN     55.70 250 eP    32 08.00  -3.0X
NANU    59.47 260 eP    32 35.40  -2.3X
        0.6s     24.00nm          5.5mb
ADK     81.82   1 eP    34 50.56  -1.5
        0.8s     50.86nm          5.6mb
IPM     84.69 278 ePd   35 06.00  -1.7
        0.8s     26.10nm          5.5mb
PLM     85.58  47 (P)   35 13.37   1.4
ISA     86.10  45 eP    35 15.58   1.3
        0.8s      8.31nm          5.0mb
ORV     86.98  40 eP    35 18.91   0.5
TNP     88.45  43 eP    35 27.00   1.2
        0.9s      9.77nm          5.1mb
TIA     90.02 313 eP    35 32.90  -0.1
CN2     90.16 323 eP    35 32.80  -0.6
        0.8s      8.70nm          5.1mb
                  epP   35 48.00  52kmX
GYA     91.65 300 P     35 40.20  -0.7
MSU     91.79  46 eP    35 42.86   1.5
BJI     92.97 315 eP    35 45.00  -1.4
        1.0s     11.00nm          5.2mb
BGL     93.54  12 eP    35 47.48  -1.3
CRP     93.59  12 eP    35 47.30  -1.8
TIY     93.93 312 eP    35 51.80   0.8
TTA     94.52  10 eP    35 52.52  -0.7
        1.1s      4.14nm          4.8mb
MCMT    95.28  40 eP    35 58.10   0.8
FBA     97.72  12 eP    36 06.28  -1.3
        0.7s      3.08nm          4.9mb
BUL    123.78 210 iPKPd 41 30.90  -1.3
LMN    126.52  53 ePKP  41 38.50   1.9
KAF    144.50 341 iPKP  42 05.80  -3.5X
        0.6s     23.00nm
OBN    145.17 325 iPKP  42 08.80  -1.9
        0.9s     53.00nm
                  i     42 11.00
NUR    146.27 340 iPKP  42 11.70  -0.6
        0.6s     50.20nm
UPP    148.66 345 iPKP  42 17.90   1.7
NAO    148.93 352 PKP   42 19.40   2.8X
        0.8s     27.70nm
HFS    149.17 349 ePKP  42 18.80   1.8
        0.8s     41.70nm
BCAO   150.01 214 ePKPd 42 19.00  -0.7
        0.2s     84.00nm
                  ic    42 23.60
                  ic    42 37.50
                  id    43 30.50
HRI    151.40 285 ePKP  42 27.10   5.8X
BHL    151.50 286 PKP   42 27.00   5.5X
PRNI   151.74 279 ePKP  42 27.60   5.8X
ZNT    151.93 282 ePKP  42 28.10   6.1X
KAS    152.27 302 ePKP  42 28.50   6.2X
KAS    152.27 302 ePKP  42 25.00   2.7X
CSS    153.43 288 ePKP  42 30.50   6.4X
LIC    155.11 163 PKP   42 27.80   0.9
GEC2   159.50 338 ePKPc 42 30.60  -0.8
        1.1s      1.72nm
                  e     42 48.50
      S.D. = 1.3  on  40 of  59 obs.
-----------------------------------------
*  JAN  25, 1993  22h 34m 00.32± 2.08s
   31.874 S ±13.6km   70.561 W ±13.3km
   DEPTH = 149.4 ± 18.3 km
 CHILE-ARGENTINA BORDER REGION      (127)
      MD 3.9 (SAN).

JACH     0.81 182 iP    34 22.92  -1.0
                  iS    34 36.37
ROCH     1.16 199 iP    34 26.55  -0.4
                  iS    34 43.43
PEL      1.27 185 iP    34 27.36  -0.5
                  iS    34 44.39
FCH      1.47 171 iP    34 30.44   0.3
                  iS    34 49.39
RTCB     1.55  76 iPd   34 31.00   0.2
                  (S)   34 50.00
SAN      1.58 183 iP    34 30.44  -0.6
                  iS    34 51.02
RTCV     1.72  90 iP    34 32.60   0.0
                  (S)   34 53.00
PCH      1.74 179 iP    34 33.21   0.3
                  iS    34 54.94
MDZ      1.76 125 iP    34 34.10   1.0
                  iS    34 55.30
TACH     1.80 190 iPd   34 33.45  -0.1
                  iS    34 55.92
LCCH     1.81 208 iP    34 34.45   0.9
                  iS    34 55.45
RTLL     1.87  74 iPc   34 34.70   0.4
CFA      2.00  83 e(P)c 34 36.20   0.4
                  S     34 58.00
CHCH     2.05 182 eP    34 35.88  -0.6
                  iS    35 01.29
LNV      2.20 199 iPd   34 38.21   0.1
                  iS    35 04.27
CACH     2.24 181 iP    34 39.83   1.1
                  iS    35 06.33
RFA      3.38 149 iPc   34 53.00  -0.2
MRA      4.15  99 eP    35 02.40  -0.8
TCA      5.12  86 iP    35 15.80  -0.5
                  (S)   36 08.20
      S.D. = 0.7  on  19 of  19 obs.
-----------------------------------------
?  JAN  25, 1993  23h 00m 07.93± 1.00s
   37.062 N ± 9.5km   29.525 E ± 8.2km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                             (366)
      MD 3.3 (ISK).

ELL      0.44 135 iPg   00 16.50  -0.4
                  eSg   00 24.00
BCK      0.94  65 ePn   00 26.60   0.7
YER      1.00 275 ePn   00 27.20   0.3
KHL      1.26 360 iPn   00 30.70  -0.7
      S.D. = 1.1  on   4 of   4 obs.
-----------------------------------------
%  JAN  25, 1993  23h 26m 21.61± 0.89s
   42.952 N ±10.7km   12.817 E ±15.1km
   DEPTH =  10.0km  (geophysicist)
 CENTRAL ITALY                      (381)

ASS      0.16 316 P     26 24.90  -0.5
                  eSg   26 28.30
ARV      0.55   9 P     26 33.00   0.1
                  eSg   26 44.00
AQU      0.74 144 P     26 35.00  -1.1
CRE      0.93 317 P     26 39.70   0.3
SDI      1.45 149 P     26 49.10   1.2
      S.D. = 1.2  on   5 of   5 obs.
-----------------------------------------
*  JAN  25, 1993  23h 39m 12.23± 0.99s
    5.592 S ± 9.2km  154.678 E ± 9.5km
   DEPTH = 180.4 ±  9.7 km
   4.5mb (  4 obs.)
 SOLOMON ISLANDS                    (193)

RAB      2.87 299 eP    39 59.00  -0.7
                  eS    40 39.00
HNR      6.47 126 eP    40 46.00  -0.2
PMG      8.36 243 eP    41 13.00   1.8
CTA     16.57 209 iP    42 56.00   0.1
DZM     19.95 146 iPd   43 32.00  -0.4
RMQ     21.54 195 iPd   43 48.30   0.3
        0.3s     21.00nm          5.1mb
BRS     21.75 185 iPc   43 40.50  -9.7X
ARMA    24.86 186 eP    44 20.00   0.1
        0.7s     17.00nm          4.7mb
ASPA    26.89 226 eP    44 36.60  -1.8
        1.2s      9.30nm          4.4mb
GUN     74.13 301 P     50 31.20  -0.1
PKI     74.44 300 P     50 32.60  -0.4
KKN     74.61 301 P     50 33.60  -0.3
DMN     74.71 300 P     50 34.60   0.1
GKN     75.21 301 P     50 37.20   0.0
YKA     95.25  28 eP    52 17.70   1.5
        0.8s      0.80nm          4.1mb
      S.D. = 1.0  on  14 of  15 obs.
-----------------------------------------
   JAN  26, 1993  00h 04m 28.57± 0.77s
   24.382 N ± 7.5km  122.175 E ±11.4km
   DEPTH =  10.0km  (geophysicist)
   4.1mb (  7 obs.)
 TAIWAN REGION                      (243)
      ML 4.0 (BJI).

QZH      3.31 280 ePn   05 19.90  -1.5
CVP      6.65 183 eP    06 09.00   0.2
SSE      6.74 353 P     06 08.00  -2.0
        0.6s      8.00nm          4.9mb
      Z  16s      0.40um          4.4MszX
                  S     07 25.50
NJ2      8.18 340 Pc    06 29.00  -1.1
                  S     08 00.00
WHN      9.27 313 eP    06 46.00   0.8
GYA     14.17 282 P     07 51.40  -0.2
                  PP    07 59.00
TIY     15.68 330 eP    08 16.00   4.8X
CD2     17.56 296 eP    08 36.60   1.6
HHC     18.67 334 eP    08 52.20   3.4X
        1.0s      8.50nm          3.9mb
BTO     19.11 331 eP    08 54.30   0.1
CN2     19.56   7 eP    09 01.00   1.6
        1.0s      5.80nm          3.8mb
GTA     24.09 314 eP    09 47.00   1.7
        1.5s     14.00nm          4.3mb
GUN     32.70 284 P     11 03.60  -0.2
KKN     33.23 284 P     11 08.00  -0.3
GKN     33.79 284 P     11 08.00  -5.1X
WRA     45.62 164 P     12 51.00   0.0
        0.5s      0.40nm          3.6mb
WB2     45.63 164 eP    12 50.50  -0.6
        0.6s      3.20nm          4.5mb
YKA     82.44  23 eP    16 50.20  -1.9X
        0.7s      1.10nm          4.1mb
      S.D. = 1.2  on  14 of  18 obs.
-----------------------------------------
```

26d 00h

```
    JAN  26, 1993  00h 39m 39 01± 0.22s
    12.135 S ± 8.5km  166.855 E ± 9.3km
    DEPTH = 244.9km  (  3 depth phases)
    4.9mb ( 19 obs.)
  SANTA CRUZ ISLANDS                (184)

HNR      7.30 291 eP    41 46.00  21.9X
DZM      9.89 182 iPc   41 56.30  -1.0
                iS      43 45.70
BRS     20.12 219 iPc   43 46.70  -9.1X
         0.8s    21.00nm          4.7mb
CTA     21.30 246 iPc   44 09.00   1.6
         1.1s    15.82nm          4.5mb
RMQ     22.22 227 iPd   44 18.10   1.8
         0.4s    66.00nm          5.5mb
ARMA    23.02 215 iPd   44 25.10   1.0
         0.7s    88.00nm          5.4mb
CMS     27.33 222 iPd   45 03.00  -0.4
         0.8s    18.00nm          4.8mb
CNB     27.99 212 eP    45 09.00  -0.5
         0.7s    19.00nm          4.8mb
TOO     31.74 213 iPd   45 41.70  -0.5
         0.6s    14.00nm          4.8mb
WB2     32.14 252 iPd   45 45.20  -0.7
         0.4s    15.60nm          5.0mb
WRA     32.15 252 P     45 40.00  -6.0X
BFD     33.12 217 iPd   45 54.00  -0.1
         0.5s    11.00nm          4.7mb
ASPA    33.30 245 iPd   45 55.00  -0.9
         0.4s    28.40nm          5.3mb
WARB    40.30 244 iPd   46 54.90   0.7
         0.4s    24.00nm          5.0mb
FORT    40.33 236 iPc   46 55.00   0.6
MEEK    47.46 245 iPd   47 51.60   0.2
         0.3s    21.00nm          5.0mb
NANU    49.87 251 eP    48 10.30   0.5
CP2     79.96  19 (P)   51 21.25  -1.0
CRP     79.99  19 (P)   51 22.95   0.6
SLKM    80.05  20 eP    51 22.24  -0.2
TTA     80.16  16 eP    51 23.33   0.3
         0.7s     1.93nm          3.9mb
PMR     81.20  20 eP    51 28.32  -0.1
         0.6s    14.58nm          4.9mb
KLU     82.22  21 eP    51 34.00   0.2
BALM    83.20  22 eP    51 38.66  -0.2
                e       52 47.90 293kmX
IMA     83.26  15 eP    51 39.74   0.6
         0.8s     4.58nm          4.3mb
LGPM    83.49  46 eP    51 41.65   0.9
ORV     83.94  48 iPc   51 43.11   0.3
FBA     84.02  18 iPc   51 42.50  -0.2
         0.6s    26.37nm          5.2mb
LBFM    84.31  46 eP    51 45.77   0.8
PLM     85.42  55 ePc   51 50.93   0.3
BONR    85.74  50 eP    51 53.09   0.8
                epP     52 51.99 244km
GSC     86.06  53 eP    51 53.92   0.4
MCW     86.45  39 eP    51 54.63  -0.4
ARUT    89.37  51 eP    52 10.52   1.1
NEW     89.86  40 eP    52 11.19  -0.1
         0.9s    19.58nm          5.0mb
DUG     90.48  49 eP    52 14.89   0.5
         0.4s     1.23nm          4.2mb
MSU     90.52  51 eP    52 15.81   1.1
                epP     53 16.47 249km
HVU     90.93  48 eP    52 17.27   0.8
                e       53 16.26 242km
PV08    93.22  51 eP    52 27.68   0.4
SES     94.27  39 ePd   52 31.80   0.3
YKA     95.44  27 eP    52 35.20  -1.3
         0.4s     2.20nm          4.7mb
CBM    122.46  42 ePKP  58 05.40  -1.2
KAF    122.64 339 iPKP  58 05.60  -0.8
         0.5s     3.00nm
NUR    124.32 338 iPKP  58 09.80   0.0
         0.6s    10.00nm
NAO    128.31 345 PKP   58 17.80   0.3
         0.6s     2.20nm
KHC    136.99 334 ePKP  58 31.00  -3.4X
                e       58 45.50
                e       59 04.40
                eSg     59 12.50
GEC2   137.16 334 ePKP  58 35.50   0.7
         0.7s     1.49nm
                e       58 37.40
                e       58 42.40
                e       01 49.30
LPL    142.67 337 ePKP  58 42.40  -2.6X
         0.6s     3.25nm
LPG    142.68 337 ePKP  58 42.50  -2.6X
         0.6s     2.55nm
SMF    142.73 341 ePKP  58 41.90  -2.8X
         0.7s     3.00nm
BGF    143.12 342 ePKP  58 43.30  -2.1
         0.7s     5.50nm
MAF    143.51 342 ePKP  58 44.70  -1.4
         0.7s     3.30nm
TCF    143.56 342 ePKP  58 44.80  -1.4
         0.8s     8.85nm
SBF    143.75 335 ePKP  58 45.10  -1.5
         0.7s    33.05nm
LSF    143.79 343 ePKP  58 45.40  -1.1
         0.9s    20.00nm
PGF    144.10 332 ePKP  58 46.60  -0.7
         0.7s    20.85nm
FRF    144.33 335 ePKP  58 47.20  -0.3
         0.8s     3.62nm
LRG    144.53 335 ePKP  58 48.00   0.2
         0.8s    24.20nm
LMR    144.57 335 ePKP  58 47.40  -0.5
         0.6s    13.35nm
RJF    144.65 342 ePKP  58 48.50   0.5
         1.1s    34.45nm
LPO    145.32 342 ePKP  58 50.50   1.3
         0.6s     9.40nm
BCAO   147.76 259 ePKPd 58 57.10   3.1X
         0.3s     5.00nm
                id      59 57.00
EROQ   149.04 340 ePKP  59 06.00  10.7X
STS    149.10 353 ePKP  59 02.00   6.7X
ERUA   149.41 351 ePKP  59 03.00   7.2X
ETOR   149.81 343 iPKPc 59 03.30   6.8X
GUD    150.52 346 iPKPc 59 03.60   5.9X
EPLA   151.49 349 ePKP  59 07.20   8.2X
EVIA   151.96 342 iPKPc 59 08.00   8.2X
EALH   152.32 340 ePKP  59 08.60   8.4X
EHUE   152.74 342 ePKP  59 09.50   8.6X
EGUA   153.94 342 ePKP  59 11.60   9.1X
        S.D. = 0.9  on  54 of  72 obs.
-----------------------------------
    JAN  26, 1993  00h 46m 52.31± 1.67s
    31.644 S ±12.8km   69.833 W ± 8.9km
    DEPTH = 148.6 ± 16.0 km
  SAN JUAN PROVINCE, ARGENTINA      (137)
        MD 4.0 (SAN).

RTCB     0.90  80 iPd   47 16.30  -0.2
RTCV     1.13 101 iPc   47 17.90  -0.5
                (S)     47 34.30
RTLL     1.21  75 iPc   47 19.50   0.3
JACH     1.22 212 iPd   47 19.17  -0.2
                iS      47 37.77
CFA      1.36  89 iPd   47 20.90   0.2
                S       47 38.10
MDZ      1.49 146 iP    47 22.00  -0.1
                iS      47 40.60
ROCH     1.66 217 iPd   47 23.85  -0.2
                iS      47 45.63
PEL      1.66 206 iP+   47 23.76  -0.1
                iS      47 45.03
FCH      1.72 193 iPd   47 25.43   0.5
                iS      47 47.80
SAN      1.93 201 iP    47 26.99   0.0
                iS      47 50.41
PCH      2.05 196 iP    47 29.11   0.6
                iS      47 54.52
TACH     2.21 205 iP+   47 30.07  -0.2
                iS      47 57.63
LCCH     2.34 218 iPd   47 31.98   0.1
                iS      48 00.35
CHCH     2.38 197 iP    47 32.51   0.1
                iS      48 00.91
CACH     2.55 194 iP    47 35.46   0.9
                iS      48 05.55
LNV      2.66 210 iP    47 34.87  -0.9
RFA      3.32 160 ePc   47 43.80  -0.6
TCA      4.49  87 iP    47 59.90   0.1
        S.D. = 0.5  on  18 of  18 obs.
-----------------------------------
    JAN  26, 1993  00h 54m 30.99± 0.30s
     7.462 S ± 5.5km  133.765 E ± 8.2km
    DEPTH =  33.0km  (normal)
    5.2mb ( 31 obs.)  4.8Msz (  1 obs.)
  ARU ISLANDS REGION, INDONESIA     (204)
WB2     12.42 177 iPc   57 22.80  -5.6X
                eS      59 33.50
PMG     13.39  99 eP    57 39.50  -1.8
         1.0s    80.00nm          5.6mb
ASPA    16.11 180 eP    58 12.20  -4.6X
                ipP     58 20.40
                eS      01 07.90
CTA     17.44 137 iPc   58 32.50  -1.0
         1.1s   139.24nm          5.0mb
                iS      01 07.00
CGP     18.21 330 iPc   58 43.00  -0.1
         0.8s    38.00nm          4.6mb
WARB    19.82 199 eP    58 59.00  -2.9X
         0.5s    40.00nm          5.0mb
                eS      02 30.00
PLP     20.47 335 ePc   59 08.00  -0.7
         1.0s    29.00nm          4.6mb
KKM     22.06 307 ePc   59 24.80  -0.1
         1.2s   813.80nm          6.0mb
PPR     22.75 319 iPd   59 34.00   2.4
NANU    23.10 228 eP    59 35.00   0.0
                eS      03 49.00
RMQ     23.69 145 eP    59 42.90   2.1
         1.1s   276.00nm          5.7mb
FORT    23.80 192 eP    59 41.50  -0.3
MEEK    23.90 215 eP    59 41.50  -1.3
PGP     24.41 329 iPc   59 47.00  -0.7
         1.0s    56.00nm          5.1mb
COOL    26.12 205 eP    00 02.00  -1.9
CMS     26.42 156 iPc   00 06.10  -0.5
                e       00 21.90
BAG     27.07 331 eP    00 11.00  -1.9
         1.1s   101.27nm          5.4mb
CVP     27.65 335 ePd   00 18.00   0.1
ADE     27.75 171 iPd   00 19.00   0.3
ARMA    28.32 146 eP    00 25.00   1.0
         1.2s    51.00nm          5.1mb
BWA     30.04 155 eP    00 40.20   0.8
                i       01 22.10
BFD     30.64 166 iPc   00 44.30  -0.2
         1.1s    47.00nm          5.2mb
CAN     31.05 155 eP    00 48.20  -0.1
                i       01 34.30
TOO     31.81 162 eP    00 55.60   0.7
         0.9s    44.00nm          5.3mb
IPM     34.79 289 ePc   01 20.80  -0.2
SSE     40.19 343 Pc    02 07.50   1.5
         1.0s    32.00nm          5.0mb
                eS      08 10.00
NST     40.47 305 eP    02 17.50   9.0X
NJ2     41.79 341 Pd    02 20.00   0.9
         1.2s    47.00nm          5.1mb
WHN     42.13 335 Pc    02 23.00   1.1
         1.0s    80.00nm          5.4mb
GYA     42.76 323 iPc   02 29.00   1.7
         1.2s    54.00nm          5.2mb
CHG     43.13 308 eP    02 30.40   0.0
         1.0s    23.25nm          4.9mb
MAT     43.97   5 eP    02 35.00  -1.8
         1.0s    23.00nm          4.9mb
KMI     44.29 318 eP    02 39.00  -0.9
         1.5s   100.00nm          5.4mb
                sP      02 52.00
XAN     47.52 332 P     03 04.50  -0.7
         1.0s    36.00nm          5.3mb
                pP      03 17.50  48kmX
CD2     47.77 325 eP    03 05.70  -1.5
         1.1s    21.00nm          5.1mb
BJI     49.98 342 eP    03 24.00   0.0
         1.5s    86.00nm          5.6mb
CN2     51.58 352 eP    03 37.00   0.9
         1.0s     5.80nm          4.5mb
LZH     51.65 329 P     03 37.00   0.0
         1.5s   110.00nm          5.6mb
MDJ     51.97 356 eP    03 39.80   0.7
HHC     52.23 339 P     03 39.00  -2.3
         1.3s    45.00nm          5.3mb
BTO     52.59 337 eP    03 44.00   0.1
LSA     55.16 314 P     04 04.80   1.4
         1.6s    36.00nm          5.2mb
GTA     56.24 329 eP    04 10.40  -0.3
         1.0s    69.00nm          5.6mb
                pP      04 18.00  25kmX
                sP      04 21.50
GUN     58.10 309 P     04 22.80  -1.5
PKI     58.29 309 P     04 24.94  -0.7
KKN     58.50 309 P     04 26.70  -0.2
```

```
DMN     58.55 309 P      04 26.62  -0.7
        1.0s    61.00nm          5.6mb
GKN     59.10 309 P      04 30.02  -1.0
        0.9s    68.00nm          5.8mb
GBA     59.71 290 P      04 36.00   0.8
HYB     59.88 295 eP     04 36.50   0.1
NDI     65.25 306 iPd    05 07.50  -4.4X
WMQ     65.86 325 P      05 15.50  -0.2
        1.2s    47.00nm          5.5mb
                pP       05 22.50  22kmX
                sP       05 28.60
KSH     70.87 316 eP     05 48.00   1.0
        1.0s    20.00nm          5.1mb
QUE     74.13 304 eP     06 08.00   1.5
MAIO    81.89 308 iPd    06 50.80   1.9
YKA    106.50  27 ePKP   13 13.00  19.3X
        1.1s     0.70nm
ARE    145.51 134 iPKPc  14 10.50   1.7
LPB    147.81 138 PKP    14 17.40   4.8X
ZOBO   147.96 138 iPKPc  14 17.70   4.5X
        1.1s    34.80nm
     Z  22s      0.16um          4.8Msz
                LR       24 12.00
CCH    148.43 142 ePKP   14 17.00   3.5X
SIV    152.45 148 ePKP   14 19.00  -0.2
                e        14 32.00
     S.D. = 1.1  on  52 of  61 obs.
-----------------------------------------
?  JAN  26, 1993  01h 13m 29.61± 4.39s
   37.039 N ±36.4km   13.291 E ±16.5km
   DEPTH =  10.0km  (geophysicist)
 SICILY                              (398)

GIB      1.11  31 P       13 50.50  -0.1
                eSg      14 02.00
ERC      1.14 331 P       13 51.00   0.0
                eSg      14 02.10
MNO      1.43  51 P       13 58.00   2.2X
ATN      2.06  56 P       14 05.00   0.4
SOI      2.43  64 P       14 09.60  -0.3
     S.D. = 0.5  on   4 of   5 obs.
-----------------------------------------
*  JAN  26, 1993  01h 19m 18.36± 0.85s
   5.887 S ± 9.2km  147.502 E ± 9.6km
   DEPTH =  99.7 ±  8.9 km
   4.7mb (  7 obs.)
 EASTERN NEW GUINEA REG., P.N.G. (207)

FINC     0.81 154 eP      19 36.80  -0.2
MDG      1.83 290 eP      19 50.40   1.2
PMG      3.51 186 iPd     20 10.00  -1.9
WWKK     4.47 300 eP      20 30.20   5.0X
RAB      4.94  70 eP      20 32.00   0.4
CTA     14.17 185 iPc     22 46.00  10.3X
WB2     18.94 221 ePd     23 32.80  -1.6
        0.3s   108.10nm          5.6mb
                eS       26 58.40
RMQ     20.52 177 eP      23 51.80   1.0
        0.4s    51.00nm          5.2mb
BRS     21.97 167 iPc     24 04.00  -1.2
        0.9s    19.00nm          4.4mb
                i        24 28.00
ASPA    22.00 215 eP      24 06.50   0.9
        0.3s   173.30nm          5.9mb X
     Z  18s      0.30um          3.8Msz
                eS       28 01.80
DZM     24.38 133 iPc     24 28.70   0.0
ARMA    24.71 171 eP      24 32.70   0.8
        0.5s    11.00nm          4.5mb
CMS     25.52 183 eP      24 41.70   2.5
WARB    28.36 222 eP      25 05.70   0.5
        0.4s    15.00nm          5.0mb
MEEK    34.41 230 eP      25 58.20   0.0
NANU    35.02 239 eP      26 02.50  -0.9
MAT     43.09 349 eP      27 09.00  -1.2
        1.0s    10.00nm          4.6mb
GUN     68.22 303 P       30 00.00 -11.1X
YKA     98.84  28 eP      32 47.50  -0.4
        0.8s     0.70nm          4.3mb
YKA     98.84  28 eP      33 16.50  28.6X
        0.6s     0.30nm
GEC2   122.10 326 ePKP    38 01.40  -1.6X
        0.6s     0.54nm
                e        38 03.70
                e        38 13.70
SIV    144.33 128 PKP     38 48.20   2.8X
VAO    147.99 154 ePKP    38 53.60   2.3X
TIC    152.68 273 PKP     39 07.00   8.5X
LIC    152.68 272 PKP     39 07.00   8.5X
BAO    153.68 145 PKPc    39 08.00   8.0X
                e        39 21.60
     S.D. = 1.3  on  16 of  26 obs.
-----------------------------------------
&  JAN  26, 1993  01h 27m 13.98s
   33.965 N          116.337 W
   DEPTH =   5.5km
 SOUTHERN CALIFORNIA                 ( 43)
     <PAS-P>. ML 3.3 (PAS).

PEC      0.69 264 ePc     27 26.57  -1.2
                eS       27 35.43
PLM      0.75 216 ePd     27 27.98  -1.2
                eS       27 37.27
GSC      1.39 344 ePd     27 38.64  -1.4
                eS       27 57.43
GLA      1.56 125 ePn     27 39.65  -2.7
ISA      2.44 315 ePn     27 52.90  -2.3
                ePg      27 58.00
TNP      4.17 350 (P)     28 19.83   0.0
MEMM     4.26 331 (P)     28 21.25   0.5
BONR     4.29 339 (P)     28 20.38  -1.2
ARUT     4.48  31 (Pn)    28 23.10  -1.1
                ePg      28 37.26
MSU      5.65  35 (Pn)    28 41.80   1.0
                (Pg)     28 59.59
       10 obs. associated
-----------------------------------------
*  JAN  26, 1993  02h 35m 04.35± 0.65s
   6.536 S ±10.2km  129.133 E ±13.5km
   DEPTH =  33.0km  (normal)
   4.8mb (  6 obs.)
 BANDA SEA                           (280)

WB2     14.26 160 iPc     38 24.60  -1.5
                eS       40 49.60
ASPA    17.64 165 eP      39 09.20  -0.1
                eS       42 11.00
PLP     18.06 347 ePd     39 20.00   5.4X
PMG     18.08 100 iPd     39 16.10   1.3
        1.0s   100.00nm          4.9mb
WARB    19.68 187 iPc     39 34.00   0.1
        0.3s    14.00nm          4.7mb
NANU    20.64 218 eP      39 45.00   1.2
        0.3s     6.00nm          4.4mb
                eS       43 32.00
CTA     21.39 131 iPc     39 56.50   5.0X
MEEK    22.36 205 eP      40 01.00  -0.2
BRS     30.57 135 iPd     41 12.30  -5.1X
BFD     32.86 160 iPc     41 34.30  -3.0X
        0.4s     6.00nm          4.8mb
MAT     43.69  11 eP      43 06.00  -1.9
        1.0s    14.00nm          4.7mb
GUN     54.00 311 P       44 29.20   1.0
        0.4s     8.00nm          5.1mb
PKI     54.17 311 P       44 30.00   0.6
KKN     54.38 311 P       44 31.80   0.9
DMN     54.42 311 P       44 32.20   1.0
GKN     54.98 311 P       44 35.20   0.0
GBA     55.09 291 P       44 33.00  -2.9
LPB    151.43 144 PKP     54 50.00  -1.6
ZOBO   151.61 143 PKP     54 54.10   2.0
     S.D. = 1.5  on  15 of  19 obs.
-----------------------------------------
?  JAN  26, 1993  02h 55m 13.89± 6.36s
   30.840 S ±47.2km   71.834 W ±45.9km
   DEPTH = 140.1 ± 42.3 km
 NEAR COAST OF CENTRAL CHILE         (135)
     MD 3.9 (SAN).

JACH     2.12 150 iP       55 49.25  -1.1
                iS       56 12.57
ROCH     2.24 162 iPd      55 51.44  -0.6
PEL      2.50 157 iPd      55 54.62  -0.4
                iS       56 21.73
LCCH     2.64 175 iP       55 57.10   0.3
                iS       56 25.31
RTCB     2.68 105 iPc      55 57.80   0.4
                S        56 16.20
FCH      2.81 153 iP       55 59.33   0.1
                iS       56 30.94
TACH     2.91 165 iP+      56 00.58   0.3
                iS       56 31.99
RTLL     2.93 100 iPd      56 00.60   0.0
                S        57 19.50
PCH      2.99 158 iP+      56 01.45   0.0
RTCV     3.00 111 eP       56 01.90   0.4
LNV      3.13 174 iPd      56 03.21   0.1
                iS       56 37.52
CFA      3.17 105 ePd      56 04.70   0.9
CHCH     3.24 162 iP+      56 05.24   0.6
                iS       56 40.63
MDZ      3.26 130 e(P)     56 24.30  19.4X
TCA      6.23  96 iPd      56 43.60  -1.2
GBA    146.94 114 PKP     14 36.00  -3.7X
     S.D. = 0.7  on  14 of  16 obs.
-----------------------------------------
   JAN  26, 1993  02h 59m 16.67± 0.63s
   40.563 N ± 4.8km   22.496 E ± 5.2km
   DEPTH =  10.0km  (geophysicist)
 GREECE                              (364)

THE      0.36  79 ePg      59 24.14   0.0
                eSg      59 29.62
GRG      0.40 350 iPg      59 24.58  -0.3
                eSg      59 32.38
LIT      0.46 181 ePg      59 25.02  -1.1
                eSg      59 32.18
KNT      0.67  27 ePg      59 29.10  -0.9
SOH      0.70  68 ePg      59 30.38  -0.2
                eSg      59 40.86
VAY      0.76   4 iPn      59 31.40  -0.1
FNA      0.88 285 ePg      59 34.58   1.0
SRS      1.00  56 ePg      59 35.94   0.3
                eSg      59 50.78
PAIG     1.11 125 ePg      59 37.70   0.3
                iSg      59 52.18
OUR      1.16 101 ePg      59 39.26   1.0
                eSg      59 54.58
     S.D. = 0.8  on  10 of  10 obs.
-----------------------------------------
*  JAN  26, 1993  03h 29m 24.91± 1.29s
   37.896 N ± 8.5km   30.846 E ±13.7km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                              (366)
     MD 3.3 (ISK).

BCK      0.48 205 iPg      29 34.30  -0.4
                eSg      29 40.30
KHL      1.13 293 ePn      29 45.00  -1.1
ALT      1.29 334 ePn      29 49.60   0.7
ELL      1.37 213 ePn      29 51.50   1.4
CSS      3.55 145 eP       30 20.60  -0.6
     S.D. = 1.4  on   5 of   5 obs.
-----------------------------------------
   JAN  26, 1993  03h 34m 26.52± 0.68s
   40.558 N ± 5.2km   22.508 E ± 5.6km
   DEPTH =  10.0km  (geophysicist)
 GREECE                              (364)

THE      0.36  78 ePg      34 33.88   0.0
                eSg      34 39.16
GRG      0.41 349 ePg      34 34.32  -0.5
                eSg      34 41.20
LIT      0.46 182 iPg      34 34.66  -1.2
                eSg      34 42.09
KNT      0.67  26 iPg      34 39.25  -0.6
SOH      0.70  67 iPg      34 40.13  -0.2
                eSg      34 50.72
VAY      0.76   4 iPn      34 40.70  -0.7
FNA      0.89 285 ePg      34 45.04   1.4
SRS      0.99  55 ePg      34 46.16   0.8
                eSg      35 01.08
PAIG     1.10 125 ePg      34 47.08   0.0
                eSg      35 01.92
OUR      1.15 101 ePg      34 49.00   1.0
                iSg      35 04.62
     S.D. = 0.9  on  10 of  10 obs.
-----------------------------------------
%  JAN  26, 1993  05h 37m 07.21± 1.08s
   46.288 N ±10.8km    1.577 E ± 9.4km
   DEPTH =  10.0km  (geophysicist)
 FRANCE                              (538)

LSF      0.05 221 Pg       37 09.40   0.0
                Sg       37 10.40
TCF      0.44  90 Pg       37 16.10  -0.1
                Sg       37 21.60
MAF      0.69  95 Pg       37 20.90   0.0
                Sg       37 29.20
BGF      0.92  72 Pg       37 24.60  -0.2
                Sg       37 36.80
```

26d 05h

```
RJF      0.98 182 Pg     37 25.90   0.0
                  Sg     37 38.30
AVF      1.32  67 Pg     37 31.90   0.2
                  Sg     37 48.70
SSF      1.54  59 Pn     37 34.50  -0.2
                  Pg     37 35.90
SMF      1.61  76 Pg     37 35.90   0.2
                  Sg     37 57.90
     S.D. = 0.2  on   8 of   8 obs.
-----------------------------------
?  JAN  26, 1993  06h 16m 40.12± 3.50s
   18.256 N ±18.3km   67.175 W ±28.6km
   DEPTH =  33.0km  (normal)
 MONA PASSAGE                      ( 89)

MGP      0.26 162 P      16 47.30  -0.1
LRS      0.32  83 P      16 48.60   0.5
APR      0.47  65 P      16 50.00  -0.2
PORP     0.55 111 P      16 51.70   0.2
SJG      0.99  98 i(P)   16 58.00   0.3
CPD      1.22 100 P      17 00.20  -0.7
LPR      1.24  87 P      16 58.80  -2.5X
     S.D. = 0.6  on   6 of   7 obs.
-----------------------------------
   JAN  26, 1993  06h 57m 52.11± 0.37s
   31.879 S ± 7.0km  178.750 W ± 9.2km
   DEPTH =  12.5km  (  3 depth phases)
   5.1mb (  7 obs.)  4.9Msz (  1 obs.)
 KERMADEC ISLANDS REGION           (177)

HBZ      6.20 202 eP     59 26.00   0.5
PUZ      6.65 201 eP     59 31.70  -0.3
KUZ      6.67 222 eP     59 33.20   1.0
URZ      7.21 207 eP     59 39.80   0.0
                  eS     01 02.70
NOZ      7.22 200 eP     59 39.00  -0.9
MOZ      8.46 217 eP     59 59.60   2.4
NGZ      8.61 211 eP     59 58.60  -0.9
KHZ     12.18 208 eP     00 40.90  -7.2X
DZM     16.40 303 iPc    01 44.20   0.5
BRS     25.12 273 eP     03 10.00  -8.3X
ARMA    25.36 265 eP     03 19.20  -1.4
        0.5s     7.00nm          4.6mb
CMS     30.07 261 eP     04 01.00  -2.3
CTA     33.44 282 P      04 34.00   1.1
ASPA    42.41 269 iPd    05 43.00  -5.3X
        1.1s    33.80nm          5.0mb
      Z  19s     1.60um          4.9Msz
                  eS     10 51.10
WB2     43.52 274 iPd    05 51.60  -5.7X
        0.9s    21.40nm          4.9mb
WRA     43.53 274 P      05 52.00  -5.4X
        0.7s     2.10nm          4.0mb X
MHA     56.21  26 eP     07 35.36   1.1
SPA     58.29 180 iPd    07 48.60  -0.2
        0.7s    17.58nm          5.2mb
PLM     87.25  48 eP     10 40.26   0.4
ISA     87.80  45 eP     10 39.66  -2.6
        0.9s    21.57nm          5.5mb
CMB     88.29  42 eP     10 44.83   0.3
GSC     88.57  46 eP     10 46.83   0.8
                  e      10 50.59  12km
BONR    89.44  43 eP     10 50.18  -0.2
                  e      10 54.31  13km
LBFM    89.75  39 eP     10 51.90   0.3
TNP     90.16  44 eP     10 53.69   0.1
        1.0s    16.37nm          5.2mb
                  e      10 57.86  13km
KVN     90.29  43 eP     10 54.57   0.4
MSU     93.47  46 eP     11 09.14   0.3
SRU     94.86  46 eP     11 14.56  -0.6
RSSD   101.72  45 (Pdiff11 45.58  -0.6
        1.1s     5.80nm          5.1mb
YKA    107.05  26 ePKP   16 19.30   0.7
        0.6s     0.20nm
KAF    145.71 339 ePKP   17 19.30 -11.9X
OBN    145.99 324 ePKP   17 35.00   3.2X
        1.0s    35.00nm
                  i      17 38.00
NUR    147.46 339 ePKP   17 34.80   0.8
BCAO   148.24 214 ePKPc  17 36.00  -0.8
        0.6s    11.00nm
                  ic     17 38.20
                  ic     17 46.10
NAO    150.37 351 PKP    17 45.10   6.5X
        0.6s     1.60nm
HFS    150.55 347 ePKP   17 41.10   2.2X
        0.4s     0.60nm
LIC    153.81 166 PKP    17 50.00   5.0X
     S.D. = 1.1  on  27 of  37 obs.
-----------------------------------
*  JAN  26, 1993  07h 28m 48.00± 0.78s
   7.494 S ±10.1km  128.609 E ±22.8km
   DEPTH = 174.3 ± 10.7 km
   4.6mb (  4 obs.)
 BANDA SEA                         (280)

MTN      5.87 155 eP     30 13.50  -0.5
        0.3s   455.00nm          6.2mb X
                  eS     31 14.00
WB2     13.57 156 iPd    31 53.10  -1.6
                  eS     34 12.70
ASPA    16.86 163 iPd    32 36.20   0.7
                  eS     35 30.70
WARB    18.68 186 eP     32 57.20   1.7
        0.4s    10.00nm          4.6mb
                  eS     36 16.00
PLP     18.88 349 eP     33 02.00   4.4X
NANU    19.57 219 eP     33 05.00   0.3
        0.4s    25.00nm          5.0mb
MEEK    21.28 205 eP     33 21.00  -0.8
                  eS     37 13.00
MRWA    24.66 207 eP     33 57.10   2.9X
        0.5s    10.00nm          4.6mb
MUN     26.96 204 eP     34 20.00   4.8X
CMS     28.78 148 eP     35 06.00  34.4X
LZH     49.21 333 eP     37 21.00   0.3
        1.5s    22.00nm          4.5mb
GUN     54.25 312 P      37 58.24  -0.5
PKI     54.41 312 P      37 59.54  -0.3
KKN     54.62 312 P      38 01.14  -0.1
DMN     54.65 312 P      38 01.12  -0.4
GKN     55.22 312 P      38 04.94  -0.5
YKA    108.80  26 ePKP   46 59.00   1.5
        0.5s     0.20nm
LPB    150.96 145 PKP    48 26.00   9.2X
ZOBO   151.14 145 ePKP   48 27.00   9.6X
CCH    151.30 150 (PKP)  48 26.00   8.8X
     S.D. = 1.1  on  13 of  20 obs.
-----------------------------------
   JAN  26, 1993  07h 50m 22.87± 0.61s
   46.512 N ± 4.4km   14.680 E ± 5.8km
   DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION        (383)
      ML 2.8 (VIE). MD 2.6 (LJU). Felt
      (IV) at Koprivno, Slovenia. Also
      felt (IV) in southern Carinthia,
      Austria.

LJU      0.48 192 iPgd    50 32.40  -0.2
                  eSg    50 39.00
VOY      0.73 229 ePgc    50 37.50   0.3
                  eSg    50 47.40
RBL      0.77 265 P       50 37.40  -0.6
                  eSg    50 49.40
CEY      0.79 193 ePg     50 39.10   0.8
                  e      50 40.30
                  eSg    50 48.50
TRI      1.03 219 ePg     50 41.80  -0.4
                  eSg    50 57.40
KBA      1.08 302 iPgd    50 42.80  -0.5
                  iSg    50 57.20
PTJ      1.08 124 iPg     50 42.40  -0.8
                  iSg    50 56.70
VBY      1.09 158 iPg     50 43.20  -0.1
                  iSg    50 57.40
RIY      1.19 190 e(Pg)   50 45.70   0.7
                  iSg    51 01.40
FVI      1.31 274 P       50 47.00  -0.1
                  eSg    51 05.00
WTTA     2.22 291 iPgd    51 04.10   3.7X
                  iSg    51 32.90
ZST      2.36  43 eP      51 45.80  43.6X
GEC2     2.43 345 Pn      51 02.70  -0.6
                  Pg     51 07.10
                  Sg     51 38.30
KHC      2.72 345 Pn      51 09.00   1.5
                  Pg     51 17.40
                  e      51 38.90
                  Sg     51 48.00
     S.D. = 0.8  on  12 of  14 obs.
-----------------------------------
*  JAN  26, 1993  08h 14m 16.49± 2.63s
   38.080 N ± 9.3km   27.065 E ±25.9km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                            (366)
      MD 3.4 (ISK).

IZM      0.35  26 iPg     14 23.00  -0.8
CIN      0.94 120 iPgd    14 34.00  -0.4
                  iSg    14 51.00
YER      1.35 134 ePn     14 41.20  -0.2
DST      1.95  38 ePn     14 50.00   0.0
KHL      1.95  82 ePn     14 51.00   0.9
EDC      2.35  15 ePn     14 56.00   0.3
KCT      2.39  24 ePn     14 56.50   0.2
     S.D. = 0.7  on   7 of   7 obs.
-----------------------------------
&  JAN  26, 1993  08h 59m 22.02s
   63.367 N          151.211 W
   DEPTH =  13.6km
   3.1mb (  1 obs.)
 CENTRAL ALASKA                    (  1)
      <AEIC>. ML 3.7 (PMR), 3.6
      (AEIC).

TRF      0.42  78 iPd     59 30.52  -0.4
HUR      0.81 118 ePd     59 37.39  -0.1
                  S      59 49.18
RND      1.06  87 ePd     59 41.65  -0.1
                  eS     59 56.75
MCK      1.08  69 ePc     59 42.17   0.1
                  S      59 57.75
SKT      1.40 186 iPd     59 46.77  -0.4
                  S      00 05.86
NEA      1.54  37 eP      59 47.80  -1.2
                  S      00 08.38
PWA      1.83 160 P       59 53.00  -0.3
GHO      1.92 145 ePc     59 54.62  -0.1
                  eS     00 20.51
SUA      1.92 173 ePc     59 54.50  -0.3
                  eS     00 21.53
CCB      1.98  48 ePc     59 53.83  -1.6
                  eS     00 22.26
PLRM     2.03 151 eP      59 56.10   0.0
PMR      2.03 151 eP      59 55.41  -0.7
SML      2.05 138 ePc     59 56.35  -0.3
MDM      2.06  38 eP      59 55.20  -1.5
CGLM     2.10 191 eP      59 57.47   0.2
                  S      00 25.32
FBA      2.15  43 ePn     59 55.80  -2.1
HDA      2.15  59 ePc     59 56.50  -1.5
CRP      2.15 192 eP      59 56.78  -1.4
CP2      2.17 193 eP      59 58.12  -0.3
                  eS     00 25.59
BGL      2.18 195 eP      59 57.65  -0.9
CKN      2.20 192 ePd     59 58.46  -0.2
TTA      2.22 261 ePn     59 56.15  -2.9
CKT      2.22 193 ePd     59 58.58  -0.5
SPU      2.23 191 ePd     59 58.35  -0.8
CKL      2.24 194 ePd     59 59.06  -0.3
PMS      2.27 159 eP      59 59.80   0.1
GLM      2.33  44 eP      59 59.14  -1.5
KNK      2.34 146 ePc     00 01.10   0.3
SCM      2.37 129 ePd     00 01.24   0.1
NKA      2.63 180 eP      00 06.63   1.8
PAX      2.64  96 eP      00 05.59   0.6
TOA      2.64 116 P       00 05.50   0.5
PTE      2.71 157 ePd     00 06.73   0.8
                  eS     00 41.21
SDG      2.72 105 ePc     00 06.78   0.6
DFR      2.87 195 eP      00 08.53   0.2
SLKM     2.91 170 eP      00 07.57  -1.2
IMA      2.91 340 ePd     00 06.50  -2.4
NCT      2.93 197 eP      00 10.02   0.9
REF      2.97 194 eP      00 10.58   0.8
TZL      2.98 114 eP      00 10.86   1.2
RDW      2.99 195 eP      00 10.61   0.6
RS2      3.01 195 eP      00 11.41   1.2
RSO      3.01 195 eP      00 10.80   0.5
RS1      3.01 195 eP      00 10.83   0.5
MPA      3.02 162 eP      00 09.29  -0.9
                  eS     00 47.00
SVW      3.07 224 eP      00 08.47  -2.5
KLU      3.10 125 eP      00 11.95   0.5
GLI      3.16 140 eP      00 12.77   0.5
                  eS     00 52.40
VZW      3.18 135 eP      00 13.42   0.8
VLZ      3.20 132 eP      00 13.16   0.3
                  eS     00 53.22
DOT      3.22  82 eP      00 13.09   0.0
```

SEW	3.38	165	eP	00 17.16	1.8
INE	3.43	196	eP	00 17.00	0.7
FID	3.44	138	eP	00 16.43	0.1
KNIM	3.45	150	eP	00 15.54	-0.8
LTI	3.70	153	eP	00 19.31	-0.7
HIN	3.72	141	eP	00 20.64	0.3
CVA	3.83	135	eP	00 22.03	0.3
PDB	3.86	203	eP	00 22.25	0.0
GLB	3.95	116	ePc	00 24.36	0.9
RAGM	4.30	131	eP	00 28.65	0.1
MCNL	4.46	201	eP	00 30.49	-0.2
BALM	4.76	115	ePc	00 34.89	-0.3
SNH	5.10	125	eP	00 39.86	0.0
CTGM	5.22	113	eP	00 42.05	0.4
YAH	5.40	120	ePc	00 43.69	-0.6
YKA	16.54	77	eP	03 16.30	1.5

0.7s 1.00nm 3.1mb
67 obs. associated

? JAN 26, 1993 09h 55m 01.52± 4.42s
40.443 N ±42.8km 28.851 E ±19.4km
DEPTH = 33.0km (normal)
TURKEY (366)
MD 2.9 (ISK).

YLV	0.42	73	iPg	55 11.00	0.0
GBZT	0.57	52	ePg	55 07.00	-6.1X
			iSg	55 13.20	
ISK	0.64	14	iPg	55 14.00	-0.1
			eSg	55 20.50	
CTT	0.77	336	ePn	55 16.50	0.5
DMK	1.61	329	ePn	55 27.50	-0.4

S.D. = 0.7 on 4 of 5 obs.

% JAN 26, 1993 11h 05m 50.53± 0.50s
47.413 N ± 4.8km 6.572 E ± 5.8km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.6 (LDG).

BSF	0.44	19	Pg	06 00.10	0.5
			Sg	06 07.40	
HAU	0.61	346	Pg	06 02.80	-0.1
			Sg	06 12.60	
FEL	1.08	64	ePn	06 10.95	0.0
CDF	1.11	25	Pn	06 10.90	-0.4
			Pg	06 12.60	
			Sg	06 27.80	
LBF	1.82	257	Pg	06 22.00	-0.2
			Sg	06 44.80	
LOR	1.85	266	Pg	06 22.30	-0.3
			Sg	06 46.30	
LPL	1.90	177	Pg	06 23.00	-0.5
LPG	1.92	176	Pg	06 24.30	0.4
SMF	2.02	249	Pg	06 25.60	0.6
			Sg	06 50.70	
SSF	2.12	262	Pg	06 28.20	1.8X
			Sg	06 54.00	
AVF	2.29	255	Pg	06 31.10	2.2X
			Sg	07 00.30	

S.D. = 0.5 on 9 of 11 obs.

JAN 26, 1993 12h 57m 03.73± 0.83s
42.914 N ± 6.0km 2.217 W ±11.0km
DEPTH = 10.0km (geophysicist)
SPAIN (377)
mbLg 3.3 (MDD).

ECRI	0.37	215	iPgc	57 14.69	3.3X
			eSg	57 21.70	
ELIZ	0.56	63	iPgc	57 15.44	0.3
			eSg	57 23.00	
EGRA	1.58	116	iPnd	57 37.61	5.9X
			eSn	58 02.40	
EPF	1.88	86	Pn	57 37.30	1.1
			Sn	57 58.80	
ETOR	2.10	177	iPnc	57 39.57	0.2
			eSn	58 07.00	
GUD	2.69	213	ePn	57 47.04	-0.9
			eSn	58 19.80	
EROQ	2.86	136	iPnd	57 50.39	0.1
			eSn	58 24.00	
EBR	2.91	135	ePn	57 57.00	6.1X
			eSg	58 31.00	
LFF	2.94	46	Pn	57 52.80	1.4
			Sn	58 26.10	
			Sg	58 41.50	
LPO	3.03	53	Pn	57 54.50	1.9
			Sn	58 27.60	
ECHE	3.45	164	ePn	57 59.20	0.6
			eSn	58 39.20	
RJF	3.60	47	Pn	58 00.80	0.1
			Sn	58 43.00	
CAF	3.69	56	Pn	58 02.20	0.1
			Sn	58 44.20	
MFF	3.97	21	Pn	58 07.80	1.9
			Pg	58 21.40	
			Sg	59 14.00	
EPLA	4.07	227	ePn	58 51.50	44.2X
			eSn	58 52.30	
LSF	4.28	37	Pn	58 10.20	-0.1
			Sn	58 59.10	
TCF	4.62	42	Pn	58 14.50	-0.8
			Sn	59 06.00	
MAF	4.76	44	Pn	58 15.70	-1.5
			Sn	59 09.20	
			Sg	59 39.20	
BGF	5.13	43	Pn	58 21.80	-0.6
			Sn	59 18.90	
AVF	5.54	44	Pn	58 26.50	-1.7
			Sn	59 29.40	
GRR	5.56	9	Pn	58 30.00	1.6
			Sn	59 31.40	
SMF	5.70	47	Pn	58 28.20	-2.3
SSF	5.80	42	Pn	58 30.40	-1.5
			Sn	59 34.40	
LDF	5.87	14	Pn	58 32.90	0.2
			Sn	59 39.50	

S.D. = 1.3 on 20 of 24 obs.

% JAN 26, 1993 13h 48m 11.07± 0.87s
37.887 N ± 9.2km 1.675 W ± 6.7km
DEPTH = 10.0km (geophysicist)
SPAIN (377)
mbLg 2.3 (MDD).

EALH	0.20	98	eP	48 15.50	0.0
			eS	48 20.20	
EHUE	0.73	265	eP	48 25.00	-0.5
			eS	48 34.00	
EVIA	0.99	319	eP	48 30.00	0.0
			eS	48 44.30	
ENIJ	1.01	205	eP	48 30.00	-0.2
			eS	48 44.90	
ECOG	1.62	249	eP	48 40.50	0.6
			eS	49 02.40	

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

& JAN 26, 1993 15h 10m 29.02s
60.256 N 152.497 W
DEPTH = 90.5km
2.6mb (1 obs.)
SOUTHERN ALASKA (2)
<AEIC>.

RS1	0.24	328	iPc	10 42.12	1.0
RSO	0.24	328	iPc	10 42.11	1.0
RS2	0.24	328	iPc	10 42.12	-0.6
REF	0.26	337	iPc	10 42.25	-0.5
RDW	0.28	326	iPc	10 42.12	-0.7
ILIM	0.29	233	iPc	10 41.95	-0.8
			eS	10 53.10	
RDN	0.29	333	iPc	10 42.20	-0.6
RDT	0.32	8	eP	10 42.48	-0.4
INE	0.34	236	iPc	10 42.32	-0.8
			eS	10 53.81	
DFR	0.35	345	iPc	10 42.39	-0.7
INW	0.37	240	iPc	10 42.54	-0.7
			eS	10 53.89	
NCT	0.37	325	iPc	10 42.39	-0.9
OPT	0.71	212	iPc	10 45.32	-0.6
			eS	10 57.70	
NKA	0.79	51	iPc	10 47.86	1.2
XLV	0.89	154	eP	10 47.07	-0.8
CKL	0.95	5	iPc	10 47.60	-1.0
BRLK	0.95	121	eP	10 47.43	-1.1
			eS	11 02.60	
SPU	0.95	13	iPc	10 47.66	-0.9
			eS	11 02.73	
CKT	0.96	8	iPc	10 47.64	-1.0
PDB	0.97	242	iPc	10 47.48	-1.2
			eS	11 02.37	
CKN	0.98	9	ePc	10 48.14	-0.8
AUL	1.00	209	ePc	10 48.21	-0.8
BGL	1.01	3	iPc	10 48.52	-0.8
AUH	1.01	209	ePc	10 48.48	-0.8
AUW	1.02	209	ePd	10 48.34	-0.9
CP2	1.02	7	iPc	10 48.70	-0.8
CRP	1.03	9	ePc	10 48.73	-0.8
			eS	11 04.31	
AUI	1.04	207	eP	10 48.35	-1.1
			eS	11 04.19	
CGLM	1.08	13	eP	10 49.40	-0.7
SLKM	1.16	76	ePc	10 49.92	-1.0
MCNL	1.42	222	iPd	10 52.67	-1.5
			iS	11 11.93	
CDD	1.45	204	iPd	10 52.95	-1.7
SUA	1.49	35	ePc	10 54.36	-0.8
			eS	11 14.38	
SEW	1.53	94	eP	10 53.65	-1.9
MPA	1.58	80	eP	10 54.96	-1.2
			eS	11 16.00	
PMS	1.75	54	P	10 57.40	-1.1
SVW	1.76	300	P	10 56.50	-2.1
			S	11 18.30	
SKT	1.79	15	ePd	10 57.50	-1.5
			S	11 20.05	
PTE	1.82	69	eP	10 57.69	-1.7
			eS	11 20.18	
PWA	1.90	41	P	11 00.00	-0.3
PLRM	2.12	49	eP	11 01.52	-1.8
KNK	2.29	58	ePc	11 03.61	-2.2
GHO	2.31	47	eP	11 04.22	-1.8
LTI	2.33	93	eP	11 03.64	-2.6
KNIM	2.37	86	eP	11 03.64	-3.2
MTU	2.44	94	eP	11 05.57	-2.2
KDC	2.52	180	ePd	11 05.59	-3.1
SML	2.56	51	ePc	11 07.21	-2.1
GLI	2.74	74	eP	11 08.12	-3.7
SCM	2.97	56	eP	11 13.33	-1.7
HIN	2.99	85	eP	11 12.76	-2.4
FID	3.02	78	eP	11 11.59	-4.0
VLZ	3.16	71	ePc	11 14.40	-3.1
TTA	3.17	329	P	11 15.30	-2.4
CVA	3.36	82	eP	11 17.88	-2.4
TRF	3.37	17	eP	11 18.18	-2.5
KLU	3.45	66	ePc	11 18.58	-3.0
TOA	3.58	56	P	11 21.50	-1.9
RND	3.60	27	eP	11 21.82	-1.9
RAGM	3.89	85	eP	11 24.85	-2.9
PAX	4.32	48	eP	11 30.82	-2.9
GLB	4.41	71	eP	11 31.49	-3.5
NEA	4.62	19	eP	11 35.08	-2.7
YKA	18.12	66	eP	14 31.50	-4.2

0.7s 0.30nm 2.6mb
64 obs. associated

& JAN 26, 1993 15h 24m 08.87s
19.219 N 155.482 W
DEPTH = 8.6km
4.9mb (20 obs.) 4.7Msz (1 obs.)
HAWAII (613)
<HVO-P>. MD 4.8 (HVO). Felt (V) at Holualoa and Pahala; (III) at Hilo, Honokaa, Kailua Kona, Papaikou and Pepeekeo. Some items knocked from shelves at Pahala, Naalehu and Kailua Kona. Also felt at Discovery Harbour, Glenwood and Punaluu. Felt throughout much of the island of Hawaii as far as Kamuela.

WOH	0.04	330	iPd	24 10.95	0.2
			eS	24 12.41	
PPL	0.06	165	iPc	24 10.98	0.0
			eS	24 12.77	
HTC	0.08	76	iPc	24 11.38	0.2
KHU	0.13	283	iPd	24 12.19	0.1
HPO	0.15	208	P	24 12.10	0.0
DES	0.15	37	iPd	24 12.24	0.0
AIN	0.16	8	iPd	24 12.86	0.4
			eS	24 15.43	
TRH	0.21	342	iPd	24 13.46	0.0
KFH	0.21	16	iPd	24 13.77	0.3
KNH	0.21	57	ePc	24 13.66	0.2
DAH	0.22	308	iPd	24 13.45	-0.3
CPK	0.23	40	iPd	24 13.55	-0.2
OUT	0.25	48	iPd	24 14.01	-0.2
AHA	0.26	53	iPd	24 14.18	-0.1
SWH	0.26	334	iPd	24 13.92	-0.6

26d 15h

```
RIM     0.26  47 ePd    24 14.15  -0.3
WIH     0.27 339 iPd    24 14.18  -0.4
UWE     0.27  41 ePd    24 14.26  -0.3
                eS      24 18.71
NPH     0 27  44 ePd    24 14.17  -0.4
                eS      24 18.40
MLH     0.29  18 iPd    24 14.81  -0.1
                eS      24 19.36
MWH     0.29 337 iPd    24 14.45  -0.5
SPT     0.29 216 ePc    24 15.11   0.2
PUH     0.29  58 ePd    24 14.69  -0.3
ESR     0.30  50 ePd    24 14.76  -0.3
RSD     0.31  38 ePd    24 14.86  -0.4
PLL     0.31   4 iPd    24 15.08  -0.4
MKA     0.33  64 ePc    24 15.60  -0.2
KUH     0.37 277 iPd    24 15.75  -0.7
STCH    0.37  63 iPd    24 16.27  -0.3
HMH     0.38 360 iPd    24 16.29  -0.5
KIH     0.39 317 iPd    24 16.32  -0.6
FEF     0.41  51 iPc    24 16.93  -0.2
KLCH    0.43  65 iPd    24 17.03  -0.6
CPH     0.49 303 iPc    24 17.78  -1.0
HUL     0.52  67 ePd    24 18.10  -1.2
HPU     0.56   2 ePd    24 19.18  -1.1
HUH     0.57 324 iPc    24 19.82  -0.7
PKL     0.58  66 iPd    24 19.00  -1.6
WKH     0.66 345 iPc    24 20.63  -1.6
KPO     0.67  65 ePd    24 20.23  -2.0
KKH     0.67 311 P      24 20.10  -2.1
KOH     0.95 343 ePc    24 24.21  -2.9
MHA     1.04 338 P      24 25.80  -2.8
HKL     1.65 334 P      24 34.30  -4.3
DHH     2.99 313 eP     24 51.58  -5.7
OPA     3.42 316 eP     24 56.85  -6.6
KMPM   34.17  45 eP     30 56.31  -0.4
ARN    34.68  51 eP     31 00.95  -0.2
LGPM   35.27  45 eP     31 07.12   0.9
WDC    35.31  46 eP     31 05.97  -0.4
        1.2s    13.52nm          4.7mb
ORV    35.58  48 eP     31 08.42  -0.3
CMB    35.78  51 eP     31 10.16  -0.3
        1.2s    13.00nm          4.7mb
ISA    36.45  56 eP     31 16.75   0.6
        1.4s    52 05nm          5.2mb
MEMM   36.72  52 eP     31 19.57   1.3
PEC    37.03  59 (P)    31 24.29   3.2
PLM    37.16  60 eP     31 21.38  -0.9
BONR   37.29  52 eP     31 21.43  -2.1
GSC    37.66  57 eP     31 25.58  -0.8
KVN    37.82  50 (P)    31 28.04   0.3
TNP    38.14  52 eP     31 31.16   0.6
        1.3s    19.09nm          4.7mb
GLA    38.77  61 eP     31 36.43   0.8
GMW    38.79  36 eP     31 35.50  -0.1
VGB    38.84  40 eP     31 36.45   0.3
LON    38.89  37 eP     31 36.80   0.3
GL2    39.04  39 P      31 38.34   0.5
FMW    39.07  37 P      31 39.34   1.2
JBO    39.39  40 P      31 41.11   0.5
NAC    39.45  38 P      31 42.41   1.2
MXC    39.68  39 P      31 43.89   0.9
BRVW   39.81  39 P      31 45.05   0.9
TBM    39.82  38 P      31 45.42   1.2
MBW    40.00  35 P      31 46.39   0.6
RSW    40.00  39 P      31 46.93   1.2
MDW    40.01  39 P      31 46.93   1.2
GBL    40.18  39 P      31 48.01   0.9
ETW    40.20  37 P      31 48.24   0.8
WAH2   40.20  39 P      31 48.28   1.0
CRF    40.34  39 P      31 49.05   0.6
NLW    40.46  37 P      31 50.04   0.5
WTV    40.47  37 P      31 50.20   0.6
ET3    40.49  39 P      31 50.16   0.5
ARUT   40.92  54 eP     31 53.70   0.2
SLKM   41.41   4 eP     31 56.21  -0.9
DPW    41.57  38 ePc    31 58.45  -0.1
SVW    41.85 360 eP     31 59.85  -0.8
        2.2s   237.76nm          5.5mb
DUG    42.05  51 eP     32 02.08  -0.7
        0.7s     2.98nm          4.1mb
BGL    42.06   2 iPc    32 01.78  -0.7
MSU    42.07  53 eP     32 03.63   0.6
NEW    42.39  38 ePd    32 05.20  -0.1
        1.2s    30.84nm          4.9mb
HVU    42.56  49 eP     32 06.96   0.0
PMR    42.57   4 eP     32 05.40  -1.0
BALM   42.80   9 ePd    32 08.08  -0.5
DAU    43.25  51 iPc    32 12.85   0.0
HHAI   43.34  47 eP     32 13.65   0.4
EMUT   43.42  52 eP     32 14.34   0.2
SRU    43.46  53 eP     32 13.81  -0.6
TTA    43.68 360 eP     32 13.73  -1.8
        1.3s    17.62nm          4.7mb
PV09   44.38  54 eP     32 21.46  -0.5
PV10   44.43  54 eP     32 21.64  -0.7
LCCM   44.58  43 eP     32 22.90  -0.4
PV08   44.77  54 eP     32 24.55  -0.6
BW06   45.14  48 ePc    32 26.70  -1.2
        1.3s    23.55nm          5.0mb
ALQ    45.92  60 eP     32 34.72   0.5
        1.4s    25.06nm          5.0mb
FBA    45.94   5 eP     32 31.28  -2.3
        1.3s    23.15nm          5.0mb
IMA    46.84   1 eP     32 38.90  -2.0
        0.9s     2.10nm          4.2mb
SES    46.90  38 eP     32 40.00  -1.5
RSSD   49.37  48 eP     32 59.10  -1.9
        1.1s    16.29nm          4.9mb
YKA    51.57  23 eP     33 14.50  -2.7
        1.4s     6.80nm          4.4mb
UYO    55.77  61 iPd    33 53.00   4.3
ULM    56.10  42 eP     33 54.00   3.2
FCC    59.00  32 eP     34 12.00   0.9
MAT    60.02 302 eP     34 17.00  -1.6
        1.3s    57.69nm          5.5mb
                  eS     42 30.00
RES    63.97  15 eP     34 43.50  -0.9
        1.0s     3.00nm          4.4mb
YAK    66.09 330 iPc    34 55.00  -3.2
        1.1s    80.00nm          5.8mb
                  e      37 14.00
BRS    68.25 229 eP     35 20.00   7.5
BJI    76.67 308 eP     36 00.00  -2.1
        1.7s   114.00nm          5.7mb
                  eS     45 46.00
WRA    79.02 244 P      36 19.70   4.3
ASPA   80.97 241 eP     36 29.20   3.4
        1.2s     9.30nm          4.7mb
LZH    87.13 307 eP     36 55.60  -1.4
        2.0s    41.00nm          5.3mb
     Z  20s     0.30um          4.7Msz
                  pP     37 04.50  28kmX
                  PP     40 19.00
ZOBO   92.82 106 eP     37 34.00   9.5
                  e      38 54.00
BCAO  155.77  15 iPKPc  44 14.50   9.0
        1.0s    10.00nm
                  ic     44 30.10
      121 obs. associated
```

% JAN 26, 1993 15h 48m 53.63± 0.90s
39.123 N ± 7.5km 27.629 E ± 9.3km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.7 (ISK).

```
IZM     0.78 202 iPg    49 08.50  -0.3
                iSg     49 19.50
DST     0.91  58 ePn    49 12.10   1.0
EZN     1.23 305 ePn    49 17.10   0.6
EDC     1.24   8 ePn    49 16.50  -0.1
BNT     1.25  10 ePn    49 16.50  -0.4
KCT     1.26  26 ePn    49 16.20  -0.8
     S.D. = 0.9  on   6 of   6 obs.
```

% JAN 26, 1993 16h 03m 05.38± 0.57s
27.975 S ± 5.7km 26.721 E ± 6.6km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
ML 2.9 (PRE).

```
SEK     0.87 114 iPd    03 22.70   0.0
                S       03 33.00
BFS     1.07   3 eP     03 26.60   0.4
                S       03 39.90
BLF     1.22 202 iPd    03 29.50   0.8
                S       03 43.60
PRY     1.24  33 eP     03 28.90  -0.1
                S       03 43.90
SWZ     1.47 302 eP     03 32.70   0.0
                S       03 52.60
KSR     2.11   4 eP     03 43.00   1.1
                S       04 09.20
FRS     2.15 214 iPd    03 42.90   0.5
                S       04 09.00
SLR     2.63  32 iPc    03 49.50   0.1
                S       04 21.00
BFT     3.74  53 eP     04 04.00  -1.3
                S       04 47.20
POF     6.11 255 e(P)   04 36.90  -1.6
                S       06 00.30
     S.D. = 1.0  on  10 of  10 obs.
```

& JAN 26, 1993 16h 12m 28.77s
34.634 N 116.643 W
DEPTH = 5.0km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 2.7 (PAS).

```
GSC     0.68 349 eP     12 41.26  -1.1
                eS      12 50.27
PLM     1.29 188 ePd    12 52.54  -0.7
                eS      13 07.60
ISA     1.82 305 ePn    13 00.26  -0.8
                ePg     13 02.50
                eLg     13 26.32
GLA     2.18 136 ePn    13 05.58  -0.7
                ePg     13 09.10
                eLg     13 39.28
BONR    3.57 338 (Pn)   13 26.79   0.5
                ePg     13 35.93
     5 obs. associated
```

? JAN 26, 1993 16h 28m 37.49± 2.23s
18.362 N ±20.4km 102.801 W ±19.5km
DEPTH = 33.0km (normal)
MICHOACAN, MEXICO (57)

```
CGX     1.47 335 iP     29 01.90  -0.2
                iS      29 20.50
MRX     2.03  48 iP     29 11.20   1.2
III     3.17  89 (P)    29 34.50   8.1X
ACX     3.17 117 eP     29 27.00   0.7
UNM     3.56  74 (P)    29 35.20   3.2X
PPM     4.02  79 iP     29 37.20  -1.6
OXX     5.93 101 iP     30 05.50  -0.1
     S.D. = 1.5  on   5 of   7 obs.
```

• JAN 26, 1993 16h 54m 15.06± 1.90s
28.642 S ± 9.0km 178.035 W ±19.4km
DEPTH = 198.3 ± 17.1 km
4.3mb (4 obs.)
KERMADEC ISLANDS REGION (177)

```
URZ    10.41 202 eP     56 46.50   6.0X
                S       58 37.90
SVA    10.96 342 ePc    56 47.10  -0.5
MNG    13.08 202 eP     57 14.30  -0.3
                S       59 37.10
KIW    13.49 204 eP     57 18.10  -1.7
MTW    13.56 201 eP     57 22.10   1.5
CAW    13.66 203 eP     57 21.50  -0.3
DIW    13.81 206 eP     57 26.00   2.3
MRW    13.89 203 eP     57 24.00  -0.7
                eS      59 54.10
TCW    14.03 205 eP     57 26.00  -0.4
KHZ    15.35 204 eP     57 41.80  -0.9
                S       00 26.00
DZM    15.47 292 iPc    57 46.00   1.6
BRS    25.77 266 iPd    59 31.00   1.6
CTA    33.53 277 iP     00 38.00   0.1
ASPA   43.20 265 iPd    01 57.40  -0.8
        1.6s    10.20nm          4.1mb
WB2    44.02 270 ePc    02 03.70  -1.1
        0.4s    11.50nm          4.8mb
WRA    44.03 270 P      02 03.80  -1.1
        0.6s     0.60nm          3.3mb
MAT    76.78 325 eP     05 44.00  -2.1
        0.8s     7.46nm          4.5mb
UPP   147.01 346 iPKP   13 33.30   0.7
NAO   147.27 352 PKP    13 34.70   1.6
        0.7s     7.60nm
HFS   147.52 349 ePKP   13 34.00   0.5
        0.5s     4.00nm
BCAO  151.24 216 iPKPc  13 48.00   7.4X
        0.6s     8.00nm
                ic      13 56.20
     S.D. = 1.4  on  19 of  21 obs.
```

& JAN 26, 1993 17h 05m 49.60s
47.368 N 122.689 W

DEPTH = 23.5km
WASHINGTON (29)
<SEA-P>. ML 3.6 (SEA), 3.3 (GS).
Felt (III) at Shelton. Felt in the Puget Sound area.

MEW	0.17	170	Pc	05 55.07	0.3
			S	05 59.43	
GMW	0.19	340	iPd	05 54.43	-0.6
SPW	0.35	58	P	05 57.53	0.2
			S	06 03.19	
HDW	0.37	319	Pd	05 56.90	-0.9
			S	06 02.68	
GHW	0.43	139	Pc	05 58.17	-0.4
			S	06 04.44	
SMW	0.45	264	Pc	05 58.37	-0.5
			S	06 05.47	
PGW	0.46	8	Pd	05 58.63	-0.4
CPW	0.50	218	Pd	05 58.99	-0.8
			S	06 06.16	
RMW	0.61	81	iPc	06 00.88	-0.7
GSM	0.63	105	Pc	06 01.53	-0.5
BLH	0.65	43	Pd	06 01.54	-0.6
RVC	0.65	131	Pc	06 01.63	-0.6
BLN	0.67	343	Pd	06 01.37	-1.2
LMW	0.75	159	P	06 03.14	-0.9
			S	06 12.58	
HTW	0.76	55	Pd	06 03.26	-0.9
REMR	0.80	133	Pc	06 03.88	-1.0
FMW	0.82	122	Pc	06 04.21	-1.0
RCS	0.82	127	Pc	06 04.32	-1.0
LON	0.86	135	iPc	06 04.68	-1.2
			eS	06 15.65	
ONR	0.89	237	Pd	06 05.73	-0.5
CZM	0.94	172	P	06 05.97	-1.2
OHW	0.96	6	P	06 05.90	-1.6
BMW	0.97	203	iPd	06 06.24	-1.4
			eS	06 19.36	
JCW	0.97	32	Pd	06 06.44	-1.2
STW	1.03	320	P	06 07.99	-0.5
TDL	1.07	162	Pd	06 08.17	-1.1
ERK	1.09	167	P	06 08.04	-1.5
			S	06 22.51	
CMW	1.12	20	Pd	06 09.01	-1.0
OBC	1.15	306	Pc	06 10.46	0.1
STD	1.18	164	P	06 09.98	-0.8
SOSW	1.19	161	P	06 09.91	-1.1
FL2	1.19	169	P	06 09.85	-1.2
YEL	1.21	163	P	06 10.90	-0.4
SHW	1.22	165	eP	06 10.46	-0.9
			eS	06 26.83	
REMW	1.22	163	P	06 11.22	-0.3
ESD	1.23	162	P	06 11.14	-0.4
HSR	1.25	164	P	06 11.56	-0.2
TWW	1.26	100	P	06 12.27	0.4
OFK	1.27	298	P	06 11.75	-0.2
JLK	1.28	163	P	06 11.51	-0.6
LVP	1.31	171	P	06 12.03	-0.6
MCW	1.32	356	eP	06 11.73	-0.9
			eS	06 29.34	
CDFW	1.33	160	Pd	06 12.33	-0.5
RPW	1.34	36	Pd	06 12.68	-0.3
MTMW	1.38	166	P	06 13.39	-0.2
NLO	1.38	293	P	06 13.39	-0.2
NAC	1.42	116	P	06 14.84	0.7
TBM	1.44	97	Pc	06 14.97	0.6
MBW	1.51	20	Pd	06 15.43	-0.2
ETW	1.62	81	Pc	06 18.01	0.9
GULW	1.63	152	P	06 17.60	0.4
YAKW	1.71	119	P	06 19.66	1.4
NLW	1.74	65	P	06 19.79	0.9
KMOR	1.82	198	P	06 19.55	-0.4
MXC	1.82	115	P	06 21.03	1.1
CBSW	1.84	75	P	06 20.59	0.3
WTV	1.88	79	P	06 21.06	0.2
VGB	2.28	144	eP	06 26.71	0.2
DPW	3.08	79	eP	06 36.55	-1.3
NEW	3.86	75	(P)	06 48.47	-0.4

60 obs. associated

& JAN 26, 1993 17h 19m 06.66s
60.006 N 151.857 W
DEPTH = 61.0km
2.8mb (1 obs.)
KENAI PENINSULA, ALASKA (14)
<AEIC>. ML 3.3 (AEIC).

BRLK	0.55	116	eP	19 19.03	-0.3
			eS	19 28.85	
XLV	0.56	173	eP	19 18.61	-0.8
ILIM	0.56	278	iPd	19 18.78	-0.7
			eS	19 28.48	
INE	0.61	276	iPd	19 19.25	-0.9
			eS	19 29.50	
RDT	0.63	335	eP	19 19.69	-0.7
RS1	0.64	316	iPd	19 20.08	-0.5
RSO	0.64	316	iPd	19 20.05	-0.5
			eS	19 30.75	
REF	0.64	319	iPd	19 20.05	-0.5
RS2	0.64	316	iPd	19 20.09	-0.5
INW	0.64	276	iPd	19 19.72	-0.8
			eS	19 30.47	
RDW	0.67	316	iPd	19 20.42	-0.5
RDN	0.68	319	iPd	19 20.35	-0.6
			eS	19 31.14	
DFR	0.72	325	iPd	19 20.64	-0.8
NCT	0.77	317	iPd	19 21.47	-0.6
			iS	19 33.49	
OPT	0.78	244	ePc	19 21.34	-0.7
NKA	0.80	22	iPc	19 23.59	1.3
SLKM	0.96	58	iPc	19 23.26	-1.1
AUE	1.01	230	eP	19 24.33	-0.6
AUL	1.02	233	ePc	19 24.36	-0.7
			iS	19 38.67	
AUH	1.03	232	ePc	19 24.75	-0.6
			eS	19 38.51	
AUW	1.04	233	ePc	19 24.73	-0.6
AUI	1.04	230	ePc	19 24.62	-0.8
			eS	19 38.32	
SPU	1.18	355	iPc	19 26.89	-0.5
			iS	19 43.29	
PDB	1.20	260	iPc	19 26.17	-1.4
			eS	19 41.80	
CKT	1.21	352	iPc	19 27.31	-0.5
SEW	1.21	84	eP	19 26.81	-0.9
CKL	1.22	349	iPc	19 27.49	-0.4
CKN	1.23	353	iPc	19 27.88	-0.2
CRP	1.27	353	ePc	19 27.94	-0.8
			eS	19 44.42	
CP2	1.28	352	ePc	19 28.33	-0.5
BGL	1.29	348	ePc	19 28.41	-0.5
			eS	19 45.87	
CGLM	1.31	357	eP	19 29.06	-0.1
			S	19 46.77	
MPA	1.34	68	eP	19 29.48	0.1
CDD	1.41	221	iPc	19 29.42	-1.1
			eS	19 48.84	
MCNL	1.51	238	iPc	19 30.08	-1.7
			eS	19 48.95	
SUA	1.56	20	ePc	19 32.32	-0.3
PTE	1.65	57	ePc	19 32.76	-0.9
			eS	19 53.25	
PMS	1.68	41	P	19 34.00	-0.2
PWA	1.91	30	P	19 37.20	-0.2
SKT	1.99	4	ePc	19 38.14	-0.4
			eS	20 04.41	
LTI	2.01	87	eP	19 36.92	-1.9
PLRM	2.08	39	iPc	19 38.53	-1.2
PMR	2.08	39	ePd	19 38.21	-1.5
KNIM	2.09	79	iPc	19 37.37	-2.5
			eS	20 01.61	
MTU	2.11	89	eP	19 38.88	-1.3
SVW	2.16	302	iPd	19 38.65	-2.3
KNK	2.19	48	iPc	19 40.04	-1.3
			eS	20 06.14	
GHO	2.28	38	eP	19 41.39	-1.2
KDC	2.29	189	eP	19 39.71	-2.9
CFI	2.34	58	P	19 41.00	-2.3
SML	2.50	42	ePc	19 44.32	-1.3
GLI	2.52	68	ePc	19 42.88	-3.0
			eS	20 11.82	
HIN	2.70	79	eP	19 45.54	-3.0
			eS	20 16.70	
FID	2.77	72	eP	19 46.05	-3.5
VZW	2.83	66	eP	19 47.62	-2.7
MID	2.86	99	P	19 49.50	-1.2
SCM	2.87	48	eP	19 49.38	-1.7
VLZ	2.95	65	eP	19 49.57	-2.5
			eS	20 23.00	
CVA	3.09	77	eP	19 49.99	-4.0
HUR	3.17	19	eP	19 53.52	-1.6
KLU	3.27	60	iPc	19 54.44	-2.3
TOA	3.47	50	P	19 58.00	-1.5
TRF	3.54	12	eP	19 58.56	-1.9

TTA	3.55	328	eP	19 58.36	-2.2
RND	3.70	21	eP	20 01.47	-1.2
TZL	3.74	54	eP	20 01.53	-1.6
KAIM	3.74	88	eP	20 01.25	-1.9
SDG	3.96	48	eP	20 04.34	-1.9
MCK	3.99	19	eP	20 05.28	-1.4
GLB	4.21	67	ePc	20 06.51	-3.2
PAX	4.27	43	ePc	20 08.89	-1.8
BALM	4.81	74	eP	20 15.74	-2.6
HDA	4.98	25	eP	20 18.69	-1.9
CCB	5.03	20	ePc	20 18.91	-2.3
YAH	5.06	82	ePc	20 20.13	-1.8
FBA	5.26	19	ePc	20 22.04	-2.5
CTGM	5.29	75	eP	20 22.82	-2.3
GLM	5.41	21	ePc	20 24.36	-2.3
IMA	6.14	353	eP	20 34.60	-2.4
ANM	7.78	312	(P)	21 01.91	2.4
YKA	17.93	66	eP	23 09.90	-2.9

0.4s 0.30nm 2.8mb
81 obs. associated

---

* JAN 26, 1993 18h 39m 47.89± 1.54s
4.253 S ± 9.7km 141.944 E ± 9.3km
DEPTH = 74.6 ± 15.6 km
4.7mb (4 obs.)
NEW GUINEA, PAPUA NEW GUINEA (202)

MDG	3.95	105	eP	40 48.50	1.2
PMG	7.28	135	eP	41 32.00	-1.8

0.9s 201.68nm 5.8mb X

MTN	13.68	231	eP	43 01.00	1.1

0.4s 100.00nm 5.6mb X

			eS	45 26.00	
WB2	17.26	205	iPd	43 45.40	-0.2

0.3s 89.90nm 5.5mb

ASPA	20.80	201	iPc	44 24.70	-0.7

0.6s 28.60nm 4.8mb

			eS	48 03.80	
RMO	23.05	164	iPc	44 48.60	1.0

0.3s 6.00nm 4.5mb

BRS	25.22	157	eP	45 08.00	-0.5
WARB	26.27	212	eP	45 18.30	0.1

0.4s 7.00nm 4.5mb

GUN	62.72	304	P	50 07.80	-0.2
PKI	62.98	304	P	50 09.00	-0.8
KKN	63.17	304	P	50 10.40	-0.4
DMN	63.25	304	P	50 11.20	-0.2
GKN	63.77	304	P	50 14.40	-0.4
KIC	146.77	275	PKP	59 22.40	0.2
TIC	147.03	276	PKP	59 23.40	0.8
LIC	147.05	275	PKP	59 23.40	0.8
SIV	149.62	132	(PKP)	59 30.00	3.4X

S.D. = 0.9 on 16 of 17 obs.

JAN 26, 1993 18h 44m 22.43± 0.76s
42.731 N ± 5.3km 13.778 E ± 7.4km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)

AQU	0.47	216	P	44 30.80	-1.2
			eSg	44 39.40	
ASS	0.89	293	P	44 38.00	-1.5
ARV	0.98	322	P	44 41.20	0.1
			eSg	44 56.40	
SDI	1.02	178	P	44 42.40	0.6
RMP	1.22	221	P	44 45.00	-0.1
RDP	1.25	219	P	44 46.80	1.1
			eSg	45 03.00	
CRE	1.61	304	P	44 51.50	0.5
SFI	1.84	311	P	44 55.20	0.9
PGD	1.89	308	P	44 55.40	0.2
HVAR	2.01	76	ePn	44 56.20	-0.6
VBY	2.97	21	ePn	45 23.60	13.2X
			eSn	45 58.40	
VOY	3.30	1	e(Pn)	45 24.50	9.2X
PTJ	3.53	26	eP	45 34.20	15.7X

S.D. = 1.0 on 10 of 13 obs.

JAN 26, 1993 18h 55m 01.41± 0.75s
40.603 N ± 5.9km 23.652 E ± 7.9km
DEPTH = 10.0km (geophysicist)
GREECE (364)

SOH	0.31	314	iPg	55 07.82	-0.1
			eSg	55 11.18	
OUR	0.37	137	ePg	55 09.78	0.8
			iSg	55 14.25	

26d 18h

```
SRS      0.52 355 ePg    55 11.86   0.0
                  eSg    55 20.46
PAIG     0.68 178 iPg    55 13.46  -1.4
KNT      0.80 315 ePg    55 16.34  -0.6
                  eSg    55 27.18
GRG      1.01 291 ePg    55 20.98   0.4
                  eSg    55 34.78
LIT      1.02 241 ePg    55 21.50   0.8
                  eSg    55 33.93
VAY      1.09 312 iPn    55 22.00   0.1
     S.D. = 0.9  on   8 of   8 obs.
-----------------------------------
   JAN  26, 1993  19h 23m 17.43± 0.62s
    4.607 N ± 9.8km   94.229 E ± 9.1km
   DEPTH =  33.0km  (normal)
   4.8mb (  5 obs.)
 OFF W COAST OF NORTHERN SUMATERA(705)

IPM      6.78  90 ePc    24 56.80  -0.4
        0.4s     15.50nm          5.2mb
                  e      26 04.80
SNG      6.85  68 eP     24 58.00  -0.2
PKI     24.33 341 P      28 33.76  -0.1
DMN     24.47 340 P      28 34.86  -0.2
GUN     24.50 342 P      28 34.70  -0.8
KKN     24.58 341 P      28 35.60  -0.5
GKN     24.99 340 P      28 40.10   0.1
BJI     40.45  26 eP     30 56.00   1.5
WRA     46.36 123 P      31 43.00   0.3
        0.6s      1.70nm          4.2mb
WB2     46.37 123 iPd    31 42.60  -0.1
        0.8s     22.00nm          5.2mb
ASPA    47.81 128 iPd    31 53.80  -0.3
        0.6s      7.80nm          4.9mb
BRS     64.79 123 eP     33 55.50   0.0
GEC2    80.31 319 eP     35 27.40   0.5
        0.6s      1.00nm          4.0mb
                  e      35 36.20
                  e      35 42.90
                  e      35 47.90
     S.D. = 0.6  on  13 of  13 obs.
-----------------------------------
   JAN  26, 1993  19h 27m 41.55± 1.26s
   38.084 N ± 7.6km   27.227 E ±13.5km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                            (366)
      MD 3.2 (ISK).

IZM      0.31   5 iPg    27 48.00  -0.1
                  iSg    27 52.00
CIN      0.83 125 ePg    27 57.00  -0.7
                  iSg    28 10.00
YER      1.27 138 ePn    28 05.40   0.3
KHL      1.82  82 ePn    28 13.80   0.5
DST      1.87  35 ePn    28 14.00   0.1
EZN      1.88 338 ePn    28 14.20   0.3
EDC      2.31  12 ePn    28 20.00  -0.3
BNT      2.33  13 ePn    28 20.00  -0.6
KCT      2.33  22 ePn    28 21.00   0.4
     S.D. = 0.5  on   9 of   9 obs.
-----------------------------------
%  JAN  26, 1993  19h 51m 02.29± 0.90s
   26.351 S ± 7.1km   27.685 E ±11.2km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA          (584)
      ML 2.4 (PRE).

PRY      0.60 198 eP     51 14.50   0.1
                  S      51 22.00
SLR      0.82  41 eP     51 18.50  -0.2
                  S      51 28.50
KSR      0.86 304 eP     51 19.70   0.3
                  S      51 30.00
SEK      1.96 182 eP     51 37.70   0.9
                  S      52 01.50
BLF      3.05 205 eP     51 51.10  -1.1
     S.D. = 1.1  on   5 of   5 obs.
-----------------------------------
&  JAN  26, 1993  20h 06m 30.21s
   62.503 N          148.270 W
   DEPTH =   2.0km
 CENTRAL ALASKA                    (  1)
      <AEIC>. ML 3.2 (AEIC), 3.0
      (PMR).

SML      0.70 182 ePc    06 44.60   0.5
                  iS     06 55.29
```

```
HUR      0.79 308 ePc    06 46.14   0.2
                  eS     06 57.90
GHO      0.80 203 ePc    06 45.91  -0.2
                  eS     06 57.98
SCM      0.80 146 iPd    06 45.73  -0.5
                  eS     06 58.28
RND      0.95 344 iPc    06 48.27  -0.8
                  eS     07 00.99
PLRM     1.00 204 ePc    06 48.52  -1.4
PMR      1.00 204 eP     06 48.11  -1.8
TOA      1.06 111 P      06 50.00  -0.9
KNK      1.10 185 ePc    06 50.40  -1.2
                  eS     07 05.69
PWA      1.14 222 P      06 51.20  -1.1
SDG      1.27  88 ePd    06 52.57  -1.9
                  eS     07 09.46
MCK      1.27 347 iPc    06 53.23  -1.3
                  eS     07 09.70
TRF      1.32 317 ePc    06 53.54  -2.0
PAX      1.37  69 ePc    06 54.24  -2.1
PMS      1.40 206 P      06 54.90  -1.9
TZL      1.41 108 ePd    06 55.05  -1.8
THY      1.47  50 eP     06 56.05  -1.8
KLU      1.50 131 iPd    06 55.62  -2.7
                  eS     07 15.70
SKT      1.61 252 eP     06 57.86  -1.9
                  eS     07 19.59
VLZ      1.66 145 iPc    06 57.40  -2.9
                  eS     07 17.60
VZW      1.66 150 ePc    06 57.72  -2.8
PTE      1.68 193 iPc    06 58.79  -2.0
                  eS     07 21.24
GLI      1.72 160 iPc    06 58.54  -2.8
                  eS     07 20.79
FID      1.96 153 eP     07 01.85  -2.9
HDA      2.00  17 ePc    07 02.92  -2.5
MPA      2.09 195 eP     07 04.41  -2.2
NEA      2.11 351 eP     07 03.73  -3.3
CCB      2.16   5 eP     07 04.87  -2.9
KNIM     2.18 173 eP     07 04.66  -3.3
SLKM     2.21 206 eP     07 06.61  -1.9
CRP      2.22 238 eP     07 06.05  -2.7
                  Sg     07 37.58
SPU      2.23 235 eP     07 06.78  -2.0
CKN      2.25 237 eP     07 07.24  -1.9
CP2      2.25 238 eP     07 05.91  -3.4
NKA      2.26 220 eP     07 10.11   0.9
CKT      2.28 237 ePc    07 08.09  -1.4
HIN      2.28 157 ePc    07 05.86  -3.6
CVA      2.31 147 ePc    07 06.54  -3.2
BGL      2.31 239 eP     07 09.29  -0.8
CKL      2.33 238 eP     07 08.59  -1.7
GLB      2.36 115 ePd    07 07.72  -2.9
FBA      2.42   5 eP     07 07.43  -4.0
MDM      2.47   0 eP     07 09.11  -3.0
SEW      2.47 194 eP     07 10.03  -2.1
LTI      2.48 175 eP     07 09.76  -2.5
GLM      2.53   9 eP     07 09.96  -3.0
RAGM     2.74 139 eP     07 12.24  -3.8
MLY      2.76 338 ePc    07 13.35  -3.1
DFR      2.85 230 eP     07 15.16  -2.6
NCT      2.96 231 eP     07 17.28  -2.0
RSO      2.97 228 eP     07 17.75  -1.7
RDW      2.97 229 eP     07 17.54  -2.0
BALM     3.18 115 eP     07 18.35  -3.9
INE      3.37 225 eP     07 22.33  -2.8
XLV      3.49 210 eP     07 23.67  -3.0
TTA      3.59 280 eP     07 24.65  -3.5
CTGM     3.64 112 eP     07 24.76  -4.2
YAH      3.80 122 eP     07 28.30  -3.0
IMA      4.28 329 eP     07 32.52  -5.5
MCNL     4.46 224 eP     07 36.77  -3.6
        60 obs. associated
-----------------------------------
&  JAN  26, 1993  20h 13m 34.76s
   60.207 N          151.717 W
   DEPTH =  54.5km
 KENAI PENINSULA, ALASKA           ( 14)
      <AEIC>. ML 2.9 (AEIC).

RDT      0.50 317 eP     13 45.97  -0.5
REF      0.57 300 ePd    13 46.79  -0.6
                  S      13 56.84
RSO      0.58 297 ePd    13 46.89  -0.6
                  eS     13 57.18
RS1      0.58 297 ePd    13 46.99  -0.5
RS2      0.58 297 P      13 47.00  -0.5
```

```
NKA      0.59  24 iPc    13 48.89   1.5
RDN      0.60 301 P      13 47.00  -0.8
                  S      13 57.40
BRLK     0.61 136 eP     13 47.79   0.1
                  S      13 57.59
RDW      0.61 297 ePd    13 47.24  -0.7
DFR      0.62 309 P      13 47.00  -0.9
ILIM     0.63 259 ePc    13 47.40  -0.7
                  eS     13 57.88
INE      0.69 258 ePc    13 48.05  -0.8
                  eS     13 59.33
NCT      0.70 301 ePd    13 48.26  -0.7
INW      0.72 259 ePc    13 48.45  -0.8
                  eS     13 59.91
XLV      0.75 180 iPd    13 48.95  -0.6
SLKM     0.80  67 iPc    13 49.40  -0.8
OPT      0.94 235 eP     13 51.70  -0.3
                  eS     14 04.09
SPU      0.99 351 iPd    13 51.80  -0.9
                  eS     14 05.84
CKT      1.03 347 iPd    13 52.36  -0.9
                  S      14 06.74
CKL      1.04 343 iPd    13 52.55  -0.9
CKN      1.05 348 iPd    13 52.87  -0.6
CRP      1.09 349 iPd    13 52.89  -1.2
                  eS     14 08.34
CP2      1.09 347 iPd    13 53.41  -0.8
                  S      14 08.64
BGL      1.11 343 eP     13 53.32  -1.1
                  eS     14 09.53
CGLM     1.11 353 eP     13 53.75  -0.7
SEW      1.14  94 eP     13 53.74  -0.9
AUE      1.19 225 eP     13 54.27  -1.1
AUL      1.20 227 eP     13 55.02  -0.5
MPA      1.21  75 iPc    13 54.73  -0.8
AUH      1.22 227 ePd    13 55.27  -0.5
                  eS     14 11.47
AUW      1.22 227 ePd    13 55.29  -0.5
AUI      1.23 225 ePd    13 55.17  -0.8
                  eS     14 11.30
PDB      1.31 252 eP     13 55.54  -1.5
                  eS     14 12.67
SUA      1.35  20 ePd    13 57.10  -0.6
                  eS     14 15.14
PMS      1.49  45 P      13 59.00  -0.5
PTE      1.49  62 ePc    13 58.41  -1.0
CDD      1.61 218 eP     14 00.50  -0.8
MCNL     1.68 233 eP     14 00.57  -1.6
                  eS     14 21.08
SKT      1.78   3 iPd    14 02.70  -1.0
                  eS     14 25.37
PLRM     1.88  41 eP     14 03.46  -1.5
PMR      1.88  41 ePn    14 03.15  -1.8
                  eS     14 24.79
LTI      1.94  93 eP     14 03.82  -2.0
KNIM     1.99  84 iPc    14 03.92  -2.6
                  eS     14 28.53
KNK      2.00  51 iPc    14 05.15  -1.6
MTU      2.05  94 eP     14 05.49  -1.9
GHO      2.08  40 ePc    14 06.45  -1.4
SVW      2.12 297 P      14 06.10  -2.4
SML      2.30  44 eP     14 09.25  -1.8
GLI      2.38  72 eP     14 08.78  -3.3
HIN      2.60  84 eP     14 11.98  -3.3
FID      2.65  76 eP     14 12.10  -3.8
SCM      2.69  51 eP     14 14.96  -1.6
VLZ      2.81  68 eP     14 14.92  -3.2
KLU      3.12  63 iPc    14 19.79  -2.9
TOA      3.29  52 P      14 23.20  -1.9
TRF      3.33  11 eP     14 24.26  -1.4
TTA      3.42 325 P      14 25.10  -1.8
        57 obs. associated
-----------------------------------
   JAN  26, 1993  20h 32m 06.97± 0.13s
   23.027 N ± 2.8km  101.062 E ± 2.4km
   DEPTH =  33.0km  (normal)
   5.4mb (111 obs.)  5.6Msz ( 28 obs.)
 YUNNAN, CHINA                     (318)
      Mw 5.6 (HRV). At least 66 people
      injured, 6,972 houses destroyed
      and 21,444 seriously damaged in
      southwestern Yunnan Province.
      CENTROID, MOMENT TENSOR     (HRV)
      Data Used: GDSN
      L.P.B.: 26S, 40C
      Centroid Location:
      Origin Time        20:32: 8.7 0.4
```

```
Lat 22.86N 0.04 Lon 100.88E 0.05
Dep  24.4 4.2 Half-duration  1.4
Moment Tensor;   Scale 10**17 Nm
  Mrr= 0.20 0.07  Mtt=-3.07 0.13
  Mff= 2.86 0.15  Mrt=-0.57 0.21
  Mrf= 0.16 0.16  Mtf= 0.56 0.08
 Principal Axes:
  T  Val=  2.92  Plg= 2  Azm=275
  N        0.30      80      172
  P       -3.22      10        6
Best Double Couple:Mo=3.1*10**17
 NP1:Strike= 50 Dip=82 Slip=  -5
 NP2:        141      85     -172

KMI     2.59  36 Pnd   32 48.50   0.8
                Pg    32 53.50
                Sg    33 29.00
CHG     4.64 206 ePn   33 14.50  -2.1
                ePg   33 31.20
                iSg   34 32.70
LOE     5.63 173 ePn   33 28.00  -2.5X
                ePg   33 37.00
                eSg   33 52.00
BDT     6.07 199 eP    33 36.50  -0.3
                ePg   34 01.00
                eSg   35 21.00
GYA     6.13  55 Pn    33 35.60  -2.2X
     Z  10s    39.20um
                Sn    34 46.00
NST     7.37 187 ePn   34 02.00   7.0X
                ePg   34 32.00
                eSg   36 03.00
CD2     8.21  16 iPd   34 04.50  -2.3X
     N  10s   238.00um
                S     35 35.00
KHT     8.52 196 iPn   34 10.70  -0.4
                eSg   36 40.70
OIZ     9.11 114 P     34 15.10  -4.2X
     E  13s    27.60um
                S     35 53.70
NNT    10.46 187 ePn   34 39.40   1.7
LSA    11.09 309 P     34 47.00   0.1
       1.1s   180.00nm          6.2mb
     N  15s    38.60um
     E  10s    17.10um
                S     36 56.00
GZH    11.31  87 P     34 44.00  -5.3X
     Z  14s    37.20um
MCO    11.58  92 iP    34 49.80  -3.3X
HKC    12.13  91 iP    35 00.00  -0.4
                eS    37 12.00
XAN    12.96  30 P     35 06.70  -4.8X
       0.7s     7.80nm          4.9mb
     Z  12s    65.00um          4.0MszX
                pP    35 13.50
                PP    35 17.00
                sP    35 18.70
LZH    13.24  10 Pd    35 12.40  -2.9X
       1.5s   260.00nm          6.0mb
     Z  20s    30.30um          5.7MszX
     E  10s    43.20um
                eS    37 40.00
                sS    37 47.00
WHN    14.02  55 Pc    35 23.50  -2.0
       1.0s    67.00nm          5.3mb
     N  12s   112.00um
                S     37 54.00
GUN    14.55 293 P     35 30.26  -2.5
PKI    14.86 291 P     35 34.02  -2.8X
       0.7s   162.00nm          5.5mb
KKN    15.03 292 P     35 36.22  -2.6X
       1.2s  1113.00nm          6.0mb
DMN    15.13 291 P     35 37.46  -2.8X
       0.9s   570.00nm          5.8mb
GKN    15.63 292 P     35 43.94  -2.7X
       1.1s  1147.00nm          6.0mb
SNG    15.76 182 eP    35 43.00  -5.2X
                eS    38 39.00
QZH    16.14  80 eP    35 49.00  -3.9X
     Z  14s    49.10um
                S     38 52.00
GTA    16.37 357 P     35 54.30  -1.7
       1.5s    28.00nm          4.2mb X
     Z  18s    34.30um          5.3MszX
                pP    36 00.00
                sP    36 05.00
                sS    39 11.00

TIY    17.60  31 eP    36 07.80  -3.5X
       1.0s   260.00nm          5 3mb
     Z  12s    91.10um          5.0MszX
     E  10s    53.30um
                pP    36 19.00
                sS    39 41.00
NJ2    18.14  56 Pd    36 18.60   0.6
       1.2s   170.00nm          5.1mb
     Z  12s    32.00um          5.1MszX
     E  10s    61.20um
IPM    18.34 180 ePc   36 21.00   0.4
       1.2s   148.00nm          5.0mb
                e     42 10.00
BTO    19.08  21 iPc   36 27.00  -2.5X
       1.0s   370.00nm          5.6mb
     N  10s    34.00um
     E  10s    37.10um
                pP    36 38.50  50kmX
                PP    36 48.50
TIA    19.14  43 Pd    36 29.10  -1.1
       1.4s    76.00nm          4.7mb
     Z  12s    33.60um          5.1Msz
     N  12s    45.40um
                S     39 58.00
BAG    19.51 106 eP+   36 36.00   1.3
                eS    40 17.00
SSE    19.62  62 Pd    36 35.50  -0.2
       1.2s    89.00nm          4.9mb
     Z  10s    33.30um          5.3Msz
     N  16s    39.30um
     E  16s     9.00um
                S     40 10.00
                sS    40 22.00
KLM    19.81 178 eP    36 38.50   0.7
HHC    19.85  24 Pd    36 36.50  -1.7
       1.0s   280.00nm          5.5mb
     Z  16s    59.30um          4.1Msz
     N  10s    33.30um
     E  12s    25.60um
CVP    20.16 101 eP    36 42.20   0.8
       1.0s   116.00nm          5.2mb
KGM    21.00 174 ePd   36 50.20   0.1
BJI    21.25  34 eP    36 53.00   0.6
       1.2s   330.00nm          5.6mb
     Z  17s    43.90um          5.9MszX
     N  13s    32.90um
                eS    40 46.00
HYB    21.84 259 ePc   36 57.50  -1.0
       1.0s   100.00nm          5.2mb
                eS    40 56.00
NDI    22.17 290 iPc   37 01.00  -0.8
       1.2s    46.88nm          4.8mb
KKM    22.33 137 ePc   37 06.60   3.1X
       1.2s   342.40nm          5.7mb
WMQ    23.49 335 iPd   37 17.50   2.8X
       1.5s    14.00nm          4.3mb X
     Z  12s    10.70um          5.5MszX
     N  12s    20.90um
     E  11s    17.00um
                pP    37 22.50  18kmX
                sP    37 29.00
DL2    23.61  43 P     37 17.50   1.7
       1.4s   820.00nm          6.1mb
     Z  12s    11.50um          5.6MszX
     N  13s    25.20um
     E  13s    45.30um
GBA    24.28 251 Pc    37 24.00   1.6
PLP    25.68 113 ePd   37 35.00  -0.7
POO    25.81 265 iPc   37 34.70  -2.4
       1.2s   156.25nm          5.5mb
SNY    26.56  40 iPc   37 44.00   0.3
       2.0s   170.00nm          5.3mb
     Z  16s    30.50um          5.9MszX
     N  11s    10.60um
     E  11s    14.90um
                PP    38 31.50
                S     42 12.00
BOM    26.68 266 iPc   37 45.20   0.3
                iS    42 38.00
KSH    26.85 313 P     37 49.20   2.6X
       1.5s   380.00nm          5.8mb
     Z  16s    16.20um          5.7MszX
     N  16s    41.70um
     E  16s    33.10um
                PP    38 38.00
                PcP   41 08.00
                S     42 25.00

CGP    26.90 119 eP    37 46.50  -0.6
PRZ    27.05 321 iPd   37 50.50   2.1
       1.6s   370.00nm          5.8mb
     Z  14s    15.80um          5.7MszX
     N  14s    25.30um
     E  14s     9.60um
ZAK    27.36   3 iPc   37 51.50   0.6
       1.2s   150.00nm          5.5mb
     Z  16s    19.00um          5.8MszX
     N  16s    13.54um
                eS    42 36.00
                eSS   43 43.00
KAGJ   27.70  66 P     37 55.20   1.0
KUMJ   27.91  64 P     37 55.10  -1.0
DAV    28.41 120 eP    38 00.00  -0.7
MOY    28.61 360 ePd   38 03.20   1.1
       1.5s    48.00nm          5.0mb
CN2    28.86  38 eP    38 05.00   0.5
       1.0s    17.00nm          4.7mb
     Z  11s    26.60um          6.1MszX
     N  11s     9.60um
     E  11s    12.50um
                epP   38 09.00  14kmX
                eS    42 50.00
UER    29.00 351 iPc   38 05.00  -0.6
       1.2s    68.00nm          5.2mb
                e     39 08.00
                iS    43 00.00
IRK    29.30   4 iP-   38 09.00   0.5
       1.5s    88.00nm          5.3mb
     Z  17s    13.33um          5.6MszX
     N  15s    10.79um
     E  15s     4.79um
                e     38 19.00
                ePPP  39 11.00
                eS    43 00.00
                eSS   44 29.00
FRU    29.51 318 eP    38 11.80   1.3
       2.0s   110.00nm          5.3mb
     Z  16s     9.50um          5.5MszX
     N  14s    16.00um
     E  14s     8.50um
                e     39 14.00
                eS    43 09.00
                (SSS) 45 01.00
CIT    30.49  15 eP    38 20.00   0.9
     Z  12s    29.77um          6.2MszX
     N  12s    16.80um
     E  12s    12.00um
                eS    43 16.00
MDJ    31.76  40 eP    38 30.00  -0.2
     N  24s   138.00um
     E  22s    93.90um
                S     43 35.00
ELT    32.21 343 iPc   38 34.50   0.5
       1.7s   220.00nm          5.8mb
                e     39 48.00
                eS    43 41.00
                e     45 43.00
VLA    32.42  44 iPc   38 28.00  -8.0X
       2.0s   498.00nm          6.1mb
                i     39 38.00
                ePPP  40 02.00
                e     41 20.00
                eS    43 48.00
                eSSS  46 10.00
TSRJ   32.74  60 P     38 38.90   0.0
MTMJ   34.41  58 P     38 54.80   1.3
MAT    34.72  59 eP    38 55.00  -1.1
       1.7s   138.46nm          5.6mb
     Z  20s     4.61um          5.2Msz
                eS    44 26.00
CHJJ   35.24  60 P     38 59.30  -1.2
NIIJ   35.49  58 P     39 02.50  -0.1
BOD    36.06  12 iPc   39 07.30   0.2
       1.3s    79.00nm          5.5mb
KAKJ   36.21  60 P     39 07.20  -1.4
YAMJ   36.50  56 eP    39 09.90  -1.2
OFUJ   37.95  55 eP    39 23.20   0.0
BRVK   38.02 330 iPc   39 24.00   0.4
       1.2s    76.00nm          5.4mb
                eS    45 20.00
MAIO   38.18 300 iPc   39 26.40   1.0
       1.3s    40.03nm          5.1mb
ASH    39.35 302 eP    39 36.00   1.0
       1.5s   700.00nm          6.2mb
                e     41 09.00
```

26d 20h

```
                e      41 44.00
                eS     45 40.00
                e      48 53.00
                e      49 36.00
ASAJ   39 99   48 eP   39 40.50   0.3
YSS    41.01   44 ePc  39 49.00   0.5
       1.3s    40.00nm          5.0mb
     Z  15s    15.90um          6.0MszX
     N  15s     9.60um
                eS     46 02.00
                eSS    49 00.00
KAT    41.17 304 eP    39 52.00   2.1
     Z  13s     2.60um          5.3MszX
     N  13s     4.50um
                i      41 35.00
                e      41 42.00
                iS     46 09.00
YAK    43.59   19 ePc  40 08.50  -0.9
       1.2s   150.00nm          5.6mb
     Z  13s    18.00um          6.2MszX
     N  13s    12.80um
     E  14s     7.60um
                ipP    40 24.00  61kmX
                e      41 57.00
                ePPP   42 32.00
                eS     46 37.00
                iSSS   50 38.00
SVE    44.72 330 ePc   40 19.50   0.9
       2.9s   160.00nm          5.4mb
                e      41 57.70
                e      42 10.00
                eS     47 00.00
                eSS    50 12.00
ARU    45.48 328 eP    40 26.00   1.3
       1.8s   260.00nm          5.8mb
                e      40 34.00
                e      40 38.00
                e      42 04.00
                e      42 13.00
                ePPP   42 57.00
                eS     47 13.00
NRI    47.04 354 iPd   40 36.30  -0.5
       1.4s    65.00nm          5.4mb
                e      42 07.00
                i      42 24.00
                eS     47 28.00
SHE    47.17 305 iPc+  40 40.00   1.8
       2.0s   110.00nm          5.5mb
                i      42 36.00
                iS     47 36.00
KER    48.17 296 eP    40 46.00  -0.4
WWKK   49.25 117 eP    40 55.20   0.5
GRO    49.62 308 iPd   40 58.00   0.8
       1.5s   240.00nm          6.0mb
                i      42 12.00
                i      42 55.00
                eS     48 04.00
MTA    50.14 306 iP    41 01.40   0.2
     Z  17s     0.50um          4.6MszX
     N  17s     1.00um
     E  17s     1.50um
                e      43 04.00
                i      50 48.00
MGD    50.59   30 eP   41 03.00  -1.3
       1.2s    50.00nm          5.4mb
     Z  14s    10.00um          6.0MszX
     E  14s     9.00um
                e      41 16.00
                e      42 22.00
                e      43 02.00
                eS     48 14.00
                e      50 42.00
                eSS    51 42.00
TIK    51.16   11 iPc+ 41 07.40  -1.1
       2.0s   220.00nm          5.8mb
                i      41 23.00
                i      42 20.00
                i      43 04.00
                iS     48 26.40
                i      48 35.00
                iPS    48 44.00
PYA    51.58 309 iPd   41 12.00  -0.1
       1.3s   150.00nm          5.8mb
                i      43 12.00
                eS     48 30.00
KIV    51.84 309 P     41 14.30   0.1
       1.5s   367.00nm          6.1mb
```

```
                e      43 16.60
                S      48 44.00
WRA    53.65 140 P     41 27.00  -0.8
       0.8s    7.70nm          4.8mb
WB2    53.66 140 iPd   41 26.70  -1.1
       0.9s   39.90nm          5.4mb
PMG    55.44 120 eP    41 39.50  -1.5
       0.8s   31.34nm          5.4mb
ASPA   56.33 143 iPd   41 46.40  -0.8
       0.8s   34.70nm          5.4mb
     Z  21s    1.60um          5.1Msz
MOS    56.38 323 iPd   41 46.00  -1.2
       1.8s  180.00nm          5.8mb
     Z  21s    4.00um          5.5Msz
                e      43 51.00
RAB    56.72 112 eP    41 51.00   0.8
OBN    56.87 322 iPd   41 50.30  -0.4
       1.5s   70.00nm          5.5mb
                eS     49 44.00
                eSS    53 32.00
BHL    57.67 296 P     41 56.00  -0.8
                S      50 00.00
HRI    57.68 296 eP    41 56.60  -0.3
SALJ   57.91 294 P     41 59.50   1.0
LISJ   58.20 293 P     42 01.00   0.7
SHWJ   58.33 292 P     42 01.50  -0.1
DHLJ   58.34 293 P     41 59.00  -2.3
KAS    58.42 305 eP    42 02.00   0.1
ZNT    58.42 295 eP    42 01.90  -0.1
RMN    59.05 293 eP    42 05.70  -0.8
CSS    59.43 298 eP    42 08.50  -0.5
APA    60.45 336 iPc   42 05.50  -9.9X
PUL    60.71 327 (P)   42 18.00   0.7
     Z  18s    4.50um          5.7Msz
     N  18s    1.10um
     E  18s    4.20um
                eS     50 36.00
AAE    61.07 268 eP    42 21.50   0.7
EYL    61.21 305 eP    42 16.00  -5.2X
CTA    61.48 131 iP    42 22.00  -1.0
       1.3s   33.65nm          5.3mb
                eS     50 45.00
KIS    61.55 312 iPd   42 23.00  -0.2
       1.0s  220.00nm          6.2mb
                eS     50 46.00
                e      52 16.00
HRT    61.55 305 eP    42 22.00  -1.4
SMY    61.83  41 P     42 30.00   5.0X
     Z  18s    3.97um          5.6Msz
ELL    61.92 301 iP    42 25.50  -0.5
HLW    61.96 293 ePd   42 26.00  -0.2
MNK    62.07 320 eP    42 22.00  -4.6X
     Z  24s    4.80um          5.6MszX
     N  20s    5.70um
     E  22s    5.10um
DST    62.50 304 eP    42 26.00  -3.8X
KAF    62.80 329 iP    42 30.50  -0.7
       0.7s    9.90nm          5.1mb
SDF    63.07 335 iP    42 32.00  -1.0
VRI    63.13 311 ePc   42 34.00   0.3
ISR    63.33 310 eP    42 36.00   0.8
CVO    63.51 311 eP    42 36.00  -0.3
NUR    63.57 328 iP    42 36.80   0.4
       0.8s   14.30nm          5.1mb
MLR    63.71 311 ePc   42 38.00   0.2
CMP    64.37 311 ePd   42 44.00   2.0
ILT    65.22  24 iPc   42 45.20  -1.8
       1.8s  105.00nm          5.6mb
     Z  18s   27.00um          6.5Msz
     N  18s    3.90um
     E  18s   15.00um
                i      43 12.50
                i      45 09.00
                ePPP   46 43.00
                eS     51 24.00
                ePS    52 02.00
                iSS    55 36.00
UZH    65.79 314 ePc   42 51.00   0.1
       1.6s  120.00nm          5.7mb
     Z  15s    3.70um          5.7MszX
     N  15s    2.40um
     E  15s    2.00um
                e      42 58.80
                e      43 05.50
                e      43 19.00
                eS     51 43.00
SRS    66.06 306 eP    42 51.46  -1.4
```

```
PAIG   66.21 305 iP    42 59.93   6.1X
SOH    66.29 306 eP    42 54.86   0.5
KNT    66.57 306 eP    42 54.74  -1.4
THE    66.62 306 eP    42 55.46  -0.9
BZS    66.70 311 eP    42 50.00  -6.9X
VAY    66.78 307 iP    42 56.00  -1.4
NAI    66.96 258 iPc   43 00.00   0.8
       1.0s  700.00nm          6.7mb X
     Z  21s    0.54um          4.7Msz
                e      51 52.90
GRG    66.97 306 eP    42 57.22  -1.5
SPC    67.05 315 eP    42 59.00  -0.3
LIT    67.07 305 eP    42 57.50  -1.9
UPP    67.11 327 iP    42 58.50  -0.7
       1.1s  100.00nm          5.8mb
OJC    67.17 316 eP    42 58.70  -1.1
                e      43 14.30
AGG    67.41 304 eP    42 59.38  -2.2
RMO    67.47 134 eP    43 03.50   1.6
PSZ    67.48 314 eP    43 01.80  -0.1
SKO    67.49 307 iP    43 01.00  -0.9
       1.4s   75.00nm          5.6mb
     Z  18s    1.23um          5.2Msz
                i      43 04.00
                i      43 39.50
                LR     15 50.00
FNA    67.77 306 eP    43 02.22  -1.6
ADE    67.84 147 iPd   43 04.60   0.5
OHR    68.13 307 eP    43 01.50  -4.6X
BUD    68.14 314 eP    43 05.20  -0.7
IVA    68.43 309 iPc   43 07.44  -0.4
PVY    68.43 308 iPc   43 07.29  -0.7
SRO    68.55 314 eP    43 09.30   0.9
UZD    68.60 313 eP    43 08.50  -0.3
PLE    68.69 309 iPc   43 09.79   0.2
TTG    68.98 308 iPc   43 10.25  -0.9
HFS    69.03 328 eP    43 09.70  -1.4
       0.5s    6.40nm          5.0mb
     Z  17s 1500.00um          8.3MszX
                LR     10 41.00
NKY    69.09 309 iPc   43 11.19  -0.8
ULC    69.09 308 iPc   43 10.20  -1.7
CMS    69.11 140 eP    43 11.20  -0.8
KSP    69.27 318 eP    43 13.00   0.2
ZST    69.27 315 eP    43 12.10  -0.8
                ePP    45 46.90
BDV    69.32 308 iPc   43 11.50  -1.8
VRAC   69.38 316 iPc   43 13.90   0.5
       1.9s  340.60nm          6.1mb
BRY    69.39 309 iPc   43 12.88  -1.0
HCY    69.53 308 iPc   43 12.47  -2.1
SOP    69.74 314 eP    43 15.00  -0.7
NAO    70.29 329 P     43 17.30  -1.5
       0.8s   20.20nm          5.2mb
PTJ    70.53 312 eP    43 20.20  -0.5
ZAG    70.53 312 eP    43 21.50   0.9
PRU    70.54 317 eP    43 20.50  -0.1
       1.7s   42.40nm          5.2mb
     Z  15s    4.40um          5.8MszX
     N  20s    5.90um
     E  18s    1.40um
                S      52 40.00
                e      00 42.00
BRG    70.71 318 iP    43 21.80   0.2
       1.6s   50.00nm          5.3mb
                i      43 27.70
                i      43 43.80
VBY    71.10 312 ePc   43 23.90  -0.2
CLL    71.19 318 iPd   43 24.70   0.2
       1.9s   62.00nm          5.3mb
                e      43 46.90
GEC2   71.34 316 eP    43 25.40  -0.2
       1.8s    0.51nm          3.3mb X
                e      43 28.80
                epP    43 29.30  13kmX
                e      43 40.80
KHC    71.35 316 Pd    43 26.40   0.9
       1.3s   12.00nm          4.8mb
     Z  16s    4.50um          5.8MszX
     N  16s    1.80um
     E  13s    3.00um
                e      44 19.00
                e      45 07.60
                S      52 48.00
LJU    71.46 313 eP    43 25.80  -0.4
                e(S)   52 52.00
BFD    71.50 146 eP    43 26.20  -0.2
```

0.9s 22.00nm 5.2mb
CEY 71.61 313 eP 43 26.00 -1.2
TDS 71.78 306 P 43 28.50 0.2
WET 71.79 316 iPd 43 29.00 0.8
VOY 71.90 313 ePc 43 28.30 -0.7
e 43 51.00
KBA 72.00 314 iPc 43 28.70 -1.0
1.0s 25.60nm 5.2mb
i 43 36.50
i 43 49.70
i 44 27.90
RBL 72.01 313 P 43 29.20 -0.4
TRI 72.07 313 eP 43 29.60 -0.2
e 01 36.00
MUD 72.14 324 iPc 43 30.00 0.0
1.0s 52.00nm 5.5mb
BHG 72.15 315 eP 43 30.20 -0.1
MOX 72.21 318 eP 43 30.80 0.2
1.6s 46.00nm 5.2mb
Z 21s 1.90um 5.3Msz
eS 53 01.00
BRW 72.22 19 eP 43 30.70 0.5
GRF 72.70 317 ePc 43 34.30 0.8
1.6s 68.00nm 5.4mb
Z 18s 3.40um 5.7Msz
e(pP) 43 49.60 55kmX
e(sP) 43 55.80
e(PcP)44 07.80
FUR 73.07 316 eP 43 36.20 0.5
WTTA 73.08 315 i(P) 43 34.90 -1.1
1.0s 23.80nm 5.1mb
i 44 29.30
WATA 73.10 315 i(P) 43 35.20 -0.9
TOO 73.35 145 eP 43 38.30 0.9
0.7s 22.00nm 5.3mb
SQTA 73.37 315 iPc 43 31.50 -6.1X
1.0s 21.00nm 5.1mb
i 43 36.60
CTI 73.40 313 P 43 37.60 -0.2
SFI 73.86 311 P 43 41.80 1.5
CRE 73.87 311 P 43 40.80 0.2
CNB 73.90 141 eP 43 42.00 1.3
1.0s 22.00nm 5.1mb
PGD 73.96 311 P 43 42.50 1.3
DAG 74.16 348 iPd 43 40.20 -1.3
1.2s 51.56nm 5.4mb
Z 18s 4.95um 5.8Msz
N 18s 4.95um
E 18s 2.47um
OSS 74.22 314 ePc 43 42.50 -0.1
TNS 74.27 318 ePc 43 42.30 -0.4
SAL 74.28 313 P 43 44.00 1.3
FIR 74.31 311 eP 43 43.00 0.1
MME 74.57 312 P 43 46.90 2.1
LLS 74.92 315 Pc 43 47.00 0.3
SLE 74.98 316 ePc 43 46.50 -0.3
ZLA 75.13 315 ePc 43 47.50 -0.2
IMA 75.16 24 eP 43 47.90 0.3
1.3s 36.80nm 5.2mb
TMA 75.23 314 ePc 43 47.90 -0.6
VAI 75.37 314 P 43 48.70 -0.3
TTA 75.43 27 eP 43 50.00 0.8
CDF 75.55 317 eP 43 50.00 -0.2
1.2s 26.20nm 5.1mb
MMK 75.85 314 ePc 43 52.00 -0.1
WLF 75.85 318 P 43 53.00 1.4
BSF 76.04 316 eP 43 52.70 -0.3
1.2s 36.60nm 5.3mb
DIX 76.21 314 iPc 43 54.80 0.7
HAU 76.27 316 eP 43 54.00 -0.1
1.3s 37.55nm 5.2mb
Z 24s 2.70um 5.5MszX
SVW 76.29 29 eP 43 55.20 1.2
EMS 76.53 314 ePc 43 56.00 0.2
LPG 76.83 314 eP 43 58.00 0.3
1.0s 43.80nm 5.4mb
LPL 76.84 314 eP 43 58.00 0.4
1.2s 61.30nm 5.5mb
BGL 77.66 28 eP 44 01.19 -0.5
CP2 77.73 28 eP 44 01.89 -0.3
CRP 77.76 28 ePd 44 02.19 -0.1
FBA 77.88 24 eP 44 03.10 0.4
1.6s 102.40nm 5.6mb
LOR 78.10 316 eP 44 04.30 0.0
1.2s 27.95nm 5.2mb
Z 24s 2.10um 5.4MszX
LBF 78.13 316 eP 44 04.30 -0.2

1.1s 27.85nm 5.2mb
SMF 78.34 316 eP 44 05.50 -0.1
1.4s 78.85nm 5.5mb
SSF 78.40 316 eP 44 06.00 0.1
1.1s 42.00nm 5.4mb
AVF 78.60 316 eP 44 07.10 0.1
1.1s 36.65nm 5.3mb
PMR 78.91 27 eP 44 08.20 -0.1
1.2s 104.00nm 5.7mb
Z 20s 4.00um 5.8Msz
SLKM 78.95 29 (P) 44 08.03 -0.6
BGF 79.01 316 eP 44 09.40 0.2
1.5s 40.75nm 5.2mb
EKA 79.06 326 P 44 10.00 0.7
1.6s 83.80nm 5.5mb
MAF 79.31 316 eP 44 11.60 0.7
1.5s 61.10nm 5.4mb
TCF 79.52 316 eP 44 12.60 0.6
1.1s 31.50nm 5.2mb
TOA 79.89 26 eP 44 14.40 0.7
LSF 79.97 316 eP 44 14.60 0.2
1.5s 46.50nm 5.3mb
CAF 80.13 315 eP 44 16.10 0.7
1.5s 48.05nm 5.3mb
KLU 80.30 27 eP 44 16.07 0.1
RJF 80.34 315 eP 44 17.50 1.1
1.4s 77.55nm 5.5mb
Z 24s 1.27um 5.2MszX
CIR 80.62 242 iPd 44 17.00 -1.3
LPO 80.80 315 eP 44 19.80 0.9
1.1s 25.40nm 5.1mb
LPF 80.87 318 eP 44 19.80 0.7
1.2s 54.75nm 5.4mb
MFF 80.90 317 eP 44 19.80 0.5
1.5s 43.35nm 5.2mb
LFF 80.99 315 eP 44 20.80 1.0
1.4s 60.55nm 5.4mb
BCAO 81.41 271 iPc 44 21.90 -0.7
0.9s 32.00nm 5.3mb
ic 44 35.00
id 45 16.00
RES 81.98 4 eP 44 25.50 1.1
1.0s 5.00nm 4.5mb
BALM 82.01 26 eP 44 25.25 0.3
BUL 82.65 245 iPc 44 28.10 -0.9
EGRA 82.81 313 eP 44 28.00 -1.3
ECRI 84.10 314 eP 44 37.90 1.9
BFT 84.10 239 eP 44 38.00 1.6
ECHE 84.35 311 eP 44 38.00 0.7
ETOR 84.57 312 eP 44 38.80 0.3
SLR 85.52 240 iPc 44 43.20 -0.3
1.3s 110.00nm 5.9mb
Z 20s 12.00um 6.3Msz
EVIA 85.83 310 eP 44 45.90 1.1
GUD 86.08 313 eP 44 47.00 1.0
EHUE 86.26 310 eP 44 48.00 1.1
ENIJ 86.36 309 eP 44 48.30 1.0
KSR 86.69 240 iPd 44 48.00 -1.3
1.0s 60.00nm 5.8mb
PRY 86.72 239 eP 44 49.00 -0.4
1.0s 40.00nm 5.6mb
EMON 86.86 316 eP 44 51.20 1.5
EBAN 86.95 310 eP 44 51.70 1.5
ECOG 87.19 309 eP 44 51.50 0.0
ERUA 87.25 315 eP 44 53.50 2.0
SEK 87.25 238 eP 44 52.50 0.6
1.0s 40.00nm 5.6mb
SIT 87.30 27 P 45 00.00 8.6X
Z 20s 1.84um 5.5Msz
EGUA 87.39 309 eP 44 53.00 0.6
ELUQ 87.56 310 iPd 44 53.40 0.2
EPLA 87.65 313 eP 44 54.60 1.0
MAL 88.04 309 iP 44 56.00 0.6
EHOR 88.13 310 eP 44 57.00 1.2
EPRU 88.52 310 eP 44 57.70 -0.1
BLF 88.73 238 eP 44 50.00 -9.0X
EJIF 88.93 309 eP 45 00.00 0.3
FRS 89.69 237 iPc 44 51.10 -12.2X
1.0s 20.00nm
IFR 90.05 307 iPc 45 07.00 1.7
YKA 90.17 16 eP 45 04.00 -1.1
0.9s 3.60nm 4.7mb
HON 91.28 66 P 45 20.00 9.2X
Z 22s 1.01um 5.2Msz
WIN 93.37 247 eP 45 21.00 0.4
Z 20s 6.00um 6.0Msz
e 55 05.00

WDC 104.84 33 Pdiff 46 20.00 8.2X
Z 21s 1.10um 5.4Msz
LCCM 105.21 23 ePKP 50 33.40 5.6X
RSSD 109.33 19 PKP 50 50.00 14.3X
Z 19s 3.43um 5.9Msz
RSNY 112.64 357 PKP 50 50.00 8.3X
Z 21s 1.53um 5.6Msz
GLD 112.90 22 PKP 50 50.00 7.4X
Z 18s 1.48um 5.6Msz
HRV 114.44 354 PKP 51 00.00 14.7X
Z 18s 2.44um 5.8Msz
ALQ 116.71 25 PKP 51 00.00 9.9X
Z 18s 1.30um 5.6Msz
MCWV 117.64 1 PKP 51 00.00 8.6X
Z 21s 2.41um 5.8Msz
SLM 117.76 10 PKP 51 00.00 8.3X
Z 19s 1.51um 5.6Msz
FVM 118.36 10 PKP 51 00.00 7.1X
Z 18s 3.77um 6.1Msz
WMOK 119.54 19 PKP 51 10.00 14.8X
Z 19s 4.34um 6.1Msz
MIAR 121.08 14 PKP 51 10.00 11.9X
Z 19s 3.06um 6.0Msz
CEH 121.40 0 PKP 51 10.00 11.3X
Z 19s 1.10um 5.5Msz
TOV 146.18 344 ePKP 51 45.80 0.4X
SDV 147.26 345 ePKP 51 46.50 -0.8X
BAO 149.93 279 (PKP) 51 57.00 5.7X
e 52 03.50
e 53 00.90
VAO 150.60 264 (PKP) 52 05.00 12.9X
PPD 154.47 267 (PKP) 52 06.00 8.4X
e 52 21.80
SIV 161.77 289 (PKP) 52 02.00 -4.2X
i 52 57.00
MDZ 166.75 220 i(PKP)52 10.80 0.4
ZOBO 167.81 301 PKP 52 13.50 1.2
i 53 19.20
LR 57 10.00
LPB 167.93 300 ePKP 52 12.00 -0.1
CNCB 167.98 299 PKP 52 14.20 1.9
i 53 21.20
i 57 10.20
S.D. = 1.0 on 254 of 307 obs.

JAN 26, 1993 20h 46m 36.93± 0.33s
22.956 N ± 4.6km 101.071 E ± 5.3km
DEPTH = 33.0km (normal)
4.5mb (19 obs.)
MYANMAR-CHINA BORDER REGION (297)
ML 4.4 (BJI).

KMI 2.64 35 Pnd 47 18.50 0.1
Pg 47 24.00
Sg 47 59.00
CHG 4.58 206 ePn 47 45.00 -0.7
ePg 48 01.60
iSg 49 03.00
LOE 5.56 173 eP 47 59.00 -0.5
BDT 6.01 199 eP 48 06.00 0.2
GYA 6.17 54 Pn 48 04.60 -3.6X
CD2 8.28 16 P 48 36.00 -1.7
KHT 8.46 197 eP 48 41.00 0.8
QIZ 9.08 114 eP 48 44.80 -3.9X
S 50 30.70
LSA 11.14 309 P 49 18.80 1.3
XAN 13.02 30 P 49 37.00 -5.2X
GUN 14.58 293 P 50 02.30 -0.9
PKI 14.89 291 P 50 06.32 -0.9
KKN 15.06 292 P 50 08.16 -1.1
DMN 15.16 291 P 50 10.28 -0.4
GKN 15.66 292 P 50 15.78 -1.3
NJ2 18.17 56 Pd 50 49.50 1.1
1.0s 34.00nm 4.4mb
HHC 19.91 24 Pc 51 08.30 -0.5
1.2s 32.00nm 4.5mb
BJI 21.30 33 eP 51 23.00 0.1
1.0s 11.00nm 4.2mb
HYB 21.83 259 eP 51 29.30 0.8
GBA 24.26 252 P 51 56.00 3.8X
KSH 26.91 313 eP 52 20.00 2.9X
WRA 53.59 140 P 55 57.00 -0.3
0.6s 0.80nm 3.9mb
WB2 53.60 140 eP 55 56.30 -1.0
0.8s 7.10nm 4.7mb
ASPA 56.26 143 eP 56 16.00 -0.7
1.4s 6.80nm 4.5mb

26d 20h

```
HFS     69.09 328 eP     57 40.30  -1.2
        0.5s     2.10nm          4.5mb
NAO     70.36 329 P      57 47.40  -1.8
        0.7s     3.00nm          4.5mb
BSF     76.10 316 eP     58 24.00   0.7
        0.7s     2.45nm          4.3mb
LPG     76.89 314 eP     58 28.30   0.4
        1.0s     3.20nm          4.3mb
LPL     76.90 314 eP     58 28.30   0.4
        0.8s     5.25nm          4.6mb
LOR     78.16 316 eP     58 35.30   0.7
        0.9s     5.90nm          4.6mb
LBF     78.19 316 eP     58 35.60   0.9
SMF     78.40 316 eP     58 36.90   1.1
        1.0s     6.80nm          4.6mb
SSF     78.46 316 eP     58 37.40   1.2
        0.9s     5.55nm          4.6mb
AVF     78.66 316 eP     58 38.30   1.1
        1.0s     6.80nm          4.6mb
LPF     80.93 318 eP     58 50.30   0.9
        1.0s    16.20nm          5.0mb
MFF     80.95 317 eP     58 51.00   1.4
        1.0s     7.60nm          4.6mb
BCAO    81.42 271 iPc    58 53.20   0.5
        0.6s     3.00nm          4.5mb
YKA     90.24  16 eP     59 34.20  -1.1
        1.0s     1.00nm          4.1mb
      S.D. = 1.0  on  33 of  38 obs.
-----------------------------------------
   JAN  26, 1993  21h 38m 36.85± 0.81s
   44.357 N ± 4.1km     7.263 E ±13.4km
   DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                     (545)
      ML 2.3 (LDG).

DOI      0.15 355 P      38 40.00  -0.4
                  eSg    38 43.00
SBF      0.51 166 Pg     38 47.30   0.1
                  Sg     38 54.60
FRF      0.91 209 Pg     38 53.80  -0.5
                  Sg     39 05.90
LRG      1.11 216 Pg     38 57.80   0.1
                  Sg     39 12.10
LMR      1.16 208 Pg     38 58.80   0.3
                  Sg     39 13.20
LPG      1.20 342 Pg     38 59.40   0.0
                  Sg     39 16.20
LPL      1.22 342 Pg     39 00.00   0.3
                  Sg     39 16.60
      S.D. = 0.4  on   7 of   7 obs.
-----------------------------------------
*  JAN  26, 1993  22h 42m 09.20± 0.78s
   43.769 N ± 7.2km    25.604 E ±15.4km
   DEPTH =  10.0km  (geophysicist)
 BULGARIA                           (359)

JMB      1.49 151 iPc    42 36.00   0.1
ISR      1.53  26 eP     42 55.50  18.9X
PGB      1.61 221 iPc    42 48.00  10.2X
MLR      1.74   8 iPd    42 39.00  -0.7
                  e      45 52.50
PLD      1.79 202 iPd    42 46.00   5.7X
CVO      2.09  11 eP     42 45.50   0.7
VTS      2.11 237 iPc    42 52.00   6.8X
RZN      2.18 198 iPc    42 46.00  -0.2
KKB      2.66 225 iPd    42 53.00   0.2
      S.D. = 0.8  on   5 of   9 obs.
-----------------------------------------
   JAN  27, 1993  00h 23m 51.03± 0.61s
   36.426 N ± 6.5km     5.414 W ± 5.8km
   DEPTH =  10.0km  (geophysicist)
 STRAIT OF GIBRALTAR                (385)
      mbLg 2.9 (MDD).

EJIF     0.05 300 iPg    23 51.40  -1.8
                  eSg    23 54.60
ALJ      0.29 328 iP     23 53.00  -4.2X
OJEN     0.34 197 eP     23 57.00  -1.1
PLAT     0.41 223 iP     24 00.00   0.5
LIJA     0.47   0 eP     23 56.00  -4.6X
CNIL     0.52 264 iP     24 03.00   1.5
EPRU     0.56  15 iPgd   24 02.40   0.0
                  eSg    24 12.50
GIBL     0.59 313 eP     24 14.00  11.0X
MAL      0.86  69 ePn    24 06.50  -1.1
                  iSg    24 15.50
EHOR     1.40   5 iPn    24 17.00   0.4
                  eSn    24 37.80
ELUO     1.46  39 ePn    24 17.50   0.1
                  eSn    24 39.00
EGUA     1.54  74 ePn    24 19.20   0.6
                  eSn    24 40.00
EVAL     1.57 318 ePn    24 18.70  -0.3
                  eSn    24 39.50
ECOG     1.71  60 ePn    24 22.30   1.2
                  eSn    24 45.00
      S.D. = 1.1  on  11 of  14 obs.
-----------------------------------------
*  JAN  27, 1993  00h 33m 47.99± 2.59s
   43.745 N ± 8.8km   128.158 W ±25.6km
   DEPTH =  10.0km  (geophysicist)
   3.5mb (  2 obs.)
 OFF COAST OF OREGON                ( 30)

BMW      4.43  50 iPc    34 56.65  -0.2
SHW      4.86  58 ePn    35 03.90   0.9
GMW      5.35  43 ePn    35 09.68  -0.2
                  eS     36 11.54
LON      5.40  54 ePn    35 10.89   0.4
VGB      5.56  69 ePn    35 12.77   0.0
MCW      6.16  35 ePn    35 22.02   0.8
ORV      6.51 128 ePn    35 24.91  -1.3
DPW      8.09  56 ePn    35 47.71  -0.6
NEW      8.91  56 eP     35 58.58  -1.1
MEMM     9.26 128 (P)    36 07.86   3.4X
BONR     9.44 124 (P)    36 09.29   2.0
LCCM    11.76  74 eP     36 40.90   2.0
SES     13.41  54 eP     37 15.00  14.2X
PLM     13.62 136 (P)    37 03.56  -0.1
SRU     14.01 103 (P)    37 19.63  10.7X
RSSD    17.37  80 eP     37 49.64  -2.5
        1.0s     4.74nm          3.6mb
                  e      37 56.31
YKA     20.38  18 eP     38 27.20   0.0
        0.6s     1.10nm          3.4mb
ULM     22.83  62 eP     38 57.50   5.4X
      S.D. = 1.3  on  14 of  18 obs.
-----------------------------------------
*  JAN  27, 1993  00h 39m 07.15± 1.45s
   24.076 N ± 9.8km    93.731 E ± 9.8km
   DEPTH =  64.8 ± 20.1 km
   4.1mb (  4 obs.)
 MYANMAR-INDIA BORDER REGION        (294)

LSA      6.06 338 Pnd    40 38.30   1.7
                  Sn     41 45.00
CHG      7.14 136 eP     40 51.30   0.0
GUN      8.03 300 P      41 03.88   0.0
PKI      8.27 297 P      41 06.56  -0.6
KKN      8.46 298 P      41 08.96  -0.7
DMN      8.53 296 P      41 10.06  -0.6
GKN      9.06 297 P      41 16.58  -1.4
LZH     14.82  34 Pc     42 30.00  -4.6X
        1.2s    38.00nm          4.5mb
NDI     15.49 291 eP     42 47.00   3.9X
                  eS     45 21.00
HYB     15.66 248 ePd    42 51.70   6.3X
        0.6s    13.30nm          4.3mb
GBA     18.59 239 P      43 24.00   2.3
WMO     20.31 347 P      43 41.00   0.7
        1.0s     6.20nm          3.9mb
TIY     20.98  45 eP     43 46.20  -1.0
BTO     21.41  36 eP     43 48.40  -3.1X
HHC     22.42  38 eP     44 02.60   1.0
WRA     58.99 134 P      49 02.30  -0.3
        0.7s     0.70nm          3.9mb
WB2     58.99 134 iPc    49 01.60  -1.0
        0.4s     9.00nm          5.3mb X
      S.D. = 1.3  on  13 of  17 obs.
-----------------------------------------
   JAN  27, 1993  01h 12m 18.01± 0.46s
   30.493 N ± 6.7km   141.811 E ± 7.6km
   DEPTH =  33.0km  (normal)
   4.8mb ( 21 obs.)
 SOUTH OF HONSHU, JAPAN             (211)

MAT      6.74 334 eP     13 57.00  -0.2
        0.6s    35.33nm          5.4mb
                  eS     15 11.00
MDJ     17.08 329 eP     16 16.60   0.9
        1.0s    28.00nm          4.3mb
SSE     17.73 277 Pc     16 26.00   2.1
        1.2s    30.00nm          4.3mb
      Z  20s     0.90um          4.4MszX
SNY     18.53 313 eP     16 34.00   0.4
      Z  16s     0.82um
                  eS     19 54.00
CN2     18.57 320 eP     16 33.00  -1.2
        1.0s    23.00nm          4.3mb
      Z  16s     0.59um          3.5Msz
      N  10s     0.20um
      E  10s     0.40um
                  epP    16 42.00
NJ2     19.68 280 Pd     16 47.80   0.5
        1.2s    83.00nm          4.9mb
      Z  18s     0.65um          5.0MszX
TIA     21.37 292 eP     17 05.40   0.7
      Z  16s     1.24um          4.4MszX
      E  15s     0.88um
CVP     22.20 240 eP     17 22.00   8.9X
BJI     22.93 302 eP     17 20.00  -0.1
        1.5s    86.00nm          5.0mb
      Z  18s     0.59um          4.1Msz
TIY     25.30 294 P      17 43.20   0.1
      Z  16s     1.19um          4.5MszX
      E  20s     1.50um
                  S      22 02.50
HHC     26.54 301 P      17 54.20  -0.4
        1.2s    30.00nm          4.8mb
      N  16s     0.43um
      E  14s     0.83um
BTO     27.63 300 P      18 05.00   0.4
        1.0s    21.00nm          4.8mb
      N  15s     0.59um
      E  16s     1.16um
XAN     27.97 286 P      18 06.50  -1.1
        1.0s    21.00nm          4.8mb
                  pP     18 18.30  46kmX
GYA     31.08 271 P      18 35.40  -0.2
LZH     32.08 290 Pd     18 43.50  -0.8
        1.5s    46.00nm          5.2mb
      Z  20s     0.30um          4.0Msz
CD2     32.62 281 eP     18 47.50  -1.4
      Z  20s     0.47um          4.2Msz
                  eS     24 09.50
IRK     35.00 319 eP     19 10.50   1.3
        1.6s    39.00nm          5.1mb
      Z  11s     0.33um          4.3MszX
                  e      19 29.20
                  LR     33 31.00
GTA     35.29 296 eP     19 11.00  -1.0
        1.2s    21.00nm          4.9mb
      Z  16s     1.14um          4.7MszX
      E  14s     0.42um
WMO     44.39 303 P      20 28.00   0.8
        1.5s     5.50nm          4.2mb
      Z  14s     1.67um          5.1MszX
                  pP     20 37.50  32kmX
                  S      27 03.00
                  sS     27 25.50
GUN     48.47 282 P      20 59.66  -0.3
PKI     48.97 281 P      21 03.48  -0.3
KKN     49.01 282 P      21 02.84  -1.1
DMN     49.21 282 P      21 04.88  -0.7
GKN     49.49 282 P      21 06.92  -0.7
WB2     50.66 189 iPd    21 16.10  -0.1
        0.5s    29.50nm          5.5mb
                  i      21 28.50
WRA     50.66 189 P      21 16.10  -0.1
        0.6s     9.80nm          5.0mb
KSH     53.62 299 P      21 40.50   2.1
        0.6s    10.00nm          5.0mb
ASPA    54.38 189 iPd    21 43.70  -0.3
        0.5s    16.70nm          5.3mb
NDI     55.50 286 eP     21 52.00  -0.2
DZM     57.37 153 iPd    22 07.00   1.4
GBA     61.25 269 P      22 33.00   0.4
QUE     63.40 291 eP     22 41.50  -5.4X
YKA     69.33  29 eP     23 22.20  -1.7
        0.9s     1.60nm          4.1mb
SDF     71.18 338 iP     23 35.50   0.4
DAG     72.31 355 eP     23 42.00   0.3
        0.7s     7.53nm          4.8mb
OBN     73.56 325 eP     23 50.00   0.7
KER     77.00 302 eP     24 21.00  11.5X
LCCM    78.96  43 eP     24 20.60   0.5
HFS     80.19 336 eP     24 26.10  -0.1
        0.5s     1.10nm          4.1mb
NAO     80.63 338 P      24 28.00  -0.6
        0.7s     3.00nm          4.4mb
ZOBO   149.21  69 PKP    32 07.70   6.0X
```

```
LPB    149.37  70 ePKP   32 04.00    2.3X
CNCB   149.61  70 ePKP   32 08.00    5.8X
CCH    151.40  69 (PKP)  32 09.00    4.5X
SIV    154.57  61 ePKP   32 18.00    9.4X
     S.D. = 0.9  on  37 of  45 obs.
-------------------------------------
*  JAN  27, 1993  01h 54m 47.81± 0.99s
   30.773 S ± 7.1km   68.888 W ±16.6km
   DEPTH =  10.0km  (geophysicist)
 SAN JUAN PROVINCE, ARGENTINA     (137)

CFA      1.00 146 ePc    55 06.10   -0.7
TCA      3.73 100 e(P)   55 47.20    0.4
                  S      56 23.00
RFA      4.00 175 eP     55 51.00    0.4
                  S      56 39.20
HJA      8.14  23 iPc    57 48.20   59.4X
YJA      9.09  20 ePd    57 39.30   36.9X
CCH     13.56  11 eP     58 00.00   -3.0X
CNCB    13.93   4 iPc    58 08.10    0.1
LPB     14.19   3 P      58 11.90    0.5
ZOBO    14.44   3 Pc     58 14.10   -0.7
SIV     16.36  28 P      58 53.80   14.6X
     S.D. = 0.7  on   6 of  10 obs.
-------------------------------------
   JAN  27, 1993  02h 13m 57.80± 2.73s
   22.360 S ±12.1km  170.600 E ±16.4km
   DEPTH =  57.9 ± 19.7 km
   5.1mb ( 15 obs.)
 LOYALTY ISLANDS REGION           (189)

DZM      3.86 273 iPc    14 54.60   -1.6
                  iS     15 44.60
BKM      5.17 334 iPc    15 15.50    1.0
                  iS     16 37.00
HNR     16.42 320 eP     17 49.00    3.0X
BRS     16.93 249 iP     17 57.00    4.7X
ARMA    18.78 241 eP     18 15.30    0.1
        1.0s    30.00nm          4.5mb
RMQ     20.31 254 iPd    18 32.80    1.3
        1.2s   207.00nm          5.3mb
RIV     20.57 232 eP     18 38.00    3.8X
        1.0s  4680.00nm          6.8mb X
CNB     22.58 230 eP     18 56.30    1.9
        0.8s    43.00nm          4.9mb
CTA     22.80 271 eP     18 58.00    1.4
CAN     22.85 231 eP     18 57.60    0.6
                  i      19 01.50
BWA     22.86 233 eP     18 56.50   -0.6
                  i      19 00.40
CMS     23.84 242 iPd    19 06.70    0.1
        0.9s    44.00nm          4.9mb
PMG     25.91 296 eP     19 26.50    0.2
TOO     26.40 229 eP     19 34.20    3.5X
        0.7s    19.00nm          4.8mb
ASPA    33.75 261 iPc    20 34.60   -1.5
        0.9s    22.10nm          5.1mb
      Z  22s     0 60um          4.3Msz
                  e      20 41.50
WB2     33.84 267 iPd    20 36.40   -0.5
        0.8s     4.40nm          4.4mb
WRA     33.85 267 P      20 35.80   -1.2
        1.0s     0.40nm          3.3mb X
KGM     69.87 281 eP     25 05.50    0.5
IPM     73.02 282 ePc    25 22.00   -1.8X
        1.0s    40.90nm          5.3mb
TIA     77.11 318 Pc     25 46.00   -0.7
CN2     77.77 328 eP     25 49.00   -1.2
        1.0s    12.00nm          4.8mb
GYA     78.64 305 P      25 55.20   -0.3
BJI     80.15 321 eP     26 01.50   -1.7
TIY     80.98 317 eP     26 07.80    0.1
KMI     80.99 302 Pc     26 09.00    0.7
        1.5s    70.00nm          5.4mb
CHG     81.10 294 ePc    26 10.00    1.3
        1.0s    25.25nm          5.1mb
XAN     81.14 312 P      26 08.80    0.2
        1.0s    11.00nm          4.8mb
CD2     83.13 307 eP     26 18.00   -1.0
HHC     83.40 319 Pc     26 20.00   -0.3
        1.4s    50.00nm          5.3mb
BTO     84.20 318 eP     26 24.50    0.2
LZH     85.75 312 Pc     26 33.00    0.8
        1.4s    45.00nm          5.4mb
SHL     89.93 298 iPd    26 52.70    0.2
GTA     90.18 313 P      26 53.50    0.2
        1.5s    21.00nm          5.2mb
```

```
GUN     95.78 298 P      27 25.80    6.2X
PKI     96.04 297 P      27 21.00    0.2
DMN     96.30 297 P      27 22.60    0.7
GKN     96.84 297 P      27 24.20    0.1
APO    138.50 343 ePKP   33 12.90   -5.3X
        0.4s     1.00nm
BRD    142.42 317 ePKPc  33 37.00   11.3X
MLR    143.13 317 ePKP   33 22.00   -5.1X
CMP    143.80 317 ePKPc  33 37.00    8.9X
SPC    144.42 326 ePKP   33 28.20   -1.0
PVL    144.51 314 iPKPd  33 28.00   -1.3
KAC    144.77 356 ePKP   33 26.70   -2.6
KPL    144.95 356 ePKP   33 26.90   -2.6
KSB    145.07 356 ePKP   33 27.50   -2.3
KSP    145.22 331 iPKPc  33 29.40   -0.9
        1.1s    94.00nm
PSZ    145.38 325 PKP    33 29.80   -0.9
RZN    145.55 312 iPKPc  33 29.00   -2.4X
BZS    145.71 320 ePKP   33 24.50   -6.8X
BUD    146.11 325 ePKP   33 30.50   -1.4
VRAC   146.16 329 iPKPc  33 32.00    0.2
        2.9s   562.20nm
BRG    146.21 333 iPKPc  33 31.60   -0.3
        1.8s   100.00nm
CLL    146.27 334 iPKPc  33 31.60   -0.4
        1.7s    73.00nm
MMB    146.27 312 iPKPc  33 32.00   -0.4
SRO    146.28 326 ePKP   33 32.90    0.8
KKB    146.59 313 iPKPc  33 33.00    0.2
PRU    146.62 332 PKPc   33 33.00    0.4
        1.2s    18.40nm
ZST    146.66 327 ePKP   33 31.60   -1.1
EKA    146.74 353 PKPc   33 32.20   -0.4
        1.0s    34.60nm
VAY    147.17 313 ePKP   33 28.00   -5.7X
                  i      33 34.40
WIT    147.20 342 ePKP   33 35.00    1.6
MOX    147.33 335 ePKP   33 33.50   -0.2
        1.5s    29.00nm
HOF    147.49 334 iPKPd  33 36.00    2.0
BCAO   147.62 241 ePKPd  33 33.50   -1.8
        0.5s    15.00nm
                  ic     33 36.10
SKO    147.64 314 iPKP   33 36.40    1.9
        1.1s    44.00nm
                  i      33 56.00
KHC    147.67 331 PKPc   33 36.10    1.7
        1.1s    23.50nm
                  e      33 45.60
                  e      33 58.60
GEC2   147.83 331 ePKP   33 32.40   -2.3X
        1.0s     2.18nm
                  ed     33 36.80
                  e      33 39.70
WTS    147.87 341 ePKP   33 36.50    2.0
        1.0s    44.00nm
WET    147.97 332 ePKP   33 36.90    2.1
GRF    148.24 334 ePKP   33 38.20    3.0X
DMU    148.45 357 iPKPd  33 37.30    1.9
        0.9s    86.00nm
OHR    148.46 313 iPKP   33 38.20    2.3
BNS    148.66 340 ePKP   33 38.30    2.5
ZAG    148.79 325 ePKP   33 39.00    2.8X
DCN    149.02 358 iPKPd  33 38.70    2.4
        0.9s    77.00nm
DLF    149.04 357 ePKP   33 38.70    2.4
        1.0s    93.00nm
ENN    149.22 341 ePKP   33 40.00    3.3X
        1.0s    34.00nm
KBA    149.27 329 iPKPc  33 35.40   -1.8
        1.0s    35.00nm
                  i      33 39.70
VBY    149.38 325 ePKP   33 35.00   -2.1X
                  i      33 40.70
LJU    149.40 326 ePKP   33 35.50   -1.7
                  e      33 40.20
FUR    149.40 332 ePKP   33 40.60    3.5X
RBL    149.61 328 PKP    33 38.50    1.0
CEY    149.66 326 e(PKP)33 35.00   -2.6X
                  e      33 40.50
VOY    149.73 327 ePKP   33 36.50   -1.3
                  e      33 40.80
FVI    149.89 329 PKP    33 40.70    2.9X
WATA   149.90 331 iPKPc  33 41.30    3.2X
WTTA   149.93 331 iPKPc  33 41.70    3.6X
        1.2s    61.40nm
WLF    150.11 340 iPKPc  33 42.60    4.6X
```

```
SOTA   150.15 331 iPKPc  33 42.10    3.7X
        0.8s    27.00nm
DOU    150.21 342 PKPc   33 42.10    3.9X
        0.8s    53.30nm
OGA    150.50 331 iPKPd  33 43.80    4.8X
CDF    150.80 337 ePKP   33 43.70    4.4X
        1.1s    38.60nm
SLE    150.87 335 ePKPc  33 43.40    4.1X
OSS    151.03 332 iPKPc  33 44.60    4.8X
ZLA    151.14 335 ePKPc  33 44.10    4.3X
LLS    151.38 333 ePKPc  33 45.10    4.7X
BSF    151.46 337 ePKP   33 45.20    4.9X
        1.0s    26.60nm
HAU    151.47 338 ePKP   33 45.20    5.0X
        1.0s    35.60nm
VDL    151.48 332 ePKPc  33 45.10    4.6X
TMA    152.04 332 ePKPc  33 46.20    4.9X
SFI    152.24 326 PKP    33 48.10    6.7X
VAI    152.27 332 PKP    33 46.80    5.4X
DIX    152.67 334 ePKPc  33 48.50    6.2X
ORO    152.80 333 PKP    33 47.60    5.3X
LPL    153.41 334 ePKP   33 50.00    6.7X
        1.0s    19.40nm
LPG    153.41 334 ePKP   33 50.20    6.8X
        1.0s    23.80nm
LIC    163.41 195 PKP    33 55.10   -0.5
                  e      34 44.40
KIC    163.47 196 PKP    33 54.20   -1.4
                  e      34 45.80
TIC    163.81 196 PKP    33 54.90   -1.1
                  e      34 45.80
     S.D. = 1.3  on  68 of 110 obs.
-------------------------------------
   JAN  27, 1993  03h 39m 02.26± 0.59s
   43.163 N ± 4.9km   12.772 E ± 6.9km
   DEPTH =  10.0km  (geophysicist)
 CENTRAL ITALY                    (381)
     MD 3.1 (TRI).

ASS      0.12 221 P      39 04.40   -1.0
                  eSg    39 07.10
ARV      0.36  20 P      39 09.00   -0.6
                  eSg    39 15.00
CRE      0.76 308 P      39 16.00   -1.1
                  eSg    39 28.00
RSM      0.80 343 P      39 17.70    0.0
AQU      0.93 150 P      39 19.50   -0.6
                  eSg    39 36.60
SFI      1.01 319 P      39 22.10    0.7
PGD      1.04 313 P      39 23.00    0.9
                  eSg    39 38.50
SDI      1.65 152 P      39 32.90    1.5
                  eSg    39 54.20
BDI      1.82 300 P      39 33.90    0.0
                  eSg    39 54.80
TRI      2.64  15 e(Pn)   39 45.10   -0.5
                  e(Sn)  40 17.70
                  e(Sb)  40 27.80
                  e(Sg)  40 31.60
VBY      2.94  36 e(Pn)   40 01.00   11.1X
                  e(Sn)  40 33.90
VOY      2.98  15 ePn     39 49.50   -1.0
                  e      39 51.00
                  eSn    40 26.20
CTI      2.99 345 P      39 50.90    0.2
FVI      3.43   0 P      39 58.30    1.5
     S.D. = 1.0  on  13 of  14 obs.
-------------------------------------
   JAN  27, 1993  05h 00m 13.29± 0.31s
   22.910 N ± 4.6km  100.979 E ± 4.9km
   DEPTH =  33.0km  (normal)
   4.7mb ( 26 obs.)  4.2Msz (  1 obs.)
 MYANMAR-CHINA BORDER REGION      (297)
     ML 4.5 (BJI).

KMI      2.73  36 Pnd    00 55.00   -0.9
                  Pg     00 59.50
                  Sn     01 27.00
                  Sg     01 33.00
CHG      4.50 205 ePn     01 21.40    0.4
                  ePg    01 31.60
                  iSg    02 40.20
LOE      5.52 173 ePn     01 36.10    0.7
                  ePg    02 24.00
BDT      5.93 199 ePn     01 41.50    0.3
                  ePg    02 07.00
                  eSg    03 29.00
```

27d 05h

```
GYA      6.26  55 Pn     01 43.00  -2.9X
                 Pg     02 07.40
                 Sn     02 54.00
                 Sg     03 32.20
NST      7.24 186 eP     02 37.00  37.4X
CD2      8.34  17 eP     02 11.80  -3.2X
     Z  11s      5.07um
     N  10s      4.70um
                 S      03 49.90
KHT      8.39 196 ePg    02 17.30   1.7
                 eSg    04 44.30
SHL      8.71 289 iP     02 19.20  -1.0
                 iS     05 28.00
QIZ      9.14 113 eP     02 21.00  -4.9X
                 S      04 10.60
LSA     11.11 310 P      02 54.20   0.8
     0.9s    14.00nm          5.2mb
     Z  14s      1.19um
                 S      05 04.00
XAN     13.10  30 P      03 14.50  -5.1X
     Z  10s      2.42um
     N  10s      1.09um
                 pP     03 24.10
LZH     13.36  10 eP     03 24.50   1.2
     1.5s    19.00nm          4.8mb
     Z  18s      0.74um          5.4Msz
     E  10s      0.67um
                 pP     03 32.00
GUN     14.52 293 P      03 37.38  -1.3
PKI     14.83 291 P      03 41.96  -0.8
KKN     15.00 292 P      03 43.68  -1.1
DMN     15.10 291 P      03 45.54  -0.7
GKN     15.60 292 P      03 51.42  -1.2
GTA     16.48 357 eP     04 05.80   2.1
     1.5s    21.00nm          4.0mb
     Z  12s      0.96um          5.1MszX
                 pP     04 13.80
                 sP     04 17.60
TIY     17.74  31 eP     04 19.40   0.0
     Z  12s      2.17um
     N  10s      1.12um
     E  10s      0.90um
IPM     18.22 180 ePc    04 30.00   4.5X
NJ2     18.27  56 eP     04 25.00  -0.9
     N  11s      1.60um
     E  11s      0.73um
BTO     19.22  21 P      04 37.00  -0.5
     1.2s    32.00nm          4.4mb
     N  12s      1.76um
     E  11s      1.01um
TIA     19.27  43 eP     04 39.30   1.2
HHC     19.99  24 P      04 45.20  -0.7
     1.6s    46.00nm          4.6mb
     Z  16s      1.54um          5.3MszX
     N  12s      0.76um
     E  10s      0.44um
                 eS     08 18.60
BJI     21.38  33 eP     05 01.00   0.9
     1.8s   100.00nm          4.9mb
     Z  12s      1.33um          4.6MszX
     N  12s      0.85um
NDI     22.14 290 eP     05 07.00  -0.8
WMO     23.56 335 P      05 24.00   2.3
     1.5s   190.00nm          5.4mb
     Z  20s      0.75um          4.2Msz
                 S      09 32.20
GBA     24.17 252 Pc     05 30.10   2.5
     0.8s     5.00nm          4.1mb
POO     25.73 265 eP     05 40.50  -2.1
KSH     26.88 314 eP     05 50.00  -3.1X
WRA     53.61 140 P      09 33.00  -0.8
     0.7s     1.70nm          4.2mb
WB2     53.62 140 iPd    09 32.60  -1.2
     0.8s    13.90nm          5.0mb
ASPA    56.28 143 eP     09 52.00  -1.2
     1.0s    12.40nm          4.9mb
KAF     62.86 329 eP     10 40.20   2.2
HFS     69.09 328 eP     11 16.90  -0.9
     0.5s     3.80nm          4.8mb
     Z  18s    75.00um          7.0MszX
                 LR     42 46.00
NAO     70.35 329 P      11 24.20  -1.3
     0.7s     2.90nm          4.5mb
GEC2    71.37 316 ePd    11 32.40   0.3
     1.1s     1.72nm          4.0mb
BRW     72.35  19 eP     11 37.40   0.0
IMA     75.29  24 eP     11 54.10  -0.6
     1.1s     9.00nm          4.7mb
TTA     75.57  27 eP     11 56.50   0.2
SVW     76.43  29 e(P)   12 01.30   0.2
LPG     76.86 314 eP     12 04.70   0.6
     0.9s     6.40nm          4.6mb
LPL     76.87 314 eP     12 04.70   0.6
     0.8s     6.30nm          4.7mb
FBA     78.01  24 eP     12 08.92  -0.8
     1.1s     4.73nm          4.4mb
LOR     78.14 316 eP     12 10.90   0.1
LBF     78.16 316 eP     12 11.20   0.3
     1.0s     6.20nm          4.6mb
SMF     78.37 316 eP     12 12.30   0.2
     1.1s    10.75nm          4.8mb
SSF     78.43 316 eP     12 12.90   0.5
     1.0s     7.60nm          4.7mb
AVF     78.63 316 eP     12 13.80   0.3
     0.9s     7.70nm          4.7mb
PMR     79.05  27 eP     12 13.86  -1.6
     1.3s    28.96nm          5.1mb
MAF     79.34 316 eP     12 18.20   0.8
TCF     79.55 316 eP     12 19.30   0.8
     1.0s     8.40nm          4.7mb
TOA     80.03  26 eP     12 20.30  -0.5
RJF     80.37 315 eP     12 24.20   1.3
BCAO    81.34 271 iPd    12 28.30  -0.3
     1.2s    21.00nm          5.0mb
BUL     82.53 245 iPd    12 35.40   0.7
YKA     90.31  16 eP     13 11.20  -0.8
     0.5s     0.50nm          4.1mb
BAO    149.87 278 ePKP   19 56.00  -1.5
                 e      20 03.00
                 e      20 09.10
     S.D. = 1.1  on  52 of  59 obs.
-----------------------------------
%  JAN  27, 1993  05h 04m 25.73± 1.44s
   31.892 S ±16.7km   66.889 W ±13.7km
   DEPTH =  22.5 ± 14.6 km
 LA RIOJA PROVINCE, ARGENTINA     (138)

CFA      1.19 284 iPd    04 47.90   0.9
RTCV     1.40 271 iPc    04 50.50   0.4
                 (S)    05 09.50
RTLL     1.46 292 iPd    04 50.50  -0.4
                 S      05 09.50
RTPR     1.62  12 e(P)d  04 53.20   0.1
                 (S)    05 14.20
RTCB     1.68 283 iPc    04 53.30  -0.8
                 S      05 14.50
RFA      3.16 204 ePd    05 15.20  -0.1
     S.D. = 1.0  on   6 of   6 obs.
-----------------------------------
*  JAN  27, 1993  05h 29m 54.54± 1.88s
   38.112 N ±11.6km   26.870 E ±14.4km
   DEPTH =  10.0km  (geophysicist)
 AEGEAN SEA                       (365)
      MD 3.2 (ISK).

IZM      0.42  47 iPg    30 02.70  -0.4
                 iSg    30 06.70
CIN      1.09 118 ePg    30 15.00   0.0
                 iSg    30 28.00
EZN      1.76 346 ePn    30 24.80  -0.5
DST      2.03  42 ePn    30 29.00  -0.2
BNT      2.38  20 ePn    30 34.60   0.3
KCT      2.43  28 ePn    30 35.60   0.7
     S.D. = 0.6  on   6 of   6 obs.
-----------------------------------
*  JAN  27, 1993  05h 31m 05.81± 1.00s
   50.286 N ±16.4km   18.928 E ± 6.8km
   DEPTH =  10.0km  (geophysicist)
 POLAND                           (548)
      ML 2.8 (WAR).

OJC      0.56  96 iPg    31 17.10  -0.1
                 iSg    31 25.50
SPC      1.39 142 iPn    31 31.60   0.2
                 i(Sn)  31 51.90
                 Lg     31 56.00
KSP      1.77 289 ePn    31 37.00   0.3
     0.7s    54.00nm
                 iPg    31 39.10
                 iS     32 01.50
VRAC     1.80 238 iPnc   31 37.40   0.3
     0.4s    12.70nm
                 eSg    32 00.50
ZST      2.41 210 eP     32 13.90  28.0X
                 e      32 35.60
SRO      2.51 190 eP     32 27.60  40.3X
PRU      2.84 266 Pg     31 58.20   6.2X
     0.6s     6.10nm
                 Sg     32 32.50
BRG      3.23 282 e(Pg)  32 09.00  11.5X
                 iSg    32 47.00
KHC      3.66 254 eP     32 03.00  -0.7
                 e      32 13.00
                 e      32 43.40
                 eSg    32 57.50
                 e      33 00.50
     S.D. = 0.6  on   5 of   9 obs.
-----------------------------------
?  JAN  27, 1993  06h 37m 10.44± 9.83s
   45.778 N ±20.9km   16.130 E ±70.2km
   DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION       (383)
      MD 2.8 (LJU).

ZAG      0.11 290 iPgd   37 13.00  -0.3
                 iSg    37 16.50
PTJ      0.17 315 iPgd   37 11.70  -2.7X
                 iSg    37 14.50
VBY      0.67 246 iPg    37 24.00   0.2
                 iSg    37 36.10
LJU      1.15 284 eP     37 32.50   0.6
                 iSg    37 46.50
CEY      1.19 269 eP     37 32.00  -0.7
                 e      37 34.40
                 eSg    37 50.10
VOY      1.58 280 ePg    37 38.80   0.1
                 e(Sg)  38 01.50
TRI      1.66 268 e(P)   38 03.90  24.2X
     S.D. = 0.7  on   5 of   7 obs.
-----------------------------------
   JAN  27, 1993  07h 31m 58.18± 0.51s
   39.300 N ± 4.6km   28.742 E ± 4.8km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                           (366)
      MD 3.1 (ISK).

DST      0.32 344 iPg    32 04.20  -0.6
                 iSg    32 08.20
KCT      0.99 343 ePn    32 16.50  -0.5
ALT      1.09 103 iPn    32 18.10  -0.7
KHL      1.15 148 iPn    32 19.50  -0.3
BNT      1.23 329 iPn    32 21.00  -0.1
EDC      1.25 327 iPn    32 21.00  -0.3
IZM      1.47 233 ePn    32 25.00   0.3
GPA      1.56  50 ePn    32 26.40   0.4
GBZT     1.58  20 ePn    32 26.00  -0.3
EYL      1.67  40 ePn    32 28.00   0.3
HRT      1.68  25 ePn    32 29.00   1.3
EZN      1.94 286 ePn    32 31.90   0.4
     S.D. = 0.6  on  12 of  12 obs.
-----------------------------------
?  JAN  27, 1993  07h 59m 51.24± 2.38s
   43.963 N ±20.0km   12.218 E ± 8.8km
   DEPTH =  10.0km  (geophysicist)
 CENTRAL ITALY                    (381)

SFI      0.27 261 P      59 56.90   0.0
                 eSg    00 03.10
CRE      0.39 210 P      59 59.10  -0.1
                 eSg    00 06.60
ARV      0.70 131 P      00 05.00  -0.1
ASS      0.95 160 P      00 09.50   0.1
     S.D. = 0.2  on   4 of   4 obs.
-----------------------------------
*  JAN  27, 1993  08h 08m 13.17± 1.40s
   38.197 N ±11.3km   27.379 E ±15.7km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                           (366)
      MD 3.1 (ISK).

IZM      0.22 335 iPg    08 17.30  -0.7
                 eSg    08 21.80
CIN      0.82 137 eP     08 29.00   0.0
DST      1.71  34 ePn    08 42.00  -1.2
EZN      1.82 334 ePn    08 45.00   0.3
KCT      2.19  20 ePn    08 50.90   0.8
BNT      2.20  11 ePn    08 51.00   0.8
     S.D. = 1.0  on   6 of   6 obs.
-----------------------------------
&  JAN  27, 1993  08h 13m 36.61s
   38.819 N          122.775 W
```

```
   DEPTH =   2.8km
 NORTHERN CALIFORNIA                                  ( 36)
      <GM-P>. MD 3.4 (GM). ML 3.5
      (BRK). 3.2 (GS). Felt (IV) at
      Cobb.

NTYM     0.44 168 ePc    13 45.34   0.0
                  S      13 52.12
ZSP      0.96 155 iPc    13 55.05  -0.5
                  eS     14 09.67
HMR      1.01 131 eP     13 56.24  -0.2
                  S      14 08.38
BKS      1.03 156 iPc    13 55.72  -1.1
                  eS     14 11.04
ORV      1.23  53 iPc    13 58.13  -2.1
JEGM     1.33 169 eP     13 59.07  -2.7
                  S      14 16.25
PCC      1.35 167 iPc    14 00.34  -1.9
STAN     1.49 161 eP     14 02.67  -1.7
MHC      1.72 148 ePc    14 06.23  -1.6
ARN      1.76 146 eP     14 06.60  -1.7
                  eS     14 29.05
WDC      1.77   6 eP     14 08.11  -0.2
MIN      1.77  30 iPd    14 07.13  -1.4
COE      1.79 150 eP     14 07.27  -1.3
GCC      1.89 161 iPc    14 07.54  -2.5
                  eS     14 35.69
KMPM     1.90 327 eP     14 11.67   1.3
LMEM     1.95  28 eP     14 09.13  -2.0
CMB      2.03 112 ePc    14 10.86  -1.4
                  eS     14 36.97
LGPM     2.09 359 eP     14 14.23   1.1
FHC      2.19 335 (P)    14 15.34   0.9
                  e      14 23.51
SAO      2.31 152 ePc    14 13.96  -2.2
LBFM     2.61  15 eP     14 21.24   0.5
LLA      2.63 146 iPc    14 19.34  -1.5
PRS      2.72 155 eP     14 19.16  -2.9
FRI      3.03 126 iPd    14 25.90  -0.6
PRI      3.16 147 iPd    14 28.12  -0.2
MMPM     3.19 111 eP     14 28.66  -0.3
                  Lg     15 10.77
MEMM     3.23 110 ePn    14 27.44  -1.8
                  eS     15 07.41
PHAM     3.53 147 eP     14 31.27  -2.2
MRCM     3.55 107 eP     14 32.85  -1.2
                  Lg     15 27.36
BONR     3.62 102 ePn    14 34.68  -0.4
                  ePg    14 42.02
                  eS     15 15.81
                  Lg     15 27.34
MTUM     3.63 112 eP     14 34.42  -0.7
                  eS     15 20.09
KVN      3.65  85 ePn    14 33.81  -1.7
TNP      4.42  98 ePg    14 55.30   8.9
ISA      4.66 131 eP     14 48.69  -0.9
PEC      6.68 136 (P)    15 16.54  -1.7
MSU      8.30  89 eP     15 39.62  -1.4
       36 obs. associated
-----------------------------------------
&  JAN  27, 1993  08h 15m 06.66s
   38.820 N          122.784 W
   DEPTH =   2.5km
 NORTHERN CALIFORNIA                                  ( 36)
      <GM-P>. MD 2.8 (GM).

NTYM     0.44 167 ePc    15 15.64   0.2
                  S      15 23.18
HMR      1.02 130 eP     15 26.90   0.3
ORV      1.24  53 eP     15 31.21   0.8
JEGM     1.33 169 eP     15 31.03  -0.9
                  S      15 49.05
WDC      1.77   6 (Pn)   15 40.25   1.8
ARN      1.77 146 ePn    15 38.49   0.0
COE      1.79 150 eP     15 38.22  -0.5
KMPM     1.90 328 ePn    15 43.48   3.1
LMEM     1.95  28 ePn    15 40.62  -0.7
CMB      2.04 112 eP     15 41.11  -1.3
                  eS     16 08.03
LGPM     2.09 359 (Pn)   15 44.48   1.3
                  Pg     15 48.29
FHC      2.18 335 (P)    15 47.25   2.8
LBFM     2.62  15 (Pn)   15 53.90   3.1
MMPM     3.20 111 (P)    16 00.18   1.0
MEMM     3.24 110 (P)    16 00.68   1.3
PKEM     3.48 141 (Pn)   16 03.68   0.8
MRCM     3.56 107 (P)    16 05.25   1.1
MTUM     3.64 112 (P)    16 06 30   1.0
                  eS     16 50.63
KVN      3.66  85 (Pn)   16 06 32   0.7
TNP      4.43  98 (P)    16 14.36  -2.3
PEC      6.69 136 (P)    16 45.50  -2.9
MSU      8.31  89 (P)    17 12.35   1.1
       22 obs. associated
-----------------------------------------
*  JAN  27, 1993  08h 21m 39.49± 0.65s
     6.026 S ±11.2km  129.828 E ±13.5km
   DEPTH =  33.0km  (normal)
   5.1mb (  3 obs.)
 BANDA SEA                                        (280)

MTN      6.90 169 eP     23 22.00   1.1
                  eS     24 20.00
WB2     14.52 163 iPc    24 59.00  -5.6X
                  i      25 08.40
                  iS     27 30.70
PMG     17.50 102 eP     25 42.50  -0.2
WARB    20.27 188 eP     26 14.00  -1.2
CTA     21.21 133 iPc    26 21.00  -3.9X
GUN     54.19 311 P      31 04.60  -0.1
         0.4s     10.00nm          5.2mb
PKI     54.37 310 P      31 07.20   1.1
         0.4s      5.00nm          4.9mb
KKN     54.58 310 P      31 07.20  -0.3
DMN     54.62 310 P      31 07.60  -0.2
GKN     55.18 310 P      31 11.60  -0.2
         0.4s      9.00nm          5.2mb
YAK     67.84 360 eP     32 26.00 -10.2X
         1.8s    112.00nm
       S.D. = 0.9  on   8 of  11 obs.
-----------------------------------------
   JAN  27, 1993  09h 00m 08.28± 0.57s
   31.711 S ± 9.2km   68.186 W ± 9.6km
   DEPTH = 102.0 ± 13.7 km
 SAN JUAN PROVINCE, ARGENTINA       (137)
      MD 4.4 (SAN).

CFA      0.11 337 iPc    00 23.00   0.0
MDZ      1.30 206 iP     00 34.00   1.4
                  i      00 48.00
RTPR     2.01  46 iPc    00 41.00  -0.5
                  eS     01 05.20
JACH     2.26 244 iP+    00 45.42   0.5
FCH      2.40 227 eP     00 48.20   1.1
                  iS     01 19.87
PEL      2.55 235 eP     00 48.96   0.1
                  iS     01 20.18
ROCH     2.70 242 eP     00 50.21  -0.8
                  iS     01 21.08
SAN      2.72 230 eP     00 51.76   0.7
PCH      2.73 225 eP     00 51.95   0.6
                  iS     01 26.60
TACH     3.02 229 eP     00 54.84  -0.3
                  iS     01 30.07
CHCH     3.04 222 eP     00 55.82   0.4
                  eS     01 33.30
RFA      3.06 184 iPd    00 55.50  -0.2
                  (S)    01 21.40
TCA      3.09  84 iP     00 55.40  -0.8
IHA      3.20 245 e(P)   01 10.00  12.4X
                  eS     01 27.50
LCCH     3.35 237 iPd    00 58.10  -1.6
LNV      3.52 230 iPd    01 00.02  -1.9
                  iS     01 39.06
FSA      5.92  19 eP     01 32.30  -2.7X
CCH     14.39   8 P      03 31.30   2.7X
CNCB    14.84   1 eP     03 34.00  -0.6
LPB     15.11   0 eP     03 36.00  -1.9
ZOBO    15.35   0 P      03 43.30   2.1
SIV     16.94  24 eP     04 02.00   1.6
       S.D. = 1.2  on  19 of  22 obs.
-----------------------------------------
   JAN  27, 1993  09h 02m 55.37± 1.02s
     6.040 N ± 4.9km  124.473 E ± 6.4km
   DEPTH =  83.0 ±  9.9 km
   5.0mb ( 22 obs.)
 MINDANAO, PHILIPPINE ISLANDS       (259)

DAV      1.51  46 iPd    03 20.80  -0.5
PLP      5.12   6 ePd    04 12.50   1.4
MTN     19.89 161 eP     07 21.00  -1.8
WWKK    21.40 116 eP     07 42.00   3.8X
GUA     21.46  68 e(P)   07 20 00 -18.8X
KGM     21.47 260 eP     07 39.00   0.1
KLI     22.38 241 eP     07 49.00   1.2
IPM     23.39 268 ePc    07 57.00  -0.7
NST     25.72 294 eP     08 29.00   9.2X
PMG     27.32 124 eP     08 34.00  -0.5
WRA     27.59 160 P      08 35.70  -1.1
WB2     27.59 160 iPd    08 35.60  -1.3
         0.5s     23.40nm          5.0mb
CHG     27.92 299 eP     08 45.70   5.8X
KMI     28.17 315 Pc     08 43.00   0.7
         2.0s     60.00nm          4.9mb
XAN     31.37 335 P      09 10.20  -0.2
         1.0s      6.40nm          4.3mb
                   sP    09 39.50
CD2     31.47 324 eP     09 10.80  -0.5
      Z  16s      0.80um          4.5MszX
WARB    32.10 176 eP     09 15.40  -1.4
TIY     33.38 343 eP     09 28.30   0.4
      Z  20s      0.62um          4.3Msz
CTA     33.66 141 iPc    09 30.10  -0.4
         1.0s      8.75nm          4.6mb
BJI     34.66 349 eP     09 38.50  -0.3
         1.3s     28.00nm          5.0mb
      Z  24s      0.44um          4.1MszX
LZH     35.39 330 P      09 46.00   0.7
         1.5s     54.00nm          5.3mb
      Z  19s      0.59um          4.4Msz
      E  12s      0.27um
SNY     35.65 359 eP     09 47.30   0.2
      Z  24s      0.65um          4.3MszX
HHC     36.54 343 P      09 55.00   0.2
         1.2s     20.00nm          4.9mb
BTO     36.77 341 eP     09 56.80   0.1
LSA     39.24 311 Pd     10 19.00   1.0
         1.2s     10.00nm          4.6mb
GTA     39.98 330 Pd     10 24.20   0.6
         1.0s     28.00nm          5.1mb
      Z  18s      1.03um          4.7Msz
                   PcP   12 32.50
STK     41.09 158 iPc    10 33.40   0.8
         1.0s     20.90nm          4.9mb
CMS     42.52 153 iPd    10 45.10   0.7
GUN     42.56 305 P      10 44.84  -0.4
PKI     42.81 305 P      10 45.96  -1.3
ADE     42.94 163 eP     10 49.30   1.6
KKN     43.00 305 P      10 47.38  -1.2
         1.0s     40.00nm          5.2mb
BRS     43.05 142 iPc    10 48.00  -0.8
DMN     43.07 304 P      10 48.36  -0.9
GKN     43.61 305 P      10 52.26  -1.2
ARMA    44.62 146 eP     11 02.20   0.7
         0.9s     18.00nm          4.9mb
BFD     46.19 160 iPd    11 14.30   0.7
         0.8s     21.00nm          5.1mb
                   e     13 00.70
HYB     46.24 288 eP     11 10.00  -4.4X
GBA     46.89 283 P      11 20.80   1.3
CNB     47.34 152 iPc    11 24.40   1.5
         0.8s     33.00nm          5.3mb
TOO     47.61 157 eP     11 26.40   1.5
         0.8s     61.00nm          5.6mb
WMQ     49.56 325 P      11 40.20   0.3
         1.0s     55.00nm          5.5mb
      Z  20s      0.54um          4.5Msz
DZM     49.70 126 iPc    11 41.40   0.1
QUE     59.02 302 eP     12 48.20  -1.2
TTA     79.88  27 eP     14 54.90  -1.4
BRW     80.71  19 eP     15 02.00   1.6
IMA     81.20  24 eP     15 04.60   1.3
         0.8s      6.00nm          4.5mb
SLKM    82.47  30 (P)    15 09.11  -0.7
PMR     83.01  29 eP     15 10.70  -1.8
         1.1s     50.80nm          5.4mb
FBA     83.61  25 eP     15 15.41  -0.2
         0.7s      3.37nm          4.4mb
HRI     85.67 303 eP     15 27.40   0.7
JVI     86.10 302 eP     15 29.40   0.6
RMN     86.84 300 eP     15 33.00   0.5
KAF     88.52 332 iP     15 39.00  -0.7
         0.9s     13.90nm          5.1mb
NAO     95.99 333 P      16 12.70  -1.6
         1.1s      9.60nm          5.2mb
YKA     98.32  24 eP     16 24.70   0.0
         1.0s      1.30nm          4.4mb
ZOBO   163.99 131 PKP    22 53.00   1.5
       S.D. = 1.0  on  52 of  57 obs.
-----------------------------------------
%  JAN  27, 1993  09h 10m 50.71± 0.95s
```

27d 09h

39.118 N ± 8.2km 27.666 E ± 9.7km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 2.8 (ISK).

```
IZM     0.79 204 iPg   11 06.30   0.3
                eSg    11 18.30
DST     0.89  57 iPn   11 07.00  -0.8
EDC     1.24   7 ePn   11 14.00   0.3
KCT     1.25  25 iPn   11 14.70   0.8
EZN     1.26 305 ePn   11 13.50  -0.5
     S.D. = 0.9  on   5 of   5 obs.
```

JAN 27, 1993 10h 27m 05.62± 0.20s
32.104 N ± 4.1km 60.088 E ± 2.5km
DEPTH = 33.0km (normal)
5.1mb (67 obs.)
NORTHERN IRAN (348)
Three people injured and 200 houses destroyed in the Nehbandan area.

```
MAIO    4.21 353 iPnc  28 09.00  -0.2
      1.0s   150.00nm
                eSn    29 05.00
ASH     6.00 347 eP    28 32.50  -2.0
      1.5s   360.00nm          5.8mb
                iS     29 37.00
QUE     6.18 106 eP    28 35.70  -1.5
      1.0s   400.00nm          6.1mb
                eS     30 18.20
                ePcS   39 05.40
KAT     7.73 337 eP    28 59.00   0.3
                eS     30 22.00
TEH     8.09 299 eP    29 04.00   0.2
DHR    10.44 239 ePc   29 35.00  -1.0
                iS     34 18.50
KER    11.10 285 eP    29 45.00  -0.3
SHE    12.55 316 iPc   30 05.00   0.5
      1.0s   160.00nm          6.1mb X
GRS    13.37 307 eP    30 25.00   9.3X
RYD    13.95 242 ePc   30 19.00  -4.2X
MJMA   14.37 248 eP    30 27.00  -1.6
MAK    14.79 321 eP    30 38.00   4.0X
KSH    14.83  56 P     30 33.00  -1.7
      1.2s    70.00nm          4.9mb
    Z  10s     8.88um          5.4Msz
NDI    15.17  99 eP    30 37.00  -2.1
FRU    15.72  43 eP    30 44.00  -2.1
      2.2s   360.00nm          5.2mb
GRO    15.97 319 iPd   30 49.00  -0.3
      2.0s   600.00nm          5.4mb
    Z  12s     5.00um          5.7MszX
    N  12s     3.00um
    E  12s     5.00um
BOM    17.44 136 eP    31 09.10   1.1
                iS     34 34.10
PRZ    17.84  49 iPd   31 13.00   0.0
      2.0s   600.00nm          5.4mb
PYA    17.89 317 eP    31 12.00  -1.5
      2.0s   220.00nm          4.9mb
    Z  12s     1.50um          5.1MszX
                eS     34 38.00
KIV    18.07 316 P     31 18.70   3.0X
      1.8s   118.00nm          4.7mb
    Z  18s     0.60um          4.1MszX
POO    18.34 134 eP    31 16.00  -3.2X
HRI    20.52 280 eP    31 46.00   2.2
BHL    20.56 282 P     31 44.00  -0.2
                S      35 40.00
DHJN   20.78 230 eP    31 47.30   0.6
KMTA   20.83 232 eP    31 48.00   0.8
ABHA   20.85 233 eP    31 47.00  -0.4
DSI    20.99 275 eP    31 50.20   1.7
KVT    21.23 302 eP    31 52.20   1.3
GKN    21.62  95 P     31 54.60  -0.5
RMN    21.80 273 eP    31 58.90   2.1
ANN    21.84 312 eP    31 57.00   0.1
      1.1s    42.00nm          4.8mb
                eS     36 04.00
DMN    22.14  95 P     32 01.66   1.3
HYB    22.20 127 eP    32 01.30   0.6
      1.3s   120.00nm          5.2mb
                eS     36 10.00
BRVK   22.20  16 iPd   32 00.00  -0.5
                eS     36 06.00
KKN    22.23  95 P     32 00.78  -0.4
PKI    22.40  95 P     32 02.74  -0.4
      1.2s   321.00nm          5.7mb
CSS    22.46 285 eP    32 07.30   4.1X
GUN    22.70  94 P     32 05.78  -0.3
KAS    22.96 301 eP    32 12.00   3.9X
SIM    23.91 310 eP    32 18.00   0.8
                eSS    37 36.00
ARU    24.31 358 ePd-  32 23.50   2.5X
      2.2s  1000.00nm          6.0mb
                e      32 35.00
                e      32 41.00
                e      32 53.00
                e      33 01.50
GBA    24.32 135 P     32 23.70   2.3X
      0.8s     3.00nm          3.9mb X
WMQ    24.59  54 iPd   32 25.20   1.2
      1.5s    55.00nm          4.9mb
    Z  13s     1.84um          4.8MszX
    N  10s     1.06um
                pP     32 34.40  33kmX
                sP     32 41.00
SVE    24.71   1 iPd   32 26.80   2.0
      2.0s   260.00nm          5.5mb
                e      32 54.70
                eS     36 50.00
ELL    25.27 289 iP    32 32.00   1.5
EYL    25.45 298 eP    32 27.00  -5.2X
HRT    25.87 298 eP    32 31.30  -4.6X
LSA    26.72  87 P     32 45.50   1.1
      1.2s    12.00nm          4.4mb
    Z  16s     2.49um          4.9MszX
    N  14s     1.91um
    E  11s     1.42um
                SS     38 29.00
KIS    28.08 311 eP    32 56.00   0.0
                e      33 42.00
ELT    28.31  34 iPd   32 58.20   0.2
      2.4s   159.00nm          5.3mb
                eS     37 40.00
OBN    28.34 331 iPd   32 59.00   0.8
      1.6s   160.00nm          5.5mb
                e      33 52.00
                eS     37 48.00
                eSSS   39 24.00
MOS    28.39 333 eP    33 01.00   2.3
    Z  12s     1.62um          4.8MszX
                e      33 48.00
                e      34 01.00
SHL    28.54  95 eP    32 59.50  -1.1
                eS     37 52.00
BRD    28.80 307 ePc   33 17.00  14.5X
CLI    28.95 309 eP    33 03.00  -0.9
ISR    29.04 306 eP    33 08.00   3.2X
VRI    29.12 308 eP    33 08.00   2.6X
MLR    29.54 307 ePc   33 11.00   1.6
MTUR   30.08 306 eP    33 19.00   4.9X
CMP    30.10 306 ePc   33 17.00   2.7X
UER    31.53  42 iPc   33 27.00   0.4
      1.5s    64.00nm          5.3mb
    Z  11s     2.50um          5.1MszX
    N  11s     1.66um
    E  11s     1.66um
                eS     38 39.00
SKO    32.15 299 eP    33 18.00 -14.3X
                i      33 31.50
UZH    32.79 311 iPc   33 38.50   0.8
      2.0s   144.00nm          5.5mb
                e      33 51.30
                e      33 53.80
GTA    32.85  66 P     33 38.50   0.0
      1.0s    57.00nm          5.4mb
    Z  15s     1.72um          4.9MszX
    E  11s     0.71um
                pP     33 45.50  24kmX
OJC    34.80 313 eP    33 55.50   0.4
MOY    35.58  44 eP    34 03.90   2.2
      1.5s    88.00nm          5.5mb
ZST    36.05 309 eP    34 07.10   1.3
LZH    36.23  71 P     34 07.50  -0.1
      2.0s    47.00nm          5.1mb
    Z  16s     1.81um          4.9MszX
    E  12s     1.09um
                pP     34 15.00  25kmX
                PP     35 35.00
ZAK    36.64  47 eP    34 11.50   0.9
      1.8s    65.00nm          5.2mb
                e      35 38.00
                e      36 34.60
                eS     39 55.00
NUR    36.70 331 iP    34 11.10   0.1
      0.7s     5.80nm          4.6mb
SGO    36.72 296 P     34 14.20   2.7X
VBY    36.94 304 eP    34 16.00   2.8X
KAF    37.02 334 eP    34 13.40  -0.3
CD2    37.06  80 eP    34 14.50   0.0
    Z  20s     1.12um          4.7Msz
KSP    37.12 313 ePd   34 15.80   1.1
CHG    37.29 101 eP    34 15.90  -0.6
      1.1s    26.90nm          5.0mb
IRK    37.72  44 ePc   34 21.30   1.5
      1.8s    54.00nm          5.1mb
                e      36 06.00
KMI    37.89  89 Pd    34 22.50   0.7
      2.0s   140.00nm          5.5mb
    Z  13s     1.20um          4.9MszX
    N  12s     0.60um
    E  12s     0.50um
                eS     40 08.00
VOY    37.94 305 e(P)  34 16.50  -5.2X
PRU    38.04 312 eP    34 22.30  -0.1
RBL    38.20 306 P     34 24.80   0.9
GEC2   38.39 310 eP    34 24.90  -0.6
      0.9s    16.65nm          4.8mb
                e      34 29.60
                e      34 32.40
                e      34 48.50
ARV    38.48 301 P     34 27.10   0.8
KHC    38.51 310 P     34 27.00   0.5
      1.5s    16.10nm          4.6mb
                e      34 36.50
                e      35 19.00
BRG    38.58 313 iP    34 28.40   1.5
      1.9s    70.00nm          5.1mb
APA    38.80 344 eP    34 28.20  -0.3
CRE    39.20 301 P     34 33.40   1.0
CLL    39.24 313 iPd   34 33.10   0.6
      1.9s    69.00nm          5.1mb
                e      34 47.00
SFI    39.28 302 P     34 36.00   3.1X
CTI    39.50 305 P     34 36.50   1.7
MOX    40.00 312 eP    34 39.80   1.0
      1.9s    58.00nm          5.0mb
    Z  18s     0.40um          4.3Msz
GRF    40.12 311 ePd   34 40.60   0.8
      1.9s    80.00nm          5.2mb
    Z  19s     0.30um          4.2Msz
SDF    40.49 341 iP    34 43.80   1.3
NRI    40.55  15 iPd   34 43.80   0.8
      1.5s    40.00nm          4.9mb
    Z  16s     1.90um          5.0MszX
    N  16s     1.00um
                e      34 58.00
                e      36 43.00
OSS    40.57 306 ePc   34 43.60  -0.1
BTO    40.64  63 P     34 45.80   1.5
      1.4s    70.00nm          5.2mb
    N  16s     1.48um
    E  16s     1.69um
XAN    40.66  74 P     34 43.50  -1.0
      1.0s    14.00nm          4.7mb
    Z  12s     1.34um          5.0MszX
    N  13s     0.89um
    E  13s     1.17um
GYA    40.77  86 P     34 45.80   0.3
      1.2s    13.00nm          4.5mb
VDL    41.03 306 ePc   34 48.00   0.5
HFS    41.34 327 eP    34 50.40   0.8
      0.5s     2.50nm          4.2mb
    Z  16s   274.00um          7.2MszX
                LR     51 59.00
LLS    41.37 306 ePc   34 50.20  -0.1
TMA    41.43 305 Pc    34 51.00   0.2
HHC    41.79  63 P     34 53.60  -0.1
      1.2s    28.00nm          4.9mb
    Z  18s     1.81um          5.0Msz
    N  13s     0.65um
    E  13s     1.01um
                pP     35 01.00  25kmX
                PP     36 35.00
                ScS    44 52.00
MMK    42.06 305 ePc   34 56.00   0.0
DIX    42.45 305 ePc   34 59.20   0.0
CDF    42.59 308 eP    34 58.30  -1.9
EMS    42.78 305 ePc   35 01.30  -0.6
```

```
BSF     42.90 307 eP     35 01.50  -1.2
NAO     42.91 327 P      35 02.50   0.1
        0.9s     6.60nm          4.4mb
LPG     42.91 304 eP     35 01.70  -1.4
        0.8s    13.70nm          4.7mb
LPL     42.93 304 eP     35 01.70  -1.4
        1.1s    40.05nm          5.1mb
HAU     43.20 308 eP     35 03.60  -1.5
      Z  22s     0.20um          4.0Msz
CIT     43.30  46 eP     35 06.00   0.1
BOD     44.52  38 eP     35 14.20  -1.3
        1.7s   105.00nm          5.4mb
LBF     44.81 306 eP     35 16.70  -1.4
        1.2s    29.15nm          5.0mb
LOR     44.88 307 eP     35 17.20  -1.5
        1.1s    22.45nm          5.0mb
      Z  21s     0.22um          4.1Msz
SMF     44.91 306 eP     35 17.70  -1.2
        1.0s    48.40nm          5.3mb
SSF     45.13 306 eP     35 19.50  -1.1
        1.1s    38.85nm          5.2mb
AVF     45.24 306 eP     35 20.20  -1.3
        1.3s    41.90nm          5.2mb
BJI     45.38  64 eP     35 23.50   0.9
        1.0s    22.00nm          5.0mb
      Z  22s     1.23um          4.8Msz
      N  14s     0.90um
BGF     45.60 306 eP     35 23.10  -1.2
MAF     45.81 305 eP     35 25.20  -0.8
TCF     46.05 305 eP     35 27.00  -0.9
        1.2s    25.60nm          5.0mb
CAF     46.25 303 eP     35 28.60  -0.9
        1.2s    35.70nm          5.2mb
LSF     46.53 305 eP     35 30.50  -1.2
RJF     46.61 304 eP     35 31.50  -0.8
        1.5s    59.55nm          5.3mb
      Z  20s     0.15um          3.9Msz
TIA     46.80  69 Pd     35 34.40   0.5
      Z  16s     0.94um          4.8MszX
      N  13s     0.54um
LPO     46.89 303 eP     35 33.50  -1.1
IPM     47.07 117 ePd    35 37.10   0.8
LFF     47.19 304 eP     35 35.80  -1.1
        1.0s    27.60nm          5.2mb
BCAO    47.64 244 iPd    35 40.50  -0.3
        1.0s    10.00nm          4.8mb
                  id     36 49.90
MFF     47.66 306 eP     35 39.00  -1.6
FLN     47.74 309 eP     35 39.90  -1.3
        0.9s    18.65nm          5.1mb
      Z  22s     0.25um          4.1Msz
GRR     48.01 308 eP     35 41.90  -1.4
EKA     49.28 318 Pd     35 53.60   0.6
        0.9s     9.10nm          4.8mb
KGM     50.47 117 eP     36 02.00  -0.6
SNY     50.62  60 eP     36 02.80  -0.5
      Z  16s     2.59um          5.3MszX
CN2     51.61  57 eP     36 11.00   0.1
        1.0s    14.00nm          4.9mb
      Z  20s     1.34um          5.0Msz
      N  10s     0.20um
      E  10s     0.65um
                 epP     36 21.00  33kmX
YAK     52.72  34 eP     36 18.60  -0.4
        1.7s    64.00nm          5.3mb
TIK     53.20  22 iPd    36 23.00   0.6
        2.0s    41.00nm          5.1mb
      Z  15s     2.00um          5.3MszX
                   e     36 38.00
                   e     37 31.00
                   e     38 30.00
                   e     43 44.00
YSS     62.60  50 ePc    37 28.00  -0.7
        1.0s    40.00nm          5.5mb
      Z  16s     1.00um          5.1MszX
      E  16s     0.50um
MAT     62.98  62 (P)    37 29.00  -2.4
MGD     63.10  34 eP     37 30.00  -1.8
                  eS     46 05.00
SLR     65.03 212 eP     37 45.50   0.5
KIC     65.36 262 P      37 46.00  -1.2
TIC     65.44 262 P      37 46.40  -1.4
LIC     65.67 262 P      37 47.80  -1.4
PRY     66.42 212 eP     37 55.00   1.1
FRS     69.81 212 iPc    38 14.60  -0.1
        1.0s    20.00nm          5.1mb
ILT     71.15  20 iPd    38 22.00  -0.4
        1.3s    15.00nm          4.9mb
BRW     73.65  12 eP     38 38.80   1.7
IMA     78.75  13 eP     39 06.01  -0.1
        1.2s     6.26nm          4.5mb
FBA     80.89  12 eP     39 18.47   1.0
        0.6s     2.57nm          4.4mb
PWA     83.47  14 eP     39 32.40   1.6
SLKM    84.43  15 (P)    39 37.89   2.1
YKA     85.64 358 eP     39 40.80  -0.9
        0.8s     7.00nm          4.9mb
WRA     87.86 115 P      39 53.80   0.6
        0.6s     0.70nm          4.1mb
WB2     87.87 115 iPd    39 53.70   0.5
        0.7s     9.90nm          5.2mb
ZOBO   130.67 276 PKP    46 17.00   0.8
CNCB   130.79 275 PKP    46 18.00   1.6
                   i     49 46.00
      S.D. = 1.1  on 139 of 160 obs.
-----------------------------------
   JAN  27, 1993  10h 53m 31.28± 1.06s
    7.202 N ± 4.6km  127.197 E ± 6.0km
   DEPTH =  71.7 ± 10.1 km
   5.0mb ( 22 obs.)
 PHILIPPINE ISLANDS REGION        (248)

DAV      1.61 266 iPc    53 56.40  -1.8
PLP      4.51 331 ePd    54 31.50  -7.1X
                   iS    54 40.00
PGP      8.77 316 eP     55 39.00   1.3
TSM      9.72 253 eP     55 51.00   0.3
KKM     10.97 265 ePd    56 09.80   2.1
BAG     11.21 325 eP     56 12.00   1.0
GUMO    18.49  69 eP     57 42.60  -1.7
WWKK    19.61 123 eP     57 56.50  -0.2
MTN     20.30 169 eP     58 03.00  -0.8
                   eS    59 09.00
QIZ     20.56 307 Pc     58 08.70   2.1
KGM     24.34 259 eP     58 44.00   0.1
KLI     25.31 242 eP     58 53.50   0.5
                   e     59 11.10
PMG     25.84 129 eP     58 58.00   0.1
        0.9s    31.93nm          4.8mb
IPM     26.16 266 ePd    59 01.00   0.1
LOE     26.83 295 eP     58 56.00 -11.0X
GYA     27.36 317 eP     59 15.60   3.7X
      Z  16s     1.47um          4.6MszX
                   S     03 54.00
NST     27.80 290 eP     59 27.00  11.2X
WRA     27.88 166 P      59 15.40  -1.0
        0.4s     9.90nm          4.8mb
WB2     27.88 165 iPc    59 15.20  -1.3
        0.3s    36.20nm          5.5mb
CHG     29.79 296 eP     59 32.80  -1.0
XAN     31.60 330 P      59 45.00  -4.4X
      Z  14s     0.60um          4.4MszX
CD2     32.21 320 eP     59 53.60  -1.2
      Z  16s     1.42um          4.8MszX
      N  12s     0.85um
CTA     32.97 146 iPc    00 02.00   0.5
        0.9s    18.91nm          4.9mb
                   e     00 19.00
WARB    33.19 181 eP     00 02.50  -0.8
TIY     33.20 338 eP     59 59.80  -3.6X
      Z  20s     0.75um          4.4Msz
BJI     34.16 345 eP     00 21.00   9.5X
BJI     34.16 345 eP     00 11.00  -0.5
SNY     34.63 355 eP     00 19.50   4.0X
MEEK    34.65 194 iPd    00 15.30  -0.7
        0.4s    40.00nm          5.7mb
LZH     35.82 327 eP     00 31.00   5.1X
        1.0s    15.00nm          4.9mb
      Z  15s     0.78um          4.6MszX
      E  12s     0.54um
                   pP     00 38.50  25kmX
HHC     36.29 340 P      00 30.00   0.2
        1.2s    12.00nm          4.7mb
      Z  18s     1.57um          4.8Msz
MDJ     37.33   3 eP     00 37.60  -0.7
        1.3s    63.00nm          5.4mb
FORT    37.77 179 eP     00 41.50  -0.6
MRWA    37.78 196 iPd    00 42.10  -0.2
SHL     38.30 303 eP     00 44.00  -3.0X
RMQ     39.49 149 eP     00 57.00   0.4
MUN     40.35 194 iPd    01 03.90   0.3
GTA     40.42 327 eP     01 01.80  -2.5
      Z  18s     0.86um          4.6Msz
LSA     40.59 308 P      01 07.00   0.8
STK     41.22 161 iPd    01 10.90   0.2
        0.5s    21.40nm          5.2mb
                   e     01 16.70
BRS     42.37 145 iPc    01 19.50  -0.8
        1.0s    14.00nm          4.7mb
                   e     01 31.00
                   e     03 05.00
CMS     42.39 156 eP     01 20.30  -0.1
RKG     42.65 192 eP     01 23.50   1.1
ADE     43.33 166 iPd    01 28.70   0.8
ARMA    44.14 149 eP     01 35.70   1.0
        0.8s    31.00nm          5.2mb
                   e     01 54.20
BFD     46.42 163 iPc    01 43.10  -9.5X
        0.8s    19.00nm          5.1mb
CNB     47.17 155 eP     01 59.70   1.1
        0.8s    18.00nm          5.1mb
TOO     47.71 160 eP     02 04.00   1.2
        0.8s    17.00nm          5.0mb
DZM     48.22 128 iPc    02 08.10   1.0
GBA     49.28 282 P      02 14.00  -1.2
WMQ     50.20 323 P      02 22.50   0.6
        1.0s     6.20nm          4.6mb
                   pP    02 28.00  18kmX
                   sP    02 35.20
YAK     54.73   1 iPc    02 54.00  -1.3
        1.1s    65.00nm          5.6mb
KSH     55.94 313 eP     03 05.00   0.4
      Z  16s     0.96um          5.0MszX
      N  16s     1.01um
MAIO    67.82 306 eP     04 24.00  -0.2
SVW     77.54  29 eP     05 22.55   1.8
        1.1s    34.77nm          5.2mb
TTA     77.62  27 eP     05 24.00   2.8X
IMA     79.04  24 eP     05 30.17   1.1
        0.6s     1.86nm          4.2mb
SLKM    80.12  30 eP     05 35.40   0.6
PMR     80.70  29 eP     05 38.00   0.3
        1.1s    57.20nm          5.4mb
FBA     81.40  25 eP     05 43.40   2.0
TOA     82.11  28 eP     05 45.80   0.6
BALM    83.98  29 eP     05 56.40   1.5
KVT     86.19 311 eP     06 06.00  -0.2
KAF     88.75 332 eP     06 16.50  -1.6
HFS     95.18 333 eP     06 44.90  -2.9
        0.4s     1.00nm          4.6mb
YKA     96.16  24 eP     06 52.20  -0.1
        1.1s     1.60nm          4.5mb
GEC2    99.66 322 ePc    07 07.90  -0.6
        0.6s     0.94nm          4.6mb
                   e     07 12.30
                   e     07 18.90
KIC    130.19 285 PKP    12 35.60  -0.3
        0.6s     8.50nm
                   e     15 55.00
TIC    130.39 285 PKP    12 36.00  -0.3
                   e     15 56.00
LIC    130.50 284 PKP    12 36.00  -0.4
        0.5s     7.00nm
                   e     15 56.00
MDZ    150.42 152 e(PKP)13 18.30   7.1X
CNCB   162.36 124 PKP    13 31.20   4.1X
                   i     14 19.00
LPB    162.41 123 ePKP   13 32.00   5.0X
ZOBO   162.50 122 PKP    13 30.10   2.8X
      Z  22s     0.14um          4.7Msz
                   i     14 20.00
                   LR    35 16.00
SIV    168.09 138 PKP    13 38.00   6.7X
      S.D. = 1.1  on  58 of  75 obs.
-----------------------------------
*  JAN  27, 1993  11h 08m 42.04± 2.08s
   31.856 S ±17.4km   67.878 W ± 8.9km
   DEPTH =   5.0km  (geophysicist)
 SAN JUAN PROVINCE, ARGENTINA     (137)

CFA      0.39 309 ePc    08 50.40   0.4
                   S     08 56.00
RTCV     0.56 269 iP     08 53.20  -0.1
RTLL     0.73 316 eP     08 56.20  -0.4
                   S     09 07.00
RTCB     0.87 295 eP     08 59.30   0.0
                   S     09 12.00
MDZ      1.31 218 e(P)   09 19.80  12.9X
RTPR     1.94  37 ePd    09 16.00   0.0
                   S     09 40.10
      S.D. = 0.4  on   5 of   6 obs.
```

```
-----------------------------------------
%  JAN  27, 1993  11h 23m 27.96± 1.87s
   36.459 N ±17.2km     4.449 W ± 8.4km
   DEPTH =  10.0km  (geophysicist)
 STRAIT OF GIBRALTAR                (385)
      mbLg 2.4 (MDD).

MAL      0.27   6 iPgd   23 32.00  -1.6
                  iSg    23 35.00
EGUA     0.80  62 ePg    23 43.50   0.0
                  eSg    23 54.50
EPRU     0.81 309 ePg    23 44.50   0.9
                  eSg    23 57.00
EJIF     0.82 270 ePg    23 43.00  -0.9
                  eSg    23 54.00
ECOG     1.08  41 ePg    23 49.00   0.6
                  eSg    24 04.00
EHOR     1.50 335 ePn    23 56.00   1.1
                  eSn    24 15.50
      S.D. = 1.4  on   6 of   6 obs.
-----------------------------------------
?  JAN  27, 1993  11h 35m 33.75± 1.11s
   39.137 N ±10.2km    27.540 E ±18.9km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                             (366)
      MD 2.7 (ISK).

IZM      0.77 196 iPg    35 48.80   0.0
                  iSg    36 00.30
DST      0.96  61 ePn    35 52.00  -0.1
BNT      1.25  13 iPn    35 56.80  -0.2
KCT      1.28  29 iPn    35 57.80   0.3
      S.D. = 0.4  on   4 of   4 obs.
-----------------------------------------
%  JAN  27, 1993  11h 41m 57.38± 0.69s
   26.445 S ± 5.7km    27.408 E ± 8.1km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA           (584)
      ML 2.3 (PRE).

PRY      0.48 173 eP     42 07.00  -0.1
                  S      42 13.00
KSR      0.74 321 eP     42 12.60   0.4
                  S      42 22.00
SLR      1.06  48 eP     42 17.00  -0.9
                  S      42 29.50
SEK      1.88 174 eP     42 31.70   1.1
                  S      42 55.50
BFT      2.49  73 eP     42 40.00   0.6
                  S      43 09.00
BLF      2.86 202 eP     42 44.60  -0.1
                  S      43 17.70
FRS      3.77 209 eP     42 56.50  -1.0
      S.D. = 0.9  on   7 of   7 obs.
-----------------------------------------
*  JAN  27, 1993  11h 43m 27.11± 1.15s
   18.189 N ±12.4km   120.960 E ±10.2km
   DEPTH =  20.7 ±  9.3 km
   4.4mb (  4 obs.)
 LUZON, PHILIPPINE ISLANDS          (249)

PIP      0.35 293 iPd    43 34.00  -0.7
                  iS     43 41.00
CVP      0.95 120 eP     43 45.20   0.4
                  eS     43 57.50
PGP      4.66 180 ePc    44 38.00  -0.1
LZH     23.38 323 eP     48 37.50   2.0
         1.2s     15.00nm          4.4mb
GUN     33.60 293 P      50 09.20   0.5
PKI     33.96 292 P      50 12.00   0.2
KKN     34.10 293 P      50 13.00   0.1
DMN     34.23 292 P      50 14.40   0.4
GKN     34.70 293 P      50 18.00   0.1
SLL     82.71 332 eP     55 49.60  -0.9
         0.4s     1.60nm          4.5mb
NAO     83.68 332 P      55 53.90  -1.5
         0.7s     1.50nm          4.3mb
YKA     88.56  23 eP     56 19.00  -0.4
         0.8s     0.80nm          4.1mb
      S.D. = 1.0  on  12 of  12 obs.
-----------------------------------------
*  JAN  27, 1993  12h 11m 08.29± 0.59s
   11.060 S ±10.9km   114.733 E ±23.7km
   DEPTH =  33.0km  (normal)
   4.7mb (  5 obs.)
 SOUTH OF BALI, INDONESIA           (284)

NANU    11.46 176 eP     13 52 00  -0.8
                  eS     15 50.00
MEEK    15.92 167 eP     14 51.00  -0.6
                  eS     17 37.00
MRWA    18.10 176 eP     15 20.50   1.5
                  eS     18 30.00
WARB    18.78 145 eP     15 27.00  -0.4
BAL     19.54 175 eP     15 40.10   4.0X
IPM     20.68 318 ePd    15 48.50   0.3
         0.7s     17.30nm          4.5mb
WB2     20.85 117 eP     15 44.30  -5.7X
         0.4s      2.30nm          3.9mb
MUN     20.86 176 eP     15 57.50   7.5X
                  eS     19 39.00
STK     32.30 134 iPc    17 39.20   2.7X
         0.6s      2.30nm          4.3mb
SHL     42.67 329 eP     19 04.00   0.1
GUN     47.77 325 P      19 44.84   0.0
         0.6s     25.00nm          5.4mb
PKI     47.78 324 P      19 44.40  -0.5
DMN     47.98 324 P      19 46.26  -0.2
         0.7s     24.00nm          5.3mb
KKN     48.02 324 P      19 46.36  -0.3
GKN     48.55 324 P      19 50.58  -0.1
YKA    117.76  23 ePKP   29 53.50   1.0
         0.5s      0.20nm
      S.D. = 0.8  on  12 of  16 obs.
-----------------------------------------
*  JAN  27, 1993  12h 11m 21.10± 1.51s
   51.141 N ±19.4km    15.820 E ± 9.2km
   DEPTH =  10.0km  (geophysicist)
 POLAND                             (548)
      MG 2.4 (WAR).

BRG      1.21 258 iPg    11 42.40  -1.3
                  eSg    12 02.20
PRU      1.41 216 ePg    11 47.80   1.0
                  e      11 52.00
                  Sn     12 04.50
                  Sg     12 10.50
CLL      1.78 277 ePg    11 53.00   0.9
                  eSg    12 17.00
KHC      2.48 216 ePn    12 01.80  -0.3
                  Pg     12 07.50
                  e      12 10.40
                  e      12 32.50
                  eSg    12 43.90
                  e      12 58.00
OJC      2.69 108 eP     12 05.00  -0.2
                  eS     12 40.00
MOX      2.71 261 ePg    12 11.00   5.5X
                  iSg    12 49.90
      S.D. = 1.3  on   5 of   6 obs.
-----------------------------------------
   JAN  27, 1993  12h 24m 06.47± 1.32s
   33.312 S ± 6.0km    72.092 W ±11.5km
   DEPTH =  25.3 ±  5.2 km
 OFF COAST OF CENTRAL CHILE         (134)
      MD 4.5 (SAN).

LCCH     0.47 111 iPd    24 15.98  -0.1
IHA      0.47  53 iPc    24 15.30  -0.9
                  iS     24 20.80
LNV      0.86 139 iPd    24 22.70   0.1
ROCH     0.97  70 iPd    24 23.37  -1.2
TACH     1.02 110 iPd    24 24.55  -0.6
PEL      1.19  82 iP+    24 27.22  -0.4
                  iS     24 39.65
SAN      1.20  97 iPd    24 27.20  -0.6
CHCH     1.35 118 iPd    24 29.82   0.0
                  iS     24 44.96
PCH      1.35 104 iPd    24 29.71  -0.2
JACH     1.41  64 iPd    24 30.36  -0.4
CACH     1.48 123 iPd    24 32.84   1.0
FCH      1.51  91 iP+    24 32.25  -0.2
MDZ      2.75  82 iP     24 56.30   6.3X
                  i      24 59.30
                  iS     25 31.20
RTCB     3.33  58 iPc    24 59.20   1.0
                  (S)    25 43.50
RTCV     3.33  65 iP     25 01.90   3.7X
RFA      3.34 117 i(P)   25 02.20   3.8X
                  S      25 49.20
RTLL     3.65  58 eP     25 03.50   0.8
                  (S)    25 48.50
CFA      3.67  63 eP     25 03.90   0.8
TCA      6.65  75 iP     25 44.50  -0.6
                  S      26 58.50
FSA      8.93  38 e(P)   26 19.00   2.1
CNCB    16.84  14 eP     28 02.00  -0.8
LPB     17.09  13 eP     28 05.00  -0.7
ZOBO    17.32  13 P      28 08.20  -0.7
SIV     19.92  33 P      28 40.40   1.1
KIC     74.91  72 P      35 46.20  -1.1
GBA    146.05 118 PKP    43 46.00   0.6
      S.D. = 0.9  on  23 of  26 obs.
-----------------------------------------
&  JAN  27, 1993  12h 28m 57.57s
   63.173 N          149.334 W
   DEPTH =  82.2km
 CENTRAL ALASKA                       (  1)
      <AEIC>.

HUR      0.24 215 eP     29 09.53  -0.5
                  eS     29 18.91
RND      0.32  43 iP     29 10.33  -0.2
                  eS     29 20.38
TRF      0.51 303 iP     29 11.99  -0.1
                  eS     29 22.58
MCK      0.59  18 eP     29 12.70   0.1
                  eS     29 23.63
NEA      1.41   4 eP     29 21.40  -0.8
GHO      1.42 172 eP     29 21.95  -0.4
                  eS     29 41.13
SML      1.45 161 eP     29 22.04  -0.7
                  eS     29 42.47
PWA      1.55 190 P      29 23.70  -0.3
                  S      29 45.10
SKT      1.57 221 iP     29 22.92  -1.4
                  S      29 43.54
PLRM     1.59 176 eP     29 24.35  -0.2
CCB      1.63  24 eP     29 24.13  -0.9
HDA      1.63  39 eP     29 24.28  -0.8
SCM      1.64 144 eP     29 24.96  -0.3
                  S      29 46.65
THY      1.64  80 eP     29 25.49   0.3
PAX      1.77  95 eP     29 27.54   0.5
                  S      29 49.63
TOA      1.81 125 P      29 28.20   0.6
                  S      29 53.00
KNK      1.81 167 eP     29 26.95  -0.6
SUA      1.84 202 eP     29 27.54  -0.5
SDG      1.86 109 eP     29 28.64   0.5
                  S      29 52.98
FBA      1.86  21 eP     29 27.43  -0.8
PMS      1.94 183 P      29 29.70   0.4
GLM      2.01  24 eP     29 29.31  -1.0
TZL      2.13 120 eP     29 31.84   0.0
KLU      2.32 135 eP     29 33.20  -1.3
PTE      2.32 176 eP     29 35.29   0.9
CRP      2.33 216 eP     29 34.40  -0.3
                  S      30 04.51
CP2      2.35 217 eP     29 34.13  -0.9
CKN      2.37 216 eP     29 35.01  -0.1
SPU      2.37 214 eP     29 34.24  -1.0
BGL      2.39 218 eP     29 35.03  -0.5
CKT      2.39 216 eP     29 35.10  -0.4
DOT      2.42  76 eP     29 35.84   0.0
VLZ      2.49 144 eP     29 34.84  -1.8
GLI      2.53 154 eP     29 37.44   0.1
MPA      2.69 180 eP     29 40.11   0.6
SLKM     2.71 189 eP     29 39.52  -0.3
FID      2.78 150 eP     29 39.54  -1.2
KNIM     2.93 164 eP     29 42.42  -0.5
DFR      3.04 213 eP     29 44.63   0.2
TTA      3.05 268 P      29 43.00  -1.6
SEW      3.08 181 eP     29 44.16  -0.7
HIN      3.09 153 eP     29 45.07  -0.1
GLB      3.11 121 eP     29 44.21  -1.2
NCT      3.13 215 eP     29 45.50  -0.1
REF      3.13 212 eP     29 46.44   0.6
RSO      3.17 212 eP     29 46.48   0.2
LTI      3.22 167 eP     29 45.53  -1.3
CROM     3.80 127 eP     29 53.71  -1.4
FYU      3.83  25 eP     29 54.30  -1.0
TGL      3.91 125 eP     29 54.82  -1.8
BALM     3.92 120 eP     29 55.10  -1.6
        51 obs. associated
-----------------------------------------
   JAN  27, 1993  12h 53m 12.18± 0.59s
   26.356 S ± 5.8km    27.343 E ± 6.1km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA           (584)
      mbLg 3.1 (BUL). ML 3.4 (PRE).
```

```
PRY     0.58 169 iPc    53 23.50  -0.4
KSR     0.63 320 eP     53 25.50   0.6
                 S      53 34.00
BPI     0.64  74 eP     53 24.90  -0.2
                 S      53 31.70
BFS     0.74 223 eP     53 27.90   1.0
                 S      53 37.30
SLR     1.05  54 iPc    53 32.90   0.4
                 S      53 45.50
SEK     1.98 173 eP     53 47.80   1.0
                 S      54 12.00
SWZ     1.98 245 eP     53 49.00   2.1
                 S      54 14.00
BFT     2.52  75 eP     53 55.00   0.4
                 S      54 24.00
BLF     2.93 200 eP     54 01.10   0.7
                 S      54 35.50
FRS     3.82 207 eP     54 12.00  -1.0
                 S      54 55.00
BUL     6.29  11 iPn    54 47.10  -1.0
                 iSn    55 56.90
                 iSg    56 28.00
POF     7.20 244 e(P)   54 59.00  -1.7
                 S      56 14.00
CER     9.87 223 eP     55 35.90  -2.0
                 S      57 19.00
     S.D. = 1.3  on  13 of  13 obs.
-----------------------------------
%  JAN  27, 1993  13h 41m 06.01± 0.87s
   26.906 S ±10.3km   26.762 E ± 8.2km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA          (584)
      ML 2.0 (PRE).

BFS     0.02  69 eP     41 07.00  -0.2
                 S      41 07.50
SWZ     1.31 258 eP     41 31.00   0.2
                 S      41 49.10
SEK     1.61 152 eP     41 35.90   0.6
                 S      41 56.50
SLR     1.79  50 iPd    41 38.00   0.0
                 S      42 00.40
BLF     2.25 193 e(P)   41 44.00  -0.6
     S.D. = 0.7  on   5 of   5 obs.
-----------------------------------
&  JAN  27, 1993  14h 51m 06.73s
   58.269 N          142.964 W
   DEPTH =  10.0km  (geophysicist)
 GULF OF ALASKA                  ( 15)
      <AEIC>. ML 3.0 (PGC), 2.7
      (AEIC).

KAIM    1.82 336 eP     51 33.59  -4.8
                 S      51 54.37
CYK     1.84   8 eP     51 34.08  -4.4
                 S      51 55.23
SNH     1.92   2 iP     51 35.05  -4.7
                 eS     51 57.08
YAH     2.19  16 iP     51 39.17  -4.8
                 S      52 03.98
RAGM    2.30 338 eP     51 39.97  -5.3
PCA     2.30  36 eP     51 40.13  -5.3
                 S      52 06.18
PNL     2.32  51 eP     51 39.68  -5.9
                 S      52 04.80
BCPM    2.41  44 eP     51 41.18  -5.6
                 S      52 08.38
HON     2.43  59 eP     51 40.85  -6.3
                 S      52 07.82
TGL     2.50   2 eP     51 42.99  -5.1
CROM    2.50 358 iP     51 42.95  -5.3
CVA     2.69 329 eP     51 45.88  -4.9
BALM    2.79   6 iP     51 47.30  -5.1
HIN     2.80 321 eP     51 46.92  -5.5
CTGM    2.83  16 eP     51 47.68  -5.2
MTU     2.97 307 eP     51 48.49  -6.2
LTI     3.08 307 eP     51 50.17  -6.1
GLB     3.21 353 eP     51 52.63  -5.6
KNIM    3.21 312 eP     51 51.69  -6.6
VLZ     3.34 331 eP     51 53.82  -6.2
KLU     3.56 337 eP     51 57.09  -6.1
PLBC    3.63  68 P      51 57.30  -6.8
                 S      52 37.00
SEW     3.81 302 eP     51 59.56  -7.1
PTE     4.03 313 eP     52 03.05  -6.7
SCM     4.19 330 eP     52 05.84  -6.3
KNK     4.20 321 eP     52 07.57  -4.6
SLKM    4.34 304 eP     52 07 75  -6.5
SML     4.45 325 eP     52 10.63  -5.2
VIB     7.73 126 P      52 51.60 -10.4
        29 obs. associated
-----------------------------------
   JAN  27, 1993  15h 25m 04.72± 0.27s
   42.823 N ± 4.5km  141.913 E ± 4.5km
   DEPTH = 153.7km  (  5 depth phases)
   4.8mb ( 28 obs.)
 HOKKAIDO, JAPAN  REGION          (224)

MRRJ    0.74 238 iP+    25 28.10   0.0
                 S      25 44.60
HOOJ    1.11 113 iPd    25 31.50   0.5
                 S      25 50.80
ASAJ    1.40  22 iP+    25 33.90   0.1
                 S      25 54.80
KUSJ    2.07  81 iPd    25 41.70   0.4
                 eS     26 07.90
AOMJ    2.54 208 P      25 47.30   0.4
                 eS     26 18.30
OFUJ    3.74 183 iP+    26 01.40  -1.0
                 eS     26 43.70
YSS     4.23   7 iPnc+  26 08.50  -0.2
                 eS     26 55.00
YAMJ    4.86 198 P      26 16.90  -0.2
KUR     4.92  59 iPnc   26 19.00   1.1
                 eS     27 15.00
NIIJ    6.01 203 P      26 32.50   0.1
                 eS     27 37.70
KAKJ    6.74 192 P      26 38.90  -3.5
                 S      27 50.20
MAT     6.89 206 iPc    26 43.70  -0.7
      0.5s    50.70nm          5.2mb
                 eS     28 02.00
MTMJ    6.99 208 P      26 45.70  -0.1
CHJJ    7.13 199 P      26 46.20  -1.4
                 S      28 01.50
IIDJ    7.96 204 eP     26 58.80   0.0
                 eS     28 21.90
TSRJ    8.61 214 P      27 08.70   1.4
MDJ     9.10 286 eP     27 13.00  -0.8
CN2    12.04 280 eP     27 52.60   0.3
      1.0s    20.00nm          4.6mb
SKR    12.48  46 ePn    27 57.50  -0.5
                 eS     30 09.00
SNY    13.61 272 Pc     28 12.70   0.3
MGD    18.14  14 eP     29 04.00  -3.6X
      0.8s   110.00nm          5.2mb
BJI    19.48 271 eP     29 20.00  -1.7
      1.0s    44.00nm          4.8mb
TIA    20.19 259 Pc     29 27.70  -1.3
YAK    20.55 344 iPd    29 30.10  -2.3
      0.8s    63.00nm          5.1mb
                 eS     33 06.00
SEY    21.03  13 eP     29 36.00  -1.2
      0.8s    30.00nm          4.8mb
CIT    21.13 306 eP     29 35.90  -2.5
HHC    22.64 275 P      29 53.00  -0.3
      1.2s    40.00nm          4.7mb
TIY    23.00 267 eP     29 57.70   0.9
BTO    23.84 276 P      30 06.20   1.3
WHN    25.15 250 Pd     30 18.00   0.9
      1.0s    44.00nm          5.0mb
XAN    27.15 262 P      30 35.50   0.1
      0.5s     5.50nm          4.5mb
MOY    28.83 302 eP     30 50.90   0.8
LZH    29.96 270 P      31 01.50   0.9
      1.5s    40.00nm          4.9mb
GTA    31.66 278 Pc     31 16.00   0.6
      1.0s    33.00nm          5.1mb
CD2    32.50 261 eP     31 22.70   0.1
ILT    32.64  26 eP     31 21.00  -2.3
GYA    32.99 252 P      31 27.60   0.6
      0.8s    17.00nm          4.8mb
KMI    36.58 254 Pd     31 58.50   0.9
      1.0s    60.00nm          5.3mb
WMO    38.86 291 P      32 17.20   0.9
      1.0s    12.00nm          4.6mb
TTA    40.55  38 eP     32 27.00  -2.9
IMA    41.58  34 eP     32 38.87   0.4
      0.7s     4.07nm          4.2mb
                 epP    33 13.45 156km
CHG    43.36 250 ePd    32 54.50   1.2
      0.8s     9.89nm          4.5mb
PMR    43.85  40 eP     32 54.10  -2.6
FBA    44.08  35 eP     32 59.18   0.7
      0.8s     6.61nm          4.3mb
                 epP    33 33.56 154km
TOA    45.16  39 eP     33 07.80   0.6
BRVK   47.16 309 iPd    33 23.60   0.6
                 eS     40 03.00
BALM   47.17  40 eP     33 23.87   0.7
                 (pP)   33 59.50 159km
GUN    47.22 271 P      33 25.00   0.7
KKN    47.73 271 P      33 28.80   0.8
      0.6s    26.00nm          5.1mb
PKI    47.76 271 P      33 29.00   0.6
      0.8s    26.00nm          5.0mb
DMN    47.96 271 P      33 30.80   1.0
      0.7s    25.00nm          5.0mb
GKN    48.09 272 P      33 31.40   0.7
      0.6s    26.00nm          5.1mb
KSH    48.63 290 eP     33 33.00  -1.7
RES    56.91  15 ePd    34 35.80   0.6
      0.6s     5.00nm          4.6mb
YKA    58.65  32 eP     34 46.80  -0.7
      0.6s     1.50nm          4.1mb
GBA    62.19 263 P      35 12.00   0.0
KAF    63.37 332 eP     35 19.00  -0.2
NUR    65.05 331 iP     35 29.70  -0.3
      0.4s     5.50nm          4.8mb
HFS    68.99 335 eP     35 53.90  -0.8
      0.4s     2.80nm          4.5mb
NAO    69.30 337 P      35 56.10  -0.5
      0.5s     1.80nm          4.1mb
LCCM   70.08  46 eP     36 03.00   1.1
BW06   73.37  47 eP     36 22.50   1.0
      1.0s     2.50nm          3.9mb
MSU    74.83  51 eP     36 31.47   1.5
RSSD   75.29  43 eP     36 33.17   0.7
      0.8s     2.27nm          4.0mb
PV09   76.56  50 eP     36 41.00   1.2
PV10   76.70  50 eP     36 42.00   1.5
                 epP    37 19.15 150km
PV08   76.78  49 eP     36 42.63   1.6
                 epP    37 19.74 150km
SIV   146.81  43 PKP    44 36.20   7.9X
     S.D. = 1.2  on  66 of  68 obs.
-----------------------------------
   JAN  27, 1993  16h 00m 14.83± 0.80s
   37.924 N ± 5.4km   30.785 E ±10.5km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                           (366)
      MD 3.4 (ISK). ML 3.3 (CSS).

BCK     0.49 199 iPg    00 25.10   0.3
KHL     1.07 292 iPn    00 35.40   0.3
ALT     1.25 335 ePn    00 38.60   0.5
ELL     1.37 211 ePn    00 39.00  -1.0
DST     2.38 316 ePn    00 55.00   0.5
EYL     2.68 350 ePn    00 58.00  -0.9
KCT     2.99 322 ePn    01 03.00  -0.2
CSS     3.60 144 eP     01 12.30   0.5
     S.D. = 0.8  on   8 of   8 obs.
-----------------------------------
   JAN  27, 1993  16h 02m 30.12± 0.80s
   37.935 N ± 5.2km   30.859 E ±10.0km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                           (366)
      MD 3.3 (ISK).

BCK     0.52 204 ePg    02 40.00  -0.7
KHL     1.12 291 iPn    02 50.90  -0.3
ALT     1.26 333 iPn    02 54.10   0.4
ELL     1.41 213 ePn    02 57.00   1.1
DST     2.41 314 ePn    03 10.00  -0.3
EYL     2.68 349 ePn    03 14.00  -0.2
KCT     3.02 321 ePn    03 19.00   0.1
CSS     3.57 145 eP     03 26.60  -0.1
     S.D. = 0.7  on   8 of   8 obs.
-----------------------------------
   JAN  27, 1993  17h 34m 57.14± 0.81s
   37.150 N ± 5.4km   71.872 E ± 5.4km
   DEPTH = 158.5 ±  9.4 km
   4.5mb ( 20 obs.)
 AFGHANISTAN-TAJIKISTAN BORD REG.(717)

KSH     3.97  53 iPd    35 59.90   1.9
                 S      36 43.50
FRU     6.05  20 iPnd   36 25.80   0.3
                 i      37 36.80
PRZ     7.32  41 iPnc+  36 41.00  -1.7
QUE     8.06 212 iPd    36 57.90   5.3X
```

27d 17h

```
        1.0s  1450.00nm          6.5mb X
                  eS    38 27.60
NDI      9.56 150 ePc   37 12.60   0.4
        0.5s    31.69nm          5.2mb
MAIO     9.97 269 eP    37 17.00  -0.7
                  eS    39 04.00
WMO     13.75  56 P     38 04.00  -2.6X
        0.8s     8.40nm          4.2mb
                  pP    38 10.00
                  S     40 32.00
GKN     14.09 127 P     38 10.00  -1.1
KKN     14.65 126 P     38 17.00  -1.2
DMN     14.67 127 P     38 18.20  -0.2
PKI     14.89 126 P     38 20.60  -0.6
GUN     14.97 124 P     38 21.40  -0.8
BRVK    15.95 357 iPd   38 31.00  -2.8X
        1.0s    52.00nm          4.8mb
                  eS    41 20.00
POO     18.63 174 iPc   39 03.00  -2.2X
ELT     18.97  27 eP    39 06.00  -2.4X
        1.0s    83.00nm          5.1mb
                  e     42 22.00
HYB     20.52 162 eP    39 25.90   1.3
                  eS    43 08.50
SHL     20.58 118 eP    39 26.50   1.3
                  eS    43 06.50
SVE     21.06 343 iPc   39 30.20   0.6
ARU     21.22 339 eP    39 32.00   0.8
GTA     22.02  76 eP    39 40.00   0.7
        1.0s    43.00nm          4.9mb
GBA     23.97 167 Pc    40 00.00   1.9
MOY     25.15  45 eP    40 10.00   1.1
LZH     25.62  83 eP    40 14.00   0.4
        1.2s    15.00nm          4.5mb
ZAK     26.04  49 iPc   40 18.00   1.0
        0.9s    15.00nm          4.6mb
CD2     27.07  94 eP    40 25.90  -0.8
HHC     30.88  71 eP    41 01.80   1.2
CIT     32.72  50 eP    41 15.80  -0.6
NRI     33.50  10 iPd   41 22.50  -0.3
        1.0s    33.00nm          5.0mb
                  e     41 59.00
                  e     42 44.00
BOD     34.50  39 iP    41 29.70  -1.8
HFS     42.99 321 eP    42 41.80   0.0
        0.4s     2.60nm          4.2mb
YAK     43.05  36 iPc   42 41.20  -1.0
        0.9s    31.00nm          4.9mb
NAO     44.46 322 P     42 52.80  -0.8
        0.5s     1.10nm          3.7mb
TIK     44.90  22 iP    42 56.00  -1.0
        0.6s    18.00nm          4.8mb
BSF     47.84 304 eP    43 20.60   0.1
        0.5s     2.60nm          4.2mb
LPG     48.40 301 eP    43 26.00   0.9
        0.3s     0.85nm          3.9mb
LPL     48.41 301 eP    43 25.80   0.7
        0.3s     1.55nm          4.2mb
SMF     50.08 304 eP    43 37.70   0.2
        0.5s     3.30nm          4.3mb
AVF     50.36 304 eP    43 39.60   0.0
        0.4s     3.05nm          4.3mb
BGF     50.76 304 eP    43 43.30   0.6
        0.4s     2.05nm          4.2mb
MAF     51.04 303 eP    43 45.10   0.3
BCAO    58.54 250 iPd   44 37.00  -2.3
        0.7s     6.00nm          4.6mb
YKA     80.56   3 eP    46 51.70  -0.8
        0.5s     1.00nm          3.8mb
      S.D. = 1.1  on  37 of  42 obs.
-----------------------------------------
*  JAN  27, 1993  17h 44m 27.31± 0.56s
   32.097 N ±14.4km   60.001 E ± 6.9km
   DEPTH =  33.0km  (normal)
   4.6mb ( 16 obs.)
 NORTHERN IRAN                      (348)
      Felt in the Nehbandan area.

MAIO     4.21 354 ePn   45 30.00  -0.9
        0.7s    41.30nm
                  eSn   46 26.00
TEH      8.03 299 e(P)  46 25.00   0.3
GKN     21.70  94 P     49 16.60  -0.9
        1.0s    44.00nm          4.8mb
DMN     22.21  95 P     49 25.00   2.2
        0.9s    32.00nm          4.8mb
HYB     22.25 127 eP    49 27.50   4.6X
KKN     22.30  95 P     49 23.00  -0.6
        0.9s    44.00nm          4.9mb
PKI     22.48  95 P     49 25.40  -0.1
        0.9s    39.00nm          4.9mb
GUN     22.78  94 P     49 27.60  -0.9
OBN     28.31 331 iPc   50 21.00   1.3
        1.3s    41.00nm          5.0mb
                  i     50 26.00
                  e     50 35.00
                  e     51 21.00
GEC2    38.34 310 eP    51 46.90   0.1
        0.8s     3.13nm          4.2mb
                  e     51 50.40
KHC     38.46 310 eP    51 47.50  -0.2
CLL     39.20 313 iPd   51 55.70   1.9
        1.2s    14.00nm          4.6mb
MOX     39.95 312 eP    52 01.20   1.2
HFS     41.30 327 eP    52 10.50  -0.5
        0.5s     1.20nm          3.9mb
BSF     42.84 307 eP    52 22.90  -1.0
LPG     42.86 304 eP    52 24.30   0.0
        0.7s     3.30nm          4.2mb
LPL     42.87 304 eP    52 23.70  -0.6
LBF     44.75 306 eP    52 39.40   0.0
        0.5s     1.70nm          4.2mb
SMF     44.85 306 eP    52 39.80  -0.3
        0.9s    46.10nm          5.4mb
SSF     45.07 306 eP    52 41.50  -0.4
        0.9s    13.60nm          4.8mb
AVF     45.19 306 eP    52 42.30  -0.4
BGF     45.54 306 eP    52 45.00  -0.6
MAF     45.75 305 eP    52 47.10  -0.2
        0.6s     3.00nm          4.4mb
TCF     46.00 305 eP    52 49.10  -0.1
CAF     46.19 303 eP    52 50.60  -0.2
LFF     47.13 304 eP    52 57.90  -0.2
IMA     78.77  13 eP    56 29.10   1.1
        1.0s     3.25nm          4.3mb
YKA     85.64 357 eP    57 03.30  -0.1
        0.7s     2.80nm          4.6mb
WRA     87.92 115 P     57 20.60   5.4X
        0.6s     0.40nm          3.9mb
      S.D. = 0.9  on  27 of  29 obs.
-----------------------------------------
    JAN  27, 1993  18h 52m 42.03± 0.76s
    31.502 S ± 9.0km   69.499 W ± 8.4km
    DEPTH = 133.2 ± 11.9 km
 SAN JUAN PROVINCE, ARGENTINA       (137)
      MD 4.2 (SAN).

RTCB     0.60  89 iPd   53 02.00  -0.4
RTCV     0.89 114 iPd   53 04.80   0.2
RTLL     0.90  79 iPd   53 04.40  -0.2
CFA      1.08  96 ePd   53 06.30   0.0
                  S     53 22.40
MDZ      1.48 158 iP    53 10.80   0.2
                  iS    53 28.20
JACH     1.50 218 iPd   53 11.22   0.4
                  iS    53 32.83
PEL      1.92 211 iPd   53 16.12   0.4
                  iS    53 41.15
FCH      1.94 200 iPd   53 17.31   1.1
                  iS    53 42.77
ROCH     1.95 221 iPd   53 15.99  -0.2
                  iS    53 40.76
SAN      2.18 206 eP    53 18.41  -0.5
                  iS    53 46.23
PCH      2.28 202 iP+   53 20.67   0.5
                  iS    53 50.48
TACH     2.47 209 iP+   53 22.10  -0.4
                  iS    53 51.48
CHCH     2.61 202 iP+   53 24.55   0.2
                  iS    53 56.48
LCCH     2.63 221 iP+   53 24.21  -0.4
                  iS    53 56.11
CACH     2.77 199 (P)   53 26.82   0.3
                  iS    54 01.33
LNV      2.93 213 iP+   53 27.09  -1.3
RFA      3.37 165 iPc   53 40.60   6.2X
                  S     54 18.80
TCA      4.20  89 iP    53 45.00  -0.4
                  S     54 26.00
FSA      6.20  30 eP    54 13.00   0.5
CNCB    14.69   6 P     56 09.20   4.2X
LPB     14.96   5 eP    56 15.00   6.8X
ZOBO    15.20   5 P     56 14.20   2.7X
SIV     17.25  28 (P)   56 30.00  -6.2X
      S.D. = 0.6  on  18 of  23 obs.
-----------------------------------------
?  JAN  27, 1993  19h 19m 32.05± 2.64s
   49.872 N ±37.6km   29.998 W ±32.3km
   DEPTH =  10.0km  (geophysicist)
   4.5mb (  6 obs.)
 NORTHERN MID-ATLANTIC RIDGE        (403)

TCF     21.72  87 eP    24 23.70  -1.4
MAF     21.98  87 eP    24 27.00  -0.6
BGF     22.04  86 eP    24 28.50   0.3
        0.8s    12.75nm          4.4mb
DOU     22.13  76 P     24 27.00  -2.1
AVF     22.28  85 eP    24 30.30  -0.3
        1.0s    41.00nm          4.8mb
SSF     22.29  84 eP    24 32.00   1.3
        1.3s    36.10nm          4.7mb
LBF     22.62  84 eP    24 35.10   1.1
SMF     22.65  85 eP    24 33.80  -0.5
        0.8s     6.30nm          4.2mb
HAU     23.80  80 eP    24 46.30   0.8
      Z  23s     0.25um          3.6MszX
BSF     24.14  81 eP    24 49.80   0.9
GEC2    28.18  75 eP    25 27.30   0.8
        1.7s     3.45nm          3.9mb
                  e     25 30.60
                  e     25 38.50
BCAO    60.94 121 ePc   29 47.50   0.0
        0.9s     9.00nm          4.9mb
                  id    29 54.30
GKN     83.24  54 P     32 00.00  -0.2
      S.D. = 1.1  on  13 of  13 obs.
-----------------------------------------
?  JAN  27, 1993  19h 22m 06.85± 2.62s
   18.231 N ±22.6km   77.061 W ± 6.8km
   DEPTH =  10.0km  (geophysicist)
 JAMAICA REGION                       ( 86)
      MD 2.1 (HOJ).

GWJ      0.34 117 iPd   22 14.21   0.2
                  S     22 17.00
HOJ      0.37 128 iPd   22 14.29  -0.2
                  S     22 17.02
PCJ      0.50 192 iPd   22 17.01   0.1
                  S     22 19.81
SPJ      0.53 244 iPd   22 17.54   0.0
                  S     22 19.21
      S.D. = 0.3  on   4 of   4 obs.
-----------------------------------------
?  JAN  27, 1993  19h 32m 52.70± 2.00s
   37.690 N ±11.2km   14.083 E ±15.5km
   DEPTH =  10.0km  (geophysicist)
 SICILY                               (398)

GIB      0.30 352 P     32 59.00   0.0
                  eSg   33 04.50
MNO      0.54  63 P     33 03.50  -0.2
                  (Sg)  33 13.60
MEU      0.89 131 P     33 09.80  -0.1
                  eSg   33 24.40
SOI      1.61  76 P     33 21.50   0.3
      S.D. = 0.4  on   4 of   4 obs.
-----------------------------------------
%  JAN  27, 1993  19h 38m 15.61± 1.12s
   39.405 N ± 9.0km   16.673 E ±10.2km
   DEPTH =  10.0km  (geophysicist)
 SOUTHERN ITALY                       (390)

TDS      0.36 314 P     38 23.30   0.2
                  eSg   38 29.60
ORI      0.68 345 P     38 28.70  -0.4
                  eSg   38 40.00
MGR      1.13 311 P     38 36.90   0.1
                  eSg   38 54.90
LCI      1.35  46 P     38 42.00   1.5
SOI      1.42 200 P     38 41.00  -0.4
BRT      1.53  15 P     38 41.00  -1.9
SGO      1.56 318 P     38 44.10   0.8
      S.D. = 1.3  on   7 of   7 obs.
-----------------------------------------
%  JAN  27, 1993  19h 56m 36.73± 0.83s
   37.821 N ±10.9km   14.154 E ± 5.5km
   DEPTH =  10.0km  (geophysicist)
 SICILY                               (398)

GIB      0.20 329 P     56 41.10   0.0
                  eSg   56 46.80
```

```
MNO      0.44  76 P      56 45.70  -0.1
                eSg     56 54.80
MCT      0.45 245 P      56 46.00   0.0
ATN      1.09  71 P      56 57.20   0.0
SOI      1.52  80 P      57 04.10   0.1
     S.D. = 0.1  on   5 of   5 obs.
-----------------------------------------
*  JAN  27, 1993  20h 34m 32.51± 0.93s
   51.065 N ±15.3km  175.377 W ± 8.8km
   DEPTH =  33.0km  (normal)
   4.0mb (  5 obs.)
 ANDREANOF ISLANDS, ALEUTIAN IS. (  7)

ADK      1.16 316 ePd    34 52.45   0.0
                (S)     35 01.68
SVW     14.86  40 eP     38 02.52   0.8
        0.7s     13.62nm          4.4mb
TTA     15.81  34 eP     38 14.86   0.9
        0.9s      2.76nm          3.4mb
IMA     18.65  28 eP     38 48.00  -1.6
        0.9s      2.08nm          3.3mb
BW06    44.34  74 eP     42 41.15  -0.1
        0.6s      1.55nm          4.0mb
RSNY    62.78  52 (P)    44 56.31  -0.3
GUN     73.96 294 P      46 06.80   0.1
        0.6s      8.00nm          4.9mb
KKN     74.39 295 P      46 09.20   0.2
PKI     74.49 295 P      46 09.60  -0.1
GKN     74.60 295 P      46 10.20   0.0
     S.D. = 0.8  on  10 of  10 obs.
-----------------------------------------
%  JAN  27, 1993  23h 19m 20.14± 0.77s
   41.968 N ± 6.6km   13.167 E ± 6.8km
   DEPTH =  10.0km  (geophysicist)
 SOUTHERN ITALY                    (390)

RMP      0.38 246 P      19 27.70  -0.3
                eSg     19 33.90
RDP      0.40 238 P      19 28.40   0.1
                eSg     19 35.00
AQU      0.42  24 P      19 28.30  -0.5
                eSg     19 34.00
SDI      0.55 118 P      19 31.40   0.0
                eSg     19 40.90
ASS      1.16 341 P      19 41.40  -0.5
                eSg     20 00.00
ARV      1.54 354 P      19 48.80   1.1
                eSg     20 07.50
     S.D. = 0.8  on   6 of   6 obs.
-----------------------------------------
   JAN  27, 1993  23h 41m 00.57± 0.42s
   36.089 N ± 3.6km   22.362 E ± 1.9km
   DEPTH =  86.2 ±  4.0 km
   4.4mb ( 52 obs.)
 SOUTHERN GREECE                   (368)

VLI      0.78  36 eP     41 21.30   3.5X
ATH      2.17  30 eP     41 37.50   2.1
VLS      2.52 326 eP     41 42.00   1.7
NPS      2.77 106 eP     41 44.00   0.3
AGG      2.93 360 iPn    41 47.65   1.8
                eSn     42 22.76
IGT      3.79 336 iPn    41 58.65   0.8
                eSn     42 42.04
PAIG     3.97  15 iPn    42 01.06   0.8
                eSn     42 46.48
LIT      4.01   1 ePn    42 01.68   0.9
                eSn     42 46.92
KEK      4.15 331 eP     42 03.50   0.7
SRN      4.22 334 iPnd   42 05.80   2.0
                iSn     42 52.00
KZN      4.24 354 eP     42 05.50   1.4
LSK      4.29 342 ePn    42 06.50   1.7
                iSn     42 52.00
PRK      4.42  43 eP     42 07.00   0.4
OUR      4.43  16 ePn    42 07.28   0.6
                eSn     42 56.80
IZM      4.54  58 iPn    42 09.10   0.8
TPE      4.59 337 iPnd   42 08.00  -0.9
                iSn     42 59.00
FNA      4.75 351 iPn    42 11.97   0.7
SOH      4.79   9 iPn    42 12.60   0.9
                eSn     43 07.24
GRG      4.86   0 ePn    42 12.92   0.2
EZN      4.87  39 iPn    42 13.70   0.9
YER      4.88  76 iPn    42 05.00  -8.0X
VLO      4.92 334 iPnd   42 14.20   0.7
                iSn     43 09.80
KNT      5.08   5 iPn    42 16.50   0.7
                eSn     43 12 28
SRS      5.11  10 iPn    42 16.29   0.1
OHR      5.16 347 iPnd   42 17.50   0.6
                i       43 06.80
                i       43 14.00
VAY      5.23   2 iPnd   42 18.20   0.4
                iSn     43 16.00
SOI      5.42 293 P      42 20.40   0.0
                eSn     43 10.40
GRI      5.46 302 P      42 21.00   0.0
GMB      5.59 294 P      42 23.36   0.3
MMB      5.59  11 iPd    42 25.00   2.0
TIR      5.60 340 iPnd   42 23.50   0.5
                iSn     43 25.00
PHP      5.78 346 iPnd   42 25.10  -0.5
                iSn     43 26.00
KKB      5.80   5 iPd    42 25.00  -0.7
MSI      5.83 293 P      42 26.50   0.3
                eSn     43 23.10
KSL      5.85  88 eP     42 25.80  -0.6
RZN      5.88  17 iPd    42 28.00   0.9
ATN      5.89 293 P      42 27.12   0.1
SKO      5.92 353 iPnd   42 27.00  -0.4
                iSg     43 29.50
TDS      5.95 309 P      42 28.00   0.1
KDZ      6.04  22 iPd    42 29.00  -0.1
MEU      6.06 282 P      42 28.52  -1.0
EDC      6.07  44 ePn    42 29.00  -0.5
PZI      6.07 281 P      42 27.22  -2.3
DST      6.07  53 ePn    42 30.50   0.9
BNT      6.11  44 ePn    42 29.80  -0.2
ELL      6.12  82 iPn    42 30.50   0.2
ORI      6.12 312 P      42 30.20  -0.1
                eSn     43 28.70
KHL      6.13  67 iPn    42 31.10   0.6
BRT      6.26 321 P      42 31.56  -0.6
PLD      6.28  16 iP     42 33.00   0.7
KCT      6.29  47 iP     42 32.30  -0.2
ULC      6.35 339 iPnd   42 32.07  -1.2
                iSn     43 35.41
SDA      6.36 340 iPnd   42 32.00  -1.4
                iSn     43 38.50
MNO      6.40 289 P      42 33.79  -0.6
DIM      6.44  22 iP     42 35.00   0.4
BCI      6.52 345 ePn    42 31.00  -4.7X
                iSn     43 43.50
VTS      6.53   6 iPd    42 29.00  -6.9X
PGB      6.60  12 eP     42 37.00   0.1
BAI      6.61 321 Pc     42 36.00  -0.9
MGR      6.72 309 P      42 38.00  -0.4
BCK      6.74  76 iP     42 39.00   0.1
PVY      6.76 345 iPnd   42 38.70  -0.3
                iSn     43 46.51
BDV      6.77 337 iPnd   42 37.46  -1.6
                iSn     43 45.13
TTG      6.77 340 iPnd   42 37.72  -1.4
                iSn     43 45.81
ALT      6.83  62 eP     42 41.40   1.3
GIB      6.93 288 P      42 41.60   0.1
                eSn     43 50.00
HCY      7.02 336 iPnd   42 40.48  -2.1
                iSn     43 51.08
IVA      7.04 345 iPnd   42 42.38  -0.5
                iSn     43 53.38
DMK      7.10  35 iP     42 43.80   0.1
SGO      7.12 311 P      42 43.61  -0.3
JMB      7.16  26 iP     42 43.00  -1.5
NKY      7.20 340 iPnd   42 43.47  -1.7
                iSn     43 56.21
BRY      7.41 338 iPnd   42 45.82  -2.3
                iSn     44 01.00
HRT      7.43  48 eP     42 46.80  -1.4
PVL      7.48  17 iP     42 46.00  -2.8X
GPA      7.53  54 eP     42 50.50   0.8
EYL      7.58  52 eP     42 50.00  -0.4
PLE      7.58 343 iPnd   42 49.51  -0.9
                iSn     44 06.41
CVT      7.83 285 P      42 54.90   1.2
ERC      8.05 287 P      42 57.77   0.9
PPCY     8.23  95 eP     42 54.60  -4.6X
                eS      44 15.50
HVAR     8.42 329 iPnd   42 58.80  -3.0X
                iSn     43 28.40
SDI      8.71 313 P      43 04.60  -1.2
CSS      9.01  94 eP     43 05.20  -4.7X
                eS      44 36.20
GZR      9.30   2 iPc    43 13.00  -0.8
COZ      9.34   9 eP     43 14.50   0.0
AQU      9.35 315 P      43 15.70   1.2
RDP      9.41 310 P      43 15.40   0.1
RMP      9.44 310 P      43 16.10   0.3
BZS      9.53 357 ePc    43 08.50  -8.4X
FAM      9.55  93 eP     43 16.00  -1.2
                eS      44 53.40
ISR      9.58  18 eP     43 30.00  12.4X
HLW      9.77 127 ePnd   43 15.70  -4.5X
                eSn     44 48.50
MLR      9.78  15 ePc    43 20.00  -0.4
ASS     10.23 316 P      43 27.30   0.9
VRI     10.31  17 eP     43 28.50   1.0
KAS     10.35  56 eP     43 29.00   0.9
ARV     10.35 318 P      43 27.70  -0.4
VBY     10.83 332 iPd    43 32.50  -1.9
ZAG     10.84 336 iP     43 32.40  -2.2
                S       45 26.20
UZD     10.87 346 iPd    43 32.30  -2.6X
RSM     10.90 319 P      43 34.70  -0.7
PTJ     10.93 336 iP     43 33.00  -2.8X
BRNI    10.96 104 eP     43 30.60  -5.6X
CRE     10.98 316 P      43 36.50   0.0
RIY     11.04 329 iPn    43 35.40  -1.8
BHL     11.12  97 Pn     43 31.00  -7.4X
                Sn      45 24.00
ATZ     11.14 103 eP     43 34.10  -4.6X
                eS      45 28.00
ZNT     11.18 106 iPd    43 33.80  -5.3X
                eS      45 27.60
SFI     11.22 317 P      43 39.90   0.3
PGD     11.27 317 P      43 41.24   0.8
CEY     11.35 331 ePd    43 39.40  -2.0
                eS      45 39.50
BGIO    11.43 109 iPd    43 37.20  -5.4X
FIR     11.47 315 eP     43 46.00   3.1X
                iS      45 46.00
LJU     11.56 332 eP     43 42.00  -2.1
                eS      45 44.00
TRI     11.60 329 e(Pn)c43 42.40  -2.2
                e(Sn)   45 44.20
BUD     11.65 349 iP     43 42.60  -2.7X
VOY     11.80 330 iPd    43 45.30  -2.1
                e       43 49.00
                eS      45 49.20
MKT     11.84 112 eP     43 42.90  -5.0X
                eS      45 43.60
PII     11.85 314 P      43 48.00   0.0
PSZ     11.96 352 ePn    43 28.20 -21.3X
GAZ     11.98  80 eP     43 46.00  -3.7X
BDI     12.02 315 P      43 51.20   0.9
SRO     12.09 347 iP     43 50.30  -0.8
PGF     12.19 306 eP     43 53.20   0.7
        0.6s     37.70nm          5.4mb
MBH     12.25 117 eP     43 48.90  -4.5X
RBL     12.27 330 P      43 54.00   0.5
SOP     12.36 341 eP     43 52.00  -2.7X
VVI     12.40 326 P      43 55.54   0.3
UZH     12.54 360 iPc    43 57.00   0.1
        1.0s     50.00nm          5.2mb
ZST     12.71 344 iP     43 57.20  -2.0
FVI     12.71 329 P      43 59.80   0.5
CTI     12.80 324 P      44 01.00   0.4
KBA     12.88 331 iPc    44 00.10  -1.5
                i       44 11.70
                iS      46 16.10
                i       46 19.50
VKA     12.96 342 iPc    44 01.20  -1.3
                eS      46 16.00
SAL     13.05 320 P      44 03.30  -0.4
BOB     13.10 315 P      44 07.63   3.2X
SCE     13.52 327 iPc    44 09.50  -0.6
BHG     13.59 332 eP     44 10.10  -0.6
CKI     13.59 312 P      44 11.00   0.2
MDI     13.59 319 P      44 10.40  -0.3
OGA     13.70 325 eP     44 13.30   0.9
WTTA    13.73 328 iPc    44 12.30  -0.5
                i       44 27.50
                iS      46 36.90
                i       46 41.40
WATA    13.81 328 iPc    44 13.40  -0.4
                iS      46 39.40
                i       46 45.30
SBF     13.82 309 eP     44 14.00   0.1
        0.7s     32.75nm          4.8mb
```

27d 23h

```
VRAC   13.87 344 iPc    44 13.20  -1.1
        0.7s    63.90nm          5.1mb
                  e     44 22.00
SOTA   13.88 327 iPd    44 14.90   0.2
                  i     44 15.90
                  i     44 26.60
                  iS    46 40.40
                  i     46 49.10
OSS    13.99 323 iPd    44 16.60   0.4
VAI    14.15 318 P      44 18.30   0.3
LMR    14.17 306 eP     44 17.90  -0.5
        1.2s    44.65nm          4.6mb
FRF    14.18 307 eP     44 18.30  -0.2
VDL    14.19 321 iPc    44 19.30   0.5
GEC2   14.25 336 Pn     44 18.00  -1.4
                  Sn    46 51.50
TMA    14.25 319 iPd    44 20.40   0.9
LRG    14.32 306 eP     44 21.00   0.7
        1.1s    71.05nm          4.8mb
ORO    14.44 316 P      44 23.60   1.6
KHC    14.53 336 Pc     44 22.50  -0.6
        1.0s    25.00nm          4.4mb
                  e     44 29.50
                  e     44 47.00
                  e     46 57.50
FUR    14.58 329 iPc    44 23.10  -0.6
LLS    14.69 321 iPc    44 25.90   0.7
MMK    14.71 317 P      44 26.03   0.5
WET    14.78 335 iPc    44 24.80  -1.4
PRU    15.01 340 Pd     44 28.00  -1.1
        1.0s    14.70nm          4.2mb
                  i     44 34.50
DIX    15.03 316 iPc    44 32.70   3.0X
LPG    15.08 313 eP     44 30.50   0.1
        0.7s    18.40nm          4.4mb
LPL    15.10 313 eP     44 30.10  -0.5
        0.4s    10.35nm          4.4mb
EMS    15.30 315 iPd    44 36.50   3.5X
KSP    15.38 345 eP     44 33.20  -0.6
        0.9s    33.00nm          4.5mb
                  i     44 38.80
ZLA    15.41 322 ePc    44 35.90   1.7
SLE    15.55 323 iPc    44 37.40   1.4
GRF    15.83 333 eP     44 38.50  -1.0
                  e     44 44.10
                  e(Sg) 47 23.00
FEL    15.86 322 eP     44 41.02   1.0
BRG    15.97 340 e(P)   44 40.40  -0.9
                  e     44 45.20
BSF    16.45 320 eP     44 48.00   0.6
        0.5s    24.25nm          4.7mb
MOX    16.49 335 eP     44 47.30  -0.4
        0.8s    24.00nm          4.4mb
CDF    16.59 323 eP     44 49.60   0.5
        0.3s    20.30nm          4.8mb
CLL    16.63 339 iP     44 50.90   1.5
        1.3s    45.00nm          4.5mb
                  i     45 12.10
HAU    16.79 320 eP     44 52.40   0.9
        0.3s    21.70nm          4.8mb
TNS    17.35 329 ePnc   45 00.80   2.3
                  ePb   45 08.50
                  ePgd  45 12.90
                  eSn   45 36.90
                  eSb   45 48.30
SMF    17.41 313 eP     44 59.40   0.3
        0.5s     6.90nm          4.1mb
KIV    17.41  57 P      45 00.40   1.1
LBF    17.50 314 eP     45 01.30   0.9
        0.6s    12.45nm          4.3mb
LOR    17.72 315 eP     45 02.10  -0.9
        0.5s     9.70nm          4.3mb
CAF    17.74 306 eP     45 04.50   1.2
        0.8s     5.10nm          3.8mb
AVF    17.77 313 eP     45 02.90  -0.7
        0.7s     7.60nm          4.0mb
SSF    17.82 314 eP     45 03.40  -0.8
        0.8s    13.45nm          4.2mb
BGF    17.96 312 eP     45 06.10   0.2
        0.3s     2.95nm          4.0mb
WLF    17.98 324 P      45 08.00   2.0
MNK    18.18  10 eP     45 13.00   4.6X
TCF    18.22 310 eP     45 08.90  -0.2
        1.0s     9.60nm          4.0mb
LPO    18.23 305 eP     45 09.50   0.3
        0.5s     5.45nm          4.0mb
RJF    18.25 307 eP     45 09.60   0.2
        0.7s     5.50nm          3.9mb
EPF    18.31 299 eP     45 10.60   0.3
        0.6s     4.35nm          3.9mb
BNS    18.45 328 ePKP   45 14.30   2.6X
LFF    18.62 305 eP     45 14.20   0.4
        0.9s    20.00nm          4.4mb
LSF    18.63 309 eP     45 14.20   0.3
        0.7s     5.50nm          3.9mb
ECHE   18.74 288 eP     45 15.80   0.5
ENN    18.85 326 eP     45 19.50   3.2X
        0.7s    10.00nm          4.2mb
DOU    19.02 323 P      45 18.60   0.4
        0.6s    16.40nm          4.5mb
                  S     48 44.20
WTS    19.37 330 eP     45 22.50   0.7
        0.8s    19.00nm          4.4mb
ETOR   19.67 291 eP     45 25.50   0.2
BSD    19.70 347 iPc    45 24.40  -0.9
        0.6s    40.00nm          4.9mb
ENIJ   19.75 280 eP     45 25.60  -0.5
MFF    19.83 309 eP     45 26.90   0.2
        0.5s    11.95nm          4.5mb
EVIA   19.91 285 eP     45 27.00  -0.8
EHUE   20.01 282 eP     45 29.50   0.8
ECRI   20.27 296 eP     45 30.30  -1.1
LDF    20.70 314 eP     45 36.00   0.4
        0.7s    28.45nm          4.7mb
ECOG   20.81 281 eP     45 37.50   0.5
EGUA   20.85 280 eP     45 37.00  -0.3
EBAN   20.93 284 eP     45 37.50  -0.6
LPF    20.99 312 eP     45 38.70   0.2
        0.7s    42.35nm          4.9mb
FLN    20.99 314 eP     45 39.20   0.6
        0.6s    22.65nm          4.7mb
GRR    21.04 313 eP     45 39.20   0.2
        0.6s     8.55nm          4.3mb
GUD    21.25 290 eP     45 41.00  -0.4
OBN    21.39  23 ePd    45 42.00  -0.4
        1.2s    26.00nm          4.5mb
                  i     46 06.00
                  i     49 29.00
EPRU   22.17 280 eP     45 51.00   0.6
MOS    22.24  23 eP     46 08.00  17.1X
                  e     46 28.00
EJIF   22.42 279 eP     45 52.00  -0.8
ALJ    22.50 280 iP     45 54.00   0.3
IFR    22.69 272 iP     45 58.00   2.3
PLAT   22.69 278 eP     45 52.00  -3.5X
EPLA   22.70 289 eP     45 56.50   1.0
UPP    23.98 354 iP     46 07.20  -0.5
NUR    24.48   3 iP     46 12.50   0.0
        0.4s     4.70nm          4.3mb
AVE    24.60 272 iP     46 15.00   1.1
                  i     46 16.00
                  i     46 29.00
HFS    24.70 350 eP     46 14.60  -0.1
        0.4s    10.20nm          4 6mb
NAO    25.83 347 P      46 24.70  -0.4
        0.6s     3.50nm          4.0mb
EKA    25.98 326 Pc     46 27.80   1.2
        0.6s     6.50nm          4.3mb
KAF    26.16   4 iP     46 27.80  -0.4
        0.5s     4.80nm          4.3mb
ANTZ   28.18 264 iPc    46 46.00  -0.9
                  i     46 52.00
SDF    31.46   3 iP     47 12.50  -3.0X
BCAO   31.70 187 iPd    47 17.00  -1.1
        0.2s    16.00nm          5.4mb X
                  ic    47 30.10
BRVK   37.32  48 (P)    48 18.00  12.2X
TIC    38.57 227 P      48 15.40  -1.3
KIC    38.63 226 P      48 16.00  -1.2
        0.6s    15.50nm          5.1mb
LIC    38.91 227 P      48 18.50  -1.0
        0.4s    11.50nm          5.1mb
FRU    40.36  64 eP     48 50.00  18.8X
        2.0s    40.00nm
                  e     49 03.00
GKN    52.62  80 P      50 06.04  -2.0
DMN    53.16  80 P      50 10.88  -1.3
KKN    53.22  80 P      50 10.92  -1.6
PKI    53.42  80 P      50 12.48  -1.6
GUN    53.65  80 P      50 14.14  -1.7
GBA    53.99 100 P      50 18.00   0.1
ZAK    57.84  48 eP     50 56.50  11.4X
        1.0s    12.00nm
BOD    61.20  38 eP     51 05.90  -2.2
LMN    63.42 309 eP     51 26.00   2.9X
HHC    67.00  55 P      52 04.00  17.6X
        1.4s    37.00nm
TIY    69.12  58 eP     52 16.50  17.0X
YKA    75.85 341 eP     52 38.40  -0.2
        0.5s     1.10nm          4.0mb
IMA    78.12 358 eP     52 52.55   1.3
        0.8s     1.61nm          4.0mb
ULM    78.25 325 eP     52 55.50   3.4X
LHS    79.75 305 eP     53 02.02   1.5
BGL    82.90 357 (P)    53 17.13   0.5
FVM    83.60 313 eP     53 21.60   1.1
        0.6s    19.77nm          5.3mb
OLY    85.87 312 eP     53 33.16   1.2
RSSD   86.52 324 eP     53 37.00   1.7
        0.9s     3.25nm          4.4mb
NEW    88.58 334 eP     53 46.20   1.3
        0.8s    10.42nm          5.0mb
LCCM   88.61 330 eP     53 46.90   1.7
BW06   90.09 327 (P)    53 52.39   0.0
        0.8s     1.48nm          4.2mb
PV08   93.01 324 eP     54 06.33   0.4
PV09   93.30 324 eP     54 08.20   0.9
PV10   93.35 324 eP     54 08.47   1.0
DZM   145.85  76 iPKPc  00 33.10   1.9
      S.D. = 1.0  on 222 of 263 obs.
-----------------------------------
*  JAN  28, 1993  01h 52m 27.66± 5.04s
   55.972 S ± 8.2km   27.379 W ±10.4km
   DEPTH = 129.6 ± 48.0 km
   5.4mb (  4 obs.)
 SOUTH SANDWICH ISLANDS REGION   (153)

NVL    22.39 147 eP     57 15.00  -0.3
        2.0s   199.00nm          5.2mb
SPA    34.21 180 iPc    59 02.50   0.2
        0.8s   145.83nm          5.8mb
VAO    35.97 328 (P)    59 18.00   0.6
SIV    47.45 314 P      00 53.60   2.8X
CNCB   49.72 305 P      01 09.30   0.4
LPB    50.02 305 eP     01 11.00   0.0
ZOBO   50.24 305 iPc    01 12.20  -0.8
      Z  24s     0.09um          3.7MszX
                  LR    14 18.00
ARE    51.67 302 eP     01 23.00  -0.4
LIC    64.67  25 P      02 53.50   0.1
      Z  21s     0.06um          3.8MszX
KIC    64.87  25 P      02 54.60  -0.1
TIC    65.08  25 P      02 56.00  -0.1
BCAO   70.94  49 iPc    03 32.50  -0.1
        0.2s    12.00nm          5.4mb
                  id    04 05.00 131kmX
TAU    81.39 176 eP     04 31.00   0.4
ASPA   99.10 163 iPd    05 54.90  -0.2
        1.0s    11.10nm          5.4mb
GUN   125.56  92 PKP    11 00.00 -15.0X
YKA   136.04 318 ePKP   11 31.30  -2.1X
        0.7s     2.50nm
NJ2   146.47 121 PKPd   11 55.00   2.2X
TIY   147.60 107 PKPc   11 57.80   3.3X
BTO   148.34 101 PKP    12 00.00   4.3X
TIA   148.94 114 PKPd   12 01.20   4.6X
HHC   149.36 102 PKP    12 02.00   4.7X
      S.D. = 0.4  on  13 of  21 obs.
-----------------------------------
*  JAN  28, 1993  02h 30m 59.50± 1.26s
   36.694 N ±13.5km   71.330 E ± 9.1km
   DEPTH = 216.2 ± 14.2 km
   4.8mb ( 12 obs.)
 AFGHANISTAN-TAJIKISTAN BORD REG.(717)

NDI     9.40 147 iPc    33 12.00   0.3
        0.7s    68.49nm          5.0mb
MAIO    9.54 271 iPc    33 13.40  -0.2
                  eS    35 02.00
GKN    14.19 124 P      34 12.28  -0.1
        0.3s    13.00nm          4.8mb
KKN    14.76 123 P      34 19.12  -0.3
        0.5s    87.00nm          5.4mb
DMN    14.76 124 P      34 19.22  -0.3
        0.6s    87.00nm          5.4mb
PKI    14.99 123 P      34 22.00  -0.4
        0.4s    66.00nm          5.4mb
GUN    15.09 121 P      34 23.30  -0.4
        0.3s    32.00nm          5.3mb
HYB    20.24 160 eP     35 20.50   1.0
GBA    23.63 165 P      35 54.50   2.0
```

```
HFS     43.08 322 eP     38 40.00   0.7
        0.5s     8.30nm          4.4mb
NAO     44.55 323 P      38 51.80   0.7
        0.5s     3.80nm          4.1mb
BCAO    57.98 249 iPc    40 31.00  -0.8
        0.7s     3.00nm          4.1mb
KIC     75.06 267 P      42 17.60  -1.7
YKA     81.04   3 eP     42 52.00   1.1
        0.4s     1.10nm          3.9mb
WB2     81.88 122 iPd    42 55.20  -0.8
        0.3s     6.60nm          4.8mb
ASPA    84.15 125 eP     43 06.80  -0.6
        0.7s     4.80nm          4.4mb
      S.D. = 1.0  on  16 of  16 obs.
-----------------------------------------
*  JAN  28, 1993  02h 59m 53.06± 0.99s
   35.672 N ±10.4km   27.930 E ± 7.4km
   DEPTH =  10.0km  (geophysicist)
 DODECANESE ISLANDS                (369)
      MD 3.8 (ATH), 3.7 (ISK).

KSL      1.42  71 ePb    00 20.00   1.2
YER      1.49  11 iPn    00 17.50  -2.4X
ELL      1.93  56 iPn    00 28.50   2.2
CIN      1.93   4 iPd    00 28.00   1.8
NPS      1.93 258 ePn    00 27.00   0.7
IZM      2.77 349 iPn    00 36.70  -1.7
BCK      2.79  49 iPn    00 39.70   1.1
KHL      2.94  25 ePn    00 40.00  -0.7
PPCY     3.70 101 eP     00 50.60  -0.8
                  eS     01 36.20
ALT      3.80  27 ePn    00 53.00   0.0
DST      3.97   8 ePn    00 54.00  -1.3
VLI      4.17 286 ePn    00 58.50   0.4
CSS      4.47  98 eP     01 00.60  -1.8
                  eS     01 54.70
KCT      4.58   4 ePn    01 03.00  -1.0
HRI      6.88 108 eP     01 32.10  -4.4X
DSI      7.44 121 eP     01 40.20  -4.0X
MBH      8.30 133 eP     01 51.80  -4.6X
      S.D. = 1.5  on  13 of  17 obs.
-----------------------------------------
   JAN  28, 1993  03h 06m 33.43± 0.27s
   38.567 N ± 5.9km   29.243 W ± 2.7km
   DEPTH =  10.0km  (geophysicist)
   4.9mb ( 47 obs.)  4.3Msz (  6 obs.)
 AZORES ISLANDS                    (405)
      Felt (V) at Praia do Norte; (IV)
      at Salao, Ribeirinha, Cedros,
      Feteira and Horta; (III) at
      Pedro Miguel, Madalena,
      Candelaria, Sao Mateus, Sao
      Rogue do Pico; (II) at Velas,
      Rosais and Calheta.

CALA     0.42  88 iPd    06 42.00  -0.1
HOR      0.48  95 iPd    06 43.40   0.2
PICO     0.64  96 iPd    06 45.40  -1.0
ADH      1.58  86 iP     07 01.60   0.2
                  iS     07 18.60
PDA      2.94 105 iPd    07 18.50  -2.5
                  iS     07 50.00
STS     16.26  68 eP     10 25.00   1.6
EMON    17.23  67 eP     10 35.00  -0.6
ERUA    17.23  70 eP     10 36.50   0.8
EVAL    17.74  86 eP     10 42.00   0.0
EHOR    18.87  85 eP     10 56.00   0.1
GUD     19.43  76 eP     11 03.00   0.1
MAL     19.74  88 iPd    11 07.00   0.8
IFR     20.12  97 eP     11 11.00   0.6
                  i      11 13.00
ECOG    20.28  86 eP     11 11.50  -0.5
EGUA    20.38  87 eP     11 13.00   0.1
ECRI    20.67  70 eP     11 15.50  -0.4
EVIA    20.88  81 eP     11 18.00  -0.2
EHUE    20.94  84 eP     11 18.50  -0.3
ETOR    21.01  75 eP     11 19.50  -0.1
DCN     21.13  38 eP     11 21.10   0.7
DLF     21.47  39 eP     11 26.40   2.5X
DMU     21.63  38 eP     11 26.90   1.4
EGRA    22.28  71 eP     11 38.00   5.9X
LPF     22.49  56 eP     11 35.90   1.7
        1.3s    63.20nm          4.9mb
GRR     22.70  55 eP     11 37.70   1.5
        1.5s    79.90nm          5.0mb
ENSF    22.77  70 P      11 38.33   1.2
EPF     22.77  69 eP     11 38.70   1.6
        1.4s    94.55nm          5.1mb
MFF     22.78  60 eP     11 37.10   0.0
        1.3s    62.45nm          5.0mb
FLN     23.04  54 eP     11 40.70   1.1
        1.4s    60.10nm          4.9mb
      Z  21s     1.08um          4.3Msz
LFF     23.17  64 eP     11 41.80   0.9
        1.4s    98.00nm          5.2mb
LDF     23.23  55 eP     11 42.40   1.0
        1.2s    33.05nm          4.8mb
SALF    23.40  70 P      11 44.46   1.3
LPO     23.47  65 eP     11 44.60   0.8
        1.4s    64.50nm          5.0mb
RJF     23.76  64 eP     11 47.00   0.4
      Z  23s     0.90um          4.2MszX
LSF     23.87  61 eP     11 48.50   0.8
        1.0s    33.20nm          4.9mb
CAF     24.11  65 eP     11 50.60   0.6
        1.4s    38.35nm          4.8mb
EKA     24.24  38 P      11 52.00   0.9
        2.4s   230.70nm          5.4mb
TCF     24.35  61 eP     11 53.00   0.7
        0.9s    40.95nm          5.1mb
MAF     24.58  62 eP     11 54.90   0.3
        1.0s    24.00nm          4.8mb
BGF     24.82  61 eP     11 57.00   0.1
        0.8s    37.60nm          5.1mb
PYM     24.84  63 P      11 57.67   0.5
AGO     24.96  62 P      11 58.29   0.1
LBL     24.97  64 P      11 58.31  -0.1
AVF     25.19  60 eP     12 00.20  -0.2
        1.3s    34.30nm          4.9mb
PLDF    25.29  62 P      12 01.47   0.0
SSF     25.33  60 eP     12 01.50  -0.2
        1.3s    40.45nm          5.0mb
SMF     25.51  61 eP     12 03.40   0.0
        1.1s    53.00nm          5.1mb
LOR     25.60  59 eP     12 03.90  -0.4
        1.2s    20.55nm          4.7mb
      Z  20s     0.55um          4.1Msz
LBF     25.64  60 eP     12 04.10  -0.6
        1.1s    16.35nm          4.6mb
SNF     26.48  52 iPc    12 11.76  -0.6
DOU     26.58  53 P      12 13.10  -0.2
                  e      17 45.00
HAU     27.36  58 eP     12 19.80  -0.7
        0.9s    11.95nm          4.6mb
      Z  20s     0.50um          4.1Msz
LPL     27.44  64 eP     12 22.00   0.6
        1.2s    16.35nm          4.6mb
LPG     27.45  64 eP     12 22.20   0.6
        1.2s    14.30nm          4.6mb
WLF     27.48  55 P      12 21.00  -0.5
BSF     27.64  59 eP     12 22.30  -0.8
        1.4s    27.00nm          4.8mb
CDF     28.03  58 eP     12 25.90  -0.7
        1.0s    21.20nm          4.9mb
CBM     29.50 299 eP     12 44.43   4.7X
SOTA    30.58  60 iPc    12 49.10  -0.4
        1.1s    20.90nm          4.9mb
GRF     30.75  56 iPc    12 50.60  -0.2
        1.2s    23.00nm          4.9mb
      Z  20s     0.60um          4.2Msz
                  epPd   12 56.10  19kmX
WATA    30.84  60 iPc    12 51.00  -0.8
WTTA    30.88  60 iPc    12 51.80  -0.4
        1.0s    18.20nm          4.9mb
                  i      12 57.30
MOX     31.10  54 eP     12 53.70  -0.2
        1.5s    26.00nm          4.9mb
      Z  19s     1.00um          4.5Msz
                  eS     18 09.00
KBA     32.04  61 iPd    13 01.40  -1.0
        1.1s    26.00nm          5.1mb
                  i      13 08.30
CLL     32.05  53 ePc    13 01.00  -1.2
        1.5s    12.00nm          4.6mb
KHC     32.24  57 P      13 03.50  -0.5
        1.2s     7.50nm          4.5mb
                  e      13 47.50
GEC2    32.31  57 eP     13 03.60  -1.0
        1.2s     2.97nm          4.1mb
                  e      13 04.90
                  e      13 09.20
                  e      13 17.80
BRG     32.60  54 iP     13 06.80  -0.2
        1.2s    22.00nm          5.0mb
                  i      13 14.60
PRU     32.91  55 Pc     13 09.50  -0.2
        1.7s    21.20nm          4.8mb
      Z  17s     0.90um          4.5MszX
                  e      13 22.80
NAO     33.37  35 P      13 10.00  -3.6X
        1.3s     7.70nm          4.5mb
VBY     33.43  63 eP     13 14.10  -0.1
PTJ     33.89  63 eP     13 15.40  -3.0X
KSP     34.08  54 ePc    13 19.50  -0.4
ZST     34.57  59 eP     13 21.90  -2.2
APO     34.68  36 eP     13 25.40   0.5
        0.5s     0.70nm          3.8mb X
SRO     35.39  59 iP     13 30.50  -0.6
UZD     35.65  61 e(P)   13 32.00  -1.4
BUD     35.89  60 eP     13 33.50  -1.8
SPC     36.62  57 eP     13 42.80   1.1
UZH     38.00  58 iPd    13 53.50   0.4
        1.0s    27.00nm          5.0mb
OHR     38.09  70 eP     13 46.50  -7.5X
SKO     38.37  68 eP     13 55.50  -0.8
TIC     38.60 139 P      14 01.30   2.9X
FCC     45.29 318 eP     14 56.50   3.8X
OBN     46.18  47 eP     15 00.00   0.3
        1.8s    60.00nm          5.3mb
FVM     47.23 289 eP     15 09.06   0.8
        0.4s    12.61nm          5.4mb
ULM     47.50 307 eP     15 13.50   3.2X
YKA     54.60 325 eP     16 02.50  -1.3
        1.3s     2.60nm          4.1mb
BCAO    55.05 116 iPd    16 08.10   0.3
        1.5s    38.00nm          5.2mb
                  id     16 11.50
SES     56.73 311 ePd    16 19.10  -0.4
ARU     57.83  41 eP     16 27.00  -0.1
      Z  16s     1.00um          5.0MszX
      E  16s     0.50um
SVE     58.71  40 ePd    16 33.50   0.3
        2.2s    40.00nm          5.1mb
      Z  12s     0.60um          4.9MszX
      N  13s     0.40um
      E  13s     0.50um
BW06    58.85 302 eP     16 33.36  -1.4
        1.3s    10.65nm          4.8mb
PV08    60.10 297 eP     16 43.98   0.4
PV09    60.47 297 eP     16 45.57  -0.5
DAU     61.05 300 eP     16 49.92   0.0
SRU     61.15 299 (P)    16 49.59  -0.9
NEW     61.23 310 ePc    16 50.21  -0.5
        1.4s    42.12nm          5.4mb
SIV     61.93 215 eP     17 00.00   4.3X
MSU     62.57 299 eP     17 00.44   0.3
ARUT    63.79 299 eP     17 08.77   0.6
BRVK    65.37  41 eP     17 17.00  -0.9
        1.7s    13.00nm          4.8mb
CCH     65.53 219 eP     17 20.00   0.4
ZOBO    65.61 221 P      17 20.90   0.4
        1.5s    26.88nm          5.2mb
      Z  24s     0.30um          4.4MszX
                  LR     38 24.00
LPB     65.80 221 P      17 23.00   1.5
      Z  18s     1.24um          5.2Msz
                  LR     39 16.00
CNCB    65.97 221 eP     17 23.00   0.3
BONR    67.02 301 eP     17 28.72  -0.4
IMA     67.29 339 eP     17 29.95  -0.2
        0.5s     0.96nm          4.2mb
PLM     68.47 296 eP     17 39.54   1.4
ELT     72.94  35 eP     18 03.00  -1.5
        1.5s    12.00nm          4.8mb
      S.D. = 0.8  on 100 of 110 obs.
-----------------------------------------
   JAN  28, 1993  04h 30m 52.80± 0.47s
   49.845 N ± 4.8km   18.459 E ± 3.5km
   DEPTH =  10.0km  (geophysicist)
 CZECH AND SLOVAK REPUBLICS        (547)
      ML 3.4 (VIE), 3.4 (WAR).

OJC      0.94  66 eP     31 10.20  -0.6
                  iS     31 22.80
VRAC     1.33 247 iPnd   31 17.50   0.3
        0.6s   728.50nm
                  i      31 18.10
                  iSg    31 36.40
SPC      1.34 119 iPnd   31 18.30   0.7
                  i(Sn)  31 38.20
                  Lg     31 40.00
```

28d 04h

KSP	1.71	307	iPn	31 23.20	0.4
	0.8s	200.00nm			
			iPg	31 25.60	
			iS	31 48.20	
ZST	1.88	209	iPc	31 25.60	0.4
			i	31 35.30	
			i	31 50.40	
SRO	2.04	183	ePn	31 28.20	0.7
			i	31 33.30	
			i	31 53.50	
			Lg	32 29.00	
VKA	2.12	222	iPnc	31 28.60	-0.1
			iPg	31 34.90	
			iSg	32 02.50	
PSZ	2.15	153	eP	31 29.30	0.1
BUD	2.39	171	e(P)	31 32.00	-0.6
SOP	2.50	211	eP	31 34.20	0.0
PRU	2.54	275	ePn	31 34.50	-0.1
	0.9s	65.70nm			
			Pg	31 40.40	
			Sg	32 12.80	
			i	32 16.60	
BRG	3.07	291	iPg	31 49.00	6.8X
			iSg	32 31.00	
UZD	3.26	179	eP	31 44.70	-0.2
KHC	3.26	259	Pn	31 45.00	0.0
			e	31 51.50	
			e	31 56.00	
			e	32 20.00	
			e	32 26.50	
			Sg	32 39.00	
GEC2	3.27	254	Pn	31 44.50	-0.7
			Pg	31 53.50	
			Sg	32 36.30	
WET	3.70	261	ePn	31 50.60	-0.7
CLL	3.77	295	iPg	32 04.10	11.8X
			iSg	32 51.50	
BHG	4.26	242	iPnc	32 15.20	16.1X
HOF	4.26	279	ePn	32 00.30	1.1
PTJ	4.29	204	iP	31 58.90	-0.8
KBA	4.39	233	iPnc	32 00.70	-0.4
			iPg	32 16.80	
			i	32 54.00	
			iSg	33 14.40	
MOX	4.46	283	ePg	32 16.40	14.4X
			iSg	33 16.30	
GRF	4.69	271	ePn	32 04.70	-0.6
			ePg	32 20.50	
			e(Sn)	32 50.50	
			e(Sg)	33 12.50	
BZS	4.74	152	eP	31 59.50	-6.4X
FUR	5.02	253	ePn	32 27.00	17.1X
WTTA	5.21	243	ePn	32 14.00	1.2
	0.8s	32.20nm		5.0mb X	
			i	33 39.80	
TNS	6.46	277	ePb	32 45.40	15.1X
			eSg	34 27.40	

S.D. = 0.6 on 20 of 27 obs.

JAN 28, 1993 04h 58m 50.68± 0.59s
18.220 S ± 4.6km 178.396 W ± 5.1km
DEPTH = 600.5 ± 8.0 km
4.9mb (28 obs.)
FIJI ISLANDS REGION (181)

SVA	2.99	271	ePc	00 10.20	0.0
BKM	12.73	270	iPc	01 38.10	1.5
DZM	14.74	252	iPc	01 57.00	0.7
URZ	20.35	190	eP	02 47.20	-1.7
NOZ	20.56	188	eP	02 52.50	1.7
MNG	22.94	192	eP	03 10.60	-1.7
QRZ	23.84	197	eP	03 21.20	0.8
THZ	24.62	196	eP	03 27.10	-0.2
DSZ	24.90	198	eP	03 29.60	-0.1
KHZ	25.08	194	eP	03 30.30	-0.9
LTZ	25.74	196	P	03 36.20	-0.9
LMZ	27.47	200	eP	03 51.90	-0.1
ODZ	28.27	197	P	03 58.70	-0.3
LRCZ	28.66	198	P	04 01.60	-1.0
MSCZ	28.66	198	P	04 02.00	-0.5
MMCZ	28.67	199	P	04 01.50	-1.1
MHZ	28.68	198	P	04 01.80	-0.8
SBCZ	28.69	198	P	04 02.20	-0.5
LSCZ	28.70	198	P	04 02.30	-0.5
CMCZ	28.76	198	P	04 02.90	-0.4
MSZ	28.76	201	P	04 04.50	1.3
TLC	28.85	199	P	04 04.10	-0.1

TUZ	29.39	197	P	04 09.40	0.9
ARMA	29.80	240	iPd	04 13.50	1.1
	0.8s	84.00nm		5.4mb	
BCZ	29.97	199	P	04 14.90	1.4
RMQ	31.41	249	iPd	04 26.40	0.5
	0.4s	49.00nm		5.5mb	
CNB	33.25	233	iPc	04 42.50	1.2
	0.4s	129.00nm		5.9mb	
CTA	33.41	261	P	04 42.70	0.0
PMG	34.52	280	eP	04 52.00	0.0
	1.0s	180.00nm		5.7mb	
CMS	34.88	241	eP	04 55.50	0.6
TOO	36.98	231	iPd	05 13.60	1.5
	0.9s	265.00nm		5.9mb	
TAU	38.02	222	eP	05 22.00	1.7
STK	38.50	241	iPd	05 25.50	1.1
	0.6s	44.70nm		5.2mb	
BFD	39.06	233	iPd	05 29.70	0.8
	0.8s	31.00nm		4.9mb	
WB2	44.58	260	iPd	06 11.20	-1.4
	0.6s	107.60nm		5.6mb	
WRA	44.59	260	P	06 11.89	-0.8
ASPA	44.72	255	iPd	06 13.30	-0.4
	0.7s	384.30nm		6.0mb X	
			iS	12 05.80	
FORT	49.89	245	eP	06 51.00	-1.4
WARB	51.19	251	iPd	07 01.00	-1.1
	0.4s	45.00nm		5.3mb	
COOL	55.83	245	iPd	07 33.00	-1.8X
	0.4s	32.00nm		5.0mb	
MEEK	58.33	250	eP	07 50.20	-1.6
KLB	58.70	244	iPd	07 53.00	-1.2
	0.6s	38.00nm		4.8mb	
BAL	59.66	245	iPd	07 59.50	-1.0
MUN	59.99	243	eP	08 02.30	-0.4
	0.8s	111.00nm		5.1mb	
NANU	61.65	254	iPd	08 13.20	-0.4
	0.4s	36.00nm		5.1mb	
COE	76.78	43	eP	09 43.47	0.6
ARN	76.92	43	ePc	09 43.98	0.3
KMPM	77.11	39	ePd	09 45.31	0.6
PLM	77.93	49	ePc	09 49.76	0.4
PEC	78.00	48	ePc	09 49.47	-0.1
	0.6s	13.54nm		4.6mb	
ISA	78.02	46	ePc	09 49.92	0.2
	0.8s	25.60nm		4.7mb	
CMB	78.06	43	eP	09 49.67	-0.1
	0.9s	19.64nm		4.5mb	
LGPM	78.20	40	ePc	09 50.63	0.1
ORV	78.22	41	eP	09 50.20	-0.3
MEMM	78.80	44	(P)	09 54.92	1.4
MTUM	78.88	45	eP	09 54.38	0.1
GSC	78.98	47	eP	09 54.63	-0.1
LBFM	79.02	40	ePc	09 54.79	-0.2
GLA	79.24	50	ePd	09 56.87	0.8
BONR	79.38	44	ePc	09 57.18	0.2
KVN	80.11	43	eP	10 00.66	0.0
TNP	80.17	45	ePc	10 01.19	0.2
	0.9s	14.18nm		4.4mb	
VBEM	81.40	37	P	10 06.81	-0.2
TDH	81.42	37	P	10 06.88	-0.3
VLMM	81.43	36	P	10 07.28	0.2
VLL	81.59	36	P	10 08.11	0.2
VFP	81.62	37	P	10 08.23	0.0
VIPM	81.63	38	P	10 08.32	0.0
CPW	81.70	35	P	10 08.65	0.3
CROR	81.70	37	P	10 08.27	-0.2
SHW	81.71	36	eP	10 09.02	0.4
REMW	81.75	36	P	10 09.32	0.5
BGL	81.91	12	ePc	10 06.66	-2.5
GULW	81.91	36	P	10 09.84	0.3
CRP	81.96	12	eP	10 06.67	-2.9X
ASR	82.05	36	P	10 10.15	-0.1
HDW	82.15	34	P	10 11.11	0.4
GMW	82.24	34	eP	10 11.02	0.0
LON	82.28	35	ePc	10 10.41	-0.9
GL2	82.36	36	P	10 11.95	0.2
GSM	82.56	35	P	10 12.82	0.0
ARUT	82.58	46	eP	10 13.46	0.3
JBO	82.64	37	P	10 12.99	-0.1
RMW	82.71	35	eP	10 13.17	-0.3
MCW	82.90	33	(P)	10 13.79	-0.6
CMW	83.12	34	P	10 15.77	0.2
TBM	83.20	36	P	10 16.17	0.2
RSW	83.31	37	P	10 16.74	0.2
BVW	83.39	36	P	10 16.96	0.1
GBI	83.50	36	P	10 17.65	0.3

MAW	83.57	200	P	10 19.60	2.2
ETW	83.60	35	P	10 17.73	-0.3
MSU	83.80	46	eP	10 19.94	0.6
EPH	83.86	36	P	10 18.97	-0.2
WTV	83.86	35	P	10 18.79	-0.4
NLW	83.88	35	P	10 18.90	-0.4
SAW	84.17	36	P	10 20.22	-0.4
OD2	84.38	36	P	10 21.37	-0.3
DPW	84.93	36	P	10 24.04	-0.3
TIY	85.48	312	eP	10 26.80	-0.4
NEW	85.75	36	ePd	10 27.65	-0.6
	0.8s	19.20nm		4.9mb	
PTI	85.80	42	(P)	10 29.20	0.4
PV09	85.90	47	eP	10 29.53	0.0
PV10	85.92	48	ePc	10 29.04	-0.5
HHAI	86.00	42	eP	10 30.31	0.6
FBA	86.11	13	ePc	10 27.22	-2.3
	0.7s	11.82nm		4.7mb	
ALQ	86.28	52	ePc	10 31.63	0.3
	0.9s	7.65nm		4.4mb	
PV08	86.28	47	ePc	10 31.34	-0.1
XAN	86.46	307	P	10 32.20	0.2
	0.8s	4.40nm		4.2mb	
HHC	87.50	314	eP	10 37.00	0.2
	1.2s	12.00nm		4.5mb	
LCCM	87.56	40	ePc	10 37.10	0.3
BW06	87.57	43	ePc	10 36.75	-0.5
	0.7s	10.66nm		4.7mb	
GLD	89.19	48	ePd	10 46.04	1.3
	1.3s	30.13nm		5.1mb	
SES	90.26	36	ePc	10 48.50	-0.7
	1.0s	50.00nm		5.4mb	
LZH	91.09	308	eP	10 53.00	-0.5
	1.2s	20.00nm		5.0mb	
RSSD	91.78	44	ePc	10 56.43	-0.1
	0.7s	7.75nm		4.8mb	
YKA	94.61	25	eP	11 06.90	-1.9
	0.7s	2.50nm		4.6mb	
NAO	136.94	353	PKP	17 07.70	0.5
	0.8s	1.70nm			
HFS	137.24	351	ePKP	16 54.90	-12.9
	0.3s	0.60nm			
DMU	143.79	9	ePKP	17 17.50	-2.0
DCN	144.27	9	ePKP	17 19.20	-1.1
DLF	144.43	8	ePKP	17 19.60	-1.0
KSP	145.41	344	ePKPc	17 22.90	0.6
	1.0s	31.00nm			
SPC	145.63	338	ePKP	17 24.00	1.0
CLL	145.77	347	iPKPc	17 23.70	0.8
	1.0s	41.00nm			
BRG	145.97	346	iPKP	17 24.20	1.0
	1.2s	32.00nm			
WTS	146.05	354	ePKP	17 23.00	-0.3
WTS	146.05	354	ePKP	17 25.00	1.7
	0.8s	16.00nm			
PRU	146.65	345	PKP	17 26.50	2.2
	0.9s	7.40nm			
			e	17 29.00	
MOX	146.68	348	ePKP	17 26.80	2.4
	1.5s	24.00nm			
ENN	147.35	355	ePKP	17 28.50	3.1X
	0.9s	11.00nm			
SRO	147.48	339	ePKP	17 28.20	2.5X
ZST	147.54	341	ePKP	17 29.10	3.3X
GRF	147.66	348	iPKPc	17 29.50	3.5X
			e	17 33.50	
KHC	147.68	345	PKPc	17 29.50	3.4X
	1.0s	7.00nm			
			e	17 33.90	
GEC2	147.92	345	ePKPc	17 29.70	3.1X
	0.5s	5.38nm			
DOU	148.11	356	PKPd	17 30.80	4.1X
WLF	148.42	354	iPKPd	17 31.01	3.9X
FLN	149.49	3	ePKP	17 33.30	4.5X
	0.8s	27.25nm			
CDF	149.53	353	ePKP	17 33.80	4.8X
	0.7s	10.15nm			
KBA	149.64	344	iPKPd	17 33.60	4.3X
	0.8s	8.10nm			
LDF	149.67	2	ePKP	17 33.60	4.5X
	0.4s	4.60nm			
WATA	149.83	346	iPKPc	17 34.00	4.4X
GRR	149.84	3	ePKP	17 34.40	5.1X
	0.4s	5.40nm			
WTTA	149.88	346	iPKPc	17 34.30	4.6X
	0.8s	19.70nm			
SOTA	150.02	347	iPKPc	17 34.60	4.8X

```
        0.8s     13.50nm
HAU   150.04 354 ePKP  17 34.90   5.2X
        0.7s      8.80nm
BSF   150.16 353 ePKP  17 35.10   5.1X
        0.8s      9.40nm
LPF   150.19   4 ePKP  17 35.20   5.4X
        0.8s     28.35nm
VOY   150.45 342 ePKP  17 35.30   4.8X
VBY   150.52 340 e(PKP)17 36.30   5.8X
LOR   150.97 357 ePKP  17 37.10   6.0X
        0.4s      5.95nm
SSF   151.19 357 ePKP  17 37.70   6.3X
        1.0s     21.80nm
LBF   151.25 357 ePKP  17 37.60   6.0X
        0.8s      8.60nm
AVF   151.47 357 ePKP  17 37.90   6.1X
        0.3s      1.00nm
SMF   151.59 357 ePKP  17 38.30   6.3X
MFF   151.66   3 ePKP  17 38.60   6.5X
        0.9s      4.10nm
BGF   151.72 358 ePKP  17 38.80   6.6X
        0.4s      3.55nm
OHR   151.87 328 ePKP  17 39.50   6.9X
TCF   152.01 359 ePKP  17 39.40   6.8X
        0.8s      7.10nm
LSF   152.05   0 ePKP  17 39.20   6.5X
        0.9s     14.40nm
MAF   152.07 359 ePKP  17 39.80   7.1X
LPL   152.45 352 ePKP  17 41.30   7.7X
        0.8s      5.25nm
LPG   152.47 352 ePKP  17 41.40   7.7X
RJF   152.99   0 ePKP  17 40.70   6.7X
CAF   153.37 359 ePKP  17 42.70   8.1X
LPO   153.61   1 ePKP  17 42.90   8.0X
     S.D. = 0.9  on 125 of 167 obs.
-----------------------------------------
&  JAN  28, 1993   05h 05m 21.47s
   62 852 N            148.379 W
   DEPTH =   67.3km
   3.0mb (  1 obs.)
 CENTRAL ALASKA                      (  1)
      <AEIC>. ML 3.7 (PMR), 3.5
      (AEIC).

HUR     0.59 283 iPd    05 34.98  -0.2
                 eS     05 45.56
RND     0.60 339 iPc    05 35.10  -0.2
MCK     0.92 344 iPc    05 39.02  -0.1
                 eS     05 52.31
SML     1.05 179 iPc    05 40.26  -0.5
                 eS     05 55.63
TRF     1.05 306 iPd    05 40.84  -0.1
GHO     1.11 193 iPc    05 41.29  -0.4
                 eS     05 56.58
SCM     1.13 154 iPc    05 41.31  -0.6
TOA     1.27 125 P      05 43.90   0.2
PLRM    1.31 196 iPc    05 43.92  -0.3
                 eS     05 59.93
PMR     1.31 196 ePd    05 43.65  -0.5
                 eS     05 58.22
THY     1.32  63 iPc    05 44.40   0.0
                 eS     06 02.37
PAX     1.34  84 iPd    05 44.15  -0.5
                 eS     06 01.40
SDG     1.35 103 iPd    05 44.55  -0.2
                 eS     06 02.20
PWA     1.40 211 P      05 45.70   0.4
KNK     1.45 181 iPc    05 46.23   0.2
                 eS     06 06.04
TZL     1.60 119 eP     05 48.16   0.1
HDA     1.68  22 iPc    05 48.69  -0.6
                 eS     06 09.11
PMS     1.71 200 P      05 49.70   0.1
SKT     1.71 241 iPd    05 49.72   0.1
                 eS     06 11.88
NEA     1.76 350 iPc    05 49.15  -1.2
                 eS     06 10.62
SUA     1.78 220 ePc    05 51.29   0.6
KLU     1.79 139 ePd    05 50.19  -0.6
                 eS     06 13.90
CCB     1.82   8 iPc    05 49.99  -1.1
                 eS     06 11.55
VLZ     1.98 150 eP     05 52.16  -1.1
                 eS     06 15.96
VZW     2.00 154 eP     05 52.66  -1.0
PTE     2.02 189 iPc    05 53.74  -0.1
GLI     2.07 162 iPc    05 53.62  -1.0
                 eS     06 19.42
FBA     2.07   7 ePc    05 53.32  -1.3
DOT     2.11  66 ePd    05 54.46  -0.7
MDM     2.12   2 iPc    05 54.36  -0.9
GLM     2.19  11 iPc    05 55.22  -1.1
                 eS     06 20.10
FID     2.29 156 ePc    05 56.68  -1.1
CRP     2.39 230 eP     05 59.30   0.1
SPU     2.41 228 eP     05 59.73   0.3
MPA     2.42 192 eP     05 59.96   0.5
CP2     2.42 230 eP     06 00.57   0.9
CKN     2.42 229 eP     06 01.06   1.5
CKT     2.45 229 eP     06 01.48   1.5
BGL     2.47 232 eP     06 01.00   0.7
TMW     2.49  77 ePd    05 59.46  -1.1
CKL     2.50 230 eP     06 00.99   0.3
SLKM    2.51 201 eP     06 00.82   0.0
NKA     2.51 214 eP     06 03.81   3.0
KNIM    2.53 173 eP     05 59.31  -1.7
GLB     2.57 121 iPd    06 00.93  -0.7
                 eS     06 30.93
HIN     2.62 159 ePc    06 00.76  -1.6
CVA     2.63 150 ePd    06 01.32  -1.1
SEW     2.81 191 eP     06 04.56  -0.3
LTI     2.83 175 eP     06 03.94  -1.3
RAGM    3.04 143 eP     06 06.75  -1.5
DFR     3.06 224 eP     06 08.98   0.5
NCT     3.16 225 eP     06 10.75   0.8
RS2     3.18 223 eP     06 11.22   0.9
RSO     3.18 223 eP     06 10.77   0.5
RDW     3.18 224 ePc    06 10.69   0.4
RS1     3.18 223 eP     06 11.40   1.1
CROM    3.26 128 eP     06 09.89  -1.5
BRLK    3.33 202 eP     06 12.03  -0.2
TGL     3.37 126 ePd    06 11.07  -1.8
BALM    3.38 120 ePd    06 11.46  -1.6
TTA     3.50 275 eP     06 12.97  -1.7
KAIM    3.50 145 eP     06 12.92  -1.7
INE     3.59 221 eP     06 16.12   0.1
INW     3.61 221 eP     06 16.58   0.4
SNH     3.77 133 eP     06 17.63  -0.8
CTGM    3.83 116 ePd    06 18.33  -1.1
SVW     3.84 246 eP     06 18.01  -1.4
IMA     3.96 327 eP     06 19.11  -2.1
                 eS     07 01.48
FYU     3.97  19 iPc    06 20.02  -1.1
YAH     4.03 125 ePd    06 20.40  -1.9
PDB     4.16 225 eP     06 24.38   0.5
AUI     4.30 217 eP     06 24.83  -1.0
MCNL    4.68 221 eP     06 30.22  -1.0
CDD     4.70 216 eP     06 30.54  -1.0
PCA     4.77 122 eP     06 29.85  -2.8
BCPM    5.11 121 eP     06 34.50  -2.7
PNL     5.38 122 ePc    06 39.05  -2.0
YKA    15.41  76 eP     08 56.80   0.9
        0.6s     0.70nm          3.0mb
        78 obs. associated
-----------------------------------------
&  JAN  28, 1993  06h 36m 00.54s
   56.550 N            156.632 W
   DEPTH =   53.8km
   3.7mb (  1 obs.)
 ALASKA PENINSULA                    ( 12)
      <AEIC>. ML 3.9 (PMR), 3.8
      (AEIC).

SDN     2.49 242 iPd    36 37.64  -1.7
                 eLg    37 06.15
KDC     2.56  60 eP     36 38.26  -2.0
CDD     2.87  33 eP     36 43.45  -1.5
MCNL    2.91  24 eP     36 44.03  -1.4
                 S      37 17.22
AUI     3.27  30 eP     36 49.24  -1.3
                 S      37 26.89
AUH     3.29  30 eP     36 49.69  -1.2
AUE     3.31  30 eP     36 49.47  -1.6
AUL     3.31  30 eP     36 49.93  -1.2
PDB     3.49  21 eP     36 51.63  -2.0
                 eS     37 31.00
INW     3.98  26 eP     36 58.49  -2.1
INE     3.99  27 eP     36 58.79  -2.0
ILIM    4.04  27 eP     36 59.42  -1.9
RS1     4.42  26 eP     37 04.70  -2.1
RS2     4.42  26 eP     37 04.70  -2.1
RSO     4.42  26 eP     37 04.65  -2.2
RDW     4.42  25 eP     37 04.60  -2.3
BRLK    4.43  41 eP     37 03.65  -3.2
REF     4.46  26 eP     37 05.03  -2.3
RDN     4.46  25 eP     37 05.49  -1.9
NCT     4.47  24 eP     37 04.66  -2.7
DFR     4.55  25 eP     37 06.50  -2.0
                 S      37 57.30
SVW     4.60   6 eP     37 05.50  -3.8
CKL     5.16  24 eP     37 14.64  -2.7
SEW     5.20  44 eP     37 13.62  -4.0
CKT     5.20  24 eP     37 14.92  -2.8
SLKM    5.20  38 eP     37 14.19  -3.5
BGL     5.21  23 eP     37 15.25  -2.7
SPU     5.22  25 eP     37 15.05  -2.9
CKN     5.22  24 eP     37 15.41  -2.7
CP2     5.25  24 eP     37 15.62  -2.9
CRP     5.27  24 eP     37 15.21  -3.6
MPA     5.49  41 eP     37 17.60  -4.1
SUA     5.79  29 eP     37 22.66  -3.4
MTU     5.86  50 eP     37 23.50  -3.4
PTE     5.87  39 eP     37 22.88  -4.1
PMS     5.96  35 P      37 24.70  -3.7
KNIM    6.02  47 eP     37 25.02  -4.2
SKT     6.04  24 eP     37 25.88  -3.6
PWA     6.18  31 P      37 28.10  -3.3
PLRM    6.36  34 eP     37 30.45  -3.4
PMR     6.36  34 eP     37 28.48  -5.4
TTA     6.41   3 eP     37 30.00  -4.6
HIN     6.56  50 eP     37 32.55  -4.2
GHO     6.56  34 eP     37 32.59  -4.2
GLI     6.59  45 eP     37 33.10  -4.1
FID     6.76  47 eP     37 35.29  -4.3
SML     6.78  36 eP     37 35.21  -4.6
VZW     6.91  45 eP     37 37.32  -4.4
CVA     6.96  50 eP     37 37.95  -4.3
VLZ     7.04  45 eP     37 38.73  -4.7
SCM     7.13  38 eP     37 40.19  -4.5
RAGM    7.35  54 eP     37 44.14  -3.7
KLU     7.42  44 eP     37 44.23  -4.5
TRF     7.61  22 eP     37 46.96  -4.6
TOA     7.72  39 P      37 49.20  -3.7
RND     7.90  26 eP     37 50.35  -5.0
SNH     8.11  58 eP     37 55.36  -2.9
CROM    8.20  53 eP     37 55.87  -3.7
SDG     8.22  39 eP     37 56.05  -3.7
GLB     8.23  48 eP     37 55.24  -4.7
TGL     8.33  54 eP     37 57.85  -3.6
PAX     8.55  37 eP     38 00.16  -4.1
BALM    8.67  53 eP     38 01.94  -4.1
YAH     8.68  58 eP     38 01.90  -4.5
NEA     8.86  22 eP     38 02.00  -6.6
CTGM    9.09  55 eP     38 08.35  -3.5
CCB     9.20  24 eP     38 06.47  -6.7
HDA     9.20  27 eP     38 06.92  -6.3
MDM     9.37  22 eP     38 09.56  -6.1
FBA     9.42  24 ePc    38 08.84  -7.4
        0.4s     5.27nm          4.9mb X
GLM     9.58  24 eP     38 12.27  -6.3
IMA     9.66   7 eP     38 14.09  -5.5
        0.7s     3.44nm          4.5mb X
YKA    21.80  57 eP     40 44.40  -4.8
        0.6s     1.80nm          3.7mb
        73 obs. associated
-----------------------------------------
%  JAN  28, 1993  06h 51m 50.47± 1.00s
   41.419 N ± 6.1km    19.839 E ±12.1km
   DEPTH =    5.0km  (geophysicist)
 ALBANIA                             (391)
      ML 2.8 (TIR).

TIR     0.07 164 iPgc   51 53.20   0.9
                 iSg    51 57.00
LACI    0.24 336 iPgc   51 55.00  -0.3
                 iSg    52 00.00
PHP     0.52  59 iPgc   51 59.90  -1.1
                 iSg    52 08.90
BCI     0.96  10 ePn    52 10.30   1.0
                 iSn    52 26.80
KBN     1.07 138 ePn    52 12.00   0.9
TPE     1.13 173 ePn    52 10.60  -1.5
     S.D. = 1.4  on   6 of   6 obs.
-----------------------------------------
?  JAN  28, 1993  07h 33m 47.27± 6.92s
   33.992 S ±33.6km   70.862 W ±13.1km
   DEPTH =  91.8 ± 54.0 km
 CHILE-ARGENTINA BORDER REGION      (127)
      MD 3.3 (SAN).

CHCH    0.18  72 iPd    34 00.64  -0.1
```

28d 07h

```
                    eS    34 10.16
TACH     0.34 349 iP+    34 01.34   0.0
                    iS    34 10.98
LNV      0.46 274 iP+    34 02.17   0.1
                    iS    34 12.51
PCH      0.47  38 iP     34 02.30   0.0
                    iS    34 12.94
LCCH     0.78 311 iP+    34 04.93  -0.1
FCH      0.82  36 iPd    34 05.83   0.1
                    iS    34 19.21
PEL      0.86  10 iP+    34 06.08   0.2
                    iS    34 19.29
ROCH     1.02 353 eP     34 07.84  -0.1
                    iS    34 22.33
JACH     1.33  10 iPd    34 11.30  -0.1
                    iS    34 29.18
     S.D. = 0.1  on   9 of   9 obs.
-------------------------------------
&  JAN  28, 1993  08h 05m 11.21s
   60.494 N          147.012 W
   DEPTH =  17.6km
 SOUTHERN ALASKA                  (  2)
     <AEIC>. ML 2.5 (AEIC).

HIN      0.27 111 iP     05 17.37   0.0
                    S     05 22.89
FID      0.37  45 eP     05 18.26  -0.7
KNIM     0.39 248 iP     05 18.83  -0.5
                    eS    05 24.81
GLI      0.39 354 iP     05 18.89  -0.4
                    eS    05 25.45
MTU      0.60 212 eP     05 22.31  -0.6
VZW      0.61  21 iP     05 22.39  -0.7
LTI      0.62 223 eP     05 22.32  -0.9
CVA      0.63  85 iP     05 22.43  -0.9
                    eS    05 31.92
VLZ      0.72  27 iP     05 24.07  -0.8
                    eS    05 34.03
PTE      1.06 291 iP     05 29.25  -1.4
                    eS    05 43.44
MID      1.12 162 eP     05 30.60  -1.1
KLU      1.13  27 iP     05 30.79  -1.3
                    S     05 45.77
KNK      1.16 323 eP     05 31.22  -1.3
MPA      1.16 271 iP     05 30.79  -1.7
                    eS    05 46.23
RAGM     1.16  94 iP     05 30.60  -2.0
SEW      1.28 253 iP     05 32.25  -1.9
                    S     05 48.52
SCM      1.35 354 eP     05 34.40  -0.9
KAIM     1.42 113 eP     05 35.08  -1.0
PMS      1.46 302 eP     05 35.66  -1.1
                    eS    05 54.43
SML      1.47 335 eP     05 36.17  -0.7
PLRM     1.51 318 eP     05 36.51  -0.9
                    S     05 55.96
PMR      1.51 318 eP     05 36.12  -1.3
                    eS    05 55.61
GHO      1.58 325 eP     05 38.05  -0.6
SLKM     1.59 272 eP     05 36.90  -1.7
TOA      1.67  14 eP     05 38.70  -1.1
TZL      1.73  26 eP     05 40.69   0.0
PWA      1.81 311 eP     05 41.13  -0.7
GLE      1.83  57 iP     05 40.70  -1.4
                    eS    06 03.13
CROM     1.93  80 eP     05 41.72  -2.0
SUA      2.06 300 eP     05 44.12  -1.5
TGL      2.08  81 eP     05 43.67  -2.2
SDG      2.16  18 eP     05 46.18  -0.7
BALM     2.35  75 eP     05 47.62  -2.1
SPU      2.56 288 eP     05 50.05  -2.6
YAH      2.62  91 eP     05 51.30  -2.3
CRP      2.63 289 iPc    05 50.96  -2.8
CKT      2.64 288 eP     05 51.37  -2.4
SKT      2.64 306 eP     05 51.65  -2.2
RDT      2.67 274 eP     05 51.54  -2.7
CP2      2.67 289 ePnc   05 51.83  -2.6
                    ePg   05 56.45
                    eS    06 25.00
CKL      2.70 287 eP     05 52.04  -2.7
BGL      2.74 289 ePn    05 52.32  -2.9
                    eS    06 25.49
DFR      2.81 274 eP     05 53.09  -3.1
CTGM     2.83  78 eP     05 54.74  -1.8
RS2      2.84 272 eP     05 54.10  -2.7
NCT      2.93 274 eP     05 54.86  -3.0
INE      3.05 264 eP     05 57.66  -1.9
INW      3.08 265 eP     05 57.75  -2.3
        48 obs. associated
-------------------------------------
*  JAN  28, 1993  08h 10m 08.25± 2.55s
   24.707 N ±12.4km  122.052 E ±14.8km
   DEPTH =  52.2 ± 31.0 km
   4.7mb (  4 obs.)
 TAIWAN REGION                    (243)

OZH      3.15 275 iPnd   10 56.50  -0.1
                    Sn    11 28.50
SSE      6.41 353 Pnc    11 43.00   0.6
        1.0s    25.00nm          4.7mb
      Z  14s     0.40um          4.6MszX
                    Sn    12 54.40
                    Sg    13 24.00
NJ2      7.84 340 eP     12 02.00  -0.3
                    S     13 24.00
GZH      8.13 260 P      12 06.20  -0.1
WHN      8.97 312 eP     12 17.00  -0.9
        1.0s    12.00nm          4.9mb
                    S     13 52.00
GYA     14.00 280 eP     13 26.80   1.2
CD2     17.32 295 eP     14 07.60  -0.3
WB2     45.97 164 iPd    18 27.40  -0.7
        0.5s     5.20nm          4.7mb
ASPA    49.44 166 eP     18 55.70   0.5
        1.5s     4.70nm          4.3mb
     S.D. = 0.8  on   9 of   9 obs.
-------------------------------------
?  JAN  28, 1993  09h 22m 25.48± 7.75s
    8.346 S ±85.7km  122.361 E ±18.4km
   DEPTH =  33.0km  (normal)
   4.2mb (  1 obs.)
 FLORES REGION, INDONESIA         (286)

WB2     16.36 136 eP     26 13.40  -1.0
                    i     26 19.70
                    eS    29 06.10
WARB    18.20 168 eP     26 37.00  -0.4
ASPA    18.82 145 iPc    26 46.50   1.4
                    eS    30 04.20
MRWA    21.61 195 eP     27 14.50  -0.2
        0.4s     4.00nm          4.2mb
BAL     22.77 193 eP     27 26.10  -0.2
KLB     23.52 190 eP     27 34.00   0.4
     S.D. = 1.1  on   6 of   6 obs.
-------------------------------------
?  JAN  28, 1993  09h 48m 54.04± 3.74s
   43.627 N ±12.3km   16.933 E ±39.4km
   DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION       (383)
      MD 3.1 (LJU).

HVAR     0.57 218 iPgc   49 06.10   0.5
                    iSg   49 16.50
PTJ      2.38 343 ePn    49 32.80  -0.9
                    eSn   50 03.40
CEY      2.77 321 eP     49 40.50   1.2
                    eSn   50 15.00
TRI      3.07 314 eP     50 24.30  40.8X
ASS      3.17 261 P      49 43.80  -1.1
                    eSg   49 45.70
VOY      3.23 319 ePn    49 46.20   0.3
                    eSn   50 24.20
                    e     50 27.50
                    e     50 32.40
CRE      3.62 272 P      49 48.10  -3.3X
     S.D. = 1.4  on   5 of   7 obs.
-------------------------------------
?  JAN  28, 1993  10h 07m 12.57± 0.95s
   39.136 N ± 8.8km   27.652 E ± 9.4km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                           (366)
      MD 2.8 (ISK).

IZM      0.80 203 iPg    07 28.00  -0.1
                    iSg   07 40.00
DST      0.89  58 ePn    07 30.00   0.3
EZN      1.24 304 iPn    07 35.70   0.2
KCT      1.24  26 iPn    07 35.20  -0.4
     S.D. = 0.5  on   4 of   4 obs.
-------------------------------------
   JAN  28, 1993  10h 12m 35.04± 0.59s
   41.097 N ± 6.1km   28.726 E ± 3.8km
   DEPTH =   5.0km  (geophysicist)
 TURKEY                           (366)
      MD 2.9 (ISK).

CTT      0.23 283 iPg    12 39.40  -0.3
ISK      0.25  97 iPg    12 40.20   0.0
                    iSg   12 43.20
GBZT     0.63 119 ePg    12 48.20   0.6
                    eSg   12 56.00
KCT      0.89 198 iPn    12 52.30  -0.3
BNT      0.96 220 iPn    12 53.30  -0.5
EDC      1.00 221 ePn    12 55.00   0.6
DMK      1.03 315 iPn    12 55.20   0.3
EYL      1.21 116 ePn    12 57.20  -0.9
GPA      1.45 123 ePn    13 02.00   0.4
DST      1.49 183 ePn    13 03.00   0.4
     S.D. = 0.6  on  10 of  10 obs.
-------------------------------------
   JAN  28, 1993  10h 37m 58.23± 1.21s
   41.473 N ±11.7km   19.613 E ± 8.8km
   DEPTH =  10.0km  (geophysicist)
 ALBANIA                          (391)
      ML 2.6 (TTG).

ULC      0.56 331 iPgd   38 09.15  -0.5
                    iSg   38 15.38
OHR      0.96 112 iPg    38 16.70   0.1
                    iSg   38 32.50
TTG      0.99 345 iPgc   38 16.00  -1.0
                    iSg   38 28.98
BDV      1.00 324 iPgc   38 16.72  -0.5
                    iSg   38 30.23
PVY      1.15  13 iPgc   38 19.85   0.0
                    iSg   38 34.96
HCY      1.28 320 iPgc   38 22.25   0.3
                    iSg   38 39.43
IVA      1.41   9 iPgd   38 24.07   0.8
                    iSg   38 43.73
NKY      1.42 341 iPgc   38 23.75  -0.3
                    iSg   38 43.25
SKO      1.46  69 iPn    38 24.50  -0.1
                    iSn   38 44.00
BRY      1.63 331 iPgc   38 27.97   0.7
                    iSg   38 50.56
PLE      1.86 355 iPnd   38 32.13   1.6
                    iSn   38 55.36
VAY      2.23  93 iPn    38 35.40  -0.4
     S.D. = 0.7  on  12 of  12 obs.
-------------------------------------
%  JAN  28, 1993  11h 17m 02.70± 0.78s
   40.799 N ± 6.7km   23.014 E ± 6.1km
   DEPTH =  10.0km  (geophysicist)
 GREECE                           (364)

THE      0.17 193 ePg    17 07.14   0.6
                    iSg   17 10.66
SOH      0.26  85 iPg    17 09.26   1.1
                    eSg   17 13.80
KNT      0.37 346 iPg    17 10.24  -0.1
                    eSg   17 16.32
GRG      0.49 289 ePg    17 12.56  -0.1
                    iSg   17 19.68
SRS      0.54  54 ePg    17 13.60  -0.1
OUR      0.87 122 ePg    17 18.10  -1.3
     S.D. = 1.0  on   6 of   6 obs.
-------------------------------------
*  JAN  28, 1993  11h 19m 15.37± 2.74s
   25.162 N ±13.8km  123.262 E ±17.6km
   DEPTH = 111.3 ± 26.8 km
   4.2mb (  7 obs.)
 NORTHEAST OF TAIWAN              (245)

SSE      6.19 343 Pn     20 34.00 -11.7X
        0.8s    12.00nm
                    Pg    21 05.50
                    S     21 54.00
NJ2      7.88 332 eP     21 06.50  -2.3
      Z  11s     0.94um
XAN     15.28 309 eP     22 42.00  -4.3X
      Z  13s     0.65um
TIY     15.54 326 eP     22 52.00   2.5
      Z  15s     0.95um
      N  18s     2.28um
      E  19s     2.14um
BJI     15.98 340 eP     22 56.00   1.1
      Z  12s     0.60um
HHC     18.44 331 eP     23 24.60  -0.4
      E  11s     0.40um
BTO     18.96 328 eP     23 30.50   0.0
```

```
LZH     19.91 308 eP     23 40.30  -0.3
        1.5s     30.00nm          4.4mb
      Z  15s      0.58um
                  pP     23 45.60  20kmX
                  PP     24 00.00
CHG     23.40 259 eP     24 16.80   1.7
GTA     24.29 311 eP     24 25.00   1.2
        1.5s     14.00nm          4.2mb
      Z  12s      0.36um          4.1MszX
GUN     33.47 283 P      25 46.30  -0.1
PKI     33.92 283 P      25 49.96  -0.2
KKN     34.01 283 P      25 50.52  -0.3
DMN     34.18 283 P      25 51.70  -0.6
GKN     34.56 283 P      25 53.68  -1.8
WB2     46.11 165 iPc    27 30.10  -0.1
        0.7s     16.90nm          4.9mb
ASPA    49.62 167 iPc    27 57.70   0.3
        0.9s     11.30nm          4.8mb
HFS     77.63 331 ePKP   31 00.20  -0.4
        0.4s      0.50nm          3.7mb
NAO     78.51 332 P      31 05.20  -0.2
        0.9s      2.80nm          4.1mb
YKA     81.33  23 eP     31 28.00   7.6X
        1.2s      1.50nm          3.7mb
      S.D. = 1.3  on  17 of  20 obs.
-----------------------------------------
   JAN  28, 1993  11h 32m 00.97± 0.61s
   38.229 N ± 5.4km   22.776 E ± 6.9km
   DEPTH =  10.0km  (geophysicist)
 GREECE                              (364)
      ML 3.4 (ATH).

ATH      0.79 109 ePn    32 17.00   0.8
AGG      0.87 336 ePg    32 16.76  -0.9
                  iSg    32 29.92
VLI      1.51 175 ePn    32 27.20  -0.9
                  eSn    32 47.00
VLS      1.72 269 ePn    32 31.80   0.6
PAIG     1.84  22 iPb    32 33.36   0.6
KZN      2.22 340 ePn    32 38.50   0.1
OUR      2.30  24 ePn    32 38.72  -0.8
SOH      2.63  10 ePn    32 43.96  -0.2
                  eSn    33 16.64
GRG      2.74 354 ePn    32 45.70  -0.1
FNA      2.77 337 ePn    32 46.88   0.6
                  eSn    33 22.00
SRS      2.95  12 ePn    32 48.04  -0.7
VAY      3.09 357 iPn    32 51.60   0.9
OHR      3.26 333 ePn    32 57.10   3.9X
SKO      3.88 345 ePn    33 09.50   7.6X
      S.D. = 0.8  on  12 of  14 obs.
-----------------------------------------
   JAN  28, 1993  11h 48m 15.98± 1.27s
   44.627 S ± 6.2km  168.005 E ± 9.8km
   DEPTH = 115.1 ± 12.0 km
 SOUTH ISLAND, NEW ZEALAND           (162)

MSZ      0.08 235 Pc     48 30.90  -0.4
                  S      48 40.40
MMCZ     0.89 116 Pd     48 37.10   0.2
TLC      0.94 127 Pd     48 37.60   0.1
MHZ      1.01 116 P      48 38.10   0.0
SBCZ     1.04 117 P      48 38.30  -0.1
CMCZ     1.04 120 P      48 38.40   0.0
                  S      48 52.60
LRCZ     1.05 115 Pd     48 38.60   0.0
LSCZ     1.09 117 P      48 38.70  -0.2
MSCZ     1.10 115 P      48 39.00   0.0
LMZ      1.29  46 P      48 41.10   0.2
                  i      48 42.10
BWZ      1.35  87 P      48 42.00   0.4
BCZ      1.38 185 P      48 42.10   0.0
                  S      48 59.20
TUZ      1.76 140 Pd     48 46.80   0.2
                  S      49 06.10
ODZ      1.92 103 P      48 48.80   0.1
                  S      49 09.50
EWZ      2.34  62 P      48 54.50   0.5
MQZ      3.47  76 eP     49 08.20  -0.9
                  eS     49 44.70
LTZ      3.60  61 P      49 10.10  -0.8
                  S      49 50.40
DSZ      4.00  45 eP     49 16.20  -0.2
QRZ      5.05  43 eP     49 31.50   0.8
      S.D. = 0.4  on  19 of  19 obs.
-----------------------------------------
?  JAN  28, 1993  13h 07m 28.66± 3.02s
   11.259 N ±11.2km   60.292 W ±35.7km
   DEPTH =  48.9 ± 17.4 km
   3.7mb (  1 obs.)
 WINDWARD ISLANDS                    ( 95)
      MD 3.4 (TRN).

BOT      0.43 258 eP     07 38.01  -1.0
                  eS     07 44.51
TPR      0.48 261 iP     07 38.76  -0.9
                  eS     07 45.31
TBH      1.08 225 eP     07 48.82   1.1
                  eS     08 04.34
TRN      1.25 241 iP     07 49.99   0.0
                  eS     08 04.15
TCE      1.54 249 eP     07 54.82   0.7
                  eS     08 12.14
GRW      1.61 304 iP     07 54.94  -0.3
                  eS     08 13.47
SVB      2.21 335 eP     08 04.15   0.5
                  eS     08 28.86
SVV      2.24 336 eP     08 04.90   0.9
                  eS     08 30.56
YKA     64.05 335 eP     17 58.50  -1.0
        0.4s      0.30nm          3.7mb
      S.D. = 1.1  on   9 of   9 obs.
-----------------------------------------
%  JAN  28, 1993  13h 44m 37.80± 0.80s
   26.926 S ± 9.1km   26.726 E ± 6.9km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA            (584)
      ML 2.2 (PRE).

BFS      0.06  62 iPc    44 38.90  -0.6
PRY      0.67  90 eP     44 50.90  -0.3
                  S      44 58.90
SWZ      1.28 258 eP     45 02.30   0.3
                  S      45 19.50
SEK      1.60 150 eP     45 08.00   1.0
                  S      45 28.50
SLR      1.83  50 iPc    45 10.90   0.6
                  S      45 34.00
BLF      2.23 192 eP     45 15.90  -0.1
FRS      3.07 203 eP     45 27.00  -0.9
      S.D. = 0.8  on   7 of   7 obs.
-----------------------------------------
?  JAN  28, 1993  14h 03m 50.92± 2.00s
   14.360 N ±20.4km   91.892 W ±22.2km
   DEPTH =  54.7 ± 17.2 km
   4.4mb (  2 obs.)
 GUATEMALA                           ( 70)

TPX      0.65 327 iP     04 04.50   0.2
                  iS     04 18.70
SCX      2.47 343 iP     04 36.80   7.4X
                  (S)    05 11.00
EVV      5.25 321 iP     05 12.00   3.2X
                  (S)    06 20.00
OXX      5.38 301 iP     05 15.00   4.1X
PPM      7.97 307 iP     05 47.80   0.6
MRX     10.36 302 (P)    06 18.20  -1.3
UYO     19.86 354 iPc    08 21.00   0.8
MEO     21.21 345 iPc    08 34.20   0.0
LCCM    35.61 336 eP     10 47.10   1.6
SIV     42.86 134 P      11 46.00   0.3
YKA     50.70 347 eP     12 45.50  -1.3
        0.6s      1.70nm          4.3mb
EKA     77.61  36 P      15 41.00  -1.8
        0.8s      4.40nm          4.5mb
HYB    147.05  17 ePKP   23 29.00   1.0
GBA    150.28  21 PKP    23 43.00  10.0X
      S.D. = 1.4  on  10 of  14 obs.
-----------------------------------------
*  JAN  28, 1993  14h 38m 58.58± 1.09s
   50.221 N ±16.4km   19.099 E ± 7.4km
   DEPTH =  10.0km  (geophysicist)
 POLAND                              (548)
      ML 3.2 (WAR).

OJC      0.45  90 ePg    39 07.10  -0.6
                  iSg    39 14.30
SPC      1.27 144 ePn    39 23.20   0.9
                  i(Sg)  39 39.80
                  Lg     39 44.00
VRAC     1.86 242 ePn    39 30.60  -0.1
        0.3s     13.20nm
                  eSg    39 54.70
KSP      1.90 290 iPg    39 32.50   1.2
        0.8s     42.00nm
                  iS     39 57.10
ZST      2.41 214 eP     39 43.70   5.0X
                  e      40 04.00
SRO      2.46 192 eP     39 46.40   7.0X
                  e      40 09.10
BRG      3.35 283 ePg    39 59.00   7.0X
                  iSg    40 43.00
KHC      3.75 255 ePn    39 56.40  -1.3
                  ePg    40 09.00
                  e      40 33.00
                  eSg    40 49.50
                  e      41 03.40
      S.D. = 1.5  on   5 of   8 obs.
-----------------------------------------
?  JAN  28, 1993  14h 54m 04.53± 1.03s
   40.755 N ±13.6km    1.380 W ± 7.6km
   DEPTH =  10.0km  (geophysicist)
 SPAIN                               (377)
      mbLg 2.5 (MDD).

ETOR     0.52 277 eP     54 15.00   0.0
                  eS     54 22.80
ECHE     1.20 165 eP     54 27.00   0.0
                  eS     54 42.50
EROO     1.36  87 eP     54 29.50   0.0
                  eS     54 47.50
GUD      2.11 268 eP     54 40.50   0.0
                  eS     55 06.00
      S.D. = 0.0  on   4 of   4 obs.
-----------------------------------------
%  JAN  28, 1993  15h 06m 49.50± 2.73s
   39.290 N ±22.7km   27.670 E ± 9.9km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                              (366)
      MD 2.7 (ISK).

DST      0.81  67 ePn    07 04.70  -0.5
EDC      1.07   8 ePn    07 09.00  -0.6
BNT      1.08  10 ePn    07 09.00  -0.9
KCT      1.09  29 iPn    07 11.80   1.7
EZN      1.17 298 iPn    07 11.50   0.2
      S.D. = 1.5  on   5 of   5 obs.
-----------------------------------------
   JAN  28, 1993  15h 06m 54.92± 0.91s
   16.302 S ± 7.6km   71.747 W ± 7.8km
   DEPTH = 127.2 ±  9.9 km
   4.7mb (  9 obs.)
 SOUTHERN PERU                       (117)

LPB      3.51  94 iP     07 51.20   1.9
        1.0s    680.00nm
CNCB     3.65  98 iPc    07 53.00   1.7
CCH      5.47 102 P      08 15.60  -0.1
NNA      6.54 310 iPd    08 27.60  -2.5
        0.6s      6.67nm          4.2mb
                  eS     09 39.00
ANT      7.47 171 eP     08 37.70  -4.9X
YJA      8.30 136 ePd    08 52.40  -1.9
HJA      9.10 140 ePd    09 03.00  -1.6
SIV     10.26  90 P      09 20.40   0.3
RTLL    15.26 169 iPc    10 25.00   0.2
RTCB    15.35 170 iPc    10 26.60   0.5
TCA     16.33 158 ePc    10 42.80   4.6X
MDZ     16.72 171 i(P)   10 44.40   1.4
BAO     22.85  92 P      11 47.90  -0.2
                  e      11 54.80
BDF     22.93  92 eP     11 48.00  -0.9
SDV     25.05   3 iPc    12 10.20   1.0
TOV     25.99   4 eP     12 14.60  -3.2X
PRM     51.11 349 eP     15 45.63  -1.0
LHS     51.23 350 (P)    15 47.07  -0.4
CEH     52.37 352 eP     15 55.37  -0.6
        0.3s      6.01nm          5.0mb
CVL     54.36 353 eP     16 10.49  -0.1
UYO     54.65 337 iPd    16 12.90   0.1
MIAR    54.66 338 eP     16 12.24  -0.6
        0.6s      7.51nm          4.8mb
OLY     54.81 340 eP     16 12.34  -1.5
LMN     62.18   5 eP     17 06.50   1.7
EEO     62.99 354 eP     17 13.50   3.3X
PV08    64.61 329 eP     17 21.81   0.5
SRU     65.97 328 eP     17 29.81   0.0
ARUT    66.55 325 eP     17 35.21   1.7
RSSD    66.97 335 eP     17 36.15   0.0
        0.6s      3.07nm          4.4mb
TNP     68.89 323 eP     17 49.55   1.4
```

28d 15h

```
        0.7s      2.82nm          4.2mb
BONR   69.44 322 eP     17 53.53   1.9
LIC    69.68  77 P      17 51.90  -1.2
TIC    69.83  76 P      17 52.80  -1.3
KIC    69.99  77 P      17 53.80  -1.3
        0.9s     34.00nm          5.2mb
ARN    71.00 320 (P)    18 01.01   0.2
SES    74.85 335 eP     18 24.00   1.0
FCC    77.01 348 eP     18 38.50   3.7X
YKA    85.42 342 eP     19 19.00   0.1
        0.6s      6.20nm          4.7mb
LFF    89.49  43 eP     19 38.80   0.0
        0.6s      6.60nm          4.9mb
AVF    91.89  42 eP     19 49.40  -0.4
SMF    92.15  42 eP     19 50.80  -0.2
        0.8s      7.40nm          5.0mb
GBA   150.12  91 PKPc   26 34.40   6.8X
        0.7s      3.00nm
HYB   151.57  83 ePKP   26 37.50   7.7X
      S.D. = 1.2  on  36 of  43 obs.
-----------------------------------------
?  JAN  28, 1993  15h 35m 59.59± 1.88s
    6.583 S ±14.9km  148.008 E ±21.6km
    DEPTH =  52.6 ± 12.2 km
    4.8mb (  2 obs.)
 NEW BRITAIN REGION, P.N.G.          (192)

FINC    0.15 257 iPc    36 08.30   0.3
PMG     2.93 197 iPc    36 45.00   0.2
                 eS     37 22.00
MNDI    4.34 275 e(P)   37 07.00   2.1
WWKK    5.26 304 eP     37 16.00  -1.8
WB2    18.77 224 eP     40 16.30  -0.9
        0.2s     19.90nm          5.0mb
RMO    19.81 178 eP     40 28.30  -0.4
ASPA   21.73 217 iPc    40 48.00  -0.4
        0.6s     15.10nm          4.6mb
                 eS     44 40.60
HFS   116.48 336 ePdiff51 13.00  19.4X
        0.3s      3.40nm
SIV   143.50 128 PKP    55 32.00   0.9
      S.D. = 1.5  on   8 of   9 obs.
-----------------------------------------
%  JAN  28, 1993  15h 54m 02.48± 0.77s
    42.313 N ± 5.9km   19.540 E ± 5.3km
    DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION          (383)
      ML 1.7 (TTG).

TTG     0.24 299 iPgc   54 08.25   0.7
                 iSg    54 12.65
ULC     0.41 212 iPgd   54 10.92   0.0
                 iSg    54 17.68
PVY     0.43  49 iPgd   54 11.35   0.1
                 iSg    54 18.22
BDV     0.53 267 iPgc   54 12.97  -0.2
                 iSg    54 21.48
IVA     0.62  25 iPgc   54 14.92  -0.1
                 iSg    54 24.38
NKY     0.64 321 iPgd   54 14.92  -0.5
                 iSg    54 24.70
HCY     0.78 280 iPgc   54 17.53  -0.2
                 iSg    54 29.43
BRY     0.94 309 iPgd   54 20.68   0.2
                 iSg    54 34.75
PLE     1.02 354 iPgd   54 21.75  -0.1
                 eSg    54 37.02
      S.D. = 0.4  on   9 of   9 obs.
-----------------------------------------
   JAN  28, 1993  16h 12m 33.62± 0.48s
    6.614 S ± 6.7km  130.352 E ± 9.7km
   DEPTH =  33.0km  (normal)
   4.7mb (  5 obs.)
 BANDA SEA                           (280)

WB2    13.81 164 iPc    15 43.10  -6.3X
                 eS     18 04.20
PMG    16.87 101 eP     16 29.00   0.0
ASPA   17.29 169 eP     16 29.70  -4.6X
                 eS     19 29.50
WARB   19.78 190 eP     17 03.50  -0.6
                 eS     20 29.00
NANU   21.35 221 eP     17 21.50   1.2
MEEK   22.84 208 eP     17 35.00  -0.1
MRWA   26.25 209 eP     18 08.00   0.3
STK    27.24 159 eP     18 20.90   4.2X
        0.5s      1.30nm          3.8mb
                 eS     23 20.50
CHG    39.96 310 ePc    20 08.30   1.3
        1.0s     18.75nm          4.8mb
XAN    45.24 335 Pc     20 50.40   0.6
BJI    48.23 345 eP     21 13.50   0.3
LZH    49.23 331 eP     21 22.00   0.8
        1.4s     24.00nm          5.0mb
CN2    50.37 355 eP     21 29.20  -0.4
LSA    52.16 316 P      21 44.80   0.8
        0.8s      8.00nm          4.7mb
GUN    54.96 311 P      22 04.08  -0.5
        0.6s     89.00nm          5.9mb X
PKI    55.14 310 P      22 05.00  -0.9
        0.7s     26.00nm          5.4mb X
KKN    55.35 310 P      22 06.62  -0.6
        0.7s     47.00nm          5.6mb X
DMN    55.39 310 P      22 07.04  -0.5
GKN    55.95 310 P      22 10.92  -0.5
HYB    56.46 296 eP     22 13.50  -1.6
WMQ    63.26 327 P      23 02.00   0.6
        1.0s      6.20nm          4.7mb
SLA   145.23 154 ePKPd 32 16.90   6.3X
HJA   146.59 153 e(PKP)32 17.50   4.9X
CNCB  150.50 142 PKP    32 26.00   6.4X
LPB   150.64 142 ePKP   32 29.00   9.4X
ZOBO  150.80 141 PKP    32 25.80   5.6X
      S.D. = 0.8  on  18 of  26 obs.
-----------------------------------------
*  JAN  28, 1993  16h 52m 09.73± 2.13s
    31.323 S ±15.9km   68.174 W ±16.9km
    DEPTH =  70.5 ± 25.8 km
 SAN JUAN PROVINCE, ARGENTINA        (137)

RTLL    0.25 268 iPc    52 21.30   0.4
CFA     0.29 191 iPc    52 21.90   0.8
                 S      52 33.60
RTCB    0.56 253 iPd    52 23.00  -0.5
RTCV    0.62 210 iPd    52 23.20  -0.8
                 (S)    52 35.50
MDZ     1.66 200 iP     52 36.20  -1.1
                 iS     52 55.90
RTPR    1.76  55 iPc    52 38.80   0.2
                 (S)    53 00.40
MRA     2.36 118 ePc    52 46.00  -1.0
                 S      53 10.20
TCA     3.07  91 iP     53 01.20   4.3X
                 (S)    53 34.00
RFA     3.45 184 ePc    53 04.10   1.9
                 (S)    53 34.70
      S.D. = 1.4  on   8 of   9 obs.
-----------------------------------------
*  JAN  28, 1993  17h 01m 31.62± 2.29s
    38.422 N ±15.7km   26.709 E ±18.5km
    DEPTH =  10.0km  (geophysicist)
 AEGEAN SEA                          (365)
      MD 3.1 (ISK).

IZM     0.44  93 iPg    01 41.80   1.3
                 iSg    01 48.30
CIN     1.36 127 iPgd   01 56.00  -0.6
                 iSg    02 09.00
EZN     1.43 348 iPn    01 58.60   1.0
DST     1.91  51 ePn    02 04.00  -0.5
KCT     2.23  34 ePn    02 08.00  -1.1
      S.D. = 1.5  on   5 of   5 obs.
-----------------------------------------
%  JAN  28, 1993  18h 16m 39.14± 0.72s
    26.398 S ± 5.8km   27.471 E ± 8.0km
    DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA            (584)
      ML 2.3 (PRE).

PRY     0.53 180 eP     16 49.00  -0.7
                 S      16 55.00
KSR     0.74 316 eP     16 54.00   0.0
                 S      17 03.00
SLR     0.98  48 eP     16 58.00  -0.4
                 S      17 10.50
SEK     1.92 176 eP     17 14.00   1.0
                 S      17 38.00
BFT     2.42  74 eP     17 20.50   0.3
                 S      17 49.90
BLF     2.93 203 eP     17 27.20  -0.2
      S.D. = 0.8  on   6 of   6 obs.
-----------------------------------------
   JAN  28, 1993  18h 24m 32.45± 0.54s
    36.451 N ± 4.4km   5.379 W ± 4.7km
   DEPTH =  10.0km  (geophysicist)
 STRAIT OF GIBRALTAR                 (385)
      mbLg 2.6 (MDD). Felt at Jimena
      de la Frontera, Spain.

EJIF    0.07 271 iPgd   24 31.70  -3.1X
ALJ     0.29 321 iP     24 38.50   0.0
OJEN    0.37 200 iP     24 40.80   0.7
LIJA    0.45 357 eP     24 43.20   1.6
PLAT    0.45 223 iP     24 41.10  -0.5
EPRU    0.53  13 iPgd   24 42.70  -0.4
                 eSg    24 50.00
CNIL    0.55 262 iP     24 43.70   0.2
GIBL    0.59 309 eP     24 45.10   0.6
SFS     0.67 271 eP     24 45.40  -0.3
EHOR    1.37   4 iPnd   24 57.41  -0.2
                 eSn    25 15.80
ELUQ    1.42  38 ePn    24 58.90   0.5
                 eSn    25 18.60
EGUA    1.51  75 ePn    24 59.20  -0.3
EVAL    1.57 316 iPnd   25 00.16  -0.3
                 eSn    25 19.10
ECOG    1.67  60 ePn    25 02.13   0.1
EPLA    3.65 352 ePn    25 28.51  -1.7
                 eSn    26 10.00
      S.D. = 0.8  on  14 of  15 obs.
-----------------------------------------
*  JAN  28, 1993  18h 24m 50.91± 1.18s
    37.412 N ± 8.9km   71.800 E ± 8.4km
    DEPTH = 106.5 ± 15.6 km
    4.1mb (  5 obs.)
 AFGHANISTAN-TAJIKISTAN BORD REG.(717)

KSH     3.86  57 Pn     25 50.60   1.1
                 Sn     26 38.10
QUE     8.26 211 eP     26 51.30   1.6
                 eS     28 21.10
NDI     9.82 151 iPd    27 08.80  -1.8
        0.5s     66.90nm          5.8mb X
                 eS     28 48.50
MAIO    9.92 267 iPd    27 11.20  -1.0
        0.8s     20.13nm          5.1mb
                 eS     29 00.00
WMQ    13.66  57 P      28 00.40  -0.9
GKN    14.30 127 P      28 05.28  -4.4X
KKN    14.86 126 P      28 11.92  -4.9X
DMN    14.87 127 P      28 12.32  -4.7X
PKI    15.09 127 P      28 14.88  -5.0X
GUN    15.16 125 P      28 15.84  -5.0X
LSA    17.85 110 P      28 53.30  -1.0
HYB    20.79 162 eP     29 26.50   1.1
                 eS     33 08.00
GTA    22.01  76 eP     29 39.00   1.5
        1.0s     12.00nm          4.2mb
                 pP     29 44.00  18kmX
                 sP     29 48.00
GBA    24.24 167 P      29 59.00  -0.1
HFS    42.75 321 eP     32 38.90   0.1
        0.4s      1.30nm          4.1mb
NAO    44.22 322 P      32 50.60  -0.1
        0.8s      1.60nm          3.9mb
YKA    80.31   3 eP     36 50.20  -0.7
        0.5s      1.80nm          4.1mb
      S.D. = 1.3  on  12 of  17 obs.
-----------------------------------------
   JAN  28, 1993  18h 25m 10.20± 0.15s
    8.083 S ± 3.3km  129.083 E ± 4.7km
   DEPTH =  33.0km  (normal)
   5.2mb ( 43 obs.)
 TIMOR SEA                           (290)

WRA    12.84 157 P      28 08.10  -5.2X
WB2    12.85 157 iPc    28 07.80  -5.5X
                 iS     30 20.40
KHKI   13.34 268 eP     28 26.40   6.6X
                 eS     30 50.20
                 e      33 07.40
WWKK   15.12  74 eP     28 41.00  -2.3X
DAV    15.47 347 eP     28 51.20   3.5X
ASPA   16.17 164 iPd    28 51.80  -4.9X
                 i      29 00.70
                 e      29 13.90
                 eS     31 41.90
CGP    17.00 345 iPc    29 09.00   1.8
        1.0s    108.00nm          4.9mb
PMG    17.91  96 eP     29 18.00  -0.6
WARB   18.15 187 eP     29 18.00  -3.5X
```

28d 18h

```
                 eS    32 27.00
KKM    19.02 317 ePd   29 35.50   3.3X
       1.2s   230.40nm          5.3mb
NANU   19.42 221 eP    29 37.00   0.2
       0.4s    14.00nm          4.6mb
                 e     29 42.00
PLP    19.55 348 ePd   29 39.50   1.2
       1.0s    25.00nm          4.5mb
CTA    20.46 127 P     29 48.79   0.9
MEEK   20.96 207 eP    29 52.30  -0.7
                 eS    33 35.00
FORT   22.60 182 eP    30 09.00  -0.3
                 eS    34 11.00
PGP    22.91 339 ePd   30 13.40   1.0
RAB    23.27  82 eP    30 17.00   1.1
COOL   23.87 197 eP    30 19.00  -2.7X
MRWA   24.36 209 eP    30 27.40   0.9
                 eS    34 54.00
BAL    25.22 206 eP    30 35.00   0.3
                 eS    35 15.00
KLB    25.66 203 eP    30 39.40   0.6
BAG    25.75 341 eP    30 39.40  -0.5
RMO    26.16 137 iPd   30 43.20  -0.2
       0.4s    23.00nm          5.1mb
                 eS    35 36.00
STK    26.39 156 eP    30 45.10  -0.4
       0.8s    31.50nm          5.0mb
                 eS    35 34.50
MUN    26.62 205 eP    30 48.00   0.3
                 eS    35 45.00
CMS    28.03 148 eP    31 00.20  -0.3
                 eS    36 17.50
ADE    28.18 163 eP    31 01.80   0.0
ARMA   30.64 139 eP    31 24.00   0.0
       0.8s    19.00nm          4.9mb
IPM    30.68 293 eP    31 23.70  -0.7
BFD    31.44 159 iPd   31 30.90   0.1
       0.8s    50.00nm          5.4mb
RIV    32.73 145 eP    31 42.80   0.8
       0.9s  1008.40nm          6.7mb X
CNB    32.86 149 iPc   31 44.30   1.0
       0.8s    48.00nm          5.4mb
TOO    32.91 156 iPd   31 44.40   0.8
       0.8s    84.00nm          5.7mb
TAU    38.21 158 eP    32 35.00   6.3X
DZM    38.53 115 iPc   32 31.90   0.1
SSE    39.68 349 Pc    32 40.50  -0.5
       1.0s    18.00nm          4.8mb
CHG    39.97 312 ePc   32 43.70   0.1
       0.9s    19.33nm          4.9mb
GYA    40.65 328 iPc   32 49.40   0.2
       0.8s    31.00nm          5.1mb
                 PcP   34 52.40
WHN    40.93 340 Pd    32 52.00   0.8
       1.0s    27.00nm          4.9mb
NJ2    41.09 347 Pc    32 53.00   0.5
       1.0s    23.00nm          4.9mb
                 pP    33 08.50  61kmX
                 PcP   34 53.00
KMI    41.81 323 Pd    33 00.00   1.2
       1.5s   140.00nm          5.5mb
CD2    45.74 329 eP    33 29.20  -1.2
       0.8s    42.00nm          5.4mb
XAN    46.05 337 P     33 31.00  -1.8
DL2    47.26 352 eP    33 42.60   0.4
TIY    48.14 342 Pc    33 47.90  -1.3
BJI    49.35 347 eP    33 57.00  -1.3
       1.0s    22.00nm          5.1mb
LZH    49.94 333 Pc    34 02.50  -0.7
       1.5s    81.00nm          5.5mb
     Z  22s     0.31um          4.3Msz
                 pP    34 18.50  62kmX
                 sP    34 35.00
DSZ    50.43 139 eP    34 06.20  -0.6
QRZ    50.47 137 eP    34 06.90  -0.1
       0.7s   102.00nm          5.9mb
THZ    51.16 138 eP    34 11.70  -0.6
HHC    51.29 343 Pd    34 12.80  -0.6
       1.0s    13.00nm          4.8mb
CN2    51.74 357 eP    34 15.20  -1.3
       0.8s     7.70nm          4.7mb
KHZ    51.88 139 eP    34 17.10  -0.6
       0.7s    73.00nm          5.8mb
LSA    52.36 318 Pc    34 22.20   0.1
       0.6s    20.00nm          5.3mb
MNG    52.38 136 eP    34 19.80  -1.8
MDJ    52.45   0 eP    34 17.80  -4.1X
```

```
WAHZ   52.61 134 eP    34 22.10  -1.2
PAHZ   52.78 133 eP    34 24.00  -0.6
PGZ    52.93 136 eP    34 23.70  -1.9
HBZ    53.23 131 eP    34 25.40  -2.4X
PUZ    53.37 132 eP    34 27.50  -1.4
GTA    54.49 332 P     34 36.50  -0.7
       1.0s    52.00nm          5.5mb
GUN    54.99 312 P     34 40.20  -1.1
       0.6s    31.00nm          5.5mb
PKI    55.15 312 P     34 41.40  -1.1
       0.4s    21.00nm          5.5mb
KKN    55.36 312 P     34 42.60  -1.3
DMN    55.39 312 P     34 43.40  -0.7
       0.6s    40.00nm          5.6mb
GKN    55.96 312 P     34 47.00  -1.1
       0.4s    20.00nm          5.5mb
CIT    61.30 349 eP    35 25.00   0.2
NDI    61.93 308 iPd   35 27.50  -1.9
       0.5s    28.17nm          5.7mb
ZAK    62.39 342 eP    35 31.00  -1.0
       1.7s    18.00nm          4.9mb
                 e     36 09.00
WMO    63.81 328 P     35 41.00  -0.6
       1.0s    19.00nm          5.2mb
MOY    64.25 341 eP    35 43.90  -0.3
PET    65.86  19 eP    35 55.00   0.5
BOD    66.82 351 eP    36 00.20  -0.4
       1.2s    14.00nm          4.9mb
KSH    68.17 318 eP    36 10.80   1.1
PRZ    68.28 322 iPd   36 11.00   0.7
YAK    69.89   0 iPc   36 19.50   0.0
       0.8s    89.00nm          5.9mb
                 eS    45 22.00
MGD    70.12  11 eP    36 20.50  -0.6
       0.8s    40.00nm          5.5mb
ELT    71.05 334 iPd   36 26.50  -0.3
       0.9s    36.00nm          5.4mb
                 eS    45 37.00
BRVK   78.57 328 iPd   37 09.00  -0.9
       1.0s    17.00nm          5.0mb
MAIO   78.66 309 eP    37 12.00   1.1
TIK    79.55 360 iPc   37 14.00  -0.8
       1.2s    30.00nm          5.2mb
                 e     37 53.00
NRI    82.30 346 iPd   37 29.80   0.4
       1.0s    29.00nm          5.3mb
                 e     37 56.00
ILT    84.24  17 iPc   37 39.80   0.4
       1.2s    73.00nm          5.7mb
                 e     38 02.00
SVE    85.21 329 ePd   37 45.80   1.4
ARU    86.11 328 eP    37 49.00   0.1
SVW    90.00  28 eP    38 08.90   1.4
TTA    90.36  26 eP    38 09.59   0.4
       0.8s     8.03nm          5.1mb
IMA    92.19  23 eP    38 17.80   0.1
       0.8s     3.34nm          4.8mb
BRW    92.58  18 eP    38 18.94  -0.2
PMR    93.15  28 eP    38 21.50  -0.4
FBA    94.34  25 eP    38 27.80   0.4
       0.6s     6.30nm          5.2mb
TOA    94.62  28 eP    38 30.30   1.5
BALM   96.32  29 eP    38 36.40  -0.3
YKA   109.12  26 ePdiff39 33.50  -0.2
       0.6s     0.60nm
YKA   109.12  26 ePKP  43 37.90   0.0
       0.8s     0.90nm
NAO   110.57 333 PKP   43 39.50  -1.2
       0.8s     1.80nm
GEC2  112.66 320 ePKPd 43 45.40   0.2
       0.7s     2.16nm
                 e     43 49.60
                 e     43 53.80
                 e     43 55.60
GRF   114.00 321 ePKP  43 49.00   1.3
BSF   117.36 320 ePKP  43 54.00  -0.3
       0.8s     9.25nm
PGF   117.45 314 ePKP  43 59.20   4.6X
HAU   117.59 320 ePKP  43 54.50  -0.1
       0.8s     5.65nm
LPG   118.15 318 ePKP  43 56.30   0.2
       0.7s     4.50nm
LPL   118.16 318 ePKP  43 56.10   0.1
       0.7s     4.85nm
LOR   119.42 320 ePKP  43 58.20   0.1
LBF   119.45 320 ePKP  43 59.00   0.8
SMF   119.66 320 ePKP  43 59.20   0.6
```

```
SSF   119.72 320 ePKP  43 59.60   1.0
       0.7s     5.75nm
AVF   119.92 320 ePKP  43 59.70   0.7
BGF   120.33 320 ePKP  44 01.00   1.2
       0.8s    10.90nm
TCF   120.84 320 ePKP  44 02.00   1.2
       0.8s     4.45nm
LSF   121.29 320 ePKP  44 02.30   0.6
CAF   121.45 318 ePKP  44 02.80   0.8
       0.8s     3.65nm
RSSD  121.66  43 ePKP  44 02.17  -0.6
LPO   122.12 318 ePKP  44 04.10   0.8
       0.8s     5.65nm
MFF   122.20 321 ePKP  44 04.30   0.9
       0.7s     7.70nm
LFF   122.32 319 ePKP  44 05.20   1.6
EPF   123.32 317 ePKP  44 06.90   1.2
       0.5s     1.95nm
KIC   134.18 271 PKP   44 25.80  -1.5
                 e     47 51.60
LIC   134.45 271 PKP   44 25.20  -2.6X
YJA   146.71 155 ePKPd 44 53.10   3.1X
NNA   147.41 127 ePKP  44 52.50   1.7
       0.9s     8.40nm
CNCB  150.06 146 PKP   45 02.30   6.8X
LPB   150.21 145 PKP   45 11.00  15.4X
ZOBO  150.39 145 PKP   45 02.80   6.7X
       1.1s    29.58nm
CCH   150.56 149 PKP   45 03.10   7.2X
                 i     45 15.00
SIV   154.05 157 ePKP  45 18.00  17.4X
      S.D. = 0.9  on 107 of 127 obs.
-----------------------------------
*  JAN  28, 1993  19h 47m 00.99± 1.35s
   51.062 N ±15.7km   15.896 E ± 7.4km
   DEPTH =  10.0km  (geophysicist)
 POLAND                            (548)
      MG 2.8 (WAR).

KSP     0.33 131 iP    47 06.60  -1.3
       0.2s    45.00nm
                 iS    47 15.00
BRG     1.25 262 iPg   47 23.00  -1.2
                 iSg   47 43.50
PRU     1.38 219 Pg    47 27.50   1.3
                 eSn   47 45.00
                 Sg    47 51.50
                 i     47 59.00
VRAC    1.81 165 ePn   47 32.60   0.2
                 eSg   48 04.10
CLL     1.84 279 ePg   47 33.00   0.2
                 eSg   48 00.00
KHC     2.44 219 eP    47 41.50  -0.1
                 e     47 47.00
OJC     2.62 107 eP    47 45.00   0.9
                 eS    48 19.10
MOX     2.74 263 ePg   47 51.80   5.9X
                 iSg   48 31.20
      S.D. = 1.2  on   7 of   8 obs.
-----------------------------------
   JAN  28, 1993  19h 56m 40.21± 0.60s
   47.345 N ± 6.2km    6.651 E ± 6.1km
   DEPTH =  10.0km  (geophysicist)
 FRANCE                            (538)
      ML 2.5 (LDG).

BSF     0.50  11 Pg    56 49.80  -0.5
                 Sg    56 57.30
HAU     0.69 343 Pg    56 52.50  -1.4
FEL     1.06  60 ePg   57 00.84   0.5
CDF     1.15  21 Pg    57 01.50  -0.2
                 Sg    57 17.60
SLE     1.32  71 eP    57 06.00   1.4
LPL     1.83 178 Pg    57 11.00  -1.2
LPG     1.85 178 Pg    57 11.50  -1.0
LBF     1.86 260 Pg    57 11.50  -0.9
                 Sg    57 34.20
LOR     1.90 269 Pg    57 12.80  -0.2
                 Sg    57 35.60
SMF     2.05 251 Pg    57 15.60   0.5
                 Sg    57 40.30
SSF     2.16 264 Pg    57 18.10   1.3
                 Sg    57 43.50
AVF     2.32 257 Pg    57 20.80   1.7
      S.D. = 1.2  on  12 of  12 obs.
-----------------------------------
%  JAN  28, 1993  20h 46m 12.51± 0.88s
```

28d 20h

```
   27.876 S ± 8.3km  117.014 E ±12.9km
   DEPTH = -10.0km  (geophysicist)
 WESTERN AUSTRALIA                    (590)

MRWA     1.61 214 iPc    46 41.00    0.0
MEEK     1.88  49 eP     46 47.00    1.9
BAL      2.73 186 eP     46 57.80    0.6
                  eS     47 35.00
KLB      3.76 170 eP     47 12.00    0.2
                  iS     48 07.00
MUN      4.15 190 iPd    47 16.90   -0.3
                  eS     48 03.00
NANU     5.46 345 eP     47 35.30   -0.6
                  eS     48 32.00
WARB     8.75  81 eP     48 20.30   -1.7
       0.2s      2.00nm          5.1mb
                  eS     49 55.00
     S.D. = 1.4  on   7 of   7 obs.
-------------------------------------
   JAN  28, 1993  20h 51m 54.14± 0.25s
    3.202 S ± 5.5km  126.609 E ± 7.7km
   DEPTH =  33.0km  (normal)
   5.0mb ( 26 obs.)
 BURU, INDONESIA                      (271)
      Mw 5.3 (HRV).
      CENTROID, MOMENT TENSOR     (HRV)
      Data Used: GDSN
      L.P.B.: 14S, 17C
      Centroid Location:
      Origin Time        20:51:48.7 0.9
      Lat  3.22S  FIX;Lon 126.65E  FIX
      Dep  15.0 FIX Half-duration  1.4
      Moment Tensor;   Scale 10**16 Nm
        Mrr=-0.65 0.63  Mtt=-4.19 0.67
        Mff= 4.84 0.98  Mrt=-1.42 1.88
        Mrf= 4.13 1.87  Mtf= 6.49 0.59
       Principal Axes:
        T  Val=  9.21  Plg=18  Azm=294
        N       -0.32      61       169
        P       -8.89      22        32
      Best Double Couple:Mo=9.1*10**16
       NP1:Strike= 72 Dip=61 Slip=  -3
       NP2:        164     87      -151

CGP     11.74 351 eP    54 35.00   -7.3X
WWKK    16.99  92 eP    55 51.00    0.0
WB2     18.28 156 iPd   56 07.00    0.0
        0.3s    38.40nm         5.0mb
                  e     56 14.30
                  eS    59 32.30
BAG     20.38 343 eP    56 26.00   -5.1X
CVP     21.30 347 eP    56 39.20   -1.2
PMG     21.33 108 eP    56 39.50   -1.1
ASPA    21.53 162 iPc   56 42.50   -0.2
        0.8s    27.30nm         4.7mb
      Z  23s     1.00um         4.2MszX
                  i     56 51.20
                  eS    00 40.60
WARB    22.85 180 eP    56 57.00    1.2
KGM     23.85 282 eP    57 10.00    4.5X
GUMO    24.63  47 e(P)  56 55.00 -18.0X
IPM     26.71 287 ePd   57 24.00   -8.5X
        1.0s    30.50nm         4.9mb
RMO     31.41 140 eP    58 19.50    4.9X
STK     31.82 155 eP    58 17.20   -0.9
        1.3s     2.90nm         4.0mb
NST     32.22 306 eP    58 31.00    9.3X
CMS     33.46 149 eP    58 31.00   -1.4
ADE     33.54 162 e(P)  58 34.00    0.8
CHG     34.93 310 ePc   58 44.30   -0.9
        1.6s   150.00nm         5.7mb
GYA     35.23 328 P     58 48.00    0.1
WHN     35.54 342 eP    58 50.00   -0.2
        1.0s     8.90nm         4.6mb
NJ2     35.82 349 eP    58 52.50   -0.1
ARMA    35.95 142 eP    58 53.00   -0.9
        0.7s    13.00nm         5.0mb
KMI     36.46 322 Pd    58 59.00    0.6
        2.0s    90.00nm         5.3mb
      Z  12s     0.90um         4.8MszX
BFD     36.85 159 eP    59 10.20    9.0X
        1.0s    15.00nm         4.8mb
BWA     37.11 149 eP    59 04.00    0.5
                  ipP   59 09.20   17kmX
CAN     38.11 150 eP    59 11.90    0.0
                  ipP   59 19.00   24kmX
CNB     38.29 149 eP    59 19.40    6.0X
        1.2s    35.00nm         5.1mb
TOO     38.34 156 eP    59 19.60    5.8X
        1.2s    64.00nm         5.3mb
TIA     40.20 348 eP    59 30.60    1.4
      Z  25s     0.79um         4.5MszX
                  eS    05 34.00
CD2     40.32 329 eP    59 29.70   -0.6
                  eS    05 31.00
XAN     40.62 337 Pd    59 32.00   -0.8
        0.8s     7.10nm         4.5mb
                  pP    59 39.00   24kmX
                  S     05 35.00
DZM     42.95 119 iPc   59 52.00   -0.1
BJI     44.08 348 eP    00 01.00    0.1
        1.5s    46.00nm         5.1mb
      Z  20s     0.30um         4.2Msz
LZH     44.50 333 P     00 04.70    0.1
        1.5s    49.00nm         5.1mb
      Z  18s     0.49um         4.5Msz
      E  15s     0.51um
                  eS    06 38.50
SNY     44.90 357 Pc    00 05.40   -2.0
                  S     06 40.00
                  SS    09 54.00
HHC     45.95 344 eP    00 15.60   -0.3
        1.2s    14.00nm         4.8mb
BTO     46.16 342 eP    00 17.00   -0.6
CN2     46.80 359 eP    00 24.50    2.1
      Z  20s     0.18um         4.0Msz
LSA     47.14 316 Pd    00 27.20    1.3
        1.2s    22.00nm         5.0mb
                  S     07 18.00
MDJ     47.68   3 eP    00 26.10   -3.3X
GTA     49.05 332 eP    00 39.70   -0.6
        1.2s    16.00nm         4.9mb
      Z  14s     0.46um         4.6MszX
                  pP    00 45.00   18kmX
                  sP    00 50.00
                  eS    07 48.00
GUN     49.93 311 P     00 47.60    0.1
PKI     50.11 310 P     00 48.20   -0.6
KKN     50.32 311 P     00 50.00   -0.3
DMN     50.36 310 P     00 50.60    0.0
GKN     50.91 310 P     00 54.40   -0.3
GBA     51.56 290 P     01 13.00   13.4X
HYB     51.64 295 eP    01 00.00   -0.2
CIT     56.09 350 eP    01 35.00    2.5
ZAK     57.02 342 eP    01 38.30   -0.7
        1.6s    17.00nm         4.8mb
                  e     09 30.00
WMQ     58.39 328 P     01 48.00   -0.9
        1.5s    11.00nm         4.7mb
                  pP    01 53.50   18kmX
                  sP    01 56.80
IRK     58.41 344 eP    01 52.00    3.2X
MOY     58.86 342 eP    01 51.00   -0.9
BOD     61.67 352 eP    02 10.90   -0.2
        1.3s    17.00nm         5.0mb
PET     62.15  21 eP    02 17.00    2.7
        1.2s    80.00nm         5.7mb
                  eS    10 36.00
KSH     62.92 318 eP    02 20.20    0.4
        1.2s    30.00nm         5.3mb
PRZ     62.94 322 eP    02 20.00    0.0
        1.4s    30.00nm         5.2mb
YAK     65.08   2 eP    02 32.80   -0.5
        1.4s    68.00nm         5.6mb
FRU     65.50 320 eP    02 41.00    4.5X
                  i     03 13.00
MGD     65.90  13 eP    02 38.00   -0.7
                  e     02 51.00
                  e     03 10.00
                  eS    11 22.00
                  ePS   11 37.00
BRVK    73.15 328 eP    03 22.00   -1.3
        1.2s    16.00nm         4.9mb
MAIO    73.68 309 eP    03 27.00    0.1
TIK     74.71   1 eP    03 32.00    0.1
        1.3s    16.00nm         4.9mb
ASH     75.02 311 eP    03 42.50    8.0X
NRI     77.02 347 eP    03 45.00   -0.1
        1.4s     2.00nm         4.0mb X
                  e     03 56.00
SVE     79.79 329 eP    04 00.00   -0.5
ILT     80.38  18 eP    04 04.00    0.6
ARU     80.69 329 eP    04 07.00    1.7
IMA     88.73  24 eP    04 45.67    0.1
FBA     91.00  25 eP    04 35.30  -20.7X
OBN     92.61 325 eP    05 04.00    0.5
YJA    152.14 155 ePKPc 11 48.80    6.5X
NNA    152.23 123 ePKP  11 46.00    3.9X
        1.2s    23.44nm
CNCB   155.44 145 PKP   11 51.00    3.9X
ZOBO   155.77 143 PKP   11 49.30    1.6
                  LR    06 04.00
SIV    159.47 158 (PKP) 11 52.00    0.7
     S.D. = 1.0  on  56 of  75 obs.
-------------------------------------
   JAN  28, 1993  21h 31m 05.29± 0.60s
   47.342 N ± 5.4km    6.678 E ± 6.5km
   DEPTH =  10.0km  (geophysicist)
 FRANCE                               (538)
      ML 2.5 (LDG).

BSF      0.50   9 Pg    31 15.30   -0.1
                  Sg    31 22.50
HAU      0.70 342 Pg    31 18.00   -1.1
FEL      1.05  59 ePn   31 26.03    0.9
CDF      1.14  20 Pg    31 26.90    0.1
                  Sg    31 42.70
LPL      1.83 179 Pg    31 36.50   -0.7
LPG      1.85 178 Pg    31 37.10   -0.4
LBF      1.88 260 Pn    31 33.50   -4.2X
                  Pg    31 36.20
                  Sg    31 59.70
LOR      1.92 269 Pg    31 37.40   -0.9
                  Sg    32 01.60
SMF      2.06 251 Pg    31 40.80    0.4
                  Sg    32 05.40
SSF      2.18 264 Pg    31 43.20    1.1
                  Sg    32 08.60
AVF      2.34 258 Pg    31 45.20    0.8
     S.D. = 0.9  on  10 of  11 obs.
-------------------------------------
*  JAN  28, 1993  22h 40m 05.73± 1.58s
    9.179 N ± 8.8km  126.304 E ±13.5km
   DEPTH =  61.3 ± 13.6 km
   4.7mb (  8 obs.)
 MINDANAO, PHILIPPINE ISLANDS         (259)

PLP      2.37 327 iPd    40 43.00    0.2
                  iS    40 48.00
SSE     22.32 348 eP    45 00.00    0.6
NST     26.34 287 eP    45 49.50   11.6X
WB2     30.00 165 iPc   46 10.00   -1.0
        0.5s     8.90nm         4.8mb
ASPA    33.48 167 iPd   46 41.00   -0.4
        0.3s     9.40nm         5.1mb
WARB    35.15 179 eP    46 56.30    0.6
GUN     42.36 302 P     47 55.96   -0.1
PKI     42.65 301 P     47 57.86   -0.6
KKN     42.82 301 P     47 58.90   -0.9
DMN     42.92 301 P     48 00.02   -0.6
STK     43.37 161 eP    48 03.90    0.1
        0.5s     4.40nm         4.5mb
GKN     43.43 301 P     48 03.88   -0.7
HYB     47.08 285 eP    48 34.30    0.6
GBA     48.05 280 P     48 43.00    1.8
KAF     86.60 332 iP    52 43.50    0.1
        0.5s     3.00nm         4.7mb
NUR     87.76 331 iP    52 48.50   -0.5
        0.6s     5.20nm         4.9mb
SLL     93.06 333 eP    53 12.30   -1.4
        0.5s     2.80nm         5.0mb
YKA     94.73  24 eP    53 22.20    0.8
        0.5s     0.60nm         4.3mb
GEC2    97.57 322 ePd   53 34.70    0.0
        0.6s     0.52nm         4.3mb
KIC    128.83 286 PKP   59 09.60    0.6
TIC    129.01 286 PKP   59 09.80    0.4
LIC    129.14 286 PKP   59 10.00    0.4
     S.D. = 0.8  on  21 of  22 obs.
-------------------------------------
   JAN  28, 1993  22h 46m 38.39± 0.84s
   37.251 N ± 7.5km   29.930 E ± 7.5km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                               (366)
      MD 3.5 (ISK).

ELL      0.50 182 iPn    46 48.50   -0.1
BCK      0.57  68 ePn    46 50.00    0.1
KHL      1.12 343 ePn    46 59.00   -0.4
YER      1.32 265 iPn    47 02.00   -0.8
CIN      1.51 284 eP     47 07.00    1.6
```

```
IZM      2.40 299 ePn    47 18.10  -0.3
     S.D. = 1.1  on   6 of   6 obs.
-----------------------------------------
   JAN  28, 1993  23h 14m 56.16± 0.94s
   38.880 N ± 6.3km    27.060 E ±11.2km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                                (366)
      MD 2.9 (ISK).

IZM      0.51 162 iPg    15 06.40  -0.1
                  iSg    15 13.90
EZN      1.10 329 ePg    15 17.00   0.2
                  eSg    15 31.80
DST      1.42  59 ePn    15 22.30   0.3
CIN      1.51 147 eP     15 25.00   1.7X
EDC      1.59  23 ePn    15 24.00  -0.4
BNT      1.62  24 ePn    15 24.60  -0.2
KCT      1.69  36 iPn    15 26.10   0.2
     S.D. = 0.3  on   6 of   7 obs.
-----------------------------------------
%  JAN  28, 1993  23h 37m 31.91± 1.53s
   45.934 N ± 9.5km     2.847 E ±10.6km
   DEPTH =  10.0km  (geophysicist)
 FRANCE                                (538)
      ML 1.5 (LDG).

MAF      0.35 326 Pg     37 39.20   0.1
                  Sg     37 43.50
TCF      0.57 309 Pg     37 43.50   0.1
                  Sg     37 49.50
BGF      0.62 360 Pg     37 44.50   0.0
                  Sg     37 52.70
AVF      0.93  22 Pg     37 49.50  -0.1
                  Sg     38 02.10
LSF      0.97 289 Pg     37 50.10  -0.2
                  Sg     38 01.40
RJF      1.13 236 Pg     37 53.10   0.1
                  Sg     38 07.30
     S.D. = 0.2  on   6 of   6 obs.
-----------------------------------------
   JAN  28, 1993  23h 41m 11.60± 0.60s
   12.116 S ± 8.4km   122.811 E ±10.5km
   DEPTH =  33.0km  (normal)
   4.8mb (  1 obs.)
 SOUTH OF TIMOR, INDONESIA             (293)

KHKI     8.01 297 eP     43 07.50  -1.1
                  eS     45 31.50
                  e      46 20.60
NANU    12.49 213 eP     44 10.50   0.5
        0.3s    15.00nm          5.6mb X
                  eS     46 22.00
WB2     13.55 127 iPc    44 22.90  -1.0
                  eS     46 44.50
WARB    14.45 166 eP     44 34.50  -1.3
        0.4s    13.00nm          4.8mb
                  eS     47 10.00
MEEK    14.98 195 eP     44 43.00   0.3
                  eS     47 20.00
ASPA    15.59 139 iPd    44 52.10   1.4
                  eS     47 31.20
GUN     53.50 319 P      50 32.28   0.5
PKI     53.58 318 P      50 32.52   0.2
DMN     53.81 318 P      50 34.12   0.3
KKN     53.81 318 P      50 33.92   0.1
GKN     54.38 318 P      50 38.04   0.1
CNCB   149.34 159 PKP    01 06.00  10.2X
ZOBO   149.77 159 PKP    01 05.00   8.5X
     S.D. = 0.9  on  11 of  13 obs.
-----------------------------------------
&  JAN  28, 1993  23h 56m 52.64s
   34.974 N          116.934 W
   DEPTH =   0.0km
 SOUTHERN CALIFORNIA                   ( 43)
      <PAS-P>. ML 3.1 (PAS).

ISA      1.43 299 eP     57 18.21  -1.7
MTUM     2.72 331 (P)    57 40.47   1.9
CMB      4.13 319 (P)    57 57.59  -0.8
        3 obs. associated
-----------------------------------------
   JAN  29, 1993  00h 28m 01.41± 0.52s
   30.281 N ± 7.0km   108.075 E ± 6.0km
   DEPTH =  10.0km  (geophysicist)
   3.6mb (  3 obs.)
 SICHUAN, CHINA                        (307)
      ML 4.0 (BJI).

CD2      3.78 281 ePn    29 01.60   0.6
                  Pg     29 14.20
                  Sn     29 47.80
                  Sg     30 07.30
XAN      3.82  11 Pn     29 02.50   1.0
                  Pg     29 11.50
                  Sn     29 50.00
                  Sg     30 02.50
GYA      4.01 198 Pn     29 04.00  -0.3
                  Sn     29 48.00
                  Sg     30 06.80
WHN      5.43  86 Pn     29 24.00  -0.3
LZH      6.79 330 Pnd    29 45.00   1.3
        1.2s    30.00nm          5.2mb X
                  pP     29 49.00
KMI      6.98 224 ePn    29 48.80   2.4
        0.6s    10.00nm          5.1mb X
NJ2      9.40  76 eP     30 20.00   0.1
BTO     10.42   8 eP     30 38.20   4.2X
GTA     11.35 326 eP     30 46.00  -0.8
GUN     19.54 269 P      32 32.36  -0.1
PKI     20.02 268 P      32 37.54  -0.1
KKN     20.08 269 P      32 36.70  -1.4
DMN     20.27 268 P      32 39.56  -0.6
GKN     20.59 270 P      32 41.94  -1.5
WMQ     21.07 315 eP     32 48.60   0.5
        1.0s     3.70nm          3.7mb
                  pP     32 55.40  25kmX
WRA     55.97 150 P      37 42.50   0.2
        0.7s     0.50nm          3.7mb
YKA     81.43  19 eP     40 18.50  -1.1
        0.5s     0.20nm          3.4mb
     S.D. = 1.1  on  16 of  17 obs.
-----------------------------------------
   JAN  29, 1993  01h 33m 30.36± 0.63s
   46.297 N ± 6.2km     0.744 E ± 5.9km
   DEPTH =   5.0km  (geophysicist)
 FRANCE                                (538)
      ML 2.5 (LDG).

MFF      0.69 297 Pg     33 41.70  -2.4
                  Sg     33 50.20
TCF      1.02  90 Pg     33 48.60  -1.5
                  Sg     34 01.40
RJF      1.13 151 Pg     33 51.80  -0.2
                  Sg     34 07.00
MAF      1.27  93 Pg     33 53.10  -1.2
                  Sg     34 09.20
LFF      1.36 180 Pn     33 54.70  -1.2
                  Pg     33 57.30
                  Sg     34 15.20
BGF      1.48  79 Pg     33 56.70  -0.9
                  Sg     34 13.00
HYF      1.62  53 Pg     33 58.60  -1.1
                  Sg     34 19.00
LPO      1.64 169 Pg     34 02.30   2.3
                  Sg     34 23.50
CAF      1.65 145 Pg     34 00.80   0.6
                  Sg     34 23.30
AVF      1.87  74 Pg     34 02.50  -0.7
                  Sg     34 25.50
SSF      2.05  67 Pg     34 05.90   0.0
                  Sg     34 30.50
LPF      2.12 326 Pg     34 07.00   0.1
                  Sg     34 32.90
SMF      2.17  80 Pg     34 08.40   0.8
                  Sg     34 35.20
LBF      2.33  72 Pg     34 11.70   1.7
                  Sg     34 40.10
LOR      2.35  64 Pg     34 11.10   0.8
                  Sg     34 39.90
GRR      2.36 333 Pg     34 10.90   0.5
                  Sg     34 40.40
LDF      2.37 346 Pg     34 10.80   0.3
                  Sg     34 40.20
FLN      2.60 342 Pg     34 15.90   2.1
                  Sg     34 47.10
     S.D. = 1.4  on  18 of  18 obs.
-----------------------------------------
*  JAN  29, 1993  02h 19m 47.32± 1.56s
   40.208 N ± 9.0km    21.058 E ±12.2km
   DEPTH =  10.0km  (geophysicist)
 GREECE                                (364)

FNA      0.62  23 iPg    19 58.41  -1.5
                  eSg    20 08.20
OHR      0.92 348 iPg    20 04.40  -0.6
                  iSg    20 16.40
LIT      1.10  95 ePb    20 07.04  -1.0
                  eSb    20 25.52
GRG      1.27  53 iPb    20 11.09   0.2
                  iSb    20 29.70
THE      1.52  73 ePb    20 15.60   1.1
AGG      1.54 140 ePb    20 14.76  -0.1
                  eSb    20 36.32
VAY      1.60  45 iPn    20 15.60  -0.1
KNT      1.69  55 iPb    20 16.58  -0.5
                  eSb    20 41.92
SKO      1.79   9 ePn    20 20.00   1.6
SOH      1.85  70 iPb    20 19.54   0.1
                  iSb    20 45.45
SRS      2.13  64 ePn    20 24.40   1.0
OUR      2.24  86 ePn    20 24.76  -0.2
     S.D. = 1.0  on  12 of  12 obs.
-----------------------------------------
*  JAN  29, 1993  02h 43m 05.05± 1.73s
   40.220 N ± 9.4km    21.042 E ±14.1km
   DEPTH =  10.0km  (geophysicist)
 GREECE                                (364)

FNA      0.62  24 iPg    43 16.36  -1.2
                  eSg    43 25.92
OHR      0.91 348 iPg    43 22.40  -0.1
                  iSg    43 34.60
LIT      1.12  96 ePb    43 25.48  -0.5
                  eSb    43 43.20
GRG      1.27  54 ePb    43 28.50  -0.2
AGG      1.56 140 ePb    43 32.92   0.1
                  eSb    43 55.28
VAY      1.60  46 iPn    43 35.60   2.2
KNT      1.70  56 ePb    43 34.48  -0.4
SKO      1.78  10 ePn    43 40.60   4.6X
SOH      1.86  70 ePn    43 37.68   0.4
                  eSn    44 03.32
PAIG     2.05  97 ePn    43 39.52  -0.4
     S.D. = 1.1  on   9 of  10 obs.
-----------------------------------------
%  JAN  29, 1993  02h 55m 21.32± 0.84s
   28.050 S ± 8.4km    26.822 E ±10.8km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA              (584)
      ML 2.1 (PRE).

SEK      0.76 111 eP     55 36.60  -0.1
                  S      55 45.00
BLF      1.19 208 iPc    55 43.60  -0.5
PRY      1.26  28 eP     55 45.60   0.3
                  S      56 02.50
FRS      2.14 217 eP     55 58.80   0.6
                  S      56 25.20
SLR      2.65  30 eP     56 05.10  -0.5
                  S      56 36.50
     S.D. = 0.7  on   5 of   5 obs.
-----------------------------------------
?  JAN  29, 1993  03h 47m 31.15± 2.39s
   46.412 N ±18.7km    12.767 E ±11.5km
   DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                        (545)
      ML 1.7 (VIE).

FVI      0.18   3 Pd     47 34.90  -0.3
                  eSg    47 39.00
RBL      0.56  87 Pd     47 42.40  -0.1
                  eSg    47 49.10
KBA      0.78  31 iPgc   47 46.70   0.3
                  iSg    47 57.30
WTTA     1.15 318 iPgd   47 52.90   0.1
                  iSg    48 08.40
     S.D. = 0.4  on   4 of   4 obs.
-----------------------------------------
*  JAN  29, 1993  04h 03m 53.33± 1.33s
   41.367 N ± 8.4km    20.937 E ±11.3km
   DEPTH =  10.0km  (geophysicist)
 ALBANIA                               (391)
      ML 2.0 (SKO).

OHR      0.28 202 iPgc   03 59.40   0.2
                  iSg    04 04.20
FNA      0.67 150 ePg    04 05.92  -0.8
                  eSg    04 14.30
SKO      0.71  32 iPg    04 07.00  -0.4
                  iSg    04 16.20
                  i      04 17.00
GRG      1.18 110 ePg    04 14.98  -0.4
```

29d 04h

		eSg	04 31.76		
KNT	1.49	97 iPb	04 20.58	0.4	
		eSb	04 39.92		
SOH	1.91	106 ePb	04 27.12	0.9	
		eSb	04 53.32		
SRS	2.02	96 ePb	04 30.80	3.0X	
S.D. = 0.8		on	6 of	7 obs.	

? JAN 29, 1993 04h 06m 25.36± 6.94s
30.538 S ±38.6km 69.218 W ±50.8km
DEPTH = 33.0km (normal)
CHILE-ARGENTINA BORDER REGION (127)

RTCB	1.01	159 iPc	06 46.20	2.8X	
		S	06 57.70		
RTLL	1.02	141 iPc	06 45.00	1.6	
		S	06 54.20		
CFA	1.36	142 ePc	06 46.90	-1.3	
		S	06 59.20		
RTCV	1.44	156 iP	06 48.50	-1.0	
		(S)	07 02.00		
RTPR	2.35	85 eP	07 02.10	-0.3	
		(S)	07 26.00		
TCA	4.06	103 eP	07 27.20	0.5	
		(S)	08 04.50		
RFA	4.27	172 eP	07 30.30	0.6	
S.D. = 1.4		on	6 of	7 obs.	

? JAN 29, 1993 04h 12m 46.48± 6.52s
15.780 N ±29.1km 60.532 W ±50.8km
DEPTH = 14.6 ± 9.2 km
LEEWARD ISLANDS (92)
ML 2.9 (FDF).

MGG	0.77	280 eP	13 01.10	0.1	
CRM	1.09	200 eP	13 06.00	-0.4	
PAG	1.13	283 eP	13 06.92	-0.4	
FDF	1.20	210 iPc	13 08.69	0.3	
MVM	1.27	196 eP	13 09.70	0.1	
BIM	1.36	203 eP	13 10.74	-0.2	
S.D. = 0.5		on	6 of	6 obs.	

JAN 29, 1993 06h 17m 59.53± 0.52s
39.430 S ± 3.8km 175.023 E ± 4.2km
DEPTH = 164.9 ± 6.6 km
NORTH ISLAND, NEW ZEALAND (159)

BSZ	0.38	191 Pc	18 22.10	0.1	
DRZ	0.45	70 P	18 21.80	-0.9	
CNZ	0.47	61 P	18 22.10	-0.5	
NGZ	0.51	61 P	18 22.30	-0.8	
NRZ	0.85	276 Pd	18 25.10	0.2	
MOZ	0.94	349 P	18 25.30	-0.2	
		S	18 41.30		
WAHZ	1.06	105 Pd	18 26.30	-0.3	
MNG	1.24	164 Pc	18 28.10	0.0	
		S	18 45.30		
WHH	1.27	65 P	18 27.80	-0.6	
TTH	1.40	95 P	18 29.90	0.3	
KIW	1.44	183 Pc	18 29.90	0.0	
TEHZ	1.49	113 P	18 30.60	0.1	
UTU	1.55	37 P	18 31.50	0.4	
DIW	1.61	211 P	18 31.70	0.0	
WLZ	1.62	16 Pc	18 32.70	0.9	
		eS	18 53.60		
TAZ	1.67	45 P	18 32.80	0.6	
MOH	1.68	80 Pc	18 32.80	0.4	
CAW	1.68	179 Pc	18 32.60	0.2	
PAHZ	1.68	71 P	18 32.60	0.1	
MTW	1.77	168 Pc	18 33.30	0.0	
MRW	1.82	188 Pc	18 34.20	0.3	
		S	18 56.10		
WEL	1.86	186 Pd	18 34.60	0.2	
		S	18 58.10		
TCW	1.87	198 Pc	18 34.90	0.4	
BLW	1.97	170 Pc	18 35.70	0.1	
MOW	2.00	175 Pc	18 36.00	0.1	
URZ	2.01	55 P	18 35.70	-0.3	
		S	18 59.70		
MAHZ	2.23	85 P	18 38.90	0.3	
ORZ	2.37	233 P	18 40.40	0.2	
		S	19 08.90		
CCW	2.40	195 P	18 41.50	0.9	
NOZ	2.48	72 P	18 41.90	0.3	
THZ	2.84	214 P	18 45.90	-0.1	
		S	19 18.90		
PUZ	2.87	63 P	18 45.90	-0.5	
		— S	19 18.20		
HBZ	3.15	56 P	18 49.60	-0.3	
KHZ	3.19	200 P	18 50.90	0.6	
DSZ	3.37	226 P	18 52.50	-0.2	
LTZ	3.94	211 P	18 59.60	-0.5	
		S	19 42.20		
MQZ	4.63	202 P	19 07.30	-1.7	
		S	19 56.00		
EWZ	5.14	216 eP	19 17.00	1.3	
ODZ	6.48	209 P	19 32.60	-1.0	
TUZ	7.63	210 P	19 48.90	0.0	
S.D. = 0.6		on	40 of	40 obs.	

? JAN 29, 1993 06h 41m 51.10± 5.02s
41.500 N ±37.2km 23.000 E ±11.5km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)

KNT	0.35	193 ePg	41 58.14	-0.1	
		eSg	42 06.74		
SRS	0.59	130 ePg	42 02.86	-0.1	
		eSg	42 13.58		
GRG	0.71	220 iPg	42 05.34	0.3	
		eSg	42 15.82		
SOH	0.73	158 ePg	42 06.14	0.7	
		eSg	42 22.38		
S.D. = 0.7		on	4 of	4 obs.	

& JAN 29, 1993 07h 05m 19.80s
49.424 N 128.421 W
DEPTH = 10.0km (geophysicist)
4.3mb (16 obs.)
VANCOUVER ISLAND REGION (25)
<PGC-P>.

BPBC	0.85	30 P	05 37.79	1.6	
		S	05 51.57		
EDB	0.96	61 Pc	05 39.47	1.5	
ETB	1.23	92 P	05 42.91	0.3	
HOLB	1.23	9 P	05 42.99	0.3	
		S	05 59.35		
PHC	1.43	26 Pc	05 46.29	0.5	
		S	06 04.71		
GDR	1.59	76 P	05 48.52	0.4	
BTB	1.89	88 Pc	05 52.36	-0.2	
OZB	1.98	102 P	05 52.41	-1.3	
CBB	2.07	72 P	05 55.74	0.7	
ALB	2.35	92 Pc	05 58.47	-0.6	
PFB	2.76	107 P	06 03.82	-1.0	
NAB	2.90	92 P	06 06.69	-0.1	
OTR	3.01	115 P	06 09.21	0.8	
OBC	3.19	114 P	06 11.16	0.1	
BIB	3.34	88 P	06 12.38	-0.7	
PGC	3.36	101 P	06 13.00	-0.3	
0.7s	7.00nm				
STW	3.39	110 P	06 13.09	-0.7	
WPB	3.40	84 P	06 13.85	-0.1	
VGZ	3.51	105 P	06 14.31	-1.1	
SNB	3.51	99 P	06 15.31	-0.2	
MCW	3.75	99 eP	06 18.38	-0.6	
		eS	07 03.25		
HNB	3.82	90 P	06 19.66	-0.3	
BLN	3.88	109 P	06 19.95	-0.8	
HDW	3.98	114 P	06 22.46	0.2	
SMW	3.99	120 P	06 22.02	-0.3	
ONR	4.02	128 P	06 22.66	-0.1	
VDB	4.16	93 P	06 24.44	-0.3	
GMW	4.19	114 eP	06 25.04	-0.1	
CMW	4.27	101 P	06 26.03	-0.4	
CPW	4.30	123 P	06 26.53	-0.3	
MBW	4.33	96 P	06 27.37	0.0	
JCW	4.46	104 P	06 28.69	-0.3	
SPW	4.51	112 P	06 31.66	2.0	
BMW	4.57	128 eP	06 31.12	0.5	
		eS	07 18.75		
RPW	4.66	99 P	06 31.62	-0.2	
HTW	4.70	108 P	06 31.58	-0.9	
NLO	4.73	133 P	06 33.19	0.3	
RMW	4.82	112 eP	06 34.46	0.2	
		S	07 25.95		
GSM	4.95	114 P	06 36.35	0.3	
LMW	4.95	122 P	06 36.66	0.6	
CZM	4.97	125 P	06 36.27	0.0	
RVC	4.98	117 P	06 36.42	0.1	
RVW	5.04	128 P	06 37.26	0.1	
KMOR	5.05	137 P	06 36.30	-1.1	
REMR	5.12	118 P	06 38.32	-0.2	
ERK	5.15	125 P	06 39.62	0.8	
RCS	5.15	117 P	06 39.09	0.0	
FMW	5.16	116 P	06 38.88	-0.2	
LON	5.17	119 eP	06 38.86	-0.3	
		eSg	07 34.94		
TDL	5.18	124 P	06 39.18	-0.2	
FL2	5.21	126 P	06 39.64	-0.1	
LVP	5.26	127 P	06 41.04	0.6	
SHW	5.27	125 eP	06 39.95	-0.7	
		eSg	07 38.68		
YEL	5.29	125 P	06 41.60	0.7	
MTMW	5.40	127 P	06 42.58	0.2	
NLW	5.51	101 P	06 43.42	-0.6	
ASR	5.65	123 P	06 45.71	-0.2	
ETW	5.68	106 P	06 45.94	-0.4	
TBM	5.69	110 P	06 46.33	-0.1	
NAC	5.76	115 P	06 47.06	-0.3	
GULW	5.79	125 P	06 46.29	-1.5	
CBSW	5.79	103 P	06 47.02	-0.8	
VLMM	5.81	130 P	06 48.95	0.7	
WTV	5.88	104 P	06 48.90	-0.2	
DHW2	5.91	101 P	06 49.38	-0.1	
VLL	6.05	128 P	06 52.00	0.5	
SSOR	6.12	136 P	06 52.86	0.4	
MXC	6.15	115 P	06 52.90	0.0	
GL2	6.19	121 P	06 54.88	1.4	
SAW	6.23	103 P	06 52.92	-1.1	
EPH	6.23	106 P	06 52.81	-1.2	
VFP	6.26	128 P	06 55.12	0.6	
BVW	6.29	111 P	06 53.91	-0.9	
VBEM	6.38	131 P	06 56.43	0.2	
MDW	6.45	113 P	06 56.37	-0.8	
VGB	6.49	124 eP	06 58.31	0.6	
WAH2	6.51	111 P	06 57.33	-0.5	
CRF	6.58	110 P	06 56.81	-2.1	
BPO	6.63	134 P	07 00.20	0.4	
GBL	6.64	112 P	06 59.26	-0.6	
CROR	6.73	128 P	07 00.96	-0.2	
OD2	6.78	104 P	06 59.87	-1.8	
DPW	6.95	99 eP	07 02.27	-1.9	
DBO	7.25	148 P	07 08.95	0.5	
VIPM	7.26	130 P	07 08.28	-0.3	
NEW	7.55	95 eP	07 11.09	-1.4	
LNOR	7.71	114 P	07 14.21	-0.6	
LBFM	9.29	148 eP	07 38.28	1.4	
LGPM	9.38	153 eP	07 39.63	1.6	
LMEM	10.12	149 (P)	07 50.36	2.1	
ORV	11.03	151 ePd	08 02.02	1.5	
SES	11.25	78 eP	08 02.00	-1.6	
0.7s	22.00nm		5.6mb X		
LCCM	11.72	102 eP	08 09.00	-1.1	
HVU	13.34	119 eP	08 33.65	1.9	
BONR	13.59	144 eP	08 36.66	1.5	
TNP	13.91	140 (P)	08 41.14	1.8	
0.7s	7.18nm		4.6mb		
DUG	14.39	124 eP	08 46.24	0.6	
1.0s	8.82nm		4.4mb		
BW06	14.66	110 eP	08 50.68	1.5	
0.9s	33.27nm		4.9mb		
DAU	15.11	120 eP	08 56.00	0.9	
YKA	15.16	25 eP	08 53.20	-2.1	
0.9s	4.90nm		3.9mb		
ISA	15.56	148 eP	09 02.76	2.0	
1.2s	33.05nm		4.5mb		
ARUT	15.87	132 eP	09 05.65	0.7	
MSU	15.96	127 eP	09 07.00	0.9	
SRU	16.41	122 eP	09 11.48	-0.3	
GSC	16.49	145 eP	09 14.56	1.9	
RSSD	17.49	98 eP	09 25.07	-0.3	
1.0s	20.50nm		4.2mb		
PV09	17.61	121 eP	09 28.40	1.3	
PEC	17.62	148 eP	09 28.85	2.0	
1.0s	13.56nm		4.0mb		
PV10	17.75	121 eP	09 30.18	1.4	
PV08	17.83	120 eP	09 30.58	0.8	
PLM	18.21	148 eP	09 36.04	1.7	
GOL	19.02	112 eP	09 45.46	1.1	
0.8s	7.48nm		4.0mb		
GLD	19.08	112 eP	09 46.12	1.2	
1.1s	17.18nm		4.2mb		
GLA	19.24	143 eP	09 48.59	1.8	
SVW	19.25	318 e(P)	09 49.80	3.1	
TTA	20.24	322 e(P)	09 56.50	-1.1	
ULM	20.92	75 ePd	10 07.00	2.3	
IMA	21.19	331 eP	10 09.10	1.7	
0.9s	7.30nm		4.1mb		
ALQ	21.67	124 eP	10 13.96	1.3	

```
        1.1s      9.70nm  -        4.1mb
FCC     21.97   52 eP     10 19.50   4.4
ACO     24.71  110 iPd    10 44.10   1.9
WMOK    26.23  113 eP     10 58.75   2.2
        0.8s     10.02nm          4.6mb
RES     28.98   18 eP     11 23.00   2.0
FVM     29.45   98 (P)    11 25.98   0.3
        0.7s     11.49nm          4.8mb
EEO     32.65   76 eP     11 57.50   3.8
NAO     65.30   21 P      16 03.40  -0.2
        0.8s      4.00nm          4.7mb
HFS     66.56   20 eP     16 11.00  -0.6
        0.5s      0.80nm          4.2mb
GEC2    76.82   25 eP     17 13.80   0.7
        1.0s      1.84nm          4.1mb
                 e        17 20.60
ZOBO    84.28  123 P      17 53.00  -0.7
LPB     84.50  123 eP     17 57.00   2.5
CNCB    84.79  123 P      17 56.10  -0.1
CCH     86.26  122 eP     18 03.00  -0.2
BUL    145.50   40 iPKPd  24 59.30  -0.6
                 i        25 06.10
SLR    150.23   46 iPKPc  25 12.00   4.8
        1.0s     38.00nm
       134 obs. associated
-----------------------------------------
?  JAN  29, 1993  07h 47m 06.75± 0.84s
   22.691 S ± 8.1km   65.398 W ±45.0km
   DEPTH =  88.4 ±  8.9 km
   3.9mb (  1 obs.)
 JUJUY PROVINCE, ARGENTINA          (128)

HJA      0.52  181 iPd    47 22.00   0.3
YJA      0.53  349 iPd    47 23.20   0.9
SLA      2.03  182 eP     47 38.90  -1.1
FSA      3.42  189 iP     47 58.50  -0.4
CCH      5.33  352 P      48 24.30  -1.4
CNCB     6.34  337 P      48 40.00   0.1
LPB      6.63  337 eP     48 38.00  -5.9X
ZOBO     6.87  338 P      48 49.00   1.7X
TCA      8.64  175 e(P)   49 12.00   0.9
YKA     93.41  339 eP     00 14.10   1.3
        0.7s      0.40nm          3.9mb
WRA    133.45  206 PKP    06 30.00  15.0X
        0.6s      0.40nm
GBA    143.63   98 PKP    06 33.00  -0.7
      S.D. = 1.2   on   9 of  12 obs.
-----------------------------------------
?  JAN  29, 1993  07h 50m 24.28± 1.02s
    6.427 N ±41.5km   72.919 W ±34.0km
   DEPTH =  84.9 ± 48.3 km
 NORTHERN COLOMBIA                   ( 99)

BMG      0.66  346 iPc    50 40.00  -0.3
BOG      2.12  213 iPd    51 10.00  11.1X
                 iS       51 41.00
SDV      3.33   43 iPnc   51 08.40  -7.0X
                 iSn      51 56.20
TOV      4.55   43 iPnc   51 33.60   1.3
                 iSn      52 24.00
CEOS     5.23   60 iP     51 42.60   0.9
MORO     6.34   46 iP     51 56.30  -0.8
GUAC     6.72   56 iP     52 02.60   0.1
OLLA     7.03   59 iP     52 06.20  -0.4
LLAV     7.26   56 iP     52 09.30  -0.5
GUAN     8.01   64 iP     52 19.40  -0.7
ZOBO    23.06  168 eP     55 24.00   0.1
                 e        55 56.00
LPB     23.31  168 eP     55 33.00   7.0X
CNCB    23.60  168 P      55 29.00   0.0
                 i        56 04.20
GBA    144.47   56 PKP    09 30.00 -23.3X
WRA    150.32  240 PKP    10 01.60  -1.0X
        0.8s      0.60nm
      S.D. = 0.8   on  10 of  15 obs.
-----------------------------------------
*  JAN  29, 1993  08h 15m 22.81± 0.80s
   49.826 N ±14.3km    6.735 E ± 5.3km
   DEPTH =  10.0km  (geophysicist)
 GERMANY                             (543)
      MD 2.5 (UCC).

RUP      0.25  120 ePg    15 28.10   0.0
WLF      0.41  247 iPc    15 31.37   0.2
                 iS       15 40.80
ABH      0.53   84 ePg    15 32.95  -0.6
TNS      1.17   70 ePnd   15 45.40   0.6
                 eSn      16 03.50
DOU      1.41  282 P      15 48.20  -0.3
                 i        15 51.00
                 iS       16 13.20
      S.D. = 0.6   on   5 of   5 obs.
-----------------------------------------
?  JAN  29, 1993  08h 28m 20.94± 4.65s
   31.419 S ±32.6km   68.646 W ±24.9km
   DEPTH =  83.5 ± 33.1 km
 SAN JUAN PROVINCE, ARGENTINA        (137)

RTCB     0.15  243 iPd    28 33.00  -0.5
                 S        28 44.00
RTLL     0.18   59 iPc    28 34.00   0.5
                 S        28 45.00
CFA      0.39  118 ePc    28 35.30   0.9
                 S        28 48.00
RTCV     0.45  168 iP     28 34.10  -0.8
                 (S)      28 46.00
MRA      2.69  112 ePc    29 02.30  -0.6
RFA      3.35  177 ePc    29 12.60   0.5
      S.D. = 1.1   on   6 of   6 obs.
-----------------------------------------
?  JAN  29, 1993  10h 02m 40.68± 7.19s
   35.738 S ±54.4km  179.412 E ±43.7km
   DEPTH =  93.7 ± 47.0 km
   4.9mb (  3 obs.)
 OFF E. COAST OF N. ISLAND, N.Z. (160)

HBZ      2.06  205 eP     03 14.30   0.0
PUZ      2.51  201 eP     03 19.90  -0.5
                 eS       03 55.90
NOZ      3.08  201 eP     03 28.50   0.4
URZ      3.12  216 eP     03 28.90   0.2
                 eS       04 10.70
KUZ      3.15  250 eP     03 29.10   0.0
                 eS       04 12.20
WLZ      3.73  234 eP     03 37.80   0.7
MOZ      4.60  232 eP     03 48.40  -0.8
ASPA    40.99  274 eP     10 15.90  -0.1
        0.8s     16.10nm          4.9mb
WB2     42.46  279 iPc    10 27.10  -0.9
        0.5s     29.00nm          5.4mb
WRA     42.47  279 P      10 29.00   0.9
        0.6s      3.90nm          4.4mb
      S.D. = 0.7   on  10 of  10 obs.
-----------------------------------------
&  JAN  29, 1993  10h 20m 26.51s
   59.695 N          152.079 W
   DEPTH =  60.0km
 SOUTHERN ALASKA                     (  2)
      <AEIC>. ML 2.9 (AEIC).

XLV      0.30  143 eP     20 36.20  -0.5
                 S        20 44.46
OPT      0.59  266 iP     20 39.14  -0.4
                 S        20 49.77
ILIM     0.59  311 iP     20 38.87  -0.7
                 eS       20 49.09
BRLK     0.61   83 eP     20 39.48  -0.3
                 S        20 49.29
INE      0.62  307 iP     20 39.17  -0.9
                 eS       20 49.34
INW      0.65  306 iP     20 39.63  -0.8
                 eS       20 50.14
AUE      0.74  243 eP     20 41.20  -0.1
AUL      0.76  246 eP     20 41.42  -0.2
AUH      0.77  245 eP     20 41.87   0.1
AUI      0.78  243 eP     20 41.50  -0.3
                 S        20 53.03
AUW      0.78  246 eP     20 41.71  -0.1
RS1      0.84  336 iP     20 42.23  -0.6
RSO      0.84  337 iP     20 42.19  -0.6
                 eS       20 55.16
RS2      0.84  336 iP     20 42.25  -0.6
                 eS       20 55.30
REF      0.86  339 iP     20 42.39  -0.6
                 eS       20 55.08
RDN      0.89  338 iP     20 42.76  -0.6
                 eS       20 55.87
DFR      0.95  342 iP     20 43.41  -0.7
                 eS       20 57.04
NCT      0.97  334 iP     20 43.78  -0.6
                 eS       20 57.32
PDB      1.07  276 iP     20 44.86  -0.8
                 eS       20 59.30
NKA      1.13   21 eP     20 47.59   1.2
SLKM     1.24   48 iP     20 47.05  -0.9
MCNL     1.26  247 iP     20 47.14  -1.1
                 eS       21 03.09
SEW      1.39   72 iP     20 50.19   0.3
SPU      1.49    0 iP     20 50.90  -0.6
CKL      1.51  355 iP     20 51.40  -0.4
CKT      1.51  358 iP     20 51.20  -0.6
CKN      1.54  358 eP     20 51.84  -0.2
CP2      1.58  357 iP     20 52.61  -0.2
CRP      1.58  359 iP     20 52.56  -0.2
MPA      1.58   59 eP     20 52.46  -0.1
BGL      1.58  355 iP     20 52.47  -0.3
SUA      1.89   20 eP     20 57.18   0.1
PTE      1.92   51 P      20 56.74  -0.6
KDC      1.97  186 eP     20 56.73  -1.2
PMS      1.99   38 P      20 58.20  -0.2
LTI      2.16   79 eP     21 00.20  -0.5
PWA      2.24   28 P      21 01.70  -0.1
SVW      2.26  310 P      21 01.00  -1.2
KNIM     2.28   71 eP     21 00.07  -2.3
SKT      2.31    6 eP     21 02.39  -0.5
PLRM     2.39   36 eP     21 02.78  -1.2
KNK      2.48   45 eP     21 04.05  -1.3
GHO      2.60   35 eP     21 05.77  -1.2
GLI      2.75   62 eP     21 07.62  -1.5
SML      2.81   39 eP     21 08.98  -0.9
HIN      2.89   73 eP     21 10.33  -0.7
       46 obs. associated
-----------------------------------------
%  JAN  29, 1993  10h 36m 12.14± 0.89s
   39.103 N ± 7.4km   27.681 E ± 9.1km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                              (366)
      MD 2.7 (ISK).

IZM      0.78  205 iPg    36 27.00  -0.3
                 iSg      36 39.50
DST      0.89   55 iPn    36 30.00   0.8
EDC      1.25    6 ePn    36 35.00  -0.4
KCT      1.26   24 iPn    36 35.20  -0.3
BNT      1.27    8 ePn    36 35.20  -0.4
EZN      1.27  305 iPn    36 36.40   0.6
      S.D. = 0.7   on   6 of   6 obs.
-----------------------------------------
   JAN  29, 1993  12h 06m 37.40± 0.76s
   40.445 S ± 4.8km  176.617 E ± 7.2km
   DEPTH =  69.2 ± 13.4 km
 NORTH ISLAND, NEW ZEALAND           (159)

TEHZ     0.48   18 Pc     06 49.30  -0.8
WAHZ     0.77  345 P      06 51.80  -1.5
MNG      0.88  258 Pc     06 54.50  -0.1
                 S        07 05.70
TTH      0.92   10 P      06 55.60   0.6
MTW      1.11  229 P      06 58.20   0.7
BLW      1.27  223 P      07 00.50   0.9
CAW      1.35  240 P      07 01.10   0.4
KIW      1.36  252 P      07 01.30   0.4
MOH      1.37   18 eP     07 01.20   0.2
MOW      1.42  226 P      07 02.00   0.3
BSZ      1.44  296 eP     07 02.60   0.6
NGZ      1.49  328 eP     07 02.70   0.0
CNZ      1.49  326 P      07 02.80   0.1
WHH      1.56  357 P      07 04.00   0.3
PAHZ     1.62   12 eP     07 04.70   0.3
WEL      1.63  238 eP     07 04.80   0.2
MRW      1.65  241 eP     07 04.70  -0.1
TCW      1.94  246 P      07 08.70   0.0
NOZ      2.13   31 eP     07 11.40   0.0
MQZ      2.39  323 eP     07 15.60   0.6
KHZ      3.04  229 eP     07 22.90  -1.2
ORZ      3.13  262 eP     07 24.80  -0.6
DSZ      3.86  249 eP     07 34.80  -0.9
MQZ      4.40  221 eP     07 42.90  -0.2
      S.D. = 0.7   on  24 of  24 obs.
-----------------------------------------
?  JAN  29, 1993  12h 52m 39.20± 0.93s
   26.372 S ± 7.3km   27.573 E ±11.1km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA            (584)
      ML 2.4 (PRE).

PRY      0.56  189 eP     52 50.00  -0.5
                 S        52 56.70
KSR      0.79  310 eP     52 55.00  -0.1
                 S        53 05.00
SLR      0.90   45 iPc    52 57.00   0.0
```

29d 12h

```
BLF      2.99 204 eP     53 28.90    0.6
     S.D. = 0.8  on   4 of   4 obs.
-----------------------------------------
?  JAN  29, 1993  12h 53m 38.85± 2.95s
   48.459 N ±45.2km    6.334 E ± 9.1km
   DEPTH =   5.0km  (geophysicist)
 FRANCE                              (538)
      ML 2.3 (LDG).

HAU      0.45 179 Pg     53 53.50    5.5X
                  Sg     54 03.60
CDF      0.63  94 Pg     53 51.40    0.0
                  Sg     54 00.00
BSF      0.70 154 Pg     53 57.10    4.3X
                  Sg     54 09.80
FEL      1.27 117 ePn    54 02.97    0.1
LOR      2.05 235 Pn     54 15.10    0.7
                  Sg     54 49.40
LBF      2.17 228 Pn     54 16.00   -0.2
                  Pg     54 23.20
                  Sg     54 55.40
SSF      2.37 235 Pn     54 18.40   -0.6
                  Pg     54 26.90
                  Sg     54 59.90
AVF      2.62 231 Pg     54 31.00    8.5X
                  Sg     55 09.30
     S.D. = 0.7  on   5 of   8 obs.
-----------------------------------------
%  JAN  29, 1993  13h 20m 36.13± 1.62s
   26.914 S ±14.0km   26.662 E ±13.7km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA            (584)
      ML 2.2 (PRE).

PRY      0.72  91 eP     20 50.00   -0.6
                  S      20 59.00
SEK      1.64 149 eP     21 06.90    1.0
                  S      21 28.00
SLR      1.87  51 eP     21 09.50    0.3
                  S      21 32.50
BLF      2.23 191 eP     21 13.90   -0.5
FRS      3.06 202 iPc    21 25.90   -0.2
                  S      22 01.20
     S.D. = 0.9  on   5 of   5 obs.
-----------------------------------------
   JAN  29, 1993  13h 23m 09.89± 1.03s
   37.931 S ± 7.1km  176.069 E ± 5.8km
   DEPTH = 242.3 ±  9.4 km
 NORTH ISLAND, NEW ZEALAND           (159)

WLZ      0.38 279 P      23 41.20   -0.5
                  S      24 02.20
TAZ      0.46 131 eP     23 41.80    0.0
URZ      0.88 112 P      23 42.60   -1.1
                  S      24 03.40
WHH      1.01 161 P      23 44.00   -0.5
MOZ      1.15 240 Pc     23 45.50    0.2
PAHZ     1.21 140 P      23 45.60   -0.1
KUZ      1.21 347 Pd     23 45.40   -0.3
                  eS     24 10.00
NGZ      1.30 196 eP     23 46.30   -0.1
CNZ      1.33 198 P      23 46.90    0.3
MOH      1.47 145 P      23 47.70    0.2
NOZ      1.69 114 P      23 49.80    0.5
TTH      1.71 160 P      23 50.20    0.7
PUZ      1.73  95 eP     23 49.30   -0.4
WAHZ     1.78 173 Pd     23 50.50    0.4
HBZ      1.80  80 P      23 50.50    0.3
MAHZ     1.90 132 eP     23 51.70    0.6
BSZ      2.07 205 eP     23 52.70    0.1
TEHZ     2.14 165 P      23 53.90    0.6
NRZ      2.18 229 eP     23 55.50    1.7
MNG      2.72 189 P      23 59.30    0.0
                  eS     24 32.40
KIW      3.06 197 P      24 02.80   -0.2
MTW      3.25 188 P      24 04.70   -0.4
CAW      3.27 193 P      24 05.00   -0.3
DIW      3.32 209 P      24 05.60   -0.2
MRW      3.46 197 P      24 07.20   -0.3
                  eS     24 47.70
BLW      3.46 187 P      24 07.10   -0.4
WEL      3.50 196 eP     24 07.60   -0.3
MOW      3.54 190 P      24 07.90   -0.5
TCW      3.56 202 eP     24 08.40   -0.2
QRZ      3.99 222 eP     24 13.30   -0.3
CCW      4.07 200 eP     24 15.20    0.6
THZ      4.54 211 eP     24 20.60    0.3
KHZ      4.88 203 P      24 24.50    0 0
DSZ      5.03 219 P      24 25.80   -0.6
LTZ      5.65 210 P      24 33.70   -0.4
MQZ      6.33 203 P      24 41.20   -1.3
ODZ      8.19 208 eP     25 07.00    0.8
MSZ      9.10 220 eP     25 18.80    0.8
                  eS     26 53.90
     S.D. = 0.6  on  38 of  38 obs.
-----------------------------------------
   JAN  29, 1993  13h 56m 23.21± 0.94s
   39.038 N ± 9.9km   89.040 W ± 4.0km
   DEPTH =   5.0km  (geophysicist)
 ILLINOIS                            (467)
      mbLg 3.2 (GS). MD 3.2 (SLM).
      Felt (III) at Herrick and (II)
      at Hagarstown, Saint Elmo and
      Saint Peter.

SLM      1.02 247 eP     56 43.00    0.1
                  eS     56 56.49
SPIN     1.23 113 eP     56 46.21   -0.2
                  eS     57 03.49
TYS      1.30 247 ePc    56 47.89    0.2
                  eS     57 05.20
NHIL     1.30 148 ePd    56 47.36   -0.4
                  eS     57 05.01
WDIN     1.40 132 eP     56 48.87   -0.6
                  eS     57 08.05
FVM      1.51 226 ePd    56 51.23    0.2
                  eS     57 11.16
ELC      1.76 185 eP     56 55.15    0.7
                  eS     57 18.19
GOIL     1.78 168 eP     56 55.45    0.6
BLO      1.96  85 iP     56 58.00    0.5
                  eS     57 24.50
GRT      2.79 186 eP     57 08.53   -0.8
MFTN     2.89 186 eP     57 10.30   -0.4
OLY      4.03 210 (P)    57 27.37    0.5
TKL      5.38 127 (P)    57 46.45    0.3
MIAR     5.77 220 (P)    58 05.91   14.3X
UYO      6.53 224 iPc    58 03.20    0.9
MEO      8.74 244 iPc    58 31.70   -1.6
     S.D. = 0.7  on  15 of  16 obs.
-----------------------------------------
   JAN  29, 1993  14h 01m 03.47± 0.59s
   39.279 N ± 5.7km   20.562 E ± 4.2km
   DEPTH =  10.0km  (geophysicist)
 GREECE-ALBANIA BORDER REGION        (392)
      MD 3.4 (ATH). ML 3.1 (TIR).

IGT      0.31 325 ePg    01 07.70   -2.2
                  eSg    01 12.22
KEK      0.73 306 ePb    01 16.00   -1.9
SRN      0.74 324 iPgd   01 19.50    1.5
                  iSg    01 29.50
LSK      0.87   2 ePn    01 20.70    0.4
TPE      1.10 337 iPgd   01 27.00    2.9X
                  iSg    01 42.50
VLS      1.10 179 ePb    01 24.00   -0.1
KZN      1.39  42 ePb    01 30.00    1.1
AGG      1.40 100 ePb    01 28.66   -0.4
                  eSb    01 50.54
VLO      1.44 326 ePn    01 29.50   -0.1
FNA      1.63  22 ePb    01 32.94    0.6
                  eSb    01 56.02
LIT      1.70  61 ePb    01 33.66    0.3
                  eSb    01 59.38
OHR      1.84   6 iPn    01 36.40    1.0
                  i      01 40.00
                  i      02 02.10
                  i      02 04.80
                  Lg     02 16.50
GRG      2.19  40 ePn    01 40.70    0.2
                  eSn    02 12.50
PAIG     2.49  74 ePn    01 44.22   -0.5
                  eSn    02 16.30
VAY      2.55  36 iPn    01 45.60    0.1
KNT      2.59  43 ePn    01 45.50   -0.7
                  eSn    02 19.34
SOH      2.64  53 ePn    01 46.94    0.1
                  eSn    02 19.73
SKO      2.77  14 ePn    01 48.00   -0.7
OUR      2.84  67 iPn    01 49.50   -0.1
                  eSn    02 25.86
SRS      2.96  51 iPn    01 50.62   -0.7
                  eSn    02 28.70
VLI      3.17 143 ePb    02 01.00    6.6X
ORI      3.27 285 P      02 16.00   20.2X
TDS      3.29 278 P      02 12.00   15.9X
SOI      3.73 253 P      02 06.00    3.7X
                  eSn    02 42.40
MGR      3.96 284 P      02 07.00    1.5
                  eSn    02 45.30
SGO      4.24 289 P      02 10.00    0.5
     S.D. = 1.0  on  21 of  26 obs.
-----------------------------------------
?  JAN  29, 1993  16h 09m 50.04± 9.28s
   44.297 N ±108.km    8.238 E ±157.km
   DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                      (545)

CKI      0.13  13 P      09 53.00   -0.2
                  eSg    09 55.00
SBF      0.72 233 Pg     10 03.40   -0.9
FRF      1.36 238 Pg     10 15.00   -0.1
                  Sg     10 31.70
LMR      1.58 233 Pg     10 18.30    0.2
                  Sg     10 40.00
LRG      1.60 239 Pg     10 19.20    0.8
                  Sg     10 40.00
     S.D. = 0.9  on   5 of   5 obs.
-----------------------------------------
*  JAN  29, 1993  16h 29m 30.66± 2.01s
   51.141 N ±24.1km   15.748 E ± 7.7km
   DEPTH =  10.0km  (geophysicist)
 POLAND                              (548)
      ML 3.4 (VIE).

KSP      0.46 131 iPd    29 38.60   -1.3
                  iS     29 47.80
BRG      1.17 257 iPg    29 52.60    0.1
                  iSg    30 12.40
PRU      1.39 214 ePn    29 56.90    0.9
     Z  18s      1.80um
     N  16s      1.80um
     E  18s      1.00um
                  Pg     29 58.40
                  Sn     30 15.40
                  Sg     30 22.70
                  e      30 28.90
                  e      46 35.50
                  S      53 38.00
CLL      1.73 277 iPn    29 57.40   -3.6X
                  eSg    30 26.00
KHC      2.45 216 Pn     30 12.00    0.7
                  ePg    30 22.00
                  Sn     30 47.50
                  eSg    31 01.00
HOF      2.60 253 ePn    30 12.00   -1.4
MOX      2.66 261 ePg    30 20.40    6.0X
                  iSg    31 00.40
OJC      2.74 108 iP     30 16.50    1.1
                  iS     30 52.40
VKA      2.90 172 ePg    30 26.00    8.2X
                  iSg    31 10.50
     S.D. = 1.4  on   6 of   9 obs.
-----------------------------------------
?  JAN  29, 1993  16h 30m 31.39± 0.89s
   41.131 N ± 7.8km   22.667 E ± 6.5km
   DEPTH =   5.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION          (383)
      ML 1.6 (SKO).

KNT      0.18  80 iPg    30 35.16    0.1
                  eSg    30 37.56
VAY      0.20 339 iPg    30 35.50    0.0
                  iSg    30 38.40
GRG      0.27 229 ePg    30 36.84    0.0
                  eSg    30 41.40
SOH      0.60 121 ePg    30 43.40   -0.1
                  eSg    30 51.44
     S.D. = 0.2  on   4 of   4 obs.
-----------------------------------------
%  JAN  29, 1993  16h 55m 58.50± 0.76s
   45.488 N ± 8.1km   26.998 E ± 7.4km
   DEPTH =  15.3 ± 11.6 km
 ROMANIA                             (358)

BRD      0.05  52 iPd    56 02.50    1.0
VRI      0.43 334 iPd    56 05.50   -1.7
ISR      0.47 223 iPc    56 07.50   -0.5
PPE      0.85  30 eP     56 32.00   17.6X
CFR      0.87 110 iPd    56 14.00   -0.7
CLI      1.08  11 eP     56 19.00    0.6
```

```
MTUR    1.39 260 ePd    56 24.00    0.7
CMP     1.40 262 ePc    56 24.00    0.6
COZ     1.88 266 ePc    56 30.50    0.1
     S.D. = 1.2  on   8 of   9 obs.
-----------------------------------
%  JAN  29, 1993  17h 47m 38.81± 0.60s
   39.312 N ± 5.6km   28.764 E ± 6.7km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                          (366)
      MD 2.9 (ISK).

DST     0.31 340 iPg    47 44.80   -0.5
                 iSg    47 49.80
KCT     0.99 342 ePn    47 57.90    0.4
ALT     1.08 103 iPn    47 59.00   -0.2
KHL     1.15 149 iPn    48 00.00   -0.4
BNT     1.23 328 ePn    48 01.10   -0.6
EDC     1.24 326 ePn    48 02.00    0.1
IZM     1.49 233 iPn    48 06.10    0.5
EYL     1.65  40 ePn    48 08.70    0.7
     S.D. = 0.6  on   8 of   8 obs.
-----------------------------------
   JAN  29, 1993  18h 00m 55.49± 0.75s
   43.023 N ± 8.2km   10.973 E ± 4.7km
   DEPTH =  10.0km  (geophysicist)
 CENTRAL ITALY                   (381)
      ML 2.5 (LDG).

PII     0.77 335 P      01 11.20    0.7
                 eSg    01 21.00
CRE     0.94  49 P      01 13.40    0.0
                 eSg    01 25.60
PGD     1.01  32 Pc     01 14.90    0.2
                 eSg    01 27.70
BDI     1.07 345 Pd     01 15.80    0.0
                 eSg    01 29.50
SFI     1.10  35 Pc     01 16.10    0.0
ASS     1.24  87 P      01 18.30   -0.2
PGF     1.53 253 Pn     01 24.50    1.5
                 Sn     01 44.60
SBF     2.71 289 Pn     01 39.40   -0.6
FRF     3.20 281 Pn     01 46.10   -0.8
LMR     3.28 277 Pn     01 47.30   -0.6
LRG     3.40 279 Pn     01 49.40   -0.2
     S.D. = 0.7  on  11 of  11 obs.
-----------------------------------
?  JAN  29, 1993  18h 43m 15.92± 5.16s
   36.962 N ±30.3km    2.204 W ±32.6km
   DEPTH =  10.0km  (geophysicist)
 STRAIT OF GIBRALTAR             (385)
      mbLg 2.3 (MDD).

ENIJ    0.01 346 iPgd   43 17.53   -0.3
                 eSg    43 18.70
EHUE    0.91 340 ePg    43 33.11   -0.2
                 eSg    43 45.90
EGUA    1.10 264 ePg    43 36.49   -0.1
                 eSg    43 51.80
ECOG    1.13 287 ePg    43 37.30    0.1
                 eSg    43 52.00
EVIA    1.69 352 iPnc   43 45.99    0.3
                 eSn    44 06.70
     S.D. = 0.3  on   5 of   5 obs.
-----------------------------------
   JAN  29, 1993  19h 01m 44.41± 0.28s
    3.341 S ± 5.7km  136.618 E ± 5.6km
   DEPTH =  33.0km  (normal)
   5.0mb ( 22 obs.)  4.4Msz (  4 obs.)
 IRIAN JAYA, INDONESIA           (201)

WWKK    7.00  93 eP     03 28.50    1.2
MNDI    7.55 112 e(P)   03 36.00    0.8
MDG     9.33 102 eP     04 02.00    2.3
MTN    10.89 210 eP     04 20.50   -0.7
       0.3s   356.00nm          7.0mb X
                 eS     06 19.00
PMG    12.08 120 eP     04 35.00   -2.3
WB2    16.65 187 eP     05 33.30   -3.7X
                 eS     08 28.50
PLP    18.49 321 ePc    06 01.00    1.1
ASPA   20.38 187 eP     06 20.60   -0.6
       0.9s   106.70nm          5.2mb
     Z  20s     2.70um          4.6Msz
                 eS     10 01.10
SVO    23.76 105 eP     06 53.00   -1.9
HNR    23.95 106 ePd    06 55.00   -1.8
       1.5s   333.33nm          5.6mb
WARB   24.65 202 eP     07 04.30    0.8
BAG    25.23 322 eP     07 14.50    5.2X
RMO    25.79 154 eP     07 16.40    2.1
       0.9s    24.00nm          4.8mb
CMS    29.31 164 eP     07 51.00    4.8X
ARMA   30.44 154 eP     07 57.30    0.8
       0.7s    10.00nm          4.7mb
MRWA   32.34 215 eP     08 12.80   -0.2
BWA    32.82 162 eP     08 16.40   -0.7
                 epP    08 24.60   28kmX
                 esP    08 37.10
CNB    33.94 161 eP     08 33.70    6.8X
       1.1s    20.00nm          5.0mb
BFD    34.11 172 eP     08 35.50    7.3X
SSE    37.27 338 Pc     08 55.00   -0.1
       1.0s    42.00nm          5.3mb
     Z  20s     0.60um          4.4Msz
                 pP     09 05.00   34kmX
                 S      14 42.00
WHN    39.84 329 eP     09 17.60    1.0
NST    40.74 299 eP     09 33.50    9.3X
GYA    41.43 317 P      09 30.40    0.5
CHG    43.12 302 ePc    09 43.40   -0.3
       1.0s    17.00nm          4.7mb
KMI    43.37 313 Pd     09 46.50    0.6
       1.5s    50.00nm          5.0mb
XAN    45.43 327 P      10 01.70   -0.4
       1.1s     9.20nm          4.6mb
CD2    46.28 320 eP     10 09.00    0.1
TIY    46.61 333 eP     10 11.40    0.0
     Z  22s     0.51um          4.4Msz
BJI    47.07 339 eP     10 14.00   -0.9
       1.2s    29.00nm          5.2mb
     Z  24s     0.32um          4.2MszX
CN2    47.99 349 eP     10 20.60   -1.5
       1.0s     9.30nm          4.8mb
HHC    49.58 335 eP     10 35.00    0.4
       1.2s    10.00nm          4.7mb
LZH    49.76 325 Pc     10 36.30    0.2
       1.6s    33.00nm          5.1mb
     Z  18s     0.30um          4.3Msz
                 pP     10 41.30   17kmX
BTO    50.04 334 eP     10 38.30    0.2
GTA    54.36 325 eP     11 10.40   -0.1
       1.2s    17.00nm          5.0mb
                 pP     11 20.00   31kmX
                 sP     11 23.60
LSA    54.51 310 P      11 12.90    0.8
       1.4s    22.00nm          5.0mb
GUN    57.85 306 P      11 36.00    0.0
PKI    58.09 305 P      11 37.60   -0.1
KKN    58.28 306 P      11 38.80   -0.1
DMN    58.35 305 P      11 39.60    0.2
GKN    58.89 306 P      11 43.20    0.2
HYB    60.86 292 ePc    11 55.30   -1.2
       1.0s    25.00nm          5.3mb
GBA    61.07 287 P      11 57.00   -0.9
WMQ    64.22 323 P      12 18.00   -0.6
       1.2s     8.10nm          4.7mb
                 pP     12 23.00   16kmX
                 sP     12 30.40
YAK    65.39 356 eP     12 25.00   -0.6
       1.0s    50.00nm          5.6mb
POO    65.47 292 iPc    12 22.40   -4.6X
       1.0s    64.00nm          5.7mb
QUE    74.25 302 eP     13 21.10    0.4
MAIO   81.63 307 eP     14 02.00    1.0
IMA    84.93  23 e(P)   14 20.00    2.7X
       1.8s    27.00nm          5.1mb
PMR    85.48  27 e(P)   14 26.00    6.1X
       0.9s    12.70nm          5.1mb
YKA   101.56  27 ePdiff15 33.00   -1.3
       1.0s     1.20nm          4.4mb
YJA   146.67 141 ePKPc 21 26.50    2.3X
CNCB  148.52 130 PKP   21 33.00    5.6X
LPB   148.59 130 ePKP  21 32.00    4.7X
ZOBO  148.71 129 iPKPc 21 29.30    1.5
       1.0s    16.25nm
CCH   149.53 133 ePKP  21 35.00    6.4X
     S.D. = 1.0  on  42 of  55 obs.
-----------------------------------
   JAN  29, 1993  19h 30m 36.48± 0.20s
   34.936 N ± 4.0km  141.594 E ± 2.9km
   DEPTH =  37.1km  ( 33 depth phases)
   5.3mb ( 91 obs.)  5.0Msz ( 20 obs.)
 OFF EAST COAST OF HONSHU, JAPAN (229)
KAKJ    1.72 318 iP+    31 04.60    0.1
                 eS     31 28.50
CHJJ    2.39 298 iP+    31 15.70    1.6
                 S      31 52.20
IIDJ    3.06 281 P      31 26.20    2.5X
NIIJ    3.11 318 iP+    31 25.00    0.7
MAT     3.19 301 iPc    31 26.60    1.2
                 eS     32 08.00
YAMJ    3.47 339 P      31 28.30   -1.0
MTMJ    3.49 299 iP+    31 31.20    1.4
OFUJ    4.14   1 P      31 34.80   -4.1X
                 eS     32 21.20
TSRJ    4.63 279 P      31 46.80    0.9
WKYJ    5.00 263 P      31 53.10    1.9
SHK     7.35 269 ePc    32 25.80    1.6
       1.0s   280.00nm          6.2mb
YSS    12.10   4 iPc    33 22.00   -7.2X
       1.0s   270.00nm          6.3mb X
     Z  17s     6.60um          4.8MszX
     N  17s     9.20um
     E  17s    10.40um
                 eS     35 31.20
MDJ    13.35 320 eP     33 44.10   -1.7
       1.0s    18.00nm          5.0mb
     Z  14s    10.00um          5.4Msz
     N  14s     4.71um
     E  14s    13.80um
                 S      36 10.00
CN2    15.29 310 eP     34 09.20   -2.0
       1.1s    31.00nm          4.5mb
     Z  14s     6.60um          4.9Msz
     N  13s     6.15um
     E  13s     4.32um
                 epP    34 17.00
SNY    15.70 301 Pc     34 13.00   -3.5X
       1.6s    85.00nm          4.7mb
     Z  15s     8.58um          4.3Msz
     N  13s     3.14um
     E  15s     4.89um
                 sP     34 20.00
DL2    16.45 290 eP     34 26.50    0.5
       1.0s    89.00nm          4.8mb
     Z  18s     9.23um          5.7MszX
     N  14s     9.40um
     E  16s    11.40um
                 pP     34 29.00
SSE    17.54 263 Pc     34 38.00   -1.7
       1.0s    18.00nm          4.2mb X
     Z  16s    14.50um          4.3MszX
     N  18s    16.90um
     E  20s    12.10um
NJ2    19.18 268 Pd     34 57.00   -2.7X
       1.4s    45.00nm          4.5mb
     Z  16s     5.25um          4.7MszX
     N  16s     4.70um
     E  15s    10.30um
TIA    19.94 281 eP     35 04.60   -3.4X
     Z  14s    11.30um
     N  15s     8.85um
     E  16s     6.05um
BJI    20.77 292 eP     35 13.50   -3.2X
       2.0s   250.00nm          5.2mb
     Z  14s     4.70um          5.0MszX
     N  15s     4.85um
                 ePP    35 36.00
                 eS     39 01.00
PJG    21.46 171 eP     35 27.80    4.0X
GUMO   21.46 171 eP     35 27.50    3.7X
GUA    21.51 171 eP     35 28.10    3.7X
       0.8s   155.22nm          5.5mb
PET    21.75  29 eP     35 34.00    7.6X
     Z  18s     1.90um          4.5Msz
     E  18s     2.20um
                 eS     39 32.00
WHN    23.30 267 P      35 40.70   -1.2
       1.0s    36.00nm          4.8mb
     Z  16s    10.70um          5.4MszX
     N  12s     2.39um
     E  14s     6.81um
                 eS     39 52.00
TIY    23.62 285 eP     35 43.20   -1.8
     Z  16s    12.80um          5.5MszX
     E  16s     7.34um
                 S      39 57.00
HHC    24.35 293 P      35 50.40   -1.8
       1.2s    73.00nm          5.1mb
     Z  16s     5.93um          5.2MszX
```

29d 19h

```
     N  14s      2.56um  -
     E  14s      2.91um
                  pP     35 55.00  16kmX
BTO    25.51 292 P       36 02.00  -1.2
     0.7s     27.00nm          4.9mb
     N  18s      4.87um
     E  18s      6.05um
                  PP     36 42.00
                  S      40 30.00
MGD    25.88  11 eP       36 05.00  -1.3
     1.2s     70.00nm          5.1mb
     Z  15s      3.20um          5.0MszX
     N  15s      3.10um
     E  15s      2.30um
                  e      36 16.00  42km
                  e      36 52.00
                  eS     40 34.00
CIT    26.29 319 eP       36 09.50  -0.7
                  eS     40 44.00
XAN    26.88 278 Pc       36 14.30  -1.5
     1.0s     25.00nm          4.8mb
     Z  15s      7.65um          5.4MszX
     N  13s      3.87um
     E  13s      4.12um
GZH    27.29 252 eP       36 20.00   0.5
     Z  16s      2.61um          4.9MszX
     N  15s      2.63um
     E  15s      1.40um
PLP    28.08 217 ePd      36 26.50  -0.2
YAK    28.13 348 iPc+     36 25.00  -1.7
     1.9s    185.00nm          5.4mb
     Z  15s      6.40um          5.3MszX
     N  15s      4.60um
     E  13s      3.80um
                  i      37 16.00 262kmX
                  iS     41 10.00
                  e      42 34.00
                  i      47 09.00
BOD    29.34 330 iPc      36 36.80  -0.9
     1.4s    224.00nm          5.7mb
LZH    30.63 283 P        36 48.50  -1.1
     1.5s    190.00nm          5.7mb
     Z  16s      6.34um          5.4MszX
     E  13s      3.72um
                  pP     36 58.00  33km
                  sP     37 02.50
                  PP     37 51.00
                  eS     41 47.00
                  sS     42 03.00
GYA    31.08 264 P        36 50.80  -2.8
     1.4s     93.00nm          5.4mb
     Z  18s      4.69um          5.2Msz
     N  17s      8.63um
     E  17s      3.25um
                  S      41 54.00
IRK    31.63 315 eP+      36 57.00  -1.1
     Z  15s      2.39um          5.0MszX
     N  13s      1.08um
     E  14s      2.36um
                  e      37 10.50  53kmX
                  e      38 08.20
                  e      39 43.20
ZAK    31.72 311 iPc      36 59.00   0.3
     1.5s     73.00nm          5.3mb
     Z  15s      4.42um          5.3MszX
     N  13s      2.77um
     E  15s      5.48um
                  e      39 54.00
                  eSS    43 51.00
CD2    31.89 274 Pc       36 58.50  -2.1
     Z  17s     12.10um          5.6MszX
     E  15s     10.90um
                  eS     42 05.50
GTA    33.37 290 iPd      37 13.00  -0.5
     1.5s    160.00nm          5.7mb
     Z  12s      7.82um          5.6MszX
     E  13s      2.98um
                  pP     37 20.00  24kmX
                  sP     37 23.60
                  PP     38 26.00
                  eS     42 33.50
                  ScS    47 36.50
KMI    34.85 264 Pc       37 24.00  -2.5X
     1.5s     50.00nm          5.2mb
     Z  16s      5.90um          5.4MszX
     N  13s      3.20um
     E  14s      3.30um
```

```
                  eS     42 53.00
TIK    37.37 353 iPc      37 46.00  -0.9
     1.6s     23.00nm          4.8mb
     Z  14s      4.20um          5.4MszX
                  i      37 57.00  39km
                  ePPP   39 39.00
                  e      40 05.00
                  eS     43 34.00
UER    37.65 311 iPc      37 50.00   0.5
     1.8s    100.00nm          5.4mb
     Z  15s      2.50um          5.1MszX
     N  15s      1.66um
     E  15s      2.50um
LOE    39.50 254 iPd      38 04.80  -0.6
ILT    39.93  22 eP       38 07.00  -1.3
     1.2s     22.00nm          4.8mb
     Z  16s      1.10um          4.8MszX
     N  16s      2.10um
     E  16s      0.90um
                  e      44 12.00
CHG    40.96 258 iPc      38 16.50  -0.9
     1.1s     37.97nm          5.0mb
NST    41.74 253 eP       38 32.50   8.7X
BDT    41.76 256 eP       38 24.00   0.1
     0.8s     47.80nm          5.3mb
WMQ    41.95 299 P        38 26.40   1.0
     1.5s     23.00nm          4.7mb
     Z  14s      2.45um          5.2MszX
     N  18s      4.51um
                  pP     38 35.20  30km
                  sP     38 41.80
                  PP     40 02.00
                  S      44 40.00
ELT    42.56 313 iPc      38 30.00  -0.1
     1.8s     65.00nm          5.1mb
     Z  14s      3.20um          5.4MszX
                  e      40 14.00 592kmX
                  e      48 28.00
LSA    42.59 278 Pc       38 31.90   0.7
     1.3s     21.00nm          4.7mb
     Z  16s      4.15um          5.4MszX
     N  15s      1.71um
     E  15s      1.90um
                  S      44 50.00
NRI    45.08 336 iPc      38 48.50  -1.7
     1.6s     47.00nm          5.1mb
     Z  16s      3.70um          5.4MszX
     E  16s      4.60um
                  e      38 59.00  36km
                  e      40 30.00
                  ePPP   41 10.00
                  eS     45 24.00
                  eSS    48 46.00
                  eSSS   49 38.00
TTA    47.07  34 eP       39 10.00   3.8X
SVW    47.09  36 eP       39 07.60   1.2
GUN    47.54 278 Pc       39 10.48  -0.3
     0.9s     13.00nm          5.0mb
PKI    48.06 277 Pc       39 14.00  -0.8
     1.4s    173.00nm          5.9mb
KKN    48.08 278 Pc       39 14.30  -0.5
IPM    48.14 241 ePc      39 15.50   0.5
     0.7s     34.50nm          5.5mb
BRW    48.29  22 eP       39 15.56   0.1
                  epP    39 26.54  38km
                  esP    39 31.47
DMN    48.29 278 Pc       39 15.88  -0.6
IMA    48.43  30 eP       39 16.26  -0.6
     1.1s      8.75nm          4.7mb
                  e      39 20.74
                  epP    39 27.01  37km
                  e      40 53.90
GKN    48.52 278 Pc       39 10.48  -7.6X
BGL    48.66  36 eP       39 18.64   0.0
CP2    48.74  36 eP       39 19.26  -0.1
CRP    48.78  36 eP       39 18.96  -0.7
                  e      39 24.07
                  epP    39 30.10  39km
PRZ    48.88 299 eP       39 22.00   1.3
     1.4s    120.00nm          5.7mb
                  eS     46 31.00
KHKI   49.58 215 ePd      39 25.50  -0.5
                  e      41 56.90
PMR    50.23  36 eP       39 29.14  -1.4
     1.1s     46.60nm          5.4mb
     Z  19s      0.58um          4.6Msz
                  epP    39 40.24  39km
```

```
FBA    50.81  31 (P)      39 34.41  -0.5
     1.0s     11.60nm          4.8mb
KSH    51.43 296 P        39 41.00   0.8
     0.8s     40.00nm          5.4mb
     Z  16s      3.58um          5.5MszX
     N  13s      2.44um
     E  13s      2.20um
FRU    51.50 300 ePc      39 41.00   0.5
     2.0s    220.00nm          5.8mb
     Z  16s      2.00um          5.2MszX
     E  16s      2.50um
                  e      39 53.00  43km
                  eS     47 00.00
                  e      47 19.00
TOA    51.61  35 eP       39 41.80   0.7
KLU    51.77  36 eP       39 41.67  -0.7
                  epP    39 52.82  39km
                  esP    39 58.06
BRVK   52.16 314 iPc      39 45.00  -0.3
     1.0s     67.00nm          5.6mb
                  eS     47 07.00
BALM   53.54  36 eP       39 54.23  -1.3
                  e      40 05.78  40km
NDI    54.24 283 iPc      40 00.80  -0.2
     1.0s    105.00nm          5.8mb
                  eS     47 36.00
WB2    55.01 188 iPc      40 05.40  -1.2
     0.9s     16.60nm          5.1mb
WRA    55.01 188 P        40 03.00  -3.6X
     1.2s      3.50nm          4.3mb
SVE    56.83 320 iPc      40 19.00  -0.4
     1.0s    140.00nm          5.9mb
                  e      42 28.00 716kmX
                  eS     48 12.00
                  eSS    52 00.00
ARU    58.03 319 iPc+     40 27.60  -0.1
     1.5s    320.00nm          6.2mb
     Z  14s      2.50um          5.5MszX
     N  14s      1.50um
     E  14s      2.00um
                  e      40 34.50  23kmX
                  e      41 14.00
                  e      42 44.00
                  eS     48 38.00
HYB    58.32 270 ePc      40 29.50  -0.9
     1.0s     65.00nm          5.7mb
                  eS     48 32.00
ASPA   58.74 188 eP       40 32.10  -0.9
     1.3s     13.80nm          4.9mb
                  eS     48 28.90
GBA    61.22 267 Pc       40 50.00  -0.3
DZM    61.41 154 iPc      40 51.10  -0.3
POO    61.62 274 iPc      40 48.20  -4.8X
QUE    61.73 289 eP       40 53.60  -0.2
                  eS     49 19.60
BOM    62.29 274 eP       40 57.10  -0.3
                  eS     49 25.40
RES    64.59  14 eP       41 12.00   0.2
     1.0s      6.00nm          4.6mb
APA    64.69 336 eP       41 11.50  -1.0
                  eS     50 02.00
MAIO   64.71 298 iPc      41 15.00   1.8
                  eS     50 04.00
ASH    64.82 300 eP       41 14.50   0.7
     1.5s    140.00nm          5.8mb
ARMA   65.69 170 eP       41 20.00   0.6
     1.0s     14.00nm          5.0mb
KAT    65.74 302 eP       41 21.00   1.3
     Z  14s      1.60um          5.4MszX
     N  14s      1.20um
     E  14s      1.20um
                  e      41 55.00 141kmX
                  eS     50 07.00
                  ePS    50 19.00
                  e      51 05.00
CMS    66.19 176 eP       41 22.00  -0.4
SDF    67.00 338 iP       41 26.70  -0.6
DAG    67.88 355 iPd      41 32.00  -0.7
     1.1s     29.11nm          5.3mb
GMW    68.60  46 eP       41 37.80   0.1
MOS    69.03 324 iPc      41 40.00  -0.1
     1.8s    210.00nm          5.9mb
     Z  16s      3.00um          5.6MszX
                  e      41 48.00  26kmX
                  e      44 10.00
RMW    69.23  46 eP       41 41.81   0.2
BWA    69.29 174 eP       41 42.30   0.4
```

```
                ipP    41 53.00   35km
OBN    69.86 324 iPc   41 45.00   -0.2
       1.5s    112.00nm          5.7mb
     Z  16s     2.50um           5.6MszX
     N  16s     0.70um
     E  16s     2.40um
                ipP    41 55.00   32km
                e      42 04.00
                e      44 18.30
                eS     50 56.00
                ePS    51 36.00
                ePPS   51 44.00
                (SS)   55 20.00
PUL    70.07 330 ePd   41 46.50    0.1
       1.5s     60.00nm          5.4mb
                e      41 57.00   34km
CAN    70.23 174 eP    41 47.30   -0.3
                ipP    41 59.00   39km
KAF    70.24 333 iP    41 46.80   -0.6
       0.7s     10.60nm          5.0mb
GRO    70.84 310 eP    41 51.50    0.1
       2.0s    120.00nm          5.6mb
     Z  14s     5.50um           6.0MszX
     N  14s     5.00um
     E  14s     3.50um
                eS     51 06.00
DPW    71.13  44 eP    41 52.75   -0.4
NEW    71.54  44 eP    41 55.04   -0.5
       1.1s     25.02nm          5.1mb
                e      41 59.56
                epP    42 05.97   36km
NUR    71.87 332 iP    41 56.50   -0.7
       0.9s     19.30nm          5.1mb
PYA    72.13 311 eP    42 01.00    1.9
       1.3s     70.00nm          5.5mb
                i      42 18.00   62kmX
WDC    72.22  53 P     42 10.00   10.3X
     Z  18s     0.49um           4.8Msz
MTA    72.24 309 eP    41 59.00   -0.8
     N  20s     1.50um
     E  20s     1.00um
                e      42 09.00   32km
LBFM   72.24  52 eP    41 58.78   -1.3
GRS    72.37 306 eP    41 59.00   -1.8
       1.5s     90.00nm          5.5mb
                e      51 21.00
KIV    72.40 312 P     42 01.60    0.8
       1.8s    211.00nm          5.8mb
     Z  16s     1.60um           5.4MszX
                e      42 10.20   28km
                S      51 17.60
ORV    73.43  53 eP    42 06.34   -0.5
SES    73.68  40 eP    42 07.00   -1.1
KER    74.51 301 eP    42 17.00    3.6X
MNK    74.84 326 eP    42 12.00   -2.6
     Z  16s     1.56um           5.4MszX
UPP    74.90 334 iP    42 14.60   -0.3
                i      42 26.40   39km
FCC    75.81  26 eP    42 23.00    2.9X
HFS    76.06 336 eP    42 20.90   -0.6
       1.2s     34.30nm          5.2mb
     Z  17s   1287.00um          8.3MszX
                LR     16 26.00
BONR   76.40  53 eP    42 23.44   -0.8
NAO    76.46 338 P     42 23.50   -0.3
       1.0s     22.50nm          5.1mb
TNP    77.04  53 eP    42 27.76    0.1
       1.2s     16.70nm          4.9mb
ISA    77.56  55 P     42 40.00    9.6X
     Z  18s     0.34um           4.7Msz
HVU    77.71  47 eP    42 32.06    0.8
KIS    78.55 320 eP    42 34.00   -1.5
     Z  15s     4.70um           5.9MszX
     N  16s     2.80um
     E  16s     3.10um
                e      45 29.00
                e      53 04.00
DUG    78.62  49 eP    42 36.93    0.7
       0.9s      6.63nm          4.6mb
                epP    42 48.09   36km
GSC    78.88  55 eP    42 38.02    0.3
                epP    42 49.16   36km
ARUT   79.65  51 eP    42 41.90    0.0
MSU    80.02  50 eP    42 44.23    0.3
                i      42 53.50   29km
EMUT   80.08  48 eP    42 45.04    0.8
VRI    80.42 320 eP    42 47.00    1.3
```

```
SRU    80.68  49 eP    42 47.24   -0.2
UZH    80.80 324 eP    42 48.00    0.4
       1.5s     33.00nm          5.1mb
     Z  15s     2.40um           5.7MszX
     E  15s     3.00um
                eS     53 03.00
OJC    80.86 326 eP    42 49.00    1.1
                e      43 01.30   41km
MLR    81.08 320 eP    42 50.00    0.7
ULM    81.17  33 eP    42 52.00    2.5
RSSD   81.30  42 P     43 00.00    9.4X
     Z  18s     0.34um           4.7Msz
SPC    81.39 325 eP    42 52.60    1.7
GLA    81.52  56 eP    42 52.13    0.4
KSP    81.96 328 eP    42 53.50   -0.1
                i      43 06.40   43km
PV10   82.05  48 eP    42 55.73    1.1
PV08   82.17  48 eP    42 55.97    0.6
PSZ    82.45 325 ePc   42 57.40    1.1
HRI    82.92 306 eP    43 00.20    1.1
BRG    82.93 330 eP    42 59.00    0.4
       1.4s     36.00nm          5.3mb
                i      43 10.80   39km
VRAC   82.96 327 iPc   42 59.80    1.0
       2.1s    202.10nm          5.8mb
CLL    82.99 330 iPc   42 58.90    0.0
       1.8s     47.00nm          5.3mb
                i      43 11.00   40km
SRO    83.27 325 eP    43 01.60    1.2
PRU    83.35 329 eP    43 01.50    0.7
     Z  17s     1.60um           5.5MszX
     N  15s     1.50um
     E  16s     1.70um
                e      43 13.90   41km
                e      45 56.00
GOL    83.42  46 P     43 10.00    8.3X
     Z  18s     0.50um           4.9Msz
CSS    83.47 308 eP    43 03.00    1.3
GLD    83.47  46 P     43 10.00    8.1X
     Z  18s     1.50um           5.4Msz
ZST    83.55 326 e(P)  43 04.00    2.2
UZD    84.02 324 eP    43 04.30    0.0
MOX    84.06 331 eP    43 04.90    0.5
       1.8s     33.00nm          5.2mb
                e      43 17.10   40km
DSI    84.19 305 eP    43 06.70    1.3
HOF    84.21 330 eP    43 06.20    1.0
KHC    84.41 329 iPc   43 07.50    1.3
       1.0s     10.50nm          4.9mb
     Z  18s     1.80um           5.5Msz
     N  16s     1.80um
     E  18s     1.00um
                e      43 19.60   40km
                e      43 42.00
                e      46 15.50
                e      46 35.50
                S      53 38.00
GEC2   84.57 328 eP    43 07.50    0.4
       0.8s      3.83nm          4.6mb
                e      43 11.60   13kmX
                e      43 21.00
                e      43 27.70
                e      43 30.90
                e      43 34.20
GEC2   84.57 328 e(P)  43 21.00   13.9X
       0.9s      7.60nm
GRF    84.96 330 iPc   43 10.10    1.2
       1.2s     23.00nm          5.2mb
     Z  18s     0.80um           5.2Msz
                e      43 22.50   41km
MBH    85.63 303 eP    43 13.30    0.5
VAY    85.72 319 iP    43 14.40    1.5
ALQ    85.83  50 eP    43 14.28    0.4
       1.0s     10.20nm          5.0mb
     Z  18s     0.54um           5.0Msz
SKO    85.87 320 eP    43 15.00    1.4
     Z  16s     3.13um           5.8MszX
                LR     26 30.00
FUR    86.13 329 eP    43 14.80    0.0
     Z  15s     2.00um           5.6MszX
VBY    86.39 325 ePc   43 16.50    0.4
CEY    86.60 326 e(P)  43 17.00   -0.2
OHR    86.82 319 eP    43 09.70   -8.7X
TRI    86.93 326 eP    43 30.20   11.5X
SNF    86.95 334 Pc    43 31.30   12.6X
WLF    86.97 333 P     43 20.00    1.2
                e      43 31.00   35km
```

```
CDF    87.55 332 eP    43 21.80    0.0
       0.9s     10.50nm          5.1mb
BSF    88.22 331 eP    43 24.60   -0.5
LOR    89.81 333 eP    43 32.40   -0.1
       1.1s     12.20nm          5.1mb
     Z  20s      0.65um          5.1Msz
LBF    90.00 333 eP    43 33.20   -0.3
FLN    90.08 336 eP    43 33.80    0.1
     Z  22s      1.00um          5.2Msz
LDF    90.11 336 eP    43 33.90    0.1
SSF    90.11 333 eP    43 34.10    0.2
       1.1s     13.65nm          5.2mb
LPL    90.12 330 eP    43 34.20   -0.1
LPG    90.13 330 eP    43 34.40    0.0
       0.9s      6.70nm          4.9mb
SMF    90.33 332 eP    43 35.00    0.0
       1.4s     34.00nm          5.5mb
AVF    90.40 333 eP    43 35.30    0.1
       1.3s     26.35nm          5.4mb
GRR    90.53 336 eP    43 35.90    0.1
       1.4s     39.65nm          5.6mb
WMOK   90.64  46 P     43 50.00   13.4X
     Z  18s      0.46um          5.0Msz
MEO    90.72  46 iPd   43 37.10    0.1
MAF    91.17 333 eP    43 39.50    0.7
       1.6s     36.70nm          5.5mb
TCF    91.25 333 eP    43 39.50    0.3
LSF    91.53 334 eP    43 40.60    0.1
       0.8s     13.15nm          5.4mb
FRF    91.75 329 eP    43 40.90   -0.6
       1.1s     14.90nm          5.3mb
MFF    91.83 335 eP    43 42.20    0.4
       1.1s     19.05nm          5.4mb
LRG    91.95 329 eP    43 42.20   -0.2
       1.1s     19.05nm          5.4mb
LMR    91.99 329 eP    43 42.10   -0.5
       1.0s     18.20nm          5.5mb
RJF    92.34 333 eP    43 44.50    0.3
       1.1s     21.75nm          5.5mb
     Z  23s      0.60um          5.0MszX
CAF    92.45 333 eP    43 45.50    0.7
       1.4s     28.75nm          5.5mb
LFF    92.94 333 eP    43 47.60    0.7
       1.0s     16.20nm          5.4mb
LPO    92.99 333 eP    43 47.90    0.7
       1.5s     29.25nm          5.5mb
MIAR   93.76  43 eP    43 51.21    0.3
       0.8s      7.24nm          5.2mb
     Z  20s      0.41um          4.9Msz
                epP    44 01.95   34km
CBM    94.24  20 P     44 00.00    7.1X
     Z  18s      0.77um          5.2Msz
RSNY   94.36  25 P     44 00.00    6.5X
     Z  21s      0.33um          4.8Msz
HRV    97.17  24 P     44 20.00   13.6X
     Z  19s      0.44um          5.0Msz
CEH    99.97  33 P     44 30.00   10.8X
     Z  18s      0.39um          5.0Msz
ZOBO  147.58  63 PKP   50 20.20    3.3X
       1.0s     25.00nm
     Z  20s      0.19um          4.9Msz
                LR     31 26.00
LPB   147.76  63 PKP   50 27.00   10.1X
CNCB  148.02  63 PKP   50 22.30    4.8X
CCH   149.73  62 ePKP  50 29.00    9.2X
YJA   153.11  69 e(PKP)50 28.80    3.9X
     S.D. = 1.0  on 172 of 210 obs.
-----------------------------------
?  JAN  29, 1993  19h 44m 51.42± 0.93s
   38.947 N ± 8.2km   29.668 E ± 8.6km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                            (366)
      MD 2.9 (ISK).

ALT     0.36  72 iPg   44 58.60   -0.3
                iSg    45 04.60
KHL     0.63 190 iPg   45 04.30    0.1
                iSg    45 14.80
DST     1.04 310 ePn   45 10.80   -0.3
GPA     1.43  20 ePg   46 06.60   49.2X
                eSg    46 10.50
EYL     1.66  13 ePn   45 21.30    0.5
     S.D. = 0.7  on   4 of   5 obs.
-----------------------------------
   JAN  29, 1993  21h 30m 04.39± 0.59s
   33.384 N ± 6.3km   34.401 E ± 8.5km
   DEPTH =  10.0km  (geophysicist)
```

29d 21h

EASTERN MEDITERRANEAN SEA (371)
ML 2.4 (CSS).

BHL	1.17	63	Pg	30 26.00	-0.2
			Sg	30 42.00	
SALJ	1.75	141	P	30 35.13	0.2
CSS	1.81	331	eP	30 36.00	0.2
			eS	30 59.00	
KFNJ	1.86	144	P	30 36.93	0.4
MASJ	1.99	146	P	30 38.76	0.2
PPCY	2.27	312	eP	30 42.40	-0.1
			eS	31 10.00	
JRDJ	2.86	158	P	30 51.14	0.2
SHWJ	3.13	162	P	30 54.05	-0.9
JRSJ	3.19	167	P	30 36.96	-18.6X

S.D. = 0.5 on 8 of 9 obs.

JAN 29, 1993 21h 51m 22.49± 0.90s
40.516 N ± 6.8km 24.286 E ± 7.7km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)

OUR	0.29	232	ePg	51 29.24	0.6
			eSg	51 33.96	
PAIG	0.75	218	ePg	51 37.12	0.0
			eSg	51 47.56	
SOH	0.77	294	iPg	51 37.60	0.0
			eSg	51 47.76	
SRS	0.80	319	iPg	51 37.32	-0.7
			eSg	51 48.76	
THE	1.01	277	ePg	51 41.50	-0.1
			eSg	51 56.28	
MMB	1.15	339	iPg	51 43.00	-1.1
RZN	1.21	15	iP	51 44.00	-1.2
KNT	1.24	302	ePb	51 45.16	-0.3
			eSb	52 01.52	
KDZ	1.42	37	iP	51 47.00	-1.3
LIT	1.43	254	ePb	51 48.36	-0.2
GRG	1.50	288	ePb	51 49.76	0.3
			eSb	52 11.40	
VAY	1.53	302	iPn	51 52.00	2.2
PLD	1.62	11	iP	51 52.00	0.9
DIM	1.80	31	iPg	51 56.00	2.3
AGG	2.12	226	ePn	51 57.28	-1.2
			eSn	52 24.64	
JMB	2.60	41	iP	52 09.00	3.7X

S.D. = 1.2 on 15 of 16 obs.

& JAN 29, 1993 23h 54m 32.04s
37.645 N 118.903 W
DEPTH = 7.7km
CALIFORNIA-NEVADA BORDER REGION (40)
<GM-P>. MD 3.0 (GM). ML 3.1
(BRK).

MEMM	0.04	307	iPd	54 33.75	0.0
MRCM	0.32	85	iPc	54 38.36	-0.2
MTUM	0.40	137	ePc	54 39.68	-0.5
BONR	0.57	57	ePc	54 43.05	-0.5
FRI	0.92	225	iPc	54 49.03	-0.7
			eS	55 00.77	
CMB	1.24	289	iPc	54 54.51	-0.8
			eS	55 10.93	
TNP	1.40	71	ePc	54 58.42	0.3
KVN	1.54	24	eP	55 01.00	1.0
PKEM	1.85	212	eP	55 04.88	0.5
LLA	1.93	238	iPc	55 06.36	0.9
			eS	55 32.27	
ISA	2.01	170	ePn	55 07.19	0.5
			iPg	55 08.40	
			eS	55 32.28	
PRI	2.06	224	iPd	55 08.86	1.3
ARN	2.11	263	eP	55 08.74	0.5
			eS	55 33.53	
PHAM	2.17	214	eP	55 07.71	-1.3
MHC	2.20	263	eP	55 10.94	1.4
			eS	55 40.16	
SAO	2.21	247	ePc	55 10.43	0.8
			eS	55 39.31	
COE	2.24	261	eP	55 10.58	0.6
			eS	55 41.04	
ORV	2.79	314	ePn	55 16.94	-0.9
			eS	55 54.35	
ORV	2.79	314	eP	55 19.97	2.1
GSC	2.89	143	(P)	55 19.73	0.4
ARUT	4.33	86	(Pn)	55 39.38	-0.6
			ePg	55 58.73	

21 obs. associated

---

* JAN 30, 1993 00h 18m 09.52± 0.91s
49.202 N ± 7.5km 6.877 E ± 8.6km
DEPTH = 10.0km (geophysicist)
GERMANY (543)
MD 2.3 (UCC).

RUP	0.51	13	ePg	18 20.04	0.1
WLF	0.66	315	iPd	18 22.67	0.0
			iS	18 32.13	
ABH	0.81	32	ePg	18 25.13	-0.1
FEL	1.53	150	ePg	18 37.00	0.0
DOU	1.73	302	P	18 39.80	0.0
			i	18 42.30	
			S	19 02.80	

S.D. = 0.1 on 5 of 5 obs.

? JAN 30, 1993 00h 43m 44.50± 1.72s
44.217 N ±29.1km 148.765 E ±23.6km
DEPTH = 33.0km (normal)
4.6mb (3 obs.)
KURIL ISLANDS (221)

KUSJ	3.15	251	P	44 32.70	-0.2
			eS	45 02.60	
HOOJ	4.40	247	eP	44 52.70	2.0
			eS	45 37.40	
ASAJ	4.41	271	eP	44 52.30	1.5
MRRJ	5.89	255	eP	45 13.40	1.7
			eS	46 14.70	
OFUJ	7.39	228	P	45 32.30	-0.4
			eS	46 48.30	
GUN	52.15	274	P	52 53.12	-1.2
KKN	52.65	274	P	52 56.58	-1.4
PKI	52.68	274	P	52 56.52	-1.8
DMN	52.88	274	P	52 58.40	-1.3
GKN	52.99	275	P	52 58.60	-1.8
	0.4s		10.00nm		5.1mb
YKA	54.76	34	eP	53 15.10	2.4
	0.6s		1.00nm		4.0mb
SMF	84.36	337	eP	56 14.50	0.1
	1.0s		4.60nm		4.6mb
LPL	84.51	334	eP	56 15.80	0.4

S.D. = 1.6 on 13 of 13 obs.

---

* JAN 30, 1993 01h 03m 58.09± 1.33s
50.556 N ±15.7km 18.970 E ± 6.9km
DEPTH = 10.0km (geophysicist)
POLAND (548)
ML 3.5 (WAR).

OJC	0.63	122	iPg	04 10.60	-0.1
			iSg	04 19.10	
RAC	0.69	227	ePg	04 11.00	-0.7
			eSg	04 18.00	
SPC	1.60	148	ePn	04 26.70	0.1
			i(Sg)	04 47.20	
			Lg	04 48.50	
KSP	1.73	281	ePn	04 28.40	0.1
	0.7s		105.00nm		
			iPg	04 32.40	
			iS	04 54.20	
VRAC	1.98	232	ePn	04 33.20	1.3
	0.7s		45.00nm		
			eSg	04 56.80	
ZST	2.66	208	iP	05 10.50	28.8X
			i	05 26.50	
			i	05 45.00	
SRO	2.78	189	eP	04 48.30	4.9X
			i	05 32.00	
VKA	2.87	218	eP	04 49.00	4.2X
			iSg	05 24.90	
PRU	2.90	260	ePn	04 45.00	-0.1
	0.6s		14.50nm		
			ePg	04 52.50	
			eSg	05 28.00	
			eSg	17 43.00	
			e	17 47.00	
BRG	3.21	278	ePg	05 01.00	11.5X
			iSg	05 42.00	
KHC	3.77	250	Pn	04 57.00	-0.5
			Pg	05 10.50	
			e	05 38.00	
			eSg	05 54.60	
			e	06 10.50	
			e	17 20.00	
			Sg	18 09.00	
GEC2	3.82	245	Pg	04 58.30	-0.1
			Sg	05 55.40	
CLL	3.85	284	(Pg)	05 14.00	15.4X
			eSg	06 04.00	

S.D. = 0.7 on 8 of 13 obs.

---

* JAN 30, 1993 01h 38m 38.29± 1.57s
16.281 N ± 7.5km 61.165 W ±16.6km
DEPTH = 33.0km (normal)
LEEWARD ISLANDS (92)
ML 3.3 (FDF). MD 2.8 (TRN).

SFG	0.04	228	iPd	38 43.00	-0.8
SEG	0.35	290	ePc	38 46.43	-0.2
MGG	0.39	202	iPd	38 47.06	-0.2
DOG	0.50	240	ePd	38 48.64	-0.3
PAG	0.55	243	eP	38 49.28	-0.5
BPA	1.01	319	eP	38 55.99	-0.2
DPMT	1.04	192	eP	38 57.22	0.7
			eS	39 11.63	
MGH	1.10	294	eP	38 57.86	0.4
NEV	1.59	302	eP	39 04.92	0.4
			eS	39 25.30	

S.D. = 0.6 on 9 of 9 obs.

? JAN 30, 1993 02h 46m 02.23± 8.95s
16.842 N ±24.5km 60.306 W ±65.4km
DEPTH = 10.0km (geophysicist)
LEEWARD ISLANDS (92)
ML 3.3 (FDF).

SFG	1.04	236	eP	46 21.60	-0.2
SEG	1.23	249	eP	46 25.20	0.1
MGG	1.34	227	eP	46 26.90	0.0
PAG	1.55	239	ePc	46 29.97	0.1
MGH	1.83	266	eP	46 34.00	0.0

S.D. = 0.2 on 5 of 5 obs.

? JAN 30, 1993 02h 52m 09.06± 5.34s
43.635 N ±50.8km 0.868 W ± 9.9km
DEPTH = 5.0km (geophysicist)
PYRENEES (378)
mbLg 2.7 (MDD). ML 2.5 (LDG).

ELIZ	0.67	226	iPgd	52 21.70	-0.8
			eSg	52 28.00	
EPF	1.07	124	Pg	52 29.00	-0.7
			Sg	52 46.20	
EGRA	1.50	164	ePn	52 37.50	1.0
			eSn	52 55.00	
ECRI	1.58	230	ePn	52 38.40	0.5
			eSn	52 56.30	
LFF	1.74	41	Pg	52 51.20	11.1X
			Sg	53 18.60	
LPO	1.81	54	Pg	52 51.80	10.6X
			Sg	53 19.00	
RJF	2.39	45	Pn	52 53.80	4.3X
			Pg	53 02.50	
			Sn	53 24.60	
			Sg	53 37.00	
CAF	2.47	57	Pg	53 03.50	12.8X
			Sg	53 37.30	

S.D. = 1.5 on 4 of 8 obs.

& JAN 30, 1993 03h 15m 31.86s
62.589 N 151.197 W
DEPTH = 82.7km
3.0mb (2 obs.)
CENTRAL ALASKA (1)
<AEIC>.

SKT	0.63	194	iP	15 47.11	-0.2
			iS	15 58.71	
HUR	0.82	61	iP	15 49.06	-0.2
			eS	16 01.82	
TRF	0.96	25	eP	15 50.81	-0.2
			eS	16 05.51	
PWA	1.13	146	P	15 53.00	0.1
SUA	1.15	169	eP	15 52.76	-0.5
GHO	1.34	127	eP	15 55.90	0.2
			S	16 14.21	
RND	1.35	51	iP	15 55.33	-0.5
			eS	16 12.84	
PLRM	1.40	135	eP	15 56.02	-0.2
PMR	1.39	135	eP	15 55.64	-0.6
			S	16 14.94	

```
CRP      1.40 199 eP     15 55.45  -1.1
                 eS     16 16.03
CP2      1.42 201 ePd    15 56.09  -0.7
                 i      15 57.00
                 eS     16 16.66
BGL      1.45 204 eP     15 57.16   0.1
CKN      1.45 199 eP     15 57.48   0.4
SPU      1.47 196 eP     15 56.79  -0.5
CKT      1.47 199 eP     15 57.35  -0.1
CKL      1.50 202 eP     15 57.51  -0.3
MCK      1.54  41 eP     15 58.04  -0.2
                 S      16 17.19
SML      1.55 119 iP     15 58.26  -0.2
PMS      1.56 149 P      15 58.00  -0.5
KNK      1.75 131 eP     16 00.51  -0.5
NKA      1.85 181 eP     16 04.43   2.1
SCM      1.97 111 iP     16 03.33  -0.7
                 eS     16 29.80
PTE      2.02 148 eP     16 03.46  -1.1
                 S      16 29.13
DFR      2.13 200 eP     16 05.97  -0.2
SLKM     2.14 167 eP     16 05.04  -1.3
NCT      2.20 203 eP     16 07.42   0.3
NEA      2.21  24 eP     16 05.72  -1.5
REF      2.23 200 eP     16 07.81   0.2
TTA      2.24 281 P      16 06.80  -0.9
MPA      2.28 157 eP     16 06.96  -1.3
TOA      2.39  99 P      16 09.50  -0.3
CCB      2.56  35 eP     16 10.74  -1.3
SVW      2.57 237 (P)    16 12.27   0.0
GLI      2.60 129 eP     16 10.86  -1.7
SDG      2.62  89 eP     16 13.40   0.5
HDA      2.64  44 eP     16 12.00  -1.1
PAX      2.66  79 eP     16 13.44  -0.1
KLU      2.72 112 eP     16 12.48  -1.8
VLZ      2.73 120 eP     16 12.03  -2.3
FBA      2.77  32 eP     16 13.52  -1.4
KNIM     2.80 142 eP     16 12.37  -2.9
FID      2.91 127 eP     16 14.88  -2.0
LTI      3.02 146 eP     16 15.81  -2.6
HIN      3.15 132 eP     16 17.94  -2.2
DOT      3.41  69 eP     16 22.81  -1.0
AUI      3.44 199 eP     16 23.83  -0.4
!MA      3.66 344 eP     16 25.69  -1.6
GLB      3.67 105 eP     16 25.35  -2.1
RAGM     3.83 122 eP     16 28.08  -1.6
CROM     4.26 112 eP     16 33.84  -2.0
BALM     4.48 106 eP     16 36.16  -2.7
CTGM     4.96 105 eP     16 43.16  -2.4
YKA     16.74  74 eP     19 21.20  -0.8
        0.6s     0.10nm          2.2mb
RES     22.66  35 eP     20 26.00  -0.2
        0.5s     2.00nm          3.8mb
        54 obs. associated
-----------------------------------------
&  JAN  30, 1993  03h 27m 30.16s
   60.288 N          152.544 W
   DEPTH = 101.1km
   2.8mb (  1 obs.)
 SOUTHERN ALASKA                    (  2)
      <AEIC>.

RS1      0.20 328 iP     27 44.31   1.0
RSO      0.20 329 iP     27 44.26   0.9
RS2      0.21 329 eP     27 44.15   0.8
REF      0.22 339 eP     27 44.25   0.9
                 iS     27 55.54
RDN      0.25 334 eP     27 44.23   0.8
                 eS     27 55.85
DFR      0.31 347 iP     27 44.42  -0.9
NCT      0.33 325 eP     27 44.44  -1.0
                 eS     27 56.48
INE      0.35 229 eP     27 44.70  -0.8
                 S      27 56.03
INW      0.37 233 eP     27 44.71  -0.9
                 eS     27 56.90
OPT      0.72 209 iP     27 47.51  -0.7
                 eS     28 01.03
NKA      0.79  54 iP     27 49.77   1.0
CKL      0.92   6 iP     27 49.28  -0.9
SPU      0.93  15 iP     27 49.28  -1.0
                 eS     28 05.10
CKT      0.93  10 iP     27 49.30  -1.0
                 S      28 05.36
XLV      0.93 153 eP     27 49.29  -0.9
CKN      0.96  11 iP     27 49.73  -0.8
PDB      0.97 239 iP     27 49.47  -1.1
BGL      0.98   4 iPc    27 49.88  -1.0
BRLK     0.98 122 eP     27 49.94  -0.9
                 eS     28 05.35
CP2      0.99   8 iPc    27 50.07  -1.0
CRP      1.00  11 iPc    27 49.76  -1.4
                 eS     28 05.76
AUL      1.01 207 eP     27 50.08  -1.0
AUE      1.02 205 eP     27 50.04  -1.1
AUH      1.03 206 eP     27 50.45  -0.9
AUW      1.03 207 iP     27 50.47  -0.8
AUI      1.06 205 eP     27 50.41  -1.1
                 eS     28 06.45
SLKM     1.17  78 eP     27 51.83  -1.1
MCNL     1.43 220 eP     27 54.53  -1.5
SUA      1.47  36 eP     27 55.86  -0.8
                 eS     28 16.23
SEW      1.56  95 eP     27 55.91  -1.6
MPA      1.59  81 eP     27 56.95  -1.0
SVW      1.72 300 P      27 58.00  -1.7
PMS      1.75  55 P      27 59.00  -1.1
SKT      1.77  16 eP     27 59.15  -1.1
                 eS     28 22.32
PTE      1.83  70 eP     27 59.24  -1.8
PWA      1.89  42 P      28 01.70  -0.1
PLRM     2.12  50 eP     28 03.10  -1.7
PMR      2.12  50 eP     28 02.00  -2.8
                 eS     28 28.75
KNK      2.30  59 eP     28 04.97  -2.3
GHO      2.31  48 eP     28 05.33  -2.1
LTI      2.36  94 eP     28 05.27  -2.7
KNIM     2.39  86 eP     28 06.11  -2.4
MTU      2.47  95 eP     28 06.93  -2.5
KDC      2.55 179 eP     28 07.11  -3.4
                 eS     28 37.33
SML      2.55  52 eP     28 08.36  -2.3
GLI      2.75  75 eP     28 11.06  -2.3
HIN      3.01  85 eP     28 14.97  -1.8
FID      3.03  79 eP     28 14.11  -3.1
VLZ      3.17  72 eP     28 17.19  -1.7
TRF      3.35  18 eP     28 19.27  -2.4
KLU      3.46  67 eP     28 19.97  -3.0
TOA      3.58  57 P      28 23.00  -1.7
BALM     5.07  77 (P)    28 42.58  -2.7
                 eS     29 37.88
FBA      5.12  23 (P)    28 43.06  -2.8
                 eS     29 38.20
YKA     18.13  67 eP     31 32.90  -3.4
        0.9s     0.60nm          2.8mb
        55 obs. associated
-----------------------------------------
%  JAN  30, 1993  03h 33m 44.42± 1.26s
   39.954 N ±11.8km   23.313 E ± 6.7km
   DEPTH =  10.0km  (geophysicist)
 AEGEAN SEA                         (365)

PAIG     0.28  95 ePg    33 50.48   0.1
                 eSg    33 54.92
OUR      0.64  53 ePg    33 57.04  -0.2
                 eSg    34 05.40
LIT      0.65 283 ePg    33 57.32  -0.1
SOH      0.87   2 ePg    34 00.92  -0.2
                 eSg    34 13.20
KNT      1.25 345 ePb    34 07.96   0.4
                 eSb    34 25.88
      S.D. = 0.3  on   5 of   5 obs.
-----------------------------------------
?  JAN  30, 1993  03h 43m 35.88± 8.93s
   38.760 N ±74.5km   22.937 E ±16.3km
   DEPTH =  10.0km  (geophysicist)
 GREECE                             (364)

AGG      0.54 299 ePg    43 46.80   0.0
                 eSg    43 56.56
PAIG     1.30  26 ePb    43 59.60  -0.3
                 eSb    44 17.52
LIT      1.38 346 ePb    44 01.60   0.4
                 eSb    44 22.16
OUR      1.77  27 ePb    44 06.90   0.2
SOH      2.08   9 iPn    44 11.28   0.0
                 eSn    44 41.44
SRS      2.41  12 iPn    44 15.80  -0.1
      S.D. = 0.3  on   6 of   6 obs.
-----------------------------------------
?  JAN  30, 1993  03h 49m 39.96± 4.83s
   37.939 N ±81.8km   14.101 E ±24.8km
   DEPTH =  10.0km  (geophysicist)
 SICILY                             (398)
GIB      0.08 310 P      49 42.40  -0.1
                 eSg    49 44.50
MNO      0.47  91 P      49 49.20  -0.4
                 eSg    49 58.10
ATN      1.10  78 P      50 00.50  -0.1
SOI      1.55  84 P      50 08.10   0.5
                 eSg    50 27.00
      S.D. = 0.6  on   4 of   4 obs.
-----------------------------------------
   JAN  30, 1993  04h 20m 18.78± 0.97s
   31.823 S ± 8.2km   67.595 W ± 7.2km
   DEPTH =  20.6 ± 15.1 km
 SAN JUAN PROVINCE, ARGENTINA       (137)

CFA      0.59 291 iPc    20 30.10  -0.3
RTCV     0.80 267 iPd    20 34.10   0.1
RTLL     0.89 303 iPc    20 35.50   0.0
RTCB     1.08 288 iPd    20 39.00   0.2
MDZ      1.50 225 iP     20 50.80   6.1X
                 iS     21 08.60
MRA      1.70 111 ePd    20 48.00   0.4
RTPR     1.78  32 ePd    20 48.90   0.2
TCA      2.61  80 iP     21 00.00  -0.7
RFA      3.03 194 ePc    21 06.30  -0.3
                 i      21 14.30
                 (S)    21 54.00
      S.D. = 0.5  on   8 of   9 obs.
-----------------------------------------
&  JAN  30, 1993  04h 42m 53.34s
   34.040 N          97.100 W
   DEPTH =   5.0km  (geophysicist)
 OKLAHOMA                           (499)
      <TUL>. mbLg 2.0 (TUL).

WMOK     1.55 297 eP     43 20.00  -1.7
                 eS     43 41.40
VVO      1.71  41 Pn     43 24.18   0.2
LNO      2.16  30 ePn    43 29.68  -0.6
                 Lg     43 59.22
RLO      2.72  38 Pn     43 37.35  -1.1
         4 obs. associated
-----------------------------------------
?  JAN  30, 1993  06h 02m 24.36±10.69s
   32.155 S ±74.0km   71.821 W ±50.4km
   DEPTH =  50.0km  (geophysicist)
 NEAR COAST OF CENTRAL CHILE        (135)
      MD 4.0 (SAN).

ROCH     1.06 140 iPd    02 43.18  -0.2
                 iS     02 54.65
JACH     1.16 117 iP+    02 44.78   0.1
                 iS     02 57.95
LCCH     1.33 171 iP+    02 47.26   0.3
                 iS     03 01.83
PEL      1.37 136 iPd    02 47.61   0.0
                 iS     03 02.89
SAN      1.62 143 iP+    02 50.89  -0.1
FCH      1.74 133 iPd    02 52.81  -0.2
                 iS     03 12.31
LNV      1.83 169 iP+    02 53.33  -0.5
CACH     2.21 153 eP     02 59.95   0.5
                 iS     03 23.82
      S.D. = 0.4  on   8 of   8 obs.
-----------------------------------------
?  JAN  30, 1993  07h 40m 33.06± 5.05s
   32.524 S ±26.8km   71.910 W ±36.0km
   DEPTH =  33.0km  (normal)
 NEAR COAST OF CENTRAL CHILE        (135)
      MD 3.7 (SAN).

ROCH     0.88 121 iPd    40 48.40  -0.9
                 iS     40 58.16
LCCH     0.99 163 iPd    40 50.02  -0.6
                 iS     41 00.86
JACH     1.12  98 iPd    40 52.46  -0.2
                 iS     41 05.33
PEL      1.20 121 iP+    40 53.52  -0.2
                 iS     41 07.31
SAN      1.40 132 iPd    40 56.31  -0.2
LNV      1.49 164 iP     40 57.28  -0.4
                 iS     41 14.61
FCH      1.58 121 iP+    40 59.28  -0.1
                 iS     41 17.72
CACH     1.93 146 eP     41 06.50   2.2
                 iS     41 28.18
MDZ      2.60  99 e(P)   41 16.90   3.1X
TCA      6.33  81 e(P)   42 07.00   0.4
```

30d 07h

S.D. = 1.0 on 9 of 10 obs.

JAN 30, 1993 08h 46m 44.81± 0.71s
26.665 S ± 7.5km 26.623 E ± 6.7km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
mbLg 3.5 (BUL). ML 3.4 (PRE).

BFS	0.27	148	iPc	46 51.00	0.6
PRY	0.80	109	iPc	46 58.90	-2.1
			S	47 06.20	
KSR	0.83	17	iPd	47 05.50	4.0X
			S	47 17.20	
SWZ	1.27	246	eP	47 13.00	4.1X
			S	47 31.30	
BPI	1.35	69	eP	47 12.00	1.6
SEK	1.88	152	iPd	47 17.90	-0.1
			S	47 39.00	
BLF	2.46	189	iPd	47 26.90	0.4
			S	47 55.00	
BFT	3.22	73	eP	47 37.90	0.6
			S	48 13.50	
FRS	3.28	200	iPd	47 39.00	1.1
			S	48 14.50	
POF	6.49	244	eP	48 25.00	1.7
			S	49 43.00	
BUL	6.74	16	iPn	48 26.00	-1.1
			iSn	49 38.00	
			iSg	50 14.00	
CER	9.21	222	e(P)	49 00.20	-1.2
			S	50 44.00	
WIN	9.58	293	eP	49 06.70	0.1
			S	50 51.00	
BLE	9.97	222	e(P)	49 10.00	-1.8
			S	51 07.00	

S.D. = 1.4 on 12 of 14 obs.

& JAN 30, 1993 09h 03m 22.75s
65.761 N 151.322 W
DEPTH = 10.0km (geophysicist)
NORTHERN ALASKA (676)
<AEIC>. ML 2.9 (AEIC).

IMA	1.02	289	eP	03 41.56	-0.5
			eS	03 54.06	
NEA	1.52	140	eP	03 49.85	-0.1
			eS	04 11.42	
MDM	1.53	120	eP	03 49.79	-0.3
FBA	1.71	119	ePn	03 52.10	-0.7
GLM	1.82	113	eP	03 53.98	-0.4
CCB	1.86	125	eP	03 54.25	-0.6
MCK	2.28	152	eP	04 00.90	-0.1
HDA	2.30	124	eP	04 00.24	-1.0
TRF	2.36	169	eP	04 01.71	-0.6
FYU	2.60	69	eP	04 05.32	-0.2
TTA	3.50	218	eP	04 15.10	-3.2
SML	4.18	160	eP	04 27.38	-0.7
PMS	4.60	169	P	04 35.20	1.2
SPU	4.61	184	eP	04 33.53	-0.6

14 obs. associated

• JAN 30, 1993 09h 26m 00.87± 1.13s
37.786 N ±16.8km 112.581 W ± 7.1km
DEPTH = 5.0km (geophysicist)
UTAH (478)
MD 2.5 (GS).

ARUT	0.68	270	iPc	26 14.51	0.0
			eS	26 24.70	
MSU	0.79	24	ePd	26 16.93	0.0
SRU	2.09	50	ePn	26 37.06	-0.1
			S	27 04.95	
PV09	2.81	74	ePn	26 47.06	-0.5
			S	27 23.09	
PV10	2.86	77	ePn	26 47.47	-0.7
			ePg	26 49.56	
			eS	27 24.14	
PV08	3.20	75	ePn	26 54.48	1.4
			eS	27 34.51	

S.D. = 1.0 on 6 of 6 obs.

% JAN 30, 1993 09h 59m 10.51± 1.02s
31.651 S ±18.2km 67.823 W ± 6.6km
DEPTH = 10.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)

CFA	0.36	277	ePc	59 18.10	0.2
			S	59 22.80	
RTLL	0.64	300	eP	59 23.00	-0.3
			S	59 31.70	
RTCV	0.64	251	iPd	59 23.20	-0.2
			(S)	59 33.00	
RTCB	0.85	281	eP	59 27.30	0.3
			(S)	59 35.00	
TCA	2.78	84	e(P)	59 56.00	0.0
			(S)	00 28.50	

S.D. = 0.4 on 5 of 5 obs.

& JAN 30, 1993 10h 14m 18.69s
37.645 N 118.902 W
DEPTH = 8.0km
CALIFORNIA-NEVADA BORDER REGION (40)
<GM-P>. MD 3.4 (GM). ML 3.6
(GS), 3.4 (BRK).

MEMM	0.04	306	iPd	14 20.37	0.0
MMPM	0.11	251	iPd	14 21.29	-0.2
MRCM	0.32	85	iPc	14 25.01	-0.2
MTUM	0.40	137	ePc	14 26.39	-0.4
BONR	0.57	57	iPc	14 29.75	-0.4
FRI	0.92	225	iPc	14 35.65	-0.7
			eS	14 47.41	
CMB	1.24	289	iPc	14 41.23	-0.7
			eS	14 57.33	
TNP	1.40	71	iPc	14 45.09	0.3
KVN	1.54	24	ePn	14 47.34	0.7
			(S)	15 08.53	
LLA	1.93	238	iPc	14 53.03	0.9
			eS	15 18.96	
ISA	2.01	170	eP	14 54.98	1.7
			eS	15 19.41	
PRI	2.06	224	iPd	14 55.54	1.4
			eS	15 24.16	
ARN	2.11	263	eP	14 55.27	0.4
			eS	15 23.92	
PHAM	2.17	214	P	14 56.21	0.6
MHC	2.20	263	ePc	14 57.36	1.2
			eS	15 26.54	
SAO	2.21	247	ePc	14 57.11	0.9
			eS	15 25.34	
COE	2.24	261	eP	14 57.64	1.0
			eS	15 28.57	
HMR	2.35	283	(Pn)	14 58.93	0.8
PRS	2.37	237	iPc	14 59.38	0.9
			eS	15 32.39	
BKS	2.65	276	ePc	15 03.21	0.7
			eS	15 36.73	
ZSP	2.67	277	iPd	15 04.09	1.3
PCC	2.77	268	iPd	15 04.67	0.5
ORV	2.79	314	eP	15 08.49	4.0
GSC	2.89	144	ePn	15 07.26	1.4
NTYM	3.06	285	(P)	15 09.92	1.7
			eS	15 52.41	
LMEM	3.56	325	ePg	15 26.64	11.2
PEC	4.00	159	ePn	15 21.90	0.2
			eS	16 22.98	
ARUT	4.33	86	ePn	15 27.23	0.7
			ePg	15 40.94	
			eS	16 36.52	
PLM	4.59	158	eP	15 31.56	1.3
			eS	16 42.92	
MSU	5.38	79	ePn	15 42.89	1.5
DUG	5.39	60	ePn	15 43.79	2.3
			ePg	16 02.47	
HVU	6.27	47	(Pn)	15 56.84	2.9
			ePg	16 16.38	
EMUT	6.68	69	ePg	16 23.89	24.1

33 obs. associated

? JAN 30, 1993 10h 20m 48.08± 4.48s
46.651 N ±12.4km 4.568 E ±29.9km
DEPTH = 10.0km (geophysicist)
FRANCE (538)

SMF	0.50	270	Pg	20 58.50	0.3
			Sg	21 07.40	
LBF	0.53	310	Pg	20 59.20	0.5
			Sg	21 08.80	
LOR	0.79	322	Pg	21 03.00	-0.4
			Sg	21 15.70	
SSF	0.84	300	Pg	21 04.20	0.0
			Sg	21 17.90	
AVF	0.85	280	Pg	21 04.40	0.0
			Sg	21 18.80	
BGF	1.19	266	Pb	21 09.30	-1.0
			Sg	21 29.00	
MAF	1.45	253	Pg	21 14.90	0.6
			Sg	21 35.80	

S.D. = 0.7 on 7 of 7 obs.

& JAN 30, 1993 10h 53m 53.11s
60.145 N 153.381 W
DEPTH = 161.9km
3.0mb (1 obs.)
SOUTHERN ALASKA (2)
<AEIC>.

INW	0.15	122	eP	54 13.87	0.3
			eS	54 30.67	
INE	0.18	118	eP	54 14.53	0.9
			eS	54 31.58	
RS1	0.44	44	eP	54 15.21	0.7
RS2	0.45	44	eP	54 14.79	0.3
RSO	0.45	44	eP	54 15.09	0.6
NCT	0.47	28	eP	54 15.33	-0.8
REF	0.48	44	eP	54 15.41	-0.8
OPT	0.50	171	eP	54 15.52	-0.6
PDB	0.54	229	iP	54 15.16	-1.1
			eS	54 31.96	
DFR	0.57	37	eP	54 15.39	-1.1
AUL	0.77	182	eP	54 17.04	-0.5
AUW	0.78	183	eP	54 17.25	-0.4
AUH	0.78	182	eP	54 16.68	-1.1
AUE	0.79	180	eP	54 17.01	-0.7
AUI	0.81	182	eP	54 16.96	-0.9
			S	54 35.64	
MCNL	1.08	207	iP	54 18.99	-1.0
CKL	1.17	26	eP	54 20.19	-0.7
CKT	1.21	28	eP	54 20.28	-0.9
NKA	1.22	60	eP	54 21.74	0.6
BGL	1.22	23	eP	54 20.87	-0.5
CDD	1.23	186	eP	54 20.39	-0.9
SPU	1.23	32	eP	54 20.28	-1.1
			eS	54 41.78	
CKN	1.23	28	eP	54 20.80	-0.6
CP2	1.26	26	eP	54 21.23	-0.5
CRP	1.28	28	eP	54 21.51	-0.4
BRLK	1.31	106	eP	54 21.94	-0.2
			eS	54 42.32	
SVW	1.47	312	eP	54 22.05	-1.6
SLKM	1.61	76	eP	54 24.04	-1.1
SUA	1.85	43	eP	54 26.74	-1.0
SEW	1.97	90	eP	54 28.10	-0.8
MPA	2.03	78	eP	54 28.27	-1.4
SKT	2.05	25	eP	54 29.40	-0.5
PMS	2.18	58	iP	54 29.98	-1.5
PTE	2.27	70	eP	54 30.54	-1.9
KDC	2.45	169	eP	54 32.02	-2.6
PLRM	2.54	53	eP	54 33.22	-2.4
GHO	2.72	51	eP	54 35.63	-2.4
KNK	2.73	60	eP	54 36.18	-1.9
LTI	2.77	90	eP	54 37.80	-0.8
KNIM	2.82	83	eP	54 37.68	-1.5
MTU	2.88	91	eP	54 39.32	-0.6
SML	2.97	54	eP	54 38.78	-2.4
GLI	3.20	74	eP	54 41.73	-2.2
SCM	3.40	58	eP	54 44.47	-2.2
HIN	3.44	83	eP	54 45.32	-1.7
VLZ	3.61	71	eP	54 47.57	-1.6
TRF	3.63	23	eP	54 48.40	-1.3
CVA	3.81	81	eP	54 50.36	-1.5
KLU	3.90	66	eP	54 51.06	-2.0
TOA	4.01	58	eP	54 53.13	-1.4
YKA	18.57	66	eP	57 57.70	-2.0

0.7s 0.50nm 3.0mb
51 obs. associated

• JAN 30, 1993 10h 54m 18.26± 1.04s
15.415 N ±20.8km 95.197 W ± 8.5km
DEPTH = 33.0km (normal)
4.6mb (11 obs.)
NEAR COAST OF OAXACA, MEXICO (66)

SCX	2.79	62	eP	55 01.50	-0.1
			iS	55 36.00	
IISM	4.12	330	(P)	55 43.00	22.6X
ACX	4.71	289	(P)	55 24.00	-4.8X
			(S)	56 07.50	
PPM	4.89	318	iP	55 32.50	0.6
UNM	5.45	316	(P)	55 46.00	6.5X
			iS	56 41.50	

```
MRX      7.13 308 (P)    56 02.50  -0.5
YKA     48.98 348 eP     03 03.00  -0.3
         0.7s     0.40nm          3.6mb X
RFA     56.00 153 eP     04 04.30   8.2X
LPF     81.44  43 eP     06 33.00  -0.4
         0.6s     3.05nm          4.5mb
GRR     81.47  42 eP     06 33.30  -0.3
         0.7s    10.35nm          5.0mb
FLN     81.63  42 eP     06 34.30  -0.1
         0.4s     5.25nm          4.9mb
LDF     81.90  42 eP     06 35.70  -0.2
         0.7s     8.05nm          4.9mb
LSF     83.58  44 eP     06 44.70   0.1
TCF     84.03  44 eP     06 46.50  -0.4
         0.6s     2.00nm          4.5mb
MAF     84.28  44 eP     06 47.90  -0.3
         0.7s     2.55nm          4.5mb
BGF     84.37  43 eP     06 49.00   0.4
         0.5s     3.20nm          4.8mb
AVF     84.64  43 eP     06 49.50  -0.4
         0.9s     4.60nm          4.7mb
SSF     84.66  43 eP     06 50.50   0.5
         0.8s     4.05nm          4.7mb
LOR     84.83  42 eP     06 51.00   0.1
LBF     84.99  43 eP     06 51.40  -0.4
SMF     85.01  43 eP     06 52.00   0.2
         0.8s     2.70nm          4.5mb
BSF     86.55  41 eP     06 59.80   0.3
CDF     86.66  41 eP     07 01.40   1.3
         0.5s     1.60nm          4.5mb
NNT    148.49 331 ePKP   14 23.60  23.2X
      S.D. = 0.5  on  19 of  24 obs.
-----------------------------------
?  JAN  30, 1993  11h 03m 19.03± 4.87s
   31.771 S ±18.4km   68.274 W ±29.1km
   DEPTH = 110.1 ± 47.0 km
 SAN JUAN PROVINCE, ARGENTINA     (137)

CFA      0.17  10 iPc    03 34.90   0.0
                S      03 46.00
RTCV     0.24 248 iPd    03 35.00  -0.1
RTLL     0.47 339 iPc    03 36.00   0.0
                S      03 42.20
RTCB     0.53 302 iPd    03 36.50   0.0
                (S)    03 43.00
RTPR     2.11  46 eP     03 53.80   0.0
                S      04 20.00
MRA      2.27 107 ePc    03 56.00   0.0
                S      04 21.60
      S.D. = 0.1  on   6 of   6 obs.
-----------------------------------
?  JAN  30, 1993  11h 05m 29.21± 0.59s
   55.340 S ±84.4km  118.709 W ±34.0km
   DEPTH =  10.0km  (geophysicist)
   4.8mb (  2 obs.)  5.3Msz (  1 obs.)
 SOUTHERN EAST PACIFIC RISE       (684)

TCA     44.66  81 eP     13 43.10  -0.6
CNCB    54.39  66 eP     14 59.00  -0.1
LPB     54.56  65 eP     15 03.00   2.9X
     Z  22s      2.96um          5.3Msz
                LR     31 13.00
ZOBO    54.75  65 P      14 58.00  -3.8X
         1.2s    14.19nm          4.9mb
                S      22 48.00
                LR     31 12.00
SIV     58.75  72 P      15 30.00   0.4
WB2     83.01 245 iPc    17 55.30  -0.6
         0.9s     6.50nm          4.8mb
                ipP    18 10.90  55kmX
AVF    143.58  79 ePKP   25 01.60  -3.2X
SMF    143.77  79 ePKP   25 02.60  -2.6X
PGF    144.21  89 ePKP   25 05.10  -1.1
         1.2s    24.70nm
LPG    144.74  83 ePKP   25 06.40  -0.9
         1.7s    51.45nm
LPL    144.74  83 ePKP   25 06.20  -1.0
         1.4s    21.80nm
LZH    145.30 254 ePKP   25 06.00  -2.3
     Z  30s      0.36um          5.0MszX
                pPKP   25 13.50
                sPKP   25 17.00
                PP     26 51.00
YAK    145.36 309 ePKP   25 08.00   0.6
         2.0s    60.00nm
BSF    146.10  80 ePKP   25 09.20   0.0
CDF    146.69  79 ePKP   25 10.70   0.6
PKI    147.22 222 PKP    25 11.04  -0.9
GUN    147.34 223 PKP    25 14.24   2.1
DMN    147.37 222 PKP    25 11.80  -0.3
         1.0s    34.00nm
KKN    147.47 222 PKP    25 12.44   0.3
GKN    147.90 221 PKP    25 14.48   1.7
MOX    150.26  78 ePKP   25 23.80   8.3X
GEC2   150.54  83 ePKP   25 18.40   2.3
         0.8s     0.99nm
                e      25 21.50
                e      25 25.70
                e      25 30.30
                e      25 37.10
KHC    150.62  82 ePKP   25 27.40  11.2X
                e      25 50.50
CLL    151.35  78 ePKP   25 24.00   6.9X
PRU    151.59  81 ePKP   25 27.40   9.9X
                e      25 50.50
      S.D. = 1.3  on  17 of  25 obs.
-----------------------------------
%  JAN  30, 1993  11h 27m 04.04± 0.91s
   33.928 S ± 8.5km   71.289 W ± 7.9km
   DEPTH =  33.0km  (normal)
 NEAR COAST OF CENTRAL CHILE      (135)
      MD 3.9 (SAN).

LNV      0.11 255 iP+    27 10.12   0.3
LCCH     0.51 332 iP+    27 14.33  -0.4
CACH     0.60 108 iPd    27 16.02  -0.2
                iS     27 26.08
SAN      0.71  48 iPd    27 17.66   0.1
                iS     27 28.67
PEL      0.93  33 iP     27 21.04   0.2
                iS     27 36.30
ROCH     0.98  14 iPd    27 21.95   0.2
                iS     27 36.89
FCH      1.03  55 iP+    27 22.22  -0.2
                iS     27 37.19
JACH     1.37  25 iP     27 27.19   0.0
                iS     27 47.15
      S.D. = 0.3  on   8 of   8 obs.
-----------------------------------
?  JAN  30, 1993  11h 31m 17.47± 0.95s
   39.106 N ± 8.0km   27.563 E ± 9.7km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                           (366)
      MD 2.6 (ISK).

IZM      0.75 198 iPg    31 32.00  -0.1
                iSg    31 43.50
DST      0.96  59 ePn    31 36.10   0.3
EZN      1.20 307 ePn    31 40.00   0.2
EDC      1.26  10 ePn    31 40.50  -0.4
      S.D. = 0.5  on   4 of   4 obs.
-----------------------------------
•  JAN  30, 1993  11h 44m 02.93± 1.26s
   51.148 N ±13.9km   15.738 E ± 6.2km
   DEPTH =  10.0km  (geophysicist)
 POLAND                           (548)
      ML 3.6 (VIE).

KSP      0.47 131 iPc    44 10.80  -1.6
         0.2s   142.00nm
                i      44 14.00
                iS     44 20.70
BRG      1.16 257 iPg    44 24.80   0.1
                iSg    44 43.80
PRU      1.39 214 Pn     44 29.00   0.7
         0.9s    49.30nm
                Pg     44 31.30
                Sn     44 47.70
                eSg    44 54.50
PRU      1.39 214 Pn     44 43.50  15.2X
                ePg    44 54.90
                Sn     45 18.50
                eSg    45 29.50
CLL      1.73 276 iPg    44 32.80  -0.3
                iSg    44 58.40
VRAC     1.92 163 ePn    44 35.90  -0.1
         0.2s     5.00nm
                eSg    45 08.60
KHC      2.45 215 Pn     44 43.50  -0.1
                ePg    44 54.90
                Sn     45 18.50
                eSg    45 29.50
HOF      2.59 253 ePn    44 44.60  -1.0
GEC2     2.65 210 Pn     44 47.50   0.9
                Pg     44 55.30
                Sg     45 37.00
MOX      2.66 261 ePg    44 52.60   6.0X
                iSg    45 30.30
OJC      2.74 108 iP     44 49.20   1.4
                iS     45 24.00
VKA      2.91 172 ePg    44 57.00   6.9X
                eSg    45 41.00
ZST      3.09 163 e(P)   45 45.00  52.5X
GRF      3.24 245 e(Pn)  44 54.80   0.1
                e(Pg)  45 09.20
                eSg    46 50.70
SPC      3.50 122 eP     45 35.30  36.7X
      S.D. = 1.0  on  10 of  15 obs.
-----------------------------------
&  JAN  30, 1993  12h 18m 03.19s
   35.808 N          117.581 W
   DEPTH =   3.2km
 CENTRAL CALIFORNIA                (39)
      <PAS-P>. ML 3.0 (PAS), 2.7 (GS).

ISA      0.74 259 iPc    18 17.15  -0.8
GSC      0.81 128 iPd    18 18.50  -0.9
                S      18 29.19
MTUM     1.73 333 eP     18 34.59   0.1
                eS     18 58.78
PEC      1.94 170 eP     18 36.34  -1.1
MRCM     2.00 338 ePn    18 38.87   0.4
MMPM     2.14 328 ePg    18 42.83   2.2
MEMM     2.15 330 ePn    18 42.25   1.9
                ePg    18 43.81
BONR     2.22 345 ePn    18 41.71   0.0
                ePg    18 45.11
TNP      2.29   7 ePn    18 42.29  -0.3
                iPg    18 45.47
PHAM     2.29 272 ePn    18 43.27   0.8
PLM      2.52 166 ePn    18 44.71  -1.2
GLA      3.57 140 (P)    19 08.63   8.0
MSU      5.09  56 ePg    19 38.91  16.4
      13 obs. associated
-----------------------------------
   JAN  30, 1993  12h 27m 33.69± 0.73s
   51.575 N ± 6.8km   16.099 E ± 5.2km
   DEPTH =  10.0km  (geophysicist)
   3.5mb (  1 obs.)
 POLAND                           (548)
      ML 3.7 (GRF), 3.6 (VIE).

KSP      0.74 170 iPd    27 47.90  -0.3
         0.5s   136.00nm
                iS     27 56.70
BRG      1.52 243 iPg    28 01.60   0.6
                iSg    28 21.40
PRU      1.87 213 Pn     28 06.00   0.0
         0.5s    43.70nm
                Pg     28 07.80
                e      28 09.60
                Sn     28 24.60
                Sg     28 32.10
                e      28 38.50
CLL      1.96 263 iPn    28 06.90  -0.3
                iPg    28 10.00
                iSg    28 35.10
VRAC     2.29 172 ePn    28 12.70   0.6
         0.2s     5.70nm
                eSg    28 45.40
OJC      2.71 119 eP     28 18.30   0.3
                iS     29 01.80
KHC      2.93 214 iPn    28 21.00  -0.2
                Pg     28 30.00
                Sg     29 04.60
                e      29 07.50
HOF      2.95 246 iPnc   28 21.30  -0.2
MOX      2.97 254 ePn    28 22.50   0.7
                iPg    28 29.80
                iSg    29 08.80
GEC2     3.14 210 Pn     28 23.80  -0.3
                Pg     28 30.30
                Sg     29 14.10
WET      3.19 222 iPnc   28 24.90   0.1
VKA      3.32 177 iPgc   28 35.50   8.8X
                iSg    29 19.40
ZST      3.44 169 iPd    29 24.00  55.6X
GRF      3.63 241 iPnc   28 31.20   0.1
                e      28 45.50
                eSg    29 29.70
SRO      4.03 158 eP     29 13.40  36.7X
```

30d 12h

```
                    e      29 38.60
KBA      4.85 203 iPnc  28 48.00  -0.6
   -  0.8s     21.50nm
                    i      28 56.60
                    i      29 59.50
                    i      30 08.50
                    i      30 15.60
HFS      8.69 352 eP    29 47.90   5.7X
       0.4s     1.40nm          4.6mb X
YKA     59.80 336 eP    37 40.40  -0.4
       0.9s     0.40nm          3.5mb
     S.D. = 0.5  on  14 of  18 obs.
-----------------------------------------
?  JAN  30, 1993  13h 09m 00.31± 3.61s
   30.273 N ±35.6km  131.734 E ±13.8km
   DEPTH =  93.1 ± 17.2 km
   4.1mb (  1 obs.)
 KYUSHU, JAPAN                      (235)

KAGJ     1.17 322 iP+   09 22.30  -0.1
                  S     09 34.90
KUMJ     2.38 341 eP    09 38.70   0.4
                  S     10 02.80
SHNJ     3.88 352 P     09 58.60  -0.2
                  eS    10 37.10
TKSJ     4.19  27 P     10 03.20   0.1
                  eS    10 43.70
YONJ     5.11  16 eP    10 15.70  -0.2
                  eS    11 05.40
WKYJ     5.12  39 P     10 16.10   0.1
BJI     16.01 312 eP    12 51.50  10.4X
       1.0s    11.00nm
NUR     71.93 330 eP    20 15.00   0.0
       1.1s    21.60nm          4.9mb X
NAO     77.32 334 P     20 54.60   8.8X
       0.7s     1.90nm          4.1mb
     S.D. = 0.3  on   7 of   9 obs.
-----------------------------------------
?  JAN  30, 1993  13h 21m 46.73± 1.04s
   39.018 N ± 9.4km   27.753 E ±11.7km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                             (366)
      MD 2.7 (ISK).

IZM      0.73 212 ePg   22 01.00  -0.1
                  eSg   22 13.00
DST      0.90  49 ePn   22 04.10   0.1
EDC      1.33   4 ePn   22 11.00  -0.3
EZN      1.37 307 iPn   22 12.00   0.2
     S.D. = 0.4  on   4 of   4 obs.
-----------------------------------------
%  JAN  30, 1993  13h 45m 58.12± 0.64s
   45.924 N ± 5.1km    2.760 E ± 5.6km
   DEPTH =  10.0km  (geophysicist)
 FRANCE                             (538)

MAF      0.33 336 Pg    46 04.30  -0.6
                  Sg    46 08.80
TCF      0.53 314 Pg    46 09.00   0.2
                  Sg    46 15.20
BGF      0.64   5 Pg    46 11.10   0.2
                  Sg    46 18.50
LSF      0.92 291 Pg    46 15.60  -0.1
                  Sg    46 27.80
AVF      0.96  25 Pg    46 16.80   0.4
                  Sg    46 28.70
SMF      1.04  46 Pg    46 17.10  -0.7
                  Sg    46 31.20
RJF      1.07 235 Pg    46 18.50   0.2
                  Sg    46 31.50
CAF      1.11 206 Pg    46 18.80  -0.2
                  Sg    46 33.00
SSF      1.25  24 Pg    46 21.10  -0.2
                  Sg    46 36.70
LOR      1.54  29 Pg    46 26.40   0.7
                  Sg    46 45.90
     S.D. = 0.5  on  10 of  10 obs.
-----------------------------------------
%  JAN  30, 1993  14h 24m 10.47± 0.96s
   26.711 S ±10.3km   26.632 E ± 8.2km
   DEPTH =   5.0km  (geophysicist)
 REPUBLIC OF SOUTH AFRICA           (584)
      ML 3.1 (PRE).

PRY      0.78 106 eP    24 25.00  -1.3
                  S     24 33.50
KSR      0.88  16 eP    24 33.00   5.1X
                  S     24 46.00
SEK      1.83 151 iPd   24 43.00   0.0
                  S     25 03.00
BLF      2.42 189 iPd   24 51.60   0.1
                  S     25 18.50
BFT      3.23  72 eP    25 04.30   1.3
                  S     25 44.00
FRS      3.24 201 iPd   25 03.50   0.6
                  S     25 39.60
CER      9.18 222 e(P)  26 23.90  -2.7X
                  S     28 19.00
WIN      9.60 293 e(P)  26 32.00  -0.6
     S.D. = 1.1  on   6 of   8 obs.
-----------------------------------------
&  JAN  30, 1993  15h 43m 21.11s
   40.296 N          124.520 W
   DEPTH =  19.2km
 NEAR COAST OF NORTHERN CALIF.      ( 35)
      <GM-P>. MD 2.9 (GM).

KMPM     0.33  68 iPc   43 28.42   0.1
                  eS    43 33.05
FHC      0.65  39 eP    43 32.61  -1.0
LGPM     1.43  64 eP    43 44.22  -2.0
                  eLg   44 01.90
WDC      1.54  79 eP    43 45.95  -1.7
ARN      3.75 141 eP    44 17.33  -2.0
       5 obs. associated
-----------------------------------------
%  JAN  30, 1993  16h 41m 12.91± 0.87s
   37.038 N ± 9.4km    2.650 W ± 5.5km
   DEPTH =  10.0km  (geophysicist)
 SPAIN                              (377)
      mbLg 2.8 (MDD).

ENIJ     0.36 100 iPgd  41 20.19  -0.2
                  eSg   41 25.60
EGUA     0.76 255 iPgc  41 27.46  -0.3
                  eSg   41 36.50
ECOG     0.77 288 iPgc  41 27.25  -0.8
                  eSg   41 36.80
EHUE     0.78   3 ePg   41 26.78  -1.3
                  eSg   41 38.70
EALH     1.28  50 ePn   41 36.83   0.2
                  eSn   41 54.00
ELUO     1.39 293 ePn   41 39.53   1.1
                  eSn   41 57.20
EBAN     1.44 322 ePn   41 39.28   0.2
                  eSn   41 57.70
EVIA     1.60   4 ePn   41 42.31   0.9
                  eSn   42 03.00
     S.D. = 1.0  on   8 of   8 obs.
-----------------------------------------
&  JAN  30, 1993  18h 03m 45.10s
   56.351 N          120.685 W
   DEPTH =   5.0km  (geophysicist)
 BRITISH COLUMBIA, CANADA           ( 23)
      <PGC-P>. ML 3.7 (PGC). Felt in
      the Fort St. John area.

BDBC     0.91 259 Pg    04 02.00  -1.0
FSB      2.80 229 Pn    04 29.50  -1.9
                  Pg    04 36.20
                  Sg    05 11.20
MUB      3.77 316 Pn    04 44.10  -1.2
                  Sn    05 27.00
                  Sg    05 42.70
MNB      4.37 161 Pn    04 53.00  -0.9
                  Sn    05 44.00
                  Sg    06 00.50
SLEB     5.41 163 Pn    05 07.10  -1.5
                  Sg    06 34.00
YKA      6.89  24 eP    05 27.70  -1.5
       0.3s     0.60nm          4.2mb X
SES      8.29 132 P     05 46.00  -2.9
       0.4s     5.20nm          5.2mb X
       7 obs. associated
-----------------------------------------
   JAN  30, 1993  18h 18m 10.13± 0.43s
   35.142 N ± 5.9km   33.953 E ± 5.5km
   DEPTH =  59.1 ±  7.8 km
   3.7mb (  1 obs.)
 CYPRUS REGION                      (372)
      MD 4.1 (CSS).

FAM      0.15 164 eP    18 19.40   0.1
                  eS    18 26.40
CSS      0.54 251 ePd   18 22.40  -0.2
                  eS    18 31.10
PPCY     1.34 259 eP    18 33.00   0.0
                  eS    18 50.10
BHL      1.87 131 Pg    18 36.00  -4.4X
SHMJ     2.84 147 P     19 24.51  30.5X
GAZ      3.33  52 iPn   19 01.00   0.2
SALJ     3.44 155 P     19 01.63  -0.9
KFNJ     3.57 156 P     19 04.18  -0.1
ELL      3.65 297 ePn   19 08.00   2.5X
MASJ     3.71 156 P     19 06.90   0.6
ARTJ     3.75 139 P     19 06.98   0.0
MKRJ     3.85 158 P     19 01.71  -6.5X
LISJ     4.10 161 P     19 10.61  -1.0
SHBJ     4.30 130 P     19 14.10  -0.4
DHLJ     4.48 164 P     19 10.97  -6.0X
JRDJ     4.63 161 P     19 20.73   1.4
SHWJ     4.92 164 P     19 23.83   0.3
JRSJ     4.99 167 P     19 43.41  19.2X
YER      5.00 295 iPn   19 24.70   0.2
CIN      5.33 299 eP    19 29.00   0.0
GEC2    20.26 319 eP    22 42.60  -0.6
       0.6s     0.45nm          3.0mb X
                  e     22 46.80
                  e     22 57.60
YKA     79.46 346 eP    30 11.60   0.4
       0.5s     0.50nm          3.7mb
     S.D. = 0.7  on  16 of  22 obs.
-----------------------------------------
?  JAN  30, 1993  19h 01m 30.08± 2.63s
   37.986 S ±23.4km  175.562 E ±24.1km
   DEPTH = 197.2 ± 26.7 km
 NORTH ISLAND, NEW ZEALAND          (159)

WHH      1.16 141 P     02 01.20   0.1
URZ      1.25 103 eP    02 01.10  -0.6
                  eS    02 20.70
PAHZ     1.46 127 P     02 03.50   0.0
MOH      1.69 133 P     02 05.80   0.2
WAHZ     1.82 160 P     02 07.20   0.3
TTH      1.84 148 P     02 07.30   0.2
NOZ      2.05 109 P     02 09.00  -0.2
MAHZ     2.18 124 eP    02 10.30  -0.3
HBZ      2.20  81 eP    02 11.30   0.4
MNG      2.63 181 P     02 15.60  -0.1
                  S     02 45.60
KHZ      4.69 199 P     02 40.90  -0.1
     S.D. = 0.3  on  11 of  11 obs.
-----------------------------------------
&  JAN  30, 1993  21h 25m 12.68s
   37.633 N          122.473 W
   DEPTH =   7.2km
 CENTRAL CALIFORNIA                 ( 39)
      <GM-P>. MD 2.2 (GM).

COE      0.74 120 eP    25 27.17  -0.2
                  eS    25 38.88
HMR      0.74  45 ePc   25 27.98   0.5
NTYM     0.77 349 eP    25 27.67  -0.2
                  eS    25 37.36
ARN      0.80 110 eP    25 27.87  -0.6
                  eS    25 38.61
       4 obs. associated
-----------------------------------------
   JAN  30, 1993  21h 36m 50.71± 0.86s
   40.758 N ± 7.5km   23.141 E ± 5.7km
   DEPTH =  10.0km  (geophysicist)
 GREECE                             (364)

SOH      0.17  69 iPg    36 54.94   0.3
                  eSg   36 58.62
THE      0.18 227 ePg   36 54.74  -0.1
                  iSg   36 57.34
KNT      0.44 336 iPg   36 59.65  -0.1
                  eSg   37 05.54
SRS      0.50  43 iPg   37 00.42  -0.3
                  iSg   37 07.90
GRG      0.60 290 ePg   37 02.66  -0.1
                  eSg   37 11.42
VAY      0.71 323 ePn   37 05.00   0.3
     S.D. = 0.3  on   6 of   6 obs.
-----------------------------------------
   JAN  30, 1993  23h 42m 10.78± 0.59s
   20.950 S ± 6.3km   67.272 W ±11.7km
   DEPTH = 224.1 ±  9.8 km
   3.9mb (  1 obs.)
 SOUTHERN BOLIVIA                   (125)
```

```
YJA      2.05 127 iPd    42 52.20  -0.2
HJA      2.84 143 e(P)   43 01.50   1.2
CCH      3.71  17 Pc     43 09.50  -1.3
ANT      4.00 226 iP+    43 13.30  -0.6
                  iS     43 59.20
SLA      4.10 157 ePd    43 16.20   0.8
CNCB     4.17 351 iPd    43 17.10   0.4
                  S      44 06.00
LPB      4.46 350 P      43 21.00   0.9
                  S      44 12.70
ZOBO     4.71 350 iPd    43 23.00  -0.4
                  S      44 17.00
TCA     10.62 167 eP     44 37.50  -1.1
BAO     19.05  77 P      46 18.00  -0.5
                  e      46 35.70
YKA     91.19 340 eP     54 51.70   0.8
        0.6s      0.90nm          3.9mb
      S.D. = 1.0  on  11 of  11 obs.
-----------------------------------------
?  JAN  31, 1993  00h 26m 45.90± 1.35s
   14.333 S ±65.1km   73.485 W ±36.1km
   DEPTH =  99.8 ± 19.2 km
   4.1mb (  2 obs.)
 CENTRAL PERU                        (116)

NNA      4.02 305 eP     27 46.20  -0.2
        0.4s     59.32nm
                  e      27 48.50
                  eS     28 38.00
ZOBO     5.52 111 P      28 07.60  -0.2
LPB      5.64 114 P      28 10.00   0.8
CNCB     5.85 116 P      28 12.00  -0.2
CCH      7.69 114 P      28 37.00  -0.3
SIV     12.10  99 P      29 36.40   0.2
KIC     71.20  78 P      37 55.60  -0.9
        0.5s      5.00nm          4.6mb
YKA     83.04 342 eP     39 01.90   0.8
        0.7s      0.60nm          3.6mb
      S.D. = 0.8  on   8 of   8 obs.
-----------------------------------------
   JAN  31, 1993  00h 51m 40.56± 0.61s
   28.612 S ± 4.8km   69.790 W ± 9.4km
   DEPTH =  97.8 ±  8.8 km
   4.5mb (  2 obs.)
 CHILE-ARGENTINA BORDER REGION       (127)
      MD 4.5 (SAN).

RTLL     2.94 157 ePc    52 27.50   1.2
RTCB     2.99 164 ePd    52 28.70   1.7
CFA      3.27 156 e(P)   52 31.90   1.1
RTPR     3.32 121 ePc    52 31.20  -0.2
RTCV     3.41 162 iP     52 34.20   1.4
JACH     4.12 189 iP+    52 43.22   0.8
                  iS     53 31.78
MDZ      4.33 169 iP     52 47.20   1.8
                  i(S)   53 19.90
ROCH     4.47 193 iP     52 46.56  -0.9
                  iS     53 38.86
PEL      4.58 189 iP     52 48.96   0.1
                  iS     53 39.99
FCH      4.72 185 iPd    52 52.10   1.1
SAN      4.88 189 eP     52 52.62  -0.4
ANT      4.92 353 eP     52 53.00  -0.4
LCCH     5.08 197 iP     52 53.94  -1.8
MRA      5.17 138 ePd    52 55.70  -1.2
TCA      5.27 122 iPd    52 56.10  -2.3
                  (S)    53 48.00
LNV      5.50 194 eP     52 59.91  -1.6
RFA      6.24 170 ePd    53 09.80  -2.0
                  S      54 16.20
HJA      6.67  37 ePd    53 18.90   1.3
YJA      7.49  32 ePc    53 29.00  -0.4
CNCB    11.86   8 P      54 32.10   3.8X
LPB     12.12   8 P      54 32.00   0.4
ZOBO    12.36   7 eP     54 34.00  -0.9
SIV     14.92  34 eP     55 08.00   0.4
BAO     23.92  62 eP     56 46.00  -0.6
                  e      56 47.50
KIC     71.57  72 P      02 52.50  -0.8
BCAO    90.63  85 ePd    04 34.00   0.3
        0.2s      4.00nm          5.3mb
                  ec     05 05.90
YKA     97.60 341 eP     05 05.10   0.7
        0.6s      0.20nm          3.8mb
WRA    126.39 209 PKP    10 34.80   0.7
        0.4s      2.40nm
GBA    146.11 109 PKP    11 11.00   0.7
HYB    148.90 104 ePKP   11 19.00   4.2X
      S.D. = 1.2  on  28 of  30 obs.
-----------------------------------------
%  JAN  31, 1993  00h 58m 54.96± 8.86s
   29.496 S ±60.2km   71.470 W ±57.1km
   DEPTH = 201.2 ± 37.4 km
 NEAR COAST OF CENTRAL CHILE         (135)

RTCB     3.04 131 eP     59 45.70   0.0
RTLL     3.17 126 eP     59 47.00  -0.2
CFA      3.49 128 e(P)   59 51.10   0.0
PEL      3.70 170 eP     59 54.00   0.4
RTPR     4.38 102 ePc    00 01.70  -0.4
MRA      5.74 122 ePc    00 20.10   0.6
RFA      5.84 155 e(P)   00 20.30  -0.7
TCA      6.22 109 iP     00 26.00   0.1
                  (S)    01 33.00
      S.D. = 0.5  on   8 of   8 obs.
-----------------------------------------
&  JAN  31, 1993  01h 43m 42.01s
   62.463 N          149.215 W
   DEPTH =  64.3km
 CENTRAL ALASKA                      (  1)
      <AEIC>. ML 3.5 (AEIC), 3.4
      (PMR).

CUT      0.49 264 P      43 52.90  -1.5
                  S      44 03.40
HUR      0.55 340 iPd    43 54.28  -0.8
                  eS     44 03.96
GHO      0.71 169 iPc    43 56.19  -0.7
                  eS     44 07.53
SML      0.78 147 iPc    43 56.82  -0.9
                  eS     44 09.33
PWA      0.87 201 eP     43 58.70  -0.1
PLRM     0.88 177 iPc    43 57.78  -1.1
                  eS     44 11.26
PMR      0.87 177 iPd    43 57.45  -1.4
                  eS     44 10.54
RND      0.96  10 iPd    43 59.22  -0.9
                  eS     44 12.35
SCM      1.09 125 iPc    44 00.94  -0.8
                  eS     44 15.93
TRF      1.11 334 iPd    44 01.17  -0.9
KNK      1.11 161 iPc    44 01.40  -0.6
                  eS     44 16.37
SKT      1.19 247 iPc    44 01.85  -1.2
                  eS     44 18.11
PMS      1.23 188 iPd    44 03.30  -0.3
SUA      1.24 216 iPd    44 02.97  -0.8
MCK      1.28   6 iPd    44 03.65  -0.6
TOA      1.47 103 iPc    44 07.60   0.8
PTE      1.61 177 ePc    44 07.52  -1.1
SDG      1.71  86 ePc    44 10.00  -0.1
PAX      1.80  72 iPc    44 11.27  -0.2
                  eS     44 34.33
TZL      1.82 102 iPc    44 11.83   0.2
KLU      1.84 121 iPc    44 10.71  -1.2
                  eS     44 34.06
CRP      1.84 231 ePn    44 10.32  -1.7
THY      1.85  57 eP     44 12.71   0.6
SPU      1.86 228 iPd    44 10.78  -1.5
CP2      1.87 231 ePn    44 10.81  -1.8
CKN      1.88 230 eP     44 11.59  -0.9
GLI      1.88 147 iPc    44 11.10  -1.4
                  eS     44 34.44
VZW      1.89 137 eP     44 11.14  -1.6
CKT      1.90 230 eP     44 11.60  -1.3
VLZ      1.91 133 iPc    44 11.24  -1.6
                  eS     44 36.08
BGL      1.93 233 ePn    44 11.67  -1.6
CKL      1.95 231 eP     44 12.11  -1.5
NKA      1.98 210 eP     44 14.34   0.5
MPA      1.98 182 eP     44 12.92  -0.9
SLKM     2.02 194 eP     44 12.80  -1.7
NEA      2.12   2 iPd    44 14.26  -1.6
FID      2.16 142 eP     44 15.02  -1.4
HDA      2.20  27 iPd    44 15.74  -1.2
                  eS     44 41.87
KNIM     2.24 161 ePc    44 15.35  -2.1
CCB      2.28  15 iPd    44 16.50  -1.5
                  eS     44 42.81
SEW      2.37 183 iPc    44 18.69  -0.6
HIN      2.45 147 eP     44 18.50  -1.9
DFR      2.51 223 ePc    44 20.04  -1.3
LTI      2.52 164 eP     44 18.94  -2.4
FBA      2.53  14 eP     44 19.79  -1.7
CVA      2.54 138 ePc    44 20.01  -1.6
MDM      2.54   9 iPd    44 20.38  -1.4
                  eS     44 48.84
RDN      2.59 223 eP     44 18.48  -4.1
REF      2.59 222 eP     44 20.91  -1.7
MTU      2.60 162 eP     44 21.11  -1.4
NCT      2.61 225 eP     44 21.61  -1.1
RS2      2.63 222 eP     44 21.71  -1.4
RSO      2.63 222 eP     44 21.99  -1.1
DOT      2.63  61 eP     44 22.06  -0.9
RS1      2.63 222 eP     44 21.84  -1.3
GLM      2.66  17 iPd    44 21.91  -1.5
GLB      2.75 109 iPc    44 23.23  -1.5
                  eS     44 56.32
BRLK     2.83 197 eP     44 22.09  -3.7
RAGM     3.02 132 eP     44 26.70  -1.7
INE      3.04 219 eP     44 27.37  -1.6
INW      3.06 220 eP     44 27.69  -1.4
TTA      3.17 282 eP     44 27.78  -2.8
                  S      45 03.13
SVW      3.33 249 eP     44 30.34  -2.5
CRQM     3.37 118 eP     44 31.65  -1.9
OPT      3.43 216 eP     44 33.58  -0.6
KAIM     3.45 135 eP     44 32.16  -2.2
TGL      3.50 116 eP     44 33.30  -1.9
BALM     3.57 111 eP     44 33.98  -2.2
PDB      3.61 224 eP     44 34.47  -2.2
AUH      3.73 215 eP     44 37.27  -1.2
AUW      3.73 216 eP     44 37.24  -1.2
SNH      3.83 124 eP     44 37.47  -2.4
CTGM     4.04 108 ePc    44 40.79  -2.1
IMA      4.11 334 eP     44 40.97  -2.9
                  eSg    45 25.97
MCNL     4.13 220 ePd    44 42.04  -2.1
CDD      4.16 214 iPc    44 42.43  -2.0
YAH      4.16 117 eP     44 41.78  -2.9
FYU      4.46  21 eP     44 46.59  -2.1
KDC      5.01 201 eP     44 51.72  -4.6
        79 obs. associated
-----------------------------------------
?  JAN  31, 1993  02h 49m 05.65± 2.10s
   38.236 N ±14.2km   26.715 E ±15.2km
   DEPTH =  10.0km  (geophysicist)
 AEGEAN SEA                          (365)
      MD 3.0 (ISK).

IZM      0.46  69 iPg    49 14.80  -0.2
                  iSg    49 21.80
CIN      1.26 120 iPd    49 29.00   0.0
EZN      1.62 349 iPn    49 34.10  -0.1
YER      1.66 131 ePn    49 38.90   3.9X
DST      2.02  47 ePn    49 40.60   0.4
      S.D. = 0.4  on   4 of   5 obs.
-----------------------------------------
•  JAN  31, 1993  03h 07m 43.56± 0.77s
   31.359 S ± 9.6km   68.854 W ±11.2km
   DEPTH = 113.2 ± 12.4 km
 SAN JUAN PROVINCE, ARGENTINA        (137)
      MD 4.0 (SAN).

RTCB     0.13 160 eP     07 59.70  -0.1
RTLL     0.33  85 iPc    07 59.50  -0.6
CFA      0.58 115 e(P)   08 02.00   0.4
MDZ      1.52 180 iP     08 12.50   1.2
                  iS     08 36.10
JACH     1.98 228 iPd    08 17.86   0.8
                  iS     08 45.99
RTPR     2.27  63 ePc    08 20.10  -0.6
                  S      08 47.00
FCH      2.31 211 iP+    08 22.86   1.3
                  iS     08 53.76
PEL      2.36 221 iP     08 22.23   0.3
                  iS     08 52.69
ROCH     2.44 228 iP+    08 22.66  -0.4
                  iS     08 53.19
SAN      2.59 216 eP     08 24.84   0.0
                  iS     08 58.11
CACH     3.12 208 eP     08 32.87   0.8
                  iS     09 10.62
LCCH     3.12 227 eP     08 30.81  -1.1
                  iS     09 05.78
LNV      3.37 219 iP     08 33.40  -1.9
RFA      3.42 175 iPc    08 35.30  -0.8
                  S      09 13.20
ZOBO    15.02   3 P      11 12.40   0.7
      S.D. = 1.0  on  15 of  15 obs.
-----------------------------------------
```

31d 04h

```
   JAN  31, 1993  04h 08m 14.88± 0.53s
   41.052 N ± 7.8km   22.116 E ± 3.9km
   DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION        (383)

GRG      0.24 114 iPg    08 20.37   0.4
KNT      0.60  79 ePg    08 26.80  -0.2
FNA      0.62 245 ePg    08 27.40   0.0
                 eSg    08 36.28
THE      0.77 123 iPg    08 29.64  -0.2
                 eSg    08 42.84
SOH      0.97 103 ePg    08 33.28   0.0
OHR      1.00 274 iPgc   08 33.80   0.0
                 iSg    08 47.40
                 Lg     08 48.70
SKO      1.05 331 iPg    08 34.80   0.1
                 iSg    08 48.00
                 Lg     08 52.20
SRS      1.12  86 ePg    08 35.84   0.0
                 eSg    08 51.12
     S.D. = 0.2  on   8 of   8 obs.
-----------------------------------------
%  JAN  31, 1993  04h 57m 39.39± 0.92s
   45.825 N ± 9.6km   27.269 E ± 9.5km
   DEPTH =  33.0km  (normal)
 ROMANIA                           (358)

VRI      0.38 277 iPd    57 47.50  -0.8
ISR      0.86 217 ePc    57 56.00   0.9
CFR      0.89 136 iPd    57 55.00  -0.5
MLR      0.99 251 iPc    57 57.00  -0.1
IAS      1.38   8 eP     58 03.00   0.5
MTUR     1.66 250 eP     58 33.50  26.8X
     S.D. = 1.0  on   5 of   6 obs.
-----------------------------------------
   JAN  31, 1993  05h 37m 50.52± 0.73s
   39.486 N ± 5.9km   23.773 E ± 7.8km
   DEPTH =  11.7 ±  3.7 km
 AEGEAN SEA                        (365)
     ML 3.0 (ATH).

AGG      1.21 248 ePb    38 12.12  -0.8
                 eSb    38 29.68
THE      1.30 332 ePb    38 14.36  -0.1
                 eSb    38 31.84
SOH      1.37 347 iPb    38 16.04   0.5
                 eSb    38 35.56
ATH      1.51 182 ePb    38 18.00   0.6
SRS      1.64 355 ePb    38 19.64   0.4
KZN      1.75 299 ePb    38 21.00   0.1
KNT      1.80 338 ePb    38 22.46   0.8
GRG      1.81 325 ePb    38 21.68   0.0
VAY      2.05 334 ePn    38 31.00   5.8X
MMB      2.10 359 iP     38 26.00   0.0
RDO      2.14  39 ePn    38 32.00   5.5X
RZN      2.31  18 iP     38 29.00  -0.2
KKB      2.44 348 iP     38 32.00   1.2
KDZ      2.50  30 eP     38 32.00   0.4
SKO      3.05 325 ePn    38 39.00  -0.5
PGB      3.08   5 eP     38 39.00  -0.9
PVL      3.91  17 eP     38 50.00  -1.6
     S.D. = 0.8  on  15 of  17 obs.
-----------------------------------------
   JAN  31, 1993  05h 43m 29.48± 0.32s
   40.401 N ± 4.4km  143.925 E ± 4.6km
   DEPTH =  33.5km  ( 11 depth phases)
   4.8mb ( 47 obs.)  4.5Msz (  1 obs.)
 OFF EAST COAST OF HONSHU, JAPAN (229)

HOOJ     2.04 347 P      44 01.20  -0.9
                 eS     44 26.30
OFUJ     2.18 234 iP+    44 04.20   0.0
                 S      44 29.70
AOMJ     2.71 275 P      44 13.20   1.5
KUSJ     2.76  12 P      44 09.60  -2.7X
                 eS     44 40.30
MRRJ     2.95 314 eP     44 14.90  -0.1
YAMJ     3.75 235 iP+    44 26.30  -0.1
ASAJ     3.84 346 eP     44 26.90  -0.7
NIIJ     4.97 232 P      44 43.30  -0.5
KAKJ     5.12 216 P      44 42.40  -3.5X
                 S      45 40.10
CHJJ     5.83 223 P      44 53.80  -2.0
MAT      5.91 231 iPc    44 56.60  -0.5
        1.3s   219.23nm          5.6mb X
                 eS     45 47.00
MTMJ     6.13 234 P      44 59.90  -0.3
YSS      6.67 353 eP     45 06 00  -1.6
      Z  15s      6.00um
      N  15s      6.40um
      E  15s      2.40um
                   e     46 16.00
TSRJ     7.93 235 P      45 26.40   1.1
VLA      9.39 291 iPc    45 45.50   0.0
MDJ     11.39 296 eP     46 12.50  -0.3
        1.5s     46.00nm          5.4mb
      Z  17s      2.37um          5.7MszX
                   S     48 24.00
CN2     14.13 290 eP     46 47.30  -2.0
        1.0s     12.00nm          4.5mb
      Z  14s      1.77um          4.3MszX
      N  10s      0.92um
      E  10s      0.65um
                  epP    46 57.00
                   eS    49 26.00
SNY     15.40 282 Pc     47 04.00  -1.9
        1.0s     41.00nm          4.6mb
      Z  14s      2.01um          4.7MszX
      N  15s      1.37um
      E  14s      1.21um
                   sP    47 15.40
DL2     17.23 272 eP     47 28.60  -0.5
        1.0s     89.00nm          4.8mb
      Z  14s      0.73um          5.1MszX
      N  10s      0.90um
MGD     20.18  10 eP     48 03.50  -0.2
                   e     51 38.00
SSE     20.61 250 Pc     48 05.50  -2.8X
        1.0s     11.00nm          4.2mb
      Z  16s      1.30um          4.4MszX
      N  14s      2.90um
      E  14s      0.80um
BJI     21.16 278 eP     48 11.00  -2.9X
        1.2s     33.00nm          4.6mb
      Z  14s      1.41um          4.5MszX
      N  11s      0.82um
      E  11s      0.76um
                   eS    52 04.00
TIA     21.41 267 eP     48 13.10  -3.4X
      Z  16s      1.77um          4.6MszX
      N  12s      1.15um
                   S     52 09.00
NJ2     21.82 255 Pd     48 18.80  -1.8
        1.0s     23.00nm          4.6mb
      Z  14s      0.95um          4.4MszX
      N  12s      1.07um
      E  12s      0.51um
                   S     52 20.00
YAK     23.30 343 eP     48 31.00  -3.9X
      Z  16s      1.60um          4.6MszX
      E  15s      1.70um
                   eS    52 41.00
CIT     23.80 309 eP     48 39.00  -0.9
HHC     24.50 282 Pc     48 47.50   0.6
        1.2s     24.00nm          4.6mb
      Z  18s      1.45um          4.5Msz
      N  11s      0.85um
      E  12s      0.88um
                   sP    48 58.00
                   S     53 08.00
BTO     25.70 282 eP     48 59.00   0.8
        1.2s     44.00nm          4.9mb
      N  14s      1.06um
      E  13s      1.15um
                   pP    49 09.00  37km
                   eS    53 28.00
BOD     25.83 322 eP     49 00.50   1.4
        1.2s     30.00nm          4.8mb
WHN     25.91 257 Pd     49 00.50   0.4
        1.5s     90.00nm          5.1mb
      Z  16s      2.96um          4.9MszX
      N  18s      2.08um
      E  16s      2.29um
                   S     53 28.00
XAN     28.46 268 P      49 23.50   0.1
        1.5s     18.00nm          4.5mb
      Z  13s      1.25um          4.7MszX
      N  13s      0.71um
      E  13s      0.88um
                   pP    49 33.00  33km
IRK     29.44 307 eP     49 31.50  -0.6
        1.4s     36.00nm          4.9mb
                   e     49 45.80  58kmX
ZAK     29.90 303 eP     49 35.00  -1.0
        2.0s     31.00nm          4.7mb
      Z  14s      1.37um          4.7MszX
      N  13s      0.95um
      E  14s      1.34um
LZH     31.58 275 P      49 52.00   0.7
        1.5s     90.00nm          5.4mb
      Z  13s      1.26um          4.8MszX
      N  11s      0.99um
                   pP    50 02.00  36km
TIK     32.21 351 iPd    49 54.90  -1.3
                   e     50 05.00  36km
                   e     51 19.00
GTA     33.59 283 iPd    50 09.00   0.3
        1.5s     77.00nm          5.4mb
      Z  15s      1.44um          4.8MszX
      E  11s      0.71um
                   pP    50 19.00  35km
                   sP    50 23.00
                   eS    55 30.00
CD2     33.74 267 eP     50 09.60  -0.4
      Z  14s      1.68um          4.9MszX
      N  11s      1.13um
GYA     33.80 257 iPc    50 10.40  -0.3
        1.2s     27.00nm          5.0mb
      Z  16s      1.61um          4.8MszX
      N  14s      1.13um
      E  14s      0.88um
                   pP    50 20.60  36km
                   S     55 32.00
ILT     34.18  24 eP     50 11.00  -2.3
      Z  16s      0.80um          4.5MszX
      N  16s      0.70um
      E  16s      0.50um
KMI     37.48 259 Pc     50 42.00   0.0
        1.5s    110.00nm          5.5mb
      N  13s      1.10um
      E  13s      0.90um
                   pP    50 52.00  34km
ELT     40.40 308 iPc    51 06.00   0.3
        1.8s     53.00nm          5.0mb
      Z  16s      1.00um          4.8MszX
NRI     40.92 333 ePd    51 08.00  -1.7
        1.3s     12.00nm          4.5mb
                   e     51 15.00  24km
                   e     53 09.00
WMQ     41.17 294 P      51 12.80   0.5
        1.0s      6.20nm          4.3mb
      Z  16s      1.14um          4.8MszX
                   sP    51 24.00
IMA     42.80  32 eP     51 26.80   1.4
        0.8s      4.60nm          4.3mb
LSA     43.93 273 P      51 36.60   1.2
CHG     44.06 254 ePc    51 39.80   3.8X
        1.0s     10.25nm          4.6mb
FBA     45.21  34 eP     51 43.27  -1.5
        1.0s      5.71nm          4.4mb
                   e     51 52.37  30km
SHL     45.46 268 iPd    51 47.00  -0.4
GUN     48.83 274 P      52 13.98   0.0
KKN     49.35 274 P      52 17.68  -0.2
PKI     49.36 274 P      52 18.22   0.1
DMN     49.57 274 P      52 19.66   0.0
GKN     49.73 275 P      52 20.30  -0.4
FRU     50.52 297 eP     52 26.00  -0.4
                   e     52 35.00  30km
KSH     50.90 292 eP     52 30.00   0.5
        0.7s     20.00nm          5.2mb
      Z  15s      1.42um          5.1MszX
      E  15s      1.66um
SVE     53.97 318 ePd    52 52.50   0.6
      Z  15s      2.00um          5.3MszX
      N  15s      0.50um
      E  15s      1.50um
ARU     55.16 318 eP     53 00.00  -0.7
RES     58.85  15 eP     53 27.00   0.4
        1.0s      6.00nm          4.7mb
YKA     59.92  32 eP     53 32.50  -1.6
        1.1s      1.60nm          4.1mb
HYB     60.27 268 eP     53 37.20   0.0
WB2     60.69 190 eP     53 39.50  -0.3
        0.8s      5.90nm          4.8mb
WRA     60.69 190 P      53 38.70  -1.1
        0.8s      2.40nm          4.4mb
GBA     63.44 265 P      54 10.00  11.6X
ASPA    64.42 190 P      54 04.40  -0.1
KAF     66.21 333 eP     54 35.30  19.6X
        1.0s     19.20nm
```

```
NEW     66.37  46 eP    54 15.00  -2.0
        1.0s     5.00nm          4.6mb
NUR     67.90 332 eP    54 45.00  18.6X
        0.4s     5.50nm
KIV     70.18 311 P     54 41.80   1.0
        1.6s   100.00nm          5.6mb
LCCM    70.69  46 eP    54 43.50  -0.5
MNK     71.35 326 eP    54 41.00  -6.6X
HFS     71.82 336 eP    54 48.30  -2.0
        0.4s     0.80nm          4.1mb
NAO     72.11 338 P     54 51.10  -1.0
        1.1s     7.70nm          4.6mb
SRU     75.74  51 eP    55 14.49   0.8
RSSD    76.03  43 eP    55 13.85  -1.4
        1.2s     5.59nm          4.4mb
PV10    77.10  50 eP    55 21.43   0.0
OJC     77.32 327 eP    55 22.80   0.7
                  e     55 43.30  76kmX
SPC     77.92 326 eP    55 27.50   1.9
KSP     78.25 329 eP    55 27.70   0.5
BRG     79.13 330 eP    55 47.60  15.6X
CLL     79.13 331 eP    55 32.00   0.1
                  e     55 52.00  74kmX
PRU     79.61 330 eP    55 35.80   1.2
                  e     55 50.50  51kmX
SRO     79.80 326 eP    55 37.00   1.4
ZST     80.01 327 e(P)  55 55.00  18.3X
MOX     80.18 331 eP    55 39.10   1.5
KHC     80.68 330 P     55 41.50   1.2
        1.3s     8.40nm          4.6mb
                  e     56 01.60  74kmX
                  e     56 13.50
GEC2    80.86 329 ePKPd 55 41.90   0.5
        1.1s     1.73nm          4.0mb
                  e     55 47.70  18kmX
                  e     55 53.80
GRF     81.11 331 iPc   55 43.60   1.0
        1.5s    21.00nm          4.9mb
SKO     82.86 321 iP    55 52.20   0.4
                  i     56 04.00  39km
LOR     85.76 334 eP    56 06.70   0.3
        1.4s    11.75nm          4.9mb
LBF     85.97 334 eP    56 07.70   0.3
        1.5s    21.95nm          5.2mb
SSF     86.06 334 eP    56 08.40   0.6
LPL     86.26 331 eP    56 09.90   0.7
        1.2s    13.40nm          5.0mb
LPG     86.27 331 eP    56 09.90   0.6
        1.4s    13.50nm          5.0mb
SMF     86.31 334 eP    56 09.70   0.6
        1.4s    23.95nm          5.2mb
AVF     86.35 334 eP    56 09.80   0.6
BGF     86.72 334 eP    56 11.80   0.7
MAF     87.11 334 eP    56 14.10   1.1
        1.1s    11.00nm          5.0mb
TCF     87.17 335 eP    56 14.00   0.7
LSF     87.42 335 eP    56 15.20   0.7
        1.4s    20.50nm          5.2mb
RJF     88.26 334 eP    56 19.60   1.1
        1.6s    25.50nm          5.3mb
CAF     88.41 334 eP    56 20.80   1.5
        1.5s    24.55nm          5.3mb
LFF     88.84 335 eP    56 22.40   1.1
        1.5s    29.25nm          5.4mb
ZOBO   143.28  58 ePKP  02 45.00 -18.0X
LPB    143.48  59 (PKP) 02 55.00  -8.1X
CNCB   143.76  59 ePKP  02 56.00  -7.8X
SIV    147.40  49 ePKP  03 17.00   7.8X
YJA    149.18  63 e(PKP)03 13.00   0.6
     S.D. = 1.0  on  90 of 107 obs.
-----------------------------------
?  JAN  31, 1993  06h 40m 17.64± 5.46s
   32.433 S ±34.4km   71.660 W ±24.0km
   DEPTH =  10.0km  (geophysicist)
 NEAR COAST OF CENTRAL CHILE      (135)
      MD 3.7 (SAN).

ROCH    0.77 135 iPd    40 33.22   0.4
                 iS     40 48.57
JACH    0.94 106 iPd    40 35.28  -0.3
                 iS     40 51.56
LCCH    1.04 176 iP+    40 36.50  -0.8
                 iS     40 55.67
PEL     1.08 131 iP+    40 38.32   0.2
                 iS     40 56.10
SAN     1.32 141 iP     40 41.68  -0.4
                 iS     41 03.20
FCH     1.46 128 iP     40 43.95  -0.4
                 iS     41 07.16
LNV     1.53 172 iP     40 45.91   0.9
     S.D. = 0.7  on   7 of   7 obs.
-----------------------------------
   JAN  31, 1993  07h 09m 15.70± 0.49s
   37.470 N ± 5.2km   22.594 E ± 3.7km
   DEPTH =  87.9 ±  5.4 km
   3.4mb (  3 obs.)
 SOUTHERN GREECE                  (368)
      MD 3.5 (ATH).

VLI     0.80 160 iPgc   09 34.50   1.2
ATH     1.02  60 ePg    09 35.70  -0.1
AGG     1.56 352 iPb    09 42.72   0.1
VLS     1.74 295 ePb    09 45.60   0.7
KZN     2.90 347 ePn    10 02.50   1.7
LSK     3.10 330 ePn    10 08.40   5.0X
KEK     3.13 316 ePn    10 06.10   2.2
SRN     3.15 321 ePn    10 08.00   4.0X
THE     3.17   5 ePn    10 04.60   0.3
                 eSn    10 36.96
SOH     3.40  10 iPn    10 07.64   0.1
                 eSn    10 44.20
FNA     3.44 344 ePn    10 10.72   2.5X
                 eSn    10 49.48
GRG     3.48 358 ePn    10 09.64   0.9
KNT     3.69   4 ePn    10 11.72   0.1
                 eSn    10 51.12
SRS     3.72  12 ePn    10 11.76  -0.3
                 eSn    10 53.32
EZN     3.75  50 eP     10 11.00  -1.4
VAY     3.85 360 iPn    10 14.00   0.3
OHR     3.89 340 ePn    10 14.70   0.3
MMB     4.21  12 iP     10 18.00  -0.8
KKB     4.41   5 iP     10 21.00  -0.5
TIR     4.41 332 ePn    10 29.00   7.4X
                 iSn    11 16.20
RZN     4.52  21 iP     10 23.00  -0.3
PHP     4.53 339 ePn    10 30.00   6.8X
KDZ     4.71  27 iP     10 25.00  -0.7
VTS     5.14   5 eP     10 32.00   0.2
DST     5.19  64 eP     10 32.50   0.0
SOI     5.22 279 Pc     10 32.60  -0.2
                 eSn    11 24.90
BCI     5.26 339 ePn    10 38.90   5.5X
BRT     5.40 311 P      10 33.70  -1.6
                 eSn    11 30.10
ORI     5.46 300 P      10 35.90  -0.2
                 eSn    11 33.90
ATN     5.69 279 P      10 38.90  -0.5
MGR     6.11 298 P      10 44.70  -0.5
                 eSn    11 45.90
PVL     6.11  19 eP     10 43.00  -2.1
MEU     6.12 269 P      10 43.80  -1.6
MNO     6.28 277 P      10 47.00  -0.7
SGO     6.46 301 P      10 49.90   0.0
                 eSn    11 56.00
GIB     6.81 277 P      10 54.70  -0.2
HVAR    7.38 322 e(Pn)  11 02.70   0.0
VBY     9.73 328 ePn    11 39.60   4.9X
                 eSn    13 15.00
NUR    23.10   3 eP     14 15.00   0.9
HFS    23.39 349 eP     14 17.60   0.6
       0.4s     2.60nm          3.9mb
NAO    24.53 346 P      14 28.70   0.7
       1.1s     0.50nm          2.9mb
GKN    52.21  81 P      18 20.40   0.5
DMN    52.76  81 P      18 24.80   0.7
KKN    52.81  81 P      18 22.80  -1.7
PKI    53.02  81 P      18 26.40   0.3
GUN    53.23  81 P      18 28.00   0.3
YKA    74.61 341 eP     20 47.70   1.2
       0.6s     0.40nm          3.5mb
     S.D. = 0.9  on  40 of  47 obs.
-----------------------------------
*  JAN  31, 1993  07h 13m 59.01± 1.50s
   7.476 S ±11.7km  133.614 E ±21.8km
   DEPTH =  33.0km  (normal)
 ARU ISLANDS REGION, INDONESIA    (204)

SLKI    2.35 258 iPd    14 35.60  -0.5
MTN     5.87 204 eP     15 29.40   3.4X
       0.3s    207.00nm          6.2mb X
                 eS     16 39.00
SWI     6.98 340 iPc    15 41.50   0.0
                 iS     16 51.50
WB2    12.42 177 eP     16 54.90  -1.5
                 iS     19 10.80
ASPA   16.10 179 iPd    17 44.90   0.2
                 epP    17 52.60
                 eS     20 36.00
WARB   19.75 199 eP     18 31.00   1.8
RMO    23.77 144 eP     19 15.00   5.5X
     S.D. = 1.7  on   5 of   7 obs.
-----------------------------------
%  JAN  31, 1993  07h 16m 48.15± 3.16s
   39.535 N ±16.9km   23.648 E ±27.1km
   DEPTH =  12.5 ±  8.5 km
 AEGEAN SEA                       (365)

PAIG    0.39   4 ePg    16 56.18  -0.1
                 eSg    17 02.02
AGG     1.14 244 ePg    17 09.26  -0.1
                 eSg    17 25.14
THE     1.21 335 ePb    17 10.46   0.0
SOH     1.30 350 ePb    17 11.70  -0.4
                 eSb    17 29.06
SRS     1.58 358 ePb    17 16.02   0.1
GRG     1.71 326 ePb    17 17.82  -0.1
KNT     1.72 341 ePb    17 18.58   0.5
                 eSb    17 40.98
     S.D. = 0.4  on   7 of   7 obs.
-----------------------------------
   JAN  31, 1993  07h 35m 23.71± 0.78s
   36.604 S ± 7.9km  177.200 E ±12.1km
   DEPTH = 274.2 ±  8.3 km
   3.3mb (  2 obs.)
 OFF E. COAST OF N. ISLAND, N.Z. (160)

KUZ     1.20 263 P      36 02.30  -0.3
HBZ     1.33 139 P      36 02.50  -0.9
URZ     1.65 182 P      36 06.00   0.3
                 eS     36 38.00
PUZ     1.69 150 P      36 05.60  -0.5
                 eS     36 37.00
NOZ     2.12 162 P      36 09.90   0.4
PAHZ    2.25 183 P      36 11.80   1.0
WHH     2.34 194 P      36 12.40   0.7
MOH     2.52 181 P      36 14.30   1.0
WAHZ    3.16 192 P      36 20.60   0.8
TEHZ    3.39 185 P      36 21.70  -0.6
MNG     4.23 198 P      36 31.40  -0.3
                 eS     37 25.50
KIW     4.61 202 P      36 35.50  -0.7
CAW     4.80 200 P      36 37.60  -0.7
DIW     4.91 210 P      36 39.70  -0.1
MRW     5.01 202 P      36 40.60  -0.3
                 eS     37 42.70
MOW     5.04 197 eP     36 41.10  -0.2
TCW     5.14 205 P      36 42.30  -0.1
ORZ     5.58 219 P      36 47.90   0.1
                 S      37 56.30
THZ     6.14 212 P      36 55.60   0.9
                 S      38 08.30
KHZ     6.46 205 P      36 58.90   0.4
                 S      38 14.40
DSZ     6.63 218 P      37 00.10  -0.6
LTZ     7.25 210 P      37 08.20  -0.2
MOZ     7.90 205 P      37 15.70  -0.8
                 S      38 44.20
ODZ     9.78 208 eP     37 40.60   0.4
WB2    40.86 282 iPc    42 40.60  -0.1
       0.6s     2.90nm          3.8mb
WRA    40.87 282 P      42 41.20   0.4
       0.5s     0.20nm          2.7mb
     S.D. = 0.6  on  26 of  26 obs.
-----------------------------------
*  JAN  31, 1993  08h 43m 00.73± 1.02s
   37.674 N ±10.1km   22.083 E ± 9.4km
   DEPTH =  10.0km  (geophysicist)
   3.7mb (  1 obs.)
 SOUTHERN GREECE                  (368)
      ML 3.4 (ATH).

VLI     1.17 144 eP     43 23.00   0.4
VLS     1.28 293 eP     43 24.00  -0.5
ATH     1.33  77 iPc    43 24.60  -0.6
KZN     2.64 355 P      43 45.50   1.3
OHR     3.57 344 ePn    44 02.80   5.4X
VAY     3.66   6 eP     43 58.00  -0.6
SKO     4.32 354 ePn    44 13.50   5.5X
NAO    24.24 347 P      48 14.60  -3.8X
       0.8s     1.80nm          3.7mb
```

31d 08h

```
     S.D. = 1.2   on    5 of   8 obs.
-------------------------------------
   JAN  31, 1993  10h 03m 58.50± 0.60s
   42.379 N ± 4.9km    19.884 E ± 4.3km
   DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION        (383)
      ML 2.4 (TTG).

PVY      0.23  17 iPgd  04 03.87   0.4
                  iSg   04 08.02
TTG      0.46 276 iPgc  04 07.66  -0.3
                  iSg   04 15.24
IVA      0.49   1 iPgd  04 08.24  -0.3
                  iSg   04 16.11
ULC      0.63 229 iPgc  04 11.27   0.1
                  iSg   04 21.42
NKY      0.78 304 iPgd  04 13.60  -0.3
                  iSg   04 25.75
BDV      0.79 263 iPgd  04 13.83   0.0
                  iSg   04 26.52
PLE      1.02 339 iPgd  04 17.72  -0.1
                  iSg   04 33.42
HCY      1.03 274 iPgd  04 18.16   0.2
                  iSg   04 33.94
BRY      1.12 298 iPgd  04 19.82   0.3
                  iSg   04 36.80
SKO      1.23 109 ePn   04 21.15  -0.2
                  iSg   04 40.00
                  Lg    04 43.40
     S.D. = 0.3   on   10 of  10 obs.
-------------------------------------
   JAN  31, 1993  10h 25m 39.08± 0.43s
   47.328 N ± 3.9km     7.927 E ± 4.4km
   DEPTH =  10.0km  (geophysicist)
 SWITZERLAND                       (544)
      ML 2.7 (LDG).

ZLA      0.35  64 iPc   25 46.30   0.0
FEL      0.55   6 ePg   25 50.67   0.3
SLE      0.58  41 iPc   25 50.70  -0.2
LLS      0.86 122 P     25 56.00   0.2
BSF      0.92 304 Pg    25 57.30   0.6
                  Sg    26 08.40
                  Sn    26 10.10
CDF      1.17 338 Pg    26 00.20  -0.8
                  Sg    26 15.60
HAU      1.26 303 Pg    26 03.60   1.0
                  Sg    26 20.20
MMK      1.28 179 iPc   26 03.00   0.0
DIX      1.30 196 eP    26 03.70   0.4
VDL      1.35 128 ePc   26 03.40  -0.7
TMA      1.39 152 eP    26 03.80  -0.8
EMS      1.43 209 eP    26 06.60   1.3
OSS      1.65 112 eP    26 09.30   1.0
LPL      1.99 205 Pn    26 13.10  -0.3
                  Pg    26 16.10
LPG      2.00 204 Pg    26 16.20   2.6X
                  Sg    26 41.90
LBF      2.72 264 Pg    26 30.50   6.9X
                  Sg    27 04.60
LOR      2.77 270 Pg    26 31.50   7.2X
                  Sg    27 04.80
SMF      2.88 258 Pg    26 33.50   7.7X
                  Sg    27 09.90
SSF      3.03 267 Pg    26 39.00  11.1X
                  Sg    27 18.70
GRF      3.22  42 ePg   26 42.10  11.4X
                  eSg   27 25.80
BGF      3.56 259 Pn    26 33.60  -2.0
                  Pg    26 46.30
MAF      3.85 255 Pn    26 35.70  -3.9X
                  Pg    26 51.40
     S.D. = 0.9   on   15 of  22 obs.
-------------------------------------
?  JAN  31, 1993  10h 39m 03.53± 2.74s
   17.841 S ±44.4km  175.703 W ±28.1km
   DEPTH = 314.9 ± 21.3 km
   4.4mb (  6 obs.)
 TONGA ISLANDS                     (173)

SVA      5.56 266 ePc   40 29.20   0.5
WB2     47.16 259 iPd   47 06.40  -0.8
        0.4s    10.10nm          4.5mb
WRA     47.17 259 P     47 06.70  -0.6
        0.8s     0.90nm          3.1mb X
ASPA    47.29 254 iPd   47 07.50  -0.7
        0.8s    30.50nm          4.7mb
ADK     69.43 359 eP    49 39.39  -0.1
        0.5s     5.68nm          4.6mb
PV09    83.78  46 eP    50 59.17  -0.2
PV10    83.78  47 eP    50 58.87  -0.5
ALQ     84.05  51 eP    51 00.41  -0.3
        0.8s     1.63nm          3.9mb
PV08    84.15  47 eP    51 00.38  -0.9
FBA     85.20  12 iPc   51 05.52   0.0
        0.6s     8.20nm          4.7mb
YKA     93.21  24 eP    51 42.40  -0.6
        0.8s     1.00nm          3.9mb
KSP    145.71 346 iPKP  58 08.00   2.1
CLL    145.90 350 iPKP  58 08.20   2.0
        0.9s    14.00nm
PRU    146.89 348 ePKP  58 14.00   6.2X
                  e     58 18.00
KHC    147.89 349 ePKP  58 14.00   4.5X
                  e     58 18.00
FLN    148.91   6 ePKP  58 15.60   4.5X
        0.4s     1.90nm
LDF    149.12   6 ePKP  58 16.10   4.7X
GRR    149.24   7 ePKP  58 16.70   5.1X
        0.6s     4.35nm
CDF    149.41 356 ePKP  58 17.50   5.5X
        0.8s     5.25nm
LPF    149.57   7 ePKP  58 17.50   5.4X
        0.5s     4.30nm
HAU    149.87 357 ePKP  58 18.50   5.9X
        0.7s     3.75nm
BSF    150.02 357 ePKP  58 18.70   5.8X
        0.5s     1.70nm
LOR    150.65   1 ePKP  58 20.30   6.5X
        0.6s     2.25nm
SSF    150.85   1 ePKP  58 20.80   6.7X
        1.0s     8.40nm
LBF    150.94   0 ePKP  58 20.90   6.7X
        0.6s     3.00nm
MFF    151.08   6 ePKP  58 21.00   6.6X
AVF    151.12   1 ePKP  58 21.00   6.6X
BGF    151.34   2 ePKP  58 21.80   7.0X
        0.6s     3.05nm
LSF    151.58   4 ePKP  58 22.00   6.8X
        0.7s     4.20nm
TCF    151.58   3 ePKP  58 22.10   6.9X
        0.7s     3.40nm
MAF    151.66   3 ePKP  58 22.70   7.4X
        0.7s     4.85nm
     S.D. = 1.1   on   13 of  31 obs.
-------------------------------------
&  JAN  31, 1993  10h 43m 34.55s
   37.566 N          118.873 W
   DEPTH =    6.7km
 CALIFORNIA-NEVADA BORDER REGION ( 40)
      <GM-P>. MD 2.9 (GM).

MEMM     0.11 332 iPd   43 37.30   0.2
MMPM     0.13 290 iPd   43 37.46  -0.2
MRCM     0.31  70 iPc   43 40.69  -0.2
                  eS    43 44.93
MTUM     0.33 131 iPd   43 40.95  -0.3
BONR     0.60  49 iPc   43 46.00  -0.6
CMB      1.29 292 iPd   43 57.98  -0.8
                  eS    44 14.48
TNP      1.41  68 ePc   44 00.90   0.0
                  eS    44 18.41
KVN      1.60  22 eP    44 04.26   0.7
PKEM     1.80 214 eP    44 06.08  -0.2
ISA      1.93 170 (P)   44 12.52   4.4
                  eLg   44 34.21
PHAM     2.12 216 eP    44 11.23   0.3
ARN      2.13 265 eP    44 11.51   0.5
COE      2.25 263 ePn   44 12.73  -0.1
HMR      2.39 285 (P)   44 14.83   0.1
GSC      2.81 143 eP    44 21.83   1.0
ORV      2.86 315 (Pn)  44 20.13  -1.4
                  ePg   44 24.83
MSU      5.37  78 (P)   45 01.83   4.5
        17 obs. associated
-------------------------------------
*  JAN  31, 1993  11h 24m 45.89± 0.63s
   12.275 N ± 9.5km   87.271 W ±11.1km
   DEPTH =  72.1km  (  8 depth phases)
   4.7mb (  7 obs.)
 NEAR COAST OF NICARAGUA           ( 74)

PPM     12.85 303 eP    27 49.00   1.3
MRX     15.28 301 (P)   28 21.00   2.2
PRM     22.17  11 eP    29 37.47   0.4
                  e     29 56.06  85kmX
JSC     22.58  13 eP    29 43.28   2.2
                  i     30 00.93  79km
UYO     22.75 344 iPc   29 42.30  -0.5
MIAR    22.90 347 eP    29 43.60  -0.6
        0.8s    11.69nm          4.4mb
OLY     23.44 351 eP    29 49.93   0.5
                  e     30 03.81  58kmX
TKL     23.49   7 eP    29 52.22   2.2
VVO     24.21 343 e(P)  29 57.00   0.1
CEH     24.65  16 eP    30 02.56   1.4
        0.6s    21.40nm          4.8mb
MEO     24.65 337 iPc   30 00.30  -0.9
WMOK    24.69 337 eP    30 00.23  -1.3
        0.9s    30.15nm          4.7mb
SIO     24.75 342 eP    30 00.90  -1.3
                  e     30 17.80  74km
TUL     24.76 343 P     30 01.80  -0.4
        0.8s    83.90nm          5.2mb
                  e     30 04.20   9kmX
                  e     30 18.10
LNO     24.76 343 eP    30 01.80  -0.3
                  e     30 17.90  70km
LNO2    24.76 343 eP    30 02.00  -0.2
                  e     30 18.10  70km
LNO3    24.76 343 eP    30 02.20   0.0
                  e     30 18.20  69km
RLO     24.79 345 eP    30 01.10  -1.4
                  e     30 17.90  73km
ELC     24.97 356 eP    30 03.39  -0.7
NAV     25.60  12 eP    30 10.35   0.2
ACO     26.56 338 iPc   30 17.00  -1.9
PV08    32.37 328 eP    31 10.33  -0.7
PV10    32.43 327 eP    31 10.02  -1.5
PV09    32.57 327 eP    31 12.38  -0.4
ZOBO    34.11 146 P     31 25.00  -1.7
      Z  24s      0.10um          3.5MszX
                  LR    42 56.00
PLM     34.21 313 (P)   31 28.27   1.4
LPB     34.33 146 eP    31 32.00   3.7X
CNCB    34.62 146 P     31 30.00  -1.0
RSSD    34.86 339 eP    31 32.44   0.1
        0.7s     9.46nm          4.8mb
BW06    36.02 332 eP    31 40.82  -1.4
        0.8s     5.20nm          4.5mb
HVU     36.87 328 eP    31 49.36   0.1
BONR    37.68 318 eP    31 56.86   0.6
SIV     38.22 137 P     32 03.00   2.3
LMN     38.52  25 eP    32 22.50  19.6X
LCCM    39.44 333 eP    32 10.20  -0.5
                  e     32 27.50  70km
ORV     40.64 318 (P)   32 21.80   1.3
SES     42.71 338 eP    32 38.00   0.6
                  pP    32 52.00  53kmX
FCC     46.68 355 eP    33 09.00   0.2
                  pP    33 27.00  72km
YKA     53.83 345 eP    33 59.00  -4.2X
        0.6s     2.30nm          4.4mb
TOO    126.74 232 ePKP  43 42.10  -1.1X
ASPA   139.37 248 ePKP  44 00.10  -7.3X
        1.4s     4.70nm
MUN    150.84 224 ePKP  44 31.00   4.8X
BAL    151.28 227 ePKP  44 32.00   5.0X
     S.D. = 1.2   on   36 of  43 obs.
-------------------------------------
   JAN  31, 1993  11h 49m 31.99± 0.44s
   42.353 N ± 3.8km   19.913 E ± 4.0km
   DEPTH =  10.0km  (geophysicist)
 NORTHWESTERN BALKAN REGION        (383)
      ML 3.0 (TIR), 2.9 (TTG).

BCI      0.12  83 iPg   49 32.40  -2.5X
                  iSg   49 34.90
PVY      0.25  10 iPgc  49 36.99  -0.3
                  iSg   49 41.48
SDA      0.43 226 ePg   49 34.70  -6.1X
                  iSg   49 43.30
TTG      0.49 279 iPgc  49 40.73  -1.2
                  iSg   49 49.87
IVA      0.52 359 iPgc  49 41.91  -0.6
                  iSg   49 50.32
ULC      0.63 232 iPgc  49 43.69  -0.9
                  iSg   49 53.24
PHP      0.77 149 iPgc  49 46.10  -1.0
                  iSg   49 56.10
BDV      0.81 265 iPgc  49 47.29  -0.4
```

```
                    iSg   49 59.88
NKY     0.82 305 iPgc   49 47.43  -0.5
                    iSg   50 00.71
TIR     1.00 182 iPgc   49 51.00   0.0
                    iSg   50 06.50
PLE     1.05 339 iPgd   49 51.59  -0.2
                    iSg   50 08.00
HCY     1.05 276 iPgd   49 51.60  -0.2
                    iSg   50 08.35
BRY     1.15 299 iPgc   49 53.43  -0.2
                    iSg   50 11.72
SKO     1.20 108 iPn    49 54.80   0.5
                    i     49 56.30
                    iSg   50 12.60
                    Lg    50 16.00
OHR     1.41 152 iPn    49 58.20   0.5
                    iSn   50 18.10
                    Lg    50 27.50
VAY     2.24 117 iPn    50 13.40   3.8X
LSK     2.26 167 ePn    50 14.70   4.6X
HVAR    2.68 289 iPn    50 17.20   1.2
                    iSn   50 52.10
SGO     3.90 244 P      50 33.00  -0.2
MGR     3.96 237 P      50 34.50   0.4
                    (Sn)  51 23.70
PTJ     4.55 323 eP     51 07.10  24.6X
SDI     4.59 264 P      50 44.20   1.1
VBY     4.61 315 ePn    50 46.50   3.2X
ASS     5.39 280 P      50 55.40   0.9
VOY     5.68 312 ePn    51 00.30   1.8
                    eSn   52 07.80
CTI     6.99 305 P      51 16.20  -0.8
                    eSn   52 35.10
      S.D. = 0.9  on  20 of  26 obs.
-----------------------------------
&  JAN  31, 1993  11h 56m 32.25s
   33.754 N          116.134 W
   DEPTH =   2.2km
 SOUTHERN CALIFORNIA                ( 43)
      <PAS-P>. ML 3.5 (PAS), 3.4 (GS).
      Felt.

PLM     0.73 237 iPd    56 46.23  -0.6
PEC     0.87 279 iPc    56 48.25  -1.4
                    eS    56 59.49
GLA     1.30 122 ePnd   56 54.18  -2.9
GSC     1.64 340 ePnc   57 00.54  -1.7
ISA     2.71 315 ePnc   57 14.95  -2.7
                    e     57 23.33
MTUM    4.10 332 ePn    57 36.06  -1.4
                    ePg   57 48.33
TNP     4.41 349 eP     57 39.93  -2.0
                    eS    58 50.92
BONR    4.55 338 ePn    57 42.57  -1.4
                    ePg   57 57.58
MSU     5.73  33 ePn    57 59.28  -1.4
PV10    7.37  49 ePn    58 21.60  -2.1
                    eS    00 20.99
      10 obs. associated
-----------------------------------
*  JAN  31, 1993  13h 17m 01.94± 1.28s
   27.427 N ±11.5km  140.130 E ±12.5km
   DEPTH = 461.2 ± 12.5 km
   4.2mb (  7 obs.)
 BONIN ISLANDS REGION               (212)

CHJJ    8.65 354 P      19 05.50  -0.4
                    S     20 43.90
KAKJ    8.75   0 P      19 06.30  -0.7
                    S     20 44.70
MAT     9.23 350 eP     19 12.00  -0.3
      0.9s     10.92nm          4.2mb
                    eS    20 58.00
YAMJ   10.72 360 P      19 29.90   1.5
                    eS    21 29.60
OFUJ   11.69   6 eP     19 43.40   4.5X
                    eS    21 47.30
CHG    38.69 266 eP     23 46.70   0.6
WB2    47.42 187 iPc    24 54.90   0.0
      0.2s     4.20nm          4.5mb
GUN    47.71 284 P      24 58.00   0.4
PKI    48.19 284 P      25 01.04  -0.2
KKN    48.25 284 P      25 01.46  -0.1
DMN    48.44 284 P      25 03.26   0.2
GKN    48.76 284 P      25 05.20  -0.1
GBA    59.77 270 P      26 23.00  -0.4
YKA    72.71  28 eP     27 43.30   0.3
      0.6s     1 00nm          3.6mb
KAF    76.38 334 iP     28 03.80   0.3
      0.5s     9.30nm          4.6mb
NUR    77.94 333 eP     28 12.10   0.1
      0.3s     2.20nm          4.2mb
HFS    82.39 336 eP     28 34.30  -0.9
      0.4s     1.80nm          4.1mb
GEC2   90.27 328 eP     29 13.10  -0.3
      0.6s     0.55nm          3.7mb
      S.D. = 0.6  on  17 of  18 obs.
-----------------------------------
?  JAN  31, 1993  13h 35m 55.50±10.22s
   34.954 S ±59.8km   72.115 W ±53.1km
   DEPTH =  11.8 ±  7.0 km
 NEAR COAST OF CENTRAL CHILE        (135)
      MD 3.7 (SAN).

LNV     1.15  30 eP     36 16.85   0.0
                    iS    36 28.61
CACH    1.50  57 iP     36 22.45   0.0
                    iS    36 38.74
LCCH    1.54  17 eP     36 22.66  -0.2
                    eS    36 39.94
SAN     1.92  39 iP     36 28.18  -0.2
                    iS    36 49.79
PEL     2.16  34 eP     36 32.44   0.6
                    iS    36 54.86
ROCH    2.18  25 iP     36 32.57   0.3
                    eS    36 57.15
FCH     2.22  44 iP     36 32.80  -0.2
                    iS    36 56.90
JACH    2.60  30 iP     36 37.86  -0.3
                    (S)   37 07.15
      S.D. = 0.4  on   8 of   8 obs.
-----------------------------------
*  JAN  31, 1993  13h 53m 46.68± 3.65s
   18.644 N ±30.1km   61.995 W ±25.0km
   DEPTH =  33.0km  (normal)
 LEEWARD ISLANDS                    ( 92)
      MD 3.7 (TRN).

CPB     1.01 171 eP     54 04.28  -0.3
                    eS    54 16.41
BPA     1.59 175 eP     54 12.05  -0.9
                    eS    54 32.45
NEV     1.60 200 eP     54 13.14   0.2
                    eS    54 32.78
MGH     1.92 186 eP     54 17.80   0.0
PAG     2.62 173 eP     54 28.00   0.4
MGG     2.79 166 eP     54 30.50   0.6
LPR     3.69 265 P      54 42.10  -0.8
CPD     3.77 261 P      54 44.20   0.2
PORP    4.45 263 P      54 54.00   0.4
LRS     4.62 266 P      54 56.20   0.2
      S.D. = 0.6  on  10 of  10 obs.
-----------------------------------
*  JAN  31, 1993  15h 07m 35.07± 2.38s
   37.138 N ±17.5km   21.527 E ±15.8km
   DEPTH =  10.0km  (geophysicist)
 SOUTHERN GREECE                    (368)
      ML 3.3 (ATH).

VLI     1.21 110 ePn    07 58.00   0.5
VLS     1.28 325 ePn    07 58.30  -0.5
ATH     1.93  64 ePn    08 07.20  -1.0
AGG     1.99  18 ePn    08 10.08   1.0
                    eSn   08 37.56
KZN     3.17   3 ePn    08 24.20  -1.8
PAIG    3.26  31 ePn    08 25.96  -1.2
FNA     3.64 358 iPn    08 38.36   5.6X
OUR     3.72  30 ePn    08 33.16  -0.7
SOH     3.94  21 ePn    08 37.64   0.7
                    eSn   09 26.96
OHR     4.01 352 ePn    08 41.50   3.6X
KNT     4.16  14 iPn    08 41.20   1.3
VAY     4.26  11 ePn    08 43.50   2.2
SRS     4.29  21 ePn    08 41.32  -0.5
      S.D. = 1.3  on  11 of  13 obs.
-----------------------------------
*  JAN  31, 1993  16h 13m 14.21± 0.73s
     5.819 S ± 8.8km  145.956 E ±11.6km
   DEPTH =  10.0km  (geophysicist)
   3.6mb (  1 obs.)
 EASTERN NEW GUINEA REG., P.N.G. (207)

MDG     0.59 343 iPd    13 26.20   0.0
FINC    2.05 113 eP     13 49.50   0.4
MNDI    2.31 262 eP     13 57.00   3.9X
WWKK    3.19 313 eP     14 06.00   0.6
PMG     3.76 162 eP     14 14.00   0.5
WB2    18.01 218 eP     17 26.30  -0.1
      0.4s     1.80nm          3.6mb
SIV   145.57 129 PKP    32 54.00  -1.4
      S.D. = 1.0  on   6 of   7 obs.
-----------------------------------
*  JAN  31, 1993  16h 20m 29.77± 0.82s
   34.658 N ±12.8km   25.264 E ± 8.0km
   DEPTH =  33.0km  (normal)
   3.9mb (  2 obs.)
 CRETE                              (370)

YER     3.48  44 iP     21 24.00   1.0
CSS     6.64  85 eP     22 07.40  -0.2
                    eS    23 22.00
VAY     6.98 343 e(Pn)  22 11.70  -0.6
OHR     7.35 333 e(Pn)  22 04.00 -13.5X
SKO     7.90 339 e(Pn)  22 24.00  -1.1
GEC2   16.57 332 ePn    24 22.50   1.4
      0.7s     1.09nm          3.1mb X
                    e     24 26.60
                    e     24 29.60
                    e     24 34.00
LBF    20.20 314 eP     25 04.80   0.4
      1.1s    10.00nm          4.1mb
LOR    20.41 315 eP     25 07.40   0.8
SSF    20.52 314 eP     25 07.90   0.2
DOU    21.60 322 P      25 18.20  -0.4
GKN    50.53  80 P      29 27.20   0.0
DMN    51.06  81 P      29 31.60   0.2
KKN    51.13  80 P      29 31.60  -0.3
PKI    51.32  80 P      29 32.80  -0.7
GBA    51.40 101 P      29 34.70   1.0
GUN    51.57  80 P      29 35.00  -0.4
YKA    77.95 342 eP     32 24.50  -1.2
      0.6s     0.50nm          3.7mb
      S.D. = 0.8  on  16 of  17 obs.
-----------------------------------
&  JAN  31, 1993  16h 22m 53.86s
   60.693 N          151.741 W
   DEPTH =  78.4km
 KENAI PENINSULA, ALASKA            ( 14)
      <AEIC>.

NKA     0.25  78 iP     23 07.08   1.3
RDT     0.35 250 eP     23 05.84  -0.7
DFR     0.48 258 iP     23 06.80  -0.8
                    eS    23 17.06
SPU     0.51 343 iP     23 07.03  -0.8
                    eS    23 17.99
REF     0.52 247 iP     23 07.49  -0.5
                    eS    23 17.86
RSO     0.55 246 eP     23 07.75  -0.6
RS2     0.55 246 eP     23 07.72  -0.6
                    eS    23 18.56
RS1     0.55 245 eP     23 07.97  -0.4
                    eS    23 18.77
CKT     0.56 336 iP     23 07.44  -0.8
                    eS    23 18.39
CKN     0.57 338 iP     23 07.86  -0.5
CKL     0.58 330 iP     23 07.79  -0.8
NCT     0.60 258 eP     23 07.93  -0.8
                    eS    23 18.65
CRP     0.61 341 iP     23 08.27  -0.6
                    eS    23 19.57
CP2     0.62 337 iP     23 08.45  -0.6
                    S     23 19.95
BGL     0.65 331 iP     23 08.54  -0.7
SLKM    0.77 103 iP     23 09.92  -0.5
SUA     0.91  32 iP     23 11.75  -0.4
                    eS    23 25.75
INW     0.93 228 eP     23 11.53  -0.9
BRLK    1.03 155 eP     23 12.92  -0.5
                    eS    23 28.24
MPA     1.19  99 eP     23 15.09  -0.4
PMS     1.20  62 iP     23 15.36  -0.3
SEW     1.28 116 eP     23 16.09  -0.5
                    S     23 32.02
SKT     1.30   4 eP     23 15.98  -0.9
PWA     1.32  42 eP     23 17.30   0.2
PTE     1.34  81 iP     23 16.70  -0.7
PDB     1.52 234 eP     23 18.63  -1.2
                    eS    23 37.81
PLRM    1.55  53 eP     23 19.31  -0.9
GHO     1.74  50 eP     23 21.67  -1.2
```

31d 16h

```
KNK      1.75  64 eP    23 21.84  -1.1
SML      1.99  54 eP    23 25.02  -1.2
KNIM     2.01  98 eP    23 23.64  -2.8
LTI      2.04 107 eP    23 25.02  -1.8
MTU      2.15 107 eP    23 26.51  -1.9
VLZ      2.68  78 eP    23 33.46  -2.1
KLU      2.94  72 eP    23 37.18  -2.1
        35 obs. associated
-------------------------------------
   JAN  31, 1993  18h 19m 04.90± 0.77s
   45.248 N ± 5.9km    7.448 E ± 7.5km
   DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                   (545)
      ML 2.3 (LDG).

ORO      0.53  45 Pd    19 15.80   0.1
                  eSg   19 22.20
LPG      0.55 297 Pg    19 15.90  -0.4
                  Sg    19 23.20
LPL      0.57 298 Pg    19 16.40  -0.2
                  Sg    19 23.60
BNI      0.58 251 Pc    19 16.40  -0.4
                  eSg   19 23.00
DOI      0.76 191 Pc    19 18.20  -1.6
                  eSg   19 26.00
SBF      1.38 180 Pg    19 29.10  -1.2
                  Sg    19 45.90
FRF      1.78 199 Pg    19 36.50   0.6
                  Sg    19 58.10
LRG      1.96 204 Pg    19 40.10   1.7
                  Sg    20 04.50
LMR      2.03 200 Pg    19 40.60   1.1
                  Sg    20 05.30
BGF      3.47 294 Pn    20 00.40   0.4
      S.D. = 1.1  on  10 of  10 obs.
-------------------------------------
   JAN  31, 1993  19h 33m 34.40± 0.25s
   25.905 N ± 3.9km  101.535 E ± 4.0km
   DEPTH =  33.0km  (normal)
   4.9mb ( 45 obs.)  4.5Msz (  1 obs.)
 YUNNAN, CHINA                    (318)
      ML 4.7 (BJI). Two people were
      killed and some houses were
      slightly damaged in Dayao
      County.

KMI      1.34 125 Pgd   33 57.50   0.4
                  Sg    34 16.00
GYA      4.64  82 Pn    34 47.00   2.9X
      Z  10s      8.11um
                  Pg    35 00.00
CD2      5.36  21 iPnc  34 55.60   1.4
                  Sn    35 58.90
CHG      7.45 199 ePn   35 23.70   0.1
                  ePg   35 48.70
                  iSg   37 27.60
LOE      8.46 179 ePn   35 38.00   0.4
                  ePg   36 06.00
                  eSg   38 08.10
SHL      8.71 270 iPc   35 35.80  -5.5X
LSA      9.94 295 P     35 54.40  -4.1X
      2.0s     27.00nm          5.2mb
      Z  11s      2.55um          4.2MszX
NST     10.27 188 iPc   36 12.50  10.0X
QIZ     10.28 130 eP    36 03.00   0.2
      N  11s      6.82um
      E  11s      5.51um
                  S     37 52.60
XAN     10.33  37 P     36 00.60  -2.8X
      1.0s     25.00nm          5.4mb
                  S     37 55.00
LZH     10.34  10 Pc    36 05.00   1.3
      1.5s     50.00nm          5.5mb
      Z  12s      3.42um
                  pP    36 09.00
                  eS    38 05.00
GZH     11.11 102 P     36 12.80  -1.3
      Z  12s      4.22um
                  eS    38 18.00
KHT     11.40 195 eP    36 19.30   1.3
HKC     12.09 105 eP    36 26.50  -0.7
                  S     40 12.00
WHN     12.21  65 Pd    36 27.40  -1.4
      Z  12s      4.21um
      N  10s      3.33um
      E  10s      2.65um
                  sP    36 40.50
GTA     13.54 354 P     36 46.00  -0.7
      1.5s     21.00nm          4.8mb
      E  11s      3.30um
                  pP    36 54.00
                  sP    36 56.50
                  eS    39 14.00
GUN     14.11 282 P     36 48.92  -5.5X
PKI     14.51 280 P     36 53.78  -5.8X
KKN     14.63 281 P     36 53.88  -7.2X
DMN     14.78 280 P     36 55.48  -7.6X
TIY     14.97  35 eP    37 04.00  -1.3
      Z  12s      4.82um
      N  12s      6.18um
      E  12s      3.55um
GKN     15.21 282 P     37 00.36  -8.3X
BTO     16.27  24 eP    37 21.00  -1.0
      0.7s     17.00nm          4.3mb
      N  11s      4.17um
      E  11s      3.62um
                  S     40 15.00
NJ2     16.34  64 Pc    37 24.50   1.6
      1.0s     34.00nm          4.4mb
      Z  11s      1.57um          4.4MszX
      N  11s      3.72um
TIA     16.83  49 eP    37 28.30  -0.8
      Z  12s      1.85um          3.5MszX
      N  10s      2.39um
HHC     17.08  27 P     37 30.00  -2.2
      1.2s     49.00nm          4.5mb
      Z  10s      3.05um          4.7Msz
      E  10s      4.20um
                  PP    37 51.70
                  S     40 40.00
SSE     18.02  69 P     37 44.00   0.0
      Z  16s      3.10um
      N  10s      1.80um
                  sP    37 56.00
                  eS    41 04.00
                  esS   41 20.00
BJI     18.66  37 eP    37 52.50   0.8
      1.0s     13.00nm          4.1mb
      Z  14s      1.20um          4.2Msz
      N  11s      2.50um
                  eS    41 22.00
WMO     21.12 331 P     38 18.50  -0.1
      1.6s     78.00nm          4.9mb
      Z  12s      1.50um          4.6MszX
                  sP    38 30.00
                  S     42 09.00
DL2     21.29  48 eP    38 23.60   3.3X
      0.8s     65.00nm          5.1mb
      Z  12s      1.02um          4.4MszX
      N  14s      1.79um
                  S     42 11.00
NDI     21.78 283 eP    38 25.00  -0.3
HYB     22.94 253 eP    38 33.50  -3.4X
                  eS    42 46.00
KGM     23.81 176 eP    38 50.00   4.7X
SNY     24.13  43 iPd   38 51.60   3.4X
      0.4s     42.00nm          5.3mb
      Z  14s      1.30um          4.6MszX
      N  14s      1.34um
      E  13s      1.04um
                  S     43 07.00
                  sS    43 14.00
KKM     24.23 142 ePc   38 51.70   2.3
      1.1s     75.20nm          5.2mb
ZAK     24.48   3 eP    38 52.50   1.1
      1.5s     45.00nm          4.8mb
PRZ     25.17 317 eP    39 00.50   2.1
      1.8s    300.00nm          5.6mb
KSH     25.30 309 eP    39 00.50   0.9
      0.5s     10.00nm          4.7mb
      Z  10s      1.90um          4.9MszX
      N  16s      3.06um
      E  16s      2.39um
                  pP    39 10.00  34kmX
GBA     25.72 246 P     39 04.00   0.5
UER     26.25 349 eP    39 07.50  -0.6
      1.5s     68.00nm          5.0mb
                  e     39 47.00
CN2     26.38  41 eP    39 11.40   2.0
      1.0s     31.00nm          4.9mb
      Z  12s      0.48um          4.3MszX
      N  10s      0.76um
      E  10s      0.65um
                  epP   39 19.00  27kmX
                  eS    43 43.00
IRK     26.41   4 eP    39 10.20   0.5
      1.4s     40.00nm          4.8mb
                  e     39 26.30
                  e     39 50.90
POO     26.62 260 eP    39 07.00  -4.9X
CIT     27.62  16 eP    39 23.00   2.3
FRU     27.74 314 eP    39 22.00   0.1
      1.8s     40.00nm          4.8mb
                  e     39 38.60
                  e     40 12.40
VLA     30.12  48 iPc   39 41.00  -2.2X
      1.5s     78.00nm          5.3mb
                  i     39 50.00
QUE     30.75 286 eP    39 46.00  -3.1X
MNI     33.09 134 ePd   40 11.00   1.5
BOD     33.17  12 eP    40 10.00   0.3
      1.0s      8.00nm          4.6mb
MAIO    37.21 297 eP    40 45.00   0.4
ASAJ    37.79  51 eP    40 48.90  -0.4
HOOJ    37.85  54 eP    40 50.50   0.8
YSS     38.68  46 eP    40 56.60   0.0
      Z  15s      1.00um          4.8MszX
      N  15s      0.90um
KUSJ    39.02  53 eP    40 59.30  -0.3
YAK     40.75  20 eP    41 12.10  -1.4
      0.8s     39.00nm          5.2mb
SVE     42.50 328 ePc   41 27.00  -1.0
ARU     43.30 326 eP    41 35.00   0.5
      1.7s    200.00nm          5.6mb
NRI     44.24 353 iPd   41 42.00   0.1
      1.4s     46.00nm          5.1mb
                  e     41 49.00
MGD     47.89  31 eP    42 12.00   1.0
      0.7s     20.00nm          5.3mb
      Z  14s      0.50um          4.6MszX
      N  14s      0.50um
TIK     48.26  11 iPd   42 14.00   0.3
      1.0s     19.00nm          5.1mb
      Z  14s      0.70um          4.8MszX
                  e     42 20.00
                  e     42 27.00
                  eS    49 14.00
KIV     50.43 307 P     42 30.40  -0.5
      1.7s     23.00nm          4.9mb
OBN     54.91 320 iPd   43 05.00   1.0
      1.7s    100.00nm          5.6mb
WRA     55.61 142 P     43 08.90  -0.6
      0.8s      3.20nm          4.4mb
WB2     55.62 142 iPc   43 08.20  -1.3
      0.6s     20.00nm          5.3mb
ASPA    58.39 145 eP    43 27.90  -1.3
      0.6s      9.30nm          5.0mb
VRI     61.59 310 eP    43 51.50   0.6
MLR     62.19 310 eP    43 53.50  -1.6
ILT     62.44  25 eP    43 56.00  -0.2
      Z  12s      1.00um          5.2MszX
      E  12s      0.80um
HFS     66.85 327 eP    44 24.50  -0.4
      0.5s      1.60nm          4.4mb
KSP     67.46 317 eP    44 27.30  -1.7
BRG     68.89 317 e(P)  44 39.00   1.1
GEC2    69.59 315 eP    44 42.30   0.0
      0.6s      1.44nm          4.2mb
                  e     44 52.10
GRF     70.90 317 eP    44 49.50  -0.7
      Z  21s      0.30um          4.5Msz
                  e     45 07.00
IMA     72.37  24 eP    44 59.75   0.9
      1.1s      4.94nm          4.4mb
TTA     72.69  28 eP    45 03.50   2.8X
SVW     73.59  30 eP    45 09.40   3.5X
BSF     74.28 316 eP    45 09.70  -0.6
      0.9s      4.90nm          4.5mb
FBA     75.09  24 eP    45 14.18  -0.3
      0.9s      6.16nm          4.6mb
LPG     75.16 314 eP    45 15.70   0.1
      1.0s     14.60nm          4.9mb
LPL     75.17 314 eP    45 15.70   0.1
      0.7s      8.25nm          4.8mb
PWA     75.83  28 eP    45 21.10   2.4
      0.3s     10.10nm          5.3mb
PMR     76.17  28 (P)   45 19.81  -0.8
      0.9s     14.62nm          5.0mb
LBF     76.37 316 eP    45 21.40  -0.7
SSF     76.64 316 eP    45 23.20  -0.4
      0.8s      5.10nm          4.6mb
```

```
AVF     76.84 316 eP     45 24.40  -0.3
TOA     77.13  27 eP     45 25.20  -0.9
KLU     77.55  27 eP     45 28.45   0.0
TCF     77.77 316 eP     45 29.40  -0.5
RES     79.09   4 eP     45 39.50   3.0X
        1.0s      2.00nm          4.1mb
BALM    79.25  26 eP     45 39.40   1.6
BCAO    81.79 271 iPc    45 52.10   0.1
        0.7s      6.00nm          4.7mb
BUL     84.27 245 iPc    46 04.90   0.3
YKA     87.30  16 eP     46 17.30  -1.5
        0.9s      1.40nm          4.2mb
SLR     87.34 240 eP     46 18.00  -1.7
        1.0s     20.00nm          5.3mb
BAO    149.80 284 ePKP   53 16.00  -2.5
                  e      53 36.00
     S.D. = 1.1  on  75 of  95 obs.
-------------------------------------
*  JAN  31, 1993  20h 10m 50.11± 2.37s
   37.715 S ±19.7km  176.302 E ±13.5km
   DEPTH = 231.4 ± 17.8 km
 NORTH ISLAND, NEW ZEALAND        (159)

URZ      0.84 131 P      11 21.30  -1.2
                  S      11 39.20
WHH      1.18 173 P      11 24.00  -0.7
NGZ      1.56 200 eP     11 27.80   0.2
MOH      1.56 155 eP     11 27.50   0.0
PUZ      1.59 104 eP     11 27.90   0.2
                  S      11 50.30
HBZ      1.59  86 eP     11 27.60  -0.1
CNZ      1.60 202 eP     11 28.20   0.3
NOZ      1.64 124 P      11 28.80   0.7
TTH      1.87 167 P      11 30.90   0.8
WAHZ     1.98 179 P      11 31.30   0.1
BSZ      2.34 207 eP     11 35.40   0.7
MNG      2.97 192 P      11 41.40  -0.1
                  S      12 14.40
KIW      3.32 199 P      11 45.50  -0.1
MTW      3.49 190 P      11 47.10  -0.4
CAW      3.52 195 P      11 47.70  -0.2
DIW      3.59 210 eP     11 48.90   0.2
BLW      3.70 190 P      11 49.60  -0.4
MRW      3.72 199 eP     11 50.20   0.0
MOW      3.79 192 P      11 50.60  -0.4
TCW      3.83 204 eP     11 51.50   0.0
KHZ      5.15 203 P      12 07.90   0.2
                  eS     13 04.10
     S.D. = 0.5  on  21 of  21 obs.
-------------------------------------
*  JAN  31, 1993  20h 17m 34.80± 2.85s
   34.385 S ±14.7km   70.574 W ±13.3km
   DEPTH = 126.3 ± 28.8 km
 CHILE-ARGENTINA BORDER REGION    (127)
      MD 3.7 (SAN).

CACH     0.27 355 iP     17 52.84   0.0
                  iS     18 05.15
LNV      0.82 301 iP     17 55.99   0.0
                  iS     18 10.30
SAN      0.93 355 iP     17 56.91  -0.2
                  iS     18 12.17
FCH      1.08  13 iP     17 58.93   0.1
                  iS     18 16.47
LCCH     1.23 317 iP     17 59.97   0.0
                  iS     18 17.43
PEL      1.24 356 iPd    18 00.35   0.2
                  iS     18 18.53
ROCH     1.46 345 iP+    18 02.64  -0.1
                  iS     18 22.66
JACH     1.70 359 iP     18 05.43   0.0
                  iS     18 28.31
RFA      1.78 103 iPd    18 06.40   0.0
                  (S)    18 29.00
     S.D. = 0.1  on   9 of   9 obs.
-------------------------------------
   JAN  31, 1993  21h 15m 25.19± 1.82s
   31.883 S ±12.3km   70.371 W ±11.1km
   DEPTH = 154.7 ± 16.5 km
 CHILE-ARGENTINA BORDER REGION    (127)
      MD 3.9 (SAN).

JACH     0.82 193 iP     15 48.98  -0.4
                  iS     16 03.82
ROCH     1.21 206 iP     15 52.65  -0.2
                  iS     16 11.07
PEL      1.28 192 iP+    15 52.98  -0.3
                  iS     16 11.25
RTCB     1.40  74 eP     15 54.50   0.0
                  S      16 12.50
FCH      1.44 177 eP     15 55.58   0.4
                  iS     16 15.59
RTCV     1.56  90 iPc    15 56.00  -0.1
                  (S)    16 16.00
SAN      1.58 189 iP     15 55.79  -0.6
MDZ      1.63 128 iP     15 57.40   0.5
                  iS     16 17.20
RTLL     1.71  72 iPc    15 58.00   0.2
                  S      16 19.50
CFA      1.84  82 ePc    15 59.30   0.1
                  S      16 22.00
LCCH     1.88 212 iP     16 00.19   0.6
                  iS     16 23.71
CACH     2.24 185 iP     16 04.50   0.6
LNV      2.24 203 iP     16 03.74  -0.1
                  iS     16 30.27
RFA      3.29 152 iPc    16 16.70  -0.4
MRA      3.99  99 e(P)   16 26.00  -0.1
TCA      4.96  85 iP     16 38.80  -0.2
                  (S)    17 29.50
     S.D. = 0.4  on  16 of  16 obs.
-------------------------------------
?  JAN  31, 1993  22h 03m 59.44± 3.27s
   22.941 S ±10.5km   71.612 W ±35.3km
   DEPTH =  33.0km  (normal)
   3.8mb (  1 obs.)
 OFF COAST OF NORTHERN CHILE      (121)

ANT      1.34 125 iPd    04 22.00   0.1
                  iS     04 33.80
YJA      5.70  83 ePd    05 24.10  -0.3
SLA      5.88 109 e(P)   05 30.30   3.6X
FSA      5.98 123 eP     05 30.20   2.2
CNCB     6.99  30 P      05 46.30   3.6X
LPB      7.18  28 P      05 45.00  -0.3
                  LR     08 22.00
ZOBO     7.39  27 P      05 49.80   1.5
      Z  18s      0.76um
                  LR     08 30.00
TCA     10.44 145 e(P)   06 29.00  -1.0
SIV     12.10  57 P      06 51.80  -0.8
BAO     23.43  76 P      09 05.50  -1.3
YKA     91.73 342 eP     17 11.50   7.1X
        0.7s      0.30nm          3.8mb
     S.D. = 1.4  on   8 of  11 obs.
```

STATION DATA REPORT FOR JANUARY, 1993

1485 stations reported 69902 reading arrival groups

X = data received for this 6-hour time period

DATE	| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |10 |11 |12 |13 |14 |15 |16 |17 |18 |19 |20 |21 |22 |23 |24 |25 |26 |27 |28 |29 |30 |31
AAE	X X X X X X X X X XXXX X X
AAI	XXX X X X XXXX
ABH	X XXX X X X X X X X X X X X X X X
ABHA	X X X X X X X X X X X X X XX X XXX X
ACO	X X X XX XXX X X X X XXX X XX X XX XX X XXXXXXXXXX XX X X X X X X X
ACX	XXX X X X X XX X X X X X X X XX X X XX X X XXX XX X X
ADE	XXX XXXX X XX XX XX X X X XX XXX X XX X XX X X X X X X X X X X X
ADH	X X X X X XX X X X
ADK	X X X X X X XX X XXX X X X X X X X
AFIF	X X X X X XX X X X XX X X X
AFR	XX X X X X X X X X XX X
AGG	X X X XXXX XXXX XXXX XX XXXXXXXX X XXX X XX XXXX XXXX X XXXXX XX X XXX X XXX XXX
AIA	X X X X XX X X XXX XXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXX XXXX XX XXXXXXXXXXXXXXXXXXXXXX X XX XX X X XX XXXXXX
AKKT	X XXX X XXX
AKU	XX X X X X X X X X
ALJ	X X XX X X XX X XXXX X X X X X X X XXXX XXX
ALN	X XX XXXX X XX XX X XX XX XX X XXX XXX X XX X XXXXXXX X X
ALQ	XX XXXXXX X XX XXX XXXX XX X X XXXXXXXXXXX XXX X X XXXX XX XX XXXX XXXX XX X X X X
ALT	X X X XX XXXX XX X XX X XX X X X XXX XXXX X XX XXXX X X X X XX X XX XX XXXXX XXXX XX XX X X
ANN	X XX XX X X X X XXX X X X
ANT	X XXXXXXXXX X X XXXXX XX XX X XX XXX XXXXX XX XX X XXXXX XXXX XX X X XXX XX X XXXX X XX XXX X
ANTZ	X X X X X XXX XXX X X XX
AOMJ	X X XX X X X XX X X X X XXX X X XXX X XX X X X
APA	X XX X X X X X X X XXX X X X X X X X
APR	XX XX XXX X X X XX X X X XXXX X X XXXX XX XX XX X XX X XXX XX XX X X
AQU	X XX XX X X X XX X X X X XX X XX XXX X X XXXX X X XX X
ARE	X X X X XXXXXXXX XX X XXXXX X X XX X X X XXXXXX X XXX X X XX XXXXX XX X XXX XXX XXXXXXX XXX X
ARMA	XXXXX X X XXXXXX XXX X XXXXXXXXX XX X XX XXX XXXXXXXXXXX XXX XX XXXXXXXXX XXXXXX XXXXXXXXXXXXXX XXX XX XX X X
ARN	X X XXX X X X XX XXXX X X XX X X X XX XX X X X X X X XXX X
ARO	X X X X X X X X X X X X
ARU	XX XX X X X X XX XX X X X X X XX XX X X X XX X X X X X X XX X X X X X
ARUT	X X XX X XX XX X X X X XX XX XXXXX XX XXX XXXXXX X X XXX X XX X XX X XX X X X X X X X
ARV	XXX X X X XX XXXXX XX XXX X X XX X XXXX XXXX X X X X XXXXX XX X XXX X X X X X
ASAJ	XX X XX XX X XX X XXXX X X X X X X XXXXX XX X X XXX XX X X X X X X X
ASH	X X X XX X XX XX XX XX X X X X XX XX X X X XXXX X XX X X X X X X X
ASPA	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX X XXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXX
ASR	X X X XX X X X XX X X
ASS	XXX X X XXXX XXXX XXXXX XX XX X X X XX X XXXXXXXXX XXXXX X XXXXXXXX X XXX X XXXXX X XXX X X X X
ATH	X X XX XX X XX X X X X XXXX X X X XXXXXX X X X XXX
ATN	X XX X XX X X X XX XX X X X X X X XX XX XXX X X X XX X X XXX X X XXXX XXX X
AUE	X X XX X XX XX XXX X X X X X X X XX X XX XX X X XX
AUH	X X XX X XX XX XXX X XX X X X X X XX X XX XX X X XX X
AUI	X X XX X X XX XX XXX X X X X X X XX X XX XX XX X XX
AUL	X X XX X XX XX XX XXX X XX X X X X X XX X XX XX X X XX
AURF	X X X XX X X X X X
AUTN	X X X XX X X X X X
AUW	X X X XXX X X X X X X XX X X XX X XX X
AVE	XX XXXX X X XX XX X X X X XX XX XXX X XX X XX X X X XXXXXX X X XX X XXX X X X
AVF	X XXX XX X XXXXXX XX XX XXX XXXX XX XX X XX XXX XX XX X X X X XXXXXX XX X X XXX XX XXXXXXXXXXX XXX XX XX XX X
AYN	XXXX XX XXXX XXX XX X XXX XX XXX X XX XXX X XX X X X XX X X
BAG	X X XXXX XX X X XX XX X X X XX XX X X X XX XX XXX X X X X X X X X X X X
BAI	X X X X XX X X X X XX X X X
BAK	X XX X X X X XXXX X
BAL	X X X XXX X XX X XX X X XX X X X X XXX XXXX X X XX X X XX X X XX XX X X
BALM	XX X X XXXX XX X X X XXXX X X XX XXX XXXXX XXXXXXXXX XXXXXXX XXX X X XXX XXXXXX XXXX XXXX XX XX X XX X X
BAO	XX X X XXX X XX XXXXXXXXXXX X XX X X X XXXXXX XXX XX X X XXX X XXXXXXXX X XX XXXXXX XXX XX X X XX XXXXX
BBS	X X X X X X X XXX X
BBTK	X X X X XXX X X X XX X X X XXX X X
BCAO	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXX XXXX
BCH	X X XX X X X XX XX X XXX XXX XX XX XXXXX X X X
BCI	X X X X X X X XXXX X XX XXXX X XXXXXX X X X XX X X X X
BCK	X X X X X X XXX XX X XX XXXXX X XX X XX X X XXX XXXX X X XXXX XXX X
BCPM	X X X X X X X X X X X
BCZ	X X X X X XX X X X XX
BDF	XX X X XX XXXX X X X X XX XX X XX XX X XX
BDI	XX X X XXX X X X XX XXX X X X X XXX XX XX XX X X XX X XX X X X X XX X X X
BDT	X X X XXXXXX XXX XX X XXX X X X XX XX XX XXX X XXX X X X XX X X X XX X
BDV	XX X X X X X X X X X XXXX XX X XX X XXXXX X X XX X X XX X
BEO	X X XX X X X XX X XX X X X X XXX XX X
BFD	XXX X XXX X XX X X XX XXXXX X XX X X X XX XXXX X XX X XXXXX X XXX XX X X XXX X X X X X X X
BFS	XXXX X X X XX XXX XXXX X X X XX X XX X X X X X X X X X
BFT	XX X X XX X XX X XXXX X XXX X X XX XXXXX X X XX X X X X X X XX XX X XX
BGF	X XXX XX XXXXXXXXX XX X XX XXX XX X X XX XXX X XX X X X XXXXXX XX X X XXXX X XX X XXXXXXX XX XX XX X
BGL	X X X XX XXXXX XX XX X XX XXX XX XXXXXXXXXX X XX XXXX X XXXXXXXXXX X X XX XXXXX XXXXX XXX XXXX X XXX X X
BGMT	X X X X X X XX XX XXXX X X X X X X

```
DATE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |10 |11 |12 |13 |14 |15 |16 |17 |18 |19 |20 |21 |22 |23 |24 |25 |26 |27 |28 |29 |30 |31
BGR  X X  X       XX   XX XX X  X X  XXX   X   XXXX   X    X XX XX X  X X X XX X      XX XX XX  X    XX   XXX  X XX   X  XX  X X
BHB  X XXX       X  XX   X XX X    XXX X    XX  X   X  XXXXX XXX     X     X XXXXX XX X        XXX
BHG  X             X       X XX  XXX  XX       X   XX XX   X X      XX    XX  XXX     X       X X      X    X   XX
BHL    X  X  X   X  X       X XX  XXX XXX  X  X      X  X X   XX X         X  XXXX X   X     XX      X XX   X X X     X X   X
BIM    XX          X   XX  X X         X              X  XX         X   X        X X   X   X                        X   X
BJI  XXXXXXX XXXXXXXXXXXX XXX XXX XXXXXXXX XXXXXX XXXXXXXXXXX XX X   XXXXXXXXXXXX X  XX XXXXXXXXXX X XXXX XXXXX  XXXX  X  XXXX X
BKM      X  X   XXX XX  XX  XXXXXXXXXXXX  XX X X   XXX XXXXXXXX XX XXXXXXXXXX XXX X X X   X XXX XXXX XXXXX  X XXXXXX XXXX X X X
BKS                X X       X          X X    X  X          XX  XX XXX X  XX X   X           XX      X      X           X
BLA  X                   X         X X      X     X    XXXX XXX XX             X X                            X
BLE                    X      XX           X             X     X                XX X                       X   X   X          X
BLF  XXXXX XXXX    XX XX X XXXX  XXXX XX   XXX XXX  X XXX XX XX X  X    XXXX  XXXX X X X  XX    X XX  X    XXXXX   XXX X  XXX
BLW    XX XXXXX        X     X             X  X    X XX                                      XX        X            XX        X
BMA                                                                  X     XXXX X     XX          XX
BMG      X        X    X         X XX XX  X XX  XX  X   XX X   X X    X     XX      X    X    XXXX    X   X     X    X X
BMR    X            X      XX X        X   X X      X     X                    X X                 XX           X X        X
BMW    X      X     X    X      XX X        XX X               X     X X  X     X                XX           X X        X
BNI    XX                 X  X XX  X  X      XX          XX    XX     XX    XX XXXX XX X        XXX   X  X          X   X         X
BNN      XX  XX  X  XX      X  X    XX X    X  X               XX X  X X        XXX      X    X  X                    X X  X
BNS    X  X         X       X X                      X     X      X    X   XXX    X            X            X  XX
BNT    X                    X       X   X      XX XXXXX XXXXX XX X XXXXX  XXXX XX XXX  XX XXX XXXXXXXX      XXXX XXXXX XXX
BOB    X               X  X X X    XX  X               XX     XX  X  XX    XX  XXX X   X X      XX  X  X  X     X
BOD    X   XX XXXX X XX        X    XXX X   X  X X  XXX XX X   XX XX   XXXX X  XXXX X   XX X   XXX   X  X    X XXX   X   X    X  X
BOG    XX X     X XX X X  XX   XXX XX XX  X XX  XX  X   XXXX   X X     X     XX  X   X         XXXX    X X X     X    X X
BOM        X X X XX X      XX                          X X X   X     X    XXXX X   X  X                X X   X     X    X  X
BONR X X     XX  X XXX  XX X  XXX XX XX  X XXXXXXX XXXXXX     XX  XX XXX XXXXXXXXX XX XX      XXXX  XXXX XXX XX  X X  X X XX  X
BPA    X            X         X    X  X                XXX  X   XX            XX              X                      X     X    X
BPI  X X                X   X X     X       X           X  XX    X             X   X                        X         X
BPO    X      X          X    X                        X          X   X  X     X          X    X                      X
BRD    X            X  X X XX X     X  X   XX     X  X    X   X       X   X                X  X        X     XXX       X
BRG  X X  XX XX  XX XXX  XXXX XXX XXXXXX  XXXXXXXX XXXXXX XXXXXX XXX XXX X XX  XXXXXX XXXX X  XXX XX  XXXX XXXXXXX XXXXXXXXX X  X
BRLK X    X        XX   X  XX X        XX        XXX           XX XX X    X   XX         X XX XX  X    XX    XX    XX   X  XX  X X
BRNL                 X        X X                            X              XXX X              X
BRS      XX   X X XX X          X    XX XXX X    X       X    XXXXXXX  XX  XXX   XX XXXXXX  XXXXXXXXXXXXXXX XXXXXXXXXX
BRT      X     X        X X  X      X X XX  X X X  XXXX X  X X X      XX  X XX  XXXX      X  X X X  X        X   X  X          X
BRU      XX    X X    X    X     X  X X   X X X X      XXX      X   X         X                XXX     X        XX
BRVK XXX  XX XXXXXX XX      X XX   XXXXX      X X  XXX  X XXX  X X      XX X   XXX     XX X   X     X  X    X XXXX  X   X       X
BRVW   X            X    X      X                              X    X          X X          X    X       X
BRW    X         X XX         X      X      X          X XX  X  XX      X  X X  XXXXXX  XXX     XXXX  X X     XXX     X   X
BRY    XX      X         X     X X  X X XXX    X     XX X  XX  X      XX     X XXXXX   X  X     XX           X   X XX          X
BSD    X            X X     X                          X     X                X X                            X
BSF  X XXXXX  XX XXXXX  X  XX XXX XXXX XX  X  X X X XX XXX X  XX  X  XX  X XXXXXXX XX XX  X  XXXX  XX XX XX XXXXXX XX  XX X   X X
BSI   XXX            X X         X XX
BSZ    X  XXX X   X    X     X  X          X       XXX                                      X  X                XX        X
BTO  XXX  XX XXXXXX XXXXX XXX XXX  XX   X  XX   X XXXXX XXXXX XX X   XXXXX X X XXXXX   X XX X XXXX  X  X X XXXXX XX XX XX    X  X
BUC                        X  X       X                                      X XXX
BUD    X          X  X              XX              XX        X           XX   XXXX   X                X    XX  XX
BUL   XX XXX X X X XX       XXX  X X  X    XX  X      X X X   X         XX X  XXXX X   XXX X  X XX XX XXX   XX X    X   X    XX
BW06 X            X            X              X X XXXXXXXXXXX XX   XX X  XXXXXXXXX XX      X X   X XX   X   XXX    X       X
BWA    X  X X X XX XX  XX  X XXXXXXX X    X  X     XX  XX XX  X  X  XX XX X  XXXX                  X X   X      X   X
BWZ  X XX  X      X            XX X X      X   X  XX X      X                                X                  X
BZK      X   X              X                                X               X X  X                X         X        X  X
BZS    X     X                                            XXX  X        XX   XX X   X X   X  X      XX  XXXX XX  X          X
CACH   X   XX  X  XX XX  X     X XX  XX   X XX  X X X X X   X  XX     X  XX  XX  XX    XX  X  XXX  X     XX     XX         X  X XX
CAF        X   XXXXXX   X  X XX  XXXXXX   X    X   XX XXX XX XX  XX   X     XXXXX X   X  X   X X  XX X    XX XXXX  XXX XX X X
CALA              XX     X                       X  X  X                    X      X    X                        X           X
CAN  X XXX X X X XX XX XXX  X XXXXXXX X    X  X    XXX  XX  XXXXX X  XX XX X   XXX              X       X X   X      X   X     X
CAR                                                  XX X   X         X      X X X           X
CAW   XX XXXXXX   X    X     X  X     X   X  X    XXXX X                                 X   XXX  X X   X X     X    XX      X X
CBM            X X  X       X XX  X        XX   X   X  XX     X           X X  XX X X   X      X X      X X       X      X
CBN    X           X                 X                 XXX    X                  X              X     X                  X   X
CCB    X  X    X  XXX  XX X     X    X X  XX     XX    X     X   X X  XXX X    X          X   X        X   XXX  X XX      XX  X
CCH                        X X XXXXXXXXXXX  XX       XXXX           XXXXXXXXXX XXXXXXX XXXXXXXXXXXXX XXXXXXX  XX  X XX X X   XX
CD2  XXXX XX XXXXXX XXXXX  XX X X XXXXXXX  XX X X XXXX XXXXXX XX XX  XXXXX XX XXXX X  XX XX X X XX  X XX X XXXXX  X XX  X    X  X
CDD  X    X       X    XX XX XX X X   XX       XX            XX     X  X X            X XX XX  X    XX    XX    XX        X  X
CDF  X XXXX   X  XXXX      XX XXX XXX  XX XX  X XX  XX XX XX  XX  X  XXX X XXXXXXX XX  XXX   XXXX  XXXXXXXX XXX XX  X  XX X   X
CEH  XX          XXXX    X  XXXX  X       XX   X X X XXXXX XX  XXX      X X XXX X X   X      X XX     X    X      X    X     X
CEOS                                  XX     X       X  XX       X     X    XX X          X X    XX X     X             X
CER   XXX         X X  X    X X    X       XX           X X   X    X    XX X  XXXX              X  X            X         XX
CEY    X    X              X X    XXX XXXXX X      X XXX X X X X    XX    XX XXXXXX   X X   XXXXX X   X  X XXX X X   X X
CFA  XXX X XXX XXX X X  XXXXX   X X XXX  X XXX XXX   XXX   X  X   XX X  XXX XX XXXXX XX X XX X XXXX X X XX  XXXXX  X XX XXX  X  X
CFR    X            X   XX  X X        X   X        X     XX  X          XX    XXXXXX  X  XX    X    XXX   X  X        XX     X
CGLM X X  X    X  XXX  XX X  X  X X  XXX   X   XXXX   XX   X XX XX X  XXX X XX X       X XX XX  X    XX   XXX
CGP                                                                                                      X XX     X XXXXX  X    X
CGX            X   X      X                    X X             X        X XX      X  X     X              XX
CHCH  X   XX XX XXX XX XXX    X XXXXXX   X XX  X X X X X   X  XX   X X  XXX XX  XX   XXXX X  XXX  X     XX    XXX X
CHG  XXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XX XX XXX X XXXXX XXXXXXXXXXXXXX XX    X  XXXXXXXXXXX XXX  XXXX
CHJJ XX    X     XX XX  X X X    X XX  X  X       XXX X   X  X  X     X   X XX XX      X X  X XXX  X X     X XX        X    XXX
CIN                                                 XX XXXX     XXXXX   XX  XXXXXX XX  XXXXXX   XXXXX  X XX X    XXXX X
CIR  X   X      X           XX    X  X    XX         XX      X         XX X  XX X X            X  X  X     X                X
CIT  X   XX XXXXXX  X     XX      XXX X   X  X X  XXX XX XX  XX X         X X XXX X   X  X   X X   X  X    X XX    X   X    X  X
```

```
DATE  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |10 |11 |12 |13 |14 |15 |16 |17 |18 |19 |20 |21 |22 |23 |24 |25 |26 |27 |28 |29 |30 |31

CKI      X                     XX XX  XX          X               X      X         X          XX X  X  XX X       X         X          X X    X
CKL   X X  X      X  XXX   XX XX X  X     XXX   X   XXXX    XX—  X XX XX X    X X XX X       X XX XX  X     XX    XXX     XX    X  XX  X X
CKN   X X  X      X  XXX   XX XX X  X     X X   X   XXXX     X   X XX XX X  X X X XX X       X XX XX  X      X    XXX  X XX   X  XX  X X
CKT   X X  X         XXX   XX XX X  X     XXX   X   XXXX    XX   X XX XX X  X X X XX X       X XX XX  X     XX    XXX  X XX   X  XX  X X
CLI     X  X         X X XXXX XX X         X    XX X X X X   X XX      X     X XXXX XXXXX        X    XX X            X    X    X
CLL   XXXX XXXXXX X    X   X XXX XXX XXXXXX   XX X X   XX XXXXXXXXX XX   XXX X XX XXXXXX  XXX     XXXX  XX XXX X XXXXXX XX  XXXXX XX
CLLP                                                          X       XX  X X        X   XX          X                  X
CMB    XX        X XX XXX X      XXX X X X  X XX XXXX X X XX      XX  XXXX X XXXXXXXXX X   X      XXXX  XXXX  XX  X  X  X   X X   X
CMCZ     XX  X      X              X        X  X  XX  X  X     X X                                XX                 XX
CMP        X         X  X   XX X    X   XX  X X  X X X  X  XX  X       X  X XX  XXX X   X X    X X     X    XXXX       X

CMS   XXXXX XXX XXXXXX XXXXX X XXXXXXXXX XX X  XXXXXXXX XXX XXXX X X  XX X  XXXXXXXXX  XXXXXX XXX X X  XXXX XXX  X  X   X      X
CMW     X      X          X       XX X                                  X      X X X  X     XX   X      X      X    X
CN2   XXX  XX XXXXXX XXXXX   X XXX XXXXX  X X  X XXXXXX  XXXXX X  XX  XXXXX X  XXXX X   XX X  XXXXX XX XXXX XXXXX   XX   X    X  X
CNB   XXXXX X X X XXXX X XXX    XXX XXXXX   X  X  X XX XXXXX XXXXX XX X  XX X XXXXXXX  X X    XXX       XXX  XXX  X  X   X      X
CNCB             XXXXXXXXXXXX     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX        XXXXXXXXXXXXXXXXXXXXX
CNIL                         X                 X        X      X          X     X          X          X       X      X
CNZ     X  XXX X              X             X        XXX  X                                X   X X  X X               XX        X
COE                  X X        X         X X   XXX X   X      XX  XXXXXX X XXX X X X                   XX         X  X    X X X X
COOL  X X X X X    XX      X                        X     XX    X   X  X   XX    X X X   XX X          X     X  X  X
COP     X            X      X X           X                   X                   X X     X           X

COZ   X XX           X  X     X                     XX X X XX                 X X                                  X     X
CP2   XXX  X   X X XXXX  XX XX X XX    XXXX    X  XXXXXX X XX  X XXXXXXX  X XXX XX XXX  X  X XX XXX X   XXXX XXXX  X XX   X XXX  X X
CPA   X    X    X  XXX   XX XX X  X     XXX    X   XXXX    XX    X XX XX X  X X X XX X       X XX XX  X    XX    XXX  X XX   X  XX  X X
CPD    XX XX XXX  X X XX XX X X      XXX   XX X   X X   XXXXXX     XX   X   X   XX X   XX      XX XX        X                   X  X
CPW             X     X     X      XX X        X                         X   X  X      X    X        X         X     X    X
CRE      X               X  X X X     XXX XX XXX   X    XX XX  X   XX      XXXXX XXXXX X X XXX X  X  XX     XX X XXX X X   X X
CRF     X            X    X                           X           X   X          X    X        X    X     X          X
CRM     XX          X   XX  X X        X              X           X   X       X X   X  X                            X   X
CROR            X         X      X                    X       X   X   X                        X    X          X    X
CRP   X X  X     X XXXXX XXXXX X  X     X X   X   XXX XXX X   X XXXXXXX  X XXXXXX XXX X  XX XX XXXXX   XXXXXXXXX  X XX   X XXX  X X

CROM       X       XX    XX X     X X    X         XX    X     X X  XX     XX X X                    X     X        X XX      X   X
CRZF     X X  X X X  X          X    XX  X    X    X     X X     X         XX X  XXXX X      X          X    X               X    X
CSS   XXXXXX  X X XX X  X X XX  XX  XXX XXX X XX X X  X     XX XX          XX  XXX      XXXX   XXX    XXXXX  X XXXX  XX  X    XX X
CSY   X XXX     X XX X          X  XXX X   XX  X       X   XXX             XX        X   X  X
CTA   XXXX    X XXXX X  X       XX XX  X    X  X    X    XXXXXXX  XX  XX  XXXX XXXXXXXXXXXXXX XXXXXXXXXXXXXXXXX  X  X
CTGM       X       XXX  X  X     X X    X         X     X      XX  X X  XXX X X          X   X XX  X     X   XXX  X XX      X   X
CTI      X               X  XX X    XX            X X   X X X XX  X  XX    XX  XXX X   X X   XX X  XX  X    XXX X      X       X
CTK     X X   X X    XX      X                                      X X    X X XXX  X   X X X
CTT                                 X       X XX X    X    X    X   X  X XX  X X XX XX XXX                 X     X  XX      X
CUM        X       X  X    XX X           X  X X   X  XX X  X      XX X                X                    X

CVA     X  X    X  XXX   XX X     X X  XXX      XXXX    XX   X XX XX X  XXX X X          X  XX XX  X     X   XXX  X XX       X  X
CVL                         X   XX      X     X   X   X  XXXX XXX XX     X      X X X XX             X  X               X
CVO                   X  X X XX XX   XXX XXX XXXX X X XX XXXX   X   X   X XXX XX XXX     X X X XXXX X  X       X
CVP                          XX  XXXXXXXXXXX  XXX XXXX  XXXX           X XX  X                 XX XXX XXX XXX   X X      X
CVT                           X     X   X     XXXX X        X       XX    X   X     XX   X   XX               X X
CYA    XXXXXXXXXXXXXXX   XX X X  XX X XXXXXXXXXXXXXXXX      X   XX X     XXX  XXXXXXXXXXXX X XXXXXXX X
CYK                 XX                          X                      X          X   X  X  X              X
CZM             X         X      X         X                  X   X X        X    X               X          X
DAG              X X XX  X X XX XX   XX      X XX X  XXX XX XXX X  XX X  XXX XXXXXXXXXX  X     X XXX    X X X  XXXXXXXXXXXXXXX     XX
DAU          X   X          X  X XXX XX X     XX   XX  XX XX  X  X   X   XX X    XXXXXXX XX      XXX   X XX   X     X    X

DAV             X X XX XX               XX      X       XX    XX X  X          X XX  XXX X     X   X       X      X X     X
DCN      X      XX  X XX        X X                             X     X       X     X   XXX X            X            X   X
DEV                       XXX    X X    X     X X     XX XX X  X   X           X X  X X
DFR   X X  X        XXX   XX XX X  X X  XXX    X   XXXX    XX    X XX XX X  X X   XX X       XX XX XX  X     XX    XXX  X XX   X  XX  X X
DHH                  X  X                                       X   X         X    X             X        XX   X
DHJN      XX     X X            X X     X   X    X    X XXXXXX X    X XX  X XX  XX X XXX   X        X         XX     X    X   X      X X
DHLJ           X                X           X             X          X          X                           X                 XX
DHR        X    X               X X                       X           X         X X X          X                X
DHW2                                X   X                                 X X       X X X  X       X     X               X
DIM                    XX   X X    XX   X     X      X     XX   XX  XX       X X  XXX     X       X                X        X

DIW     XXXXXXXX         X     X            X   XXXX                                              X X  X     X X             XX      X X
DIX   X X                   X XX   XX  X        X     X XX   X X      XX    X    XXX X   X     XXXX            XXX X             X
DL2             X X XX X        X     XXX     X     X  XXX  X     X          XX X    XXX X    X  XXX    X  X    X       X    X     X  X
DLF      X       X  X  X        X X                 X       X     X               X    XXXXX                        X   X
DMK                     X X       X     X   XX XX     XX XXXXXXXXX XX  X  XX   XXX   X X  X XX XXX  X XX  X    X    XXX XX  X
DMN   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXX XXXXXXXXX
DMU      X   X  X  X XX         X X                             XX    X   X  X     X  XXX X   X        X            X   X
DOG      X            X  X   X  X   XX  X                        X       X  X      X        X      X       X                X
DOI       X                X XX XX  XX          XX    X     XXX    X     X X   X XXX X XX   X X                   X X   X    X          X
DOT      X            X  XX X          X    X      XX    X            X  X X X                  X  X            X   X X     X   X

DOU      X      X   XXX        X XXX XXXX XX  X  XX     X  XX XXXXX X X  XXX   XXXXXXX XX  XXX XXXXXXX X   XXX XXX  XX    XXXXXX     X
DPW     XX  X   X      XX    X X    XX X        XX X X   XX XX XXX X  XXX   X X X  XXXX X  XX       XXX  X  X   X X   X    X X
DRV       X          X  X          X               X    X       X     X          X    XXXX X                  X
DSI                  X   X    X XX       XX                 X      X X           X   X XXX    X      X             X  X     X
DST   XXXXXXX XXX XXX  XXXXXXXXXX  XXXXXXXXXX  XX XXXXXXXXXXXX X X XX XX  XXXXXXX XXX  XX XXX XXXXXXXXXXX XXXXXXXXXX XXX XX XXXX
DSZ     XXX XX X  XXX  XX                      X  XX   XXX  X X X                               XX X              XX X XX      X
DUG    X      XX X XX          X    XX XX     XX X X   XX XX  X  XX XX   XX X  X XX XXXX XX       XXXX  X XX X X          X X X
DVD        XX      X     X     X     X  X X   X X X X     X X             X        X   X                     X
DZM   XXXXX XXXXXXXXXX XXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXX XXX  XXXXXXXXXXXXXXXXX XXXXXXXX XXXX XXXXXX
EALH                XX        X X               X           XX     X     X     XX   X                     X X              X
```

```
------------------------------------------------------------------------------------------------------------------------------
DATE  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |10 |11 |12 |13 |14 |15 |16 |17 |18 |19 |20 |21 |22 |23 |24 |25 |26 |27 |28 |29 |30 |31
------------------------------------------------------------------------------------------------------------------------------
EBAN  X            XX      X  X XX           X         X XX    XXX X       XXX   XXX X   X                    X   X          X
EBR      X         X       X  X XX   X   X   X           XX XX   X           X  XXXX XX                      X
ECH     X                     X X    X                   XX     X       X    X   XXX     X
ECHE    X         XX     XX   X X    X   X   X           XX     X                 XX                         XX   X  X
ECO       XX    X X X  XX   XX     XX X X X X X X X  X   XXX      X   X         X   X           XXX     X     X  XX           X
ECOG  X XXX   X   XXXX  XXXXXXXXX X X    X   X         X XX    XXX X  X    XXX   XXX  X     X  X  XX  X      XXXX XX  X  XX  X
ECRI    X         XX X     X  X X    X       X        X   X     X    X       X    XX     X        X          XX   XX       X
EDC   XX  X    X       XXXX XX  X  XX    X X X  X  X XXX XX XX  XXX   XXX  XX XXXX XX X XX XXX XXXXXX XX XX XXX X XXXXX XXX XX   X
EEO   XX X      X XXX       X  X XXX   XX     XX   X   X XXXXX  XX   XX   X       XXXXXX  X        X   X X X       X  X  X
EGRA                                                  X  XX  X  X    X       X   XXX X   X      X X          XX    X       X
------------------------------------------------------------------------------------------------------------------------------
EGUA  X XXX   X   XXXX  XXXXXXXX  XXX    X X X        XX XX  X XXX X       XX    XXX XX  X  X  X  XX  X    X  XXX XX  X   X  X
EHOR    X         XX          X XX  X    X   X         X XX    XXX X       X X   XXX X   X     X  X     X     XXX  X  X  X
EHUE    X          XX    XX XXXX  X X        X         X XX    XXX X  X     XXX    XX X   X        X        X XX   XX     XX  X
EJIF  X           XX          X XX  XX   X   X        XX XX    XXX X       X X   XXX X         X  X     X  X  XXX X   X
EKA     X   X  X   XXX    X   X X   X    X   X   X X     XX X   X   X   X   XX   XXX XX  XXX   XX X  X  X X   XXX XX X          X
ELC                       X X   XX  XXX  X   XX X X X X XXX X XXX X XX   X       XXX XX  XX       X   X X                X      X
ELIZ     X                X   X X   X    X                      X    X       X   XXX                         X             X
ELL      XXX    X      X  X XX    X X XXXXXXX  XXX XX  XXX   X XX           XX   XXXXX   XX X   XXX  X  XXX  X XXXX   X X     X X
ELT    X   X  XXXXXX  X     XX XX   XXX XX   X   X   XXX  X  X XX X      XX X X  XXX X   XX X   X X   X       X XX X X   X    X  X
ELUQ  X      X     X        XX     X                   X  X    X X X       X                   X  X   X X     XX      X     X
------------------------------------------------------------------------------------------------------------------------------
EMON              X  X       X X X  XX                          X                X   X            X           X    X
EMS     X                     X XX  XX   X       X     X XX   X X      XX    X   XXX X   X    XXXX   XX      X X X              X
EMUT    X   X  X  X  X    X XXX XX X X      XX X X     X XX  X  X X X   X X  X XX X    XX       X  X XX      X           X X
ENIJ    X X        XXX  XXXXXXXX  XXX    X X X           XX  X XXX X  X    XX    XXX  X     X      X X      XX   X        X  X
ENN   X X      X  XX X    X  X XXX  XX      X                 X X     X X   X    XXX              X        X  X   XX X     X
ENR   X  X  X     X XX    XXXX X   XXXX  X   XX  XX  X XXX XXXXXX     X     X XXXXX XXXX        XXX
EPF   X  XX  X   XXXXXX   X X XX   XX X XX            XX XX    XX X X          XXXX XX  X     X XXX  XXX     X   XX  X X  X
EPH            X     X    X      XX                                     XX        X X  X        X    X             X   X
EPLA    XX        XX X       X X X  XX  X   X            XX    X  X       X X    XXX X   X     X X      X X XX   X   X
EPRU  X  X        XX X       X XX  XX   X   X         XX  X   XXX X       X X    XXX X         X  X    X     XXX X   X  X
------------------------------------------------------------------------------------------------------------------------------
ERC                      X     X  X  X          XXX            X        X     X XXX                       X       X
ERK            X     X           XX          X                         X          X     X       X           X          X
EROQ     X         X      X  X X    X                          X    X       X    X X X           X        X X       X
ERUA    X            X       X X X  XX                     X   X          X X    XXX X           X        X  X    X
ESEL               X         X          X                 X    X            X    XXX X           X   X
ETER     X                X  X              X            XX    X            X    XXX X
ETOR    XX        XX X    X  X X    X       X        X  XX     X    X     X X    XXXXX         X X   X    X XX  XX X
ETW     X      X     X    X      XX X                              X     XX      X X X X       XX    X      X     X    X
EVAL  X XX        X XX   X   X X    X       X        XX X     XX  X       X X    XXX X        X  X   X X      X   X  X  X
EVIA  X XX        XXXX   XXXXX XX   X   X   X        XX   X X XX X   X    XXX    XXXXXX X  X   X X   X    X XX  XX      XX   X
------------------------------------------------------------------------------------------------------------------------------
EVV    X X                X XX XXX          XX XXX   XX XX XX X       X    XX     X  X     X XX  X XX               X
EYL    X  X  X      XX X    XX       X  X   X  X  XX   XXX XXXX    XX XX  XXXX XXXXXXX XX XXX XXXX    XXX  X X XXX X   XXX
EZN     XXXXX  X    XX XXX  XXX X  XXXXXXXXXXX XX XXXXXXX XXX  XX XXXXXX   XXX XXXXX   XXXXXX XXXXXXXXXXX   XXXX  XXXXXXXXXXX XXXX
FAM      X           X       X       X  X      X      X     X  X            X    XXX       X          X          X           X
FBA   XXX XXX  XX XXXXXXXXXXXX  X   XXX X  XX  X XXXXXXXXX XXXXXX XXX XXXXXXX XXXXXXXX XXXXX  XXXXX  X XXXXXXXXXX XX X   XXXX XX X
FCC    X X     XX XXX X X X XX XXX X XX XX  XX X XX XXXXXXXXX  XX XXX  XXXX X  XXXXXXX XXX     X X   X XX  XX X  XX X  X X   X X
FCH    X   XX XX XXX XX XXX    X XXXXXX   X XX  X X X X X X X  XX    X X  XXX XX  XX   XXXX X  XXX  X     XX    XXX X       X  XXXX
FDF     X           X   XX  X X        X             X  XX     X   X   X         X X  X   X                           X   X
FEL   X XXX    XX XX XXX X   X XXX XX X    XX         X XX X   X X     X    X    XXX    X        X         XX  X X  XX  X X X  X
FHC         X               X XX       X     X  XX      X X   XXX  X   X  X  XX X               X    X         X            X
------------------------------------------------------------------------------------------------------------------------------
FID        X       XXX  XX X     X    XXX   X   XXXX   XX   X XX XX X  XXX             XX XX XX       XX   XXX X XX       X   X
FIN   X XX           X    X X  X   XX X       X    X    XX    XXX     X     X XXXXX   XX        XXX
FINC   X X   XXXX        X X XX  X  XX         X  X        X   X       X XX X X XXX X   X X X   XXX   X X XXXX   X  X  X        X
FIR     XX       XX  X  X    X X    XX XXX XX         X XX     X      XX  X XX  XXX X   X       XX   X  X    X   X
FL2     X      X     X    X      XX          X                         X          X    X                    X          X
FLN     XXXX   X XXXXXXX  X  X XX   XX  X        X    X XXX XX XX  X XX X     XXXXX XX  X     X XX  X XX      XX XX   X  X X  XX
FMW     XX     X                 XX X        X                 X       XXX      X X             X    X      X          X
FNA      X     X        XXX  XXXX  XX X XX  XXXX   XXXX   XXXXXX X XX X      X  XXXX      X XXXXXX     XX X  X   X X  X X    XXXX
FNO             X  X         X XXX           X          XX                      X
FORT     X  X X X XX X   X X    XX XX   X    X  X     X   X   X X   X     X      XXX X  XXX XX            XX    X  X  X
------------------------------------------------------------------------------------------------------------------------------
FOX                           XX                              XX       X  X  XX X               X
FRF   X  X XX           XX XX XX   XX   X XX XX          XX X XXX     X X    XXXX X XX  X       X X  XX   X  X   X      XX       X
FRI                                         X X   XXX X           X  X X X X X XX X               X    X         X         X X
FRS    XXXX X XX  X  X XX   XXXX  XXX       XXX XXX  X X X XX    X       XX X  XX X X   X   X    X XX  X   XXXXXX   X X X  XXX
FRU    X   X  X X XX X      XX XX   XX XXX  X    X    X    XX  XX X       X X   XXX X   XX X   X X   X       X XXX   X   X    X  X
FSA      X  X X XXXX X  XXXXXX X X XXXXX X  XXXXXX X     XX X  XX         XX  XXXXX X XXXXXXX X X X X XX    X XXXX   XX          X
FUR     X  X      X  X       X XX   XX  X   X    X    X XX   X X   X  XX    X   XXX     X     XXXX      X    XX XX       X
FVI     XX               X   X XX   XXX XX  X      X X XXX X X X   X  XX    XX  XXXXX   X X   X XXX  X  X  X  X  X    X
FVM                  X    X X XXX   X X X   XX X   XXX XXXXX XXX X XX  XX X X  XX X XX  XX       X   X XX    X   XX    XX
FYU                     X             X    X      X     X              X X                       X              X X        X  X
------------------------------------------------------------------------------------------------------------------------------
GAZ     XX X X X  X XXX  X X XXXX   X  XX X X  XX       X  X   XX    XXX   XX  XXXXX   X   XX  X XX   XXX X X  X X   X X X XXXX X
GBA   XXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXX
GBL     X            X    X      XX                     X          X   X          X X  X       XX    X      X     X    X
GBZT        X     XX  XX     X  X   X   X      XX XX   XXX  X XXX   X      XXX XX XXXX XX X X  XX      XX  X   XX XX   XX
GCC                      X                  X X   XX  X          X   XX  XX X  XX X               X    X         X
GEC2  XXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
GHO   X X  X    X XXX  XX XX X  X     X X   X  XXXX    XX   X XX XX X  XXX X XX X      XX XX XX  X    XX   XXX X XX   X  XX   X X
GIB   XXX X             XX   X X    XX XXXX X X X XXXXXXXXXX XXXXXX   XXXXX X X XXX XX  XX X XXXXXXXXX X  X      X    XX XX  X X X
GKN   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
GL2                       X      X                                 X   X          X            X     X      X     X    X
```

```
DATE  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |10 |11 |12 |13 |14 |15 |16 |17 |18 |19 |20 |21 |22 |23 |24 |25 |26 |27 |28 |29 |30 |31

GLA   X X     XX  X  XX  XX      XX     X    XXXX XX  X XXX      X X  X     X XXX     XX XX XX  X      X      X  X X X      X      X X  X  X
GLB   X X  X     X  XXX  XX X      X X  X X        XX    X     X XX XX X  XXX X X  X         X  XX XX  X      X    XXX  X XX      X    X
GLD    XX       XX XX X    X  X XX  X XX     XX X X    XX XX      X    X    XX X X  XXXX XX XX        X X    X  X     X     X      X X
GLI   X X  X     X  XXX  XX X      X X  XXX    X   X XX    XX    X XX XX X  XXX                 XX XX XX  X     XX    XXX  X XX   X  XX  X
GLM    X  X     X  X X  XX X      X     X X  XX      XX     X      X    X X  X X       X             X    X          X   XXX  X XX         X  X
GMB     X                  X                X                                    X      XX   X X         X                        X
GMW     X       X   X X    X       X  XX       XX X XX        X X X    X  XXXXX    XX X X  X        XXX    X        X X    X      X X
GOL     X     XXX XX X    X XX XX   X  X       XX X X    X   X     X  X    X    XX X X   XXX XX XX                                X X
GPA       X          X XXXX XX  X    XX  X     X  X     X    XX  X XX       X    X X  XXX      XX X      X        X          X X X    X X XX  X X
GRF   X XX XX XXX XXXXX   XXXX XXX XXX XXX   XX X X X XX XX XXX XXXXX   XXXXX XXXXXXXXX      X       XXXX  XX XX      XXX XX  X    X XX XX X

GRG      X   X X     X    XXXX XXXXX XXXX XX   XXXX XXXXXXXXXXXXXX    XX X      XXX   XXXX X XXXXX XXXXXX X    X X  X XXXXX   XXXX    XXX
GRI      X                X      X              X                                  X       XX  XXX           X                    X
GRM    X                       X                 XX           X        X            X  XX X X                                  X
GRO        X         X         XX X        XXX  X     X    XX  X X   X         X   X X  XXXX X    XX X     X X             X X           X
GRR      XXXXX   X XXXXXX    X   X XX   XXX             X    XX XX   XX XX   X XX X      XXXXX XX   X       XXXX   X  XX     X  X XX    X   X X  XX
GRS                                                                  X  X      X   X X  XXXX X    XX X     X X    X           X            X
GRT                        X X    X              X         X        XX                  X         X                                   X
GSC   XXX       XX  XXXXX  XX     XX X  XX    XXXXXXXX X XXXXXX   XXX  X     XX XXX      X XX XX  X     XX    X XX XXX      X     X X X XX  X
GSM     X        X              X         XX X         X                            X    X                X                  XX        X       X      X
GTA   XXXX XX XXXXXX XXX     XX XX  XXXXXXX  XX    XXXXXX XXXXX   XX XX   XXX X XXXXXXXXX    XXXXX XXXXXX XX XX X XXXXXX X XX XX      X  X

GUA    XX       X XX XX     X    X X       X    X  X      X     X      XX    X  X    X      XXXX XX          XX   X               X  XX      X
GUAN    X              X  X                XX      X          X  XX            X        X           X                 X                X
GUD   X X      XX XX X     X  X XXX  XX  X     X                XX        X  X          X X    XXXXX   X         X X      X  X XX    XX X
GUN   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX      XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
GWJ                                                          XXXX      XXXX    X  XX XXXX  X     X       XXX       X           X              X    X
GYA   XXXX XX XXXXXX XXXXX   XX XXX XXXXXXX   XX X X XXXX XX XXX XX XX    XXXX X   XXXX X   XX XX X XXX    X XXXX   XXXX   X XX XX      X  X
GZH            X X X  X X      X  X     X X    X      X    X  X      X               X X    XXX X             X        X X       X        X        X       X
GZR     X  X    X       X  XX    X XX    X    XXX X X    X X  X   X     X    X    X  XX      X XX    X  X     XX X           XX       XXXX    XX
HAU   X XXXXX   X XXXXXX  X   XX XXX XXXX XX XX X   XX   XX XXX X   XX   X    XX   X   XXXXXX XX   XXXX     XXXX   X   XXXXX XXX XX XX   X           X
HBF                        X   XXX               X        X     XXXX XXX XX       X X     X    X                 XX

HBZ   XXX  XX   XX XXX XXX XXX XXXX XXX X     X XX X   XXX  X                                        X     X X   X      X XX       X XX XX XXXX XXX
HCY    XX       X           X         X      X X XX      X        XX X  XX  X        XX       X XXXXX     X  X        XX              X    X XX            X
HDA    X  X     X   X X  XX X       X      X X  XX      XX     X        X     X X   XXX X     X         X   XX         X     XXX  X XX        XX  X
HDW    X        X           X        XX X                                          X  X      X X     X          X                 X       X      X
HFS   XXX XXX XXX XXX  XXX    X XXX XXXXXXX   XXXXXXXXXXX XX XXXXXX XXX XXX X X XXXXXXXX  XX X XXX X   XXXXXXXXXXXXXXXXXXXX X XX XXXX
HHAI   XX  X            XX    X       X   X   X       XX X       X XX XX XX     X       X      XXX X XX X                      X        X
HHC   XXX   XX XXXXXX XXXXX XXX XXX XXXX XXX XX XXXXXXXXXXXXXX XX X    X XXX XXXXXXXXX    X XXXXXXXXX XX XX X XXXXXXXX X  XX        X   X
HIN        X          XX    XX X       X X  XXX     X    XXXX     XX    X XX XX      XXX X X  X        XX XX XX  X      XX    XXX  X XX   X  XX  X
HJA   XX  X       XXXXXXXXX X       XXXXX      XX   XX X               X X  XX    XX XXX   X  X     XXX  XX   X       X X X   X XX   X X XX XX  XX
HKC       X    X X XX X X     X       XX       X               X      XX   X          X X     XXX X     X      X    X X X  X  X      X X              X

HLW    XX                          X   X    X    XX  X   X       XX      X  X               X    X X X X  X      XXX             X X X
HMR          X           X X                    X  X X   XXX X                X   X X      XX X                   X      XX          X               X X X
HNR     X XXXXX X X XXXX   X   X XX XX X XXXXXX X XX   XX   XXX XX X X   X X X XXX   XXXX XX   XX X     XX  XX XXXXX X XX   X X    XXXXXXX X
HOF                          X X       X     X        XX        X X       XX            XXX X    X      XXXX              X     X     XX XX
HOJ                         X                               XXXX     X       X  XX XX X  X     X      XXX      X         X            X      X
HON    X       X XX X      X XX  X X        XX    X    XX XX      X            X X  XXXX X   X       X X        X     X
HOOJ   XX   X        XXXXX  X      X    X XX     X       XXXXX X   X  XXXX  X  X   X XXXXX XX   X  X   XX XXX XX         X     XX     X     X XX
HOR                   XX     X                            X  X  X                       X        X     X                         X                X
HOL     XXXX    X  XX                      XX   X                X           X        X     X    XXX       XX        X  X     X  XX  X  X
HON                 X                X     X             X                  X          X                X     X      X                   X X

HRI    XX X    X     XX X        X XX      X          X         X      X XXXX  X          X     XX XX    XX       XX X    X   X     X X  X         X
HRT                                                                                                                XXX      XX       X XXX       X
HRV              X XX        X XX  X X        XX    X     X XX       X                             X          X         X X        X    X            X
HUR    X  X      X   X  X  XX X      X       X X    X      XX    XX      X X  XX       X X     X  X          XX   X          X   XXX  X X       X   X
HVAR   XX        X             X X      X X XXX XXXXX      XX XX XX  XXX      XXX      X  X XXX   X  X      XXXXXXX          X    X X             X
HVU    XX  X     X XXX     X XX XX    X X      XX X X   XX XXX  X X  XXX  XX X    XXXX XX XX       XXXX  X XX X X             X X X   X
HYB   XXXX XX XXXXXXX XXXXXXXX XX XXXX XXX   XX XXX XXX XXXXXXXXXX XXXXX XXX XXXXXXX XX  XXXXXX X X  XX  XXX  XXXX X XX   XX    X XX
IFR   X  XX      X XXX    XXX   X X   X X    X X X   X X   XX XXX XXX X    XX      X X    XXXXX X X          X     XX  XXXXXX XX
IGT      X       X            X   XXXX  XX X XX     X             XX X        X        X  X XX          X         X              X      X
IHA    X   X        XX                            X    X    X               X     X            XX            XX    X  X          XX

IIDJ   X    X            X                X  X              XXX  X  X  X                 X  X      X           X                  X           X
III       X    X     X                   X                                          X X         X  X       X  XX X            XX
ILIM  X     X         XX   X  XX X         XX    X    XXX          X XX XX X  X X    XX         X XX XX  X      XX     XX       X    X
ILT         X  X  X  X    X                       X                   X             X         X X        XX X    XXX    X  X     X XX     X    X     X  X
IMA   XXX XXX XXX XXXXXXXX XX          X XX XXX X XXXXXXXXXX    XX XXX  X XXXXXXXXXXXXX XXXXX   XXXXX    XXXX XXXXXXXXXX X X XXXX X  X
IMI   X XX                    X XX X    X X       X     X     XX      XXX       X     X XXXXX   XX           XXX
INE   X     X         XX    XX XX XX       XXX    X    XXX           X  X XX X    X    XX           XX XX XX  X     XX    XXX     XX    X  XX  X
INW   X     X         XX    XX XX XX X      XX    X    XXX           X XX XX X    X    XX             X XX XX  X      X     XX     XX    X  XX   X X
IPM    XXX      X XXXX X XX     X        XX  XX   XX    X  X X X XX XXX X         X X XX   XXX X   X XX XXX X  XXXXXXX  XXXX      XX    X
IRK          XXXXXXX X         X X       X  X    X     X  XXX XX  X  XX X         XX X    XXX XX  X   X X X X          XX    XXXX     X  XX        X  X

ISA    XX       XXX XX XX  X    X XXX X  XX  X XXXXXXX X    XX        XX  X    XX XXXXXXXXX X   XX   X      XXX    X  XXXXX  X   X   X X X XX  X
ISK                   XXX    X             X          XX        X  X XX        XX   X X X X X X   XX               XX         X  X          XX    X    X
ISR     X  X         X  XX     X      XX  XX   X XX X X XX    XX   XX   X    X X XXXXXXXX X   X           X         X X      X X X XX     X  X X
IVA     XX       X            X        X X  X X XXX            XX X   XX  X        XX        X XXXXX    X  X        XX              X    X XX           X
IZM   XXXXXXX XX X  X XXXX XXXXXX XXXXXXX XXXX XXX XXXXXXXXXXXXXX XXXXXXX XXXXXXXXXXX      XXXXXX XXXXXXXXXXX XXXXXXXXXXX XX   XX XXXX
JACH   X    XX XX XXX XX XXX     X XXXXXX    X XX  X X X X X    X   XX    X X   XXX XX  XX     XXXX X   XXX  X      XX       XXX X        X  XXXX
JARJ                  X       X              X                      X                       XXX               X       X                          X
JBO             X      X     X       X                         X        X    X    X                                        X        X       X
JCW             X             X       XX X                              X               XX          X      X               X         X              X
JEGM                     X                     X        X                                    XX X                             X         X
```

```
DATE  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |10 |11 |12 |13 |14 |15 |16 |17 |18 |19 |20 |21 |22 |23 |24 |25 |26 |27 |28 |29 |30 |31

JMB                         X                       X         X       X      X X   X                  XX   X     X                XXX                  X     X           X
JSC    X                       X      XX        X         X    X X    XXXXXXXXX XX        XX         XX X X                 X                                               X
JVI       X              X   X                                     X         X           X    X          X     XX           XX      XX X                   X
KAF    XXXXXXX XXXXXXX XX X XXXXXXXXXXXXXXXX X  X XXX XXXXX  XXXXX XX   XXXXXXXXXXXXXX   XXX X  X X   X XXXXXXXXXXXX XXX  X     X XX
KAGJ          X       XX     X     X     X     X         X       XXXXX      X   X   X      XXX  XXXXXX      X   X    X X    X           X   X      XX       X
KAIM                   XX    X              X     X          X     X          X     X          X             X    X   X    X     X     X XX             X
KAKJ   XX      X       XX XX  X X XX     X XX        X        XXX X     X   X          X     X XX XXX      X X  X XXX  X X       X XX           X      XXX
KAS                                                                          X   X   X X     X    XXXX X   X         XX X     XXX  X X X      X     X   X
KAT             X      X X  X.      XX X     X          X                  X     X               X    XXX X    X          X X                X X          X
KBA       X       X  XX X       XX XXX XXX   XX XXXX XX X XXXXX XXX XX     XXX X XX XXXXXX  XX XX  XXXX  XX XX  X XX  XXXX X    X X

KBN    XX      X X    X                                   X      X   X      X        X  X XX                    X      XXXX    X          X   XX
KCT    XXX X                XXXXXXX XX XXXXXXXXXXXX XX XXXXXXXXXXX XXXX XXXXXX XXXXXXXXXXXX XXXXXX XXXXXXXX  X   XXXXXXXXXXX XX
KDC    X X    X     X XXXX            X X          X     X      XX   XX X          X   X     X   XXX    XX            X XXXXX    XXX      X         X    X   XX   X
KDS      X   X      XX XX   X     X        X          X                  XX              XX                                              X         X
KDZ                                      X    XX       XX     X       XXX  X    X     X     X X   X X      X       XXXX                  X        X    XX
KEK                          X   XX              XX    XX        X     X       X   X X          X   X XX       X  X XXX                 X         X    X   X
KER        X XX X   X X         XX X     XXX           XXX      X      X X      XX      XX    X XXX X         X                  XXX          X
KEV                     X         X       XX        X                X       X            X X X XXX
KGM      XX       X X XX X        X       XX    X          X X XX XX   X            X X     XXX X    X XX   XX         X           XXX       X                X
KHC    XXXXXXX  XX XXXXXXXXXXXX XXX XXXXXXXX XXXXXX   XXXXX XXX XXXXXX XXX X XXXXXXXXXXXXXXXXX XXXX XXX XXXXXXXXXXXXXXX XXXXXX XX

KHKI       X  XXXX XXX X XX      XX    XXXX X    X    XX   XX X         XXX XX XX     XX X   XXX              X X     X XX                XXXX XXX X XX
KHL    XXXXXXXX X   X      XXXX   XX X    XXXXXX X X XX X XX X XXX XXXXX X    X   XXXXX X XXX     X XX   X XXXX   X XXXX X XXXX  X   XX X
KHT         XX X X XXX      X XXXX        XXX X      X    X X   X X XXX X    X    X XX X X X     XXX XX XX   X     X X     XX        XXX                            XX
KHZ    XXXXX XXXXX XXXX XX      XX XX X XXX X   X   X      XXXX X X X                   X                      X X   X XXXXX       X   X XX      X XXX
KIC    XXX XXX XXX XXXXXXXXX XX XXXXXXXXXXX XXXXXXX XXXXXXXXXXXXXXXXXX XXXXXXXX XXXXXXXXXXX XXXXXXXX XXXXXX    XXXXXX XX XX   X   X
KIM                                                     X X   X X X X XX XX                    XX X X       XX       X   X
KIS       X              X         XX X      X    X     X            XX      X                 XXX X             X X                X X            X
KIV                                                     X     X     XX   X   X   X   X      XX X X XXXXX X     X         X X     X           X X X          X       X   X
KIW      XX XXXXXX   XX      X        XX   X         X       X   X     XXXX                                     X     XXX   X X      X X       X       XX         X X
KKB                                         XXX XX      XXX    XX     XXX XX     XX          XXX    XXX       X       XXXX                XX   X                XX

KKM                  X XXXX      X     X         X                      X       XX   X X    X          X X      XXX X  XX   X X X X    X X   X   X X        X            X   X
KKN    XXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXX     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXX
KLB    XXX X XXX X XX X   XX X                                  X       X       X     X   X     XXXX XXXX X   X     X     X       X     X   X X X X   XX X
KLD               X   X   X   X               X           X                    X            X        X                                X            X
KLI       X        X X          X         X                                                                                              X          X          X     X   X   X
KLU    XXX  X      XX XXXX   XXXX XX XX        XX X    XX XXXXXXXXXXX XX XX XX X  XXXXXXXXXXXXXX  XXXXX XXX X   XXXX XXXX  X XX        XXX  X XX
KMI     XXXXXX XXXXXXXXXXX  XXX XXXXXXX X X XXXX XXXXXX XXXXXX XX XX XX    X XX XXXX X X XXXX    XXXX XX XX XX XXXXX    XXXXXX    X XX
KMOR      X                   X       X                              X       X    X    X    X      X                 X                   X               X
KMPM                     X          XX                X   X X        XXX    XX    X     XX X   XX X     X              X      X   X     X    X    X          X
KMTA         X      X X   X            X       X     X     X      X X X   X X     X                   X     XXX   X                           X       X    X

KNIM   X     X        XXX  XX XX      X X  XXX    X    XXXX     XX     X XX XX X  XXX                   XX XX XX  X      XX      XXX   X XX     X   XX   X X
KNK    X X   X      X  XXX    XX X   X    X       XXX   XX     XXXX     XX     X XX XX X  XXX X XX X          XX XX XX  X      XX      XXX   X XX     X   XX   X X
KNT        X    X X     X      XXXX XXXXXX XXX XX  XXXXXXXXXXXXXXXXXXXX     XXXX     XXXX XXXXXXX XXXXXXXXXXXXXX XXX X   X   XX X   XXXXX   XXXX
KOD      XXX      XXX XX X       XXX XX
KSH      X    X   XXXXXX XX XX   XX XX     XX   XX    XX X X XXXX   X XX    XX          XXX X X XXX X     XXXX X X X   XX    X X   XXXX       X     X       X   X
KSL                                X               X         X           X X X       X         X       X      X X         X           XX                       XX
KSP    XXXXXXXXXXX XXXXXX   XXXX XXX XXXXXX X XX X X    XXXXX XXX XX XX    XX X X XXXXX X   XXX X   XX X   XXX X    XXXX XX XXX XXXXX XXXX
KSR    XXX X X X       XX  X     XXX  X X        XXX X X       X XX XX       X       X   X X XX X X    X     X X      XX   X    XXX XX    XXXXX   XX       X
KUMJ     X      X       XX      X     X     X    X         X       XXXXXX       X   X   X       XXX    XXXXXX        X    X     X X   X             X   X       XX       X
KUR                XX X   XX                      X         X     XX    XX   X      X              X X     X XXX X       X        X      X   X              X

KUSJ     XX    X       XXXXX   X             X XX       X      XXXXX X    X     XXX   X   X X     XXXXX XX    XX X   XXXXXX XX X           X      XX   XX      X XX
KUZ       X    X   X   X       X       XXXX       X X   X XX     XXX  X X X                                   X      X X   X    X X   X                    XX         X
KVN       X               X             XX        X   X  X XXXX    X XX       XX   X   X X X   XX XXX   X    X        X        X   X   XX   X    X              X X     X
KVT       X XX   X X X   XX      XX XX     X XX            X                  X       X X     X  X XXX   X        XX    X        X               X           X
KZN         X X                 X   XX          XX     XX     X    X    XX       X   X XX      XXX    X XX        X   XXXXX                     X X       X     X XXX
LACI   XX      X X     X        X X    X                                                    XX              X   X XX XX   XX     X         X
LANF      X                         X     X                        XX       X       X     X    XXX
LBF    X XXXXXX    XXXXXXXX X   XX XX   XXX  XX   X  X   XX   XX XXXXXX XX  X   X X X   XXXXXX X    XX X   XXXX      X XXXXX XXXXXX    XX XX X   XXXX
LBFM                                XX        X         X X X         XX X XXX        XXX X   XXX X                                  XX     X   X        X X
LCCH     X    XX XX XXX XX XXX      X XXXXXX     X XX  X X X X X   X   XX     X X   XXX XX   XX     XXXX X   XXX  X          XX       XXX X          X   XXXX

LCCM   XXX   XXXXX      XXXXXXX XX XXXX    X   XX XX XXX X XXXXXXXX XXX XXX   XX X     XXXXXXXXXXXX X    XXXXX XXXXX   XXX XXX X   XXX        XX
LCI                          X     X                                       X                  X   X   X        X               X                X X
LDF        XXX X   X XXXXXX    X   X XX    XXXX X          X     XX XXX XX XX   X XX X      XXXXX X     X       XXXX        XX     X     XX    X   X X    X
LFF         XX  X    XXX XX    X   X XX    XXXX X    X     X     XX XXX XX XX XXX X X      X XXX X     X  -    XXXXX XXXXX    XX XXXX XXXX XX    X
LGPM            X           X            XX                X                                 X                                       X X   X   X       X      X
LHS    X                        X    XX          X         X    X       XXXXX XXX XX      X        XXXXX X                                          X X
LIBD      X                           X X                             X       X         X      X    XXX       X
LIC    XXX XXX XXX XXXXXX  X XX XXXXXXX XXXX XX XXX XX XXXXXXXXXXX XXX XX X XXX XXXXXX XXXX XX XXXXX XX XXXXX XXXXXX XX X X
LISJ       X      X        X            X              X                X      X X                     XX               X         X         X     X          X    XX
LIT        X    X X          XXXX XXXX  XXXX XX  XXXXXXXXXXX XXXXXXXX X XXXX    XXXX  XXXX     XX  XXXXXXXX    X X  X X XX    X XXX

LJU        X      X         X           X X      XXX XXX X X       X  XX X X XX      XX      XX   XXX X    X X    XXXXX X   X  X XXX X         X
LLA                                                   X X     XXX X   X        XX   XX X X X   X X              X     X                 X              X X
LLS    X                               X XXX   XX X          X      X XX   X X       XX     X    XXX X    X      XXXX  X           XXX X                    X
LMEM      X    X                       XX           X      X    XX       XX    XX   X   X  X  XX X X X    X                 X              X           X    X
LMN     X X          X X               X XX  XXXX X    XX    XX XX  XXXX   XXX     X X X X       XXXXX     XX          X    X X X     X   X   X              X
LMR    X XX X                   X XX XX  XX    XXXX XX           X   X   X         X X     XXXX X XX  X         X X   XX    X   X    X        XX             X
LMW                X            X         XX X          X                                X               X                        X         X          X
LMZ    X X X X          XX X          XX    X X     X  XX                                                       X  XX                 XX
LNO    XXX          XXXXXX   XXX   X XXXXXXXX XXX XXX   X       XXX XXXXX X XXX   X X XXX XXXXXX XXX XXX   XX            XX XXX  X    XXXXXX X
LNO2                 X XX          X XXXXXX X      XX    X       XX        X    XX    X X    X X                     X                                     X
```

```
DATE  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |10 |11 |12 |13 |14 |15 |16 |17 |18 |19 |20 |21 |22 |23 |24 |25 |26 |27 |28 |29 |30 |31

LNO3           X XX         X XXXX X X     XX   X      XX        X   XX   X X   X X                 X                        X
LNOR    X          X          XX                                 X   X   X          X          X                    X
LNV    X  XX XX XXX XX XX     X XXXXXX   X XX  X X X X X   X  XX   X X  XXX XX  XX   XXXX X  XXX  X     XX    XXX X      X  XXXX
LOE         X X    X   X         XXX      X  X    X X XX     X      X    X X   XXX X   X X   X X          XXXX      X X      X
LOMF                       X X    X                XX        X      X    X    XXX     X
LON            X     X    X X    XX X      XX X X        XX X    XX  X    XX X      X X  X XX      XXX    X       X X    X     X
LOR   X XXXXXX XXXXXXXXX X  XX XX  XXXX XX  X X  XX  XX XXXXXX XX  X  X X X  XXXXXX XX XX  X  XXXX  XX XXXXX XXX XX  XX XX XX XXX
LPA    X             X          X          X                XX       X               X  XX X X
LPB    XXX     XXXXXXXXXXXXXXX     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXX
LPF      XX X  X XXXXX   XX  X XX  XXX              X   XX XXX XX XX  X XX X    XXXXX XX  X     X XX  XX XX    XX  XX   X    X  XX

LPG   X XXXXX    XXXXXXXX XX XXXXXX XXXX XXX XXXX X X XX XXXXXX XX  X   XXX X  XXXXXXXX  XXXXX  XXXXX XXXXXXXX XXXXXX XX   X X  XX X
LPL   X XXXXX    XXXXXXXX XX XXXXXX XXXX XXX XXXX X X XX XXXXXX XX  X   XXX X  XXXXXXXX  XXXXX  XXXXX XXXXXXXX XXXXXX XXX  XXX  XX X
LPO      XX XX   XXX XX   X  X XX  XX XXX   X          XX XX  XX XX  XX X X     XXXXX X   X  X  XXXXX XXXXX X XX X XX  XXX XX
LPR    XX XX XXX  X X X  XX X X     XXX   XXXX    X X   XXXXXXX    XX    XX  X   XX X   XXX       XX XX  X       X                 X  X
LRCZ   XX  X                                    X  X X       X                                   XX                XX
LRG   X  X X                X  X XX  XX   X XX XX           XX X XX       X X    XXXX X XX  X      X X  XX    X  X   X      XX         X
LRS    XX XX XXX  X X XX XX X XX    XXX   XXX      X   XXXXXXX   XX  XXX  X    XX X    XXX       XX XX  X      X               X         X
LSA   XX X XX X XXXX  XXXX  XX      XXX  XX  XX   X XXXX  XXXXX XX XX  X XXX X  XXXX X  XXXXX X X XX  X X  X  XXX     XX   X    X  X
LSCZ    X   X                    X        X  X  XX  X XX  X X X                                  XX                XX
LSD    XXX        X  X    X  X X   XX X       X  X      XXX X  XX      X      X    XXX      X       XX

LSF   X XX  XX XXXXX XXX  X XX XX  XXX  XX           XX XXX XX X     X X X      XXXXX XX  X     X XX    X XXXX XXXX XX  XX  X XX XX
LSK   X XXX     X        X    XXX     X X XX  X X X XX X      XXX XX X  XX X    XX  XXXX       X  X  XX                X        X       X
LTI   X     X        XXX  XX XX    X X  XXX   X    XXXX    XX     X X XX XX X  XXX                XX XX XX      X    XXX  X XX   X  XX  X X
LTZ   X XXX  X XX XXXX XX     XX  X    XX  X   X XXX  XXXXX X X X                                  X XX X    X        XX    XX        XX
LWI               XXXXX     X X    X        X  X               X          X  X  XXXXX XX
LZH   XXXXXXX XXXXXXXXXXX XXX XXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXX X XX XXXX
MAF   X XX  XX    XXX XXX  X XX XXX XXX XX           XX XXX XX XX  XX X X     XXXXX XX  X      XXX  XX XXXX XXXXXXX  XX  X XX XX X
MAHZ    X  XX  X        X X    X                   XXX  X                                       X   X X                   XX     X
MAIO   XXXXXXXXXXXXXXX XXX  XXXXXXXXXXXXXX  XX   XX XXXX XXXXXXXXXXX XXX X X XXXXXXXXXXXXXXXXXXXX X   XX XXX XXXXXXX  XX XX    XX  X
MAL      X X        XX    X X    X  XX    X    X         XX XXX    XXX X                XXX X    X    X     X        X     XXX  X  X

MAP                                                    X XXX              XX XXX X
MASJ     X     X       X     X   XX         XX      X       X      X    X X               XXX          X        X     X       X        X  XX
MAT   XXXXXXXXXXXXXX XXXXX     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXX XXXXXX  XXXXXXXXXXXXX
MAW   XXXXX  XXXX XXXXX   XX    XX  XX  X   XX  XX   X     XX  X X       X  X X     X X XXXXXX   X XXXX      XX          X X
MBH    X  X        X   X        X   XX   X    X     X     X    XXXXXX              X X X   XX    XX X      X            XX       X
MBL   XXXXXXXXXXXXXX      XX        X  X        X
MBO             X XX X       X X              XX          XX       XX          X       X    X
MBU     X                        X                X X   X   X  X X X             X  X   X  X  XX     X X  X     X          X      X
MBW            X          X        XX X                                           XX      X    X  X         X      X           X
MCK     X  X    X  XXX  XX X      X    X X  XX      XX     X      X    X X  XXX    X  X           X    X           X   XXX  X X       XX  X

MCMT    X  X                      X  X                  X           XX      X          X                      X
MCNL  X     X        XXX  XX XX XX      XX        XXX            XX  X X     X     X          X XX XX  X    XX   XXX     XX   X  XX  X
MCO                    X  X          X    X       X                X                           X               X      X       X
MCQ      X    X             X         X    XX          X                            XX X                        X
MCT                          X          XX  X   X X     X      X        XX     X  X          X  X   XX X          X
MCW            X          X       XX          XX                   X   X    X X     X      X       XX          X X X    X     X
MCWV            X   XX                        XX    X     XXX      X         X X    X X X   X                X    X
MDG    XXXX X XXXXXX  XXXXXXX  XXXXXX  XXX   X XXXX XXX      XX XX    XX   X X  XX X XX     X     XXX X     XX  XXXXX      X XX X XXX
MDI                                                  X X X    X         X    XX  XXXXX                X          X    X X X    X
MDJ   X X   X X XXXX XXXXX      XXX XXXXX     X   X XXXXXX  XX XX X   X  X X X X    XXX X  XXXXX  XX        X   X X XXXXX     X    X      X

MDM     X               XX X           X X  XX      X      X      X   X X  X X        X               X            X   X X     XX         X  X
MDRJ           X        X   X                 X                  X                   X                X             X
MDW     X      X      X     X       XX                  X          X   XX           X X   X        X    X      X             X
MDZ   XX X X  X XXXX X X XX  X XXX   XXX  XXXXXXXXX X XXXXX X  X   X   X    XXXXXXXX       X X  X X XX X X XX  X XXX  X      XXX  X XX
MEEK  XX XX X XXX XXXX  XX       XX XX      XX  X     XX    XX XXXX  XX   XX  X X  XXXX X  XX XXXXXXX X XX X  XX    XX XXXX      X
MEMM   X        X  X   X  XX     XX  X   X  X X X XXX X   XX X    XX  X   X    X X XXXX X          X    XX X X X XX  X      X XX  X
MEO   XX    X   X XXXX    X XX XXX  X X       XX X X     XXXXX XXXXX X   X X X   XXXXXXXX  X      X    XXXX   X        XX XXX       X
MEU   X XX     X          X       X        XX XX  X   XX X    X  X X    X          X       X X X      XXX      XX         X        X         X    X
MFF   X XXX X  XXXXXX X  XX  X XX  XXXX X            XX X X XX XX    X X X     XXXXX X   X  X  X XX    X X     XX X XX  XX  X     XX
MGD    XX   X X X XX XX      X  X   XXXXX    X    XX  X X XX   X  XX XX     X X X XXXXX X   X  X   X X    X  X     X XX     X    X     X  X

MGG     X             X  X   X        X                     XX   X   X                           X  X          X                X    X      X
MGH    XX             X            X    X                   XX   X XXXXX  X      XX        X   X  X          X            X         X      X
MGP    XX XX XXX  X X XX XX X XX    XXX    XXXX      X    XXXXXXX   XX  XXX  X   XX X    XXX       X    X   X        X                X
MGR    XX      X        X   X XXXX    XX X XX  X  X     XX XXX XX XXXX   XXXXXXXXX XXXXX X XXX  XXX X  X    X      X     X   X    X XX    XX
MHC                  X          X            X X    XXX X    X        XX  XX XXX X  XX X X X              X           X            X X
MHZ     X   X                            X  X   XX  X XX   X X X                                  XX                 XX
MIAR   X      XXXXX  X     X XX XX    XXX     XX X X   X    X  X XX    X        X XXXXX XX  XX     X X    XX X     X        X     XX        X
MID               XX                       X            X           X   X        X       X       X    X   X  X     X       X         X
MIN                         XX      X        XX            XXX  X    X  X  XX X                    X                X
MJMA        X       X         XX X    X          X     X    XXX  XX X       XXX    XXX X   X     XX               X

MKS   XX XXX  XXXXXXX XXXXX    XX    XXX            X               XXXX
MLR    XXXXXX XXXXXXXX  XXX XXXXX     XXXXXXX XXXX X X XX XXXXX  XX  XX   X XXXXXXXXXXXXX XXXX X XXXX X   XXX    XXXXXX XXX XXX   X X XX
MLY     X           X X   X             X             XX         X X    X X   X X                    X              X
MMB                      XX    X X     X X XX      XXX    XX    XXX XX   XX   X    XXX   XXX X    X      XXXX              X   X        X      XX
MMCZ    XX   X      X                 X        X   X  XX   X XX   X X X                               XX               XX
MME     X                  X  XXXXXX X XXX XX X X           X X    X         XX     XX  X X    X   X          X                X
MMK     X                      X XX    XX   X          X     X XX    X X       X       X      XXX X    X      X XX   X           X X X                X
MMPM                X       X       X        X  XXX     XXX X               XX   X                                              X                 XX  X
MNG    XXXXXXXXXX XXXX  X XXXXXX X   XXX     X XXX     XXXX X X X                                X XXXX XX X X X XX  XXXX X XX X  X XXX
MNI   XXXXXXXX          XXXXXXXX  XXXXXX     XXXXXXXX      X XXXXX                            X XX                XXX                    X XX
```

```
-------------------------------------------------------------------------------------------------------------------------------
DATE  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |10 |11 |12 |13 |14 |15 |16 |17 |18 |19 |20 |21 |22 |23 |24 |25 |26 |27 |28 |29 |30 |31
-------------------------------------------------------------------------------------------------------------------------------
MNK     X         X  X      XX XX   XX XX   X    X      XX     X          X X   XXX X   X      X X           X    X       X   X
MNO   X X              XX      X  X XX XX   XX  X X   XXXXXX X XX X   X XXX XXX X X     X XXX X  XXXX       X      X  X X  XX    X X
MOF                          X X    X                    X      X       X    X   XXX     X
MOH     X  XXX X        X    XX        X       X    XXX  X                                      X X  X X                 XX    X X X
MORO                   X      X       X          X     XXX   X   X          X        X            X                     X
MOS   X X  X  X   X  X      XX XX       X   X    X          X  XX         X X   XX      X       X X         X X X      X
MOW    XX XXXXXX        X    XX        X    X  X    XXXX                                         XX  X X    X             XX     X X
MOX   X XX XX  XX XX XX     XX XXX XXX XXX  XX X X   XX XX XXX XX XXX XXX X X X XXX X  XX   X XXXX  X  XX    XXXXXX XX  XX XX X
MOY    X   XX XXXXXX XX     XX       XXX X   X    X  XXX XX XX  XX  X     XX X   XXX X   X  X   XXX   X  X    X XX     X
MOZ     X  XXX X   X          X    X   X    X  X    XXX  X X                                        X  X   X  X            XX
-------------------------------------------------------------------------------------------------------------------------------
MPA   X    X    X  XXX  XX XX X  X X  XXX   X   XXXX   XX   X XX XX X  XXX X XX X      X  XX XX  X    XX   XXX  X XX    X XX  X X
MOZ     X   XX X        X     X XX     X    X  XX   X XX X   X                                  XX                  X   XX      X
MRA   XX XXXXXXX XX   X  XX XX   X X XXX XXXXXX XXX X X X   X XX     X X  XXX XXXXXXXX XX X    X X XX X X X   X      X   X XXX  X X
MRCM              X   X  X      XX     X  X     XXX X   XX     X   X X X X XXX X X X             X    X  X      X        X XX  X
MRRJ   X    X     XX XX  X         X XX     X       XXX     X        X  X     XX  X      X       X   X          X         X   X
MRW   XXXXXXXXXX  XX    X    XX  X     X    X  X    XXXX X                      XXX X      X   XXX    X   X X     X     XX     X X
MRWA  XXX X XXX X XXXX  XX X                                 X    XX X  X   X   X  XXX  XXXX X  XXXXXX  X  X XX    X XX  XX  XXX   X
MRX                       X      XX              X      X  X  XX        X XXX     XXXX X   X  X            XX        X      X   X
MSCZ    XX  X     X                         X  XX  X XX  X   X                                  XX                 XX
MSI   X                 X             X XX  X                  X        X         X       X                      X        X
-------------------------------------------------------------------------------------------------------------------------------
MSU   XXX     XX XX  X    X X  XXXXXXXXX    XXXXXXX XXX XXXX   XXX  XXXXXX XXXXXXXXXXX  XX   X   XXXX  XX XXXXX  XX X    X X XX  X
MSZ      X  X     X                X      X   X  X  X  X X X                                   X       X         XX    X
MTA             X XX X      X  X        X   X            X      X       XX X X  XXXX X   X      X  X   X       X           X
MTD                            X                       X X     X         XX      XX  X   XX  X       X
MTMJ   X    X     XX XX      X      X XX     X       XXX         X  X         X XX XX          X     XX  X        X  X         X    X
MTMW           X          X      X           X                         X          X X  X       X     X      X          X
MTN   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX  XXXXXX  XXXXXXXXXXXXXXXXXXXXX XX  XXXXXXXX     X  X    XXXX
MTU   X    X       XXX XX XX     X X    X         X    XX     XX XX X                  XX XX XX        X    XX X  X       XX  X X
MTUM    X      X  X      X      XX     X  X X  XXXX X  XXX      XX  X  X X XXXXX X X X           X    X         X  X  X   X XX  X
MTUR    X  X   X     X  X   XX           X X X X    X X  X XXX           X   XXX  XXX     X                      X       X     X
-------------------------------------------------------------------------------------------------------------------------------
MTW    XX XXXXXX  XX    X    XX        X    X  X    XXXX X                                  X   XXX X X   X X           XX        X
MUD     X  X      X  X X    X X    XX      X XX         X      X                X X     X        X          X
MUN   X X X XXX  XXX X  XX X                                  X    XX X  X   X  XXXXXXXXXXXXX X  XX XXX XXX   X   XXXX X XX X  X          X
MVIF                         X X    X                   XX      X            X   X X     X
MVM     XX              XX X  X        X             X XX          X   X        X     X   X                           X   X
MXC                  X    X      X                      X          X                 X X        X    X      X          X
NAC                       X      XX X                                     X       X    X        X    X      X          X
NAI        X  X X X  XXX     XXXX   X  X    X                               X  XXXX X          X XX X XX     X       XX         X
NANU  X X XXXXXXXXXXXX XXX XXX XXXX XX X XX   X     XX XXX XXXX XXX   XX XX XX XXXX XX XXXXXXXXXXX   X X XXX X X XXXX       X X X
NAO   XXX XXX XXXXXXXXXXXXX XXXXXX XXXXXXX  XXXX XXX XX XXXXXXXXXXX   XXXXX XXXXXXXXXX  XXXX XXXXX  XXXXXXXXXXXXXXXXXXX X   X XX
-------------------------------------------------------------------------------------------------------------------------------
NAV   X                   X   XX      X     XX   X X    XXXX XXX X      X     X XXXXX            X   X              X          X
NCT   X    X       XX    XX XX XX X      XX    X    XXX     X       XX XX X     X X XX X         X XX XX  X    XX    XXX  X XX   X  XX  X X
NDI     X X XX X X X XX XXX XXXXX XXX XX   XXXXX     XXXXXXXXXXXX  XX X X   XXXX XXXXXXX XXX XXX X  X XXXXXX   XXX XXXX X   X XXX X X X
NEA     X       X  X X  XX X          X    XX     XX    X      X   X  X X  X X        X                X         X    XXX X XX      XX  X
NEV                 X              X                     X         X          XX                                           X     X
NEW     X XX  X   XX  X      X   X XXX  X   XX X X X X XXXXXX XX XX    XX X  XXXXXXX   XX  X   X X   XXXX X X X  XX     X X    X
NGZ     X XXX X              X             X       XXXX X                                 X   X X  X X    X            XX       X
NIIJ   X    X    XX   X      X     X XX     X       XXX  X  X  X              XX XX      X       XX  X       X  X        X    X
NJ2   XXX  X  XXXXXX X   X XX XXX  XXXXX    X    X XXXXXXX XX X  XX    XXX XX  XXX X   XX XX XXXX    X X X  XX    XX XX  X    X X
NKA   X    X        X  XX XX X  X     XX   X  XXX        X XX XX X    X   X   X         X  XX X    XX   XXX    X    X  XX X X
-------------------------------------------------------------------------------------------------------------------------------
NKY     XX     X        X      X X X X XXX    X     XX X  XX   X      XX     X XXXXX    X  X     XX           X  XX            X
NLO                      X      X           X                         X XX     X      X                    X          X
NLW     X            X    X      XX X                                  XX       X X X  X            X       X     X    X
NMCC                                                         X   X     XX   X   XX                X             XX     X
NNA    XXX   X  X XXX XXXXXXXX XXXX XX    XX X X  XX     X XX    X   X X XXXXX XXXXX XX    XXXXXX  X   XX XXXX X X X XX X    X XXXX
NNT    XXXXXX X XXXX X X X          XXX            X XXX     XXXX         X   X  X X XX                    X       XX  X      XX X X
NOZ    XX XXXXXXX  XX  XX X  XXXXX XX  X    X XX    XXX  X                        X         XX XXX  X X X XXX    XXXX  XX X XX XXX
NPS                       X  X             X   X     X  X      X            XX   X      X  X XX                XX
NRI   XX   XX XXXXXX X      XX      XXXXX   X  X X  XXX XX XX  XX XX    XX  X  XXXX X   X  X   X  X   X       X XX     X     X     X  X
NST    X X    X XXXX X X         X XX X  X X X   XX XXXXX XX X    X    X  X  XXXXXX   X  X  XX X   X     X XXX      X    X        X
-------------------------------------------------------------------------------------------------------------------------------
NTYM        X          X                 X  X   XX  X          XX  XX XXX XX XX X X                             X           X X
NUR   XXXXXXX XX XXX XXX   XXXXXXX XXX XXX  X X X X XX XX      XXXX XX  XXXXX XXXXXXXXX   XXX    X X    X XXXXX X XXXX XX X X XXXX
NVL   XXXXX X X X XX X        XXX XXX X X  XX X       X X  XX X         XX X  XXXXXXXX X XXX XXX XX X            X          X
OBN   XXXXXX XX X XXXX   XXXXXXXX XXXXXXX  X    X X XX XXXXX XXX X XXXX  X XXXXXXXXX  XXXX X  X X    X XXX XXXXXXXXXX  XX XX XX X
OCO           X      X   XX  XXX    X                 X      X   X    X X       X X X                        X X      X
OD2     X      X     X          XX                                 X             X X X X             X            X    X
ODZ    XX  X          X  X    X XX XXX X X X   X   X XX X X X                                     XX X   X           XX   XX     X
OFUJ  XXXX XXX    XX  X  X   XXX  X XXXXX  X     X XXXXXXXXXX XXXX   X XX  X XXXXXXX    XXX  X XXX X X X   X  X        XX  XX X
OGA    X  X               X XX  XXX  X         X X     XX      X       X     XX  XXX X   X     XXX   X         X  X
OHR   XXXXX X X   X X  X X XXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX   XX  XXXXXXXX  X XX   XXXXX
-------------------------------------------------------------------------------------------------------------------------------
OJC    XX X    XX X X X X  XX XXX XX XX    XXXX X   XXXXX X   XX XXX   X    X X XXX X XXX    X XXXX   X X XXXXXXX X XX XXXXXX X
OLLA                X  X             XX         X   X XX X      X  X      X        X             X      X              X
OLY                      X X  X    X X      X   X   X XXX  X         X                X XX      X    X   X  X        X  X   X     X
OPT   X    X       XX      XX            X      X X            X XX           X          X    X   X    X     XX          X XX  X
ORI                                                         X X X    XXXXX XX  XXXX  X XXXX     X  X         X  X       X      X
ORO                         X X    X  X      X            XX     X       X     XX XXX    X X     XX      X     X  X               X
ORV    XX  X   X X XXX     XXXX     X  X X XX XXXX X  XXXX XXXX  X  XXX X  XXXXXX X                XX    XXXXXX X XX  X     X X X   X
ORX    XXX          X      X X    X  X      X          XX     XX    X     X    XX     X
OSS   X X                   X XXX  XX X          X    X XX  X X     XX    X    XXX X   X     XXXX X        XXX X              X
OUR         X X        XXXX XXXXXX X XX  XXX XXX XX XXX XX XX   XXXX   XXXX XXXXX X  XXXXXXXXXXXXX X X X  X  XXXX  X XXX  XXXX
```

```
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 X  XX  XX    X X XXXXXX  X           XX     XXX XX XX X    X X XXX   X X XX    XX XXX X XX   XXXXX X X  XX
PAE        X     XX X            X X                    X     X           X     XXX X                    X
PAF                                        X    X       X    XX           X     X X X  X                        X
PAG   X          X XX  X   X XX   XX XX    X        X  XXXXXX X XXX  X       X    X   X   X  X       X            X X X   X     X
PAHZ   X  XX  XX       X X  XX        X       X    XXX  X                                X X  X X             X XX    X X X
PAIG        X X        XXXX XXXXX   XX XX  XXX XXXXXXX XXX XX X   X XX    XXX  XXXX X  XXXXXXXXXXXXX X   X  X   XXX  X XXX  X XX
PAX    X  X    X  XXX  XX X     X    X X   X     XX   XX   X X  XX X  XXX X X  X      X  XX XX         X   XXX  X XX      X   X
PCA                X                X    X         X                          X           X   X     X             X X
PCC                    X       X          X X   X   X          XX  XX XXX X  XX X              X              X           X
PCH   X   XX XX XXX XX X X    X XXXXXX   X XX  X X X X X   X  XX   X X  XXX XX  XX   XXXX X  XXX  X     XX    XXX X
PCI       XX  XXXXXXXX        XX X    X X       XXX        X XX XXX        X   XXXXXXXXX  XXXXX            XXX    X            XXXX
PCJ                      X                              XX              X   X   X       X      XX               X         X
PCP   X XX                X  X X    X X         X          XX     XX     X     X X XXX   XX         XX
PDB   X    X       XX   XX XX XX      XXX       XXX           XX XX X    X   X X       X XX XX  X    XX   XXX    XX   X  XX  X X
PEC   XX      XX  X  XX               X    XXXX XX  X XXX  X  XXX  X   XX XXX   X X XX  X  X    X    X  X X X  X  X    X   XX  X
PEL    X   XX XX XXX XX XXX  X XXXXXXXX   X XXXXXXX X X XX  X  XX   X X  XXX XX  XX X XXXX X  XXX  X   X XX    XXX X       X  XXXX
PET     X      XX XX X              X      X   XX  X    X        X        XXX X  XXXX X          X X   X  X            X   X
PGB                  XX   X X    XX               XX   XXX  X   XX  X    XX  XXX X   X      X              X   X           X
PGC                 X           XX         XX                      X       X      X      X         X                    X
PGD     X     X        X    X XX XX XX  X XX         X X      XX  X  XXXXX X XXX X X X X X     XX       X    XX  X     X X
PGF     X                  XX XX  XX   XX X          X XX  X  XX     X X   XXXXX X XX  X     X X X  X    X      X   X   X X
PGP                          X X   XX XXXX XXXX X  XXX  XX X      XXX    X XXXXXXXXX             X X XXXXX  X XXXXX X  XXXXXX   X
PGZ   XX  XXX X   X X  X     X XX     X    X  X    XXXX X                      X          X  XXXX    X   X          X
PHAM                                                                    X XXX            X    XX        X        X XX  X
PHP   XX    X X   X       X     X            X    XXXX   X XX   XXXX X XX  XXXXXXXX   X  X  X XXXXX   X   X   X XXX   X      XX
PICO              XX     X                      X  X  X                    X      X    X                      X        X
PII                         X                              X      XXXXX XX  X X   X  X  X   X              X      X
PIP                              XXXXXXXXXXX XXXX  XXXX X XXX    X X  XX X X   XXXXX                 XX X XXXXXXX X X X  X  X   X
PJG   XXX XX X X XXXXXX      X  X   X XX X X  X    X       X XX   X  X   X  X XXXX X           X   X           X  XX     X
PKEM                X   X            X   X X           X      XX  XX   X X     X                      X          X         X     X
PKI   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX    XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
PLAT              X X                                XX     X           X X       X                  X      X  X   X
PLD                    XX   X X    XX         X     XX   X X XX   X   X   X X  X X X   X      XXX           X   X       X
PLE    XX     X          X     X X  X X XXX          XX X  XX  X      XX     X XXXXX   X  X      XX           X   X XX          X
PLM   XXX     XX  X  XX  X    X       X    XXXX XX  X XX      XXX  X    X XX    XXX XX  X  X    X    XX XXXXX X   X    X   XX  X
PLP                         XXXX XXX X XXXX XXXX XXX    XXXX    XXXX XXXXXXXXXXXXXX           XXXXXXXXXX XXXXXXX X X X XX XXXX
PLRM X X  X    X  XXX  XX XX    X    XXX  XX   X XX   XX   X XX XX X  XXX X X  X      XX XX XX  X      X   XXX  X XX   X  XX  X X
PMG   XX XX X XXXXXX X  XX XX XXXXX XX X X  XXXXXXXXX   XXX X X X X   X  X X XXXXX X XXX XXX XXXXXXXX  XXXXXXXXXXXXX  XX X  X XX
PMO            X XX X            X XX                   XX     X           X X   XXX X                    X
PMR   XXX  X    XXXXXX  XX XXXXXXX X XX X   XX X XX XXX XXX X XXX XX   X XXXXXXXXXXX   X XX XXXXXX    XX XXXXXXX XX X   XX   X  X
PMS   XXX  X    X  XXXX XX XX X  X    XXXX XXX  XXXX XXXX   X XX XX X  XXXXX XXXXXXXX  XXXXX XXX X   XXX   XXX  X XX   X  XX  X X
PNL               X               X    X          X               X         X           X   X     X             X X
POF    XXX            XXX    X X  XXX       X            X    X         X  X  XX X                X   X           X
POO   XXXX XXXX XXXXXX X X X X X   XXX X    XX X XXXX X  XXXX  XX  X    X X X XXXXX X XXXX X   X XX XX       XXXX  X   X X X  X  X
PORP   XX XX XXX  X X XX XX X X     XXX   XXXX   X X   XXXXXXX   XX  XXX  X   XX X   XXX      XX XX  X     X          X       X  X
PPCY   XXXX       X  X    X  X       XX X X   XX X X  X     XX X            X   XXX X    XX      X    X X         XX  X   X   XX
PPE     X  X         X  X X XX       X  X   X                                          X  X        X              X
PPI          X X      XXX        XXXX
PPM    XXX    XX  XX XXX  X XXXXXXX X       XX X X  XXXXXXXX  XX X    X X XXX   X XXXX X  XX XXX X XX   X XXX X X  XX      XX XX
PPN         X      X X           X                      X     X          X X   XXX X                    X
PPT         X     XX X           X          X      X    XX     X          X X   XX  X                    X
PRI                                      X X   XXX X   X      XX  XX   X X     X              X    X         X         X X
PRK                      X           X      X   X X    X       X  XX X  X X       X  XX  X               X
PRM                    X  XXXX           XX   X X    XXXX XXX X X    X     XXX X X            X                X          X
PRNI X   X                X  X             X    X        X                XXXX          X          X
PRS                                      X X   XXX X   X      XX  XX X X X   X X              X    X         X           X
PRU   X XX XX  XX XXXX XXXXXXX XXX XXXXXXX XXXX X   XXXXX XXXXXX XXX XXX X XXX XXXXXXXXXX XXXXXXX XXX  XXX XXXXXXX XX  XXXXX XX
PRY   XXXXX X XX  XXXX  X   XXXXX XXXX XXX  XXX X X    XXX XX XX X       XX X  XX X X X    XX XX XX X  X   XXX XX X XXX X  XX    X
PRZ    X   X                X       X       X                XX         X X   XXX X   XX     X X   X       X XX    X   X       X
PSO            X      X         X           XX  XX      XXX      X              X   X           X       X
PSZ    XX     X             X X    XX        X      X  X  XX  X           XXX  XXXX    X   X  X X      X    XX XXX      X
PTE   X X  X    X  XXX  XX XX X  X    XXX   X   XXXX   XX   X XX XX X  XXX X XX X      XX XX XX  X    XX   XXX  X XX   X  XX  X X
PTI    X  X                  XX           X  X X    X  X     X   X    X X     X X XX                    X
PTJ    XX     X   X X   X  X X    XXX XXXXX X      XX XX X X XX     XX   XXXX XXXXX  XX X   X XXX     X  X X X XXX   X       X
PUL   X          X  X       X XX    X XX   X                X    X            X   XXX     X        X          X          X
PUZ   XXX XXX XX  XXXXXXX XXXXXXXX XXX X    X XXXXXXXXX  X X X                  X         X   X X  X   XXXXXX  X X XX XX XXX  XXX
PV08          X  XXX     X X   X    X       X X                                X  X  XX      XXXX  XXXX X X   XXX X  X X X   X
PV09 X         X XX X    X X  XX XX X       XX X     X                         X  X  XX      XXXX  X XX   X   XXX    X   X   X
PV10  XX   X  XX XXX XX XX XX XX  XXX      XX                                  X  X  XXX     XXXX  XXXX   X   XXX    X X X  XX
PVC    X    X   XX  X   X  X  X     X  X              X    XX XX X   X       X  XX            XXX X     X        X X           X
PVL                  XX   X  X                    X    XXX  X   XX  X   XXX  X X     X     X               X  X           XX
PVY    XX     X         X     X      X XXX          XX    XX  X      XX     X XXXXX   X  X     XX            X   X XX          X
PWA   X X  X    X  XXX  XX XXX   X    X X  XX   X XX   XX   X XX XX X  XXXXX X  X       X XX XX  X     X   XXX XX XX   X  X   X XX
PYA   X    X  X X XX X      XX XX    X XXX  X    X   XX  X X   X       X  X X  XXXX X   XX     X X           X X         X
PZZ   X XX  X     X  XX    XXXX X   XXXX X   XX  XXX X  XXXXXXXXX      X     X XXXXX XX X      XXX
QASM     XX                X X   XX   X        X    X   XXX  XX          X    X X     X     XX   X
QCP      X   X XXXX X               X              X    X     X         XX       X        X
QIS      XX XX XXXXXXXXXX     X    X              X    XX    X   X
QIZ          X X XX X X     X      XX  X   X  X X  X X  XX    X          X X   XXX X   X      X     X X     XXX                X
QRZ    XXXXXX XX  XX  XX    XX  X       X  X XXX X XXXX   X X                  X           XXXX  X   X         XX X XX      XX
```

```
DATE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |10 |11 |12 |13 |14 |15 |16 |17 |18 |19 |20 |21 |22 |23 |24 |25 |26 |27 |28 |29 |30 |31
QUE        XX X XXXXXX      XXXXXXX XXX XXX XX     XX X X XXXX XXXX     XXX X XXXXX X X XXX XX XXX  XXXX XX  XXXXX   X   X       X
QZH          X X XX X X            X       X           X     X          X X   XXXXX           X      X    X  X     X
RAB  X  XXX X X XX X    XX  X X   X  X X  X XX XX X    X     XX          X X  XXXX X   X    X X  X   X XXX XXX X    X  X   X  X
RAC                     X   X X                    X XX      X                XXX                                        X X
RAGM  X           XX   XX       X X    X          XX   XX   X XX XX     XX X           X   X XX  X     X   XXX  X XX      X   X
RAO  XXX X X         X      X  XXXX XXXXX X         XXX     X  X      XX     X    XXXX  X       XX   XX X X
RBL                        X                                                   X  X X   X XXX XX  X  XXXXX X    X
RCS    X                X      XX X        X                      X   X  X           X                  X          X
RDN  X             X      XX            X         X             X XX      X    X         X X  XX  X     X    XX     X   X  X   X
RDP    X     X            XX X    X X     X    X              X      XX   XX  XX XX   X         X     X     X X X  X  XX
RDT  X    X            X               X        X            XX                          X   X             XX     X            X
RDW  X    X       XX   XX XX X  X     XX   X   XX            XX XX X    X   XX X      XX  X XX  X    XX   XXX    XX
REF  X    X    X  XX   X  X  X  X X   XX   X   XXX    X    X XX XX X  X X X XX        XX XX XX  X    XX   XXX  X  X   X  XX  X X
REMR    X                X      XX X         X                    X   X X             X                  X          X
RES  X XX XX  XX XXX XXXXX XX XX    XXXXXXXXX XXXX XXXXXXXXXXXXX X                        XX   X      XX  X     XX XXX  XX X
RFA  XX XXXXXXXXXXX XXX XX XX XXX X XXX  XXXXXXXXX X XXX   X XX  XXX X   XXXXXX XXXX XX XXXXXX X XX    XXXX  XXXXX X XX XXX XX  X
RFI                    X    X          X                    X      XX    XX  X X       X
RIV                 X          X      X     X             X    XX          X     X X X            X              X      X
RIY                          X    X    X XX            X     X      XX     X  XXX X                        X     X
RJF    XXX XX   XXXXXX   X XX XX  XXXXXX        X   XX XX  X  XX XXX X X     X XXX X   X     XXXXX XXXXX X XXXX XX  XX  XX X X
RKG            X X                                                          XX    XXXXX          XX     X      X X XX X
RLO  XX        X XX          X XXXXXX X     XX   X     XX   X  X   XX   X X   X         X         X                        X    X
RMN   X     X X  X X          X      X      X           X       X      X    XX      X           X      X X
RMP    X     X            XX       X X     X    X            X      XX   XX  XX XX   X          X     X     X X X  X  XX
RMO  XXXX XXXX X XXXXXXXXXX X XXXXXXXXX XX X XXXXXXXXX XXX XXXX   X  XX  X XX XX XXX XXX  X  XXXXXXXX  XXX  XXX  X XX   X     XX
RMW   X       X     X    X       X  X        X X X            X   X  XXX X X   XXX X  X       XX           X     X    X X
RND   X  X    X  XXX  XX X     X    X X  XX     XX   XX   X X  XX X  XXX X X  X         X   X         X   XXX  X XX      X   X
ROB  X XX        X  XX   X XX X    XXX       X    X X  XX XX XXX     X     X XXXXX X XX         XXX
ROCH  X   XX XX XXX XX XXX    X XXXXXX   X XX  X X X X X   X  XX   X X  XXX XX  XX   XXXX X  XXX  X     XX    XXX X       X  XXXX
RPW          X          X      XX X                                  XXX         X  X                    X          X
RRL   XX        X  X    X XX X   XX X       X  X      XXX X  XX      X     X X XXX X  X        XX
RS1  X    X       XX   XX X  X  X    XXX   X    XX    X      XX XX X    X   XX              XX  X    XX   XXX    XX   X  XX  X X
RS2  X    X       XX   XX XX XX X    XXX      XXX    X    X XX XX X    X   XX X       X X  XX  X    XX   XXX    XX   X  XX  X X
RSM   X                  X X    X X XX XXX           X  X  X      XXXX  XX  XXX    X  XX XXXXX   X        X  X
RSNY  X        X XX X       X XX  X XX     XX   X    X XXXX   XXX  X   X X X  XX X     X      X X     X   X   X       X
RSO  X    X       XX   XX XX XX X    XXX   X   XXX    X    X XX XX X  X X   XX         X    XX  X    XX   XXX  X XX   X  XX  X X
RSP   XXX          X      X XX X    X X       X  X      XXX X  XX     X     X X XXX    X        XX
RSSD XXX  X  XXXXXXXX   X  X XXXXXXX     XX X XXXXXXXXXXXXXX XXX  XXXX   XXXXXXX XXX     XXXX  X XX  XXXX XXX XX X X    XX
RTCB  X  XXXXX XXXXXXXXXX XX    XXX X X  XXXXXXXXX   XXX X X  XXX XX X  XX  XX XXXX  XX X    X XXXX   X XX   XXXX  X XX XXX  X XX
RTCV XXX XXXXXXXXXXXXXXXX XX                  XX   XXX X X  X   XX X  XXX XX  XXX  XX X X  X XXXX   X XX   XXXX  X XX XXX  X  X
RTLL  X XXXXXX XXXXXXXXXX XX   XXX XXX  XXXXXXXXX   XXX X X  XXX  X X  XX  XX XXXX  XX X X  X XXXX   X XX   XXXX  X XX XXX  X XX
RTPR XXX X XXXXXX X X  XX XX X   X XXX   XX X XX XX X X   X  X                            X XXXX   XXX    XX    X X  XXX  X  X
RUP          X            X XXX    X    X              X     X     X   X     X      X X  X            XX     X    X  X
RUV            X XX X          X XX                  XX     X           X   XXX X                  X
RVC          X          X      XX X        X                  X   X           X                    X          X
RYD      XX    X X  X      XX X    X   X   X    XXX  X   XX   XX          XX   X X X   X     XX              X
RZN                    XX   X X    XX  XX      XX   XX   XXX XX   XX  X   XXX  XXX X   X     XXXX           XX  X       X    XX
SAL   XX                   X X   X X   X              X     X       X    XX  X X        X                X  X
SALJ   X    X      X       X          X            X     X  XX            XX            X     X   X   X   X       X   X
SAN  X   XX     XX                 XX     XX        X                   X  XX            X    X  X     XX    XXX         X  XXXX
SAO                  X               X  X X   XXX X   X      XX  XX   X X XXX X X X           X    X         X         X X
SAOF                       X X    X                XX     X           X   X X     X
SBCZ   X   X     X             XX          X  XX  X XX  X X X                                XX                XX
SBF  X  X XX     X         X  X  X  XXX  X XX XX       X XXXX  XXX     X X   X X X X     X      XX X  XX X X  X   X      XX       X
SCM  X X  X    X  XXX  XX XX    X    X X   X     XX   XX   X XX XX X  XXX X XX X      XX XX XX  X     X   XXX  X XX      XX  X
SCX   X XXX   X X X    X X XXXXXXX XX      X   X    XXXXX X          XXX   X      X  X     X X     X                X      XX
SDA   XX   X  X  X     X X  XXXX   X X XX  X X    XXX   X XXX X XXX  XXX  XXXX XXXX   X  X     XX    XX          X     X       X
SDF              X         XX XX   XX  X   X     X      XX  X XXX        XX X   XXX X   X    X X     XXX X       X
SDG  X X  X    X  XXX  XX X     X    X X   X     XX   XX   X XX  X X  XXX X X  X       X  XX XX  X     X   XXX  X XX      X   X
SDI    X  XXXX        XXXXXXXX    X X XX XXXX  X  XX  XX  X  XX X   XX X  XX XXXXXXX  X X   XXXX  XX  XX X XX  XX     X X    X
SDN          X X XX              X        X  X  X X          X          X     XXX X      X   X X   X X           X
SDV   X  X  X  X X X  X  XX XXXXX XX XX X  XX  XX X X XXXXX XXX XX  XXXX X X X  XXXXX X XX   XXXXX   XXX X  X  X   XX X
SEK  XXXXXXXXX   XXXX  XXX XXXXXXXXXX XXX  XXX X X XX XXX XXXXX XX X    XXXXX XXXX X X    XX XX XXXX  X   XXXXXX X XXX X  XXX   X
SEM   XX  XX XXXXXX X
SES                XX XXX X  XX  XXXX XX  XXXXXX   XXXXXXXXX X XXXX   X X X XXXXX XX       X X XX  XXXX X X X   X X  X X   X X
SEW  X    X       XXX  XX XX X  X X  XXX       XXXX   X    X XX XX X  XXX X X  X         XX XX  X    XX   XXX  X XX   X  XX  X X
SFI    X    XXX       X  XXX XX  XXXX XX XXX      XXX XXXXX  XX     XXXXX XXXXX X   XXX X  XXXXX  XX XX  X XXX X     X X
SGAM  X  X       XXX  XX X     X X  X X                      XX      X X X         X   X XX  X
SGO                   X    X                      XXX XX XXXX   XXX X XXX XXX X X XXX  XXX X  X   X    XXX XX X   X XX   XX
SGS                     X   X       X            X   XXXXX XXX XX                X                XX
SHE              X         X  X                  X          X            X  XXXX X   X                  X X
SHI      XXXXX X XX X   XX XXXXX X X  XX X X    XXX XXX XXXX  XXXX     X XXX XXXXX X XXX    XXXX    XX
SHK              XX X                      X X  X   XX        X  X       X     X X X          X     X                  X
SHL                                                  X              X       X     X                  XXX            X  X
SHMJ   X    X      X                 X      X      X     X  XX              XXX           X     X            X           X
SHNJ  X    X     XX         X   X   X      X       XXX     X  X  X     XX      XXX         X   X X   X                  X
SHW   X       X     X    X      XX X       XX X              X   X  XX  X     XXXX   XX      XX    X  X   X X   X    X
SHWJ   X    X         XX            XX                  X  XX X              X          X X     X   X   X   X       X  XX
SIM              X       X X       X   X                X  X       X    X  X XX X                  X
SIO            X XX            X  X       XX          X   X  X   XX   X       X      X         X                          X
```

```
DATE  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |10 |11 |12 |13 |14 |15 |16 |17 |18 |19 |20 |21 |22 |23 |24 |25 |26 |27 |28 |29 |30 |31
-----------------------------------------------------------------------------------------------------------------------------
SIT    X     X X  X           X      XX    X    XX    X          XXX  XX X X  XX  X     X   X XX    X  X
SIV   XXXXXXXXXXXXXXXXXXXXXXX XXXXXXX          .    XXXXXXXXX X XXXXXXXXXXXXXX XXXXXXXX XXXXXXXXXXX XXXXXXXXXX     XXXXXXX
SJG    XX XX  XX  X X X  XX X X     X   X  X   X X  XXXXXXX   XX   X   X   X   X    X       XX  X   X     X
SJI                                    XXX X X                              XXXX                   X
SKO     XXXX   X  X  X  XX  XXXXXX XXXX XXX XXXX XX XXXXXXXXXXXXX XXXXXX  XXXXX XXX X XXXXX XXXXXX XXX XXX  XXXX XXX XX XX   XXXXX
SKR            X  X                 X         XX           X       X       XX        X         X         X
SKT   X X  X    X  XXX  XX XX X  X    X X  XX   XXXX   XX   X XX XX X  XXX X XX X      X XX XX  X    XX   XXX  X XX   X  XX  X X
SLA      X  XXXXX X   X     X XXX    X  X  X X X  X  XX X  X    X     X     X  X X  X    X  X     X XX              X   X   X   X  X
SLE    X                 X XXX  XX  X                X X    X X     XX    X    XXX X   X      XXXX  X          XX  X   X       X
SLKI  XX X    X XXXX X XXX     XX      X X                                                                             X X XX
-----------------------------------------------------------------------------------------------------------------------------
SLKM  XXX  XX  XX XXXX  XXXXXXX  X XX XXX   XX XXXXXXXXXXXX X XX XXXX XXXXXXXXXXXXX XX XXXXX XXXXX   XXXX XXXX XX XX   X  XX  X X
SLL              X            X          X      XXXX  X       X          X                X    X  XX  XX  X     X
SLM                                     X          X     X         X      X X              X               X        X
SLR   XXXXXXXXXXX XXXXX XXX XXXXXXXXXX XXX  XXX XXX XX XXX XXXXX XXXXX   XX XX XXXXXX X XX XXXXX XXXX  XX  XXXXXX   XXXXXX      X
SMF   X XXX XX X XXX XX  XX XX XXX XXXXXX   X X  XX  XX XXXXX  XX     X X X  XXXXXX XX  X     XXXX  XX XXXXXXXXXXXX XXX  XXXX XX X
SML   X X  X   X  XXX  XX XX X  X    XXX  XX   X XX   XX   X XX XX X  XXX X XX X     XX XX XX          X   XXX  X XX   X  XX  X X
SMW             X        X      X  X                                X   X     X      X                    X         X
SMY     X      X X  X           X  X       X          X     X          X X  XXXX X   X      X        X    X
SNF     X      X      X      X X X  X         X            X X X     XX         XXX X        XX XX        X X     X      X X
SNG   XX X    X X XXXX X    XX        X               X     X X   X     X    X XX XXXX X      XX   X XX  X          X
-----------------------------------------------------------------------------------------------------------------------------
SNH                  XX    X       X X    X        X     X      X   X         X            X   X   X   X      X   X    X XX          X
SNY    X     X X XXXX XXXXX   X XX   XXXX    X    X XXXX  XX X   X   X    X X X  XXXX X   X XX   X XX  X XX   XXXXX    X    X     X  X
SNZO         X     X  X          X       X   X  X    X             X
SOC        X       X  X       X XX   X   X   X                     X           X  XXXX X
SOH          X X    X    XXXX XXXXXX XXX XX  XXX XXX  XXXXXXXXXXXXX XXXX   XXXX XXXXXXX XXXXXXXX XXXXX    X X  X  XXXX  XXXXX  XXXX
SOI   X X     XX      X X  X X   XX    XX     X     XXX X  X XXX    XXX XXXX X X XXX XXXXXXXXX     X   X    X   XXXXXXX    XX
SOP     X   X  X        X X X            X    XX   X   X       X      XX   XXX      X                X    X    XX     X
SPA   XXXX    X  XXX X      X  XX XXXX X X  XX X   XX  X X   X     X  XX XX X  XXXXXX    XXXX    XX XX      X       X
SPC     X X   XX XX X   X XXX    XX  XX   XXXX    X XXX X X XX XX  X    XXXXXXXXXXX  X   X XX X      X    XX   X X   XXXX  X
SPJ                                                          X     X    X X  X       X     XXX      X         X          X    X
-----------------------------------------------------------------------------------------------------------------------------
SPU   X X  X    X  XXX  XX XX X  X X  XXX   X   XXXX    XX    X XX XX X  XXX X XX X      XX XX XX  X    XX    XXX  X XX   X  XX  X X
SQTA              X           X XXX  XX  X   X      X XX XX   X XX    XXXX  XX  XXX X   X X     XX  XX  X     XX  XX X
SRN   XX  X X XX  XX       X XXX X     X     XXX X X  X     XXX XX X  X XX   XX  X XX      X  X X XXX   X       X XX     X       X
SRO   X XX XX  XX XX       X XX XX  XXX XX X X X  X   XX XX X X X      XXX X XXXXXXXXXX  X      XXXX X   X  X XX  XX X    XX X X
SRS         X X    X    XXXX XXXXXX XXX XX  XXX XXX XXXXX XXXXXXXX XXXX     XXX XXXXXXX  XXX XXXXXXX X   X X  X  XX X  XXXXX  XXXX
SRU   XXX   X  XX XXXXX  XX    XX XXXXX     XX X XX XXXXXXXXXX XXX XXX XX X XXXXX XXXX XX       XXXX   XXXX  XX X   X X  X X X   X
SSE   XXXX XX X X XX XXXXX  XX XXX XXXXX  X X XX X XXXX  XX XX XX X X  XXXX XXXXXXXXX    X XX XXXXXX  X  X XXXXXXX  X XX  X X   X  X
SSF   X XXXXXX XXXXXXXXX XX XX XXX XXXXXXX  X XX X   XX XXXXXX XX  X  X X X  XXXXXX XX   XX X  XXXX  XX XXXXXXXXXXXX  XX XX XX XXXX
SSK   X        XX  X  XX  X      X      X   X       X   X XX   X  XXX  X   XX  XXX
SSOR                            X X                          X    X   XX X     X                    X                X
-----------------------------------------------------------------------------------------------------------------------------
STAN                    X                   X X      X        X    X   X X   X   X X           X            X
STH                        X                           XXXX    XXXXXXXXXXXXXXXXX  X     X  X  XXX      X                X   X X
STK   XXXXXXXXX XXXXXX XXX X X XXXXXX XX   XXXXXXXXXXXXXXXXXXXXX  X  XX XX XXXXXXXXX XXXXXXX XXXXX XX X        XX X XXX        X
STS                X          X X X  XX                    X    X        X     X    X           X        X       X
STV   X  X  X     X  XX   XXXX X   XXXX X   XX  XXX X XXX XXXXXX     X     X XXXXX XX X         XXX
SUA   X X  X    X  XXX  XX XX    X      X X   X   X XX    XX   X XX XX X  XXX X XX X      XX XX XX  X     X    XXX  X XX   X  XX  X X
SVA     X          XXX     X    XX      X     XX        XX  X X XX  X         XX   X  XX X         X  X     X    X       X       X    X
SVE     X  X  X X XX X      X XX    X       X              X   XX X         X     XXX X   XX X   X X   X  X    X XXXX  X    X     X  X
SVST    X X   XXX     XX      X  X  X                            XX      X X         XXX X    X XXX X
SVW   XXX  X    XXXXXXX XX XXX X     XX X   XX    XX XXX XX  X XX  XXX  X XXXXX XXX  X      XX XXXXX    X XX  XXXXXXXXX X X XXX  X  X
-----------------------------------------------------------------------------------------------------------------------------
SWI         XXX                                XX X                      XXXX     XXX      X                                     XXX
SWZ                XX  X   XXX X XXXX      X X X       XX  XX XX X             XX X X X    X   X          X     X    X    X       X
SYI   X     X      XXX  XX XX XX X X   XX        XXX           X XX X    X   XX        X
TAB   X          X XX X       X   XXX                          XX X X      X    XXX X   X X    X             X   X
TACH   X    XX XX XXX XX X X     X XXXXXX   X XX  X X X X X   X    X   X X  XXX XX  XX    XXXX X  XXX  X      XX     XXX X
TAU      X       X X  X          XX         X  X        X X     XX         XX X  XXXX X        XX          XX         X  X
TAZ     X   X  X          X   X        X                X  X                          X     X  X                   XX
TBH                         X      X   XX XXX     XX   X               X    XX     X      X  X              X
TBM     X      X          X      XX X                   X           X    XXX       X    X       X    X       X     X    X
TCA   XXXXXXXXX XXXXX X  XX XX   X X XXX XXXXXXXXXX X XXXXX X XX  XXX X  XXX XXXXXXXXXXXXX X  X XXXXXX XXXX  XXXXXX XXXX XXXXXXX X
-----------------------------------------------------------------------------------------------------------------------------
TCE                X       X     X   X  XXX      XX  XX                 XX    XX      X      X X                X
TCF     XXX XX XXXXXXXXX  X XX XX  XXXX X  X       XX XXX XX XX   X X X    XXXXX XX  X  X  XXXX  XX X XX XXXXXXX  XX  X XX XX X
TCW    XXXXXXXXX  X     X     XX  X     X    X  X     XXXX                                   XX   X X   X X     X     XX      X X
TDL     X      X      X     X      XX                          X                             XX              X         X
TDS      XX    X        X XXXXXX     XX XX  XXX      X  XX     X      XXXXXXXXX XXXXX X X X  X  XX  XX    XX X X X      X        X
TEH       XX        X      XX   X XX   X X X    X     X    X X XXXX X   X    X XXX X X X X  X X X         X   XXX
TEHZ    X  XXX         X     XX         X               XXX  X                               X X                       XX       X
TGL                                                      X    X XX XX X  X X X X              X        X        X XX            X
TGY                               X    XX  XX XX   X    X           XX               XXX             X  X               X   X    XX
THE          X X     X   XXX  XXX X X XX XX    X X  XXXX   X XX X X XX X    XXX  XXX  X  XXX   X   X          X  X      X  X  X    XXX
-----------------------------------------------------------------------------------------------------------------------------
THY     X                XX                         X     X       X     X X                                X  X X            X
THZ   X XXX XX XX XX X XX    XX  X X XXX    X XXX   XXXX X X X                  X                XX         XX         X  X XX      XX
TIA   X X  X  XXX XX XX XX X X XXX XXXXXX   X    X   XXX X  X  XX X  X XXX XXX XXX X  X XX  XXXX  XX XXX  XXXXX X  X   X     X  X
TIC    XX XXX X X XXXX XX X XX X X XX    X  XX XXX   X XXXXXXXX  XX XX X XX  XXXX XXXXXX XXXXXXXX X  XXXX  XXXXXX XX     X
TIK    X   X XXXXXX X                     X X  XXX  X    XX X   X X X  XXXX X   X  X   X X   X X   X XX   X   X   X   X
TIO         X     XX  X X  X   XX X X      X    X   XX X  XXXXXX X X    X      X   XX  XX   XXX  XXX XXXX XXXXXXX  XXX XXX
TIR   XXXXX X XX  X     X X  X XX   X X XX  XXX   XXXX   X XXX XXXXX XXXX  XXXXXXXXX   X  X  X XXX X  XX   X   X XXX          XX
TIY   XXXX XX XXXXXX XXXXX XXX XXX XXXXXXXX XXXXXX XXXXXXXXXXX XX XX  XXXXX X XXXXXXX   XXXXXXXXXXXX XX XXXX XXXXXXXX X   X     X  X
TKL   X                 X X    X X     X       X X XX  XX  X      X      X  XX X             X                          X       X
TKSJ         X     XX  X  X          X              XX       XX  X         X XX    X            X   X                       X
```

```
DATE  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |10 |11 |12 |13 |14 |15 |16 |17 |18 |19 |20 |21 |22 |23 |24 |25 |26 |27 |28 |29 |30 |31

TLC     XX  X     X                      X  X    X  X X   X X X                              XX                   XX
TMA    X                     X XX   XX  X        X     X X    X X       XX     X   XXX X   X      XXXX   XX        XXX X              X
TNE          XXXX XX XXXX      XX        X                                XXX
TNP     X       XX  XXXXXX XX     XXX X   XX  X XXXXXXX XXXXXXXX    XX XX  XXX XXXXXXX X XX XXX      XXXX   X XXXXXX  X   X X   X X XX   X
TNR                       XX   X           X X   X        X     XX    X                 X
TNS     X       X      X       X XXX         X                X   XX X    X X X   X     X    XXX              XX              X    XX     X
TOA    XXX   X     X   XXXX XX X X    X     XX X    X       XX X XXX   X XX XXXX  XXXXXXX XXXX X   XXXXX XXX XX   X X    XXXXXX XX X    XXX   X   X
TOO    XXXXXXX X X XXXX X X X    XXX XXXXX      X   X   X XXXXXXXXXXXX       XXXXX X XXXXXXX   XXXXXX XXXXX X    XXX   XXX   X   X    X       XXX
TOUF                         X X      X                        XX       X                X     X X      X
TOV      XX X   X    X X X   X   XX XXXXX XX XX X   XX   XX XX   XXXXX XXX XX  XXXX X X X XXXXX   XXXX    XXXXX    XXX X   X   X    XX X

TPE      XXXX X X    XX      X X XXXXX    X X XX   X X X X   X       XXX XX X  XXXX    XX   XXXX        X  X XXXXX    X         X XXX     X
TPP                     X         X         X    X  XXX       XX    X                      XX     XX        X        X  X
TPT            X    X XX X            X XX        X              XX        X              X X   XXX X                       X
TPX         XX   XX   XX      X X XXXXXXX       XXXXX   XX   X   XXX X                X X                X        X    X                 X
TRF                       X                 X                                                X                X   XX          X     XXX   X XX        XX   X
TRHT     X X    XXX      XX         X   X    X                                XX       X               X XXX XX    X XXX
TRI      XX                X      X     XXXX    XXXXXX XX XX X XXX XXX XXX XX     XX XX XX XXXXXX    X X    XXXXX XX XX   XXXXX XXXX   XXX        X
TRN                     X          X          X    XX XXX    X   XX   XX              XX   XXX         X        X   X                  X
TRT    X XXX XXXXXXXXXXX XX            XXXX       XX X                                XX X X XX
TSM             X X XX               X             XX X   X X     X       X                X    XXX X  X      X X X      X         X

TSRJ    X     X       XX   X              X XX       X         X X           X   X                X XX          X   X   XX   X          X   X          X     X
TTA    X X   X      X XX X   X   X X    X     XX X   XXX X XXXXX XX     X XX   XX    X XXXX    XXX   X       XX   XXXX     X XXXXXXXXXXXXX X X XXXX X   X
TTG      XX       X             X       X X   X X XXX      X         XX X   XX   X         XX        X XXXXX    X   X      XX                X     X XX              X
TTH      X   XXX XX                   X             X               XXX                                                 X X   X X                      XX      X    X
TUC    XXX          X XXXX      X XX   XX X XX      XX     X      XX XX X X X    X XX X X X   XXXX XX XX        X
TUL    XXX          X XX X     XX   X XXXXXXXX X X XX      X        XXX XX XX     XX     X X   XX XXXXX   X X X        X                 X                  X
TUZ        X   X        X   X                 X   X X   X     X   X XX   X X X                                        XX                      XX      X
TVO                     X   X            X   X        X              X          X             X X    XXX X                         X
TZL       X   X      X   XXX    X    X        X          X    X       X      XX        XX    X X  XXX X X   X           XX XX   X        X     XXX   X XX          X
UER             X XXX XX   X        XX         XX         X                            X                   X         XX        X                 X X            X       X

ULC      XX        X            X       X X   X X XX               XXXX   XX   X          XX       X XXXXX    X   X        XX                X    X XX           X
ULM    XXXXXX    XX XXX XXX X XX XXXXXXXXXXX   XX X X   XXXXXXXXX XX    XXX   XXXX X   XXXXXXX XX           X     X XX    X X   XX X   X X
UNM        X   XX    XX        X        XX               X X X         X          X          X X          X X X    X   XX                XX                 X
UPA          XX       X X X   XX   XX        XX X X X X X X X X   X     XXX          X                   XX               XXX        X      X   XX               X
UPP    X X X           X       X         X XXX X X XX     X                  XX         XX X     X   X X     XXX XX   X X      X X          X   XX     X       X XX           X
URZ    XXX XXX XX   XXXXXXX XXXXXXXX XXX X X   X XXXXXXXXX   X X X                                     XX    XXX XX X XXXXXX      XX X   XX XXXX XXX
UYO    XX          X   XX        X X   XXX       X       XX     X       XXXX XXXXX     XXXX        XXXXXXXX XXX X                X   X            X   XX           X
UZD                              X          XX    XXX X X        X XX X     X          X        XXX XXXXX     X             X                 X    XX   X    X
UZH       X        XXX XX X                         X        X    XX XX X X X               X    XXXX X     X           X X          X     X X XX         X
VAH                 X XX X              X XX        X              XX       X               X X    XXX X                               X

VAI    X X                       X                                  X      X X      XX       XX   XXX        XX       X XXX   X   X       XX   X
VAO    XX         X X X    X   XX          XXXXX       XXXX X X   XXXXX X   X       X X XX      XXXXXXX X    X   XXX X   XXXXXX   X      X
VAY      XX     X X   X    X    X     XXXXX    XXX XXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXX XXXXXXXXXXXXXXXXXXXXXXX   XX X XXXX XXXX X XX     XXXX
VBEM               X               X        X X                      X            X    X     XXX                   X   X           X       X               X       X
VBY      XXXXX XX   XX X    X   XXXXX    XXXX XXXXX XXX    XXXX XXXXXX XXXXX    XXX X XX XXXXXX   XX XXXXXXXXX XX XX   X XXX XXXX    XXX         X
VDL    X                             X XXX    XX   X            X        X X       X X            XX        X      XXX X     X         XXXX   XX              XX X                    X
VGB      XX        X         X         X       XXX    XX          XX X XX        X     X    XX   X      XX X      XXXX XX   X           XXX      X           X X                X
VITF      X                           X X        X                         X          X            X                XXX        X
VKA                          X         XX X       XX    X     XX          X   XX X     X   X     X               XXX                X X         X             XX        X XXX
VLA                 X X     X                     X          X       X    XX               X             X X          X      X     X      X X      X            X                     X  X

VLI             X                   X   XX       X     XX X XX    XX     X XX        X         X       XXXX   X XX        XX   XXXXXX              X X   XXX       X          XX
VLL                X                X          XX                                                  X    X                X      X          XX       X                 X     X
VLMM               X                X          X                                                   X    X                X X                  X                        X     X
VLO    X XXX      X      XX         X      X X     X X XX   XXX     XX X       XXX X   X   X   X       X    XXXX          X   X   XX X                      X       X
VLS        X X   X                  X    X X       X X XX     XX    XX         X        X   X XX          X   X X          XX   X XXXX              X X   X X        X     X   XX
VLZ    X X   X        X    XXX    XX XX X   X        XXX      X     X XX     XX      X XX XX X   XXX X XX X          XX XX XX   X          X      XXX   X XX          XX    X X
VOY        X                   X          XXX        XXX XXXXX X      X X XXX XXX XXX X   XXX      XX XXXXXX       X X      XXXXX X X X   XXXXX XXXX    X          X
VRAC       X    X               X   X               XX   X    X        XX    XX XXX XXXXXX          XXX XXXXX                                  XX XXXXX XXXXX XXXXXX
VRI      XXX X   XXXXXX X    XXX XX XX    XXXXXXX XXXX      X XX XXXXX    XX   X    X XXXXXXXXXX   XX X     X   XXX        XXX        X XXX XX   XXX    X X XX
VTS                         XX    X X    XXX XX       X X    XX     XXX XX    XX   X     XXX   XXXXX     X          XXXX                  X     X                   XX

VVO                 XX          X   XX XX                         X                  X     X                                    X                                  X       X
VZW                                       X      X X          XX      XX     X XX XX X                                  X    XXX        X      XXX      XX              X
WAH2     X                   X     X         XX                   X        X     X     XX            X      X                    X         X               X
WAHZ     X   XXX XX           X X   XX           X     X    X      XXXX X                                     X     XXX    X X                      X XX       X X X
WAJH                   X   X       XX           X                          XX                XXX
WARB   XXXXXXX XXXXXXXXXXXX X X XXXXXXXXXX XXX   XXXX XXXXXXXXXXXX XXX   X XXXXXXXXXXX XXXXXXXXXXX XXXXXX XXXXXXXXXXXXXXX    XX X   X
WB2    XXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXX
WCZ    XXX X X   X    X                 XX XXX X X   X                 X
WDC           X    X XX X             XXX         X     XX X X         XX      XXX   X   XX   X XXXXXXX X    X          XXX    X   X    XX X            X   X
WEL           XX            X       X                               X XX                                                  X                         XX

WET      X  X         X   X        XX X     XX   X      X          X  XX   X   X        XX      X     XXX X    X          XXX                 XX   XX              X
WHH      X   XXX X            X       X           X            X        XXX   X                                        X X   X X                  XX       X X X
WHN    XXX   XX X X XX XX XX     X X X   XX          X   X X   XXX   XX X   X             X XXX XXX X    X XX    XXX    X      X XX  X   X XX  X       X    X
WIN      XXX X   X X X XXX XX       XX     X   XX     XX             X       X       X       XX X      X X           X X XX   XX       X X               XX
WIT      X       X     X X     X   X X                                    X X                   XXX                   X                X
WKYJ          X       XX   X   X          XX       X         X             X   X         X    X XX       X             X    X                           X   X
WLF      X        X   XXXX X X    X XXX   XXX X   X   X    X      XX XXXXX XXX   XX      X X XXX XX   XXX XXXXXXX X   XXXX XXXXXXX    XXXXXXX
WLS      X                          X     X                         XX       X         X      X    XXX      X
WLZ      X   XX   XX X     X        X XX       X      X   X      XXX   X X                                  X      X X            X                  XX
WMOK              XX XXXX     X XX XX    XXX      XX    XX    XXXXX XXXX    X         X X XXXXXXXX XX          X X    X   X     X              X XX      X
```

```
DATE  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |10 |11 |12 |13 |14 |15 |16 |17 |18 |19 |20 |21 |22 |23 |24 |25 |26 |27 |28 |29 |30 |31

WMO   XX X XX XXXXXX XXXXX  XX XX  XXXX XXX XXXX X XXXX  XXXXX XX XX   XX X XXXXXXXXX  XXXXXX  XXXX XX X  X  XXXXX  XXX XX     X  X
WPW    X      X      X     X      XX X         X            X             X    X X          X X
WRA   XXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXX  XXXXX    XXXX
WSI                                       XXXXX  X                                  X XX                   X X
WTS    X      X  XX X    X  X XXX  XX                        XXX  X     X    X   XXX                  X          X   X  XX        X
WTTA   XX     X  XX X     XX XXX  XX   X  XX      X X XX XX X X XX     XXXX  XXXXXXXXX   X XX    XXX  XX XX  X XX  XX X X
WTV    X            X     X      XX X                   X       X    X     XX          X X  X            X      X     X    X
WWKK                                                                                      X  X  XXX  XX  XXX  X  XXXXXXXXXX XX  X XXXX
XAN   XXX XXX X XXXX XXXXX  XX XXX XXXXXXXX XXXXXX XXXX XXXXXX XX XX XXXXXX XXXXXXXXX  XX XXXXXXXXX XX XX X XXXXX XXXXX  X     X  X
XLV   X           XX         X         X        XX                   X           X          X    XX        X      XX          X  X

YAH        X         XX    XX        X X     X          X     X     X XX   X X    XX X X           X    X XX  X       X     XXX  X XX           X
YAK   XXXXX X XXXXXX XX XXX XX XXX XXXX XX  X     X  XXX XXX XX XX  X  XXX X XX  XXX X X X  X    XXXX  XXXX    XX XX     XX  X X  X  X
YAMJ   X    X     XX XX  X          X XX      X         XXX XX  X   X          X    X XXXXX         X       XXX  X X       X  X        X   X X
YER                       X  X  X  X   XXXXXXXXX  XXX X  X XXXXXXXXX XX   X  XXXX XX XXX XXXXXXX XXXXXXX XXXX XXXX  XX  X XX    XX X
YHJ                                                           XXX      X                          X                                X
YJA    XX X        X  X  X      XX                          X      X  X    XX XX X X X  X XXXX XX X  XXX X      XXXXXX   XX      XX X XX  XXX X
YKA   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX         X XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
YLV   XXX X  X          XXXXX X                                                                                  X
YONJ        X      XX  X  X              X             XX         X  X              X XX               X    X                   X
YSS   X X   X XXX XX XX      XX  X    XXXX   X   X X  XXX  X XXX X  X     X X X X XXX X    X   X    XXX    X  X    X XX          X    X  X

ZAG                  X    X    X X    XX       X X         XX X X X      XX      X  XXX X    X X    X  X        X      XXX X
ZAK    X    XX XXXXXX X       XX       XXX XX  X  XXX  XXX XX XX   XX XX    XXX X XXXXX X    XX X     XXX     X  X     X XXX    X     X     X  X
ZLA     X                      X XXX  XX  X       X    X XX      X        X     X    XXX X             XXX            XX  X            X
ZNT                                     X   X      X          X  X                  XX        X                   XX   X    X
ZOBO  XXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXX     XXXXXXXXXXXXXXX X   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
ZSP                   X              X X    X                XX   XX X X X   XX X             X               X          X
ZST   XXXXXXX XXXXXXXX XXXXXXX XXX XXXX XX XXXXXXX  XXXXXXXXXX XX XX  XXX XXXXXXXXXXXXXXXX  X XXXXXXXX XX  XXXXXXXX X XXXXXXX X
```

The following stations each reported less than 10 readings:

AAA	AAK	ABL	ABTN	ACTN	ADAT	ADI	AFAR	AGO	AGX	AHA	AIN	ALB	ALMG	ANM	ANMO	ANTN	APO
AOBJ	ARC	ARS	ARTJ	ARVI	ATA	ATZ	AUP	BBG	BBJ	BBTN	BDBC	BGIO	BHT	BIB	BIP	BLH	BLN
BLO	BNB	BOT	BPBC	BRN	BRNI	BTB	BTH	BUC1	BURJ	BUT	BUTX	BVW	CALN	CBB	CBSW	CCM	CCW
CDCB	CDFW	CDM	CDP	CFI	CFTV	CHIE	CHTO	CME	COL	COLF	CPB	CPH	CPK	CPZ	CRR	CRTN	CRU
CSTJ	CTAO	CTCR	CTFE	CUSS	CUT	CWB	CWF	DAF	DAH	DBN	DBO	DEL	DES	DOMF	DON	DPMT	DRTN
DRZ	DUI	DWM	DWY	EAB	EAU	EBG	EBH	EBL	ECB	ECP	EDB	EDI	EDM	EDR	EDU	ELO	EMEL
EMM	ENSF	EPA	ERM	ESCF	ESD	ESK	ESR	ESY	ET3	ETA	ETB	EWZ	EZAM	FAI	FEF	FGTN	FSB
GBI	GBR	GBTN	GCM	GDH	GDR	GGC	GHAT	GHW	GHZJ	GIBL	GIO	GLH	GLK	GMG	GMO	GMTN	GOIL
GRBF	GRC1	GRFO	GRN	GRW	GT2	GUAC	GULW	GUMO	GVMR	GWF	GWKM	HAE	HAKY	HATI	HBMT	HCG	HDC2
HGH	HIA	HITJ	HKL	HLP	HMDT	HMH	HMT	HNB	HOFF	HOLB	HPO	HPU	HRY	HSO	HSR	HTC	HTR
HTW	HUH	HUL	HWV	HYF	HYT	IAS	IISM	IRZ2	ISSF	ITU	JLK	JRDJ	JRSJ	JTS	JUD	KAC	KAE
KART	KCHT	KEF	KFH	KFNJ	KHU	KIH	KIP	KIR	KKH	KLCH	KLL	KLM	KMR	KNH	KOH	KOSW	KOT
KPL	KPO	KRO	KSB	KSHT	KSI	KSU	KTH	KUF	KUH	KUPT	KWE	LAL	LBL	LDMO	LESF	LFU	LGAR
LHE	LIB	LIJA	LLAV	LMI	LOCW	LPI	LRDO	LRM	LSPF	LTMT	LVI	LVNJ	LVP	LVV	MADF	MAJO	MAK
MBZ	MDN	MDSJ	MEM	MEMT	MEW	MFTN	MHA	MIM	MJ2	MKA	MKL	MKRJ	MKT	MLH	MLX	MML	MMR
MNB	MNDI	MNS	MOTA	MOTN	MPOR	MRSJ	MSAL	MTHF	MUB	MVH	MWH	MYV	MZDA	MZX	NAB	NAQJ	NBO
NCG	NCOR	NDE	NHIL	NMMO	NPH	NRZ	NVS	OBC	OCM	OFK	OGE	OGTN	OHW	OJEN	OKH	ONR	OOW
OPA	ORA	ORL	ORT	OSD	OSR	OT2	OTR	OUT	OZB	OZE	PAB	PAGN	PAGV	PAND	PAS	PATW	PCO
PDA	PDTN	PERF	PFB	PFO	PGO	PGW	PHC	PKK	PKL	PKNC	PLAV	PLBC	PLDF	PLL	PLVA	PNJ	POA2
PPD	PPL	PPR	PRP	PRW	PSN	PTS	PUE	PUH	PVF	PWH	PWL	PWV	PYM	PZI	QLP	QTFJ	QTRJ
QVP	RAR	RBA	RCG	RDO	REMW	REVF	REY	RIFB	RIM	RIN3	RNO	RPN	RRO	RSD	RSL	RSTA	RSW
RUWJ	RVW	SAGI	SALF	SAP	SAW	SBA	SCE	SDD	SDOM	SEG	SEO	SEY	SFG	SFS	SGH	SGKT	SGNT
SHB	SHBJ	SJAS	SLEB	SLTN	SNB	SOSW	SPIN	SPT	SPW	SRBF	SRE	SSB	STCH	STD	STR	STW	SUF
SUR	SURF	SVB	SVO	SVV	SWH	SXM	SYA	TAHZ	TATO	TBR	TBT	TBZ	TCO	TCT	TDH	TET	TIG
TIM	TKO	TLE	TLG	TME	TMR	TMW	TOD	TPMT	TPR	TOTN	TRGS	TRH	TRYN	TUH	TVI	TWW	TYS
UCC	UDD	UME	UTMA	UTU	UWE	VACR	VAF	VAL	VDB	VDCF	VFP	VGZ	VIB	VIPM	VSM	VSS	VTU
VUN	VVI	VWV	WALA	WAR	WATA	WDIN	WGAR	WHA	WHB	WHC	WIH	WIM	WIW	WKH	WME	WMTN	WMV
WOB	WOH	WPB	WPM	WRD	WRH	XDE	YAKW	YEL	YKU	YLL	YPE	YRC	YRH	YTIR	ZGN	ZON	

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
A11	R	St. Roch-des-Aulnaies Quebec, Canada opened 19770830.	47 14 33.0 N (47.2425)	70 11 52.0 W (70.1978)	61.0	CLTN
A16	R	Riviere Ouelle Quebec, Canada opened 19770830.	47 28 14.0 N (47.4706)	70 00 23.0 W (70.0064)	15.0	CLTN
A21	R	St. Andre Quebec, Canada opened 19770830.	47 42 13.0 N (47.7036)	69 41 23.0 W (69.6897)	46.0	CLTN
A54	R	Misere Quebec, Canada opened 19770830.	47 27 24.0 N (47.4567)	70 24 45.0 W (70.4125)	381.0	CLTN
A61	R	Sainte Mathilde Quebec, Canada opened 19810605.	47 41 35.0 N (47.6931)	70 05 24.0 W (70.0900)	358.0	CLTN
A64	R	Saint Simeon Quebec, Canada opened 19770830.	47 49 35.0 N (47.8264)	69 53 32.0 W (69.8922)	137.0	CLTN
AAHD		Abu Hadid Egypt opened 1982? HLW code AHD.	23 44 46.8 N (23.7463)	32 45 10.2 E (32.7528)	...	HLW
AAK	D	Ala-Archa Kyrgyzstan	42 38 20.4 N (42.6390)	74 29 38.4 E (74.4940)	1645.0	IRIS
AAPN		Arroyo Pinares Spain	37 18 27.6 N (37.3077)	4 07 15.6 W (4.1210)	1160.0	CRT
AASM		Arroyo Seco Sacramento County, California, U.S.A. opened 19841207. MNLO code AAS.	38 25 48.0 N (38.4300)	121 06 30.6 W (121.1085)	65.0	MNLO
AAT	R	Alma-Ata Kazakhstan	...	...	...	
ABH		Alteburg Rheinland-Pfalz, Germany	49 52 54.0 N (49.8817)	7 32 51.0 E (7.5475)	620.0	KRW
ABHA		Abha Saudi Arabia opened 198811.	18 15 .. N (18.2500)	42 45 .. E (42.7500)	2200.0	RYD
ABKT	RD	Alibek Turkmenistan	37 54 .. N (37.9000)	58 24 .. E (58.4000)	...	MOSR IDA IRIS
ABR	R	El Abra Veracruz, Mexico	19 48 25.2 N (19.8070)	96 32 02.4 W (96.5340)	520.0	IIM
ABT		Abant Turkey opened 1991.	40 36 17.0 N (40.6047)	31 19 15.0 E (31.3208)	1794.0	DDA
ABVM	R	Arroyo Blanco Veracruz, Mexico	...	...	...	UNM
ACHM		Chimeneas Spain	37 06 18.0 N (37.1050)	3 49 46.8 W (3.8297)	862.0	CRT
ACP	R	Acatlan Puebla, Mexico	18 12 28.2 N (18.2078)	98 03 34.8 W (98.0597)	1250.0	UNM
ACTN		Antioch Church Tennessee, U.S.A.	36 20 49.2 N (36.3470)	89 18 36.0 W (89.3100)	143.0	SLM
ACTO		Acton Ontario, Canada opened 19910709.	43 36 31.5 N (43.6087)	80 03 45.3 W (80.0626)	360.0	LDN
ADAT		Adana Turkey opened 19920101.	37 03 44.4 N (37.0623)	35 21 18.0 E (35.3550)	150.0	GBZT
AEA	R	East Anglia University England, United Kingdom opened 1984.	52 37 14.9 N (52.6208)	1 14 25.1 E (1.2403)	45.0	BGS
AECU	C	Ecuador Network Ecuador	0 16 13.8 S (0.2705)	78 24 25.2 W (78.4070)	3000.0	QUI
AEI	F	(magnitude source code for AEIC)				
AEIC	F	Alaska Earthquake Information Center, Fairbanks				
AEKI		Aeknabara Sumatera, Indonesia opened 1991.	2 06 06.0 N (2.1017)	98 27 13.0 E (98.4536)	840.0	DJA
AFAR		Ash Flat Arkansas, U.S.A.	36 08 00.0 N (36.1333)	91 31 52.2 W (91.5312)	239.0	TEIC
AFH	RD	Ashford Hill England, United Kingdom	51 20 38.0 N (51.3439)	1 13 11.0 W (1.2197)	91.0	BKN
AFIF		Afif Saudi Arabia opened 199003.	24 06 03.6 N (24.1010)	43 10 48.0 E (43.1800)	950.0	RYD
AFL	R	Alpe Faloria Veneto, Italy	...	...	...	TRI
AGAL		Gebel Alisa Egypt opened 1982? HLW code GAL.	23 25 42.6 N (23.4285)	32 49 31.8 E (32.8255)	...	HLW
AGD	D	Arta Grotte Djibouti opened 19850509.	11 31 48.0 N (11.5300)	42 49 12.0 E (42.8200)	450.0	ARO GEOS
AGG		Agios Georgios Greece	39 01 20.0 N (39.0222)	22 19 49.0 E (22.3303)	540.0	THE
AGMR		Gebel Marawa Egypt opened 1982? HLW code GMR.	23 32 15.6 N (23.5377)	32 32 25.8 E (32.5405)	...	HLW
AGO		Saint Agoulin Auvergne, France opened 1984?	46 03 08.6 N (46.0524)	3 07 51.8 E (3.1311)	523.0	CFF

STATIONS ADDED SINCE STATION BOOK (OF 85-714) WAS PRINTED

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
AGRW		Gebel Rewraw Egypt opened 1982? HLW code GRW.	23 38 42.0 N (23.6450)	32 48 34.8 E (32.8097)	...	HLW
AGU		Augustine-Summit Western Alaska, Alaska, U.S.A. opened 19900901. GIA code AUS.	59 21 36.0 N (59.3600)	153 25 50.4 W (153.4307)	1226.0	GIA
AGX	D	Aguascalientes Aguascalientes, Mexico opened 1988.	21 52 43.2 N (21.8787)	102 18 03.6 W (102.3010)	...	UNM
AKB	RD	Aktyubinsk Kazakhstan	50 15 36.0 N (50.2600)	58 06 00.0 E (58.1000)	...	MOS IDA IRIS
AKGH		Akosombo Ghana opened 1987.	6 14 36.0 N (6.2433)	0 02 25.0 E (0.0403)	377.0	KUK
AKIJ	R	Akita 2 Honshu, Japan opened 19900425.	39 45 00.0 N (39.7500)	140 08 30.0 E (140.1417)	65.0	JMA
AKKT		Akkus Turkey opened 1992.	40 46 42.0 N (40.7783)	37 00 47.0 E (37.0131)	1593.0	DDA
AKL		Akola Maharashtra, India	20 07 .. N (20.1167)	77 07 .. E (77.1167)	310.0	NDI
AKRL		Khor El Raml Egypt opened 1982? HLW code KRL.	23 39 36.0 N (23.6600)	32 42 36.0 E (32.7100)	...	HLW
AKSR		Khor Sakr Egypt opened 1982? HLW code KSR.	23 38 13.8 N (23.6372)	33 01 15.0 E (33.0208)	...	HLW
AKUR		Kurkur Egypt opened 1982? HLW code KUR.	23 53 38.4 N (23.8940)	32 46 33.6 E (32.7760)	...	HLW
ALBI	R	Allahabad Uttar Pradesh, India	25 29 .. N (25.4833)	81 50 .. E (81.8333)	107.0	NDI
ALJ		Aljibe Spain	36 40 25.2 N (36.6737)	5 36 14.4 W (5.6040)	1091.0	SFS
ALME	R	Alemaya Ethiopia	9 25 48.0 N (9.4300)	42 02 24.0 E (42.0400)	2133.0	
ALMG		Alamagan Northern Marianas, Mariana Islands opened 1991.	17 36 03.6 N (17.6010)	145 50 16.8 E (145.8380)	490.0	
ALN		Alexandroupolis Greece opened 198906.	40 53 50.0 N (40.8972)	26 02 44.0 E (26.0456)	110.0	THE
ALOJ		Loja Spain	37 06 32.4 N (37.1090)	4 06 18.0 W (4.1050)	1340.0	CRT
ALPW		Alpine Wyoming, U.S.A. opened 198601.	43 09 02.3 N (43.1506)	110 59 52.1 W (110.9978)	1792.0	USBR
ALZ	R	Aoulouz Morocco	...	...	...	CNRM
AMAN		Manam Egypt opened 1982? HLW code MAN.	23 56 00.0 N (23.9333)	32 56 02.4 E (32.9340)	...	HLW
AML	RD	Almayashu Kyrgyzstan	...	...	...	MOSR IDA IRIS
AMRP		Almeirim Portugal opened 199002?	39 09 30.0 N (39.1583)	8 34 30.0 W (8.5750)	160.0	INMG
AMW		Mount Adams North Island, New Zealand opened 19910211.	41 18 34.0 S (41.3094)	175 45 39.0 E (175.7608)	...	WELW
ANAL		New Alisa Egypt opened 1982? HLW code NAL.	23 24 36.0 N (23.4100)	32 40 40.8 E (32.6780)	...	HLW
ANAT		Anatahan Northern Marianas, Mariana islands	16 21 10.8 N (16.3530)	145 39 21.6 E (145.6560)	510.0	
ANCC		Alto Anchicaya Colombia opened 1987.	3 30 55.2 N (3.5153)	76 52 00.0 W (76.8667)	540.0	UVC
ANGC	R	Angol Araucania, Chile	37 47 00.0 S (37.7833)	72 42 30.0 W (72.7083)	...	
ANGL		..... Ecuador opened 199008.	0 23 34.4 S (0.3929)	77 32 39.8 W (77.5444)	3360.0	QUI
ANGV	R	Angostura Venezuela opened 1984.	9 42 18.0 N (9.7050)	69 31 18.1 W (69.5217)	680.0	CAR
ANGW		Angle Mountain Wyoming, U.S.A. opened 199009.	43 49 54.6 N (43.8318)	110 11 24.8 W (110.1902)	2743.0	USBR
ANMR		North Mavawa Egypt opened 1982? HLW code NMR.	23 40 37.2 N (23.6770)	32 32 32.4 E (32.5423)	...	HLW
ANTI		Antisana Ecuador opened 19910805.	0 27 30.0 S (0.4583)	78 09 41.4 W (78.1615)	4500.0	QUI
ANTR		Antelope Ridge New Mexico, U.S.A. opened 1991.	32 14 57.6 N (32.2493)	103 24 16.8 W (103.4047)	1056.0	SNM

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
ANTT		.....	36 13 13.0 N	36 09 25.0 E	60.0	GBZT
		Turkey	(36.2203)	(36.1569)		
		opened 1992.				
ANTZ		Aouinet Torkoz	28 28 29.0 N	9 51 17.0 W	300.0	SPGM
		Morocco	(28.4747)	(9.8547)		
		opened 19911218.				
AOI		Ancona (Monte Conero)	43 33 00.0 N	13 36 07.2 E	530.0	SSO
		Marche, Italy	(43.5500)	(13.6020)		
AOM3	R	Aomori 3	40 46 36.0 N	140 49 00.0 E	150.0	JMA
		Honshu, Japan	(40.7767)	(140.8167)		
		opened 19900421.				
APHE		Pico Herrero	36 57 07.2 N	3 41 16.8 W	1360.0	CRT
		Spain	(36.9520)	(3.6880)		
APKP	F	(phase code designation)				
APM		Augspurger Mountain	45 44 10.0 N	121 40 50.0 W	865.0	SEA
		Washington, U.S.A.	(45.7361)	(121.6806)		
		opened 198110. SEA code AUG.				
APW		Alpha Peak	46 39 06.0 N	122 38 51.0 W	457.0	SEA
		Washington, U.S.A.	(46.6517)	(122.6475)		
AQBJ		Al 'Aqabah	29 43 40.8 N	35 03 00.0 E	170.0	JSO
		Jordan	(29.7280)	(35.0500)		
		opened 19891023.				
ARA0		Arcess	69 32 05.6 N	25 30 21.2 E	403.0	BER
		Norway	(69.5349)	(25.5059)		
ARL		.....	17 24 43.2 N	93 07 04.8 W	...	UNM
		Chiapas, Mexico	(17.4120)	(93.1180)		
ARMA		Armidale	30 25 11.3 S	151 37 40.8 E	1130.0	AUST
		New South Wales, Australia	(30.4198)	(151.6280)		
ARNI		Argonne North	43 40 00.0 N	112 37 24.6 W	1553.0	USGS
		Idaho, U.S.A.	(43.6667)	(112.6235)		
		opened 19900814.				
ARTJ		Al Aritein	32 14 48.0 N	36 49 42.0 E	1058.0	JSO
		Jordan	(32.2467)	(36.8283)		
		opened 1987.				
ARTL		Arthez-de-Bearn	43 27 22.0 N	0 35 17.0 W	210.0	STR
		Aquitaine, France	(43.4561)	(0.5881)		
ARVI		'Arava Valley	30 39 00.0 N	35 10 48.0 E	...	JER
		Israel	(30.6500)	(35.1800)		
AS01	R	Alice Springs Array	23 39 53.0 S	133 57 03.0 E	550.0	AUST
		Northern Territory, Australia	(23.6647)	(133.9508)		
		AUST opened 1986.				
AS02	R	Alice Springs Array	23 40 45.0 S	133 56 13.0 E	550.0	AUST
		Northern Territory, Australia	(23.6792)	(133.9369)		
		AUST opened 1986.				
AS03	R	Alice Springs Array	23 40 28.0 S	133 55 11.0 E	550.0	AUST
		Northern Territory, Australia	(23.6744)	(133.9197)		
		AUST opened 1986.				
AS04	R	Alice Springs Array	23 39 35.0 S	133 55 45.0 E	550.0	AUST
		Northern Territory, Australia	(23.6597)	(133.9292)		
		AUST opened 1986.				
AS05	R	Alice Springs Array	23 38 57.0 S	133 56 51.0 E	550.0	AUST
		Northern Territory, Australia	(23.6492)	(133.9475)		
		AUST opened 1986.				
AS06	R	Alice Springs Array	23 38 51.0 S	133 58 17.0 E	550.0	AUST
		Northern Territory, Australia	(23.6475)	(133.9714)		
		AUST opened 1986.				
AS07	R	Alice Springs Array	23 39 56.0 S	133 58 11.0 E	550.0	AUST
		Northern Territory, Australia	(23.6656)	(133.9697)		
		AUST opened 1986.				
AS08	R	Alice Springs Array	23 40 53.0 S	133 57 36.0 E	550.0	AUST
		Northern Territory, Australia	(23.6814)	(133.9600)		
		AUST opened 1986.				
AS09	R	Alice Springs Array	23 41 58.0 S	133 56 29.0 E	550.0	AUST
		Northern Territory, Australia	(23.6994)	(133.9414)		
		AUST opened 1986.				
AS10	R	Alice Springs Array	23 41 49.0 S	133 54 50.0 E	550.0	AUST
		Northern Territory, Australia	(23.6969)	(133.9139)		
		AUST opened 1986.				
AS11	R	Alice Springs Array	23 40 42.0 S	133 53 52.0 E	550.0	AUST
		Northern Territory, Australia	(23.6783)	(133.8978)		
		AUST opened 1986.				
AS12	R	Alice Springs Array	23 39 59.0 S	133 54 16.0 E	550.0	AUST
		Northern Territory, Australia	(23.6664)	(133.9044)		
		AUST opened 1986.				
AS13	R	Alice Springs Array	23 39 07.0 S	133 53 40.0 E	550.0	AUST
		Northern Territory, Australia	(23.6519)	(133.8944)		
		AUST opened 1986.				
AS14	R	Alice Springs Array	23 39 06.0 S	133 54 37.0 E	550.0	AUST
		Northern Territory, Australia	(23.6517)	(133.9103)		
		AUST opened 1986.				
AS15	R	Alice Springs Array	23 38 08.0 S	133 54 44.0 E	550.0	AUST
		Northern Territory, Australia	(23.6356)	(133.9122)		
		AUST opened 1986.				
AS16	R	Alice Springs Array	23 38 13.0 S	133 55 48.0 E	550.0	AUST
		Northern Territory, Australia	(23.6369)	(133.9300)		
		AUST opened 1986.				
AS17	R	Alice Springs Array	23 39 52.0 S	133 59 30.0 E	550.0	AUST
		Northern Territory, Australia	(23.6644)	(133.9917)		
		AUST opened 1986.				

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
AS18	R	Alice Springs Array Northern Territory, Australia AUST opened 1986.	23 41 24.0 S (23.6900)	133 58 51.0 E (133.9808)	550.0	AUST
AS19	R	Alice Springs Array Northern Territory, Australia AUST opened 1986.	23 42 16.0 S (23.7044)	133 57 45.0 E (133.9625)	550.0	AUST
ASAR	R	..... Northern Territory, Australia	...	...	...	AUST
ASAT	R	Asagiarikuru Turkey	40 41 37.0 N (40.6936)	30 44 38.0 E (30.7439)	100.0	DDA
ASCN	RD	Ascension Ascension	...	...	...	IDA IRIS
ASKD		Sinn el Kaddab Egypt opened 1982? HLW code SKD.	23 39 34.8 N (23.6597)	32 23 04.8 E (32.3847)	...	HLW
ASME	R	Asmera Ethiopia	15 21 00.0 N (15.3500)	38 55 48.0 E (38.9300)	2420.0	
ASMM		Slate Mountain El Dorado County, California, U.S.A. opened 19841204. MNLO code ASM.	38 49 24.0 N (38.8233)	120 41 00.0 W (120.6833)	1214.0	MNLO
ASMO		Sierra Morrones Spain	37 21 28.8 N (37.3580)	3 44 34.8 W (3.7430)	1170.0	CRT
ASPF		Aspremont Provence-Cote d'Azur, France	43 46 05.4 N (43.7682)	7 15 29.9 E (7.2583)	850.0	STR
ASR		Mount Adams--Stagman Ridge Washington, U.S.A.	46 09 02.4 N (46.1507)	121 35 33.6 W (121.5927)	1280.0	SEA
ATEJ		Tejeda Spain	36 54 54.0 N (36.9150)	4 00 50.4 W (4.0140)	1480.0	CRT
ATN		Antennamare (Messina) Sicilia, Italy	38 09 38.0 N (38.1606)	15 27 46.0 E (15.4628)	350.0	ERC
ATR1	R	Atar 1 Israel	30 58 12.0 N (30.9700)	34 37 48.0 E (34.6300)	200.0	JER
ATZ		Mount Atzmon Israel opened 19860528.	32 49 17.8 N (32.8216)	35 16 11.0 E (35.2697)	510.0	JER
AUP		Augustine Pinnacle Western Alaska, Alaska, U.S.A. opened 19770922.	59 21 44.4 N (59.3623)	153 25 13.8 W (153.4205)	1033.0	AGS
AURF		Auriere Provence-Cote d'Azur, France	43 53 14.4 N (43.8873)	7 19 39.0 E (7.3275)	1040.0	STR
AUW		Augustine West Western Alaska, Alaska, U.S.A. 198607-19900829. Reopened 199008.	59 22 12.3 N (59.3701)	153 28 14.9 W (153.4708)	276.0	GIA
AVN		Avellanes Spain Sent to NEIS by MDD.	41 53 01.2 N (41.8837)	0 45 06.6 E (0.7518)	630.0	MRB
AVOW		Apres Vouz Peak Wyoming, U.S.A. opened 198601.	43 36 39.8 N (43.6111)	110 48 50.3 W (110.8140)	2036.0	USBR
AWAL		West Aliso Egypt opened 1982? HLW code WAL.	23 22 45.0 N (23.3792)	32 34 57.0 E (32.5825)	...	HLW
AWDQ		Awoonga Dam No. 3 Queensland, Australia opened 19870701. QDM code AWD.	24 02 52.1 S (24.0478)	151 18 56.5 E (151.3157)	110.0	QDM
AWKL		West Kalabsha Egypt opened 1982? HLW code WKL.	23 25 30.6 N (23.4252)	32 26 49.2 E (32.4470)	...	HLW
AYK	R	Aydincik Turkey opened 198801.	36 09 08.0 N (36.1522)	33 19 37.0 E (33.3269)	50.0	ISK
AYN		Al 'Uyaynah Saudi Arabia opened 1986.	28 52 12.0 N (28.8700)	36 00 00.0 E (36.0000)	...	RYD
AZI		Avezzano Abruzzo, Italy opened 1987.	41 59 18.4 N (41.9884)	13 26 08.4 E (13.4357)	...	ROM
AZO	R	..... Oaxaca, Mexico	15 57 57.6 N (15.9660)	97 24 28.8 W (97.4080)	...	UNM
AZU	R	Peninsula de Azuero Panama	...	...	...	UPA
AZUC		..... Colombia opened 1992.	3 41 38.4 N (3.6940)	76 08 09.6 W (76.1360)	3680.0	UVC
BADA		Al Bad' Saudi Arabia opened 1986.	28 31 22.8 N (28.5230)	35 00 07.2 E (35.0020)	...	RYD
BAE1	RD	Brasilia Array Site E1 Distrito Federal, Brazil opened 197101?	15 39 00.0 S (15.6500)	47 56 49.0 W (47.9469)	1200.0	BDF
BAE2	RD	Brasilia Array Site E2 Distrito Federal, Brazil opened 197101?	15 39 00.0 S (15.6500)	47 56 49.0 W (47.9469)	1200.0	BDF
BAE3	RD	Brasilia Array Site E3 Distrito Federal, Brazil opened 197101?	15 39 25.0 S (15.6569)	47 55 35.0 W (47.9264)	1200.0	BDF
BAE4	D	Brasilia Array Site E4 Distrito Federal, Brazil opened 197101?	15 39 51.0 S (15.6642)	47 54 11.0 W (47.9031)	1260.0	BDF

STATIONS ADDED SINCE STATION BOOK (OF 85-714) WAS PRINTED

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
BAE5	RD	Brasilia Array Site E5	15 40 21.0 S	47 52 51.0 W	1200.0	BDF
		Distrito Federal, Brazil	(15.6725)	(47.8808)		
		opened 197101?				
BAEE	RD	Brasilia Array Site EE	15 44 19.0 S	47 37 12.0 W	1200.0	BDF
		Distrito Federal, Brazil	(15.7386)	(47.6200)		
		opened 197101?				
BAKI	R	Biak	1 02 18.0 S	136 20 46.0 E	...	DJA
		Irian Jaya, Indonesia	(1.0383)	(136.3461)		
BALA	C	Baldy Mountain	55 11 35.6 N	162 47 12.5 W	360.0	PAL
		Alaska Peninsula, Alaska, U.S.A.	(55.1932)	(162.7868)		
		PAL code BAL. closed 1991.				
BAM	R	Barrage Abdel Moumen	30 39 57.6 N	9 09 57.6 W	...	CNRM
		Morocco	(30.6660)	(9.1660)		
BAPM		Anderson Peak	36 10 33.0 N	121 38 33.6 W	1219.0	MNLO
		Monterey County, California, U.S.A.	(36.1758)	(121.6427)		
		opened 19850719. MNLO code BAP.				
BARC	R	Barichara	6 38 36.3 N	73 10 35.1 W	1859.0	
		Colombia	(6.6434)	(73.1764)		
BARV	D	Barcelona	9 59 02.4 N	70 44 45.6 W	...	INTV
		Venezuela	(9.9840)	(70.7460)		
BAS1	RD	Brasilia Array Site S1	15 39 22.0 S	47 59 59.0 W	1200.0	BDF
		Distrito Federal, Brazil	(15.6561)	(47.9997)		
		opened 197101?				
BAS2	RD	Brasilia Array Site S2	15 40 41.0 S	48 00 25.0 W	1200.0	BDF
		Distrito Federal, Brazil	(15.6781)	(48.0069)		
		opened 197101?				
BAS3	RD	Brasilia Array Site S3	15 41 55.0 S	48 00 53.0 W	1200.0	BDF
		Distrito Federal, Brazil	(15.6986)	(48.0147)		
		opened 197101?				
BAS4	RD	Brasilia Array Site S4	15 43 09.0 S	48 01 20.0 W	1200.0	BDF
		Distrito Federal, Brazil	(15.7192)	(48.0222)		
		opened 197101?				
BAS5	RD	Brasilia Array Site S5	15 44 31.0 S	48 01 50.0 W	1200.0	BDF
		Distrito Federal, Brazil	(15.7419)	(48.0306)		
		opened 197101?				
BASE	RD	Brasilia Array Site SE	15 57 26.0 S	48 04 14.0 W	1200.0	BDF
		Distrito Federal, Brazil	(15.9572)	(48.0706)		
		opened 197101?				
BAUT		Bautismo	10 30 23.4 N	66 28 55.2 W	1976.0	CAR
		Venezuela	(10.5065)	(66.4820)		
		opened 1984.				
BAW1	D	Brasilia Array Site W1	15 37 42.0 S	48 00 46.0 W	1200.0	BDF
		Distrito Federal, Brazil	(15.6283)	(48.0128)		
		opened 197101?				
BAW2	RD	Brasilia Array Site W2	15 37 17.0 S	48 01 07.0 W	1200.0	BDF
		Distrito Federal, Brazil	(15.6214)	(48.0186)		
		opened 197101?				
BAW3	RD	Brasilia Array Site W3	15 36 46.0 S	48 03 27.0 W	1200.0	BDF
		Distrito Federal, Brazil	(15.6128)	(48.0575)		
		opened 197101?				
BAW4	RD	Brasilia Array Site W4	15 36 19.0 S	48 04 46.0 W	1200.0	BDF
		Distrito Federal, Brazil	(15.6053)	(48.0794)		
		opened 197101?				
BAWE	D	Brasilia Array Site WE	15 35 28.0 S	48 04 50.0 W	1200.0	BDF
		Distrito Federal, Brazil	(15.5911)	(48.0806)		
		opened 197101?				
BBA	R	Boulbra	...	...	...	CNRM
		Morocco				
BBB		Bella Bella	52 11 04.9 N	128 06 47.9 W	14.0	OTTR
		British Columbia, Canada	(52.1847)	(128.1133)		
		opened 19861205.				
BBEB	R	Bay Bridge East	...	...	...	BRK
BBTK		Belbasi	39 50 32.0 N	32 45 37.0 E	1200.0	
		Turkey	(39.8422)	(32.7603)		
BBTN		Blue Bank Bayou	36 23 13.2 N	89 27 25.2 W	88.0	SLM
		Tennessee, U.S.A.	(36.3870)	(89.4570)		
BBU		Al Budayyi'	26 12 54.0 N	50 27 24.0 E	...	BMU
		Bahrain	(26.2150)	(50.4567)		
		opened 1986.				
BBW	R	Black Birch	41 42 45.0 S	173 52 42.0 E	250.0	WELW
		South Island, New Zealand	(41.7125)	(173.8783)		
BCA		Borcka	41 26 42.1 N	41 37 20.3 E	500.0	ISK
		Turkey	(41.4450)	(41.6223)		
BCI		Bajram Curri	42 21 59.8 N	20 04 03.0 E	500.0	TIR
		Albania	(42.3666)	(20.0675)		
BCKR		Birch Creek	37 41 51.0 N	118 22 19.2 W	1634.0	REN
		Mono County, California, U.S.A.	(37.6975)	(118.3720)		
		opened 19840913. REN code BCK.				
BCP		Baguio City	16 25 04.8 N	120 36 36.0 E	1500.0	MAN
		Luzon, Philippines	(16.4180)	(120.6100)		
BCWM		Chews Ridge	36 18 24.0 N	121 33 57.6 W	1518.0	MNLO
		Monterey County, California, U.S.A.	(36.3067)	(121.5660)		
		opened 19850712. MNLO code BCW.				
BCYI		Bear Canyon	44 18 39.0 N	113 24 18.6 W	2194.0	USGS
		Idaho, U.S.A.	(44.3108)	(113.4052)		
		opened 1992.				
BCZ		Braida Crags	46 00 24.0 S	167 50 23.0 E	120.0	WEL
		South Island, New Zealand	(46.0067)	(167.8397)		
		opened 19900527.				

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
BDBC		Bennett Dam British Columbia, Canada opened 198510.	56 10 27.0 N (56.1742)	122 16 57.0 W (122.2825)	700.0	
BDMQ		Boondooma Dam Queensland, Australia opened 19800729. QDM code BDM.	26 06 44.3 S (26.1123)	151 26 39.8 E (151.4444)	320.0	QDM
BDNM		Bernardo New Mexico, U.S.A. opened 1990. SNM code BDO.	34 29 26.4 N (34.4907)	106 55 03.6 W (106.9177)	...	SNM
BEAW		Beaver Mountain Wyoming, U.S.A. opened 199009.	43 15 03.4 N (43.2509)	110 36 48.2 W (110.6134)	2960.0	USBR
BEB		Belem Para, Brazil opened 1987.	1 27 00.0 S (1.4500)	48 26 42.0 W (48.4450)	15.0	
BECU	C	Ecuador Network Ecuador	0 28 28.8 S (0.4747)	78 35 46.2 W (78.5962)	3320.0	OUI
BEE		Al Areen Bahrain opened 1986.	26 01 00.0 N (26.0167)	50 31 18.0 E (50.5217)	...	BMU
BENR		Benton Mono County, California, U.S.A. opened 19830729. REN code BEN.	37 42 55.8 N (37.7155)	118 34 24.0 W (118.5733)	2490.0	REN
BERA		Berat Albania	40 42 09.7 N (40.7027)	19 56 57.8 E (19.9494)	100.0	TIR
BERF		Bertagne Provence-Cote d'Azur, France	43 18 46.8 N (43.3130)	5 41 26.5 E (5.6907)	1030.0	STR
BERT		Berda Tunisia	34 14 27.6 N (34.2410)	9 00 42.6 E (9.0118)	320.0	SBS
BETC	R	Betania Colombia	2 40 53.0 N (2.6814)	75 26 28.6 W (75.4413)	540.0	
BETV	D	Betijoque Venezuela	9 22 44.4 N (9.3790)	70 40 22.8 W (70.6730)	...	INTV
BEVG		Clark Hill Reservoir Georgia, U.S.A.	34 05 21.5 N (34.0893)	82 44 00.0 W (82.7333)	158.0	ATL
BFO	R	Black Forest Observatory (Schiltach) Rheinland-Pfalz, Germany opened before 197410.	48 19 52.0 N (48.3311)	8 19 49.0 E (8.3303)	589.0	KRW
BFT		Belfast Transvaal, South Africa opened 1986.	25 41 12.0 S (25.6867)	30 02 36.0 E (30.0433)	1868.0	PRE
BGCA	R	Bogoin Central African Republic proposed GTSN station.	5 10 34.0 N (5.1761)	18 25 27.0 E (18.4242)	576.0	
BGK2	RD	Belogorka Kyrgyzstan	...	...	...	MOSR IDA IRIS
BGL		Barrier Glacier Western Alaska, Alaska, U.S.A. opened 1989.	61 15 48.6 N (61.2635)	152 23 25.8 W (152.3905)	1173.0	AGS
BGMT		Borton Gulch Montana, U.S.A. opened 19871021.	45 14 00.0 N (45.2333)	112 02 25.8 W (112.0405)	2172.0	BUT
BGRM		Barrier Glacier Two Western Alaska, Alaska, U.S.A. opened 19910701. AGS code BRG.	60 45 27.0 N (60.7575)	152 25 03.6 W (152.4177)	985.0	AGS
BGRQ	R	Glenroy Queensland, Australia opened 19810216. QDM code BGR.	20 32 57.1 S (20.5492)	147 06 18.7 E (147.1052)	160.0	QDM
BGY	D	Belgrade Yugoslavia opened 1990.	44 48 00.0 N (44.8000)	20 31 12.0 E (20.5200)	...	MEDN
BHB		Bricherasio Piemonte, Italy opened 19900517.	44 50 30.0 N (44.8417)	7 15 48.0 E (7.2633)	530.0	GEN
BHC	R	Bohunice Czech Republic	48 34 43.0 N (48.5786)	17 31 44.0 E (17.5289)	...	PRU
BHM	D	Barham England, United Kingdom	51 12 46.0 N (51.2128)	1 10 27.0 E (1.1742)	100.0	BKN
BHPR		Bishop Inyo County, California, U.S.A. opened 19840810. REN code BHP.	37 17 58.2 N (37.2995)	118 29 14.4 W (118.4873)	2171.0	REN
BHRM		Hodges Ranch San Benito County, California, U.S.A. opened 19810317. MNLO code BHR.	36 43 40.2 N (36.7278)	121 15 49.8 W (121.2638)	213.0	MNLO
BIAC		(Alternate Abbreviation for DIAC)				
BIP		Bislig Mindanao, Philippines	8 13 30.0 N (8.2250)	126 15 00.0 E (126.2500)	200.0	MAN
BISH		Bishah Saudi Arabia opened 199105.	20 00 03.6 N (20.0010)	42 35 56.4 E (42.5990)	800.0	RYD
BIX		Bixby Oklahoma, U.S.A. opened 19900801. Sent to NEIS byt TUL.	35 58 40.8 N (35.9780)	95 50 46.0 W (95.8461)	195.0	
BJA		Jaww Bahrain opened 1986.	25 59 30.0 N (25.9917)	50 36 30.0 E (50.6083)	...	BMU
BJO		Bjoya Norway	74 30 19.8 N (74.5055)	19 11 17.9 E (19.1883)	18.0	BER
BJU	R	..... Chiapas, Mexico	16 52 36.5 N (16.8768)	93 10 44.8 W (93.1791)	...	IIM

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
BKE		Bekescsaba Hungary opened 1987.	46 36 45.0 N (46.6125)	17 53 34.8 E (17.8930)	95.0	BUD
BKG		Blockade Glacier Western Alaska, Alaska, U.S.A. opened 19910701.	61 04 12.6 N (61.0702)	152 15 45.6 W (152.2627)	1009.0	AGS
BKJ		Big Koniuji Island Alaska Peninsula, Alaska, U.S.A.	55 09 24.0 N (55.1567)	159 33 31.9 W (159.5589)	146.0	PAL
BKM		Butte a Klehm Vanuatu	17 40 06.0 S (17.6683)	168 14 36.0 E (168.2433)	270.0	NOU
BKO		Bokosso Cameroon opened 19850213.	4 25 04.8 N (4.4180)	9 08 27.6 E (9.1410)	380.0	YND
BKOA		..... Assam, India	25 59 .. N (25.9833)	91 16 .. E (91.2667)	50.0	JHI
BLGM	R	Bulgan Mongolia	48 48 36.0 N (48.8100)	103 30 36.0 E (103.5100)	...	
BLH		Bald Hill Washington, U.S.A. opened 198407. SEA code BHW.	47 50 12.6 N (47.8368)	122 01 55.8 W (122.0322)	198.0	SEA
BLHA	C	Black Hill Alaska Peninsula, Alaska, U.S.A. closed 199007. PAL code BLH.	55 42 09.0 N (55.7025)	162 03 57.0 W (162.0658)	390.0	PAL
BLIT	R	Baltah Tunisia	36 42 46.8 N (36.7130)	8 57 10.2 E (8.9528)	225.0	SBS
BLLO		Bulolo New Guinea, Papua New Guinea opened 19880610.	7 12 07.2 S (7.2020)	146 37 12.0 E (146.6200)	700.0	PMG
BLPI		Bilaspur Madhya Pradesh, India NDI code BLP.	22 05 .. N (22.0833)	82 25 .. E (82.4167)	85.0	NDI
BLS		Blasjo Norway opened 1985.	59 23 24.0 N (59.3900)	6 26 56.4 E (6.4490)	1170.0	BER
BLS1	C	Blasjo Norway 198610-19910110.	59 23 27.6 N (59.3910)	6 49 37.2 E (6.8270)	1160.0	BER
BLS2	C	Blasjo Norway 198610-19910110.	59 17 38.4 N (59.2940)	6 55 37.2 E (6.9270)	1190.0	BER
BLS3	C	Blasjo Norway 198610-19910110.	59 25 30.0 N (59.4250)	6 30 54.0 E (6.5150)	1130.0	BER
BLS5	R	Blo Norway	59 25 22.4 N (59.4229)	6 27 21.6 E (6.4560)	540.0	BER
BMD	R	Beni Messoud Morocco	35 46 49.0 N (35.7803)	5 41 59.0 W (5.6997)	...	CNRM
BMNM		Bear Mountains New Mexico, U.S.A. SNM code BMT.	34 16 30.0 N (34.2750)	107 15 36.6 W (107.2602)	1972.0	SNM
BMU	R	Al Muharraq Bahrain opened 1986.	26 14 06.0 N (26.2350)	50 39 36.0 E (50.6600)	...	BMU
BMW	D	Boistfort Mountain Washington, U.S.A. opened 198011. USTN opened 1988. SEA code BOW.	46 28 30.0 N (46.4750)	123 13 41.0 W (123.2281)	870.0	SEA USTN
BNAB		Bonilla British Columbia, Canada opened 19871204.	53 29 36.0 N (53.4933)	130 38 14.0 W (130.6372)	16.0	OTTR
BNI	D	Bardonecchia Piemonte, Italy	45 03 09.7 N (45.0527)	6 40 30.7 E (6.6752)	1395.0	ROM MEDN
BNM		Barren Site New Mexico, U.S.A. SNM code BAR.	34 08 31.2 N (34.1420)	106 37 40.8 W (106.6280)	2120.0	SNM
BNN		Bunyan Turkey	38 50 46.0 N (38.8461)	35 52 00.0 E (35.8667)	1350.0	ISK
BOB	D	Bobbio (Coli) Emilia-Romagna, Italy	44 46 01.2 N (44.7670)	9 26 53.5 E (9.4482)	930.0	ROM
BOJ	R	Boujaaouane Morocco	32 01 48.0 N (32.0300)	9 04 01.2 W (9.0670)	...	CNRM
BORS		Borseda Liguria, Italy opened 199101.	44 14 42.0 N (44.2450)	9 49 33.0 E (9.8258)	510.0	GEN
BOSA	D	Boshof South Africa opened 1993.	28 36 47.0 S (28.6131)	25 24 56.0 E (25.4156)	...	PRE GTSN
BPBC		Brooks Peninsula British Columbia, Canada opened 199110.	50 09 25.9 N (50.1572)	127 46 14.9 W (127.7708)	732.0	WCTN
BPO		Bald Peter Oregon, U.S.A. opened 198709.	44 39 06.9 N (44.6519)	121 41 19.2 W (121.6887)	1957.0	SEA
BPOM		Post Ranch Monterey County, California, U.S.A. opened 19911217. MNLO code BPO.	36 13 43.2 N (36.2287)	121 46 00.0 W (121.7667)	354.0	MNLO
BPRM		Ponciano Ridge Monterey County, California, U.S.A. opened 19840205. MNLO code BPR.	36 24 25.2 N (36.4070)	121 43 46.2 W (121.7295)	741.0	MNLO

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
BRCI		Bahraich Uttar Pradesh, India NDI code BRC.	27 34 .. N (27.5667)	81 35 .. E (81.5833)	123.0	NDI
BRDG		Blue Ridge Arizona, U.S.A. opened 1991.	34 37 33.6 N (34.6260)	111 10 33.6 W (111.1760)	2057.0	FLAG
BRF		Ar Rifa' Bahrain opened 1986.	26 04 24.0 N (26.0733)	50 35 00.0 E (50.5833)	...	BMU
BRIB	R	Briones	...	...	...	BRK
BRNI		Bet Oren Israel opened 199112.	32 43 12.0 N (32.7200)	34 59 24.0 E (34.9900)	400.0	JER
BRNL	D	Berlin--Lankwitz Berlin, Germany opened 19910406.	52 25 40.1 N (52.4278)	13 21 28.7 E (13.3580)	42.0	
BRTN		Brown Mountain Tennessee, U.S.A. opened 19860605.	36 21 24.0 N (36.3567)	82 52 04.2 W (82.8678)	630.0	TVA
BRU		Baru Panama opened 1992.	8 48 24.6 N (8.8068)	82 33 39.0 W (82.5608)	3425.0	UPA
BRUT		Bromley Salt Lake County, Utah, U.S.A. opened 19900822.	40 37 22.8 N (40.6230)	111 52 43.2 W (111.8787)	1337.0	SLC
BRVK		Borovoye Kazakhstan MOS code BRV.	53 03 29.0 N (53.0581)	70 16 58.0 E (70.2828)	315.0	MOS
BRVW		Black Rock Valley Washington, U.S.A. opened 198312. SEA code BRV.	46 29 07.2 N (46.4853)	119 59 29.4 W (119.9915)	925.0	SEA
BS01	R	Boso O.B.S. 1 Honshu, Japan	34 39 12.0 N (34.6533)	140 58 42.0 E (140.9783)	-4011.0	JMA
BS02	R	Boso O.B.S. 2 Honshu, Japan	34 45 06.0 N (34.7517)	140 45 18.0 E (140.7550)	-2090.0	JMA
BS03	R	Boso O.B.S. 3 Honshu, Japan	34 48 06.0 N (34.8017)	140 30 36.0 E (140.5100)	-1898.0	JMA
BS04	R	Boso O.B.S. 4 Honshu, Japan	34 59 24.0 N (34.9900)	140 20 18.0 E (140.3383)	-658.0	JMA
BSD		Bornholm Skovbrynet Denmark opened 199003.	55 06 36.0 N (55.1100)	14 54 36.0 E (14.9100)	88.0	COP
BSLQ	RD	Bruslee Queensland, Australia opened 19840302. QDM code BSL.	20 52 01.2 S (20.8670)	146 33 50.4 E (146.5640)	185.0	QDM
BSMM		Soledad Mission Monterey County, California, U.S.A. opened 19851114; moved slightly 19880528. MNLO code BSM. Old position 36.3838N, 121.4272W, 927m.	36 23 00.0 N (36.3833)	121 25 40.0 W (121.4278)	939.0	MNLO
BSZ	D	Bushy Park North Island, New Zealand opened 19900619.	39 47 55.4 S (39.7987)	174 55 52.4 E (174.9312)	150.0	WEL
BTA	R	Bajo Talamanca Costa Rica	...	...	...	HDC
BTE	R	Batoke Cameroon opened 19850301.	4 02 52.8 N (4.0480)	9 05 13.2 E (9.0870)	90.0	YND
BTH		Betharram Aquitaine, France opened 198608.	43 07 23.0 N (43.1231)	0 12 25.0 W (0.2069)	325.0	
BTHT	R	Jabal bu Thady Tunisia	35 07 56.4 N (35.1323)	10 17 06.6 E (10.2852)	240.0	SBS
BUE	R	Buenavista Veracruz, Mexico	19 26 16.8 N (19.4380)	96 33 32.4 W (96.5590)	200.0	IIM
BUGC		Buga Colombia	3 53 35.8 N (3.8933)	76 15 24.7 W (76.2569)	1200.0	UVC
BUNI		Buntu Taipa Sulawesi, Indonesia	3 39 28.0 S (3.6578)	120 19 23.0 E (120.3231)	240.0	DJA
BUTX		Baylor University Texas, U.S.A. opened 199211.	31 41 30.0 N (31.6917)	97 20 54.0 W (97.3483)	183.0	
BUW	D	Bucklebury West England, United Kingdom	51 24 34.0 N (51.4094)	1 13 28.0 W (1.2244)	125.0	BKN
BUWY		Burn England, United Kingdom	53 44 34.4 N (53.7429)	1 03 59.4 W (1.0665)	5.0	QMB
BVTM	R	..... Michoacan, Mexico UNM code BVT.	18 53 36.0 N (18.8933)	102 15 54.0 W (102.2650)	...	UNM
BVW		Beverly Washington, U.S.A. opened 198609.	46 48 37.8 N (46.8105)	119 52 54.1 W (119.8817)	707.0	SEA
BW01	R	Boulder Array Wyoming, U.S.A.	42 47 09.1 N (42.7859)	109 34 49.7 W (109.5805)	2200.0	NEIS
BW02	R	Boulder Array Wyoming, U.S.A.	42 47 19.8 N (42.7888)	109 33 49.6 W (109.5638)	2200.0	NEIS
BW03	R	Boulder Array Wyoming, U.S.A.	42 47 12.7 N (42.7869)	109 32 46.8 W (109.5463)	2200.0	NEIS
BW04	R	Boulder Array Wyoming, U.S.A.	42 46 44.8 N (42.7791)	109 34 18.3 W (109.5717)	2190.0	NEIS

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
BW05	R	Boulder Array Wyoming, U.S.A.	42 46 52.0 N (42.7811)	109 33 50.0 W (109.5639)	2200.0	NEIS
BW06	D	Boulder Array Wyoming, U.S.A. opened 19860718.	42 46 40.0 N (42.7778)	109 33 20.0 W (109.5556)	2200.0	NEIS USTN
BW07	R	Boulder Array Wyoming, U.S.A.	42 46 51.0 N (42.7808)	109 32 30.5 W (109.5418)	2200.0	NEIS
BW08	R	Boulder Array Wyoming, U.S.A.	42 46 10.4 N (42.7696)	109 34 51.9 W (109.5811)	2200.0	NEIS
BW09	R	Boulder Array Wyoming, U.S.A.	42 46 20.2 N (42.7723)	109 33 50.9 W (109.5641)	2200.0	NEIS
BW10	R	Boulder Array Wyoming, U.S.A.	42 46 10.8 N (42.7697)	109 33 13.8 W (109.5538)	2200.0	NEIS
BW11	R	Boulder Array Wyoming, U.S.A.	42 45 45.8 N (42.7627)	109 34 26.7 W (109.5741)	2200.0	NEIS
BW12	R	Boulder Array Wyoming, U.S.A.	42 45 55.5 N (42.7654)	109 33 36.3 W (109.5601)	2200.0	NEIS
BW13	R	Boulder Array Wyoming, U.S.A.	42 45 55.5 N (42.7654)	109 32 46.8 W (109.5463)	2200.0	NEIS
BWN		Browne Central Alaska, Alaska, U.S.A. opened 19890919.	64 10 18.0 N (64.1717)	149 27 55.2 W (149.4653)	365.0	GIA
BWZ	D	Berwen Station South Island, New Zealand opened 19910120.	44 31 54.0 S (44.5317)	169 52 59.0 E (169.8831)	...	WEL
BYO	R	Bayan-Olgiy Mongolia	48 57 36.0 N (48.9600)	89 57 36.0 E (89.9600)	...	
BZK		Bozkurt Turkey opened 199207.	41 57 48.0 N (41.9633)	34 00 27.0 E (34.0075)	70.0	ISK
CABA		Caballo Blanco Venezuela opened 1984.	7 51 20.9 N (7.8558)	71 30 07.9 W (71.5022)	1600.0	CAR
CACB	D	Caconde Sao Paulo, Brazil opened 199303.	21 40 48.7 S (21.6802)	46 43 57.4 W (46.7326)	1381.0	VAO
CACH		El Canelo O'Higgins, Chile opened 19901106.	34 07 01.2 S (34.1170)	70 36 00.0 W (70.6000)	1300.0	SAN
CAE	D	Caneva Friuli-Venezia Giulia, Italy opened 19830423.	46 00 24.0 N (46.0067)	12 26 12.0 E (12.4367)	870.0	TRI
CAIV		..... Venezuela opened 199304.	10 28 10.2 N (10.4695)	64 10 23.2 W (64.1731)	40.0	CAR
CAMM	R	..... Veracruz, Mexico IIM code CAM.	19 35 16.8 N (19.5880)	96 27 36.0 W (96.4600)	190.0	IIM
CANV		Cerro Antonio Venezuela opened 199304.	11 02 20.4 N (11.0390)	68 49 40.8 W (68.8280)	450.0	CAR
CASR		Casa Diablo Mountain Mono County, California, U.S.A. opened 19800601. REN code CAS.	37 34 29.4 N (37.5748)	118 33 05.4 W (118.5515)	2170.0	REN
CAY	D	Cayenne French Guiana opened 19850722.	4 57 00.0 N (4.9500)	52 19 12.0 W (52.3200)	25.0	GEOS
CAYA		Cayambe Ecuador opened 198904.	0 04 48.0 N (0.0800)	77 59 00.0 W (77.9833)	4000.0	QUI
CBD		Cypress Bend Missouri, U.S.A. opened 19850621. SLM code CBMO.	36 19 01.2 N (36.3170)	89 39 03.6 W (89.6510)	84.0	SLM
CBLG		Bald Mountain Lookout Mono County, California, U.S.A. opened 1984.	37 46 17.4 N (37.7715)	118 53 54.0 W (118.8983)	2560.0	CDMG
CBSW		Chelan Butte South Washington, U.S.A. opened 1987. SEA code CBS.	47 48 16.7 N (47.8046)	120 02 27.6 W (120.0410)	1073.0	SEA
CBTI		Cedar Butte Idaho, U.S.A. opened 19860711.	43 23 15.0 N (43.3875)	112 54 41.4 W (112.9115)	1754.0	USGS
CBZL		Buffer Zone Alameda County, California, U.S.A. opened 19890207.	37 41 30.0 N (37.6917)	121 42 56.4 W (121.7157)	175.0	LVM
CBZM	R	..... Michoacan, Mexico UNM code CBZ.	18 00 54.0 N (18.0150)	102 24 18.0 W (102.4050)	...	UNM
CC5	R	Presa El Caracol No. 5 Guerrero, Mexico	17 32 24.0 N (17.5400)	99 16 40.8 W (99.2780)	...	IIM
CCHE	C	Chesterland Ohio, U.S.A. closed 19920615.	41 33 40.2 N (41.5612)	81 21 43.2 W (81.3620)	365.0	CLE
CCMO		Creve Couer Missouri, U.S.A.	38 43 12.0 N (38.7200)	90 28 01.2 W (90.4670)	152.0	SLM
CCMX		Coleta de Campos Michoacan, Mexico Strong-motion station.	18 03 12.0 N (18.0533)	102 45 00.0 W (102.7500)	...	LJC

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
CDAL		Dalton Road Alameda County, California, U.S.A. opened 19800201.	37 43 48.0 N (37.7300)	121 43 42.0 W (121.7283)	190.0	LVM
CDAM	R	Ciudad Altamirano Guerrero, Mexico UNM code CDA.	18 21 .. N (18.3500)	100 39 .. W (100.6500)	300.0	UNM
CDCB	D	Carmo do Cajuru Minas Gerais, Brazil opened 199301.	20 14 11.4 S (20.2365)	44 43 05.5 W (44.7182)	880.0	VAO
CDFW		Cedar Flats Washington, U.S.A. opened 198003. SEA code CDF.	46 06 58.2 N (46.1162)	122 02 51.0 W (122.0475)	780.0	SEA
CDMG	F	California Division of Mines and Geology				
CDZ	UD	Cobb Dam South Island, New Zealand 19891130-19900425.	41 05 43.8 S (41.0955)	172 42 46.8 E (172.7130)	780.0	WEL
CECL	C	East Claridon Ohio, U.S.A. closed 19920615.	41 32 49.2 N (41.5470)	81 06 07.2 W (81.1020)	362.0	CLE
CECU	C	Ecuador Network Ecuador	0 28 34.2 S (0.4762)	77 52 13.2 W (77.8703)	2220.0	QUI
CEDI		Cerro Diablo Venezuela opened 1984.	7 39 14.4 N (7.6540)	71 53 06.0 W (71.8850)	900.0	CAR
CEIV	D	La Ceiba Venezuela	9 24 36.0 N (9.4100)	71 21 03.6 W (71.3510)	...	INTV
CENE		Cerro Negro Venezuela opened 1984.	7 45 50.4 N (7.7640)	71 19 22.1 W (71.3228)	400.0	CAR
CEO	R	Cerro Encantado Oaxaca, Mexico	16 14 00.0 N (16.2333)	97 01 06.0 W (97.0183)	3000.0	UNM
CEOS		Cerro El Oso Venezuela opened 198612.	9 01 50.5 N (9.0307)	68 20 02.8 W (68.3341)	800.0	CAR
CERV	D	Cerron Venezuela	10 18 39.6 N (10.3110)	70 40 26.4 W (70.6740)	...	INTV
CESL		Cescau Aquitaine, France	43 24 07.0 N (43.4019)	0 31 55.0 W (0.5319)	220.0	STR
CFC	R	Cairnmuir Flats South Island, New Zealand	45 11 03.0 S (45.1842)	169 17 32.0 E (169.2922)	576.0	WELC
CFS		Cross Fire Station South Carolina, U.S.A. opened 19880530.	33 16 43.3 N (33.2787)	80 10 09.5 W (80.1693)	26.0	USGS
CFTV		Fuerteventura Canary Islands, Spain opened 198512.	28 24 49.8 N (28.4138)	14 05 00.0 W (14.0833)	540.0	MDD
CGG		..... Guerrero, Mexico	16 40 30.0 N (16.6750)	98 27 27.0 W (98.4575)	400.0	UNM
CGPM		Gavin Park Alameda County, California, U.S.A. opened 19920205. Also borehole station opened 19920131 at elev 229m. MNLO code CGP.	37 38 43.2 N (37.6453)	122 00 37.2 W (122.0103)	366.0	MNLO
CGRR	C	Girdled Road Ohio, U.S.A. closed 19920615.	41 40 43.4 N (41.6787)	81 08 30.6 W (81.1418)	334.0	CLE
CGY		Coligny Transvaal, South Africa opened 1986.	26 20 54.0 S (26.3483)	26 22 30.0 E (26.3750)	...	PRE
CHAF		Chalampe Alsace, France	47 48 44.0 N (47.8122)	7 32 25.0 E (7.5403)	-285.0	STR
CHHM	R	..... Chihuahua, Mexico	... ...	... ...	...	UNM
CHIC	R	Chingaza Colombia	4 37 58.8 N (4.6330)	73 43 50.2 W (73.7306)	3102.0	
CHIE		El Hierro Las Playas Canary Islands, Spain opened 198906.	27 43 37.2 N (27.7270)	17 57 38.5 W (17.9607)	170.0	MDD
CHIM	C	Chimborazo Ecuador 199001-1991?	1 25 13.0 S (1.4203)	78 51 41.0 W (78.8614)	4100.0	QUI
CHKT	R	Ch'eng-kung China (Taiwan)	23 05 57.2 N (23.0992)	121 21 55.4 E (121.3654)	33.5	TAP
CHMZ		Choma Zambia opened 1987.	16 50 .. S (16.8333)	27 04 .. E (27.0667)	1278.0	LSZ
CHOC	R	..... Czech Republic	49 46 08.4 N (49.7690)	18 33 39.6 E (18.5610)	...	PRU
CHOI		Coyote Hollow Idaho, U.S.A. opened 198601.	43 18 45.0 N (43.3125)	111 12 45.9 W (111.2127)	2103.0	USBR
CHOR		Cabbage Hill Oregon, U.S.A. opened 198608. SEA code CHO.	45 35 27.0 N (45.5908)	118 34 45.0 W (118.5792)	1076.0	SEA
CHPM		Chiautla de Tapia Puebla, Mexico UNM code CHP.	18 17 55.0 N (18.2986)	98 36 47.6 W (98.6132)	1030.0	UNM
CIA'		Chichaoua Morocco	31 33 21.6 N (31.5560)	8 46 08.4 W (8.7690)	...	CNRM
CIO		Camerino (Monte d'Aria) Marche, Italy	43 11 42.0 N (43.1950)	13 08 38.4 E (13.1440)	956.0	SSO

STATIONS ADDED SINCE STATION BOOK (OF 85-714) WAS PRINTED

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
CIPM		.....	17 57 43.2 N	97 51 14.4 W	...	UNM
		Puebla, Mexico	(17.9620)	(97.8540)		
		UNM code CIP.				
CIQ	R	Chicoutimi	48 16 20.4 N	70 47 27.0 W	273.0	OTTR
		Quebec, Canada	(48.2723)	(70.7908)		
		opened 19890511.				
CJR1		Cluj	46 45 58.0 N	23 33 05.0 E	345.0	BUC
		Romania	(46.7661)	(23.5514)		
		opened 19851201.				
CKL		Chakachamna Lake	61 11 47.4 N	152 20 16.2 W	1265.0	AGS
		Western Alaska, Alaska, U.S.A.	(61.1965)	(152.3378)		
		opened 1989.				
CKN		Chakachatna North	61 13 26.4 N	152 10 53.4 W	735.0	AGS
		Western Alaska, Alaska, U.S.A.	(61.2240)	(152.1815)		
		opened 19910819.				
CKT		Bend	61 12 03.0 N	152 12 22.2 W	1036.0	AGS
		Western Alaska, Alaska, U.S.A.	(61.2008)	(152.2062)		
		opened 19920917.				
CLLP		Cerrillos	18 04 48.0 N	66 34 36.0 W	...	MPR
		Puerto Rico	(18.0800)	(66.5767)		
		opened 199104.				
CLMC		Lago Calima	3 52 52.9 N	76 33 46.8 W	1480.0	UVC
		Colombia	(3.8814)	(76.5630)		
CLN6		Carlsbad	32 31 15.0 N	103 52 45.0 W	1100.0	SNM
		New Mexico, U.S.A.	(32.5208)	(103.8792)		
		SNM code CL6.				
CLNB		Carlsbad	32 15 51.6 N	103 52 42.6 W	1045.0	SNM
		New Mexico, U.S.A.	(32.2643)	(103.8785)		
		SNM code CL2B.				
CLTN	F	G.S.C. Charlevoix Local Telemetered Network				
CMB	D	Columbia College	38 02 06.0 N	120 23 06.0 W	719.0	BRK DWSS USNN USTN
		Tuolumne County, California, U.S.A.	(38.0350)	(120.3850)		
		opened 19861106. DWSS 19861106-19920601. USNN				
		opened 19920910. MNLO code CMBB.				
CMBC	R	Cumbal	0 51 33.9 N	77 50 30.7 W	3420.0	
		Colombia	(0.8594)	(77.8419)		
CMCZ		Cairnmuir Mts.	45 08 57.0 S	169 16 30.0 E	1039.0	WELC
		South Island, New Zealand	(45.1492)	(169.2750)		
CME		Menerdue Farm	50 10 33.6 N	5 11 25.1 W	178.0	BGS
		England, United Kingdom	(50.1760)	(5.1903)		
		opened 1982.				
CMEN	C	Mentor	41 41 02.4 N	81 24 14.4 W	188.0	CLE
		Ohio, U.S.A.	(41.6840)	(81.4040)		
		closed 19920615.				
CMG2		La Cumbre 2	14 39 39.0 N	89 47 12.0 W	1710.0	GCG
		Guatemala	(14.6608)	(89.7867)		
		opened 1988. GCG code CM2.				
CMX		(Alternate Abbreviation for COLM)				
CNBA		Chernabura Island	54 49 13.2 N	159 35 18.0 W	90.0	PAL
		Alaska Peninsula, Alaska, U.S.A.	(54.8203)	(159.5883)		
		PAL code CNB.				
CNCI		Crows Nest Canyon	43 55 44.4 N	113 27 10.8 W	1914.0	USGS
		Idaho, U.S.A.	(43.9290)	(113.4530)		
		opened 1992.				
CNI	R	Changuinola	9 25 00.0 N	82 31 00.6 W	20.0	UPA
		Panama	(9.4167)	(82.5168)		
CNIL		Conil	36 22 10.2 N	6 03 06.6 W	80.0	SFS
		Spain	(36.3695)	(6.0518)		
		Also sent to NEIS by MDD.				
CNQ	R	Baie Comeau	49 18 08.0 N	68 04 28.0 W	200.0	ECTN
		Quebec, Canada	(49.3022)	(68.0744)		
		opened 19910107.				
CNRM	F	Centre National de Recherche, Morocco				
CNS		Constantine	36 22 12.0 N	6 36 45.0 E	670.0	ALG
		Algeria	(36.3700)	(6.6125)		
		opened 19870907.				
COAS		Coatepeque	13 53 12.0 N	89 34 19.0 W	1260.0	SSS
		El Salvador	(13.8867)	(89.5719)		
		SSS code COA.				
COLF		Collangettes	45 31 04.3 N	3 41 42.4 E	725.0	STR
		Auvergne, France	(45.5179)	(3.6951)		
COLM		Colima	19 10 51.0 N	103 41 27.5 W	779.3	UNM
		Colima, Mexico	(19.1808)	(103.6910)		
		opened 1986. UNM code COL.				
COLW		Colter Canyon	43 57 14.2 N	110 41 45.6 W	2079.0	USBR
		Wyoming, U.S.A.	(43.9539)	(110.6960)		
		opened 198601.				
COM2	R	Comitan 2	16 14 30.0 N	92 08 13.8 W	...	UNM
		Chiapas, Mexico	(16.2417)	(92.1372)		
COMI		Craters of the Moon	43 27 42.6 N	113 35 37.8 W	1890.0	USGS
		Idaho, U.S.A.	(43.4618)	(113.5938)		
		opened 1992.				
COOL		Coolgardie	30 53 01.8 S	121 08 40.8 E	500.0	AUST
		Western Australia, Australia	(30.8838)	(121.1447)		
		opened 198808.				
COTA		Cotacachi	0 20 06.0 N	78 20 16.2 W	4020.0	QUI
		Ecuador	(0.3350)	(78.3378)		
		opened 198809.				

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
CP2		Crater Peak Two Western Alaska, Alaska, U.S.A. opened 19921026.	61 15 51.0 N (61.2642)	152 14 30.6 W (152.2418)	1981.0	AGS
CPAM		Crater Peak Alternate Western Alaska, Alaska, U.S.A. opened 19921029. AGS code CPA.	61 15 17.4 N (61.2548)	152 08 29.4 W (152.1415)	1192.0	AGS
CPIM		Pinole Ridge Contra Costa County, California, U.S.A. opened 19911010. MNLO code CPI.	37 59 20.0 N (37.9889)	122 12 52.8 W (122.2147)	226.0	MNLO
CPKM		Crater Peak Rim Western Alaska, Alaska, U.S.A. opened 19911001. AGS code CPK.	61 15 48.0 N (61.2633)	152 14 00.0 W (152.2333)	2017.0	AGS
CPMM		Point Molate Contra Costa County, California, U.S.A. opened 19910904. MNLO code CPM.	37 56 56.4 N (37.9490)	122 24 27.6 W (122.4077)	116.0	MNLO
CPO5		(Alternate Abbreviation for CPOT)				
CPS		Cap Spartel Morocco	35 47 23.0 N (35.7897)	5 34 32.0 W (5.5756)	...	CNRM
CPUP	R	Villa Florida Paraguay proposed GTSN station.	26 19 50.0 S (26.3306)	57 19 45.0 W (57.3292)	5.0	
CPY		CP-1 Nevada, U.S.A. opened 19910114.	36 55 43.8 N (36.9288)	116 03 31.8 W (116.0588)	1368.0	USGS
CPZ		Penzance England, United Kingdom opened 1981.	50 09 21.6 N (50.1560)	5 35 00.6 W (5.5835)	198.0	BGS
CRBI		Circular Butte Idaho, U.S.A. opened 198711.	43 49 49.2 N (43.8303)	112 38 04.2 W (112.6345)	1543.0	USGS
CRNM		Carthage New Mexico, U.S.A. SNM code CAR.	33 57 09.0 N (33.9525)	106 44 04.2 W (106.7345)	1662.0	SNM
CROR		Criterion Ridge Oregon, U.S.A. opened 198708. SEA code VCR.	44 58 58.2 N (44.9828)	120 59 17.4 W (120.9882)	1015.0	SEA
CRO2	R	Rosemanowes 2 England, United Kingdom opened 1981.	50 10 00.8 N (50.1669)	5 10 07.3 W (5.1687)	152.0	BGS
CROM		Cirque Central Alaska, Alaska, U.S.A. opened 19880701. AGS code CRQ.	60 45 24.0 N (60.7567)	143 08 21.0 W (143.1392)	1853.0	AGS
CRUV		..... Venezuela opened 199304.	10 40 29.3 N (10.6748)	63 14 10.7 W (63.2363)	20.0	CAR
CRUZ	R	La Cruz Colombia	1 29 55.2 N (1.4987)	76 57 08.2 W (76.9523)	2743.0	
CRZF	D	Crozet Islands Crozet Islands opened 19860201.	46 25 46.7 S (46.4296)	51 51 40.4 E (51.8612)	140.0	STR GEOS
CSLM		San Leandro Hills Alameda County, California, U.S.A. opened 19910808. MNLO code CSL.	37 43 27.6 N (37.7243)	122 07 06.0 W (122.1183)	246.0	MNLO
CSO	D	Casso Friuli-Venezia Giulia, Italy opened 19880101.	46 16 24.0 N (46.2733)	12 19 26.0 E (12.3239)	1070.0	TRI
CSPM		San Pablo Ridge Contra Costa County, California, U.S.A. opened 19820718. MNLO code CSP.	37 57 27.0 N (37.9575)	122 18 39.0 W (122.3108)	216.0	MNLO
CSTJ		Casr Tuba Jordan opened 19900324.	31 07 12.0 N (31.1200)	36 40 37.2 E (36.6770)	760.0	JSO
CSTL		Corral Hollow San Joaquin County, California, U.S.A. opened 19810218. MNLO code CST.	37 38 21.0 N (37.6392)	121 29 53.4 W (121.4982)	205.0	LVM
CSVM		Stone Valley Contra Costa County, California, U.S.A. opened 19900503. MNLO code CSV.	37 51 52.8 N (37.8647)	122 00 09.6 W (122.0027)	238.0	MNLO
CSY		Casey Station Greater Antarctica, Antarctica	66 17 21.8 S (66.2894)	110 31 44.0 E (110.5289)	56.0	AUST
CSZ	D	Casera Razzo Friuli-Venezia Giulia, Italy opened 19880101.	46 28 23.0 N (46.4731)	12 37 02.0 E (12.6172)	1825.0	TRI
CTAS	U	Cauta El Salvador SSS code CTA.	13 44 56.0 N (13.7489)	89 51 55.0 W (89.8653)	355.0	SSS
CTB		Cotabato Mindanao, Philippines	7 12 .. N (7.2000)	124 12 .. E (124.2000)	50.0	MAN
CTFE		Tenerife--Las Mesas Canary Islands, Spain opened 198301.	28 28 46.4 N (28.4796)	16 15 43.7 W (16.2621)	270.0	MDD
CTFL		Taylor Farm Alameda County, California, U.S.A. opened 198007 or 19810218. MNLO code CTF.	37 38 46.8 N (37.6463)	121 40 21.0 W (121.6725)	295.0	LVM
CTHA	C	Thorn Acres Ohio, U.S.A. closed 19920615.	41 32 31.8 N (41.5422)	81 06 39.0 W (81.1108)	362.0	CLE
CTK		Catak Turkey opened 1991.	40 41 24.0 N (40.6900)	34 49 34.0 E (34.8261)	1250.0	DDA

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
CTOM	C	Thompson Ohio, U.S.A. closed 19920615.	41 41 30.0 N (41.6917)	81 08 50.4 W (81.1473)	387.0	CLE
CUMC		Nevado de Cumbal Colombia opened 1989.	0 57 38.4 N (0.9607)	77 52 20.4 W (77.8723)	3950.0	UVC
CUPM		Cuyoaco Puebla, Mexico UNM code CUP.	19 36 13.0 N (19.6036)	97 37 07.0 W (97.6186)	2450.0	UNM
CUSS		Cusmapa El Salvador SSS code CUS.	13 54 33.0 N (13.9092)	89 56 50.0 W (89.9472)	678.0	SSS
CUT		Chulitna Central Alaska, Alaska, U.S.A. opened 19860718.	62 24 16.8 N (62.4047)	150 16 10.2 W (150.2695)	168.0	GIA
CVAL		V.A. Hospital Alameda County, California, U.S.A. opened 19810210. MNLO code CVA.	37 37 06.0 N (37.6183)	121 45 29.4 W (121.7582)	201.0	LVM
CVLQ	R	Collinsville Queensland, Australia opened 19850430. QDM code CVL.	20 35 24.0 S (20.5900)	147 36 32.4 E (147.6090)	102.0	QDM
CVM	R	Colonia del Valle Distrito Federal, Mexico	19 22 55.7 N (19.3821)	99 10 42.5 W (99.1785)	...	UNM
CVPM		Vollmer Peak Contra Costa County, California, U.S.A. opened 19910426. MNLO code CVP.	37 53 02.4 N (37.8840)	122 13 19.2 W (122.2220)	568.0	MNLO
CVT		Castelvetrano Sicilia, Italy	37 40 40.8 N (37.6780)	12 47 31.2 E (12.7920)	...	ERC
CVTM	R	..... Tamaulipas, Mexico	...	...	...	UNM
CVVD		Valverde--Aguarijo Canary Islands, Spain opened 198502.	27 49 15.0 N (27.8208)	17 56 10.0 W (17.9361)	450.0	MDD
CWCR		Coldwater Canyon Inyo County, California, U.S.A. opened 19840810. MNLO code CWC.	37 29 41.4 N (37.4948)	118 18 22.8 W (118.3063)	2000.0	REN
CWZ		Cowlitz River Washington, U.S.A. opened 198003. SEA code COW.	46 29 27.6 N (46.4910)	122 00 43.6 W (122.0121)	305.0	SEA
CXP		..... Puebla, Mexico	18 16 31.4 N (18.2754)	97 08 30.3 W (97.1418)	...	UNM
CYBM		Yerba Buena Island San Francisco County, California, U.S.A. opened 19920604.MNLO code CYB.	37 48 40.8 N (37.8113)	122 21 39.0 W (122.3608)	24.0	MNLO
CYK		Cape Yakataga Central Alaska, Alaska, U.S.A. opened 1989.	60 04 58.8 N (60.0830)	142 29 04.8 W (142.4847)	3.0	AGS
CZD	R	Col de Zad Morocco	33 02 31.2 N (33.0420)	5 02 31.2 W (5.0420)	...	CNRM
CZM		Crazy Man Mountain Washington, U.S.A. opened 198004. SEA code CMM.	46 26 07.0 N (46.4353)	122 30 21.0 W (122.5058)	620.0	SEA
DAQ		Lac Daran Quebec, Canada opened 19881215.	47 57 52.0 N (47.9644)	71 14 33.0 W (71.2425)	939.0	ECTN
DAWY	RD	Dawson Yukon Territory, Canada opened 19920930.	64 03 55.9 N (64.0655)	139 23 27.3 W (139.3909)	808.0	OTT
DBCT		Belle View Chopil Dominica opened 198912.	15 16 10.6 N (15.2696)	61 21 12.2 W (61.3534)	527.0	TRN
DBG	R	Daneborg Greenland	...	...	...	
DBIC	R	Dimbokro Cote d'Ivoire proposed GTSN station.	6 40 12.3 N (6.6701)	4 51 22.7 W (4.8563)	25.0	LIC
DBO		Dodson Butte Oregon, U.S.A. opened 199008.	43 07 09.0 N (43.1192)	123 14 34.0 W (123.2428)	984.0	SEA
DBOG		Casa Diablo Mono County, California, U.S.A. opened 198407. MNLO code CDBO.	37 39 10.2 N (37.6528)	118 55 04.2 W (118.9178)	2243.0	CDMG
DBV	R	Dien Bien Phu Vietnam	21 23 24.0 N (21.3900)	103 01 30.0 E (103.0250)	1050.0	PLV
DBVM	R	Dos Bocas Veracruz, Mexico	...	...	...	UNM
DBY	C	Dobrovo Slovenia 19890814-19890817.	45 59 56.4 N (45.9990)	13 31 40.8 E (13.5280)	100.0	LJU
DCO		Combe Farm England, United Kingdom opened 1982.	50 19 12.0 N (50.3200)	3 52 20.6 W (3.8724)	410.0	BGS
DCP		Dickinson College Pennsylvania, U.S.A. opened 19900114.	40 12 14.4 N (40.2040)	77 11 49.2 W (77.1970)	143.0	
DCZ	RD	Deep Cove South Island, New Zealand opened 19910528.	45 28 42.0 S (45.4783)	167 09 15.0 E (167.1542)	10.0	WEL
DDA	F	Directorate of Disaster Affairs, Ankara, Turkey				

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
DEG		La Desirade Guadeloupe opened 198803.	16 18 47.5 N (16.3132)	61 03 35.3 W (61.0598)	575.0	FDF
DEK		DeKalb Illinois, U.S.A. opened 198701.	41 55 59.2 N (41.9331)	88 45 54.0 W (88.7650)	259.0	
DFE	RD	Dawson Falls North Island, New Zealand opened 199206.	39 19 39.0 S (39.3275)	174 06 13.0 E (174.1036)	...	WEL
DFR		Drift River Western Alaska, Alaska, U.S.A. opened 19880815.	60 35 31.2 N (60.5920)	152 41 10.2 W (152.6862)	1097.0	AGS
DGBT		Grand Bay Dominica	15 14 20.4 N (15.2390)	61 19 44.4 W (61.3290)	70.0	TRN
DHB		Downhole Baldwin Hills Los Angeles County, California, U.S.A. opened 197303. MNLO code DHBS.	34 01 03.0 N (34.0175)	118 23 07.8 W (118.3855)	-1470.0	USC
DHJN		Dharan Janob Saudi Arabia opened 19900613.	17 39 36.0 N (17.6600)	43 29 20.4 E (43.4890)	2400.0	RYD
DHLJ		Dahl Jordan opened 19900223.	30 49 12.0 N (30.8200)	35 24 07.2 E (35.4020)	-80.0	JSO
DHW2		Dyer Hill 2 Washington, U.S.A. opened 198506. SEA code DY2.	47 59 06.9 N (47.9853)	119 46 13.0 W (119.7703)	884.0	SEA
DIAC		La Diana Colombia opened 1987.	3 17 28.8 N (3.2913)	76 11 50.4 W (76.1973)	1520.0	UVC
DIW	D	D'Urville Island South Island, New Zealand opened 199006.	40 48 08.0 S (40.8022)	173 55 19.0 E (173.9219)	460.0	WELW
DJE		Delta Juntion East Central Alaska, Alaska, U.S.A. opened 19900607.	64 01 40.8 N (64.0280)	145 40 45.0 W (145.6792)	378.0	GIA
DKH	R	Dar Kharkhour Morocco	35 29 31.0 N (35.4919)	5 21 39.0 W (5.3608)	...	CNRM
DLBQ	RD	Dalbeg Queensland, Australia opened 19840409. QDM code DLB.	20 09 03.6 S (20.1510)	147 15 50.4 E (147.2640)	70.0	QDM
DLF		Lyons Farm Eire opened 199104.	53 17 45.0 N (53.2958)	6 31 53.0 W (6.5314)	96.0	DIAS
DLG		Dolgoi Island Alaska Peninsula, Alaska, U.S.A.	55 08 27.6 N (55.1410)	161 50 09.0 W (161.8358)	367.0	PAL
DLI	R	Dili Timor, Nusa Tenggara, Indonesia	8 34 01.0 S (8.5669)	125 33 12.0 E (125.5533)	...	DJA
DMMT	C	Dalton Mountain Montana, U.S.A. opened 19871119.	46 51 44.4 N (46.8623)	112 42 52.8 W (112.7147)	2039.0	BUT
DMS		Dublin Merrion Square Eire opened 199011.	53 20 26.0 N (53.3406)	6 14 55.0 W (6.2486)	5.0	DIAS
DMW	C	Delta Microwave Central Alaska, Alaska, U.S.A. opened 1986.	64 03 22.8 N (64.0563)	145 43 52.2 W (145.7312)	346.0	GIA
DNGQ	RD	Doongara Queensland, Australia opened 19840229. QDM code DNG.	20 33 18.0 S (20.5550)	146 28 30.0 E (146.4750)	280.0	QDM
DOI	D	San Damiano Macra Piemonte, Italy	44 30 12.8 N (44.5036)	7 14 43.4 E (7.2454)	1015.0	ROM
DOMF		Dompierre-sur-Helpe Nord-Pas-de-Calais, France	50 07 43.7 N (50.1288)	3 51 39.6 E (3.8610)	145.0	
DOT		Dot Lake Central Alaska, Alaska, U.S.A. opened 1986.	63 38 55.2 N (63.6487)	144 03 45.0 W (144.0625)	671.0	GIA
DPC	D	Dobruska-Polom Czech Republic	50 21 29.9 N (50.3583)	16 24 40.0 E (16.4111)	760.0	PRU
DPI		Dunn Peak Idaho, U.S.A. opened 198710.	47 17 19.2 N (47.2887)	116 53 55.8 W (116.8988)	1709.0	
DPMT		Pointe Michel Dominica	15 15 32.4 N (15.2590)	61 23 06.0 W (61.3850)	50.0	TRN
DPQ		Saint-Jean-des-Piles Quebec, Canada	46 40 49.8 N (46.6805)	72 46 38.4 W (72.7773)	167.0	ECTN
DPW	D	Davenport Washington, U.S.A. opened 198611. USTN opened 1988.	47 52 14.3 N (47.8706)	118 12 10.2 W (118.2028)	892.0	SEA USTN
DR01		Juana Nunez Dominican Republic	19 18 36.6 N (19.3102)	70 41 48.6 W (70.6968)	...	SDD
DR02	R	Janico Dominican Republic SDD code DR2.	19 21 06.6 N (19.3518)	70 46 31.2 W (70.7753)	...	SDD
DR03		Pinalito Dominican Republic	19 16 21.0 N (19.2725)	70 46 07.8 W (70.7688)	...	SDD
DR04		Monte Llano Dominican Republic	19 27 55.8 N (19.4655)	70 21 28.2 W (70.3578)	...	SDD
DR05		La Lomota Dominican Republic	19 37 59.4 N (19.6332)	70 51 34.8 W (70.8597)	...	SDD

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
DR06		La Diferencia Dominican Republic	19 13 58.2 N (19.2328)	70 59 29.4 W (70.9915)	...	SDD
DR07	R	Jarabacoa Dominican Republic SDD code DR7.	19 04 59.4 N (19.0832)	70 36 18.6 W (70.6052)	...	SDD
DR08		Loma La Naviza Dominican Republic SDD code NAVI.	18 57 28.8 N (18.9580)	70 01 50.4 W (70.0307)	...	SDD
DR09	R	Piedra Blanca Dominican Republic SDD code DR9.	18 48 40.8 N (18.8113)	70 24 59.6 W (70.4166)	...	SDD
DR1		(Alternate Abbreviation for DR01)				
DR10	R	Alto de la Bandera Dominican Republic	18 48 29.4 N (18.8082)	70 41 16.2 W (70.6878)	...	SDD
DR11	R	La Yayitas Dominican Republic	18 28 13.8 N (18.4705)	70 14 04.2 W (70.2345)	...	SDD
DR12		Loma Yerba Buena Dominican Republic	18 47 15.0 N (18.7875)	69 22 52.2 W (69.3812)	...	SDD
DR13	R	Sanchez Dominican Republic	19 14 25.8 N (19.2405)	69 35 19.2 W (69.5887)	...	SDD
DR14	R	Sierra Prieta Dominican Republic	18 38 40.8 N (18.6447)	70 00 28.2 W (70.0078)	...	SDD
DR15	R	Siete Picos Dominican Republic	18 45 01.2 N (18.7503)	70 10 38.4 W (70.1773)	...	SDD
DR3		(Alternate Abbreviation for DR03)				
DR4		(Alternate Abbreviation for DR04)				
DR5		(Alternate Abbreviation for DR05)				
DR6		(Alternate Abbreviation for DR06)				
DR8		(Alternate Abbreviation for DR08)				
DRE	D	Drenchia Friuli-Venezia Giulia, Italy opened 19821220.	46 10 24.0 N (46.1733)	13 38 36.0 E (13.6433)	810.0	TRI
DRRA		Deer Island Alaska Peninsula, Alaska, U.S.A. PAL code DRR.	54 55 24.6 N (54.9235)	162 16 59.4 W (162.2832)	380.0	PAL
DRTN		Dyersburg Tennessee, U.S.A. opened 19890808.	36 08 13.2 N (36.1370)	89 21 54.0 W (89.3650)	137.0	TEIC
DSC		Scotts Head Dominica	15 12 30.3 N (15.2084)	61 21 54.6 W (61.3652)	50.0	TRN
DSD2	R	Dead Sea Dam 2 Israel	31 10 48.0 N (31.1800)	35 26 24.0 E (35.4400)	-390.0	JER
DSI		Dead Sea--Mount Hatzatzon Israel opened 19860717.	31 34 12.0 N (31.5700)	35 22 48.0 E (35.3800)	200.0	JER
DSIT	F	DSI--State Water Works Division, Ankara, Turkey				
DSVT		Soufriere Village Dominica	15 13 44.4 N (15.2290)	61 22 12.0 W (61.3700)	5.0	TRN
DSZ	D	Denniston North South Island, New Zealand opened 19900219.	41 44 49.0 S (41.7469)	171 48 09.0 E (171.8025)	630.0	WEL
DTMT		Tete Morne Dominica	15 13 58.8 N (15.2330)	61 21 07.2 W (61.3520)	496.0	TRN
DUT		Dutch Harbor Aleutian Islands, Alaska, U.S.A.	53 53 54.0 N (53.8983)	166 32 12.0 W (166.5367)	60.0	GIA
DVD		David Panama opened 198606.	8 26 09.0 N (8.4358)	82 27 02.0 W (82.4506)	20.0	UPA
DVR		Devrek Turkey opened 1991.	41 09 40.0 N (41.1611)	32 00 30.0 E (32.0083)	960.0	DDA
DWK		..... Meghalaya, India	25 11 12.0 N (25.1867)	92 01 21.6 E (92.0227)	...	JHI
DYA		Yadsworthy England, United Kingdom opened 1982.	50 26 06.7 N (50.4352)	3 55 51.2 W (3.9309)	280.0	BGS
DZD	R	Dalandzadgad Mongolia	43 34 12.0 N (43.5700)	104 24 36.0 E (104.4100)	...	
EALH		Alhama de Murcia Spain opened 198601.	37 51 29.0 N (37.8581)	1 25 11.0 W (1.4197)	294.0	MDD
EAP	F	(phase code designation)				
EAPC	F	(phase code designation)				
EAPD	F	(phase code designation)				
EBAN		Banos de la Encina Spain opened 198611.	38 09 51.6 N (38.1643)	3 47 08.4 W (3.7857)	460.0	MDD
EBCM	R	..... Baja California, Mexico	... ...	... ...	... ...	UNM
EBG		Ellensburg Washington, U.S.A. SEA code ELL.	46 54 35.0 N (46.9097)	120 34 06.0 W (120.5683)	805.0	SEA
EBI		Elk Butte Idaho, U.S.A. opened 1987.	46 50 15.0 N (46.8375)	116 07 06.0 W (116.1183)	1765.0	
ECHE		Chera Spain opened 198611.	39 35 27.0 N (39.5908)	0 58 04.0 W (0.9678)	643.0	MDD

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
ECO		Colon Panama opened 19901017.	9 21 49.7 N (9.3638)	79 41 37.3 W (79.6937)	468.0	UPA
ECOG		Cogollos-Vega Spain opened 19900613.	37 16 37.9 N (37.2772)	3 33 58.9 W (3.5664)	1176.0	MDD
ECRI		Cripan Spain opened 198610.	42 36 32.0 N (42.6089)	2 30 36.0 W (2.5100)	807.0	MDD
EDR	D	Drumtochty Scotland, United Kingdom opened 19890112.	56 55 08.2 N (56.9189)	2 32 20.9 W (2.5391)	388.0	BGS
EFI	RD	East Falkland Islands Falkland Islands	51 28 48.0 S (51.4800)	58 24 36.0 W (58.4100)	...	IDA IRIS
EGD		Espegrend Norway opened 199103.	60 16 16.2 N (60.2712)	5 13 32.4 E (5.2257)	20.0	BER
EGRA	D	Graus Spain opened 19901212.	42 11 42.7 N (42.1952)	0 18 57.4 W (0.3159)	...	MDD
EGUA	D	Guajares Spain opened 19910110.	36 50 01.4 N (36.8337)	3 33 55.5 W (3.5654)	386.0	MDD
EHUE	D	Huescar Spain opened 19901113.	37 48 53.2 N (37.8148)	2 35 33.6 W (2.5927)	980.0	MDD
EJC	R	Estacion Juarez Chiapas, Mexico	17 36 16.0 N (17.6044)	93 11 44.0 W (93.1956)	...	UNM
EJIF		Jimena de la Frontera Spain opened 19880520.	36 27 04.8 N (36.4513)	5 28 07.8 W (5.4688)	260.0	MDD
EJIM	C	Jimena de la Frontera Spain 198704-19880519.	36 27 05.0 N (36.4514)	5 28 08.0 W (5.4689)	260.0	MDD
EKB	RD	Eskdalemuir Scotland, United Kingdom	55 20 15.0 N (55.3375)	3 10 38.0 W (3.1772)	356.0	BKN
EKC		Ekona Cameroon opened 19841201.	4 12 36.0 N (4.2100)	9 19 37.2 E (9.3270)	450.0	YND
EKR		Elk River Humboldt County, California, U.S.A. opened 19740620; BRK opened 1986. MNLO code EKRT.	40 41 43.2 N (40.6953)	124 08 22.2 W (124.1395)	49.0	BRK
EKS	RD	Erkin Say Kyrgyzstan	...	...	...	MOSR IDA IRIS
ELIZ	D	Elizondo Spain opened 19921203.	43 09 50.2 N (43.1639)	1 31 42.6 W (1.5285)	523.0	MDD
ELMO		Cerro Morro Venezuela opened 1984.	8 00 46.8 N (8.0130)	71 43 00.8 W (71.7169)	2100.0	CAR
ELPA		Fila Paraiso Venezuela opened 1984.	7 47 30.1 N (7.7917)	71 43 31.1 W (71.7253)	1285.0	CAR
ELUQ		Luque Spain opened 19920123.	37 33 37.8 N (37.5605)	4 16 00.4 W (4.2668)	703.0	MDD
ELYF		Elaudy Aquitaine, France opened 198502?	43 10 12.0 N (43.1700)	0 59 30.0 W (0.9917)	700.0	PAR
EMAL	RD	Malaga-Limonero Spain opened 19930520.	36 45 43.2 N (36.7620)	4 25 45.0 W (4.4292)	80.0	MDD
EMEL		Melilla Ceuta and Melilla, Spain opened 198802.	35 18 00.0 N (35.3000)	2 57 24.0 W (2.9567)	85.0	MDD
EMI		Eightmile Canyon Idaho, U.S.A. opened 1992.	44 04 27.0 N (44.0742)	112 55 34.2 W (112.9262)	1963.0	USGS
EMN		Eldorado Mountains Nevada, U.S.A. opened 19880811.	35 55 17.9 N (35.9216)	114 45 15.2 W (114.7542)	789.5	USGS
EMON		Mondonedo Spain opened 198807.	43 26 10.0 N (43.4361)	7 19 47.4 W (7.3298)	615.0	MDD
EMUT		Emma Park Carbon County, Utah, U.S.A.	39 48 50.4 N (39.8140)	110 48 55.2 W (110.8153)	2268.0	SLC
ENH	D	Enshi Hubei, China (Mainland) opened 1987.	30 16 18.5 N (30.2718)	109 29 12.5 E (109.4868)	...	BJI
ENR		Entracque Piemonte, Italy	44 13 35.8 N (44.2266)	7 25 13.1 E (7.4203)	1040.0	GEN
ENSF		Ens Midi-Pyrenees, France	42 48 17.0 N (42.8047)	0 20 08.0 E (0.3356)	1300.0	STR
EPBC	F	(phase code designation)				
EPBD	F	(phase code designation)				
EPCP	F	(phase code designation)				
EPCR	F	(phase code designation)				
EPCS	F	(phase code designation)				
EPCU	F	(phase code designation)				
EPDR	F	(phase code designation)				

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
EPDU	F	(phase code designation)				
EPGC	F	(phase code designation)				
EPGD	F	(phase code designation)				
EPH		Ephrata ..... Washington, U.S.A. opened 198303.	47 21 12.8 N (47.3536)	119 35 46.2 W (119.5962)	628.0	SEA
EPKP	F	(phase code designation)				
EPKS	F	(phase code designation)				
EPM		Echo Peak ..... Nevada, U.S.A. opened 19900918.	37 13 34.2 N (37.2262)	116 20 04.8 W (116.3347)	2408.0	USGS
EPNC	F	(phase code designation)				
EPND	F	(phase code designation)				
EPP	F	(phase code designation)				
EPPP	F	(phase code designation)				
EPPS	F	(phase code designation)				
EPRU		Pruna ..... Spain opened 198611.	36 57 57.6 N (36.9660)	5 13 52.8 W (5.2313)	560.0	MDD
EPS	F	(phase code designation)				
EPSS	F	(phase code designation)				
ERK		Elk Rock ..... Washington, U.S.A. opened 198005. SEA code ELK.	46 18 20.0 N (46.3056)	122 20 27.0 W (122.3408)	1270.0	SEA
EROQ		*Roquetas del Mar* ..... Spain opened 198702.	40 49 23.4 N (40.8232)	0 24 31.8 E (0.4088)	284.0	MDD
ERT	C	Erto ..... Friuli-Venezia Giulia, Italy 19821124-19880101.	46 16 36.0 N (46.2767)	12 22 36.0 E (12.3767)	775.0	TRI
ERUA		La Rua ..... Spain opened 198705.	42 23 33.6 N (42.3927)	7 08 33.0 W (7.1425)	431.0	MDD
ERZT		Erzurum ..... Turkey	39 54 24.1 N (39.9067)	41 15 11.9 E (41.2533)	1955.0	MTAT
ES01	RD	SONSECA Array Site 01 ..... Spain opened 19890731.	39 40 12.9 N (39.6702)	3 56 50.9 W (3.9475)	743.8	MDD
ES02	RD	SONSECA Array Site 02 ..... Spain opened 19890731.	39 40 37.5 N (39.6771)	3 56 07.7 W (3.9355)	734.5	MDD
ES03	RD	SONSECA Array Site 03 ..... Spain opened 19890731.	39 39 58.8 N (39.6663)	3 56 00.3 W (3.9334)	732.6	MDD
ES04	RD	SONSECA Array Site 04 ..... Spain opened 19890731.	39 39 20.7 N (39.6558)	3 56 32.2 W (3.9423)	740.9	MDD
ES05	RD	SONSECA Array Site 05 ..... Spain opened 19890731.	39 39 44.6 N (39.6624)	3 57 32.3 W (3.9590)	763.0	MDD
ES06	RD	SONSECA Array Site 06 ..... Spain opened 19890731.	39 40 32.6 N (39.6757)	3 57 07.6 W (3.9521)	745.8	MDD
ES07	RD	SONSECA Array Site 07 ..... Spain opened 19890731.	39 41 14.3 N (39.6873)	3 57 06.8 W (3.9519)	734.5	MDD
ES08	RD	SONSECA Array Site 08 ..... Spain opened 19890731.	39 41 32.4 N (39.6923)	3 55 30.2 W (3.9251)	721.5	MDD
ES09	RD	SONSECA Array Site 09 ..... Spain opened 19890731.	39 40 41.1 N (39.6781)	3 53 58.5 W (3.8996)	753.1	MDD
ES10	RD	SONSECA Array Site 10 ..... Spain opened 19890731.	39 39 28.7 N (39.6580)	3 54 09.2 W (3.9025)	758.2	MDD
ES11	RD	SONSECA Array Site 11 ..... Spain opened 19890731.	39 38 55.2 N (39.6487)	3 55 12.0 W (3.9200)	758.2	MDD
ES12	RD	SONSECA Array Site 12 ..... Spain opened 19890731.	39 38 19.4 N (39.6387)	3 56 34.3 W (3.9429)	761.1	MDD
ES13	RD	SONSECA Array Site 13 ..... Spain opened 19890731.	39 39 00.2 N (39.6501)	3 57 57.7 W (3.9660)	762.5	MDD
ES14	RD	SONSECA Array Site 14 ..... Spain opened 19890731.	39 39 06.6 N (39.6518)	3 59 18.7 W (3.9885)	779.7	MDD
ES15	RD	SONSECA Array Site 15 ..... Spain opened 19890731.	39 39 51.0 N (39.6642)	4 00 01.4 W (4.0004)	776.1	MDD
ES16	RD	SONSECA Array Site 16 ..... Spain opened 19890731.	39 41 12.5 N (39.6868)	3 59 39.6 W (3.9943)	775.4	MDD
ES17	RD	SONSECA Array Site 17 ..... Spain opened 19890731.	39 42 01.3 N (39.7004)	3 58 21.9 W (3.9728)	766.6	MDD
ES18	RD	SONSECA Array Site 18 ..... Spain opened 19890731.	39 42 36.6 N (39.7102)	3 56 57.5 W (3.9493)	750.1	MDD

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
ES19	RD	SONSECA Array Site 19	39 42 02.3 N	3 53 56.8 W	720.8	MDD
		Spain	(39.7006)	(3.8991)		
		opened 19890731.				
ESCM	R	.....	...	...	...	UNM
		Campeche, Mexico				
ESCP	F	(phase code designation)				
ESCS	F	(phase code designation)				
ESD		East Dome	46 11 50.4 N	122 09 00.0 W	1609.0	SEA
		Washington, U.S.A.	(46.1973)	(122.1500)		
		opened 198006. SEA code EDM.				
ESE		Esentepe	40 45 20.0 N	30 19 27.0 E	197.0	DDAT
		Turkey	(40.7556)	(30.3242)		
		opened 1991.				
ESEL		Selva	39 46 05.4 N	2 53 39.6 E	231.0	MDD
		Balearic Islands, Spain	(39.7682)	(2.8943)		
		opened 198807.				
ESGS		El Segundo	33 54 58.8 N	118 25 11.4 W	-100.0	USC
		Los Angeles County, California, U.S.A.	(33.9163)	(118.4198)		
		opened 198204. USC code ESG.				
ESKP	F	(phase code designation)				
ESKS	F	(phase code designation)				
ESLA	RD	SONSECA Array	39 40 27.3 N	3 57 47.3 W	752.0	MDD
		Spain	(39.6742)	(3.9631)		
		opened 19890731.				
ESPP	F	(phase code designation)				
ESSP	F	(phase code designation)				
ESSS	F	(phase code designation)				
ET2		Eltopia	46 32 06.0 N	118 57 01.2 W	330.0	SEA
		Washington, U.S.A.	(46.5350)	(118.9503)		
		opened 19890405.				
ET3		Eltopia	46 34 37.0 N	118 56 11.0 W	305.0	SEA
		Washington, U.S.A.	(46.5769)	(118.9364)		
		opened 19900912.				
ETER		Terradas	42 18 05.4 N	2 51 19.8 E	238.0	MDD
		Spain	(42.3015)	(2.8555)		
		opened 198803.				
ETOR		Torete	40 49 10.0 N	2 03 18.6 W	1018.0	MDD
		Spain	(40.8194)	(2.0552)		
		opened 198803.				
ETW		Entiat	47 36 16.2 N	120 19 51.6 W	1475.0	SEA
		Washington, U.S.A.	(47.6045)	(120.3310)		
		opened 198610.				
EVE		Everglades	25 23 14.4 N	80 40 58.2 W	1.0	
		Florida, U.S.A.	(25.3873)	(80.6828)		
EVIA		Vianos	38 38 19.0 N	2 30 09.0 W	1110.0	MDD
		Spain	(38.6386)	(2.5025)		
		opened 198511.				
EVN	RD	Everest	27 57 24.5 N	86 49 00.1 E	5037.0	MEDN
		Nepal	(27.9568)	(86.8167)		
		opened 1991.				
EVR		Evritania	38 55 00.0 N	21 48 31.2 E	1050.0	ATH
		Greece	(38.9167)	(21.8087)		
		opened 198906.				
EVV		El Vigia	18 27 23.4 N	95 20 57.6 W	...	UNM
		Veracruz, Mexico	(18.4565)	(95.3493)		
		opened 1988.				
EWZ	D	Erewhon	43 30 42.0 S	170 51 09.0 E	...	WEL
		South Island, New Zealand	(43.5117)	(170.8525)		
		opened 19910321.				
EXP	F	(phase code designation)				
EXPC	F	(phase code designation)				
EXPD	F	(phase code designation)				
EXS	F	(phase code designation)				
EXSG		Experiment Station	37 36 49.2 N	118 49 49.8 W	2153.0	CDMG
		Mono County, California, U.S.A.	(37.6137)	(118.8305)		
		opened 198407. MNLO code CEXS.				
EYL		Eskiyayla	40 33 57.6 N	30 09 27.0 E	1160.0	ISK
		Bangladesh	(40.5660)	(30.1575)		
		opened 199001.				
EZAM		Zamans	42 08 56.4 N	8 41 42.0 W	398.0	MDD
		Spain	(42.1490)	(8.6950)		
		opened 198612.				
EZM	R	Erzurum	39 54 01.4 N	41 13 44.0 E	1860.0	ISK
		Turkey	(39.9004)	(41.2289)		
FALK	R	Falkenberg	49 51 38.1 N	12 13 29.4 E	465.0	
		Bayern, Germany	(49.8606)	(12.2248)		
FAM		Famagusta	34 59 46.0 N	34 00 07.0 E	68.0	CSS
		Cyprus	(34.9961)	(34.0019)		
		opened 198702.				
FARM	R	.....	19 37 33.6 N	96 23 34.8 W	...	IIM
		Veracruz, Mexico	(19.6260)	(96.3930)		
		IIM code FAR.				
FAU	R	Forcella Aurine	...	...	...	TRI
		Veneto, Italy				
FBO		Farmers Butte	44 18 35.6 N	122 34 40.2 W	1080.0	SEA
		Oregon, U.S.A.	(44.3099)	(122.5778)		
		opened 199109.				
FDKY		Freedom	36 47 24.0 N	85 47 39.0 W	306.0	TVA
		Kentucky, U.S.A.	(36.7900)	(85.7942)		
		opened 19870327.				

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
FEF		Fern Forest Hawaii, Hawaii, U.S.A.	19 28 42.0 N (19.4783)	155 08 54.6 W (155.1485)	691.0	HVO
FG2		Serracapriola Puglia, Italy Sent to NEIS by ROM.	41 48 13.0 N (41.8036)	15 10 17.0 E (15.1714)	200.0	FOG
FG3		Monte Sant'Angelo Puglia, Italy Sent to NEIS by ROM.	41 42 02.5 N (41.7007)	15 57 01.0 E (15.9503)	830.0	FOG
FG4		Candela Puglia, Italy Sent to NEIS by ROM.	41 08 05.0 N (41.1347)	15 31 14.0 E (15.5206)	450.0	FOG
FG5		Orsara di Puglia Puglia, Italy Sent to NEIS by ROM.	41 16 56.0 N (41.2822)	15 16 09.0 E (15.2692)	...	FOG
FGO2		Fuego 2 Guatemala opened 198607. GCG code FG2.	14 26 19.2 N (14.4387)	90 50 09.0 W (90.8358)	1335.0	GCG
FGTN		Flat Gap Tennessee, U.S.A. opened 19911219.	36 26 02.4 N (36.4340)	83 11 42.0 W (83.1950)	500.0	TEIC
FGTQ	R	Fig Tree Queensland, Australia opened 19870803. QDM code FGT.	20 58 12.4 S (20.9701)	147 46 35.4 E (147.7765)	220.0	QDM
FIA0		FINESA Array Site A0 Finland	61 26 39.8 N (61.4444)	26 04 45.5 E (26.0793)	...	HEL
FIA1	R	FINESA Array Site A1 Finland opened 199006.	...	...	...	HEL
FIA2	R	FINESA Array Site A2 Finland	...	...	...	HEL
FIA3	R	FINESA Array Site A3 Finland	...	...	...	HEL
FIB0	R	FINESA Array Site B0 Finland	...	...	...	HEL
FIB1	R	FINESA Array Site B1 Finland	...	...	...	HEL
FIB2	R	FINESA Array Site B2 Finland	...	...	...	HEL
FIB3	R	FINESA Array Site B3 Finland	...	...	...	HEL
FIC0	R	FINESA Array Site C0 Finland	...	...	...	HEL
FIC1	R	FINESA Array Site C1 Finland	...	...	...	HEL
FIC2	R	FINESA Array Site C2 Finland	...	...	...	HEL
FIC3	R	FINESA Array Site C3 Finland	...	...	...	HEL
FID0	R	FINESA Array Site D0 Finland	...	...	...	HEL
FID1	R	FINESA Array Site D1 Finland	...	...	...	HEL
FID2	R	FINESA Array Site D2 Finland	...	...	...	HEL
FID3	R	FINESA Array Site D3 Finland	...	...	...	HEL
FIG		Monte Figo Portugal opened 19840330.	37 06 02.0 N (37.1006)	7 49 42.0 W (7.8283)	310.0	INMG
FIN		Finale Ligure Liguria, Italy	44 12 33.0 N (44.2092)	8 12 30.0 E (8.2083)	590.0	GEN
FINC	D	Finschhafen New Guinea, Papua New Guinea opened 199205.	6 37 00.0 S (6.6167)	147 51 24.7 E (147.8569)	7.0	PMG
FIPE		Fila de Piedra Venezuela opened 1984.	7 58 10.9 N (7.9697)	71 15 04.0 W (71.2511)	600.0	CAR
FISA		Fila de Sacuragua Venezuela opened 198612.	11 15 53.3 N (11.2648)	69 20 00.0 W (69.3333)	600.0	CAR
FITZ	R	Fitzroy Crossing Western Australia, Australia	18 06 54.0 S (18.1150)	125 38 21.6 E (125.6393)	...	AUST
FKBC		Forrest Kerr British Columbia, Canada opened 19891010.	56 47 05.0 N (56.7847)	130 37 05.0 W (130.6181)	1175.0	OTTR
FKO		Franklin Oklahoma, U.S.A. opened 1987.	35 15 40.7 N (35.2613)	97 23 10.0 W (97.3861)	351.0	TUL
FL2		Flat Top 2 Washington, U.S.A.	46 11 47.0 N (46.1964)	122 21 01.0 W (122.3503)	1378.0	SEA
FLAS		Fullerton Airport Orange County, California, U.S.A. opened 19860912. USC code FLA.	33 52 16.8 N (33.8713)	117 58 31.8 W (117.9755)	-400.0	USC
FLK	R	Falkland Islands Falkland Islands	51 50 11.4 S (51.8365)	58 26 47.4 W (58.4465)	10.0	BKN
FLKY		Flemingsburg Kentucky, U.S.A. opened 19890215.	38 25 33.6 N (38.4260)	83 45 03.6 W (83.7510)	280.0	BHKY
FLOC	R	Florencia Colombia	1 30 49.5 N (1.5138)	75 37 57.2 W (75.6326)	364.0	

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
FLOM	R	Florida	17 13 31.8 N	100 23 19.2 W	840.0	UNM
		Guerrero, Mexico	(17.2255)	(100.3887)		
FLOR		.....	39 26 04.9 N	31 26 31.6 W	605.0	PDA
		Azores, Portugal	(39.4347)	(31.4421)		
		opened 19910909.				
FMKY		Fulgham (Clinton)	36 39 50.4 N	88 54 32.4 W	152.0	BHKY
		Kentucky, U.S.A.	(36.6640)	(88.9090)		
		opened 19861030.				
FNA		Florina	40 47 01.8 N	21 22 34.2 E	750.0	THE
		Greece	(40.7838)	(21.3762)		
		opened 198912.				
FNO		Franklin	35 15 25.7 N	97 24 02.1 W	357.0	TUL
		Oklahoma, U.S.A.	(35.2571)	(97.4006)		
		opened 19920428.				
FOE	R	Fourare	31 59 24.0 N	9 15 18.0 W	...	CNRM
		Morocco	(31.9900)	(9.2550)		
FONT		Fontmartina	41 45 42.0 N	2 26 00.0 E	...	
		Spain	(41.7617)	(2.4333)		
		Sent to NEIS by MDD.				
FORC		Fortuna	10 28 18.0 N	84 40 06.0 W	400.0	SJR
		Costa Rica	(10.4717)	(84.6683)		
FORR	C	Forrest	30 51 .. S	128 06 .. E	...	AUST
		Western Australia, Australia	(30.8500)	(128.1000)		
		1988-19910616.				
FORT		Forrest	30 46 44.4 S	128 03 32.4 E	165.0	AUST
		Western Australia, Australia	(30.7790)	(128.0590)		
		opened 19920519.				
FOXC	R	Fox Airport	34 43 58.8 N	118 13 50.4 W	716.0	PAS
		Los Angeles County, California, U.S.A.	(34.7330)	(118.2307)		
		opened 198103. PAS code FOX.				
FRS		Fauresmith	29 45 00.0 S	25 19 18.0 E	...	PRE
		Orange Free State, South Africa	(29.7500)	(25.3217)		
		opened 1985.				
FSI		Fosdinovo	44 07 34.0 N	10 01 31.0 E	...	ROM
		Toscana, Italy	(44.1261)	(10.0253)		
FSP	C	False Pass	54 57 12.0 N	163 27 24.0 W	200.0	PAL
		Alaska Peninsula, Alaska, U.S.A.	(54.9533)	(163.4567)		
		closed 199007.				
FST	C	Fort Simpson	61 50 24.0 N	121 16 30.0 W	175.0	OTTR
		Northwest Territories, Canada	(61.8400)	(121.2750)		
		19860109-19870331.				
FST1	C	Fort Simpson	61 47 09.0 N	121 15 32.0 W	175.0	OTTR
		Northwest Territories, Canada	(61.7858)	(121.2589)		
		19851006-19860109. Temporary station,				
		replaced by FST.				
FUG		Fuego 3	14 26 52.2 N	90 50 31.2 W	1505.0	GCG
		Guatemala	(14.4478)	(90.8420)		
		opened 198703. GCG code FG3.				
FVI	D	Forni Avoltri	46 35 35.7 N	12 46 51.3 E	...	ROM
		Friuli-Venezia Giulia, Italy	(46.5932)	(12.7809)		
GACM		Adobe Creek	38 52 22.2 N	122 51 43.8 W	985.0	MNLO
		Sonoma County, California, U.S.A.	(38.8728)	(122.8622)		
		opened 19860515. MNLO code GAC.				
GALE		Galera	0 49 16.8 N	80 00 48.0 W	25.0	QUI
		Ecuador	(0.8213)	(80.0133)		
		opened 19911103.				
GAM	R	Garm	...	...	...	
		Tajikistan				
GANF		Ganagobie	43 59 51.3 N	5 54 31.2 E	650.0	STR
		Provence-Cote d'Azur, France	(43.9976)	(5.9087)		
GARI	R	Garurganga	30 27 09.0 N	79 26 40.2 E	1500.0	WIHG
		Uttar Pradesh, India	(30.4525)	(79.4445)		
		opened 19860726.				
GARM		Arbuckle	38 57 18.6 N	122 15 07.8 W	268.0	MNLO
		Colusa County, California, U.S.A.	(38.9552)	(122.2522)		
		opened 198103 or 19810520. MNLO code GAR.				
GAZ		Gaziantep	37 10 19.7 N	37 12 40.8 E	100.0	ISK
		Turkey	(37.1721)	(37.2113)		
		opened 198907.				
GBMM		Baldy Mountain	39 08 30.6 N	122 29 38.4 W	975.0	MNLO
		Lake County, California, U.S.A.	(39.1418)	(122.4940)		
		opened 19810513. MNLO code GBM.				
GBZT		Gebze	40 47 20.0 N	29 26 42.0 E	184.0	GBZT
		Turkey	(40.7889)	(29.4450)		
GCAZ		Grand Canyon	36 02 38.4 N	112 07 40.8 W	...	FLAG
		Arizona, U.S.A.	(36.0440)	(112.1280)		
		opened 1987.				
GCD		Castle Douglas	54 51 49.7 N	3 56 30.1 W	189.0	BGS
		Scotland, United Kingdom	(54.8638)	(3.9417)		
		opened 1989.				
GCL		Cushendall	55 04 33.6 N	6 07 48.0 W	275.0	BGS
		Northern Ireland, United Kingdom	(55.0760)	(6.1300)		
		opened 1989.				
GCSM	U	Cold Spring Mountain	39 01 22.2 N	123 31 16.2 W	695.0	MNLO
		Mendocino County, California, U.S.A.	(39.0228)	(123.5212)		
		19820419-19890711. MNLO code GCS.				
GEA0	R	GERESS Array Site A0	48 50 12.5 N	13 42 06.8 E	1027.6	BUG
		Bayern, Germany	(48.8368)	(13.7019)		
GEA1	R	GERESS Array Site A1	48 50 10.6 N	13 42 14.1 E	1009.3	BUG
		Bayern, Germany	(48.8363)	(13.7039)		

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
GEA2	R	GERESS Array Site A2	48 50 19.0 N	13 42 06.5 E	1059.0	BUG
		Bayern, Germany	(48.8386)	(13.7018)		
GEA3	R	GERESS Array Site A3	48 50 06.0 N	13 42 00.1 E	1017.0	BUG
		Bayern, Germany	(48.8350)	(13.7000)		
GEB1	R	GERESS Array Site B1	48 50 20.0 N	13 42 27.1 E	1015.0	BUG
		Bayern, Germany	(48.8389)	(13.7075)		
GEB2	R	GERESS Array Site B2	48 50 22.3 N	13 41 55.0 E	1092.9	BUG
		Bayern, Germany	(48.8395)	(13.6986)		
GEB3	R	GERESS Array Site B3	48 50 13.0 N	13 41 45.5 E	1058.8	BUG
		Bayern, Germany	(48.8370)	(13.6960)		
GEB4	R	GERESS Array Site B4	48 49 57.8 N	13 41 55.9 E	1006.0	BUG
		Bayern, Germany	(48.8327)	(13.6989)		
GEB5	R	GERESS Array Site B5	48 50 04.4 N	13 42 21.4 E	976.9	BUG
		Bayern, Germany	(48.8346)	(13.7059)		
GEC1	R	GERESS Array Site C1	48 50 28.4 N	13 42 35.7 E	1027.7	BUG
		Bayern, Germany	(48.8412)	(13.7099)		
GEC2		GERESS Array Site C2	48 50 42.4 N	13 42 05.6 E	1137.1	BUG
		Bayern, Germany	(48.8451)	(13.7016)		
GEC3	R	GERESS Array Site C3	48 50 32.5 N	13 41 30.1 E	1075.7	BUG
		Bayern, Germany	(48.8424)	(13.6917)		
GEC4	R	GERESS Array Site C4	48 50 06.7 N	13 41 15.0 E	1103.3	BUG
		Bayern, Germany	(48.8352)	(13.6875)		
GEC5	R	GERESS Array Site C5	48 49 46.6 N	13 41 44.5 E	1009.4	BUG
		Bayern, Germany	(48.8296)	(13.6957)		
GEC6	R	GERESS Array Site C6	48 49 36.4 N	13 42 32.6 E	942.2	BUG
		Bayern, Germany	(48.8268)	(13.7090)		
GEC7	R	GERESS Array Site C7	48 50 07.6 N	13 42 52.1 E	986.0	BUG
		Bayern, Germany	(48.8354)	(13.7145)		
GECU		Ecuador Network	0 19 01.8 S	78 11 22.8 W	4350.0	QUI
		Ecuador	(0.3172)	(78.1897)		
GED1	R	GERESS Array Site D1	48 51 06.5 N	13 42 53.2 E	1060.9	BUG
		Bayern, Germany	(48.8518)	(13.7148)		
GED2	R	GERESS Array Site D2	48 51 11.6 N	13 41 47.2 E	999.3	BUG
		Bayern, Germany	(48.8532)	(13.6964)		
GED3	R	GERESS Array Site D3	48 50 47.4 N	13 40 54.5 E	949.9	BUG
		Berlin, Germany	(48.8465)	(13.6818)		
GED4	R	GERESS Array Site D4	48 50 18.9 N	13 40 46.7 E	1039.8	BUG
		Bayern, Germany	(48.8386)	(13.6796)		
GED5	R	GERESS Array Site D5	48 49 28.6 N	13 40 50.5 E	1085.6	BUG
		Bayern, Germany	(48.8246)	(13.6807)		
GED6	R	GERESS Array Site D6	48 49 09.9 N	13 41 47.9 E	1083.5	BUG
		Bayern, Germany	(48.8194)	(13.6966)		
GED7	R	GERESS Array Site D7	48 49 15.3 N	13 42 57.3 E	959.6	BUG
		Bayern, Germany	(48.8209)	(13.7159)		
GED8	R	GERESS Array Site D8	48 49 59.4 N	13 43 33.9 E	938.2	BUG
		Bayern, Germany	(48.8332)	(13.7261)		
GED9		GERESS Array Site D9	48 50 36.3 N	13 43 25.6 E	987.0	BUG
		Bayern, Germany	(48.8434)	(13.7238)		
GELF		Grande-Etoile	43 23 00.9 N	5 25 39.0 E	550.0	STR
		Provence-Cote d'Azur, France	(43.3836)	(5.4275)		
GFA	D	Gafsa	31 20 24.0 N	9 43 48.0 E	...	SBS MEDN
		Tunisia	(31.3400)	(9.7300)		
GFP		Griffith Park	34 07 45.6 N	118 18 35.4 W	...	USC
		Los Angeles County, California, U.S.A.	(34.1293)	(118.3098)		
		opened 197504. MNLO code GFPS.				
GFW		Glenfield	41 27 24.0 S	173 49 51.0 E	230.0	WELW
		South Island, New Zealand	(41.4567)	(173.8308)		
GGP		Guagua Pichincha	0 10 28.2 S	78 35 45.6 W	4600.0	QUI
		Ecuador	(0.1745)	(78.5960)		
		opened 198809. QUI code REFU.				
GGUM		Gualala	38 51 23.4 N	123 29 52.2 W	661.0	MNLO
		Mendocino County, California, U.S.A.	(38.8565)	(123.4978)		
		opened 19820419. MNLO code GGU.				
GHAT		Ghardimaou	36 29 45.0 N	8 18 17.4 E	400.0	SBS
		Tunisia	(36.4958)	(8.3048)		
GHOM		Hamilton Opening	39 02 40.0 N	123 32 24.6 W	687.0	MNLO
		Mendocino County, California, U.S.A.	(39.0444)	(123.5402)		
		opened 19890712. MNLO code GHO.				
GHVM		High Valley	39 05 06.0 N	122 44 03.6 W	1036.0	MNLO
		Lake County, California, U.S.A.	(39.0850)	(122.7343)		
		opened 19810513. MNLO code GHV.				
GHZJ		Ghuzeima	30 31 48.0 N	36 19 30.0 E	1048.0	JSO
		Jordan	(30.5300)	(36.3250)		
		opened 19900112.				
GIBL		Gibalbin	36 49 35.4 N	5 57 10.2 W	412.0	SFS
		Spain	(36.8265)	(5.9528)		
GIM		North Isle of Man	54 17 32.3 N	4 28 01.2 W	366.0	BGS
		Isle of Man, United Kingdom	(54.2923)	(4.4670)		
		opened 1989.				
GIO		Monte San Gregorio	37 34 00.0 N	15 06 30.0 E	330.0	ERC
		Sicilia, Italy	(37.5667)	(15.1083)		
		opened 198902.				
GKN		Gorkha	28 00 10.8 N	84 38 13.2 E	1478.0	DMN
		Nepal	(28.0030)	(84.6370)		
		opened 198307.				
GL2		New Goldendale	45 57 35.0 N	120 49 22.5 W	1000.0	SEA
		Washington, U.S.A.	(45.9597)	(120.8229)		
GLH		Golan--Tel Qazir	32 42 36.0 N	35 39 36.0 E	330.0	JER
		Israel	(32.7100)	(35.6600)		
		opened 19860626.				

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
GLK		Glacier Lake Washington, U.S.A.	46 33 50.2 N (46.5639)	121 36 30.7 W (121.6085)	1320.0	SEA
GMB		Gambarie d'Aspromonte Calabria, Italy	38 10 03.0 N (38.1675)	15 51 48.0 E (15.8633)	1350.0	ERC
GMG		Grassy Mountain Georgia, U.S.A. opened 198511.	34 51 45.6 N (34.8627)	84 40 13.2 W (84.6703)	1097.0	TEIC
GMK		Mull of Kintyre Scotland, United Kingdom opened 1989.	55 20 45.2 N (55.3459)	5 35 37.0 W (5.5936)	160.0	BGS
GMM	R	Mourne Mountains Northern Ireland, United Kingdom opened 1989.	54 14 20.4 N (54.2390)	5 57 03.6 W (5.9510)	140.0	BGS
GMMM	U	Mayacamas Mountains Sonoma County, California, U.S.A. 19780421-19860226. MNLO code GMM.	38 50 17.4 N (38.8382)	122 47 55.8 W (122.7988)	963.0	MNLO
GMO		Grizzlie Mountain Oregon, U.S.A. opened 19870827.	44 26 20.8 N (44.4391)	120 57 22.3 W (120.9562)	1689.0	SEA
GNAM		Navarro Ridge Mendocino County, California, U.S.A. opened 19810419. MNLO code GNA.	39 11 51.0 N (39.1975)	123 37 51.0 W (123.6308)	344.0	MNLO
GNI		Garni Armenia	40 03 10.8 N (40.0530)	44 43 26.4 E (44.7240)	1460.0	MOSR
GOGA	D	Godfrey Georgia, U.S.A. opened 19930316.	33 24 40.3 N (33.4112)	83 27 59.8 W (83.4666)	150.0	NEIS USNN
GOGC	R	Isla Gorgona Colombia	...	...	...	UVC
GRAI		Grandview Point Idaho, U.S.A.	43 48 33.5 N (43.8093)	111 20 08.6 W (111.3357)	2231.0	USBR
GRBF		Gourbit Midi-Pyrenees, France opened 198901.	42 50 29.0 N (42.8414)	1 32 12.0 E (1.5367)	875.0	STR
GRI	D	Girifalco Calabria, Italy	38 49 01.7 N (38.8171)	16 25 12.5 E (16.4201)	480.0	ROM
GRI*		(Alternate Abbreviation for GR1TX)				
GROM		Round Mountain Tehama County, California, U.S.A. opened 19901213. MNLO code GRO.	39 55 02.4 N (39.9173)	122 40 13.8 W (122.6705)	1274.0	MNLO
GROR		Grindstone Mountain Oregon, U.S.A. opened 198605. SEA code GRO.	45 21 04.5 N (45.3512)	123 39 43.0 W (123.6619)	945.0	SEA
GT2		Goat Mountain Oregon, U.S.A. opened 198509. SEA code VG2.	45 09 20.0 N (45.1556)	122 16 15.0 W (122.2708)	823.0	SEA
GTRI		Great Rift Idaho, U.S.A. opened 1992.	43 14 38.4 N (43.2440)	113 14 27.6 W (113.2410)	1547.0	USGS
GTSM		Trough Springs Colusa County, California, U.S.A. opened 19810514. MNLO code GTS.	39 18 42.0 N (39.3117)	122 36 09.0 W (122.6025)	1103.0	MNLO
GUAC		Guacamaya Venezuela opened 198706.	10 11 31.2 N (10.1920)	67 16 16.0 W (67.2711)	1330.0	CAR
GUAN		Valle Guanape Venezuela opened 1984.	9 57 27.0 N (9.9575)	65 38 52.1 W (65.6478)	1107.0	CAR
GUAY	R	Guayacanes Dominican Republic opened 19860710.	18 26 24.0 N (18.4400)	69 26 00.0 W (69.4333)	...	SDD
GUB	R	Guba	10 40 .. S (10.6667)	26 26 .. E (26.4333)	...	
GULW		Guler Mountain Washington, U.S.A. opened 19860731. SEA code GUL.	45 55 27.0 N (45.9242)	121 35 44.0 W (121.5956)	1189.0	SEA
GUM2		Guadalajara 2 Jalisco, Mexico	20 40 .. N (20.6667)	103 18 .. W (103.3000)	1543.0	UNM
GUN		Gumba Nepal opened 198503.	27 54 38.2 N (27.9106)	85 52 45.8 E (85.8794)	2900.0	DMN
GUO	R	..... Oaxaca, Mexico	16 05 55.2 N (16.0987)	97 03 39.6 W (97.0610)	244.0	UNM
GUSM	R	..... Sonora, Mexico	...	...	...	UNM
GVMR		Giv'at Hamore Israel opened 199112.	32 37 12.0 N (32.6200)	35 22 12.0 E (35.3700)	90.0	JER
GVRC		Garvey Reservoir Los Angeles County, California, U.S.A. opened 19871008. PAS code GVR.	34 03 00.0 N (34.0500)	118 07 08.0 W (118.1189)	177.0	PAS
GWY		Greenwater Valley Inyo County, California, U.S.A. opened 19880401.	36 11 06.6 N (36.1852)	116 40 10.8 W (116.6697)	1540.0	USGS
GYN		Goynuk Turkey opened 1991.	40 21 01.0 N (40.3503)	30 43 36.0 E (30.7267)	1260.0	DDA
GZTT		..... Turkey opened 1992.	37 02 10.0 N (37.0361)	37 18 45.0 E (37.3125)	850.0	GBZT

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
HACJ	R	Hachinohe 2	40 23 49.8 N	141 32 45.0 E	230.0	JMA
		Aomori, Honshu, Japan	(40.3972)	(141.5458)		
		opened 19910308.				
HAE		Alders End	52 02 15.4 N	2 32 51.0 W	224.0	BGS
		England, United Kingdom	(52.0376)	(2.5475)		
		opened 1982.				
HAH		Hahryggur	64 07 06.6 N	21 16 58.1 W	...	
		Iceland	(64.1185)	(21.2828)		
HAKY		Hadley Quad	37 06 20.5 N	86 35 05.8 W	169.0	TVA
		Kentucky, U.S.A.	(37.1057)	(86.5849)		
		opened 19870626.				
HALM	R	Halim	31 46 04.8 N	9 28 12.0 W	...	CNRM
		Morocco	(31.7680)	(9.4700)		
HARZ	RD	Haroharo	38 05 28.0 S	176 30 07.0 E	740.0	WEL
		North Island, New Zealand	(38.0911)	(176.5019)		
		opened 19920615.				
HAT		Hattorf	50 49 46.9 N	9 56 39.1 E	-592.0	
		Hessen, Germany	(50.8297)	(9.9442)		
		opened before 1981.				
HATI		Hayti	36 10 37.2 N	89 40 33.6 W	83.0	SLM
		Missouri, U.S.A.	(36.1770)	(89.6760)		
HAVC	R	Havirov	49 45 46.8 N	18 28 37.2 E	...	PRU
		Czech Republic	(49.7630)	(18.4770)		
HAYW		Haystack Fork	43 38 22.5 N	110 19 57.0 W	2835.0	USBR
		Wyoming, U.S.A.	(43.6396)	(110.3325)		
		opened 199009.				
HBL2		Bonnylands	52 03 02.9 N	3 02 18.2 W	400.0	BGS
		England, United Kingdom	(52.0508)	(3.0384)		
		opened 1991.				
HBMT		Mount Humbug	45 47 34.8 N	112 36 28.2 W	2481.0	BUT
		Montana, U.S.A.	(45.7930)	(112.6078)		
		opened 19900808.				
HBO		Huckleberry Mountain	43 50 39.6 N	122 19 11.9 W	1615.0	SEA
		Oregon, U.S.A.	(43.8443)	(122.3200)		
		opened 19900919.				
HDW		Hoodsport	47 38 54.6 N	123 03 15.2 W	1006.0	SEA
		Washington, U.S.A.	(47.6485)	(123.0542)		
HEA	D	Headley	51 21 30.0 N	1 15 50.0 W	114.0	BKN
		England, United Kingdom	(51.3583)	(1.2639)		
HELC	R	Santa Elena	6 14 02.6 N	75 32 51.7 W	2788.0	
		Colombia	(6.2341)	(75.5477)		
HERM		Elkhorn Road	36 47 54.0 N	121 42 38.4 W	69.0	MNLO
		Monterey County, California, U.S.A.	(36.7983)	(121.7107)		
		opened 19891103. MNLO code HER.				
HEX		Exmoor	51 04 00.5 N	3 48 09.0 W	278.0	BGS
		England, United Kingdom	(51.0668)	(3.8025)		
		opened 1991.				
HGH		Gray Hill	51 38 16.8 N	2 48 23.0 W	210.0	BGS
		Wales, United Kingdom	(51.6380)	(2.8064)		
		opened 1980.				
HGN	R		...	...	...	DBN
		The Netherlands				
HHAI	D	Hells Half Acre	43 17 42.0 N	112 22 46.2 W	1391.0	USGS USTN
		Idaho, U.S.A.	(43.2950)	(112.3795)		
		USTN opened 19920721.				
HHH		Horse Heaven Hills	46 10 18.0 N	119 23 01.0 W	490.0	SEA
		Washington, U.S.A.	(46.1717)	(119.3836)		
		opened 198703. SEA code HH2.				
HHO	R	Hochatown State Park	...	...	...	TUL
		Oklahoma, U.S.A.				
HHWY	R	High Hoyland	53 35 12.1 N	1 35 50.6 W	205.0	OMB
		England, United Kingdom	(53.5867)	(1.5974)		
HIA	D	Hailar	49 16 00.0 N	119 44 30.0 E	610.0	BJI
		Heilongjiang, China (Mainland)	(49.2667)	(119.7417)		
		opened 198703.				
HIRJ	R	Hiroshima 2	34 25 42.0 N	132 33 54.0 E	412.0	JMA
		Hiroshima, Honshu, Japan	(34.4283)	(132.5650)		
HITJ		Hittiya	29 44 34.8 N	35 50 27.6 E	1235.0	JSO
		Jordan	(29.7430)	(35.8410)		
		opened 19891029.				
HLBJ		Hallabat	32 04 39.0 N	36 18 09.0 E	827.0	JSO
		Jordan	(32.0775)	(36.3025)		
		1987-19871024; reopened 1989.				
HLGA	R	Haflong	25 09 36.0 N	93 01 00.0 E	662.0	JHI
		Assam, India	(25.1600)	(93.0167)		
		opened 198408.				
HLH		Cerro de Hule	13 50 15.0 N	87 15 30.0 W	...	
		Honduras	(13.8375)	(87.2583)		
		opened 1990?				
HLJ		Hailstone	40 36 37.2 N	111 23 58.2 W	1926.0	SLC
		Wasatch County, Utah, U.S.A.	(40.6103)	(111.3995)		
		opened 19921022.				
HLZ	R	Helez	31 36 00.0 N	34 38 24.0 E	100.0	JER
		Israel	(31.6000)	(34.6400)		
HMCY		Holy Mount Cemetery	40 57 53.4 N	73 48 11.4 W	245.0	PAL
		New York, U.S.A.	(40.9648)	(73.8032)		
		opened 198512. PAL code HMC.				
HMDT		Nahal Hemdat	32 15 36.0 N	35 31 12.0 E	125.0	JER
		Israel	(32.2600)	(35.5200)		
		opened 199105.				

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
HMNA	R	Hamren Assam, India opened 198501.	25 55 24.0 N (25.9233)	92 36 30.0 E (92.6083)	...	JHI
HNV	R	Hanoi Vietnam	21 02 53.0 N (21.0481)	105 47 50.0 E (105.7972)	6.0	PLV
HOBC		El Hobo Colombia opened 1987.	4 21 17.4 N (4.3548)	76 08 07.8 W (76.1355)	1180.0	UVC
HOFF		Hoffen Alsace, France	48 56 30.0 N (48.9417)	7 57 50.0 E (7.9639)	150.0	STR
HOGH		Ho Ghana opened 1987.	6 36 33.0 N (6.6092)	0 26 42.0 E (0.4450)	372.0	KUK
HOI		Hoima Uganda opened 199107.	1 25 04.8 N (1.4180)	31 20 31.2 E (31.3420)	1094.0	
HOLB		Holberg British Columbia, Canada opened 199108.	50 38 25.8 N (50.6405)	128 07 54.5 W (128.1318)	564.0	WCTN
HONU		Honeyville Cache County, Utah, U.S.A. opened 19890613.	41 36 36.0 N (41.6100)	111 55 01.2 W (111.9170)	1515.0	SLC
HOQC		La Horqueta Colombia opened 1987.	3 28 04.8 N (3.4680)	76 38 01.2 W (76.6337)	2220.0	UVC
HOV	R	Hovd Mongolia	48 00 36.0 N (48.0100)	91 39 00.0 E (91.6500)	...	
HPE		Pembroke Wales, United Kingdom opened 1990.	51 56 13.6 N (51.9371)	4 46 28.2 W (4.7745)	355.0	BGS
HQL		Haql Saudi Arabia opened 1986.	29 16 12.0 N (29.2700)	35 03 00.0 E (35.0500)	75.0	RYD
HRSH		Kfar Ka'horesh Israel	32 42 00.0 N (32.7000)	35 16 48.0 E (35.2800)	416.0	JER
HSA		Swansea Wales, United Kingdom opened 1987.	51 44 52.1 N (51.7478)	4 09 15.5 W (4.1543)	274.0	BGS
HSHJ		Hashim Jordan opened 19890904.	29 25 15.6 N (29.4210)	35 24 00.0 E (35.4000)	1100.0	JSO
HSO		Harness Mountain Oregon, U.S.A. opened 19900920.	43 31 33.0 N (43.5258)	123 05 24.0 W (123.0900)	1020.0	SEA
HSR		South Ridge Washington, U.S.A. opened 198508.	46 10 22.2 N (46.1728)	122 10 58.2 W (122.1828)	1774.0	SEA
HTCR		Hilton Creek Mono County, California, U.S.A. opened 19840719.	37 31 47.4 N (37.5298)	118 46 15.6 W (118.7710)	3012.0	REN
HTG	R	Hatgal Mongolia	50 29 24.0 N (50.4900)	100 09 00.0 E (100.1500)	...	
HTMS		Hat Mesa New Mexico, U.S.A. opened 1991.	32 28 21.0 N (32.4725)	103 38 03.0 W (103.6342)	1192.0	SNM
HTR		Trewern Hill Wales, United Kingdom opened 1982.	52 04 44.4 N (52.0790)	3 16 10.9 W (3.2697)	329.0	BGS
HUG		Huitzitzil Guatemala opened 198710.	14 01 14.9 N (14.0208)	91 19 24.6 W (91.3235)	...	GCG
HUO	R	Hudson Ontario, Canada opened 19861002.	50 04 50.0 N (50.0806)	92 05 53.0 W (92.0981)	367.0	OTTR
HURP	R	Huarmaca Peru	5 34 58.8 S (5.5830)	78 25 58.8 W (78.4330)	2000.0	LIM
HUTI	R	Huta Ginjang Sumatera, Indonesia	2 18 55.0 N (2.3153)	98 58 16.0 E (98.9711)	1600.0	DJA
HVAR		Hvar Croatia opened 19861001.	43 10 40.8 N (43.1780)	16 26 52.8 E (16.4480)	250.0	ZAG
HWSI		Howe Scarp Idaho, U.S.A. opened 1992.	43 55 19.8 N (43.9222)	113 06 22.2 W (113.1062)	1740.0	USGS
IAP	F	(phase code designation)				
IAPC	F	(phase code designation)				
IAPD	F	(phase code designation)				
ICI		Italian Canyon Idaho, U.S.A. opened 1992.	44 19 45.6 N (44.3293)	112 56 28.2 W (112.9412)	2463.0	USGS
ICQ	R	Pointe-aux-Anglais Quebec, Canada opened 19910108.	49 31 18.0 N (49.5217)	67 16 19.0 W (67.2719)	58.0	ECTN
IECU	C	Ecuador Network Ecuador	0 28 30.0 S (0.4750)	78 18 24.0 W (78.3067)	3720.0	OUI
IGT		Igoumenitsa Greece opened 198906.	39 31 57.0 N (39.5325)	20 19 57.0 E (20.3325)	320.0	THE

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
IHA		Instituto Hidrografico de la Armada Valparaiso, Chile opened 198801.	33 01 32.7 S (33.0257)	71 38 27.9 W (71.6411)	88.5	
IHC	R	Ixhuatan Mexico	17 17 26.0 N (17.2906)	93 00 30.0 W (93.0083)	...	IIM
IIA		Altzomoni Mexico, Mexico Sent to NEIS by UNM.	19 08 58.2 N (19.1495)	98 39 30.0 W (98.6583)	...	IIM
IIJ		Jocotitlan Mexico, Mexico Also sent to NEIS by UNM.	19 44 02.4 N (19.7340)	99 44 02.4 W (99.7340)	3900.0	IIM
IIO	R	 Tlaxcala, Mexico	19 35 31.2 N (19.5920)	98 43 26.4 W (98.7240)	...	IIM
IISM		Ciudad Serdan Puebla, Mexico Also sent to NEIS by UNM. IIM and UNM code IIS.	18 59 16.8 N (18.9880)	97 22 36.6 W (97.3768)	...	IIM
IKL		Isikli Turkey opened 198801.	36 14 19.0 N (36.2386)	33 41 07.0 E (33.6853)	120.0	ISK
ILIM		Iliamna Western Alaska, Alaska, U.S.A. AGS code ILI.	60 04 48.6 N (60.0802)	152 57 34.2 W (152.9595)	823.0	AGS
IMI		Imperia Liguria, Italy	43 54 36.6 N (43.9102)	7 53 21.6 E (7.8893)	860.0	GEN
IMK	R	Imi Mikki Morocco opened 19911217.	30 31 26.0 N (30.5239)	9 39 06.0 W (9.6517)	60.0	SPGM
IMM	R	Islas Marias Nayarit, Mexico	21 37 12.0 N (21.6200)	106 34 48.0 W (106.5800)	...	UNM
IMU		Iron Mountain Millard County, Utah, U.S.A. opened 19880929.	38 37 59.2 N (38.6331)	113 09 30.2 W (113.1584)	1832.0	SLC
INE		Iliamna North East Western Alaska, Alaska, U.S.A. opened 19900829.	60 03 39.0 N (60.0608)	153 03 45.0 W (153.0625)	1585.0	GIA
INGI		Ingas Bali, Nusa Tenggara, Indonesia	8 49 06.0 S (8.8183)	115 08 41.0 E (115.1447)	202.0	DJA
INTV	F	INTEVEP, Caracas, Venezuela				
INW		Iliamna Nort West Western Alaska, Alaska, U.S.A. opened 19900829.	60 04 03.6 N (60.0677)	153 07 57.0 W (153.1325)	1219.0	GIA
IPA		Ipanguacu Rio Grande do Norte, Brazil opened 198708.	5 41 45.0 S (5.6958)	36 51 22.0 W (36.8561)	65.0	
IPBC	F	(phase code designation)				
IPBD	F	(phase code designation)				
IPCP	F	(phase code designation)				
IPCR	F	(phase code designation)				
IPCS	F	(phase code designation)				
IPCU	F	(phase code designation)				
IPDR	F	(phase code designation)				
IPDU	F	(phase code designation)				
IPGC	F	(phase code designation)				
IPGD	F	(phase code designation)				
IPKP	F	(phase code designation)				
IPKS	F	(phase code designation)				
IPNC	F	(phase code designation)				
IPND	F	(phase code designation)				
IPP	F	(phase code designation)				
IPPP	F	(phase code designation)				
IPPS	F	(phase code designation)				
IPS	F	(phase code designation)				
IPSS	F	(phase code designation)				
IRCI		Inel Research Center Idaho, U.S.A. opened 19900315.	43 30 55.2 N (43.5153)	112 02 00.0 W (112.0333)	1442.0	USGS
IRI	R	Iriomote-jima Ryukyu Islands, Japan opened 19910301.	24 23 06.0 N (24.3850)	123 45 00.0 E (123.7500)	9.0	JMA
ISCP	F	(phase code designation)				
ISCS	F	(phase code designation)				
ISKP	F	(phase code designation)				
ISKS	F	(phase code designation)				
ISPP	F	(phase code designation)				
ISSP	F	(phase code designation)				
ISSS	F	(phase code designation)				
ITBT	R	Itumba Tanzania opened 199206.	9 25 43.2 S (9.4287)	33 11 09.0 E (33.1858)	1270.0	
ITKT	R	Itaka Tanzania opened 199206.	8 52 22.2 S (8.8728)	32 46 58.8 E (32.7830)	1590.0	
ITU		Istanbul Turkey opened 19890102.	41 06 22.2 N (41.1062)	29 00 53.4 E (29.0148)	98.0	IST WWSS
IVAG	C	Clark Hill Reservoir Georgia, U.S.A. closed 1986.	34 16 19.6 N (34.2721)	82 44 45.6 W (82.7460)	168.0	ATL

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
IVF	C	Ivanof Bay Alaska Peninsula, Alaska, U.S.A. closed 199007.	55 53 45.0 N (55.8958)	159 31 48.0 W (159.5300)	275.0	PAL
IVS		Iliamna South Western Alaska, Alaska, U.S.A. opened 19900829.	60 00 33.0 N (60.0092)	153 04 51.0 W (153.0808)	2332.0	GIA
IXC	R	Ixtacomitan Chiapas, Mexico	17 25 38.0 N (17.4272)	93 06 03.0 W (93.1008)	...	UNM
IXP	F	(phase code designation)				
IXPC	F	(phase code designation)				
IXPD	F	(phase code designation)				
IXS	F	(phase code designation)				
IZI		Iznik Turkey opened 199001.	40 20 12.6 N (40.3368)	29 28 22.2 E (29.4728)	910.0	ISK
IZUJ	R	Izuhara Nagasaki, Kyushu, Japan opened 19910901.	34 11 42.0 N (34.1950)	129 17 36.0 E (129.2933)	3.0	JMA
JAMA		..... Ecuador opened 1992.	0 15 40.2 N (0.2612)	80 12 21.0 W (80.2058)	637.0	QUI
JARJ		Jarash Jordan opened 19841001.	32 14 15.0 N (32.2375)	35 56 46.8 E (35.9463)	840.0	JSO
JBO		Jordan Butte Oregon, U.S.A. opened 198209.	45 27 41.7 N (45.4616)	119 50 13.2 W (119.8370)	645.0	SEA
JCHM		Cahill Ridge San Mateo County, California, U.S.A. opened 19910816. MNLO code JCH.	37 31 01.2 N (37.5170)	122 22 33.6 W (122.3760)	323.0	MNLO
JCM		Jocotitlan Mexico, Mexico opened 1988.	19 44 03.0 N (19.7342)	99 45 40.0 W (99.7611)	...	UNM
JCPM		Coyote Point San Mateo County, California, U.S.A. opened 19911031. MNLO code JCPM.	37 35 17.4 N (37.5882)	122 19 20.0 W (122.3222)	14.0	MNLO
JDN	R	Jardin Chiapas, Mexico	17 09 54.0 N (17.1650)	92 30 00.0 W (92.5000)	920.0	IIM
JDRJ		(Alternate Abbreviation for JRDJ)				
JEHI		Jehsanih Bali, Nusa Tenggara, Indonesia	8 05 00.0 S (8.0833)	115 12 45.0 E (115.2125)	60.0	DJA
JELM		Ellicott Santa Cruz County, California, U.S.A. opened 19891102. MNLO code JEL.	36 55 38.4 N (36.9273)	121 49 36.6 W (121.8268)	85.0	MNLO
JEZ	R	Jbel Ezeft Morocco	...	...	...	CNRM
JFO		Juiz de Fora Minas Gerais, Brazil opened 199008?	21 43 37.6 S (21.7271)	43 19 30.0 W (43.3250)	750.0	VAO
JFWS	D	Jewell Farm Wisconsin, U.S.A. opened 19920729.	42 54 53.6 N (42.9149)	90 14 55.7 W (90.2488)	318.0	USNN USTN
JHA		Jbel Lahdid Morocco	31 44 02.4 N (31.7340)	9 26 24.0 W (9.4400)	...	CNRM
JHNI	R	Jhansi Uttar Pradesh, India	25 27 .. N (25.4500)	78 37 .. E (78.6167)	250.0	NDI
JIL	R	Jilotepec Veracruz, Mexico	19 37 50.4 N (19.6307)	96 56 00.0 W (96.9333)	1330.0	IIM
JIZN		Jizan Saudi Arabia opened 198902.	16 57 32.4 N (16.9590)	42 49 30.0 E (42.8250)	100.0	RYD
JJRM		Joaquin Road San Mateo County, California, U.S.A. opened 19901011. MNLO code JJR.	37 20 40.8 N (37.3447)	122 12 05.4 W (122.2015)	430.0	MNLO
JLK		June Lake Washington, U.S.A. opened 198003. SEA code JUN.	46 08 48.0 N (46.1467)	122 09 10.8 W (122.1530)	1049.0	SEA
JLP		Les Platons Channel Islands, United Kingdom opened 1981.	49 14 34.1 N (49.2428)	2 06 14.0 W (2.1039)	131.0	BGS
JLPM		Loma Prieta Santa Clara County, California, U.S.A. opened 19891025. MNLO code JLP.	37 06 39.6 N (37.1110)	121 50 34.8 W (121.8430)	1152.0	MNLO
JMPM		Menlo Park San Mateo County, California, U.S.A. opened 19890130. MNLO code JMP.	37 27 20.0 N (37.4556)	122 09 56.0 W (122.1656)	17.0	MNLO
JMU		Jammu Jammu and Kashmir, India	32 43 .. N (32.7167)	74 54 .. E (74.9000)	...	NDI
JNAM		New Almaden Mine Santa Clara County, California, U.S.A. opened 19891026. MNLO code JNA.	37 10 37.2 N (37.1770)	121 50 40.8 W (121.8447)	512.0	MNLO
JOK	R	Jbel Ouklim Morocco	31 24 25.2 N (31.4070)	5 33 28.8 W (5.5580)	...	CNRM
JRDJ		Daraweish Jordan opened 19900426.	30 43 40.8 N (30.7280)	35 39 57.6 E (35.6660)	1365.0	JSO
JRSJ		Jabal ar Rishah Jordan opened 19891215.	30 15 39.6 N (30.2610)	35 13 58.8 E (35.2330)	357.0	JSO

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
JSA		Saint Aubin Channel Islands, United Kingdom opened 1981.	49 11 16.4 N (49.1879)	2 10 15.2 W (2.1709)	21.0	BGS
JSBM		San Bruno Mountain San Mateo County, California, U.S.A. opened 19911031. MNLO code JSB.	37 40 44.4 N (37.6790)	122 23 48.0 W (122.3967)	194.0	MNLO
JSLM	U	San Andreas Lake San Mateo County, California, U.S.A. 19670713-19720927. MNLO code SAL.	37 34 33.6 N (37.5760)	122 25 24.0 W (122.4233)	335.0	MNLO
JTRM	U	Los Trancos Road San Mateo County, California, U.S.A. 19880921-19901011. MNLO code JTR.	37 21 07.8 N (37.3522)	122 11 52.8 W (122.1980)	251.0	MNLO
JTS		Juntas de Abangares Costa Rica opened 198806.	10 17 27.0 N (10.2908)	84 57 09.0 W (84.9525)	340.0	HDC
JUMM		Mount Umunhum Santa Clara County, California, U.S.A. opened 19891027. MNLO code JUM.	37 09 39.0 N (37.1608)	121 53 51.6 W (121.8977)	1048.0	MNLO
JVI		Jordan Valley--Rimmonim Israel opened 19860717.	31 55 48.0 N (31.9300)	35 21 00.0 E (35.3500)	680.0	JER
JVM		Valle D.L. Mare Channel Islands, United Kingdom opened 1981.	49 13 00.8 N (49.2169)	2 12 24.5 W (2.2068)	64.0	BGS
KAC		Achnashellach Scotland, United Kingdom opened 1983.	57 29 59.6 N (57.4999)	5 17 53.5 W (5.2982)	330.0	BGS
KALI		Kaliastana Jawa, Indonesia	7 06 23.0 S (7.1064)	106 39 32.0 E (106.6589)	810.0	DJA
KANJ	R	Kanazawa Ishikawa, Honshu, Japan opened 19911023.	36 35 12.0 N (36.5867)	136 38 12.0 E (136.6367)	...	JMA
KANT	R	Kantara Cyprus	35 22 58.8 N (35.3830)	33 52 48.0 E (33.8800)	...	ISK
KAP		Karpathos Greece opened 1988.	35 33 03.0 N (35.5508)	27 10 28.8 E (27.1747)	250.0	ATH
KARJ	R	... Jordan	31 07 12.0 N (31.1200)	35 39 10.8 E (35.6530)	124.0	JSO
KART		Karci Turkey opened 1992.	41 10 16.0 N (41.1711)	34 18 17.0 E (34.3047)	1946.0	DDA
KBB		Kelsey Bay British Columbia, Canada opened 19860823.	50 23 05.0 N (50.3847)	126 01 39.0 W (126.0275)	1310.0	OTTR
KBC		Kumba Cameroon opened 19841116; moved slightly 19850317. Old position 4.652N, 9.412E, 375m.	4 39 10.8 N (4.6530)	9 24 46.8 E (9.4130)	375.0	YND
KBI		Kettle Butte Idaho, U.S.A. opened 1992.	43 35 26.4 N (43.5907)	112 22 36.0 W (112.3767)	1698.0	USGS
KBK	RD	Karagaybulak Kyrgyzstan	... ...	... ...	...	MOSR IDA IRIS
KBR		Kanchanaburi Thailand opened 198807.	14 01 .. N (14.0167)	99 32 .. E (99.5333)	28.0	CHG
KCSM		Cold Springs Trinity County, California, U.S.A. opened 19920813. MNLO code KCS.	40 32 15.6 N (40.5377)	123 30 45.6 W (123.5127)	1640.0	MNLO
KEDI		Kedomdong Lombok, Nusa Tenggara, Indonesia opened 1991.	8 01 05.0 S (8.0181)	116 04 45.0 E (116.0792)	560.0	DJA
KEG	D	Kottamia Egypt opened 1991.	29 55 39.0 N (29.9275)	31 49 45.1 E (31.8292)	490.0	HLW MEDN
KEK		Kerkira Greece opened 198903.	39 42 46.8 N (39.7130)	19 47 55.2 E (19.7987)	280.0	ATH
KELI		Kelakatan Bali, Nusa Tenggara, Indonesia	8 13 00.0 S (8.2167)	114 29 27.0 E (114.4908)	591.0	DJA
KERI	R	Keren Israel	30 59 24.0 N (30.9900)	34 29 24.0 E (34.4900)	360.0	JER
KHBM		Hayfork Bally Trinity County, California, U.S.A. opened 19911119. MNLO code KHB.	40 39 36.6 N (40.6602)	123 13 06.6 W (123.2185)	1885.0	MNLO
KHF	R	Khenifra Morocco	33 00 18.0 N (33.0050)	5 46 08.4 W (5.7690)	...	CNRM
KHL		Karahalli Turkey opened 198808.	38 19 23.5 N (38.3232)	29 31 23.5 E (29.5232)	940.0	ISK
KHMM		Horse Mountain Humboldt County, California, U.S.A. opened 19910712. MNLO code KHM.	40 52 28.8 N (40.8747)	123 43 53.4 W (123.7315)	1509.0	MNLO
KHZ	D	Kahutara South Island, New Zealand opened 198811.	42 25 04.8 S (42.4180)	173 32 25.2 E (173.5403)	50.0	WEL
KIB	R	El Ksiba Morocco	32 34 15.6 N (32.5710)	6 02 09.6 W (6.0360)	...	CNRM

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
KIL		Kilembe Uganda opened 199107.	0 12 00.0 N (0.2000)	30 00 28.8 E (30.0080)	1372.0	
KING	R	Kindia Guinea	9 57 49.8 N (9.9638)	12 52 06.6 W (12.8685)	410.0	
KIV	D	Kislovodsk Stavropolskiy Kray, Russia IDA opened 1988.	43 57 22.3 N (43.9562)	42 41 19.7 E (42.6888)	1210.0	MOS IDA IRIS
KJJM		Johnny Jack Ridge Humboldt County, California, U.S.A. opened 19910822. MNLO code KJJ.	40 14 51.6 N (40.2477)	124 18 24.6 W (124.3068)	725.0	MNLO
KKB		Krupnik Bulgaria opened 1988.	41 52 00.1 N (41.8667)	23 04 59.9 E (23.0833)	434.0	SOF
KLCH		Kalalua Cone Hawaii, Hawaii, U.S.A. HVO code KLC.	19 24 21.0 N (19.4058)	155 04 04.8 W (155.0680)	659.0	HVO
KLJ	R	... Utah, U.S.A.	...	...	...	SLC
KLP	R	Kalpa Himachal Pradesh, India	31 32 .. N (31.5333)	78 15 .. E (78.2500)	2724.0	NDI
KLR	RD	Kuldur Khabarovskiy Kray, Russia	49 12 .. N (49.2000)	131 48 .. E (131.8000)	...	MOSR IDA IRIS
KMC		Kompina Cameroon opened 19841214.	4 23 09.6 N (4.3860)	9 34 40.8 E (9.5780)	85.0	YND
KMOR		Kings Mountain Oregon, U.S.A. opened 198209. SEA code KMO.	45 38 07.8 N (45.6355)	123 29 22.2 W (123.4895)	975.0	SEA
KMST		... Turkey opened 1992.	37 31 26.0 N (37.5239)	36 59 37.0 E (36.9936)	670.0	GBZT
KMTA		Khamis Mushayt Saudi Arabia opened 19900613.	18 09 57.6 N (18.1660)	42 51 54.0 E (42.8650)	2000.0	RYD
KNM	R	Kinmen China (Taiwan)	24 15 00.0 N (24.2500)	118 15 36.0 E (118.2600)	13.7	TAP
KOGH		Koforidua Ghana opened 1987.	6 05 10.0 N (6.0861)	0 14 38.0 W (0.2439)	483.0	KUK
KOMM		Orleans Mountain Humboldt County, California, U.S.A. opened 19820811. MNLO code KOM.	41 16 43.8 N (41.2788)	123 27 07.8 W (123.4522)	1181.0	MNLO
KOSW		Kosmos Washington, U.S.A. opened 198105. SEA code KOS.	46 27 40.8 N (46.4613)	122 11 25.8 W (122.1905)	828.0	SEA
KOT		Kottamia Egypt	29 55 48.0 N (29.9300)	31 49 48.0 E (31.8300)	...	HLW
KOTI	R	Kothi Himachal Pradesh, India opened 19850801.	32 18 27.6 N (32.3077)	77 12 00.0 E (77.2000)	2527.0	WIHG
KPL		Plockton Scotland, United Kingdom opened 19860418.	57 20 20.8 N (57.3391)	5 39 09.7 W (5.6527)	36.0	BGS
KRAM	R	Krabesse Morocco	31 42 21.6 N (31.7060)	9 20 34.8 W (9.3430)	...	CNRM
KRCT	R	Kiractepe Turkey	41 04 56.0 N (41.0822)	32 52 41.0 E (32.8781)	1449.0	DDA
KRIT		Krib Tunisia	36 20 18.0 N (36.3383)	9 04 29.4 E (9.0748)	640.0	SBS
KRMM		Red Mountain Del Norte County, California, U.S.A. opened 19820811. MNLO code KRM.	41 31 18.6 N (41.5218)	123 54 18.6 W (123.9052)	1280.0	MNLO
KRPM		Rodgers Humboldt County, California, U.S.A. opened 19801126; moved slightly 19890810. Old position 41.1588N, 124.0237W, 829m. MNLO code KRP.	41 09 29.4 N (41.1582)	124 01 22.8 W (124.0230)	829.0	MNLO
KSB		Shell Bridge Scotland, United Kingdom opened 1983.	57 12 35.3 N (57.2098)	5 25 22.8 W (5.4230)	70.0	BGS
KSCM		Snow Cap Mountain Oregon, U.S.A. opened 19911106. MNLO code KSC.	42 20 38.4 N (42.3440)	124 09 52.8 W (124.1647)	1280.0	MNLO
KSHJ	R	... Jordan	30 16 26.4 N (30.2740)	36 57 57.6 E (36.9660)	1005.0	JSO
KSHT		Keshet Israel opened 199105.	32 59 24.0 N (32.9900)	35 49 48.0 E (35.8300)	700.0	JER
KSK		Scoval Scotland, United Kingdom opened 1989.	57 27 55.1 N (57.4653)	6 42 07.2 W (6.7020)	250.0	BGS
KSL		Kastellorizon Greece opened 1988.	36 07 08.4 N (36.1190)	29 35 00.0 E (29.5833)	100.0	ATH
KSMM		Slide Mountain Humboldt County, California, U.S.A. opened 19820817. MNLO code KSM.	40 11 09.0 N (40.1858)	124 10 28.8 W (124.1747)	991.0	MNLO
KSXM		Camp Six Del Norte County, California, U.S.A. opened 19820811. MNLO code KSX.	41 49 51.0 N (41.8308)	123 52 33.0 W (123.8758)	1143.0	MNLO

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
KSY		Syston England, United Kingdom opened 1988.	52 57 51.1 N (52.9642)	0 35 14.3 W (0.5873)	123.0	BGS
KSZ	R	Kasama Zambia	...	...	...	
KTD		Kalmit Rheinland-Pfalz, Germany opened before 197410.	49 19 12.6 N (49.3202)	8 05 01.2 E (8.0837)	670.0	KRW
KTH		Kantishna Hills Central Alaska, Alaska, U.S.A. opened 19880815.	63 33 10.8 N (63.5530)	150 55 18.0 W (150.9217)	975.0	GIA
KTJJ	R	Kamata 2 Honshu, Japan opened 19900320.	34 55 30.6 N (34.9252)	139 03 50.4 E (139.0640)	175.0	JMA
KTK1		Kautokeino Norway opened 1989.	69 00 42.1 N (69.0117)	23 14 13.7 E (23.2371)	340.0	BER
KTK2		Kautokeino Norway opened 1989.	69 00 27.0 N (69.0075)	23 14 14.5 E (23.2374)	...	BER
KTK3		Kautokeino Norway opened 1989.	69 00 24.0 N (69.0067)	23 14 06.7 E (23.2352)	...	BER
KTK4		Kautokeino Norway	69 00 29.0 N (69.0081)	23 14 05.1 E (23.2347)	...	BER
KTK5		Kautokeino Norway	69 00 34.5 N (69.0096)	23 13 38.3 E (23.2273)	...	BER
KTK6		Kautokeino Norway	69 00 36.0 N (69.0100)	23 14 09.6 E (23.2360)	340.0	BER
KTL	R	Katale Zaire	1 19 28.8 S (1.3247)	29 23 01.8 E (29.3838)	1600.0	LWI
KTRM		Thompson Ridge Siskiyou County, California, U.S.A. opened 19920805. MNLO code KTR.	41 54 31.2 N (41.9087)	123 22 35.4 W (123.3765)	1378.0	MNLO
KUF		Ufford England, United Kingdom opened 1988.	52 37 03.0 N (52.6175)	0 23 22.2 W (0.3895)	35.0	BGS
KUQ	R	Kuujjuuaq Quebec, Canada opened 19900112.	58 06 32.4 N (58.1090)	68 24 40.8 W (68.4113)	54.0	OTTR
KUZ	D	Kuootunu North Island, New Zealand opened 19901011.	36 44 49.5 S (36.7471)	175 43 11.6 E (175.7199)	40.0	WEL
KWE		Weaver Farm England, United Kingdom opened 1988.	53 00 58.7 N (53.0163)	1 50 36.6 W (1.8435)	320.0	BGS
KYR	R	Kayrak Turkey opened 198801.	36 21 06.0 N (36.3517)	33 31 31.0 E (33.5253)	1210.0	ISK
KZA	RD	Kyzart Kyrgyzstan	...	...	...	MOSR IDA IRIS
KZIT	R	Kziot Israel	30 55 12.0 N (30.9200)	34 26 24.0 E (34.4400)	200.0	JER
LABG	R	Labe Guinea	11 13 58.2 N (11.2328)	12 19 55.8 W (12.3322)	1130.0	
LACI		Laci Greece opened 198704.	41 38 10.7 N (41.6363)	19 42 33.8 E (19.7094)	40.0	TIR
LACL		Lacq Aquitaine, France	43 26 06.0 N (43.4350)	0 43 37.0 W (0.7269)	195.0	STR
LACU	R	La Cuchilla Venezuela opened 1984.	7 52 36.1 N (7.8767)	71 23 26.2 W (71.3906)	800.0	CAR
LADA	R	La Danta Venezuela opened 1984.	7 56 20.4 N (7.9390)	71 36 46.8 W (71.6130)	1200.0	CAR
LAGL		Lagor Aquitaine, France	43 24 22.0 N (43.4061)	0 39 54.0 W (0.6650)	190.0	STR
LAGM	R	 Oaxaca, Mexico UNM code LAG.	16 06 15.0 N (16.1042)	97 04 40.2 W (97.0778)	201.0	UNM
LAGU	R	Laguneta Venezuela	9 46 12.0 N (9.7700)	69 45 54.0 W (69.7650)	800.0	CAR
LAGV	D	Lagunillas Venezuela	10 13 26.4 N (10.2240)	71 09 32.4 W (71.1590)	...	INTV
LAL		Leola Alabama, U.S.A. opened 19890328.	34 26 12.0 N (34.4367)	87 20 13.8 W (87.3372)	320.0	TVA
LANF		Langenberg Alsace, France	48 58 50.0 N (48.9806)	7 48 19.0 E (7.8053)	500.0	STR
LAPE	R	La Pedrera Venezuela opened 1984.	7 33 28.8 N (7.5580)	71 34 32.2 W (71.5756)	327.0	CAR
LARI		Lau Rambong Sumatera, Indonesia	2 53 08.0 N (2.8856)	98 09 26.0 E (98.1572)	820.0	DJA
LASM		Arnica Sink Siskiyou County, California, U.S.A. opened 19881025. MNLO code LAS.	41 35 57.6 N (41.5993)	121 34 36.0 W (121.5767)	2060.0	MNLO
LAZ		Ladron New Mexico, U.S.A.	34 24 07.2 N (34.4020)	107 08 21.6 W (107.1393)	1853.0	SNM

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
LAZM	R	Lazaro Cardenas Michoacan, Mexico UNM code LAZ.	18 02 09.6 N (18.0360)	102 12 18.0 W (102.2050)	...	UNM
LBGM	U	Big Gulch Shasta County, California, U.S.A. 19821201-19860930. MNLO code LBG.	40 48 08.4 N (40.8023)	122 35 22.8 W (122.5897)	884.0	MNLO
LBH	R	Morecambe B102 England, United Kingdom opened 1990.	54 01 56.6 N (54.0324)	2 54 20.9 W (2.9058)	-85.0	BGS
LBKM		Bonanza King Trinity County, California, U.S.A. opened 19821201. MNLO code LBK.	41 05 03.0 N (41.0842)	122 39 54.6 W (122.6652)	1341.0	MNLO
LBL		Loubilhac Auvergne, France	45 13 57.0 N (45.2325)	3 14 49.0 E (3.2469)	950.0	STR
LBMM	U	Bass Mountain Shasta County, California, U.S.A. 19830211-19890419. MNLO code LBM.	40 43 58.2 N (40.7328)	122 21 57.0 W (122.3658)	841.0	MNLO
LBO	R	Bowland England, United Kingdom opened 1989.	53 58 44.4 N (53.9790)	2 34 22.1 W (2.5728)	320.0	BGS
LBPM		Beegum Peak Shasta County, California, U.S.A. opened 19821202. MNLO code LBP.	40 19 06.0 N (40.3183)	122 52 52.8 W (122.8813)	1051.0	MNLO
LBTB	D	Lobatse Botswana opened 1993.	25 00 52.2 S (25.0145)	25 35 49.2 E (25.5970)	1028.0	GTSN
LCAM	U	Castella Shasta County, California, U.S.A. 19810115-19900911. MNLO code LCA.	41 10 07.8 N (41.1688)	122 16 22.2 W (122.2728)	689.0	MNLO
LCCH		Las Cruces Santiago, Chile opened 19871117.	33 28 31.2 S (33.4753)	71 34 10.8 W (71.5697)	180.0	SAN
LCK		Crook England, United Kingdom opened 1989.	54 21 34.2 N (54.3595)	2 52 17.4 W (2.8715)	200.0	BGS
LCM		Los Angeles Museum of Natural History Los Angeles County, California, U.S.A. opened 197108. MNLO code LCMS.	34 01 04.2 N (34.0178)	118 17 13.2 W (118.2870)	...	USC
LCP	R	Cassop England, United Kingdom opened 1991.	54 44 12.5 N (54.7368)	1 28 26.8 W (1.4741)	185.0	BGS
LCSM	U	College of the Siskiyous Siskiyou County, California, U.S.A. 19830110-19880728. MNLO code LCS.	41 24 58.2 N (41.4162)	122 23 33.0 W (122.3925)	1125.0	MNLO
LDBL		Lucq-de-Bearn Aquitaine, France	43 19 08.0 N (43.3189)	0 36 50.0 W (0.6139)	250.0	STR
LDBM		Digger Butte Tehama County, California, U.S.A. opened 19810619. MNLO code LDB.	40 25 54.0 N (40.4317)	121 47 04.8 W (121.7847)	1225.0	MNLO
LDJ		Lady Wasatch County, Utah, U.S.A. opened 19920930.	40 34 52.8 N (40.5813)	111 24 28.2 W (111.4078)	2231.0	SLC
LDMO		Linda Missouri, U.S.A. opened 19800719.	36 24 39.6 N (36.4110)	89 33 46.8 W (89.5630)	86.0	SLM
LDU	R	Leeds University England, United Kingdom opened 1983.	53 48 09.0 N (53.8025)	1 33 19.1 W (1.5553)	230.0	BGS
LDVG		Clark Hill Reservoir Georgia, U.S.A.	34 08 52.1 N (34.1478)	82 41 00.0 W (82.6833)	162.0	ATL
LEGH		Legon Ghana opened 1987?	5 38 54.0 N (5.6483)	0 10 53.0 W (0.1814)	91.0	KUK
LENM		Lemitar New Mexico, U.S.A. SNM code LEM.	34 09 55.8 N (34.1655)	106 58 27.0 W (106.9742)	1698.0	SNM
LESF		Lescure Midi-Pyrenees, France opened 198901.	43 01 52.0 N (43.0311)	1 17 02.0 E (1.2839)	460.0	STR
LEVU		Levan Juab County, Utah, U.S.A. opened 199201.	39 30 24.6 N (39.5068)	111 48 49.8 W (111.8138)	2016.0	SLC
LFK		Lefkose Cyprus opened 19870101.	35 16 45.1 N (35.2792)	33 31 57.0 E (33.5325)	690.0	ISK
LFU		La Fuente El Salvador	13 44 55.2 N (13.7487)	89 06 49.8 W (89.1138)	732.0	SSS
LGHM	U	Grouse Hill Siskiyou County, California, U.S.A. 19881025-19900408. MNLO code LGH.	41 36 41.4 N (41.6115)	121 37 15.6 W (121.6210)	2146.0	MNLO
LGMM		Garner Mountain Siskiyou County, California, U.S.A. opened 19881023. MNLO code LGM.	41 35 58.8 N (41.5997)	121 50 06.6 W (121.8352)	1560.0	MNLO
LGPM		Granite Peak Trinity County, California, U.S.A. opened 19821001. MNLO code LGP.	40 54 45.0 N (40.9125)	122 49 43.2 W (122.8287)	1290.0	MNLO
LGRM	U	Grenada Siskiyou County, California, U.S.A. 19880728-19900614. MNLO code LGR.	41 38 21.0 N (41.6392)	122 28 49.8 W (122.4805)	780.0	MNLO

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
LHCM		Hat Creek Shasta County, California, U.S.A. opened 19810204. MNLO code LHC.	40 48 18.0 N (40.8050)	121 30 50.4 W (121.5140)	1020.0	MNLO
LHEM		Herd Peak Siskiyou County, California, U.S.A. opened 19810115. MNLO code LHE.	41 37 42.6 N (41.6285)	122 13 07.8 W (122.2188)	2155.0	MNLO
LHHM	U	High Hole Crater Siskiyou County, California, U.S.A. 19881025-19900408. MNLO code LHH.	41 31 22.2 N (41.5228)	121 31 57.0 W (121.5325)	1890.0	MNLO
LHIS		Lihir Island New Ireland, Papua New Guinea opened 19870622.	3 07 01.2 S (3.1170)	152 37 58.8 E (152.6330)	10.0	PMG
LHMM	U	Hirz Mountain Shasta County, California, U.S.A. 19830211-19860930. MNLO code LHM.	40 53 48.6 N (40.8968)	122 14 42.0 W (122.2450)	1064.0	MNLO
LHO	R	Holmfirth England, United Kingdom opened 1991.	53 32 42.4 N (53.5451)	1 51 17.3 W (1.8548)	460.0	BGS
LHOM	U	Hoadley Peaks Trinity County, California, U.S.A. 19821201-19860930. MNLO code LHO.	40 41 06.6 N (40.6852)	122 45 00.0 W (122.7500)	1378.0	MNLO
LIBD		Limburg Baden-Wurttemberg, Germany sent to NEIS by STR.	48 09 01.5 N (48.1504)	7 36 08.2 E (7.6023)	200.0	
LIBM		..... Chiapas, Mexico UNM code LIB.	17 17 38.4 N (17.2940)	93 00 43.2 W (93.0120)	...	UNM
LIJA		Lijar Spain opened 198711.	36 53 54.0 N (36.8983)	5 24 42.0 W (5.4117)	970.0	SFS
LIMM	R	..... Veracruz, Mexico IIM code LIM.	19 40 49.2 N (19.6803)	96 31 41.3 W (96.5281)	200.0	IIM
LIRZ	R	Lichensteins Rd. North Island, New Zealand opened 19920615.	34 00 18.0 S (34.0050)	176 23 03.0 E (176.3842)	340.0	
LISJ		El Lisan Jordan opened 19900223.	31 14 24.0 N (31.2400)	35 28 51.6 E (35.4810)	-327.0	JSO
LJI		Lemhi Junction Idaho, U.S.A. opened 19900515.	43 49 15.0 N (43.8208)	112 50 38.4 W (112.8440)	1600.0	USGS
LJO		Ljotipollur Iceland	64 01 24.6 N (64.0235)	19 01 22.8 W (19.0230)	...	
LJS	R	..... Mexico	17 59 34.8 N (17.9930)	93 29 16.8 W (93.4880)	...	IIM
LJY		La Joya New Mexico, U.S.A.	34 20 11.4 N (34.3365)	106 53 45.0 W (106.8958)	1532.0	SNM
LKGA		Lookout Mountain Georgia, U.S.A. opened 19851205.	34 37 24.0 N (34.6233)	85 28 19.8 W (85.4722)	655.0	TVA
LKL		Kirkby Lonsdale England, United Kingdom opened 1989.	54 13 06.6 N (54.2185)	2 32 04.2 W (2.5345)	396.0	BGS
LKO		Korhogo Cote d'Ivoire opened 198906.	9 32 39.8 N (9.5444)	5 35 20.0 W (5.5889)	435.0	LIC
LLAV		El Llanito Venezuela opened 1988.	10 28 30.0 N (10.4750)	66 48 28.8 W (66.8080)	907.0	CAR
LLJ		..... Guerrero, Mexico	16 33 51.0 N (16.5642)	98 53 04.8 W (98.8847)	...	UNM
LLO		Longridge England, United Kingdom opened 1989.	53 51 01.1 N (53.8503)	2 33 35.3 W (2.5598)	247.0	BGS
LLRI		Little Lost River Idaho, U.S.A. opened 19900606.	43 43 22.8 N (43.7230)	112 55 58.8 W (112.9330)	1471.0	USGS
LLY	R	Lytham Saint Anne's England, United Kingdom opened 1989.	53 47 51.4 N (53.7976)	2 54 24.8 W (2.9069)	33.0	BGS
LMDM	U	Medicine Lake Siskiyou County, California, U.S.A. 19881025-19900408. MNLO code LMD.	41 34 22.8 N (41.5730)	121 37 22.8 W (121.6230)	2140.0	MNLO
LMEM		Manzanita Entrance Shasta County, California, U.S.A. opened 19881104. MNLO code LME.	40 32 16.2 N (40.5378)	121 34 12.6 W (121.5702)	1753.0	MNLO
LMI		Millom England, United Kingdom opened 1989.	54 13 14.2 N (54.2206)	3 18 25.2 W (3.3070)	140.0	BGS
LMK	R	Market Rasen England, United Kingdom opened 1991.	53 27 24.8 N (53.4569)	0 19 35.8 W (0.3266)	130.0	BGS
LMSM	R	..... Sinaloa, Mexico	...	...	...	UNM
LMX		La Mesa de Andrade Sonora, Mexico opened 1988.	32 06 31.2 N (32.1087)	114 57 37.8 W (114.9605)	...	ECX

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
LMZ	D	Lake Moeraki South Island, New Zealand opened 1990T109.	43 43 06.0 S (43.7183)	169 16 13.0 E (169.2703)	...	WEL
LNAS		Los Alamitos Orange County, California, U.S.A. opened 197205. USC code LNA.	33 47 21.0 N (33.7892)	118 03 16.2 W (118.0545)	-50.0	USC
LNO	D	Leonard Oklahoma, U.S.A. opened 19881207.	35 54 45.0 N (35.9125)	95 47 21.1 W (95.7892)	-487.0	TUL
LNO2	D	Leonard Oklahoma Oklahoma, U.S.A. opened 1992.	35 54 45.0 N (35.9125)	95 47 21.1 W (95.7892)	-171.0	TUL
LNO3	D	Leonard Oklahoma, U.S.A. opened 1992.	35 54 45.0 N (35.9125)	95 47 21.1 W (95.7892)	257.0	TUL
LNOR	D	Lincton Mountain Oregon, U.S.A. opened 198608. SEA code LNO. USTN opened 1988.	45 52 15.8 N (45.8711)	118 17 06.0 W (118.2850)	768.0	SEA USTN
LOCW		Rockwell Inc. Station Washington, U.S.A. opened 198211. SEA code LOC.	46 43 04.8 N (46.7180)	119 25 54.6 W (119.4318)	201.0	SEA
LOF		Lofoten Norway opened 198701.	68 07 51.6 N (68.1310)	13 32 31.2 E (13.5420)	80.0	BER
LOHW		Long Hollow Wyoming, U.S.A. opened 198601.	43 36 44.7 N (43.6124)	110 36 13.5 W (110.6037)	2121.0	USBR
LOMF		Lomont du Chomesol Franche Comte, France	47 21 03.0 N (47.3508)	6 49 39.0 E (6.8275)	1000.0	STR
LOMO	R	Loma en Medio Dominican Republic	18 52 36.0 N (18.8767)	68 51 40.8 W (68.8613)	...	SDD
LOMS		Lomita Los Angeles County, California, U.S.A. opened 19891220. USC code LOM.	33 47 42.6 N (33.7952)	118 16 45.6 W (118.2793)	-173.0	USC
LORO		Los Roques Venezuela opened 1984.	11 57 28.1 N (11.9578)	66 40 27.1 W (66.6742)	20.0	CAR
LORV	D	San Lorenzo Venezuela	9 13 58.8 N (9.2330)	70 51 03.6 W (70.8510)	...	INTV
LPBM	R	..... Baja California, Mexico	... 	... 	...	UNM
LPD		Lampedusa Italy opened 198905.	35 30 41.0 N (35.5114)	12 35 42.2 E (12.5951)	20.0	ERC
LPI		Lipari Lipari Islands, Italy opened 19871211.	38 29 22.0 N (38.4894)	14 56 00.0 E (14.9333)	594.0	ERC
LPL		La Plagne Rhone-Alpes, France opened 198608.	45 30 59.2 N (45.5164)	6 43 56.6 E (6.7324)	2070.0	LDG
LRCG		Laurel Creek Mono County, California, U.S.A. opened 198407. MNLO code CLRC.	37 35 08.4 N (37.5857)	118 54 31.8 W (118.9088)	2780.0	CDMG
LRCZ		Leaning Rock South Island, New Zealand	45 03 55.0 S (45.0653)	169 20 46.0 E (169.3461)	1533.0	WELC
LRDO		Lorado Arkansas, U.S.A. opened 198812.	35 58 09.0 N (35.9692)	90 41 43.2 W (90.6953)	137.0	TEIC
LRN		Richmond England, United Kingdom opened 1991.	54 25 00.1 N (54.4167)	1 47 08.9 W (1.7858)	300.0	BGS
LRO	R	Larroussi Morocco	31 50 13.2 N (31.8370)	9 08 34.8 W (9.1430)	...	CNRM
LSCZ		Lilico Spur South Island, New Zealand	45 06 59.0 S (45.1164)	169 22 09.0 E (169.3692)	759.0	WELC
LSD		Ceresole Reale Piemonte, Italy	45 27 27.6 N (45.4577)	7 09 20.4 E (7.1557)	2284.0	GEN
LSK		Leskovik Albania	40 09 .. N (40.1500)	20 36 .. E (20.6000)	920.0	TIR
LSO	R	Little Silver Creek Oklahoma, U.S.A.	... 	... 	...	TUL
LSP2		Los Mesas Puerto Rico Moved from LSP.	18 08 45.0 N (18.1458)	66 58 52.0 W (66.9811)	...	MPR
LSPF		Lesparou Midi-Pyrenees, France	42 56 53.0 N (42.9481)	1 54 15.0 E (1.9042)	450.0	STR
LSR	D	Lussari Friuli-Venezia Giulia, Italy opened 19880101.	46 28 33.0 N (46.4758)	13 31 40.0 E (13.5278)	1750.0	TRI
LTH		Lepaterique Honduras opened 1990?	14 04 15.0 N (14.0708)	87 20 45.0 W (87.3458)	...	
LTI		Latouche Kenai Peninsula, Alaska, U.S.A. opened 19880701.	60 02 25.8 N (60.0405)	147 51 15.0 W (147.8542)	302.0	AGS
LTMT		Little Table Mountain Montana, U.S.A. opened 19890914.	44 31 33.0 N (44.5258)	112 06 36.0 W (112.1100)	2603.0	BUT

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
LTZ	D	Lake Taylor South Island, New Zealand opened 19891010.	42 46 58.2 S (42.7828)	172 16 07.8 E (172.2688)	640.0	WEL
LUTC	R	... Czech Republic	49 53 02.4 N (49.8840)	18 24 57.6 E (18.4160)	...	PRU
LUV	R	Lai Chau Vietnam	22 03 07.0 N (22.0519)	103 09 34.0 E (103.1594)	1100.0	PLV
LVGX		La Villita Guerrero, Mexico Strong-motion station.	18 02 42.0 N (18.0450)	102 10 30.0 W (102.1750)	...	LJC
LVI		Isola di Levanzo Sicilia, Italy	37 59 08.1 N (37.9856)	12 20 14.7 E (12.3374)	20.0	ERC
LVM LVMM	F	Lawrence Livermore National Laboratory ... Veracruz, Mexico UNM code LVM.	19 36 05.2 N (19.6014)	96 23 43.8 W (96.3955)	160.0	UNM
LVP		Lakeview Peak Washington, U.S.A. opened 198004.	46 04 06.0 N (46.0683)	122 24 30.0 W (122.4083)	1170.0	SEA
LVVM		Laguna Verde Veracruz, Mexico opened 1988. UNM code LVV.	19 44 16.8 N (19.7380)	96 26 55.8 W (96.4488)	...	UNM
LVZ	RD	Lovozero Karelskaya ASSR, Russia	67 53 52.4 N (67.8979)	34 39 05.0 E (34.6514)	630.0	MOS IDA IRIS
LWH		Whinny Nab England, United Kingdom opened 1991.	54 20 00.6 N (54.3335)	0 40 17.0 W (0.6714)	265.0	BGS
LXQ	R	La Grande 3 Quebec, Canada opened 19861216.	53 43 20.4 N (53.7223)	76 01 20.0 W (76.0222)	195.0	OTTR
MABC	R	Malibu British Columbia, Canada opened 19910320.	50 09 52.8 N (50.1647)	123 51 20.4 W (123.8557)	75.0	OTTR
MAF		Mazirat Auvergne, France opened 19850711.	46 13 17.3 N (46.2215)	2 33 59.2 E (2.5664)	470.0	LDG
MAHZ		Mahia North Island, New Zealand	39 11 18.0 S (39.1883)	177 52 51.0 E (177.8808)	336.0	WELH
MAMG	R	Mamou Guinea	10 15 52.2 N (10.2645)	11 57 54.0 W (11.9650)	773.0	
MAMI		Mei-Ami Israel	32 30 .. N (32.5000)	35 09 .. E (35.1500)	460.0	JER
MANM	R	... Veracruz, Mexico IIM code MAN.	19 35 24.0 N (19.5900)	96 25 00.0 W (96.4167)	2.0	IIM
MARA		Maracay Venezuela opened 1984.	10 19 26.0 N (10.3239)	67 36 24.8 W (67.6069)	1200.0	CAR
MARI	R	Martimbang Sumatera, Indonesia	1 57 37.0 N (1.9603)	98 58 05.0 E (98.9681)	1679.8	DJA
MARM	R	... Chiapas, Mexico IIM code MAR.	17 13 04.8 N (17.2180)	92 41 34.8 W (92.6930)	...	IIM
MART		Marith Tunisia	33 34 36.6 N (33.5768)	10 14 58.2 E (10.2495)	140.0	SBS
MARZ	RD	Manawahe North Island, New Zealand opened 19920615.	37 59 12.0 S (37.9867)	176 40 28.0 E (176.6744)	480.0	WEL
MASH	R	Mash'abbe Sade Israel	31 00 .. N (31.0000)	34 51 .. E (34.8500)	200.0	JER
MAVI		Loma El Joboban Dominican Republic opened 19860907.	19 14 44.4 N (19.2457)	69 54 42.0 W (69.9117)	...	SDD
MBAT	R	Mbeya Tanzania opened 199206.	8 52 26.4 S (8.8740)	33 27 10.2 E (33.4528)	1780.0	
MBET		Bethel Montserrat opened 198907.	16 44 29.0 N (16.7414)	62 09 47.2 W (62.1631)	350.0	TRN
MBH		Mount Berech Israel opened 19860618.	29 46 12.0 N (29.7700)	34 52 48.0 E (34.8800)	840.0	JER
MCEM	U	Central Site Tuolumne County, California, U.S.A. 19740419-19760609.	37 56 19.7 N (37.9388)	120 31 45.5 W (120.5293)	373.0	MNLO
MCMT		McKenzie Canyon Montana, U.S.A. opened 19890914.	44 49 39.6 N (44.8277)	112 50 55.8 W (112.8488)	2323.0	BUT
MCPQ	RD	Mount Cooper Queensland, Australia opened 19840223. QDM code MCP.	20 33 07.2 S (20.5520)	146 48 21.6 E (146.8060)	300.0	QDM
MCT		Monte Cammarata Sicilia, Italy	37 37 52.0 N (37.6311)	13 38 01.0 E (13.6336)	1565.0	ERC
MCWV	D	Mont Chateau West Virginia, U.S.A. opened 19910328.	39 39 29.2 N (39.6581)	79 50 44.2 W (79.8456)	280.0	USNN USTN
MDI		Monti di Nese Lombardia, Italy	45 46 38.0 N (45.7772)	9 42 41.0 E (9.7114)	...	ROM

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
MDL		Mandileni Cape Province, South Africa opened 1988.	30 42 36.0 S (30.7100)	28 48 00.0 E (28.8000)	1320.0	PRE
MDM		Murphy Dome Central Alaska, Alaska, U.S.A. opened 19900216.	64 57 31.8 N (64.9588)	148 13 46.2 W (148.2295)	634.0	GIA
MDO		Dochfour Scotland, United Kingdom opened 1981.	57 26 27.6 N (57.4410)	4 21 46.8 W (4.3630)	366.0	BGS
MDRJ		Muduarah Jordan opened 19900426.	29 26 31.2 N (29.4420)	35 49 12.0 E (35.8200)	900.0	JSO
MDSJ		Mudaysisat Jordan opened 19900107.	31 37 55.2 N (31.6320)	36 15 07.2 E (36.2520)	970.0	JSO
MDT	D	Midelt Morocco	32 49 01.2 N (32.8170)	4 36 50.4 W (4.6140)	...	CNRM MEDN
MEB	RD	Medea Algeria opened 1991.	36 00 .. N (36.0000)	3 00 .. E (3.0000)	...	MEDN
MECU	C	Ecuador Network (Micatambo) Ecuador	0 32 15.0 S (0.5375)	78 14 39.0 W (78.2442)	4090.0	QUI
MEDT		Meda Tunisia	34 06 29.4 N (34.1082)	9 55 13.2 E (9.9203)	90.0	SBS
MEEK		Meekatharra Western Australia, Australia opened 19920603.	26 38 16.2 S (26.6378)	118 36 52.2 E (118.6145)	530.0	AUST
MEKA	C	Meekatharra Western Australia, Australia 19860501-19910616.	26 36 51.1 S (26.6142)	118 32 01.0 E (118.5336)	390.0	AUST
MEMM	D	East Mammoth Hills Mono County, California, U.S.A. USTN opened 19920925. MNLO code MEM.	37 39 58.8 N (37.6663)	118 56 21.0 W (118.9392)	...	MNLO USTN
MEMT		Mount Ellis Montana, U.S.A. opened 19871015.	45 36 14.4 N (45.6040)	110 58 10.8 W (110.9697)	1951.0	BUT
MENF		Mencas Picardie, France	50 33 28.6 N (50.5579)	2 09 17.9 E (2.1550)	100.0	
MENI		Mendum Tagoi Irian Jaya, Indonesia opened 1991.	2 30 37.0 S (2.5103)	140 25 00.5 E (140.4168)	300.0	DJA
MEP		Monte del Estado Puerto Rico opened 199007.	18 08 45.0 N (18.1458)	66 58 52.0 W (66.9811)	...	MPR
MEU		Monte Lauro Sicilia, Italy	37 06 04.0 N (37.1011)	14 55 48.0 E (14.9300)	985.0	ERC
MEW		McNeil Island Washington, U.S.A. opened 198503.	47 12 07.0 N (47.2019)	122 38 45.0 W (122.6458)	98.0	SEA
MFI		Fishrie Scotland, United Kingdom opened 1988.	57 36 41.8 N (57.6116)	2 17 43.1 W (2.2953)	220.0	BGS
MFTN		Millsfield Tennessee, U.S.A.	36 09 39.6 N (36.1610)	89 23 34.8 W (89.3930)	113.0	SLM
MGR	D	Morigerati Campania, Italy	40 08 15.4 N (40.1376)	15 33 17.4 E (15.5548)	260.0	ROM
MGRP	R	Monte Grappa Veneto, Italy	...	...	...	TRI
MHD		Mile High Drive Salt Lake County, Utah, U.S.A. opened 19901004.	40 39 38.4 N (40.6607)	111 48 03.0 W (111.8008)	1597.0	SLC
MHPQ	RD	Mount Hope Queensland, Australia opened 19840410. QDM code MHP.	21 23 45.6 S (21.3960)	146 48 07.2 E (146.8020)	200.0	QDM
MIAR	D	Mount Ida Arkansas, U.S.A. opened 19920923.	34 32 43.4 N (34.5454)	93 34 35.4 W (93.5765)	207.0	NEIS USNN USTN
MIF	R	Mishlifen Morocco	33 24 21.6 N (33.4060)	5 06 28.8 W (5.1080)	...	CNRM
MILG		Mill City Mono County, California, U.S.A. opened 198107. MNLO code CMIL.	37 37 16.8 N (37.6213)	118 59 13.8 W (118.9872)	2536.0	CDMG
MILT		Milan Tennessee, U.S.A. opened 198511.	35 50 56.0 N (35.8489)	88 43 58.4 W (88.7329)	146.0	TEIC
MIO	R	Marion Island Prince Edward Islands	46 57 30.0 S (46.9583)	37 54 00.0 E (37.9000)	10.0	PRE
MISV	D	Misoa Venezuela	9 58 22.8 N (9.9730)	70 55 33.6 W (70.9260)	...	INTV
MIV		Mineville/Witherbee New York, U.S.A. opened 198506.	44 04 27.0 N (44.0742)	73 31 48.0 W (73.5300)	...	PAL
MIYJ	R	Miyako 2 Honshu, Japan opened 19900423.	39 34 24.0 N (39.5733)	141 49 18.0 E (141.8217)	200.0	JMA
MJ2		Rockwell Inc. Station Washington, U.S.A. opened 19890313.	46 33 28.0 N (46.5578)	119 21 50.0 W (119.3639)	150.0	SEA

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
MJMA		Al Majma'ah Saudi Arabia opened 199003.	25 51 18.0 N (25.8550)	45 17 20.4 E (45.2890)	650.0	RYD
MLY		Manley Central Alaska, Alaska, U.S.A. opened 19900925.	65 01 51.0 N (65.0308)	150 44 21.6 W (150.7393)	804.0	GIA
MMCZ		Mount Michael South Island, New Zealand	45 00 13.0 S (45.0036)	169 07 52.7 E (169.1313)	1163.0	WELC
MME		Monte Cimone Emilia-Romagna, Italy	44 11 37.0 N (44.1936)	10 42 00.0 E (10.7000)	2160.0	ERC
MMI	F	(Mercalli intensity descriptor)				
MML		Mount Malkishua Israel opened 19860501.	32 26 06.3 N (32.4351)	35 24 47.9 E (35.4133)	510.0	JER
MMPM		Mammoth Pass Fresno County, California, U.S.A. opened 19830826.	37 36 36.0 N (37.6100)	119 01 40.8 W (119.0280)	2870.0	MNLO
MMR		Mount Meron Israel opened 199105.	32 59 24.0 N (32.9900)	35 25 12.0 E (35.4200)	1108.0	JER
MNCI	R	Minicoy Lakshadweep, India	7 18 .. N (7.3000)	73 06 .. E (73.1000)	...	NDI
MNGI	R	Mangalore Karnataka, India	12 52 .. N (12.8667)	74 52 .. E (74.8667)	...	NDI
MNLM	R	..... Nuevo Leon, Mexico	...	...	...	UNM
MNO		Monte Soro Sicilia, Italy	37 55 52.0 N (37.9311)	14 41 42.0 E (14.6950)	1840.0	ERC
MOC	C	Mount Cameroon Cameroon 19851123-1990. Moved to MOKC.	4 17 13.2 N (4.2870)	9 13 01.2 E (9.2170)	2475.0	YND
MOCB	R	Mochara Bolivia opened 199306.	21 15 01.8 S (21.2505)	65 38 16.8 W (65.6380)	3580.0	LPZ
MOE		Montemor-o-Novo Portugal opened 19830219.	38 31 21.9 N (38.5228)	8 21 02.1 W (8.3506)	263.0	INMG
MOH	D	Mohaka North Island, New Zealand opened 19870319.	39 07 57.0 S (39.1325)	177 08 52.2 E (177.1478)	245.0	WELH
MOKC	R	Mount Cameroon Cameroon	4 15 30.0 N (4.2583)	9 15 00.0 E (9.2500)	2040.0	YND
MOKY		Morganfield Kentucky, U.S.A. opened 1989.	37 28 49.2 N (37.4803)	87 54 03.6 W (87.9010)	204.0	BHKY
MOL		Molde Norway opened 198702.	62 34 12.0 N (62.5700)	7 32 52.8 E (7.5480)	98.0	BER
MOLL		Mollejon Venezuela opened 1984.	7 44 06.0 N (7.7350)	71 37 44.4 W (71.6290)	900.0	CAR
MOMI		Momias Spain Also sent to NEIS by MDD.	36 19 18.0 N (36.3217)	5 43 14.4 W (5.7207)	344.0	SFS
MONL		Mont Aquitaine, France	43 25 58.0 N (43.4328)	0 39 02.0 W (0.6506)	100.0	STR
MOOW		Moose Ponds Wyoming, U.S.A. opened 198601.	43 44 54.9 N (43.7486)	110 44 41.4 W (110.7448)	2128.0	USBR
MOPM		Molcaxac Puebla, Mexico UNM code MOP.	18 44 .. N (18.7333)	97 55 .. W (97.9167)	1840.0	UNM
MOQ		Mont Orford Quebec, Canada opened 19910503.	45 18 43.2 N (45.3120)	72 15 14.8 W (72.2541)	841.0	ECTN
MOR1	C	Moi Rana Norway 1989-19891212.	66 14 14.8 N (66.2374)	14 46 19.5 E (14.7721)	650.0	BER
MOR2	C	Moi Rana Norway 1989-19891212.	66 14 11.6 N (66.2366)	14 46 26.6 E (14.7741)	...	BER
MOR3	U	Moi Rana Norway closed 19891212.	66 14 08.7 N (66.2357)	14 46 20.6 E (14.7724)	...	BER
MOR4	C	Moi Rana Norway 1989-19891212.	66 14 12.1 N (66.2367)	14 46 00.6 E (14.7668)	...	BER
MOR5	U	Moi Rana Norway closed 19891212.	66 14 15.8 N (66.2377)	14 45 59.0 E (14.7664)	...	BER
MOR6	C	Mo i Rana Norway 198602-19891212.	66 14 13.2 N (66.2370)	14 46 01.2 E (14.7670)	650.0	BER
MOR7		Moi Rana Norway opened 19900523.	66 17 06.0 N (66.2850)	14 44 06.0 E (14.7350)	435.0	BER
MORO		Morrocoy Venezuela opened 1984.	10 52 19.9 N (10.8722)	68 18 57.6 W (68.3160)	920.0	CAR

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
MOTA		Moosalm Austria opened 19910209.	47 20 41.3 N (47.3448)	11 06 13.4 E (11.1037)	1575.0	VIE
MOZ	D	Mahoenui North Island, New Zealand opened 19900426.	38 30 21.0 S (38.5058)	174 48 10.8 E (174.8030)	160.0	WEL
MPOR		Mary's Peak Oregon, U.S.A. opened 199008. SEA code MPO.	44 30 17.4 N (44.5048)	123 33 00.6 W (123.5502)	1249.0	SEA
MQZ	D	McQueen's Valley South Island, New Zealand opened 19891011.	43 42 28.2 S (43.7078)	172 39 07.8 E (172.6522)	60.0	WEL
MRB		Montserrat Spain	41 35 41.4 N (41.5948)	1 50 13.8 E (1.8372)	890.0	MRB
MRCM		Red Rock Canyon Mono County, California, U.S.A. opened 19860723.	37 40 18.0 N (37.6717)	118 30 22.8 W (118.5063)	2030.0	MNLO
MRFT		Murafatepe Turkey opened 1992.	40 30 13.0 N (40.5036)	33 27 17.0 E (33.4547)	1500.0	DDA
MRH	D	Marewa North Island, New Zealand opened 19870319.	39 29 57.0 S (39.4992)	176 53 18.0 E (176.8883)	4.0	WELH
MRPI		Mariponipon Sumatera, Indonesia	1 36 45.0 N (1.6125)	99 19 02.0 E (99.3172)	1100.0	DJA
MRSJ		Marsad Jordan opened 19900315.	29 41 06.0 N (29.6850)	35 19 19.2 E (35.3220)	810.0	JSO
MRX	D	Morelia Michoacan, Mexico opened 1988.	19 42 16.2 N (19.7045)	101 11 30.0 W (101.1917)	...	UNM
MRZ	RD	Mangatainoka River North Island, New Zealand opened 199206.	40 39 45.0 S (40.6625)	175 34 45.0 E (175.5792)	...	WEL
MSCZ		Moutere Station South Island, New Zealand	45 05 35.0 S (45.0931)	169 24 42.0 E (169.4117)	701.0	WELC
MSDA		Masada Israel	31 19 12.0 N (31.3200)	35 17 24.0 E (35.2900)	400.0	JER
MSEY	RD	Mahe Seychelles	...	...	...	IDA IRIS
MSF	R	Maaselka Finland	65 54 40.0 N (65.9111)	29 02 40.0 E (29.0444)	...	HEL
MSTB		Masset British Columbia, Canada opened 19871204.	54 00 12.0 N (54.0033)	132 07 05.0 W (132.1181)	91.0	OTTR
MSVF	RD	Monasavu Fiji	18 04 48.0 S (18.0800)	178 15 00.0 E (178.2500)	...	SVA IDA IRIS
MTAT	F	MTA--Mineral Research and Exploration Inst, Ankara				
MTHF		Mouthoumet Languedoc-Rousillon, France opened 198901.	42 56 19.0 N (42.9386)	2 32 02.0 E (2.5339)	620.0	STR
MTLO	R	Montello Veneto, Italy opened 1987.	...	...	...	TRI
MTMW		Mount Mitchell Washington, U.S.A. opened 198003. SEA code MTM.	46 01 31.8 N (46.0255)	122 12 42.0 W (122.2117)	1121.0	SEA
MTO	U	Montecristo El Salvador	14 23 23.0 N (14.3897)	89 24 18.0 W (89.4050)	1380.0	SSS
MTRD	R	Mount Read Tasmania, Australia	41 50 49.2 S (41.8470)	145 32 13.2 E (145.5370)	1080.0	TAU
MTST	R	Ma-tsu China (Taiwan)	26 05 24.0 N (26.0900)	119 33 36.0 E (119.5600)	113.0	TAP
MTUM		Tungsten Hills Inyo County, California, U.S.A. opened 19841215.	37 21 12.0 N (37.3533)	118 33 48.6 W (118.5635)	1810.0	MNLO
MTUR		Motau Romania opened 198808.	45 13 34.0 N (45.2261)	25 03 47.0 E (25.0631)	1018.0	BUC
MUDI		Mud Lake Idaho, U.S.A. opened 198601.	43 37 07.9 N (43.6189)	111 04 37.4 W (111.0771)	2124.0	USBR
MUDJ		..... Jordan	29 25 19.2 N (29.4220)	35 49 12.0 E (35.8200)	900.0	JSO
MUNC	R	Munchique Colombia	2 28 09.4 N (2.4693)	76 57 24.8 W (76.9569)	3007.0	
MUX		Union Juarez Chiapas, Mexico	15 04 44.4 N (15.0790)	92 04 26.4 W (92.0740)	...	UNM
MVIF		Mont Vial Provence-Cote d'Azur, France	43 53 46.8 N (43.8963)	7 09 09.0 E (7.1525)	1480.0	STR
MVO		Moncorvo Portugal opened 19800801.	41 09 52.0 N (41.1644)	7 01 43.9 W (7.0289)	860.0	INMG
MXC		Moxie City Washington, U.S.A. opened 198410. SEA code MOX.	46 34 38.0 N (46.5772)	120 17 35.0 W (120.2931)	540.0	SEA
MYA		Malataya Turkey	38 19 34.0 N (38.3261)	38 25 31.0 E (38.4253)	1050.0	ISK

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
MYNC	D	Murphy North Carolina, U.S.A. opened 19930331.	35 04 26.0 N (35.0739)	84 07 40.4 W (84.1279)	550.0	NEIS USNN
MZDA		Masada Israel opened 199105.	31 19 12.0 N (31.3200)	35 17 24.0 E (35.2900)	-300.0	JER
NABI	R	Nabire Irian Jaya, Indonesia	3 19 37.0 S (3.3269)	135 14 25.0 E (135.2403)	...	DJA
NAC		Naches Washington, U.S.A.	46 44 03.8 N (46.7344)	120 49 33.2 W (120.8259)	738.0	SEA
NAIN	C	Natchez Trace State Park Tennessee, U.S.A. 19850327-19870306.	35 51 21.6 N (35.8560)	88 14 24.0 W (88.2400)	198.0	TVA
NAIU		Northern Antelope Island Davis County, Utah, U.S.A. opened 19911113.	41 00 58.2 N (41.0162)	112 13 40.8 W (112.2280)	1472.0	SLC
NAL		Nallihan Turkey opened 1991.	40 12 13.0 N (40.2036)	31 18 17.0 E (31.3047)	1391.0	DDA
NANS		Nanahuazin El Salvador SSS code NAN.	13 42 54.0 N (13.7150)	89 30 33.0 W (89.5092)	1160.0	SSS
NANU		Nanutarra Western Australia, Australia opened 19871022.	22 33 43.2 S (22.5620)	115 31 44.4 E (115.5290)	80.0	AUST
NAPF	R	Napfberg Bayern, Germany	49 53 19.4 N (49.8887)	12 03 06.2 E (12.0517)	695.0	
NAOJ		Ra's en Naqb Jordan opened 19900315.	30 00 00.0 N (30.0000)	35 30 18.0 E (35.5050)	1640.0	JSO
NCA	C	Nelchina Central Alaska, Alaska, U.S.A. opened 19860717.	61 59 37.2 N (61.9937)	146 49 27.0 W (146.8242)	741.0	GIA
NCB	R	Newcomb New York, U.S.A.	43 58 15.0 N (43.9708)	74 13 25.0 W (74.2236)	500.0	PAL
NCG		North Capps Glacier Western Alaska, Alaska, U.S.A. opened 19890807.	61 24 13.2 N (61.4037)	152 09 24.0 W (152.1567)	1244.0	AGS
NCOR		Newberry Crater Oregon, U.S.A. opened 198709. SEA code NCO.	43 42 14.4 N (43.7040)	121 08 18.0 W (121.1383)	1908.0	SEA
NCT		North Crescent Western Alaska, Alaska, U.S.A. opened 19880814.	60 33 42.0 N (60.5617)	152 55 46.8 W (152.9297)	1166.0	AGS
NDB		Naden British Columbia, Canada	53 57 18.0 N (53.9550)	132 56 30.0 W (132.9417)	686.0	OTTR
NE01	CD	Goteborg Sweden 198302-198601.	57 48 03.6 N (57.8010)	12 07 55.2 E (12.1320)	55.0	NARS
NE02	D	Monsted Denmark opened 198302.	56 27 32.4 N (56.4590)	9 10 12.0 E (9.1700)	60.0	NARS
NE03	D	Logumkloster Denmark opened 198302.	55 02 42.0 N (55.0450)	9 09 10.8 E (9.1530)	25.0	NARS
NE04	D	Witteveen The Netherlands opened 198207.	52 48 48.0 N (52.8133)	6 40 06.0 E (6.6683)	17.0	NARS
NE05	D	Utrecht The Netherlands 198203-198406; reopened 198601.	52 05 16.8 N (52.0880)	5 10 19.2 E (5.1720)	2.0	NARS
NE06	D	Dourbes Belgium opened 198207.	50 05 49.2 N (50.0970)	4 35 42.0 E (4.5950)	225.0	NARS
NE07	D	Villiers-Adam Ile-de-France, France opened 198311.	49 04 27.8 N (49.0744)	2 13 54.8 E (2.2319)	70.0	NARS
NE08	CD	Aigurande Centre, France 198211-198412.	46 25 12.0 N (46.4200)	1 43 48.0 E (1.7300)	360.0	NARS
NE09	CD	Les Eyzies Aquitaine, France 198211-198602.	44 51 07.2 N (44.8520)	0 58 51.6 E (0.9810)	160.0	NARS
NE10	D	Arette Aquitaine, France opened 198211.	43 05 09.6 N (43.0860)	0 41 56.4 W (0.6990)	480.0	NARS
NE11	D	Ainzon Spain opened 1983.	41 48 50.4 N (41.8140)	1 31 01.2 W (1.5170)	440.0	NARS
NE11*	CD	La Almunia Spain 198305-198311.	41 28 37.2 N (41.4770)	1 22 19.2 W (1.3720)	370.0	NARS
NE12	CD	Valle de los Caidos Spain 198305-198502.	40 38 31.2 N (40.6420)	4 09 18.0 W (4.1550)	1280.0	NARS
NE13	D	Puertollano Spain opened 198305.	38 41 06.0 N (38.6850)	4 05 27.6 W (4.0910)	700.0	NARS

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
NE14	D	Granada Spain opened 198305.	37 11 24.0 N (37.1900)	3 35 42.0 W (3.5950)	774.0	NARS
NE15	D	Valkenburg The Netherlands opened 198406.	50 52 01.2 N (50.8670)	5 47 06.0 E (5.7850)	100.0	NARS
NE16	D	Clermont Ferrand Auvergne, France opened 198411.	45 45 46.0 N (45.7628)	3 06 09.0 E (3.1025)	80.0	NARS
NE17	D	Toledo Spain opened 198502.	39 52 53.0 N (39.8814)	4 02 55.0 W (4.0486)	480.0	NARS
NE18	D	Les Rejaudoux Limousin, France opened 198602.	45 18 16.0 N (45.3044)	1 30 59.0 E (1.5164)	410.0	NARS
NECR	R	Nordeste de Costa Rica Costa Rica	... 	... 	...	HDC
NEO		Neokhori Greece opened 1988.	39 18 24.0 N (39.3067)	23 13 24.6 E (23.2235)	500.0	ATH
NGI		Nagai Island Alaska Peninsula, Alaska, U.S.A.	55 02 21.6 N (55.0393)	160 04 09.0 W (160.0692)	240.0	PAL
NGJA		..... Assam, India	26 42 24.0 N (26.7067)	91 40 30.0 E (91.6750)	60.0	JHI
NGNA		Nongstain Meghalaya, India	25 31 18.0 N (25.5217)	91 16 19.2 E (91.2720)	...	JHI
NGP	R	Nagpur Maharashtra, India	21 09 .. N (21.1500)	79 03 .. E (79.0500)	311.0	NDI
NINI		Niniconang Sulawesi, Indonesia opened 1991.	4 25 21.0 S (4.4225)	119 45 23.0 E (119.7564)	1463.0	DJA
NJJJ	R	Nii-shima 2 Bonin Islands, Japan	34 24 .. N (34.4000)	139 17 .. E (139.2833)	180.0	JMA
NKC		Novy Kostel Czech Republic	50 13 58.8 N (50.2330)	12 26 52.8 E (12.4480)	...	PRU
NLO		Nicolai Mountain Oregon, U.S.A.	46 05 18.0 N (46.0883)	123 27 00.0 W (123.4500)	900.0	SEA
NLW		Nelson Butte Washington, U.S.A. opened 198505. SEA code NEL.	48 04 41.8 N (48.0783)	120 20 17.7 W (120.3383)	1490.0	SEA
NMCC		Northern Marianas College Northern Marianas, Mariana Islands opened 199205.	15 09 00.0 N (15.1500)	145 42 57.6 E (145.7160)	100.0	
NMMO		New Madrid Missouri, U.S.A.	36 35 16.8 N (36.5880)	89 33 07.2 W (89.5520)	90.0	SLM
NMUT		North Mineral Beaver County, Utah, U.S.A. opened 198710.	38 30 59.4 N (38.5165)	112 51 00.0 W (112.8500)	1853.0	SLC
NOC	RD	Noumea New Caledonia opened 19851209.	22 10 12.0 S (22.1700)	166 15 00.0 E (166.2500)	5.0	NOU GEOS
NOCG		North-of-Casa Mono County, California, U.S.A. opened 198407. MNLO code CNOC.	37 41 15.0 N (37.6875)	118 55 08.4 W (118.9190)	2475.0	CDMG
NOO		North Oquirrh Mountains Salt Lake County, Utah, U.S.A.	40 39 09.0 N (40.6525)	112 07 13.2 W (112.1203)	1622.0	SLC
NORC	R	Norcasia Colombia	5 35 47.0 N (5.5964)	74 53 34.6 W (74.8929)	508.0	
NOTT	R	Nottersdorf Bayern, Germany	49 48 39.5 N (49.8110)	12 07 20.3 E (12.1223)	490.0	
NOZ	D	North Gisborne North Island, New Zealand opened 19900305.	38 37 04.8 S (38.6180)	178 02 12.0 E (178.0367)	60.0	WEL
NPRI		New Production Reactor Idaho, U.S.A. opened 19900814.	43 35 51.0 N (43.5975)	112 49 37.8 W (112.8272)	1513.0	USGS
NRIL	D	Norilsk Krasnoyarskiy Kray, Russia	69 30 17.6 N (69.5049)	88 26 29.0 E (88.4414)	92.0	MOS IDA IRIS
NRZ	D	Ngariki Road North Island, New Zealand opened 199006.	39 20 15.0 S (39.3375)	173 55 59.0 E (173.9331)	250.0	WEL
NSD		Nosudden Sweden opened 1991.	65 11 43.8 N (65.1955)	18 49 24.6 E (18.8235)	...	HFS
NSS		Namsos Norway opened 198702.	64 31 48.0 N (64.5300)	11 58 01.2 E (11.9670)	102.0	BER
NTYM	D	Taylor Sonoma County, California, U.S.A. USTN opened 19920925. MNLO code NTY.	38 23 22.2 N (38.3895)	122 39 42.0 W (122.6617)	...	MNLO USTN
NUF	R	..... Finland	... 	... 	...	HEL
NUXM	R	Nuxco Guerrero, Mexico	17 12 39.0 N (17.2108)	100 45 16.8 W (100.7547)	80.0	UNM
NWC		North Woods Club New York, U.S.A. opened 198610.	43 50 42.0 N (43.8450)	74 09 00.6 W (74.1502)	...	PAL
OAR		Oum el Arais Tunisia SBS code OART.	34 31 54.0 N (34.5317)	8 23 48.6 E (8.3968)	475.0	SBS

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
OBC		Olympics--Bonidu Creek Washington, U.S.A. opened 198007.	48 02 07.1 N (48.0353)	124 04 39.0 W (124.0775)	938.0	SEA
OBH		Olympics--Burnt Hill Washington, U.S.A.	47 19 34.5 N (47.3262)	123 51 57.0 W (123.8658)	383.0	SEA
OC2		Ocos 2 Guatemala opened 198607.	14 33 37.8 N (14.5605)	92 11 10.3 W (92.1862)	5.0	GCG
OCM		Ochomogo Costa Rica	9 53 41.4 N (9.8948)	83 57 39.0 W (83.9608)	1660.0	HDC
OD2		Odessa Site #2 Washington, U.S.A. opened 198906.	47 23 27.6 N (47.3910)	118 42 38.4 W (118.7107)	590.0	SEA
ODD1		Odda Norway opened 19871203.	59 54 43.2 N (59.9120)	6 37 40.8 E (6.6280)	684.0	BER
ODZ	D	Otohua Downs South Island, New Zealand opened 19900831.	45 02 43.0 S (45.0453)	170 38 40.0 E (170.6444)	270.0	WEL
OFK		Olympics--Forks Washington, U.S.A. opened 198007.	47 57 00.0 N (47.9500)	124 21 28.1 W (124.3578)	134.0	SEA
OGS		Ogasawara Bonin Islands, Japan	27 03 24.5 N (27.0568)	142 12 10.4 E (142.2029)	20.0	
OGTN		Old Graveyard Slough Tennessee, U.S.A.	36 25 12.0 N (36.4200)	89 29 09.6 W (89.4860)	91.0	SLM
OHTN		Owl Hoot Tennessee, U.S.A.	36 09 00.0 N (36.1500)	89 31 12.0 W (89.5200)	82.0	SLM
OIZ	RD	Oio North Island, New Zealand opened 199209.	39 02 48.0 S (39.0467)	175 23 33.0 E (175.3925)	470.0	WEL
OJC		Ojcow Poland opened 199204.	50 13 10.3 N (50.2195)	19 47 54.4 E (19.7984)	391.0	WAR
OJEN		Ojen Spain Also sent to NEIS by MDD.	36 06 00.0 N (36.1000)	5 32 13.2 W (5.5370)	804.0	SFS
OKL	R	Od Khalfella Morocco	32 12 03.6 N (32.2010)	9 08 56.4 W (9.1490)	...	CNRM
OLLA		Las Ollas Venezuela opened 1984.	10 01 08.4 N (10.0190)	66 48 14.4 W (66.8040)	947.0	CAR
OLO		Olympics--Lake Quinalt Washington, U.S.A. opened 198007.	47 39 58.1 N (47.6661)	123 48 31.5 W (123.8087)	121.0	SEA
OLT		Olot Spain opened 1986. Sent to NEIS by MDD.	42 08 39.6 N (42.1443)	2 28 27.6 E (2.4743)	700.0	MRB
OLW		Olympia Washington, U.S.A. opened 19860802	47 04 22.0 N (47.0728)	122 55 21.0 W (122.9225)	37.0	
OMWY	R	Oxenhope Moor England, United Kingdom	53 47 27.2 N (53.7909)	1 58 47.6 W (1.9799)	438.0	OMB
ONAJ	R	Onahama 2 Honshu, Japan opened 19900423.	37 07 00.0 N (37.1167)	140 47 54.0 E (140.7983)	660.0	JMA
ONF		Office National des Forets Aquitaine, France opened 198502?	43 05 42.0 N (43.0950)	0 42 57.6 W (0.7160)	30.0	PAR
ONR		Olympics--North River Washington, U.S.A. opened 198007.	46 52 37.5 N (46.8771)	123 46 16.5 W (123.7713)	257.0	SEA
OOW		Octopus West Washington, U.S.A. opened 198406.	47 44 12.0 N (47.7367)	124 11 22.0 W (124.1894)	743.0	SEA
OR1		(Alternate Abbreviation for ORI)				
ORGA		Alberta, Canada Sent to NEIS by PGC.	49 33 14.0 N (49.5539)	114 06 02.9 W (114.1008)	1257.0	
ORX		Oropa Piemonte, Italy	45 37 57.0 N (45.6325)	7 58 54.0 E (7.9817)	1250.0	GEN
OSCM		Ostuacan Chiapas, Mexico UNM code OSC.	17 24 20.0 N (17.4056)	93 20 05.0 W (93.3347)	...	UNM
OSD		Olympics--Snow Dome Washington, U.S.A. opened 198410.	47 49 15.0 N (47.8208)	123 42 06.0 W (123.7017)	2010.0	SEA
OSG		Oseberg A Platform Norway opened 1988.	60 29 49.2 N (60.4970)	2 52 33.6 E (2.8760)	-100.0	BER
OSHJ	R	Oshima Bonin Islands, Japan opened 19911218.	34 44 48.0 N (34.7467)	139 22 00.0 E (139.3667)	76.0	JMA
OSM	R	Ostula Michoacan, Mexico	18 29 50.0 N (18.4972)	103 28 19.0 W (103.4719)	...	UNM
OSP		Olympics--Sooes Peak Washington, U.S.A. opened 198310.	48 17 05.5 N (48.2849)	124 35 23.3 W (124.5898)	585.0	SEA

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
OSR		Olympics--Salmon Ridge Washington, U.S.A. opened 19890913.	47 30 20.3 N (47.5056)	123 57 42.0 W (123.9617)	815.0	SEA
OT2		Othello Washington, U.S.A. opened 198812.	46 43 17.0 N (46.7214)	119 14 05.0 W (119.2347)	355.0	SEA
OTR		Olympics--Tyee Ridge Washington, U.S.A. opened 198406.	48 05 00.0 N (48.0833)	124 20 39.0 W (124.3442)	712.0	SEA
OTW	D	Orongorongo Tunnel North Island, New Zealand opened 19920728.	41 16 39.0 S (41.2775)	176 00 15.0 E (176.0042)	...	WEL
OUK		Oukaimedene Morocco	31 12 25.2 N (31.2070)	7 52 30.0 W (7.8750)	...	CNRM
OUZ		Omahuta North Island, New Zealand opened 19910312.	35 13 17.0 S (35.2214)	173 35 46.0 E (173.5961)	40.0	WEL
OXFB	R	Oxford Borehole Mississippi, U.S.A.	34 28 30.4 N (34.4751)	89 20 36.0 W (89.3433)	-390.0	
PAB	D	San Pablo de los Montes Spain IRIS opened 1991.	39 32 45.0 N (39.5458)	4 20 54.0 W (4.3483)	938.0	MDD IRIS
PACI		Pancar Gunung Jawa, Indonesia opened 199110.	6 35 34.0 S (6.5928)	106 54 37.0 E (106.9103)	850.0	DJA
PACM	R	La Paz Baja California Sur, Mexico	21 10 06.0 N (21.1683)	110 12 42.0 W (110.2117)	...	UNM
PACW		Pacific Creek Wyoming, U.S.A. opened 198601.	43 54 08.3 N (43.9023)	110 29 07.0 W (110.4853)	2140.0	USBR
PAGN		Pagan Northern Marianas, Mariana Islands	18 04 30.0 N (18.0750)	145 43 51.6 E (145.7310)	540.0	
PAGV		Pagan Volcano Northern Marianas, Mariana Islands	18 07 30.0 N (18.1250)	145 46 12.0 E (145.7700)	10.0	
PAHZ		Panekirikiri North Island, New Zealand	38 51 33.0 S (38.8592)	177 03 15.0 E (177.0542)	563.0	WELH
PALM	R	Palmichal Venezuela opened 1984.	10 12 16.6 N (10.2046)	64 26 19.7 W (64.4388)	1100.0	CAR
PALR		Palma Real Venezuela opened 1984.	11 00 00.0 N (11.0000)	63 54 39.6 W (63.9110)	920.0	CAR
PALV	D	Tres Palos Venezuela	10 26 56.4 N (10.4490)	71 37 48.0 W (71.6300)	...	INTV
PAND		Andorre Andorra	42 31 21.1 N (42.5225)	1 32 48.8 E (1.5469)	1857.0	STR
PANV		Panamint Range Inyo County, California, U.S.A. opened 19880401.	36 23 54.0 N (36.3983)	117 05 57.0 W (117.0992)	1830.0	USGS
PASI		Pasiripis Jawa, Indonesia opened 199110.	6 41 22.0 S (6.6894)	105 35 20.0 E (105.5889)	220.0	DJA
PATW		Paterson Washington, U.S.A. SEA code PAT.	45 52 50.1 N (45.8806)	119 45 40.1 W (119.7611)	300.0	SEA
PATZ	D	Paeroa North Island, New Zealand opened 1991.	38 22 53.0 S (38.3814)	176 15 30.0 E (176.2583)	940.0	WELT
PAY		..... Mexico	17 28 18.0 N (17.4717)	93 29 28.8 W (93.4913)	...	UNM
PCB		Port Clements British Columbia, Canada	53 42 22.0 N (53.7061)	132 34 03.0 W (132.5675)	634.0	OTTR
PCBI		Pancar Batu Sumatera, Indonesia	1 53 24.0 N (1.8900)	98 55 31.0 E (98.9253)	1000.0	DJA
PCG		Pacaya Guatemala opened 198703.	14 23 37.7 N (14.3938)	90 36 26.3 W (90.6073)	2100.0	GCG
PCHP	R	Portachuelo Peru	6 01 58.8 S (6.0330)	79 40 58.8 W (79.6830)	150.0	LIM
PCID		Pole Creek Idaho, U.S.A. opened 199212.	43 54 49.2 N (43.9137)	114 46 39.6 W (114.7777)	2262.0	
PCP		Pian Castagno-Ponzone Piemonte, Italy opened 19890315.	44 32 30.6 N (44.5418)	8 32 42.6 E (8.5452)	770.0	GEN
PCRV	R	Puerto La Cruz Venezuela	10 10 34.3 N (10.1762)	64 38 10.0 W (64.6361)	450.0	CAR
PCYT	R	P'eng-chia Yu China (Taiwan)	25 37 46.0 N (25.6294)	122 04 16.5 E (122.0713)	101.7	TAP
PDCR		Pedra do Cavalo Reservoir Bahia, Brazil opened 19870101.	12 31 52.8 S (12.5313)	39 07 21.0 W (39.1225)	220.0	VAO
PDEM	R	Puerto del Eden Guerrero, Mexico	17 27 47.4 N (17.4632)	100 44 27.6 W (100.7410)	1620.0	UNM
PDHT	R	Panda Hill Tanzania opened 199206.	8 58 59.4 S (8.9832)	33 14 30.0 E (33.2417)	1340.0	
PDU	RD	Peleduy Irkutskaya Oblast, Russia	59 36 .. N (59.6000)	112 30 .. E (112.5000)	...	MOSR IDA IRIS

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
PDUI		Pindiu New Guinea, Papua New Guinea opened 19880616.	6 26 49.2 S (6.4470)	147 30 39.6 E (147.5110)	950.0	PMG
PECU	C	Ecuador Network Ecuador	0 23 42.0 S (0.3950)	78 36 09.0 W (78.6025)	3550.0	QUI
PENI		Pendagan Sumatera, Indonesia opened 199110.	5 34 00.0 S (5.5667)	105 10 16.0 E (105.1711)	200.0	DJA
PENM	R	... Chiapas, Mexico IIM code PEN.	17 26 09.6 N (17.4360)	93 31 40.8 W (93.5280)	...	IIM
PEO	R	Puerto Escondido Oaxaca, Mexico	15 51 04.2 N (15.8512)	97 03 19.8 W (97.0555)	3.0	UNM
PEP		Pantabangan Luzon, Philippines	15 48 39.6 N (15.8110)	121 06 25.2 E (121.1070)	...	MAN
PERF		Col du Perthus Languedoc-Rousillon, France opened 198901.	42 29 08.0 N (42.4856)	2 52 27.0 E (2.8742)	490.0	STR
PFH		Pahoa Fire House Hawaii, Hawaii, U.S.A. opened 1986.	19 29 48.8 N (19.4969)	154 56 55.0 W (154.9486)	201.0	HON
PGB		Panagyurishte Bulgaria opened 1988.	42 33 00.0 N (42.5500)	24 10 00.1 E (24.1667)	775.0	SOF
PGD		Poggio Sodo Emilia-Romagna, Italy Also sent to NEIS by ROM.	43 52 31.0 N (43.8753)	11 43 17.0 E (11.7214)	1600.0	ERC
PGF		Pioggiola Corse, France opened 19891115.	42 32 54.0 N (42.5483)	8 59 58.0 E (8.9994)	1130.0	LDG
PGO		Gresham Oregon, U.S.A. opened 198206.	45 28 00.0 N (45.4667)	122 27 10.0 W (122.4528)	237.0	SEA
PGOM	R	Puerto del Gallo Guerrero, Mexico	... 	... 	...	UNM
PGW		Port Gamble Washington, U.S.A. opened 198504.	47 49 18.8 N (47.8219)	122 35 57.7 W (122.5994)	122.0	SEA
PGY		Peter Gray Mountain New York, U.S.A. opened 198611.	43 42 27.6 N (43.7077)	74 02 42.6 W (74.0452)	...	PAL
PGZ	D	Pongaroa North Island, New Zealand opened 198804.	40 37 07.8 S (40.6188)	176 16 25.2 E (176.2737)	60.0	WEL
PICO		Pico Azores, Portugal opened 19880526.	38 30 03.0 N (38.5008)	28 25 32.0 W (28.4256)	775.0	PDA
PII	D	Pisa Toscana, Italy	43 43 16.3 N (43.7212)	10 31 25.8 E (10.5238)	50.0	ROM
PINI		Pine Creek Idaho, U.S.A. opened 198601.	43 30 27.4 N (43.5076)	111 20 44.6 W (111.3457)	1932.0	USBR
PINR		Pinar Spain	36 29 56.4 N (36.4990)	6 07 06.0 W (6.1183)	10.0	SFS
PKD		Parkfield California, U.S.A.	... 	... 	...	BRK
PKE	RD	Pukeiti New Zealand	... 	... 	...	WEL
PKO		Pickens Oklahoma, U.S.A. opened 19871016.	34 23 50.3 N (34.3973)	95 01 51.8 W (95.0311)	264.0	TUL
PLAT		Plata Spain Also sent to NEIS by MDD.	36 07 15.6 N (36.1210)	5 45 30.6 W (5.7585)	460.0	SFS
PLAV		Platillon Venezuela opened 1984. CAR code PLAT.	9 52 26.4 N (9.8740)	67 30 08.6 W (67.5024)	1830.0	CAR
PLBC		Pleasant Camp British Columbia, Canada opened 19900920.	59 27 24.0 N (59.4567)	136 21 54.0 W (136.3650)	280.0	OTTR
PLCA	R	Paso Flores Rio Negro, Argentina proposed GTSN station.	40 43 50.0 S (40.7306)	70 33 00.0 W (70.5500)	950.0	
PLMI	R	Pala-Maneri Uttar Pradesh, India opened 19871001.	30 50 30.0 N (30.8417)	78 37 45.0 E (78.6292)	1640.0	WIHG
PLML		Palmela Portugal	38 33 18.0 N (38.5550)	8 54 12.0 W (8.9033)	216.0	INMG
PLR		Palermo Sicilia, Italy	38 08 38.4 N (38.1440)	13 20 51.6 E (13.3477)	60.0	
PLRO	RD	Paularo Friuli-Venezia Giulia, Italy opened 19880101.	46 32 59.0 N (46.5497)	13 08 53.0 E (13.1481)	1420.0	TRI
PMSA	D	Palmer Station Antarctic Peninsula, Antarctica opened 199303.	64 46 28.0 S (64.7744)	64 23 57.0 W (64.3992)	10.0	IRIS
PN1	R	Presa Penitas No. 1 Chiapas, Mexico	17 28 08.4 N (17.4690)	93 29 16.8 W (93.4880)	...	IIM
PN2	R	Presa Penitas No. 2 Chiapas, Mexico	17 26 16.8 N (17.4380)	93 27 01.8 W (93.4505)	...	IIM

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
PN3	R	Presa Penitas No. 3	17 21 14.4 N	93 36 28.8 W	...	IIM
		Chiapas, Mexico	(17.3540)	(93.6080)		
PN4	R	Presa Penitas No. 4	17 10 44.4 N	93 23 42.0 W	...	IIM
		Chiapas, Mexico	(17.1790)	(93.3950)		
PN6	C	Pavlof North-6	55 27 07.1 N	161 54 53.3 W	814.0	PAL
		Alaska Peninsula, Alaska, U.S.A.	(55.4520)	(161.9148)		
		closed 199007.				
POA2		Poas 2	10 10 37.8 N	84 15 03.0 W	2500.0	HDC
		Costa Rica	(10.1772)	(84.2508)		
		opened 19860506.				
POBI	C	Pontebba	46 30 48.0 N	13 16 36.0 E	860.0	TRI
		Friuli-Venezia Giulia, Italy	(46.5133)	(13.2767)		
		19830130-19880101.				
POF		Pofadder	29 22 54.0 S	19 57 00.0 E	...	PRE
		Cape Province, South Africa	(29.3817)	(19.9500)		
		opened 1986.				
POGM	R	Potrero Grande	17 22 30.6 N	100 37 16.8 W	650.0	UNM
		Guerrero, Mexico	(17.3752)	(100.6213)		
PORM	R		17 10 44.4 N	93 23 42.0 W	...	UNM
		Chiapas, Mexico	(17.1790)	(93.3950)		
		UNM code POR.				
PORP		Portuguez	18 03 13.7 N	66 38 13.2 W	218.0	MPR
		Puerto Rico	(18.0538)	(66.6370)		
		opened 198908.				
PPCY		Paphos	34 53 05.0 N	32 20 42.0 E	60.0	CSS
		Cyprus	(34.8847)	(32.3450)		
		opened 198702.				
PPD		Presidente Prudente	22 01 53.0 S	51 18 43.0 W	406.0	VAO
		Sao Paulo, Brazil	(22.0314)	(51.3119)		
		opened 198802.				
PPNM	R	Papanoa	17 18 01.8 N	101 02 16.2 W	260.0	UNM
		Guerrero, Mexico	(17.3005)	(101.0378)		
PPOM	R	El Papayo	17 01 12.0 N	100 14 24.0 W	100.0	UNM
		Guerrero, Mexico	(17.0200)	(100.2400)		
PRAC	R	Prado	3 41 42.9 N	74 54 04.6 W	414.0	
		Colombia	(3.6952)	(74.9013)		
PRAV	D	El Prado	9 13 58.8 N	70 51 03.6 W	...	INTV
		Venezuela	(9.2330)	(70.8510)		
PRP		Porcupine Dome	65 31 04.2 N	145 31 20.4 W	1498.0	GIA
		Central Alaska, Alaska, U.S.A.	(65.5178)	(145.5223)		
		opened 19900216. GIA code PPD.				
PRSC	R		49 00 54.0 N	18 33 14.4 E	...	PRU
		Czech Republic	(49.0150)	(18.5540)		
PS4		Pavlof South-4	55 21 14.3 N	161 52 05.5 W	520.0	PAL
		Alaska Peninsula, Alaska, U.S.A.	(55.3540)	(161.8682)		
PSG2		Puerto de San Jose 2	13 57 07.8 N	90 48 55.8 W	5.0	GCG
		Guatemala	(13.9522)	(90.8155)		
		opened 1988. GCG code PS2.				
PSL	R	Pistoia	44 00 28.0 N	10 57 56.0 E	810.0	PRT
		Toscana, Italy	(44.0078)	(10.9656)		
PSM		Palmasola	16 42 17.4 N	95 02 27.6 W	750.0	UNM
		Oaxaca, Mexico	(16.7048)	(95.0410)		
		opened 199001.				
PSR		Paul Sauer Dam	33 40 48.0 S	24 24 36.0 E	360.0	PRE
		Cape Province, South Africa	(33.6800)	(24.4100)		
		opened 1988.				
PTF	R	Prato	43 57 34.0 N	11 04 11.0 E	550.0	PRT
		Toscana, Italy	(43.9594)	(11.0697)		
PTH		Pithoragarh	29 33 .. N	80 13 .. E	1669.0	NDI
		Uttar Pradesh, India	(29.5500)	(80.2167)		
PTS		Isola di Pantelleria	36 48 25.9 N	11 59 34.4 E	150.0	ERC
		Italy	(36.8072)	(11.9929)		
PTT		Piatra Neamt	46 56 05.0 N	26 23 10.0 E	350.0	BUC
		Romania	(46.9347)	(26.3861)		
		opened 19870115.				
PUCA	R	Punta Cana	18 35 16.8 N	68 24 10.2 W	...	SDD
		Dominican Republic	(18.5880)	(68.4028)		
PUEM	R		...	...	...	UNM
		Puebla, Mexico				
PULI		Pulasari	6 20 42.0 S	105 58 32.0 E	1346.0	DJA
		Jawa, Indonesia	(6.3450)	(105.9756)		
PURC		Volcan Puroce	2 19 19.8 N	76 21 42.0 W	3950.0	UVC
		Colombia	(2.3222)	(76.3617)		
		opened 1987.				
PUYF		Puyloubier	43 31 56.3 N	5 42 01.1 E	460.0	STR
		Provence-Cote d'Azur, France	(43.5323)	(5.7003)		
PUZ	D	Puketiti	38 04 24.0 S	178 15 25.8 E	420.0	WEL
		North Island, New Zealand	(38.0733)	(178.2572)		
		opened 19891211.				
PVF		Pernaja	60 32 42.4 N	25 51 41.8 E	45.0	HEL
		Finland	(60.5451)	(25.8616)		
		opened 19910611.				
PVRC		Palos Verdes	33 45 07.8 N	118 22 13.8 W	183.0	PAS
		Los Angeles County, California, U.S.A.	(33.7522)	(118.3705)		
		opened 19810930. PVR was moved more than 1 km.				
		PVRC is new location.				
PVV		Pavlof Volcano	55 22 27.1 N	161 47 23.9 W	164.0	PAL
		Alaska Peninsula, Alaska, U.S.A.	(55.3742)	(161.7900)		

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
PWTG		Paul Wright Trailer Mono County, California, U.S.A. opened 19791115. MNLO code CPWT.	38 16 38.4 N (38.2773)	119 15 08.4 W (119.2523)	1996.0	CDMG
PXO	R	 Oaxaca, Mexico	15 44 52.2 N (15.7478)	96 18 10.8 W (96.3030)	25.0	UNM
PZCI		Patelzick Creek Idaho, U.S.A.	44 20 27.6 N (44.3410)	112 19 01.2 W (112.3170)	2073.0	USGS
PZZ		Prazzo (Stroppo) Piemonte, Italy	44 30 18.0 N (44.5050)	7 06 04.8 E (7.1013)	1420.0	GEN
QAP	F	(phase code designation)				
QASM		Qassim Saudi Arabia opened 198801.	26 05 24.0 N (26.0900)	43 31 58.8 E (43.5330)	675.0	RYD
QDM	F	Queensland Dept. of Mines, Australia				
QHW	R	Quartz Hill North Island, New Zealand opened 19851015.	41 15 07.0 S (41.2519)	174 41 26.0 E (174.6906)	190.0	WELW
QIS		Mount Isa Queensland, Australia opened 19870615.	20 33 27.7 S (20.5577)	139 36 18.7 E (139.6052)	330.0	AUST
QLP		Quilpie Queensland, Australia opened 19890812.	26 35 01.3 S (26.5837)	144 14 05.3 E (144.2348)	210.0	AUST
QPCP	F	(phase code designation)				
QPCS	F	(phase code designation)				
QPKP	F	(phase code designation)				
QPP	F	(phase code designation)				
QPPP	F	(phase code designation)				
QPPS	F	(phase code designation)				
QPSS	F	(phase code designation)				
QRHJ	R	 Jordan	29 41 06.0 N (29.6850)	35 19 19.2 E (35.3220)	810.0	JSO
QRI		Quarto Campania, Italy	40 52 40.8 N (40.8780)	14 08 44.9 E (14.1458)	...	ROM
QRZ	D	Quartz Range South Island, New Zealand opened 1991.	40 49 39.0 S (40.8275)	172 31 44.0 E (172.5289)	260.0	WEL
QSCP	F	(phase code designation)				
QSCS	F	(phase code designation)				
QSKP	F	(phase code designation)				
QSKS	F	(phase code designation)				
QSPP	F	(phase code designation)				
QSSP	F	(phase code designation)				
QSSS	F	(phase code designation)				
QTBJ		(Alternate Abbreviation for CSTJ)				
QTFJ		Qatafi Jordan opened 19900305.	31 49 22.8 N (31.8230)	37 28 48.0 E (37.4800)	648.0	JSO
QTRJ		Qatrana Jordan opened 19880220.	31 18 00.0 N (31.3000)	36 00 36.0 E (36.0100)	876.0	JSO
QUES	R	Loma Quita Espuela Dominican Republic opened 19860902.	19 21 10.8 N (19.3530)	70 08 52.8 W (70.1480)	...	SDD
QUIL		Quilotoa Ecuador opened 1991.	0 45 25.2 S (0.7570)	78 55 30.7 W (78.9252)	3430.0	QUI
QUTJ		Qutrana Jordan opened 1987.	31 17 55.2 N (31.2987)	36 00 36.0 E (36.0100)	876.0	JSO
QVP		Quezon City--PHIVOLCS Luzon, Philippines opened 1991.	14 37 22.8 N (14.6230)	121 00 14.4 E (121.0040)	15.0	MAN
QXP	F	(phase code designation)				
QXS	F	(phase code designation)				
QZA		Quezalapa El Salvador	13 31 26.0 N (13.5239)	88 59 49.0 W (88.9969)	250.0	SSS
RAMW		Rammel Mountain Wyoming, U.S.A. opened 198601.	43 53 20.3 N (43.8890)	110 57 00.8 W (110.9502)	2512.0	USBR
RANI		Rangndo Bali, Nusa Tenggara, Indonesia	8 27 09.0 S (8.4525)	114 56 58.0 E (114.9494)	500.0	DJA
RATI		Rata Bali, Nusa Tenggara, Indonesia	8 43 24.0 S (8.7233)	115 31 56.0 E (115.5322)	400.0	DJA
RC1		Royal City Washington, U.S.A. opened 19880527.	46 56 36.0 N (46.9433)	119 26 00.0 W (119.4333)	500.0	SEA
RCJ	R	 Utah, U.S.A.	...	...	...	SLC
RCP2		Recreation Park Los Angeles County, California, U.S.A. opened 19850322. MNLO code RCPS.	33 46 39.6 N (33.7777)	118 08 00.0 W (118.1333)	-85.0	USC
RCS		Mount Rainier--Camp Schurman Washington, U.S.A. opened 19890627.	46 52 15.6 N (46.8710)	121 43 52.0 W (121.7311)	2877.0	SEA
RDN		Redoubt North Western Alaska, Alaska, U.S.A. opened 1988.	60 30 49.8 N (60.5138)	152 45 46.8 W (152.7630)	1372.0	AGS

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
RDO		Rodhopi Greece opened 1988.	41 08 46.2 N (41.1462)	25 32 15.0 E (25.5375)	100.0	ATH
RDW		Redoubt West Western Alaska, Alaska, U.S.A. opened 19900907.	60 28 57.6 N (60.4827)	152 48 34.2 W (152.8095)	1813.0	AGS
RDX		Rancho Dowling Baja California, Mexico opened 19880929.	31 55 56.4 N (31.9323)	115 56 51.0 W (115.9475)	1680.0	ECX
RE1		(Alternate Abbreviation for RCL)				
RECU		(Alternate Abbreviation for VC1)				
REDW		Red Top Meadow Wyoming, U.S.A. opened 198601.	43 21 44.6 N (43.3624)	110 51 06.4 W (110.8518)	2192.0	USBR
REF		Redoubt East Flank Western Alaska, Alaska, U.S.A. opened 19900314.	60 29 21.0 N (60.4892)	152 42 06.0 W (152.7017)	1801.0	AGS
REMR		Mt. Rainier--Emerald Ridge Washington, U.S.A. opened 19890712. SEA code RER.	46 49 09.2 N (46.8192)	121 50 27.3 W (121.8409)	1756.0	SEA
REMW		Rembrandt Washington, U.S.A. opened 198701. SEA code REM.	46 11 57.0 N (46.1992)	122 11 03.0 W (122.1842)	2102.0	SEA
RER	D	La Plaine-des-Cafres Reunion opened 19860210.	21 09 36.0 S (21.1600)	55 45 00.0 W (55.7500)	834.0	PAR GEOS
REVF		Revere Provence-Cote d'Azur, France	43 44 24.0 N (43.7400)	7 22 03.0 E (7.3675)	700.0	STR
RFI		Roccamonfina Campania, Italy	41 18 01.6 N (41.3004)	13 59 05.2 E (13.9848)	...	ROM
RFSB	R	Richmond Field	...	...	...	BRK
RGRS		Roger Stewart South Carolina, U.S.A. opened 19860601. GLD code RGR.	32 54 19.8 N (32.9055)	80 11 37.7 W (80.1938)	-52.0	USGS
RGS		Rognes Norway opened 19851222.	63 01 15.6 N (63.0210)	10 26 06.0 E (10.4350)	120.0	BER
RIFB	D	Rifaina Sao Paulo, Brazil opened 199301.	20 04 25.3 S (20.0737)	47 30 06.8 W (47.5019)	860.0	VAO
RIN2	C	Rincon de la Vieja 2 Costa Rica 19870520-19880826. Replaced by RIN3.	10 49 06.6 N (10.8185)	85 20 58.2 W (85.3495)	1400.0	HDC
RIN3		Rincon de la Vieja 3 Costa Rica opened 19880826.	10 47 27.0 N (10.7908)	85 22 43.2 W (85.3787)	900.0	HDC
RIY		Rijeka Croatia opened 19890504.	45 20 38.4 N (45.3440)	14 23 09.6 E (14.3860)	75.0	ZAG
RND	D	Reindeer Central Alaska, Alaska, U.S.A. opened 1986. USTN opened 199101.	63 24 22.2 N (63.4062)	148 51 10.2 W (148.8528)	991.0	GIA USTN
RNO		Roman Nose Oregon, U.S.A. opened 199109.	43 54 44.0 N (43.9122)	123 44 26.0 W (123.7406)	875.0	SEA
ROBI	R	Boca de Chavon Dominican Republic opened 19860923.	18 24 36.0 N (18.4100)	68 50 24.0 W (68.8400)	...	SDD
ROKY	R	Rotten Point Kentucky, U.S.A.	37 54 32.4 N (37.9090)	83 55 33.6 W (83.9260)	433.0	BHKY
ROSA		Rosais Azores, Portugal opened 198907.	38 43 15.0 N (38.7208)	28 14 49.0 W (28.2469)	310.0	PDA
ROSC	R	El Rosal Colombia	4 51 22.8 N (4.8563)	74 19 48.4 W (74.3301)	3017.0	
ROTZ	R	Rotzenmuhle Bayern, Germany	49 46 39.5 N (49.7777)	12 12 30.1 E (12.2084)	430.0	
RPN	D	Rapa Nui Easter Island, Valparaiso, Chile opened 198707.	27 07 36.0 S (27.1267)	109 20 04.0 W (109.3344)	110.0	SAN IDA IRIS
RPW		Rockport Washington, U.S.A.	48 26 54.0 N (48.4483)	121 30 49.0 W (121.5136)	850.0	SEA
RRI2	D	Red Ridge Idaho, U.S.A. opened 19860702.	43 21 50.4 N (43.3640)	111 19 08.4 W (111.3190)	2566.0	REX USTN
RRL		Cesana Torinese Piemonte, Italy	44 55 12.6 N (44.9202)	6 47 04.2 E (6.7845)	2131.0	GEN
RS1		Redoubt South No. 1 Western Alaska, Alaska, U.S.A. opened 19900910.	60 27 36.6 N (60.4602)	152 45 28.8 W (152.7580)	1864.0	AGS
RS2		Redoubt South No. 2 Western Alaska, Alaska, U.S.A. opened 19900910.	60 27 46.8 N (60.4630)	152 45 26.4 W (152.7573)	1953.0	AGS
RSA		Sar-Sar Morocco	34 53 10.0 N (34.8861)	5 49 30.0 W (5.8250)	...	CNRM
RSD		Rainshed Hawaii, Hawaii, U.S.A.	19 27 46.8 N (19.4630)	155 16 40.8 W (155.2780)	1270.0	HVO
RSHJ		(Alternate Abbreviation for JRSJ)				

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
RSM		Repubblica di San Marino San Marino opened 1988.	43 55 39.7 N (43.9277)	12 27 08.4 E (12.4523)	...	ROM
RSO		Redoubt South Western Alaska, Alaska, U.S.A. opened 19900301.	60 27 43.8 N (60.4622)	152 45 13.8 W (152.7538)	1921.0	AGS
RSP		Reno Superiore Piemonte, Italy	45 09 06.0 N (45.1517)	7 15 25.8 E (7.2572)	1250.0	GEN
RSTA		Tijuco Alto Parana, Brazil opened 1992.	24 39 03.0 S (24.6508)	49 01 57.8 W (49.0327)	248.0	VAO
RTC		Rabat Centre Morocco	33 58 .. N (33.9667)	6 50 .. W (6.8333)	...	CNRM
RTMM	R	Retamim Israel	31 03 00.0 N (31.0500)	34 40 48.0 E (34.6800)	200.0	JER
RUP		Ruppelstein Rheinland-Pfalz, Germany	49 42 06.0 N (49.7017)	7 03 37.0 E (7.0603)	750.0	KRW
RUSC	R	La Rusia Colombia	5 55 37.7 N (5.9271)	73 04 31.7 W (73.0755)	3356.0	
RUWJ		Ruweishid Jordan opened 19891002.	32 28 30.0 N (32.4750)	38 24 07.2 E (38.4020)	751.0	JSO
RUZ	CD	Raurimu North Island, New Zealand 19900814-199206.	39 07 37.0 S (39.1269)	175 20 16.0 E (175.3378)	450.0	WEL
RVC		Mount Rainier--Voight Creek Washington, U.S.A. opened 198301.	46 56 34.5 N (46.9429)	121 58 17.3 W (121.9715)	1000.0	SEA
RVVM	R	Revivim Israel	31 02 24.0 N (31.0400)	34 43 12.0 E (34.7200)	200.0	JER
RVW		Rose Valley Washington, U.S.A. opened 198102.	46 08 58.2 N (46.1495)	122 44 37.2 W (122.7437)	460.0	SEA
RYD		Riyadh Saudi Arabia opened 1986.	24 43 12.0 N (24.7200)	46 36 36.0 E (46.6100)	650.0	RYD
RZN		Rozhen Bulgaria opened 1988.	41 41 16.8 N (41.6880)	24 42 57.6 E (24.7160)	1730.0	SOF
SACA		Loma Carmona Dominican Republic opened 19860712.	18 58 39.0 N (18.9775)	69 40 49.2 W (69.6803)	...	SDD
SADC	RD	Saddle Peak Los Angeles County, California, U.S.A. opened 197308. PAS code SAD.	34 04 51.6 N (34.0810)	118 39 54.0 W (118.6650)	732.0	PAS
SAE		Statte Puglia, Italy	40 33 43.0 N (40.5619)	17 12 22.0 E (17.2061)	...	ROM
SAGI		Saggi Highlands Israel	30 13 12.0 N (30.2200)	34 39 36.0 E (34.6600)	560.0	JER
SAIU		Southern Antelope Island Davis County, Utah, U.S.A. opened 19900510.	40 51 17.4 N (40.8548)	112 10 53.4 W (112.1815)	1384.0	SLC
SAJV	D	Sajaritas Venezuela	10 21 54.0 N (10.3650)	71 21 03.6 W (71.3510)	...	INTV
SALC		Salvajina Colombia	2 58 22.5 N (2.9729)	76 41 42.6 W (76.6952)	1430.0	UVC
SALF		Salau Midi-Pyrenees, France opened 198901.	42 45 36.0 N (42.7600)	1 11 22.0 E (1.1894)	900.0	STR
SAOF		Saorge Provence-Cote d'Azur, France	43 59 11.0 N (43.9864)	7 33 19.0 E (7.5553)	600.0	STR
SAON	R	Isla Saona Dominican Republic	18 11 .. N (18.1833)	68 46 .. W (68.7667)	...	SDD
SAPN	C	Saipan Northern Marianas, Mariana Islands 1991-19920309. Sent to NEIS by HVO.	15 12 25.2 N (15.2070)	145 44 52.8 E (145.7480)	250.0	
SARO		Sassorosso Emilia-Romagna, Italy opened 199205.	44 11 05.4 N (44.1848)	10 24 05.4 E (10.4015)	1030.0	GEN
SASA		Sand Point Alaska Peninsula, Alaska, U.S.A. PAL code SAS.	55 20 24.0 N (55.3400)	160 29 49.8 W (160.4972)	23.0	PAL
SATS		Thornton Park Orange County, California, U.S.A. opened 198702. USC code SAT.	33 42 28.2 N (33.7078)	117 53 25.8 W (117.8905)	-370.0	USC
SBCZ		Sonora Basin South Island, New Zealand	45 05 32.0 S (45.0922)	169 18 40.0 E (169.3111)	801.0	WELC
SBG		Sibinal Guatemala opened 198603.	15 07 55.2 N (15.1320)	92 03 12.6 W (92.0535)	2860.0	GCG
SBM		South Baldy New Mexico, U.S.A. SNM code SB.	33 58 30.6 N (33.9752)	107 10 50.4 W (107.1807)	3230.0	SNM
SCRV	R	San Cristobal Venezuela	7 47 20.0 N (7.7889)	72 11 30.1 W (72.1917)	818.0	CAR
SCSP	F	(phase code designation)				
SCX		San Cristobal de las Casas Chiapas, Mexico opened 1987.	16 44 09.0 N (16.7358)	92 38 04.2 W (92.6345)	...	UNM

STATIONS ADDED SINCE STATION BOOK (OF 85-714) WAS PRINTED

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
SCZ	D	Santa Cruz California, U.S.A. opened 1986T106.	36 36 .. N (36.6000)	121 24 .. W (121.4000)	261.0	GEOS
SDF		Sodankyla Finland opened 19841219.	67 25 13.1 N (67.4203)	26 23 37.0 E (26.3936)	276.5	HEL
SDG		Sourdough Central Alaska, Alaska, U.S.A. opened 1986.	62 31 37.2 N (62.5270)	145 32 36.0 W (145.5433)	625.0	GIA
SDI		San Donato Val di Comino Lazio, Italy	41 42 21.0 N (41.7058)	13 48 55.5 E (13.8154)	720.0	ROM
SDOM		Mount Sodom Israel	31 04 48.0 N (31.0800)	35 23 24.0 E (35.3900)	-200.0	JER
SEI	R	Scarperia Toscana, Italy	44 03 16.0 N (44.0544)	11 21 23.0 E (11.3564)	610.0	PRT
SEJ	R	Sejong Station South Shetland Islands, Antarctica	62 13 15.0 S (62.2208)	58 45 10.0 W (58.7528)	18.0	
SEMI		Semponon Sumatera, Indonesia	2 27 37.0 N (2.4603)	98 23 30.0 E (98.3917)	1750.0	DJA
SFI		Santa Sofia Emilia-Romagna, Italy opened 1987.	43 55 15.6 N (43.9210)	11 51 07.2 E (11.8520)	...	ROM
SGB		San Diego Bay Alaska Peninsula, Alaska, U.S.A.	55 32 45.0 N (55.5458)	160 27 13.8 W (160.4538)	275.0	
SGI	C	San Gemini Italy	...	...	...	
SGKT		Sivrigoynuk Turkey opened 1992.	40 34 26.0 N (40.5739)	32 03 21.0 E (32.0558)	1890.0	DDA
SGNT		Sidi Gnaou Tunisia	33 39 39.0 N (33.6608)	9 52 12.6 E (9.8702)	90.0	SBS
SHBJ		Al Shahba Jordan 19871024-19890326.	32 18 09.0 N (32.3025)	37 49 40.8 E (37.8280)	960.0	JSO
SHGH		Shai Hills Ghana opened 1987.	5 55 42.0 N (5.9283)	0 02 31.0 W (0.0419)	84.0	KUK
SHMJ		Saham Jordan opened 19890828.	32 43 37.2 N (32.7270)	35 45 50.4 E (35.7640)	363.0	JSO
SHRJ	R	Shirakawa 2 Honshu, Japan opened 19900424.	37 04 36.0 N (37.0767)	140 14 00.0 E (140.2333)	395.0	JMA
SHWJ		Shawbak Jordan opened 19891101.	30 22 58.8 N (30.3830)	35 30 00.0 E (35.5000)	1734.0	JSO
SIBI		Sibayak Dolok Sumatera, Indonesia opened 199110.	3 14 27.0 N (3.2408)	98 30 16.0 E (98.5044)	2050.0	DJA
SILC		Silvia Colombia opened 1990.	2 41 16.8 N (2.6880)	76 20 22.8 W (76.3397)	3150.0	UVC
SIMI		Simarbalatuk Sumatera, Indonesia	2 41 20.0 N (2.6889)	98 56 49.0 E (98.9469)	1681.0	DJA
SINI		Singah Jawa, Indonesia	7 00 52.0 S (7.0144)	107 30 00.0 E (107.5000)	1000.0	DJA
SIPM	R	..... Chiapas, Mexico UMN code SIP.	17 13 22.8 N (17.2230)	93 09 25.2 W (93.1570)	...	UNM
SIPV	D	Sipayare Venezuela	10 10 58.8 N (10.1830)	70 55 55.2 W (70.9320)	...	INTV
SIRM	R	Smir Morocco	...	...	...	CNRM
SIV		San Ignacio de Velasco Bolivia opened 199003.	15 59 28.7 S (15.9913)	61 04 19.9 W (61.0722)	520.0	LPZ
SIZ	D	Stewart Island Stewart Island, New Zealand opened 19901212.	46 52 30.0 S (46.8750)	168 07 59.0 E (168.1331)	...	WEL
SJAS		San Jacinto El Salvador SSS code SJA.	13 40 .. N (13.6667)	89 10 .. W (89.1667)	1100.0	SSS
SJID		St. Joe Idaho, U.S.A. opened 198710.	47 21 50.4 N (47.3640)	116 24 40.2 W (116.4112)	1775.0	
SJMO		St. John's Bayou Missouri, U.S.A.	36 37 44.4 N (36.6290)	89 28 33.6 W (89.4760)	91.0	SLM
SJRM	R	San Jeronimo Guerrero, Mexico	17 08 16.8 N (17.1380)	100 28 26.4 W (100.4740)	40.0	UNM
SJX	R	San Joaquin Baja California, Mexico opened 1986.	31 45 46.2 N (31.7628)	115 57 31.2 W (115.9587)	...	ECX
SKDB		..... Saint Christopher, Saint Christopher-Nevis	17 23 48.8 N (17.3969)	62 48 30.0 W (62.8083)	...	TRN
SKSP	F	(phase code designation)				
SLKY		(Alternate Abbreviation for FLKY)				
SLZ	R	Solwezi Zambia	...	...	...	

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
SMAM	R	San Marcos Guerrero, Mexico UNM code SMA.	16 47 07.8 N (16.7855)	99 23 53.4 W (99.3982)	...	UNM
SMBI		Sixmile Butte Idaho, U.S.A. opened 1992.	43 30 07.8 N (43.5022)	113 16 03.6 W (113.2677)	1736.0	USGS
SMCN		San Marcos Nicaragua opened 1990. APY code SMC.	11 54 24.0 N (11.9067)	86 12 07.0 W (86.2019)	...	APY
SMG		Samos Greece opened 198906.	37 42 31.2 N (37.7087)	26 50 13.2 E (26.8370)	...	ATH
SMJM	R	Simojovel Chiapas, Mexico IIM code SMJ.	17 08 02.4 N (17.1340)	92 42 54.0 W (92.7150)	...	IIM
SMLT	R	Sun Moon Lake China (Taiwan)	23 52 58.8 N (23.8830)	120 53 59.6 E (120.8999)	1014.8	TAP
SMMM		San Miguel Ometusco Mexico, Mexico opened 1988. UNM code SMM.	19 44 23.4 N (19.7398)	98 44 25.8 W (98.7405)	...	UNM
SMNM		San Marcial New Mexico, U.S.A. SNM code SMC.	33 46 43.2 N (33.7787)	107 01 09.6 W (107.0193)	1560.0	SNM
SMO	R	Clarke City Quebec, Canada opened 19910108.	50 13 21.0 N (50.2225)	66 42 10.0 W (66.7028)	344.0	ECTN
SNKA	C	Sanak Island Alaska Peninsula, Alaska, U.S.A. closed 199007. PAL code SNK.	54 28 26.4 N (54.4740)	162 46 31.2 W (162.7753)	159.0	PAL
SNOW		Snow King Mountain Wyoming, U.S.A. opened 198601.	43 27 44.9 N (43.4625)	110 45 18.8 W (110.7552)	2390.0	USBR
SNOU		Santaquin Juab County, Utah, U.S.A. opened 19900830.	39 47 40.8 N (39.7947)	111 54 09.0 W (111.9025)	1853.0	SLC
SODA		Al Sooda Saudi Arabia	18 17 27.6 N (18.2910)	42 22 26.4 E (42.3740)	2600.0	RYD
SOG		Santiaguito Guatemala opened 198402. GCG code STG.	14 46 34.8 N (14.7763)	91 35 15.6 W (91.5877)	2950.0	GCG
SOG2		Santiaguito 2 Guatemala opened 198701. GCG code ST2.	14 43 01.8 N (14.7172)	91 34 13.2 W (91.5703)	1560.0	GCG
SOI	D	Samo Calabria, Italy	38 04 19.5 N (38.0721)	16 03 17.7 E (16.0549)	...	ROM
SOIM	R	Smimou Morocco	31 09 57.6 N (31.1660)	9 39 57.6 W (9.6660)	...	CNRM
SOLC	R	Bahia Solano Colombia	6 22 12.1 N (6.3700)	77 27 27.5 W (77.4576)	51.0	
SOLO	R	Sioux Lookout Ontario, Canada opened 19881024.	50 01 16.7 N (50.0213)	92 04 52.3 W (92.0812)	373.0	OTTR
SONG		Songo Mozambique opened 198511.	15 36 12.0 S (15.6033)	32 46 42.0 E (32.7783)	900.0	LMM
SOO	R	Sioux Lookout Ontario, Canada opened 19870607.	50 04 34.2 N (50.0762)	91 53 16.8 W (91.8880)	358.0	OTTR
SOSW		Source of Smith Creek Washington, U.S.A. SEA code SOS.	46 14 12.0 N (46.2367)	122 08 12.0 W (122.1367)	1270.0	SEA
SPCI		Split Crater Idaho, U.S.A. opened 1992.	43 27 00.0 N (43.4500)	112 38 13.2 W (112.6370)	1520.0	USGS
SQF		Squaw Harbor Alaska Peninsula, Alaska, U.S.A.	55 13 12.0 N (55.2200)	160 33 44.4 W (160.5623)	360.0	PAL
SQTA		Sankt Quirin Austria opened 19890501.	47 13 13.8 N (47.2205)	11 12 31.4 E (11.2087)	1307.0	VIE
SRAT		Sarat Abidah Saudi Arabia opened 19900613.	18 02 20.4 N (18.0390)	43 09 43.2 E (43.1620)	2300.0	RYD
SRBF		Surbourg Alsace, France	48 54 53.0 N (48.9147)	7 51 08.0 E (7.8522)	200.0	STR
SRBM	R	..... Baja California, Mexico	... ...	... ...	...	UNM
SRDI		Scrawed Jawa, Indonesia opened 1991.	8 28 46.0 S (8.4794)	114 08 31.0 E (114.1419)	290.0	DJA
SRFA		Sharaf Saudi Arabia opened 1986.	28 55 48.0 N (28.9300)	35 11 16.8 E (35.1880)	...	RYD
SRNI		Srinagar Jammu and Kashmir, India NDI code SRN.	33 57 .. N (33.9500)	74 45 .. E (74.7500)	...	NDI
SRP		Santa Rosa Puebla, Mexico	18 53 48.0 N (18.8967)	97 46 48.0 W (97.7800)	...	UNM
SRQ		San Roque Spain Also sent to NEIS by MDD.	36 15 27.0 N (36.2575)	5 22 27.0 W (5.3742)	202.0	SFS

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
SRU		San Rafael Emery County, Utah, U.S.A. opened 1990T110.	39 06 39.0 N (39.1108)	110 31 25.8 W (110.5238)	1804.0	SLC
SSO		Sasso d'Italia (Macerata) Marche, Italy opened 198705.	43 17 34.8 N (43.2930)	13 25 12.0 E (13.4200)	302.0	SSO
SSOR		Sweet Springs Oregon, U.S.A. opened 199109. SEA code SSO.	44 51 21.6 N (44.8560)	122 27 37.8 W (122.4605)	1242.0	SEA
SSPA	D	Standing Stone Pennsylvania, U.S.A. opened 199207.	40 38 08.9 N (40.6358)	77 53 16.8 W (77.8880)	158.0	USNN
STAN	D	Stanford Santa Clara County, California, U.S.A. opened 19910415.	37 24 12.8 N (37.4035)	122 10 30.8 W (122.1752)	158.0	
STCH		Steam Cracks Hawaii, Hawaii, U.S.A. HVO code STC.	19 23 18.0 N (19.3883)	155 07 40.2 W (155.1278)	765.0	HVO
STCO		Saint Catharines Ontario, Canada opened 19910726.	43 12 30.3 N (43.2084)	79 10 14.7 W (79.1707)	92.0	LDN
STD		Studebaker Ridge Washington, U.S.A. opened 198205.	46 14 16.0 N (46.2378)	122 13 21.9 W (122.2227)	1268.0	SEA
STEW		Steamboat Mountain Wyoming, U.S.A. opened 198601.	44 02 59.0 N (44.0497)	110 40 54.0 W (110.6817)	2316.0	USBR
STF		Statfjord A Platform Norway	61 15 21.6 N (61.2560)	1 49 01.2 E (1.8170)	-148.0	BER
STID		Stanley Idaho, U.S.A. opened 199212.	44 06 53.4 N (44.1148)	114 51 57.6 W (114.8660)	1993.0	
STJN	R	Saint John's Newfoundland, Canada opened 19910812.	47 34 11.9 N (47.5700)	52 45 21.4 W (52.7559)	167.0	OTTR
STKA		Stephens Creek New South Wales, Australia opened 19920920.	31 52 36.8 S (31.8769)	141 35 42.7 E (141.5952)	230.0	AUST
STMY	R	Saint Marys Tasmania, Australia	...	...	...	TAU
STPM	R	 Puebla, Mexico	...	...	...	UNM
SULJ	R	Sultana Jordan	31 05 12.0 N (31.0867)	36 04 36.0 E (36.0767)	951.0	JSO
SVD		Seven Oaks Dam San Bernardino County, California, U.S.A.	34 06 .. N (34.1000)	117 06 .. W (117.1000)	600.0	PAS
SVST		Sivas Turkey opened 1992.	39 46 10.0 N (39.7694)	36 56 38.0 E (36.9439)	1252.0	DDA
SVTA	R	Shivta Israel	30 55 48.0 N (30.9300)	34 37 12.0 E (34.6200)	370.0	JER
SWNG		Sheriff Wilson Mono County, California, U.S.A. opened 19791111. MNLO code CSWN.	37 38 17.4 N (37.6382)	118 53 30.0 W (118.8917)	2188.0	CDMG
SWO	D	Sudbury Ontario, Canada opened 198705.	46 43 58.0 N (46.7328)	80 59 58.0 W (80.9994)	372.0	ECTN
SXG		Sacranix Guatemala opened 198511. GCG code SCG.	15 30 21.0 N (15.5058)	90 25 10.8 W (90.4197)	1904.0	GCG
SXT		Sachs Harbour Northwest Territories, Canada opened 19860813.	71 59 21.0 N (71.9892)	125 14 23.0 W (125.2397)	77.0	OTTR
SYA		Sidi Yaiche Tunisia SYA code SYAT.	34 44 30.6 N (34.7418)	8 48 25.2 E (8.8070)	550.0	SBS
SYI		Shuyak Island Kodiak Island, Alaska, U.S.A. opened 19900827.	58 36 36.0 N (58.6100)	152 23 27.0 W (152.3908)	149.0	GIA
SZAF	R	Shezaf Israel	30 54 .. N (30.9000)	34 33 .. E (34.5500)	290.0	JER
SZH		Strazhitsa Bulgaria opened 1988.	43 16 .. N (43.2667)	25 56 .. E (25.9333)	310.0	SOF
SZO	D	Sudbury Ontario, Canada opened 19870124.	46 26 17.0 N (46.4381)	81 29 46.0 W (81.4961)	312.0	ECTN
TAHZ		Taraponui North Island, New Zealand	39 08 09.0 S (39.1358)	176 44 25.0 E (176.7403)	1297.0	WELH
TAIF		At Ta'if Saudi Arabia opened 198902.	21 17 31.2 N (21.2920)	40 21 14.4 E (40.3540)	1680.0	RYD
TANI		Tanete Lipujang Sulawesi, Indonesia opened 1991.	3 26 10.0 S (3.4361)	119 22 59.0 E (119.3831)	230.0	DJA
TANM	R	 Chiapas, Mexico UNM code TAN.	16 55 08.4 N (16.9190)	93 06 54.0 W (93.1150)	...	UNM

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
TARW		Grand Targhee Resort Wyoming, U.S.A. opened 198601.	43 45 49.7 N (43.7638)	110 59 26.9 W (110.9908)	2091.0	USBR
TATJ	R	Tateyama 2 Honshu, Japan opened 19900510.	35 02 00.0 N (35.0333)	139 53 24.0 E (139.8900)	42.0	JMA
TBC		Trig B South Island, New Zealand	45 08 47.0 S (45.1464)	169 19 49.0 E (169.3303)	619.0	WELC
TBM		Table Mountain Washington, U.S.A.	47 10 10.1 N (47.1695)	120 35 54.0 W (120.5983)	1064.0	SEA
TBO		Thunder Bay Ontario, Canada opened 19870123.	48 38 50.4 N (48.6473)	89 24 30.0 W (89.4083)	468.0	OTTR
TBW		Brentwood England, United Kingdom opened 1989.	51 39 17.6 N (51.6549)	0 17 28.0 E (0.2911)	82.0	BGS
TCBC		Telegraph Creek British Columbia, Canada opened 19891010.	57 55 23.0 N (57.9231)	131 16 55.0 W (131.2819)	1356.0	OTTR
TCG		Tacana Guatemala opened 198607.	15 07 22.2 N (15.1228)	92 05 09.0 W (92.0858)	3100.0	GCG
TCNV		Thirsty Canyon Nevada, U.S.A. opened 19841102. USGS code TCN.	37 08 48.0 N (37.1467)	116 43 31.2 W (116.7253)	1469.0	USGS
TCO		Three Creek Meadows Oregon, U.S.A. opened 19870827.	44 06 27.0 N (44.1075)	121 36 00.0 W (121.6000)	1975.0	SEA
TCOM	R	... Coahuila, Mexico	... ...	... ...	...	UNM
TCPM	R	Tecamachalco Puebla, Mexico UNM code TCP.	18 53 24.0 N (18.8900)	97 41 22.0 W (97.6894)	...	UNM
TCR		Colchester England, United Kingdom opened 1989.	51 50 05.6 N (51.8349)	0 54 45.0 E (0.9125)	40.0	BGS
TCSI		Teichick Spring Idaho, U.S.A. opened 1992.	43 37 09.6 N (43.6193)	113 28 42.0 W (113.4783)	1731.0	USGS
TCT		Tennessee City Tennessee, U.S.A. opened 19880310.	36 00 19.2 N (36.0053)	87 33 10.2 W (87.5528)	245.0	TVA
TCUT		Toone Canyon Morgan County, Utah, U.S.A. opened 198908.	41 07 05.4 N (41.1182)	111 24 38.4 W (111.4107)	2316.0	SLC
TDH		Tom, Dick, Harry Mountain Oregon, U.S.A. opened 198209.	45 17 23.4 N (45.2898)	121 47 25.2 W (121.7903)	1541.0	SEA
TDL		Tradedollar Lake Washington, U.S.A. opened 198311.	46 21 03.0 N (46.3508)	122 12 57.0 W (122.2158)	1400.0	SEA
TDMT	R	Tunduma Tanzania opened 199206.	9 17 46.2 S (9.2962)	32 46 16.2 E (32.7712)	1590.0	
TDS	D	Terranova di Sibari Calabria, Italy	39 39 31.8 N (39.6588)	16 20 16.3 E (16.3379)	273.0	ROM
TEB		Eastbourne England, United Kingdom opened 1989.	50 49 07.7 N (50.8188)	0 08 45.2 E (0.1459)	70.0	BGS
TEGH		Tema Ghana opened 1987.	5 38 12.0 N (5.6367)	0 00 05.0 W (0.0014)	14.0	KUK
TEHM	R	... Guerrero, Mexico	... ...	... ...	...	UNM
TEHZ		Te Atua North Island, New Zealand	39 59 22.0 S (39.9894)	176 48 40.0 E (176.8111)	407.0	WELH
TEI	F	(magnitude source code for TEIC)				
TEO	R	Teotitlan Oaxaca, Mexico	18 08 17.6 N (18.1382)	97 04 30.6 W (97.0752)	1060.0	UNM
TETM	R	Tetitlan Guerrero, Mexico	17 09 42.0 N (17.1617)	100 37 49.8 W (100.6305)	50.0	UNM
TEYM	R	Tepich Yucatan, Mexico	20 12 12.0 N (20.2033)	88 20 12.0 W (88.3367)	...	UNM
TFT	R	Tounfite Morocco	32 03 28.8 N (32.0580)	5 16 01.2 W (5.2670)	...	CNRM
TGL		Tana Glacier Central Alaska, Alaska, U.S.A. opened 19880701.	60 45 21.0 N (60.7558)	142 49 46.8 W (142.8297)	1234.0	GIA
TGRV		El Tigre Venezuela opened 199211.	8 50 02.4 N (8.8340)	64 10 05.9 W (64.1683)	293.0	CAR
TGY		Tagaytay Luzon, Philippines opened 1991.	14 06 10.8 N (14.1030)	120 56 02.4 E (120.9340)	650.0	MAN
THRI		Tanaharon Bali, Nusa Tenggara, Indonesia	8 22 10.0 S (8.3694)	115 32 35.0 E (115.5431)	1000.0	DJA
THY		Trims Highway Central Alaska, Alaska, U.S.A. opened 1986.	63 25 00.0 N (63.4167)	145 45 07.8 W (145.7522)	732.0	GIA

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
THZ	D	Tophouse South Island, New Zealand opened 1989T130.	41 45 49.8 S (41.7638)	172 54 13.2 E (172.9037)	760.0	WEL
TIH		Tihany Hungary opened 1987.	46 54 00.0 N (46.9000)	17 53 34.8 E (17.8930)	187.0	BUD
TIS	R	Tissa Morocco	31 53 31.2 N (31.8920)	6 33 14.4 W (6.5540)	...	CNRM
TIZ	U	Tara Hills New Zealand	... 	... 	...	WEL
TKMS	RD	Tokmak Kyrgyzstan	... 	... 	...	MOSR IDA IRIS
TKO		Trask Mountain Oregon, U.S.A. opened 19910820.	45 22 16.7 N (45.3713)	123 27 14.0 W (123.4539)	1024.0	SEA
TLA		Tapachula Chiapas, Mexico	15 01 44.0 N (15.0289)	92 12 00.0 W (92.2000)	...	UNM
TLC		Trig L South Island, New Zealand	45 11 28.7 S (45.1913)	169 04 16.7 E (169.0713)	1393.0	WELC
TLI	D	Talmassons Friuli-Venezia Giulia, Italy opened 19851127.	45 55 18.0 N (45.9217)	13 06 07.0 E (13.1019)	25.0	TRI
TLY	D	Talaya Irkutskaya Oblast, Russia	51 40 48.0 N (51.6800)	103 38 24.0 E (103.6400)	579.0	MOS IDA IRIS
TMDA		Turtle Mountain Alberta, Canada Sent to NEIS by PGC.	49 34 52.0 N (49.5811)	114 23 57.1 W (114.3992)	1541.0	
TME		Tecomasuche El Salvador	14 01 01.0 N (14.0169)	89 21 20.0 W (89.3556)	516.0	SSS
TMM2	R	Technologico de Monterrey 2 Nuevo Leon, Mexico	25 41 57.0 N (25.6992)	100 15 58.8 W (100.2663)	...	UNM
TMW	D	Tok Microwave Central Alaska, Alaska, U.S.A. opened 1986. USTN opened 199101.	63 19 28.2 N (63.3245)	142 59 48.0 W (142.9967)	495.0	GIA USTN
TNRJ	R	Tenryu Shizuoka, Honshu, Japan	34 54 28.1 N (34.9078)	137 53 06.7 E (137.8852)	66.0	CDPJ
TNV	D	Terra Nova Bay Greater Antarctica, Antarctica	74 41 42.0 S (74.6950)	164 07 26.4 E (164.1240)	30.0	MEDN
TOD		Tromm Hessen, Germany opened before 197410.	49 36 20.4 N (49.6057)	8 48 13.8 E (8.8038)	570.0	KRW
TOLC	R	Tolima Colombia	4 35 19.5 N (4.5887)	75 20 23.5 W (75.3399)	2516.0	
TONM	R	... Chiapas, Mexico	... 	... 	...	UNM
TORT	R	La Tortuga Venezuela opened 1984.	10 54 30.2 N (10.9084)	65 18 50.0 W (65.3139)	40.0	CAR
TOS	R	Tosontsengel Mongolia	48 45 .. N (48.7500)	106 57 .. E (106.9500)	...	
TOUF		Mont Tournerait Provence-Cote d'Azur, France	44 00 48.6 N (44.0135)	7 14 53.9 E (7.2483)	1830.0	STR
TPAW		Teton Pass Wyoming, U.S.A. opened 198601.	43 29 24.3 N (43.4901)	110 57 02.3 W (110.9506)	2512.0	USBR
TPE		Tepelena Albania opened 198404.	40 17 42.7 N (40.2952)	20 00 39.2 E (20.0109)	240.0	TIR
TPG	R	Tlapa Guerrero, Mexico	17 33 38.4 N (17.5607)	98 33 19.8 W (98.5555)	1100.0	UNM
TPMT		Tepee Creek Montana, U.S.A. opened 19921012.	44 43 47.4 N (44.7298)	111 39 56.4 W (111.6657)	2518.0	BUT
TPNV	D	Topopah Spring Nevada, U.S.A. opened 19920615.	36 56 55.8 N (36.9488)	116 14 58.2 W (116.2495)	1600.0	USNN USTN
TPRS		Tripped Ranch Los Angeles County, California, U.S.A. opened 19851101. USC code TPR.	34 05 19.8 N (34.0888)	118 35 12.0 W (118.5867)	-1.0	USC
TQTN		Tranquillity Tennessee, U.S.A. opened 19860716.	35 30 57.6 N (35.5160)	84 43 33.0 W (84.7258)	260.0	TVA
TREF		Trevoresse Provence-Cote d'Azur, France	43 37 26.8 N (43.6241)	5 23 02.0 E (5.3839)	460.0	STR
TRF		Thorofare Mountain Central Alaska, Alaska, U.S.A. opened 198908.	63 27 03.6 N (63.4510)	150 17 14.4 W (150.2873)	1717.0	GIA
TRGS		Targassone Languedoc-Rousillon, France	42 30 08.0 N (42.5022)	1 58 00.0 E (1.9667)	1700.0	STR
TRHT		Turhal Turkey opened 1992.	40 20 48.0 N (40.3467)	36 10 47.0 E (36.1797)	1203.0	DDA
TROT		Trozza Tunisia	35 33 42.0 N (35.5617)	9 36 00.6 E (9.6002)	900.0	SBS
TRXW		Triangle-X Ranch Wyoming, U.S.A. opened 198601.	43 44 57.3 N (43.7493)	110 33 36.5 W (110.5601)	2256.0	USBR
TSUJ	R	Tsu 2 Mie, Honshu, Japan	34 42 36.0 N (34.7100)	136 25 12.0 E (136.4200)	30.0	JMA

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
TSY		Tnine Sidi el Yamani Morocco	35 22 22.0 N (35.3728)	5 58 12.0 W (5.9700)	...	CNRM
TTE	RD	Trieste Friuli-Venezia Giulia, Italy opened 1989?	45 38 45.7 N (45.6460)	13 45 43.2 E (13.7620)	3.0	MEDN
TTH	D	Taradale Trig North Island, New Zealand opened 19870319.	39 32 28.8 S (39.5413)	176 49 34.2 E (176.8262)	120.0	WELH
TTS	R	Tsetserleg Mongolia	47 28 48.0 N (47.4800)	101 26 24.0 E (101.4400)	...	
TU1		Tuscania Lazio, Italy	42 25 07.0 N (42.4186)	11 52 28.0 E (11.8744)	166.0	ROM
TULC	R	Monteloro Colombia	...	...	...	UVC
TUNG		Tungurahua Ecuador opened 198906.	1 25 05.4 S (1.4182)	78 26 43.8 W (78.4455)	2774.0	QUI
TUU	R	Turnu Rosu Romania opened 19880615.	45 39 09.0 N (45.6525)	24 16 23.0 E (24.2731)	519.0	BUC
TUVM	RD	Tuzandepetl Veracruz, Mexico	18 01 58.9 N (18.0330)	94 25 20.2 W (94.4223)	...	UNM MDAS
TUZ	D	Tuapeka South Island, New Zealand opened 19910404.	45 57 22.0 S (45.9561)	169 37 56.0 E (169.6322)	...	WEL
TVGG	C	Rocky Mountain Net Georgia, U.S.A. closed 1989.	34 22 37.9 N (34.3772)	85 18 08.3 W (85.3023)	323.0	ATL
TWB		Tillmans-Whites Bay South Carolina, U.S.A. opened 19880301.	33 06 54.0 N (33.1150)	80 06 09.0 W (80.1025)	9.0	USGS
TWW		Teanaway Washington, U.S.A. opened 198610.	47 08 17.2 N (47.1381)	120 52 04.5 W (120.8679)	1046.0	SEA
TXNY		Tuxedo New York, U.S.A. opened 1990.	41 10 39.0 N (41.1775)	74 11 19.4 W (74.1887)	143.0	
TYNO		Tyneside Ontario, Canada opened 19910718.	43 05 41.4 N (43.0948)	79 52 13.1 W (79.8703)	205.0	LDN
TZC	R	Tazercounte Morocco	32 10 04.8 N (32.1680)	6 29 13.2 W (6.4870)	...	CNRM
TZL		Tazlina Central Alaska, Alaska, U.S.A. opened 199007.	62 02 40.2 N (62.0445)	145 25 25.8 W (145.4238)	366.0	GIA
TZR		Tezpur Assam, India	26 38 .. N (26.6333)	92 48 .. E (92.8000)	...	JHI
UCH	RD	Uchtor Kyrgyzstan	...	...	...	MOSR IDA IRIS
UCSB	R	University of California Stadium	...	...	...	BRK
UGO	R	..... Guanajuato, Mexico	...	...	...	UNM
UJZ	R	..... Chiapas, Mexico	15 04 30.0 N (15.0750)	92 05 00.0 W (92.0833)	...	UNM
UKAQ	RD	Ukalunda Queensland, Australia opened 19840328. QDM code UKA.	20 53 56.4 S (20.8990)	147 07 37.2 E (147.1270)	200.0	QDM
ULG	R	Ulaangom Mongolia	49 57 36.0 N (49.9600)	92 03 36.0 E (92.0600)	...	
UMI		..... India	25 31 .. N (25.5167)	92 44 .. E (92.7333)	...	JHI
UMT		Umtata Cape Province, South Africa opened 198808.	31 35 00.0 S (31.5833)	28 45 18.0 E (28.7550)	800.0	PRE
UON	R	La Union Guerrero, Mexico	17 58 12.0 N (17.9700)	101 48 54.0 W (101.8150)	...	UNM
UOSK		'Uqlat as Suqur Saudi Arabia opened 19900523.	25 47 20.4 N (25.7890)	42 21 36.0 E (42.3600)	950.0	RYD
URAJ	R	Urakawa 2 Hidaka, Hokkaido, Japan opened 19910607.	42 13 28.8 N (42.2247)	142 42 18.0 E (142.7050)	40.0	JMA
URSC		Urasca Costa Rica SJR code URS.	9 50 06.0 N (9.8350)	83 46 41.4 W (83.7782)	1500.0	SJR
URZ	D	Urewera North Island, New Zealand opened 19901009.	38 15 37.0 S (38.2603)	177 06 37.0 E (177.1103)	...	WEL
USBR	F	U.S. Bureau of Reclamation, Denver				
USH	RD	Wushi Xinjiang, China (Mainland)	41 12 .. N (41.2000)	78 36 .. E (78.6000)	...	
USIL		Lacq--Usine Aquitaine, France	43 25 01.0 N (43.4169)	0 38 16.9 W (0.6380)	95.0	STR
USP	RD	Uspenovka Kyrgyzstan	...	...	...	MOSR IDA IRIS
UTMA		University of Tennessee at Martin Tennessee, U.S.A. opened 198511. Station moved from UTM.	36 17 34.8 N (36.2930)	88 58 33.6 W (88.9760)	108.0	

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
UTSU	R	Utsunomiya	36 32 49.3 N	139 55 01.4 E	110.0	UTSU
		Tochigi, Honshu, Japan	(36.5470)	(139.9171)		
		opened 196202. UTSU code UTU.				
UVC	F	Universidad del Valle, Cali				
UYO		Union Valley	34 10 00.0 N	94 27 31.7 W	231.0	TUL
		Oklahoma, U.S.A.	(34.1667)	(94.4588)		
		opened 19890415.				
UZD		Uzd	46 35 33.0 N	18 34 54.5 E	207.0	BUD
		Hungary	(46.5925)	(18.5818)		
		opened 1987.				
UZU		Uzumlu	39 42 31.0 N	39 41 53.0 E	1500.0	ISK
		Turkey	(39.7086)	(39.6981)		
VACR		Volcan Arenal	10 28 22.8 N	84 40 39.0 W	360.0	HDC
		Costa Rica	(10.4730)	(84.6775)		
		opened 19860429.				
VAF		Ylistaro	63 02 31.9 N	22 40 17.4 E	55.0	HEL
		Finland	(63.0422)	(22.6715)		
		opened 19890606.				
VASS		Vassouras	22 23 58.0 S	43 39 08.0 W	448.0	RDJ
		Rio de Janeiro, Brazil	(22.3994)	(43.6522)		
		opened 1988.				
VBN		Bulusan	12 43 55.2 N	124 01 30.0 E	...	MAN
		Luzon, Philippines	(12.7320)	(124.0250)		
VBU	R	Buco	14 05 13.2 N	120 59 13.2 E	...	MAN
		Luzon, Philippines	(14.0870)	(120.9870)		
VBY		Vinica-Bojanci	45 30 16.2 N	15 15 23.8 E	259.0	LJU
		Slovenia	(45.5045)	(15.2566)		
		opened 19861030.				
VC1		Cotopaxi 1	0 38 22.2 S	78 24 24.0 W	4064.0	QUI
		Ecuador	(0.6395)	(78.4067)		
		opened 198809.				
VCB		Cabagna-an	10 21 43.2 N	123 07 01.2 E	...	MAN
		Negros, Philippines	(10.3620)	(123.1170)		
VCN		Canlaon	10 23 49.2 N	123 12 25.2 E	...	MAN
		Negros, Philippines	(10.3970)	(123.2070)		
VCT		Victoria	45 43 30.0 N	24 42 03.6 E	565.0	BUC
		Romania	(45.7250)	(24.7010)		
		opened 198904.				
VDCF		Villefranche-de-Conflent	42 35 27.0 N	2 21 56.0 E	600.0	STR
		Languedoc-Rousillon, France	(42.5908)	(2.3656)		
		opened 198901.				
VDF	R	Valdeflores	16 45 39.6 N	96 49 19.2 W	...	UNM
		Oaxaca, Mexico	(16.7610)	(96.8220)		
VEA		Veano	44 53 21.5 N	9 37 08.4 E	...	GEN
		Emilia-Romagna, Italy	(44.8893)	(9.6190)		
VFP		Flag Point	45 19 05.0 N	121 27 54.3 W	1716.0	SEA
		Oregon, U.S.A.	(45.3181)	(121.4651)		
		opened 198010.				
VGP		.....	17 21 25.8 N	93 36 50.4 W	...	UNM
		Mexico	(17.3572)	(93.6140)		
VHH	R	Hibok Hibok	9 13 58.8 N	124 40 19.2 E	...	MAN
		Mindanao, Philippines	(9.2330)	(124.6720)		
VHTN	C	Van Hill	36 23 56.4 N	82 48 07.2 W	658.0	TVA
		Tennessee, U.S.A.	(36.3990)	(82.8020)		
		19860114-19860323.				
VIH		Vielha (Viella)	42 37 43.8 N	0 46 12.0 E	1700.0	MRB
		Spain	(42.6288)	(0.7700)		
		opened 1986.				
VILF		Villemus	43 51 09.0 N	5 42 55.1 E	770.0	STR
		Provence-Cote d'Azur, France	(43.8525)	(5.7153)		
VIV	R	Vinh	18 32 51.0 N	105 42 00.0 E	5.0	PLV
		Vietnam	(18.5475)	(105.7000)		
VLH	R	Lignon Hill	13 09 39.6 N	123 43 30.0 E	...	MAN
		Luzon, Philippines	(13.1610)	(123.7250)		
VLI		Veliai	36 43 05.4 N	22 56 13.2 E	220.0	ATH
		Greece	(36.7182)	(22.9370)		
		opened 198906.				
VLL		Laurance Lake	45 27 48.0 N	121 40 45.0 W	1195.0	SEA
		Oregon, U.S.A.	(45.4633)	(121.6792)		
		opened 198010.				
VMG	R	Vicchio	43 57 42.0 N	11 32 38.0 E	450.0	PRT
		Toscana, Italy	(43.9617)	(11.5439)		
VMO	R	Villa Marinero	15 51 04.2 N	97 03 49.8 W	3.0	UNM
		Oaxaca, Mexico	(15.8512)	(97.0638)		
VMR		Mayon Resthouse	13 17 06.0 N	123 40 04.8 E	...	MAN
		Luzon, Philippines	(13.2850)	(123.6680)		
VMS	R	Misericordia	13 15 00.0 N	123 45 18.0 E	...	MAN
		Luzon, Philippines	(13.2500)	(123.7550)		
VNM		Villa de Garcia	25 50 36.0 N	100 35 39.0 W	...	UNM
		Nuevo Leon, Mexico	(25.8433)	(100.5942)		
		opened 198912.				
VNV	R	Volcan Villarrica	39 22 09.0 S	71 57 10.0 W	...	
		Araucania, Chile	(39.3692)	(71.9528)		
VOLV	R	El Volcan	10 25 12.0 N	66 50 59.3 W	1480.0	CAR
		Venezuela	(10.4200)	(66.8498)		
VPP		Pira-Piraso	14 02 06.0 N	121 00 03.6 E	...	MAN
		Luzon, Philippines	(14.0350)	(121.0010)		
VPT	R	Volcan Platanar	...	...	...	HDC
		Costa Rica				

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
VRAC		Vranov Czech Republic opened 198912.	49 18 32.4 N (49.3090)	16 35 42.0 E (16.5950)	...	
VSL	RD	Villasalto Italy	...	...	...	MEDN
VSM		Volcan San Miguel El Salvador	13 25 41.0 N (13.4281)	88 16 27.0 W (88.2742)	2129.0	SSS
VSS		Volcan San Salvador El Salvador	13 44 30.0 N (13.7417)	89 14 30.0 W (89.2417)	1250.0	SSS
VTU		Volcan Turrialba Costa Rica	10 01 15.6 N (10.0210)	83 45 30.0 W (83.7583)	3329.0	HDC
VVI		Villa di Villa Veneto, Italy opened 19870610.	45 58 58.4 N (45.9829)	12 25 25.0 E (12.4236)	515.0	ERC
WA4		Burakin Western Australia, Australia opened 19860422.	30 36 07.2 S (30.6020)	117 13 30.0 E (117.2250)	320.0	AUST
WAH2		Wahluke Slope Washington, U.S.A. SEA code WA2.	46 45 24.2 N (46.7567)	119 33 45.5 W (119.5626)	230.0	SEA
WAHZ		Wakarara North Island, New Zealand	39 41 57.0 S (39.6992)	176 21 19.0 E (176.3553)	657.0	WELH
WAJH		Al Wajh Saudi Arabia opened 19880620.	26 10 30.0 N (26.1750)	36 33 43.2 E (36.5620)	75.0	RYD
WALA	D	Waterton Lakes Alberta, Canada opened 19920515.	49 03 31.0 N (49.0586)	113 54 41.5 W (113.9115)	1400.0	OTT
WAMI	R	Wamena Irian Jaya, Indonesia	3 53 05.0 S (3.8847)	138 42 41.0 E (138.7114)	...	DJA
WARB		Warburton Western Australia, Australia opened 19870628.	26 11 01.7 S (26.1838)	126 38 34.8 E (126.6430)	460.0	AUST
WATA		Walderalm Austria opened 198910.	47 20 08.7 N (47.3357)	11 34 34.7 E (11.5763)	1492.0	VIE
WBAQ		Buaraba No. 3 Queensland, Australia opened 19840706. QDM code WBA.	27 21 09.7 S (27.3527)	152 18 29.5 E (152.3082)	...	QDM
WBR	R	Bronaber Wales, United Kingdom opened 1985.	52 51 21.6 N (52.8560)	3 53 38.8 W (3.8941)	340.0	BGS
WCBC	C	Windy Craggy British Columbia, Canada 19880610-19900806.	59 37 40.1 N (59.6278)	137 42 57.6 W (137.7160)	750.0	OTTR
WCC		Westchester Community College New York, U.S.A. opened 198706.	41 03 15.0 N (41.0542)	73 47 05.4 W (73.7848)	...	PAL
WCT		Wildcat Mountain Nevada, U.S.A. opened 19810408.	36 46 47.4 N (36.7798)	116 37 01.2 W (116.6170)	930.0	USGS
WCZ		Waipu Caves North Island, New Zealand opened 19901012.	35 56 28.0 S (35.9411)	174 20 40.0 E (174.3444)	140.0	WEL
WEGH		Weija Ghana opened 1987.	5 35 36.0 N (5.5933)	0 19 37.0 W (0.3269)	180.0	KUK
WELC	F	IGNS Clyde Network, Wellington, NZ				
WELH	F	IGNS Hawkes Bay Network, Wellington, NZ				
WEN		Wenatchee Washington, U.S.A.	47 31 46.2 N (47.5295)	120 11 39.0 W (120.1942)	1061.0	SEA
WFB		Fairbourne Wales, United Kingdom opened 1985.	52 40 58.8 N (52.6830)	4 02 16.1 W (4.0378)	325.0	BGS
WG2		Wallula Gap Washington, U.S.A. opened 198704.	46 01 50.2 N (46.0306)	118 51 20.0 W (118.8556)	511.0	SEA
WG3		Wallula Gap Washington, U.S.A. opened 199001.	46 01 43.0 N (46.0286)	118 51 24.0 W (118.8567)	480.0	SEA
WGAR		Walnut Grove Arkansas, U.S.A.	35 51 10.8 N (35.8530)	90 11 27.6 W (90.1910)	72.0	SLM
WHH	D	Whakatau North Island, New Zealand opened 19870301.	38 53 04.2 S (38.8845)	176 29 42.0 E (176.4950)	921.0	WELH
WIGH		Winneba Ghana opened 1987.	5 21 49.0 N (5.3636)	0 37 08.0 W (0.6189)	64.0	KUK
WIHG	R	Wadia Institute--Dehra Dun Uttar Pradesh, India opened 19851101.	30 19 42.6 N (30.3285)	78 00 46.8 E (78.0130)	619.0	WIHG
WIM		Isle of Man Isle of Man, United Kingdom opened 1985.	54 08 49.9 N (54.1472)	4 40 24.6 W (4.6735)	365.0	BGS
WLC	R	Llyn Conwy Wales, United Kingdom opened 1985.	52 59 44.2 N (52.9956)	3 46 43.7 W (3.7788)	440.0	BGS
WLJ	R	..... Utah, U.S.A.	...	...	...	SLC

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
WLVO		Wesleyville Ontario, Canada opened 1990T107.	43 55 24.2 N (43.9234)	78 23 50.1 W (78.3973)	83.0	LDN
WLZ	D	Whitehall North Island, New Zealand opened 19891217.	37 52 12.0 S (37.8700)	175 35 46.0 E (175.5961)	190.0	WEL
WMBQ		Mount Brisbane Queensland, Australia opened 19770318. QDM code WMB.	27 06 55.8 S (27.1155)	152 33 00.7 E (152.5502)	160.0	QDM
WME		Myndd Eilian Wales, United Kingdom opened 1985.	53 23 47.8 N (53.3966)	4 18 12.2 W (4.3034)	130.0	BGS
WMOK	D	Wichita Mountains Oklahoma, U.S.A. opened 19920930.	34 44 16.4 N (34.7379)	98 46 51.6 W (98.7810)	486.0	NEIS USNN USTN
WMOR		Whale Back Mountain Oregon, U.S.A. opened 199109. SEA code WMO.	42 54 10.0 N (42.9028)	122 35 31.0 W (122.5919)	1860.0	SEA
WMZ		Williams Arizona, U.S.A. opened 19860131.	35 09 29.0 N (35.1581)	112 19 13.0 W (112.3203)	2018.0	FLAG
WNDE	R	Wendo Genet Ethiopia	7 04 58.8 N (7.0830)	38 37 48.0 E (38.6300)	1920.0	
WNS		Wenas Washington, U.S.A. opened 198407.	46 42 37.0 N (46.7103)	120 34 30.0 W (120.5750)	1000.0	SEA
WON	RD	Wolverton North England, United Kingdom	51 19 39.0 N (51.3275)	1 12 03.0 W (1.2008)	104.0	BKN
WPMQ	R	Pine Mountain Queensland, Australia opened 19770318. QDM code WPM.	27 32 08.5 S (27.5357)	152 44 07.8 E (152.7355)	35.0	QDM
WPO		West Portland Oregon, U.S.A. opened 198610.	45 34 24.0 N (45.5733)	122 47 22.4 W (122.7896)	334.0	SEA
WPW		White Pass Washington, U.S.A. opened 198003.	46 41 53.4 N (46.6982)	121 32 48.0 W (121.5467)	1250.0	SEA
WRCQ		Reedy Creek No. 5 Queensland, Australia opened 19840711. QDM code WRC.	27 11 14.6 S (27.1874)	152 39 47.2 E (152.6631)	...	QDM
WSSR		Wesser Bold North Carolina, U.S.A. opened 198511.	35 16 40.2 N (35.2778)	83 34 40.8 W (83.5780)	1390.0	TEIC
WST	R	Stwlan Wales, United Kingdom opened 1986.	52 58 30.0 N (52.9750)	3 59 20.4 W (3.9890)	850.0	BGS
WTGQ	R	Toogoolawah Queensland, Australia opened 19770318. QDM code WTG.	27 08 44.9 S (27.1458)	152 19 59.9 E (152.3333)	130.0	QDM
WTRQ		Thallon Road Queensland, Australia opened 19840523. QDM code WTR.	27 31 43.0 S (27.5286)	152 27 52.2 E (152.4645)	...	QDM
WTTA		Wattenberg Austria opened 19910209.	47 15 49.7 N (47.2638)	11 38 10.7 E (11.6363)	1764.0	VIE
WTU		Western Traverse Mountains Salt Lake County, Utah, U.S.A. opened 19920609.	40 27 17.4 N (40.4548)	111 57 10.8 W (111.9530)	1579.0	SLC
WTV		Waterville Washington, U.S.A. opened 197611. SEA code WAT.	47 41 55.0 N (47.6986)	119 57 15.0 W (119.9542)	900.0	SEA
WTX		Workman Tunnel New Mexico, U.S.A.	34 04 19.8 N (34.0722)	106 56 45.0 W (106.9458)	1555.0	SNM
WUS	D	Wushi Xinjiang, China (Mainland) opened 19881021.	41 12 00.0 N (41.2000)	79 13 12.0 E (79.2200)	1457.0	BJI GEOS
WVR	R	Vyrnwy Wales, United Kingdom opened 1985.	52 47 50.6 N (52.7974)	3 36 18.4 W (3.6051)	580.0	BGS
WVZ	D	Waitaha Valley South Island, New Zealand opened 19900221.	43 04 35.0 S (43.0764)	170 44 10.0 E (170.7361)	75.0	WEL
WWHQ		Wivenhoe Hill No. 3 Queensland, Australia opened 19840712. QDM code WWH.	27 22 12.7 S (27.3702)	152 35 13.9 E (152.5872)	...	QDM
WWKK	D	Wewakk New Guinea, Papua New Guinea opened 199204.	3 37 22.8 S (3.6230)	143 37 24.6 E (143.6235)	442.0	PMG
XIN		Xingo Alagoas, Brazil opened 1991.	9 26 54.0 S (9.4483)	37 50 11.0 W (37.8364)	285.0	VAO
XLV		Seldovia Kenai Peninsula, Alaska, U.S.A. opened 1987.	59 27 16.8 N (59.4547)	151 43 18.0 W (151.7217)	380.0	GIA
XPKP	F	(phase code designation)				
XPP	F	(phase code designation)				
XSCS	F	(phase code designation)				
XSS	F	(phase code designation)				

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
YAKW		Yakima Washington, U.S.A. SEA code YAK.	46 31 15.8 N (46.5211)	120 31 45.2 W (120.5292)	619.0	SEA
YANA		Yana Ecuador opened 199008.	0 06 53.3 S (0.1148)	78 34 19.6 W (78.5721)	3730.0	OUI
YBH	R	Yreka Blue Hill U.S.A.	...	...	...	BRK
YEL		Yellow Rock Washington, U.S.A. opened 198109.	46 12 35.0 N (46.2097)	122 11 16.0 W (122.1878)	1750.0	SEA
YERD	R	Yerdanie Rock Western Australia, Australia	31 11 08.6 S (31.1857)	120 37 41.2 E (120.6281)	...	AUST
YHV	R	'En Yahav Israel	...	...	...	JER
YKB0		Yellowknife Array Northwest Territories, Canada opened 1962.	62 36 21.4 N (62.6059)	114 36 18.1 W (114.6050)	221.6	OTTR
YKB1	R	Yellowknife Array Northwest Territories, Canada opened 1962.	62 24 08.6 N (62.4024)	114 36 19.6 W (114.6054)	172.5	OTTR
YKB2	R	Yellowknife Array Northwest Territories, Canada opened 1962.	62 25 29.2 N (62.4248)	114 36 19.5 W (114.6054)	180.0	OTTR
YKB3	R	Yellowknife Array Northwest Territories, Canada opened 1962.	62 26 55.0 N (62.4486)	114 36 18.7 W (114.6052)	187.6	OTTR
YKB4	R	Yellowknife Array Northwest Territories, Canada opened 1962.	62 28 15.9 N (62.4711)	114 36 17.8 W (114.6049)	192.9	OTTR
YKB5	R	Yellowknife Array Northwest Territories, Canada opened 1962.	62 29 35.6 N (62.4932)	114 36 19.1 W (114.6053)	196.7	OTTR
YKB6	R	Yellowknife Array Northwest Territories, Canada opened 1962.	62 30 59.5 N (62.5165)	114 36 18.0 W (114.6050)	202.6	OTTR
YKB7	R	Yellowknife Array Northwest Territories, Canada opened 1962.	62 32 20.4 N (62.5390)	114 36 19.0 W (114.6053)	204.4	OTTR
YKB8	R	Yellowknife Array Northwest Territories, Canada opened 1962.	62 33 41.6 N (62.5616)	114 36 16.9 W (114.6047)	197.9	OTTR
YKB9	R	Yellowknife Array Northwest Territories, Canada opened 1962.	62 34 58.6 N (62.5829)	114 36 13.9 W (114.6039)	213.1	OTTR
YKR0	U	Yellowknife Array Northwest Territories, Canada 1962-197605.	62 29 35.2 N (62.4931)	114 30 30.8 W (114.5086)	204.9	OTTR
YKR1		Yellowknife Array Northwest Territories, Canada opened 1962.	62 29 33.8 N (62.4927)	114 56 44.1 W (114.9456)	170.0	OTTR
YKR2	R	Yellowknife Array Northwest Territories, Canada opened 1962.	62 29 34.0 N (62.4928)	114 53 47.1 W (114.8964)	175.0	OTTR
YKR3	R	Yellowknife Array Northwest Territories, Canada opened 1962.	62 29 34.7 N (62.4930)	114 50 51.8 W (114.8477)	176.8	OTTR
YKR4	R	Yellowknife Array Northwest Territories, Canada opened 1962.	62 29 33.9 N (62.4927)	114 47 58.2 W (114.7995)	173.4	OTTR
YKR5	R	Yellowknife Array Northwest Territories, Canada opened 1962.	62 29 35.8 N (62.4933)	114 44 59.8 W (114.7499)	182.9	OTTR
YKR6	R	Yellowknife Array Northwest Territories, Canada opened 1962.	62 29 36.0 N (62.4933)	114 42 04.9 W (114.7014)	192.2	OTTR
YKR7	R	Yellowknife Array Northwest Territories, Canada opened 1962.	62 29 36.1 N (62.4934)	114 39 13.2 W (114.6537)	198.9	OTTR
YKR8		(Alternate Abbreviation for YKB5)				
YKR9	R	Yellowknife Array Northwest Territories, Canada opened 1962.	62 29 35.6 N (62.4932)	114 33 20.7 W (114.5558)	201.1	OTTR
YKW1	D	Yellowknife Array Site W1 Northwest Territories, Canada CNSN station.	62 29 24.0 N (62.4900)	114 30 00.0 W (114.5000)	...	OTTR
YKW2	D	Yellowknife Array Site W2 Northwest Territories, Canada CNSN station.	62 25 12.0 N (62.4200)	114 36 00.0 W (114.6000)	...	OTTR
YKW3	D	Yellowknife Array Site W3 Northwest Territories, Canada CNSN station.	62 33 38.9 N (62.5608)	114 36 59.0 W (114.6164)	198.0	OTTR
YKW4	D	Yellowknife Array site W4 Northwest Territories, Canada CNSN station.	62 29 24.0 N (62.4900)	114 44 24.0 W (114.7400)	...	OTTR
YLL		Llanberis Wales, United Kingdom opened 1984.	53 08 24.7 N (53.1402)	4 10 13.4 W (4.1704)	162.0	BGS
YOMI		Yo Moklole Irian Jaya, Indonesia	2 38 34.0 S (2.6428)	140 33 35.0 E (140.5597)	260.0	DJA

STATIONS ADDED SINCE STATION BOOK (OF 85-714) WAS PRINTED

Code		Station Name, Region and Comments	Latitude	Longitude	Elev.	Networks
YOO	R	.....	17 45 00.0 N	97 49 30.0 W	1600.0	UNM
		Oaxaca, Mexico	(17.7500)	(97.8250)		
YPE		Yupe	14 07 18.0 N	89 40 50.0 W	1581.0	SSS
		El Salvador	(14.1217)	(89.6806)		
YRC		Rhoscolyn	53 15 02.2 N	4 34 26.8 W	24.0	BGS
		Wales, United Kingdom	(53.2506)	(4.5741)		
		opened 1984.				
YRE		Yr Eifl	52 58 51.6 N	4 25 31.4 W	197.0	BGS
		Wales, United Kingdom	(52.9810)	(4.4254)		
		opened 1984.				
YRH		Rhiw	52 50 00.6 N	4 37 44.0 W	300.0	BGS
		Wales, United Kingdom	(52.8335)	(4.6289)		
		opened 1984.				
YTIR		Yattir	31 21 00.0 N	35 07 12.0 E	900.0	JER
		Israel	(31.3500)	(35.1200)		
YYYY		Yonkie	6 14 28.5 S	145 58 07.7 E	1314.0	PMG
		New Guinea, Papua New Guinea	(6.2413)	(145.9688)		
		opened 19880602.				
ZA1		Zafferana	37 41 07.0 N	15 05 24.0 E	875.0	
		Sicilia, Italy	(37.6853)	(15.0900)		
ZAC	R	Zacaltic	17 15 00.0 N	92 45 39.6 W	380.0	IIM
		Chiapas, Mexico	(17.2500)	(92.7610)		
ZACM	R	.....	...	...	...	UNM
		Zacatecas, Mexico				
ZAPC	R	.....	49 49 55.2 N	18 25 40.8 E	...	PRU
		Czech Republic	(49.8320)	(18.4280)		
ZER		Zerhoun	34 07 12.0 N	5 06 21.6 W	...	CNRM
		Morocco	(34.1200)	(5.1060)		
ZHGX		Zihuatenejo	17 36 30.0 N	101 27 54.0 W	...	LJC
		Guerrero, Mexico	(17.6083)	(101.4650)		
		Strong-motion station.				
ZIHM	R	.....	...	...	...	UNM
		Guerrero, Mexico				
ZLA		Zurich--Lagern	47 28 55.6 N	8 23 21.3 E	780.0	ZUR
		Switzerland	(47.4821)	(8.3892)		
		opened 198607.				
ZOU	D	Zoufplan	46 33 24.0 N	12 58 24.0 E	1896.0	TRI
		Friuli-Venezia Giulia, Italy	(46.5567)	(12.9733)		
		opened 19821017.				
ZZA	R	.....	15 08 .. N	92 19 .. W	...	UNM
		Chiapas, Mexico	(15.1333)	(92.3167)		

Listing generated 14 JUL 1993.