UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

EARTHQUAKE DATA REPORT

AUGUST 1991

by

U.S. Geological Survey

NATIONAL EARTHQUAKE INFORMATION CENTER1

Open File Report 91-608-A

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1991

'USGS, Denver, Colorado

EDR No. 8-91 U. S. DEPARTMENT OF THE INTERIOR

Part 1 of 2 , . ie, P 1-154 Geological Survey
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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 incorpo-rating 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 (nib) and surface-wave magnitude (Msz)- 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 \og(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 \o%(A/T) + 1.661og(A) -f 3.3, where A is the maximum vertical surface-wave amplitude in micrometers, T is the period in seconds, and A 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° < A < 160°, and for reported periods of 18 < T < 22 s. No correction for focal depth is used in the MS calculation. Body-wave magnitudes are not determined from PKP arrivals or for stations having A < 5°. Amplitude values stated in this report are in nanometers (nm) for body-waves and micrometers (fjon) for surf ace-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.

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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
line of comments. A 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.

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References

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References

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AUG 01. 1991 01h 11m 48.93± 0.83s
40.475 S ± 6.9km 72.123 W ± 1 9 . 3 km
DEPTH = 10.0km (geophys i c i s t)
4 . 7mb (2 obs .)
CENTRAL CH I LE (136)

CHCH 6.63 11 eP 13 29.00 0.1
TACH 6.87 8 eP 13 32.70 0.5
PCH 6.96 1 1 eP 13 34.00 0.5
PEL 7.41 9 iPc 13 39.00 -0.7
JACH 7.87 9 eP 13 36.00 -10. 3X
ARE 23.93 1 eP 17 07.00 2.7X

SIV 26.22 25 P 17 24.70 -1.0
SOB1 41.68 50 eP 19 39.40 0.0
NVL 50.46 155 PC 20 48.00 -0.3
LIC 76.97 70 P 23 43.80 0.2
TIC 77.26 70 P 23 45.80 0.6
K 1 C 77 .27 70 P 23 45.50 0.3
LKO 78.87 67 P 23 54 . 18 0.1
0.8s 9 . 50nm 4 . 9mb
ALO 81.44 332 eP 24 08.00 0.5
1.0s 5 . 50nm 4 . 6mb
NB2 121.45 35 PKP 30 42.60 -0.5
0.9s 1 - 20nm
KKN 157.49 117 PKP 32 00.00 1 3 . 2X
S.D. - 0-6 on 13 of 17 obs.

? AUG 01, 1991 01h 25m 12.01± 4.04s
17.068 N ±22. 9km 61 098 W ±23 . 1 km
DEPTH - 10.0km < grophys i c i s t)
LEEWARD ISLANDS (92)
ML 2.8 (PDF) .

BPA 0.73 268 eP 25 26.20 -0.1
S 25 36.00
DEG 0.75 177 eP 25 26.60 -0.2
S 25 36.50
SEG 0.77 211 eP 25 27.40 0.4
DOG 1.14 206 eP 25 33.41 0.0

MGG 1.16 190 eP 25 33.41 -0.3
PAG 1.17 208 eP 25 33.70 -0.3
S 25 51 .60
BBL 1.58 193 eP 25 40.60 0.5
S.D. - 0.4 on 7 of 7 obs.

AUG 01. 1991 01h 25m 16.60± 1.42s
24.062 N ±14. 7km 125.838 E ±13. 0km
DEPTH - 10.0km (geophy s i c i s t)
4 . 0mb (4 obs .)
SOUTHWESTERN RYUKYU ISLANDS (246)

TWC 3.68 279 ePc 26 15.80 1.1
TWO 3.88 271 ePc 26 17.60 0.1
TWF1 4.22 261 ePc 26 22.00 -0.4
eS 27 1 1 . 00
TWG 4.55 255 ePd 26 26.80 -0.3
eS 27 18.80
SSE 8.13 331 ePn 27 17.50 0.1
Z 12s 0.90um
N 14s 0 . 70um
E 12s 0 . 60um
eSS 29 18.50
BJ 1 17.89 335 eP 29 26.50 -0.6
Z 16s 0.29um
N 12s 0 . 31 urn

LZH 22.43 307 e(P) 30 24.00 6.8X
MBC 72.43 13 eP 36 45.50 1 0
1.0s 4 . 00nm 4 . 5mb
HFS 79.71 332 eP 37 25.70 -0.1
0.4s 0 . 80nm 4 . 1mb
NB2 80.28 333 P 37 28.20 -0.7
0.7s 1 . 30nm 4 . 0mb
YKA 81.39 24 eP 37 44.10 9.4X
0.8s 0.80nm 3. 8mb
S.D. -0.7 on 9of 11 obs .

? AUG 01. 1991 01h 56m 06.33± 0.82s
36.044 N ±20. 6km 67.922 E ± 7.6km
DEPTH - 33.0km (normol)
4 . 7mb (4 obs .)
PAKISTAN (710)

CUE 0.85 280 iPn 56 22.20 0.1
e(S) 56 34.40
NDI 8.22 97 ePn 58 07.50 1.2

iS 59 38. 40
GKN 14.77 94 P 59 34 . 90 0.2
0.6s 35.00nm 4.9mb
DMN 15.26 95 P 59 41.64 0.4
0.5s 22 . 00nm 4 . 7mb
KKN 15.37 94 P 59 42.08 -0.5
0.5s 23 . 00nm 4 . 7mb
PKI 15.53 95 P 59 44. 18 -0.6
0.6s 23.00nm 4.6mb
GUN 15.86 93 P 59 48.42 -0.7
HY8 15.88 140 eP 59 49.00 -0.1
S.D. -0.8 on 8of Sobs.

* AUG 01, 1991 02h 00m 35.05± 0.99s
33.755 S ±10. 2km 70.724 W ±10. 8km
DEPTH - 33.0km (normol)
CHILE-ARGENTINA BORDER REGION (127)
Felt (II) in the Sontiogo, Chile
o r eo .

CHCH 0.19 161 iPd 00 41.20 -0.4
iS 00 52.00
TACH 0.20 300 iPc 00 43.10 1.4
iS 00 55. 70
PCH 0.22 53 iPd 00 42.40 0.4
iS 00 54.50
SAN 0.31 10 iP 00 43.80 0.9
iS 00 57.00
PEL 0.61 3 iPd 00 48.00 0.7
iS 01 02.00
LCCH 0.76 291 iPc 00 48.10 -1.2
iS 01 04.00
ROCH 0.82 343 iPd 00 49.80 -0.5
iS 01 07.50
IHA 1.06 313 eP 00 54.30 0.7
eS 01 12.30
JACH 1.08 6 iPd 00 52.00 -1.9
iS 01 1 1 . 50
S.D. = 1.3 on 9 of 9 obs.

AUG 01, 1991 03h 22m 42.12± 0.24s
27.073 S ± 5.7km 176.313 W ± 5.6km DEPTH - 12.7km (10 depth phoses) 5.5mb (14 obs.) 4.9Msz* (3 obs.)
KERMADEC ISLANDS REGION (177)

CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B. : 16S . 23C
Centroid Location:
Origin Time 03:22:48.3 0.5
Lot 26.88S 0.06 Lon 175. 67W 0.07

Dep 15.0 FIX Ho I f-duro t i on 1.7
Moment Tensor; Scale 10»»16 Nm
Mrr- 9.00 0.45 Mtt 0.09 0.75
Mff 8.92 0.58 Mrt- 5.28 1.65
Mrf 1.02 2.13 Mtf 1.67 0.45
P r i nc i pa 1 Axes :
T Vol- 11.56 Pig-65 Azm- 11
N -2.33 25 190
P -9.22 0 280

Best Double Coup 1 e : Mo- 1 . 0» 1 0» * 1 7 NP1:Strike- 33 Dip-50 Slip- 124
NP2: 167 50 57

SVA 10.14 330 eP 25 10.60 0.2
eS 25 25.50
VUN 10.23 331 eP 25 11.20 -0.5
SGE 10.84 329 ePc 25 21.70 1.6
WEL 15.97 205 eP 26 33.00 5 . 0X
S 29 12.00
RAR 16.18 72 P 26 21.00 -9 . 8X
DZM 16.45 284 iPd 26 39.30 4.9X
PVC 16.97 300 iPc 26 46.30 5.5X
BKM 17.06 300 iP 26 47.00 5 . 0X
KHZ 17.41 206 eP 26 44.50 -1.7
eS 29 43.20
CAN 30.67 246 eP 28 59.20 0.5
BWA 31.07 248 eP 29 00.60 -1.6
RMO 31.13 263 i Pd 29 09.30 6.5X
CMS 33.20 253 eP 29 21.00 0.2
TAU 33.42 232 eP 29 23.00 0.4
STK 36.79 252 eP 29 51.80 0.3
0.9s 2.70nm 4.0mb X
PMG 38.70 290 eP 30 07.00 -0.6
OIS 40.69 269 iPd 30 24.00 -0.2

ASPA

Z

WR2

SBA
CSY

SPA

f* r* D

CHJJ
1 1 DJ
MAW

MAT

N 1 1 J
OFUJ
MTMJ
TSRJ
KUSJ
HOOJ
ASAJ
SYP
PRS

GCC

PCC

PRI

MHC

NVL

KGM
PLM
RVR

COD

SNA

FR 1

SSE

Z

CMB

CLC
GLA
CWC
ORV

GSC
WDC

M 1 N

SNG
ALO

PNT
BJ 1

KM)

CHG

MEO
LZH

Z

44.88 263 i PC 30 57.40 -1.0
1.3s 1 8 . 60nm 4 . 8mb
18s 2.1 0um 5 . 1Msz
eS 3737.10
45.55 268 i Pd 31 02.00 -1.7
0.7s 43.00nm 5.5mb
eS 37 39.20
51.46 185 iPd 31 53.00 4.3X
58.77 207 iPd 32 45.30 3.4X
0.7s 49.60nm 5.7mb
63.08 180 i PC 33 12.50 1.1
1.0s 50.00nm 5.6mb
. 67 . 15 293 eP 33 37 .00 -1.2
75.61 324 P 34 27.80 -0.7
75.76 323 eP 34 29.20 -0.2
75.93 200 eP 34 31 .40 1.5
1.0s 26 . 00nm 5.3mb
76.40 324 eP 34 32.00 -1.0
1.2s 65.63nm 5. 6mb
eS 44 20.00
76.52 325 P 34 33.70 0.1
76 .62 328 P 34 34 .00 -0.1
76.65 324 P 34 34.00 -0.5
76.85 322 P 34 35.10 -0.4
78.49 332 eP 34 44.60 0.3
78. 52 331 eP 34 45.70 1.2
80. 19 331 eP 34 54.90 1.3
81 . 22 44 eP 35 00.00 0.6
81 .57 42 eP 35 01 .00 0.0

epP 35 05.00 13km
81.68 41 eP 35 00.80 -0.7

epP 35 05.00 13km
81.77 41 eP 35 00.80 -1.2

epP 35 05.60 15km
81.87 42 eP 35 05 . 20 2.5

epP 35 09.30 13km
82. 09 41 eP 35 03.80 -0.1

epP 35 07.80 13km
82.27 183 ePc 35 05.00 0.9

e 35 33.00

(S) 45 26.00
82. 34 276 eP 35 06.00 0.5
82.44 47 eP 35 16.00 10. 2X
82.51 46 eP 35 05.00 -0.9
82.67 45 eP 35 06.00 -0.8
82.80 178 iPd 35 08.20 1.4
1.0s 56.00nm 5.7mb
83.01 42 eP 35 07.80 -0.6

epP 35 1 1 . 80 1 3km
83 .08 310 PC 35 09. 10 0.2
1.0s 13. 00nm 5 . 1mb
20s 0.50um 4.9Msz

pP 35 24.00 52kmX
S 45 30.00
sS 45 40.00
83.30 41 eP 35 09.90 -0.1

epP 35 13.50 11km
83 .54 44 eP 35 1 1 . 00 -0.3
83 . 58 48 eP 35 13.00 1.5
83 .64 44 eP 35 1 1 .00 -0.9
83.68 39 eP 35 1 1 .20 -0.6

epP 35 15.30 13km
83.70 45 eP 35 12.00 -0.2
83.80 38 eP 35 12.00 -0.4

epP 35 16.20 13km
84 .16 39 eP 35 1 4 . 30 -0.1

epP 35 17.50 10km
87.10 280 eP 35 25.40 -3.9X
90.33 50 eP 35 44.00 -0.5
1.2s 1 1 . 72nm 5 .0mb
91 .26 33 eP 35 48.00 -0.2
91 .62 315 eP 35 50.00 0.0
2.0s 107.00nm 5.9mb
eSKS 46 26.00
eS 47 00.00
eSS 53 24.00

93.67 296 Pd 36 02.50 2.4
1.5s 100. 00nm 6 . 0mb
93.88 289 ePc 36 02.70 1.8
1.0s 19. 50nm 5 . 4mb
95.80 54 e(P) 36 08.90 -0.6
97.94 306 eP 36 20.00 0.7
2.0s 32.00nm 5.6mb
20s 0.35um 4.8Msz
sP 36 31 .00

01d 63h

es 47 ee.ee
DUE 125.02 289 ePKP 41 45. 0e e.7
OBN 143. 2e 329 ePKP 42 13.80 -4.2X
2.0s 1 28 . eenm
Z 14s 8 . 1 0um 4 . 7MszX

i 42 58.ee i 45 23 .ee
NUR 143.65 343 ePKF 42 14. 00 -3.8X
e 42 2e.0e
NB2 145.66 354 PKP 42 19.66 -1.7
1.2s 87 . 2enm
HFS 146.2* 351 ePKP 42 21.30 -e . 9
1.0s. 39.8enm
ASK 146.58 359 ePKP 42 23. 5e e.8
KONO 147.18 354 iPKP 42 25.10 1.4
BSD 150.82 347 iPKPd 42 31.70 2.2X
0.7s 22.08nm
EKA 151.33 8 PKP 42 44.ee 13. 7X
1 .8s 50. 30nm
HRI 151.68 290 ePKP 42 38. 6e 6.9X
BHL 151. 7e 292 PKP 42 37.ee 5.3X
JV1 152.e8 288 ePKP 42 39.20 7.0X
DMU 152.08 13 ePKP 42 37. 5e 6.0X
PRNI 152.39 284 ePKP 42 39.90 7 . 2X
DON 152.52 14 ePKP 42 38.30 6 . 2X
BBTK 152.74 305 ePKP 42 33.90 0.0
VR I 153.79 322 ePKP 42 26.00 -8.1X
KRA 153.88 336 ePKP 42 34.10 0.0
e 42 42.00
KSP 154.39 341 ePKP 42 35.00 0.2
i 42 43.30
MLR 154.46 322 ePKP 42 26.09 -9 . 2X
SPC 154.47 334 ePKP 42 35.80 0.6
CLL 154.78 346 ePKPd 42 35.00 -0.2
1.9s 25 . 00nm

i 42 43.80
BRG 154.98 345 ePKP 42 34.80 -0.7
1.4s 19.00 nm
i 4243. 60
i 42 59 . 4e
PRU 155.65 343 ePKP 42 35.50 -1.0
e 43 02.8e
MOX 155.69 348 ePKP 42 37 . 2e 0.6

ZST 156.46 337 ePKP 42 36.80 -0.8
KHC 156.68 343 PKP 42 37.00 -1.0
e 42 48.50
e 43 07 .00
S . D . - 1 . 0 on 69 of 91 obs

* AUG 01, 1991 03h 39m 19.01± 0.87s 17.895 S ±11. 2km 178.788 W ±13. 4km DEPTH * 571 .3 ± 11.3 km
5 . 3mb (9 obs .)
FIJI ISLANDS REGION (181)

DZM 14.49 251 iPc 42 21.90 -0.8
WDW 23.90 192 eP 43 50.10 -0.4
MRW 23.92 192 eP 43 50.20 -0.5
TCW 23.99 193 eP 43 51.40 0.1
KHZ 25.30 193 eP 44 02.30 -0.5
LTZ 25.95 195 eP 44 08.00 -0.6
COO 29.47 239 iPd 44 42.20 2.8
0.6s 57.00nm 5.4mb
CNB 33.15 232 i PC 45 12.00 1.6
0.5s 27 . 00nm 5 . 1mb
CAN 33.43 232 eP 45 13.60 0.9
BWA 33.53 234 eP 45 13.10 -0.5
CMS 34.72 240 iPd 45 24.20 0.8
0.7s 34 . 00nm 5 . 1mb
OLP 35.20 249 iPd 45 27.70 0.2
0.5s 1 60 . 00nm 5 . 9mb
STK 38.32 241 i Pd 45 54.30 1.3
0.5s 22.60nm 5.0mb
WR2 44.26 260 i PC 46 38.70 -1.6
0.3s 27 . 00nm 5 . 3mb
e 46 57 . 70
ASPA 44.45 254 i Pd 46 41.30 -0.4
0.7s 1 48 . 50nm 5 . 6mb
eS 52 33.60
FORR 49.65 244 iPd 47 20.50 -0.4
0.2s 47 . 00nm 5 . 7mb
KNA 50.11 264 eP 47 23.40 -1.1

WARB 50,95 251 iPd 47 30.10 -0.5
0.6s 38.00nm 5.0mb
COOL 55.63 245 eP 48 02.50 -1.3
KLB 58.51 244 eP 48 22.80 -0.6
LOE 85.69 290 eP 50 48.80 -10. 5X

INK 91.97 15 eP 51 27 h 00 -0.5
YKA 94.47 25 eP 51 39t00 0.0
9 . 8s 1 . 10nm 4 . 1mb X
MBC 190.40 12 eP<Jiff52 95.59 0.0
CLL 145.37 347 i PKPc 57 55.10 1.7
0.8s 1 2 . 00nm
BRG 145.56 346 i PKP 57 57.20 3 . 5X
CDF 149.16 352 ePKP 58 05 P 70 6.1X
0.5s 2 . 90nm
FLN 149.18 2 ePKP 58 05
0.7s 4 . 40nm
LDF 149.36 2 iPKPc 58 05
0.3s 1 . 30nm
GRR 149.54 3 iPKPc 58 06
0.3s 1 . 70nm
HAU 149.68 353 ePKP 58 06
0.5s 1 .45nm
BSF 149.79 353 ePKP 58 07
LPF 149.89 3 iPKPc 58 07
0.3s 3 . 40nm
LOR 150.63 356 iPKPc 58 09
0.3s 2.75nm
SSF 150.85 357 iPKPc 58 09
0.3s 2 . 55nm
LBF 150.90 356 iPKPc 58 09
8 . 3s 0 . 85nm
AVF 151.13 357 ePKP 58 10
SMF 151.25 356 ePKP 58 10
MFF 151.35 2 ePKP 58 10
BGF 151.39 358 ePKP 58 10
0.4s 2.85nm
LSF 151.72 360 ePKP 58 1 1
MAF 151.73 358 ePKP 58 1 1
S . D . - 1 . 1 on 24 o f

* AUG 01. 1991 03h 56m 30
39.462 N ±10. 5km 25.644
DEPTH - 10.0km (geophys
AEGEAN SEA

MD 3 . 1 (ATH) .

,40 5. 9X

,70 5.9X

,30 6. 3X

,90 6.6X

,20 6.6X
30 6 .7X

20 7.4X

,80 7 . 7X

80 7 .6X

00 7 . 5X
60 7 .9X
70 7 .9X
70 7 .8X

30 7.9X
70 8. 3X
12 obs .

1 1± 1.97s
E ±1 6 . 1 km
cist)
(365)

PRK 0.53 114 iPbd 56 39I80 -1.1
eSb 56 48.40

EZN 0.64 55 ePg 56 42[90 0.0
eSg 56 54
KGT 1.61 52 iPn 56 58
IZM 1 . 65 130 ePn 57 00
RDO 1 .68 357 iPrid 56 59
EOC 1 .92 62 ePn 57 04
DST 2.31 86 ePn 57 09
S.D . - 0.8 on 7 of

? AUG 01 , 1991 0+h 38m 43
5.736 S ±34. 7km 146. 665
DEPTH - 1 30 . 7 ± 16.5 km
4. 1mb (2 obs .)
EAST PAPUA NEW GUINEA REGIOI

YYYY 0.86 234 eP 39 06
«S 39 24
LAT 0.97 169 iPc 39 07
MDG 1 .00 299 iP<J 39 06
PMG 3.68 172 eP 39 39
WR2 18.51 219 eP 42 51
0.4s 6 . 40nm
ASPA 21 .65 213 eP 43 26
1.2s 5 . 70nm
S.D. -1.5 on 6 of

_ «.«.__ ____ -l .«.«.__«. «._,

& AUG 01 . 1991 05h 02m 29
62.311N 151.414
DEPTH - 88 . 1 km
CENTRAL ALASKA
<AEIC>.

SKT 0.34 189 P<J 02 42
CUT 0.54 80 PC 02 44
SUA 0.91 159 PC 02 48
S 03 02

NCG 0.98 201 P<j 02 48
PWA 0.98 132 PC 02 48
S 03 04
CGLM 1.05 1 96 eP 02 49
HUR 1.06 50 i PC 02 49
eS 03 04
BGL 1.15 204 eP 02 50
SPU 1.17 195 eP<J 02 5 1

40
60 -0.1
00 0.7
20 -0.5
CL CL CL O
V V V . O

00 0.1
7 obs.

77± 3.59s
E ±39. 2km

I (207)

40 0.5
20
40 0.7
50 -0.5
00 -1.1
90 -0.9
4 . 3mb
20 1.3
3.8mb
6 obs .

56s
W

(1)

52 -0.7
02 -0.6
10 -0.4
70
32 -0.9
87 -0.3
28
82 -0.2
10 -1.0
07
67 -0.6
09 -0.5

CKL

TRF
KTH

GHO
PLRM

PMS

RND

KNK
RDT
MCK
SLKM

NCT

RDN
REF
RDW
RSO
RED
SVW
SEW
TOA
NEA
GLI
vzw
WRH
VLZ
KLU

c n f* b U b
CNPM
PAX
CCB
PDB
MDM
FBA

_ _

AUG
17.

eS 03 07.64
1 . 20 202 ePd 02 51 . 19 -0.8
eS 03 08.93
1.26 24 ePd 02 51.61 -1.1
1.27 10 eP 02 51 .39 -1.3
S 03 08 .97
1 . 29 1 14 eP 02 52.73 -0.3
1.30 123 ePc 02 52 .31 -0.7
S 03 10.94
1.39 140 ePc 02 53. 67 -0.5
eS 03 12.37
1.61 46 iPd 02 56. 19 -0.9
eS 93 16.25
1.67121 iPc 02 56.79 -1.0
. 1 . 81 196 eP 02 59 . 46 -9.3
1.82 37 eP 02 58 .85 -1.0
1 .90 162 eP 03 00.50 -0.4
eS 03 23.78
1.90 203 eP 03 00.85 -9.2
S 03 25.35
1 . 92 200 eP 03 00 .52 -0.7
1 . 93 199 eP 03 01 . 1 2 -0.4
1 . 95 201 eP 03 01 .32 -0.5
1 .96 200 eP 03 01 . 42 -0.5
2.01 200 eP 03 02.25 -0.2
2. 34 241 ePd 03 05. 43 -1.4
2.41 156 eP 03 08 .24 9.5
2.46 92 eP 03 07 .52 -1.1
2.51 24 eP 03 07 .26 -1.8
2.52 123 eP 03 07 . 52 -1.7
2.64 1 16 eP 03 09.74 -1.2
2.63 33 eP 03 08.63 -2.2
2.69 1 14 eP 03 09.68 -1.9
2.73 105 iPc 03 09.93 -2.3
2.74 83 eP 03 1 1 .55 -0.8

2.80 178 eP 03 13.62 0.5
2.82 74 eP 03 12 . 40 -1.2
2.85 33 ePd 03 1 1 . 66 -2.1
2.87 299 eP 03 13.29 -0.8
3.01 27 ePd 03 14 . 04 -2.1
3.06 30 ePd 03 14.81 -1.9
42 obs. ossocioted

01. 1991 05h 22m 19.71± 1.27s
082 S ± 9.8km 174.400 E ± 6.1km
DEPTH - 13.1 ± 7.6 km

5.1mb (10 obs.) 5.0Msz (7 obs.) FIJI

NDF

SGE

VUN

MBU
KRO
PVC
BKM
DZM
WEL

COO
RMO

STK

WR2

ISLANDS REGION (181)
CENTROIO, MOMENT TENSOR (HRV)
Doto Used: GDSN
L.P.B. : 14S, 25C
Centroid Location:
Origin Time 05:22:23.5 0.4
Lot 16.83S 0.05 Lon 174. 37E 0.04

Dep 15. 8 FIX Half-duration 2.4
Moment Tensor; Scale 10**17 Nm
Mrr 0.69 0.08 Mtt- 1.80 0.15
Mff 1.12 0.14 Mrt 1.62 0.41
Mrf 1.48 0.34 Mtf- 2.64 0.07
P r i nc i pal Axes :
T Val- 4.29 Pig-23 Azm-148
N -1.47 60 10
P -2.82 18 246

Best Double Coup I e : Mo-3 . 5* 1 0* 1 7
NP1 : Strike-288 Dip-60 Slip- 4
NP2: 196 86 150

2. 99 103 eP 23 08.90 1.3
eS 23 56.00
3.40 99 eP 23 16. 10 2.5
eS 24 10.80
3.98 184 ePd 23 20.50 -1.3
eS 24 14.70
4.14 89 eP 23 24 . 70 0.7
4.78 94 eP 23 31.60 -1.5
5.85 263 iPc 23 49.00 0.8
5.91 263 iP 23 59.80 10. 8X
8.99 235 iPc 24 31.30 -1.0
24. 12 179 P 27 35.00 -1.0
S 32 05.00
24.52 233 eP 27 42.90 1.8
25.55 244 eP 27 53.50 3.6X
i 28 10.50
33.14 237 eP 28 55.30 -2.6
0.6s 2 . 20nm 4 . 3mb
eS 34 19.60
38.61 259 eP 29 34.50 -5. OX

010 05h

e . 7s 15 . 50nm 4 . 9mb
IS 34 59. 80
38.43 253 eP 29 39.00 -4.0X
0.9s 33 . 56nm 5.1mb
eS 35 09.00
55 . 30 293 eP 31 56. 00 0.4
60.91 182 iPc 32 34 . 10 0.0
63.35 328 (P) 32 49.00 -1.9
Z 20s e . 7 1 urn 4 . 8Msz
eS 41 23.80
73 .03 180 iPd 33 49.20 -1.8
1.1s 29 . 76nm 5 . 3mb
78 . 49 318 eP 34 22. 00 -0.1
Z 22s 0.62um 4.9Msz
eS 44 18.00
eSS 49 16.00
80.59 47 eP 34 34.70 1.1
80.72 50 eP 34 36.00 1.5
81.40 300 eP 34 37.50 -0.9
Z 22s 0.70um 5.0Msz
eS 44 50.00
81 .87 51 eP 34 41 .00 0.7
81.90 43 eP 3441.30 1.0
81.99 51 eP 34 43. 00 1.8
82 . 07 48 eP 34 42 . 30 1.0
82.08 45 eP 34 41 . 30 0.0
82. 10 46 eP 34 40.00 -1.5
82.23 201 eP 34 44.00 2.4X
1.0s 9 . 00nm 4 . 8mb
82.30 292 eP 34 43.50 0.6
82 . 37 50 eP 34 42.00 -1.0
82.40 51 eP 34 42 . 00 -1.1
82 . 40 44 eP 34 43. 30 0.2
82.50 52 P 34 42.50 -1.4
82.51 51 ePd 34 44.00 0.3
82.98 49 eP 34 45.00 -1.3
83.65 49 eP 34 45.00 -1.5
83.40 50 eP 34 48 .00 -0.3
84 . 33 47 ePd 34 52 .00 -1.1
1.1s 243 . 51 nm 6 . 3mb X
85.03 310 eP 34 57.50 0.9
2.0s 32.00nm 5.2mb
Z 28s 1 . 69um 5 . 3MszX
E 20s 1 . 17um
sP 35 04.00
eS 45 26.00
eSS 51 04.00
88.05 37 eP 35 09.00 -1.9
1.2s 28 . 00nm 5 . 5mb
90.85 42 eP 35 17.60 -6.8X
91 .06 54 eP 35 23. 30 -2.3
1.1s 1 7 . 41 nm 5 . 3mb
91 . 55 186 Pd 35 28 .00 1.0
e 35 53.00
e 36 35.00
91 .59 46 P 35 26. 00 -1.9
1.3s 12. 30nm 5 . 1mb
96.54 26 eP 35 48.50 -1.3
1.2s 1 . 50nm 4 . 4mb
97.17 56 iPc 35 54.20 0.8
142.77 341 ePKP 41 59.00 4.6X

142.84 339 e(PKP)42 05.60 11. 1X
1.4s 12. 00nm
143.78 341 ePKP 41 58.00 1.8X
143.83 334 ePKP 41 56.00 -6.3
e 42 06.00
144.44 338 ePKP 41 56.00 -1.4
e 42 04.00
144.74 341 ePKP 41 54.90 -2.9X
Z 21s 0. 30um 5 . 0Msz
e 42 01 .90
e 42 05.30
145.28 347 PKP 42 01.80 3.2X
145.72 349 PKP 42 02.30 2.9X
146.06 348 PKP 42 04.30 4.3X
146.11 333 ePKP 42 00.40 0.0
146.14 346 PKP 41 59.40 -0.7
146.17 332 ePKP 42 00.10 -0.2

146.61 334 e(PKP)42 02.00 1.0
146.71 338 iPKP 42 00.20 -1.2
1.0s 26 . 00nm
i 42 05. 10
146.73 333 e(PKP)42 02.50 1.3 146.88 335 e(PKP)42 02.40 0.8 146.90 334 e(PKP)42 02.10 0.5
e 42 28.50
147.03 344 ePKP 42 01.00 -0.8

1.6s 28 . 00nm
HAD 147.64 345 ePKP 42 02.60 -0.1
1.0s 1 2 . 00nm
Z 21s 0.35um 5. iMsz
BSF 147.69 344 ePKP 42 02.50 -0.4
1 . 3s 32.50nm
FLN 148.13 354 ePKP 42 03.50 0.1
1 . 3s 43.30nm
Z 2 1 s 0 . 35um 5 . IMsz
LDF 148.25 353 ePKP 42 03.90 0.3
1.0s 16. 00nm
GRR 148.54 354 ePKP 42 04.70 0.7
1.1s 22 . 00nm
LOR 148.90 347 ePKP 42 06.00 1.3
1.1s 22 . 00nm
Z 22s 0 . 38um 5 . IMsz
LPF 148.91 354 ePKP 42 05.70 1.1
1.1s 41 .50nm
GRC 149.03 348 PKP 42 07.30 2.5X
LBF 149.15 347 ePKP 42 06.50 1.4
1.2s 26 . 80nm
SSF 149.17 348 ePKP 42 06.80 1.7
1.2s 38 . 70nm
AVF 149.46 348 ePKP 42 07.10 1.6
1.1s 7 . 35nm
SMF 149.50 347 ePKP 42 07.20 1.6
1 .5s 36.55nm
BGF 149.78 348 ePKP 42 08.00 2.0X
0.7s 13.25nm
LPL 149.83 343 ePKP 42 14.60 8.2X
1.1s 17.1 0nm
LPG 149.84 343 ePKP 42 14.70 8.2X
1.2s 47 . 60nm
MAF 150.16 349 ePKP 42 09.30 2.7X
1.1s 17.1 0nm
TCF 150.16 349 ePKP 42 09.20 2.6X
0.9s 10. 65nm
PLDF 150.19 347 PKP 42 11.87 5. IX
AGO 150.21 348 PKP 42 11.78 5. IX
MFF 150.22 352 ePKP 42 09.20 2.5X
1.3s 39 . 70nm
LSF 150.32 350 ePKP 42 09.20 2.4X
1.0s 17. 00nm
PYM 150.53 348 PKP 42 12.69 5.4X
SSB 150.63 345 PKP 42 13.12 5.7X
LBL 150.97 347 PKP 42 14.92 7.0X
LPO 151.90 350 ePKP 42 11.60 2.3X
S . 0 . - 1 . 2 or- 63 o f 90 obs .

% AUG 01, 1991 05h 57m 09 . 1 3± 2.38s 39.654 N ±10. 8km 15.293 E ±17. 2km DEPTH - 10.0km (geophy s i c i s t)
SOUTHERN ITALY (390)

MGR 0.52 23 P 57 19.60 -0.1
eSg 57 28.80
MMN 0.59 66 P 57 20.80 -0.2
eSg 57 29.50
CSI 0.78 81 P 57 24. 50 0.2
eSg 57 36.00
CZI 0.78 123 P 57 24.20 -0.2
eSg 57 35. 10
SCO 0.90 1 P 57 26.50 0.1

eSg 57 38.80
ROI 0. 99 94 P 57 28. 10 0.2
S . 0 . -0.2 on 6of 6 obs.

AUG 01, 1991 06h 04m 03.55± 0.32s 18.028 S ±10. 3km 173.595 E ± 5.3km DEPTH - 33.0km (normol)
4.7mb (7 obs.) 5.2Msz (7 obs.)
FIJI ISLANDS REGION (181)

NDF 3.68 86 eP 05 01.00 1.5
eS 05 53.00
SGE 4.15 85 eP 05 05.70 -0.6
SVA 4.63 92 eP 05 12.40 -0.6
VUN 4.63 90 iPc 05 10.60 -2.5
MBU 5.00 79 eP 05 12.26 -6.2X
DZM 7.83 238 iPc 05 58.20 0.0
RMO 24.45 245 eP 09 20.00 -0.7
e 09 43.70
CTAO 25.91 261 iP 09 28.00 -6 . 6X
i 09 49.00
BWA 27.76 229 eP 09 44.40 -7.0X
i 10 07.90
CAN 27.80 227 eP 09 52.60 0.8

STK

ASPA

SBA
MAT

SPA

BJ I

PRS
SYP
BRK
SAO
CHG
MHC
PRI
WDC
MWC
FR I
ORV
CMB
BAR
RVR
M I N
PLM
PEC
I KP
CWC
GSC
LZH

TNP
FBA

PNT
NVL
LRM
ALO

BW06
SES
YKA

OBN

KDZ
ZST
VTS
KHC

MMB
GRF

MEM
SKO
SNF
OOU

WLF
GWF
LJU
VBY
WTTA

e 10 10 . 60
31.99 238 eP 16 22.40 -6.6X
0.7s 1 . 30nm 3 . 9mb
e 10 42.50
37.43 254 iPd 11 06.20 -9.5X
1.1s 6.60nm 4. 4mb
Z 22s 2.40um 4.9MszX
e 1 1 29.20

59.95 182 (P) 14 03.10 -5.4X
63.74 329 (P) 1 4 33 . 00 -1.4
1.2s 17.1 9nm 5 . 0mb
Z 20s 0.71um 4.8Msz
eS 23 20.00
72.09 180 iPd 15 38.50 12. IX
- 1.3s 4 1 . 67nm
Z 20s 2.25um 5.4Msz
i 16 62.20
78.68 319 eP 16 10.60 6.0X
Z 28s 0.70um 4.8MszX
esP 16 22.00
eS 26 08.00
eSS 31 18.00
81.79 48 eP 16 21 .20 0.5
81.92 50 eP 16 21 .00 -0.6

81.93 46 e(P) 16 21 .50 0.1
81.95 47 eP 16 21 .70 0.2
81 .95 293 eP 16 33.00 1 1 . IX
82.09 47 eP 16 23.20 0.8
82. 19 48 eP 16 23.80 0.8
83.11 44 eP 1 6 27 . 40 -0.1
83. 18 51 eP 16 28.00 -0.2
83.28 48 eP 16 28.90 0.5
83.29 45 eP 16 28.20 -0.2
83.30 47 iPd 16 28.50 -0.1
83.53 53 eP 16 30.90 1.1
83.58 51 eP 16 30.00 0.0
83.61 44 eP 16 30. 10 -0.1
83.68 52 eP 16 31 .00 0.2

83. 70 51 e(P) 16 30.90 0.2
83.94 53 eP 1 6 33 . 1 0 1.1
84 . 18 49 eP 16 33.00 -0.2
84.59 50 eP 16 35.00 -0.2
85.05 310 eP 16 36.50 -1.0
2.0s 28 . 00nm 5 . 1mb
Z 25s 0 . 96um 5 . IMszX
E 20s 0. 9 8 urn
sP 16 56.00
eS 27 04.60
85.53 48 iPd 16 40.00 0.0

87.77 15 eP 16 48.90 -1.1
1.6s 1 . 60nm 4 . 3mb
pP 16 57.80 28kmX
89.27 37 eP 16 58.00 0.5
90.53 186 PC 17 14.00 10. 9X
92.06 42 eP 17 1 1 .20 0.4
92.23 54 eP 17 13.00 1.2
1.0s 1 6 . 25nm 5 . 4mb
92. 79 46 P 17 14.50 0.2
94.73 38 eP 17 23.00 0.3
97.73 26 eP 17 35.40 -0.6
1.0s 1 . 80nm 4. 6mb
130.67 329 ePKP 23 25.00 12. 5X

Z 22s 0 . 60um 5 . 2Msz
N 20s 0. 60 urn
144.05 318 ePKP 23 27.00 -10. 6X

144.33 333 e(PKP)23 48.00 10. 1X
144.91 321 ePKP 23 26.00 -13. 3X
145.02 337 PKP 23 23.00 -16. 1X
e 23 28.50
e 23 42.50
145.16 319 ePKP 23 23.00 -16. 6X
145.37 340 iPKP 23 44.00 4.4X
Z 21s 0.30um 5.0Msz
e 23 53.60
146.01 346 PKP 23 44.90 4.3X
146.34 321 ePKP 23 48.00 6.5X
146.48 348 PKPd 23 46.30 4.9X
146.81 347 PKP 23 47.20 5.3X
0.7s 20 . 00nm
146.86 345 iPKPd 23 48.08 6.1X
147.10 343 PKP 23 49.81 7.3X

147.11 333 e(PKP)23 48.50 5.9X 147.26 331 e(PKP)23 49.00 6.3X
147.29 337 iPKPc 23 46.20 3.1X
1.6s 1 7 . 00nm
i 23 49.30

06h

CEY 147.39 332 e(PKP)23 52.06 8.9X
VOY 147.40 333 ePKP 23 49.00 5 . 8X
COF 147.71 343 PKP 23 50.56 7.0X
ECH 147.92 343 PKP 23 51.04 7.2X
PEL 147.98 342 PKP 23 51.15 7.1X
MOF 148.26 343 PKP 23 51.74 7.3X
HAU 148.34 344 ePKP 23 51.80 7.3X
0.9s 9 . 85nm
Z 22s 0.43um 5.2Msz
BSF 148.37 343 ePKP 23 51-98 7.2X
1.1s 1 9 . 55nm
LOMF 148.80 343 PKP 23 51.88 6.5X
FLN 148.97 352 ePKP 23 52.60 7.2X
1.2s 29 . 75nm
Z 21s 0.55um 5.3Msz
LDF 149.109 352 ePKP 23 53.00 7.4X
1 . 0!s 1 2 . 00nm
GRR 149.38 353 ePKP 23 54.00 7.9X
1.1s 14. 65nm
LOR 149.64 346 ePKP 23 55.00 8.5X
0.9s 1 1 . 45nm
Z 22s 0.30um 5.0Msz
LPF 149.76 353 ePKP 23 55.00 8.4X
1.0s 24 . 00nm
LBF 149.88 346 ePKP 23 55.60 8.7X
1.1s 1 4 . 65nm
SSF 149.92 346 ePKP 23 55.90 9.0X
1.0s 20 . 00nm
LPL 150.49 341 ePKP 23 58.10 10. 0X
1.3s 14. 45nm
LPG 150.50 341 ePKP 23 58.10 9.8X
BGF 150.54 347 ePKP 23 57.30 9.4X
0.9s 13.1 0nm
MAF 150.92 347 ePKP 23 58.50 10. 0X
1.0s 1 0 . 00nm
TCF 150.93 348 ePKP 23 58.20 9.7X
1.1s 1 8 . 30nm
MFF 151.04 351 ePKP 23 58.40 9.8X
LSF 151.10 349 ePKP 23 58.40 9.7X
LPO 152.67 348 ePKP 24 02.40 11. 3X
S.D. = 0.8 on 36 of 86 obs.

% AUG 01. 1991 06h 13m 05-67± 3.45s
43.948 N ±19. 0km 7.174 E ±18. 0km
DEPTH - 10.0km (geophy s i c i s t)
NEAR SOUTH COAST OF FRANCE (379)

STV 0.31 20 P 1312.41 0.2
S 13 16.80
ENR 0.33 32 P 13 12.67 0.1
S 13 16 .92
IMI 0.52 94 P 1316.31 0.1
PZZ 0.56 355 P 1317.21 0.1
S 13 24.87
ROB 0;61 55 P 13 17.69 -0.3
BHB 0.90 4 P 13 22.65 -0.2
S . 0 . =0.3 on 6of 6 obs .

AUG 01, 1991 06h 14m 18-84± 0.74s 38.779 N ± 7.0km 24.851 E ± 6.0km DEPTH * 10.0km (geophy s i c i s t)
AEGEAN SEA (365)
ML 3. 0 (ATM) .

PRK 1 .20 67 eP 14 41 .50 0.3
ATH 1.20 228 eP 14 41.10 -0.1
PAIG 1.46 322 ePc 14 45.82 0.6
eS 15 06.09
EZN 1.55 47 iPn 14 45.80 -0.7
AGG 1.98 278 ePd 14 53.85 1.0
eS 15 18.50
LIT 2.25 307 eP 14 57.69 0.9
eS 15 24.00
ALN 2.31 23 ePc 14 57 . 41 0.0
eS 15 26.00
SOH 2.34 331 ePc 14 58.30 0.3
RDO 2.42 12 eP 14 59.40 0.3
KGT 2:.53 48 iPn 14 59.60 -0.9
SRS 2i.53338eP 1500.30 -0.3
VLI 2.56 217 eP 15 00.00 -1.0
EDC 2.81 55 ePn 15 06.50 1.9
KNT 2.81 328 ePc 15 04.93 0.3
GRG 2.88 320 eP 15 06.69 1.1
: eS 15 39.80
KDZ 2!.90 8 eP 15 08.00 2.1
RZN 2.91 358 IP 15 04.00 -2.2
MMB 2.94 343 eP 15 04.00 -2.4

VAY 3.08 326 ePn 15 17.60 9.2X
KKB 3.37 337 iP 15 12.00 -0.5
VTS 4.01 342 eP 15 21.00 -0.7
S.D. -1.2 on 20 of 21 obs.

? AUG 01, 1 991 08h 1 2m 52
46.979 N ±20. 7km 0 .695
DEPTH = 5.0km (geophys
FRANCE

ML 2 .6 (LOG) .

MFF 0 . 53 135 Pg 1301
Sg 13 08
LPF 1 .08 348 Pg 1312
Sg 13 26
GRR 1 . 41 356 Pg 1318
Sg 13 37
LDF 1 .66 13 Pg 1322
Sg 13 45
LSF 1 . 70 1 15 Pg 1323
Sg 13 44
TCF 2 . 12 108 Pg 1331
Sg 13 57
RJF 2. 27 137 Pg 1332
Sg 14 02
CAF 2.81 136 Pg 1343
Sg 14 20
LOR 3.12 83 Pg 1349
Sg 14 30
S.D. -1.3 on 6 of

% AUG 01, 1991 08h 24m 53
37 . 869 N ± 7 . 3km 14. 530
DEPTH = 10.0km (geophys
S I Cl LY

MNO 0.14 65 Pd 2457
eSg 24 59
GIB 0.42 287 P 25 02.
eSg 25 09
ATN 0.79 68 P 25 08
eSg 25 20
MEU 0 . 83 157 P 2509.
eSg 25 21 .
SOI 1 . 22 80 P 2516.
eSn 25 32
USI 1.35 309 P 2517.
CZ I 1.84 43 P 2524.
MGR 2.40 19 P 25 32.
S.D. =0.6 on 8 of

% AUG 01 . 1991 08h 32m 01 .
42.583 N ± 4.3km 19. 033
DEPTH - 10.0km (geophysi
YUGOSLAVIA

ML 1 .7 (TTG) .

TTG 0.23 132 i Pgc 32 07.
iSg 3210.
NKY 0.23 354 i Pg 32 07.
iSg 32 1 1 .
BDV 0.34 207 iPgd 32 08.
iSg 3213.
HCY 0.42 251 iPgd 32 10.
iSg 32 16.
BRY 0. 48 312 iPgd 3211.
iSg 3219.
ULC 0.64 165 iPgc 32 14.
iSg 32 24.
PVY 0.69 89 i Pgd 32 15.
iSg 32 26.
IVA 0.70 65 iPgc 32 15.
iSg 32 25.
PLE 0.79 19 iPgd 32 16.
iSg 32 29.
S.D. =0.6 on 9 of

% AUG 01, 1991 08h 44m 47.
41 . 457 N ±19 . 8km 15.274
DEPTH - 10.0km (geophysi
SOUTHERN ITALY

DUI 0.65 289 P 45 00,
eSg 45 07
SCO 0.90 178 P 45 04
SDI 1.12 283 P 45 09
MGR 1 . 33 171 P 45 10

28± 2.60s
W ±38 . 6km
cist)
(538)

30 -1.7
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60 -0.1
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50 2. 7X
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30 1.2
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30 4 . 5X
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00 5.9X
60
9 obs .

26± 0.68s
E ± 5 . 1 km
cist)
(398)

60 0.8
70
50 0.7
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50 -0.2
50
10 -0.3

90
20 0.2
50
40 -0.7
90 -0.2
90 -0.3
8 obs .

74± 0.51S
E ± 4 . 5km
cist)
(383)

14 0.5
69
84 1.1
57
92 0.2
74
00 -0.3
94
30 -0.2
17
25 -0.3
02
65 0.1
09
12 -0.5
57
62 -0.6
42
9 obs.

35± 1 .90s
E ±20. 8km
cist)
(390)

00 -0.3

20
80 0.3
10 0.7
10 -1.9

MMN 1.66 161 P 45 18.60 2.1
AOU 1.66 303 P 45 16.00 -0.7
CSI 1 .85 155 P 45 19 . 30 -0.1
ROI 2.13 152 P 45 22.90 -0.5
S.D. = 1.3 on 8 of 8 obs.

AUG 01, 1991 08h 45m 01.95± 0.51s
40.328 N ± 5.8km 13.778 E ± 4.9km
DEPTH = 10.0km (geophy s i c i s t)
3 . 3mb (1 obs .)
TYRRHENIAN SEA (389)

SCO 1.19 78 P 45 24 . 50 0.4
eSg 45 41.00
MGR .1.37 97 P 4527.80 0.7
eSg 45 45.30
SDI 1 . 38 1 P 45 27 .50 0.3
eSn 45 45.00
DUI 1.43 21 P 45 28 . 10 0.1
RDP 1 .64 331 P 45 32 . 00 1.1
AZ I 1 . 68 351 P 4531.60 0.2
USI 1 .68 196 P 45 32. 30 0.8
RMP 1.69 332 P 45 32.50 0.8
CSI 2 .01 105 P 45 37 . 40 1.1
AOU 2.04 352 P 45 39.00 2.2
CZI 2 . 1 3 121 P 45 26 .90 -1 1 . 1 X
ROI 2.28 108 P 45 40.60 0.4
Gl 8 2 . 34 1 75 P 45 42 . 40 1.2
eSn 46 11.00
BAI 2.48 70 P 45 43 .50 0.6
BRT 2.67 77 P 45 44 . 10 -1.6
ASS 2 .86 343 P 45 50 . 40 1.8
SOI 2.86 141 P 45 48.50 0.0
MAO 2.87 317 P 45 48.20 -0.4
ARV 3.23 349 P 45 54.30 0.6
CRE 3.57 338 P 46 00. 00 1.5
SF 1 3.87 339 P 46 02.90 0.2
PGF 4.22 303 Pn 46 05.80 -2.1
Sn 46 54 . 00
IGT 5.10 97 ePc 46 19.94 -0.3
SBF 5.89 309 Pn 46 29.30 -2.1
Sn 47 32.00

SKO 6.01 72 e(P) 46 33.50 0.4
LMR 6.20 301 Pn 46 33.10 -2.7
Sn 47 38 . 30
GRG 6.59 82 i PC 46 40.77 -0.5
LIT 6.67 89 ePc 46 41.58 -0.9
AGG 6.73 98 ePc 46 43.06 -0.2
LPG 7.30 317 Pn 46 52.70 1.3
LPL 7 .32 317 Pn 46 52 .80 1.1
PAIG 7.60 90 ePd 46 53.30 -2.1
KHC 8.80 359 eP 47 09.50 -2.6
e 47 41 .00
NB2 20.80 356 P 49 44.40 -1.2
0.9s 1 . 20nm 3 . 3mb
S.D. = 1 .3 on 33 of 34 obs.

? AUG 01, 1991 08h 48m 29.11± 8.91s
33.400 S ±24. 2km 72.244 W ±61. 2km
DEPTH = 10.0km (geophy s i c i s t)
OFF COAST OF CENTRAL CHILE (134)

LCCH 0.57 98 iP 48 41.10 0.5
iS 48 53. 40
LNV 0.89 129 i PC 48 46.50 0.4
iS 49 00.00
TACH 1.12 103 eP 48 49.50 -0.6
i S 49 08 .80
PEL 1.33 79 i PC 48 54.00 0.3
i S 4914.50
CHCH 1.43 112 iPd 48 55.10 0.0
iS 49 17.00
PCH 1.46 99 iP 48 55.50 -0.1
iS 49 1B.50
S.D. =0.5 on 6of 6 obs .

? AUG 01. 1991 09h 09m 09.89± 4.68s
3.977 N ±18. 2km 77.286 W ±32. 9km
DEPTH = 10.0km (geophy s i c i s t)
NEAR WEST COAST OF COLOMBIA (102)

ANCC 0.62 138 i Pd 09 22.90 0.5
eS 09 29.50
CLMC 0.73 97 i Pd 09 24.63 0.3
eS 09 32.50
HOOC 0.82 128 iPd 09 25.45 -0.6
eS 09 33.90

61d 09h

HOBC 1.21 72 eP
SI LC 1 .59 144 i PC
PURC 1 . 89 151 ePd
S.D. - 0.6 on

09 32.39 -0.1
09 37.98 -0.6
09 43.32 0.4
6 o f 6 obs.

i AUG 01 . 1991
59.551 N
DEPTH - 63. 1 km
SOUTHERN ALASKA
<AEIC>.

1 1 h 07m 50.82s
152. 281 W

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W ±37 .

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TACH 3.39 197 IP 33 18.50 0.0
iS 33 53.50
CHCH 3.60 192 i PC 33 20.10 -1.4
iS 33 55.60
LNV 3.81 202 eP 33 24.00 -0.4
S.D.-1.2 on 7of 7obs.

? AUG 01, 1991 11h 56m 04.70± 4.98s
43.809 N ±29. 5km 7.255 E ±20. 2km
DEPTH «= 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)

S 56 20. 92
STV 0.44 7 P 56 13.09 -06
S 56 20.98
IMI 0.47 77 P 56 13 . 60 -0.7
S 56 21 . 19
ROB 0 .66 42 P 56 18. 1 1 0.3
S 56 28.36
P2Z 0 . 70 351 P 56 19.04 0.3
BHB 1.03 0 P 56 24 .00 -0.2
S 56 37.82
PCP 1.18 51 P 56 27 . 75 0.9
S 5644. 04
S.D. -0.7 on 7of 7obs.

? AUG 01, 1991 I2h 17m 13.56±10.79s 9.628 S ±82. 5km 124.386 E ±55. 1km DEPTH - 33.0km (normal)
4 . 7mb (2 obs .)
TIMOR (289)

MTN 7 . 35 1 16 eP 19 01 . 70 0.4
eS 20 22.00
KNA 7.44 145 eP 19 03.00 0.5
0.2s 28.00nm 5.9mb X
eS 20 25.00
WARB 16.61 173 eP 21 06.00 0.4
ASPA 16.66 148 iPd 21 05.20 -1.1
0.4s 20 . 20nm 4 . 6mb
eS 24 06.20
OIS 18.26 128 iPd 21 26.00 -0.2
0.2s 1 5 . 00nm 4 . 8mb
eS 24 42.00
S . D. -0.9 on 5of Sobs.

& AUG 01, 1991 12h 27m 38.80s 60.034 N 153.202 W
DEPTH - 126.2km
SOUTHERN ALASKA (2)
<AE IC>.

RED 0.44 29 iP 27 56.63 -0.8
iS 28 10. 47
RSO 0.48 27 iP 27 57.07 -0.8
eS 28 10.93
ROW 0.49 23 iP 27 57.06 -0.8
REF 0.52 28 eP 27 57.06 -1.0
RON 0.53 24 iP 27 57.32 -0.7
NCT 0.55 14 iP 27 57.48 -0.6
eS 28 1 1 .78
PDB 0.56 244 iP 27 56.99 -1.0
DFR 0.62 24 eP 27 57.73 -0.8
RDT 0.67 36 iP 27 58.16 -0.8
AUE 0.68 187 iP 27 57.92 -1.0
AUH 0.68 190 iP 27 58.38 -0.6
AUI 0.71 189 iP 27 58.23 -0.9
iS 28 13.48
HOM 0.87 115 iP 28 00.06 -0.4
eS 2816.27
XLV 0.95 127 iP 28 00.18 -1.0
eS 28 16.97
NNL 0.96 89 i P 28 01 . 46 0.2
MCNL 1.03 215 eP 28 00.77 -1.2
CNPM 1.12 116 iP 28 01.95 -0.9
eS 28 19.67
CDD 1 . 13 192 iP 28 01 .73 -1.3
NKA 1.21 53 eP 28 04.88 1.2
CKL 1.24 20 iP 28 03.81 -0.4
eS 28 23.75
SPU 1.28 26 eP 28 04.13 -0.5
BGL 1.30 18 eP 28 04.52 -0.3
CGLM 1.41 24 eP 28 05.66 -0.4

NCG 1.47 20 eP 28 06 67 -0.1
SYI 1.49 163 eP 28 05.77 -1.1
eS 28 27.30

SLKM 1.56 71 eP 28 06.45 -1.3
SVW 1.61 313 eP 28 06.89 -1.4
SUA 1.88 39 eP 28 10.96 -0.6
SEW 1.88 86 eP 28 10.23 -1.3
SKT 2.12 22 eP 28 14.05 -0.4
PMS 2.17 54 i P 28 13. 98 -1.2
PLRM 2.53 50 eP 28 18.27 -1.5
LTI 2.68 88 eP 28 20.18 -1.6
KNK 2.71 57 eP 28 20.09 -2.1
CUT 2.77 30 iP 28 22.19 -0.7
GLI 3.14 72 eP 28 25.32 -2.5
36 obs . associated

AUG 01. 1991 12h 57m 24.39± 0.57s 45.447 N ± 5.3km 21.069 E ± 7.0km DEPTH = 19.3 ± 8.8 km
ROMANIA (358)
MG 3.7 (BEO) .

TIM 0.31 20 iPc 57 31.00 -0.2
BEO 0.76 215 iPg 57 39.30 0.5
i Sg 57 51 . 60
GZR 1.20 92 eP 57 46.00 -0.2
DEV 1.36 71 iPd 57 49.00 0.7
BMR 2.79 36 ePd 58 22.00 13. 2X
CMP 2.80 92 ePd 58 20.00 10. 9X
SRO 3.03 322 i(Pn) 58 13.60 1.3
i 59 21 .40
VTS 3.25 151 iP 58 16.00 0.5
MLR 3.43 88 ePc 58 28.00 9 . 9X

SKO 3.48 175 e(Pn) 58 27.50 8.7X
i 58 31 .00
SPC 3.79 352 eP 58 22.80 -0.4
e 58 36.30
PVL 3.79 125 eP 58 33.00 10. 0X

ZST 3.87 317 i(P) 58 24.20 0.0
i 58 31 .20
e 59 08.00
e 24 05.30
VR I 3.99 82 eP 58 00.00 -25. 9X

VAY 4.27 165 e(Pn) 58 29.70 -0.1
MMB 4.31 152 eP 58 38.00 7 . 5X
RZN 4.60 144 eP 58 20.00 -14. 8X
KDZ 4.94 139 eP 58 38.00 -1.3
KHC 6.29 309 eP 58 58.00 -0.4
S.D. - 0.8 on 11 of 19 obs.

AUG 01, 1991 12h 58m 21.88± 0.70s 26.316 S ± 6.9km 27.291 E ± 8.8km DEPTH - 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
mbLg 3.6 (BUL) .

PRY 0.63 165 eP 58 35.00 0.5
1.0S 1 020 . 00nm
S 58 41 .00
SLR 1.06 57 iPc 58 42.50 0.0
S 58 54.90
KIM 3.29 222 i PC 59 17.50 2.2
S 59 59.20
FRS 3.84 207 i Pd 59 23.70 0.8
S 00 05.00
JOZ 4.42 106 eP 59 30.00 -1.2
1.0s 1 80 . 00nm
S 00 29.50
BUL 6.26 11 iPn 59 58.20 0.8
iSn 01 06.60
iSg 01 38.80
KR I 9.68 13 :Pn 00 45.60 0.5
iSn 02 27.00
iSg 03 22.70
CER 9.87 223 eP 00 45.00 -2.5
1 . 0s 200 . 00nm 6. 5mb X
S 02 31 .00
WIN 10.01 290 eP 00 48.60 -1.0
1.0s 66 . 00nm 6. 1mb X
S 02 31 .50
MTD 10.29 24 iPn 00 53.30 -0.1
iSn 02 39.80
iSg 03 40.60
KIC 44.95 312 P 06 42.20 2 . 3X
TIC 45.34 312 P 06 45.70 2.7X
S.D. -1.5 on 10 of 12 obs.

AUG 01, 1991 13h 21m 54.67± 0.93s 36.017 N ± 9.7km 139.977 E ± 9.1km DEPTH - 61 . 4 ± 1 0 . 0 km

end i3h

4 . 4mb (2 obs.)
HONSHU. JAPAN (227)

KAKJ 0.25 40 i P + 22 04.70 0.1
S 22 10. 80
CHJJ 0.80 273 iPd 22 09.50 -0.8
S 2219.30
NIIJ 1.45 328 P 22 18.90 -0.1
S 22 37 . 40
MAT 1.52 291 iPd 22 18.90 -1.1
(S) 22 32.00
1 IDJ 1.76 253 P 22 24 . 80 1.4
S 2249. 20
MTMJ 1.84 289 P 22 24. B0 0.2
r AMJ 2.15 1 P 2229.80 1.0
TSRJ 3.28 263 eP 22 45.60 0.8
OFUJ 3.34 23 i Pd 22 45.50 0.0
eS 23 23.30
WKYJ 4.02 245 P 22 54.60 -0.5
S 23 39.60
AOMJ 4.55 4 eP 23 05.00 2.6
TKSJ 5.27 249 eP 23 11.60 -1.1
eS 24 13.80
YONJ 5.37 263 eP 23 14.20 0.1
eS 2413.70
HOOJ 6.86 21 eP 23 34.30 -0.4
eS 24 50.50
KUSJ 7.96 26 eP 23 47.90 -2.1
eS 25 12. 40
ASAJ 8.34 13 eP 23 55.20 -0.2
KKN 46. 64 276 P 3023.10 4.1X
ASPA 59.64 186 eP 31 55.70 1.0
1.0s 6 . 50nm 4 . 7mb
NB2 74.67 337 P 33 28.30 -0.7
0.5s 1.1 0nm 4 . 0mb
S.D. - 1.2 on 18 of 19 obs.

? AUG 01. 1991 14h 0Bm 36.87±11.99s 34.560 S ±95. 8km 179.596 E ±56. 9km DEPTH « 361 . 4 ± 37.0 km
SOUTH OF KERMADEC ISLANDS (179)

HBZ 3.21 199 eP 09 38.40 -0.9
NOZ 4.24 197 P 09 50. 10 0.7
TAZ 4.43 213 eP 09 51.80 0.4
WLZ 4.61 224 eP 09 53.40 0.1
MOH 4.97 203 eP 09 57.50 0.4
WHH 4.98 209 eP 09 57.00 -0.4
TTH 5.44 203 eP 10 02.80 0.5
NGZ 5.61 214 eP 10 04.90 0.5
CNZ 5.65 214 eP 10 05.10 0.2
PGZ 6.60 203 P 10 15.90 0.5
MNG 6,87 207 eP 10 18.10 -0.6
eS 11 27.80
KIW 7^30 209 eP 10 23.30 -0.4
MTW 7.34 205 eP 10 23.70 -0.4
CAW 7.45 207 eP 10 24.90 -0.5
BLW 7.54 204 eP 10 26.60 0.2
WDW 7.62 207 eP 10 26.90 -0.5
MRW 7.70 209 eP 10 27.80 -0.5
WEL 7.72 208 eP 10 28.60 0.0
TCW 7.86 211 eP 10 29.30 -0.9
CCW 8.33 209 eP 10 36.50 0.7
THZ 8.91 214 eP 10 42.60 -0.2
KHZ 9.17 209 eP 10 46.00 0.3
LTZ 10.01 213 eP 10 55.90 0.1
MOZ 10.60 208 eP 11 03.40 0.5
S.D. - 0.5 on 24 of 24 obs.

AUG 01. 1991 14h 22m 35 . 25± 0.55s 41.125 N ± 4.4km 23.603 E ± 5.8km DEPTH « 5.0km (geophy s i c i s t)
GREECE-BULGARIA BORDER REGION (363)

SRS 0.01 225 ePc 22 35.96 -0.3
eS 2237.16
SOH 0.36 212 ePc 22 42.36 -0.1
eS 22 48.32

MMB 0i47 11 iPgd 22 44.00 -0.7
iSg 22 51 .00
KNT 0.53 274 ePc 22 45.84 -0.1
eS 22 53.36

KKB 0,84 332 iPgd 22 51.00 -0.9
OUR 0L84 160 iPc 22 52.00 0.0
RZN 1.01 56 iPc 22 55.00 0.1
PAIG 1.20 177 ePc 22 58.40 0.4
KDZ 1.46 68 eP 23 02.00 -0.3

VTS 1.49 349 iP 23 05.00 2.1
S.D. -0.9 on 10 of 10 obs .

% AUG 01 , 1 991 1 4h 51m 58 .
4 . 033 N ± 9.2km 76 . 283
DEPTH - 10.0km (geophysi
COLOMB 1 A

MD 2. 6 (UVC) .

CLMC 0.32 242 i PC 52 05.
eS 52 10.
HOBC 0.35 25 ePc 52 05.
eS 52 10.
HOOC 0.66 212 iPd 52 10.
ANCC 0.78 229 ePd 52 12.
eS 52 23.
SI LC 1 .34 182 eP 52 23 .
S.D. -0.8 on 5 of

« AUG 01 , 1991 15h 16m 47 .
36 . 575 N ±15 . 1 km 71. 079
DEPTH - 78.7 ± 27 .8 km
4 . 5mb (4 obs .)
AFGHANISTAN-USSR BORDER REGI

CUE 7 .24 210 eP 18 33.
NDI 9 . 42 145 eP 19 02.
GKN 14 . 29 123 P 20 07 .
DMN 14. 86 123 P 2015.
KKN 14 . 86 1 22 P 2014.
PKI 15. 09 122 P 20 18.
GUN 15 .20 120 P 20 19 .
HYB 20 . 20 1 59 eP 2119.
eS 25 20.
HFS 43. 05 322 eP 24 41 .
0.8s 6 . 70nm
NB2 44.36 323 P 2451.
0.9s 5 . 70nm
MBC 67.26 3 ePc 27 35.
1.0s 7 . 00nm
YKA 81.17 3 eP 28 54.
0.5s 1 . 1 0nm
S.D. -0.5 on 12of 1

% AUG 01 . 1991 16h 02m 16.
37 .743 N ± 7 .7km 15.012
DEPTH - 10.0km (geophysi
SI Cl LY

MNO 0.31 307 P 02 22.
eSg 02 30.
ATN 0.55 40 P 02 26.
eSg 02 35.
MEU 0.64 186 P 02 28.
eSg 02 39.
GIB 0 .82 288 P 02 32.
SOI 0.89 68 P 02 34.
eSn 02 48.
CZI 1 .72 31 P 02 46.
S.D. -0.9 on 6of

AUG 01 . 1991 17h 21m 32 .
46.690 N ± 3.0km 10.494
DEPTH - 5.2 ± 2.2 km
NORTHERN ITALY

ML 3. 2 (STR) , 3.1 (KBA)
(LOG). 3.0 (FUR). 3.0 (

OSS 0.24 269 ePc 21 37.

OGA 0.41 64 iPgc 21 40.
SOTA 0.72 42 i Pgic 21 46.
i Sg 21 56 .
VDL 0.74 254 ePc 21 45.

WTTA 0.97 53 i Pgc 21 50.
iSg 22 04.
WATA 0.98 49 iPgc 21 50.
iSg 22 05.
LLS 1 .04 280 ePd 21 51 .
SAL 1 .08 179 Pd 21 52.
eSg 22 07.
TMA 1 .26 243 ePc 21 55 .
VVI 1 . 51 1 1 7 P 22 00 .
FUR 1 . 57 19 iPc 22 03.
FVI 1 .58 93 P 22 03.
eSg 22 22.
ZLA 1 . 64 300 ePd 22 04.
SLE 1 .74 309 ePd 22 06.

02± 0.96s
W ±13 . 0km
cist)
(103)

34 0.7
10
29 0.0
10
54 -0.7
77 -0.4

10

44 0.5
5 obs.

90± 2.37s
E ± 7 . 6km

3N (717)

20 -0.1
70 -0.2
64 -0.2
90 0.6
82 -0.5
40 0.1
94 0.2
00 0.3
00
50 0.5
4.5mb

60 0.1

4 . 4mb
70 0.3
4 . 5mb
70 -1.0
4. 0mb
2 obs.

28± 0.82s
E ± 6 . 4km
cist)
(398)

50 -0.4

00

50 -0.9
80
80 -0.4
50
90 0.7
30 1.0
30

30 0.0

6 obs.

47± 0.27s
E ± 2.6km

(545)
. 3. 1

GRF) .

00 -0.4
40 -0.3
30 -0.6
00
40 -1.8
50 -1.0

10

90 -0.B

00

30 -1.5
20 -1.1
10
00 -1.5
50 0.3
80 2.8X

00 1.9
10

50 2.4
40 2.9X

MMK 1.86 251 ePc 22 05.20 -0.3
BHG 1.93 57 iPnd 22 09.30 3.1X
KBA 1.99 7B iPgc 22 08.60 1.3
iSg 22 34.80
BOB 2.06 201 P 22 09 . 40 1.2
FEL 2.06 306 Pn 22 08.60 0.3
Sg 22 38.90
BBS 2.18 292 Pn 22 10.96 1.0
Sg 22 42.86
DIX 2.22 255 ePc 22 12.50 1.8

VOY 2.44 104 e(Pn) 22 14.20 0.4
i 22 16 . 70
e(Sn) 22 45.60
eSg 22 49.20
TRI 2.47 1 12 P 22 15.00 1.0
MOF 2.57 298 Pn 22 15.61 0.1
LOMF 2.59 286 Pn 22 16.15 0.3
ECH 2.73 305 Pn 22 17.15 -0.6
CKI 2. 75 215 P 22 18.80 0.8
BSF 2.77 296 Pn 22 IB. 30 -0.1
Pg 22 26.60
Sg 23 02.30
CDF 2.78 310 Pn 22 17.95 -0.6
LPG 2.86 247 Pn 22 22.20 2.3
LPL 2.87 247 Pn 22 22.60 2.7

LJU 2.87 102 e(Pn) 22 24.50 4 . 8X
eSn 23 02.60
SF 1 2.93 160 P 22 19.70 -0.8
WET 2.93 32 ePn 22 21.00 0.4
PI I 2 .97 1B0 P 22 20. 80 -0.3
GWF 3.00 321 Pn 22 21.81 0.3
RIY 3.03 115 ePn 22 27.30 5.4X
iSn 23 05 .90
GRF 3.04 9 ePn 22 21 . 00 -1.1
ePg 22 32.70
e(Sn) 23 00. 10
eSg 23 09.50
HAU 3.11 297 Pn 22 23.10 0.0
Sg 23 13.00
BNI 3.13 240 P 22 26.50 3. 0X
TOD 3.13 339 ePn 22 24.19 0.8
KHC 3.20 39 ePn 22 27.50 3.0X
Pg 22 32.70
e 23 04.50
Sg 23 16.50
CRE 3.23 161 P 22 25.00 0.1
VITF 3.42 298 Pn 22 27.85 0.3
VBY 3.52 10B ePn 22 36.50 7.6X
eSn 23 23.30
SBF 3.56 218 Pn 22 30.80 1.3
ARV 3.63 151 P 22 29.40 -1.1
ABH 3.75 329 ePn 22 32.59 0.3
RUP 3.79 324 ePg 22 33.79 1.0
ASS 3.93 156 P 22 34.00 -0.9

MOX 4.03 10 (Pg) 22 51.80 15. 7X
eSn 23 21 .00
eSg 23 42.00
FRF 4.15 222 Pn 22 38.20 0.4
PRU 4.26 38 eP 22 52.50 13. 0X
Sg 23 49.00
LRG 4.36 224 Pn 22 41.00 0.1
LMR 4.39 222 Pn 22 41.20 0.0
LBF 4.48 276 Pn 22 42.50 -0.1
LOR 4.58 280 Pn 22 43.30 -0.7
SMF 4.58 272 Pn 22 43.80 \-0.2
Pg 23 02.30
BRG 4.77 27 ePg 23 10.00 23. 3X
iSg 24 03. 00
SSF 4.81 277 Pn 22 47.00 -0.2
AVF 4.91 274 Pn 22 48.10 -0.6
BGF 5.27 271 Pn 22 53.00 -0.8
MAF 5.50 268 Pn 22 56.00 -1.0
TCF 5.74 269 Pn 22 59.50 -0.9
S.D. - 1.0 on 53 of 64 obs.

AUG 01. 1991 17h 38m 37.13± 0.57s 39.378 N ± 5.9km 20.809 E ± 4.6km DEPTH - 10.0km (geophy s i c i s t)
GREECE-ALBANIA BORDER REGION (392)
MD 3.2 (ATH) . 3.0 (THE) .

IGT 0.40 293 ePd 38 44.67 -0.6
eS 3B 51 .30
KEK 0.85 293 eP 3B 53.50 0.0
KZN 1.19 38 eP 38 59.50 0.2
VLS 1.21 188 eP 39 00.50 0.8
AGG 1.23 106 ePd 38 58.83 -1.3

01 d 17h

eS 39 17.ee
FNA 1.47 17 ePd 39 63.67 9.9
eS 39 24.99
LIT 1.48 69 ePd 39 93.28 -9.6
eS 39 25.64
GRG 1 .99 37 ePc 39 1 1 . 39 0.1
eS 39 49.55
VAY 2.36 34 ePn 39 11.60 -4.9X
KNT 2. 39 41 ePc 39 17.16 0.2
eS 39 49.50
SOH 2.43 53 eP 39 18 . 30 0.8
SKO 2.63 10 ePn 39 23.80 3.4X
SRS 2.75 59 ePd 39 22.55 9.5
S . D . =0.7 on 11 of 13 obs .

* AUG 01, 1991 17h 43m 33.29± 1.84s
45.429 N ±12. 1km 20.799 E ±18. 8km
DEPTH - 19.9km (geophy s i c i s t)
YUGOSLAVIA (383)

TIM 0.43 44 i PC 43 42.99 9.0
BEO 0.65 292 ePg 43 46.99 -0.3
eSg 43 56.50
DEV 1.54 72 eP 43 54.99 -6.9X
CMP 2.99 92 ePd 45 91.90 39. 3X
SKO 3.49 172 ePn 44 39.20 1.5
MLR 3.62 87 eP 44 32.59 1.8X
KKB 3.93 154 eP 44 35.99 0.1
PVL 3-93 123 eP 44 35.99 9.0
VRI 4.18 82 eP 44 30.99 -8 . 5X
VAY 4.39 162 ePn 44 39.99 -1.3
KDZ 5.95 137 eP 44 56.09 5.1X
S . D . = 1.2 on 6of 11 obs .

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? AUG 01, 1991 18h 09m 52 . 09± 3.33s 24.732 S ±21- 1km 179.916 W ±28. 1km DEPTH - 549 .7 ± 31.9 km
4 .5mb (1 obs .)
SOUTH OF FIJI ISLANDS (171)

DZM 12.89 279 i PC 93 39.20 -9.1
THZ 18.09 198 eP 94 30.89 9.5
KHZ 18.45 195 P 94 34.39 -9.1
LTZ 19.12 198 P 94 49.59 -9.4
ASPA 41.98 262 eP 07 57.99 9.3
0.6s 8.99nm 4. 5mb
FORK 46.96 259 eP 98 28.19 -0.2
WARB 47.99 256 i PC 08 43.99 -0.1
HFS 143.37 349 ePKP 19 24.79 9.9
9.4s 3 . 09nm
S . D . -9.4 on 8of 8 obs .

AUG 91, 1991 18h 49m 12.83± 9.66s 52.594 N ± 6.5km 175.118 W ± 4.0km DEPTH - 1 47 . 3 ± 6 . 9 km
4 . 7mb (43 obs .)
ANDREANOF ISLANDS, ALEUTIAN IS. (7) Felt (IV) on Adok .

ADK 1.15 238 iPd 49 37.79 -1.2
SMY 6.57 276 eP 41 48.89 0.7
SON 9.98 66 ePd 42 19.79 -2.0
SVW 13.67 43 eP 43 22.80 1.2
KDC 13.94 59 eP 43 24.20 -9.6
TTA ?! 1 4 . 5 4 37 e P 4335.10 2.6
PMR 16.79 47 eP 44 01.50 2.4
IMA 17.32 39 eP 44 07.90 9.2
TOA 18.19 47 eP 44 16.30 -9.5
FBA 18.66 38 eP 44 29.90 -1.5
INK 25.23 35 i Pd 45 25.99 -9.1
0.5s 2 1 . 00nm 4 . 9mb
pP 45 59.90 163kmX
YAK 39.49 319 eP 46 12.09 -9.5
e 4642.00
e 4907. 00
MBC 31.71 22 i Pd 4625.09 12
0.6s 8.09nm 4.7mb
PNT 34.41 73 i Pd 46 48.30 9.8
0.7s 46.09nm 5. 3mb
MAT 36.29 263 (P) 47 03.90 9.3
1.9s 19.99nm 4. 8mb
NEW 36.37 73 eP 47 03.79 -9.3
0.8s 194.17nm 5. 6mb
MIN 37.99 87 i Pd 47 18.69 9.9
ORV 38.53 88 i Pd 47 22.89 0.7
SES 38.82 67 eP 47 23.99 -1.5
BKS 39.13 99 eP 47 27.69 9.5

ARN
CMB
LRM
PRS
LLA
KVN
PR I
FRI
BONR
TNP

BCH
CWC
SYP
ISA
ABL
CLC
DUG
BW06

PAS
MWC
GSC
DAU
RVR
PLM
BAR

GLA
GOL

ANMO
ALO

FRB

MEO
SCH
FVM
ROW
OLY
BLA
KAF

CVL
JSC
NUR

NB2

SGS
HFS

OBN

EKA

DMU
DCN
WTS

CLL

BRG

MOX

ENN

MEM
SNF
PRU
DOU
GRF

WLF
KHC

FLN

LDF

GRR

9.7s 42.99nm 5.3mt>
39.89 99 eP 47 34.20 9.8
49.16 89 i Pd 47 36 . 99 1.4
49.36 74 eP 47 37.09 -9.4
49. 65 92 iPd 47 49.78 1.2
49.72 91 i Pd 4741.69 1.5
49.92 86 eP 47 43 . 99 1.9
41 . 29 91 iPd 47 45. 93 1.6
41.24 89 i Pd 4745.65 1.3
41.48 87 eP 4748.20 1.4
42. 96 86 eP 47 52.30 0.9
9.8s 23. 94nm 4 . 9mb
42. 19 92 eP 47 53. 39 0.9
42. 59 89 eP 47 56.99 0.3
42.69 92 eP 48 98.09 1 1 . 5X
42.86 99 eP 47 57 .09 -9.7
42.94 91 eP 47 59.99 0.4
43.29 89 eP 48 91.90 -9.2
43.42 81 eP 48 92. 79 9.4
43.89 76 eP 48 95.29 -0.3
9.8s 38 . 1 0nm 5.1mb
44.95 91 eP 48 97.99 -0.3
44.97 91 eP 48 98.09 0.3
44.12 89 i Pd 48 98 . 09 0.1
44 . 22 79 eP 48 09. 09 0.9
44.64 91 eP 48 12.09 9.9
45.39 91 iPd 48 18.09 -0.2
45. 97 92 eP 48 15.90 -7 . 5X
e 48 23.00
46.84 99 eP 48 29.00 -0.5
48.18 76 eP 48 39 . 90 -0.1
9.7s 21 . 24nm 5 . 9mb
59.65 82 eP 48 58.40 -9.5
59.66 82 eP 48 58.90 -9.9
1.9s 6 . 90nm 4 . 3mt>
e 59 14.30
50.85 33 eP 48 59.99 -9.7
0.4s 25 . 00nm 5 . 3mb
55 . 49 76 iPc 49 33. 30 -1.0
57.72 41 eP 4947.00 -2.8
58. 91 68 eP 49 49.59 -2.6
58.86 70 eP 49 55.00 -2.9
59. 15 71 eP 49 57.00 -3.9
64 . 1 1 62 eP 59 31 .50 -1.6
64. 48 349 iP 59 33.90 -1.1
9.7s 9 . 20nm 4 . 8mb
64. 69 69 eP 59 35. 20 -9.9
65.82 65 eP 59 42. 79 -1.3
66.23 349 eP 59 45.59 -9.7
9.5s 5. 10nm 4 . 7mb
66.69 357 P 59 48.59 -0.7
9.7s 7 . 60nm 4 . 7mb
67.94 65 eP 59 59.89 -0.9
67.49 355 eP 59 53.20 -1.9
0.7s 14.10nm 4. 9mt>
69.59 341 eP 51 96.09 -1.1

e 51 41 .90
72.32 5 PC 51 23 . 89 9.3
0.8s 8 . 56nm 4 . 5mb
73.51 7 eP 51 39.59 9.1
74. 93 8 eP 51 33.29 -0.2
75.86 359 eP 51 44.59 0.7
9.8s 7.90nm 4. 4mb
76.33 355 i Pd 51 46.39 -0.2
0.8s 1 7 . 90nm 4 . 8mb
76.71 354 iPc 51 48.49 -9.2
9.8s 1 4 . 90nm 4 . 7mb
77 . 97 356 iP 51 51 .00 9.4
1.3s 1 2 . 90nm 4 . 5mb
77.19 359 eP 51 51 . 59 0.8
0.7s 16 . 90nm 4 . 9mb
77. 26 359 P 5151.79 0.2
77.36 9 PC 51 52 . 79 0.6
77.56 354 eP 51 52.79 -0.6
77 . 78 9 P 51 54.90 9.5
78.94 356 eP 51 57.20 1.2
9.7s 1 8 . 90nm 4 . 9mb
78.29 359 P 51 56.00 -9.8
78. 47 354 P 51 58.00 -9.4
e 52 32.90
79.91 4 eP 5291.10 -9.1
9.4s 5.1 5nm 4 . 6mb
79. 19 3 iPd 52 02. 19 -9.1
9.5s 7 . 30nm 4 . 7mb
79.37 4 eP 52 03.50 9.4
9.8s 14. 80nm 4 . 8mb

CDF 79.44 358 eP 52 03.89 9.1
9.5s 5.19nm 4. 5mb
LPF 79.72 4 iPd 52 95.40 9.4
9.6s 9.99nm 4. 7mb
HAU 79.86 359 eP 52 06.19 9.3
9.7s 8 . 89nm 4 . 6mb
BSF 89.93 359 i Pd 52 96.80 9.9
0.5s 5 . 85nm 4 . 6mb
WTTA 89.44 355 iP 52 07.69 -1.5
0.9s 8.59nm 4. 5mb
i 52 09 . 40
KBA 89.53 354 iP 52 99.19 -9.5
9.7s 12. 20nm 4 . 7mb
i 52 19 . 30
GRC .80.57 1 P 5219.12 9.6
LOR 80.60 1 eP 52 09.99 9.2
9.7s 11. 99nm 4 . 7mb
SSF 89.81 1 iPd 52 11.29 9.4
9.7s 13.80nm 4.8mb
LBF 89.89 1 eP 52 1 1 . 40 0.1
9.8s 5.35nm 4. 3mb
AVF 81.98 1 iPd 52 12.49 9.2
0.8s 1 4 . 89nm 4 . 8mb
MFF 81.18 4 eP 52 13.30 9.6
9.8s 1 3 . 45nm 4 . 7mb
SMF 81.23 1 eP 52 13.29 9.2
0.7s 1 2 . 1 5nm 4. 7mb
BGF 81.39 1 eP 52 13.30 -0.1
0.9s 9 . 85nm 4 . 5mb
TCF 81.56 2 eP 52 14.99 0.1
0.6s 4.95nm 4.4mb
LSF 81.58 2 iPd 52 15.29 9.3
0.5s 12.40nm 4. 9mb
MAF 81 . 63 2 eP 52 15 .69 0.5
0.7s 8 . 25nm 4 . 6mb
AGO 81.81 1 P 52 17 . 99 9.9
PLDF 81.99 1 P 52 17.43 9.8
PYM 82.11 1 P 52 1 7 . 96 0.3
RJF 82.53 2 eP 52 19.90 0.1
LBL 82 . 63 1 P 52 21 . 35 9.9
CAF 82.92 2 eP 52 22.40 0.6
0.9s 8 . 20nm 4 . 6mb
LPO 83.14 3 eP 52 23.20 9.3
SKO 84.82 348 iP 52 32.99 9.6
ASPA 87.88 225 i Pd 52 47.00 0.6
0.6s 14.30nm 5.2mb
MAW 148.78 219 iPKPd 59 43.29 4.8X
9.8s 19.09nm
BLF 151.81 318 iPKPc 59 59.00 5.6X
KIM 152.06 329 iPKPc 59 51.00 6.2X
S. D. - 1 .9 on 196 of 1 1 1 obs.

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7. AUG 91, 1991 21h 91m 96.98± 4.89s
46.758 N ±13. 9km 4.173 E ±39. 4km
DEPTH - 5.9km (geophy s i c i s t)
FRANCE (538)
ML 1.5 (LOG) .

SMF 0.25 244 Pg 01 11.39 9.9
Sg 9116.99
LBF 0.26 329 Pg 01 11.90 9.5
Sg 9118.10
SSF 0.55 304 Pg 91 17.00 -0.1
Sg 9127.16
LOR 9.55 337 Pg 91 16.80 -0.4
Sg 91 26.30
AVF 9.56 274 Pg 91 17.30 -0.1
Sg 91 27.30
S . D . -0.4 on 5of Sobs.

AUG 01, 1991 21h 99m 48.32± 9.51s
39.528 N ± 6.5km 29.986 E ± 3.8km DEPTH - 19.0km (geophy s i c i s t)
3 . 4mb (2 obs .)
GREECE-ALBANIA BORDER REGION (392)
MD 3.5 (ATH) . 3.3 (THE) .

IGT 0.19 89 eP 09 52. 0B -0.5
KEK 0.29 310 eP 99 53.19 -1.3
VLS 1 . 41 164 eP 1914.10 0.1
eS 1931.90
KZN 1.51 58 eP 1016.00 0.5
FNA 1 .60 38 ePd 10 17.71 1.9
eS 19 49. 50
AGG 1.81 195 ePc 19 20.60 9.7
eS 10 44.60
LCI 1 . 83 297 P 1922.10 2.1

0ld 21h

eSn 16 48.33
LIT 1.94 72 iPc 18 21.85 0.2
eS 1 6 48 . 29
GRG 2.28 50 ePd 16 27.32 0.8
BRT 2.59 302 P 16 46.20 9.3X
eSn 11 13.00
VAY 2.61 46 iPn 10 30.70 -0.5
SKO 2.65 22 ePn 10 31.70 -0.1
1.2s 1 76 . 00nm

iPg 10 39 . 70
iSn 1 1 08. 70
i 1 1 12. 20
i Sg 1 1 20 . 00
Lg 11 24.50
KNT 2.70 52 ePd 10 32.47 -0.1
PAIG 2.80 81 ePc 10 33.11 -0.9
eS 11 09.07
SOH 2.82 62 ePd 10 34.28 0.6
C2I 3.08 265 P 10 37.00 -0.8
OUR 3.10 74 ePc 10 37.47 -0.7
SRS 3.11 58 ePd 10 37.96 -0.4
SOI 3.47 246 P 10 56.00 12. 6X
MGR 3.54 281 P 10 55.00 1 0 . 5X
VLI 3. ,59 140 eP 10 50.50 5.3X
SCO 3.181 287 P 10 48.10 -0.2
HFS 21.02 351 eP 14 29.50 -4.7X
0.4s 0.90nm 3. 5mb
2 1 e|s 0 . 03um 2 . SMszX
LR 24 05.06
NB2 22.23 349 P 14 42.60 -4.4X
0.8s 0 . 80nm 3. 2mb
3.D. - 0.9 on 18 of 24 obs.

7. AUG 0t. 1991 22h 00m 16.40± 0.84s 37.698 N ± 7.3km 15.161 E ± 7.7km DEPTH " 10.0km (geophy s i c i s t)
SICILY (398)

MNO 0.44 302 P 00 25.50 0.1
eSg 00 32. 10
ATM 0.52 27 P 00 26.60 -0.3
eSg 00 35 . 10
MEU 0.62 197 P 60 28.90 -0.1
eSg 60 39.40
SOI 0.86 62 P 00 32. 20 0.3
eSg 00 43.90
CZ 1 1 .70 26 P 00 46. 20 0.0
S.D. - 0.3 on 5 of 5 obs.

AUG 01, 1991 22h 37m 59.40± 1.03s 56.911 N ± 9.4km 154.616 W ± 6.4km DEPTH « 73. 6 ± 8. 8 km
3.9mb (4 obs.)
KODIAK ISLAND REGION (13)

KDC 1,43 53 iPd 38 25.70 1.9
SYI 2.08 34 iPd 38 33.87 1.1
eS 38 57.76
COD 2.09 14 iPd 38 33.85 0.9
eS 38 56.95
MCNL 2.29 4 i Pd 38 36.10 0.4
BGM 2.51 353 eP 38 38.70 -0.1
AU 1 2.51 14 iPd 38 39. 72 1.0
eS 39 08.06
AUH 2.54 14 ePd 38 40.38 1.2

AUE 2.54 15 iPd 38 40.53 1.4
PDB 2.89 4 iPd 38 44.33 0.2
S 39 16.02
XLV 2.98 30 ePc 38 46.33 1.1
S 39 18.87
HOM 3.17 28 eP 38 48.92 1.0
S 39 24. 15
CNPM 3.17 33 iPd 38 48.70 0.7
S 39 23.32
BRLK 3.47 33 ePd 38 52.33 0.1
NNL 3.59 28 i Pd 38 54.80 1.0
RED 3,65 15 eP 38 55.00 0.3
SON 3i65 247 eP 38 53.90 -0.7
RSO 3L69 14 ePd 38 55.68 0.3
RDW 3170 14 ePd 38 55.88 0.3
REF 3.73 15 ePd 38 56.00 0.1
RON 3.74 14 iPd 38 56.36 0.3
NCT 3.77 13 iPd 38 56.78 0.4

DFR 3,83 14 ePd 38 57.44 0.2
RDT 3.85 16 eP 38 57.90 0.4
SEW 4.19 38 iPd 39 01.61 -0.6
NKA 4.23 23 eP 39 04.73 2.0

SVW 4.24 353 iPd 39 02.90 -0.1
SLKM 4.27 31 ePd 39 02.67 -0.8
CKL 4.46 14 iPd 39 05.99 -0.1
SPU 4.48 16 iPd 39 06.02 -0.4
BGL 4.51 14 ePd 39 06.95 0.1
CGLM 4.61 16 ePd 39 07.98 -0.2
NCG 4.68 15 ePd 39 09.62 -0.2
LTI 4.74 46 eP 39 09.34 -0.5
KNIM 4.98 43 eP 39 12.27 -1.0
SUA 4.98 22 ePd 39 12.89 -0.5
PMS 5.07 29 ePd 39 13.84 -0.7
SKT 5.32 16 ePd 39 16. S2 -1.2
PLRM 5.47 29 eP 39 18.
PMR 5.47 29 ePc 39 19.
KNK 5.51 32 eP 3919.
GLI 5.57 4 1 eP 39 1 9 .
GHO 5. 68 28 eP 39 21 .
VZW 5.89 42 eP 39 24.
CUT 5.93 20 eP 39 24.
VLZ 6.02 42 eP 39 26.
TTA 6.08 354 ePc 39 28.
KLU 6.40 41 ePd 39 32.
TOA 6.75 36 eP 39 39.
TRF 6.91 16 ePd 39 39.
FBA 8.67 20 eP 40 12.
IMA 9.20 2 ePc 40 10.
ANM 9.30 330 ePd 40 12.
YKA 20.67 58 eP 42 35.
0.5s 1 . 60nm
MBC 23.21 21 ePc 43 02.
0.5s 2 . 00nm
FRB 40.04 44 eP 45 35.
NB2 61.86 8P 4813.
0.7s 1.1 0nm

75 -1.4
10 -1.0
14 -1.6
90 -1.6
73 -1.4
66 -1.3
80 -1.8
75 -0.9
00 -0.7
33 -0.8
50 1.6
44 -0.7
90 8 . 6X
50 -1.2
35 -0.5
90 0.9
3 . 6mb
70 2.7
3.8mb
00 6.9X
00 0.4
4.1mb
HFS 62.93 7 eP 48 19 .^70 0.1
0.4s 0.80nm 4.1mb
S.D. - 1 .0 on 55 of 5 7 obs .

AUG 01, 1991 23h 30m 39.|87± 1.09s 13.263 N ± 4.3km 60.397 Iw ±14. 8km
DEPTH - 33.0km (normol)
WINDWARD ISLANDS

MD 3.6 (TRN) .

SVB 0.83 271 iP 30 54.
SLB 0.84 312 eP 30 55.
BIM 1.41 332 i PC 31 03.

(95)

72 -0.5
67 0.4
58 0.1
S 31 21 .00
CRM 1.56 341 iPd 31 05.84 0.2

S 31 24.70
FDF 1 .63 334 iPd 31 06.
0 . 1 s 0 . 20nm
S 31 26.

GRW 1 .65 229 eP 31 06.
BBL 2.48 335 eP 31 19.
S 31 46.
TRN 2.78 201 eP 31 23.
MGG 2.79 341 eP 31 23.
TCE 2.87 208 eP 31 24.
iS 31 57 .
PAG 3.02 336 eP 31 26.
DEC 3.10 348 eP 31 26.
S 31 57.
S.D. -0.5 on 12of 1

% AUG 01. 1991 23h 59m 25.
39.253 N ± 8 . 5km 27 .892
DEPTH - 10.0km (geophysi
TURKEY

DST 0.67 58 iPg 59 37.
eSg 59 47.
1 ZM 0. 99 21 0 ePn 59 44 .
EDC 1.09 359 iPn 59 47.
KGT 1 .28 339 iPn 59 48.
EZN 1 .34 296 ePn 59 49 .
1 Z 1 1 .63 48 i Pn 59 54 .
YLV 1.74 40 i Pn 59 55 .
CTT 1 .94 12 ePn 59 58 .
ISK 2.02 26 ePn 00 01 .
HRT 2.08 40 ePn 00 03.
S.D. -1.2 on 10 of 1

& AUG 02. 1991 00h 19m 34.
63.373 N 151 .205

99 0.3

50
94 -0.1
00 0.2
00
36 0.4
50 0.4
24 -0.2
73
50 0.0
50 -1.2
06
2 obs.

64± 0.91s
E ± 7 . 9km
cist)
(366)

60 -1.4
60
60 0.2
00 0.8
90 -0.5
90 -0.4
40 -0.1
20 -0.9
00 -0.9
00 0.9
20 2.2
0 obs .

35s
W
DEPTH - 13 . 4km
CENTRAL ALASKA (1)

<AEIC>. ML 2.7 (AEIC) , 3.0
(PMR) .

KTH 0.22 35 iP 19 38.84 -0.6
TRF 0.42 79 eP 19 43.02 -0.1
HUR 0.81 118 eP 19 50.36 0.5
S 20 01 . 71
RND 1.06 87 eP 19 54.34 0.3
eS 20 09. 13
CUT 1 .06 156 iP 19 54 .57 0.5
S 20 09.74
MCK 1.08 69 eP 19 54 . 51 0.2
S 20 09.62
BWN 1.11 43 eP 1 9 55 . 60 0.7
S 20 12 .02
SKT 1.41 186 eP 19 59. 58 0.6
eS 20 18.05
WRH 1.76 56 eP 20 03.58 -1.1
PWA 1.83 160 ePc 20 06.70 1.0
GHO 1.92 146 eP 20 07.72 6.6
SUA 1.93 173 eP 20 07.76 0.6
PMR 2.03 151 ePc 20 09.50 1.0
PLRM 2.03 151 eP 20 09.04 0.5
CGLM 2.11 191 eP 20 10.27 0.5
FBA 2.14 43 eP 20 13.60 3.4
TTA 2.23 261 ePc 20 12.50 1.0
SPU 2.24 191 eP 20 12 . 15 0.6
PMS 2.27 159 eP 20 12.80 0.7
S 20 42.93
TOA 2.64 117 eP 20 21.60 4.2
IMA 2.91 346 ePc 20 19.10 -2.1
SLKM 2.91 170 eP 20 21.76 0.6
cwui ^ft7^^A^P > ft > A > ft *>P OVW -J . <o t L L* e r £W / O . £ W / . O
23 obs . ossoc i o t ed
_ _ _ _ _

AUG 02, 1991 00h 36m 41.63± 0.71s
38.411 N ± 6.8km 21.831 E ± 7.2km
DEPTH - 10.0km (geophy s i c i s t)
GREECE (364)
ML 3. 2 (ATH) . MD 3.1 (THE) .

AGG 0.72 32 i Pd 36 54.60 -1.3
eS 37 05.84
VLS 1.00 257 eP 36 59.80 -0.9
ATH 1.55 106 eP 37 10.00 0.7
IGT 1.62314 ePc 37 1 1 .52 1.2
LIT 1.76 17 ePc 37 12.56 0.1
eS 37 35.63
KZN 1.89 359 eP 37 14.50 0.1
VLI 1.90 152 eP 37 14.30 -0.1
SOH 2.68 26 ePd 37 25.67 0.1
S.D. -1.0 on 8of 8 obs .

AUG 02. 1991 00h 51m 04.79± 0.47s
45.262 N ± 3.1km 21.087 E ± 3.2km
DEPTH - 25.9 ± 5 . 3 km
ROMANIA (358)
ML 4.6 (TTG), 4.8 (ZAG). MD 4.7 (TRI).

TIM 0.48 1 1 i Pd 51 1 5 . 00 0.3
BED 0.63 226 i Pgc 51 15.40 -1.7
iSg 51 26.20
GZR 1 .20 83 iPc 51 27 .00 1.0
DEV 1.42 63 iPd 51 30.00 0.9
PLE 2.28 213 i Pnd 51 42.50 0.9
iSn 52 12.62
DRA 2.32 103 ePd 51 51.00 8.9X
IVA 2.54 200 iPnc 51 46.34 1.1
iSn 52 20.12
PVY 2.78 197 iPnd 51 50.22 1.5
iSn 52 25.84
CMP 2.79 88 eP 51 51.00 2.3
MTUR 2.81 89 eP 51 53.50 4.4X
NKY 2.87 212 iPnd 51 50.39 0.4
iSn 52 26.57
BMR 2.93 34 ePc 52 04.00 13. 3X
BRY 2.99 219 iPnd 51 51.79 0.1
iSn 52 29.35
VTS 3.08 149 iPd 51 53.00 0.0
ePg 52 02.00
TTG 3.12 206 iPnd 51 53.95 0.5
iSn 52 32.02
SRO 3.19 324 i Pn 51 54.40 0.0
i 51 56.90
i 52 30.70
i 52 41 . 90

82d

SKO

HCY

BDV

MLR
ULC

2AG

BUC1
PTJ

BUC
PVL
KKB

HVAR
SPC

VR I
ZST

PTT
VAY

PLD
VBY

KNT

GRG
R2N
VKA

SRS

D I M
LJU

CEY

R I Y
SOH
KRA

I AS
TLB
CFR
VOY

TR I

ALN
FVI
ARV
SDI
KHC

KSP

Lg 53 02.00
3 .30 175 iPn 5157.10 1.2
1.2s 1 1 1 . 00nm
i 52 05.30
i 52 12 . 26
i 52 54.20
i 52 55 . 30
Lg 53 07.00
3.38 215 i Pnd 51 57 . 59 0.5
iSn 52 38.62
3 . 40 210 iPnd 51 57 . 77 0.4
iSn 52 39.57
3.43 84 iPc 52 00 . 00 2.0
3.56 203 iPnd 52 00 52 9.9
i Sn 5244.12
3.63 281 iPg 52 09.60 9 . 0X
iSn 52 41 . 78
iSg 52 57.50
3.64 103 eP 52 21 . 00 20. 3X
3.66 282 iPnc 52 00.20 -0.9
e(Sn) 52 43.40
3.66 102 ePd 52 30.50 29. 4X
3 .67 122 eP 5201.00 -0.2
3.69 156 iPc 52 02 . 00 0.5
iPg 52 18. 00
eS 53 08.00
3 .93 240 i Pnc 52 05. 60 0.7
3.97 352 iPn 52 05.80 0.2
i 52 22.00
e 52 58.00
i 5324.10
4.01 79 iPc 52 07 . 50 1.5
4 . 02 318 iPn 52 05. 00 -1.1
i 52 19.00
i 52 50.60
i 5313.90
i 53 30. 70
4.05 64 eP 52 09 . 50 2 . 9X
4. 08 164 iPn 52 06. 60 -0.5
0.7s 136 . 00nm
i 53 16. 00
Lg 53 21 . 60
4. 10 139 i P 52 09. 00 1.6
4.12 275 ePn 52 11.70 4.2X
i 52 25.90
iSn 53 22.30
4.31 161 ePc 52 07.06 -3.2X
i S 53 18. 94
4.41 167 ePd 52 1 1 . 30 -0.4
4.44 142 iPc 52 12.00 -0.4
4.45 314 i Pnc 52 13.90 1.7
i 52 29.00
i 53 03.40
i 53 08.00
4 .53 155 ePc 52 12. 58 -0.9
eS 53 22.98
4.55 133 eP 52 19. 00 5. 3X
4.66 282 ePn 52 27.40 12. 1X
e 52 39.90

e(Sn) 53 36.50
4.71 278 e(Pn) 52 35.60 19. 6X
eSn 53 35. 10
eSg 53 53.00
4.73 273 eP 52 32 . 70 16 . 5X
4 . 74 1 59 eP 52 1 5 . 00 -1.4
4 .86 351 eP 5217.90 -0.1
i 52 20.50
i 52 25 . 00
4 . 89 64 eP 53 03. 00 44. 5X
4.98 95 eP 52 43.50 23. 8X
4 .99 88 eP 52 45 . 00 25. 1X
5 . 1 0 281 ePn 5221.80 0.2
e 5241. 00

e(Sn) 53 31.10
5.17 278 e(Pn) 5223.20 0.8
e(Sn) 53 22 . 30
e(Sg) 53 51 .50
5.67 138 ePd 52 29. 30 -0.3
5 .95 286 P 52 38 . 00 4 . 6X
6.10 256 P 52 35 . 00 -0.6
6 . 37 239 P 52 39 . 00 -0.5
6.41 310 iPn 52 38.50 -1.6
Pg 52 49.50
Sg 54 05.50
6. 44 332 ePn 52 38. 70 -1.7

iPg 52 55.60
eS 53 43.30

ASS 6. 44 253 P 52 41 . 70 1.2
PRU 6.47 319 Pn 52 38.50 -2.3
2 12s 0 . 60um
i 52 41 . 60
e 5344. 50
eSg 53 50.00
KGT 6.63 134 IP 52 41.90 -1.1
SFI 6.73 262 P 52 47.00 2 . 6X
CRE 6.74 259 P 52 45.00 0.3
CTT 6.76 125 eP 52 43.40 -1.4
PGD 6.83 262 P 52 47 . 50 1.5
EDC 7.00 132 eP 52 47.00 -1.2
ISK 7.18 123 eP 52 56.00 5.3X
BRG 7.37 322 ePn 53 04.00 10. 6X
e 54 1 7 . 00
HRT 7.69 122 eP 52 56.00 -2.0

GRF 8.02 307 e(Pn) 53 03.80 1.3
e(S) 54 51 .80
CLL 8.10 321 «Pn 53 20.00 16. 4X
« 56 12 .00

MOX 8.33 314 (Pg) 53 18.00 1 1 . 2X
(Sg) 54 52 . 00
MEM 11.44 303 PC 53 51.00 1.6
DOU 12.12 299 P 54 01.50 2.9X
0.7s 6 . 70nm 5 . 0mt> X
Lg 57 51 . 00
NUR 15.42 7 eP 54 39.00 -3.0X
APO 15.88 347 eP 54 46.20 -1.8
0.4s 0.70nm 3. 2mt>
NB2 16.84 343 P 55 08.20 0.0
0.5s 0 . 80nm 3 . 1mb
S .0. - 1 .2 on 52 of 76 obs.

& AU6 02, 1991 00h 59m 56.47s
60 . 486 N 153 . 70 1 W
DEPTH - 6.8km
SOUTHERN ALASKA (2)
<AEIC>. ML 2.8 (AEIC). Preceded
47 seconds eorMer by o smo I I
f or eshock (AE I C) .

NCT 0.39 78 iPc 00 04.63 0.3
IS 00 1 0 . 93
ROW 0.44 90 ePc 00 05.75 0.3
RON 0.47 86 iPc 00 06.29 0.4
RED 0.47 98 ePc 00 06.05 0.2
IS 00 13. 10
RSO 0.47 93 ePc 00 06.26 0.3
eS 00 13.46
REF 0.49 89 ePc 00 06.59 0.1
DFR 0.51 78 iPc 00 06.76 0.0
IVS 0.57 147 eP 00 06.12 -1.8
RDT 0.65 82 iPc 00 09.06 -0.4
S 00 18.37
PDB 0.74 200 iPc 00 09.63 -1.6
BGL 1.01 39 eP 00 14.95 -1.0
eS 00 29.08
SPU 1.07 48 iPc 00 16.08 -0.8
eS 00 30.44
SVW 1.13 304 iPd 00 16.13 -1.8
eS 00 38.27
AUH 1 . 13 173 eP 08 18. 41 0.4
AUE .14 172 ePd 00 18.36 0.2
AUI . 16 173 eP 08 18 . 62 0.1
CGLM .17 44 iPc 00 17.88 -0.8
NCG .19 39 eP 00 18. 20 -0.8
NKA .24 77 ePc 00 21 . 68 1.9
NNL . 28 109 eP 00 21 .73 1.3
HOM .32 128 eP 00 21.61 0.4
MCNL .34 194 ePc 00 19.99 -1.6
eS 00 37.69
XLV .44 135 iPd 00 23.01 0.1
COD .56 179 ePc 00 24.69 0.0
CNPM .57 127 ePd 00 24.78 -0.1
eS 00 45.89
SLKM .72 88 eP 00 27.21 0.1
SUA .74 54 eP 00 27.78 0.3
SKT .83 34 ePc 00 29.48 0.8
SEW 2.15 98 eP 00 34 . 70 1.5
PMS 2.16 68 eP 00 34 . 88 1.4
PWA 2.20 56 eP 00 35.42 1.6
31 obs. associated

& AUG 02, 1991 01h 28m 26.70s
32. 888 N 117. 638 W

DEPTH - 6.0km (geophysicist) CALIFORNIA-MEXICO BORDER REGION (45)

<PAS-P>. ML 3.2 (PAS).

SCI 8.78 278 iPd 28 40.88 -1.4
PLM 0.80 54 iPd 28 41.30 -1.4
eS 28 51 .30
BAR 0.83 104 iPc 28 41.30 -1.9
CIS 0.83 309 eP 28 41.48 -1.8
PEC 1.08 21 iPd 28 46.00 -1.5
RVR 1.13 11 eP 28 46.70 -1.5
IKP 1.30 100 eP 28 49.50 -1.8
SSK 1.33 358 eP 28 50.80 -1.7
MWC 1.39 345 eP 28 58.40 -2.4
GLA 2.36 85 eP 29 04.00 -2.7
ABL 2.37 326 eP 29 05.20 -1.8
GSC .2.51 16 eP 29 07 .70 -1.1
12 obs . assac i a t ed

* AUG 02, 1991 01h 58m 86.88± 1.73s
45.095 N ±17. 4km 2.995 E ±12. 5km
DEPTH - 10.0km (geaphy s i c i s t)
FRANCE (538)
ML 1 .9 (LOG) , 1.9 (STR) .

COLF 0.65 49 Pg 58 18.27 -0.7
Sg 58 28. 14
CAF 0.68 256 Pg 58 18.30 -1.2
Sg 58 27.50
RJF 1.07 282 Pg 58 26.80 0.7
Sg 58 40.40
MAF 1.17 345 Pg 58 26.50 -1.3
Sg 58 43.70
LPO 1.35 253 Pg 58 31.50 0.7
Sg 58 49.00
SMF 1 .66 21 Pg 58 36.80 1.5
Sg 58 58.00
S.D.-1.5 on 6of 6 obs .

AUG 02. 1991 02h 04m 14.94± 0.93s
51.555 N ± 7.0km 6.950 E ± 9.3km
DEPTH - 10.0km (geophysicist)
GERMANY (543)
ML 2.2 (BNS). MD 2.7 (UCC). Felt
in the Reck I i nghausen orea.

WTS 0.45 349 ePg 04 24.80 -8.1
0.8s 38 . 80nm
BNS 0.61 166 iPc 04 27.30 8.1
8.5s 108.00nm
iS 84 36.70
ENN 1.02 220 iPn 84 36.50 2.3
8.5s 35 . 00nm
eSn 84 53.80
MEM 1.12 213 iPd 04 37.62 1.7
iS 04 56.23
i 08 09.50
KOE 1.23 156 iPd 04 39.00 1.2
eS 04 56.20
TNS 1.64 144 ePnc 04 44.60 0.7
eSn 05 04.90
ABH 1.72 167 ePn 04 45.58 0.5
RUP 1.86 178 ePn 04 47.78 0.7
WLF 1.96 195 iPd 04 52.24 3.7X
SNF 1.98 239 iPc 04 50.60 1.8
DOU 2.09 227 PC 04 56.40 6.0X
CDF 3.15 176 Pn 85 05.10 -0.6
HAU 3.57 187 Pn 05 10.90 -0.7
BSF 3.73 182 Pn 05 13.60 -0.3
LOR 4.74 206 Pn 05 27.50 -0.7
Sg 06 53.80
LBF 4.97 204 Pn 05 30.00 -1.4
SSF 5.03 208 Pn 85 31.30 -0.9
AVF 5.32 208 Pn 05 35.00 -1.3
SMF 5.32 204 Pn 85 34.70 -1.6
BGF 5.68 210 Pn 85 40.00 -1.4
Sn 06 45.60
S . D. - 1 . 3 on 1 8 of 20 obs.

* AUG 02. 1991 02h 27m 24.58± 8.75s 5.455 N ±11. 7km 78.687 W ±15. 7km
DEPTH - 33.0km (normal)
3. 8mb (1 obs .)
SOUTH OF PANAMA (83)

CLMC 2.63 126 iPc 28 86.66 8.8
eS 28 36.20
ANCC 2.65 137 iPc 28 85.89 8.8
eS 28 34.30

02d 02h

10

HOBC 2.77 113 iPc 28 07.35 -0.3
HOOC 2.84 134 i PC 28 08.64 -0.3
UPA 3.60 347 ePc 28 18.30 -1.2
S 1 LC 3.61 139 iPc 28 20.35 0.4
PURC 3.88 143 ePc 28 23.98 0.1
CUMC 4.54 170 eP 28 32.30 -1.0
ALO 38.97 323 eP 34 52.00 2.2
ANMO 38.97 323 eP 34 49.00 -0.8
0.8s 1 . 49nm 3 . 8mb
S . D . - 1 . 1 on 10 of 10 obs .

% AUG 02, 1991 03h 51m 33 . 38± 1.46s 38.881 N ± 8.5km 30.180 E ± 1 4 . 7 km DEPTH => 10.0km (geophysicist)
TURKEY (366)

KHL 0.76 223 i Pg 51 48.20 -0.1
iSg 51 58.70
DST . 41 301 i Pn 51 59. 20 0.1
GPA .41 4 i Pn 51 59 .50 0.4
IZI .55 340 iPn 52 00.48 -0.8
EYL .68 359 iPn 52 03.00 -0.1
YLV .79 340 iPn 52 04.40 -0.3
HRT .98 349 ePn 52 07.40 0.1
CTT 2.63 330 ePn 52 17.00 0.4
KGT 2.72 306 ePn 52 18.00 0.1
5.0. -0.4 on 9of 9 obs .

AUG 02, 1991 04h 05m 11.47± 0.35s
78.331 N ± 5.4km 8.029 E ± 7.0km
DEPTH - 10.0km (geophysicist) 4.4mb (13 obs.) 4.0Msz (1 obs.)
SVALBARD REGION (643)

KBS 0.97 51 iPc 05 30.60 0.7
eS 05 41 . 50
JNW 8.48 219 eP 07 13.20 -3.9X
eS 07 15.74
JNE 8.50 219 eP 07 13.75 -3.6X
JMI 8.61 219 eP 07 14.26 -4.6X
eS 0717.40
SOD 12.19 144 IP 08 05.40 -2.4X
KAF 17.26 150 iP 09 11.40 -2.2
NB2 17.41 175 P 09 17.10 1.5
0.8s 2 . 20nm 3 . 3mb X
HFS 18.38 171 ePKP 09 28.10 0.6
0.6s 3.60nm 3. 7mb
NUR 18.68 154 eP 09 39.00 7 . 8X
MBC 22.92 331 eP 10 17.00 1.1
1.1s 20 . 00nm 4 . 6mb
EKA 23.42 196 P 10 22.00 1.1
1.2s 8 . 30nm 4 . 2mb
DMU 25.10 201 eP 10 36.90 -0.2
OBN 25.32 140 eP 10 40.00 0.8
Z 20s 0.50um 4.0Msz
> 10 48.00
i 1 1 09 . 00
CLL 27.19 173 eP 11 16.00 19. 5X

MOX 27.83 175 e(P) 11 03.00 0.6
KRA 28.73 164 eP 11 19.20 8 . 8X
SPC 29.61 164 eP 11 25.90 7 . 3X
ZST 30.44 168 eP 11 34.00 8.2X
e 17 05.80
SSF 31.43 186 eP 11 33.20 -1.3
INK 31.83 334 eP 11 40.00 2 . 2X
BGF 31.95 187 eP 11 38.40 -0.6
0.8s 7.40nm 4. 7mb
TCP 32.24 188 eP 11 41.10 -0.5
0.9s 4.90nm 4. 4mb
LSF 32.29 188 eP 11 41.60 -0.4
0.9s 4.90nm 4. 4mb
MAF 32.29 187 eP 11 41.40 -0.7
0.8s 4.05nm 4. 4mb
LPL 32.94 182 eP 11 48.50 0.6
LPG 32.95 182 eP 11 49.00 0.9
FBA 36.26 343 eP 12 13.70 -2.3
1.2s 16.67nm 4. 8mb
SES 46.45 309 eP 13 39.00 -0.7
LRM 51.12 309 eP 14 16.90 0.8
RSSD 51.38 301 eP 14 16.60 -1.5
BW06 53.62 306 eP 14 36.00 1.2
1.3s 4 . 5 1 nm 4 . 3mb
BJ 1 54.64 63 eP 14 36.00 -6.0X
GOL 55J91 301 eP 14 52.40 0.8
0.8ls 1.49nm 4. 1mb
GKN 60.07 97 P 15 20.22 -0.6
KKN 60.41 96 P 15 22.96 -0.2

GUN 60 . 41 96 P 15 24 .08 0.7
DMN 60.55 97 P 15 22.80 -1.4
PKI 60.64 96 P 15 24.50 -0.4
ANMO 60.73 301 eP 15 25.50 0.2
1.1s 4 . 75nm 4 . 5mb
ALO 60.73 301 eP 15 25.00 -0.3
1.1s 3.1 6nm 4. 4mb
CHG 71.90 85 eP 16 43.30 7.0X

CHTO 71.90 85 e(P) 16 38.00 1.7
1.3s 12 . 66nm
S . D . - 1 . 1 on 30 of 4

AUG 02, 1991 05h 35m 22.
17 . 242 N ±1 7 .9km 95 . 088
DEPTH = 10.0km (geophysi
OAXACA. MEXICO

OXX 1 . 57 264 iPc 35 50.
IS 36 09.
SCX 2.40 102 eP 36 03.
iS 36 25.
1 ISM 2.78 309 iP 36 08.
i S 36 44 .
LVVM 2.80 333 eP 36 07.
iS 36 41 .
MT 3 .54 301 eP 36 20.
eS 3701.

D D LI "XQOOQQ i D / 1 A O A r r M J . O / /yy l r C oo ^: 4 .
(S) 37 18.
S. D . -1.3 on 6of

AUG 02. 1991 06h 27m 14.
10.286 N ± 5. 3km 125-175
DEPTH - 22. 1 ± 6. 8 km
5.0mb (15 obs .) 4 .8Msz (
LEYTE, PHILIPPINE ISLANDS

MAP 1.18 272 iPc 27 34 .

4 .9mb
2 obs .

84± 1 . 1 1 s
W ±10 . 3km
cist)
(60)

00 -1.0
50
00 0.2
50
25 0.0
00
25 -1.2
25
50 1.3
50
25 0.7
50
6 obs.

55± 0.99s
E ± 7 . 1 km

6 obs .)
(256)

00 -1.7
CGP 1.88 195 iPd 27 45.100 -0.8
DAV 3.20 173 eP 28 06.100 1.3
PGP 5.22 308 iPc 28 33.00 -0.3
QCP 5.89 318 eP 28 25.00 -17. 8X
PPR 6.37 266 i Pd 28 50.00 0.5
BAG 7.55 324 eP 29 04.80 -1.5
CVP 8.06 337 eP 29 14.00 0.8
S2P 8.55 328 eP 29 49.100 28. 9X
MN 1 8 . 79 1 82 ePc 29 31 .
TSM 9.37 231 eP 29 34.
ANP 15.22 347 eP 30 50.
HKC 15.93 320 P 31 00.
PJG 19.54 78 eP 31 53.
GUA 19.58 79 eP 31 53.
SSE 21 .03 350 PC 32 00.
Z 20s 3.20um
N 14s 1 . 40um
E 14s 3.70um
S 35 40.
sS 35 52.
SS 36 24.
KGM 23.21 251 ePd 32 20.
MTN 23. 73 165 eP 32 27 .
IPM 24.60 258 ePd 32 34.
0.7s 50 . 00nm
KMI 25.91 308 eP 32 49.
KMI 25.91 308 iPc 32 49.
1.5s 50 . 00nm
Z 18s 2.30um
N 11s 0 . 40um
E 11s 0 . 50um

pP 33 00.
S 37 28.
i S 37 32.
SS 38 50.
KNA 26 . 1 1 1 72 eP 3248.
BDT 26.32 288 eP 32 52.
CHG 26.74 291 eP 32 54.
CHTO 26.74 291 eP 32 54.
1.0s 5 . 25nm
PSI 27.13 256 ePc 32 58.
e 34 30.
MAT 28.68 22 eP 33 05.
1.4s 27 . 91 nm
eS 38 10.
BJI 30.69 346 eP 33 27.
Z 20s 1 . 81 urn
N 12s 1 . 24um
eS 38 18.

50 8. IX
00 2.6
00 0.1
00 0.9
80 9.9X
80 9.5X
20 0.9
4 . 7Msz

00
00
ee
70 -0.4

ee 0.9
70 0.1
5 . 2mb
20 2.0
60 2.6X
4. 9mb
4 . 8Msz

e0 38kmX
60
00
00
00 -0.8
00 1.2
40 -0.3
00 -0.6
4 . 1mb
60 0.4
00
00 -7. 1X
4 . 8mb
00
00 -2.9X
4.7Msz

00

eSS 39 45.00
WR2 31.38 163 i PC 33 34.30 -1.9
0.5s 26.60nm 5.4mb
i pP 3404.60141 kmX
LZH 32.16 326 eP 33 42.00 -1.1
2.0s 1 76 . 00nm 5 . 6mb
Z 26s 3 . 36um 4 . 9MszX
N 22s 5.53um

pP 33 47.50 19kmX
PP 34 46.50
eS 38 52.00

eSS 40 38.00
OIS 33.78 155 eP 33 55.00 -2.1
0.3s 8 . 00nm 5 . 1mb
ASPA .34.81 166 iPd 3* 05.50 -0.5
0.5s 42 1 0nm 5 . 6mb
Z 1 8s 2 . 20um 4 . 9Msz
eS 39 38.00
CTAO 36.63 145 eP 34 20.00 -1.4
GUN 40.83 301 P 34 57.98 1.1
FORR 41.00 176 eP 34 57.00 -0.6
PKI 41.13 300 P 34 58.58 -0.7
KKN 41.30 301 P 35 00.02 -0.6
DMN 41.40 300 P 35 00.42 -1.0
GKN 41.91 301 P 35 04.52 -1.0

RMO 43.14 148 e(P) 35 14.00 -1.3
e 37 15 . 00
STK 44.78 160 iPd 35 28.60 0.1
0.8s 9 . 20nm 4 . 7mb
ePP 37 17.40
IRK 45.17 342 eP 35 34.20 2 . 8X

HYB 45.73 284 eP 35 36.50 0.2
CMS 46.01 155 eP 35 40.00 1.7
GBA 46.77 279 PC 35 44.60 0.1
0.8s 13 . 40nm 5 . 0mb
KOD 46.91 274 eP 35 49.00 3 . 0X
ND 1 48.41 299 eP 35 57.00 -0.3
BWA 49.63 155 eP 36 08.30 1.7
POO 50.24 286 eP 36 10.50 -1.0
CAN 50.65 155 eP 36 13.20 -1.1
CNB 50.80 154 eP 36 17.00 1.5
DZM 51.69 129 iPc 36 23.00 0.5
DUE 57.49 299 e(P) 37 05.00 0.1
IR4 71.32 304 eP 38 34.00 -1.0
IR1 71.50 304 eP 38 35.00 -1.1
IR7 71.56 304 eP 38 36.00 -0.5
FBA 79.50 26 eP 39 19.60 -1.2
0.8s 7 . 59nm 4 . 8mb
OBN 80.84 324 eP 39 31.00 2.9X
Z 18s 0.60um 5.0Msz
e 50 20.00
SOD 83.86 337 eP 39 45.00 1.5
INK 84.67 21 eP 39 48.00 0.5
KAF 85.11 332 eP 39 48.80 -1.1
0.9s 5.60nm 4 . 8mb
MBC 85.93 13 eP 39 53.00 -0.8
0.9s 10. 00nm 5 . 0mb
NUR 86.26 331 iP 39 57.00 1.4
NAI 88.62 268 ePd 40 13.00 4 . 8X
Z 20s 0.25um 4.6Msz
NB2 92.27 334 P 40 24.20 0.2
1.3s 4 . 90nm 4 . 8mb
CLL 95.45 324 eP 40 41.00 2.2
1.7s 18 . 00nm 5 . 2mb
ALQ 113.62 45 ePKP 45 54.00 0.3
UPA 148.84 53 i PKPc 47 05.40 6 . 4X
LPB 165.68 117 PKP 47 22.00 2.1

SIV 171.68 134 (PKP) 47 14.00 -9 . 1 X
S . D . - 1 . 2 on 56 o f 70 obs .

% AUG 02, 1991 07h 21m 28.81± 3.57s
61.488 N ± 8.4km 4.280 E ±28. 0km
DEPTH - 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1 .9 (BER) .

FOO 0.38 73 eP 21 36.56 -0.1
eS 21 42.85
FRO 0.39 47 eP 21 36.39 -0.5
eS 21 42.09
SUE 0.49 152 iP 21 38.53 -0.2
eS 21 46.25
HYA 0.98 109 iP 21 47.57 0.3
eS 22 01 . 16
MOL 1.89 53 eP 22 01.83 0.5

eSg 22 28.31
S.D. « 0.6 on 5 of 5 obs.

& AUG 02, 1991 07h 43m 42.89s
59 . 744 N 1 52 . 71 6 W
DEPTH = 78 . 2km

<AE 1 C> .

IVS 0.32 325 eP 43 55.08 -0.5
AUE 0.51 221 IP 43 56.08 -0.6
eS 44 05.98
AUH 0.53 224 eP 43 56.41 -0.6
AUI 0.55 222 IP 43 56.32 -0.7
eS 44 06.82
HOM 0.55 99 IP 43 56.83 -0.3
eS 4407.79
RED 0.68 358 iP 43 57.84 -0.6
eS 4409.44
RSO 0.72 359 eP 43 58.49 -0.6
eS 44 10.85

PDB 0.75 274 iP 43 58.23 -0.9
eS 4410.41
REF 0. 75 IIP 43 58. 78 -0.6
RON 0.77 358 iP 43 59.05 -0.5
eS 44 1 1 . 55
NNL 0.78 67 IP 43 59.74 0.3
CNPM 0.78 106 iP 43 58.69 -0.9
eS 4411.79
NCT 0.83 353 IP 43 59.50 -0.7

ROT 0.85 10 iP 43 59.55 -0.8
eS 4412.71
DFR 0.85 1 eP 43 59.55 -0.9
eS 4413.22
COD 0.94 211 eP 44 00.18 -1.3
eS 4414.10
MCNL 1.00 237 eP 44 00.78 -1.3
SYI 1 . 15 171 eP 44 03. 16 -0.8
NKA 1.24 36 eP 44 06.35 1.2
SLKM 1.47 57 eP 44 07.20 -0.9
CKL 1.47 7 eP 44 07.73 -0.5
S 44 27.00
SPU 1.48 13 iP 44 07.73 -0.6
eS 44 26.91
BGL 1.53 6 eP 44 08.67 -0.4
CGLM 1.61 12 eP 44 09.70 -0.4
SEW 1 .68 76 eP 44 10 . 96 0.0
NCG 1.69 9 eP 44 10 54 -0.6
SUA 1.98 29 eP 44 14.83 -0.3
PMS 2.17 45 eP 44 16.83 -0.8

LT 1 2.47 81 eP 44 19.91 -1.8
PLRM 2.56 42 eP 44 20.86 -2.1
KNIM 2.57 74 eP 44 20.46 -2.7
KNK 2.69 50 eP 44 23.00 -1.8
GHO 2.76 41 eP 44 24.09 -1.7
34 obs. associated

? AUG 02. 1991 07h 47m 42.62± 9.72s

DEPTH - 33.0km (normal)
LEEWARD ISLANDS (92)
ML 2 . 7 (FDF) .

DEC 1.21 294 eP 48 04.00 0.7
S 48 15. 50
MGG 1.36 274 eP 48 04.10 -1.3
CRM 1.44 222 eP 48 06.87 0.2
S 4818.30
BBL 1 .54 259 eP 4810.00 1.9
FDF 1.62 228 eP 48 08.40 -0.9
0.1s 0 . 50nm
S 48 22.40
PAG 1.72 277 eP 48 10.00 -0.7
S 4825. 00
BIM 1.72 221 eP 48 10.97 0.2
S 48 26.40
S.D.-1.3 an 7of 7 obs.

AUG 02. 1991 08h 29m 02.50± 1.37s
32.969 S ± 7.4km 70.917 W ± 8.6km
DEPTH = 85. 1 ± 1 4 . 5 km
CHILE-ARGENTINA BORDER REGION (127)

ROCH 0.08 268 iPd 29 15.00 -0.2
IS 29 24.50
PEL 0.26 132 iPc 29 15.50 0.1
iS 29 25.00

IS 29 26.00
SAN 0.53 156 eP 29 17.50 0.3
iS 29 28.00

iS 29 30.30
TACH 0.68 181 iPd 29 18.50 -0.1
iS 29 30.90
PCH 0 . 73 153 iP 29 19. 50 0.3
iS 29 32.00
LCCH 0.74 227 iPd 29 19.60 0.4
iS 29 32.50
CHCH 0.99 167 iPd 29 21.80 -0.2
iS 29 37.00
LNV 1.07 203 iPd 29 22.50 -0.4
(S) 29 37 .00
RTLL 2.64 52 iPc 29 44.00 0.1
S 30 16.50
S. D. -0.3 on 11 of 11 abs .

% AUG 02. 1991 08h 57m 52.96± 0.62s
37.062 N ± 6.7km 3.918 W ± 5.0km
DEPTH - 10.0km (geophysicist)
SPAIN (377)
mbLg 3 . 2 (MOD) .

ECOG 0.35 52 eP 58 00.09 -0.2
eS 58 06.70
AFC 0.35 57 eP 58 00.18 -0.1
eS 58 06.90

EGUA 0.36 129 iP 58 00.03 -0.4
eS 58 07.00
MAL 0.52 230 P 58 01.40 -2.0
eS 58 08.00
EPRU 1.06 265 eP 58 14.09 1.2
eS 58 27.30
EBAN 1.11 5 eP 58 13.56 -0.2
eS 58 29.50
EHUE 1 . 30 54 eP 58 17 . 88 0.9
eS 5837.10
EHOR 1.30 306 eP 58 16.72 -0.3
eS 58 34.50
EJIF 1.39 244 eP 58 20.44 2.1
eS 58 38.50
EVIA 1.93 35 eP 58 25.94 -0.3
eS 58 51 .00
ACU 3.13 61 eP 58 43.86 0.5
EPLA 3.44 331 eP 58 46.58 -1.2
S . D . -1.2 on 12 of 12 obs .

% AUG 02. 1991 10h 07m 50.71± 0.84s
17.086 N ± 8.7km 62.319 W ± 6.5km
DEPTH - 13.2 ± 5.2 km
LEEWARD ISLANDS (92)
ML 2.9 (FDF) .

NEV 0.25 282 eP 07 56.13 0.0
S 07 59.70
MGH 0.38 165 eP 07 58.54 -0.1

S 08 04.80
BPA 0.44 95 ePd 08 00.00 0.2
S 08 06.60
SEG 1.03 131 eP 08 09.95 0.0
S 08 23.20
PAG 1.22 150 ePd 08 12.84 -0.3
S 08 30. 10
DOG 1.25 147 ePd 08 13.48 -0.1
S 08 31 .00
SFG 1 . 36 127 eP 08 15. 30 0.1
DEG 1.43 122 eP 08 15.72 -0.6
S 08 33.50
MGG 1.51 140 ePd 08 17.61 0.3
S 08 37.50
BBL 1.75 152 eP 08 21.50 0.6
S.D. - 0.4 on 10 of 10 obs.

? AUG 02. 1991 11h 06m 16.70± 3.85s
2.434 N ±13. 1km 76.201 W ±35. 6km
DEPTH - 10.0km (geo phy s i c i s t)
COLOMBIA (103)
MD 2.8 (UVC) .

PURC 0.20 235 iPc 06 21.28 0.0
eS 06 23. 10
S 1 LC 0.29 331 iPc 06 22.80 -0.1
eS 06 25.80
HOOC 1.11 337 ePc 06 37.83 0.0

«S 06 56.30
CLMC 1.48 346 ePc 06 43.55 0.0
S.D. -0.1 an 5of Sobs.

? AUG 02. 1991 12h 03m 1 1 . 25± 2.32s
3.057 S ±22. 5km 139.414 E ±24. 3km DEPTH - 33.0km (normal)
4 . 6mb (2 obs .)
WEST I R I AN (201)

MTN 12.72 220 eP 06 13.00 0.4
eS 08 41 . 00
OIS 17.40 179 eP 07 13.00 -0.2
eS 10 28. 00
WR2 17.50 196 iPd 07 14.60 0.1
0.5s 27.20nm 4.6mb
eS 10 29.80
ASPA 21.17 194 iPc 07 54.10 -2.1

eS 11 39.60
RMQ 24.96 160 eP 08 34.00 0.7
WARB 26.06 207 eP 08 45.00 1.4
PSI 40.87 278 ePd 10 51.90 -0.3
e 1 1 25 . 00
KIC 144.13 277 PKP 22 40.50 -5 . 9X
TIC 144.39 277 PKP 22 41.24 -5.6X
LIC 144.43 276 PKP 22 41.24 -5.7X
S.D. -1.3 an 7 of 10 obs.

? AUG 02. 1991 I3h 02m 24.76± 6.7+s
8.928 S ±57. 4km 118.219 E ±40. 7km DEPTH - 169. 4 ± 20.6 km
4 . 3mb (4 obs .)
SUMBAWA ISLAND REGION (285)

KUPT 5.45 103 eP 03 46.00 0.8
MBL 12.26 173 eP 05 15.30 0.4
0.3s 3 . 00nm 4 . 3mb
eS 07 23.00
KNA 12.33 124 eP 05 15.50 -0.3
eS 07 36.00
MTN 13.26 108 eP 05 26.50 -1.2
0.3s 81 . 00 nm 5 . 6mb X
eS 07 52.00
NANU 13.80 190 eP 05 34.00 -0.5
0.3s 3 . 00nm 4 . 2mb
eS 07 54.00
WARB 18.93 156 «P 06 35.00 -0.3
eS 10 1 1 .00
WR2 19.07 127 iPc 06 36.50 -0.2
0.2s 15 . 70nm 5 . 1mb
«S 10 12.80
ASPA 20.97 136 eP 06 57.30 1.3

0.6s 4 , 20nm 4 . 1mb
«S 10 46.50
OIS 23.66 122 eP 07 22.00 -0.1
S.D. -1.0 an 9af 9obs.

It AUG 02. 1991 13h 57m 46.59s
63. 296 N 151 . 328 W
DEPTH - 1 1 .9km
CENTRAL ALASKA (1)
<AEIC>. ML 2.9 (AEIC) . 3.2
(PMR) .

KTH 0.32 35 iPc 57 52.95 -0.4
TRF 0.49 71 ePc 57 56.38 -0.4
S 58 03.73
HUR 0.83 112 iPd 58 02.42 -0.1
eS 58 14. 19
CUT 1 .02 151 iPd 58 05.77 0.1
RND 1.12 83 ePc 58 07.42 -0.1
eS 58 23.01
MCK 1.16 67 eP 58 08.26 0.2
put U 1*51 A *? A D *^ ft ft ft Q fi ft 1
SKT 1.32 184 iPd 58 10.28 -0.6
iS 58 27 . 44

NEA 1.63 37 eP 58 15.91 0.8
PWA 1.78 157 eP 58 17.40 0.0
WRH 1.86 49 «P 58 18.16 -0.3
S 58 42.62
SUA 1.86 171 eP 58 19.05 0.4
eS 58 43.26
GHO 1.89 143 eP 58 18.91 -0.2
NCG 1.94 192 iPc 58 19.09 -0.7
eS 58 44.44

02d 13h

12

PLRM 1.99 148 ePc 58 20.39 0.0
PMR 1.99 148 iPc 58 21.10 0.7
e . 8s 317. 24nm
CGLM 2.02 189 eP 58 20.90 0.0
f* (* o oft/? A 1 AD *% H O ft T Q 1 ft
3GL 2.10 194 eP 58 22.02 -0.1
SPU 2.15 189 ePc 58 22.49 -0.3
eS 58 50.39
MOM 2.15 38 «P 58 21.49 -1.3
CKL 2.16 193 eP 58 22.86 -0.1
TTA 2.16 262 eP 58 20.50 -2.5
PMS 2.22 157 ePc 58 24.18 0.4
F8A 2.24 42 eP 58 24.90 0.9
0.7s 119.1 9nm
KNK 2.32 143 eP 58 25.42 0.3
TOA 7.66 114 ePc 58 31.30 1.2
PAX 2.68 94 eP 58 30.19 -0.2
SDG 2.76 104 eP 58 31.10 -0.3
DFR 2.79 194 eP 58 32.50 0.6
NCT 2.85 196 eP 58 33.08 0.3
SLKM 2.85 169 eP 58 32.58 -0.1
RON 2.87 194 eP 58 33.32 0.2
REF 2.89 194 eP 58 33.59 0.1
ROW 2.91 195 eP 58 33.67 0.0
RSO 2.92 194 eP 58 34.52 0.6
IMA 2.96 341 eP 58 33.10 -1.3
RED 2.97 194 eP 58 34.96 0.5
SVW 2.98 224 eP 58 34.31 -0.2
KLU 3.10 123 eP 58 36.89 0.6
GLI 3. 14 139 eP 58 37 . 44 0.7
VZW 3.17 133 eP 58 37.67 0.4
VLZ 3.19 131 ePc 58 37.87 0.4
KNIM 3.41 148 eP 58 39.34 -1.3
POB 3.78 203 eP 58 44.43 -1.4
CNPM 3.78 179 eP 58 45.81 -0.2
GLB 3.97 115 eP 58 49.34 0.8
47 obs. ossocioted

*? AUG 02, 1991 14h 35m 07.39± 6.22s 23.685 N ±60. 7km 109.141 W ±48. 8km DEPTH - 10.0km (geophy s i c i s t)
3 . 8mb (2 obs .)
BAJA CALIFORNIA (48)

AtO 11.46 11 «P 37 54.00 -0.3
ANMO 11.46 11 P 37 54.00 -0.3
1.2s 19.53nm 5. 3mb X
DAU 16.77 354 P 39 05.40 1.2
BW06 19.04 359 P 39 31.60 -0.8
1.2s 12. 56nm 4 . 0mb
RSSD 20.81 10 P 39 52.00 0.4
LON 25.17 339 P 40 33.00 -1.3
NEW 25.33 347 eP 40 37.00 1.1
1.1s 1 . 54nm 3 . 6mb
S.O.-1.1 on 7of 7 obs.

% AUG 02, 1991 14h 41m 45.02± 1.12s
38.710 N ±13. 0km 27.676 E ± 1 6 . 0 km
DEPTH » 10.0km (geophy s i c i s t)
TURKEY (366)

IZM 0.45 226 ePg 41 54.20 0.0
eSg 42 03.70
DST 1.16 39 iPn 42 07.00 0.3
EDC 1.64 5 «Pn 42 13.70 -0.3
KGT 1.76 351 iPn 42 16.00 0.2
YLV 2.27 35 ePn 42 23.00 -0.2
S.D. « 0.4 on 5 of 5 obs.

? AUG 02, 1991 I6h 39m 1 4 . 49± 4.88s 7.946 S ±52. 6km 127.758 E ±20. 8km DEPTH * 149.6 ± 39.3 km
4 . 6mb (2 obs .)
BANDA SEA (280)

KUPT 4.65 242 «P 40 24.10 0.0
eS 41 15 . 50
MTN 5.89 146 «P 40 41.10 0.4
0.3s 108.00nm 5.6mb X
eS 41 45.00
KNA 7.82 173 «P 41 06.00 -0.7
0.2s 19. 00nm 5 . 3mb X
eS 42 31 .00
WR2 13.54 152 eP 42 18.78 -3.0X
0.6s 17. 30nm 4 . 6mb
IS 44 41 . 40
ASPA 16.70 160 iPc 43 02.10 0.8

0.6s 17.1 0nm 4 . 6mb
«S 46 02.20
CIS 16.98 139 «P 43 04.00 -0.7
S.O. «= 1.3 on 5 of 6 obs.

* AUG 02, 1991 16h 52m 22
16.209 S ±15. 7km 175.040
DEPTH - 335 .6 ± 12.4 km
4 . 9mb (6 obs .)
TONGA ISLANDS

SGE 6.87 257 eP 54 04
DZM 18. 43 249 i PC 56 1 7
RMO 35.13 247 «P 58 53
CAN 37.29 232 eP 59 05
BWA 37.42 234 eP 59 02
PMG 37.43 276 eP 59 06
WR2 48. 10 258 i Pd 00 30
0.5s 26 . 70nm
ASPA 48.36 253 i PC 00 32
0.7s 97.10nm
FORR 53.61 243 eP 01 11
0.4s 23 . 00nm
WARB 54.89 249 iPd 01 21
0.8s 67 . 00nm
NANU 65.30 252 iPd 02 30
0.4s 7 . 00nm
TRT 70.97 267 ePc 03 16
PRS 72.78 43 «P 03 16
GCC 72.79 42 eP 03 16
SAO 72.99 43 eP 03 17
BRK 73.12 41 eP 03 18
MHC 73.20 42 eP 03 19
SPA 73.89 180 eP 03 23
0.8s 7 . 92nm
FR 1 74.25 43 «P 03 24
ISA 74.33 45 «P 03 25
CMB 74.41 42 «Pc 03 25
WDC 74.59 39 ePc 03 26
ORV 74.61 40 eP 03 26
CLC 75.01 45 eP 03 29
PNT 81 .54 33 eP 04 04
LRM 83.63 39 eP 04 14
BJ I 84.88 314 eP 84 22
e 85 35
SES 86.77 35 eP 04 30
NB2 135.00 356 PKP 11 02
0.8s 1 . 50nm
HFS 135.68 354 ePKP 11 04
0.5s 0 . 80nm
KRA 144.13 343 ePKP 11 18
KSP 144.27 348 ePKPc 11 19
CLL 144.40 351 i PKP 11 18
BRG 144.67 350 i PKP 11 20
1.0s 10 .00nm
SPC 144.83 343 ePKP 11 21
MOX 145.23 353 iPKPc 11 22
1 .3s 23.00nm
BNS 145.29 358 i PKPc 11 22
0.8s 34 . 00nm
PRU 145.42 349 PKP 11 22
1.4s 16 . 40nm
MEM 145.68 359 iPKPc 11 22
SNF 145.78 1 iPKPd 11 24
DOU 146.20 0 PKPc 11 25.
GRF 146.22 353 ePKPd 11 25.
KHC 146.42 350 PKP 11 23.
1.0s 3 . 80nm
e 11 26.
e 12 41

2ST 146.57 345 «(PKP)11 26.
« 12 43.
SRO 146.61 344 ePKP 11 25.
WLF 146.62 359 iPKPc 11 26.
FLN 147.23 7 ePKP 11 27.
0.7s 9 . 90nm
LDF 147.44 6 ePKP 11 28.
1.1s 14. 65nm
GRR 147.56 7 ePKP 11 28.
0.8s 16.1 5nm
CDF 147.83 357 ePKP 11 29.
0.7s 6 . 60nm
LPF 147.88 8 ePKP 11 29.
0.8s 20 . 1 5nm
LOR 149.02 1 ePKP 11 32.
1.1s 13 . 45nm
SSF 149.21 2 ePKP 11 33,

. 38± 1 . 35s
W ±1 1 . 5km

(173)

. 10 0.3
00 0.9
60 6 . 8X
00 0.2
40 -3.6X
00 -0.2
50 -0.9
4 .8mb
80 -0.6
5 .2mb
30 -1.0
4 .9mb
10 -0.5
5. 1mb
90 -0.6
4 . 7mb
110 9. 7X
70 0.2
40 -0.1
90 0.2
30 -0.1
30 0.2
00 0.3
4 . 5mb
70 -0.2
00 -0.6
7 ft ft O

50 -0.3
50 -0.4
00 -0.4
00 -0.1
60 -0.5
00 0.9
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00 -0.1
90 -0.2

70 0.4

40 -1.3
00 -1.0
70 -1.5
20 -0.5

20 0.0
50 0.9

30 0.6

70 0.7

90 0.6
20 1.7
00 1.8
50 2.2X
00 -0.7

00
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20 2.3X
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70 1.8
91 3 . 1 X
50 2.6X

00 2.8X

50 3. IX

30 3. 3X

50 3.5X

70 4.9X

20 5. 1X

1.3s 32. 50nm
LBF 149.30 1 ePKP 11 33.30 5.0X
0.8s 7 . 40nm
AVF 149.48 2 ePKP 11 33.40 4.9X
1.2s 23 . 80nm
SMF 149.64 2 ePKP 11 33.70 4.9X
1.2s 23. 80nm
BGF 149.69 3 ePKP 11 34.20 5.4X
1.0s 16. 00nm
LSF 149.91 5 ePKP 11 34.50 5.3X
0.9s 1 . 65nm
TCF 149.92 4 ePKP 11 34.60 5.4X
1.0s 11. 00nm
MAF 150.01 3 ePKP 11 35.10 5.8X
,1.0s 1 8 . 00nm
SKO 150.67 334 ePKP 11 37.00 6.5X
LPL 150.74 357 «PKP 11 37.80 7.0X
0.9s 9 . 80nm
LPG 150.76 357 «PKP 11 38.00 7. IX
0.9s 11 .45nm
LFF 151.14 6 «PKP 11 37.50 6.5X
0.8s 14. 80nm
CAF 151.27 4 «PKP 11 38.10 6.8X
0.8s I7.45nm
LPO 151.44 6 ePKP 11 38.10 6.6X
0.6s 7 . 20nm
S.D. - 0.8 on 40 of 66 obs.

? AUG 02, 1991 16h 58m 24.87± 7.57s 26.730 N ±69. 2km 112.409 W ± 1 6 . 4 km
DEPTH - 10.0km (geophy s i c i s t)
4 . 0mb (1 obs .)
BAJA CALIFORNIA (48)

GLA 6.64 342 eP 00 04.60 -0.4
BAR 6.99 329 eP 00 24.00 14. 2X
e 01 46.00

PLM 7.65 331 e(P) 00 18.50 -0.6
TPC 7.99 338 eP 01 09.00 45 . 1 X
e 02 46.00
GSC 9.34 337 eP 00 44.00 1.4
e 02 55.00
ALO 9.65 31 eP 00 47.00 0.0
ANMO 9.65 31 P 00 49.00 2.0X
TNP 12.02 341 eP 01 19.00 -0.4
BW06 16.18 8 «P 02 14.00 -0.1
NEW 21.81 352 eP 03 19.00 0.0
1.0s 6 . 25nm 4 . 0mb
S.D. - 0.8 on 7 of 10 obs.

? AUG 02, 1991 18h 51m 28.38± 8.16s
38.687 N ±64. 2km 23.302 E ±28. 0km
DEPTH - 10.0km (geophy s i c i s t)
GREECE (364)
MD 2 .6 (THE) .

AGG 0.83 294 ePd 51 44.72 0.3
iS 52 04.64
PAIG 1.27 13 ePd 51 52.64 0.7
LIT 1 .55 336 iPc 51 55.72 -0.3
OUR 1.73 18 ePc 51 58.44 -0.1
KNT 2.49 353 i PC 52 09.08 -0.5
S.D. -0.7 on 5of 5 obs .

AUG 02, 1991 19h 41m 23 . 26± 0.72s
38.338 N ± 6.4km 22.235 E ± 7.0km
DEPTH - 10.0km (geophy s i c i s t)
GREECE (364)
ML 2.9 (ATH) . MD 3.0 (THE) .

AGG 0.69 6 ePc 41 35.97 -0.9
IS 41 47 .53
ATH 1.22 107 «P 41 46.90 0.9
«S 42 00.50
VLS 1.30 263 eP 41 45.80 -1.6
«S 42 05.50
VLI 1.71 161 eP 41 53.00 -0.3
LIT 1.77 6 «Pd 41 53.97 -0.2
eS 42 18.70
PAIG 1.94 35 ePc 41 56.34 -0.3
KZN 2.00 350 eP 41 58.00 0.5
KEK 2.34 307 eP 42 05.00 2.6
OUR 2.41 34 ePc 42 02.93 -0.4
FNA 2.53 345 ePc 42 85.53 0.4
SOH 2-63 19 ePd 42 06.53 0.1
KNT 2.87 10 «Pd 42 09.89 0.0
eS 42 44.57

13

02d 19h

VAY 2.99 5 ePn 42 10.70 -0.8 | TTA 5.39 344 eP 55 21.80 -2.7
SKO 3.68 351 ePn 42 30.50 9. IX j TOA 5.45 35 eP 55 23.10 -2.2
S.O. - 1.1 on 13 of 14 obs. | WAX 5.77 58 eP 55 26.00 -3.7

AUG 02, 1991 19h 53m 04.66± 0.75s
3.665 N ± 7.7km 76.501 W ±13. 1km
DEPTH - 20 . 9 ± 1 1 . 6 km
COLOMBIA (103)
MD 2.5 (UVC)

CLMC 0.22 344 iPc 53 10.20 -0.2
eS 53 14.00
HOOC 0.24 214 iPc 53 09.95 -0.7
eS 53 1 3. 50
ANCC 0.39 248 iPc 53 13.42 0.4
eS 53 19.60
HOBC 0.78 28 eP 53 19.46 0.0
eS 53 30.20
SILC 0.98 171 eP 53 23.57 0.4
SAN 37.33 172 eP 00 13.00 -4.5X
TACH 37.49 172 i Pd 00 18.50 -0.3
S.O. -0.7 on 6of 7obs.

& AUG 02, 1991 19h 54m 04.42s
57 . 795 N 152. 786 W
DEPTH - 45.2km
4 . 5mb (1 obs .)
KODIAK ISLAND REGION (13)
<AEIC>. ML 3.7 (AEIC), 4.0
(PMR) . Fe I t (IV) at Kodi ak.

KDC 0.16 107 iPc 54 12.10 0.1
SY 1 0.84 14 iPd 54 18. 75 -1.3
S 54 30.01
CDD 1.22 339 iPd 54 24.44 -1.0
AUI 1.58 348 eP 54 29.58 -0.8
eS 54 49.65

AUH 1.61 348 ePd 54 30.73 -0.2
MCNL 1.61 336 ePc 54 29.60 -1.3
eS 54 50.52
CNPM 1.92 24 iPd 54 33.97 -1.2
HOM 1.96 17 ePd 54 35.43 -0.4
BGM 2.05 322 eP 54 35.22 -1.9
PDB 2.13 340 ePc 54 36.18 -2.0
NNL 2.38 18 iPd 54 40.70 -1.1
RED 2.63 0 ePd 54 43.43 -2.1
RSO 2.68 0 ePd 54 44.21 -2.0
ROW 2.70 360 ePd 54 44.48 -2.0
eS 55 16.75
REF 2.70 1 ePd 54 44.55 -2.0
RDM 2.73 0 ePd 54 44.98 -1.9
NCT 2.78 359 ePd 54 45.53 -2.0
ROT 2.79 4 eP 54 45.84 -1.9
DFR 2.81 1 ePd 54 45.92 -2.1
SEW 2.89 35 iPd 54 46.19 -2.8
SLKM 3.02 25 ePd 54 48.38 -2.7
NKA 3.06 14 eP 54 50.74 -0.8
LT 1 3.41 47 eP 54 53.33 -3.0
SPU 3.42 6 ePd 54 54.03 -2.6
CKL 3.42 4 ePd 54 54.50 -2.2
BGL 3.49 3 eP 54 55.47 -2.1
CGLM 3.55 6 eP 54 56.00 -2.4
SVW 3.63 338 eP 54 57.30 -2.2
NCG 3.63 5 eP 54 57.30 -2.4
KNIM 3.65 43 eP 54 56.43 -3.4
eS 55 34.80
MID 3.75 61 eP 54 58.75 -2.4
SUA 3.82 15 eP 54 59.71 -2.7
PMS 3.83 24 iPd 54 59.43 -3.0
eS 55 40. 1 7
PWA 4.14 20 eP 55 04.40 -2.3
HIM 4.16 49 eP 55 02.91 -4.2
PLRM 4.24 24 iPc 55 04.43 -3.6
PMR 4.24 24 eP 55 04.60 -3.5
KNK 4.24 29 ePd 55 04.77 -3.5
SKT 4.25 8 eP 55 05.44 -2.9
GLI 4.25 41 eP 55 04.41 -3.9
GHO 4.44 24 eP 55 07.59 -3.5
CVA 4.55 50 eP 55 09.20 -3.3
VZW 4.56 42 eP 55 09.19 -3.6
VLZ 4.69 42 eP 55 11.28 -3.2
SGAM 4.75 52 ePd 55 12.42 -2.9
SON 4.92 243 eP 55 16.80 -0.9
RAGM 4.92 55 eP 55 14.35 -3.4
HMT 5.08 56 iPc 55 17.17 -2.9
KLU 5.99 40 eP 55 16.77 -3.4

BALM 6.24 54 eP 55 32.73 -3.7

| CTGM 6.66 57 eP 55 39.35 -2.9
BCPM 7.15 67 iPc 55 45.42 -3.6
PNL 7.22 69 iPc 55 46.21 -3.8
HON 7.45 71 ePc 55 48.98 -4.2
IMA 8.31 357 eP 56 01.00 -4.3
SIT 9 . 45 87 eP 56 15 . 70 -5.1
M8C 22.04 21 ePd 58 57.50 1.4
0.8s 17.00nm 4. 5mb
BW06 30.82 100 eP 00 09.00 -9.2

DUG 30.99 107 e(P) 00 25.00 5.4
RSSD 32.84 93 eP 00 35.50 -0.3
65 obs . associated

AUG 02, 1991 20h 36m 20 . 85± 1.01s
33.643 S ±10. 4km 70.797 W ±12. 7km
DEPTH - 33.0km (normal)
CHILE-ARGENTINA BORDER REGION (127)

TACH 0.12 265 PC 36 29.60 2 . 8X
S 36 42.70
SAN 0.22 31 PC 36 29 . 30 1.6
S 36 41 . 80
PCH 0.24 85 PC 36 28.50 0.5
S 36 40. 90
CHCH 0.31 157 PC 36 28.10 -0.7
S 36 40.00
PEL 0.51 11 PC 3631.70 0.1
S 36 46.50
LCCH 0.67 284 PC 36 34.20 0.4
JACH 0.97 10 P 36 36.50 -1.8
S 36 54 . 00
S . D . -1.5 on 6of 7 obs.

% AUG 02, 1991 20h 36m 29 . 99± 1.00s
40.728 N ± 8.1km 22.741 E ± 8.2km
DEPTH - 10.0km (geophysicist)
GREECE (364)
MD 1 .5 (THE) .

THE 0.20 119 ePd 36 34.16 -0.1
eS 36 36.80
GRG 0.34 312 ePd 36 37.04 -0.1
eS 36 41 . 76
KNT 0.45 15 iPc 36 39.28 0.1
eS 36 45.56
SOH 0.47 78 ePd 36 39.56 -0.1
PAIG 1.07 138 iPd 36 50.36 0.2
eS 37 04.84
S . D . -0.2 on 5of 5 obs.

? AUG 02, 1991 20h 58m 40.06± 4.48s
1.157 S ±29. 2km 78.330 W ±15. 9km
DEPTH - 10.0km (geophysicist)
ECUADOR (107)
MD 3. 9 (GUI) .

VC1 0.52 352 Pd 58 50.80 0.1
OUIL 0.71 304 P 58 54.30 -0.1
eS 59 05. 10
OUR 1.00 349 Pd 58 59.00 -0.3
S 59 12.30
GGP 1.01 345 P 58 59.80 0.2
eS 59 14 . 40
YANA 1.06 347 Pd 59 00.40 0.0
S 59 15. 30
CAYA 1.28 16 eP 59 03.70 -0.4
COTA 1.48 360 eP 59 07.80 0.6
S.D.-0.4 on 7of 7 obs .

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& AUG 02, 1991 2lh 03m 57.60s
36. 445 N 121 .055 W
DEPTH - 5.0km
CENTRAL CALIFORNIA (39)
<BRK> . ML 2.5 (BRK) .

LLA 0.19 28 iPd 04 01.37 -0.2
eS 0404.79
PRS 0.28 246 iPc 04 03.10 -0.1
eS 04 07.29
PRI 0.44 134 iPd 04 06.66 0.3
eS 04 27.00
SAO 0.45 316 iPc 04 05.61 -1.0

PHAM 0.81 139 eP 04 13.00 -0.7
GCC 0.96 308 eP 04 15.80 -0.4
eS 04 28.86
ARM 0.98 337 eP 04 15.90 -0.8
MHC 1.01 332 eP 04 17.40 0.1
eS 04 33.00
FRI 1.21 63 eP 04 18.76 -1.9
eS 04 34.69
BCH 1.48 148 eP 04 23.30 -1.8
CMS 1.67 1 8 i P 0428.61 0.9
eS 04 50. 15
11 obs. associated

AUG 02, 1991 23h 08m 54.21± 0.27s
14.567 S ± 9.0km 167.311 E ± 7.6km DEPTH - 152.2km (3 depth phases)
5 . 1mb (1 5 obs .)
VANUATU ISLANDS (186)

DZM 7.51 186 iPc 10 46.90 4.6X
HNR 8 . 83 305 eP 1 1 01 .00 1.2
eS 12 40.00
PMG 20.37 282 eP 13 20.00 -0.7
CTAO 20.83 252 iPc 13 27.50 2.1
i 1 3 50 . 00 1 1 4kmX
RMO 21.01 233 eP 13 35.00 7.9X
0.7s 111. 00nm 5 . 4mb
COO 21.33 219 iPd 13 35.10 4.8X
0.8s 42.00nm 4.9mb
e 14 20.40
CMS 25.89 226 iPc 14 15.20 1.5
0.9s 106.00nm 5.5mb
i 15 05.40 265kmX
BWA 26.11 217 eP 14 15.70 0.0
e 14 54.30 194kmX
OIS 27.06 253 eP 14 24.00 -0.4
STK 29.13 229 iPd 14 44.00 1.0
0.4s 22 . 80nm 5 . 3mb
iPcP 17 47.60
WR2 31.88 256 eP 15 04.70 -2.5
0.6s 8.00nm 4. 7mb
eS 20 06.20
ASPA 32.77 249 iPd 15 14.10 -0.8
0.4s 29.80nm 5.4mb
i 15 49.30 166kmX
iS 20 12.90
FORR 39.40 239 eP 16 11.20 0.5
0.4s 26.00nm 5.3mb
WARB 39.68 247 iPd 16 13.60 0.5
COOL 45.24 241 eP 16 57.60 -0.5
MBL 45.53 255 eP 17 00.60 0.1
KLB 48.21 241 eP 17 21.00 -0.4
NANU 49.53 253 eP 17 30.00 -1.5
MUN 49.58 240 eP 17 31.60 -0.2
MAT 57.78 332 iPd 18 30.60 -1.0
0.6s 7 . 33nm 4 . 8mb
eS 26 38.00
SSE 63.43 316 eP 19 02.50 -7.4X
PSI 69.84 278 ePd 19 50.40 -0.3
e 21 30.00 463kmX
LOE 72.07 294 iPc 20 04.00 0.0
KMI 74.25 302 PC 20 18.00 1.1
1.5s 50.00nm 5.0mb
CHG 75.05 294 eP 20 22.00 0.8
0.9s 13. 24nm 4 . 7mb
e 21 00.00 154km
CHTO 75.05 294 iPc 20 21.80 0.6
1.0s 15. 25nm 4 . 7mb
pP 20 59.40 153km
LZH 78.24 312 eP 20 39.50 0.6
1.5s 31 . 00nm 4 . 8mb
YAK 81.87 343 iPd 20 57.50 0.2
e 21 35.00 150km
e 25 42.00
SHL 83.53 298 iP 21 06.50 -0.4
GUN 89.35 299 P 21 34.30 -1.1
PKI 89.66 298 P 21 36.36 -0.4
0.9s 23.0Cnm 5.2mb
KKN 89.83 299 P 21 37.20 -0.2
0.9s 31.00nm 5.3mb
DMN 89.92 298 P 21 37.82 -0.1
0.9s 43.00nm 5.5mb
GKN 90.43 299 P 21 39.42 -0.7
INK 92.72 19 eP 22 04.00 14. 4X
0.5s 17. 00nm
NVL 93.22 188 PC 21 52.00 0.0
KEV 119.58 345 «PKP 27 25.00 -1.7

02d 23h

14

GMTN

OBN

NUR

NB2

HFS

KSP
BRG

CLL

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ZST
EKA

MOX

KHC

SKO
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LOR

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GRC
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SSF

LSD
LPL

LPG

RMP
PCP
RDP
RSP
SMF

AVF

LPF

BHB
SOI
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ROB
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TCF

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130.58
0 . 4s
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51 ePKP
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328 ePKP
»***»*« nm
338 i P K P
6 . 80nm
345 PKP
5 . 30nm
343 ePKP
1 . 00nm
333 ePKP
335 ePKP
1 1 . 00nm
336 iPKPd
1 3 . 00nm
334 ePKP
330 ePKP
352 PKP
2 . 90nm
336 ePKP
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320 ePKP
336 ePKP
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338 ePKP
339 ePKP

129 (PKP)
328 PKP
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329 PKP
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346 ePKP
1 3 . 45nm

x » o p i/ p O O L. r f^ r
346 ePKP
1 8 . 00nm
331 PKP
340 ePKP
1 4 . 75nm
320 PKP
340 ePKP
52. 35nm
341 PKP
346 ePKP
39.30nm
341 iPKPc
74 . 00nm
335 PKP
336 iPKPc
1 9 . 85nm
336 iPKPc
56. 15nm
326 PKP
333 PKP
326 PKP
335 PKP
340 ePKP
59 . 85nm
341 ePKP
45 . 20nm
346 iPKPc
51 . 05nm
335 PKP
318 PKP
336 PKPc
333 PKP
335 PKP
341 iPKPc
39 . 30nm
333 PKP
335 PKP
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334 PKP
333 PKP
340 PKP
341 ePKP
50 . 1 0nm
341 ePKP
87 . 05nm

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- 0. 1
3.5X

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3. 8X
- 0.5
- 3.3X
- 3. 1X
- 1 . 1
- 1.4
- 0. 1
- 0.3
- 1 . 3
- 0.7
- 1.4
- 1 . 0
- 1 .0

- 0. 6
- 1 .0

- 1.4
- 0. 4

- 1 .5
- 0. 1

0. 2
- 0. 1

0.3

- 0.9
0. 7

0. 7

0. 2
- 1.4
- 0.2
- 0.9
0.5

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0.6

- 1 .3
0.8
1 .2
- 0. 7
0. 2
1 . 3

- 1 . 0
- 1 .0
1 .5
- 1.4
- 0. 5
- 0.9
1 .5
1 .8

1 .8

SSB 146.89 338 PKP 28 18.70
SBF 146.12 333 ePKP 28 18.40
1.1s 56 . 1 5nm
PYM 146.21 340 PKP 28 19.07
LSF 146.23 342 ePKP 28 18.90
0.9s 27.85nm
MFF 146.38 344 iPKPc 28 19.50
0.9s 29 . 50nm
PGF 146.43 330 ePKP 28 19.50
1.2s 59 . 50nm
LBL 146.59 339 PKP 28 20.
FRF 146.70 334 ePKP 28 20.

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1 . 1 s 63 . 50nm
LRG 146.91 334 ePKP 2821.
1.4s 95 . 85nm
LMR 146.94 334 ePKP 28 20.
1.1s 53 . 70nm
RJF 147.09 341 ePKP 28 21.
1.5s 114. 90nm
CAF 147.25 340 ePKP 28 22.
1.1s 30 . 50nm
LFF 147.65 342 ePKP 28 23.
1.0s 44 . 00nm
LPO 147.75 341 ePKP 28 23.
1.1s 63 . 50nm
ETER 149.28 337 iPKPd 28 27.
EPF 149.50 341 ePKP 28 28.

10

90

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27
40
l.0s 2 1 . 00nm
BTH 149.59 342 PKPd 28 28.00
EGRA 150.47 341 iPKPd 28 30.46
ECRI 150.71 345 ePKP 28 31.
EMON 150.87 352 i PKPc 28 30.
EROO 151.46 339 ePKP 28 32.
STS 151 .56 354 ePKP 28 32.
ERUA 151.86 351 ePKP 28 33.
ETOR 152.25 342 iPKPd 28 34.
GUD 152.97 346 iPKPc 28 36.
EPLA 153.95 348 iPKPc 28 38.
EVIA 154.39 341 ePKP 28 39.
S. D . - 1 .0 on 93 of 12

AUG 02, 1991 23h 18m 54.
56 . 691 N ± 4 . 0km 157.641

31
57
51
45
53
94
29
07
52

1 .9
1 .5

2.0
1 . 9

2.3X

2.0

2.9X
2.4X

3.0X

2.8X

3.3X

3.7X

3.9X

4.2X

5.4X
6. 1X

5.7X
6. 8X
7.2X
6. 3X
7.3X
7 .2X
7.8X
8.4X
8.7X
9.3X
10. 0X
7 obs.

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65±
w ±
DEPTH - 1 07 . 2 ± 3. 3 km
4. 7mb (38 obs .)
ALASKA PENINSULA

Fe I t (IV) o t Ch i gn i k .

SON 2.10231 i Pd 1929.
KDC 2.99 67 i Pd 19 40.
BGM 3.00 24 iPd 1941.
MCNL 3.06 34 i Pd 19 42.
eS 2013.
COD 3.10 42 iPd 19 42.
SYI 3.41 54 iPd 19 46.
eS 20 24.
AU I 3.47 38 iPd 1948.
eS 20 27.
AUH 3.49 38 iPd 19 48.

00
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17
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68
AUE 3.51 39 iPd 19 48.90
PDB 3.60 29 iPd 19 49.85
HOM 4.35 44 ePc 20 00.00
iS 2047.14
CNPM 4.43 47 iPd 20 00.
RED 4.52 32 iPd 20 02.
eS 20 54.
SVW 4.55 12 iPd 20 03.
ROW 4.57 32 iPd 20 02.
RSO 4.56 32 iPd 20 03.
NCT 4.60 30 iPd 20 03.
REF 4.60 32 iPd 20 03.
RON 4.60 32 iPd 20 03.
DFR 4.69 31 eP 20 04.
NNL 4.74 42 ePd 20 05.
ROT 4.76 33 iPd 20 05.
NKA 5.26 37 eP 20 13.
CKL 5 . 29 29 ePd 20 12.
BGL 5.33 28 ePd 20 13.
SPU 5 . 35 30 ePd 20 13.
SLKM 5.45 42 eP 20 13.
CGLM 5.47 30 ePd 20 14.
SEW 5.50 48 ePd 20 13.
NCG 5.51 29 ePd 20 15.
SUA 5.96 34 ePd 20 20.
LT I 6.15 53 ePd 20 22 .
SKT 6.16 28 ePd 20 23.
PMS 6.19 39 ePd 20 23.

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01

0.45s
3.2km

(12)

- 0.2
- 0.9
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0.5

0. 3
- 0.2

0.5

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0.7
0.4
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- 0.8
0. 1

0.9
0. 1
0.2
0. 1
0. 1
0.2
0.2
0. 1
- 0. 1
1 .0
0.0
0.2
- 0.4
- 1 .5X
- 0.3
- 2. 4X
0.2
- 1 .2
- 2.2X
- 0.8
- 2.0

TTA
KN I M
PWA
PLRM
PMR
M I D
KNK
GHO
CUT
GLI
H I N
vzw
CVA
VLZ
SGAM
KTH
TRF
KLU
RAGM
HMT
TOA
RND
TZL
MCK
SOG
GLB
WAX
TGL
ANM
PAX
NEA
BALM
WRH
CCB
CTGM
MOM
FBA
I MA
PNL
ADK
SI T
BRW
BMW
MBC

LON
SES
DUG
BW06

ABL
DAU

RSSD

PLM
GOL

ANMO

ALO

FRB

MAT
SCH
ELC
PWLA
GBTN

BLA

CVL
KEV
JSC
BJ I

SOD
SSE

KAF
NB2

NUR

HFS

6.31 7 ePd 20 26.90 0.1
6.35 51 eP 20 24.25 -3.0X
6.37 36 ePc 20 25.80 -1.7X
6.58 38 ePd 20 27.47 -2.8X
6.58 38 ePc 20 28.00 -2.3X
6.59 61 eP 20 29. 10 -1 . 4X
6.69 41 eP 20 29.54 -2.4X
6.78 38 eP 20 30.25 -2. 9X
6.84 30 eP 20 32.76 -1.2
6.90 48 eP 20 31 .88 -2. 9X
6.91 53 eP 20 33. 12 -1 . 8X
7.22 48 eP 20 36.69 -2. 5X
7.31 53 ePd 20 37 .97 -2. 3X
7.35 48 eP 20 38.90 -1 .9X
. 7.53 54 ePd 20 41.16 -2.2X
7.65 23 ePc 20 43.56 -1.5X
7.71 25 ePc 20 44.02 -1 . 9X
7.71 47 ePd 20 43.47 -2.4X
7.73 56 eP 20 44.01 -2.0X
7.90 57 eP 20 46.45 -1 .9X
7.97 42 ePc 20 47. 70 -1 . 7X
8.04 29 ePd 20 47. 19 -3. 1X
8.22 44 eP 20 52.46 -0.3
8.28 28 ePc 20 51.00 -2.5X
8.47 41 ePc 20 53.44 -2.6X
8.56 50 ePd 20 55.01 -2.4X
8.59 58 eP 20 55.39 -2.4X
8.71 56 ePd 20 57 .40 -2 . 1 X
8. 76 338 eP 21 00. 47 0.5
8.78 39 eP 20 57.36 -3.0X
8. 95 24 eP 20 59.55 -3. 1X
9.03 55 ePd 21 01.69 -2.2X
9.10 27 eP 2101.18 -3. 4X
9.31 27 ePd 21 03.40 -4.1X
9.47 56 ePd 21 08.12 -1.6X
9.47 25 ePd 21 05. 81 -3. 8X
9.52 26 eP 21 06.30 -4.0X
9.60 10 ePd 21 1 1 .90 0.4
10.08 65 ePd 21 15.95 -1.9X
12.11 255 eP 21 43 . 50 -1.1
12.20 79 eP 21 44.20 -1 . 6X

14.68 1 eP 22 1 8 . 20 0.5
23.46 101 eP 23 57.80 2.9X
24.02 21 ePd 24 00.50 0.5
0.6s 8 . 00nm 4 . 3mb
24.06 99 eP 24 02.50 1.8
27.94 83 eP 24 36.00 -0.4
33.29 100 eP 25 24.50 0.8
33.31 94 eP 25 24.00 0.0
0.6s 3.1 0nm 4 . 3mb
33.91 1 1 4 eP 25 30. 00 0.8
33.99 99 eP 25 30.90 1.0
e 25 54.70
35.47 87 eP 25 43.00 0.6
0.8s 6 . 01 nm 4 . 5mb
epP 26 06.20 99kmX
36.29 1 13 eP 25 50.20 0.9
37.71 94 eP 26 01 . 30 0.0
0.8s 2 . 23nm 4 . 1mb
40.56 100 eP 26 25.50 0.6
0.7s 6 . 42nm 4 . 5mb
40.57 100 eP 26 25.80 0.9
e 28 25.30
41 .33 42 eP 26 31 .00 0.4
0.5s 35.50nm 5.4mb
46.52 273 iPd 27 12.50 -0.1
47 .52 52 eP 27 19.00 -1.3
48.32 83 eP 27 25.20 -1.4
50.65 84 eP 27 43.60 -0.9
52.25 81 eP 27 55. 10 -1.5

epP 28 18.50 96kmX
53. 15 77 eP 28 02.00 -1.2
0.6s 4 . 55nm 4 . 7mb
53.63 75 eP 28 05.80 -0.9
53. 81 358 iP 28 06.30 -1.3
54.89 80 eP 28 13.50 -2.4
55. 76 292 eP 28 21 .00 -1.1
0.7s 14 .00nm 5 . 1mb
56.21 358 iP 28 24.00 -1.0
59.92 282 P 28 50.50 -0.8
0.6s 10. 00nm 5.1mb
61 .49 358 iP 29 00.20 -1.4
62.28 6 P 29 05.70 -1 .2
0.9s 4 . 90nm 4 . 5mb
63.13 359 iP 29 1 1 .20 -1.2
0.5s 13 .20nm 5. 1mb
63.32 5 ePKP 29 12.00 -1.6

15

020 23h

LZH 64.98
1 .5s
DCN 67.67
VEM 72.21
DCU 72.57
FLN 73.21
0.8s
LDF 73.43
0 . 7s
GRR 73.52
0. 5s,
LPF 73.84

e.5s
CDF 74.51
HAU 74.62
0 . 6s
BSF 75.64
0. 6s
LOR 75.26
1 .2s
MF F 75 . 37
0.6s
SSF 75.42
1 . 1 s
LBF 75.56
0. 9s
AVF 75.67
0.5s
6GF 75.83
0.7s
SMF 75.87
0.8s
LSF 75.96
0.9s
TCF 76.01
0.9s
WTTA 76.03
0 7s

MAF 76.13
1 .0S
LFF 77.12
0.7s
CAF 77.33
0.9s
LPO 77.44
0.7s
EPF 78.93
0.7s
GUN 80 . 1 8
KKN 80.54
0. 4s
GKN 80.64
0.6s
PK I 80.68
0. 6s
DMN 80.78
0.5s
SKO 81 . 70
MA 1 0 82 . 1 7
OUE 85.58
WR2 95.07
0. 6s
SPA 146.51
1 .0s
SLR 148.78
K 1 M 1 52 . 02
FRS 152.99
0.7s
S. D. -

? AUG 02.
22.051 S
DEPTH -

4 . 9mb (

298 PC 29
42 . 00nm
19 eP 29
1 1 PC 30
12 P 30
16 eP 30
9 . 40nm
15 eP 30
6 . 60nm
16 eP 30
4 . 35nm
1 6 e P 3 0
5 . 1 0nm
10 eP 30
1 1 eP 30
3 . 60nrri
11 eP 30
3 . 60nm
13 eP 30
1 4 . 90nm
16 eP 30
9 . 00nm
13 eP 30
17.1 0nm
13 eP 30
9 . 85nm
13 eP 30
5 . 45nm
14 eP 30
8 . 80nm
13 eP 30
1 0 . 05nm
15 eP 30
26 . 20nm
14 eP 30
7 . 35nm
8 iPc 30
5 . 70nm
e 31
14 eP 30
1 0 . 00nm
16 eP 30
26. 45nm
15 eP 30
10. 65nm
15 eP 30
12 . 15nm
16 eP 30
3 . 30nm
306 P 30
307 P 30
1 7 . 00nm
308 P 30
25 . 00nm
307 P 30
23 . 00nm
307 P 30
35 . 00nm
1 eP 31
331 eP 31
322 eP 31
241 eP 32
3 . 20nm
180 iPKPc 38
21 . 50nm
350 iPKPc 38
355 iPKPc 38
354 iPKPc 38
17. 1 2nm

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- 0.5
1mb
0 . 1
0 . 6
0. 5
- 0 . 1
7mb
- 0 . 1
6mb
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5mb
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7mb
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8mb
- 0 . 1
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6mb
- 0 . 1
7mb
0.0
7mb
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0 . 2
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0 . 7
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0 . 4
7mb
0. 4
8mb
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3mb
0 . 5
0 . 4
2mb
0 . 3
2mb
0 . 4
2mb
0. 5
5mb
0 . 4
1 . 5
1 . 7
- 3 . 7X
9mb
0. 7

3 . 9X
5 . 6X
7 . 2X

0.8 on 102 of 145 obs .

1991 23h 39m
±23 . 4km 174.

32
886

80± 0 . 50s
W ±1 2 . 2km
33 . 0km (no r mo 1)
5 obs .)
TONGA ISLANDS REGION

SGE 8.09
DZM 17.31
RMO 33.37
STK 39.78
1.1s
ASPA 47.01
1 .0s
WR2 47.25
0.6s
MAT 73.19

302 eP 41
266 iPc 43
255 eP 46
246 iPc 47
2 . 40nm
258 iPd 48
12 . 90nm
263 eP 48
8 . 90nm
322 eP 50

32
41
18
05

03

04

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00
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70
60
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4
00

(174)

0 . 9
7 . 4X
8 . 4X
1 . 1
9mb
0 . 6
9mb
- 1 .0
9mb
- 7 .3X

CHG
CHTO

KRA
KSP
CLL

SPC
BRG

MOX

PRU

MEM
SNF
GRF
DOU

KHC

SRO
ZST
WLF
FLN

LDF
GRR

LPF

CDF

WTTA

SSF
LBF

0.8s 8.21 nm 4 . 8mb
93.49 289 eP 52 45.50 -1.3
93.49 289 iP 52 45 .00 -1.8
0.9s 6 . 1 8nm 5 . 0mb
149.71 341 ePKPd 59 14.50 -1.2
149.96 346 iPKP 59 15.20 -0.8
150.15 350 iPKPc 59 14.50 -1.8
1.2s 20 . 00nm
150.37 340 ePKP 59 16.70 -0.3
150.41 349 iPKP 59 16.00 -0.7
1.1s 1 2 . 00nm
151.01 351 ePKPd 59 17.80 0.2
l.5s 1 8 . 00nm
151.14 347 PKPc 59 17.50 -0.3
1.1s 8 . 30nm
151.49 359 PKP 59 17.00 -1.3
151.59 1 PKP 59 18.30 -0.1
152.00 352 ePKPc 59 19.80 0.7
152.01 1 PKPd 59 19.30 0.2
0.9s 1 7 . 50nm
152.15 348 iPKP 59 19.00 -0.4
1.0s 3 . 80nm

152.19 341 e(PKP)59 25.00 5 . 6X
152.20 343 ePKP 59 20.60 1.2
152.43 359 PKP 59 22.00 2 . 3X
152. 97 8 ePKP 59 21 .00 0.5
0.8s 6 . 70nm
153.19 8 ePKP 59 21.60 0.8
153. 29 9 ePKP 59 21 . 90 1.0
0.8s 8 . 05nm
153.61 9 ePKP 59 22. 60 1.2
0.8s 6 . 70nm
153.64 357 ePKP 59 23.20 1.6
0.8s 2 . 70nm

154.30 350 e(PKP)59 24.00 1.3
0.9s 3 . 80nm
155.01 3 ePKP 59 26.40 3.1X
155.11 2 ePKP 59 26.50 3 . 0X
S . D . - 1 . 1 on 25 of 32 obs .

___________ ____________________ _

& AUG 03, 1991 00h 49m 03.20s
40. 393 N 125. 423 W
DEPTH - 5.0km
4 .
OFF

FOX
FHC

wn wu r*i^
NWRM
MIN
ORV
ZSP

BRK

BKS

HSO
PCC
HBO
MHC

ARN
GCC

9mb (38 obs.) 4.9Msz (8 obs.) COAST OF NORTHERN CALIFORNIA(34) <BRK>. ML 4.7 (BRK) .
Mo-5 .3* 10»»15 Nm (BRK). Felt
(III) ot Rio Dell ond Honeydew.
Also felt ot Arcato ond Eureko.
CENTROID, MOMENT TENSOR (HRV)
Doto Used: GDSN
L. P.B. : 12S . 21C
Centroid Locotion:
Origin Time 00:49:18.4 0.8
Lot 41.28N 0.10 ton 125. 64W 0.11

Dep 15.0 FIX Holf-duration 1.7
Moment Tensor; Scole 10**16 Nm
Mrr- 1.50 0.51 Mtt- 0.03 0.68
Mff 1.53 0.77 Mrt- 0.00 0.00
Mrf- 0.00 8.00 Mtf 7.03 0.54
Principal Axes:
T Vol- 6.33 Pig- 0 Azm-222
N 1 . 50 90 1 80
P -7.83 0 132

Best Double Coup I e : Mo-7 . 1 * 1 0* * 1 6 NP1 : S t r i ke-267 Dip-90 Slip 180
NP2: 357 90 0

1.10 83 iPc 49 23. 62 -0.7
1.17 69 iPc 49 24.30 -1.2

2. oi £.\ o O 4 A ; I o r C AQ^ftctfi 4y OO.OO 01i . 1
2.76 134 eP 49 45. 00 -3.8
2. 92 90 iPc 49 48.70 -2.6
3.13 104 ePd 49 51 . 80 -3.1
3.47 134 iPc 49 55.18 -3.8
eS 50 36.70
3.52 135 ePd 49 56.70 -2.9
eS 50 38.70
3.53 134 eP 49 55.50 -4.3
eS 50 37.00
3.58 28 P 49 59 .02 -1.6
3.74 140 ePc 49 58.30 -4.5
4.15 33 P 50 07 . 09 -1.6
4.24 135 ePc 50 06.00 -4.0
iS 50 57.80
4. 30 134 eP 50 06.08 -4.8
4.30 140 ePc 50 06.10 -4.6

MPOR

CMB
TCO
SAO

LLA
PRS
GMO
GT2

KMOR

V I PM
VBEM
PGO

TDH
FR I
CROR
PR I
VLMM

VFP
VLL
KVN
NLO
VTHM
APM
BONR
RVW

LVP

MTMW

GULW
FL2

1 1 V ~J \-r\
CDFW

HSR
SHW
REMW
ESD
BMW

STD

SOSW
ERK

ASR
TDL
CZM

GL2
KOSW
JBO
ONR
LMW
GLK
CPW
LON
WPW
REMR
RVC
GHW
FMW
V A l/Vtf 1 M IV fl
SMW
MEW
NAC
PRW
MXC
ISA
BRVW
GSM
RSW
OOW
WG3
GMW
EBG
HDW

MDW

4 . 34

4.57
4.67
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5.15
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6 . 67
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6 .87
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6. 93
7 .01
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7 fl ft / . v O
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7 .35
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7 . 45

7. 45

18 P
S
1 19 ePd
36 P
138 eP
iS
1 36 i Pd
141 e(P)
38 P
25 P
S
1 4 P
S
39 P
30 P
22 P
S
27 P
125 eP
34 P
137 eP
25 P
S
29 P
27 P
101 eP
14 P
35 P
26 P
111 eP
18 P
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20 P
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22 P
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1 29 eP
31 P
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6 P
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14 P
27 P
12 P
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32 P

50 10.48
50 56.39
50 12.90
50 14 . 96
50 12 . 40
51 09 . 10
50 18 . 96
50 18 . 90
50 22 . 76
50 23.44
51 23 .51
50 24.99
51 25.06
50 24 . 81
50 25 . 55
50 26.99
51 29.30
50 27.44
50 26.00
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50 27.30
50 29.34
51 34.10
50 29 . 43
50 30.50
50 29.80
50 32.15
50 33 . 35
50 33 . 82
50 33.80
50 34.18
51 40.91
50 33.81
51 39.06
50 33.95
51 40.21
50 36.07
50 35.77
51 42. 51
50 35.87
50 36.08
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50 36.41
50 36.74
50 36.80
50 36.85
51 46.30
50 36.88
51 45.56
50 38 . 18
50 37.38
51 45.05
50 38.53
50 38.63
50 38.56
51 46.88
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56 40.49
50 41 . 17
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50 54.09
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52 11 .80
50 53.55

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- 1 .7
- 1 .3
- 5.2

- 3.9
- 4.0
- 1 .2
- 1 . 5

- 1 .8

- 2.2
- 1 . 7
- 1 .0

- 1 . 5
- 3.4
- 2. 1
- 2.8
- 1 .5

- 1 .5
- 1 .0
- 2. 4
- 0. 9
- 1.1
- 1 .0
- 1 . 9
- 1 .7

- 2. 2

- 2.3

- 1 .5
- 2.2

- 2.2
- 1 .9

- 1 .9
- 1 . 9
- 2.0
- 2.0
- 2.0

- 2. 1

- 1 . 1
- 2. 1

- 2.0
- 1 . 9
- 1 .9

- 1 . 4
- 1 .5
- 0. 9
- 1 .8
- 1 .6
- 2. 1
- 1 . 9
- 2.2
- 2.2
- 2.0
- 1 .7
- 1 .3
- 2 .0
- 1 . 1
- 2 . 1
- 0.6
- 1 .6
- 1 .6
- 1 . 4
- 1 . 3
- 1 . 7
- 1 .5
- 1 .8
- 0.3
- 1 .6
- 2. 1
- 1 .4
- 2. 1

- 1 . 7

83d 00h

16

WIW
RMW
LNOR
GBL
BVW
MJ2
T BM
VTG
LOCW
CLC
ET3
f P F U n r
BLN
HTW
ETW
EPH
JCW
SBB
CMW
PGC
MCW

SAW
GSC
MWC
NLW
RPW
MBW
RVR
PLM
PNT
NEW
LRM
SES

GOL

ANMO
ALO

RSSD

SIT
FFC

MEO
YKA

KLU
KDC
TOA
PMR

PDB
POW
FBA

SVW
1 NX
TTA

IMA

NAV
BLA

JSC
MBC

CVL
ADK

CBN
LVNJ
TBR
GMTN
PNJ
BNH
FRB
SCH
GDH

YAK

7.51
7 .53
7 .56
7 .56
7 .57
7 .57
7 .62
7 .65
7.67
7 .68
7.77
7 "7 ft. / O
7.81
7 .86
8 .69
8.13
8.19
8.29
8.37
8.37
8. 49

8 . 49
8.50
8.50
8.50
8.52
8.76
9.05
9.81
9.83
9.86
10.92
14.19
1 .2s

15.38
1 .0s
15.96
15.96
1 .0s
16.26
1 . 4s
17 .88
21 .21
1 .2s
21 .95
23.07
1 .2s
24.55
24.56
25. 10
25.67
1 .0s
26.43
27.11
27 . 74
0. 8s
27.77
28.32
28.98
0. 8s
30.26
1 .0s
34.62
34.93
0. 9s
35.36
36.05
1 .0s
36. 15
36.60
0. 9s

36.89
38,02
38.32
38.43
38.44
39.55
40.20
40.85
46.55
1 .0s

61 .52

34 P
19 P
4 1 P
33 P
38 P
34 P
26 P
29 P
33 P
1 24 cP
35 P
32 P
12 P
18 P
25 P
29 P
17 P
131 cP
15 P
9 eP
12 P
S
29 P
124 cP
1 34 cP
24 P
18 P
15 P
132 cP
133 cP
23 cP
34 cP
56 eP
40 cPc
257 . 00nm
pP
86 cP
23 .75nm
104 cP
104 eP
13 . 75nm
70 cP
85 . 95nm
342 cP
40 iPc
330 . 00nm
96 i Pd
13 cP
29 . 40nm
336 P
324 cP
337 cP
334 cP
48 . 00nm
327 P
88 cP
340 cP
8 . 62nm
328 cP
354 cP
331 cPd
1 3 . 00nm
337 cPd
9 . 80nm
80 eP
80 eP
8 . 26nm
86 cP
2 cP
41 . 00nm
78 cP
306 eP
29 . 1 7nm
c

77 ePd
72 cP
72 cP
72 i P
72 i P
65 cP
35 cP
49 cP
28 iPc
60 . 00nm
c
329 cP
c

50 54
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51 02
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54 59
55 06

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57 32

04 35
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59 29

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92
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03
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13
59
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42
82
70
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40
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80
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- 1 .6
- 1 .8
- 1 .3
- 1 .6
- 1 .6
- 1 .6
- 1 . 5
- 1.6
- 1.5
- 2 . 4
- 2. 1
- 2. 0
- 1 . 0
- 1.7
- 1.6
- 1 . 8
- 2. 2
- 3. 1
- 1 . 1
- 1 . 0
- 1 .8

- 2. 2
- 2.0
0 . 9
- 1 .6
- 2. 4
- 1 . 8
- 2 . 5
- 1 .2
- 2. 1
- 2 . 4
- 3 .0
- 3.9
8mb

- 1 . 7
5mb
- 0. 8
- 0. 3
1mb
- 5. 1
7mb
2.5
- 2.4
6mb
- 2.4
- 0.5
7mb

1 .0

3.3
3. 1
2.0
2mb
- 2. 0
- 1 .8
0 . 1
6mb
0. 5
- 0. 4
0.9
8mb
0.8
6mb
- 0.8
- 0.9
6mb
1 . 2
0 .6
2mb
- 1 . 7
- 0 . 4
1mb

- 0. 6
- 1.4
- 0. 5
- 0 . 1
- 0.5
- 0.7
- 0. 8
- 2.2
- 0.2
6mb

- 1 .8

KEV
SOD
EKA

NB2

HFS

NUR
LP B

1 RK

GRR

LDF
CCH
DOU
MEM
MFF

WLF
LSF

CLL

LOR

SSF

MOX

TCF

SIV
BGF

AVF
MAF

HAU

CDF

BJ 1
LFF

RJF

BRG

BSF

GRF
CAF

KSP

PRU

OBN

KHC

LPL

LPG

WTTA

ZST
SPC
SSE

68. 32
70 . 48
72 . 74
1.1s
72 . 93
1.1s
74 .35
0 . 9s
Z 18s

76 .50
"77 "7 ft / / . / V
78.12

78.91
1.1s
79. 07
79 .58
79.78
79 .89
80 . 60
0 . 9s
80 . 72
81.60
1 -2s
81.73
1 . 3s
81.76
1.1s
Z 20s
81.78
1 .2s
81.84
1 . 3s
81 . 86
1 .2s
81.88
81.91
1 . 2s
81.93
82 . 06
1 .2s
82. 15
1.1s
Z 21s
82.17
1.1s
82.26
82.28
1 .0s
82 . 33
Z 20s
82.41
1 .0s

82 . 46
0.9s
82 .52
82.87
0 .9s
83.16

83 . 37
Z 20s
N 22s
E 22s

83 . 65
Z 20s

83 . 80
Z 18s
N 18s
E 18s

84. 34
1 . 3s
84 . 37
1 . 3s
84. 73
1 . 5s
85. 75
85. 79
85.89
0.7s

1 0 eP
11 i P
30 P
5 . 50nm
20 P
1 2 . 30nm
20 cP
1 4 . 00nm
0 . 7 2 urn
LR
15 eP
1 24 P
331 eP

34 eP
1 2 . 20nm
33 cP
123 P
30 P
29 P
35 cP
6 . 53nm
30 P
34 eP
8 . 95nm
25 i P
1 7 . 00nm
32 cP
1 2 . 20nm
0 . 8 5 urn
33 cP
8 . 95nm
26 iPd
1 2 . 00nm
34 cP
1 0 . 40nm
119 P
33 cP
1 4 . 90nm
33 cP
34 cP
1 1 . 90nm
30 cP
7 . 35nm
0 . 57 urn
30 cP
9 . 75nm
317 cP
35 cP
8 . 00nm
35 cP
0 . 57 urn
25 IP
1 4 . 00nm
i
30 cP
4 . 90nm
27 cP
35 cP
4 . 90nm
23 cP
c
25 cP
0 . 50 um
0 . 40um
0 . 30um
e
10 cP
0 . 50um
c
26 IP
0 . 60um
0 . 40um
0 . 50um
e
c
S
32 cP
1 2 . 65nm
32 cP
16 . 25nm
28 cP
25 . 00nm
24 cP
22 cP
308 PC
1 0 . 00nm

00 14.00 7.1
00 19.00 -1.2
00 33.00 -0.9
4 . 6mb
00 33.60 -1.4
4.9mb
00 42 00 -1.2
5. emb
5 . 6Msz
31 3 7 . 0 0
00 54 .00 -1.4
01 01 . 00 -2.2
01 08.100 3.5
01 1 3 . 00
01 09,00 0.1
4 . 9mt>
01 09.
01 14.
01 12.
01 14.
01 18 .

01 21 .
01 22 .

01 23 .

01 24.

01 24.

01 24 .

01 24 .

01 24.
01 24 .

01 24.
01 25.

50 -0.3
60 1.3
20 -1.4
00 -0.2
10 0.1
4 . 6mb
00 2.4
90 -0.4
4 . 7mb
40 -0.5
5 . 0mb
20 0.1
4 . 9mb
5. 1Msz
30 0.1
4 . 7mb
80 0.3
4 . 8mb
30 -0.4
4 . 8mb
40 -0.8
50 -0.4
5.0mb
60 -0.4
40 -0.3
4 . 9mb
01 26.30 0.1
4 . 7mb
4.9MSZ
01 26 .30 0.0
4 . 8mb
01 30.
01 26 .

01 26.

01 27 .

01 36 .
01 27 .

01 28.
01 29.

01 31 .

00 3.2
70 -0.2
4 . 8mb
60 -0.6
4.9Msz
70 0.3
5 . 1mb
30
80 -0.1
4 . 7mb
50 0.4
60 -0.4
4 . 7mb
30 -0.1
06 03.50
01 32.70 0.3
4 . 9Msz

05 50.00
01 33.00 -0.7

ft "7 "> "7 v / £ 1 .
01 32.

4 . 9Msz
00
50 -2.2
5 . 0Msz

01 35.
05 49.
12 14.
01 38 .

01 38.

01 39.

01 44 .
01 45 .
01 50 .

00

50
00
50 0.8
5 . 0mb
60 0.7
5 . 1mb
50 -0.1
5 . 2mb
70 0.3
00 0.1
50 5.1
5 . 1mb

Z 20s 0.50um 4.9Msz
E 10s 0 . 40um

pP 01 54.50 13kmX
eS 12 16.00
LZH 91.44 322 cP 02 13.00 1.0
2.0s 53.00nm 5.5mb
2 17s 0 . 34um 4 . 9MszX
E 15s 0.53um

pP 02 17.50 14kmX
sP 02 21 . 50
199 obs. ossociotcd

AUG 03, 1991 01h 09m 27.70± 0.37s 8.924 N ± 6.4km 137.894 E ± 6.3km DEPTH » 20.3km (3 depth phoscs) 4.8mb (10 obs.) 4.1Msz (1 obs.)
WEST CAROLINE ISLANDS (209)

PJG 8.26 55 cP 11 29.00 -0.4
GUA 8.27 56 cP 11 29.30 -0.2
0.4s 67 . 80nm 6 . 2mb X
cS 12 55.00
JAY 11.70 166 cPc 12 16.80 0.1
CGP 13.06 269 cP 12 36.00 1.2
RAB 19.29 132 cP 13 56.00 1.6
PMG 20.41 153 i Pd 14 05.40 -1.0
1.1s 124. 05nm 5. 2mb
SSE 27.00 327 P 15 00.00 -10. 2X
1.2s 1 6 . 00nm
WR2 28.90 187 cP 15 30.50 3.0X
0.6s 4.30nm 4. 4mb
ASPA 32.62 187 cP 16 00.20 -0.3
0.8s 8 . 40nm 4.7mb
2 22s 0 . 40um 4 . IMszX
BJ 1 36. 54 331 cP 16 34 .50 0.7
1.3s 37 . 00nm 5. 1mb
2 20s 0.36um 4.1Msz

cpP 16 40.50 20km
cS 22 20.00
RMO 36.75 164 cP 16 41.00 5.3X
SNG 36.94 270 cP 16 32.00 -5.6X
KMI 37.12 300 cP 16 40.50 1.3
CHG 38.99 289 cP 16 54.90 0.2
CHTO 38.99 289 cP 16 54.90 0.2
0.8s 3 . 29nm 4 . 1mb
pP 1 7 01 . 00 21 km
STK 40.73 175 cP 17 07.20 -1.6
0.6s 4 . 00nm 4 . 3mb
LZH 41 . 1 1 316 cP 17 13.50 1.3
1.6s 44.00nm 4.9mb
Z 14s 0.39um 4.4MszX
E 10s 0.47um

pP 17 19.50 20km
BWA 44.25 168 cP 17 38.70 1.1
CAN 45.24 167 cP 17 46.10 0.5
GUN 52.42 298 P 18 41.30 -0.4
PKI 52.77 298 P 18 42.92 -1.4
KKN 52.92 298 P 18 44.42 -0.8
0.9s 40.00nm 5.4mb
DMN 53.04 298 P 18 45.28 -0.9
GKN 53.51 298 P 18 +8.80 -0.8
HYB 58.21 285 cP 19 29.00 5.7X
GBA 59.36 281 Pd 19 30.40 -0.9
0.8s 4.70nm 4. 7mb
OUE 69.12 299 cP 20 45.00 9 . 8X
MBC 84.41 14 eP 22 00.00 0.4
1.0s 1 3 . 00nm 5.1mb
LPB 153.57 109 PKP 29 37.00 17. 1X
S . D . = 1 . 0 on 22 o f 29 obs .

7. AUG 03. 1991 01h 28m 54.62± 1.02s 15.284 N ± 6.0km 60.935 W ±16. 8km DEPTH - 33.0km (normol)
LEEWARD ISLANDS (92)
ML 2.6 (FDF) .

CRM 0.53 178 iPd 29 06.12 0.5
S 29 18.00
BBL 0.57 294 cP 29 06.60 0.3
S 29 19.50
FDF 0.59 201 iPd 29 06.49 0.0
0.1s 1 . 50nm
S 29 20. 10
MGG 0.73 330 cP 29 07.90 -0.5
S 29 22.00
BIM 0.77 190 cP 29 08.56 -0.6
S 29 23. 10

17

03d 01h

DEG 1 . 03 353 «P
S
PAG 1 . 03 316 eP
S
S

AUG
32.

. D. - 0.5 on

03.
856 S
DEPTH =
NEAR

1 HA

ROCH

LCCH

PEL

JACH

TACH

SAN

PCH
CHCH

ZON

COAST

0 .

0 . e.
0.

0.

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0.

1 .
1 .

2 .

18

49

62

80

84

96

97

17
32

78

199 1 01 h
± 7 . 5km
13 . 2 ± 4 .
OF CENTRAL

199 eP

1 04

186

1 1 1

78

i S
iPd
iS
iPc
iS ,
iPd
iS
Pd
iS
1 46 eP
S
128 eP

131
145

S
PC
iPc
S
63 eP
eS
RTLL
CYA
S

? AUG
32.

' 3 .
6 .
. D.

03
349

04
64

61 ePc
50 P

29
29
29
29

13
28
13
28
7 of

4 1 m
71 .

47
572

. 00
. 00
. 00
. 00

0

0

. 2

. 1

7 obs .

. 66±
W ±

1
9

20s
0km
9 km
CH 1

41
41
4 1
42
41
42
42
42
42
42
42
42
42
42
42
42
42
42
43
42
43
0.6 on 11 o

S
DEPTH -
OFF COAST

ROCH

LCCH

JACH

PEL

TACH

SAN

PCH
CHCH

S

AUG
32.

1 .

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1 .

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03
853

1 991 01 h
±78 . 4 km

58m
72 .

f

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07
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1 1
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37
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36
27

02
257

(135)

. 50
. 10
. 40
. 70
. 10
. 50
. 40
. 80
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W ±98 .

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. 3X

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. 1

48s
2km
33 . 0km (no rmo 1)
OF CENTRAL

22

26

44

54

7 1

74

94
08

1 21

153

1 04

121

Pd
S
P
S

P
s
Pd
S
1 40 eP
S
130 «P

131
1 40

s
PC
PC
S
=0.7 on

S
DEPTH -
NEAR

1 HA

ROCH

LCCH

PEL

JACH

SAN

TACH

PCH
CHCH

RTLL

COAST

0.

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1 .
1 .

3 .

20

44

62

76

80

93

93

1 4
30

00

1 991 02h
± 9 . 6km

CHI

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LE

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32
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8 of

03m
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31
51 6

. 20
. 10
. 40
. 50
. 50
. 60
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(134)

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- 0.8

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0
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. 6

. 6
. 7

8 obs .

. 42±
W ±

10.0km (geophy s i c i s
OF CENTRAL

211 eP

106

184

1 13

78

130

149

133
146

S
Pd
S

P
s
Pd
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Pd
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PC
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PC
PC
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60 ePc
e
S.D.

CHI LE

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21

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. 70
. 10
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t)

46s
1 km

(135)

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. 4

. 1

1 0 obs .

AUG 03, 1991 02h 15m 42.55± 0.71s 38.303 N ± 7.0km 21.578 E ± 7.0km DEPTH - 33.0km (normol)
GREECE (364)
MO 3.0 (ATH).

VLS 0.79 261 «P 15 58.00 0.8
AGG 0.93 39 «Pc 15 59.08 -0.2
eS 16 12.00
ATH 1.72 100 eP 16 11.00 0.4
VLI 1.92 145 eP 16 13.00 -0.5
LIT 1 . 93 21 ePd 16 13 .95 0.3
eS 16 39 . 40
KEK 1.98 316 eP 16 13.00 -1.3
KZN 2.01 4 eP 16 16 . 00 1.2
OUR 2.75 42 ePc 16 24.79 -0.5
KNT 3.03 19 ePc 16 29.20 -0.1
S . D . -0.9 on 9of 9obs.

7. AUG 03. 1991 03h 18m 39 . 68± 1.19s
15.851 N ± 6.3km 60.852 W ± 1 3 . 7 km
DEPTH - 33.0km (normol)
LEEWARO ISLANDS (92)
ML 2.6 (PDF) .

MGG 0.45 278 i Pd 18 50.59 1.0
S 18 59.20
DEC 0.50 336 eP 18 51.45 1.1
S 19 00. 50
SFG 0.52 320 eP 18 51.00 0.4
BBL 0.69 242 ePc 18 52.71 -0.2
S 19 02. 80
DOG 0.76 284 eP 18 53.80 -0.2
S 19 04. 20
PAG 0.82 283 eP 18 54.60 -0.2
S 19 06 . 10
SEG 0.83 311 iPd 18 54.80 -0.2
S 19 07 . 00
CRM 1.09 183 iPc 18 58.56 -0.2
FDF 1.15 195 «P 18 59.18 -0.4
0.1s 1 . 20nm
S 19 13. 50
BIM 1.34 189 eP 19 02.87 0.6
S 1918.70
BPA 1.53 321 iPd 19 03.16 -1.9
S . D . =0.9 on 11 of Mobs.

* AUG 03. 1991 03h 34m 58 . 00± 1.27s
51.075 N ±15. 6km 15.721 E ± 6.4km
DEPTH - 5.0km (geophy s i c i s t)
POLAND (548)
ML 3. 1 (VKA) , 3.1 (GRF) . 2.4
(K R A.) .

KSP 0.43 122 iPd 35 05.30 -1.3
0.5s 52.00nm
IS 35 14.20

BRG 1.14 261 iPg 35 20.20 0.4
iSg 35 40.00
PRU 1.32 215 ePn 35 23.50 0.6
0.5s 1 5 . 90nm
Pg 35 25.50
Sn 35 42.70
Sg 35 49.40
i 35 56.70
CLL 1.73 279 i Pg 35 28.30 -0.5
iSg 35 53.80
KHC 2.39 216 Pn 35 38.50 0.1

Pg 35 45.00
Sn 36 13.50
Sg 36 24.50
MOX 2.64 262 ePg 35 47.00 5. IX
iSg 36 27.00
VKA 2.84 172 iPgd 35 53.40 8 . 5X
iSg 36 35.80
KRA 2.88 109 eP 35 46.80 1.5
eS 36 24.30
GRF 3.20 246 ePn 35 49.20 -0.6

ePg 36 02.00
eSg 36 47.20
S . D . -1.1 on 7of 9obs.

? AUG 03, 1991 03h 38m 06 . 56± 6.10s
32.647 S ±30. 7km 71.812 W ±34. 3km
DEPTH = 10.0km (geophy s i c i s t)
NEAR COAST OF CENTRAL CHILE (135)

ROCH 0.75 116 Pd 38 21.50 0.1
S 38 31 .50
LCCH 0.85 166 P 38 23.00 0.1
S 38 34.00
JACH 1.03 92 P 38 26.00 -0.1
S 38 40.00

PEL 1.07 118 iPd 38 26.80 0.1
IS 38 40 . 90
TACH 1.24 144 eP 38 29.50 -0.2
IS 38 45 . 70
PCH 1.46 132 «P 38 33.00 0.0
iS 3852.60
CHCH 1.61 143 iPd 38 35.20 0.1
iS 38 55.50
S . D . =0.1 on 7 of 7obs.

AUG 03. 1991 04h 54m 08.61± 0.59s
39.235 N ± 5.1km 28.976 E ± 7.4km
DEPTH - 10.0km (geophy s i c i s t)
TURKEY (366)

DST 0.46 324 ePg 54 27.40 9 . 5X
«Sg 54 32.40
ALT 0.90 101 ePn 54 30.00 4. IX
KHL 1.01 155 ePn 54 27.50 -0.2
IZ 1 1.17 19 iPn 54 30. 20 -0.2
YLV 1.37 13 iPn 54 33.70 0.0
EDC 1.40 323 iPn 54 34.70 0.5
GPA 1.47 44 iPn 54 36.30 1.1
IZM 1.58 239 ePn 54 36.80 0.1
EYL 1.61 34 ePn 54 36.70 -0.6
HRT 1 . 67 18 iPn 54 38 . 20 0.1
ISK 1.83 2 ePn 54 40.00 -0.3
CTT 1.96 348 iPn 54 41.70 -0.5
YER 2.17 195 eP 54 52.00 6.7X
S . D . -0.6 on 10 of 13 obs .

* AUG 03, 1991 04h 56m 00 . 42± 0.73s
1.177 N ±11. 8km 85.263 W ± 9.6km
DEPTH - 23.8km (3 d«pth phoses) 4.7mb (13 obs.) 4.7Msr (3 obs.)
OFF COAST OF ECUADOR (104)
CENTROID, MOMENT TENSOR (HRV)
Dato Used: GDSN
L.P. B. : 16S. 31C
Centroid Location:
Origin Time 04:55:58.0 0.5
Lot 0.88N FlX;Lon 84.97W FIX
D«p 33.0 FIX Half-duration 2.2
Moment T«nsor; Scale 10»*17 Nm
Mrr 0.33 0.09 Mtt- 0.16 0.10
Mff- 0.18 0.16 Mrt- 0.41 0.20
Mrf- 0.21 0.18 Mtf- 1.71 0.09
P r i nc i pa I Axes :
T Val- 1.96 Pig-11 Azm-315
N -0.40 77 102
P -1.56 7 224

Best Double Coup 1 « : Ma-1 . 8* 1 0* 1 7
NP1 : St r i ke-359 Dip»77 Slip- 177
NP2: 90 87 13

OUR 6.87 101 eP 57 37.80 -4.8X
PSO 7.94 90 eP 57 57.50 -0.1
ANCC 8.70 74 eP 58 04.18 -3 . 8X
HOOC 8.92 75 eP 58 07.73 -3.4
UPA 9.62 36 «Pd- 58 21.10 0.5
1.6s 766 . 67nm 6 . 8mb X
BOG 11.69 73 eP 58 50.00 0.7
eS 00 42.00
FUO 12.27 69 eP 58 56.00 -1.0
NNA 15.52 148 eP 59 39.50 -0.1
0.6s 7 . 33nm 4.1mb
Z 22s 3.33um
eS 03 26.00
LPB 24.43 137 P 01 18.00 -1.0
Z 24s 5.43um 5.0MszX
LR 08 30.00
CCH 26.37 135 eP 01 45.00 7 . 8X
SIV 29.36 126 eP 02 04.00 -0.1
JSC 33. 14 6 eP 02 38. 20 1.1
MEO 35.67 341 i PC 03 05.50 6 . 6X
ALO 38.97 332 eP 03 26.00 -0.9
1.0s 4.75nm 4. 2mb
e 03 35.00 30km
ANMO 38.98 332 ePc 03 27.00 0.1
1.2s 10 . 94nm 4 . 5mb
e 03 34.20 24km
GLD 42.48 337 eP 03 54.50 -1.2
1.2s 24 . 24nm 4 . 8mb
PV09 43.11 332 eP 04 01.00 0.0
GSC 44.87 323 eP 04 19.00 4.0X
CLC 45.69 323 eP 04 25.00 3 . 5X
BW06 46.78 335 eP 04 29.00 -1.2

18

e3d 05h

1.1s 5 . 36nm 4 . 5mb
TNP 47.60 325 e(P) 04 31.60 -0.4
i 04 36.60 17km
CSV 50.48 324 e(P) 04 59.00 0.4
SES 53.71 340 eP 05 23.00 0.3
NEW 54.37 334 eP 05 26.00 -1.6
FFC 55.10 348 eP 05 31.00 -1.8
0.9s 7.00nm 4.7mb
PNT 56.25 334 eP 05 47.00 5.8X
MBC 77.41 352 eP 07 54.00 -0.8
0.9s 9 . 00nm 4 . 8mb
EKA 84.5* 35 P 08 37.00 4.3X
1.0S 5.10 nm 4 . 7mb
LPF 85.26 42 eP 08 38.50 2.0
09s 6.55nm 4. 9mb
GRR 85.40 42 eP 08 39.30 2.1
1.0s 8 . 08nm 4 . 9mb
FLN 85.67 41 eP 08 40.80 2.2
1.9s 6 . 00 nm 4.8mb
220s 0 . 28um 4 . 6Msz
MFF 85.79 44 eP 08 41.50 2.3X
LDF 85.90 42 eP 08 41.70 2.0
1.2s 11.90nm 5. 0mb
EPF 85.98 47 eP 08 43.30 3.0X
1.5s 1 5 . 65nm 5 . 0mb
LFF 86.34 45 eP 08 44.10 2.1
LPO 86.65 45 eP 08 45.80 2.3X
RJF 86.90 45 eP 08 47.00 2.3X
2 22s 0.32um 4.7Msz

GRF 93.31 40 e(P) 09 10.00 -4.7X
2 22s 0.50um 4.9Msz
e 1318.00
e 2131.00
e 26 48. 00
e 30 43 . 00
WRA 137.02 242 PKP 15 33.00 8.8X
1.4s 2 . 50nm
GKN 149.41 18 PKP 15 50.62 5.2X
KKN 149.80 17 PKP 15 50.38 4.3X
GUN 149.85 16 PKP 15 52.16 5 . 8X
DMN 149.92 17 PKP 15 52.64 6.3X
PKI 150.04 17 PKP 15 52.50 5.9X
S . D . - 1 . 5 on 25 of 44 obs .

% AUG 03, 1991 05h 08m 01.74± 1.31s
46.374 N ±10. 5km 3.503 E ± 7.6km
DEPTH - 19. 0km (geophy s i c i s t)
FRANCE (538)
ML 1.9 (LOG) .

SMF 0.36 41 Pg 08 09.50 0.4
Sg 08 14.30
AVF 0,43 346 Pg 08 10.60 0.1
Sg 08 16.70
BGF 0.49 292 Pg 08 11.90 0.2
Sg 08 18.30
MAF 0.67 257 Pg 08 14.90 -0.1
Sg 08 23.80
SSF 0 .69 0 Pg 08 15. 10 -0.3
Sg 08 24.20
LBF 0.69 28 Pg 08 15.30 -0.2
Sg 08 24.20
TCF 0.90 265 Pg 08 19.90 0.0
Sg 08 30.30
LOR 0.93 15 Pg 08 19.30 -0.2
Sg 08 31 . 30
S.D. - 0.3 on 8 of 8 obs.

* AUG 03, 1991 05h 32m 40.38± 1.28s 5.871 N ± 8.2km 127.115 E ±15. 7 km DEPTH * 152.7 ± 10.7 km
4 . 5mb (1 0 obs .)
PHILIPPINE ISLANDS REGION (248)

CGP 3.51 317 ePd 33 35.90 0.0
eS 34 19.90
MNI 4.95 207 ePd 33 53.50 -0.5
MTN 19.02 168 eP 36 53.50 0.4
0.4s 60.00nm 5. 3mb
KNA 21.54 176 eP 37 20.09 1.5
OIS 28.99 155 eP 38 27.99 -0.9
ASPA 30,10 168 eP 38 37.40 -0.3
1.3s 7 . 1 0nm 4 . 2mb
CHTO 30J31 298 eP 38 40.00 0.4
0 . $s 1 . 66nm 4 . 0mb
BJI 35.41 345 eP 39 24.50 1.1
0.8s 5 . 00nm 4 . 3mb

FORR 36.52 179 eP 39 32.
0.2s 19. 00nm
MUN 39.05 195 eP 39 54.

00 -0.7
5 . 5mb
30 0.4
STK 40.00 161 iPd 40 02.10 0.4
0.6s 3.1 9nm | 4 . 2mb
GUN 44.82 304 P 40 41 .
0.6s 29.00nm
PKI 45.08 303 P 40 43.
KKN 45 . 27 304 P 4044.
DMN 45.35 303 P 40 45.
GKN 45.87 304 P 40 49.

60 0.3
5.1mb
20 -0.2
60 -0.1
60 0.2
40 -0.1
0.6s 11.00nm 4. 7mb
HFS 96.31 332 eP 45 51.60 -0.9
0.5s 0 . 99nm 4. 4mb
NB2 97.05 334 P 45 55.|00 -0.9
0.8s 2 . 00nm
S.D. - 0.7 on 18 of 1

? AUG 03, 1991 06h 18m 51 .
23.319 S ±14. 3km 179.844
DEPTH - 500.0km (geophysi
4 . 7mb (5 obs .)
SOUTH OF F 1 J 1 1 SLANDS

MNG 17.64 191 eP 22 26.
0.2s 5 . 00nm
TH2 19.29 196 eP 22 45.

4 . 6mb
6 obs .

90± 1.16s
E ±20. 6km
cist)

(171)

20 -2.2
4 . 8mb
70 1.2
KH2 19.76 194 eP 22 49.120 0.4
LT2 20.41 196 eP 22 55.60 0.6
STK 34.81 247 iPd 25 01.90 0.6
0.6s 3.30nm 4. 0mb
ASPA 41.99 260 iPd 25 59.90 -0.1
0.4s 6 . 00inm
WR2 42.28 266 iPc 26 02.

0.3s 1 2 . 30nm
eS 31 38.
WRA 42.30 266 P 26 02.
0.3s 9 . 50nm
NB2 141.49 351 PKP 37 26.
0.5s 0 . 90nm
HFS 141 .95 349 ePKP 37 27.
0.4s 9 . 20inm

4 . 5mb
10 -0.2
4 . 9mb
30
00 -0.5
4 . 8mb
60 0.1

30 0.1

KSP 149.70 339 iPKPd 37 50.70 10. 6X
S.D. -1.0 on 10 of 11 obs.

___ _ _ L _ __

AUG 03, 1991 07h 03m 27.61± 1.93s 18.949 N ± 5.7km 65.053 JW ± 9.3km
DEPTH - 50 .6 ± 14 .0 km '
4 . 3mb (11 obs .)
PUERTO RICO REGION

MD 4.6 (TRN) . Felt o t S

NEV 2.97 127 eP 04 14.
S 04 55.
CPB 3.33 112 eP 04 18.
eS 05 01 .
MGH 3 . 49 1 29 eP 04 21 .
BPA 3.58 121 eP 04 21 .
S 05 05.
SEG 4.22 126 eP 04 31 .
PAG 4.33 132 eP 04 32.

(90)
on J uon .

40 1.0
00
55 0.0
93
10 0.2
25 -0.8
70
37 0.3
40 -0.3

S 05 22.|00
DOG 4.38 131 eP 04 33.
SFG 4.55 125 eP 04 35.
DEC 4.62 124 eP 04 36.
MGG 4.67 130 eP 04 38.
BBL 4.82 134 eP 04 39.
FDF 5.62 138 eP 04 57.
CRM 5.75 136 eP 04 53.
BIM 5.83 139 eP 04 52.

SLB 6.38 142 eP 05 00.
SVB 6.72 147 eP 05 04.
TCE 8.80 158 eP 05 34.
TRN 8.97 156 eP 05 38.
TBH 9.26 155 eP 05 43.
TPP 9.26 157 eP 05 42.
UPA 17.18 237 eP 07 26.
HBF 19.56 318 P 0754.
SGS 19.81 319 P 07 56.
JSC 21 .00 320 P 08 08.
PRM 21 . 56 318 P 08 1 4 .
NA2 22.08 333 P 08 21 .
CVL 22.28 331 P 08 21 .
BLA 22.63 327 P 08 25.
0.7s 27.78nm

PNJ 23.23 342 e(P) 08 50.
LVNJ 23.33 341 P 08 32.

21 -0.1
60 -0.1
00 -0.7
01 0.7
00 -0.6
70 6.9X
70 1.1

n 3 & v & v . Qy
24 -1.3
61 -1.4
70 -0.4
15 0.7
28 2.0

pi 1.1
00 0.2
20 0.1
30 -0.5
60 -1.1
20 -0.5
50 1.7
20 -0.6
50 0.1
4 . 8mb
40 19. 3X
60 0.6

TBR 23.47 342 P 08 33.40 0.0
GBTN 23.74 318 P 08 37.00 0.9
NNA 32.86 202 eP 09 57.00 -2.0
0.5s 4 . 93nm 4 . 6mb
LPB 35.39 185 P 10 19.00 -2.1
CCH 36. 12 182 P 10 28.20 1.0
ALO 39.89 302 eP 10 59.00 0.4
1.0s 2 . 50nm 4 . 0mb
ANMO 39.89 302 eP 10 59.10 0.5
0.9s 1 . 65nm 3 . 7mb
GOL 48. 35 310 P 1 1 02.70 0.3
0.9s 2 . 84nm 4.1mb
RSSD 41.08 316 P 11 07.20 -1.0
1.0s 3 . 39nm 4 . 0mb
PPD . 42 . 89 161 (P) 11 25. 00 2.0
BW06 44.32 312 P 11 34.20 -0.5
1.1s 4 . 96nm 4 . 2mb
FFC 45.43 331 eP 11 33.00 -10. 0X
0.7s 5 . 00nm
SES 48.02 322 ePd 12 04.00 0.4
PLM 48.21 298 eP 12 06.90 1.4
NEW 51.03 317 P 12 26.43 -0.3
0.9s 7.68nm 4. 7mb
YKA 55.18 335 eP 12 55.70 -1.5
0.7s 3 . 00nm 4 . 4mb
MBC 63.54 347 eP 13 55.00 0.3
0.6s 3 . 00nm 4 . 5mb
INK 64.61 337 eP 14 01.00 -0.7
FBA 69.94 333 eP 14 35.90 0.6
1.1s 1 . 1 0nm 3 . 7mb
RMO 148.00 250 iPKPd 23 16.30 9.9X
0.8s 27 . 00nm
S.D. -1.0 on 46 of 50 obs .

? AUG 03, 1991 07h 12m 14.77± 1.13s
42.442 N ± 7.1km 8.621 W ±13. 1km
DEPTH - 10.0km (geophy s i c i s t)
SPAIN (377)
mbLg 2 .9 (MOD) .

E2AM 0.30 191 iPgd 12 21.00 0.0
eSg 12 25.00
STS 0 . 45 7 iPgd 12 24.00 0.1
eSg 12 29.50
ERUA 1.10 92 ePg 12 35.50 0.1
eSg 12 50.00
EMON 1.37 43 ePn 12 39.70 -0.3
eSn 12 58.40
S.D. - 0.3 on 4 of 4 obs.

? AUG 03. 1991 07h 52m 21.86± 7.58s
32.269 S ±48. 5km 71.982 W ±35. 5km
DEPTH - 10.0km (geophy s i c i s t)
NEAR COAST OF CENTRAL CHILE (135)

ROCH 1.08 131 Pd 52 42.40 0.1
S 52 51 .50
LCCH 1.25 164 P 52 45.00 -0.1
PEL 1.40 129 Pd 52 47.30 -0.1
S 53 01 .00
TACH 1.64 148 PC 52 50.30 -0.5
S 53 05.20
LNV 1 . 75 164 P 52 52.50 0.1
S 53 09.50
PCH 1.83 138 PC 52 53.60 -0.1
S 53 12.00
CHCH 2.00 146 Pd 52 56.70 0.6
S 53 17.50
S.D. - 0.4 on 7 of 7 obs.

AUG 03, 1991 08h 11m 52.84± 0.71s
16.449 N ±10. 2km 98.203 W ± 6.6km
DEPTH - 29.7km (3 depth phoses)
4 . 8mb (1 4 obs .)
NEAR COAST OF GUERRERO. MEXICO (58)

ACX 1.64 285 iP 12 17.25 -2.8
iS 12 39.50
1 IT 2.56 358 iP 12 34.50 1.0
PPM 2.63 351 iP 12 35.00 0.3
1 ISM 2.65 17 iP 12 35.50 1.1
(S) 13 20.00
LVVM 3.67 27 eP 12 46.00 -3.0

(S) 13 34.50
MRX 4.31 319 eP 12 59.50 1.5

(S) 1351 .00
SCX 5.35 86 (P) 13 12.50 -0.2

19

03d 08h

TPX 5.93 104 (P) 13 22.50 1.6
MEO 18.26 359 i Pd 16 04.10 -1.7
UPA 19.65 110 (P) 16 24.00 1.6
ALQ 19.84 340 ePc 16 24.00 -0.6
0.9s 18.91nm 4 . 4mb
ANMO 19.85 340 P 16 24.20 -0.4
09s 64 08nm 4 . 9mb
POW 26.59 16 P 16 34.40 2.3
GLA 22 . 33 321 eP 16 51 .60 1.2
PRM 22.61 36 P 16 51.20 -1.2
SGS 23 . 69 41 P 16 58 . 20 1.1
BAR 23.25 317 eP 16 56.00 -2.7
JSC 23 . 38 37 P 16 58. 80 -1.1
TPC 23.86 321 eP 17 05.00 1.0
PLM 23.88 318 eP 17 66.00 1.7
GOL 23.99 346 P 17 07.10 0.9
0.8s 31 . 25nm 4 . 9mb
pP 17 16.20 32km
GLO 24.01 347 P 17 07.60 1.4
1.0s 25.00nm 4.7mb
pP 1 7 16 . 20 31 km
RVR 24.54 319 eP 17 12.00 0.8
GSC 25.07 322 eP 17 17.00 0.6
SBB 25.28 320 eP 17 20.00 1.7
CLC 25.89 322 eP 17 25.00 1.0
ISA 26.32 320 eP 17 29.00 1.0
OAU 26.43 337 P 17 29.90 0.6
DUG 26. B5 335 P 17 33.00 0.1
0.8s 8 . 33nm 4 . 4mb
BW06 27.98 342 P 17 43.00 -0.3
LRM 31.62 341 eP 18 16.10 0.4
NEW 35.32 338 P 18 48.00 0.6
1.1s 9 . 26nm 4 . 6mb
SES 35.41 346 eP 18 48.00 -0.1
ION 36.01 332 P 18 53.50 0.2
PNT 37.12 337 ePd 19 03.00 0.5
0.8s 1 4 . 00nm 4 . 9mb
FFC 38.31 356 i PC 19 11.70 -0.7
0.8s 28 . 00nm 5.1mb
LPB 44.22 136 P 20 06.00 4. IX
SCH 45.30 25 eP 20 09.00 -0.6
CCH 46.13 135 eP 20 22.00 5.0X
KLU 56.18 335 P 21 32.30 0.1
INK 56.47 345 eP 21 32.00 -2.1
PMR 57.56 334 P 21 41.50 -0.4
0.7s 10.17 nm 5 . 0mb
FBA 58.68 338 P 21 48.50 -1.2
0.9s 12. 50nm 5 . 0mb
pP 21 56.50 26km
PDB 59.05 331 P 21 52.60 0.3
MBC 60.83 354 ePc 22 03.60 -0.7
0.8s 28 . 00nm 5 . 4mb
TTA 61.04 334 P 22 04.70 -1.3
0.8s 8 . 62nm 4 . 9mb
EKA 79.47 35 P 23 57.00 -0.9
0.6s 2.1 0nm 4 . 3mb
NB2 84.80 27 P 24 25.80 0.2
0.9s 2.60nm 4. 4mb
KEV 85.92 17 eP 24 30.00 -0.9
SOD 87.28 19 iP 24 36.20 -1.5
WRA 130.12 258 PKP 31 07.00 4.6X
0.9s 1 . 60nm
HYB 146.20 6 ePKP 31 31.00 -0.8
GBA 149.83 8 PKPc 31 40.70 3.2X
0.6s 5 . 60nm
S . D . - 1 . 3 on 49 o f 53 obs .

? AUG 03, 1991 08h 30m 56.28±14.37s 41.528 N ±92. 9km 126.247 W ±67. 0km DEPTH - 10.0km (ge ophy s i c i s t)
OFF COAST OF NORTHERN CALIFORNIA(34)

KMOR 4.57 25 P 32 07.39 0.3
GT2 4 . 64 37 P 32 08.51 0.4
PGO 4.81 34P 3211.18 0.8
VBEM 4.90 42 P 32 11.56 -0.3
TDH 4.97 39 P 32 13. 08 0.3
VLMM 5.04 36 P 32 14.08 0.3
V 1 PM 5.09 52 P 32 14.65 0.1
VFP 5.15 41P 32 16. 03 0.7
VLL 5.15 39 P 32 17 . 32 2 . 0X
RVW 5 . 27 28 P 32 17 .80 0.9
LVP 5.32 30 P 32 17.46 -0.3
MTMW 5.36 32 P 32 17.75 -0.6
BMW 5.40 23 P 32 18.74 -0.2
FL2 5 . 45 30 P 32 19. 31 -0.3
JLK 5 . 48 31 P 32 19. 57 -0.5

SHW 5 . 49 31 P 32 20 .37 0.2
HSR 5 . 49 31 P 32 20 . 32 0.0
CDFW 5.50 32 P 32 19.90 -0.4
REMW 5.52 31 P 32 21 . 05 0.4
VTHM 5.52 47 P 32 20.50 -0.1
ESD 5.53 31 P 32 20 .54 -0.2
STD 5 .53 30 P 3220.52 -0.3
ERK 5 .55 29 P 32 20 . 12 -0.8
SOSW 5.57 31 P 32 20.90 -0.3
CZM 5.60 28 P 3221.91 0.3
VGB 5.63 43 P 3222.18 0.1
TDL 5 .63 30 P 32 22. 16 0.0
ASR 5.72 34 P 3222.80 -0.6
KOSW 5.73 29 P 32 23.49 0.0
LMW 5.87 28 P 32 26.37 6.8X
GL2 5.92 40 P 3226.84 0.7
GLK 6.04 32 P 32 27.60 -0.3
JBO 6.10 48 P 32 28.60 0.0
REMR 6.17 29 P 32 29.48 -0.2
WPW 6.18 32 P 32 29.22 -0.6
GHW 6.21 26 P 32 30 . 64 0.6
RVC 6. 22 28 P 32 '30.87 0.5
FMW 6.32 30 P 3231.87 -0.1
GSM 6.51 28 P 32 34 . 65 0.1
RMW 6.73 27 P 32 38 . 10 0.6
EBG 6.75 35 P 3237.95 0.1
TBM 6.94 34 P 32 40. 73 0.2
WIW 7.01 43 P 32 40. B6 -0.6
HTW 7.04 25 P 32 41 . 96 0.1
JCW 7 .34 23 P 32 46.07 0.1
ETW 7.40 33 P 32 46.73 -0.3
RPW 7.69 24 P 32 50.61 -0.4
S . D . - 0 . 4 on 45 of 47 obs .

* AUG 03, 1991 08h 31m 51.63± 0.72s 29.253 N ± 8.4km 129.255 E ± 1 1 . 7 km DEPTH - 33.0km (normal)
4 . 6mb (6 obs .)
RYUKYU ISLANDS (238)

KAGJ 2.39 36 P 32 29.00 -0.3
KUMJ 3.54 22 eP 32 46.50 0.9
SHNJ 5.11 18 eP 33 08 . 00 0.2
SSE 7.22 287 eP 33 32.00 -5 . 6X
i 34 14.50
BJ 1 15.20 319 eP 35 24.50 -0.9
1.5s 35 . 00nm 4 . 4mb
LZH 22.41 294 eP 36 50.00 1.1
2.0s 49.00nm 4.6mb
pP 36 54.00 14kmX
KKM 26.17 211 ePc 37 43.20 1 8 . 2X
KKN 38.50 279 P 39 00.00 -12. 9X
WRA 49.15 174 P 40 38.00 -0.4
0.9s 2 . 10nm 4 . 2mb
WR2 49.16 174 i Pd 40 38.80 0.4
0.8s 4.00nm 4 . Sr.ib
BOM 52.13 272 eP 41 06.00 4 . 8X
MBC 66.69 14 eP 42 40.00 -0.9
1.0s 7 . 00nm 4 . 7mb
FFC 85.49 27 i Pd 44 30.90 3.7X
1.0s 1 0 . 00nm 5 . 0mb
S . D . -0.9 on 8 of 13 obs .

AUG 03, 1991 08h 33m 17.19± 0.15s
29.330 N ± 3.1km 129.081 E ± 3.5km DEPTH - 17.1km (13 depth phases) 5.5mb (53 obs.) 5.7Msz (6 obs.)
RYUKYU ISLANDS (238)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P. B. : 17S. 39C
Centroid Location:
Origin Time 06:33:19.3 0.3
Lot 29.37N 0.03 Lan 128. 54E 0.05

Dep 24.3 3.8 Half-duration 2.6
Moment Tensor; Scale 10**17 Nm
Mrr 0.14 0.11 Mtt- 2.64 0.12
Mff 2.50 0.19 Mrt 0.27 0.20
Mrf 0.01 0.18 Mtf--2.80 0.11
P r i nc i pa 1 Axes:
T Vol- 3.88 Pig- 4 Azm-204
N -0.15 86 51
P -3.74 2 294

Best Double Coup 1 e : Mo-3 . 8 * 1 0 * * 1 7
NPl : S t r i ke-339 Dip-86 Slip- 1
NP2: 249 89 176

SHK
SSE

ANP

MAT

CVP

P 1 P
, SZP
BJ 1

BAG

HKC

OCP
SAP
PGP
CGP
PJG
GUA

PPR
LZH

DAV

KM 1
KM 1

TSM
LOE

1 RK

CHG

CHTO

NST
YAK

SHL

6. 02 30 ePc 34 49. 00 1.4
7 . 05 286 Pd 35 01 .00 -1.2
1.03 87 . 00nm 5 . 8mb
Z 1 6s 63 . 50um
N lls 46 . 40um
i 35 36.00
i S 3648.00
SS 37 02.00
7 . 89 240 iPc 3518.80 4 . 8X
eS 36 30.00
10.51 44 eP 3550.00 -0.1
1.3s 1 05 . 77nm 6 . 0mb
eS 38 06.00
13.34 211 ePc 36 26. 40 -1.9
. 1.0s 1 . 82nm 4 . 1mb X
13.41 217 ePc 36 27.00 -2.1
14.14 216 ePd 36 40. 00 1.3
15.04 319 eP 36 51 .50 1.0
1.5s 563 . 00nm 5 . 7mb
Z 16s 24.80um
N 14s 18 . 20um
eS 39 49 . 00
15.05 213 ePc+ 36 48.00 -2.9X
1.5s 1 44 . 44nm 5.1mb
15.13 246 iPd 36 55 . 00 3. 3X
eS 39 34.00
16.39 209 ePd 37 17.50 9.5X
16.87 32 eP 3713.00 -0.9
17.46 207 iPc 37 12.50 -9 . 0X
21 . 1 7 192 iPd 38 03 .00 -1.0
21 . 43 134 eP 38 07 . 80 1.2
21 . 50 134 eP 38 67 . 80 0.5
1.3s 507 . 69nm 5 . 8mb
Z 18s 5 . 48um 5 . 0Msz

21.73 209 i PC 3811.00 1.3
22. 24 294 Pd 38 15 . 00 0.2
2.0s 758.00nm 5.8mb
Z 1 2s 1 6 . 60um 5 . 7MszX
N 11s 18 . 35um

pP 38 21 . 00 22km
sP 38 26.00
PP 38 43.00
PcP 42 07.00
S 42 20.00
sS 42 30.50
SS 43 03.00
ScP 45 42.00
PcS 45 46.50
22. 37 189 eP 3B 16. B0 0.8
e 4234. 00
23.77 266 PC 38 31.50 1.6
23 . 77 266 P + 38 32 .00 2.1
1.5s 360 . 00nm 5 . 7mb
Z 18s 23 . 00um 5 . 7Msz
N 12s 17. 70um
E 13s 19. 20um

pP 38 59.00 131kmX
sP 39 25.00
S 42 4B .00
S 42 52.00
27 .07 205 ePc 39 01 . 10 0.3
27 . 70 251 eP 39 13.00 6.5X
48 25 . 00

29.35 32B P 39 21 .00 -0.1
39 34. B0 55kmX
39 47 . 00
44 1 0 . 00

46 50 . 00
29. 36 256 P 39 21 . 00 -0.6
0.9s 16 . 39nm 4 . 8mb
eS 44 08.00
29. 36 256 eP 39 21 . 10 -0.4
1.3s 49 . 43nm 5 . 1mb
PcP 42 28.00
29.90 249 eP 39 43.00 16. 6X
32. 69 1 eP 39 4B . 10 -2.3
ePP 40 58.00
ePPP 41 09.00
ePcP 42 33.00
eS 45 00.00
eScP 46 10.00
ePcS 46 17.00
eSS 46 42.00
eSS 47 20.00
ePSP 49 30.00
eScS 50 04.00
33. 13 273 iP 39 54 . 50 -0.4

03d

SNG

1 PM

KGM
GUN

PK 1

KKN

DMN

GKN

PS 1

MTN

PMG
KNA
NO 1

HYB

WRA

WR2

GBA

01 S

POO
KOD

CTAO

ASPA

NANU
CUE

WARB
TTA

SVW
MA 1 O

1 MA

PDB
RMO
KDC
PMR

FBA

STK

TOA
KLU
DZM
CMS
ADE

IR4
1 R7
1 R1
1 NK

BWA
MBC

KEV

CAN
CNB
BFO

OBN

08h

34 .69

36.21
1 . 0s
36.59
37.79
1.1s
38. 28
1 .3s
38 . 34
1.1s
38.53
1.2s
36 . 84
1 1 s
39.02

41 .98

e. 8s
42.27
44 . 82
45.05
1 .3s
47.55

49.25
1 .2s
49.25
0.7s

50. 15
1 .0s
50 .62
1 .0s
51.21
51 . 70

51 .85

52.89
1 .2s
53.22
53.33

55.25
57.50
1 .2s
57.75
57.77

58. 42
1 .3s
58.55
58. 62
59.65
60 . 81
1 .2s
60. 96
1 .2s
62.02
0 .8s
62.12
62,35
62.50
62.54
64,59
1.0s
64i 76
64. 84
64 .87
65. 76
1 .3s
65 .99
66. 65
1 .0s
66 . 84
Z 16s

66.99
67.08
67,35

67 . 85
1 .5s

IS
236 eP
eS
233 eP<l
69 . 9 0 n tti
227 eP
279 P
265 . e0nm
278 P
455 . 00nm
279 P
628 . 00nm
278 P
37 1 . 00nm
279 P
242 . 06nm
233 eP
e
e
177 eP
1 63 . 00nm
153 eP
1 80 eP
282 iPd
21 1 . 54nm
267 eP
eS
1 73 P
26 . 56nm
173 i P d
33 . 70nm

ipP
263 PC
1 3 . 50nm
167 i PC
4 1 . 00nm
271 eP
259 *P
eS
159 i PC
i
174 iPc
20 . 20nm
196 iPd
287 iPc
eS
183 eP
32 P
26.52nm
34 eP
296 eP
eS
28 eP
1 2 . 00nm
35 P
159 eP
37 eP
33 eP
6 1 . 40nm
29 eP
45 . 45nm
1 68 i PC
9 . 1 0nm
32 eP
33 P
141 iPc
164 eP
171 eP
1 20 . 80nm
298 eP
298 eP
298 eP
24 eP
64 . 00nm
163 eP
1 4 eP
65 . 00nm
338 eP
7 . 40um
e
LR
162 eP
162 eP
1 68 eP
i
322 eP
1 00 . 80nm

45 12.00
40 08.00
45 32.00
40 22.10
5
40 24.50
40 35 . 10
5
40 38.70
6
40 39. 14
6
40 40.92
6
40 43.36
5
40 45.00
42 54.50
44 1 5 . 00
41 08.00
5
41 1 2.00
41 31 .50
41 34.00
5
41 48.00
48 52.00
42 05.00
5
42 05. 90
5
42 15.80
42 13 .20
4
42 16. 20
5
42 18.50
42 30.00
49 55 . 00
42 26.30
42 33.00
42 33.60
4
42 35.90
42 38.20
50 20.80
42 51 .00
43 04.80
5
43 09.60
43 1 1 .00
51 16.00
43 13.10
4
43 11.70
43 21 .00
43 21 .90
43 28.70
5
43 31 . 40
5
43 38.60
5
43 39. 70
43 38-10
43 42.50
43 43.00
43 55.00
6
43 58 . 00
43 59.00
43 58.00
44 01.00
5.
44 06 . 00
44 06.50
5
44 08.00
6
44 24.00
15 34.00
44 11.90
44 13.00
44 10.00
44 16.00
44 16.00
5.

- 0.2

0.9
5mb
0 . 2
0. 3
9mb
- 0 . 1
1mb
- 0 . 1
3mb
0 . 0
0mb

0.0

8mb
0. 3

- 1.0
8mb
0 . 6
- 0.5
0. 0
9mb
- 5 .9X

- 1 . 8
1mb
- 1 .0
5mb
33kmX
- 0 . 7
9mb
- 1 .2
3mb
- 3.6X
3.9X

- 0. 4
22km
- 0.9
9mb
- 0.9
0.3

- 0 . 7
- 2. 7
1mb
0. 3
1 .2

- 1 . 0
8mb
- 3 . 1 X
5.3X
- 0 .5
- 1 . 6
6mb
0 .0
5mb
- 0.2
0mb
0. 4
- 2.7
0.2
0. 7
- 0. 8
0mb
0.8
1 . 4
0.2
- 1.8
6mb
1 . 2
- 2.0
7mb
- 1 . 8
0MszX
58kmX

0. 7
1 .2
- 3.3X
1 9km
- 0.3
8mb

SOD

TOO

KAF

NUR

HFS

NB2

VRI
ISR
MLR
KRA

MCW
COP

GMW
KDZ
PSZ
RMW
KSP

PNT
LON
SRO
BRG

CLL

PRU

VKA

VAY
SKO

NEW

FHC
KHC

MOX

Z 16s
N 13s
E 15s

67 . 88

68 . 30

70.17
0.5s
71 .59
Z 14s

76. 44
1 .2s
Z 17s

76.88
1 .2s
77.40
77 . 87
78.07
79.16
Z 18s
E 18s

79. 32
79.64
Z 1 7s
79 .96
80.33
80.35
80 . 56
80 . 65

80 . 74
80.95
81 .30
81 .83
2.0s
N 18s
E 18s

82.04
1.1s

82.06
Z 16s
N 20s
E 20s

82.14
4. 0s
Z 16s

82. 32
82.68

82. 70
1 . 0s
82. 87
83 . 08
Z 16s
N 16s
E 1 6s

83. 14
2.1s
Z 15s

20

8 . 00um
7 . 1 0um
6 . 60um
e
ePcP
ePP
eS
eScS
LO
336 i P
i
166 eP
i
331 eP
1 . 50nm
330 IP
6 . 30um
e
LR
332 eP
1 6 . 70nm
4 . 1 0um
LR
334 P
19. 90nm
316 eP
315 eP
316 eP
322 eP
8 . 1 0um
14.20um
e
40 P
329 eP
7 . 82um
41 P
312 IP
320 eP
41 P
324 eP
e
e
ePP
38 eP
41 P

320 «(P)
325 eP

44 . f)0nm
22 . 00um
1 0 . 00um
e

325 iPc
29 . 00nm
i
eS
324 eP
7 . 89um
1 2 . 89um
1 0 . 69um
e
e
PP
S

322 e(P)
299 . 09nm
3 . 09um
e
LR
313 eP
314 eP
i
i
LO
38 P
20 . 00nm
47 «P
323 iPc
5 . 50um
5 . 00um
1 3 . 50um
e
e
PP
S
325 «P
49 . 00nm
9 . 60um

44 28 .
44 38 .
46 40 .

6 . 0MszX

00 41kmX
00
80
53 15 .60
54 16. 60
02 15.60
44 16 .
44 29 .
44 18.
44 27 .
44 28 .

44 37.

44 43 .
20 14.
45 05.

15 16.
45 08.

00 -0.4
40 47kmX
40 -1.0
20 28kmX
96 -1.6
4 . 4mb X
20 -1.9
6 . 0MSZX
00 19km
80
50 -1.7
5 .0mb
5 . SMszX
00
30 -1.4
5 . 1mb
45 13.60 0.1
45 10.60 -5.5X
45 07.00 -9.7X
45 22. 10 -0.3
6 . 1MS2

45 36.60 51kmX
45 26.50 3. 1X
45 25.60 0.2
6 . 1MszX
45 27 .60 1 .0
45 18.
45 29.
45 30.

00 -10. 9X
00 0.0
60 0.5
45 30.60 -0.4
45 35. 60 16km
45 44.50
48 35.00
45 30.60 -0.9
45 32.80 0. 7
45 38. 10 4.3X
45 37.60 0.4
5.2mb

48 51 .
45 37 .

45 51 .
55 54.
45 37.

45 41 .
45 51 .
48 47 .
55 56.
45 39.

48 46 .
21 15.
45 39.
45 40.
45 59.
56 02 .
20 59.
45 41 .

45 43.
45 43.

45 47 .
45 57.
48 55.
56 12.
45 43.

00
60 0.0
5.3mb
16 46kmX
80
70 -0.1
6.2MSZX

50 12km
80
56
60
60 0.8
5 . 7mb X
5.8MSZX
00
60
00 -0.3
50 -0.7
50 69kmX
00
60
60 0.4
5 . 2mb
40 1.2
50 0.4
6.0MszX

50 13km
00
00
00
90 0.5
5 . 3mb
6 . 3MszX

KMR

WDC

GRF

Wl T
VBY
LJU
SES
WTS

M I N

CEY
VOY
FUR
FVI
TRI
BNS

ORV

DBN

WTTA

FFC

BRK
ENN

MEM

CTI
FRB

MHC
EKA

WLF
UCC
LRM
CMB

SNF

CDF

DOU

PRS
SFI
ASS
PGD
CRE
PRI

FRI

BN 1
ISA
SMF
AVF

CLC
DUG
LDF

FLN

N 17s 25.00um
E 16s 14. 00um
eS 56 08.00
83.44 322 eP 45 44.00 -0.9
e 48 56.00
83.91 47 eP 45 47 . 80 0.3
e 4553.60 1 8 km
e 46 06.20
83. 94 325 i PC 45 48. 50 1.0
1.9s 102. 00nm 5 . 7mb
Z 18s 7 . 00um 6 . 1Msz
ec 45 52 . 40 12km
e 4602. 30
eS 56 18.50
. 84.08 329 eP 45 48.00 0.0

84.35 320 e(P) 45 50.00 0.4
84.43 320 eP 45 48.50 -1.5
84.49 34 ePd 45 49.70 -0.6
84.56 328 eP 45 51 .00 0.5
1.5s 55 . 00nm 5 . 6mb
84.63 46 ePd 45 51.00 -0.3
e 45 56.70 18km
84. 68 320 eP 45 51 . 20 -0.1
84.80 321 eP 45 51 . 70 -0.2
84.88 324 i PC 45 53.20 1.0
85.06 322 P 45 53. 00 -0.1
85.06 321 eP 45 52.40 -0.7
85.09 327 ePd 45 53.80 0.7
Z 15s 7.80um 6.2MszX
85. 14 47 eP 4553.70 0.0
e 4611.90 65kmX
e 46 12.00
85.23 329 eP 46 10.00 16. 2X
Z 14s 9.00um 6.3MszX
eS 56 28.00
85.26 323 eP 45 53.50 -0.8
1.4s 56.30nm 5.6mb
i 4608.00 50kmX
i 46 17 .30
e 4914.00
85.49 27 ePc 45 54.00 -1.1
0.8s 34.00nm 5.6mb
85.59 49 e(P) 45 57 .40 1.5
85.80 328 eP 45 56.50 -0.2
1.7s 1 25 . 00nm 5 . 8mb
e 46 15.00 66kmX
85.87 328 PC 45 56.90 -0.2
PP 49 24.30
86.01 322 P 45 58.30 0.2
86. 20 8 eP 45 58. 00 -0.4
0.9s 47.00nm 5.7mb
86.30 49 «(P) 45 59.50 -0.2
86.30 335 P 45 59 . 00 -0.1
1.9s 49.70nm 5.4mb
86.45 327 iP 46 00.26 0.4
86.50 328 P 46 05.00 4.8X
86.72 38 eP 46 02.00 0.3
86. 72 48 ePd 46 02. 10 0.5
« 46 07.90 18km
e 46 20.30
86.74 328 P 46 01 .00 -0.3
PP 49 30.40
86.74 325 eP 4601.90 0.3
1.8s 51 . 80nm 5 . 5mb
86. 88 328 P 46 03. 10 1.0
SKS 56 42.00
87.05 50 «P 46 03.60 0.4
87.24 320 P 46 06. 10 2.2
87 .31 319 P 46 06. 80 2.4
87. 34 320 P 46 06. 60 1.9
87 .37 320 P 46 10. 40 5. 7X

87 .62 49 e(P) 4608.10 2.0
e 4612.90 15km
87.76 48 eP 4606.90 0.3
e 4612.70 1 8km
e 46 25.20
89.31 323 P 46 30.50 16. 5X
89.35 49 eP 46 1 1 .00 -3.3X
89.65 326 eP 46 15.10 -0.3
89.79 326 eP 46 15.80 -0.2
1.4s 1 0 . 90nm 4 . 9mb
89 . 83 48 eP 4617.00 0.4
90. 1 0 43 P 4618.80 0.9
90. 1 1 329 «P 46 17.30 -0.2
1.4s 26 . 15nm 5 . 3mb
90.15 329 «P 46 17.40 -0.3
1.5s 31. 35nm 5 . 3mb

21

03d 08h

BW06 90.28 39 P 46 19.30 0.6
1.4s 24 . 65nm 5 . 3mb
SBB 90.35 49 eP 46 21.00 2.0
GRR 90.60 329 eP 46 19.80 0.1
1.5s 3 1 . 35nm 5 . 4mb
GSC 90.66 48 eP 46 22.00 1.6
TCP 90.70 326 eP 46 20.30 0.0
OAU 90.88 42 P 46 22.40 0.8
LPF 90.94 329 eP 46 21.50 0.2
1.5s 52 . 25nm 5 . 6mb
MFF 91.59 328 eP 46 24.90 0.5
1.5s 31. 35nm 5 . 5mb
PLM 91.79 50 eP 46 26.00 0.2
RSSD 92.26 35 P 46 27.80 0.0
1.5s 66.24nm 5. 8mb
BAR 92.32 50 eP 46 26.00 -2.0
GLA 93.33 49 eP 46 34.00 1.3
ALQ 97.36 43 eP 46 52.00 0.7
Z 1 9s 1 . 30um 5 . 4Msz
NVL 126.32 201 PKPc 52 21.00 1.4
AIA 143.10 171 ePKP 52 47.00 -4.0X
NNA 150.34 60 iPKPc 53 09.50 5. IX
1.2s 45 . 3 1 nm
LPB 159.72 55 PKP 53 19.20 2.0X
Z 22s 1 . 48um 5 . 8Msz
CCH 161.67 53 PKP 53 22.30 3 . 3X
S.D. - 1.0 on 149 of 176 obs.

AUG 03, 1991 08h 44m 48.14± 0.89s 41.923 N ± 6.2km 23.172 E ± 8.6km DEPTH - 10.0km (geophy s i c i s t)
GREECE-BULGARIA BORDER REGION (363)
MD 2 .5 (THE) .

MMB 0.53 129 i Pgc 44 57.00 -1.9
VTS 0.67 2 ePg 45 01.00 -0.5
KNT 0.79 195 ePd 45 02.92 -0.6
eS 45 13.00
SRS 0.86 158 ePd 45 05.68 0.9
eS 45 15.04
SOH .11 173 eP 45 08.60 -0.4
GRG .13 211 ePd 45 09.80 0.5
eS 45 24.56
PLD .16 80 ePg 45 12.00 2.3
RZN .18 101 iPgc 45 10.00 -0.3
THE .30 187 ePc 45 12.72 0.6
eS 45 29.00
BUC 3.28 40 eP 45 40.00 -0.6
S.D. - 1.3 on 10 of 10 obs.

& AUG 03. 1991 09h 22m 03.63s
58 . 927 N 1 53 . 952 W
DEPTH - 7.8km
KODIAK ISLAND REGION (13)
<AE 1 C>. ML 2.8 (AE 1 C) .

CDD 0.16 89 PC 2207.16 0.0
MCNL 0.33 323 Pd 22 10.18 -0.1
AUI 0. 49 33 PC 22 1 3. 47 -0.1
S 22 20.98
AUH 0.51 31 PC 2214.19 0.3
AUE 0.53 34 PC 22 14.42 0.2
BGM 0.81 306 eP 22 17.93 -1.6
PDB 0.87 352 iPd 22 19.35 -1.2
eS 22 31 .59
SY I 0.87 111 ePc 22 19.40 -1.2
eS 22 31 . 75
HOM 1.39 57 eP 22 28.48 -0.9
eS 22 47.88
KDC 1.41 146 ePc 22 28.96 -0.6
CNPM 1.52 66 ePc 22 30.02 -1.2
eS 22 50.45
RED 1.61 21 ePc 22 31.93 -0.6
eS 22 53.29
RSO 1.66 21 ePc 22 32.88 -0.4
ROW 1.66 20 ePc 22 32.88 -0.5
eS 22 55.06
REF 1.69 21 ePc 22 33.29 -0.5
eS 22 55. 13
RON 1.70 20 ePc 22 33.38 -0.5
eS 22 55.43
NCT 1.72 17 eP 22 33.62 -0.5
NNL 1.76 49 i PC 22 35.09 0.5
BRLK 1.78 61 ePc 22 34.20 -0.8
eS 22 57.59
DFR 1.79 20 eP 22 34.74 -0.4
RDT 1.83 25 ePc 22 35.14 -0.5

eS 22 58.39
SVW 2.34 340 eP 22 42.22 -0.9
CKL 2. 42 19 eP 22 44. 45 0.2
SPU 2.45 22 eP 22 44.27 -0.4
SLKM 2.47 48 eP 22 44.61 -0.2
BGL 2.47 18 eP 22 45.93 1.0
CGLM 2.58 21 eP 22 46.43 0.8
SEW 2.58 61 eP 22 47.20 0.8
NCG 2.64 19 eP 22 47.21 -0.2
SUA 3.01 31 eP 22 52 . 66 0.1
PMS 3.20 42 eP 22 55.66 0.4
SKT 3.29 20 eP 22 56.47 0.0
KNIM 3.46 63 eP 22 58.20 -0.7
33 obs. ossoc i a t ed

& AUG 03. 1991 89h 59m 49.80s
34 . 090 N 1 1 7 . 31 0 W
DEPTH - 17.0km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 3.5 (PAS). Felt (V)
ot Highlond ond (III) ot Alto
Lomo, Moreno Valley, Norton Air Force Base, Ontario, Redlands
ond Son Bernordino.

RVR 0.11 209 Pd 59 53.40 -0.1
PEC 0.23 148 Pd 59 55.30 0.0
SSK 0.34 291 PC 59 57.20 0.0
MWC 0.63 282 PC 00 01.60 -0.6
PAS 0.72 275 PC 00 02.80 -0.7
SBB 0. 73 325 PC 00 03. 10 -0.7
PLM 0.82 153 Pd 00 04.90 -0.5
TPC 1.05 89 PC 00 09.00 -0.1
CIS 1.14 234 PC 00 09.70 -1.0
CPE 1.22 172 Pd 00 10.80 -1.2
GSC 1 . 28 19 Pd 0012.60 -0.3
BAR 1.50 159 Pd 00 15.80 -0.3
CLC 1.74 352 Pd 00 18.70 -0.8
ABL 1.75 296 eP 00 19.10 -0.7
GLA 2.32 116 eP 00 27.00 -0.8
BCH 2.53 296 eP 00 30.00 -1.8
PHAM 3.08 305 eP 00 38.00 -0.6
BONR 3.94 349 eP 00 51.30 0.2
TNP 3.98 1 eP 00 51 . 50 -0.1
19 obs. associated

7, AUG 03, 1991 10h 38m 59 . 1 3± 0.72s
43.055 N ± 7.3km 0.479 W ± 5.5km
DEPTH - 10.0km (geophys i c i s t)
PYRENEES (378)
ML 1 .0 (STR) .

ESCF 0.07 289 Pg 39 01.16 -0.4
S 39 02.32
JAU 0.08 102 Pg 39 01.82 0.0
Sg 39 03. 17
OGE 0.11 2 Pg 39 02. 09 0.0
ATE 0.16 281 Pg 39 02.80 -0.1
Sg 39 05.38
LHE 0.18 216 Pg 39 03.12 0.0
Sg 39 05.66
ISSF 0.23 263 Pg 39 04.44 0.2
Sg 39 07.85
MADF 0.27 290 Pg 39 05.03 8.3
Sg 39 09 . 1 4
S.D. - 0.3 on 7 of 7 obs.

% AUG 03, 1991 11h 43m 54.84± 1.68s
45.139 N ±11. 3km 2.827 E ±12. 5km
DEPTH - 5.0km (geophys i c i s t)
FRANCE (538)
ML 2. 1 (LOG) .

CAF 0.58 249 Pg 44 06.10 -0.4
Sg 44 15.50
RJF 0.94 281 Pn 44 13.20 -0.1
Pg 4414.00
Sg 44 27.90
MAF 1.10 351 Pg 44 15.70 -0.2
Sg 44 31 . 00
TCF 1 .23 340 Pg 44 18. 90 0.7
Sg 44 35.60
LPO 1.25 249 Pg 44 19.10 0.6
Sg 44 36.80
BGF 1 . 42 1 Pg 44 21 . 40 0.1
Sg 44 38.60
LSF 1.44 321 Pn 44 21.00 -0.6

Pg 44 22.60
Sg 44 42.20
SMF 1.67 25 Pg 44 24.70 -0.1
Sg 44 45.50
S.D. -0.5 on 8of Sobs.

AUG 03, 1991 I2h 53m 21.77± 1.40s
32.925 S ± 9.0km 70.270 W ± 1 0 . 0 km
DEPTH - 108.0 ± 18.1 km
CHILE-ARGENTINA BORDER REGION (127)

JACH 0.36 312 iPc 53 37.60 -0.3
iS 53 50 .00
PEL 0.41 238 iPd 53 38.10 0.0
iS 53 51 .60
SAN 0.62 212 iPd 53 39.70 0.1
iS 53 53.30
ROCH 0.62 265 i PC 53 40.00 0.2
iS 53 54.00
PCH 0.72 196 iPd 53 40.50 0.0
IS 53 55.00
TACH 0.92 217 iPd 53 42.00 -0.2
iS 53 57.60
CHCH 1.06 198 iPd 53 44.00 0.3
i S 54 00.90
IHA 1.16 265 eP 53 45.00 0.2
iS 54 02. 70
LCCH 1.22 243 iPc 53 45.60 0.1
iS 54 03.50
LNV 1.40 223 iPd 53 47.20 -0.4
IS 54 06.50
ZON 1.93 45 eP 53 55.00 0.7
RTLL 2.21 44 iP 53 57.20 -0.7
S 54 24. 10
S.D. -0.4 on 12 of 12 obs.

% AUG 03, 1991 13h 53m 35 . 40± 1 . 1 6s
33.876 S ±13. 7km 70.765 W ±11. 5km
DEPTH - 33.0km (normal)
CHILE-ARGENTINA BORDER REGION (127)

CHCH 0.11 121 iPd 53 41.70 0.4
iS 53 53.70
TACH 0.26 327 ePd 53 44.00 1.2
iS 53 58.00
PCH 0.33 39 iPd 53 43.50 -0.2
iS 53 56.20
LNV 0.54 261 iP 53 46.00 -0.6
PEL 0.73 5 eP 53 48.50 -0.9
iS 54 05.00
S.D. -1.2 on 5of Sobs.

% AUG 03, 1991 I5h 51m 34.55± 0.69s
42.776 N ± 6.2km 12.953 E ± 1 0 . 3 km
DEPTH - 10.0km (geophys i c i s t)
CENTRAL ITALY (381)

ASS 0.36 324 Pd 51 41.40 -0.7
i S g 51 47.30
MNS 0.44 207 P 51 42.80 -0.7
eSg 51 50.00
AQU 0.54 142 P 51 44.70 -0.7
eSg 51 54.40
ARV 0.72 359 PC 51 47.90 -0.9

iSg 51 59.70
CRE 1.12 320 P 51 56.90 1.2
eSn 52 12.30
SD I 1 .25 149 P 51 59. 10 1.4
SFI 1 . 40 325 P 52 00.30 0.3
PGD 1 . 42 321 P 52 00.70 0.2
S.D. -1.1 on 8of 8 obs .

AUG 03, 1991 17h 51m 26.37± 0.35s
38.959 N ± 3.6km 28.822 E ± 4.5km
DEPTH - 10.0km (geophys i c i s t)
3 . 6mb (1 abs .)
TURKEY (366)
MD 4.0 (ATH). Felt ot Kutohya.

DST 0.66 347 iPg 51 39.30 -0.3
KHL 0.84 139 iPg 51 44. 10 1.5
ALT 1.01 84 ePg 51 47.10 1.6
eSg 52 01.10
IZM 1.34 246 iPn 51 50.80 -0.3
YLV 1.66 15 iPn 51 55.60 -0.1
GPA 1.76 40 iPn 51 57.80 0.7
YER 1.87 193 iPn 52 00.50 1.7

03d 17h

22

KGT 1.90 322 iPn 51 58.90 -0.1
EYL 1.91 32 ePn 51 58.90 -0.4
HRT 1.97 19 iPn 51 59.80 -0.4
PRK 2.01 279 ePn 52 00.20 -0.4
eSn 52 30.00
I SK 2.11 5 i Pn 52 01 . 80 -0.4
E2N 2.12 295 ePn 52 01.20 -1.1
ITU 2.15 4 ePn 51 06.00 -56. 7X

i Sg 51 35 . 00
CTT 2.21 352 iPn 52 03.20 -0.4
ELL 2 . 37 158 iPn 52 07 . 50 1.5
BBTK 3.13 73 eP 52 28.00 10. 6X
i S 53 14 . 00
RDO 3.34 312 ePn 52 21.00 1.4
KDZ 3.74317iPc 5227.00 1.6
R2N 4.16 312 IP 52 37.00 5.6X
PLD 4.44 316 IP 52 35.00 -0.3
KAS 4.49 56 eP 52 52.00 16. 0X
VAY 5.34 298 ePn 52 52.70 4.6X
SKO 6<38 300 eP 53 16.00 13. 2X
MLR 6,87 343 eP 53 10.00 0.3
CMP 6,90 337 ePd 53 10.00 0.0
VR I 7,08 348 eP 53 12.00 -0.5
ADI 7 83 137 eP 53 22.40 -0.7
ATZ 8.05 138 eP 53 25.50 -0.7
JVI 8.80 141 eP 53 35.00 -1.6
DS I 9.11 142 eP 53 39.90 -1.0
PRNI 9.98 148 eP 53 51.20 -1.7
NB2 24.67 339 P 56 48.20 -0.1
0.8s 1 . 20nm 3 . 6mb
S . D . = 1.0 on 27 of 33 obs .

? AUG 03, 1991 17h 55m 51.90±10.02s
33.770 S ±29. 4km 70.113 W ±81. 5km
DEPTH « 33.0km (normol)
CHILE-ARGENTINA BORDER REGION (127)

PCH 0.37 294 iPc 55 59.70 -0.9
i S 56 07 . 60
CHCH 0.48 250 iPd 56 01.20 -1.1
i S 56 09 . 50
TACH 0.70 279 iPd 56 05.50 0.2
i S 56 1 7 . 50
PEL 0.79 322 i PC 56 06.50 -0.1
iS 56 19. 50
LNV 1.10 260 eP 56 11.50 0.6
iS 56 28. 50
S . D . * 1 . 0 on 5of Sobs.

% AUG 03, 1991 18h 11m 50.95± 0.92s
39.089 N ± 8.2km 28.623 E ± 7.8km
DEPTH » 10.0km (geophy s i c i s t)
TURKEY (366)
Felt o t Ku tohyo .

DST 0.52 0 iPg 12 01 . 30 -0.1
eSg 12 09.30
1 ZM 1.27 237 ePn 12 14.30 -0.2
EDC 1.39 335 iPn 12 16.60 0.3
YLV .58 21 iPn 12 19.00 -0.2
KGT . 70 324 iPn 12 21 . 40 0.6
GPA .77 47 iPn 12 22.40 0.6
EYL .89 38 ePn 12 23.90 0.2
HRT .91 25 iPn 12 23. 30 -0.5
I SK 2.00 9 ePn 12 25.00 -0.1
CTT 2.06 356 iPn 12 25.40 -0.6
S . D . -0.5 on 10of 10 obs .

AUG 03. 1991 18h 29m 36 . 66± 0.67s
60.436 S ±14. 8km 51.504 W ± 1 7 . 5 km
DEPTH - 10.0km (geophy s i c i s t)
5 . 2mb (Sobs.)
SCOT 1 A SEA (150)

Al A 7 i 57 225 eP 31 31 . 00 1.4
NVL 26.74 139 PC 35 18.00 0.4
e 35 50.00
SPA 29.73 180 iPd 35 45.50 0.6
1.0s 50.00nm 5. 3mb
i 36 1 7 . 70
BUL 67,84 92 i PC 40 33.30 -3.8X
MTD 72116 93 i PC 41 03.30 -0.1
LIC 75 76 48 P 4124.70 0.6
KIC 75 99 48 P 4126.10 0.7
0.''s 43.00nm 5.7mb
TIC 7615 48 P 41 27 .06 0.8
BFD 82106 191 eP 41 55.00 -3.0

MUN 87.37 170 eP 42 25
STK 87.39 191 eP 42 25
0.8s 1 . 50nm
COOL 88.82 174 eP 42 32
WR2 99 . 76 1 86 eP 4321
0.6s 5 . 1 0 n m
WRA 99.77 186 P 43 21
0.7s 4 . 20nm
NFS 130.37 37 ePKP 48 42
0.6s 1 . 1 0nm
NB2 130.39 35 PKP 48 47
1.2s 8.1 0nm
MBC 142.98 338 ePKP 49 69
0.6s 11. 00nm
S . D . =1.2 on 15 of

AUG 03, 1991 1 8h 31m 58
22 .552 S ± 5 . 3km 66.164
DEPTH « 255 . 2 ± 7 . 6 km
4 . 7mb (17 obs .)
JUJUY PROVINCE, ARGENTINA

SLA 2.25 164 i PC 32 46
S 33 22
LPB 6.26 343 P 33 32

(PP) 34 47
ARE 7.87 319 IP 33 49
iS 35 12
RTLL 8.98 193 i PC 34 03
JACH 10.83 200 iPd 34 29
I TB1 1 1 . 00 1 03 PC 3437
PEL 11. 28200i PC 3434
i 34 40
SAN 1 1 . 56 1 99 eP 34 38
PCH 1 1 . 67 1 98 eP 3440
LCCH 1 1 .88 202 eP 3441
CHCH 12.01 198 eP 34 43
LNV 12.26 201 eP 34 45
NNA 14.63314 i P 35 15
0.7s 11. 64nm
eS 37 54.
VAO 17.71 95 eP 35 49.
e 36 02.
BAD 18.49 71 ePd 35 57.
BMA 20.32 95 (P) 36 18.
SOB1 27.63 65 eP 37 22.
e 38 47.
ANMO 68.79 325 eP 42 38.
0.9s 1 . 05nm
BUL 86 . 66 110 i PC 44 13.
EPF 89.37 42 eP 44 28.
0.7s 8 . 80nm
LFF 90.62 41 eP 44 33.
0.6s 7 . 20nm
MFF 90.98 39 eP 44 35.
0.7s 9 . 90nm
LPF 91.24 38 eP 4435.
1.0s 10. 00nm
CAF 91.42 4 1 eP 4437.
0.7s 3 . 30nm
GRR 91 .54 37 eP 44 37 .
0.7s 6 . 60nm
LSF 91 .78 40 eP 44 38.
0.7s 3 . 30nm
FLN 91 .95 37 eP 44 38.
1.0s 8 . 00nm
LDF 92.06 37 eP 44 39.
0.7s 5 . 50nm
TCF 92.20 40 eP 44 40.
1.0s 4 . 00nm
BGF 92.72 40 eP 44 43.
1.0s 10. 00nm
AVF 93.14 40 eP 4444.
SMF 93.36 40 eP 44 46.
1.2s 11. 90nm
SSF 93.37 40 eP 44 45.
LBF 93.61 40 eP 44 46.
LOR 93.68 40 eP 44 47.
1.1s 6 . 1 0nm
LPL 94.59 42 eP 44 52.
1.0s 6 . 00nm
LPG 94.59 42 eP 44 52.
1.0s 9 . 00nm
CDF 96.25 40 eP 44 58.
WTTA 98.40 42 eP 45 09.
0.9s 5 . 40nm
GBA 144.35 98 PKPc 51 05.

00 0.2
80 0.9
4 . 3mb
20 9.4
70 -9.5
5 . 3mb
00 -1.2
5 . 1mb
00 -5.3X

00 -9.4

50 -0.7

7 obs .

62± 0.59s
W ± 8 . 0km

(128)

20 1.9
00
00 0.8
00
00 -2.3
50
30 -1.9
50 1.0
50 6.9X
50 0.3
00
00 9.3
00 0.9
00 -0.6
50 0.3
00 -1.3
70 0.1
4 . 4mb
00
00 -1.2
30
50 -0.9
00 1.4
80 -2.2
70
40 1.0
3.6mb X
50 -1.7
20 0.8
4 . 8mb
40 0.4
4 .8mb
10 0.5
4 . 9mb
60 -0.2
4 . 7mb
30 0.5
4 . 4mb
00 -0.1
4 . 7mb
60 0.2
4 . 4mb
90 -0.1
4 . 7mb
40 -0.2
4 . 7mb
50 0.2
4 . 4mb
00 0.3
4 . 8mb
80 0.2
00 0.4
4 . 8mb
70 0.1
80 0.0
00 -0.1
4 . 6mb
60 1.0
4 . 7mb
80 1.1
4 . 9mb
80 -0.1
00 0.3
4 . 9mb
50 -1.0

0.6s 1 6 . 1 0nm
HYB 146.50 92 ePKPd 51 12.70 2 . 6X
GKN 153.08 72 PKP 51 27.94 7.9X
DMN 153.53 73 PKP 51 28.82 8. IX
KKN 153.67 73 PKP 51 26.30 5.4X
PKI 153.80 73 PKP 51 27.70 6.5X
GUN 154.18 72 PKP 51 23.80 2.0X
S . D . =1.0 on 39of 46 obs .

? AUG 03. 1991 18h 47m 01.88± 3.02s 10.622 S ±27. 4km 121.344 E ±20. 7km
DEPTH = 33.0km (normol)
4 . 3mb (2 obs .)
SAVU SEA (288)

KUPT 2.27 78 eP 47 38.00 0.1
KNA 8. 84 126 eP 49 10.50 0.1
eS 50 54.00
MTN 9.84 104 eP 49 18.00 -6 . 1 X
eS 51 07.00
MBL 10.58 188 eP 49 38.20 3.9X
eS 51 42.00
NANU 13.11 204 eP 50 08.30 -0.1
0.2s 4 . 00nm 5 . 1mb X
eS 52 35.00
WR2 15.60 128 eP 50 39.60 -1.5
0.4s 7.70nm 4. 3mb
eS 53 33.40
ASPA 17.65 139 eP 51 08.50 1.5
0.4s 13. 70nm 4 . 4mb
eS 5431.10
S . D . =1.5 on 5 of 7 obs.

AUG 03, 1991 18h 50m 25.78± 2.55s 10.018 S ± 9.1km 150.773 E ±19. 7km
DEPTH = 70 . 2 ± 20. 2 km
4 . 3mb (4 obs .)
EAST PAPUA NEW GUINEA REGION (207)

PMG 3.62 279 eP 51 21.00 0.4
eS 52 36.00
OIS 15.02 224 iPd 53 54.00 -1.5
0.2s 5 . 00nm 4 . 4mb
RMO 16.49 186 eP 54 15.00 0.8
i 54 23.00
MTN 19.46 260 eP 54 51.00 1.3
STK 23.36 200 eP 55 28.40 -0.4
0.8s 3.70nm 3. 9mb
GUA 24.11 346 eP 55 36.00 -0.2
PJG 24.17 346 eP 55 36.00 -0.8
CHTO 58.59 299 eP 00 18.60 0.5
1.2s 2 . 08nm 4.1mb
LZH 63.67 319 Pd 00 51.50 -0.8
1.0s 26 . 00nm 5 . 2mb
Z 10s 0.32um 4.8MsrX

pP 00 58.00 2lkmX
GUN 73.18 303 P 01 49.94 -1.7
PKI 73.45 303 P 01 53.20 0.0
KKN 73.63 303 P 01 54.46 0.3
YAK 73.67 350 eP 01 54.80 1.5
DMN 73.71 303 P 01 55.26 0.6
GKN 74.24 303 P 01 57.70 0.1
S . D. -1.1 on 15 of 15 obs .

% AUG 03, 1991 18h 51m 25.89± 1.37s 34.020 S ±13. 6km 71.094 W ± 7.0km
DEPTH - 33.0km (normol)
NEAR COAST OF CENTRAL CHILE (135)

LNV 0.27 284 i PC 51 33.50 0.2
i S 51 42.50
CHCH 0.38 77 iPd 51 34.70 0.0
IS 51 45.20
TACH 0.39 20 i Pd 51 36.00 1.1
i S 51 46 .50
PCH 0.63 51 i Pd 51 38.10 -0.3
iS 51 51 .00
SAN 0.67 33 ePd 51 39.00 0.1
iS 51 52.30
LCCH 0.67 324 i PC 51 38.50 -0.4
iS 51 51.50
PEL 0.94 21 iPd 51 43.00 0.2
iS 51 59.00
ROCH 1.05 4 iPc 51 44.50 0.0
iS 52 01 .50
JACH 1.40 18 iP 51 48.50 -0.9
iS 52 09.50

23

03d 18h

S.O. - 0.6 on 9 of 9 obs.

T. AUG 03, 1991 19h 38m 01.08± 0.78s
42.792 N ± 5.7km 12.882 E ±11. 8km
DEPTH = 10.0km (geophy s i c i s t)
CENTRAL I T ALY (381)

ASS 0.32 330 P 38 07.50 -0.3

i Sg 38 13. 00
MNS 0.43 200 Pd 38 09.20 -0.7
eSg 38 1 6 . 00
ARV 0.71 4P 3814.10 -1.0

i Sg 38 25 . 50

eSg 38 36.60
SDI 1 .29 147 P 38 25. 66 0.6
SFI 1.36 327 P 38 26.40 0.5
PGO 1.38 322 P 38 27.00 0.6
S.D. - 0.8 on 7 of 7 obs.

AUG 03. 1991 20h 15m 27.79± 1.05s

DEPTH - 10.0km (geophy s i c i s t)
3 . 7mb (3 obs .)
SOUTHERN GREECE (368)
ML 3. 9 (ATH) . MD 3.9 (THE) .

VLS 1.11 340 eP 15 47.80 -0.9
eS 1604.00
VLI 1 . 55 105 eP 1556.70 1.2
AGG 2.14 27 ePd 16 06.06 2.1
eS 16 31 .00
ATH 2.26 67 eP 16 06.30 0.5
eS 16 42. 00
I GT 2.47 347 ePd 16 1 0.53 1.8
KEK 2.77 339 eP 16 15.00 2.0
LIT 3.17 20 iPc 16 20 . 34 1.7
eS 16 56 . 82
KZN 3.22 10 eP 1621.70 2.3
PAIG 3.46 35 iPc 16 22.28 -0.5
i S 1701.65
FNA 3.66 4 ePc 16 26.61 1.0
eS 1 7 08 . 60
OUR 3.93 35 ePc 16 28.74 -0.6
GRG 3.96 15 ePd 16 30.89 1.0
LCI 4.02 324 PC 16 29.60 -1.1
SOI 4.09 285 P 16 32. 00 0.3
NPS 4.12 116 eP 16 48.00 15. 9X
KNT 4.27 19 eP 1 6 34 . 79 0.5
iS 17 22-93
VAY 4.34 15 ePn 16 35.00 -0.3
CZ I 4.41 300 P 1637.80 1.5
eSn 17 23.20
SRS 4.44 25 iPd 16 35.82 -0.9
ATN 4.57 285 P 16 39.00 0.5
PRK 4.61 61 eP 1647.00 7 .9X
BRT 4.80 322 P 16 40.30 -1.6
SKO 4.85 3 ePn 16 41.00 -1.5
MMB 4.91 24 eP 16 42.00 -1.3
MEU 4.91 272 P 16 43.10 -0.4
MNO 5. 13 281 P 1646.80 0.1
MGR 5.26 307 P 16 48.50 0.2
RDO 5.30 40 eP 16 47.20 -1.7
RZN 5.36 31 iPc 16 49.00 -0.9
KDZ 5.63 35 i Pd 16 52.00 -1.6
SCO 5.65 309 P 16 54.50 0.6
VTS 5.70 16 eP 16 57 . 00 2.4
PLO 5.71 28 ePg 17 04.00 9.4X
8UC 8.21 26 eP 17 24 00 -5.7X
MLR 9.12 22 eP 17 49.00 6 . 5X
KHC 13.18 338 eP 18 47.00 9 . 5X
PRU 13.69 342 eP 18 52.50 8.3X
Z 11s 0 . 20um
N 12s 0 . 30 urn
E 12s 0 . 40 urn
CLL 15.30 340 eP 19 10.00 4.8X
HFS 23.50 351 eP 20 35.40 -2.9
0.4s 0 . 8<?nm 3. 6mb
NUR 23.51 4 eP 20 48.00 9.6X
EKA 24.54 326 Pd 20 47.60 -0.8

1.1s 5.30nm 4.1 mb
NB2 24.73 349 P 20 47.70 -2-6
0.7s 0.60nm 3.4mb
S . D . - 1 . 5 on 33 o f 42 obs .

AUG 03, 1991 20h 22m 05.07± 0.59s
27.967 S ± 6.5km 66.883 W ±14. 0km

DEPTH - 218.3 ± 18.9 km

SLA 3.46 21 iPd 23 01.00 -0.6
S 23 42 .50
RTLL 3.62 202 i Pd 23 03.00 -0.5
(S) 23 33 . 00
ZON 3.89 203 iPc 23 08.00 1.2
ANT 5.30 322 eP 23 25.50 1.1
JACH 5.69 213 eP 23 30.50 1.1
PEL 6.11 212 eP 23 34.50 -0.3
i 2349. 00
SAN 6.36 210 eP 23 38.00 0.1

TACH 6.65 211 eP 23 41.20 -0.5
CHCH 6.77 208 iPc 23 43.30 0.1
LCCH 6.81 215 eP 23 43.00 -0.7
LNV 7.12 212 iP 23 46.10 -1.6
LPB 11.44 354 P 24 43.00 -0.7
VAO 18.64 79 eP 26 09.50 0.6
S.D. -1.0 on 14 of 14 obs .

* AUG 03, 1991 21h 20m 20.74± 1.67s 5.498 S ± 6.5km 153.797 E ±12. 0km DEPTH - 60 . 5 ± 12.8 km
4.9mb (9 obs.) 3.8Msz (1 obs.)
NEW IRELAND REGION (190)

RAB 2.08 309 i Pd 20 55.00 1.2
iS 21 32.00
LAT 6.86 260 i Pd 22 00.00 -0.9
HNR 7.24 123 P 22 40.00 33. 7X
S 23 30.00
PMG 7.65 239 i Pd 22 10.80 -1.2
eS 2341.00
CTAO 16.25 206 iPc 24 07.20 0.6
CIS 20.35 221 eP 24 54.00 -0.8
0.7s 8.00nm 4. 2mb
DZM 20.52 145 iPc 24 56.00 -0.6
PJG 20.93 335 eP 25 01.00 0.3
RMO 21.42 192 eP 25 12.00 6.4X
e 25 24.00
WR2 23.74 231 iPd 25 29.20 0.8
0.6s 6.40nm 4.3mb
i 25 39.00
i 29 1 1 .90
COO 25.01 184 iPd 25 43.10 2-5
0.9s 28.00nm 4.8mb
ASPA 26.33 225 eP 25 52.10 -0.8
1.3s 8 . 50nm 4 . 1mb
Z 20s 0.30um 3.8MSZ
i 29 17 . 70
STK 28.63 202 eP 26 13.80 0.2
0.8s 1 . 50nm 3 . 7mb X
BJI 57.02 326 eP 30 01.00 -1.7
NST 57.14 293 eP 30 05.00 1.1
KHT 58.31 291 eP 30 12.40 0.3
CHG 59.18 296 eP 30 18.70 0.5
1.0s 16. 25nm 5 . 1mb
CHTO 59.18 296 eP 30 18.70 0.5
0.9s 13. 43nm 5 . 1mb
pP 30 28.80 33kmX
LZH 62.42 316 i PC 30 40.50 0.4
1.2s 53 . 00nm 5 . 5mb
pP 30 50.50 32kmX
SHL 67.51 300 iP 31 13.00 -0.2
GUN 73.33 301 P 31 49.12 0.5
0.7s 30.00nm 5.3mb
PK I 73.64 301 P 31 50.30 -0.1
KKN 73.81 301 P 31 51 . 28 0.0
DMN 73.91 301 P 31 51.98 0.1
GKN 74.41 301 P 31 54.34 -0.3
SPA 84.54 180 iPc 32 47.90 -0.5
1.0s 17. 50nm 5. 1mb
CUE 90.01 300 eP 33 16.00 0.3
MBC 94.55 14 eP 33 34.00 -1.4
MTD 118.75 248 iPKPd 39 05.10 0.3
8UL 120.42 243 iPKPc 39 04.90 -3.1X S.D. - 0.9 on 27 of 30 obs.

% AUG 03, 1991 21h 24m 52.76± 0.60s
38.986 N ± 5.5km 28.786 E ± 5.9km DEPTH - 15. 0 ± 6.3 km
TURKEY (366)

DST 0.63 349 i Pg 25 04.10 -0.9
eSg 25 12.60

KHL 0.88 139 ePg 25 08.90 -0.3
eSg 25 22.40
ALT .03 86 ePn 25 12 .00 0.1
I ZM .33 244 ePn 25 16 .80 0.1
IZI .45 21 ePn 25 18.20 -0.2
EDC .53 333 i Pn 25 20.50 0.9
YLV .64 16 iPn 25 20.90 -0.3
GPA .75 42 iPn 25 23.40 0.6
KGT .86 322 ePn 25 24.40 0.2
EYL 1.90 33 ePn 25 25.30 0.3
HRT 1 .95 20 iPn 25 25 . 80 0.1
CTT 2.18 353 ePn 25 28.40 -0.5
S.D. -0.6 on 12 of 12 obs .

It. AUG. 03, 1991 21h 39m 59.32s
60 . 41 7 N 1 43 . 1 33 W
DEPTH - 1 1 . 0km
SOUTHERN ALASKA (2)
<AEIC>. ML 2 .5 (AEIC) .

TGL 0.37 24 iP 40 06.94 -0.1
iS 40 1 3. 10
BALM 0.73 32 iP 40 12.82 -0.9
IS 4023.74
CTGM 1.04 57 iP 40 17.89 -1.1
eS 40 31 .95
GLB 1.08 342 iP 40 17.75 -1.8
eS 40 32.09
VLZ 1.73 296 eP 40 27.61 -1.8
eS 40 49.62
KLU 1.74 310 iP 40 28.04 -1.6
S 40 50.24
VZW 1.80 292 eP 40 28.54 -2.0
eS 40 52.08
TZL 1.97 327 eP 40 31.16 -1.8
GLI 2.01 285 eP 40 32.00 -1.5
eS 40 56 . 13
TOA 2-24 320 eP 40 36.19 -0.8
10 obs. ossoc i o t ed

7. AUG 03, 1991 21h 52m 51.30± 1.07s
38.996 N ± 8.9km 28.752 E ±11. 8km
DEPTH - 10.0km (geophy s i c i s t)
TURKEY (366)

DST 0.62 351 ePg 53 02.60 -1.1
eSg 53 10.60
KHL 0.90 138 iPg 53 08.40 -0.3
IZI 1.45 22 ePn 53 17.90 0.3
EOC 1.51 333 ePn 53 18.20 -0.2
YLV 1.64 17 ePn 53 19.90 -0.4
KGT 1.83 323 ePn 53 23.90 0.8
EYL 1.91 34 ePn 53 25.00 0.8
CTT 2.16 354 ePn 53 28.00 0.1
S.D. - 0.8 on 8 of 8 obs.

7. AUG 03, 1991 22h 58m 1 2 . 80± 0.90S
39.275 N ± 8.0km 27.878 E ± 9.8km
DEPTH - 10.0km (geophy s i c i s t)
TURKEY (366)

DST 0.67 60 ePg 58 25.30 -0.8
eSg 58 35.50
IZM 1.00 209 ePn 58 31.70 -0.1
EDC 1.07 359 ePn 58 32.20 -0.7
KGT 1.26 348 iPn 58 36.40 0.3
IZI 1 .62 49 ePn 58 41 .90 0.3
YLV 1.73 41 ePn 58 44 .20 1.1
S.D. « 0.9 on 6 of 6 obs.

* AUG 03, 1991 23h 02m 48.15± 0.78s
15.123 S ±24. 9km 72.996 W ±20. 3km
DEPTH - 108.8 ± 12.5 km
4 . 2mb (1 obs .)
SOUTHERN PERU (117)

ARE 1.97 133 iPc 03 23.00 1.5
iS 0344.00
NNA 4.87 309 iPc 03 59.50 -0.9
0.5s 387.32nm
i 0404.00
iS 04 53.50
PT10 4.91 308 e(P) 04 01.20 0.3
iS 04 58.50
CCH 6.95 110 P 04 28.50 -0.9
SLA 11.87 145 iPd 05 34.50 -0.8
ITB1 19.88 121 PC 07 13.00 -0.2

03d 23h

24

ITB7 20.26 122 e(P) 07 17.00 -0.1
VAO 25.79 112 eP 08 11.20 0.3

YKA 83.93 342 eP 15 07.90 1.1
0.8s 2 . 40nm 4. 2mb
S . D . = 1.0 on 10 of 10obs.

& AUG 83. 1991 23h 04m 01.30S
37 . 075 ' N 1 21 . 897 W
DEPTH * 9. 0km

CENTRAL CALIFORNIA (39)
<BRK> . ML 2 . 6 (BRK) .

GCC 0.09 241 iPd 04 03.81 0.0
eS 04 05.87
MHC 0.34 37 iPd 04 08.50 0.3
iS 04 1 1 . 10
ARN 0.40 47 iPc 04 09.30 -0.2
SAG 0.48 130 iPc 04 10.13 -0.8

PCC 0.57 318 eP 04 12.40 -0.5
BKS 0.84 342 eP 04 17.10 -0.6
eS 04 28.80
BRK 0.85 340 eP 04 17.20 -0.5
eS 04 28.30
PRS 0.85 150 eP 04 17.20 -0.7
eS 04 29.67
LLA 0.89 121 eP 04 17.60 -0.9
ZSP 0.91 342 eP 04 18.64 -0.2
eS 04 32.30
CMB 1.54 51 ePc 04 29.79 0.8
eS 04 46.90
11 obs. ossocioted

» AUG 03, 1991 23h 18m 17.17± 0.93s 2.219 S ±14. 2km 121.920 E ±13. 3km DEPTH » 33.0km (normol)

SULAWESI (268)

MN I 4.66 39 ePd 19 27.00 -0.1
WR2 21.41 146 iPd 23 07.50 3.0X
0.3s 11.90nm 4. 8mb
ASPA 24.27 152 eP 23 38.90 6.2X
0.3s 7.40nm 4. 7mb
CHG 30.78 314 eP 24 33.00 0.8
CHTO 30.78 314 eP 24 32.20 0.0
0.9s 6.1 8nm 4 . 4mb
STK 34.85 150 iPc 25 07.50 0.1
0.4s 4 . 30nm 4 . 7mb
POO 51.58 296 eP 27 22.80 -0.8
S . D . -0.8 on 5of 7obs.

? AUG 03, 1991 23h 19m 52.12± 3.11s
1.900 S ±18. 0km 99.476 E ±65. 4km
DEPTH - 33.0km (normol)
4 .6mb (4 obs .)
SOUTHERN SUMATERA (274)

IPM 6,62 14 ePd 21 30.00 0.3
0.4s 20.10nm 5.3mb
SNG 9.09 7 eP 22 04.00 -0.1
WR2 38.52 120 iPc 27 12.60 -0.9
0.5s 10.70nm 4.9mb
i 27 22.20
ASPA 39.73 126 eP 27 24.00 0.4
1.3s 8.20nm 4. 3mb
STK 49.61 131 iPd 28 43.10 0.6
0.6s 1 . 90nm 4 . 3mb
YAK 67.78 15 iPd 30 48.20 -0.3
S.D. - 0.7 on 6 of 6 obs.

7. AUG 04, 1991 00h 36m 05 . 80± 2.63s
39.221 N ±18. 9km 23.565 E ±17. 1km
DEPTH 10.0km (geophy s i c i s t)
AEGEAN StA (365)
MD 2.3 (THE) .

PA IG 0.71 7 iPc 36 20 . 46 0.7
eS 36 30.20
AGG 0,98 259 ePc 36 24.54 0.1
eS 36 37.54
OUR 1.16 16 i PC 36 27 . 37 0.0
LIT 1.21317 ePc 36 28. 38 0.1
eS 36 43.50
SOH 1,61 354 ePc 36 34.10 -0.2
SRS 1 :89 1 eP 36 38. 10 -0.4
KNT 2:00 345 ePc 36 39.86 -0.2

S.D. »0.4 on 7of

34.279 S ±62. 4km 71.028
DEPTH - 33.0km (normal)
NEAR COAST OF CENTRAL CHILE

LNV 0.45 315 iPc 48 43.
iS 48 55 .
CHCH 0.46 42 iPc 48 43.
iS 48 56 .
TACH 0.63 7 iPc 48 46.
i S 4900.
PCH 0.78 33 iP 4848.
iS 4903.
PEL 1.17 14 i P 4853.
iS 49 12 .
S.D. -0.1 on 5of

% AUG 04, 1991 01h 35m 36.
46 . 960 N ± 6 . 1 km 6.961
DEPTH = 5.0km (geophysi
SWITZERLAND

ML 1.9 (LDG) .

BSF 0.88 353 Pg 35 53.
Sg 36 06.
HAU 1.13 339 Pg 35 57 .
Sg 36 13.
LPL 1 . 45 186 Pg 36 03.
Sg 36 23.
LPG 1.47 186 Pg 36 03.
Sg 36 24.
LOR 2.14 279 Pg 36 1 3 .
Sg 36 39.
S.D. -0.1 on 5of

AUG 04, 1991 01h 39m 39.
37 . 752 N ±1 1 . 3km 16 . 400
DEPTH - 22 .7 ± 6 . 7 km
IONIAN SEA

ML 2.8 (ROM) .

SOI 0.42 320 Pd 39 48.
eSg 39 53.
GMB 0.59 314 P 39 51 .
ATN 0.85 299 Pd 39 54.
eSg 40 08.
MEU 1 .34 241 P 40 03.

eSg 40 19.
MNO 1 .36 278 P 40 04 .

eSg 40 20.
PZI .38 239 P 40 03.
CZI .48 352 P 40 05.
ACI .60 355 P 40 09.
ROI .82 4 P 40 10.
GIB .89 278 P 40 1 1 .
eSn 40 34.
CSI 2.02 358 P 40 15.
MMN 2.16 352 P 40 1 5 .
MGR 2.47 345 P 40 17.
USI 2.71 292 P 40 21 .
LCI 2.85 25 P 40 24 .
SCO 2.93 343 P 40 25.
BRT 3.18 1 1 P 40 27 .
SDI 4 . 42 334 P 40 46.
SKO 5.73 41 eP 41 55.
S.D. -1.2 on I8of 1

AUG 04, 1991 01h 40m 13.

DEPTH - 10.0km (geophysi
NORTHERN ITALY

ML 1.5 (VIE).

OSS 0.25 281 iPc 40 18.
OGA 0.43 57 iPgc 40 21 .
VDL 0.73 258 iPd 40 26.
SCE 0.92 64 iPgc 40 30.
CT I 0.99 126 P 40 32.

eSg 40 46.
WTTA 1 .00 51 ePg 40 32 .
e 40 35.

iSg 40 45.
TMA 1 .25 245 ePc 40 36.
FVI 1 .57 91 P 40 42.
eSn 41 02.

7 obs.

W ±1 1 . 2km

(135)

50 0.0
00
80 0.0
60
60 -0.1
00
20 -0.1
30
80 0.1
30
5 obs.

30± 1 . 07s
E ± 1 7 . 4km
Cist)
(544)

B0 0.1
30
B0 -0.1
30
60 0.0
80
70 -0.1
hia

20 0.0
30
5 obs.

38± 1 .60s
E ±1 2 . 0km

(399)

20 0.1
50
30 -0.1
70 -0.6
30
40 0.5
? a
10 0.8
30
39 -0.4
40 0.7
30 2.7
30 1.1
30 0.9
30
30 2.3
40 0.8
90 -1.2
J0 -0.5
20 -0.1
J0 0.4
10 -2.1
30 0.0
50 50. 3X
J obs .

58± 0.75s

Cist)
(545)

30 -0.8
90 -0.5
90 -1.2
60 -0.8
90 0.4
40
00 -0.7
30
70
70 -0.3
90 1.3
50

ZLA 1.67 301 ePd 40 45.90 2.7

AUG 04, 1991 02h 08m 25 . 55± 0.76s 24.907 N ± 7.1km 122.194 E ±10. 1km DEPTH = 10.0km (geophy s i c i s t)

TAIWAN REGION (243)

TWC 0.43 227 ePc 08 33.00 -1.3
eS 08 38.90
TWZ 0.59 289 iPc 08 36.60 -0.9
ANP 0.67 295 iP 08 38.70 -0.2
eS 08 51 . 90
TWG . 2.32 207 eP 09 05.40 1.1
SSE 6.23 352 Pn 09 57.00 -2.7
pP 10 12.50
BJ I 15.91 343 eP 1213.00 1.9

N 1 1s 1 .39um
E 10s 0 . 67um
eS 15 12.00
KMI 17.64 275 PC 12 37.50 4.3X
3.0s 100. 00nm 4 . 4mb
Z 12s 2.50um
eS 16 00 . 00
LZH 19.31 310 Pd 12 54.80 1.0
2.0s 88 . 00nm 4 . 7mb
Z 14s 1 . 7 1 urn
E 10s 1.1 6um

pP 1300.50 21 kmX
sP 13 04 . 00

CHG 22.40 259 eP 13 30.00 4.3X
e 20 53.50

CHTO 22.40 259 e(P) 13 27.20 1.5

IRK 30.52 338 eP 14 41.00 0.0
WRA 46.12 164 P 16 51.00 -0.9
1.1s 9 . 70nm 4 . 7mb
WR2 46.13 164 iPc 16 52.10 0.1
0.8s 11. 20nm 4 . 9mb
STK 59.43 161 iPd 18 30.50 -0.3
1 . 1 s 2.1 0nm 4 . 2mb
HFS 77.39 331 eP 20 23.00 1.0
0.5s 0 . 60nm 3 . 9mb
NB2 78.02 332 P 20 25.40 -0.2
0.8s 0 . 90nm 3 . 9mb
S.D. -1.3 an 14 of 16 obs .

? AUG 04, 1991 03h 02m 45-29± 3.07s

DEPTH - 95 . 9 ± 28 . 1 km
4 . 2mb (4 obs .)
VANUATU ISLANDS (186)

BKM 2.58 158 iP 03 26.00 0.0
iS 03 54.00
PVC 2.67 158 iP 03 28.00 0.8
iS 03 57. 70
DZM 6.81 186 iPc 04 23.40 -1.1
iS 05 38.40
RMO 20.54 234 eP 07 25.50 7.3X
i 07 30.50
WR2 31.65 257 iPd 09 00.90 -0.8
0.4s 3 . 50nm 4 . 5mb
WRA 31.67 257 P 09 04.00 2.2
0.7s 1 .20nm 3 . 7mb
ASPA 32.46 250 iPd 09 07.90 -0.8
0.4s 10.30nm 5.0mb
MAT 5B.36 333 iPd 12 31.80 -1.0
CHTO 75.27 294 eP 14 21.00 1.0
0.7s 1 . 59nm 4 . 0mb
KAF 125.68 339 ePKP 21 34.20 -2.5X
NUR 127.35 338 ePKP 21 38.10 -1.8
APO 130.82 343 ePKP 21 43.60 -2.9X
0.5s 1 . 50nm
NB2 131.13 345 PKP 21 44.60 -2.6X
0.7s 1.1 0nm
CDF 143.06 338 ePKP 22 04.80 -4.9X
0.6s 3 . 60nm
BSF 143.72 338 ePKP 22 06.60 -4.2X
0.6s 2 . 70nm
HAU 143.73 338 ePKP 22 06.80 -3.9X
0.Bs 8.05nm
SFI 144.58 329 PKP 22 11.30 -0.9
PGD 144. 6B 329 PKP 22 11.20 -1.5

25

044 03h

BDI 145.09 330 PKPd 22 10.90 -2.3X
BOB 145.10 332 PKP 22 12.20 -1.0
FLN 145.10 346 ePKP 22 10.80 -2.2X
0.6s 1 9 . 85nm
LDF 145.17 345 ePKP 22 11.00 -2 . 1 X
0.6s 1 3 . 55nm
LOR 145.23 340 ePKP 22 11.80 -1.5
6 . 9s 1 8 . 00nm
LBF 145.44 340 ePKP 22 12.70 -1.0
1.0s 26 . 00nm
GRC 145. 4G 341 PKP 22 13.80 0.2
SSF 145.52 340 ePKP 22 12.60 -1.2
0.6s 1 3 . 55nm
GRR 145.54 346 ePKP 22 12.30 -1.4
C 8s 22 . 85nm
LPL 145.66 335 ePKP 22 13.80 -0.6
0.6s 2 . 25nm
LPG 145.67 335 ePKP 22 13.90 -0.6
0.6s 31 . 55nm
SMF 145.78 340 ePKP 22 13.40 -0.8
0 . 8s 1 1 . 40nm
AVF 145.81 340 ePKP 22 13.50 -0.8
0.8s 1 0 . 75nm
LPF 145.92 346 ePKP 22 13.50 -0.9
0.7s 1 9 . 85nm
BNI 146.07 335 PKP 22 15.20 0.3
BGF 146.18 341 ePKP 22 14.40 -0.5
0.6s 1 4 . 45nm
PLDF 146.44 339 PKP 22 16.12 0.7
AGO 146.53 340 PKP 22 16.04 0.5
MAF 146.57 341 ePKP 22 15.70 0.2
0.7s 7 . 70nm
TCF 146.62 341 ePKP 22 15.80 0.2
0.8s 8 . 05nm
SSB 146.71 338 PKP 22 17.54 1.7
COLF 146.81 339 PKP 22 16.91 0.9
PYM 146. B4 340 PKP 22 17.08 1.0
LSF 146.87 342 ePKP 22 16.10 0.1
0.6s 1 3 . 55nm
MFF 147.02 344 ePKP 22 16.80 0.6
0.6s 1 4 . 45nm
LBL 147.21 339 PKP 22 18.49 1.8
RJF 147.72 341 ePKP 22 18.80 1.4
0.6s 5 . 40nm
CAF 147.88 340 ePKP 22 19.60 1.9
1.0S 6 . 00nm
LFF 148.29 342 ePKP 22 20.20 1.9
0.8s 8 . 05nm
LPO 148.38 341 ePKP 22 20.60 2.1
0.7s 6 . 60nm
S . D . - 1 . 2 on 39 o f 49 obs .

AUG 04, 1991 03h 03m 48.04± 0.54s
41.658 N ± 6.0km 24.375 E ± 4.9km
DEPTH - 10.0km (geophy s i c i s t)
GREECE-BULGARIA BORDER REGION (363)
MD 2. 4 (THE) .

R2N 0.26 83 iPgd 03 54.00 0.4
PLD 0.51 29 iPg 03 58.00 -0.4
KDZ 0.78 90 iPg 04 03.00 -0.3
SRS 0.80 228 ePc 04 02.78 -0.8
eS 0415.66
SOH 1.14 223 ePc 04 09.18 -0.2
KNT 1.22 246 ePc 04 11.26 0.6
eS 04 27.62
VTS 1.27 317 eP 04 12.00 0.2
OUR 1.36 193 ePd 04 13.26 0.3
S.D. -0.6 on 8of Sobs.

% AUG 04. 1991 04h 23m 06 . 55± 0.84s
43.117 N ±11. 2km 0.677 W ± 6.7km
DEPTH - 10.0km (geophy s i c i s t)
PYRENEES (378)
ML 1 .0 (STR) .

ATE 0.04 209 Pg 23 08.35 -0.3
Sg 23 09.28
ESCF 0.98 117 Pg 23 09.00 -0.1
MADF 0.11 285 Pg 23 09.29 -0.1
Sg 23 10.95
ISSF 0.12 224 Pg 23 10.04 0.3
Sg 23 12.46
OGE 0.16 71 Pg 23 10. 30 0.1
Sg 23 13.40
S.D. - 0.3 on 5 of 5 obs.

tt AUG 04. 1991 04h 37m 17.71s
62 . 1 67 N 148. 749 W
DEPTH « 33.6km
CENTRAL ALASKA (1)
<AE 1 C> . ML 2.6 (AE 1 C) .

GHO 0.40 192 IP 37 26.36 -0.7
S 37 33 . 91
PLRM 0.60 198 IP 37 28.64 -1.1
PWA 0.74 226 iP 37 31.26 -0.5
eS 37 42.29
CUT 0.75 289 IP 37 31.03 -0.8
S 37 41 .55
KNK 0. 77 169 i P 37 31 . 25 -0.9
eS 37 42.21
HUR 0.91 334 iP 37 32.93 -1.2
eS 37 45.48
PMS 1.00 203 iP 37 34.78 -0.8
SUA 1.18 234 iP 37 37.92 -0.2
eS 37 55.01
TOA 1.21 92 iP 37 37 . 70 -0.8
eS 37 53.84
RND 1.24 358 eP 37 37.45 -1.6
eS 37 53.77
SKT 1.32 263 eP 37 39.12 -1.0
eS 37 57.89
TRF 1.47 332 eP 37 40.92 -1.4
KLU 1 . 50 1 16 i P 3741.13 -1.6
eS 38 01 . 05
GLI 1.52 148 iP 37 41.63 -1.2
S 3802. 58
VZW 1.53 136 eP 37 41.57 -1.5
eS 38 01 .52
SDG 1.54 75 eP 37 42.28 -0.9
eS 38 01 .63
VLZ 1 . 55 131 eP 37 41 .48 -1.9
TZL 1.57 93 eP 37 43.03 -0.6
MCK 1.57 357 eP 37 42.44 -1.3
KTH 1.71 325 eP 37 44 . 49 -1.3
PAX 1.72 61 eP 37 44.95 -1.0
S 38 06. 11
CGLM 1.77 242 eP 37 46.99 0.3
NCG 1.79 246 eP 37 46.58 -0.4
eS 38 10.23
SLKM 1.81 204 eP 37 46.85 -0.3
KNIM 1.89 165 eP 37 47.27 -1.0
S 38 10.58
BGL 1.96 244 eP 37 49.74 0.5
CKL 1.97 242 eP 37 49.47 0.0
eS 38 14. 17
SEW 2.10 190 eP 37 51 .24 0.1
LTI 2.18 168 eP 37 51.08 -1.2
RDT 2.38 229 eP 37 55.14 -0.1
REF 2.54 230 eP 37 57.57 -0.1
RON 2.55 231 eP 37 57.44 -0.3
32 obs. ossocioted

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? AUG 04, 1991 04h 53m 1 3 . 89± 3.28s
0.805 S ±13. 5km 80.615 W ±29. 3km
DEPTH - 10.0km (geophy s i c i s t)
NEAR COAST OF ECUADOR (105)
MD 4.5 (QUI) .

QUI L 1 .69 88 P 53 42. 40 -1.6
GGP 2.11 73 P 53 50. 10 -0.2
YANA 2.15 71 Pd 53 49.80 -1.0
OUR 2.18 73 Pd 53 50.60 -0.5
eS 54 25.60
VC1 2.21 86 P 53 53. 50 1.8
1UNG 2.25 106 P 53 52.70 0.6
COTA 2.54 64 P 53 55.60 -0.8
CAYA 2.77 72 P+ 54 00.90 1.2
S 54 45.00
ANCC 5.70 41 eP 54 39.22 -1.5
HOOC 5-82 43 eP 54 44.73 2.1
eS 55 51 . 00
LPB 19.91 142 P 57 49.00 -0.2
S.D. -1.4 on 11 of 11 obs .

7, AUG 04. 1991 05h 35m 41.50± 0.69s 37.822 N ± 7.2km 14.676 E ± 5.7km
DEPTH - 10.0km (geophy s i c i s t)
SICILY (398)

GIB 0.54 288 P 35 53. 30 0.9
eSg 36 01 .90

eSg 36 07.20
MCT 0.85 257 P 35 58.90 0.9
eSg 36 10.70
SOI 1.12 77 Pd 36 03.50 1.1
eSn 36 21.10
USI 1.47 307 P 36 06.60 -1.4
CZ 1 1 .80 39 P 36 12 .80 0.0
eSg 36 36.20
ROI 2.29 40 P 36 20.50 0.6
MGR 2.41 16 P 36 21.30 -0.3
SCO 2.78 10 P 36 26 . 00 -0.8
S.D. =1.0 on 9 of 9 obs.

% AUG. 04. 1991 67h 29m 22.56± 0.76s
40.619 N ± 6.7km 15.787 E ± 6.2km
DEPTH - 10.0km (geophys i c i s t)
SOUTHERN ITALY (390)

SCO 0.37 261 Pd 29 30.20 0.1
eSg 29 37.00
MGR 0.51 200 P 29 32.60 -0.4
eSg 29 41 . 30
MMN 0.74 168 P 29 36.40 -0.7
CS 1 0. 93 155 P 29 38 .90 -1.4
BAI 0.96 58 P 29 40.00 -0.8
eSg 29 54.00
BRT 1.11 76 P 29 41 . 90 -1.4
eSg 29 57.30
ROI 1 . 21 150 P 29 47 .00 1.9
CZ 1 1.42 169 P 29 48.40 0.0
eSg 30 08.20
LC 1 1 . 68 99 P 29 54 . 50 2.4
SD 1 1.84 307 P 29 55.00 0.5
SOI 2.55 175 P 30 04 .50 -0.1
GIB 2.96 208 P 30 10. 40 -0.1
S.D. =1.3 on 12 of 12 obs .

& AUG 04. 1991 07h 37m 44.65s
60 . 296 N 1 52. 737 W
DEPTH - 131 . 3km
SOUTHERN ALASKA (2)
<AEIC>.

RSO 0.17 357 eP 38 02.31 0.8
RDW 0.19 349 eP 38 02.38 0.9
S 38 16. 1 1
REF 0.19 5 iP 38 02.22 0.7
RDN 0.22 357 eP 38 02.44 1.0
NCT 0.28 340 eP 38 02.43 0.8
eS 38 16.29
DFR 0.30 5 eP 38 02.35 0.7
eS 38 16. 19
RDT 0.32 30 iP 38 02.60 0.9
eS 38 16.87
NNL 0.76 109 eP 38 05.91 0.0
HOM 0.84 139 iP 38 06.11 -0.4
eS 38 21 .63
NKA 0.87 58 iP 38 08 . 34 1.6
PDB 0.89 236 eP 38 05.13 -1.8
CKL 0.92 12 iP 38 07.54 0.1
eS 38 25.45
SPU 0.95 20 iP 38 07.47 -0.1
eS 38 25 .21
BGL 0. 99 10 iP 38 08.32 0.4
BRLK 1.07 119 eP 38 07.82 -0.9
S 38 25. 10
CGLM 1.08 19 iP 38 08.95 0.1
eS 38 27.92
CNPM 1.08 135 eP 38 07.77 -1.0
eS 38 24.78
NCG 1.15 14 eP 38 09 . 78 0.3
SLKM 1.27 79 eP 38 10.12 -0.6
SUA 1 .52 39 eP 38 13 .96 0.4
eS 38 36.89
SVW 1.64 301 iP 38 13.47 -1.3
SEW 1.65 95 eP 38 14.09 -0.8
SKT 1.79 19 eP 38 16. 72 0.1
PMS 1.83 57 iP 38 16.98 -0.1
eS 38 41 .29
GHO 2.37 50 eP 38 23.21 -0.7
KNK 2.38 60 eP 38 22.93 -0.9
LT 1 2.45 94 eP 38 23.58 -1.2
KNIM 2.49 87 eP 38 23.34 -1.9
GLI 2.85 76 eP 38 27.84 -2.1
VZW 3.14 73 eP 38 32.40 -1.4
VLZ 3.26 72 eP 38 33.98 -1.3

04d

KLU

87h

3.54 67 eP 38 37.87 -1.3
32 obs. as soc i o t *d

AUG 64. 1991 07h 45m 30.94± 1.12s

0.912 S ± 3.4km 80.916 W ± 3.4km DEPTH = 21 . 2 ± 7 . 5 km
5 .
NEAR

OU I L

GGP
YANA
OTO

OUR
TUNG
VC1
COTA
CAY A
ANGL
PSO
PURC
SI LC
ANCC
HOOC

CLMC
HOBC
BOG

FUO
UPA

BMG
NNA

ARE
LPB

CCH

MGP
MCP
CLIP
SJG
CPD
LPR
SLA
PEL

TACH
PCH
LNV
PRM
JSC
TKL
GBTN
OLY
BLA

4mb (66 obs.) 4.8Msz (10 obs.)
COAST OF ECUADOR (105)
MD 5.1 (GUI). Felt ot Monto ond Sonto Domingo de los Colorodos.
CENTROID, MOMENT TENSOR (HRV)
Do t o Used : GDSN
L . P . B . : 1 3S , 24C
Cen t r o i d Location:
Origin Time 67:45:34.6 0.7 Lot 0.86S FIX;Lon S0.96W FIX
Dep 15.6 FIX Half-duration 1.7
Moment Tensor; Scale 10**17 Nm
Mrr- 0.81 0.05 Mtt 0.17 0.07
Mff=-0.65 0.09 Mrt = 0.61 0.17
Mrf 1.44 0.19 Mtf 0.27 0.05
P r i nc i po I Axes:
T Vol= 1.91 Pig-55 Azm= 59
N -0.37 13 167
P -1.54 32 265

Best Double Coup I e : Mo = 1 . 7 * 1 0 * * 1 7 NP1:Strike= 33 D i p= 1 7 S I i p = 137
NP2 : 164 78 77

2 . 00 86 iP 46 03 . 80 -0.6
eS 46 19.20
2.43 72 Pd 4610.70 0.0
2.47 71 Pd 4610.70 -0.5
2. 48 74 i Pd 4611.10 -0.2
eS 47 22.20
2.50 73 iP+ 46 1 1 . 40 -0.1
2 . 52 102 P 46 13 . 50 1.7
2.52 84 P 4613.10 1.1
2.86 64 Pd 46 1 6 . 80 0.1
3.09 71 P+ 46 21 . 60 1.5
3.41 81 P 46 26. 20 1.7
4.15 60 iPc 46 36. 50 1.5
5.57 55 *Pc 46 53.74 -1.5
5.81 52 iPc 46 56.03 -2.4
5.98 43 *P 4655.34 -5 . 1 X
6.10 45 *Pc 46 57.28 -5.2X
eS 48 07.60
6.45 42 *Pc 47 02.88 -4.4X
7 . 08 42 eP 4711.63 -4 . 5X
8.78 51 *P 47 39 . 00 -1.0
IS 49 44.00
9.57 48 eP 47 54 . 00 3 . 1 X
9.92 8 iPc+ 47 57 .00 1.5
1.2s 41 5 . 63nm 6. 7mb X
11.14 44 eP 48 25 . 00 12. 7X
11.72 160 iPc 48 17.50 -2.6
1.1s 1 45 . 57nm 6 . 1mb
i 4824. 00
iS 50 25.00
1 8 . 03 1 49 eP 4944.00 1.7
20.01 142 PC 50 04.00 -1.8
1.1s 455 . 70nm 5 . 7mb
2 16s 1 1 . 1 1 um 5 . 3MszX
LR 59 28.00

21 . 89 139 (P) 50 25. 00 0.1
i 50 29.50
e 5469. 00
23.121 35 eP 50 37.50 0.0
23 .52 35 eP 50 41 . 00 0.4
23.56 36 *P 50 42 . 00 1.0
23 . 84 37 eP 50 44 . 00 0.2
23.;93 37 eP 50 45.00 0.4
24.16 37 eP 50 47 . 50 0.6

27,98 149 iPd 51 23.50 0.9
33 .47 164 eP 52 1 1 . 00 0.1
1 . ^s 1 01 . 92nm 5 . 6mb
e 52 15 . 50
33,89 165 eP 52 15 . 00 0.5
33 . 97 164 eP 52 15. 50 0.2
34.06 166 *P 52 10.00 -5.9X
34 .84 358 P 52 21 .60 -1.0
35.01 360 P 52 23. 20 -0.8
36 J48 356 P 52 35 . 70 -0.8
36J52 355 P 52 36.00 -0.8
37.154 346 P 52 44.00 -1.5
37.93 1 P 52 48 . 00 -0.8
1.1s 1 6 . 88nm 4 . 8mb

NAV
POW
CVL
ELC
TUL

MEO
VAO
FVM

SOB1

8MA
T8R
ALO

ANMO

CAI
GLD

GOL

GLA
TPC
PLM
PEC

RVR
GSC
MWC
RSSD

PAS
SBB
DAU
CLC
DUG

1 SA
BW06

TNP

BONR
FRI
PRI
LRM
ORV
M 1 N
WDC
SCH
SES
FFC

NEW

LON
PNT

LIC

T 1C

K 1 C
PTO
EZAM
STS
1 NK

EVAL
ERUA
EJ 1 F
EPLA
KLU
TOA
MAL

38.04
38.09
TO 77 O O . / /
38.78
39.17
1 . 2s
Z 22s
N 22s
E 20s

39.18
39.61
39 .69
1 .0s
40.67

41.77
42.30
42 .93
1 .0s
42 .94
1 . 0s
44 .02
46.18
1 . 0s
46 .20
0 . 8s
46.50
47 .96
48.02
48.55
1 . 6s
48. 75
49.19
49 .34
49 .36
1 . 0s
49. 37
49 .47
49.56
50.02
50 .20
1 . 0s
50.49
50.55
1 . 2s
51 . 23
1 .0s
51.81
52 .08
52.19
54. 22
54.76
55.30
56.01
56. 75
57 .22
58 . 10
1 . 5s
58 . 17
1 .0s
59 . 45
60 . 09
0. 8s
76.07
Z 22s
76.10
1 .2s
76. 36
77 .35
77 .50
77 . 77
77 .81
1 . 3s
78.05
78 .68
78.86
79.01
79 . 12
79.46
79.74

26

0 P
346 P
3 P
349 P
341 eP
54.1 0nm
0 . 63um
0 . 36um
0 . 30um
e
eS
e
e
LR
337 iPd
126 eP
348 P
38 . 00nm
103 eP
e
e

124 (P)
8 P
329 *Pc
31 . 25nm
329 P
31 . 50nm
98 i PC
334 P
1 7 . 50nm
334 P
6 . 55nm
320 eP
320 eP
319 eP
319 P
20 . 59nm
319 eP
321 *P
319 eP
338 P
1 6 . 40nm
319 *P
319 *P
330 P
321 eP
328 P
7 . 00nm
320 *P
333 P
1 0 . 84nm
323 P
8 . 83nm
322 P

321 e(P)
319 e(P)
333 eP
322 *Pc
323 e(P)
322 eP
10 eP
338 eP
346 *P
65 . 00nm
332 P
6 . 00nm
328 P
332 eP
2 1 . 00nm
83 PC
0 . 46um
83 P
163 . 50nm
83 PC
48 *P
46 *P
46 eP
342 eP
86 . 00nm
51 eP
47 eP
53 eP
49 eP
334 P
334 eP
53 iPc
iS

52 48. 70 -0.9
52 49. 00 -1.1
52 55 . 10 -0.6
52 53 .90 -1 . 9
52 57 . 90 -1.2
5 . 1mb
4 . 4MS2

53 11.70
59 07 . 00
02 08.
05 14 .
08 10.
52 59 .
53 01 .
53 02.

53 10.
53 15.
53 39.
53 20.
53 24 .
53 31 .

00
00
00
10 -6 . 1
40 -1.6
20 -1.2
5. 1mb
60 -1.2
00
00
00 -0.8
20 -0.5
00 0.7
5 . 0mb
53 31 .60 1.3
5 . 0mb
53 36.60 -2.4
53 56 .60 0.6

53 57 .

54 01 .
54 12.
54 13.
54 15 .

54 15 .
54 20.

5.0mb
10 0.6
4 . 6mb
30 2.2
30 1.7
30 2.1
50 0.7
4 . 9mb
30 -1.3
30 0.2
54 23 .00 1.9
54 21 .50 0.4

54 22.
54 23.
54 23 .
54 26.
54 27 .

54 30.
54 29.

54 35.

54 40.
54 41 .
54 34 .
54 57 .
55 02 .
55 05.
55 08 .
55 13 .
55 19.
55 24.

55 24.

55 34.
55 39.

57 15.

57 15 .

57 16.
57 25.
57 27 .i
57 27 .
57 27.

57 30.i
57 33.,
57 35.:
57 35.1
57 35.:
57 38 .
57 40.:
07 40.1

5 .0mb
30 0.9
90 1.1
30 0.2
J0 -0.1
70 0.2
4 . 6mb
J0 0.3
70 -0.6
4 . 7mb
?0 -0.3
4 . 6mb
50 0.5
50 -0.4
10 -8.3X
50 -0.4
IS 1.0
»0 0.3
50 -1.9
50 -2.6

)0 -0.1
)0 -1.1
5 . 4mb
50 -1.1
4 . 6mb
)0 -0.7
30 0.1
5 . 3mb
t 6 -4 . 2X
4 . 7Msz
!0 -4.4X
6 . 0mb
16 -4 . 2X

(0 -0.2
>0 0.2
50 -0.7
50 -0.5
5 . 6mb
30 0.1
50 0.0
50 0.9
30 -0.2
50 -0.1
0 0.8
20 1.0
30

AKU

MB C

AFC
GUD
PMR

DCN

FBA

EHUE
DMU

EV 1 A
ENI J
ETOR
SVW
EGRA
EKA

1 MA

LPF

EROO
GRR

EBR

EPF

MFF

FLN

Z
LDF

LFF

SALF
LPO

RJF

Z
TRGS
LSF

CAF

TCF

MAF

BGF
PYM
AGO
LBL
GRC
AVF

PLDF
SSF

SMF

LOR

Z
LBF

SSB
SNF
UCC
DOU

DBN
Z

VI TF
LRG

Z

79.93
1.1s
80.09
1 .0s
80. 51
80.56
80. 59
1 . 3s
81.01
0. 8s
81.19
1.1s
81.34
81 .36
0 . 8s
81 .52
81 .53
82. 17
83.44
83.64
83. 79
1 .0s
83. 89
1.1s
83.90
1.1s
84.02
84.07
1.1s
84 .08

84 . 22
1 . 3s
84. 31
1 . 0s
84. 37
1 .2s
20s
84.58
1 .0s
84 . 73
1.1s
84 .81
85.01
1 .0s
85.31
1 . 2s
20s
85. 36
85. 42
1 . 2s
85.66
1 .2s
85 . 89
1 . 2s
86. 13
1 .2s
86.36
86 . 40
86.51
86.52
86.58
86. 73
1 .2s
86 . 84
86.85
1 .2s
87 .05
1 . 4s
87.11
1 . 3s
20s
87 . 17
1 .2s
87 .44
87 . 64
87.70
87 .80
1.1s

88 . 30
20s

88.60
88.64
0.8s
20s

22 iP
35 . 44nm
351 ePc
63 . 00nm
52 eP
49 eP
333 eP
21 . 20nm
36 eP
79 . 00nm
337 eP
1 6 . 56 nm
52 eP
35 eP
79 . 00nm
51 eP
53 *P
49 eP
332 *P
48 iPd
34 Pd
32 . 1 0nm
337 P
20 . 00nm
42 eP
34 . 20nm
49 eP
41 eP
43. 95nm
49 eP
eS
47 eP
1 01 . 1 0nm
43 eP
36 . 00nm
41 eP
47 . 60nm
0 . 38um
41 eP
36 . 00nm
45 eP
70 . 80nm
47 P
45 eP
68 . 00nm
45 eP
71 . 40nm
0 . 25um
47 P
44 eP
62 . 56nm
45 *P
50 . 66nm
44 eP
37.20nm
44 eP
71 . 40nm
43 eP
44 P
44 P
45 P
43 P
43 eP
50 . 60nm
44 P
43 eP
41 .65nm
43 *P
74.05nm
43 *P
50 . 55nm
0. 57um
43 *P
23 . 80nm
45 P
40 iPc
39 P +
40 P +
65 . 40nm
SKS
38 eP
0 . 50um
eS
42 P
47 eP
12. 10nm
0 . 47um

57 41

57 40

57 44
57 44
57 43

57 45

57 46

57 48
57 47

57 49
57 48
57 53
57 57
58 03
57 59

57 59

58 00

58 02
58 01

58 02
08 28
58 02

58 02

58 02

58 03

58 04

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58 12
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58 16.

58 18.
58 18.
58 19.
58 20.

08 51 .
58 21 .

08 50.
58 23.
58 23.

. 00 1.4
5. 3mb
. 40 0.1
5.6mb
. 50 1.0
. 00 0.3
. 00 -0.1
5 . 0mb
. 50 0.0
5. 8mb
. 20 -0.1
5 . 0mb
. 00 0.3
. 40 0.1
5. 8mb
. 20 0.5
. 30 -0.4
. 00 1.0
. 50 -0.6
. 00 3 . 6X
80 -0.1
5.5mb
60 -0.8
5. 3mb
20 -0.4
5.5mb
00 0.6
20 -0.3
5. 6mb
00 0.3
00
70 0.3
5. 9mb
60 -0.1
5. 6mb
80 -0.1
5. 6mb
4. 8Msz
60 -0.4
5 . 6mb
70 -0.1
5.8mb
70 1.3
10 -0.2
5 . 8mb
30 -0.5
5. 8mb
4 . 6Msz
18 0.9
00 -0.3
5. 7mb
30 -0.3
5. 6mb
40 -0.3
5 . 5mb
50 -0.3
5. 8mb
60 -0.3
26 0.0
49 -0.2
06 0.2
93 0.0
10 -0.6
5.6mb
47 0.1
60 -0.7
5.5mb
80 -0.5
5. 7mb
90 -0.7
5.6mb
5.0Msz
20 -0.7
5.3mb
52 0.3
90 -0.1
00 -0.3
10 0.3
5. 9mb
00
00 -1.1
4.9Msz
00
63 -0.1
50 -0.4
5 . 3mb
4.9MSZ

27

04d 07h

ENN

MEM
LMR

WLF
HAU

88
1 .
88
88
0.
88
88
1 .

. 69
0s
. 74
. 74
9s
. 78
. 83
1 s
Z 20S
FRF

RSL
BN 1
LPL

LPG

SPA

BSF
LOMF
WTS

MOF
ECH
SBF

CDF
Dl X
BNS
BBS
LIBD
GWF
MMK
FEL
NVL

ZLA
SLE
TMA
PGF

LLS
BOB
VDL
OSS
GRF

88
0 .
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1 .
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91
92
1 .

. 85
8s
. 92
. 93
. 99
2s
. 00
2s
. 09
0S
. 1 3
. 1 3
. 31
8s
. 36
. 39
. 43
9s
. 47
. 49
. 50
. 60
. 68
. 72
. 87
. 95
. 06

. 19
. 27
. 50
. 55
0S
. 60
. 90
. 92
. 39
. 08
7s
Z 21s

39
20
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16
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39
43
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41
44
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161

43
42
44
48
22
43
45
44
44
40
34
0

eP
. 00nm
PC
eP
. 40nm
iPc
eP
. 40nm
. 28um
eP
. 55nm
P
P
eP
. 85nm
eP
. 75nm
eP
. 59nm
P
P
eP
. 00nm
P
P
eP
. 75nm
P
ePd
ePc
P
P
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ePd
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PC
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ePd
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ePc
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e(PP)

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02

e(SKS)09
MOX

WTTA

HFS

CLL

KHC

BRG

PRU

KSP
ZST
SRO
SOD
KRA
NUR
STK

OUE

92
2.

92
1 .

93
0.
93
1 .

93
1 .

93
1 .

94
1 .

95
96
96
97
97
98
128
0.
137

. 31
0S

. 40
1 S

. 09
9s
. 16
7s

. 63
2s

. 78
6s

. 21
1 s

. 27
. 03
. 88
. 54
. 67
. 43
. 23
9s
. 82

40
33

43
23

30
4
39
24

41
16

39
28

40
1 4

39
42
42
22
40
29
227
3
43

eP
. 00nm
e

iPc
. 30nm
i
e
e
eP
. 70nm
iPc
. 00nm
eSKS
iP
. 00nm
e
e
S
eP
. 00nm
e
PC
. 50nm
e
eS
ePc
iP
eP
eP
eP
eP
ePKP
. 50nm
ePKP
e

58

09
58

58
01
02
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02
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02
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17 .
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12.
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47 .

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35 .
30 .
55 .
58 .
01 .
04 .
06 .
08.
36.

57 .
41 .

. 50

. 60
. 10

. 15
. 50

. 40

. 69
. 60
. 40

. 50

. 00

. 79
. 23
. 00

. 02
. 37
. 20

. 69
. 40
. 50
. 33
. 74
. 17
. 30
. 08
,50
, 00
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, 00
. 10
,40
,30

. 40
, 10
. 80
. 90
,50

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, 30

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80

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5

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4

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5

5.
4 .

5.

5 ,

4 ,

5 ,

5 .

5 .

5 .

0.

. 4mb
0.
- 0 .

. 3mb
0 .
- 0.
. 4mb

5

4
4

7
4

. 7MS2
- 0 .
. 7mb
0.
1 .
0 .
. 3mb
0.
. 5mb
1 .
. 2mb
- 0.
- 0 .
1 .
. 9mb
- 0.
- 0.
- 0.
. 6mb
- 0.
1 .
- 1 .
- 0.
0.
0.
1 .
- 0.
0.

0.
0.
0.
- 0.

. 4mb
1 .
0.
0.
0.
0.
. 5mb

6

2
1
5

4

1

6
1
1

4
1
6

3
1
4
2
0
2
2
2
4

7
5
5
8

0
5
9
9
6

. 5MSZ

0.
. 4mb

0 .
. 5mb

- 1 .

, 9mb
0.

, 3mb

0.
. 3mb

0.

, 4mb

0.

, 3mb

0.
0.
0.
- 0.
1 .
- 0.
- 1 .

0.

4

2

0

4

4

2

7

5
8
0
5
0
5
8

5

BJI 138.06 340 ePKP 04 55.00 -1.4
ASPA 138.27 232 ePKP 04 53.70 -3.7X
1.3s 1 0 . 20nm
WR2 139.69 237 iPKPc 04 51.70 -8.3X
0.7s 3 . 1 0nm
WRA 139.71 237 PKP 05 03.00 3 0X
0.7s 6 . 1 0nm
SSE 143.40 327 PKP 05 02.00 -4 . 2X
Z 20s 0 . 50um 5 . 3Msz
SS 07 00.00
LZH 144.73 353 iPKPd 05 06.50 -2.0X
Z 24s 0.52um 5.2MszX
pPKP 05 25. 06
sPKP 05 35.00
PP 08 20.00
eSS 26 53.08
NDI 145.37 35 iPKPc 05 09.50 -0.1
MTN 145.39 246 ePKP 05 09.00 -1.0
POO 149.67 53 iPKPd 05 20.70 3 . 9X
PKI 150.43 25 PKP 05 00.00 -18. 1X
CGP 153.42 287 ePKP 05 31.00 8.7X
HYB 153.98 50 ePKPd 05 23.40 0.3
e 05 43 .00
GBA 155.14 59 PKPd 05 24.90 0.3
1.2s 21 . 1 0nm
KMI 155.67 352 PKPd 05 26.00 0.6
CHG 162.21 0 ePKP 05 32.50 -0.2
S.D. - 0.9 on 197 of 217 obs.

? AUG 04. 1991 08h 00m 27.81± 4.12s 40.837 N ±14. 9km 30.271 E ±27. 9km DEPTH - 10.0km (geophy s i c i s t)
TURKEY (366)

EYL 0.28 198 iPg 00 33.50 -0.3
HRT 0.46 268 i Pg 00 37.00 -0.1
YLV 0.73 249 ePn 00 42.50 0.2
IZI 0. 79 231 i Pn 00 43.50 0.3
ISK 0.95 284 ePn 00 45.00 -0.8
CTT 1.43 283 iPn 00 54.50 0.7
S.D. -0.7 on 6of 6 obs.

4c AUG 04, 1991 08h 23m 22.95s
62. 476 N 151 . 1 12 W
DEPTH - 86.3km
CENTRAL ALASKA (1)
<AEIC>.

CUT 0.40 100 IP 23 35.86 -0.8
SKT 0.53 202 iP 23 37.19 -0.6
iS 23 48 . 15
HUR 0.85 53 iP 23 39.92 -1.0
eS 23 52.91
PWA 1.01 144 iP 23 42.20 -0.6
eS 23 58. 14
SUA 1.03 170 eP 23 42.57 -0.6
S 23 57 . 76
TRF 1 .05 21 i P 23 42.64 -0.8
eS 23 57.62
KTH 1.08 5 iP 23 43. 10 -0.7
eS 23 57.64
NCG 1.18 205 iP 23 44.24 -0.8
eS 24 01 .52
CGLM 1.25 200 eP 23 44.85 -0.9
GHO 1.25 124 eP 23 45.32 -0.5
PLRM 1.29 133 eP 23 45.34 -0.8
BGL 1.36 207 eP 23 47.11 -0.1
SPU 1.37 199 eP 23 46.71 -0.6
RNO 1 .39 47 iP 23 46 . 42 -1.2
CKL 1.41 205 eP 23 47.69 -0.2
eS 24 06.96
PMS 1.44 149 eP 23 47.70 -0.5
eS 24 06. 17
MCK 1.60 37 eP 23 49.74 -0.6
KNK 1.65 129 eP 23 49.81 -1.1
eS 24 1 1 .09
BWN 1.86 23 eP 23 52.99 -0.7
RDT 2.01 199 eP 23 55.25 -0.5
SLKM 2.02 167 eP 23 55.60 -0.3
RON 2.12 203 eP 23 56.99 -0.4
REF 2.13 202 eP 23 57.22 -0.4
ROW 2.16 203 eP 23 57.47 -0.4
RSO 2.17 202 eP 23 57.64 -0.4
NEA 2.30 22 eP 23 57. B2 -1.B
TOA 2.34 97 eP 23 59.22 -1.0
WRH 2.42 33 eP 23 59.59 -1.7
GLI 2.50 12B eP 24 00.29 -2.0

SDG 2.58 86 eP 24 02.70 -0.9
VZW 2.59 121 eP 24 01.97 -1.7
CCB 2.63 33 eP 24 02.43 -1.7
VLZ 2.64 119 eP 24 02.41 -1.8
KLU 2.64 110 eP 24 02.08 -2.3
PAX 2.65 77 eP 24 03.69 -0.8
KNIM 2.68 141 eP 24 01.62 -3.2
TZL 2.70 97 eP 24 04.13 -0.9
MDM 2.80 26 iP 24 05.09 -1.5
FBA 2.85 30 eP 24 05.46 -1.7
LT I 2.91 146 eP 24 05.99 -1.9
CNPM 2.96 181 eP 24 08.52 -0.2
41 obs. ossocioted

? AUG 04. 1991 08h 55m 07.66± 0.43s
38.586 N ±12. 9km 75.072 E ± 1 4 . 1 km
DEPTH - 33.0km (normol)
5 . 0mb (8 obs .)
SOUTHERN XINJIANG, CHINA (321)

NDI 10.04 169 iPd 57 33.50 0.9
0.6s 40.00nm 5.9mb
OUE 10.73 221 eP 57 46.40 4.1X
eS 59 34.00
MAIO 12.59 264 eP 58 02.00 -5.3X
GKN 13.23 140 P 58 15.70 -0.2
0.3s 79 . 00nm 6 . 2mb X
KKN 13.74 139 P 58 22.40 -0.2

DMN 13.79 140 P 58 22.76 -0.6
0.6s 76.00nm 5.7mb
GUN 13.96 137 P 58 25.32 -0.3
0.3s 37 . 00nm 5 . 5mb
PKI 13.98 139 P 58 25.48 -0.4
0.8s 71.00nm 5. 5mb
CHTO 28.60 127 e(P) 01 04.10 1.1
0.5s 0.38nm 3.4mb X
MLR 36.66 297 eP 02 14.00 1.0
HFS 43.48 320 eP 03 09.70 0.6
0.5s 3.60nm 4. 4mb
NB2 44.71 322 P 03 19.70 0.6

BSF 49.13 304 eP 03 53.50 -0.5
LPG 49.82 301 eP 03 59.90 0.3
0.8s 4 . 05nm 4 . 5mb
LPL 49.83 301 eP 03 59.90 0.3
0.8s 4.05nm 4. 5mb
LDF 53.31 307 eP 04 24.00 -1.5
GRR 53.84 307 eP 04 27.70 -1.7
MBC 65.08 4 eP 05 47.00 0.5
S.D. -0.9 on 16 of 18 obs.

& AUG 04. 1991 09h 42m 13.39s
60 . 481 N 152 . 393 W
DEPTH - 1 02 . 3km
SOUTHERN ALASKA (2)
<AEIC>.

RDT 0.09 356 iP 42 27.20 0.9
iS 42 38.08
REF 0. 15 273 eP 42 27.38 0.8
eS 42 39. 1 1
RSO 0.18 264 eP 42 27.68 1.0
eS 42 39.04
DFR 0.18 308 iP 42 27.49 1.0
iS 42 38.43
RON 0.19 280 eP 42 27.47 0.9
eS 42 38.41
RED 0.20 252 eP 42 27.10 0.5
ROW 0.21 271 eP 42 27.77 1.0
NCT 0.2B 287 eP 42 27.83 1.0
eS 42 39.04
NKA 0.63 65 eP 42 31.84 1.3
NNL 0.70 128 eP 42 31.81 0.5
CKL 0.72 2 eP 42 30.75 -0.8
SPU 0.72 13 eP 42 30.66 -0.9
BGL 0.79 0 eP 42 31.53 -0.7
CGLM 0.85 13 eP 42 31.98 -0.8
HOM 0.91 155 eP 42 33.12 -0.1
eS 42 4B.00
NCG 0.93 7 eP 42 33.12 -0.6
SLKM 1.0B 88 eP 42 34.52 -0.6
CNPM 1.12 148 eP 42 35.13 -0.5
eS 4252.11
PDB 1.14 233 iP 42 34.59 -1.2
eS 42 51 .21
SUA 1.27 38 eP 42 37.16 -0.4

28

04d 09h

eS 42 55.42
SEW .51 103 eP 42 39.10 -1.2
SKT .56 15 iP 4239.74 -1.2
PMS .58 60 eP 42 40.73 -0.5
CDD .68 203 eP 42 41.19 -1.3
PWA .69 45 eP 42 42.76 0.2
SVW .70 293 eP 42 40.75 -2.0
PLRM . 94 54 eP 42 44.02 -1.7
GHO 2.12 51 eP 42 46.67 -1.6
KNK 2.14 62 eP 42 46.48 -1.9
CUT 2.18 27 eP 42 48.56 -0.4
LT 1 2.31 99 eP 4249.04 -1.5
KNIM 2.31 91 eP 42 49.47 -1.2
GLI 2.64 7 9 e P 4251.80 -3.2
KLU 3.31 69 e P 4301.29 -3.0
34 obs. associated

& AUG 04, 1991 11h 54m 11.80s 34.970 N 117 .040 W
DEPTH « 4.0km

SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 3. 1 (PAS) .

GSC 0.38 30 iPd 54 19.00 -0.5
SBB 0.70 247 iPc 54 25.10 -0.8
eS 5435.10
SSK 0.93 216 eP 54 29.30 -0.9
CLC 0-96 332 eP 54 29.70 -1.0
PEC 1.08 185 eP 54 31.80 -0.9
TPC 1.19 136 eP 54 33.70 -0.9
ISA 1.36 301 eP 54 36.90 -0.7
PLM 1.62 175 eP 54 41.00 -0.4
ABL 1.80 267 eP 54 42.80 -1.2
8CH 2.51 276 eP 54 52.50 -1.6
GLA 2.65 136 eP 55 00.20 4.0
TNP 3.11 357 eP 55 01.80 -0.9
BONR 3.15 342 eP 55 02.80 -0.6
13 obs. ossoeiated

» AUG 04, 1991 12h 21m 33.77± 1.78s
18.589 N ± 6.2km 98.835 E ±24. 8km
DEPTH * 10.0km (gea phy s i e i s t)
SOUTHEAST ASIA (299)

CHG 0.25 25 iPg 21 39.00 0.0
iSg 21 42. 20
CHTO 0.25 25 iPnc 21 38.90 -0.1
8DT 1.35 173 ePg 21 59.00 0.4
e 2217.00
LOE 3.00 113 ePn 22 22.40 0.2

ePg 22 27.90
eSg 23 07.00
NST 3.15 157 ePn 22 23.80 -0.6

ePg 22 32.00
eSg 23 14.80
KHT 3.79 184 P 22 44.30 10. 8X
eSg 23 29.80
S.D. «= 0.6 on 5 of 6 obs.

AUG 04, 1991 12h 38m 24 . 50± 0.71s
23.888 N ± 5.3km 95.859 E ± 4.4km
DEPTH « 42.6 ± 7 . 3 km
4.7mb (27 abs.) 4.3Msz (1 abs.)
BURMA (296)

SHL 3.98 296 iP 39 26.60 1.8
IS 40 09.80
CHG 5.81 150 ePnc 39 49.00 -1.5
ePg 40 10.50
eSg 41 26 . 00
CHTO 5.81 150 iPnc 39 49.06 -1.5
ePg 40 1 1 . 60
KMI 6.39 77 ePn 39 59.50 0.7
2 10s 6 . 00um
N 10s 6 . 70um

Pg 40 22.00
Sg 4 1 34 . 00
BDT 7.24 155 ePn 40 10.20 -0.2
LOE 8.47 138 ePn 40 29.50 1.9

eSg 42 53.00
NST 9.11 153 eP 40 31.80 -4.6X
eS 43 15.90
KHT 9.42 164 eP 40 44.50 3.9X
GUN 9.84 296 P 40 46.56 -0.2
0.3s 494 .00nm 6 . 8mb X
PKI 10.11 293 P 40 49.78 -0.7
0.5s 128.00nm 6 . 4mb X

KKN

DMN

GKN
LZH

ND 1

HYB

1 PM
GBA

POO

PS 1
KOD

8J 1

SSE

r- A p vM rv

DUE
1 RK

MAT

YAK

OBN

ELL
WRA

VR 1
1 SR
MLR
KAF
ASPA

SOD
NUR

KEV
SPC
KRA
KSP

HFS

PRU

NB2

CLL

KHC

10.29
0 . 7s
10.38
0 . 7s
10.90
13.98
2. 0s
Z 12s
E 12s

1 7 . 38
1 .0s
17.42
1 .2s

19.83
20.20
0.9s
21.19
0.9s
21.28
22.18

23. 50
1 . 5s
Z 14s
N 11s
E 10s

23.55
Z 12s
N 10s
E 10s

26.37

26. 46
29 . 07

38. 42
0. 9s

44.47

53.24
1 . 4s

57.35
57. 48
1 .0s
58.94
59. 12
59.51
59.62
59 .98
1 -5s
60.20
60 . 28
0.7s
60.50
63.06
63.17
65. 39

65.73
0.7s
Z 16s

66 .63

66 . 84
0.8s
67.36

67. 39

294 P
450 . 00nm
293 P
1 47 . 00nm
294 P
28 eP
264 . 00nm
2 . 42 urn
3 . 94um
pP
sP
eS
290 iPc
70 . 00nm
252 eP
75 . SOnrr,
*S
165 ePc
243 Pd
23 . 9C»nm
260 iPc
67 . 23nm
172 ePc
235 eP
eS
42 PC
263 . 00nm
0 . 88um
1 . 1 1 urn
0.67 urn
epP
eS
67 P
2 . 30um
2 . 00um
0 . 90um
PP
iS
311 i P
ePPP
i S
290 eP
1 1 eP
e
e
61 eP
21 . 0 1 nm
eS
22 iP
e
e

322 iPd

epP
eS
eSS
LO
LR

9 £ Q y O y » C Pr
136 P
6 . 40nm
310 ePo
310 eP
310 ePd
329 eP
139 iPd
13.1 0nm
335 iP
327 eP
7 . 50nm
338 eP
315 eP
316 eP
317 eP
e
327 eP
9 . 30nm
0 . 28um
LR
316 eP
e
e
328 P
6 . 20nm
318 eP
e
315 P

40

40

40
4 1

41
4 1
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48
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48
48

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18
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51
49

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49
49

51.74 -1.1
6 . 8mb X
53.40 -0.7
6 . 3mb X
59 .i54 -1 . 5
38 . 00 -4. IX
5 . 6mb
4 . SMsr

45
50
34
29 .

27 .

33.
53 .
00.

1 0 .

00
00
00
00 3 . 4X

4 . 7mb
60 1.5
4 . 7mb
A A
V V

60 -1.1
30 1.8
4 . 5mb
80 2.1
5 . 0mb
1 0 .,60 1 . 1
22.80 3.9X
32 . 00
32.50 1.2
5 . 5mb
4 . 4MszX

36.00 !3kmX
46 . 00
31 . 50 -0.4
4 .9MszX

48.
44 .

00 . v v . . t.

00 72kmX

00

a a 10

00.00
50 .00

03.100 3.3X
24 .
32.

00 1.1

20
43 . 00
43.00 -0.8
5 . 0mb
47.00
32.
1 8 .
16.
41 .

01 .
10.
12.
12.

00.

12.
1 1 .

30 -0.7
A A
V W
00

00 0.2
8.4mb X
00 80kmX
00
00

00
00
00 1.0
00 -0.9

4 . 6mb
22.50 0.6
37.00 13. 9X
26.50 0.5
2 5.! 70 -0.5
29.60 0.4
4 . 8mb
29.80 -0.4
30.10 -0.6
4 . 9mb
32.00 -0.2
49.
53.
05.
25.
06.

28 .
17 .
34 .
42.
13.

1 7 .
36.
18

90 0.0
40 3 . IX
00 0.2
70
30 -0.5
5 . 0mb
4 .6MszX
00
00 4 . 3X

00

50
00 -0.9
4 . 7mb
00 -0.3

00

00 0.3

MOX

GRF
Z

WTTA

CDF
DAG

LPG

LPL

BRW
LBF

SMF

SSF

AVF

MTD
TCF

EKA

1 MA

TTA

MBC

SVW
8UL
FBA
RSO
PMR

1 NK

SLR
LPB
S

* AUG

68. 35

68. 79
21 s

69 . 05
1 . 0s

71.62
72. 30
0.9s
. 72.77
0. 8s
72. 77
0.8s
72. 97
74.16
0 .8s
74. 36
0.8s
74.44
0.8s
74.63
1 .0s
74.63
75. 54
0 .8s
75. 61
0 . 8s
76.28
1 . 2s
76.84
1.1s
77. 76
0.6s
77.83
78.77
78 . 99
79.38
86. 30
0.9s
81 . 24

1 .0S

81 .89
163.27
. D. -

04 .

e 49
317 eP 49
e 49

3 1 6 e(PKP)49
0 . 20um
e 49
e 49
e 49

313 e(P) 49
5 . 40nm
e 49
315 eP 49
347 i Pd 49
7 . 56 nm
313 eP 49
2 . 70nm
I ! T - D A O

O 1 J c r * y
3.35nm
19 eP 49
315 eP 49
2 . 70nm
314 eP 49
2 . 70nm
315 eP 49
4 . 05nm
315 eP 50
4 . 00nm
244 iPe 50
314 eP 50
2 . 70nm
324 P 50
3 . 00nm
23 ePc 50
1 4 . 1 0nm
27 ePc 50
1 1 . 1 0nm
8 eP 50
1 2 . 00nm

op A P / *^ n.t O c " C Do
242 iPc 50
23 ePe 50

28 e(P) 50
26 eP 50
32. 70nm
17 eP 50
35 . 00nm
237 iPc 50
293 PKP 58
1.0 on 62 of

1991 14h 15m

32
24
45
27

31
42
49
27

50
42
45

49

49

52
57

59

59

00

03
06

1 4

1 1

1 4

19

19
22
25
27
32

37

41
32

23
4 . 155 S ± 9. 0km 154. 175
DEPTH - 425. 1 ± 8.9 km

. 00
. 00 0.4
. 00
. 40 1.1
4 . 3Msz
- 10
. 40
. 00
. 00 -1.2
4 . 5mb
. 00
. 90 -0.7
. 80 -1.3
4 . 7mb
. 40 -1.3
4 . 3mb
. 20 -1.5
4 . 4mb
. 20 1.2
. 20 -1.3
4. 3mb
. 30 -0.3
4 . 3mb
. 80 -0.3
4 . 4mb
. 20 -0.9
4 . 3mb
. 50 1.8
. 60 0.2
4. 3mb
. 00 7. 4X
4 . 3mb
. 10 0.7
4 . 8mb
. 40 1.0
4 . 8mb
. 00 0.8
5 . 1mb
. 50 0.6
. 80 -2.1
. 70 0.5
. 30 -0.3
. 70 0.6
5 . 3mb
. 00 -0.1
5 . 3mb
. 00 -0.3
. 00 7 .5X
73 obs.

. 12± 0. 80s
E ± 8. 8km

5 . 0mb (5 abs .)
SOLOMON ISLANDS

RAB

LAT
MDG
PMG

JAY
CTAO

DZM
OIS

CAN
NGZ
HBZ
THZ
K 1 W
MNG

TCW
MRW
WDW
MTW
NANU
LTZ
KHZ
MSZ
MOZ
F8A

2. 00
0.6s
7.56
8.44
8.71
0.9s
13.55
17.62

21 . 42
21 .61
0.6s
31 .38
39.92
39.94
41 . 02
41 .03
41.06
0.2s
41 .07
41 .26
41.40
41 .52
41 .62
41 .69
41 .83
42. 12
42.64
80.78
0.7s

269 iPd 16
2453 . 33nm
251 eP 17
262 iPd 17
233 iPe 17
194 . 96nm
276 ePd 18
205 iPc 19
i 21
147 iPc 19
220 iPc 19
25 . 00nm
188 i Pe 21
154 P 22
150 P 22
159 P 22
156 P 22
155 P 22
29 . 00nm
157 P 22
156 P 22
156 P 22
156 P 22
240 eP 22
160 P 22
158 P 22
165 eP 22
160 P 22
22 iP 26
7 . 80nm
pP 28

21

15
25
28

19
04
10
40
41

08
21
20
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29
30
31
32
33
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34
38
41
51

22

(193)

. 00 -0.8

, v A y a v a . oCL
. 80 1.4
. 10 0.7
5. 4mb
,50 -1.8
. 00 0.8

. 00
. 10 0.0

. 20 -0.6
4 . 9mb
. 90 0.2
. 20 1.2
. 20 0.3
. 80 0.0
. 70 -0.1
. 60 -0.4
5. 3mb
. 20 0.1
. 10 -0.5
. 20 -0.6
. 00 -0.7
. 00 -0.8
. 10 -0.1
. 20 -1.0
. 10 0.6
. 40 -0.2
. 70 0.0
4 . 5mb
. 70 401kmX

29

04d 14h

SPA 85.87 186 i Pd 27 18-66 6.7
0.7s I6.41nm 4 . 9mb
MBC 93.16 14 eP 27 52.06 1.1

VAO 146.02 144 (PKP) 34 17.00 2.3X
BMA 147.86 147 ePKP 34 22.40 4.8X
S.O. = 0.8 on 26 of 28 obs.

AUG 04. 1991 14h 15m 37.48± 1.10s 3.601 S ± 6.9km 126.142 E ± 8.3km DEPTH = 33. 5 ±12. 3 km
5.1mb (12 obs .)
BURU (271)

AA 1 2.05 92 ePc 16 12.00 1.7
eS 1618.80
MN 1 S . 1 8 345 eP 16 54.00 -6.7
cS 17 53.56

MKS 6.84 256 iPc 17 20.00 1.8
i 18 33.60
MTN 10.43 152 eP 18 07.00 -0.8
TSM 11.39 313 ePd 18 18.00 -3.0
WR2 18.12 154 iPc 19 46.90 -1.5
0.7s 53 . 60nm 4 . 8mb
eS 26 34 . 10
ASPA 21.31 160 iPc 20 23.60 -0.2
0.8s 1 38 . 1 0nm 5 . 4mb
eS 24 18.30
OIS 21.35 143 iP 20 25.60 1.4
0.6s 39 . 00nm 5 . 0mb
NANU 21.47 208 eP 20 25.00 -0.4
WARB 22.46 179 eP 20 36.00 0.8
e 21 33.00
1 PM 26.38 288 ePc 21 13.80 1.0
PSI 27.91 283 i P d 21 27.10 0.3
CHG 34.83 311 ePc 22 28.00 0.3
1.1s 1 6 . 1 4nm 4 . 9mb
CHTO 34.83 311 iP 22 28.20 0.5
1.3s 20 . 42nm 4 . 9mb
KMI 36.49 323 eP 22 42.50 0.6
BWA 37.01 149 eP 22 44.80 -1.1
CAN 38-00 149 eP 22 53.30 -1.0

MAT 41.49 15 (P) 23 23.00 -0.1
1.0s 1 0 . 00nm 4 . 5mb
BJ 1 44.38 349 (P) 23 47.00 0.4
LZH 44.65 334 PC 23 50.00 0.9
1.5s 40 . 00nm 5.1mb
pP 24 03.00 48kmX
sP 24 10.00
GUN 49.84 312 P 24 31.30 1.2
0.9s 53 . 00nm 5 . 6mb
PKI 50.01 311 P 24 30.04 -1.3
1.0s 1 7 . 00nm 5 . 0mb
KKN 50.22 311 P 24 32.96 0.1
0.9s 51.00nm 5.5mb
DMN 50.26 311 P 24 33.28 0.1
1.0s 42 . 00nm 5 . 4mb
GKN 50.82 311 P 24 36.22 -1.1
0.9s 35.00nm 5.4mb
HBZ 58.38 133 eP 25 36.70 4.6X
S . D . - 1 . 2 on 25 of 26 obs .

AUG 04, 1991 I5h 11m 24.66± 0.54s 34.534 N ± 6.5km 34.094 E ± 6.5km DEPTH - 27 . 3 ± 5. 2 km
4 . 2mb (3 obs .)
CYPRUS (372)
ML 4.0 (CSS), 3.8 (BHL). MD 3.8 (HLW) .

FAM 0.47 351 eP 1 34.00 -0.4
eS 1 47.00
CSS 0.76 304 eP 1 38.50 -0.8
eS 1 53 . 50
BHL 1.44 115 Pg 1 47.00 -2.2
Sg 2 04.00
PPCY 1.48 284 eP 1 51.00 1.3
eS 12 13. 70
SHMJ 2.28 142 PC 12 01.68 0.5
JARJ 2.76 145 Pd 12 08.48 0.3
SALJ 2.85 152 Pd 12 09.88 0.5
MKRJ 3.24 156 P 12 15.37 0.4
MDSJ 3.41 147 PC 12 17.38 -0.1
ELL 4.06 304 ePn 12 28.50 1.8
KOT 4.97 203 ePn 12 38.00 -1.5
eSn 13 32.50
YER 5.39 360 ePn 12 46.00 0.6
KHC 21.03 320 eP 16 07.00 -1.6

LPG 23.52 306 eP 16 45.30 11. 8X
0.8s 4 . 05nm
LPL 23.54 306 eP 16 44.70 11. IX
0.8s 4 . 05nm
CDF 24.26 313 eP 16 40.30 -0.2
0.8s 5.35nm 4.1mb
8SF 24.32 311 eP 16 40.60 -0.5
0.8s 5.35nm 4. 2mb
HAU 24.66 311 eP 16 44.20 -0.1
SSF 26.14 308 eP 16 57.20 -1.0
0.6s 3 . 60nm 4 . 2mb
GKN 43. 33 84 P 19 27 . 00 0.7
DMN 43.86 85 P 19 32.00 1.3
KKN 43.93 84 P 1931.80 0.5
PKI 44.12 84 P 19 32.80 -0.1
S.D. - 1.1 on 21 of 23 obs.

& AUG 04, 1991 15h 25m 37.20s
36 . 597 N 121- 245 W
DEPTH - 6.0km
CENTRAL CALIFORNIA (39)
<8RK>. ML 2.6 (BRK).

SAO 0.23 316 iPc 25 41.69 -0.3
LLA 0.24 85 iPc 25 42.08 -0.1
PRS 0.28 201 iPd 25 43.06 0.1
eS 25 47.35
PRI 0.65 134 eP 25 50.12 -0.2
eS 26 03.02
GCC 0.74 306 iPd 25 51.01 -1.0
eS 26 03. 51
ARN 0.79 343 eP 25 52.40 -0.5
MHC 0.81 337 ePd 25 53.00 -0.3
eS 26 05.00
PKEM 1.06 120 eP 25 57.80 0.2
PCC 1.28 315 ePc 25 58.40 -2.9
FRI 1.29 72 iPc 25 59.80 -1.7
i S 26 17 . 07
8KS 1.50 329 eP 26 03.50 -1.2

BRK 1.51 328 e(P) 26 04.60 -0.2
CMB 1.59 25 eP 26 05.99 0.0
BCH 1.70 146 eP 26 05.40 -2.2
14 obs. associated
__ ___

AUG 04. 1991 16h 1 3m 04.60± 0.46s
44.003 N ± 3.5km 6.543 E ± 4.6km
DEPTH - 10.0km (geophy s i c i s t)
FRANCE (538)
ML 1 .9 (LOG) .

FRF 0.45 170 Pg 13 13.20 -0.5
Sg 13 19. 40
LRG 0.56 194 Pg 13 15.70 -0.3
Sg 13 23. 40
STV 0.61 67 P 1316.18 -0.8
S 13 24. 49
PZZ 0.64 38 P 1316.79 -0.8
S 13 25.41
COR 0.65 240 eP 13 17.70 0.1
e 13 26 . 90

SBF 0.66 102 Pg 13 19 . 00 1.2
Sg 13 27.20
LMR 0.67 182 Pg 13 18.00 0.1
Sg 13 26 . 10
ENR 0.67 70 P 1317.10 -0.9
S 13 25.61
RRL 0.93 1 1 P 1321.82 -0.8
IMI 0.98 95 P 1323.87 0.7
S 1337.10
BHB 0.98 31 P 13 22.84 -0.5
ROB 1 .00 73 P 13 23 .66 0.1
S 13 36 . 28
FIN 1 .22 80 P 13 27. 87 0.6
S 1343.15
RSP 1 .26 24 P 13 28 . 79 0.8
LPG 1 .50 6 Pg 13 32 . 60 0.7
LPL 1 .52 5 Pg 13 32 . 80 0.8
PCP 1.54 69 P 13 31.77 -0.4
S.D. -0.7 on 17 of 17 obs .

& AUG 04, 1991 18h 20m 27.37s
62. 863 N 149.704 W
DEPTH - 76.3km
CENTRAL ALASKA (1)
<AE 1 C> .

HUR 0.12 15 i P 20 38 .61 1.7

eS
CUT 0.53 210 eP
TRF 0.65 336 iP
S
RND 0.67 35 i P
eS
IXTU ftftQ^OO i D rv 1 rt O . O ? O £ £ 1 r
eS
MCK 0.94 21 i P
S
GHO 1.15 161 eP
S
PWA 1.22 184 eP
eS
SKT . 1.23 225 iP
S
PLRM 1 .30 168 eP

S
BWN 1.32 5 i P
eS
SUA 1 . 49 260 eP
PMS 1.63 178 eP
S
NEA 1.74 9 IP
WRH 1 .77 23 iP
S
TOA 1.81 113 eP
NCG 1 .86 219 eP
S
CGLM 1.90 216 eP
PAX 1.94 85 eP
eS
SDG 1 .95 98 eP
CCB 1 . 98 24 i P
eS
SPU 2 .02 214 eP
BGL 2.04 219 eP
CKL 2 . 08 218 eP
MOM 2.20 17 eP
FBA 2.21 22 iP
KLU 2 . 25 1 26 eP
GLI 2 . 34 1 47 eP
VZW 2.34 139 eP
\/l7 *7TC1T£;^»D VLt /.JO 1 J O Gr
SLKM 2.3B 186 eP
KNIM 2.69 159 eP
LT 1 2.97 162 eP
GLB 3.11 1 15 eP
34 obs . ossoc i

AUG 04. 1991 I8h
38 . 339 N ± 5.0km
DEPTH - 37.6 ± 12

3 . 4mb (2 obs .)
GREECE

MD 3. 4 (THE) .

AGG 0.71 343 ePc
eS
ATH 0.95 112 eP
VLS 1 . 59 265 eP
VLI 1 .64 171 eP
LIT 1 .76 357 ePd
eS
PAiG 1 . 79 28 ePd
eS
KZN 2.07 342 eP
1 GT 2.13 305 ePd
OUR 2.26 28 ePc
SOH 2.55 13 ePd
KEK 2.58 303 eP
GRG 2.62 357 ePd
FNA 2.62 339 ePd
eS
KNT 2.83 5 ePd
eS
SRS 2.88 15 ePd
eS
VAY 2.98 360 iPn
O Q ts TCil *7 1 A D

rPCK O . V I ft Cr

OHR 3.10 334 ePn
EZN 3.26 62 eP
MMB 3.36 15 i PC
RDO 3.60 38 eP
SKO 3.74 347 ePn
i
KDZ 3.95 32 iP

20 47.06
20 41 .30
20 42.47
20 53.75
20 42.45
20 53.88
20 45. 16
20 58.50
20 45.51
20 59. 12
20 48.65
21 04.80
20 49.55
21 06.27
20 49. 15
21 05.85
20 50.64
21 08 .87
20 50. 13
21 08.56
20 53.29
20 55.62
21 16.48
20 55.09
20 55.59
21 16.11
20 58.40
20 57 .91
21 22 .06
20 58.71
20 58.91
21 23.94
20 59.71
20 58.29
21 20.69
21 00.07
21 01 .24
21 02 .05
21 01.48
21 01 .66
21 02.49
21 03.43
21 02.91
21 03.32
21 06.03
21 08 . 10
21 1 1 .78
21 14.79
o ted

23m 38.55±
22 .602 E ±
. 2 km

23 49.97
24 00.06
23 56.70
24 04 . 40
24 04.40
24 07.50
24 29.89
24 08.02
24 31 .00
24 12.00
24 14.53
24 14.70
24 19.21
24 19. 70
24 19.42
24 19.85
24 51 .25
24 22.74
24 56.85
24 23.17
24 57.85
24 24.00
24 26.00
24 26.30
24 41 . 00
24 30.00
24 32.70
24 36.00
25 34.20
24 37.00

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- 0 . 1

- 0 . 3

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- 0 . 2

0 . 2

0.3

- 0.2

0.3

- 0.4

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- 1 . 1
- 1 .0

1 .2
- 0 . 1

0.3
- 0. 1

0. 7
- 1 . 1

0.0
0. 8
. 1
- . 1
- .0
- 0.7
- . 0
- .6
- . 3
. 1
- 1 .2
- 1 . 3
- 0. 4

0.53s
3 . 8km

(364)

- 2.3

1 . 1
ft T O . J

- 1 .0

0.3

0.4

0. 4
2 .0
0.4
0. 8
0.9
0.0
0. 4

0.3

0. 1

- 0.5
1 . 1
0. 1
12. 6X
0 . 1
- 0.6
0.8

- 1 . 3

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PLD 4.09 22 eP 24 40
LCI 4.12 380 P 24 58
VTS 4.27 6 eP 24 43
ROI 4.86 287 P 24 50
BRT 4.88 303 P 24 51
TDS 5.05 287 P 24 54
OR 1 5.08 292 P 24 55
CS 1 5.12 288 P 2454
CZ 1 5.13 282 P 24 54
eSn 25 52
PVL 5.29 22 eP 24 55
MGR 5.76 290 P 25 03
SCO 6.06 294 P 25 08
MLR 7.57 18 eP 25 29
HFS 22. 54 348 eP 2837
8.4s 0 . 70nm
NB2 23.82 346 P 28 47
0.8s 1 . 00nm
S. D. - 1 .0 on 36 of

AUG 84, 1991 18h 24m 25
66.910 N ± 7.5km 156.311
DEPTH « 33.0km (normal)
ALASKA

ML 3.6 (PMR) .

IMA 1 .35 127 ePd 24 48
TTA 4.00 178 eP 25 25
FBA 4.03 116 ePd 25 26
ANM 4.42 242 eP 25 32
BRW 4.42 358 eP 25 31

SVW 5.83 177 eP 25 51
S . D . =0.3 on 6 of

AUG 04, 1991 19h 08m 03
46.647 N ± 8. 4 km 10.072

. 00 -0.3
. 00 9 . 3X
. 00 0.0
. 30 -1.0
. 30 -0.2
. 50 0.6
. 40 1.1
. 00 -0.9
. 40 -0.6
. 40
. 00 -2.2
. 30 -0.5
. 00 -0.1
. 00 -0.3
. 70 1.5
3.5mb
. 80 -0.9
3 . 4mb
38 obs.

. 27± 0.76s
W ± 8 . 5km

(676)

. 30 0.2
. 70 -0.1
. 40 0.2
. 00 0.3
. 50 -0.2
. 40 -0.3
6 obs .

. 95± 0. 64s
E ± 5 . 2km
DEPTH - 10.0km (geophy s i c i s t)
NORTHERN ITALY

ML 2.5 (LDG) .

OSS 0.06 51 iPc 08 05
VDL 0 .45 249 iPc 08 1 1
OGA 0.69 71 ePg 08 16
TMA 8.99 237 ePc 08 21

SCE 1.19 70 iPgc 08 25
2LA 1 . 42 307 ePc 08 31
SLE 1 .55 317 ePc 08 32
MMK 1 . 58 249 ePd 08 31
FUR 1.73 28 iPc 08 35
FEL 1.87 312 ePn 08 36
FV 1 1 .87 91 P 08 38
eSn 09 01
Dl X 1.93 254 ePc 08 3B
BSF 2.53 299 Pg 08 51
Sg 09 23
LPG 2.58 245 Pn 08 48
LPL 2.58 245 Pn 08 49
CDF 2.59 314 Pn 08 46
Pg 08 53
Sg 09 24
HAU 2.87 300 Pn 08 50

Sg 09 34
GRF 3.14 14 ePn 08 54

ePg 09 03
eSn 09 30
eSg 09 44
LBF 4.20 277 Pn 09 08

Sg 1014
LOR 4.30 281 Pn 09 09

Sg 10 18
S . D . = 1.4 on 19 of

* AUG 04, 1991 19h 08m 07
65 . 492 N ±12 .2km 142 . 91 0
DEPTH * 33.0km (normal)
4 . 4mb (7 obs .)
EASTERN $IBERIA

YAK 6,81 245 eP 09 47
i 1011
i S 1 1 05
e 1143
IMA 25,05 59 eP 13 29
TTA 25,78 67 eP 13 41
NB2 48178 331 P 16 49
1.1s 3. 20nm
GKN 51.80 253 P 1 7 00

(545)

. 10 -1.3
. 30 -1.8
. 80 -1.0
. 30 -1.6
. 60 -0.7
. 50 1.6
. 10 0.4
. 50 -0.7
. 00 0.8
. 13 -0.2
. 00 1.8
. 00
. 40 1.0
. 80 6.0X
. 30
. 70 2.0
. 00 2.3
. 20 -0.5
. 50
. 00
. 80 0.1
. 00
. 50 0.1
. 70
. 00
. 28
. 20 -1.3
. 20
. 70 -1.2
. 20
20 obs.

. 13± 0.73s
E ± 1 1 . 4km

(671)

. 10 0.0
. 00
. 00
. 00
. 40 0.0
. 30 5.0X
. 70 -0.5
4 . 3mb
. 00 -13. 8X

CDF 61 . 38 328 eP 1821. 98 8.1
LOR 63.28 330 eP 18 33.40 -0.4
0.6s 1 . 80nm 4 . 4mb
LBF 63.44 330 eP 18 35.60 -8.4
0.8s 2.70nm 4. 4mb
SSF 63.47 330 eP 18 35.20 -0.3
0.8s 2.70nm 4. 4mb
LPL 64.24 327 eP 18 41.70 0.8
0.6s 1 . 80nm 4 . 3mb
LPG 64.25 327 eP 18 41.90 0.8
0.6s 1 . 80nm 4 . 3mb
WRA 85.42 188 P 20 42.00 0.0
1.1s 2 . 10nm
S . D . =0.5 on 10 of 1

& AUG 04, 1991 20h 10m 34.
37 .632 N 1 18.867
DEPTH - 6.9km
CALIFORNIA-NEVADA 80RDER REG

<GM-P> . MD 3.1 (GM) .

4 . 3mb
? obs .

J7s
¥

ION (48)

BONR 0.55 54 iP 10 45.^0 -0.2
CMB 1.27 289 eP 10 57.^0 -0.6
TNP 1.38 7 1 eP 1100.60 0.3
KVN 1.54 23 eP 11 03.40 0.8
PKEM 1.86 213 eP 11 07.00 0.0
ARN 2.14 263 eP 1 1 1 1 . J30 0.7
PHAM 2.17 215 eP 11 11.60 -0.6
ABL 2. 79 186 eP 1 1 21 .00 0.4
8 obs. associated

» AUG 84, 1991 20h 23m 48.41± 0.76s 8.682 S ±13. 2km 67.270 E ± 1 5 . 1 km DEPTH - 10.0km (geophy s i c i s t)
4 . 9mb (9 obs .)
MID-INDIAN RISE (429)

KOD 21.36 29 eP 28 38. 50 -0.3
eS 32 44.00
GBA 24.33 25 Pd 29 06. £0 -1.0
0.9s 12. 70nm 4 . 5mb
CUE 38.65 360 eP 31 15.
DMN 40.00 25 Pd 31 26.
0.9s 71. 00nm
PKI 40.09 25 Pd 31 26.
1.2s 43 . 08nm

30 1.4
38 0.6
5 . 3mb
52 0.0
5 . 0mb
GKN 40.15 24 Pd 31 27.02 0.4
0.9s 78 . 00nm 5 . 3mb
KKN 40.23 25 Pd 31 27.68 0.4
0.9s 70 . 00nm
GUN 40.59 26 Pd 31 30.
SLR 48. 72 240 i PC 31 31 .
CHG 41.50 49 ePd 31 37 .
1.0s 1 3 . 75nm
CHTO 41 . 50 49 i P 3137.
0.9s 1 0 . 66nm
GAR 47.52 3 eP 32 25.
LZH 56.27 35 eP 33 27.
2.0s 21 . 00nm
VRI 65.31 330 eP 34 35.

5 . 3mb
36 0.4
J0 -0.4
30 -0.1

4 . 6mb
?0 -0.4
4 . 6mb
50 -0.6
30 -4 . 3X
4 . 8mb
50 2.7X
WRA 65.59 108 P 34 36.00 0.9
0.7s 2 . 20nm 4 . 5mb
BJ 1 66.24 39 eP 34 37.50 -1.4
CLL 75.78 328 eP 35 42.08 5.8X
ALO 153.24 349 ePKP 43 49.00 7.9X
S.D. - 0.8 on 14 of IB obs.

AUG 04 , 1991 21 h 00m 51 .
42.925 N ± 2. 4km 18.571
DEPTH - 15. 5 ± 3.0 km
YUGOSLAVIA

ML 3.6 (ROM) . MD 4.3 (T
(THE) , 3.6 (TTG) . Fe I t
western Montenegro.

BRY 0.03 220 iPgc 00 55.
iSg 00 58.
NKY 0.33 110 i Pgd 00 59 .
i Sg 0104.
HCY 0.48 186 iPgd 01 00.
i Sg 01 08 .
BDV 0.67 163 i Pgd 81 04 .
i Sg 0114.
TTG 0.71134! Pgc 01 04 .
iSg 0115.
PLE 0.73 56 iPgd 01 06.
i Sg 01 18 .

90± 0.25s
E ± 2 . 0km

(383)
Rl) , 3.8
i n

81 0.8
71
04 0.0
42
82 -0.7
16
07 -0.7
39
67 -0.7
54
16 0.4
06

I VA

PVY

ULC

HVAR

BA I
BRT
SKO

BED

OHR

LCI
FNA

DU I
KEK
VAY
SGO
VTS
ZAG

GRG
VBY

PTJ

KZN
CS I
MGR
MMN
IGT

TDS
KNT

ROI
SDI
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AOU
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MMB
LIT

CEY

C2I
SOH
SRS

ARV
LJU

ASS
MNS
GR 1
TRI

VOY

RZN
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AGG

PAIG

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RDO

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93 i Pgd
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107 iPgd
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152 iPgc
iSg
280 iPnd
i Sn
216 P
207 P
113 i Pnc
i

iSg
35 ePn

i Pg
iSg
137 iPn.
iSn
190 P
135 i Pd

eS
249 P
164 eP
117 i Pn
227 P
94 i Pd
328 ePn

iSg
123 ePc
318 ePn
iSn
329 iPnd
eS
136 eP
209 P
220 P
213 P
158 ePd
eS
208 P
117 iPd
eS
205 P
253 P
246 P
263 P
310 ePn
107 i Pd
132 ePc
eS
315 ePn

e (Pg)
eSn
207 P
1 19 ePd
1 1 4 ePc
eS
280 P
319 ePn
ePg
eSn
eSg
274 P
265 P
202 P
311 ePn
eSn

eSg
31 4 ePn
eSn
103 iPc
121 ePc
143 ePc
eS
126 ePd
eS
281 P
358 eP
84 i PC
284 P
283 P
10 eP
202 P
102 iP
349 !P
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- 1 . 0
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- 1 . 4
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- 0.6

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- 1 . 1
- 0.5
0.9
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- 2. 1
- 1 .7
- 0.4
- 1 .2

0.3

31

04d 21h

FVI
KBA

MME
MLR
BO I
P I I
ALN
I SR
SPC
VR I
WTTA

BOB
PGF
KHC

PRU

KSP

GRF
FRF
LMR
LPG

LPL

MOX

CDF

BSF
SMF
HFS

NB2

5.52 314 P 0216.40 1.1
5 . 57 320 i Pnd 02 17.10 0.9
i Sn 03 20 . 20
i 03 55. 70
5 . 86 285 P 0221.44 1.0
5 .89 62 ePc 02 24.50 3 .8X
5.91 284 P 0220.70 -0.3
5 . 92 280 P 0221.00 -0.1
5.93 107 ePc 02 20.89 -0.3
6.16 66 cP 0235.60 1 0 . 6X
6.37 10 eP 0226.40 -1.2
6.54 60 cP 0232.00 2.2
6.55 314 ePn 02 30.60 -0.1
i 0232.76
eSn 03 43. 00
i 0347.10
i 0415.00
i 04 32. 10
6 . 85 289 P 0233.30 -0.9
7 . 06 270 Pn 02 36 . 00 -1.2
7.11 332 P 0238.00 0.2
Sn 0403.00
7 .59 340 P 02 45. 20 0.7
e 0301.50
e 03 48 .50
Sn 0418.50
8 . 07 350 eP 0257.50 6. 3X
id 0901.50
8 . 46 326 cP 02 53 .30 -3. 4X
8 .73 278 Pn 02 59.80 -0.6
8 . 83 277 Pn 0301.00 -0.8
8.87 291 Pn 03 00.80 -1.8
Sn 04 32.00
8 . 89 29 1 Pn 0301.00 -1.8
Sn 04 32.80

9 . 07 331 e(P) 0305.40 0.3
e 0549.00
9 . 62 309 Pn 0311.30 -1.5
9.63 305 Pn 0310.90 -2.0
11.11 295 Pn 03 28 . 80 -4 .3X
17.49 352 eP 04 53.40 -3.0
0.8s 2 . 1 0 ntn 3 . 3mb
18 .68 349 P 05 15 .60 4 . 5X
0.6s 0.50 ntn 2. 9mb
S . D . - 1 . 1 on 86 of 92 obs .

____________ ________________________

AUG 04. 1991 21h 20m 33.06± 0.27s 46.331 N ± 6.5km 151.125 E ± 4.0km DEPTH - 70.0km (ge ophy s i c i s t)
4 .
KUR 1

MAT

YAK

ADK
BJ 1

TTA

SVW

1 MA

KDC
SLKM
LZH

PMR

FBA

TOA
BALM
1 NK
KMI
MBC
CHG

CHTO

9mb (57 obs .)
L ISLANDS (221)

13.75 229 eP 23 45.00 -1.1X
0.6s 1 1 . 33nm 4 . 5mb
(S) 26 13. 00
19. 94 330 iPd 25 01 . 40 -0.1
epP 25 24.00 127kmX
ePP 25 32.00
i S 28 39 .00
e 36 21 .00

21 .68 63 e(P) 25 20.80 0.8
26.10 269 cP 26 03. 00 1.3
1.0S 40.00nm 4. 9mb
33.64 41 ePc 27 09.40 0.7
0.9s 1 2 . 30nm 4 . 8mb
33 . 74 44 cP 27 07 . 20 -2.2
0.7s 26 . 1 6nm 5 . 2mb
34.95 36 ePd 2721.00 1.1
0.6s 7 . 1 0 ntn 4 . 8mb
35 .48 50 eP 2724.10 -0.2
36 . 40 45 eP 27 32 .00 0.0
36.53 271 eP 27 34 . 00 0.4
1.8s 85.00nm 5. 4mb
36. 85 44 ePc 2737.10 1.3
0.9s 16.60nm 5. 0mb
37 .34 38 ePc 2741.30 1.5
0.7s 25 . 00nm 5 . 3mb
38 . 21 43 eP 27 49 . 10 1.8
40.17 44 eP 2802.00 -1.6
42 . 74 32 eP 28 25 . 00 0.7
43.81 258 P- 28 34 .50 0.6
45 . 46 20 cP 28 47 .00 0.9
50. 69 255 iPd 29 28 . 70 1.3
0.9s 4 1 . 1 8nm 5. 5mb
50.69 255 iPd 29 28.40 1.0
0.7s 30 . 97 ntn 5 . 4mb
pP 2947.10 74kmX

SHL
GUN
KHT
KKN

PK I
DMN

GKN

GAR
NEW

ND I
SOD
ORV
FFC

LRM
KAF
TNP

OBN

NUR
OUE
I SA
HYB
CLC
BW06

SBB
GSC
WR2

WRA

POO
RSSD

N82

HFS

GBA

GOL
ASPA

ANMO
ALO

SCH
KRA

KSP

SPC
VRI
CLL

PRU

MOX

SRO
BUD
2ST
KHC

GRF

2

ENN

MEM
FVM

WLF
WTTA

50. 98 267 iP 29 29. 50 -0.4
53.67 274 P 29 49 . 70 -0.3
53.80 252 eP 29 51 .50 0.8
54.15 274 P 2953.12 -0.4
0.7s 115. 60nm 6 . 0mb X
54.20 274 P 29 53.64 -6.3
54 . 39 274 P 29 55 . 38 0.1
0.6s 82.00nm 5.9mb
54 . 47 275 P 29 55. 60 -0.1
0.6s 77 . 00nm 5 . 9mb
57.44 294 eP 30 14.90 -2.0
58.52 52 ePd 30 23.50 -9.7
0.8s 10.00nm 5. Omb
59.13 280 iPc 30 28.00 -0.6
59.14 338 iP 30 ^7 .SO -* .3
61.19 62 ePc 30 4 : . SO -0.8
61.94 39 eP 30 47.00 -0.3
0.6s 10. 00nm 5 . 1mb
62.54 52 eP 30 51 . 90 0.1
63.24 334 eP 30 54.10 -1.7
64.72 61 cP 31 05.00 -1.1
0.7s 22 . 22nm 5 . 2mb
64 .87 325 cP 3105.00 -1.5
e 3127.00
64.99 334 cP 31 03.60 -3 . 6X
65. 06 288 eP 31 07 . 80 -0.6
65 . 51 63 cP 31 10.00 -1.0
65.63 270 cP 3111.00 -0.9
65 . 95 63 eP 3114.00 0.2
66.09 53 cPc 31 14 .60 -0.3
0.7s 4 . 1 9nm 4 . 5mb
66 . 55 64 cP 3118.00 0.3
66. 78 63 eP 3119.00 -0.2
67 .69 197 i PC 31 24.60 -0.2
0.8s 12.90nm 4. 9mb
67 .69 197 P 3124.00 -0.8
1.0s 12.70nm 4. 8mb
68 . 12 274 iPc 31 26. 40 -1.3
68.14 49 ePc 31 26.60 -1.1
0.7s 8.65nm 4. 8mb
68. 17 340 P 31 25 . 60 -1.8
0.9s 6.30nm 4. 6mb
68.36 339 cP 31 27 . 20 -1.3
0.9s 7 . 50nm 4 . 6mb
69.04 268 Pd 31 32.40 -0.9
0.7s 9.50nm 4. 8mb

70. 50 53 cP 3141.80 -0.5
71 . 39 197 iPc 3148.40 1.0
0,7s 1 2 . 20nm 4 . 9mb
73. 22 57 cP 3159.10 0.7
73.22 57 cP 3159.10 0.6
0.9s 3 . 57nm 4 . 3mb
74.24 22 eP 32 03.00 -0.8
75.10 330 cP 32 07 .50 -1.2
e 32 15. 00
75 .65 332 cP 32 1 1 . 00 -0.9
e 35 36.00
75. 72 329 cP 32 13. 60 1.0
75.98 324 eP 32 06.00 -7.8X
76.26 334 i PC 32 15 . 30 0.0
1.4s 16.00nm 4. 8mb
76.95 333 P 32 19. 20 0.0
e 32 53. 00
77 .26 335 cP 32 21 . 60 0.7
1.6s 16.00nm 4. 7mb
e 32 26.00
77 .57 330 IP 32 23. 50 0.9

77.60 329 c(P) 32 33.00 10. 2X
77.66 330 cP 32 23.80 0.7
78.00 333 iPc 32 25 . 50 0.5
1.0S 7 . 00nm 4 . 6mb
78. 23 3 35 i PC 32 27. 10 0.9
0.9s 15.00nm 4. 9mb
20s 0 . 04um 3 . 7Msz
e 32 30. 80
78. 72 338 cP 32 29.00 0.2
0.7s 11.00nm 4. 9mb
78 .84 338 PC 32 29. 80 0.3
79.57 45 eP 32 33.00 -0.7
0.6s 1 4 . 95nm 5 . 1mb
79.67 338 P 32 39.00 5.0X
80.26 333 iPd 32 37 .80 0.3
0.7s 1 0 . 80nm 4 . 9mb
ic 32 38.00
i 33 07 . 70
i 3315.80
e 33 27.50

CDF 80.51 337 eP 32 38.20 -0.5
1.0s 1 2 . 00nm 4. 8mb
HAU 81.14 337 eP 32 41.40 -0.5
Z 22s 0.05um 3.8MS2
BSF 81.17 337 cP 32 42.10 -0.1
FLN 82.11 341 eP 32 46.50 -0.4
1.0s 14. 00nm 4 . 9mb
2 20s 0.05um 3.9Msz
LDF 82.19 341 cP 32 46.90 -0.4
1.0s 8 . 00nm 4 . 6mb
LOR 82.47 338 cP 32 48.40 -0.4
1.0s 10.00nm 4. 7mb
2 20s O.IOum 4.2MS2
GRR 82.55 342 cP 32 49.00 -0.1
. 0.8s 16.lOnm 5. 0mb
LBF 82.70 338 eP 32 49.80 -0.3
0.8s 4 . 05nm 4 . 4mb
SSF 82.75 338 eP 32 49.90 -0.4
0.8s 5 . 35nm 4 . 5mb
LPF 82.92 342 eP 32 51.00 -0.1
1.0s 24 . 00nm 5 . 1mb
AVF 83.05 338 cP 32 51.80 0.1
1.2s 22 . 30nm 5 . 0mb
SMF 83.05 338 cP 32 51.50 -0.3
0.9s 1 7 . 20nm 5 . 0mb
SFI 83.17 332 PC 32 53.70 1.3
BOB 83.18 334 P 32 53.40 0.8
MME 83.30 333 P 32 54.60 1.2
LPL 83.30 336 eP 32 54.50 1.1
0.8s 10.75nm 4. 9mb
LPG 83.32 336 eP 32 54.70 1.1
1.0s 20 . 00nm 5 . 0mb
BGF 83.39 339 eP 32 53.70 0.2
0.8s 4.70nm 4. 5mb
CRE 83.40 331 P 32 54.40 0.7
BD I 83.45 333 P 32 54.80 0.8
BNI 83.74 336 P 32 57.00 1.5
MAF 83.77 339 cP 32 56.10 0.6
1.0s 35 . 00nm 5 . 3mb
TCF 83.80 339 cP 32 55.80 0.1
1.0S 14.00nm 4. 9mb
LSF 84.01 339 cP 32 56.60 -0.1
1.2s 38 . 70nm 5 . 3mb
MFF 84.07 341 eP 32 57.20 0.2
0.8s 1 0 . 75nm 4 . 9mb
SBF 84.61 335 eP 32 59.80 0.0

0.8s 13. 45nm 5 . 0mb
RJF 84.89 339 eP 33 02.10 1.0
1.0S 16. 00nm 5 . 0mb
Z 26s 0.08um 4.1Msz
CAF 85.11 338 eP 33 02.90 0.6
1.2s 26 . 80nm 5 . 2mb
FRF 85.12 335 cP 33 02.50 0.2
1.3s 1 4 . 45nm 4 . 9mb
LRG 85.30 335 eP 33 03.40 0.3
1.2s 23 . 80nm 5 . 1mb
PGF 85.32 333 eP 33 02.90 -0.5
1.9s 12.00nm 4. 9mb
LMR 85.36 335 eP 33 03.20 -0.3
1 . 2s 23.80nm 5. 1mb
LFF 85.43 339 cP 33 03.50 -0.3
1.0s 1 8 . 00nm 5 . 1mb
LPO 85.56 339 cP 33 04.20 -0.3
0.8s 8 . 05nm 4 . 8mb
NVL 148.69 205 PKPc 40 12.00 3.7X
S.D. - 0.8 on 102 of 108 obs.

? AUG 04, 1991 22h 00m 1 1 . 85± 1.16s 2.324 S ± 9.6km 77.114 W ±23. 9km DEPTH - 33.0km (normol)
4 . 8mb (1 obs .)
PERU-ECUADOR BORDER REGION (110)

TUNG 1.61 304 eP 00 54.50 15. 9X
eS 01 30.40
VC1 2.11 322 P+ 00 54.90 8.8X
OTO 2.53 326 eP 00 53.00 1.0
CAYA 2.54 340 P 01 03.00 10. 8X
OUR 2.56 327 P+ 00 53.10 0.7
S 01 24. 10
GGP 2.60 325 P 00 52.10 -0.9
YANA 2.63 326 P+ 00 52.40 -1.0
COTA 2.91 335 P 00 57.70 0.3
CUMC 3.35 347 eP 01 09.87 6.2X
PURC 4.68 9 eP 01 38.89 16. 4X
S I LC 5.04 9 eP 01 39.39 1 1 . 9X
eS 02 52.40

04d 22h

32

ANCC 5.81 2 «P 01 37.93 -0.1
NNA 9.60 178 c? 02 31.00 0.0
0.7s 4 . 1 1 nm 4 . 8mb
«S 05 07.00
S.D. =0.9 on 7 of 13obs.

? AUG 04. 1991 22h 03m 20 . 40± 3.45s
48.311 N ±11.5l-m 1.638 W ±24. 7 km
DEPTH = lw.0km (geophy s i c i s t)
FRANCE (538)
ML 2.6 (LOG).

LPF 8.49 125 Pg 03 30.00 -0.3
Sg 03 43.40
GRR 0.53 81 P<3 03 31.50 0.5
Sg 03 46 . 40
FLN 0.89 59 Pg 03 37.30 -0.2
Sg 03 55.90
LDF 1.05 74 Pg 03 40.00 -0.2
Sg 04 01 .80
MFF 1 .[99 149 Pg 03 54.60 0.2
Sg 04 22.50
S.D. = 0.4 on 5 of 5 obs.

% AUG 04, 1991 22h 35m 10.30± 2.25s
39.277 N ±16. 2km 23.491 E ±14. 8km
DEPTH «= 10.0km (g«ophy s i c i s t)
AEGEAN SEA (365)
MD 2.4 (THE) .

PA 1 G 0.67 13 i PC 3524.17 0.6
«S 35 33.80
AGG 0.94 255 «Pc 35 28.28 0.1
«S 35 41 . 36
OUR 1.12 20 «Pd 35 31.08 -0.2
LIT 1 . 13 31 7 eP 3531.70 0.2
«S 35 46.76
SOH 1.55 356 «Pd 35 37.60 -0.4
GRG 1.87 334 «Pc 35 42.32 -0.4
KNT 1.94 347 ePc 35 43.56 0.0
S.D. - 0.4 on 7 of 7 obs.

? AUG 04, 1991 23h 08m 21.83± 5.04s
15.742 N ±16. 5km 60.031 W ±37. 5km
DEPTH = 10.0km (g«ophy s i c i s t)
LEEWARD ISLANDS (92)
ML 2. 7 (FDF) .

DEC 1.14 300 «Pd 08 43.35 0.1
S 08 53.00
SFG 1.23 295 «P 08 44.50 -0.2
MGG 1.25 278 «Pd 08 45.07 0.0
S 08 55.60
BBL 1.41 261 «Pd 08 47.51 -0.1
S 08 59.90
DOG 1.55 281 «P 08 49.62 0.0
SEG 1.56 295 «P 08 49.93 0.3
S 09 04.00
PAG 1.61 280 «P 08 50.45 0.0
S 09 05.20
BPA 2.18 307 «P 08 58.50 -0.2
S.D. =0.2 on 8of 8 obs .

AUG 04, 1991 23h 28m 01.64± 0.68s 19.978 S ± 8.6km 134.063 E ± 6.5km
DEPTH « 10.0km (g«o phy s i c i s t)
4 . 5mb (1 obs .)
NORTHERN TERRITORY, AUSTRALIA (591)

WR2 0.28 84 iPd 28 09.40 1.8
0.8s 729 . 90nm
«S 28 13.30

ASPA 3,67 182 iPd 29 05.80 6.1X
«S 29 48.90
OIS 5.23 97 «P 29 21.00 -0.9
i 29 23.20
eS 30 18.00
KNA 6.57 309 «P 29 41.00 0.3
0.3s I2.00nm 5.3mb X
«S 30 53.50
MTN 7;63 338 «P 29 54.50 -1.1
0.3s 42 . 00nm 6 . 1mb X
«S 31 13.00
WARB 9J.21 226 «P 30 19.00 1.5
0 . 3s 7 . 00nm 5 . 6mb X
«S 31 59.00
OLP 11.42 127 iPd 30 47.80 -0.1

0.7s 106. 00nm 6 . 3mb X
eS 32 49.00
CTAO 11.46 93 IP 30 39.00 -9 . 5X

«(S) 33 29.00
FORR 12.09 205 eP 30 56.50 -0.3
0 3s 23 0 0 nm ^ AI^K v
«S 33 05.
STK 1 3 . 64 1 52 «P 3116.
«S 33 37.

RMO 14.97 118 «(P) 31 41.
«S 3418.
NANU 17.46 258 eP 32 07.
TOO 20. 16 153 i PC 32 42.
0.6s 1 6 . 00nm
S.D. =1.2 on 9of 1

? AUG 05, 1991 01h 23m 01.
52 . 743 N ±53 . 2km 164.014
DEPTH - 33.0km (normal)
4 . 5mb (3 obs .)
SOUTH OF ALASKA

SON 3.33 37 «P 23 52.
(Ml/* INK O Z i O ft T 1 ^ D *7 7 i C l . / o oler / / * o .
MBC 29.03 20 «P 29 03.
0.5s 2 . 0&nm
FRB 46.74 37 «P 3130.
DAG 48.89 10 iPc 31 58.
0.7s 8 . 9&nm
KAF 65.20 355 «P 33 53.
HFS 67.46 1 «P 33 56.
1.3s 7 . 80nm
PKI 79.87 302 P 35 00.
WRA 89.86 236 P 35 58.
0.3s 0 . 9&nm
S.D. -1.2 on 5of

» AUG 05, 1991 01h 53m 49.
1 0 . 222 N ± 8 . 3km 125.192
DEPTH = 33.0km (normal)
5 . 0mb (1 0 obs .) 4 . 3Msz (
LEYTE, PHILIPPINE ISLANDS

MAP 1 .20 275 iPc 5416.
IS 54 25.
DAV 3 . 1 4 1 73 eP 5438.
PGP 5.28 309 iPc 55 08.
OCP 5.95 318 «P 55 19.
BAG 7.61 324 «P 55 39.
CVP 8.12 337 «Pc 55 49 .
1.0s 63 . 00nm
SSE 21.10 350 P 58 32.
2.0s 152.00nm
Z 20s 0.90um
N 1 4s 0 . 40um
E 1 3s 0 . 70um
«S 02 31 .
sS 02 42.
«SS 03 10.
IPM 24.60 259 «Pd 59 09.
0.9s 29.80nm
KMI 25.96 308 PC 59 24.
1 .5s 50. 06nm

pp 59 34.
BJ I 30.76 346 eP 00 05.

00
30 -1.3
70
00 5.9X
00
00 0.0
00 3.0X
4 . 5mb
3 obs .

75± 1 .76s
W ±57. 2km

(17)

50 -0.2
00 -1.0
00 2.8X
4 . 1mb
00 1.1
00 12. 5X

00 1 1 . 7X
20 0.5
4 . 6mb
00 -8.9X
00 -0.4

4 . 5mb
9 obs .

89± 0.58s
E ±1 1 . 8km

3 obs .)
(256)

00 -0.3
00
00 -0.2
00 -0.5
00 1.0
80 -1.8
00 0.5

5.7mb X
50 -1.5
5 . 1mb
4 . 2Msz

08
00
80
10 0.5

4 . 9mb
00 2.4
4 . 9mb
50 39kmX
00 0.6
Z 18s 0 . 59um 4 . 3Msz
« 00 40.00
«S 05 08.00
WR2 31.31 163 «P 00 06.80 -2.7
0.6s 15.60nm 5.0mb
LZH 32.22 326 «P 00 16.50 -1.0
1.6s 70 . 00nm 5 . 3mb
Z 30s 0.76um 4.2MszX
E 20s 1 . 46um

pp 00 32.
ASPA 34.74 166 i PC 00 39.
0.7s 22.70nm
Z 1 9s 0 . 60um
SHL 35.05 300 IP 00 40.
WARB 36.21 178 eP 00 52.
0.6s 17. 00nm
STK 44.71 160 iPd 02 03 .
0.8s 5 . 50nm
GBA 46.79 279 PC 02 18.
0.9s 11. 70nm
DZM 51 .64 129 iPc 02 55.
DUE 57.53 299 «P 03 40.

00 63kmX
70 0.4
5 . 2mb
4 . 3Msz
50 -1.7
40 0.7
5 . 1mb
10 1.3
4 . 5mb
80 0.3
4 . 9mb
50 -0.5
00 0.9

INK 84.72 21 «P 06 24.00 2.5
MBC 85.99 13 «P 06 27.00 -0.8
1.0s 6 . 00nm 4 . 8mb
S.D. =1.4 on 21 of 21 obs .

AUG 05, 1991 02h 00m 59.61± 0.38s 47.465 N ± 8.0km 152.195 E ± 6.5km DEPTH - 140.0km (ge o p hy s i c i s t)
4 . 6mb (41 obs .)
KUR 1 L ISLANDS (221)

MAT 15.05 229 «P 04 24.00 -2 . 1 X
0.6s 5 . 33nm 4 . 0mb
«S 05 36.00
YAK . 19.36 327 eP 05 17.00 0.8
ADK 20.53 66 «P 05 27.30 -0.9
1.2s 84 . 40nm 5 . 0mb
TTA 32.31 42 «P 07 18.20 1.4
IMA 33.60 37 ePd 07 28.60 0.5
0.6s 14. 80nm 4 . 9mb
KDC 34.20 52 «P 07 32.30 -0.7
FBA 35.99 39 eP 07 49.70 1.6
0.7s 26. 30nm 5 . 1mb
LZH 37.25 270 eP 08 00.00 0.8
1.5s 28 . 00nm 4 . 8mb
INK 41.39 33 eP 08 34.00 1.2
0.4s 10. 00nm 4 . 8mb
MBC 44.14 20 «P 08 55.00 -0.1
0.5s 6 . 00nm 4 . 5mb
CHG 51.68 255 eP 09 54.80 0.6
CHTO 51.68 255 iP 09 54.90 0.7
0.7s 4 . 61 nm 4 . 4mb
pP 10 27.70 142kmX
KKN 54.80 274 P 10 17.80 0.5
PKI 54.86 274 P 10 18.00 0.2
DMN 55.04 274 P 10 17.30 -1.7
GKN 55.10 275 P 10 19.40 0.0
SOD 58.36 338 «P 10 40.00 -1.7
FFC 60.59 40 iPd 10 57.00 -0.2
0.8s 10. 00nm 4 . 8mb
LRM 61 .26 53 «P 1 1 01 .90 -0.3
VAC K A r C*7*\TTT*\AD O/.DJ OOD r 11 A UO.vv ft A A " 1 1 . Q y
FRB 64.58 19 eP 11 21.00 -2.3
NB2 67.35 341 P 11 38.80 -2.2
0.7s 2 . 60nm 4 . 2mb
HFS 67.57 339 «P 11 40.50 -1.8
0.5s 3.40nm 4.5mb
2 17s 0 . 15um 4 . 3MszX
LR 44 30.00
WR2 68.99 198 «P 11 51.00 -0.5
0.9s 7.40nm 4.5mb
i 12 15.00
ipP 12 37.50 196kmX
WRA 68.99 198 P 11 50.00 -1.5
1.2s 5 . 10nm 4 . 2mb
ALO 71.99 58 eP 12 09.80 0.0
ASPA 72.69 198 iPc 12 14.80 1.1
0.5s 14.20nm 5.0mb
RMO 73.67 183 i Pd 12 26.90 7.7X
EKA 75.49 346 PC 12 29.20 -0.2
0.4s 2.50nm 4.3mb
CLL 75.55 335 «P 12 29.00 -0.8
k'Hf* f\ n L* 77 I I . 3 ^ 9 £. J ^ ^ O A 'r ^ C P r 1 \ *> £. <J ^ Q ? .

*^ 3 A v _ A V .

^£
GRF 77.51 335 eP 12 41.60 0.9
2 21s 0 . 10um 4 . IMsz
WTTA 79.57 334 «P 12 52.50 0.3
0.5s 8 . 40nm 4 . 7mb
ic 12 52.90
CDF 79.76 337 eP 12 52.80 -0.3
0.8s 5 . 35nm 4 . 3mb
HAU 80.37 338 «P 12 56.00 -0.3
2 20s 0.13am 4.3Msz
BSF 80.42 337 eP 12 56.20 -0.4
FLN 81.26 342 eP 13 00.70 -0.1
1.0s 1 2 . 00nm 4 . 6mb
2 20s 0.15um 4.3Msz
LDF 81.35 342 «P 13 01.20 -0.1
0.8s 5 . 35nm 4 . 3mb
LOR 81.69 339 «P 13 03.00 -0.1
0.8s 12. 10nm 4 . 7mb
2 20s 0.10um 4.2Msz
GRR 81.70 342 «P 13 03.20 0.1
0.6s 7 . 20nm 4 . 6mb
LBF 81.92 339 «P 13 04.30 -0.1
0.8s 5 . 35nm 4 . 3mb
SSF 81.96 339 eP 13 04.60 0.1
0.8s 7.40nm 4.5mb

33

05d 02h

LPF 82.07 342 eP 13 05.50 0.4
0.8s 9 . 40nm 4 . 6mb
A V F 82. 26 339 eP 1306.20 0.2
0.6s 9 . 00nm 4 . 7mb
SMF 82.27 339 eP 13 06.20 6.0
0.8s 1 1 . 40nm 4 . 7mb
LPL 82.57 336 eP 13 08.60 0.6
0.8s 6.70 nm 4 . 5mb
LPG 82 58 336 eP 13 08.90 0.8
0.8s 6.70nm 4 . 5mb
BGF 82.60 339 eP 13 08.50 0.7
0.6s 7.20nm 4. 7mb
MAF 82.98 339 eP 13 10.50 0.7
0.6s 16.25nm 5 . 1mb
TCF 83. WC 340 eP 13 10.20 0.2
0.8s 8.05nm 4. 6rrib
LSF 83.20 340 eP 13 11.20 0.3
0.8s . I6.80nm 4.9mb
MFF 83.24 341 eP 13 11.70 0.6
0.6s 6.30nm 4.6mb
SBF 83.89 335 eP 13 14.20 -0.4
0.8s 8 . 05nm 4 . 6mb
RJF 84.09 340 eP 13 16.00 0.5
0.6s 5.40nm 4. 6mb
Z 20s 0 . 08um 4 . IMsz
CAF 84.32 339 eP 13 17.60 1.0
0.8s 1 0 . 05nm 4 . 7mb
LRG 84.57 336 eP 13 18.30 0.5
0.8s 8 . 05nm 4 . 6mb
Z 20s 0.1 0um 4 . 2Msz
LFF 84.62 340 eP 13 18.70 0.6
0.6s 4 . 50nm 4 . 5mb
PGF 84.64 334 eP 13 18.50 0.2
0.8s 6.70nm 4. 5mb
LMR 84.64 336 eP 13 18.40 0.2
0.8s 5 . 35nm 4 . 4mb
LPO 84.75 340 eP 13 19 40 0.6
0.8s 8 . 05nm 4 . 6mb
S.D. - 0.9 on 58 of 60 obs.

& AUG 05, 1991 62h 12m 23.66s 40.079 N 123 . 669 W
DEPTH - 1 9 . 7km
NORTHERN CALIFORNIA (36)
<GM-P>. MD 3.0 (GM) .

FHC 0.76 342 eP 12 37.00 -1.1
ORV 1.75 107 eP 12 49.70 -3.6
2 obs. ossocioted

AUG 05, 1991 03h 21m 17.27± 0.39s 17.886 S ± 7.4km 115.941 W ±10. 8km DEPTH - 10.0km (geophysicist)
5 . 1mb (15 obs.)
EASTER ISLAND CORDILLERA (684)
CENTROID, MOMENT TENSOR (HRV)
Doto Used: GDSN

Cen t ro i d Loco t i on :
Origin Time 03:21:24.3 0.8
Lot 17.11S 0.13 Lon 1 1 6 . 1 5W 0.10

Dep 15.0 FIX Ho 1 f-du ro t i on 2.7
Moment Tensor; Scole 10«*16 Nm
Mrr--5.44 0.58 Mtt=-3.18 0.80
Mff- 8.62 0.82 Mrt 4.82 1.71
Mrf-=-3.94 3.00 Mtf 2.77 0.73
Principol Axes:
T Vol- 9.84 Pig-12 Azm= 82
N 0.63 38 182

Best Double Co u p I e : Mo= 1 . 0 * 1 0 » * 1 7
NP1 : S t r i ke-135 Dip-47 Slip 148
NP2: 21 67 -48

PURC 43.86 67 eP 29 28.33 2.0
S 1 LC 44.05 66 ePc 29 29.51 1.7
LPB 45.62 96 P 29 41.00 0.6
e 3120.00
ZOBO 45.64 95 P 29 41.70 0.9

LR 43 28.00
BAR 50.28 359 eP 30 17.00 1.0
GLA 50.66 1 eP 30 20.00 1.2
PLM 50.96 359 P 30 21.30 0.0
RVR 51.61 358 eP 30 26.00 0.1
TPC 51.70 360 eP 30 28.00 1.3
SBB 52.31 358 eP 30 31.00 -0.4

GSC 52.90 359 eP 30 36.00 0.2
ALO 53.30 10 ePd 30 39.00 0.1
1.0s 13. 75nm 4 . 9mb
ANMO 53.31 10 P 30 39.50 0.6
1.0s 15.00nm 4. 9mb
ISA 53.31 357 eP 30 39.00 0.2
CLC 53.43 358 eP 30 40.00 0.4
PRI 53.92 355 eP 30 44.30 1.0
PRS 54 . 16 355 eP 30 45. 60 0.7
SAO 54.60 355 eP 30 48.70 0.5
FRI 54.70 356 ePd 30 48.50 -0.3
MEO 54.92 17 iPd 30 48.60 -2.0
MHC 55.19 354 ePd 30 53.70 1.1
TNP 55.68 359 P 30 56.70 0.5
1 . Os 22.50nm 5 . 2mb
CMB 55.78 356 ePd 30 57.30 0.6
PV09 56.45 6 P 31 01.80 -0.1

ORV 57.38 355 e(P) 31 08.90 0.8
GOL 58.13 10 P 31 13.00 -0.7
0.7s 5.46nm 4. 7mb
GLD 58 . 20 10 P 3113.00 -1.1
WDC 58.49 354 ePd 31 15.50 -0.3
BW06 60.64 5 P 31 29.20 -1.8
0.9s 6.07nm 4. 7mb
JSC 61.49 32 P 31 35. 20 -1.4
RSSD 62.66 10 P 31 42.80 -1.7
1.2s 19 . 31 nm 5. 2mb
LRM 63.48 3 eP 31 49.60 -0.3
BLA 64.22 31 P 31 54.00 -0.7
VAO 64.31 107 eP 31 53.30 -2.4
NEW 65.85 359 P 32 04.10 -0.9
0.8s 13. 75nm 5 . 2mb
SES 68.12 3 eP 32 20. 00 0.6
SPA 72.23 180 iPd 32 44.90 0.5
1.0s 50.00nm 5. 6mb
SOBl 73.07 94 (P) 32 50.00 -0.1
FFC 73.29 B ePd 32 49.40 -1.1
0.9s 1 1 . 00nm 4 . 9mb
SLKM 82.37 344 P 33 42.30 -0.8

0.7s 1 2 . 80nm 5 . 2mb
RSO 83.53 343 P 33 45.70 -1.0

NVL B4.57 165 PC 33 51.50 -0.1
SVW 84.89 342 eP 33 52.90 -0.4
0.7s 25.00nm 5.6mb
FBA 86.05 347 ePd 33 59.40 0.5
0.9s 22 . 10nm 5 . 3mb
TTA 86.45 343 eP 34 00.80 -0.3
I MA 88.37 346 eP 34 10.20 -0.1

MBC 93.95 359 eP 34 36. 5« 0.7
1.0s 9.00nm 5. 1mb
NB2 123.13 28 PKP 40 13.90 -1.4
0.9s 1 . 20nm
SOD 125.04 17 iPKP 40 18.00 -0.8
GRF 127.28 41 ePKP 40 24.40 0.7
CLL 127.83 38 ePKP 40 25.00 0.4

WTTA 128.25 43 e(PKP)40 24.50 -1.3
1.3s 10. 30nm
i 4026. 30
KHC 128.92 41 PKP 40 27.00 0.1
NUR 129.00 24 iPKP 40 26.20 -0.4
PRU 129.21 39 ePKP 40 27.00 -0.3
KSP 129.93 38 ePKP 40 29.20 0.5
ZST 131.43 41 ePKP 40 31.10 -0.5
SRO 132.33 41 ePKP 40 34.70 1.4
KRA 132.38 37 ePKP 40 34.20 0.9
OBN 137.35 23 ePKP 40 42.00 -0.6

MLR 138.07 41 ePKP 40 44.00 -0.5
VR I 138.37 40 ePKP 40 44.00 -0.8
CHG 146.91 277 ePKP 41 02.50 2.1
1.4s 37 . 79nm
AD I 150.02 54 ePKP 41 10.50 5.6X
JVI 150.56 56 ePKP 41 11 80 6.0X
PRNI 150.81 59 ePKP 41 12.70 6 . 5X
GAR 158.27 347 ePKP 41 16.80 0.6
S.D. - 1.0 on 65 of 68 obs.

& AUG 05. 1991 04h 26m 08.38s
59.997 N 153. 635 W
DEPTH - 152.0km
SOUTHERN ALASKA (2)
<AEI C>.

PDB 0.35 233 IP 26 28.65 0.7

iS 26 44 .33
RED 0 60 45 iP 26 29.86 -1.0
ROW 0.64 40 iP 26 30.34 -0.9
eS 26 47.75
RSO 0.64 43 iP 26 30.35 -0.9
NCT 0.67 32 iP 26 30.40 -0.9
RON 0.68 40 iP 26 30.57 -0.8
REF 0.68 43 iP 26 30.57 -0.9
DFR 0.76 38 eP 26 30.91 -1.0
RDT 0.84 46 IP 26 31.61 -0.8
HOM 1.06 108 eP 26 33.43 -0.7
eS 26 53.07
CDD 1.07 180 iP 26 33.18 -1.1
NNL 1.18 87 eP 26 35.10 -0.1
CNPM . 1.30 110 iP 26 35.26 -1.2
S 26 55.59
CKL 1.36 27 iP 26 36.55 -0.6
S 26 58.55
NKA 1.41 57 eP 26 38.04 0.6
BGL 1.41 25 iP 26 37 . 28 -0.3
SPU 1 . 42 33 iP 2636.72 -0.9
SYI 1.53 155 eP '26 37.12 -1.6
eS 26 59.87
CGLM 1.54 31 iP 26 38.09 -0.9
NCG 1.59 27 eP 26 38.99 -0.5
SLKM 1.78 72 iP 2640.01 -1.5
S 2704. 38
SUA 2.05 43 iP 26 43.27 -1.4
SEW 2.10 85 eP 2643.51 -1.7
SKT 2.24 26 eP 26 45. 75 -1.1
PMS 2.37 56 iP 26 46.48 -2.0
PWA 2.48 46 eP 26 49.18 -0.6
PLRM 2.73 52 eP 26 51.74 -1.1
LT I 2.90 87 eP 26 53.57 -1.5
GHO 2.91 50 eP 26 52.13 -3.2
KNK 2.92 59 eP 26 52.54 -2.7
KNIM 2.97 81 eP 26 53.06 -2.9
GLI 3.36 72 eP 26 58.36 -2.6
VZW 3.66 70 eP 27 03.26 -1.6
VLZ 3.78 69 eP 27 04.67 -1.7
34 obs. ossocioted

? AUG 05. 1991 04h 40m 04.00± 4.46s
44.265 N ±14. 3km 8.709 E ±31. 0km
DEPTH - 10.0km (geophys i c i s t)
NORTHERN ITALY (545)

PCP 0.30 337 P 40 10.27 0.0
S 40 15.50

S 4017.14
ROB 0.60 273 P 40 15.81 -0.4
S 40 24.62
IMI 0.69 239 P 40 17 .75 0.1
S 40 27.50
PZZ 1 . 18 282 P 40 26.47 0.4
S.D. -0.4 on 5of 5 obs .

___ . - _ __ ___ _

AUG 05, 1991 05h 29m 17.63± 0.35s 40.496 N ± 3.2km 29.354 E ± 3.5km DEPTH - 10.5 ± 3.0 km
TURKEY (366)

IZI 0.18 150 iPg 29 22.00 0.2
eSg 29 28.70
GBZT 0.30 13 iPgc 29 22.80 -1.1
iSg 29 27.50
HRT 0.40 36 iPg 29 26.20 0.3
ISK 0.61 339 5Pg 29 30.20 0.3
GPA 0.76 106 iPg 29 32.20 -0.2
eSg 29 42.70
CTT 0.96 313 iPg 29 36.20 0.4
DST 1.05 212 iPg 29 37.50 0.1
EDC 1.15 263 iPn 29 38.70 -0.4
ALT 1.55 158 iPn 29 45.90 0.5
KGT 1.57 269 iPn 29 45.20 -0.3
KHL 2.17 176 ePn 29 53.80 -0.6

EZN 2.42 255 *Pn 29 57,00 -0.7
IZM 2.65 218 ePn 30 01.00 -0.1
BBTK 2.69 103 eP 30 09.00 7.2X

iS 30 47.00
KDZ 3.19 292 eP 30 05.00 -3.8X
RZN 3.70 290 eP 30 16.00 -0.2
PLD 3.85 296 eP 30 18.00 -0.2
PVL 4.05 313 iPd 30 22.00 1.1
MMB 4.39 286 eP 30 26.00 0.1
VTS 5.06 296 eP 30 35.00 -0.5

05d C5h

34

MLR 5.58 335 eP 30 40.10 -2.7X
S . 0 . =0.6 on 18 of 2 1 obs .

AUG 05, 1991 05h 51m 55.15+ 0.70s
27.658 S ± 9.6km 26.111 E ± 1 5 . 3 km DEPTH = 5 0km (g e o phy s i c i s t)
REPUBLIC OF SOUTH AFRICA (584)
mbLg 3. 7 (BUL) .

PRY 1.41 59 eP 52 21.00 -0.7
1.0s 830 . 00nm
S 52 37.50
BLF 1.45 177 i PC 52 21.50 -0.7
S 52 37.30
KIM 1.66 227 iPc 52 30.00 5.7X
FRS 2.20 198 iPd 52 34.30 1.5
S 52 59.00
SLR 2.73 46 iPd 52 41.50 0.9
S 53 12.80
BUL 7.82 18 iPn 53 52.90 0.4
iSn 55 15. 90
! iSg 55 59. 10
CER 8.18 224 eP 53 56.50 -0.9
S 55 22.00
KRI 11.25 17 iPn 54 40.00 0.1
i Sn 56 40 . 70
iSg 57 55.60
MTO 11.95 26 iPn 54 48.60 -0.7
i Sn 56 56. 70
iSg 58 03.60
TIC 45.48 314 P 00 23.30 5.9X
S . 0 . -1.1 on 8 of 1 0 obs .

» AUG 05, 1991 05h 59m 48 . 94± 1.09s
28.390 N ±11. 6km 112.152 W ± 1 0 . 8 km DEPTH - 10.0km (geophys i c i s t)
3 . 9mb (1 obs .)
GULF OF CALIFORNIA (49)

GLA 5.19 334 eP 01 06.00 -2.5
BAR 5.79 319 eP 01 30.00 13. 1X
e 02 53.00
PLM 6.39 322 eP 01 28.20 2.6
TPC 6.60 331 eP 01 56.00 27. 5X
SBB 7.93 324 eP 01 54.00 7 . 0X
ALQ 8.14 35 eP 01 50.00 -0.1
ANMO 8.14 35 ePn 01 54.20 4.1X
e 02 24.60
i 04 16.50
CLC 8.72 329 eP 02 07.00 8.8X
ISA 9.02 325 eP 02 09.00 6.8X

BCH 9.56 317 e(P) 02 09.00 -0.7
PV09 10.39 13 e(P) 02 20.00 -1.3
TNP 10.55 338 eP 02 25.00 1.5

MEO 13.20 58 e(P) 03 00.00 1.0
BW06 14.51 8 eP 03 15.50 -0.9

RSSD 16.99 20 e(P) 03 50.00 1.6
1.0s 1 0 . 85nm 3 . 9mb
OLY 18.91 63 eP 04 11.00 -1.0
NEW 20.21 350 eP 04 26.00 -0.7

FVM 20.51 57 e(P) 04 31.00 1.2
CUMC 42.62 124 ePc 07 47.97 0.1
SILC 42.63 120 eP 07 47.42 -0.4
PURC 42.85 121 eP 07 49.47 -0.3
S . D. "1.4 on 15 of 21 obs .

AUG 03, 1991 06h 05m 47.28± 0.14s 21.363 S ± 4.5km 174.396 W ± 4.0km DEPTH - 30.9km (5 depth phoses) 5.7mb (41 obs.) 5.8Msz (3? obs.)
TONGA ISLANDS (173)
Ms S.8 (BRK). Mo=2 .0*10**18 Nm
(PPT).
CENTROID, MOMENT TENSOR (HRV)
Doto Used: GDSN
L.P.B. : 22S, 48C
Centroid Locotion:
Origin Time 06:05:50.3 0.2
Lot 21.58S 0.02 Lon 173. 68W 0.02

Dep, 15.0 FIX Ho I f-duro t i on 4.0
Moment Tensor; Scole 10**17 Nm
Mi r- 9.45 0.16 Mtt- 0.26 0.22
M f 9.71 0.23 Mrt- 3.41 0.50
Mi f- 6.64 0.57 Mtf 4.78 0.16
P r nc i po I Axes:
T Vol- 11.85 Pig-72 Azm-305
N 2.14 3 204

P -13 . 99

Best Double Coupl
it n ^ . c 4 .. : i, ~ iriT r»

MBU
NDF
RAR
PVC
BKM
DZM
PGZ
MNG
K I W
MTW
BLW
MRW
WEL

TCW
THZ
TBI

KHZ
AFR

PAE

PPT

PPN

TVO

LTZ
TPT

MHZ
MSZ
BRS

COO

RMQ

CNB
CAN
RAB

CTAO

CMS
TOO
PMG

STK

OIS
ASPA

WR2

WRA

MTN
PJG
WARB
KNA

COOL
RKG
NWAO

BAL
MUN
NANU
CSV

IH r i , j \
NP2 :

7 .83
8. 48
13.63
16. 69
16.77
17 .82
20. 77
21 .04
21.45
21.51
21.71
21 .85
21 .88

21 . 99
22. 99
23. 14
1 . 6s
23. 31
23.51
1 .0s
23.67
1 .0s
23. 70
1 .0s
23.84
1 . 0s

7^ Q«% f. -j . y *j
1 .05
24.10
26. 20
1.0s
27 . 19
27 . 45
30. 44

31 .57

33.99

34.59
34.88
36.67

36. 76

36. 85
38. 16
38.82
0.9s
40 . 48
0. 7s

42.84
47.61
1.1s
Z 18s

47 . 79
0.6s

47. 82
0.8s
52. 54
52.97
53.79
53. 94
0. 4s
57 .96
60.97
60.99
Z 18s
N 18s
E 18s
61 . 78
61 .99
64. 42
64.64

i i r\ tr - i y i \j
26

303 eP
294 eP
92 P
279 i P
280 iPd
264 iPc
266 eP
262 eP
263 eP
201 *P
201 eP
203 *P
202 P
S
263 eP
265 eP
100 i P
455 . 00nm
203 eP
85 iP
85 . 00nm
85 IP
1 00 . 00nm
85 iP
1 00 . 00nm
85 iP
90 . 00nm
86 i P
1 45 . 00nm
205 P
80 eP
1 40 . 00nm
206 P
208 eP
252 iPc
i S
246 e(P)
e

254 iPd
e
238 eP
239 eP
293 eP
eS
265 iPc
e
eS
246 eP
236 i P c
282 eP
1 1 4 . 29nm
246 iPc
7 . 70nm
eS
262 eP
257 iPd
69 . 20nm
1 3 . 90um
i PcP
ePcS
i S
iScS
262 iPc
42 . 80nm
epP
262 P
26 . 60nm
270 eP
307 eP
253 eP
266 eP
21 . 00nm
246 eP
241 eP
243 eP
5 . 30um
2 . 70um
5 . 00um
246 eP
244 «P
254 eP
206 eP

18 113
e : Mo=1 . 3* 10* 1 8
i p = 28 S 1 i p= 82
63 94

07 46.50 4 . 4X
07 53 .60 2.0
08 52 .60 -8 . 9X
09 44 .
09 48 .
09 56 .
1030.

00 3 5X
80 7 . ? X
90 2.2
30 2.2
10 29.40 -1.5
10 33 .60 -1.5
10 35 .90 0.2
16 38 .
10 38 .
10 39.
14 29 .
10 38 .
1053.
10 50 .

10 54 .
10 53 .

10 55 .

10 55 .

00 0.3
00 -1.1
00 -0.3
00
10 -2.4
60 3 . 2X
20 -1.7
5 . 7mb
60 1.2
80 -1.8
5 . 2mb
00 -2.1
5. 3mb
00 -2.4
5 . 3mb
10 56. 180 -1 . 9
5 . 3mb
10 57 .£0 -2.1
5.5mb
1 1 01 .80 0. 7
11 18 .100 -3. 1 X
5.5mb
11 30 .
11 35 .
11 58 .
1627.
12 06 .
12 18.
12 35 .
15 16 .
12 35 .
12 37 .
12 48.

70 0.5
00 2.6
50 -1.0
00
00 -3 . 4X
00
70 5.2X
00

00 -0.6
50 -0.6
00 -5.3X
18 44 .100
12 53.
13 05 .
17 48.
12 53.
13 06 .
13 09 .

1324.

19 53 .
13 43 .

00 -1.1
50
00
00 -1.7
30 0.6
50 -1.9
5 . 6mb
10 -0.9
4 . 6mb X
CO

e0 -1.5
14 21.20 -1.4
5 . 6mb
6 . 0Msz
15 52.40
19 46.50
21 1 1 . 4Q
24 18.
1422.

15 53.
14 21 .

14 58.
15 01 .
15 0B.
15 09 .

15 38 .
16 03 .
1600.

16 03.
16 05.
16 22 .
16 35.

20
00 -2.1
5 . 6mb
60 474kmX
00 -3.2X
5 . 3mb
00 -2.3
50 -2.0
00 -1.4
00 -1.6
5 . 5mb
00 -1.4
00 2.9
00 -0.3
5 . 7Msz

00 -2.7
00 -2.1
00 -1.2
80 1 1 . 9X

DAV

p r- D C v r

MAP

SPA

2

TSM
KAKJ
CHJ J
OFUJ
MAT

2

ADK

0 . 5s
65. 31
66.71
0 . 8s
68.19
68. 77
1 . 0s
20s

71.02
71.57
72.14
72 .84
72 . 93
1.1s
20s

72.96
1 .0s

1 2 . 90nm
289 eP
290 eP
43 . 00nm
291 eP
180 i PC
50 . 00nm
3 . 60um
i
283 ePc
323 P
322 P
326 eP
322 iPc
74 . 68nm
2 . 48um
eS
359 ePc
1 20 . 00nm

16
16

16
16

17
17
1 7
1 7
1 7
17

26
17

e(PcP) 17
N I I J
YAMJ
MTMJ
TSRJ
BAG
KUSJ
SMY
Z
PIP
SHK
MRRJ
SYP
SAP
ASAJ
PRS
GCC
PCC
SAO
PR I
BRK
BKS

Z
N
E

MHC
PAS
MWC
BAR
PLM
RVR
PEC
FOX
SBB
FHC
ISA
FRI
CMS
ORV
CLC
WDC
TPC
GSC
GLA
M 1 N
A 1 A
TNP

SSE

Z
N
E

KDC
HKC
RSO
KGM
SVW

72 . 97
73.06
73. 20
73. 56
73 .97
74 . 36
74.45
18s
74. 86
74 .96
75.61
75.91

7 ^ Q «i / *j . y *j
76.11
76.17
76.23
76.31
76 . 40
76. 49
76.62
76 .64
1 .0s
20s
20s
20s

76.65
76.85
76.98
76.99
77 . 25
77 . 29
77 . 37
77 .38
77.41
77.57
77 .58
77 .62
77.86
78.17
78.24
78.24
78. 24
78. 45
78. 47
78.62
78.85
79.85
1 .2s
80.84
1 . 0s
20s
16s
16s

80. 91
82.05
83.41
83.55
83. 57

323 P
324 eP
321 P
320 P
295 eP
330 eP
353 P
1 0 . 86um
297 ePd
317 eP
328 eP
44 eP
328 eP
330 eP
42 ePc
41 ePc
40 eP
41 eP
42 eP
40 eP
40 eP
1 00 . OOnm
3 . 60um
3 . 40um
3 . 40um
eS
eLO
eLR
41 eP
45 eP
45 eP
47 eP
46 eP
46 eP
46 ePc
37 iPc
45 eP
37 ePc
44 eP
42 ePc
41 ePc
39 ePc
44 eP
38 iPc
46 eP
45 eP
48 eP
38 ePc
1 56 eP
42 ePc
1 93 . 55nm
308 P
1 2 . 00nm
2 . 60um
1 . OOum
1 . OOum
PP
S
sS
PS
e
SS
12 ePc
298 ePd
1 1 eP
275 ePd
9 eP

17
17
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17
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17
1 7

17

21
28
28
29
32
33
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18
18
18
18

27 .00
37 .00
5
47 . 00
52 .00
5
5
38 . 30
04 . 90
07 .20
10.20
1 4 .50
14 . 60
5
5
40 .00
10. 40
5
58. 10
15.10
16.10
16 .60
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- 0. 7
- 0 . 5
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. 6mb
. 5Msz

- 4.9X
. 9mb

- 0 . 7
- 0. 2
- 0. 7
- 0. 1
- 2. 2
- 1 . 3
1 . 0
2Msz
- 0. 6
- 0. 6
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- 0. 6
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- 0. 1
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8mb
7Msz

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- 0. 1
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- 0.9
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- 2. 8X
9mb
6Msz

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05d 06h

SLKM

PMR

TTA

PVS9
ALO

PNT

BALM

NEW

TOA
1 PM

LRM
BW06
PSI

NVL

FBA

GOL

1 MA

GLD

BJ 1

SES

MEO
RSSD

KHT
KM 1

BDT

TUL

1.0s 70 . 00nm 5 . 8mb
83.91 12 ePc 18 14.40 -0.7

(pP) 18 24.70 32km
85.12 12 ePd 18 20.10 -1.0
1.5s 256 . 76nm 6 . 2mb
2 18s 2.86um 5.7Msz

pP 18 30.20 32km
e 1901.70
8526 8 ePc 1823.00 11
1.1s 69 . 50nm 5 . 8mb
85 . 32 46 eP 1 8 23 . 20 0.2
85 . 35 50 ePc 18 23 . 30 0.2
1.0s 35 . 50nm 5 . 5mb
2 18s 2 . 4 1 urn 5 . 6Msz
e 1 8 33 . 00
85 . 53 32 eP 18 24 . 00 0.6
0.9s 88.00nm 6.0mb
86 . 09 15 eP 18 26.00 -0.1

pP 18 35.00 28km
86.14 34 ePc 18 25.60 -0.9
1.0s 25 . 00nm 5 . 4mb
Z 18s 6 . 37um 6 . iMsz
86 . 1 8 13 ePc 18 27.60 1.1
86 . 61 276 ePd 18 33 00 3. 4X
1.0s 83.80nm 5. 9mb
87.27 38 eP 1832.70 0.4
87 . 32 42 ePc 18 30.20 -2.5
87 .88 274 ePd 18 36 . 50 0.9
1.1s 64 . 50nm 5 . 8mb
88 .02 182 ePc 18 37 . 00 1.7
e 18 46. 00
e 1 8 52. 00
e 1905.00
ePP 21 52.00
eSKS 29 07.00
eS 29 18 . 00
a 2950. 00
ePS 30 25.00
e 3222. 00
eSS 35 31 . 00
eSSS 38 58.00
e 4019.00
c 42 16 . 00
88 . 40 11 i PC 1 8 36 . 30 -0.7
1.5s 405 . 41 nm 6 . 5mb
pP 18 46.20 31km
88 .45 46 eP 18 37 . 50 -0.7
1.5s 33 . 81 nm 5 . 4mb
Z 1 8s 2 . 51 urn 5 . 7Msz
88.57 8 ePc 18 38. 90 0.9
0.9s 1 7 . 50nm 5 . 4mb
88 . 58 46 P 1 8 43 . 00 4 . 3X
Z 19s 3.34um 5. 8Msz
88.89 314 Pc+ 18 40. 50 0.6
2.0s 275.00nm 6.2mb
Z 20s 1 . 81 urn 5 . 5Msz
E 17s 1 . 74um

pP 18 54.00 45kmX
eS 29 14.00
esS 29 36.00
ePS 30 28.00
eSS 35 1 2 . 00
90.61 35 ePc 18 47.60 -0.2
1.1s 83 . 00nm 6 . 0mb
pP 1901.00 45kmX
91.01 53 i Pd 18 49 .00 -0.9
91.47 43 ePc 18 51 . 00 -1.1
1.0s 1 9 . 52nm 5 . 4mb
Z 18s 6 . 19um 6 . IMsz
PP 22 51 . 00
92.57 285 eP 19 00.00 2.6
92.75 296 PC 19 00.00 1.6
1.5s 300.00nm 6.5mb
Z 20s 4.50um 5.9Msz
N 20s 1 . 1 0um
E 20s 3 . 00um
SKS 29 22.00
S 30 21 . 00
i 31 25 . 00
93.09 287 eP 19 02 . 20 2.5
0.7s 67.50nm 6.2mb
93.55 53 e(P) 19 01 . 60 0.0
1.8s 45 . 90nm 5 . 6mb
2 18s 3.88um 5.9Msz
N 18s 1 . 84um
E 18s 1 . 87um

e(S) 29 47.00

CHG

CHTO

YAK

I NK

L2H

FFC

LPB
ZOBO
CR2F

WBC
PK I
ND I
GAR

DAG

OUE
SOB1
KEV

SOD

KAF
IR4
IR1
IR7
NUR

OBN

NB2

HFS

NAI

COP

EKA

AAE
OMU

DCN

VAL
LWI

LR 50 55.00 KVT 147.63 314 ePKP 25 31.10 3.5X
93.71 289 iPc 19 04.20 1.6 GAZ 148.43 307 ePKP 25 33.40 4.5X
1.1s 56.96nm 5.9mb BRN 148.45 351 ePKP 25 32.00 3.6X
93.71 289 iPc 19 04.30 1.7 WIT 148.59 359 ePKP 25 34.50 5.9X
1.0s 46.00nm 5.9mb KAS 148.98 316 ePKP 25 35.00 5.2X
94.17 337 eP 19 02.80 -1.0 KRA 149.20 342 ePKP 25 30.50 0.8
eS 29 32.00 1.3s I83.00nm
94.25 14 ePc 19 04.00 -0.1 ft 25 34.90
0.7s 22.00nm 5.7mb i 25 44.30
pP 19 14.00 31km DBN 149.32 1 ePKP 25 32.00 2.2X
95.98 306 iPc 19 14.50 1.5 2 20s 2.00um 5.9Msz
2.0s 113.00nm 6.0mb ePP 29 05.00
Z 25s l.65um 5.4MszX eSS 48 27.00
E 20s 0.91um PPE 149.39 329 ePKP 25 46.00 15. 9X

pP 19 35.00 74kmX KSP H9.46347ePKP 25 30. 7y 0.7
sP 19 46.00 0.7s 100.00nm
SKS 29 42.00 ic 25 35.20
eS 30 22.00 i 25 45.00
sS 30 56.00 WTS 149.41 359 ePKP 25 34.50 4.6X
PS 31 56.00 0.8s 72.00nm
SS 36 54.00 PIT 149.42 331 ePKP 25 35.00 4.8X
97.57 34 eP 19 20.00 0.6 CLL 149.56 351 iPKP 25 30.40 0.2
2.2s 69.00nm 5.8mb 1.9s 195.00nm
98.54 111 P 19 29.00 3.8X Z 19s 1 . 00um 5.6Msz
98.63 111 P 19 26.00 0.2 i 25 35.30
100.62 211 e(Pdif19 52.00 1 8 . 5X i 25 44.40
e(PP) 24 02.00 BRG 149.83 349 iPKP 25 31.60 1.0
e(S) 32 57 . 00 i 25 36.40
102.93 12 ePdiff19 51.00 7.9X i 25 45.80
108.25 293 Pdiff 20 00.00 -8.4X CFR 149.87 327 ePKP 25 34.00 3.2X
115.55 292 ePKP 24 26.00 -2.5X SPC 149.88 341 ePKP 25 37.40 6.4X
122.50 303 ePKP 24 41.30 -0.2 BMR 150.04 335 ePKPd 25 38.00 6.9X
c 31 44.00 VRI 150.07 330 ePKP 25 36.00 4.8X
a 36 14.00 BRD 150.17 329 ePKP 25 17.00 -14. 3X
c 42 00.00 TLB 150.34 327 ePKP 25 37.00 5.4X
123.23 7 iPKPc 24 51.20 9 . 6X MOX 150.39 352 ePKP 25 32.50 1.0
0.8s 6.72nm 1.7s 120.00nm
124.62 293 ePKP 24 46.50 0.5 Z 19s 1 . 50um 5.8Msz
125.16 119 ePKP 24 47.00 -0.3 N 19s 0 . 90um
129.91 350 ePKP 24 55.00 0.3 E 19s 0.70um
2 18s 1.70um 5.8Msz i 25 37.50
c 25 05.00 i 25 48.00
e 28 20.00 8BTK 150.42 315 ePKP 25 39.00 6.9X
LR 18 22.00 BNS 150.43 358 ePKPc 25 37.00 5.5X
132.12 349 iPKP 24 58-40 -0.5 1.3s I52.00nm
i 25 06.20 2 19s 1.70um 5.9Msz
136.85 346 ePKP 25 03.00 -5. IX ic 25 42.80
138.14 299 ePKP 25 03.00 -8.6X ic 25 47.20
138.29 300 ePKP 25 06.00 -5 . 8X ic 25 52.80
138.32 300 ePKP 25 05.00 -6 . 9X PRU 150.57 348 ePKP 25 32.00 0.2
138.65 346 iPKP 25 04.60 -6.8X 1.5s 136.20nm
0.7s 10.70nm Z 17s 1.80um 5.9MszX
Z 20s 2.10um 5.9Msz N 17s 1.10um
e 25 1 1 . 00 E 16s 0 . 60um
i 25 18.90 i 25 38.00
LR 26 24.00 a 25 47.60
139.08 333 ePKPc 25 12.00 -0.4 e 27 35.20
1.5s .»,.,,.nm ePP 28 35.00
Z 20s 2.20um 5.9Msz UCC 150.61 2 PKP 25 38.50 6.7X
N 20s 1.10um ENN 150.65 360 ePKP 25 38.00 6.2X
E 20s 1.40um 0.9s 101.00nm
eP'P' 25 21.00 ISR 150.69 329 ePKP 25 17.00 -15. 2X
ePP 28 00.00 BHL 150.71 302 PKP 25 39.00 6.4X
eSKP 28 45.00 PP 29 14.00
eSKKS 35 05.00 MLR 150.71 330 iPKPd 25 32.00 -0.3
e 36 38.00 MEM 150.81 359 iPKPd 25 32.17 0.1
eSS 46 14.00 i 25 38.26
eSSS 51 08.00 MDSJ 150.81 297 PKPc 25 39.84 7 . 0X
140.16 356 PKP 25 05.20 -9. IX PSN 150.89 325 ePKP 25 32.00 -0.4
0.7s 2.80nm SNF 150.89 2 iPKP 25 33.50 1.3
140.84 354 ePKP 25 07.30 -8 . 1 X i 25 38.78
0.6s 5.70nm JARJ 150.92 298 PKPc 25 39.97 7 . 0X
142.10 237 PKP 25 16.50 -2 . 9X SHMJ 150.95 299 PKP 25 39.60 6.7X
2 18s 0.93um 5.6Msz GHZJ 150.97 295 PKPc 25 40.36 7.2X
145.35 353 iPKPc+25 22.80 -0.5 TNS 151.11 356 ePKPd 25 38.30 5.6X
1.0s 72.00nm PSZ 151.11 340 ePKP 25 37.20 4.4X
Z 20s 0.85um 5.5Msz SALJ 151.20 298 PKPc 25 40.65 7.3X
i 25 33.20 ADI 151.29 300 ePKP 25 44.09 10. 6X
145.45 9 PKPd 25 23.60 0.1 CMP 151.30 331 ePKPd 25 41.00 7.9X
0.8s 34.00nm DOU 151.32 1 PKP 25 34.00 1.1
145.81 254 ePKP 25 28.50 2.7X Z 22s 1.50um 5.8Msz
146.14 13 ePKP 25 26.30 1.6 e 25 39.70
0.8s 71 . 00nm e 25 50 .30
146.58 14 ePKP 25 28.60 3.2X SS 48 46.00
e 25 37.00 MKRJ 151.34 297 PKPc 25 40.96 7 . 3X
147.09 18 ePKP 25 30.00 3.7X GRF 151.38 352 ePKP 25 33.40 0.4
147.36 227 ePKPc 25 33.00 4 . 8X 2 22s 1.00um 5.6Msz

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345 e(PKP)25
328 . 00nm
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319 ePKP
334 e PK Pd
9 ePKP
24 . 20nm
0 . 25um
294 ePKP
357 PKP
321 ePKP
8 ePKP
47 . 60nm
348 ePKP
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i
327 ePKP
10 ePKP
26 . 20nm
352 iPKPc
3 . 00um
358 PKP
358 PKP
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357 PKP
359 ePKP
7 . 20nm
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348 i(PKP)25
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351 i(PKP)25
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325 ePKP
327 ePKP
31 1 ePKP
4 PKP
358 PKP
326 ePKP

3- p i/ p C i r* r
23 . 80nm
0 . 28um
329 ePKP
3 ePKP
43 . 55nm
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321 ePKP
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8 . 00nm
327 ePKP
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1.2s 16. 35nm
IZM 154.78 317 ePKP 25 45.00 6 . 8X
TRI 154.81 346 PKP 25 38-45 0.6
0.1s 7 1 1 . 1 1 nm
LSF 154.95 7 ePKP 25 38.60 6.5
1.4s 26.1 5nm
T ll^r <~ F 1 1 ^ 9 A 4 .

Q 9 8 D A v A Crl\r P k* P 9*^'^ft>'£« £. J JO QO
1.4s 23 . 95nm
MAF 155.08 5 ePKP 25 39
1.4s 32 . 65nm
AGO 155.29 4 PKP 25 37

60 07

68 -0.9
HLW 155.34 295 ePKP 25 39.00 -0.1
PLDF 155.40 3 PKP 25 37.68 -1.1
VAY 155.47 328 ePKP 25 48.40 9.5X
SKO 155.51 331 ePKP 25 38.50 -0.5
Z 21s 2 . 53um 6 . 0Msz
N 20s 1 . 67um
E 19s 1 . 88um
e 25 48.
i 26 05.
i 29 44.
PYM 155.58 4 PKP 25 37.
LPL 155.89 358 ePKP 25 40.
1.4s 1 3 . 05nm
LPG 155.91 358 ePKP 25 40.
1.4s 21 . 80nm
LBL 156.11 4 PKP 25 40 .
BNI 156 .36 358 PKP 25 41 .
BOB 156.44 353 PKP 25 49.
OHR 156.48 330 ePKP 25 40.
1.7s 130 .00nm
i 25 49 .
PTO 156.90 28 ePKP 25 47.
SF 1 156.91 348 PKP 25 41 .
PGD 156.98 349 PKP 25 42.
BDI 156.99 351 PKP 25 57.

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86 -1.3
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00 0.1
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80 9 . 5X
30 -0.1

80
40 6.5X
40 0.6
30 1.2
00 16. 0X
ARV 157.09 346 PKP 25 41.50 0.4
MNS 158.21 346 PKP 25 52.
0.1s 5 . 60nm

EGRA 158.64 12 e(PKP)25 45.
GUD 159.07 21 e(PKP)25 46.
ETOR 159.54 17 e(PKP)25 57.
EBR 160.12 11 ePKP 25 48.

EVAL 160.62 31 e(PKP)25 58.

11 9 . 6X

00 2.2X
00 2. 4X
00 12. 9X
00 3.5X
00 12. 9X

EVIA 161.42 20 e(PKP)25 40.00 -6 . 1 X
LIC 161.77 144 PKP 25 49.20 2.2X
2 19s 2.00um

EPRU 161.82 29 e(PKP)26 05.
KlC 162.04 145 PKP 25 48.
TIC 162.12 143 PKP 25 48.
MAL 162.38 27 ePKP 25 48.
ePP 30 20.
S . D. - 1 . 1 on 200 of 29

? AUG 05. 1991 06h 46m 11.
0. 646 S ±24. 6km 81 .213
DEPTH - 33.0km (normol)
OFF COAST OF ECUADOR

GGP 2.66 80 Pd 46 54.
YANA 2.69 79 Pd 46 53.
OTO 2.72 81 eP 46 54.
OUR 2.73 80 P+ 46 54.
S 47 26.
VC1 2.81 90 P 46 56.
TUNG 2.87 106 P 46 56.
COTA 3.04 71 P 46 59.
S 47 39.
CAYA 3.31 77 P 47 04.
NNA 12.07 159 eP 49 05.
0.8s 6 . 72nm
eS 5111.
2080 20 . 1 9 141 P 50 47 .
S . D . -0.7 on 10of 1

% AUG 05. 1991 07h 10m 45.
45. 125 N ±17 .6km 2 .848
DEPTH " 10.0km (geophysi
FRANCE

CAF 0.59 251 Pg 10 56.
Sq 1 1 06 .
RJF 0 . 96 281 Pn 1104.
Pq 11 05.
Sq 1119.
MAF 1.11 350 Pq 1 1 06 .
Sg 11 22.

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00 0.8

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00
8 obs .

91± 4.55s
W ±39 . 7km

(104)

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20 0.3
80 0.1

c a ct o D W V . £
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4 . 9mb
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00 -0.4
0 obs .

84± 3.20s
E ±25. 0km
cist)
(538)

90 -0.9
30
30 0.2
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00
20 -0.5
10

TCF 1 .25 339 Pq 1 09 . 20 0.2
Sq 1 26.00
LPO 1 .26 250 Pq 1 10 . 00 0.7
Sq 1 28.20
BGF 1 . 43 360 Pq 112.20 6.3
S . D . -0.8 on 6 of 6obs.

? AUG 05, 1991 07h 43m 52.96± 3.93s
15.367 N ±10. 9km 61.274 W ±28. 3km
DEPTH - 153. 6 ± 36. 7 km
LEEWARD ISLANDS (92)

BBL 0.25 308 eP 44 14.48 -0.6
MGG 0.55 356 ePd 44 15.19 6.0
S 4430. 40
FDF 0.64 169 i PC 44 15.86 0.1
0.1s 0 . 90nm
S 44 32.70
DOG 0.74 333 ePd 44 16.51 0.1
PAG 0.77 329 eP 44 16.90 0.3
S 4434. 20
BIM 0.87 167 iPc 44 17.35 0.0
eS 44 36.90
SFG 0.88 5 ePd 44 17.70 0.3
DEC 0.96 12 eP 44 17.74 -0.3
S 4436.10
SEG 1.05 348 ePd 44 18.97 0.2
S 44 38.00
BPA 1.76 342 ePd 44 25.71 -0.3
S . D . -0.4 on 10 of 10 obs .

% AUG 05. 1991 07h 48m 08.64± 0.64s
39.571 N ± 5.9km 27.839 E ± 5.7km
DEPTH - 10.0km (qeophysicist)
TURKEY (366)

DST 0.61 87 ePg 48 20.30 -0.7
eSq 48 29.70
EDC 0.78 1 iPq 48 22.90 -0.8
eSg 48 33.50
KGT 0.97 335 iPg 48 27.20 0.1
iSq 48 39.70
EZN 1 . 20 283 iPn 48 31 .00 0.1
IZM 1.25 201 ePn 48 32.00 0.0
YLV 1.54 49 ePn 48 36.70 0.5
CTT 1.64 16 iPn 48 37.20 -0.4
ISK 1.76 32 ePn 48 40.00 0.7
HRT 1.88 48 iPn 48 41.70 0.6
S . D . -0.6 on 9of 9obs.

7. AUG 05, 1991 08h 17m 40.75± 0.94s
42.574 N ± 6.5km 12.783 E ± 1 0 . 8 km
DEPTH - 10.0km (qeophysicist)
CENTRAL ITALY (381)

MNS 0.20 202 Pd 17 45.00 -0.2
eSg 17 48.40
ASS 0.50 350 P 17 50.40 -0.6
eSq 17 58.60
AOU 0.51 115 P 17 50.10 -1.0
eSq 17 58.90
ARV 0. 93 7 P 17 59.30 0.8

eSq 18 12.20
SD 1 1 . 16 1 38 P 1803.50 1.1
eSn 18 19.50
S.D. - 1-2 on 5 of 5 obs.

% AUG 05. 1991 08h 54m 49.33± 0.61s
44.374 N ± 5.8km 7.401 E ± 6.0km
DEPTH - 10.0km (qeophysicist)
NORTHERN ITALY (545)
ML 1.5 (GEN) .

STV 0.14 203 P 54 53.00 0.3
S 54 55. 15
ENR 0. 15 175 P 54 53.00 0.2
S 54 55.46
PZZ 0.25 302 P 54 54.64 -0.1
S 54 58.53
ROB 0.35 103 P 54 57.10 0.6
S 55 02.43
BH8 0.48 348 P 54 59.05 0.0
S 55 04.69
IMI 0.58 143 P 55 00.58 -0.6
FIN 0.60 106 P 55 01.20 -0.3
S 55 10.22
S.D. -0.5 on 7of 7 obs.

37

% AUG 05, 1991 09h 00m 37.96± 0.93s
39.126 N ± 7.3km 27.630 E ± 9.3km
DEPTH - 16.6km (geophysicist)
TURKEY (366)

IZM 6.78 202 ePg 00 53.06 -0.2
eSg 61 05.50
DST 0.91 58 ePn 00 55.70 6.3
EZN 1.23 305 ePn 01 01.00 0.2
EDC 1.23 8 ePn 01 00.00 -0.9
KGT 1.35 349 iPn 01 03.20 0.5
S.D. - 6.8 on 5 of 5 obs.

% AUG 05, 1991 09h 33m 37.76± 3.42s
17.065 N ±24. 8km 61.252 W ±21. 7km
DEPTH - 33.0km (normal)
LEEWARD ISLANDS (92)
ML 2.4 (FDF) .

BPA 0.58 268 eP 33 49.36 -0.1
S 33 56.70
SEG 0.70 200 eP 33 51.06 -0.1
S 33 59.90
DEG 0.77 166 eP 33 51.70 -0.5
S 3403. 00
MGH 0.98 250 eP 33 55.00 -0.2
S 34 06.70
DOG 1.09 199 eP 33 56.51 -0.2
PAG 1.11 202 eP 33 56.50 -0.5
S 34 12. 50
MGG 1.14 183 eP 33 57.96 0.5
BBL 1.55 188 eP 34 03.00 -0.3
S.D. - 0.4 on 8 of 8 obs.

AUG 05, 1991 10h 42m 32.20± 0.63s 1.546 N ± 2.9km 127.453 E ± 4.1km DEPTH - 1 41 . 8 ± 6 . 4 km
5. 4mb (39 obs.)
HALMAHERA (267)

AAI 5.25 172 ePc 43 51.06 1.2
eS 44 41 . 00
DAV 5.81 341 eP 43 56.70 -0.6
eS 45 02.50
CGP 7.39 338 iPc 44 17.00 -1.7
eS 45 51 . 00
MAP 9.38 339 i PC 44 44.50 -0.7
iS 45 22.50
TSM 9.95 286 ePc 44 51.76 -1.1
1.0s 457 . 70nm 6.1mb
e 46 40.50
MKS 10.43 230 i PC 45 00.06 0.9
iS 46 53.06
PPR 11.92 314 iPc 45 21.00 2.3
PGP 13.51 332 eP 45 41.06 1.7
QCP 14.45 334 eP 45 33.00 -18. 3X
BAG 16.25 336 eP 46 14.00 0.1
eS 4913.00
KNA 17.23 176 i Pd 46 25.10 -0.7
0.7s 204.00nm 5.5mb

TRT 17.40 238 ePc 46 24.00 -3 . 9X
0.7s 379. 70nm 5 . 8mb
PIP 17.97 339 ePc 46 39.20 4.7X
PJG 20.98 54 eP 47 05.40 -0.3
GUA 20.99 55 eP 47 04.50 -1.3
0.6s 1 1 7 . 33nm 5 . 5mb
LAT 21.14 113 eP 47 08.20 0.9
WRA 22.40 163 P 47 19.70 0.0
PMG 22.44 119 eP 47 19.06 -1.1
1.2s 1 40 . 63nm 5 . 3mb
M8L 23.77 198 eP 47 33.00 0.1
KGM 24.13 271 ePc 47 37.20 0.8
0.8s 379.30nm 6.0mb
QIS 24.99 152 iPc 47 44.46 0.0
0.3s 46.00nm 5.5mb
ASPA 25.83 166 eP 47 51.80 -0.4
0.7s 191 . 70nm 5 . 8mb
eS 52 10.00
IPM 26.56 277 ePd 47 58.90 0.0
0.5s 56.90nm 5.4mb
e 51 21 . 00
NANU 26.64 205 i Pd 47 59.30 -0.2
0.4s 1 7 . 00nm 5 . 0mb
WARB 27.58 1B2 eP 48 07.70 -0.3
0.3s 10.00nm 5.0mb
CTAO 28.32 140 iPc 48 15.00 0.2

PS I
LOE
SSE

KHT
BDT

FORR

QLP

CHG

CHTO

COOL
KM I

BAL
KLB

RMQ

MUN
NWAO

STK

CHJ J
MTMJ
MAT

Nl I J
CMS

RKG

BRS

ADE

YAMJ
COO

OFUJ
BJ I

LZH

Z

BWA
BFD

CAN
CNB

TOO

HOOJ
KUSJ
BKM
ASAJ
DZM
GUN

PK I
KKN
DMN
GKN

i to f. o . oo
e 52 19. 00
28.53 273 ePd 48 16.20 -6.5
29.79 363 i Pd 48 27.50 -0.4
29 . 98 349 P 48 29. 50 6.2
i 48 47 .60
pP 48 55 . 00 1 1 6 kmX
sP 4964.00
eS 53 18.06
sS 54 66.00
PcS 55 06.06
31 . 39 296 i Pd 48 42. 66 6.7
32. 03 301 eP 48 48. 60 6.6
0.7s 5l.60nm 5. 4mb
32 .22 179 eP 48 47 .56 -14
0.3s 34 . 06nm 5 . 6mb
32.32 151 iPc 48 49. 70 -0.1
0.6s 98 . 00nm 5 . 8mb
32.79 303 eP 48 54.00 -0.1
0.9s 39.08nm 5.2mb
e 5507. 90
32. 79 303 iPd 48 54 . 10 0.0
0.9s 39.86nm 5. 2mb
32.80 196 eP 48 52.50 -1.6
33. 44 317 PC 49 02. 60 2.1
1.5s 1 25 . 06nm 5 . 4mb
33. 57 197 eP 48 59.60 -1.7
34.22 195 eP 49 05.00 -1.2
0.3s 1 5 . 60nm 5 . 2mb
34.63 145 iPc 49 15.60 5.8X
0.7s 25 . 00nm 5 . 1 mb
i 50 42.20
i 55 22.00
35.00 197 eP 49 12.00 -0.9
35.62 195 eP 49 17.50 -0.6
0.6s 37.00nm 5.3mb
35.85 159 iPc 49 20.20 0.2
6.7s 332.40nm 6.2mb
ePP 50 39.40
i PcP 51 44 . 30
iS 54 46.20
35.96 16 P 49 19.30 -1.6
36 . 16 1 4 P 4921.70 -0.9
36. 22 15 iPc 49 21 . 70 -1.4
1.0s 33 . 00nm 5.1mb
37.08 15 P 49 30.00 -0.3
37 .20 154 iPc 49 31 .20 -0.1
0.9s 44 . 00nm 5 . 2mb
37 .24 194 eP 49 32.00 0.3
0.5s 63.00nm 5.6mb
37.71 142 iPd 49 35.40 -0.3
i (pP) 50 15.00 185kmX
i 55 26.70
37 .82 165 eP 49 36.50 -0.1
0.9s 739. 50nm 6 . 4mb X
38. 24 16 P 49 40.50 0.5
39.53 146 i Pd 49 51 . 70 0.9
0.6s 28 . 00nm 5 . 2mb
i 50 12.80
i 51 26.50
39.55 17 eP 49 51 . 00 0.2

39.66 346 eP 49 52.00 0.3
1.0s 13. 00nm 4 . 6mb
40. 74 330 iPd 50 02.50 1.7
1.6s 62 . 00nm 5 . 2mb
30s 0.29um 4.0MszX

pP 50 18.00 61kmX
sP 50 23.50
40.84 153 iPc 50 03.70 2.2
40.99 162 ePd 49 44.80 -17. 9X
0.4s 77 . 00nm
41 . 85 1 53 i PC 50 1 1 . 00 1.2
42.01 153 iPc 50 12.70 1.6
1.1s 128. 00nm 5 . 5mb
42.36 159 iPc 50 15.90 2.0
0.7s 93.00nm 5.6mb
43.07 17 P 50 20.90 1.4
44 . 15 18 P 50 28. 80 0.5
44. 48 1 17 iPd 50 32. 50 1.2
44.49 16 P 50 31 .40 0.5
44. 71 124 iPc 50 33. 70 0.5
47 . 60 307 P 50 56 . 64 0.4
0.4s 90.00nm 5.8mb
47.83 307 P 50 57 .80 -0.1
48.03 307 P 50 59.52 0.2
48.09 307 P 51 00.04 0.2

48.63 307 P 51 03.98 0.1

Pti/u *ju.*to £ o £ e r *j i i / . o o 0 . ^
HYB 50.55 291 ePd 51 18.50 0.0
1.0s 1 70 . 00nm 5 . 8mb
GBA 50.89 286 Pd 51 20.20 -0.9
1.1s 88 . 1 0nm 5 . 5mb
NDI 54.93 304 i Pd 51 50.00 -0.8
POO 55.16 291 iPc 51 50.40 -2.2
MSZ 58. 41 1 47 P 52 15 .60 0.6
THZ 59.55 142 P 52 22.16 -0.9
LT2 59.74 143 P 52 23.50 -0.8
KHZ 60.30 142 P 52 26.90 -1.2
0.7s 87 . 00nm 5 . 8mb
YAK 60.34 1 iPc 52 27.70 -0.3
MOZ 60.50 144 P 52 29.60 -0.4
MNG .66.56 139 P 52 28.60 -1.9
MCO 61 .61 160 P 52 37 .80 1.1
OUE 63.92 303 eP 52 52.70 0.0
GAR 63.93 313 iP 52 52.10 -0.4
e 56 68.00
i 05 00.00
CSY 68.76 187 eP 53 32.60 10. 3X
0.5s 22 . 80nm
MAIO 71.41 308 eP 53 40.00 0.9
ANM 78.95 24 P 54 22.00 0.8
SVW 82.34 29 P 54 39.90 0.7
6.7s 52.33nm 5.4mb
RSO 83.62 29 P 54 45.90 0.0
SLKM 84.87 29 P 54 52.30 0.3
PMR 85.51 28 P 54 54.90 -0.1
0.8s 73.79nm 5.6mb
FBA 86.37 25 P 54 58.10 -1.2
0.8s 6 . 21 nm 4 . 6mb
SPA 91.54 180 iPc 55 24.10 0.4
1.0s 25 . 50nm 5 . 3mb
INK 91.92 22 ePc 55 25 20 0.1
MBC 93.91 13 ePc 55 34.60 0.3
0.6s 12.00nm 5.3mb
NB2 101.05 334 Pdiff 56 05.20 -1.7
0.9s 2 . 90nm 4 . 9mb
RSSD 115.45 39 ePKP 00 57.70 -1.6
0.6s 4 . 23nm
GOL 116.68 43 ePKPd 01 01.00 -0.9
0.6s 2 . 26nm
ANMO 117.93 49 ePKPc 01 04.80 0.5
0.7s 3.77nm
ALQ 117.93 49 ePKP 01 04.70 0.4
KIC 131.63 280 PKPd 01 31.80 1.0
TIC 131.87 280 PKPd 01 32.10 0.8
LIC 131.94 280 PKPd 01 32.10 0.7
LKO 131.96 284 PKP 01 31.10 -0.4
UPA 151.15 68 iPKPc 02 10.80 6.0X
ANCC 155.18 78 ePKP 02 19.51 8.9X
HOOC 155.41 78 ePKPc 02 20.87 9.7X
SILC 155.84 80 ePKPc 02 22.38 10. 4X
LPB 158.64 135 PKP 02 16.00 0.7
i 02 53.00
ZOBO 158.80 135 PKP 02 17.00 1.4
1.0s 22 . 50nm
i 02 54.00
S.D. - 1.0 on 102 of 112 obs.

& AUG 05, 1991 10h 53m 14.40s
34 . 250 N 118. 470 W
DEPTH - 10 . 0km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 2.9 (PAS). Felt (IV)
at Tujunga. Also felt ot
Panorama City and in the Von
Nuy s area.

MWC 0.34 94 i PC 53 21.30 -0.3
eS 53 26.50
SSK 0.64 93 IP 53 26.70 -0.8
SBB 0.69 50 iPd 53 27 .00 -1.1
CIS 0.84 176 eP 53 30.10 -0.6
ABL 0.86 314 eP 53 29.40 -1.8
PEC 1.14 108 eP 53 35.00 -0.8
SCI 1.27 183 eP 53 37.10 -0.8
PLM 1.61 123 eP 53 42.20 -0.9
BCH 1.62 306 eP 53 42.00 -1.2
CLC 1.72 24 eP 53 43.60 -1.0
GSC 1.73 52 eP 53 43.80 -0.9
BONR 3.70 2 eP 54 11.50 -1.6

CMB 4.08 338 e(P) 54 23.50 5.3
13 obs. associated

AUG 05, 1991 11h 08m 88.91± 0.21s

05d 1 1 h

38

51.675 H'± 5.1km 176.351 E ± 2.6km DEPTH - 33.6km (normol)
5 .
RAT

SMY
ADK

SON
ANM
SVW

TTA
KDC
RSO

SLKM

1 MA

PMR

FBA

TOA
KUSJ
ASAJ
HOOJ
BALM

MRRJ
YAK

OFUJ
1 NK

N 1 1 J
CHJJ
MAT

1 1 DJ
MBC

PNT

NEW

BJ 1

WDC
1 RK

M 1 N
ORV
SES

1mb (71 obs.) 5.0Msz (12 obs.)
ISLANDS, ALEUTIAN ISLANDS (6)
Ms 4.9 (BRK). Mo=1 . 0» 1 0*» 1 7 Nm
(PPT) .
CENTROID, MOMENT TENSOR (HRV)
Do to Used: GDSN
L . P . B . : 1 4S , 28C
Centroid Location:
Origin Ti me 11:08:11.50.6
Lot 51.91N 0.08 Lon 176. 75E 0.10

Dep 16. 0 4.2 Ho 1 f-dur o t i on 1.8
Mom«nt Tensor; Scale 10**16 Nm
Mfr= 5.64 0.32 Mtt 3.78 0.42
M<f--1.86 0.35 Mrt- 8.76 2.95
Mff- 5.80 2.08 Mtf 3.32 0.45
P r f nc i pa 1 Axes:
T Vol- 11.77 Pig-60 Azm-328
N 0.61 2 236
P -12.38 30 145

Best Double Co up I e : Mo- 1 . 2« 1 0 * * 1 7
NP1 : S t r i ke-230 D i p- 1 5 Slip- 84
NP2: 56 75 92

1.74 308 i Pd 0838.70 1.5
4 .33 85 ePn 09 14.00 -0.1
0.6s 1280 . 79nm
S 10 11 .20
14.23 66 eP 1131.10 1.2
16 .04 29 eP 1 1 57.80 4.6X
18.02 48 eP 12 20. 30 2.1
1.0s 360.00nm 5.5mb
18.53 42 ePc 12 26. 20 1.8
18 .88 59 eP 12 27 . 40 -1.2
19.19 51 ePc 12 32.70 0.2
e 12 42.00
20.43 51 ePc 12 44.30 -1.4
e 12 56.00
20.86 35 ePc 12 50.70 0.5
0.8s 39.30nm 4.8mb
21.16 49 eP 12 50 .70 -2.4
0.7s 59 . 88nm 5 . 1mb
2 29s 3.50um 4.7Msz
22.63 40 eP 13 07.20 -0.5
1.1s 93 . 75nm 5 . 2mb
22 . 64 48 ePc 1 3 09 . 60 1.7
22.93 261 eP 13 10-20 -0.6
23.67 265 eP 13 20.00 2.0
24.20 260 eP 13 22.60 -0.5
24.33 51 eP 1 3 24 . 30 -0.1
e 13 37 .20
25.54 263 eP 13 35.50 -0.4
26 . 92 31 1 i P 1 3 47 . 30 -1.2
epP 14 14.00 125kmX
ePP 14 46.00
ePPP 15 03.00
ePcP 16 53.09
eS 18 27.00
esS 19 06.08
eSSS 20 12.00
27.15 256 eP 1 3 50 . 40 -0.4
28. 98 36 eP 14 07 .00 0.0
0.6s 14.00nm 4. 8mb
29.94 256 P 14 16 . 40 0.5
30. 73 254 P 14 23. 30 0.3
30.88 256 iPc 14 24.50 0.3
1.2s 56 . 25nm 5 . 2mb
eS 19 31 .00
31.77 255 P 1 4 32 . 90 0.8
34 .47 22 eP 14 55.00 -0.1
0.6s 37.00nm 5.5mb
39.64 67 eP 15 38.00 -0.9
0.7s 8.00nm 4. 6mb
41.59 67 eP 1 5 53 . 50 -1.5
0.7s 20 . 00nm 5 . 0mb
42,34 279 ePc 16 01.00 -0.1
l.fcs 90.00nm 5.5mb
2 1 6s 0.89um 4. 7Msz

| ePP 17 41 .00
1 eS 22 38.00
42 59 80 eP 16 05.70 2.5
42L67 300 ePc 16 03.00 -0.7
e 16 21 .50
4331 80 eP 16 10 . 80 1.6
4385 81 eP 16 1 4 . 60 1.2

BRK
BKS

SSE

MHC
CMB
FFC

FFC

PRI
FR 1
TNP

1 SA
CLC
BW06
SBB

PAS
MWC
GSC
RVR
PEC
PLM
TPC
BAR
RSSD

DAG

PV09

GLA
GOL

GDH

FRB

ANMO

ALO

KEV

SOD
KMI

MEO
SCH

AKU

KAF

NUR

NB2

APO

CHG

CHTO

BNH
OBN

43.92 62 eP 16 13.00 -0.9

44.41 83 e(P) 16 19.30 1.3 E 19s 0.50um
44.43 83 eP 16 30.20 12. 1X i 19 17.00
0.8s 31.00nm ePcP 19 22.00
I 20s 1.20um 4.8Msz ePP 23 00.00
N 20s 0.60um eS 28 20.00
E 20s 1.10um eScS 29 14.00
eLO 26 12.40 GUN 68.91 288 P 19 12.80 -0.1
eLR 28 34.00 GAR 69.12 307 eP 19 13.00 -0.8
44.99 265 P+ 16 22.00 -0.7 KKN 69.36 289 P 19 15.36 -e . 1
1.0s 37.00nm 5.2mb PKI 69.44 289 P 19 15.78 -0.3
Z 20s 0.50um 4.4Msz GKN 69.57 289 P 19 16.32 -0.4
N 16s 0.50um DMN 69.59 289 P 19 16.86 -0.1

epP 16 32.00 34kmX JSC 70.85 59 ePc 19 22.70 -1.5
eS 23 00.00 PcP 19 34.50
sS 23 17 . 00 . e 19 51 . 40
SS 26 08.00 NDI 73.34 295 eP 19 38.80 -0.2
45.13 83 eP 16 25.00 1.1 EKA 73.36 360 Pd 19 38.80 0.1
45.47 82 eP 16 27.50 1.0 0.8s 10.50nm 4.9mb
46.39 52 eP 16 33.00 -0.5 DMU 74.76 2 eP 19 46.80 0.0
0.6s 5.00nm 4.6mb CTAO 76.16 209 iPc 19 55.20 0.0
46.39 52 eP 16 44.00 10. 5X WTS 76.33 353 eP 19 56.00 0.3
0.5s 5.00nm 0.8s 11.00nm 4.9mb
46.50 84 eP 16 36.50 1 ..8 CLL 76.43 349 iP 19 55.60 -0.7
46.54 82 eP 16 35.50 0.6 1.9s 29.00nm 5.0mb
47.38 79 ePc 16 41.30 -0.5 KSP 76.47 347 ePc 19 56.00 -0.6
0.8s 27.94nm 5.3mb e 20 19.60
48.16 83 eP 16 48. 00 0.2 ePP 22 49.00
48.60 82 eP 16 51.00 -0.1 KRA 76.68 345 eP 19 58.10 0.3
49.07 70 eP 16 52.90 -2.0 2 22s 1.00um 5.1Msz
49.20 83 eP 16 57.00 1.2 e 20 08.20
49.34 84 eP 16 57.00 0.2 BRG 76.74 349 iP 19 57.60 -0.5
49.36 84 eP 16 58.00 0.8 1.4s 17.00nm 4.9mb
49.43 82 eP 16 57.00 -0.5 i 20 08.40
49.94 84 eP 17 01.00 -0.3 MOX 77.24 350 eP 20 00.70 -0.2
50.14 84 eP 17 02.00 -0.9 1.6s 35.00nm 5.1mb
50.68 84 eP 17 08.00 0.7 e 20 12.00
50.68 83 eP 17 07.00 -0.1 PRU 77.54 348 P 20 02.50 0.0
51.25 84 eP 17 12.00 0.6 1.2s 11.50nm 4.8mb
51.41 65 eP 17 10.00 -2.7 e 20 13.00
0.7s 8.65nm 4.8mb e 20 26.30
PcP 18 26.50 ENN 77.61 354 ePc 20 03.00 0.1
51.47 4 iPd 17 11.00 -1.4 0.9s 38.00nm 5.4mb
0.9s 10.92nm 4.8mb CUE 77.74 303 iPc 20 05.10 0.9
2 21s 0.86um 4.8Msz MEM 77.76 354 PC 20 03.70 0.0
N 21s 0.43um GRF 78.22 350 ePc 20 06.50 0.2
52.01 74 eP 17 15-J90 -1.5 2.0s 105.00nm 5.5mb
PP 18 53.00 2 25s 0.20um 4.3MszX

52.14 83 eP 17 19.00 0.8 epPd 20 17.50 36kmX
53.46 70 ePd 17 26.90 -1.2 DOU 78.36 355 P 20 05.80 -1.2
0.7s 6.07nm 4.7mb KHC 78.50 349 i PC 20 08.00 0.1
53.98 20 iPc 17 30.50 -0.6 1.1s 12.50nm 4.8mb
0.8s 59.70nm 5.7mb e 20 19.00
54.31 30 eP 17 32.00 -1.7 GWF 79.27 352 P 20 11.99 -0.1
0.9s 40.00nm 5.4mb BUD 79.32 345 eP 20 13.50 1.2
55.97 75 e(P) 17 45.00 -1.4 VR I 79.37 339 eP 20 14.00 1.4
1.5s 19.44nm 4.9mb CDF 79.86 353 P 20 15.14 -0.2
55.98 75 eP 17 45.00 -1.4 FLN 79.91 358 iPc 20 15.00 -0.4
1.0s 3.50nm 4.3mb 1.2s 32.75nm 5.2mb
2 22s 0.93um 4.8Msz 2 20s 3.00um 5.6Msz
56.83 348 iP 17 50.10 -1.8 MLR 79.90 339 ePd 20 16.80 1.1
0.7s 10.70nm 5.0mb ECH 80.06 353 P 20 16.09 -0.2
59.11 347 iP 18 06. 20 -1.7 LDF 80.07 358 iPc 20 16.00 -0.3
60.68 274 PC 18 18. 50 -0.9 1.0s 20.00nm 5.1mb
2.0s 83.00nm 5.5mb LIBD 80.09 352 P 20 16.33 -0.1
pP 18 30.50 42kmX PSI 80.10 262 ePc 20 16.50 -0.5
60.76 70 e(P) 18 31.100 11. 4X VITF 80.15 353 P 20 16.75 0.0
61.63 36 ePc 18 23. 50 -1.7 GRR 80.29 358 iPc 20 17.30 -0.2
0.8s 30.00nm 5.5mb 1.0s 24.00nm 5.1mb
62.45 7 iP 18 31.10 0.6 CMP 80.31 340 iP<J 20 20.00 2.3
0.9s 23.53nm 5.3mb FEL 80.33 352 P 20 17.43 -0.4
64.09 345 iP 18 39.80 -1.6 HAU 80.33 353 i PC 20 17.70 -0.1
0.7s 12.50nm 5.1mb 0.8s 8.05nm 4.8mb
65.88 345 iP 18 51. £0 -1.7 2 20s 2.00um 5.5Msz
0.9s 35.50nm 5.5mb SLE 80.39 352 ePd 20 18.30 0.2
67.01 352 P 18 58.80 -1.3 MOF 80.42 353 P 20 18.11 -0.2
0.8s 36.60nm 5.5mb BSF 80.47 353 iPc 20 18.40 -0.2
67.25 351 ePKP 18 59.70 -1.9 0.8s 10.75nm 4.9mb
0.8s 29.90nm 5.4mb KBA 80.55 348 iPc 20 20.10 1.0
67.70 272 ePc 19 04.10 -1.0 WTTA 80.57 350 iPc 20 19.70 0.4
1.0s I6.75nm 5.1mb 0.7s 23.60nm 5.3mb
67.70 272 iPc 19 04.20 -0.9 LPF 80.65 358 iPc 20 19.40 0.0
1.1s 21.20nm 5.2mb 1.0s 16.00nm 5.0mb
67.79 46 ePc 19 03.00 -2.3 G2R 80.66 341 ePd 20 20.00 0.4
68.46 336 iPc 19 08.50 -0.7 ZLA 80.68 352 ePd 20 20.10 0.4
1.0s ,....,. nm 8.7mb X LOMF 80.95 353 P 20 21.27 0.2
2 20s 1.60um 5.2Msz OGA 81.03 350 iPc 20 22.40 0.7
N 19s 1.10um FV 1 81.10 349 P 20 22.00 0.3

39

05d

LOR

LLS
HYB

OSS
SSF

LBF

RMO

VDL
BEO
AVr

VVI
SMF

BGF

TMA
MFF

MMK
DIX
PVL
TCF

MAF

LSF

LPL

LPG

LSD
RSP
POO
BN I
VTS
BOB
RJF

RRL
BHB
PCP
CAF

LFF

CK I
DOI
ASPA

PZZ
RZN
SFI
BDI
ROB
PGD
LPO

F IN
STV
ENR
ARV
SKO
IMI
SBF

ASS
VAY
FRF

LRG

GBA

LMR

OHR
AOU
MNS

81 .23
1 .2s
2 20s
81 . 24
81 .25
1 .8s
81 .38
81 .45
1 . 0s
81 . 50
1 .0s
81 . 52

ft 1 *^ 7 O 1 . D /
81 .65
ft 1 "7 ^ O 1 . / O
1 . 2s
81.74
81 .85
1 . 2s
81 .99
1 .2s
82.88
82.06
1.1s
82. 14
82. 16
82.20
82. 29
1 .8s
82.34
1 . 4s
82.35
1 .2s
82.78
8.9s
82.79
1 .0s
82.80
83. 18
83.15
83.24
83.26
83. 27
83.38
1 . 2s
Z 28s
83.36
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83.59
83.65
1 .2s
83.69
1 . 0s
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83.74
83.75
8. 8s
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84. 27
84. 36
0.6s
84. 58
84.61
84. 73
0.8s
84.85
1 .8s
84.89
1 .8s
84.96
1 .0s
85. 17
85. 19
85.25

355 iPc
23 . 80nm
3 . 25um
351 ePd
287 iPc
90 . 08nm
358 ePd
355 iPc
1 6 . 00nm
355 iPc
8 . 00nm
205 eP
e

351 ePd
343 eP
355 iPc
20 . 85nm
349 P
355 iPc
35 . 70nm
355 eP
20 . 85nm
351 ePd
358 eP
1 4 . 65nm
352 ePd
352 ePd
339 eP
356 iPc
6 . 08nm
356 iPc
26. 15nm
356 eP
1 7 . 85nm
353 iPc
1 1 . 45nm
353 i P c
22 . 88nm
352 P
352 P

o Q i ; p f £. y 1 I r C
353 PC
348 iPc
351 P
356 eP
1 7 . 85nm
2. 7 5 urn
353 P
352 P
351 P
356 iPc
1 4 . 98nm
357 eP
1 6 . 88nm
351 P
352 P
219 iPc
12 . 58nm
352 P
339 eP
349 PC
358 P
352 P
349 PC
357 eP
20 . 80nm
351 P
352 P
352 P
348 PC
341 iP
352 P
352 eP
1 2 . 65nm
348 P
348 eP
353 eP
1 0 . 75nm
353 eP
1 6 . 00nm
285 PC
30 . 50nm
353 eP
1 6 . 80nm
342 eP
347 P
348 PC

28 22

28 23
20 22

28 23
26 23

20 23

20 31
21 18

O Q O C

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98
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80
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R A O W

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98
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98
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03
85
A Q 4H
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98
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62
83
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80
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0.0
1mb
7Msz
0.5
- 0.6
7mb
8.8
0. 1
0mb
- 8.2
7mb
7 . 4X

1 . 1
0.3
0

4
. 1

8mb
8. 1
8. 1
3mb
8. 1
8mb
0. 4
0. 1
9mb
1 .3
1 .2
- 5.6X
8. 1
6mb
0.5
1mb
0.2
0mb
1 .2
8mb
1 .2
2mb
1 .0
0.5
- 1 .5
1 . 4
- 0.3
1 . 1
8.5
1mb
6Msz
1 .2
- 0. 8
- 8. 1
8.7
8mb
0.6
1mb
8. 1
- 0.6
8. 4
1mb
- 0.3
- 0. 1
1 .5
8. 4
- 8.4
1 .5
8.4
2mb
- 1 .8
- 1 .3
- 1 . 1
1 .8
8.5
- 0 . 1
8.4
3mb
0.7
0.6
0.5
1mb
0.8
2mb
- 8.7
4mb
8.8
2mb
0.5
1 .6
8.0

PGF

EPF

KOD
LKO

K 1 C
LIC
BLF

K 1 M
POF

S

& AUG
61 .

85. 52
8 . 9s
85.61
1 .0s
87 .51
119.01
8.7s
122. 19
122. 32
148.36
8.9s
148.79
151.64
0. 3s
. 0. =

85,
748 N
DEPTH -

351 iPc 20
65 . 50nm
357 iPc 20
6 . 00nm
283 eP 20
2 PKP 26
3 . 50nm
1 PKP 27
2 PKP 27
304 iPKPc 27
30 . 7 7nm
306 iPKPd 27
313 iPKPc 28
1 O Q Q nm

45. 00
5
44.80
4
55. 00
54. 70

01.10
01 . 50
52. 80

52. 60
02. 00

0. 4
. 8mb
- 0-2
. 8mb

e.0
- 1.1

- 0. 8
- e. e
3. IX

2. 3X
7. 6X
\ £. . yy nm
1.6 on 1 90 o f 1 99 obs .

1991 1 1 h 28m
147.
32 . 8km

13.74s
030 W

SOUTHERN ALASKA

SCM

TOA
KLU

VLZ

vzw

KNK
TZL

GLI
GHO

PLRM
SDG

PMS

CVA
PWA
H IN
PAX

KN 1 M

SGAM
GLB

CUT

HUR

LT 1
RAGM
SUA

RND

HMT
SLKM
SEW

SKT

MCK

TGL
TRF

BALM

WAX
CGLM
NCG
SPU
KTH
CKL
BGL
NNL
WRH
CTGM
CCB

<AEI O

(PMR) .

8.17

8.55
8.59

8. 70

8.72

8. 76
8. 82

8.86
8.90

1.01
1 .85

1 .31

1 .35
1 .36
1 .37
1 .43

1 . 44

1 .53
1 .57

1 .66

1 .74

1 .75
1 .78
1 . 88

1 .87

1 .95
1 .98
2.82

2.15

2.18

2.26
2.28

2 . 36

2. 41
2.42
2. 48
2. 48
2. 56
2.61
2.61
2.69
2. 78
2.85
2.94

(2)
. ML 2.7 (AE 1C) , 3.0

304 eP 28
S 28
48 iPd 28
1 15 i PC 28
eS 28
151 i P c 28
eS 28
161 iPc 28
eS 28
245 eP 28
67 ePd 28
eS 28
182 ePc 28
273 eP 28
eS 28
263 ePc 28
41 i P d 28
eS 28
249 ePc 28
S 28
152 ePc 28
267 eP 28
169 iPc 28
30 ePd 28
S 28
194 ePc 28
S 28
144 ePc 28
100 iPc 28
eS 28
295 iPc 28
eS 29
317 eP 28
S 29
194 ePc 28
139 eP 28
263 ePd 28
eS 29
334 eP 28
S 29
135 eP 28
233 eP 28
217 eP 28
S 29
278 iPc 28
eS 29
337 eP 28
S 29
1 14 eP 28
320 eP 28
eS 29
105 ePc 28
S 29
121 ePc 28
262 eP 28
264 eP 28
259 eP 28
317 ePd 28
260 eP 28
262 eP 28
233 ePc 28
351 eP 28
103 ePc 28
353 eP 28

19. 68
24.98
24. 60
24. 69
33.16
25.94
36. 45
26.53
37.12
27 .66
28 . 08
39.61
29. 20
28. 85
42 .27
30. 63
30. 90
44 . 42
36.05
53.57
36. 34
34. 50
37 . 56
36. 32
54.33
38 . 19
57.82
39. 19
38. 68
57 . 94
40. 74
02 . 36
41.40
03. 60
42.71
43.19
43. 37
07.32
43.19
07.05
45.60
45.86
46 . 42
1 1 . 66
48. 10
15.09
47 . 32
16.06
49.19
49. 33
17.24
50.34
21 . 23
51 . 29
52. 33
52. 74
52. 62
53. 70
54 . 84
55.01
56. 43
56.05
57.68
58.24

- 0.5

- 0.5
- 1 .0

- 1 .2

- 1 .0

- 0.3
- 0.8

- 0.3
- 1 . 3

- 1 . 0
- 1.4

0. 1

- 0. 1
- 2. 1
0.8
- 1.4

0.5

0-2
- 1 . 0

- 0.2

- e. 7

0. 4
0.5
0.3

- 0.9

0.4
0. 2
0.3

0. 1

- 1 .2

- 0.4
- 0.7

- 0.8

- 0.5
0. 3
0.0
- 0. 1
- 0.2
0.3
0.3
0.8
- 0.9
- 0. 4
- 0.9

DFR 2.97 250 eP 28 59.97 0.2
REF 3.03 248 eP 29 00.14 -0.5
CNPM 3.04 225 ePd 29 00.07 -0.6
RON 3.04 249 eP 28 59.96 -0.8
ROW 3.08 248 eP 29 01.02 -0.3
RED 3.09 247 eP 29 00.50 -0.9
NCT 3.09 250 eP 29 00.72 -0.8
FBA 3.19 354 eP 29 02.60 -0.1
MOM 3.28 351 i PC 29 03.24 -0.8
SVW 4.18 265 eP 29 15.30 -1.5
TTA 4 . 36 290 eP 29 20 . 50 1.1
IMA 5.24 329 eP 29 30.20 -1.8
56 obs. ossocioted

? AUG. 05, 1991 I2h 59m 55.674 5.09s
32.634 S ±31. 2km 71.707 W ±26. 3km
DEPTH - 20 . 7 ± 7 . 7 km
NEAR COAST OF CENTRAL CHILE (135)

IHA 0.40 172 eP 00 04.50 0.6
iS 00 09.70
ROCH 0.68 120 iPd 00 09.00 0.2
iS 00 18.00
LCCH 0.85 172 iP 00 11.50 -0.1
iS 00 22. 60
JACH 0.94 93 IP 00 13.50 0.3
IS 00 26.00
PEL 1.00 121 IP 00 14.10 -0.1
iS 00 27 .50
SAN 1.20 133 eP 00 16.50 -0.8
iS 00 32. 30
TACH 1.20 148 iPc 00 17.20 -0.2
iS 00 33. 60
LNV 1.34 169 iPd 00 19.00 -0.2
iS 00 35. 50
PCH 1.40 135 iPc 00 20.50 0.3
IS 00 39. 00
CHCH 1.57 146 iP 00 22.70 0.1
iS 00 43. 70
S.D. - 0.5 on 10 of 10 obs.

Sc AUG 05, 1991 13h 26m 11.47s
46.940 N 120.351 W
DEPTH - 4.3km
WASHINGTON (29)
<SEA>. MD 2.8 (SEA) .

EBG 0.15 259 Pd 2614.81 0.2
VTG 0.25 86 P 26 16.87 0.4
TBM 0 .29 324 P 26 18. 47 1.2
BVW 0 .35 1 12 P 26 19.07 0.6
MXC 0.37 174 Pd 26 19.49 0.7
S 26 26. 40
NAC 0.39 238 Pd 26 20.24 1.0
TWW 0.41 299 P 26 20.05 0.4
YAKW 0.44 196 Pd 26 20.95 0.7
BRVW 0.52 151 Pd 26 22.35 0.5
MOW 0.52 129 P 26 22.25 0.4
WAH2 0.57 108 P 26 23.07 0.2
RC1 0 .63 89 P 26 24. 1 1 0.1
EPH 0.66 51 P 26 24.40 -0.3
ETW 0.66 1 P 26 24.55 -0.2
LOCW 0.67 109 P 26 25.03 0.2
CRF 0.67 100 P 26 24.78 -0.1
G8L 0 .70 1 19 P 26 25.60 0.1
RSW 0.76 136 P 26 26.65 0.0
MJ2 0 . 78 1 19 P 26 27.01 0.0
OT2 0.80 106 P 26 27.23 -0.2
WTV 0.81 19 P 26 27.80 0.2
WRD 0.83 87 P 26 27.51 -0.5
WPW 0.86 254 P 26 28.08 -0.5
PRW 0.86 148 P 26 31.45 2.9
CBSW 0.89 14 P 26 28.98 -0.2
WIW 0.89 124 P 26 28.87 -0.2
FMW 0.91 270 P 26 28.81 -0.7
GLK 0.94 247 P 26 30.04 0.0
SAW 1.00 40 P 26 30.64 -0.3
LON 1.02 260 P 26 30.81 -0.5
REMR 1.03 264 P 26 31.06 -0.5
GL2 1 .03 199 P 26 31 .96 0.4
ET3 .04 110 P 26 31.04 -0.6
RVC . 1 1 271 P 26 32.30 -0.6
DHW2 .12 20 P 26 32.28 -0.7
RMW . 12 298 P 26 33.48 0.4
PATW . 14 159 P 26 33.77 0.5
NLW .14 0 P 26 32.52 -0.9
ASR 1.17 228 P 26 34. 14 0.3

05d 13h

40

OD2 1.21 67 P 26 33.89 -0.6 POP 1.44 306 P 26 22.64 -0.6
HTW 1 . 29 312 P 26 36 . 18 0.2
KOSW 1.35 250 P 26 36.46 -0.6
TOL 1.41 246 P 26 37.92 -0.2
SOSW 1.42 241 P 26 37.56 -0.6
COFW 1.43 235 P 26 38.34 0.0
JLK 1 . 48 238 P 26 39 . 13 0.2
ERK 1.51 246 P 26 39 .59 0.2
JBO 1.52 166 P 26 39.14 -0.4
FL2 1.57 242 Pd 26 40.55 0.3
MTMW 1.58 235 P 26 40.56 0.2
JCW 1 . 65 320 P 26 41 . 89 0.6
OPW 1.73 57 P 26 41 .32 -1.2
VLL 1.74 212 P 26 42.96 0.2
VTHU 1.77 185 P 26 43.05 0-0
GMW 1.77 291 P 26 43.94 0.9
TDH 1 .93 212 P 26 46 . 02 0.5
HOW 1.97 292 P 26 47.45 1.4
CROR 2.01 193 P 26 47.04 0.5
V8EM 2.07 205 P 26 48.35 0.8
BIN 2.07 302 P 26 48.47 1.0
SMW 2.08 282 P 26-49.21 1.7
61 obs. ossoc i o ted

AUG 05, 1991 14h 03m 13.20± 0.92s
38.307 N ± 7.7km 22.146 E ±10. 6km
DEPTH - 5.0km (geophy s i c i s t)
GREECE (364)
MO 2 . 9 (THE) .

AGG 0.73 11 ePc 03 27.10 -0.7
eS 03 37 .98
VLS 1.23 264 eP 03 36.00 -0.6
eS 03 55.00
VLI 1.71 158 eP 03 44.00 0.3
LIT 1.81 8 ePc 03 45.21 -0.1
iS 04 09. 30
IGT 1.87 311 ePc 03 49.37 3.2X
eS 04 15.33
PAIG 2.01 36 ePd 03 47.53 -0.6
iS 04 12.57
KZN 2.02 352 eP 03 50.00 1.7
OHR 2.99 340 ePn 04 05.00 2.9X
VAY 3.03 6 ePn 03 47.50 -15. IX
SKO 3.70 352 ePn 04 17.00 4.7X
S . 0 . -1.2 on 6 of 10 obs.

% AUG 05. 1991 16h 22m 34 . 67± 2.72s
11.016 N ±10. 5km 62.131 W ±29. 4km
DEPTH - 33.0km (normol)
WINDWARD ISLANDS (95)
MD 3. 5 (TRN) .

TCE 0.49 130 iPc 22 45.99 0.9
eS 22 55.46
TRN 0.80 117 iPd 22 49.71 0.2
iS 23 03.05
TPP 0.96 136 eP 22 51.29 -0.6
eS 23 05.80
TBH 1.17 117 iPd 22 54.34 -0.5
eS 23 10.63
GRW 1.23 22 eP 22 55.75 0.1
eS 23 15.74
BOT 1.39 84 eP 22 57.92 -0.1
eS 23 17.24
SVB 2.40 21 eP 23 12.53 0.0
S . D . -0.6 on 7of 7obs.

AUG 05, 1991 20h 25m 57 . 1 0± 0.49s
43.710 N ± 6.6km 10.171 E ± 3.2km
DEPTH * 10.0km (geophy s i c i s t)
CENTRAL 1 T ALY (381)
ML 2. 7 (LOG) .

PI 1 0 . 26 87 PC 26 02. 50 0.0
eSg 26 05. 80
BDI 0.47 41 PC 26 06.00 -0.6
; eSg 26 1 1 . 60
MME 0J62 38 P 26 09.10 -0.6

eSg 26 16.40
PGD 1.13 81 PC 26 18.90 0.4
eSn 26 34.10
BOB 1.18 334 PC 26 20.00 0.9
eSn 26 35.00
SF 1 1 .23 80 P 26 20. 40 0.4
eSn 26 36.20
CRE 1.29 93 P 26 21 .20 0.0

S 26 42 . 78
PGF 1 . 44 21 7 Pn 26 23. 60 0.2
Sn 2641.70
FIN 1 . 56 290 P 26 23. 46 -0.7
S 2642.78
CKI 1.54 298 P 26 25.40 0.8
IMI 1.66 278 P 26 25 .62 -0.9
R08 1.76 296 P 26 27.12 -0.8
S 2648. 78
SAL 1.91 7 P 2629.40 -0.6
SBF 1.99 275 Pn 26 30 60 -0.6
Sn 26 53.50
ENR 2.05 286 P 26 31.21 -0.9
STV 2 . 12 286 P 2632.24 -0.9
DOI 2.25 292 P 26 34.60 -8.1
PZZ 2.3S 291 P 26 36.
BHB 2.38 299 P 26 35.
FRF 2.56 268 Pn 26 40.
Sn 27 08.
LMR 2 . 69 263 Pn 26 41 .
Sn 2711.
RRL 2 . 72 298 P 2642.
LRG 2.78 266 Pn 26 42.
Sn 2713.
LPG 3.03 307 Pn 26 48.
LPL 3.05 308 Pn 26 49.
BGF 5.91 301 Pn 2726.
S. D . - 1 . 1 on 27 o f 2

% AUG 05, 1991 20h 36m 39.
39.692 N ± 6. 0km 15 . 381
DEPTH - 29 . 5 ± 11.1 km
SOUTHERN ITALY

MGR 0.46 17 P 36 49.
eSg 36 58.
MMN 0.51 67 P 3650.
eSg 36 59.

CSI 0.71 83 P 36 53 . eSg 37 06.

ACI 0 . 72 1 18 P 36 54.
TDS 0.74 92 P 36 54.
eSg 37 04.
CZI 0. 75 129 P 36 53.
SCO 0.87 356 P 36 56.

eSg 37 11.
ROI 0.93 97 P 36 57.
eSg 37 11.
ATN 1 . 53 1 78 P 3706.
SOI 1 . 70 162 P 37 06.
S. D . -0.9 on 10of 1

_ ___ _ ___ ____ _ _

? AUG 05, 1991 21h 00m 22.
3.892 N ±16. 7km 76 . 184
DEPTH - 88.3 ± 30.2 km
COLOMBIA

MD 3.3 (UVC).

i>8 -0.4
'58 -1 .7
30 1.4
30
*0 0.2
20
36 1.2
20 -0.3
70
50 2.4
30 2.6
30 -0.8
7 obs .

39± 1 . 34s
E ±1 1 . 9km

(390)

»0 -0.4
20
50 0.1
50
30 0.1
30
10 0.1
20 0.0
90
80 -0.6
20 0.2

Q a 9 v
70 0.7
*? A
L. V

90 1.3
60 -1.4
0 obs .

37± 2.90s
N ±20 . 1 km

(103)

CLMC 0.38 268 ePd 00 36.|97 0.5
eS 00 49 . 10
HOBC 0.46 6 ePd 00 36.
HOOC 0.62 227 iPc 00 38.
eS 0051.
ANCC 0.78241 i PC 00 39 .
eS 00 53.
SI LC 1.21 187 iPc 00 44.
eS 01 03.

PURC 1 . 57 187 ePc 00 50 .
CUMC 3. 36 210 eP 0114.
S . D . -0.4 on 7 of

% AUG 05, 1991 21h 13m 40.
46.369 N ± 5. 3km 0. 053
DEPTH - 20 . 8 ± 4. 1 km
FRANCE

ML 2 .9 (LOG) .

MFF 0 .24 345 Pg 1 3 46 .
Sg 13 50.
LSF 1.10 96 Pg 1401.
Sg 1415.
RJF 1 .53 134 Pg 1407.
Sg 1427.
LFF 1 . 53 158 Pn 1406.
Pg 14 07 .
Sg 14 27 .

87 -0.1
22 -0.2
20
58 -0.2
80
97 -0.2
1 A 1 O
10 0.2
30 0.0
7 obs .

17± 0.68s
W ± 6 .3km

(538)

20 0.2
00
10 0.7
00
60 1.1
00
00 -0.5
30
80

TCF 1.57 92 Pn 14 08. 10 1.0
Pg 1 4 09 . 40
Sg 14 29.50
LPF 1 . 79 338 Pn 1 4 1 0 . 30 0.0

Pg 1413.80
Sg 1 4 36. 90
MAP 1 . 82 94 Pn 14 1 1 .40 0.7
Pg 1414.00
Sg 14 36. 70
LPO 1.90 152 Pg 14 13.70 1.9
Sg 1437.40
BGF 2.01 84 Pn 1414.10 0.6
Pg 1418.00
Sg 1444.20
CAP 2.07 133 Pn 1413.10 -1.3

Pg 1417.70
Sg 14 43.00
GRR 2.09 345 Pn 14 15.00 0.4
Pg 14 19.00
Sn 1441.00
Sg 1448.20
PYM 2. 22 105 Pn 14 16 .84 0.3
LDF 2.23 359 Pg 14 22.40 5 . 9X
Sg 1451.90
AGO 2 . 23 97 Pn 1416.91 0.2
Pg 14 21 . 96
Sg 1450.24
GRC 2.34 66 Pn 14 18. 43 0.3
AVF 2.39 79 Pn 14 19.20 0.4
Pg 1425.10
Sg 14 55.00
FLN 2.41 353 Pg 14 25.10 6.0X
Sg 1457.20
SSF 2.54 73 Pn 14 21 .40 0.3

Pg 1427.10
Sg 1500.70
LBL 2.57 115 Pn 14 21.07 -0.5
Sn 14 52 .33
SMF 2.70 83 Pn 14 23.30 0.0
Pg 14 30.70
Sg 15 04.20
LOR 2. 83 70 Pn 14 25. 10 0.0
Pg 14 32.00
Sg 15 06.90
LBF 2.84 76 Pn 14 25.10 -0.2

Pg 14 32.00
Sg 15 07 .20
S.D. - 0.7 on 20 of 22 obs.

? AUG 05. 1991 21h 32m 36.84± 2.00s
56.463 S ±22. 9km 145.846 E ±6 1 . 1 km DEPTH - 10.0km (geophy s i c i s t)
4 . 8mb (5 obs .)
WEST OF MACOUARIE ISLAND (701)

STK 24.76 351 i PC 38 00.40 0.9
0.7s 9.70nm 4. 6mb
WARB 33.27 327 eP 39 17.00 0.7
ASPA 33.91 340 eP 39 21.80 -0.1
0.9s 10.50nm 4.8mb
WR2 37.46 342 i Pd 39 51.20 -0.8
0.6s 29.30nm 5.2mb
WRA 37.46 342 P 39 51.00 -1.0
0.6s 19.60nm 5.1mb
CHG 84.69 316 eP 45 11.60 -0.2
CHTO 84.69 316 eP 45 11.70 -0.1
1.2s 5 . 56nm 4 . 7mb
MBC 144.96 25 ePKPc 52 07.30 -6.6X
6.9s 20 . 80 nm
KAF 149.63 306 ePKP 52 22.00 0.2
S.D. -0.8 on 8of 9obs.

* AUG 05, 1991 22h 06m 13.38± 0.84s 32.979 S ±24. 6km 69.367 W ±24. 3km DEPTH - 10.0km (geophy s i c i s t)
MENDOZA PROVINCE, ARGENTINA (139)

ZON 0.79 48 eP 06 30.00 1.3
eS 06 45.00
RTLL 1.06 46 PC 06 32.20 -1.2
JACH 1.20 239 P 06 36.50 0.6
S 06 55.60
PEL 1.54 226 PC 06 40.70 -0.3
S 07 03.50
PCH 1 . 82 212 P 06 46 .00 0.9
S 07 13.50
TACH 2.06 220 Pd 06 47.00 -1.5

41

05d 22h

iS
CHCH 2.15 210 i P
i S
LNV 2.55 222 i Pd
S . 0 . = 1.3 on

AUG 05. 1991 22h
45.045 N ± 2. 9km

07 16. 00
06 50.00
07 1 9 . 90
06 52.00

0.2

- 3.4X
7 o 1 Bobs.

32m 37.64±
10.307 E ±

0.31s
3 . 4km
DEPTH = 33.0km (normol)
NORTHERN ITALY

ML 3.1 (LOG) , 2
(STR) .

SAL 0 . 58 15 PC
eSg
BOB (5.67 246 Pd
eSg
MO 1 0.84 330 P
MME 0.90 162 Pd
eSg
BD 1 1 .00 168 P
eSg
PI 1 1 . 33 173 P
eSg
P r- P 1 T% *? A. o P r L, r 1 . O 3 £. *+y r
S
TMA 1.46 317 i PC
PGD 1 .55 139 P
VDL 1 -56 338 i PC
CK I 1 . 57 247 P
SF 1 1 .58 135 P
OSS 1 .65 356 i PC
FIN 1 . 72 242 P
S
CRE 1 .84 140 P
ROB 1 . 89 248 P
S
LLS 2.04 334 tPd
IM 1 2.07 238 P
S
RSP 2 . 1 6 274 P
S
BHB 2.17 266 P
S
ENR 2.22 249 P
S
DOI 2 . 25 257 P
LSD 2.26 282 P
STV 2.27 250 P
FVI 2.32 47 P
PZZ 2 . 35 258 P
SBF 2.37 241 Pn

WTTA 2.40 22 iPgc
i
iSg
ARV 2.44 128 P
RRL 2. 50 268 P
TR 1 2.53 74 P
LPG 2.55 281 Pn
LPL 2.57 282 Pn
BN I 2.57 271 P
ASS 2 .60 138 P
PGF 2.67 201 Pn
ZLA 2.78 332 ePc
SLE 3.00 336 iPd
FRF 3.02 242 Pn
LMR 3.22 239 Pn
PEL 3.25 332 Pn
LRG 3.25 242 Pn
LOMF 3.34 315 Pn
MOF 3.56 323 Pn
BSF 3.70 320 Pn
Sn
ECH 3.84 327 Pn
Sg
CDF 3.96 329 Pn
S
HAU 4.03 319 Pn
Sn
GWF 4 . 34 336 Pn
VI TF 4.35 318 Pn
KHC 4.66 27 eP

pg
Sg
TOD 4.68 348 ePn
SMF 4.79 292 Pn
Sn

9 (VIE). 2

32 50 . 90
32 59 . 16
32 52.00
33 03. 80
32 55.40
32 54.60
33 05.80
32 55.60
33 10.00
33 00.30
33 18. 50
33 02 . 26
33 19 . 02
33 03.00
33 03.80
33 05.40
33 05.50
33 04.00
33 06.90
33 05.85
33 26. 17
33 07.10
33 08 . 72
33 31 .42
33 12 . 90
33 10.46
33 33.48
33 10. 67
33 33.17
33 10. 68
33 35.39
33 13.10
33 36.98
33 16. 50
33 13. 23
33 13. 85
33 14.90
33 13.57
33 13 . 80
33 17 . 00
33 18. 50
33 48.50
33 15.20
33 15. 39
33 15. 40
33 14 . 30
33 14 . 50
33 21 .00
33 17.40
33 19.10
33 21 . 40
33 23.80
33 24.60
33 28.60
33 26.98
33 29.50
33 29.06
33 31 .67
33 33.80
34 12 .60
33 35.48
34 15.96
33 36.84
34 21 . 26
33 38.40
34 21.70
33 42 . 31
33 42. 31
33 46.00
34 1B.50
34 36.00
33 46.36
33 4B.90
34 40.50

(545)
6

1 .5

1 . 3 '

2.3
0.5

0. 1

0.2

1 . 8

0.9
0.4
1 .9
1 .9
0. 4
2. 1
0.2

- 0 .5
0. 4

2.4
- 0. 3

- 1 .5

- 1 .5

0.2

3.2X
- 0.5
0. 1
0.6
- 1 .2
- 1 .3
1 .3

- 0.9

1 ft

- 1 .8
- 3.6X
- 3.5X
3.0X
- 1.0
- 0.2
0 .6
- 0. 1
0 .4
1 .5
- 0.5
2.0
0.2
- 0.4
- 0. 1

- 0.4

- 0.8

- 0.2

- 0.7
- 0.8
- 1 .5

- 1.4
- 0.5

LBF 4.82 296 Pn 33 49.30 -0.4
Sn 34 40.50
LOR 5.00 299 Pn 33 51.70 -0.7
Sn 34 45. 30
SSF 5.15 295 Pn 33 53.60 -0.8
Sn 34 48 . 60
RUP 5.15 336 ePn 33 54.05 -0.5
AVF 5.16 292 Pn 33 53.90 -0.6
ABH 5.19 340 ePn 33 53.98 -1.0
BGF 5.43 289 Pn 33 57.10 -1.3
S . 0 . = 1 . 1 on 56 o f 60 obs .

AUG 05, 1991 23h 00m 55.11± 0.69s
40.597 N ± 5.6km 21.246 E ± 6.5km
DEPTH = 10.0km (geophy s i c i s t)
GREECE (364)
MD 2.4 (THE) .

FNA 0.21 28 iPc 01 01.12 1.4
eS 01 05.04

OHR 0.62 327 i Pg 01 07.00 -0.6
i Sg 01 19.80
GRG 0.95 67 ePc 01 14.12 0.9
eS 01 27.36
LIT 1.07 117 ePd 01 15.36 0.1
eS 01 29. 10
VAY 1.24 54 ePn 01 16.40 -1.7
IGT 1.27 214 ePc 01 19.16 0.4
eS 01 37.40
KNT 1.37 65 ePd 01 20.16 -0.1
eS 01 39.28
SKO 1 .38 6 ePn 01 20 . 40 0.0
i 01 22.60
i Sg 01 39 . 40
i Sn 01 41 . 30
SOH 1.62 81 ePc 01 23.68 -0.1
AGG 1.78 152 eP 01 25.90 -0.3
eS 01 48.00
S . D . -0.9 on 10of 10 obs .

% AUG 05, 1991 23h 35m 12.21± 1.96s
40.019 N ±11. 1km 23.837 E ±17. 1km
DEPTH - 3.0km (geophy s i c i s t)
GREECE (364)

PAIG 0.15 233 iPd 35 15.30 0.0
eS 35 18.58
OUR 0.33 19 ePd 35 18.86 0.0
iS 35 24. 42
SOH 0.88 335 ePd 35 29.66 -0.1
eS 35 42.34
SRS 1.11 350 ePd 35 33.86 0.1
eS 35 50.00
KNT 1.35 328 ePd 35 37.78 0.1
eS 35 56.66
S.D. - 0.1 on 5 of 5 obs.

AUG 06. 1991 00h 03m 34.83± 0.44s 10.250 N ± 7.9km 125.065 E ± 1 0 . 5 km DEPTH - 23.1km (2 depth phoses) 4.7mb (8 obs.) 4.0Msz (2 obs.)
LEYTE. PHILIPPINE ISLANDS (256)

DAV 3.18 171 eP 04 29.00 4.4X
OCP 5.85 319 eP 05 09.50 7.2X
BAG 7.52 325 eP 05 26.00 0.0
SSE 21.05 351 PC 08 18.00 -1.6
1.4s 26 . 00nm 4 . 5mb
Z 20s 0 - 90um 4 . IMsr
N 12s 0 - 30um
E 12s 12.00um

pP 08 24.00 22km
eS 12 10 . 00
sS 12 20 . 00
SS 12 48. 00
CHTO 26.65 292 eP 09 13.90 -0.1
1.0s 7 . 25nm 4 . 3mb
PSI 27.02 256 ePd 09 17.20 -0.1
BJI 30.70 347 eP 09 50.50 0.3
1.5s 18. 00nm 4 . 7mb
Z 21s 0 . 30um 3 . 9Msz
eS 14 52 .00
WRA 31.36 163 P 10 11.00 14. 8X
0.7s 1 . 40nm
WR2 31.37 163 eP 09 56.50 0.2
0.6s 5 . 40nm 4 . 6mb
LZH 32.13 327 eP 10 02.50 -0.5

1.8s 60.00nm 5.2mb
Z 24s 0.78um 4.3MszX
N 11s 0 . 50um

pP 10 09.50 24km
PP 1 1 15.00
eb _ C 1 i O *\1 io ft « £t W£t
eSS 17 20.00
CIS 33.79 155 eP 10 16.00 -1.4
ASPA 34.80 166 iPd 10 25.50 -0.6
0.7s 12. 30nm 4 . 9mb
WARB 36.25 178 eP 10 39.50 1.2
0.6s 21.00nm 5.2mb
GUN 40. 76 301 P 1117.92 1.5
PK 1 41.06 300 P 11 18.76 -0.1
KKN .41.23 301 P 11 20.02 -0.1
DMN 41.32 300 P 11 21.24 0.3
GKN 41. B4 301 P 11 24. B0 -0.2
DZM 51.76 129 iPd 12 43.00 -0.1
CUE 57.41 299 eP 13 23.50 -1.0
INK 84.74 21 eP 16 09.00 1.0
MBC 85. 99 12 eP 16 15.50 1.3
1.0s 6 . 00nm 4 . 8mb
ZOBO 165.84 116 PKP 23 43.00 2.7X
S.D. -0.9 on 19 of 23 obs.

* AUG 06, 1991 01h 03m 55.00s
36 . 058 N 1 20. 613 W
DEPTH - 5.9km
CENTRAL CALIFORNIA (39)
<GM-P>. MD 3.0 (GM).

PHAM 0.28 142 i Pd 04 01.30 0.6
PKEM 0.41 89 eP 04 04.90 1.7
BCH 0.97 154 eP 04 13.20 -0.7
ARN 1.49 330 eP 04 21.20 -1.1
ABL 1.66 136 eP 04 24.00 -0.9
CMB 1.98 5 eP 04 28.00 -1.5

BONR 2.65 44 e(P) 04 37.00 -2.3
7 obs. ossoc i a t ed

AUG 06, 1991 02h 17m 31.60± 0.10s 3.827 N ± 2.9km 95.374 E ± 2.3km DEPTH - 18.1km (geophy s i c i s t) 6.0mb (92 obs.) 5.3Msz (31 obs.) OFF W COAST OF NORTHERN SUMATERA (705) Mo-4 . 0* 1 0»» 17 Nm (PPT). Felt strongly at Bonda Aceh. Also
felt in the Pinong area,
Malays i a. Depth from broodband displacement seismograms.
FAULT PLANE SOLUTION: P-Waves

NP1 :St r i ke-318 0 i p-63 Slip- 90
NP2: 138 27 90

Principal Axes :
T Pig-72 Azm-228
P 1848
Comment: The focal mechanism is
poorly controlled and
corresponds to reverse
faulting. The preferred fault
plane is NP2 .
RADIATED ENERGY
No. of star 7 Focal mech. M
Energy 7 . 4±1 . 6 1 0» » 1 2 Nm
MOMENT TENSOR SOLUTION

Dep 13 No.ofsta:10
Moment Tensor; Scale 10**17 Nm
Mr r- 4.49 Mt t 0. 38
Mf f 4. 1 1 Mr t 1 . 80
Mr f- 6 . 66 Mt f- 1 . 44
Principal axes:
T Val- 8.21 Pig-62 Azm-257
N 0.10 2 164
P -8.31 28 73

Best Double Coup 1 e : Mo-8 . 3 * 1 0* * 1 7
NP1 : St r i ke-158 Dip-17 Slip- 84
NP2: 344 73 92

CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 21S, 47C M . W . : 13S, 15C
Cen t ro i d Loco t i on :
Origin Time 02:17:32.5 0.2
Lot 3.66N 0.03 Lon 95 . 1 1 E 0.03

Dep 34.8 1.8 Half-duration 2.6
Moment Tensor; Scale 10**17 Nm
Mrr- 3.70 0.10 Mtt 2.56 0.13
Mff 1.14 0.16 Mrt 0.05 0.23

62h

42

Mr f-
P r i nc

e. 28 0. 23

i pa I Axes:
T Vo 1= 3.72
N
P

- 0.10
- 3.62

Best Double Coup I
NP1:Strike-120 D

PS I
IPM

KGM

KHT
PCT
NST

BDT

LOE
CHG

CHTO

HYB

KM I
TSM

MCO
PK 1
DMN

GUN
MKS
KKN
HKC

GKN
BAG
NO 1

DAV

KUPT

NANU
LZH

SSE

OUE

KNA

NP2 :

3. 72
5. 69

8.14

1 . 0;S1

j
1 1 .|34
12.132
12.^7

13.80
1 .2s
14. 86
15.38
1 .0s

15.38
1 .2s
21 .32
1 .2s

22.33
22.45

25. 33
25. 46
25.60
1 .5s
25.68
25. 69
25. 78
25.87

26 . 13
27 .74
30. 15
Z 18s

30.23

31 .36
1 .5s
32.88
33.84
1 .8s
Z 22s
E 16s

36. 43
1 .0s
Z 28s
N 15s
E 14s

37.54

38.34

306

107 ePd
82 ePd
e
eS
103 ePd
484.80 nm
e
e
1 6 eP
28 eP
21 eP
e
15 eP
1 6 . 60nm
24 eP
13 ePc
1 1 0 . 60nm
eS
13 eP
1 50 . 35nm
311 iPc
772. 70nm
IS
18 Pd
88 ePd
e
43 eP
339 P
339 P
928 . 00nm
340 P
1 10 ePd
339 P
43 ePc
eS
338 P
61 eP
327 iPc
3 . 44um
eS
e
83 eP
eS
117 eP
724.1 8nm
144 eP
13 iPc
139. 88nm
7 . 7 5 urn
1 7 . 68um
PP
sP
PP
PPP
PcP
S
sS
PcS
SS
ScS
39 Pd
32 . 00nm
8 . 30um
9 . 6 8 urn
3 . 78um
i
sP
PP
S
sS
SS
ScS
317 iPc+
ePP
eS
e
e
121 eP

Mt f- 1 .

Pig-87
3
2
e : Mo-3 . 7

i p=44 SI
47

18 31 . 50
18 57 . 10
19 1 2 . 00
20 28.20
19 32. 10

19 47 . 20
21 43. 00
26 18.56
26 33.60
26 36.50
24 51 .60
28 52.60

21 04.50
21 09.80

24 08.00
21 09. 10

22 21 .00

26 24.00
22 30.80
22 30.80
26 40 . 00
22 59.30
22 59.88
23 02.18

23 01.18
23 65.06
23 03. 00

23 04.ee
27 28.00
23 05.04
23 24.08
23 42.20

2B 38.00
38 04.66
23 46.00
28 46.80
23 52.00

24 06.00
24 86.50

24 1 1 . 00
24 1 3 . 00
25 15.00
25 38.66
26 53.68

29 is.ee
29 24.ee
30 36.50
31 14.00
34 35. 00
24 37.20

24 47.70
25 1 0 . 00
26 10.00
30 17 .00
30 44. 00
32 52.00
34 44.00
24 47.80
26 21 .00
30 28.60
31 14. 70
33 28.06
24 51 .00

62 e. 1 1

Azm-277
123
33
» 1 0» * 1 7
i p- 86
94

2 . 1
- 0.2

0. 4
6 . 7mb

2.7

4. ex
2.8

3.3X
4 . 7mb X
1 .8
0.6
5 . 1mb

e.7
5 . 2mb
1 . 1
6 . 0mb

0.6
- 0.4

0.2
- 0.7
0.3
6.2mb
- e.s
2.5

e.2
e.s

- 1 .6
2.5
- 0.7
5 . 0Msz

2.2

- 1.7
6 . 3mb
- 0. 1
- 1 .8
5 . 6mb
5 . 4Msz

1 6kmX

0.0
5. 1mb
5.5Msz

1 .0

- 2.5

MTN
BAL
WMO

BJ I

MUN
KLB
GAR

NWAO

COOL
WARB
RKG
WRA
JAY
MA I 0

ASPA

FORR
OHR

IRK

TSRJ
OIS

PJG
GUA
MTMJ
MAJO

MAT

MDG
RYD

CHJ J
I R4
I R5
I R1
N I IJ
I R7
ARO
LAT
MJMA
YAMJ
PMG

ABHA
BISH
AOMJ
OFUJ
CTAO

0. 7s
39 . 19
39 .85
40 . 40

40 . 66
0.8s
Z 16s
N 12s

40. 75
41.17
41.77

42. 01
Z 20s
N 20s
E 20s
42.38
42.50
43.29
44 . 98
45.74
46 . 20
1 .7s

46 . 43
1 .0s
Z 22s

46.52
48. 70

48.85

48.99
49.70
1 .0s

49.78
49.82
50.79
51 .06

51 .06
1 .9s
Z 20s

51.15
51 .27

51 .38
51 .62
51 .84
51 .85
51 . 95
52.04
52.55
52.58
52.73
53. 12
53.25
0.9s
53.40
53.83
54.51
54.67
55.31

35 . eenm
1 16 eP
151 eP
351 ePd
i pPd
eS
i ScS
25 ePd
75 . 00nm
7 . 30um
3 . 70um

epPd
PP
eScP
eS
esS
152 eP
150 eP
330 IP
iPcP
eS
eSS
eSSS
152 eP
2 . 70um
2 . 1 0um
1 . 00um
146 eP
136 eP
154 eP
123 P
97 ePc
31'9 iPc
1 09 . 76nm
e
e

128 iPc
63 . 60nm

2 . 60<jm
«S
140 eP
302 iPc
eS
7 ePc
e
e
e
e
e
ePP
ePPP
eS
eScS
45 P
121 i PC
1 53 . 00nm
eS
76 eP
76 eP
44 P
45 ePc

epPd
eS
45 eP
210. 53nm
3 . 5 Sum
«S
100 eP
299 iPc
eS
46 P
313 i PC
313 eP
313 iPc
44 P
313 eP
282 eP+
101 eP
300 ePc
44 P
105 eP
200 . e0nm
290 iPc
292 iPc
41 eP
44 P
118 ePc

5.2mb

24 59. ee -1.6
25 06 . ee 0.1
25 09.93 -0.5
25 15.64 19kmX
31 14. 96
35 17.66
25 12.81 0.4
5 .5mb
5 . 6MszX

25 19.
26 50 .
31 01 .
31 16.
31 25.
25 13.
25 16.
25 20.
26 52.
31 52.
34 27.
35 00.
25 23.

25 26.

32 21kmX
J0

50

)0
)0
>0 0.3

)0 -0.2
}0 -0.9
)0
>0

)0
)0
*0 -0.6
5. 1Msz

50 -0.4
25 27 . 00 -0.8
25 34. 00 0.0
25 46. 80 -1.1
25 50.20 -3.9X
25 57 . 60 -0.5
5 . 6mb
26 33.00
32 55.00
25 58.60 -0.9
5.6mb

32 45.
26 00 .
26 18.
33 20.
26 16.
26 28.
26 45.
27 07 .
27 17 .
27 29.
28 12.
29 04 .
33 14.
36 10.
26 18.
26 23.

33 30.
26 25.
26 24.
26 32.
26 33.
26 39.
33 50.
26 34.

33 48.
26 34.
26 37.
34 10.
26 36.
26 39.
26 41.i
26 41.i
26 40.:
26 42.1
26 47.!
26 46.!
26 48 . i
26 49.
26 50.!

26 54.!
26 56.i
27 01 .!
27 08. i
27 05.'

5. 1MSZX
10

)0 0.1
»0 0.9

)0
>0 -1.7

)0
10
>0
>0
»0

)0
)0
10

)0
'0 -0.5
J0 -1.0
6 . 0mb
)0
»8 -0.6
>0 -1.3

)0 -8.6
J9 -1.0
37 20kmX
24
90 -1.0
5 .7mb
5 . 4Msz
90
50 -1.5
90 0.1
90
0 -1.4
90 -0.5
90 -0.2
90 -0.3
?0 -1.6
90 -0.7
50 0.8

30 -0.3

30 0.1
70 -0.8
50 -1.3

6 . 1mb
58 1.3
90 0.0
50 0.8
58 -1.3

)9 -8.9

SLY
BHD

MRR J
OLP

ADE

TAB
AAE
STK

HOOJ
ASAJ
MSL

KUSJ
NA I

CMS

RMO

BFD
CSTJ
AYN
MDSJ
OTRJ
TOO

J ARJ
MASJ
MKR J
HOL
SALJ
SHMJ
DSI
GAZ
PRN 1
HR 1
BWA
BHL

CRZF

BRS

YAK

CAN
COO

KVT
ess
HLW
MTD
KAS
BBTK
LWI
CIR
KR 1
ELL
ALT
KHL
HRT
GBZT
08N

eS 34 48.59
55. 77 31 1 eP 27 07 . 00 -2.9
55.78 308 ePd 27 10.00 0.0
e 27 30.00
55 . 91 40 eP 27 10 . 20 -0.5
56.06 126 iPc 27 12.00 -0.1
0.6s 146.00nm 6.2mb
i 27 42.20
56 . 07 1 37 eP 27 1 2 . 20 0.1
0.8s 119.40nm 6.0mb
56.16 314 iPd 27 12.00 -0.9
56. 44 278 eP 27 1 7 . 80 2.3
56 . 46 133 iPc 27 13.80 -1.1
1.1s 19. 40nm 5 . 0mb
. 57. 31 41P 2721.10 0.3
57 .75 39 P 27 23 . 20 -0.7
57.83 311 Pd 27 22.50 -2.1
e 28 18.66
58.58 41 P 27 28. 60 -1.0
58. 75 266 ePc 27 33. 00 1.3
Z 20s 1 . 67um 5 . 2Msz
IS 35 48.00
59.45 130 iPd 27 35.50 -0.4
1.0s 82.00nm 5.8mb
59 . 73 124 iPc 27 44 . 00 6. 0X
1.0s 186. 0enm 6 . 2mb
59.87 137 ePd 27 19.80 -18. 9X
61.40 303 PC 27 48.80 -0.6
61 . 47 301 iPc 27 49 . 30 -0.4
61.87 304 PC 27 52.08 -0.5
62.00 303 PC 27 52.50 -0.9
62. 69 136 iPd 27 54 . 60 0.8
1.0s 78 . 00nm 5 . 8mb
62.27 304 PC 27 54.29 -0.9
62. 34 304 PC 27 54 . 68 -1.0
62.36 304 PC 27 55.07 -0.8
62.36 301 iPc 27 55.40 -0.4
62.43 304 PC 27 55.59 -0.7
62.54 305 Pd 27 57 . 26 0.3
62. 58 304 iPc 27 57 . 30 0.1
62 .59 310 IP 2757.70 0.6
62 .63 302 iPc 27 57 .80 0.2
62.69 306 iPc 27 58.58 0.5
62. 70 132 iPc 27 58 . 40 0.4
62.92 306 P 2B 00.88 0.5
PP 30 24.08
S 36 30.00
63.09 212 eP 28 03.00 2.8
eS 36 36.00
63.41 123 iPd 28 02.00 -0.7
0.9s 23 . 00nm 5 . 3mb
i(pP) 2B 17.80 54kmX
i 29 1 1 . 90
e(S) 51 39.00
63. 44 17 iPc 28 80. 88 -1.5
ePcP 28 31 . 00
iPP 38 23.00
ePPP 31 20.00
eScP 32 38.00
ePcS 32 47.00
ePSP 34 42.00
eS 36 31 .80
ePS 36 47.80
iScS 37 48.80
eSS 40 85.88
eSSS 43 48.80
63.53 133 eP 28 03.10 -0.3
63.82 127 iPc 28 86.40 1.0
0.9s 90.00nm 5.9mb
64.65 314 eP 28 10.10 -0.6
65.84 307 eP 2B 13.00 -0.3
65.65 301 ePc 28 16.25 -1.0
66.23 258 iPc 28 32.98 11. 7X
66.37 314 iPc 28 20.50 -1.3
66.69 312 IP 28 23.00 -0.9
66.81 266 iPc 2B 25.30 0.1
67. 17 245 iPc 28 30.20 3. 1X
68.08 250 iPc 28 32.90 -0.2
68. 14 388 eP 2B 31 .50 - .6
68.49 31 1 eP 28 34.80 - . 2
68.78 316 IP 28 35.58 - .5
69.22 312 eP 28 38.40 - .2
69.38 312 iPc 28 39.20 - .3
69.42 328 iPc+ 28 40.08 -8.4
1.8s 720.00nm 6.5mb
i pP 28 46.88 1 9 kmX
iPcP 29 83.80

43

06d 02h

BUL
ISK
EDC
1 ZM
PSN
TLB
CFR
EZN
ALN
BRD
PRY
ISR
SEK

VR 1
DIM
KDZ
BUC
BUC1
MLR
PTT
RZN
PLO
OUR
CMP
PAIG
MMB
SRS
BLF
SOH
DZM
TNR
THE
VTS
KNT
AGG
LI T
VAY

GRG
FRS

BMP
DEV
FNA
SKO

OHR

IGT
BEO
PVY
IVA
ULC
TTG
PLE
NUR

SPC
NKY
PSZ
BDV
KRA

HCY
BRY
BUD
SOD
SRO

BRT
ROI

69 .68
69 . 73
70 . 46
70 .53
70. 96
71 .27
71 .33
71 .52
71 .93
72.17
72 .22
72. 43
72 . 43
1 . 3s
72 . 47
72.52
72.53
72.59
72.62
72.92
72 .93
73.06
73.14
73.37
73.50
73 .54
73.77
73 . 79
73 .85
73.92
74.01
74.10
74.19
74.31
74 . 32
74 . 44
74 . 47
74.59
1 . 4s
74.66
74 . 73
1 .2s
75.01
75.09
75. 40
75.52
1 .9s
N 20s
E 19s

75 .88
1.1s
76.04
76.62
76.68
76 .77
77.14
77. 18
77.19
77 .26
0. 9s
Z 20s

77.41
77 . 42
77 . 45
77 . 48
77.74
1 . 5s
Z 18s
E 18s

77 . 74
77 . 76
77 .97
78.40
78.49
1 .8s
78.56
78.94

i
iS

ieSSS
247 i Pd
312 i P
311 eP
309 eP
315 i P d
316 ePd
317 eP
311 IP
312 ePd
31 7 eP
240 i P d
3 1 6 ePc
239 iPc
211 . 54nm
317 iPc
313 iPd
312 iPc
315 ePc
315 iPc
316 iPc
318 eP
312 iPc
313 i PC
31 1 ePd
316 iPc
310 ePd
312 iPc
312 iPd
238 iPc
31 1 ePc
114 i PC
316 ePc
3 1 1 ePc
313 iPc
312 ePd
309 ePc
310 iPc
312 iP
1 98. 00nm
311 ePc
238 iPc
1 40 . 63nm
318 eP
316 ePd
31 1 «Pc
312 iP
1 85 . 00nm
1 . 42um
0 . 73 urn
e

i
311 eP
1 1 5 . 00nm
310 ePc
315 eP
313 iPc
313 iPc
312 iPc
313 iPc
313 iPc
331 IP
64 . 20nm
4 . 30um
e
LR
319 iPc
313 iPc
318 i Pd
312 iPc
320 iPc
403 . 00nm
1 . 50 um
1 . 40 um
e
e

312 iPc
313 iPc
318 iPd
338 iP
318 iPc
1 136.00nm
311 P
309 P

30 06.00
37 42.00
37 50.00
45 36.00
28 41 .20
28 41 . 40
28 46.00
28 47.00
28 50.00
28 51 .50
28 51 .00
28 52.50
28 55.04
28 58.00
28 58.00
28 59.00
29 03.70
6
28 58.50
28 59.00
29 00.00
29 00.00
28 56.00
29 02.00
29 01 .50
29 02.00
29 02.00
29 03.68
29 04.00
29 04.24
29 06.00
29 05.20
29 06.50
29 06.40
29 08.90
29 06.00
29 07.20
29 09.00
29 08.60
29 08.36
29 09.25
29 10.00
5
29 10. 48
29 1 1 .60
5
29 15.00
29 16 .00
29 14.74
29 14.90
5

38 50.00
39 43.00
29 17.10
5
29 18.52
29 22.00
29 22.27
29 23. 12
29 24.62
29 25. 14
29 26.27
29 25.80
5
5
39 12.00
07 24.00
29 27.90
29 26.87
29 27.80
29 26.92
29 29.20
6
5

29 36 20
39 18.00
29 28.29
29 28.54
29 30.00
29 32.20
29 33.30
6
29 33.80
29 36.40

- 1.7
- 1 . 2
- 1.1
- 0. 7
- 0. 1
- 0.4
- 1 .3
- 1 .0
- 0.9
0.7
- 0.2
0. 1
4.3X
. 0mb
- 0.6
- 0.4
0.4
0.2
- 4.0X
0. 1
- 0.3
- 0.9
- 1 . 1
- 0.8
- 1 .2
- 1 . 2
- 0.8
- 1.7
- 1 .2
- 1 .3
0.3
- 2.6
- 2.0
- 1.1
- 1 . 4
- 2.4
- 1 .6
- 1 .5
9mb
- 1 .5
- 0.9
9mb
1 . 2
1 . 7
- 1 .6
- 2.0
8mb

- 1 . 9
8mb
- 1.4
- 1 .0
- 1 .3
- 0.9
- 1.4
- 1 .0
- 0. 1
- 0.4
7mb
SMsz

0.4
- 0.7
0.2
- 0.9
0.2
3mb
4Msz

- 1 .0
- 1 .0
- 0.4
- 0.2
0. 1
6mb
0.0
0.4

KEV

OR 1
TDS
CSI
POP

SOI
CZ 1
HVAR
ZST
GMB

MMN
ATN
MGR
VKA

ZAG
PTJ
SGO
MEU
KTK 1
PZ I

KSP

UNO
VBY
CER

Gl B
LJU
CEY
R I Y
RFI

SDI

PRU

KMR
VOY
TRI
AZ I
AOU
USI
BRG

TRO
KHC

KBA

CVT
ARV
ERC
RMP
MNS
ASS

BHG

FVI
WET

CLL

79. 04
Z 18s

79 . 07
79.13
79.17
79 .23
1 .5s
79 .24
79.25
79.32
79 . 34
79 . 40
0 . 1 s
79.41
79.71
79.76
79 . 87
2.5s
Z 18s

79 . 87
79 . 90
79.97
80.08
80.09
80 .09
1 .05
80.15
1 . 6s
80.31
80.35
80 .53
1 . 0s
80 .84
80 .90
80 . 95
80.95
81 .02
1 . 9s
81.16
1 . 3s
81.18
1 . 6s
Z 15s

81.31
81.34
81.41
81.46
81 .50
81 .53
81 .63
2.0s

81 . 72
81 .75
1 .5s
Z 20s
N 16s
E 20s

81.78
1 . 2s

81 .80
81 .89
81.97
82.00
82.04
82.08
1 .3s
82. 13
1 . 6s
82. 14
82.21
1 . 7s
82.26
2.0s
Z 1 8s

341 iPc
2 . 70um

i pPd
eS
LR
310 P
309 PC
310 P
239 iPd
97 . 22nm
368 P
399 P
313 iPc
318 iPc
398 P
1 1 . 4 0 n m
310 P
308 P
310 PC
318 iPc
1 362 . 0wnm
0 . 70um
i
LR
316 iPc
316 i PC
310 P
307 P
340 iP
307 P
86 . 50nm
321 iPc
345. 00nm
308 P
315 i P c
235 iPd
60 . 00nm
308 P
316 iPc
316 iPc
315 i P c
311 P
2813 . 60nm
31 1 P
125.90nm
320 iPc
1 77 . 50nm
0 . 90um
e
PP
S
318 iP+
316 iPc
315 iPc
312 P
312 P
308 P
321 iPc
420 . 00nm
eS
340 eP
319 iPc
76 . 70nm
0 . 90um
0 . 50um
11 . 00um
e

317 iPc
7 1 . 40nm

i 307 P
313 PC
308 P
312 P
312 P
313 P
1 1 8 . 30nm
317 iPc
286 . 00nm
316 P
319 iPc
467 . 00nm
321 iPc
305 . 00nm
1 . 00um
i
eS

29 35.52
5
29 41.15
39 30.94
06 36 .00
29 37 . 40
29 37.90
29 38.00
29 39.50
5
29 37 . 70
29 38.10
29 36.10
29 38.20
29 39.93
5
29 40.20
29 40.50
29 39.60
29 41 . 00
6
5
30 10 . 70
13 00.00
29 41 . 30
29 41.40
29 41.40
29 43.10
29 41.22
29 42 . 43
5
29 42.80
6
29 44.10
29 43.80
29 43.50
5
29 45 . 60
29 47.10
29 46.60
29 45.90
29 47 . 02
7
29 47.41
5
29 48.30
5
5
29 57 . 70
32 34.50
39 52.70
29 48.40
29 48.90
29 48.40
29 49 . 60
29 50.00
29 49.60
29 50.60
6
40 08.00
29 49.81
29 51 .00
5
5

29 59.50
29 50.70
5
29 59.50
29 51 . 90
29 52 . 20
29 53 .30
29 52 .30
29 51 . 80
29 52.90
5.
29 52.70
6.
29 52.90
29 53 . 70
6.
29 53.60
6.
5.
30 00.90
40 03.00

- 0.3
. 6Msz
18kmX

0.8
1 .0
0.8
1 . 8
. 6mb
0.2
0.5
- 1.8
0.3
1 .3
. 8mb
1 .8
0.4
- 0 . 7
0.2
. 5mb
. 0Msz

0.5
0.3
0.0
0.8
- 0.3
0.2
7mb
0.6
1mb
0.5
0. 4
- 1.1
6mb
- 0.6
0 .8
0 .0
- 0.6
0. 1
0mb
- 0.4
8mb
0.6
9mb
2MszX

0.0
0.2
- 0.5
0. 4
0 . 4
- 0. 1
0.6
1mb

- 0.3
0.3
5mb
IMsz

- 0. 4
6mb

0.8
0 . 7
1 .2
0.2
- 0.5
0.4
8mb
0.0
1mb
0.2
0.6
3mb
0.4
0mb
2Msz

VV 1
HFS

CRE
SF 1
PGD
COP

HOF
WTTA

MOX

MAO
FUR
GRF

LOF
MME
BD 1
PI 1
SAL

NSS
NB2

OSS
VDL
BOB
KONO

STU

LLS
PGF

TMA
KBS
PCP
SLE
TNS
ZLA
CK 1
F 1 N
FEL
MMK
1 Ml
ROB
STR
KOE
MOL
GWF
LIBD
ADK

BBS
BGG
DIX
SBF

ENR
CDF
BNS

STV
ECH
RSP
BHB
MOF
LSD

82. 36 316 P 29 54.30 0.4
82 .55 330 eP 29 54.50 0.0
1 . 3s 234 . 60nm 6 . 1mb
Z 16s 1 . 46um 5 . 4MszX
LR 08 01 .00
82 . 61 313 PC 29 55 .40 0.0
82 . 69 31 4 PC 29 57 . 00 1.4
82 . 79 31 4 PC 29 57 . 30 0.9
82 . 87 325 iPc 29 56 . 70 0.4
0.9s 70 . 59nm 5 . 8mb
Z 20S 0.78um 5.1Msz
eS 40 1 4 . 00
82 . 92 320 iPc 29 57 . 40 0.7
82.95 317 iPc 29 56.70 -0.5
. 1.2s 1 46 . 00nm 6 . 0mb
i 30 05. 10
i 30 17 . 20
B3.10 320 iPc+ 29 58.20 0.6
2.0s 350.00nm 6.2mb
Z 20s 1 .30um 5. 3Msz
N 18s 1 . 00um
E 20s 0 . 90um
i 30 07.00
eS 40 24.00
83. 17 312 P 29 58 . 20 0.0
83.23 318 iPc 29 58 . 40 0.0
83.31 319 iPc 29 59. 90 1.1
1.6s 418.00nm 6.4mb
Z 19s 1 . 40um 5 . 4Msz
eS 40 19.70
83.42 338 eP 29 58.35 -0.6
83 .53 31 4 P 30 00 . 70 0.4
83 . 60 314 P 29 59.80 -0.6
83.65 313 P 29 59.50 -1.0
83 . 68 315 P 30 01 . 86 1.2
2.0s 3003. 60nm 7.2mb X
83. 72 334 eP 30 00 .69 0.2
83.84 331 P 30 01 . 00 -0.2
1.3s 88.40nm 5. 8mb
83.96 316 ePc 30 03. 00 0.7
84.42 316 ePc 30 04.90 0.2
84 . 43 31 4 P 30 05 . 20 0.6
84 .58 329 iPc 30 05. 10 0.2
epPd 30 10.64 17kmX
IS 40 28. 12
i PS 41 21.92
84. 62 318 iPc 30 05.50 0.1
2.0s 470.59nm 6.4mb
Z 20s 0.71um 5.0Msz
84.75 317 «Pc 30 06.50 0.2
84 . 76 312 iPc 30 06.80 0.5
1.8s 241 . 70nm 6 . 1mb
84.84 316 ePc 30 06.50 -0.2
85.01 349 «P 30 06.50 -0.2
85.08 314 PC 30 07.24 -0.6
85.09 317 ePc 30 07.60 -0.2
85.11 320 «Pc 30 08.60 0.7
85. 16 317 ePc 30 08.20 0.0
85 .27 314 P 30 08.40 -0.3
85.32 314 PC 30 09.09 0.1
85 . 41 318 P 30 09.39 -0.1
85 . 47 316 «Pc 30 10.10 0.1
85. 56 314 PC 30 10.32 0.1
85.56 314 PC 30 10.11 -0.1
85 .57 318 P 30 10.54 0.5
85 .57 320 iPc 30 1 1 .00 1.0
85.63 332 iP 30 10.51 0.5
85 .66 319 P 30 1 1 .08 0.5
85 . 69 318 P 30 1 1 . 18 0.5
85 .74 38 eP 30 10. 90 0.1
2.1s 745 . 70nm 6 . 5mb
85 . 76 317 P 30 10.99 -0.2
85 .83 320 iPc 30 12. 30 1.0
85 .86 316 «Pc 30 12.80 0.9
85 .89 314 iPc 30 12.20 0.3
1.8s 492 . 00nm 6 . 4mb
85 .89 314 PC 30 1 1 . 14 -0.8
85 . 90 318 P 30 1 1 . 63 -0.2
85 .92 321 iPc 30 12.30 0.5
1.8s 235 . 00nm 6 . 1mb
Z 20s 1 .20um 5.3Msz
85 .96 314 PC 30 1 1 . 14 -1.1
85 .98 318 P 30 12.23 0.0
85.98 315 PC 30 10.73 -1.7
85.99 315 PC 30 10.62 -1.7
86.01 318 P 30 12.07 -0.4
86.05 315 PC 30 13. 19 0.3

06d 82h

PZZ
WTS

EMS
W 1 T
LOMF
BSF

RRL
LPG

LPL
BN 1
RSL
FRF

HAU

LMR

WLF
MEM
LRG

ENN

V 1 TF
CDR
DBN

DOU

UCC
SNF
SSB
LBF

LOR

SMF

COLF
PLDF
SSF

AVF

GRC
LBL
AGO
PYM
BGF
MAF

ETER
TCF

ESEL
MTHF
VDCF
CAF

LSF

TRGS
LSPF
RJF

LPO

LESF
ANM
LFF

LDF

FLN

MFF

86. 1 1 314 P 30 1 1 . 75 -1.3
86.13 322 i PC 30 1 3 . 60 0.9
1.0s 74 . 00nm 5. 8mb
86.19 316 ePc 30 1 4 . 00 0.5
86.19 323 eP 30 14 . 50 1.4
86 . 23 31 7 P 30 1 3 . 42 -0.1
86.24 318 iPc 30 13.30 -0.3
1.6s 99 . 50nm 5 . 8mb
86.32 315 PC 30 13.70 -0.5
86 . 33 31 5 i PC 3014.76 0.4
1.8s 337 . 1 5nm 6 . 3mb
86. 31 315 i PC 30 14 . 70 0.4
86 . 40 31 5 P 3014.40 -0.1
86 . 4 1 31 5 P 30 1 4 . 69 0.1
86 . 47 313 i PC 30 15 . 20 0.6
1.8s 3 1 0 . 75nm 6. 2mb
86.53 318 iPc 30 15.00 0.1
1.8s 43 1 . 60nm 6 . 4mb
Z 22s 1 . 1 Sum 5 . 2Msz
86.57 313 iPc 30 15.50 0.3
1 . 8ls 1 89 . 90nm 6 . 0mb
86 .61 319 iPc 30 15.87 0.7
86.67 320 iPc 30 15.88 0.5
86 . 68 31 3 i PC 30 1 6 . 50 0.8
1.8s 345 . 25nm 6. 3mb
86.72 321 ePc 30 16.00 0.3
1.1s 64.00nm 5. 8mb
86 . 77 31 8 P 3016.04 0.0
87.10 313 ePc 30 18. 40 0.7
87.13 322 eP 30 19 . 00 1.4
Z 20s 0 . 80um 5 . 1 Msz
ePP 33 41.00
eS 40 52.00
87.59 320 Pc+ 30 20.40 0.5
PP 33 49.00
ScS 40 58.00
87.71 321 Pc+ 3021-40 1.0
87 . 77 320 iPc 30 21 . 39 0.6
87 . 90 31 5 P 3022.04 0.5
88.19317 iPc 38 23 . 30 0.4
1.8s 258 . 95nm 6 . 3mb
88.25 31 7 i PC 30 23 . 50 0.3
1.7s 257 . 35nm 6 . 3mb
Z 22s 0 . 75um 5 . IMsz
88 .30 316 iPc 30 23. 70 0.2
1.8s 284 . 85nm 6 . 3mb
88 . 48 31 5 P 30 24 . 99 0.6
88 . 50 31 6 P 30 24 . 93 0.4
88.50 317 iPc 30 24.90 0.5
1.8s 250.30nm 6. 2mb
88.63 317 iPc 30 25.30 0.3
1.8s 21 5 . 80nm 6 . 2mb
88 . 78 31 7 P 30 26 . 30 0.6
88.81 315 P 30 26.70 0.7
88 .83 31 6 P 3026.47 0.4
88 .94 31 6 P 30 27 . 22 0.6
88 .99 316 iPc 30 27 .50 0.8
89.21 316 i PC 3028.50 0.7
1.9s 1 40 . 90nm 5 . 9mb
89.32 312 eP 30 29. 00 0.6
89.45 316 iPc 30 29.70 0.7
1.8s 151. 05nm 6 . 0mb
89.49 310 eP 30 30.80 1.6
89.50 313 P 30 30. 02 0.7
89 . 65 312 P 30 30 . 47 0.5
89.67 315 iPc 30 30.90 0.9
2 . 0s 233 . 25nm 6 . 1mb
89.93 316 iPc 30 31.70 0.5
1.8s 1 89 . 90nm 6 . 0mb
89 . 96 312 P 30 32 . 59 1.0
89.96 313 P 30 32. 15 0.7

90,02315 i PC 3032.70 1.1
2.®s 326.55nm 6.2mb
Z 22s 0 . 82um 5 . 1Msz
90. 32 315 iPc 3034.10 1.1
2.6s 349.85nm 6.3mb
90. 41 313 P 30 33 .98 0.5
90.54 25 eP 30 34 .00 0.4
90 . 61 31 5 i PC 30 35 . 50 1.2
2.8s 326.55nm 6.3mb
90.80 319 iPc 30 35.90 0.8
1.7s 411. 70nm 6 . 5mb
91.01 319 iPc 30 36.80 0.7
1 . 8s 483 . 35nm 6 . 5mb
Z 22s 1 . 30um 5 . 3Msz
91 .04 317 iPc 30 37 .20 0.9
1.8s 284 . 85nm 6 . 3mb

EPF

ENSF
EBR
EROO
GRR

NVL

LPF

BTH

EGRA
DAG

EKA

ETOR
ECRI
EVI A
EHUE
DMU

DCN

GUD
AFC
ECOG
SON
EGUA
TTA

MAL

SVW
PDB
RSO
MBC

FBA

KDC
SLKM
PMR

KLU
I NK
BALM
GMW
BMW
SCH
FFC

LON
NEW
SES
FHC
WDC
M IN
LRM
ORV
ARM
CMB
SAO
PRS
FRI
PRI
BONR
BW06

BCH
DUG
ISA
ABL

91.10 313 iPc 30 37.00 0.3 DAU 129.66 26 PKP 36 42.40 0.3
2.0s 75.80nm 5.7mb CLC 129.92 35 ePKP 36 43.00 0.6
91.12 313 P 30 38.09 1.2 BNH 130.33 347 ePKPc 36 42.60 -0.2
91.22 311 eP 30 38.50 1.3 SKP 40 06.60
91.28 311 iPc 30 38.80 1.3 SBB 130.58 36 ePKP 36 44.00 0.3
91.31 318 iPc 30 38.40 1.0 e 40 07.60
1.7s 308.80nm 6.4mb GSC 130.74 35 ePKP 36 44.00 0.0
91.45 199 ePd 30 40.60 2.4 GSC 130.74 35 ePdiff33 35.24 0.8
e 3056. 00 eSKS 43 57.36
e 31 25.60 PAS 130.74 37 ePKP 36 44.00 0.1
e 31 36.00 MWC 130.76 37 ePKP 36 41.00 -3.2X
e 31 56.00 RVR 131.33 37 ePKP 36 45.00 0.0
e 38 1 1 . 00 e 4009.00
eS 41 11.00 PEC 131.53 37 ePKPc 36 45.80 0.4
e 4 1 43 . 00 . SKP 40 09.80

e 41 46. (50 TPC 132.03 36 ePKP 36 47.00 0.6
eSS 46 20.00 e 40 1 2 . 00
e 48 11.00 PLM 132.08 37 ePKP 36 46.00 -0.7
91.47 318 iPc 30 39 . :S0 1.1 PV09 132.17 26 ePKP 36 46.90 0.0
1.7s 463.20nm 6.6mb PP 39 07.20
91.48 313 Pd 30 39.ii0 1.1 iSKP 40 13.30
e 30 47.00 BAR 132.66 37 ePKP 36 44.00 -3.6X
91.67 312 i PC 30 38.150 -0.7 GOL 132.67 22 ePKPc 36 46.90 -0.8
91.69 348 i Pd 30 38.00 -0.7 Z 20s 1.00um 5.5Msz
0.8s 17.91nm 5.5mb PP 39 09.90
Z 20s 1.84um 5.5Msz iSKP 40 14.30
N 20s 0.43um GLD 132.68 22 ePKP 36 47.50 -0.1
91.73 326 PC 30 40.00 0.8 Z 20s 1.70um S.SMsz
1.1s 59.20nm 5.9mb PP 39 09.50
93.14 311 iPc 30 47. ,50 1.1 iSKP 40 14.20
93.23 313 ePc 30 48.:>0 1.7 GLA 133.49 36 ePKP 36 50.00 0.8
93.78 309 eP 30 50.00 0.8 TBR 134.25 349 ePKP 36 49.80 -0.5
93.96 308 i PC 30 51.00 1.0 PNJ 134.46 349 i PKP 36 52.60 1.9
94.14 325 eP 30 51. '50 1.2 GMTN 134.49 349 iPKP 36 53.00 2.2X
1.3s 126.00nm 6.2mb SOB 1 136.25 261 ePKP 36 54.80 -0.1
94.47 324 eP 30 52. '50 1.0 ANMO 136.31 26 PKPc 36 55.00 0.3
1.3s 134.00nm 6.2mb Z 20s 1.9lum S.SMsz
94.74 311 iPc 30 55.00 1.4 iSKP 40 27.40
94.79 308 eP 30 54.00 0.1 ALO 136.31 26 ePKP 36 54.40 -0.3
94.80 368 eP 30 54.70 0.8 Z 19s 1.22um 5.6Msz

94.86 34 eP 30 52. ')0 -0.7 CBN 137.64 352 ePKP 36 57.00 0.2
94.87 307 eP 30 54. '50 0.5 e 39 40.00
94.98 26 ePc 30 55.30 1.1 FVM 138.06 7 ePKP 36 56.60 -1.1
1.2s 47.10nm ! 5.8mb SKP 40 30.50
95.55 307 eP 30 58. 60 0.8 ELC 138.88 6 PKP 36 58.60 -0.5
iPP 34 54.60 VAO 138.91 239 ePKP 37 01.06 1.3
95.73 27 ePc 30 58.80 1.2 BLA 138.99 355 ePKP 36 58.90 -6.5
96.83 29 P 31 61.30 -1.3 TUL 139.11 14 ePKP 36 58.40 -1.2
97.27 28 eP 31 03. £0 -1.3 1.2s 35.10nm
97.58 8 ePc 31 05. £0 -0.2 Z 22s 0.66um 5.3Msz
1.0s 8.00nm 5.2mb N 22s 0.9lum
97.59 23 eP 31 07.30 1.1 E 20s 1 . 75um
PP 35 02. 30 LR 32 58.00
98.37 30 eP 31 10.30 0.5 MEO 139.41 18 iPKPd 36 53.10 -7 . 1 X
98.42 27 P 31 09.30 -0.7 POW 139.76 8 PKP 37 00.00 -0.8
98.46 26 ePc 31 09.30 0.1 OLY 140.35 9 PKP 36 55.80 -6 . 1 X
1.0s 15.30nm 5.5mb GBTN 140.71 359 PKP 37 02.60 0.1
Z 19s 1.50um S.SMsz TKL 140.72 359 PKP 37 00.20 -2 . 3X
99.89 25 P 31 16.70 0.2 PWLA 141.27 5 PKP 37 03.00 -0.5
100.51 17 ePdiff31 19.30 0.1 BAO 142.11 249 ePKPc 37 06.00 0.3
101.62 25 ePdiff31 24.20 0.0 CHCH 147.34 202 ePKP 37 15.00 1.1
118.86 29 PKP 36 21.20 0.5 PCH 147.57 202 ePKP 37 16.50 2-2X

119.41 30 PKP 36 24. (50 2.7X LNV 147.59 201 ePKP 37 17.00 2-8X
119.71 348 ePKP 36 21.00 -1.1 TACH 147.69 202 ePKP 37 17.00 2.6X
119.90 12 ePKPc 36 22.00 -0.4 SAN 147.77 202 ePKP 37 17.50 2.9X
1.0s I9.00nm PEL 148.05 202 ePKP 37 17.00 1.9
119.90 29 PKP 36 22.80 0.0 LCCH 148.08 201 ePKP 37 18.00 3.0X
120.87 25 PKP 36 24.00 -0.5 ROCH 148.33 202 ePKP 37 19.00 3.3X

121.40 19 ePKP 36 25.00 -0.5 RTLL 148.70 207 e(PKP)37 16.00 -0.2
122.86 35 ePKP 36 29.30 0.8 MRX 151.50 34 (PKP) 37 23.00 2.4X
123.82 34 ePKP 36 30.10 -0.3 PPM 153.40 31 (PKP) 37 25.50 1.5
124.51 34 ePKP 36 31.40 -0.5 IIT 153.60 30 (PKP) 37 33.00 9.0X
124.73 23 ePKP 36 32.00 -0.3 SIV 153.88 241 iPKPc 37 23.80 -0.3
125.10 35 ePKP 36 32. B0 -0.1 1 I SM 154.09 29 (PKP) 37 34.00 9.8X
126.57 37 PKP 36 36.00 0.1 CCH 157.42 232 PKP 37 32.20 3. IX
126.78 35 ePKP 36 36.30 0.0 LPB 159.43 231 iPKPc 37 32.00 0.5
127.01 37 e(PKP)36 37.40 0.7 Z 18s 2 . 4 1 urn 6.1Msz
127.34 37 ePKP 36 37.80 0.4 i 38 09.00
127.88 36 ePKPc 36 38.70 0.4 PP 41 48.00
127.89 37 ePKP 36 39.80 1.2 LR 32 04.00
128.01 34 PKP 36 38. 60 -0.4 ZOBO 159.61 232 ePKPc 37 31.75 -0.2
128.41 23 iPKPc 36 38.40 -1.1 1.1s 55.10nm
PP 38 44. p0 Z 20s 1.34um S.SMsz
128.88 38 PKP 36 42.40 1.9 epPKPd37 38.37
129.13 28 PKP 36 41.30 0.5 i 38 11.80
129.52 36 ePKP 36 41.00 -0.6 (SKP) 40 54.67
129.63 37 PKP 36 42.30 0.2 LR 33 26.00

45

06d 02h

CLMC
HOOC
ANCC
SI LC
PURC
CUMC

168.89 313 ePKP 37 39.79 0.1
169.22 312 ePKPc 37 39.76 -0.3
169.36 313 ePKP 37 39.47 -0.3
169.49 308 ePKPc 37 40.74 0.4
169.73 306 ePKPc 37 41.63 1.0
171.74 305 ePKPc 37 42.49 0.9
S.D. 0.9 on 445 Of 471 Obs.

AUG 06. 1991 02h 55m 47.95± 0.55s
3.999 N ±11.3km 95.479 E ± 7.9km
DEPTH = 33.0km (normol)
4.7mb (12 obs.)
OFF W COAST OF NORTHERN SUMATERA(705)

PS 1
I PM
CHG
CHTO
PK 1

OWN
GUN
KKN
GKN
WR2

SPC
SRO
2ST
HFS

NB2

LPG

LPL

HAU

LBF

LOR

LDF

FLN

LPF

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90
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6s
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eP

e(P)
eP
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eP
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4 . 8mb
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- 0.
4 . 2mb
- 0.
4 . 0mb
- 0.
4 . 7mb
- 0.
4 . 7mb

- 0 . 4 . 8mb

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4 . 7mb
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i AUG 06, 1991 03h 22m 08.29s
62 . 783 N 149 .076 W
DEPTH - 65.9km
CENTRAL ALASKA (
<AEIC>.

D

HUR

RND

CUT
TRF

MCK

GHO

KTH

PLRM

PWA
SKT

KNK
TOA

SUA

PMS

SDG

PAX

WRH

0.32

0.63

0.67
0.87

0.96

1 .02

1.14

1 . 20

1 .20
1 . 40

1.41
1 .51

1 .54

1 .56

1 .65

1 . 66

1 . 75

308

9

236
321

4

176

314

181

199
236

168
1 15

21 1

189

97

82

1 4

i Pd
eS
ePd
eS
iPd
iPc
eS
ePc
eS
iPc
S
eP
eS
ePc
S
iPc
iPd
eS
iPc
eP
eS
ePc
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eP
eS
iPd
eS
ePd
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eP

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NEA 1
TZL 1
CCB 1
KLU 1
NCG 2
CGLM 2.
VZW 2 .

VLZ 2.

GLI 2.
SPU 2.
BGL 2.
FBA 2 .
CKL 2.
MDM 2 .
KN IM 2 .
SEW 2.
RDT 2.
DFR 2.
LT 1 2.
GLB 2.
RDN 2 .
REF 2 .
NCT 2 .
ROW 2 .
RSO 2 .
RED 2.
TTA 3 .
CNPM 3 .
BALM 3.
PDB 3 .
47

AUG 06
39 .838
DEPTH =

80 360 ePc
85 112 eP
95 16 ePc
97 130 eP
00 228 eP
02 224 eP
10 144 i PC
S
10 141 i PC
S
13 153 eP
14 223 ePc
18 227 eP
20 14 i PC
21 225 eP
22 9 iPc
53 165 eP
70 184 ePc
73 217 eP
79 220 eP
81 167 eP
82 116 iPc
88 219 eP
88 219 eP
89 221 eP
92 219 eP
92 219 eP
96 218 eP
18 276 i P c
43 199 eP
63 116 eP
89 222 eP

22 36
22 39
22 38
22 39
22 40
22 40
22 41
23 07
22 40
23 07
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- 1 .0
1 . 2
- 1 . 1
- 0. 2
0. 4
- 0. 1
- 0. 8

- 0. 9

- 0. 9
0. 2
1 . 4
- 0. 8
0 . 1
- 0 . 9
- 1.0,
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0 . 6
0 .9
- 1 . 1
0. 1
- 0 . 2
1 .2
1 .6
0.5
0. 5
0 . 4
- 0 . 1
0 . 0
- 1 . 0
0. 4
obs. ossocioted

, 1991 03h
N ± 6 . 0km

33m 42
19.421

1 0 . 0km (geophy s '

48±
E ±

0 .37s
3 . 0km
cist)
GREECE-ALBANIA BORDER REGION
MD 3

KEK 0 .
IGT 0 .

LCI 1 .

OHR 1 .

FNA 1 .

KZN 1 .

VLS 1 .
BRT 1 .

ROI 2.
BAI 2.
LIT 2.

TDS 2.
AGG 2.

CSI 2.

GRG 2.
SKO 2.

MMN 2 .
VAY 2 .
KNT 2 .
MGR 2 .
SOI 3.
SCO 3.
DU 1 4 .
SDI 4 .
ASS 6.
ARV 6 .
S.D.

AUG 06
44.474
DEPTH -
NORTHERN
ML 2

DOI 0.

3 (ATH) .

32 113 eP
77 113 ePc
eS
23 294 Pd
eSg
65 39 iPn
iSg
77 57 ePc
eS
86 75 eP
eS
89 151 eP
99 302 P
eSn
22 264 P
33 304 P
37 83 ePc
IS
38 267 P
40 109 ePc
eS
41 270 P
eSn
54 63 eP
62 35 ePn

iPg
iSg
i
64 272 P
82 57 ePn
96 62 iPd
99 277 P
16 237 PC
23 284 P
19 297 P
65 295 P
02 305 P
07 309 P

33 48.
33 56.
34 07 .
34 05 .
34 21 .
34 12.
34 35.
34 13.
34 37 .
34 17 .
34 43.
34 16 .
34 17.
34 45 .
34 19.
34 25.
34 22.
34 50 .

34 22.
34 22.
34 51 .
34 22.
35 09.
34 24 .
34 24 .
34 31 .
35 06.
56 56 .
34 34 .
34 27 .
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34 31 .
34 32 .
34 35 .
34 48.
34 55.
35 13.
35 12.

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32
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87
59
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87
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90
40

(392)

- 0. 9
- 1.1

- 0. 3

0 . 7

0.5

2 . 4

1 . 4
0.8

- 0. 4
4 . IX
- 0. 1

0 . 1
- 0 . 1

- 0 . 4

0 . 0
- 1 .0

8 . 7X
- 0 . 7
- 0 . 6
0 . 4
- 0 . 8
1 .2
0. 2
0 .6
0. 2
- 2. 1
- 1.0 on 24 of 26 obs.

, 1991 04h
N ± 2 . 2km
13.9 ± 3
I TALY

. 3 (GEN), 2

04 315 P

28m 56.
7.287
5 km

2 (LOG)

28 59.

69±
E ±

80

0 . 36s
3 . 4km

(545)

0.3

PZZ

STV

ENR

BHB

ROB

TOUF
AUTN
SAOF

RRL

MV 1 F

AURF

RSP

1 M 1

FIN

PCP

FRF

LPG

LPL
LRG

LMR

S

7. AUG
37 .

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983
DEPTH -
SPA 1 N

EHUE

EV 1 A

EBAN

AFC

ECOG

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& AUG
59 .

mbLg

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06
259
DEPTH -
SOUTHERN

AU 1

AUE

AUH

CDD

MCNL

PDB

SYI

HOM

BGM
CNPM

RED

RSO

<AE 1

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14 283

23 1 73

26 159

37 357

45 113

46 184
49 168
52 158

57 321

59 190

59 177

68 358

71 142

71 111

90 85

02 207

09 340

1 1 340
22 214

27 207

- 0.4

. 1991
N ±12.

eSg
PC
S
P
S
PC
S
Pd
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P
S

pg
pg
pg
Sg
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Sg
p
s

p
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p
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p
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pg
Sg
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sg
pg
pg
Sg
pg
Sg
On

04h
6km

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29 00
29 02
29 01
29 04
29 02
29 05
29 04
29 09
29 06
29 12
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40
20

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- 0.3

- 0 . 3

- 0 . 3

0 . 1

0 . 1
- 0 . 5
- 0 .5

- 0 .8

- 0 .3

- 0.3

- 0.8

- 0 . 1

0 .0

0.3

0.5

0 . 2

0 .3
0 .6

- 0 .5

21 of 21 obs.

57m 26
2.285

1 0 . 0km (geophy s

81± 3 . 39s
W ±29 . 9km
C i s O
(377)
2.8 (MOD).

30 235

68 345

20 279

24 234

24 236

- 0.7

, 1991
N

i Pgc
eSg
ePg
eSg
ePg
eSg
ePg
eSg
ePg
eSg
on

05h

57 32.
57 37.
57 40.
57 50.
57 49.
58 05.
57 50.
58 07 .
57 50.
58 06.
5 of

36m 32.
153. 276

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- 0 . 8

- 0 . 1

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0 . 4

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5 obs.

81s
W
107 . 6km
ALASKA
C>.

11 315

1 1 334

1 4 321

38 210

55 263

71 319

80 1 44

93 64

01 278
88 75

19 12

24 12

iPc
eS
iPc
S
Pc
eS
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; AUG 06, 1991 05h 57m 22 . 88± 0.74s 43.070 N ± 7.4km 0.773 W ± 8.0km DEPTH - 10.0km (geophysiCist)
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ML 1.0 (STR).

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; AUG 06, 1991 06h 14m 54.18± 0.67s 33.703 S ± 7.2km 71.242 W ± 6.3km DEPTH « 33.0km (normal)
NEAR COAST OF CENTRAL CHILE (135)

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S.D. =0.5 on 8of Sobs.

AUG 06, 1991 06h 39m 17.69± 0.91s
44.253 N ± 6.5km 8.628 E ± 5.6km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2 . 5 (GEN) .

PCP 0.29 348 P 39 22.96 -0.9
S 39 28 . 53
CKI 0 . 30 305 P 39 24 . 00 0.0
eSq 39 30.
FIN 0 . 30 262 P 39 24 .
S 39 29 .
ROB «.55 275 P 39 28.
S 39 36 .
IMI 9. 63 237 P 39 29.
S 39 39.
BOB 0.78 49 P 39 33.
eSg 39 43.
ENR 0.87 269 P 39 34.
S 3947.
STV 0. 94 270 P 39 35 .
S 39 48 .
DOI 1 . 02 285 P 39 37 .
eSn 39 54.
PZZ 1.12 283 P 39 38 .
BHB 1.14 302 P 39 39 .
RSP 1 . 33 31 3 P 3941.
RRL 1.48 297 P 3944.
BN I 1 . 61 301 P 39 47 .
eSn 40 07.
S.D. -0.5 on 14 of 1

? AUG 96, 1991 06h 39m 32 .
44. 1 98 N ±15. 9km 8. 863
DEPTH = 10.0km (geophysi
NORTHERN I TALY

ML 2.3 (GEN) .

PCP 0.41 327 P 39 40.
S 4045.
FIN 0 . 47 272 P 39 42 .
S 39 47.
ROB 0.72 278 P 39 46.
S 3955.
IMI 0.76 248 P 3947.
S 39 57 .
ENR 1 . 04 272 P 3951.
S 4004.
STV 1.11 273 P 3954.
S 4007.
PZZ 1 .30 284 P 3957.
S 4012.
BHB 1.31 300 P 39 58 .
S 4012.
S.D. -0.9 on 8 Of

? AUG 06 , 1 991 08h 11m 41 .
32.240 S ±80. 2km 71 .974
DEPTH = 22 . 4 ± 7 . 8 km
NEAR COAST OF CENTRAL CHILE

ROCH 1 . 09 132 eP 1201.
JACH 1 . 25 1 1 1 i P 1203.
iS 1217.
LCCH 1 .28 165 eP 1204.
i S 1219.
PEL 1.41 130 i Pd 1205.
i S 1 2 22.
TACH 1 . 66 149 i Pd 209.
i S 2 30.
PCH 1 .85 139 eP 213.
iS 2 35.
CHCH 2.02 147 eP 2 15.
iS 2 40 .
S.D. -0.5 on 7 of

H AUG 06, 1991 09h 29m 05.
3.714 N ± 8.7km 76. 329
DEPTH « 33.0km (normal)
COLOMBIA

CLMC 0.29 305 eP 29 14.
HOOC 0. 39 231 ePc 29 15 .
eS 29 27 .
ANCC 0.57 250 eP 29 15.

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37 -0.4
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88 -0.6
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50 0.4
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89 0.1
41 0.4
89 -0.4
64 0.1
00 0.7
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4 obs.

89± 6.37s
E ±4 1 . 4km
cist)
(545)

88 -0.4
84
41 -0.1
76
43 -0.7
18
76 0.0
85
91 -0.6
93
58 0.9
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99 0.9
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29 1.1
78
8 obs.

53±13. 16s
W ±72 . 5km

(135)

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90 0.1
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00 -0.1
60
50 -0.5
20
40 -0.2
90
00 0.6
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00 0.1
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7 obs .

30± 1 .07s
W ±13 . 8km

(103)

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14 -1.8

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eS 29 27
eP 29 17
eS 29 31
ePc 29 24
eS 29 42
eP 29 28
on 6 O f

* AUG 06. 1991 10h 17m 03
37 . 069 N ±1 1 . 8km 10.798
DEPTH = 10.0km (geophys
3. 7mb (1 obs .)
NORTH ATLANTIC OCEAN

mbLg 3 .

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RJF

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6 obs .

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. 28± 2 . 05s
W ±1 5 . 3km
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660 10h

% AUG 06, 1991 10h 40m 56.46± 2.52s
43.998 N ±14. 8km 7.285 E ± 1 3 . 0 km
DEPTH = 10.0km (geophy s i c i s t)
NEAR SOUTH COAST OF FRANCE (379)

STV 0.25 6 P 4101.93 0.2

ENR 6 . 25 23 P 41 02 . 03 0.2
S 41 05 . 72
IMI 0 44 1 01 P 4105.62 0.1
S 4111.88
ROB 6.51 5i> P 41 06.54 -0.4
S 4112.80
PZZ e . 52 345 P 41 07 .06 0.0
S 4114.44
FIN C . 70 72P 41 10. 03 -0.2
BHB 0.84 359 P 41 12.49 -0.3
PCP 1.06 59 P 41 16.80 0.4
S.D. - 0.3 on 8 of 8 obs.

% AUG 06, 1991 11h 14m 13.46± 0.60s
40.686 N ± 4.7km 22.800 E ± 5.1km
DEPTH - 10.0km (g« ophy s i c i s t)
GREECE (364)
MD 2 .2 (THE) .

THE 0.14 113 ePc 14 16 . 68 0.0
iS 1418.48
GRG 0.41 312 ePd 14 21.84 0.1
eS 14 28.28
SOH 0.44 72 ePd 14 22.60 0.1
eS 14 28.40
KNT 0.48 9 iPc 1423.40 0.2
eS 14 30.00
LIT 0.63 202 ePd 14 25.98 -0.2
eS 14 34 . 80
SRS 0.74 54 iPd 14 27.48 -0.5
eS 14 37 . 20
OUR 0.97 111 ePd 14 31.92 0.1
PAIG 1.01 138 ePd 14 32.80 0.2
eS 1 4 46 . 60
S.D. - 0.3 on 8 of 8 obs.

% AUG 06. 1991 11h 31m 03.191 1.62s
43.074 N ± 9.2km 13.495 E ±15. 7km
DEPTH - 10.0km (g«ophy s i c i s t)
CENTRAL ITALY (381)

ARV 0.59 317 P 31 14.50 -0.6
eSg 31 24.10
ASS 0.61 270 Pd 31 14.60 -1.0
«Sg 31 25 . 10
MNS 0 .91 221 P 31 21 .20 0.5
eSg 31 35.80
CRE 1 - 25 297 P 31 27 . 30 0.7
SDI 1 . 39 170 P 31 28. 40 -0.2
eSn 31 47.50
SF 1 1.46 306 P 3130.70 1.1
PGD 1.52 302 P 31 30.00 -0.6
S.D. -0.9 on 7of 7 obs.

7. AUG 06, 1991 11h 35m 13.66± 0.52s

DEPTH - 10.0km (g«o phy s i c i s t)
YUGOSLAVIA (383)
MD 1 . 7 (TTG) .

NKY 0.13 301 iPgd 35 16.91 0.6
iSg 35 19.34
TTG 0.33 165 iPgd 35 20.04 0.2
iSg 35 25.09
BRY 0.47 289 i Pgc 35 22.46 -0.2
iSg 35 29.89
BDV 0.52 207 iPgd 35 23.53 -0.1
iSg 35 30 . 93
IVA 0.57 77 iPgc 35 24.33 -0.3
i Sg 35 33 . 36
HCY e.57 238 i Pgd 35 24.21 -0.3
iSg 35 32.62
PtE 0.61 17 iPgc 35 25.34 -0.1
iSg 35 34 . 46
PVY 0.63 104 iPgd 35 25.89 0.1
iSg 35 34.84
S.D. - 0.4 on 8 of 8 obs.

& AUG 06, 1991 11h 54m 52.11s 60.403 N 152.862 W

DEPTH - 1 18 . 5km
SOUTHERN ALASKA (2)
<AE 1 0.

RED 0 . 05 70 IP 55 07 . 85 0.8
S 55 19 . 97
RSO 0 .08 42 eP 55 08 . 14 0.9

ROW 0 . 08 18 eP 55 08 . 1 1 0.9
REF 0.12 43 eP 55 08.24 1.6
RDN 0.12 24 eP 55 07.97 0.8
NCT 0.16 348 eP 55 08.25 1.6
eS 55 21 . 16
DFR 0.21 25 i P 55 08. 14 6.8
RDT 0 . 28 53 IP 55 08 .51 1.6
CKL 0.84 18 IP 55 12.27 -06
NNL 0.86 114 i P 55 1 2 . 98 0.6
NKA 0.87 66 «P 55 13.87 0.8
SPU 0.88 27 «P 55 12.37 -0.8
eS 55 28.80

PDB 0.91 228 eP 55 12.35 -1.1
iS 55 28.20
HOM 0.97 140 eP 55 13.44 -0.5
S 55 29.55
CGLM 1.00 24 «P 55 13.67 -0.7

AUE 1.08 194 «P 55 13.87 -1.2
CNPM 1.20 136 iP 55 15.40 -1.0
eS 55 33.96
SLKM 1.31 B4 «P 55 16.51 -1.2
MCNL 1.43 212 iP 55 17.74 -1.3
SUA 1.48 43 «P 55 19.01 -0.8
«S 55 40.28
CDD 1.53 195 eP 55 18.93 -1.3
SKT 1.71 22 eP 55 21 . 20 -1.2
SEW 1.73 99 «P 55 20.81 -1.7
S 55 43.22
SYI 1 .81 172 iP 55 22. 1 1 -1.5
S 55 45.58
PMS 1.82 61 eP 55 22.30 -1.5
eS 55 46.23
PWA 1.92 48 «P 55 24.40 -0.5
PLRM 2.17 55 «P 55 25.44 -2.7
GHO 2.36 53 eP 55 27.86 -2.7
CUT 2.36 31 «P 55 29.33 -1.3
KNK 2.38 63 «P 55 28.25 -2.6
LT 1 2.53 96 «P 55 29.97 -2.8
KNIM 2.55 89 eP 55 29.57 -3.5
MTU 2.64 97 eP 55 31.80 -2.4
GLI 2.88 78 «P 55 34.09 -3.4
VZW 3.17 75 «P 55 37.62 -3.7
VLZ 3.29 74 «P 55 39.68 -3.1
KLU 3.56 69 «P 55 43.42 -3.2
TOA 3.65 59 «P 55 45.71 -2.2
40 obs. ossociot«d

% AUG 06, 1991 12h 10m 07.74± 1.06s
40.781 N ±18. 6km 0.579 W ± 6.9km
DEPTH - 10.0km (g«ophy s i c i s t)
SPAIN (377)
mbLg 2.6 (MOD).

«Sg 18 30.80
EBR 0.82 87 eP 10 25.00 1.5
ETOR 1.12 272 «Pg 19 29.20 0.4
EGRA 1.43 8 iPnd 10 33.60 0.0
«Sn 10 53.00
ECRI 2.33 322 «Pg 10 52.50 5.7X
eSg 11 20.60
GUD 2.72 268 «Pn 10 52.00 -0.4
«Sn 11 25.30
ETER 2.99 58 ePg 11 02.00 5 . 9X
«Sg 11 37.60
S.D. - 1.5 on 5 of 7 obs.

% AUG 06, 1991 12h 26m 59 . 65± 1.06s 1.108 S ± 5.5km 78-319 W ±12. 5km DEPTH - 10.0km (geophy s i c i s t)
ECUADOR (167)
MD 3.9 (GUI) .

TUNG 6.33 262 P 27 06.70 0.0
VC1 6.47 349 Pd 27 09.66 0.2
OUIL 6.76 366 P 27 13.76 -0.1
S 27 24.06
OUR 0.95 347 P 27 17.86 -0.3

S 27 36.86
GGP 6.97 343 P+ 27 18.86 0.3
S 27 32.50
YANA 1.62 346 Pd 27 19.10 -0.1
CAYA 1 .23 16 P 27 22.80 0.0
S.D. -0.3 on 7of 7 obs .

« AUG 06, 1991 13h 41m 01.48± 1.31s
41.221 N ±11. 3km 24.053 E ±10. 1km
DEPTH - 10.0km (g«o phy s i c i s t)
GREECE-BULGARIA BORDER REGION (363)
MD 2.2 (THE) .

SRS 0.36 254 i PC 41 09.37 0.4
eS 4111.70
MMB 0.44 327 «P 41 11.00 0.5
SOH 0.66 233 iPc 41 15.24 0.5
«S 41 22.00
RZN 0.68 47 «Pg 41 15.00 -0.1

eS 41 24.28
OUR 0.89 184 «Pd 41 23.68 5.2X
«S 4137.12
VTS 1.51 336 «P 41 31.00 2.3X
S.D. -1.1 on 5of 7 obs .

* AUG 06, 1991 14h 11m 42.25± 1.90s 17.902 S ±20. 4km 143.217 E ±10. 5km
DEPTH - 10.0km (g«o phy s i c i s t)
4.0mb (1 obs.)
QUEENSLAND. AUSTRALIA (594)
ML 4 . 7 (OLP) , 4.4 (RMO) . 4.1
(CMS) .

CTAO 3.60 128 iP 12 39.30 0.0
i 12 40. 30
CIS 4.32 232 iPd 12 51.30 1.8
i 13 24.00
iS 13 43.00
WR2 8.62 255 «P 13 50.90 0.8
0.3s . 49.60nm 6.3mb X
«S 15 26.00

OLP 8.69 174 «(P) 13 51.00 0.0
«Pg 14 25.70
«S 15 12. 30
i 1610.60
RMO 9.96 150 «(P) 14 09.00 0.5
e 16 35.00
ASPA 10.43 235 iPc 14 14.40 -0.6
0.4s 1 6 . 90nm 5 . 8mb X
«S 16 08.00

CMS 13.73 171 «(P) 14 56.00 -3.4X
«S 17 25.00
STK 14.00 186 «P 15 02.30 -0.6
0.4s 3 . 10nm 4 . 5mb X
eS 17 28.60
KNA 14 00 277 «P 15 03.00 0.0
0.4s 4 . 00nm 4 . 6mb X
«S 17 32.00
WARB 17.42 239 «P 15 45.10 -2.0

S.D. -1.2 on 9of 10 obs .

& AUG 86. 1991 14h 30m 04.13s
60.873 N 151 .898 W
DEPTH - 79.6km
KENAI PENINSULA, ALASKA (14)
<AE 1 C> .

SPU 0.32 346 iPd 30 16.14 -0.6
«S 30 26.28
NKA 0.35 112 «Pc 30 18.26 1.5
CKL 0.39 327 iPd 30 16.67 -0.6
RDT 0.39 220 iPd 30 16.60 -0.6
eS 30 26.95

BGL 0.46 329 «Pd 30 17.27 -0.5
DFR 0.48 234 eP 30 17.10 -0.9
NCG 0.55 347 iPd 30 18.08 -0.5
REF 0.55 226 iPc 30 18.06 -0.7
eS 30 29.57
RDN 0.56 230 i PC 30 17.95 -0.8
eS 30 28.77
RSO 0.59 226 «Pc 30 18.48 -0.6
*C T A 0 Q 7 ft

NCT 0.60 239 «P 30 18.49 -0.5
«S 30 29.64

48

06d 14h

ROW 0.60 229 iPc 30 18.54 -0.6
eS 30 29.80
RED 0.63 224 iPc 30 18.67 -0.7
eS 30 30.25
SUA 6.82 43 iPd 30 20.95 -0.4
eS 30 34.77
NNL 0.89 160 ePd 30 22.77 0.7
SLKM 0.90 113 eP 30 21.68 -0.6
SKT 1.13 9 iPd 30 24.07 -0.9
PMS 1.20 71 iPc 30 25.41 -0.5
HOM 1.23 174 eP 30 25.68 -0.5
S 30 42.99
PWA 1.25 50 iPc 38 26.44 -0.1
eS 30 43.77

CNPM 1,39 166 iPc 30 27.65 -0.8
eS 30 46.22
SEW 1J44 121 eP 30 27.78 -1.2
PLRM 1,52 60 eP 30 28.53 -1.5
FOB 1.58 227 iPc 30 29.63 -1.2
eS 30 50.33
AUE 1.69 207 ePc 30 31.52 -0.8
GHO 1.69 57 iPc 30 31.12 -1.4
eS 30 52.50
AUH 1.70 208 eP 30 32.01 -0.6
CUT 1.72 26 ePc 30 32.11 -0.7
KNK 1.76 71 iPc 30 31.66 -1.6
MCNL 2.09 217 eP 30 36.61 -1.2
KNIM 2.12 103 eP 36 35.13 -3.1
S 31 00. 87
CDD 2.14 205 eP 30 37.51 -1.0
LT I 2.17 111 eP 30 36.62 -2.3
MTU 2.29 111 eP 30 38.82 -1.7
GLI 2.35 88 ePc 30 37.90 -3.5
S 31 05. 36
VZW 2.61 84 eP 30 42.06 -3.0
VLZ 2.72 82 eP 36 43.73 -2.7
KLU 2.96 75 ePc 30 46.98 -2.9
39 obs . ossoc i o ted

& AUG 06, 1991 14h 34m 34.60s
32 . 420 N 115. 250 W
DEPTH » 16.0km
CALIFORNIA-MEXICO BORDER REGION (45) <PA$-P>. ML 3.0 (PAS).

GLA 0,72 29 iPd 34 47.50 -0.9
IKP 0.76 288 eP 34 48.80 -0.2
BAR 1.23 283 eP 34 56.00 -1.0
CPE 1.63 287 eP 35 03.40 0.7

PLM 1.64 305 e(P) 35 03.50 0.4
PEC 2.17 313 e(P) 35 11.50 0.8
6 obs. associated

? AUG 06, 1991 14h 47m 52.02± 1.07s 3.819 N ± 8.7km 76.209 W ± 1 5 . 7 km DEPTH * 33.0km (normal)
COLOMBIA (103)

HOBC 0.54 8 eP 48 63.38 0.1
eS 48 15.80
HOOC 0.55 231 ePc 48 04.53 1.0
eS 48 1 7 .80
ANCC 0.72 245 eP 48 04.97 -0.8
eS 48 18.60
S I LC 1.13 187 ePd 48 12.08 0.1
PURC 1.49 186 eP 48 16.97 -0.3
S.D. - 0.9 on 5 of 5 obs.

AUG 06. 1991 14h 49m 30 . 57± 0.11s 35.725 N ± 2.5km 141.044 E ± 2.3km DEPTH * 28.5km (geo phy s i c i s t) 5.9mb (96 obs.) 5.7Msz (21 abs.) NEAR EAST COAST OF HONSHU, JAPAN(228) Mo-8 . 0* 10** 1 7 Mm (PPT). Depth
fro«> broadband displacement
se i smog rams .
FAui-T PLANE SOLUTION: P-Waves
NPlrStrike- 52 Dip=77 Slip- 45
NPfe: 309 46 162
P r 5 nc i pa 1 Axes:
T Pig-40 Azm-281
P! 19174
Comment: The focol mechanism is
mjderotely well controlled and cjrrespands to reverse
faulting with o lorge strike-
slip component. The preferred

KAKJ
CHJ J
N I IJ

MAJO
MAT

I I DJ
YAMJ
MTMJ
OFUJ

TSRJ
WKYJ

AOMJ
T KS J
YONJ
MRRJ
HOOJ

SHK
SAP

KUSJ

SHNJ
ASAJ

KUMJ
KAGJ
SSE

ANP

BJ I

PJG

GUA

fault plane is not determined.
RADIATED ENERGY
No. of sto: 9 Focol mech. F
Energy 1.5±e.4*10**l3 Nm
MOMENT TENSOR SOLUTION

Dep 42 No.ofsto:16
Moment Tensor; Scale 10**17 Nm
Mr r- 5 . 40 Ml t=-9 . 29
Mff=3.89 Mr t- >2 . 57
Mr f = 4 . 82 Mt f =
Principol Oxes:
T Vo 1 = 9.90 PI g=49
N -0.17 39
P -9.73 9

Best Double Coup 1 e : Mo = 9
NP1 : S t r i ke = 308 D i p-50
NP2: 62 65
CENTROID. MOMENT TENSOR
Data Used: GDSN
L . P . B . : 1 7S . 44C
Centroid Location:
Or i g i n T i me 14:49
La t 35 . 56N 0 . 03 Lon 141

Dep 43.8 1.9 Holf-duro
Moment Tensor; Scole
Mr r- 5.28 0.13 Mt t-
Mf f--6 .19 0.19 Mr t-
Mr f- 4.15 0.27 Mt f
P r i nc i pa I Axes:
T Vol- 6.62 Pig-72
N 1 .88 6
P -8.50 17

Best Double Couple:Mo-7
NP1 : S t r i ke-208 D i p-28

1.16

Azm=282
84
182
. 8» 10*. 17

S 1 i p= 1 46
46

(HRV)

:34 .2 0.2
. 25E 0.02
t i on 3.2
1 0« * 1 7 Nm
0.91 0.18
0.90 0.21
2. 88 0.17

Aim-269
17
109
. 6. 1 0* « 1 7
Slip- 102
NP2: 14 62 84

0 . 85 304 i Pd 49 47 .
1 . 69 282 P 49 59 .
2.23 313 iPd 50 08.
eS 50 37.
2 . 44 290 ePd 5011.
2.44 290 eP 50 10.
eS 50 43.
2.56 265 i P+ 50 14.
2.57 342 iPd 50 12.
2.76 289 P 50 16.
3. 39 8 i P+ 50 21 .
eS 5101.

40 0.9
60 1.0
A A 1 A ov 1 . D
20
60 2.3
90 0.7
90
90 3.8X
+ 0 1.2
40 2.5
70 -1.0
30
4.13 269 P 50 36. fe0 2.7
4.72 253 P 50 43.i90 2.2
S 51 36.
4.86 354 P 50 44.
6.01 255 P 51 02.

6.21 267 P 5104.
6.69 0 eP 5107.
6.87 14 eP 51 08.
eS 52 24.
6.96 263 eP 5115.
7.33 2 eP 5119.
eS 52 35.
7 .89 20 P 5121.

60
40 0.9
00 2.1

60 2.1
60 -1.8
30 -3.7X
40
00 1.8
50 0.7
00
00 -5.2X
eS 52 43. B0
8. 31 262 P 51 33.50 1.4
8.47 8 P 51 30 . 00 -4 . 3X
eS 53 02.60
9.05 252 P 51 44. 10 1.8
9.61 245 eP 51 52.20 2.1
17.20 260 Pd 53 30. B0 ° '
1 . 2s 322.00nm
Z 20s 30.80um
N 1 3s 6 . 40um
E 13s 10 . 40um
sP 53 41 .
S 56 54.
sS 57 04.
19.80 243 iP 54 00.
eS 57 36.
20.07 290 i PC 54 00.
1.7s 738 . 00nm
Z 26s 15.30um
E 13s 4.1 0um

u v v . "r

5 . 3mb
5 . 3MszX

00
00
00
00 -1.8
00
15 -4 . 3X
5. 7mb
5 .2MszX

eS 57 45.03
eScS 05 33.50
22.31 170 eP 54 29.
e 54 34.
22.36 170 eP 54 29.
0.9s 517. 65nm

50 2.2
40
50 1.7
6 . 0mb

BAG

HKC

YAK

OCP
SMY

L2H

1 RK

ADK

T SM

LOE

CHG

CHTO

WMO

BDT

NST
LAT
SON
MKS
TTA

SVW
GUN
PDB
PK 1

KKN

DMN

GKN
1 PM

HNR
KDC
KGM

MTN
PMR

COL

FBA

PSI
TOA
KLU
ND 1

eS 58 35.00
26.51 229 eP 55 03.00 -4.7X
1.0s 96 . 00nm 5 . 4mb
26.94 248 ePc 55 09.00 -2.4
eS 59 50. 0n
27 .26 348 i PC 55 12 . 40 -1.6
ePP 55 53.00
iPcP 58 32.00
eS 59 44.00
eSS 00 50.00
i ScS 05 59.00
27.59 226 eP 55 02.00 -15. 4X
28. 82 43 P 55 35.00 6. 9X
Z 20s 5 . 00um 5 . 1Msz
. 30 . 02 282 i PC 55 37 . 52 -1.8
2.0s 645.00nm 6.1mb
Z 18s 22.35um 5.8Msz
E 16s 16. 94um
ec 55 39.84

epPc 55 47.04 33kmX
esPd 55 49 . 77
PP 56 35.50
PcP 58 42.00
S 00 26.00
sS 0041.00
SS 01 57.00
ScP 02 21.00
ScS 06 15.00
30.76 314 ePc 55 43.50 -2.0
e 55 50.20
e 56 31 . 50
ePPP 56 57.00
ePcP 58 41 . 00
eS 00 49 . 00
e 01 28. 00
eSSS 02 56.00
33.97 48 eP 56 12 .80 -0.6
1.0s 71.90nm 5. 6mb
37.89 220 ePc 56 45.40 -1.6
39 .29 253 i PC 56 57 .00 -1.8
e 59 07.50
40.69 257 ePc 57 09.00 -1.3
1.2s 71 . 88nm 5 . 3mb
eS 03 12.00
40 . 69 257 iPc 57 09.20 -1.1
1.2s 72 . 22nm 5 . 3mb
41.18 298 i PC 57 14.75 0.6
esPd 57 27.33
41 .52 255 eP 57 17 .40 0.4
1.0s 9 . 90nm 4 . 5mb X
41 . 55 252 eP 57 17 .00 -0.3
42 . 52 171 eP 57 27 .90 2.7
43.92 45 eP 57 35.80 -0.4

45 .49 211 ePd 57 51 .00 1.8
46 . 67 34 ePc 57 59. 00 0.8
0.8s 1 9 . 00nm 5 . 1mb
46.73 37 ePc 58 00.00 1.4
47 .60 277 PC 58 01 . 44 -0.1
47 . 40 38 P 58 03.90 0.1
47.52 276 PC 58 05.00 -0.7
0.8s 197.00nm 6.2mb
47 . 53 277 PC 58 05. 14 -0.5
0.9s 337.00nm 6.4mb
47.75 277 PC 58 06.82 -0.5
1.0s 199 . 00nm 6 . 1mb
47.96 277 PC 58 08.42 -0.5
48.14 239 ePc 58 09.10 -1.1
1.1s 133. 60nm 5 . 9mb
48.33 155 eP 58 21.50 10. 0X
48.33 41 ePc 58 10.90 -0.2
48.43 235 ePd 58 11.80 -0.6
1.1s 183 . 70nm 6 . 0mb
49.21 193 iPd 58 18.00 -0.3
49.86 36 ePc 58 22.40 -0.4
1.0s 59 . 20nm 5 . 6mb
Z 2 1 s 2 . 60um 5 . 2Msz
50.37 32 iPc 58 26.69 0.0
ec 58 30.58
esPd 58 37.86
e 00 04.68
iS 05 37.93
50.37 32 ePc 58 27.20 0.5
0.8s 94 . 30nm 5 . 8mb
50.95 240 ePc 58 29.50 -2.2
51 .23 35 ePc 58 34. 10 0.8
51 .40 36 P 58 34.20 -0.5
53.64 282 iPc 58 50.80 -0.9

49

064 1*h

GAR

INK

CTAO

WRA

WR2

Ql S

MBC

HYB

ASPA

MBL
DUE

POO

KBS
OLP
RMO

DZM
KOD

NANU

WARB

BRS

MAIO

KEV

YKA

SOO
COO
TRO
CMS

DAG

STK

FORR

PGC
GMW

COOL
OBN

1 .3s
55.00

55 . 69

55.73

55. 73
1 .2s
55.73
0 . 9s.

55 . 99

57 .86
1 . 0s
57 .88
1 -0s

59 . 45
1 . 5s
2 23s

60.04
61.06

61.13
1 .0s
61 . 90
62 .04
62. 30

62. 31
62.68
0.9s
62.80
0. 4S
63.06
0 . 4s
63. 75

63.95
1 .3s

64 . 56
2 18s

65.09

e. 9s
66.06
66.73
66.86
67.01
67.06
1.1s
67 .25
0.8s
67. 33
0. 4s
67 . 46
68.39

68. 85
68. 96
1 .2s
I 17s
N 17s
E 17s

259. 62nm
296 iP
i S
eScS
27 eP
pP
174 i PC
i
i S
188 P
76 . 30nm
188 i Pd
88 . 7 0nm
i
IS
182 iPc
eS
16 ePc
64 . 00nm
269 iPc
340.00 nm
e
e
e
eS
188 iPc
61 . 00nm
6 . 20um
e
eS
293 eP
288 iPc
e
eS
273 iPc
264 . 00nm
350 i P
177 i Pd
172 eP
i
153 i PC
263 iPc
231 . 93nm
297 eP
58 . 00nm
195 eP
26 . 00nm
168 eP

i(pP)
297 iPc
77 . 61 nm
e

339 iPc
6 . 90um
ePP
eHPP
epPP
iS
i sS
e
eHSS
eSS
LR
30 P
25 . 00nm
337 iP
170 e(P)
341 eP
176 eP
355 iPd
79 . 75nm
179 eP
1 1 . 70nm
192 eP
63 . 00nm
46 eP
46 P
pP
1 98 eP
323 iPc+
2860 . 00nm
7 . 80um
3 . 80um
6 . 00um
i PcP
i
ePP

59 00
06 4 1
08 38
59 05
59 17
59 06
59 15
06 45
59 05

59 05

59 15
06 53
59 07
06 53
59 20

59 21

59 30
59 36
00 1 4
07 19
59 32

59 57
97 38
59 37
59 43
59 56
0804
59 42

59 49
59 50
59 58
00 13
59 53
59 55

59 55

59 57

00 00
00 12
00 03

09 04
00 05

02 24
02 24
02 33
08 41
09 01
10 10
12 54
12 55
32 02
00 10

00 15
00 22
00 20
00 23
00 21

00 23

00 24

00 26
00 32
e0 42
00 33
00 34

01 04
01 24
03 04

6 . 1mb
60 -1.1
00
00
50 -0.6
00 39kmX
00 -0.9
00
00

00 -1.9
5 . 6mb
80 -1.1
5 . 8mb
90
40
30 -1.5
00
80 -0.7
5 . 6mb
70 -0.8
6 . 3mb
50
00
00

50
20 -1.0
5.5mb
5 . 7MszX
20
10
00 -0.2
10 -1.3
00
50
50 -2.4
6 . 3mb
00 -0.3
30 -0.4
00 5 . 6X
00
00 0.3
00 -0.6
6. 3mb
40 -0.4
6. 1mb
70 0.3
5.7mb
00 -2.0
00 41kmX
20 -0.2
5 . 7mb
00
92 -0.9
5. 9Msz
26
54
92
83
69
1 1
42
19
00
00 -0.3

5. 3mb
90 -0.6
80 1.6
20 -1.3
40 0.6
80 -0.9
5.7mb
90 -0.5
5 . 1mb
20 -0.7
6 . 1mb
00 0.3
00 0.5
50 34kmX
80 -0.6
00 -0.9
7.2mb X
6 . 0MSZX

00
00
00

PNT
LON
BAL
BWA

KLB
IR7
IR1
IR5
NUR

FHC

CAN
MUN
NEW

NWAO
WDC

TAB
BFD
M I N
TOO
ORV

SES

RKG
BRK

KER
BKS

RGS
SLY

ARN

GDH

SAO

CMB

FFC

HFS

PRS

NB2

LLA

LRM
MSL

PR I

KVN
DHR
FRI

69 . 32
69 . 36
69 . 83
70.13

70.44
70 . 57
70 . 66
70 . 83
70. 96
0. 8s
Z 20s

71.04

71 . 07
71 . 26
71 . 28
1.1s

71.84
72.10

72. 30
72. 55
72 . 83
73.04
73. 32

73. 35
1.1s

73. 44
73.72

73. 72
73.74
0. 8s
Z 18s

73. 99
74.17

74 . 49

74 . 78
1 .3s

74 . 87

74.88

74.97
1 .0s
75 . 16
0.9s
Z 18s

75. 16

75 .28
0.9s
75. 29

75.29
75. 34

75. 74

75. 79
75. 84
75. 90

eS
eScS

£

eSS
44 eP
47 P
202 eP
174 eP
i
201 eP
300 iPc
300 iPc

300 «:P

332 IP
129. 1 0nm
3 . 60um
e
LR
53 ePd
*pPd
173 eP
202 eP
44 P
87 . 96nm
pP
201 eP
53 iP
epPd
e

304 iP
179 e(P)
53 eP
176 eP
53 eP

epPd
39 i Pd
109. 00nm
PP
201 eP

55 *(P)
epP
301 iPc
55 eP
46 . 00nm
1 . 70um
ePcP
esP
IS
eLQ
eLR
339 eP
303 iPd
e
55 P
PP
5 ePc
269 . 23nm
ed
56 eP
epP
54 eP

epPd
e

32 iPc
65 . 00nm
336 eP
77 . 30nm
7 . 88um
LR
56 eP
epP
337 P
107 . 30nm
55 eP
epP
44 ePc
304 iPd
ePcP
e
eS
ePS
56 eP

epPd
52 P
292 iP
55 eP
epP

09 34.00
10 30.00
10 50 . 00

14 06 . 00
00 37.00
00 37 .80
00 40.00

00 42 . 90
0fi 52.80
08 43 . 50
60 45 . 30
00 46 . 00
00 47.00
00 46 . 00
6
5
10 18 .00
33 28.00
00 50.01
00 59.68
00 47 .60
00 48.00
00 48.00
5
00 59 . 50
00 52.00
00 55.56
01 05.30
01 12.00
00 56.00
00 38.00
01 05. 31
01 09. 00
01 01.77
01 11.78
01 02. 10
5
01 12 . 00
01 82 00
01 04 . 30
01 14.50
01 04.00
01 04.20
5
5
01 14.70
01 37 . 80
10 32 . 00
20 02.00
23 24 .00
01 05.00
01 06.50
03 20 . 00
01 08 . 00
01 18 . 40
01 08.80
6
01 1 1 . 95
01 10 .80
01 21 .50
01 10.84
01 21 .58
01 27 . 50
01 10 . 30
5
01 10. 50
5
6
31 55.00
01 13.00
01 23.20
01 1 1 .60
5
01 13.61
01 23.95
01 13.20
01 13.00
01 25.00
03 23.50
10 33.50
11 06 . 00
01 17.18
01 27 . 16
01 16 . 60
01 09.90
01 17 . 25
01 27.01

- 0 . 3
0.2
- 0. 4
0. 7

- 0.6

0 . 1

0.2
0. 1
- 1 . 0
. Irr.b
. 6MSZ

2. 1
31 kmX
- 0. 3
- 1.1
- 1 . 2
. 8mb
38kmX
- 0.6
1 . 4
31 kmX

0. 4
- 1 8 . 6X
6.6X
9.5X
0. 4
32kmX
0.7
. 8mb
32kmX
0 . 1
0.6
33kmX
0.0
0. 4
. 5mb
. 4Msz

0.2
0.2

- 0.3
33kmX
- 0.5
. 1mb

0. 4
35kmX
0.3
35kmX

- 0.3
. 6mb
- 1 . 1
. 7mb
. 1Msz

0.9
33kmX
- 0.8
. 9mb
0.8
33kmX
0.2
- 0. 1

1 .6
32kmX
0. 7
- 6. 1X
1 .0
31 kmX

BHO

BONR
BCH

HYA
KONO

TNP

SYP

SUE
KVT
ABL

ISA

ASK
BER
AKU

CLC

FRB

1 AS
KAS
DUG

SBB

PAS

MWC
BW06

GSC

COP

Z

RVR

CFR
RYO
PEC
VR 1
REY
BRO

MJMA
PLM

BBTK
TPC

KRA

ISR
MLR
BAR
SPC

CMP
BUC
BUC1
KSP

HRT
GBZT

e 01 35.20
76.21 301 ePd 01 18.00 0.0
ePcP 01 27.50
eS 10 30.80
ePS 11 07 . 50
76 . 28 53 P 0 1 1 9 . 00 0.2
76 .66 56 P 01 21 . 00 0.3

pP 0 1 31 . 80 35kmX
76. 69 339 eP 01 21 . 00 0.8
76.87 337 iPc 01 20.60 -0.6
esPd 01 33 . 68
ePP 04 12.08
eHPP 04 12.41
iS 11 06.27
i sS 11 2 1 . 66
eHSS 16 00.56
eSS 16 02.72
76.91 52 P 01 22 . 40 0.2
1.9s 160 . 00nm 6 . 0mb
77.11 57 eP 01 24.00 9.8
e 01 34 . 00
77.18 340 eP 01 24 .20 1.2
77 .21 312 eP 01 23.00 -0.6
77 . 44 56 P 0126.00 0.8

pP 01 36.00 32kmX
77 .48 55 eP 01 25 .00 -0.2
e 01 35.00
77 .53 339 iP 01 25 . 30 0.4
77 .57 339 iP 01 25. 59 0.4
77 .63 351 IP 01 27 .29 1.9
1.1s 86 . 08nm 5 . 7mb
77 .97 55 eP 01 28 .00 0.1
e 01 3B .90
78.11 13 eP 01 29.50 1.5
0.6s 48 . 50nm 5 . 7mb
78.23 320 eP 01 27.00 -2.0
78.41 313 iPc 01 30.50 0.3
78. 44 49 P 01 31 . 00 0.5

pP 0141.40 33kmX
78.47 56 eP 01 31 . 00 0.3
e 0 1 41 . 00
78.55 56 eP 01 29.46 -1.5
ed 01 40.06
iS 1 1 23. 46
78. 58 56 eP 01 43.00 1 1 . 6X
78, 79 45 P 01 31 .50 -1.0
1.0s 27 .50nm 5 . 2mb
78.80 55 eP 01 33.00 0.5
e 01 43.00
78.96 333 iPc+ 01 33.40 0.6
1.9s 256.90nm 6.2mb
18s 4.12um 5.8Msz
i 01 45.00
iS 11 28.00
79.18 56 eP 01 34.00 -0.4
e 01 45.00
79. 21 318 eP 01 34.00 -0.4
79.37 293 iP 01 30.00 -5.7X
79. 38 56 P 01 36. 00 0.4
79.53 320 iPc 01 36.00 -0.1
79.56 352 eP 01 38. 10 2.2
79.59 319 eP 01 38.00 1.6
e 05 47.50
79.71 294 iP 01 36.70 -0.8
79.90 56 eP 01 39.00 0.4
e 01 49.00
79. 96 312 eP 01 40.00 1.3
80 . 00 55 eP 01 41 . 00 2.1
e 01 49.00
80.01 326 iPc 01 38.80 0.2
1.0S 167.00nm 6.0mb
e 01 48.20
e 07 40.00
80.11 319 i Pd 01 40.00 0.7
80.19 320 iPc 01 40.00 0.2
80. 42 57 eP 01 42.00 0.8
80 . 48 325 i P 01 42 . 40 1.0
e 04 43.70
80.81 320 ePd 01 44.00 1.0
80.83 319 iPc 01 40.50 -2.5
80.91 319 iPc 01 42.00 -1.4
81.06 328 ePc 01 44.50 0.4
1.0s 105 . 00nm 5 . 8mb
i 01 56.00
i 04 49.50
81 . 17 314 eP 01 44.00 -1.0
81.32 314 iPc 01 45.00 -0.7

06d 15h

50

GLA

OEV
VLV
FS2
BHL

8RG

PVL
CLL

HR 1
BUD
SRO
PRU

T IM
EOC
OST
ess
2ST

D 1 M
MDSJ
CSTJ
MML
KHL
SALJ
VKA

KDZ
OTRJ
PLO
MOX

JVI
GOL

ALN
MKRJ
HOP

WIT
PPCY
GHZJ
R2N
BEO
KHC

LISJ
VTS
ELL
E2N
WET

OHLJ
WTS

MMB
GRF

81 .45

81 . 50
81.51
81.55
81.77

82 . 02
1 .0s

82. 34
8?. 98
1 .0s
2 17s

82. 10
82.27
82.37
82. 44
1.1s
2 15s

82-44
82.53
82.57
82.63
82. 64

82.71
82.75
82. 78
82. 83
82. 87
82. 90
82.95
3.0s

83.04
83. 12
83. 13
83. 15
1 .5s
2 21s
N 17s
E 20s

83. 18
83. 19
1 .0s
83.20
83 .21
83 . 30
1 .2s
83.31
83 .31
83 .34
83. 40
83 . 47
83 .50
1 . 0s
2 18s
N 16s
E 17s

83 .51
83. 60
83. 65
83^76
83^79
1 -3s
83,82
83.92
0.9s
84401
84,05
1 .4s
2 19s

55 eP
e
321 ePc
314 eP
324 iPd
306 P
PP
S
329 iPc
1 1 0 . 00nm
i
i
i
eS
318 eP
330 iPc
200 . 00nm
3 . 50um
i
eS
305 eP
325 iPd
325 iP
328 iPc
78 . 50nm
2 . 40um
e
PP
ePPP
eS
322 eP
315 iP
314 eP
308 eP
326 iP
i (PP)
317 iP
304 PC
303 PC
305 eP
312 IP
304 PC
326 iPc
739.00nm
i
317 iPc
304 PC
318 i P c
330 iPc+
1 50 . 00nm
3 . 70um
1 . 80um
2 . 80um
i
eS
304 eP
45 P
1 5 . 63nm
316 ePd
304 PC
330 iPc
131. 00nm
334 eP

308 e(P)
303 PC
317 iPc
322 iP
328 iPc
67.7 0nm
4 . 40um
1 . 50um
3 . 50um
e
S
304 PC
319 i P
311 i P
315 iP
329 iPc
177 . 00nm
304 PC
334 eP
38 . 00nm
318 iPc
330 iPc
473 . 00nm
4 . 00um

01 48. 00
01 58 . 00
01 48 .00
01 46.00
01 47.10
01 48 . 00
04 56.00
11 56.00
01 49 . 60
5
02 02.00
02 36.30
04 56.00
12 09.00
01 50.00
01 49. 20
6
5

02 ee.ee
12 13.00
01 50 . 50
01 50. 90
01 51 . 40
01 51 .60
5
5
02 01 .50
05 00.00
06 46.50
12 04.00
01 54 . 00
01 52 . 09
01 52.30
01 52 . 50
01 53.00
05 02.50
01 54 . 00
01 53.82
01 53.82
01 54 . 60
01 53 . 40
01 54 . 59
01 54 . 90
6
05 06.30
01 56.00
01 55. 50
01 55.00
01 55. 10
5
5

02 08 . 00
12 15.00
01 56. 10
01 56. 10
5
01 55.38
01 56. 1 3
01 55. 80
6
01 57.00
01 56. 00
01 56. 83
01 57 . 00
01 57 . 00
01 57 . 20
5
5

02 03.50
12 18.00
01 57.74
01 58.00
01 57.50
01 58.50
01 58 . 90
6
01 54. 80
01 59 . 00
5
02 01.00
02 00.30
6
5

1 . 4

1 .5
- 0.8
0.3
- 0.3

0.5
8mb

0. 7
- 0.2
1mb
SMszX

0.5
0.4
0.4
0.3
7mb
7MszX

2. 6
0.0
0.0
- 0 .2
0.6

1 . 1
0.4
0. 3
0.9
- 0.5
0. 4
0.9
3mb

1 .3
0.2
0.0
0. 1
9mb
7Msz

0.5
0.3
1mb
0.0
0.3
0.0
0mb
1 .3
- 0. 1
0.3
0.3
0.3
0.3
8mb
9Msz

0.6
0.3
- 0.5
0.2
0.6
1mb
- 4.0X
0. 1
6mb
1 . 4
0.7
5mb
8Msz

KMR

I 2M
EKA

YER
SRS
DBN

A Y N
BN5

OUR
TNS
SOH
KNT
MBH
VAY

KOE
PTJ
BHG

2AG

SKO

HOL
PLE
I VA
GRG
PAIG
FUR

ENN

PVY
MEM

LJU

VBY
NKY
ANMO

ALO

CEY
VOY
LIT
WTTA

UCC
TTG
BRY
FNA
OHR

R I Y
ABHA
SNF
GWF
WLF
BDV
ULC

84 .08

84.16
84 .26
1.4s
84 . 39
84 . 41
84 . 42
2 20s

84.61
84 . 62
1 .0s
Z 20s
84 . 73
84 .73
84.75
84 .76
84 . 82
84 .83
1 .3s
84.85
84.87
84.88
1 .05
84.92

84.98
1 .8s
2 17s

85.02
85.07
85 . 14
85. 17
85 . 18
85.22
0.9s
2 17s
85.24
1 .0s
85 .30
85.34

85 .42

85.49
85.65
85.66
1 -2s

85.66
1 .0s
2 19s

85 . 70
85.72
85.72
85.77
1 .8s

85 . 78
85. 79
85.81
85.85
85.93
1 . 4s

86 .01
86.02
86.05
86.06
86.06
86. 12
86. 13

e
e
: S
327 iP+
ePP
314 eP
340 PC
64 . 1 0nm
312 eP
318 ePc
334 eP+
3 . 00um
ePP
eS
302 iP
333 ePc
47 . 00nm
2 . 70um
317 ePd
332 ePc
318 ePc
3 1 8 ePd
303 eP
318 i PC
378 . 00nm
332 iPc
325 iPc
328 iPd
1 28 . 00nm
325 iPc
i
319 i PC
725 . 00nm
7 . 97um
i
i
i
i
303 i P
321 i P c
321 i P c
318 ePc
3 1 7 ePc
329 iPc
1 44 . 00nm
6 . 00um
333 iPc
111. 00nm
321 i PC
333 iPc
e
326 ePc
eS
325 iPc
321 iPc
50 ePc
1 95 . 31 nm
ed
esPd
IS
esS
50 ePc
39 . 50nm
1 . 04um
epP
326 iPc
326 iP
317 ePd
328 iPc
1 66 . 00nm
i
i
334 P +
321 iPc
322 iPc
319 ePd
319 iPc
236 . 00nm
i
i
325 ePc
289 i P
334 iPc
331 P
333 iPc
321 iPc
321 iPc

02 47 .80
02 53 .60
12 21.70
02 00.30 0.5
05 13 .00
02 00 .00 -0.4
02 00.00 _0.0
5 . 6mb
02 02 . 80 1.2
02 01 .06 -0.5
02 01 .00 -0.3

05 16.
12 36 .
02 02.
C2 01 .

02 02.

5 . 7Msz
00

(10
ii0 -0.2
<I0 -0.8
5. 7mb
5. 6Msz
JI6 -0.3
02 03 .00 -0-1
02 02.^2 -0.7
02 02.06 -0.5
02 04 .i0 0.2
02 03 .90 0.2
6 . 4mb
02 03 . 70 0.2
02 03 .50 -0.4

01 59 . }0 -4 . 5X

02 04 .
05 22 .
02 05 .

6.1mb
10 0.0
i0
10 0.6
i 6 . 6mb
6 .2MszX
02 17 .20
02 21 .00
06 35 .
12 26 .
02 01 .
02 05 .
02 06.
02 04.
02 05 .
02 05.

02 05.

10
>0
'0 -3. IX
14 0.8
7 0.8
>8 -0.5
0 -0.3

)0 0.4
6 . 2mb
6. 1MszX
)0 0.0
6 . 0mb
02 06.S2 0.3
02 05.72 -0.3
07 33.
02 06.
12 27 .
02 06. <
02 07 J
02 09.

02 18.
02 20.
12 39.
12 55.:
02 08.

>e
>0 -3.5

>e
>0 0.0
12 -0.1
0 0.9
6 . 2mb
11
56
10
52
50 0.3
5 . 6mb
5.2MS2
02 19.50 35kmX
02 07 .40 -0.6
02 07 .20 -1.0
02 07 . »8 -1.0
02 08.1

04 57 .!
05 30. i
02 08.1
02 08.!
02 08.!
02 08.
02 09.i

02 17 .
02 23.i
02 11.
02 11.
02 09.
02 09.
02 10.
02 09.
02 10.

50 -0.5
6 . 0mb
>0

}0
J0 0.6
>0 0.1
>0 -0.5
4 -0.7

)0 -0.2
6 . 2mb
>0
»e
>0 1.7
50 1.0
58 -0.2
>4 -0.2

)2 0.4
57 -0.4
^0 0.2

HCY
OOU

STR
OGA

OMU

CDF
HVAR
SLE
SCH

LIBD
FEL
ECH
oss
ZLA
OCN
HLW

MOF
LLS
VOL
8SF
VI TF
BBS
HAU

LOMF
TMA
BRT
ARV
SF I
MMK
PGO
CRE
D I X
MME
ORX
BOB
BO I
AOU
LOR

OR I
A2 I
P I I
SO I
MNS
LSD
LBF

GRC
SCO
FLN

LDF

SSF

LPL

LPG

PCP
CSI
RSP
TOS
MMN
MGR
SMF

CK I
AVF
BHB
BNI
GRR

FIN
RRL
ROB
CZ I
BGF

86.16 321 iPc 02 09.80 -0.5
86.28 334 Pc + 02 10.40 -0.3
SKS 12 35.00
86 . 32 331 P 02 1 1 . 35 0.4
86.34 328 iPc 02 1 1 .20 -0.2
1.1s 80.00nm 5. 9mb
86.54 342 eP 02 12.00 0.1
1.4s 285 . 00nm 6 . 3mb
86 . 65 331 P 02 1 2 . 52 -0.2
86.65 323 iPc 02 11.80 -0.9
86.68 330 ePc 02 12.20 -0.6
86 .70 16 ePd 02 13 .00 0.2
1.1s 68.00nm 5. 8mb
86.73 331 P 02 1 3 . 02 0.1
. 86.79 330 P 02 12 . 94 -0.5
86 . 85 33 1 P 0213.28 -0.3
86.86 329 ePc 02 13.90 0.0
86.95 330 «Pc 02 13.70 -0.4
87 . 13 342 «P 02 14. 70 -0.1
87.16 305 eP+ 02 15.00 -0.3
e 05 40.00
87 . 16 3-31 P 02 1 4.64 -0.6
87 . 19 329 ePc 02 15.10 -0.4
87 .30 329 ePc 02 15 . 90 -0.1
87 . 31 331 P 0215.30 -0.6
87 . 31 332 P 02 15 . 43 -0.4
87 . 32 330 P 02 15.56 -0.4
87.34 331 iPc 02 15.70 -0.3
1.0s 36 . 00nm 5 . 6mb
2 20s 4.00um 5.8Msz
87 .69 331 P 02 1 7 . 34 -0.4
87.85 329 ePc 02 17.70 -1.0
87.97 321 PC 02 18.80 -0.3
88.09 325 P 02 20.00 0.4
88.27 326 P 02 21 .20 0.8
88.27 329 ePc 02 20.40 -0.4
88. 36 326 PC 02 21 .80 0.7
88. 45 326 P 02 22. 10 0.6
88.48 330 ePc 02 21.50 -0.3
88 . 57 327 P 02 22 . 80 0.5
88.60 329 P 02 20.61 -1.6
88.67 328 P 02 21 .90 -0.6
88.72 327 P 02 22 . 00 -0.8
88.75 324 P 02 23 .50 0.6
88.90 332 iPc 02 23.10 -0.4
1.3s 97.50nm 6. 0mb
2 20s 4.75um 5.9Msz
88.96 321 P 02 24. 40 0.5
89.01 324 P 02 24. 10 0.1
89.02 327 P 02 22.90 -1.1
89.04 323 PC 02 23.60 -0.7
89.07 324 P 02 23 . 40 -1.0
89.09 330 P 02 24. 40 -0.3
89.09 332 iPc 02 23.90 -0.5
1.0s 30 . 00nm 5 . 6mb
89 . 1 7 333 P 02 25 . 1 4 0.4
89. 17 322 P 02 24 . 30 -0.5
89.18 336 iPc 02 24.30 -0.4
1.0s 32 . 00nm 5 . 6mb
2 20s 8.25um 6.2Msz
89.20 335 iPc 02 24.50 -0.4
1.0s 36.00nm 5.6mb
89.21 333 iPc 02 24.60 -0.3
1.2s 69. 90nm 5 . 8mb
89.22 330 iPc 02 25.30 0.0
1.0s 60.00nm 5.9mb
89.22 330 iPc 02 25.30 -0.1
1.1s 68 . 35nm 5 . 9mb
89.24 328 P 02 23. 48 -1.7
89.26 321 P 02 25 .80 0.5
89.29 329 P 02 23 . 58 -1.9
89. 32 321 P 02 25.70 0.1
89.33 321 P 02 25 .40 -0.1
89.36 321 P 02 24. 40 -1.4
89.43 332 iPc 02 25.60 -0.4
1.3s 101.1 0nm 6 . 0mb
89.45 328 P 02 25.00 -1.1
89. 49 332 i PC 02 26 . 1 0 -0.1
89.54 329 P 02 24 .20 -2.4
89. 62 330 P 02 26. 70 -0.3
89.63 336 IPc 02 26.90 0.0
1.1s 83 . 05nm 5 . 9mb
89 .65 328 P 02 25.32 -1.8
89.68 329 P 02 26.76 -0.7
89.73 328 P 02 25.94 -1.5
89. 75 320 P 02 26.60 -1.0
89.88 333 iPc 02 27.90 -0.2

51

06d 15h

P22
ENR
LPF

STV
IM I
PLDF
AGO
SBF

MAP

SSB
TCF

MEO
PYM
ISF
PGF

SOI
LBL
FRF

MFF

LRG

LMR

CDR

TUL

RJF

CAF
MEU
LFF

CCM

LPO

FVM
MTHF
LSPF
PERF
ETER
LESF
GRBF
EPF

OLY
BNH
M I M
ECRI
ESEL
EBR
EROO
EMON
ETOR
GUD
EV I A
EPLA
EGUA
MTD
KR I
6UL
LKO

SPA

FRS

T 1C
CLMC
KIC

1.2s 53 . 55nm 5 . 7mb
89.88 329 P 02 25.73 -2.6
89.97 329 P 62 26.04 -2.6
90.06 336 i PC 62 28.80 0.2
1.0s 86 . 00nm 5 . 9mb
90.00 329 P 02 25.94 -2.8
90 . 03 328 P 02 27 .68 -1.2
96 .68 332 P 02 29 .58 0.5
96 . 1 9 332 P 62 30 . 15 0.6
90.26 328 iPc 02 29.10 -0.9
6.9s 77 . 00nm 6 . 0mb
90 . 26 333 i PC 02 30. 10 0.2
1.2s 95 . 20nm 5 . 9mb
9C .29 331 P 02 29. 72 -0.3
90 . 34 333 i PC 02 30.20 -0.1
1.0s 44 . 00nm 5 . 7mb
90.49 45 iPd 02 30.80 -0.3
90.49 332 P 02 31 .38 0.3
90.63 333 iPc 02 31.40 -0.1
90.63 327 iPc 02 31.20 -0.6
1.0s 64.00nm 5. 9mb
90 .65 320 P 02 31 .90 0.2
90.84 332 P 02 33. 18 0.6
90.84 329 iPc 02 31.80 -0.8
1.0s 72.00nm 6. 0mb
90.93 334 iPc 02 33.30 0 4
0.9s 75 . 35nm 6 . 0mb
91 . 05 329 iPc 02 33. 10 -0.4
1.0s 112. 00nm 6 . 2mb
2 20s 5.75um 6.0Msz
91.08 329 iPc 02 33.20 -0.5
1.1s 1 56 . 30nm 6 . 3mb
91.12 329 ePc 02 33.20 -0.6
e 06 1 1 . 70

91.26 43 e(P) 02 34 .60 0.0
0.4s 6 . 30nm 5 . 3mb
2 20s 1 . 03um 5 . 3Msz
N 20s 0.55um
E 22s 0.87um
LR 35 45.00
91 .43 333 i PC 02 35.50 0.2
0.9s 58.95nm 6.0mb
2 20s 2.50um 5.7Msz
91 .55 332 i PC 02 36.60 0.8
91 .97 320 P 02 38 .60 0.6
92.03 333 iPc 02 38.60 0.6
0.9s 75 . 35nm 6 . 1mb
92.07 39 eP 02 38.70 0.4
ePP 06 22.48
eS 1334.15
92.08 333 iPc 02 38.70 0.4
1.0s 58 . 00nm 6 . 0mb
92.54 38 P 02 40 . 40 -0.1
93 . 04 331 P 02 42 . 89 0.1
93 .28 331 P 02 44 .23 0.4
93.29 330 P 02 43 . 76 -0.1
93.45 330 eP 02 45.00 0.4
93. 45 332 P 02 44 .93 0.3
93.52 331 P 02 44.66 -0.3
93.81 332 iPc 02 46.10 -0.2
1.1s 25 . 65nm 5 . 6mb

93.90 40 P 02 46.40 -0.4
94.86 23 P 02 52.00 0.9
94.93 21 P 02 52.00 0.6
95.23 334 eP 02 53.20 0.3
95.55 329 eP 02 53.30 -1.0
95.64 331 eP 02 55.50 0.8
95.67 331 eP 02 55.00 0.1
96. 1 1 337 eP 02 57.00 0.1
96.62 333 eP 02 59.50 0.2
97 .54 334 eP 03 03.60 0.1
98.69 332 eP 03 09. 00 0.4
98.73 335 eP 03 09.00 0.3
100.67 332 ePdiff03 16.50 -0.9
115.24 267 iPKPd 08 11.60 0.1
116.87 268 iPKPc 08 15.50 0.8
119.39 265 iPKPc 08 18.20 -1.2
125.07 318 PKP 08 29.10 -1.2
1.1s 36 . 00nm
125.54 180 iPKPc 08 24.10 -5.8X
1.2s 52 . 82nm
126.45 257 iPKPc 08 32.70 0.1
0.8s 1 1 . 1 9nm
e 10 30.50
127.14 316 PKP 08 30.66 -3.7X
127.16 50 ePKP 08 35.77 1.1
127.22 315 PKP 08 30.70 -3.8X

1.1s 39 . 00nm
HOOC 127.44 50 ePKP 08 34.87 -0.4
LIC 127.49 316 PKP 08 31.06 -3.9X
S 1 LC 128.23 51 ePKPc 08 36.94 0.0
CUMC 128.56 53 ePKP 08 38.51 0.8
NVL 135.97 202 PKPc 08 49.00 -0.4
e 09 38.00
e 1128.60
e 1136.00
e 1232.00
e 1310.00
NNA 138.45 65 ePKP 08 53.50 -2 . 3X
0.8s 22 . 39nm
Z 22s 1 . 67um 5 . 7Msz
ARE 145.28 65ePKP 09 08. 00 0.0
AIA 146.82 161 ePKP 09 10.50 1 8
20BO 147.59 61 ePKPc 09 11.76 -0.4
2 24s 0.83um 5.4MszX
i C 09 1 4 . 24
esPKPd09 23.27
i 1223.32
LR 00 00.00
LPB 147.79 61 PKP 09 12.00 -0.3
1.2s 7 1 8 . 75nm
i 0914.80
LR 59 50.00
CCH 149.74 60 PKP 09 19.00 3 . 9X
i 09 22. 10
ANT 150.30 75 i PKPd 09 22.70 7 . 3X
CA 1 150.89 356 ePKP 09 16.90 0.3
SIV 152.15 51 PKP 09 19.60 1.2
SOB1 153.55 4 ePKP 09 21.60 1.1
e 09 27 . 30
SLA 154.66 72 iPKPd 09 31.30 9 . 5X
BAG 158.42 24 ePKPd 09 28.30 1.5
S .0. =0.9 on 404 of 431 obs.

AUG 06. 1991 15H 04m 46.18± 0.37s
45.403 N ± 3.3km 21.069 E ± 3.6km DEPTH «= 1 1 .2 ± 2 . 9 km
ROMANIA (358)
ML 4 . 1 (2AG) , 3.7 (TTG) . Felt
(V) in the Timisooro oreo.

TIM 0. 35 18 ePc 04 54.50 1.0
SSR 0.72 138 ePd 05 00.00 -0.2
BEO 0.73 217 i Pg 05 01.00 0.7
i Sg 05 13.00
DEV 1 .37 69 i Pd 05 1 1 .50 0.3
DRA 2.37 107 ePd 05 22.00 -3 . 6X
PLE 2.40 211 iPnc 05 24.92 -1.1
i Sg 05 53.99
8UD 2.52 327 iPnd 05 27.30 -0.3
PS2 2.64 343 iPn 05 28.90 -0.6
IVA 2.67 199 iPnd 05 30.47 0.6
i Sn 06 04.54
BMP 2.82 36 ePc 05 35.00 3 . 0X
MTUR 2.82 92 eP 05 39.00 6 . 9X
PVY 2.92 196 iPnd 05 34.64 1.2
iSn 06 09.69
NKY 2.99 211 iPnc 05 34.54 0.1

i Sn 06 10.71
SRO 3.07 323 iPn 05 35.80 0.4
i 06 07.60
i 06 12.60
BRY 3.09 217 iPnc 05 36.19 0.3
i Sn 06 13. 47
VTS 3.21 150 i P 05 38.00 0.4
TTG 3.25 204 iPnc 05 38.89 0.9
i Sn 06 15.92
MLR 3.43 87 i PC 05 40.00 -0.8
SKO 3.44 175 ePn 05 48.00 7 . 3X
i 05 50.80
i 06 38.20
HCY 3.49 213 iPnd 05 42.87 1.5
i Sn 06 19.87
BDV 3.51 208 iPnd 05 39.96 -1.8
i Sn 06 20 . 71
2AG 3.59 278 e(Pn) 05 43.00 0.1
i Sn 06 30 . 50
iSg 06 48.20
PTJ 3.62 280 ePn 05 42.10 -1.3
eSn 06 28.70
PVL 3.76 124 iPc 05 45.00 -0.3
SPC 3.83 352 e(Pn) 05 46.40 -0.1
e 05 58.80
i 06 03.90

i 06 31 .80
i 06 52 . 60
I SR 3.87 92 eP 05 48 .00 1.0
2ST 3.90 317 iPnd 05 46.40 -0.9
i 05 53.60
i (Sn) 06 32 . 60
HVAR 3.99 238 iPn 05 49.00 0.4
VR 1 3.99 81 iPc 05 50.00 1.4
PTT 4.00 66 eP 06 02.00 13. 3X

VBY 4.09 273 e(P) 06 04.60 14. 7X
PLD 4.22 140 ePg 06 04.00 12. 2X
VAY 4.22 164 ePn 05 49.30 -2.6

iSg 06 57 .50
MMB 4.27 152 eP 05 53.00 0.4
OHR 4.29 183 ePn 05 53.40 0.4
VKA 4.34 313 ePn 05 53.00 -0.5
i 06 04.90
iSn 07 21 .90
R2N 4.56 143 i Pd 05 56.00 -0.8
LJU 4.62 280 eP 06 13.50 16. 0X
DIM 4.66 134 eP 05 58.00 0.0

CEY 4.68 276 e(P) 06 14.90 16. 5X
RIY 4.71 272 e(Pn) 06 05.60 6.8X
JMB 4.95 124 eP 06 00.00 -2.1
TRI 5.14 276 eP 06 05.50 0.7
e 07 03.50
e 07 33.30
KHC 6.32 309 ePn 06 07.00 -14. 5X
PRU 6.36 319 Pn 06 19.80 -2.2
Sn 07 28.50
e 68 28.06
DOU 12.04 299 eP 07 41.20 0.8
NUR 15.28 7 eP 08 47.00 23. 8X
NB2 16.71 343 P 08 43.00 1.5
0.7s 1 . 00nm 3 . 1mb
S . D . = 1 . 1 on 36 o f 48 obs .

% AUG 06, 1991 18h 52m 37.75± 0.64s
42.465 N ± 5.8km 19.329 E ± 5.1km DEPTH - 10.0km (geo phy s i c i s t)
YUGOSLAVIA (383)
ML 1.7 (TTG).

TTG 0.06 235 iPgc 52 41.50 1.5
iSg 52 43.69
BDV 0.41 244 iPgd 52 46.14 -0.1
iSg 52 52.45
NKY 0.42 325 iPnc 52 46.62 0.2
iSg 52 53.25
PVY 0.49 75 iPgc 52 47.85 0.0
iSg 52 55.72
ULC 0.51 187 iPgd 52 47.44 -0.6
iSg 52 54.77
IVA 0.58 46 iPgd 52 49.65 0.0
iSg 52 59.05
HCY 0.61 269 iPgc 52 49.37 -0.8
i Sg 52 58 . 97
BRY 0.72 307 iPgc 52 51.72 -0.4
iSg 53 03. 19
S.D.-0.8 on 8of 8 obs .

AUG 06, 1991 20h 26m 25.71± 0.21s 54.729 N ± 4.0km 161.659 E ± 4.5km DEPTH - 33.0km (normal)
5.5mb (62 obs.) 4.1Msz (4 obs.)
NEAR EAST COAST OF KAMCHATKA (218)

KUSJ 16.06 231 eP 30 04.10 -6.3X
ASAJ 16.25 237 eP 30 13.30 0.5
HOOJ 17.27 232 eP 30 19.90 -5.7X
YAK 18.11 307 iPc 30 35.50 -0.5
epP 30 45.06
iPP 30 51 . 00
ePPP 31 02.00
eS 34 02.00
eSS 34 1 3 . 00
eSSS 34 25.00
ePcP 35 22.00
iScS 42 19.00
OFUJ 20.66 229 eP 31 03.80 -1.1
YAMJ 22.13 230 eP 31 19.70 -0.1
NIIJ 23.36 231 P 31 33.00 1.2
KAKJ 23.71 227 P 31 36.00 0.8
MAT 24.29 231 eP 31 41.00 0.1
0.9s 42 . 02nm 5 . 0mb
eS 36 60.00
CHJJ 24.35 229 P 31 41.50 0.0

52

06d

MTMJ
1 IDJ
TSRJ
1 NK

MBC

LZH

PNT

SES
FFC

KtV

KTK 1
SOD
GDH

LOF
FRB

1 SA
CLC
SBB
GSC
NSS
CHG

CHTO

AKU

NUR

GLA
OBN

NB2

MFS

ALO

SCH
EKA

KRA
WIT
KSP

CLL

DMU

BRG

^pr O r W
WTS
DCN

MOX

PRU

ETA
VR 1
ENN

ECP

GRF

MEM
KHC

ZST
WET

SRO
MLR

20h

24. 44 232 P 31 42 . 60 0.1
25 . 31 230 P 31 50 . 60 -0.1
26. 1 4 233 P 31 58 . 00 -0.4
32.01 39 eP 32 50.50 -0.1

pP 33 04.50 56kmX
35. 1 7 24 ePc 33 18. 00 9.2
1.0s 15. 00nm 4 . 9mb
43.29 269 e(P) 34 20.00 -5.9X
Z 28s 0.35um 4.3Msz
46.36 62 eP 34 50.00 -0.1
0.8s 1 8 . 00nm 5.1 mb
49.96 57 eP 35 1 8 . 00 -0.1
51.23 48 *P 35 26. 99 -1.6
0.6s S.OOnm 4.9mb
51 .,56 342 IP 35 28. 80 -1.1
fi . fl s 9 . 1 0nm 4 . 9mb
52J87 343 eP 35 37. 9B -1.9
53.68 340 iP 35 45.00 -0.7
53.69 15 iPc 35 44. 50 -1.3
0.6s 42.67nm 5.6mb
55.26 346 eP 35 54.94 -2.0
55.63 24 eP 35 59.20 -0.8
0 . Ss 22 . 00nm 5 . 4mb
56. 23 75 eP 36 04 . 00 -0.8
56. 61 74 eP 36 07 . 00 -0.5
57.38 75 eP 3613.00 0.5
57.42 74 eP 36 14 . 00 0.6
58.80 345 iP 36 21.34 -1.2
59.14 259 eP 36 29.40 4.0X
0.6s 8 . 33nm 5 . 0mb
59. 1 4 259 eP 36 23.60 -1.8
0.6s 9.40nm 5. 1mb
59.91 360 iP 36 30.50 0.4
0.8s 44 . 78nm 5 . 6mb
60. 1 4 337 i P 36 31 . 00 -0.7
0.8s 76 . 30nm 5 . 9mb
60 . 1 8 74 eP 36 33 . 00 0.5
61 .63 328 iPd 36 41 . 00 -1.0

220s 0 . 40um 4 . 6MSZ
62 .22 344 P 36 44 . 20 -1.7
0.6s 26 . 80nm 5 . 5mb
62.67 343 eP 36 47.00 -1.8
0.4s 37.1 0nm 5 . 9mb
Z 16s 0.08um 4.0MszX
LR 02 12.08
63.33 67 eP 36 53.30 -0.5
1.0s 4 . 25nm 4 . 5mb
63.80 29 eP 36 56.00 -0.3
69.60 351 PC 37 32.40 -0.5
0.6s 37.20nm 5.6mb
70. 77 335 iPd 37 40. 10 -0.1
70. 84 344 eP 3741.50 1.0
70.89 338 i PC 3741.00 0.1
0.9s 70.00nm 5.7mb
71.14 340 iPc 37 42.00 -0.4
1.1s 105. 00nm 5 . 8mb
71 .33 353 eP 37 43.20 -0.3
0.6s 140.00nm 6.2mb
71 . 36 339 iPc 37 44 . 00 0.3
1.8s 85 . 00nm 5 . 5mb
71.50 334 IP 37 45 .60 0.8
71.60 344 iPc 37 45.00 -0.1
71.91 353 eP 37 46.50 -0.4
0.6s 85.00nm 5.9mb
72.05 340 iPc 37 47.80 -0.1
0.9s 73.00nm 5.7mb
72. 08 338 PC 3748.00 0.0
0.8s 40.80nm 5.5mb
72. 47 352 eP 37 50. 40 0.1
72. 75 329 eP 3751.50 -0.6
72. 93 344 eP 37 52 .90 -0.1
0.8s 67.00nm 5.7mb
73.00 352 eP 37 53. 50 0.2
0.6s 60.60nm 5.8mb
73. 04 340 iPc 37 54 . 20 0.5
0.7s 145.00nm 6.1mb
2 28s 0.04um 3.5MszX
73. 07 344 PC 37 53 . 70 -0.1
73.09 339 iPc 37 54.10 0.0
1.0s 29 . 30nm 5 . 2mb
e 37 57.50
73. 19 336 iP 37 55.00 0.4
73.22 339 i PC 37 55. 10 0.3
0.9s 79 . 00nm 5 . 7mb
73.26 335 eP 37 55.00 0.1
73.33 329 ePc 37 55.00 -0.6

BUD
SNF
DOU
WLF
FUR

BHG

CDF

KBA

WTTA

SLE
HAU

Z
BSF

FV I
2 LA
GBA

OGA

FLN

LDF

OSS
LLS
GRR
TRI
VDL
LPF

LOR

Z
SSF
LBF

TMA
SAL
MMK
AVF
DIX
SMF

BGF

ORX
SKO
TCF

LSD
MFF

MAP

LPL
LPG

WR2

WRA

LSF

BOB
RSP
BNI
MME
SFI
8HB
RRL
PGD
PCP
BDI
ARV
CKI
CRE
DOI

73.39 335 eP 37 56.00 0.3 PZZ 78.80 342 P 38 25.55 -0.9
73.43 345 PC 37 55.60 -0.3 OHR 7B.84 331 eP 38 25.90 -0.7
73.79 345 iPc 37 57.70 -0.3 ROB 78.86 341 P 38 26.27 -0.4
73.97 344 iPc 37 59.05 0.1 FIN 78.88 341 P 38 25.86 -0.9
74.48 340 iPc 38 02.30 0.2 Pll 78.89 339 P 38 26.30 -0.4
0.7s 44.00nm 5.6mb RJF 78.92 346 i PC 38 28.10 1.1
74.58 339 eP 38 03.40 0.7 0.8s 16.10nm 5.1mb
0.8s 40.00nm 5.5mb ENR 79.01 341 P 38 26.16 -1.4
74.99 343 iPc 38 04.80 -0.3 STV 79.01 342 P 38 25.55 -2.0
0.7s 38.60nm 5.5mb CAF 79.22 345 iPc 38 29.40 0.8
75.09 338 iPc 38 06.60 0.8 0.8s 38.95nm 5.5mb
0.9s 107.00nm 5.9mb IMI 79.23 341 P 38 28.52 -0.2
75.27 339 i PC 38 07.30 0.4 SSF 79.36 341 i PC 38 29.50 0.1
0.8s 48.00nm 5.5mb 0.8s 45.65nm 5.5mb
e 38 39.00 LFF .79.39 346 i PC 38 38.10 0.6
i 38 46.10 0.8s 37.60nm 5.4mb
75.40 342 ePc 38 06.90 -0.5 AOU 79.56 337 P 38 32.20 1.7
75.54 343 iPc 38 08.10 -0.1 LPO 79.58 346 i PC 38 31.10 0.6
0.6s 56.35nm 5.7mb 0.7s 57.35nm 5.7mb
20s 0.05um 3.8Msz MNS 79.70 337 P 38 31.10 -0.1
75.63 343 iPc 38 08.40 -0.4 FRF 79.80 342 i PC 38 31.80 0.1
0.9s 55.70nm 5.6mb 0.8s 20.15nm 5.2mb
75.67 338 P 38 08.60 -0.3 CDR 79.84 342 ePc 38 32.50 0.6
75.69 342 ePc 38 08.60 -0.5 AZ I 79.90 336 P 38 33.10 0.9
75.69 273 Pd 38 07.18 -2.3 LRG 79.95 342 i PC 38 33.20 0.7
0.3s 2 . 20nm 4.6mb 0.6s 46.00nm 5.7mb
75.77 340 iPc 38 10.40 0.6 LMR 80.04 342 i PC 38 33.50 0.5
0.8s 46.00nm 5.5mb 0.8s 40.30nm 5.5mb
75.79 348 iPc 38 08.90 -0.6 SDI 80.08 336 P 38 33.30 0.0
0.7s 59.55nm 5.7mb PGF 80.32 340 i PC 38 35.00 0.3
75.91 348 iPc 38 09.60 -0.6 0.7s 61.75nm 5.7mb
0.8s 25.50nm 5.3mb HR I 80.81 317 eP 38 37.40 0.0
76.12 340 ePc 38 12.00 0.3 MGR 81.15 334 P 38 39.00 0.1
76.17 341 ePc 38 12.00 0.0 EPF 81.32 346 i PC 38 40.10 0.3
76.21 348 iPc 38 11.50 -0.4 1.0s 16.00nm 5.0mb
76.30 337 ePc 38 11.20 -1.2 TDS 81.40 334 P 38 40.90 0.7
76.45 341 ePc 38 14.00 0.5 ASPA 81.64 206 iPc 38 41.90 0.4
76.58 348 iPc 38 13.80 -0.2 0.7s 30 . 90nm 5.4mb
0.6s 35.l5nm 5.6mb ECR 1 82.10 348 eP 38 45.70 1.8
76.66 345 iPc 38 14.20 -0.3 GR 1 82.17 333 P 38 44.36 0.1
0.7s 86.l5nm 5.9mb 0.8s 56.10nm 5.7mb
20s 0.08um 4.0Msz EGRA 82.23 347 eP 38 46.00 1.6
76.91 345 iPc 38 15.80 -0.1 STS 82.40 353 eP 38 45.80 0.4
76.92 345 iPc 38 15.68 -0.4 DS 1 82.45 316 eP 38 45.60 -0.2
0.6s 27.05nm 5.5mb SOI 82.97 333 P 38 47.90 -0.4
76.93 341 ePc 38 16.39 0.1 EBR 83.47 346 eP 38 52.00 1.1
77.08 340 P 38 16.80 0.0 EROO 83.48 346 eP 38 52.30 1.3
77.15 342 ePc 38 18.00 0.5 PRN I 83.68 316 eP 38 52.30 0.1
77.20 345 iPc 38 17.30 -0.2 ETOR 83.81 348 eP 38 54.20 1.4
77 .22 342 ePc 38 18.40 0.5 ESEL 84.13 344 eP 38 56.00 1.7
77.27 345 iPc 38 17.60 -0.3 GUD 84.23 349 eP 38 56.00 1.1
0.6s 24.35nm 5.4mb EPLA 85.00 351 eP 38 59.60 0.9
77.51 345 iPc 38 19.10 0.0 EVIA 86.01 348 eP 39 05.20 1.3
0.9s 24.55nm 5.2mb STK 87.97 197 eP 39 25.30 12. 3X
77.55 341 P 38 19.19 -0.4 1.0s 2.80nm
77.86 331 eP 38 20.60 -0.5 ZOBO 125.91 65 PKP 45 26.00 -0.5
77.86 346 iPc 38 21.20 0.1 LPB 126.14 65 PKP 45 29.00 2.3X
0.7s 8.80nm 4.9mb SIV 129.26 57 PKP 45 31.60 -0.5
77.87 342 P 38 22.47 1.0 SPA 144.55 180 ePKP 45 56.00 -2.9X
77.87 347 iPc 38 21.40 0.2 1.0s 22.00nm
0.6s 23.45nm 5.4mb S.D. - 0.8 on 161 of 168 obs.
77.88 345 iPc 38 21.50 0.3
0.6s 26.15nm 5.4mb AUG 06. 1991 20h 26m 29.64± 1.21s
77.89 342 iPc 38 22,60 1.1 10.613 S ± 6.7km 117.574 E ± 8.1km
77.90 342 iPc 38 22^70 1.0 DEPTH - 82.6 ± 15.2 km
0.8s 115.45nm 6.0mb 4.6mb (8 obs.)
77.96 206 iPd 38 21.40 -0.5 SOUTH OF SUMBAWA ISLAND (291)
1.3s 1 0 . 00nm 4 . 7mb
eS 46 31.50 MKS 5.68 19 i PC 27 52.50 -0.8
77.96 206 P 38 21.00 -0.9 iS 28 53.00
0.6s 16.10nm 5.2mb KUPT 5.95 86 eP 27 58.50 1.5
78.00 346 iPc 38 22,10 0.2 eS 29 05.00
0.9s 34.40nm 5.4mb MBL 10.71 169 eP 29 02.20 0.1
78.10 340 PC 38 23,40 0.9 0.4s 35.00nm 5.6mb
78.15 342 P 38 22,57 -0.3 eS 30 53.00
78.35 342 PC 38 24 90 0.9 KNA 12.03 116 eP 29 20.00 0.2
78.40 339 P 38 25 89 1.4 0.3s 6.00nm 4.9mb
78.42 338 PC 38 25 50 1.4 NANU 12.04 189 eP 29 20.00 0.1
78.44 342 P 38 23 09 -1.3 eS 31 24.00
78.45 342 P 38 25 55 0.9 MTN 13.46 101 eP 29 38.00 -0.5
78.49 338 P 38 26 10 1.3 eS 32 02.00
78.49 341 P 38 24 42 -0.3 WARB 17.70 152 eP 30 37.00 4.7X
78.55 339 P 38 25 1 0 0.1 0.4s 15.00nm 4.6mb
78.58 337 P 38 25 80 0.7 eS 33 44.00
78.66 341 PC 38 25 30 -0.2 WR2 18.65 122 eP 30 42.40 -1.4
78.67 338 P 38 26 50 0.8 0.3s 5.10nm 4.3mb
78.77 342 P 38 25 20 -1.1 iS 33 52.90

53

06d 20h

KGM 18.94 311 ePd 30 46.30 -0.7
BAL 19.91 182 eP 31 83.50 6.3X
eS 3433.10
ASPA 20.27 132 eP 31 87.40 6.4X
0.5s 15. 50nm 4 . 6mb
i 31 26.80
COOL 20.44 171 eP 31 67.80 4.3X
eS 34 41 . 00
KLB 20.88 180 eP 31 14.00 6.9X
0.3s 9.00nm 4. 6mb
eS 34 50.00
MUN 21.30 183 eP 31 22.00 10. 7X
eS 35 04.00
I PM 22.34 312 ePc 31 21.90 0.1
PS I 22.79 304 ePc 31 26.70 0.6
OlS 23.38 118 eP 31 39.00 7. IX
i 31 56.20
CHTO 34.53 328 eP 33 12.30 0.0
1.0s 2 . 25nm 4 . 0mb
KMI 38.35 338 iPd 33 46.59 1.9
KOD 44.94 296 eP 34 39.40 0.6
GBA 46.53 300 PC 34 50.80 -9.1
0.8s 11.50nm 4. 8mb
PK I 49.12 321 P 35 10.80 -0.5
DMN 49.33 321 P 35 12.20 -0.7
KKN 49.35 321 P 35 12.20 -0.8
GKN 49.90 321 P 35 16.20 -0.9
BJ 1 50.41 359 eP 35 20.00 -0.5
Z 20s 0.36um 4.4Msz
OUE 63.35 312 iPd 36 52.40 -0.4
MAIO 71.82 314 iPc 37 47.00 1.4
YAK 73.02 6 iPc 37 52.70 0.7
S . D . = 0 . 9 on 22 o f 29 obs .

AUG 06, 1991 21h 10m 04.77± 0.33s
44.102 N ± 2.3km 7.128 E ± 2.8km
DEPTH - 1 0 . 1 ± 3 . 5 km
NORTHERN ITALY (545)
ML 2.3 (GEN) . 1.9 (LOG) .

TOUF 0.12 136 Pg 10 08.41 0.4
STV 0.20 45 PC 10 09. 53 0.3
S 1012.41
MV 1 F 0.21 175 Pg 10 09.62 0.2
AUTN 0.24 116 Pg 10 10.01 0.0
Sg 1013.44
ENR 0.24 59 PC 10 10. 30 0.3
S 1013.41
AURF 0.26 146 Pg 10 10.43 0.1
Sg 1014.54
SBF 0-33 137 Pg 10 11.50 -0.1
Sg 10 15. 90
SAOF 0.33 110 Pg 10 11.64 0.0
Sg 1016.15
CALM 0.39 206 Pg 10 13.22 0.4
PZZ 0. 40 357 Pd 1013.17 0.1
S 10 18. 46

ROB 0.57 70 P 10 16.10 -0.2
S 10 23. 38
IMI 0.58 109 P 10 16.15 -0.4
S 10 23.69

FRF 0.64 213 Pg 10 17.29 -0.5
Sg 10 25.89
BHB 0.75 7 P 10 18.44 -0.9
S 10 28.00
FIN 0.78 82 P 10 19.76 -0.3
S 10 29.96
LRG 0.85 221 Pg 10 21 . 30 0.1
Sg 10 33.00
RRL 0.85 343 P 10 21.36 0.0
S 10 32 . 10
LMR 0.89 211 Pg 10 21.40 -0.4
Sg 10 33. 40
PCP 1.11 66 P 10 25. 85 0.3
S 10 39 . 65
LPG 1.42 349 Pg 10 31.70 0.8
S.D. - 0.4 on 20 of 20 obs.

AUG 06. 1991 21h 23m 02.77± 0.31s 9.548 S ± 6.9km 159.464 E ± 6.3km DEPTH - 18.4km (5 depth phoses) 5.0mb (9 obs.) 4.4Msz (2 obs.)
SOLOMON ISLANDS (193)
Fe 1 t (IV) o t Hon i or o .

HNR 0.49 76 IP 23 12.49 -9.2
iS 23 22.99

DZM
RMO

I A Y
\J M I

OlS

coo
OLP

WRA
BWA
CAN
STK

ASPA

WARB
COOL
PSI
CHG
CHTO

LZH

svw

RSO
S L KM
KKN
DMN
GKN
PMR

BALM

FBA
GBA

ORV
SBB
CLC
PLM

GSC
ZOBO
SOB1

14 . 14 153 iPc 26 25. 10 0.7
19.67 210 iPd 27 40.60 6.7X
1.2s 559 . 00nm 5 . 7mb
19.91 289 ePc 27 36.20 -0.3
eS 28 10.00
22. 05 238 eP 27 59. 00 0.6
0.8s 33.00nm 4.8mb
22 . 08 198 i PC 28 00.00 1.4
22. 25 218 i Pd 28 00.90 0.7
i 28 07.00 22km
26. 36 244 P 28 39. 30 -0.6
26.75 201 eP 28 42.50 -0.8
27 . 38 1 99 eP 2849.20 0.2
27 . 72 214 iPc 28 52 . 09 -0.1
0.7s 3 . 69nm 4. 2mb
iPcP 31 52.50
28.16 237 eP 28 53.80 -2.5
1.3s 1 4 . 00nm 4 . 6mb
Z 21 s 0 . 90um 4 . 3Msz
e 32 09 .70
35 .20 238 eP 29 58.00 -0.1
41.46 234 eP 30 49.50 -0.8
61 .52 278 iP 33 21 . 00 -0.4
65 .99 295 eP 33 51 .00 0.3
65.99 295 eP 33 50.90 0.2
1.7s 14.48nm 4. 9mt>

pP 33 54.80 13km
69. 24 314 eP 3411.00 0.0
1.5s 23 . 00nm 5 . 1mb
Z 20s 0 . 25um 4 . 5Msz
78. 74 20 P 35 05.90 0.4
0.7s 21 . 5 1 nm 5. 3mb
79 . 32 22 P 35 10.60 1.7
pftTft O "I O 1 <^ 1 *? Q ft 1 ft O 0 . J> W /O" J D 1 / . 9 v 1 . W
80.69 390 P 35 17 .20 0.3
80.79 300 P 35 19.00 1.5
81 .30 300 P 35 20.90 0.9
81.40 22 P 35 19.00 -0.6
0.7s 13. 37nm 5 . 1mb
pP 35 24.10 16km
83. 74 25 P 35 31 .00 -0.9

pP 35 37.20 20km
83.93 20 P 35 30.80 -1.8
84 .58 285 Pd 35 38.90 2.1
0.8s 8 . 40nm 5. 0mb
87 .68 49 P 35 51 .00 -0.7
89. 44 55 eP 36 02.00 1.7
89.85 54 eP 36 02.00 -0.2
89 . 95 56 P 36 03.50 0.6

pP 36 10.50 22km
90.38 54 eP 36 04.00 -0.7
126.37 118 PKP 42 07.00 -0.9
152.47 132 ePKP 42 52.80 -0.5
e 42 59.70
e 43 05.70
S.D. -1.0 on 34 of 35 obs .

? AUG 06. 1991 23h 15m 54.79± 2.48s 3.710 N ±16. 5km 95.451 E ± 1 8 . 4 km DEPTH - 59. 8 ± 27 . 1 km
4
OFF

PSI
IPM
CHG
CHTO

GBA

HYB
PKI

DMN
GUN
KKN
GKN
WR 2

ZST

KHC
GRF
NB2

LPG

. 3mb (6 obs .)
W COAST OF NORTHERN SUMAT ER A (705)

3.61 106 ePd 16 50.50 1.0
5.63 81 ePc 17 16.40 -1.5
15.39 13 eP 19 33.00 3. 1X
15. 39 13 eP 19 31 .00 1.1
1.0s 4 . 50nm 3 . 6mb
20.32 300 Pd 20 28.20 -0.4
0.8s 6.70nm 4. 0mb
21 .45 311 ePd 20 40.30 0.2
25 .59 339 P 21 20.96 0.4
0.6s 13.00nm 4.6mb
25. 74 338 P 21 22.48 0.7
25. 74 340 P 21 21 .40 -0.5
25.84 339 P 21 21 .68 -1.0
26.27 338 P 21 25.84 -0.7
44.87 123 eP 23 25.20 -40. 2X
0.9s 4 . 20nm
79. 48 318 eP 27 57.40 1.0
e 45 17.80
81.89 319 eP 28 05.50 -3.7X
83.45 319 ePd 28 19.30 2.1X
83.98 331 P 28 20.00 0.3
0.9s 1 . 70nm 4 . 1 mb
86.47 315 eP 28 31.10 -1.6
0.8s 8 . 05nm 4 . 9mb

LPL 86.48 315 eP 28 33.70 1.0
0.6s 1 . 80nm 4 . 4mb
S.D. -1.1 on 14of 18 obs .

AUG 06, 1991 23h 21m 33.73± 1.40s 8.773 N ± 4.8km 126.412 E ± 7.0km DEPTH - 64 . 7 ± 12.9 km
5. 1mb (23 obs .)
MINDANAO, PHILIPPINE ISLANDS (259)

DAV 1.87 206 eP 22 05.00 1.0
OCP 7.83 319 eP 23 20.00 -7.3X
BAG 9.49 324 eP 23 48.50 -1.9
MTN 21.98 168 iPc 26 24.60 0.7
SSE . 22.74 348 P 26 29 . 0C -2.2
1.0s 25 . 00nm 4 . 6mb
Z 16s 1 . 80 urn 4 . 6MszX
E 12s 0.90um
eS 30 34.00
sS 30 44. 09
eSS 31 06.00
KNA 24.48 175 i PC 26 47.80 -0.4
0.4s 34 . 00nm 5 . 2mb
LOE 25.50 292 eP 26 58.50 0.6
IPM 25.55 262 ePd 26 59.80 1.4
0.7s 51 . 80nm 5 . 1mb
NST 26.56 288 i Pd 27 09.50 1.8
KHT 27.86 285 eP 27 21.30 1.8
BDT 27.97 290 eP 27 21.50 1.1
0.8s' 9 . 20nm 4 . 5mb
CHG 28.44 293 ePc 27 25.00 0.3
0.7s 15.41nm 4. 7mb
CHTO 28.44 293 eP 27 24.80 0.1
0.8s 17. 75nm 4 . 7mb

PcP 30 35.70
CHJJ 29.47 21 P 27 32.50 -1.3
MTMJ 29.56 19 P 27 33.80 -0.9
WR2 29.59 165 iPc 27 32.50 -2.5
0.6s 12. 00nm 4 . 8mb
i 30 38.00
MAT 29.65 19 iPc 27 34.40 -1.0
0 . 7-s 22 . 60nm 5 . 0mb
OlS 31.90 156 iPc 27 53.90 -1.4
0.8s 36 . 00nm 5 . 2mb
i 28 07.00
i 30 45.00
BJ I 32.45 345 eP 27 59.00 -0.9
1.0s 15. 00nm 4 . 8mb
Z 14s 1 . 47um 4 .8MszX
E 13s 0.90um
ASPA 33.06 167 i PC 28 03.60 -1.8
0.4s 1 3 . 00nm 5 . 1mb
e 30 46.80
eS 33 14. 40
OFUJ 33.14 22 eP 28 07.10 1.2
LZH 34.09 326 eP 28 11.00 -3.3X
Z 15s 0.87um 4.6MszX
E 15s 0.71um
eS 33 00.00
WARB 34.75 180 eP 28 20.10 0.2
0.3s 29 . 00nm 5 . 8mb
HOOJ 36.62 21 iP+ 28 38.30 2-8
KUSJ 37.76 22 i P+ 28 47.40 2.3
ASAJ 37.94 19 i P+ 28 48.60 2.0
FORR 39.43 178 eP 28 58.50 -0.6
0.3s 67.00nm 6.0mb
COOL 39.75 187 eP 29 01.50 -0.4
BAL 40.25 193 eP 29 06.00 0.1
KLB 40.98 191 eP 29 12.00 0.1
0.3s 6 . 00nm 4 . 9mb
MUN 41.68 193 eP 29 17.50 -0.1
NWAO 42.38 191 eP 29 23.50 0.1
GUN 42.66 302 P 29 27.00 0.8
0 . 7s 255 . 00nm 6. 1mb X
PKI 42.95 301 P 29 28.82 0.2
0.6s 52.00nm 5.5mb
STK 42.95 161 iPc 29 27.30 -0.8
0.5s 9.1 0nm 4 . 8mb
KKN 43.13 302 P 29 30.18 0.3
DMN 43.22 301 P 29 31.04 0.4
GKN 43.73 302 P 29 34.82 0.1
0.6s 66 . 00nm 5 . 6mb
RKG 44.02 191 eP 29 38.00 1.4
HYB 47.29 286 eP 30 03.00 0.0
1.0s 50 . 00nm 5 . 4mb
BWA 47.76 155 eP 30 07.30 0.9
BFD 48.14 163 ePd 29 50.60 -18. 7X

06<J 23h

54

GBA 48.22 280 PC 30 09.60 -0.6
0.5s 9.70nm 5. 0mb
KOO 48.26 276 «P 30 11.20 0.3
CAN 48.77 155 «P 30 16.10 1.9
DZM 49.86 129 i Pd 30 22.30 -0.1
ND 1 50.22 300 *P 30 23.50 -1.9
0.4s 100. 00nm 6 . 2mb X
POO 51.83 287 i Pd 30 35.30 -2.5
YAK 53.20 2 iPc 30 46.80 -0.4
GAR 58.36 311 «P 31 23.40 -1.5
CUE 59.29 300 eP 31 31.10 -0.5
LTZ 66 . 15 145 P 32 16 . 90 0.3
KHZ 66.66 144 P 32 18.80 -1.0

KEV 85. ,08 346 iP 34 03.80 0.5
0.7s 1 2 . 00nm 5 . 1mb
INK 85.162 22 eP 34 07.00 0.9
SOD 85.71 338 iP 34 06.30 -0.3
MBC 87.13 13 iPc 34 14.70 1.3
0.7s 22 . 00nm 5 . 4mb
NUR 88.17 331 IP 34 18.00 -0.5
HFS 93.43 332 «P 34 41.46 -1.7
0.4s 3 . 50nm 5 . 1 mb
Z 17s 0.1 Sum 4 . SMszX
LR 1537.00
NB2 94.16 334 P 34 44.90 -1.6
0.7s 4.50nm 5.0mb
GRF 99.09 323 e(P) 35 09.50 0.4
TUL 120.39 39 «(Pdif36 37.10 -7.1X
KIC 129.04 286 PKP 40 36.90 -0.1
TIC 129.22 286 PKP 40 37.20 -0.2
LIC 129.35 285 PKP 40 37.40 -0.2
UPA 148.71 56 iPKPc 41 16.40 4. IX
LNV 150.05 149 ePKP 41 19.00 5.2X
CHCH 150.44 150 ePKP 41 20.60 6. IX
TACH 150.52 150 iPKP 41 20.60 6 . 0X
PCH 150.76 150 ePKP 41 21.50 6.5X
PEL 151.06 149 iPKPc 41 23.10 7.7X
0.7s 4 1 . 1 0nm
ANCC 153.78 63 ePKP 41 27.95 8. IX
HOOC 154.00 63 ePKP 41 29.38 8 . 9X
LPB 163.89 120 PKP 41 31.00 -0.8
e 42 26.00
ZOBO 163.98 119 PKP 41 34.00 1.9
SIV 169.76 135 PKP 41 36.46 0.7
i 41 51 . 30
S.O. - 1.2 on 64 of 76 obs.

? AUG 06, 1991 23h 27m 40.80± 1.74s 29.817 N ±20. 1km 131.585 E ±16. 2km DEPTH - 33.0km (normal)
4 . 2mb (6 abs .)
RYUKYU ISLANDS REGION (239)

KAGJ 1.49 336 i P+ 28 03.60 -2.0
S 28 19 . 90
TSRJ 6.80 32 P 29 21.90 1.0
eS 29 31 .50
SSE 9.07 281 P 29 53.00 0.7
1.0s 12.00nm 5.0mb
BJ I 16.22 313 eP 31 29.50 1.8
1.2s 12. 00nm 3 . 9mb
LZH 24,06 292 eP 32 58.50 4 . 4X
1.8s 26 . 00nm 4 . 7mb
CHTO 31.60 257 eP 34 02.40 -0.4
1.0s 3 . 00nm 4 . 1mb
MAIO 59.50 297 eP 37 43.00 -0.2
HFS 77.01 333 eP 39 31.50 -0.2
0.4s 1 . 1 0nm 4 . 2mb
NB2 77.39 335 P 39 33.00 -0.8
0.7s 1 . 20nm 4 . 0mb
S.D. » 1.4 on 8 of 9 obs.

tt AUG 06, 1991 23h 32m 45.23s
58 . 125 N 142. 502 W

DEPTH * 10.0km (ge o ph y s i c i s t)
GULF OF fLASKA (15)
<AE^C>. ML 2. 6 (AEIC) .

[
YKU 2.03 44 eP 33 15.61 -4.2
PNL 2.23 45 eP 33 17.65 -5.2
MID 2^.39 305 eP 33 20.15 -4.8
TGL 2i.64 357 eP 33 23.40 -5.4
eS 33 52. 14
CTGM 2.91 11 eP 33 27.70 -4.9

RAIU *? ' Q^ ? » P "^ "^ 9 7 fi fi *^ fl DM UM 4 y £ £t?r *J «J £ / . w w -J . <o
eS 33 59. 15
MTU 3.25 387 eP 33 31.62 -5.6

LTI 3.36 307 IP 33 33.12 -5.7
GLB 3.39 349 iP 33 33.77 -5.6
eS 3411.30
KNIM 3.49 312 eP 33 34.76 -6.0
*S 3413.24
VLZ 3.59 329 eP 33 36.09 -5.9
VZW 3.59 327 eP 33 36.43 -5.7
GLI 3.62 322 eP 33 36.26 -6.3
KLU 3.79 334 eP 33 39.38 -5.7
14 obs. associated

? AUG 07, 1991 01h 30m 43 . 08± 0.78s
81.439 N ±13. 2km 8.218 W ± 9.9km
DEPTH = 10.0km (geaphy s i c i s t)
4.1mb (5 obs .)
NORTH OF SVALBARD (641)

DAG 5.09 208 eP 32 05 . fee 3.9X
KEV 14.19 125 eP 34 33 . Be 27 . 2X
GDH 15.98 247 ePd 34 29 00 -0.1
1.2s 62 . 50nm
e 3714.
SOD 16.41 128 i P 3434.
MBC 18 . 73 31 6 eP 3519.
NB2 21 . 18 153 P 35 30 .
0.9s 1.1 0nm
HFS 22.25 150 eP 35 48.
0.5s 1 . 70nm
Z 17s 0 . 13um

I 4 . 6mb
30
30 0.3
30 15 . 7X
30 e . 6
3 . 2mb
30 7 . 0X
3. 8mb
3 . 4MszX
LR 41 29.00
NUR 22.86 136 eP 35 46.00 -1.0
OBN 29.52 125 eP 36 54.60 4.9X
YAK 34.98 33 iPc 37 36.
e 38 59.
ANMO 56.90 284 eP 40 30.
1.0s 2 . 25nm
ALO 56.90 284 eP 40 37.
1.0s 3 . 00nm
S.D. -0.7 on 6of 1

« AUG 07 , 1 991 01 h 41m 34 .
4 . 896 S ±1 1 . 1 km 133. 936
DEPTH - 33.0km (normal)
4 . 4mb (1 obs .)
WEST IRIAN REGION

30 0.1
30
30 0.0
4 . 2mb
30 6 . 7X
4 . 3mb
2 obs .

3B± 1 . 05s
E ±1 0 . 3 km

(196)

AAI 5.85 282 eP 43 01. fta - ft 1
eS 44 03.
JAY 7.16 71 ePd 43 19.
MTN 8 . 37 1 99 eP 43 36 .
KNA 1 1 .92 205 eP 44 24 .
0.3s 30.00nm
eS 47 31 .
WR2 1 4 . 97 1 78 i Pd 4504.
0.3s 30 . 60nm
eS 47 43.
CIS 16.51 161 eP 45 26.
iS 4819.
ASPA 18.66 180 eP 4551.
0.5s 1 4 . 1 0nm
Z 21s 0 . 20um
eS 4911.
CTAO 19.28 143 eP 46 03.
eS 49 27.

50
20 -0.3
50 0.1
80 -1.1
5 . 9mb X
30
20 -1.2
5 . 1mb X
20
00 0.7
00
80 -0.2
4 . 4mb
3 . 4MszX
20
00 3 . 6X
00
WAR8 22.29 198 eP 46 32-60 2.0

ZOBO 149.69 134 PKP 01 41. [20 22. 0X
e 09 48.
S.D. -1.2 on 8of 1

% AUG 07, 1991 01h 44m 15.
40 . 1 36 N ± 8 . 9km 27 . 468
DEPTH - 10.0km (geophysi
TURKEY

EDC 0.37 55 iPg 44 23.
eSg 44 29.
EZN 0.93 251 «Pg 44 33.
eSg 44 46.
OST 1 . 04 120 i Pn 44 35 .
CTT 1 .25 36 iPn 44 38.
YLV 1 .52 73 ePn 44 42.
I SK 1 . 53 52 «Pn 44 43 .
IZ I 1 .55 82 ePn 44 42.
S.D. - 0.4 on 7 of

» AUG 07, 1991 01h 49m 46.
3.208 N ±12. 7km 97.204

00
0 abs .

24± 0. 76s
E ± 6 . 6 km
cist)
(366)

00 0.2
00
00 0.0
50

ee 0.1
10 -0.3
60 0.1
60 0.5
40 -0.6
7 obs .
1
90± 1 . 93s
E ±13. 7km

DEPTH « 59. 0 ± 17 .6 km
4 8mb (14 obs.) 4.0Msz (1 obs.)
NORTHERN SUMATERA (706)

PS I
I PM

KGM

BDT
CHG

CHTO

KKM
KOD
GBA

HYB

PK I
GUN
DMN
KKN
GKN
LZH

OUE
BJ I

WR2

ASPA

MAIO
PMG
YAK
OBN

VR I
MLR
f\U D u n K
SPC

KRA

SOD
SRO
ZST
VKA
KSP
VBY

LJU

PRU
VOY

BRG

KHC

CLL

HFS

WT T A ¥Y 1 1 M

MOX
GRF

NB2

SBF

LPG

LPL

FRF
LMR

1.79 106 «Pc 50 15.50 -0.4
4.05 70 «Pd 50 48.00 0.2
eS 5 1 50 . 80
6 . 22 101 «Pd 51 1 9 . 20 0.9
« 51 42. 30
« 52 22.70
- /C\ R"T Ck *> OCl «\b^ JO V £ . ZV
1 4 . 06 7 eP 5311.60 7 . 0X
15.60 6 P 53 25. 60 0.9
eS 58 05 . 00
. 1 5 . 60 6 eP 53 25 . 96 1.2
0.8s 11. 53nm 4 . 1mb
19.16 81 «Pc 53 56.00 -12. 6X
20.80 291 «P 54 23.50 -2-5
22.09 299 Pd 54 40.30 1.7
1.1s 41 . 20nm 4 . 8mb
23. 1 1 309 ePd 54 51 .00 2.3
1.0s 50 . 00nm 4 . 9mb
« 54 54.90
26. 72 336 P 55 22. 16 -0.9
26 . 84 337 P 55 22 . 38 -1.8
26.88 336 P 55 24.24 -0.2
26.97 336 P 55 22.96 -2.3
27 . 42 335 P 55 27 . 36 -1.9
33.29 10 eP 56 53.00 31 . 8X
1.2s 1 9 . 00nm
Z 18s 0.30um 4.0MSZ
E 13s 0.35um
39.23 316 eP 57 35.70 24. IX
40.49 23 eP 58 00.00 38 . 5X
1.0s 1 3 . 00nm
43.14 124 i Pd 57 42.50 -1.0
0.4s 9 . 1 0nm 4 . 9mb
44.62 129 eP 57 54.50 -1.0
1.6s 9 . 40nm 4 . 3mb
47.87 318 eP 58 31 .00 9.9X
51 .32 105 eP 58 54.00 6. 3X
63.50 16 iPd 00 46.70 33. 8X
70.90 328 eP 00 59.00 -0.6
e 01 26.00
74.16317 iPc 01 18.20 -0.8
74.62 316 eP 01 20.00 -1.9
77 .66 311 «P 01 37. 60 -1.3

79.06 319 eP 01 46.80 0.2
i 02 15.00
79.38 320 «Pd 02 16.50 28. 5X
0.8s 1 9 . 00nm
79.64 338 iP 01 48.80 -0.4
80.17 318 eP 02 20.00 27. 7X
81 .02 318 «P 01 56 . 60 -0.2
81.55 318 «P 02 27.50 27 . 9X
81.78 321 ePc 02 19.50 18. 8X

82.08 315 «(P) 02 03.00 0.6
e 02 30.60
82. 61 316 eP 02 06 . 10 0.9
e 02 34.00
82.83 320 P 02 35.20 29. 0X
83.06 316 eP 02 07.60 0.0
e 02 38.40
83.27 321 IP 02 37.80 29. 4X
1.0s 14. 00nm
83.41 319 P 02 37.50 28. 2X
1.0s 3 . 50nm
83.88 321 «P 02 40.00 28. 5X
1.2s 14. 00nm

84.00 330 «P 02 11.50 -0.4
0.6s 5 . 20nm 4 . 7mb
84.65 317 iPc 02 15.30 -0.4
1.0s 12. 50nm 4 . 9mb
i 02 43.80
84.74 320 eP 02 45.50 29. 7X
84.97 319 ePKP 02 18.00 1.0
e 02 46.80
85.27 331 P 02 16. 80 -1.5
0.7s 1 . 40nm 4 . 2mb
87. 63 314 eP 02 30. 80 0.5
0.6s 5.40nm 4. 9mb
88.05 315 eP 02 33.20 0.6
0.6s 2.70nm 4. 6mb
88.07 315 eP 02 33.30 0.7
0.7s 4 . 40nm 4. 8mb
88.22 313 eP 02 33.90 0.9
88.33 313 eP 02 34.40 0.9

55

07d 62h

LRG 88.43 313 eP 02 35.00 1.0
LBF 89.88 317 eP 02 41.50 0.6
1.5s 1 5 . 65nm 5 . 1mb
LOR 89.94 317 eP 02 41.90 0.8
1.5s 20 . 90nm 5 . 2mb
SMF 90.00 317 eP 02 42.00 0.6
0.8s 2.70nm 4. 6mb
AVF 90.33 317 eP 02 43.60 0.7
BGF 90.69 317 eP 02 45.80 1.2
MAF 90.92 316 eP 02 46.80 1.2
FLN 92.68 319 eP 02 54.60 1.0
S.D. - 1.2 on 42 of 59 obs .

AUG 07, 1991 03h 14m 26.91± 0.83s
45.205 N ± 6.8km 14.687 E ± 7.1km DEPTH - 1 8 . 5 ± 6 . 1 km
YUGOSLAVIA , (383)
ML 3.1 (VIE), 2.6 (2AG). MD 2.9 (TRI).

TRI 0.82 388 ePg 14 42.40 0.0
i Sg 1 4 54 . 50
ZAG 1.10 56 ePg 14 47 . 00 0.0
i Sg 15 82 . 00
PTJ 1.13 52 ePgc 14 46.80 -0.9
i Sg 1 5 8 1 . 60
VV 1 1.77 297 P 1 4 57 . 80 0.9
eSn 15 20 . 20
FVI 1 . 92 31 7 P 15 00 . 90 1.9
eSn 15 24.00

KBA 2.09 334 iPgd 15 02.40 0.7
i Sg 15 30 . 20
ARV 2.12217P 15 03. 20 1.3
CT 1 2.29 293 P 15 04 .50 0.0
SF 1 2 . 40 239 P 15 05 . 90 0.0
PGD 2 .50 239 P 15 07 . 60 0.0
CRE 2 .52 232 P 15 88 . 00 0.3
ASS 2 .59 215 P 15 09 . 20 0.6
WTTA 2.95 315 eP 15 16.30 2.4

iPg 15 20 . 30
i Sg 17 00 . 90
OGA 3.04 384 eP 15 17.50 2.3
i 15 23.70
BDI 3.14 250 P 15 16 . 70 0.3
P I 1 3.33 245 P 1 5 1 9 . 00 -0.1
ZST 3.42 28 eP 16 12.40 52. 0X
KHC 4.00 349 Pn 15 30.50 1.9
e 16 16 .00
CK 1 4.63 263 P 15 38 . 00 0.4
PRU 4.79 359 ePn 15 38.70 -1.1
e 16 32.20
e 16 46 . 30

eSg 1656.50
GRF 5.07 334 ePg 16 03.40 19. 7X
e(Sn) 16 40 . 70
eSg 17 1 0 . 60
LPG 5.60 276 Pn 15 52.60 1.0
Sn 16 50 . 80
LPL 5.61 276 Pn 15 53 .00 1.3
Sn 16 51 . 30
BSF 6.05 299 Pn 15 55.60 -2.1
LBF 7.66 287 Pn 16 18.00 -2.2
SMF 7.70 285 Pn 16 18.60 -2.2
LOR 7.79 289 Pn 16 19.10 -2.9X
S.D. « 1.4 on 24 of 27 obs.

AUG 07, 1991 04h 19m 34.22± 0.89s 43.085 N ± 7.1km 18.980 E ± 6.0km DEPTH - 10.0km (geo ph y s i c i s t)
YUGOSLAVIA (383)
ML 2.2 (TTG) .

NKY 0.27 177 i Pgc 19 40.79 0.8
i So, 1 9 45 . 00
BRY 0.37 240 iPgd 19 41.80 -0.1
i So, 19 47 . 55
PLE 0.39 51 iPgd 19 42.34 0.1
i So, 1 9 48 . 50
TTG 0.69 162 iPgc 19 47.35 -0.5
i So, 19 57 . 90
IVA 0.71 107 iPgd 19 48.27 0.0
i So, 19 59 . 20
HCY 0.73 209 iPgc 19 48.55 0.0
i So, 1959.12
BDV 0.81 188 iPgd 19 49.65 -0.3
iSg 20 62 . 15
PVY 0.88 124 iPgc 19 51.05 -0.2

iSo, 20 04.85
HVAR 1.86 274 ePn 20 09.60 3 . 3X
S.D. - 0.4 on 8 of 9 obs.

% AUG 07, 1991 04h 27m 24.88± 2.21s
40.334 N ±20. 0km 13.780 E ±21. 1km
DEPTH - 10.0km (ge ophy s i c i s t)
TYRRHENIAN SEA (389)

SCO 1.19 79 P 27 46.50 -0.5
SDI 1.37 IP 2749.00 -1.1
eSn 28 08.90
MGR 1.37 98 P 27 50. 40 0.4
eSn 28 10.10
MMN 1.75164P 2757.66 2.1
CS I 2 . 80 1 05 P 27 59 . 90 0.7
CZ 1 2 . 13 121 P 27 59. 10 -1.8
MNS 2.21 338 P 28 03.00 0.8
ROI 2.27 109 P 28 02.40 -0.7
S.D. -1.5 on 8of 8obs.

AUG 07, 1991 04h 54m 49.83± 0.38s
4.555 S ± 5.8km 134.016 E ± 7.5km DEPTH = 23.5km (7 depth phoses) 5.1mb (19 obs.) 4.8Msz (3 obs.)
WEST 1 R 1 AN REG 1 ON (196)
CENTROID, MOMENT TENSOR (HRV)
Doto Used: GDSN
L.P.B.: 13S, 21C
Centroid Locotion:
Origin Time 04:54:53.9 0.9
Lot 4.63S 0.09 Lon 133. 65E 0.11

Dep 26.4 8.2 Ho 1 f-du r o t i on 1.5
Moment Tensor; Scole 10»»16 Nm
Mrr 1.87 0.67 Mtt 3.80 0.81
Mff- 5.66 1.11 Mrt 0.22 1.38
Mrf- 4.70 2.06 Mtf- 6.49 0.60
P r i nc i po I Axes:
T Vol- 10.36 Pig-19 Azm-294
N -2.24 59 170
P -8.12 24 33

Best Double Co up 1 e : Mo-9 . 2 1 0 1 6 NP1:Strike- 73 Dip-59 Slip- -4
NP2: 164 87 -149

AAI 5.87 278 eP 56 42.00 24. 4X
eS 57 20.50
JAY 6.98 73 ePc 56 31.40 -1.9
0.8s 67.70nm 5.7mb
eS 57 32.00
MNI 10.93 303 ePc 57 28.00 0.0
KNA 12.26 205 iPd 57 43.50 -2.5
0.5s 233.00nm 6.6mb X
eS 59 57.00
PMG 13.90 111 eP 58 07.00 -0.8
1.0s 1 1 0 . 00nm 5. 6rnb
WR2 15.30 179 iPc 58 23.50 -2.7
0.7s 66.60nm 5.0mb
eS 01 08.80
OIS 16.81 162 eP 58 43.00 -2.4
i 58 48.00
eS 01 48.00
i 03 48.00
TSM 18.37 298 eP 59 06.00 1.2
ASPA 19.00 180 eP 59 11.00 -1.6
0.7s 1 87 . 90nm 5 . 4mb
Z 22s 2.30um 4.8MszX
i S 0231.70
CTAO 19.50 143 iPd 59 19.70 1.1
i pP 59 27.00 29km
esP 59 34.00
eS 02 59.00
GUA 20.98 31 eP 59 34.50 0.5
1.2s 262 . 50nm 5 .5mb
PJG 21.00 31 eP 59 34.80 0.6
TRT 21.49 261 ePd 59 32.90 -6.2X
MBL 21.50 219 eP 59 40.10 0.9
0.5s 22 . 00nm 4 . 8mb
WARB 22.64 197 eP 59 51.00 0.4
0.6s 43.00nm 5.1mb
e 00 03.00 48kmX
OCP 22.98 326 eP 59 52.00 -1.9
OLP 23.99 157 eP 00 05.00 1.4
i 00 06 . 1 0 4kmX
NANU 25.31 223 eP 00 17.80 1.4
0.6s 68 . 00nm 5 . 5mb
RMO 25.97 149 eP 00 30.00 7.4X

e 00 37. 10 25km
e 08 49.00
FORR 26.74 191 eP 00 31.00 1.4
0.4s 9.00nm 4. 8mb
STK 28.10 166 iPc 00 42.20 0.3
1.1s 5 . 20nm 4 . 2mb
COOL 28.86 203 eP 00 49.00 0.1
BAL 30.62 210 eP 01 05.30 0.7
KLB 30.93 208 eP 01 08.00 0.8
MUN 31.99 209 eP 01 16.00 -0.5
NWAO 32.29 207 eP 01 19.00 -0.1
BFD 33.39 168 eP 01 11.00 -17. 7X
RKG 33.77 206 eP 01 34.00 1.9
TOO 34.50 164 iPd 01 40.70 2.4X
i 0147.50 23km
PSI 35.80 281 ePd 01 50.80 1.2
DZM 35.91 122 iPc 01 50.90 0.3
SSE 37.51 342 PC 02 16.50 6.8X
0.7s 10. 00nm 4 . 7mb
Z 20s 1 . 70um 4 . 8Msz
N 16s 0.50um

E 16s 1 . 00um

pP 02 17.50 24km
ePP 03 33.00
eS 07 42.00
esS 07 58.00
NST 39.10 302 eP 02 24.50 7.2X
KHT 40.02 299 eP 02 27.00 2.0
BDT 40.80 303 eP 02 22.50 -8.8X
CHG 41.62 305 eP 02 41.40 3.3X
1.0s 20 . 25nm 4 . 8mb
CHTO 41.62 305 eP 02 41.00 2.9X
1.6s 57 . 74nm 5 . 1 mb
KM! 42.35 316 eP 02 43.50 -0.8
BJ 1 47.31 341 eP 03 22.00 -1.5
1.5s 35 . 00nm 5 . 2mb
Z 20s 0 . 90um 4 . 7Msz
eS 10 12.00
esS 10 24.00
LZH 49.32 328 eP 03 37.50 -1.9
2.0s 88 . 00nm 5 . 4mb
Z 24s 0.63um 4.5MszX
N 20s 0.99um

pP 03 49.50 43kmX
sP 03 56.50
PP 05 32.00
eS 10 42.00
sS 10 55.00
SHL 50.66 308 eP 03 47.50 -2.4
GUN 56.49 308 P 04 35.26 2.1
PKI 56.71 307 P 04 32.30 -2.4
KKN 56.91 307 P 64 34.20 -1.8
DMN 56.97 307 P 04 35.12 -1.4
GKN 57.52 307 P 04 38.34 -1.8
HYB 58.93 293 eP 04 5B.50 8.5X
GBA 58.97 289 P 04 53.00 2.7X
0.6s 3 . 00nm 4 . 6mb
IRK 61.98 340 eP 05 11.80 1.5
e 05 27.00 56kmX
YAK 66.46 358 eP 05 41.00 1.8
i 05 53 . 00 41 kmX
e 0851. 00
e 14 50.00
OUE 72.73 303 eP 06 23.00 4.4X
MAIO 80.30 308 eP 07 05.00 4. IX
SPA 85.48 180 iPd 07 27.60 0.7
1.0s 20.00nm 5.3mb
SLKM 86.98 29 eP 07 34.40 0.2

pP 0741.00 21 km
FBA 89.10 25 e(P) 07 44.60 0.3
0.9s 1 . 30nm 4 . 2mb
pP 07 51 .80 20km
BALM 90.87 29 eP 07 54.60 1.9

pP 08 02.00 23km
INK 95.12 22 eP 08 17.00 5. IX
NVL 95.83 196 P 08 25.00 9.7X
MBC 98.33 13 eP 08 33.00 6.6X
1.0s 5 . 00nm 5 . 0mb
NNA 145.19 118 ePKP 14 29.50 1.2
1.3s 40 . 38nm
UPA 146.41 81 ePKP 14 21.50 -8.7X
LPB 149.72 134 PKP 14 42.20 6.3X
ZOBO 149.87 134 PKP 14 37.20 0.8
1.0s 23 . 00nm
Z 20s 0.20um 4.9MSZ
LR 06 34.00
CCH 150.48 138 PKP 14 44.50 7.6X

05h

56

SIV 154.71 144 (PKP) 14 44.00 1.4
i 1 5 07 . 00
S . D . = 1.5 on 45 of 65 obs .

? AUG 07, 1991 05h 1 6m 28.79± 2.76s 33.703 N ±19. 0km 141.402 E ±25. 5km DEPTH - 56 . 4 ± 22 . 5 km
4 . 4mb (Sobs.)
OFF EAST COAST OF HONSHU. JAPAN (229)

MAT 3.86 31 8 eP 1 7 27 . 00 0.0
eS 18 1 4 . 00
CHTO 40.57 259 eP 24 04.80 0.3
& . 9s 1 . 92nm 3 . 9mb
GUN 47.156 279 P 25 02.20 1.1
PKI 48.07 278 P 25 05.10 0.0
KKN 48.10 279 P 25 05.20 0.1
DMN 48.131 279 P 25 05.20 -1.6
GKN 48.55 279 P 25 08.50 0.0
WR2 53.77 188 i PC 25 46.30 -1.4
0.5s 3 . 50nm 4 . 6mb
ASPA 57.50 188 eP 26 15.80 1.3
1.0s 5 . 40nm 4 . 6mb
GBA 61.00 267 Pd 26 39.00 0.1
0.8s 5.00nm 4. 7mb
NB2 77.25 338 P 28 18.30 0.1
0.7s 1 . 00nm 3 . 9mb
S . D . -1.0 on 11 of 11 obs .

AUG 07. 1991 05h 40m 22.74± 0.22s
17.374 S ± 7.1km 174.959 W ± 6.1km DEPTH - 254.2km (10 depth phoses)
5 . 2mb (32 obs .)
TONGA ISLANDS (173)
CENTROID, MOMENT TENSOR (HRV)
Dota Used: GDSN
L.P.B. : 9S, 15C
Centroid Location:
Origin Time 05:40:32.5 1.9
Lot 16.97S 0.14 Lon 174. 95W 0.12

Dep 274.1 4.0 Half-duration 1.7
Moment Tensor; Scale 10*»16 Nm
Mrr 5.55 0.68 Mtt 0.32 1.30
Mff- 5.87 1.33 Mrt- 0.79 1.14
MM 7.88 0.98 Mtf- 5.33 0.97
Principal Axes:
T Vol= 11.57 Pig-22 Azm-113
N -0.96 27 11
P -10.61 54 237

Best Double Coup 1 e : Mo- 1 . 1 1 0* * 1 7
NP1 : S t r i ke-242 Dip-33 Slip- -35
NP2: 2 72 -118

SVA 6.32 262 eP 41 59.80 4.3X
eS 43 19.80
RAR 14.83 107 P 43 42.00 -0.1
DZM 18.12 252 iPc 44 17.70 -1.0
HBZ 21.00 195 P 44 51.40 4.1X
PGZ 24.37 196 P 45 20.00 0.6
THZ 26.44 201 P 45 39.10 0.8
KHZ 26.82 199 P 45 42.10 0.4
LTZ 27.56 201 P 45 46.30 -2.1
COO 32.89 240 iPd 46 35.40 0.2
0.8s 204.00nm 5.8mb
RMO 34.76 248 i Pd 46 57.30 6 . 2X
0.6s 57 . 00nm 5 . 3mb
CNB 36.37 234 i Pd 47 05.60 1.0
0.8s 59.00nm 5.2mb
CAN 36.65 234 i Pd 47 07.30 0.4
CTAO 36.78 260 iPd 47 07.40 -0.7
PMG 37.64 277 eP 47 15.60 0.3

0.9s 50.42nm 5.0mb
CMS 38.15 241 iPd 47 19.80 0.4
0.7s 1 59 . 00nm 5 . 6mb
LAT 38.63 281 e(P) 47 24.60 1.2
OLP 38.80 249 eP 47 24.00 -0.7
0.5s 1 1 0 . 00nm 5 . 6mb
TOO 40.07 232 i PC 47 36.00 0.9
0 . Bs 72 . 00nm 5 . 1mb
MOG 40.24 283 e(P) 47 38.40 1.7
STK 41.77 241 i Pd 47 49.80 0.7
0.6s 6 1 . 90nm 5 . 2mb
OIS 42.98 258 i Pd 47 57.40 -1.6
; e 51 29.00
WR2 47:. 94 259 i PC 48 36.50 -1.5
0.5s 120.90nm 5.5mb
ASPA 48.10 254 iPd 48 38.30 -0.9

FORR

KNA

WARB

COOL

MBL

KLB

NWAO

BAL

MUN

NANU

SPA

SON
MWC
BAR
SBB
PEC
I SA

CMB

CLC
GSC
GLA
KDC
TNP

SVW

PMR

TTA

TOA
PNT

KGM
NEW

ALO

ANMO

LRM
FBA

BW06

BJ 1

PS 1

SES
1 NX
KMI

BDT

CHG

CHTO

NVL
MBC
SOD
NUR

0.7s 840.30nm 6.2mb NB2 136.16 356 PKP 59 14.00
eS 55 15. 00 0.9s 2.1 0nm
53.17 244 iPd 49 16.90 -1.1 WIT 144.61 358 ePKP 59 30.50
0.4s 41.00nm 5.2mb KRA 145.26 343 i PKPd 59 31.10

53.80 263 iPd 49 20.50 -1.4 1.0s 50 . 00nm
0.6s 46.00nm 5.2mb KSP 145.42 347 i PKPd 59 32.50
54.56 250 iPd 49 26.40 -0.9 1.1s 62.00nm
0.4s 35.06nm 5.2mb WTS 145.43 358 ePKP 59 32.00
59.15 244 eP 49 58.00 -1.4 1.0s 86 . 00nm
0.5s 20.00nm 5.0mb CLL 145.55 351 iPKP 59 32.30
61.30 255 iPd 50 13.00 -1.0 1.5s 105.00nm
0.4s 18.00nm 5.0mb i pP 00 38.70
62.00 243 eP 50 17.50 -1.0 KAS 145.66 320 iPKPd 59 35.20
0.6s 73.00nm 5.5mb BRG 145.83 350 iPKP 59 33.06
62.36 242 eP 50 19. $0 -1.9 1.4s 60.00nm
Z 2&S 1.06gm 5.0Msz SPC 145.95 342 iPKP 59 34.20
N 20s 1 . 00um e 00 4 1 . 40
E 20s 1.40um VRI 146.34 332 iPKPc 59 35.00
62.98 244 iPd 50 24. 0 -0.9 MOX 146.39 352 ePKP 59 34.00
0.5s 51.00nm 5.5mb 1.9s 81.00nm
63.29 243 iPc 50 27.00 0.0 e 59 51.00
0.7s 78.00nm 5.5mb - e 00 42. 00
65.03 253 iPd 50 38.:!0 0.0 PRU 146.58 349 PKP 59 35.70
0.4s 42.00nm 5.5mb ENN 146.68 359 ePKP 59 36.00
72.74 180 iPd 51 26.40 1.6 1.0S 32 . 80nm
0.8s 25.00nm 5.0mb e 00 42.00
73.46 9 e(P) 51 27.00 -1.7 MEM 146.84 359 PKP 59 35.80
74.58 46 eP 51 38.00 2.1 SNF 146.94 1 PKP 59 36.80
74.70 48 eP 51 23.00 -13. 4X MLR 146.98 333 ePKPd 59 36.50
74.99 46 eP 51 38.00 -0.1 TNS 147.12 356 ePKPd 59 37.10
75.01 47 P 51 37.00 -1.2 DOU 147.36 1 PKP 59 38.00
75.10 45 eP 51 39.00 0.3 GRF 147.38 353 ePKP 59 38.60
e 52 38.00 251km KHC 147.57 350 PKP 59 34.50
75.23 42 P 51 37.U0 -1.4 1.1s I9.30nm

pP 52 37.^0 255km i 59 38.20
75.78 45 eP 51 42. U0 -0.5 ZST 147.71 345 ePKP 59 35.50
76.03 46 eP 51 44.130 0.1 i 00 45.40
76.21 49 eP 51 45.i)0 6.1 WLF 147.78 359 i PKPd 59 39.37
77.13 12 eP 51 48.30 -0.5 VKA 147.84 346 i(PKP)59 39.40
77.29 43 P 51 50. '50 -1.0 BUD 147.84 342 ePKP 59 39.00
0.8s I3.97nm 4.7mb BHL 148.03 307 PKP 59 40.00
pP 52 49. '30 253km HRI 148.21 306 ePKP 59 41.20
79.74 9 eP 52 02.50 -0.9 FLN 148.37 7 ePKP 59 40.10
0.7s I5.70nm 4.9mb 0.9s 45.85nm
81.35 12 ePd 52 11.10 -0.7 GWF 148.41 357 PKP 59 40.62
0.9s I5.30nm 4.7mb KMR 148.51 348 i PKP- 59 41.40
81.41 9 ePd 52 12.70 0.5 epPKP 00 46.00
e 53 13.10 253km LDF 148.58 7 iPKPd 59 40.50
82.43 13 eP 52 17.80 0.3 1.0s 32.00nm
82.47 33 eP 52 18.00 0.1 GRR 148.69 8 ePKP 59 41.00
0.8s 8.00nm 4.5mb 1.0s 46.00nm
B2.70 274 eP 52 21. &0 1.7 MML 148.77 304 ePKP 59 42.60
83.17 35 P 52 20.90 -1.5 FUR 148.87 352 iPKPc 59 42.30
pP 53 20.90 254km JMB 148.97 328 iPKP 59 43.00
83.21 50 eP 52 22.30 -0.2 CDF 148.99 357 PKP 59 41.77
1.0s 7.00nm 4.4mb JVI 149.00 304 ePKP 59 43.10
epP 53 23.50 257km PVL 149.01 330 iPKPc 59 43.00
83.21 50 P 52 22.50 0.3 LPF 149.02 8 iPKPd 59 42.00
0.8s 5.60nm 4.4mb 0.9s 57.35nm
pP 53 23.50 255km ECH 149.19 357 PKP 59 42.09
84.48 39 eP 52 27.90 -0.5 VITF 149.23 359 PKP 59 42.55
84.61 11 ePd 52 28. 00 -0.3 CSS 149.31 310 ePKP 59 43.00
e 53 28. 50 252km HAU 149.43 358 iPKPd 59 43.30
84.73 42 P 52 30. «0 0.3 0.9s 29.50nm
0.8s 2.62nm 4.1mb X FEL 149.48 356 PKP 59 42.78
pP 53 30.70 253km LW I 149.52 233 iPKPd 59 45.70
85.75 314 eP 52 35.50 1.1 MOF 149.56 357 PKP 59 42.50
1.7s 49.00nm 5.1mb BSF 149.59 358 ePKP 59 43.50
e 53 38.80 260km 0.9s I8.00nm
eS 02 44.80 KBA 149.59 349 i PKPd 59 43.00
e 04 36.00 WTTA 149.70 351 i PKPd 59 43.60
87.09 274 iPd 52 42.40 0.9 0.4s 26 . 70nm
0.9s 36.20nm 5.2mb SOTA 149.80 352 ePKP 59 44.00
87.67 35 ePd 52 43.00 -0.5 BBS 149.92 357 PKP 59 44.13
90.53 14 eP 52 56-00 -0.5 LOMF 158.07 358 PKP 59 44.46
90.53 296 PC 53 00.80 2.3 MBH 150.09 300 ePKP 59 45.60
2.5s 100.00nm 5.3mb GRC 150.12 3 PKP 59 45.24
91.40 288 eP 53 05.00 3 . 6X KDZ 150.16 328 iPKPd 59 45.00
0.7s 36.58nm 5.5mb LOR 150.17 2 ePKP 59 45.00
91.92 289 iPd 53 05.60 1.7 0.9s 32.75nm
1.0s 2l.50nm 5.1mb LJU 150.34 347 ePKP 59 39.00
91.92 289 iPd 53 05.80 1.9 e 59 45.00
0.8s 16.65nm 5. 1mb SSF 150.37 2 ePKP 59 45.50
91.96 182 PC 53 04.00 0.8 1.1s 53.70nm
99.15 12 eP 53 35.08 -0.7 L8F 158.46 1 ePKP 59 45.70
128.12 350 ePKP 58 58.08 -1.4 8.9s 27 . 85nm
134.67 346 ePKP 59 12.88 0.0 RZN 150.47 329 i PKPd 59 46.00

- 1 . 0

0. 3
- 0 . 3

0 .8

9 . 4

0 . 4

2. 7X
0 . 6

1 . 3

1 . 6
0. 7

2. 1 X
2 . 3X

1 . 9
2. 7X
1 . 9

2 . 6X
3 . 2X
3. 7X
- 0. 8

0. 0

3. 9X
3. 7X
3. 3X
3. 4X
4 . 3X
3 . 6X

4 . 0X
4 . 6X

3. 7X

4. 0X

4 . 9X
5.0X
5. 4X
4 . 2X
5. 0x
5. 3X
4. 5X

4. 2X
4 . 7X
4 . 6X
5. IX

4 . 4X
6. IX
4 . 0X
4 . 9X

4 . 3X
4. 8X

5. IX
5. 2X
5 . 2X
5 . 8X
6. 1X
5. 5X
5 . 7X

- 0.6

5.9X

5.9X

5. 8X

57

07d 05h

VOY 150.49 347 ePKP 59 39.40 -0.5
e 59 44.90
MFF 150.54 7 ePKP 59 45.60 5.7X
1.1s 3 1 . 75nm
AVF 150.63 2 iPKPd 59 45.70 5.7X
0.9s 1 6 . 40 ntn
CEY 150.65 347 ePKP 59 39.80 -0.3
i 59 45.70
i 59 53. 00
V8Y 150.68 345 ePKP 59 40.90 0.8
e 59 46. 10
SMF 150.79 2 i PKPd 59 46.10 5.8X
1.0s 15. 00nm
TRI 150.83 347 iPKPd 59 46.00 5.7X
8GF 156.84 3 ePKP 59 46.50 6.2X

LSF 151.06 5 iPKPd 59 46.80 6.1X
6 . 8s 22 . 85nm
TCP 151.07 4 ePKP 59 46.90 6.2X
1.0s 2 . 70nm
MAP 151.16 4 ePKP 59 47.30 6.5X
1.3s 55 . 95nm
AGO 151.36 3 PKP 59 47.83 6.7X
PLDF 151.46 2 PKP 59 48.43 7.1X
PYM 151.66 3 PKP 59 48.75 7.1X
SKO 151.75 334 ePKP 59 39.50 -2.3X
i 59 48.00
i 59 57.90
LPL 151.90 357 ePKP 59 48.90 6.7X
0.9s 1 4 . 75nm
RJF 152.00 5 ePKP 59 48.80 6.7X

LBL 152.18 3 PKP 59 50.20 7.7X
LFF 152.28 7 ePKP 59 49.70 7 . 2X
CAF 152.42 5 ePKP 59 50.10 7 . 4X
1.1s 1 1 . 00nm
LPO 152.58 6 ePKP 59 50.30 7.4X
1.3s 2 1 . 65nm
S.D. - 1.1 on 83 of 150 obs.

% AUG 07. 1991 07h 08m 18.31± 3.95s
45.594 N ±16. 5km 26.679 E ± 1 1 . 0 km
DEPTH - 139.6 ± 38.9 km
ROMANIA (358)
MD 3.6 (BUC) .

BRD 0.27 106 iPc 08 38.50 1.4
VRI 0.28 7 iPc 08 37.00 -0.1
ISR 0.47 192 iPc 08 38.00 -0.6
MLR 0.53 259 i PC 08 38.00 -1.0
CLI 1.04 24 iPc 08 42.50 -0.3
CFR 1.12 111 iPd 08 43.50 0.1
MTUR 1.20 253 eP 08 43.50 -0.8
CMP 1.20 255 ePd 08 46.00 1.7
TLB 1.39 136 i PC 08 45.90 -0.3
S.D. -1.2 on 9 o f 9obs.

AUG 07, 1991 09h 17m 37.07± 0.43s
46.065 N ± 4.3km 27.105 E ± 4.9km
DEPTH - 25 . 7 ± 5 . 1 km
ROMANIA (358)
MD 3.6 (BUC) . Fe I t (IV) in the
Vranceo orea.

VRI 0.33 234 iPc 17 43.50 -1.1
PPE 0.39 67 iPc 17 47.00 1.5
CLI 0.50 14 iPc 17 46.50 -0.8
BRD 0.55 184 iPc 17 48.50 0.4
MLR 0.99 235 i Pd 17 56.00 0.6
PTT 1 .00 331 eP 17 55. 50 0.1
ISR 1.01 203 iPc 17 47.00 -8.6X
CFR 1.15 140 iPc 17 56.00 -1.5
IAS 1.17 15 iPc 17 57.00 -0.8
TLB 1.61 156 i Pd 18 04. 50 0.3
eS 19 13 . 00
MTUR 1.66 240 ePc 18 07.50 2.6X
BUC 1.80 204 ePd 18 12.50 5.7X
CVD 1.85 159 eP 18 35.00 27. 4X
BUC1 1.88 204 iPd 18 16.00 8.0X
TNR 2.02 259 ePc 18 09.00 -1.1
DRA 2.44 236 eP 18 20.00 4.0X
DEV 2.94 268 ePc 18 30.00 7.0X
BMR 2.95 304 ePd 18 35.00 11. 7X
GZR 3.11 259 ePd 18 26.00 0.4
PVL 3.12 205 eP 18 28.00 2.4X
BEO 4.84 258 ePn 19 12.50 22 . 4X
CTT 5.01 168 iPn 18 52.60 0.1

ISK 5.19 163 ePn 18 55.00 -0.1
PSZ 5.27 293 eP 18 57.60 1.3
HRT 5.56 160 ePn 19 00.60 0.2
SPC 5.59 306 eP 19 30.00 29. 1X
YLV 5. 74 162 eP 19 03.00 0.1
VAY 5.77 216 ePn 18 51.40 -11. 8X
i 19 05. 70
SKO 5.78 227 ePn 19 21.50 18. 1X
KRA 6.25 312 eP 19 44.60 34. 7X
e 1954.46
KAS 6.73 132 eP 19 16.50 -0.3
ZST 7.15 291 eP 20 16.30 53. 7X
. e 24 06.00
e 5116.30
S.D. =0.9 on 17 of 3 2 o t> s .

AUG 07. 1991 09h 25m 27.64± 6.75s
39.283 N ± 5.9km 29.205 E ± 7.9km
DEPTH - 10.0km (geophysicist)
TURKEY (366)

DST 0.55 306 iPg 25 38.90 0.0
eSg 25 46.90
KHL 0.99 165 i Pg 25 46.30 -0.2
1 Z I 1.07 11 ePn 25 47. 60 -0.3
YLV 1 . 29 6 ePn 25 51.10 -0.5
GPA 1.32 40 iPn 25 52.80 0.8
EDC 1.48 316 ePn 25 55.00 0.7
HRT 1.58 13 ePn 25 55.60 -0.1
CTT 1.95 343 ePn 26 00.60 -0.6
S.D. -0.6 on 8of Sobs.

AUG 07, 1991 10h 13m 01.55± 0.26s
10.042 N ± 4.2km 70.024 W ± 4.9km
DEPTH - 16.6km (4 depth phoses) 4.8mb (25 obs.) 3.9Msz (4 obs.)
VENEZUELA (101)

BMG 4.22 226 iPc 14 09.00 2.3
FUO 5.85 219 eP 14 31 .50 1.6

BOG 6.71 217 eP 14 45.00 2.8
iS 16 36.00
TCE 8.16 85 eP 15 03.49 1.3
eS 16 35.50
HOBC 8.29 227 eP 15 03.26 -0.8
MGP 8.41 19 IP 15 02.30 -3.4X
TRN 8.50 85 eP 15 06.40 -0.5
CLLP 8.66 22 iP 15 05.50 -3.6X
MCP 8.79 18 iP 15 08.40 -2.5
SJG 8.86 25 iP 15 10.00 -1.8
CPD 8.89 26 iP 15 08.80 -3.5X
CLMC 8.92 227 ePc 15 12.12 -0.7
LPR 9.15 26 iP 15 14.00 -1.9
SVB 9.17 69 iP 15 10.11 -6 . 0X
eS 16 54.55
HOOC 9.26 226 ePc 15 15.95 -1.6
ANCC 9.39 227 ePc 15 18.18 -1.0
UPA 9.44 264 ePd 15 18.20 -1.6
0.5s 26 . 76nm 5 . 8mb X
S 16 58.20
SLB 9.56 66 iP 15 13.77 -7 . 8X
S I LC 9.63 221 ePc 15 21.21 -1.6
PURC 9.92 220 eP 15 25.93 -1.1
PSO 11.40 220 eP 15 46.50 -0.6
CUMC 11.93 221 ePc 15 53.34 -1.1
NNA 22.91 197 i PC 18 06.30 0.4
0.7s 50.00nm 5.1mb
ZOBO 26.21 176 P 18 37.80 -0.3
Z 22s 0 . 58um 4 . 1Msz
S 23 24.00
LR 26 28.00
JSC 26.23 339 P 18 38.50 1.0
ARE 26.37 183 eP 18 39.00 -0.3
LPB 26.47 176 P 18 39.00 -1.3
Z 16s 2.02um 4.8MszX

Lg 26 12.00
LR 27 1 6 . 00
SIV 27.34 161 iPc 18 47.80 -0.1
CCH 27.52 172 eP 18 50.00 0.2
BLA 28.63 343 P 19 00.60 1.2
FVM 33.32 330 P 19 39.50 -1.2
0.8s 34.09nm 5.3mb
SOB1 34.73 122 eP 19 53.70 0.5
TUL 34.80 322 i Pd 19 52.40 -1.1

Z 18s 0.14um 3.7MSZ
i 19 56.50

ALO

ANMO

GOL

PV09
BW06

GSC
SBB
TNP

ISA
FFC

SES
NEW

PNT

LI C
K 1 C
DCN
DMU
EKA

GRR
EPF

FUN

Z
CAF

1 NK
LI R r~

AVF

SMF

LOR

Z
LBF

FBA

PMR

SLKM

MOO

RSO

CLL
KHC

BRG
VOY
PRU

LJU
SVW

ZST
MLR
STK

CHG
OIS

LOE
ASPA

WR2

S

% AUG
44 .

LR 32 55.00
41 .43 312 eP 20 50 . 20 0.9
1.0s 6 . 75nm 4 . 3mb
41 . 43 313 eP 20 50. 30 1.1
1.0s 8 . 25nm 4 . 4mb
pP 20 55.50 18km
43. 1 1 319 P 21 03. 20 0.1
0.7s 1 . 82nm 3 . 9mb
45.01 316P 21 18. 80 0.4
47 . 43 320 P 21 36 . 70 -0.7
0.8s 7 . 1 4nm 4 . 8mb
pP 2141.20 15km
49 . 36 308 eP 2154.00 1.7
49.96 307 eP 22 01 . 00 4. 0X
50 . 61 31 1 P 2202.80 0.7

50.76 308 eP 22 09.00 5.9X
51.25 337 iPd 22 06.10 -0.3
0.6s 9 . 00nm 4 . 9mb
52.50 328 eP 22 16.00 0.0
54.77 323 P 22 32.00 -0.7
0.8s 16.67nm 5. 1mb
56. 72 323 eP 22 51 . 00 4. 3X
0.7s 6 . 00nm 4 . 7mb
64.37 88 P 23 38. 40 -1.0
64.64 88 P 23 40 . 30 -0.8
65.85 36 eP 23 48.00 -0.2
66.22 35 eP 23 50.30 -0.3
68.70 34 Pd 24 10 . 10 3. 9X
0.8s 3 . 90nm 4 . 6mb
68.74 42 eP 2410.10 3. 5X

0.7s 4 . 40nm 4 . 7mb
69.04 42 eP 2412.10 3. 7X
1.1s 17.1 0nm 5 . 1mb
21s 0.08um 3.9Msz
70 .30 46 eP 24 16. 60 0.3
0.7s 7.70nm 4. 9mb
71.08 339 eP 24 21 . 00 0.5

0.7s 4 . 00nm 4 . 6mb
71.37 44 eP 24 22 . 60 -0.1
0.7s 3 . 30nm 4 . 5mb
71 .69 44 eP 24 24.60 0.0
0.7s 6 . 60nm 4 . 8mb
71.76 44 eP 24 24.80 -0.2
0.7s 8 . 25nm 4 . 9mb
19s 0.08um 4.0Msz
71.81 44 eP 24 25.00 -0.4
0.8s 4 . 05nm 4 . 6mb
75.78 335 eP 24 47.90 -0.1
0.9s 1 . 50nm 4 . 0mb
pP 24 52.90 16km
76.05 331 eP 24 51 .20 1.7
0.9s 17. 00nm 5 . 1mb
76.50 330 P 24 53. 80 1.6
T 7 ft A T ft P *? A *^ A A ft Ckfi

1.1s 6 . 50nm 4 . 6mb
77 .75 330 P 24 58.00 -1.3

pP 25 03.70 18km
77.88 40 e(P) 25 04.00 4.0X
78.30 42 P 25 03.50 1.1
1.0S 3 . 50nm 4 . 4mb
e 25 14.50
78.49 40 iP 25 07.90 4 . 6X
78.64 45 e(P) 25 07.90 3.5X
78 . 90 41 P 25 06 . 80 1.2
e 25 10.00

79.08 45 e(P) 25 07 .50 0.8
79.16 330 eP 25 07. 70 0.9
0.6s 1 8 . 72nm 5 . 3mb
80.69 43 e(P) 25 14.30 -0.9
87.07 44 eP 25 50.00 2.1
143.57 229 iPKPc 32 34.30 -3.4X
0.8s 2 . 20nm
149.33 21 ePKP 32 55.60 8.1X
149.62 246 i PKPc 32 51.80 3.9X
i 32 57.30
151 .54 17 ePKP 33 01 .00 10. 2X
153.45 236 ePKP 33 00.50 7.0X
0.6s 1 4 . 70nm
154.50 244 iPKPd 33 03.00 8.1X
0.7s 1 5 . 30nm
. D. - 1.2 on 60 of 81 obs.

07, 1991 10h 18m 5B.29± e.72s
336 N ± 5.9km 8.238 E ± 5.7km

07d 10h

58

DEPTH - 10.0km (geophys i c i s t)
NORTHERN 1 TALY (545)
ML 2.0 (GEN) .

FIN 0 . 1 3 189 P 1901.39 -0.1
S 1903.37
ROB 0. 27 261 P 19 04 . 25 0.3
S 19 08 . 09
PCP 0.30 47 P 19 04.60 0.0
S 1909.21
IMI 0.49211P 1908.50 0.2
S 19 14 . 60
ENR 0.60 260 P 19 09.66 -0.8
S 19 1-8.44
STV 0.J66 262 P 1911.64 0.1
S 1920.16
PZZ 0.83 282 P. 19 14.69 0.2
S 19 25. 82
BHB 0.86 306 P 19 14.87 0.0
S 1926.18
S.D. = 0.4 on 8 of 8 obs .

? AUG 07. 1991 10h 41m 22.61± 3.85s 22.224 S ±80. 7km 178.013 W ±34. 9km DEPTH - 560.3 ± 37.5 km
4 . 3mb (4 obs .)
SOUTH OF FIJI ISLANDS (171)

D2M 14.40 268 iPc 44 26.10 0.4
ASPA 44.14 258 eP 48 43.60 0.0
0.6s 6 . 80nm 4 . 4mb
WR2 44.35 264 iPd 48 44.50 -0.8
0.5s 3.70nm 4. 2mb
PNT 88.09 34 eP 53 14.00 -0.6
ALO 88.49 51 eP 53 17.00 0.0
1.0s 2 . 50nm 4 . 0mb
CHG 90.82 290 eP 53 28.00 0.3
CHTO 90.82 290 eP 53 27.70 0.0
0.8s 4.7 6nm 4 . 6mb
KEV 130.15 349 ePKP 59 26.00 -3.8X
NUR 138.58 343 ePKP 59 28.00 -17. 9X
NB2 140.68 353 PKP 59 42.60 -7.2X
0.7s 1 . 20nm
EKA 146.71 5 PKPc 00 00.70 0.7
1.0s 7 . 90nm
KSP 149.32 342 ePKP 00 08.50 4.2X
CLL 149.73 346 i PKPc 00 09.50 4.7X
i 00 1 4 . 40
BRG 149.92 345 ePKP 00 09.40 4.3X
1.3s 1 . 00nm
i 00 14.80
PRU 150.58 343 PKP 00 11.50 5.3X
KHC 151.62 344 PKP 00 13.50 5.7X
i 00 23.00
S.D. = 0.6 on 8 of 16 obs.

* AUG 07. 1991 11h 36m 30.84± 0.79s
25.099 N ±13. 0km 88.791 E ± 7.3km
DEPTH « 33.0km (normol)
5. 0mb (6 obs .)
INDIA-BANGLADESH BORDER REGION (315)

SHL 2.84 80 IP 37 15.50 0.5
iS 37 53.00
NDI 10.93 292 eP 39 07.50 -0.5
0.6s 13. 33nm 5 . 3mb
CHG 11.30 122 eP 39 11.70 -1.5
CHTO 11.30 122 eP 39 11.80 -1.4
0.7s 5 . 88nm 4 . 9mb
HYB 12.22 233 ePd 39 26.40 0.8
0.6s 37 . 50nm 5 . 7mb
eS 41 39.00
BDT 12.32 127 eP 39 29.00 2-2
POO 15.33 248 iPd 40 04.20 -2.3
GBA 15.66 225 Pd 40 11.70 1.0
0.5s 3.70nm 3.8mb X
LZH 16.94 46 eP 40 27.00 -0.2
1 . Bs 95 . 00nm 4 . 6mb
Z 12s 0 . 50um 4 . 8Msz X
N 1 2s 0 . 33um

pP 4031.50
sP 40 33.50
eS 43 42.00
KOD 181.28 218 eP 40 50.00 5.9X
OUE 19^.99 290 eP 41 05.00 1.3
eS 44 33.00
BJ 1 27.33 50 eP 42 19.00 4.4X

NB2 62.39 328 P 46 56.00 3.5X
0.7s 2.30nm 4. 4mb
WR2 63.00 131 iPd 46 59. p0 2 . 9X
0.6s 10.20nm 5.1 mb
S.D. -1.6 on 10 of ikobs.

« AUG 07, 1991 I2h 03m 57 . 44± 0.68s 13.181 N ± 6.2km 144.730 E ±12. 9km DEPTH = 63 . 8 ± 5 . 6 km
4 . 6mb (7 obs .)
MAR 1 ANA 1 SLANDS (216)
Felt lightly on Guom.

GUA 0.40 26 i Pd 04 08 . eS 04 16.
PJG 0.43 18 i Pd 04 09 .
JAY 16.10 195 ePc 07 41 .
PMG 22.57 174 eP 08 49.
1 1 DJ 23.04346 eP 08 58 .
CHJJ 23 . 35 348 P 09 01 .

MAT 23.99 347 (P) 09 06.
0.8s 6 . 72nm
MTMJ 24.12 346 eP 09 1 0 .
N 1 1 J 24.50 349 eP 09 12.
WR2 34 . 47 1 97 i Pd 1041.
0.9s 1 0 . 60nm
ASPA 38 . 12 196 eP 1112.
0.7s 7 . 60nm
D2M 41.00 148 iPc 11 35.
INK 74 . 79 22 eP 1531.
MBC 78.70 1 4 eP 1553.
0.7s 3 . 00nm
YKA 83.28 27 eP 16 17.
0.6s 3.10 nm
PNT 83.77 41 eP 1621.
0.6s 4 . 00nm
ISA 87 . 84 54 eP 1641.
CLC 88.49 54 eP 16 45.
MWC 88.54 55 eP 16 45.
SB8 88.60 55 eP 16 46.
SES 88.80 38 eP 16 46.
GSC 89.25 54 eP 16 49.
LRM 89.38 43 eP 16 49.

50 -0.4
90
10 0.0
80 0.5
00 -4.5X
70 0.7
80 0.9
00 -1.1
4 . 2mb
00 1.5
10 0.1
60 0.3
4 . 8mb
50 0.3
4 . 7mb
20 -0.9
00 -1.2
50 -0.4
4 . 3mb
60 -0.6
4 . 5mb
00 0.0
4 . 6mb
00 -0.5
00 0.4
00 0.0
00 0.9
00 0.3
00 0.8
10 0.3

NB2 97.38 339 P 17 24.|20 -0.8
0.9s 2 . 30nm 4 . 7mb
KIC 143.99 301 PKP 23 27.00 -1.4
TIC 144.07 301 PKP 23 27 . 130 -1.2
LIC 144.31 301 PKP 23 28.10 -0.8
ZOBO 148.10 100 PKP 23 38.00 2.2
1.1s 1 4 . 50nm

S.D. - t> . 9 on 27 of 2)8 obs.

* AUG 07. 1991 I2h 48m 46.
31.681 S ± 7 . 4km 72.031
DEPTH - 33.0km (normol)
OFF COAST OF CENTRAL CHILE

Felt (IV) o t Ml ope I , S
ond Chonorol; (III) in
V i I os oreo .

IHA 1 . 38 166 eP 49 09.
49 15.
S 49 25.
JACH 1 . 58 130 P 49 12-

33± 1.76s
W ±19. 2 km

(134)
o I omanco
the Los

70 0.2
80
30
00 -0.4
S 49 26.50
PEL 1.85 142 Pd 49 16.20 -0.1
S 49 32.50
SAN 2.11 147 P 49 20.00 -0.1
S 49 39.00
TACH 2.17155 Pd 49 21 .
PCH 2.32 147 PC 49 22.
S 49 45.
LNV 2.33 167 PC 49 23.
S 49 47.
CHCH 2.53 153 Pd 49 25.
S 49 50.

ZON 2.86 88 Pd 49 35,
RTLL 3.06 84 Pd 49 35,
CYA 6.29 61 eP 50 18,
SI V 18.54 35 P 53 02,
S.D. -0-7 on 11 of '

AUG 07. 1991 12h 49m 16
43.502 N ± 5.7km 108.861
DEPTH - 5.0km (geophys
WYOMING

ML 3.4 (GS) , 3.5 (BUT)

50 0.6
50 -0.6
00
50 0.4
30
40 -0.6
00
30 4.6X
00 1.4
40 -0.9
40 0.1
2 obs .

66± 0.66s
W ± 5 . 7km
cist)
(460)
Felt in

the Thermopolis oreo.

BW06 0.88 215 iPc 49 34.30
ANGW 1 .02 289 i P 49 35. 23
HAYW 1.08 278 ePc 49 37.34
eS 4953.16
PACW 1 .24 289 P 49 39 . 79
TRXW 1 . 26 282 P 49 40 . 1 0
LOHW 1.27 276 ePc 49 40.37
eS 49 57 . 98
BEAW 1 . 30 260 ePc 49 41.76
eS 50 0 1 . 12
SNOW 1.38 269 P 49 42.34
MOOW 1 . 39 281 P 4941.88
COLW 1.41 289 P 4942.11
AVOW 1.42 275 P 49 42.90
STEW 1 . 43 293 P 49 42.63
eS 50 02.36
REDW 1.46 265 ePc 49 44.13
TPAW 1 .52 270 P 49 44.93
RAMW 1.56 285 P 49 44.54
TARW 1 . 57 280 P 49 44.97
eS 50 06.36
ALPW 1.60 258 ePc 49 46.83
eS 50 08.76
MUDI 1 . 62 275 P 49 45 . 98
eS 50 08 . 51
CHOI 1 . 72 265 P 49 48. 26
eS 50 12.09
P 1 N 1 1 . 81 27 1 P 49 48 . 90
LTMT 2.56 295 ePn 50 03.00
MEMT 2.59 325 P 50 12.40
PT I 2.64 257 eP 50 01 .20
8GMT 2.86 308 ePn 50 05.30
SXM 3.13 329 ePn 50 09 . 40
MCMT 3.16 296 ePn 50 12.40
LRM 3.46 313 ePn 50 18.10
HBMT 3.52 312 ePn 50 19.10
BUT 3.64 315 ePg 50 33.20
eSg 51 08.70
HRY 3.84 328 ePn 50 16.80

DUG 4.43 223 e(P) 50 30.00
GOL 4.61 144 eP 50 27.00

GLD 4.63 143 e(P) 50 30.00
PV09 5.00 182 eP 50 34.00
MSU 5.58 208 eP 50 46.50

0.0
- 1.4
- 0.3

- 0.6
- 0. 6
- 0. 5

0.3

- 0.5
- 1 . 1
- 1 . 0
- 0. 5
- 0.9

0.2
0. 1
- 0.9
- 0.5

1 .0

- 0. 1

0.6

0.0
3.2X
12 . 3X
0.3
1 . 2
1 .6
4 . 1 X
5.6X
5. 7X
18. 2X

- 1 .0
3.8X
- 1 . 9
0.9
- 0.5
3.9X
S.D. - 0. 9 on 27 of 35 obs.

? AUG 07, 1991 12h 53m 24.87± 3.12s 31.180 S ±21. 4km 179.627 W ±30. 8km DEPTH - 329.0 ± 28.0 km
KERMADEC ISLANDS REGION

HBZ 6.63 194 eP 55 04.20
0.2s 65.00nm 5
TAZ 7. 72 203 «P 55 21 . 10
WLZ 7. 73 209 «P 55 21 .90
WHH 8.32 201 eP 55 24.30
MOH 8.36 198 eP 55 24.70
NGZ 8.88 205 «P 55 31 . 40
PGZ 9.99 198 eP 55 43.00
0.3s 170.00nm 5
MNG 10.22 201 eP 55 45.80
0.2s 120.00nm 5
S 57 43.10
KIW 10.62 203 eP 55 50.90
WDW 10.96 202 eP 55 54.30
MOW 1 1 .02 201 eP 55 54.90
MRW 11.02 203 eP 55 56 .80
eS 57 58.80
WEL 1 1 .05 203 eP 55 55.80
TCW 11.15 204 eP 55 56.30
THZ 12.15 208 eP 56 10.80
KHZ 12.47 204 eP 56 13.80
0.3s 142.00nm 5
MOZ 13.92 204 eP 56 30.20
DZM 15. 40 303 iPc 56 46. 10
ASPA 41.68 269 eP 00 48.10
0.8s 5.90nm 3
WR2 42.72 274 i PC 00 54.20
0.3s 11. 90nm 4
KAF 144.80 339 iPKP 12 22.60
0.6s 1 8 . 60nm
NUR 146.54 338 ePKP 12 27.00
0.8s 42.50nm
i 12 47.90
NB2 149.29 350 PKP 12 35.60

(177)

1 . 3
2mb
5 . 1 X
5.8X
0.9
0.9
1 . 1
- 0.5
8mb
- 0.6
8mb

- 0.4
- 1 . 1
- 1 . 3
0. 7

- 0. 7
- 1.4
1 .0
0.2
8mb
- 0.7
- 1 .3
4.2X
9mb X
2.0
6mb
A ft W . o

0.7

4.9X

59

07d 13h

0.5s 1 . 40nm
S.D. « 1 . 1 on 19 of 23 obs .

AUG 07. 1991 I3h 35m 53.23± 1.03s
9.527 S ± 9.5km 125.264 E ± 8.9km
DEPTH = 99 . 7 ± 1 4 . 4 km
5 . 0mb (6 obs .)
T 1 MOR (289)

KUPT 1.75 249 eP 3624.00 1.0
KNA 7.07 151 eP 37 35.50 -0.3
0.4s 55.00nm 5. 4mb
eS 39 03.00
MKS 7.17306ePd 37 36. 00 -1.1
WR2 13.59 141 iPc 39 01.20 -1.9
0.5s 68 . 20nm 5 . 3mb
eS 41 31 .90
ASPA 16.30 151 eP 39 38.70 1.0
0.4s 1 6 . 40nm 4 . 6mb
Z 18s 1 . 30um 4 . 6MS2X
iS 42 31 . 80
WARB 16.62 176 eP 39 42.00 0.4
JAY 16.85 67 ePd 39 45.00 0.5
OIS 17.65 130 eP 39 54.00 -0.3
i 42 59.00
PMG 21.59 92 eP 40 42.00 5 . 6X
1.0s 50.00nm 4. 8mb
CTAO 22.82 120 iP 40 58.50 10. 0X
e(S) 45 47.00
KGM 24.69 297 eP 41 06.50 0.0
CHG 38.30 317 eP 43 05.90 0.0
CHTO 38.30 317 eP 43 05.30 -0.6
MAT 47.41 14 eP 44 21.00 1.5
0.6s 6.00nm 4.6mb
LZH 49.66 337 eP 44 37.00 0.0
1.0s 26.00nm 5. 2mb
pP 44 42.00 17kmX
sP 44 45.50
BJ 1 50.03 351 eP 44 39.00 -0.5
LPB 150.93 153 PKP 55 44.50 13. 3X
ZOBO 151.15 153 PKP 55 43.90 12. 2X
1.0s 1 0 . 00nm

SIV 153.88 166 (PKP) 55 40.00 5. IX
S . D . -1.0 on 14 of 19 obs.

? AUG 07, 1991 14h 08m 19.28± 1.50s
58.106 S ±32. 6km 25.707 W ±17. 0km
DEPTH = 33.0km (normol)
5 . 0mb (1 obs .)
SOUTH SANDWICH ISLANDS REGION (153)

PCH 38.62 290 eP 15 41.20 0.3
PEL 39.08 290 iPd 15 45.20 0.4
0.6s 1 8 . 67nm 5 . 0mb
SIV 49.58 313 Pd 17 08.00 -1.0
SOB1 50.16 340 eP 17 14.90 1.4
e 17 18.00
ZOBO 52.24 305 P 17 29.00 -0.9
LIC 66 .26 23 P 19 06 . 20 0.1
TIC 66.67 22 P 19 08.00 -0.7
MBC 146.19 335 ePKP 27 54.50 -0.2
0.5s 5 . 00nm
INK 147.89 318 ePKPc 27 58.20 0.6
0.7s 21 . 00nm
S . D . -0.9 on 9of 9obs.

% AUG 07, 1991 14h 44m 10.07± 1.05s
44.036 N ± 9.0km 7.571 E ± 5.6km
DEPTH - 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1 .9 (GEN) .

ENR 0.22 330 P 44 14.69 -0.2
S 44 18.00
IMI 0 . 26 1 19 P 44 15. 54 -0.1
S 4419.23
STV 0.27 320 P 44 16.16 0.3
S 44 19.54
ROB 0.34 40 P 44 17.29 0.2
S 44 22 .31
FIN 6 . 49 69 P 44 20 . 16 0.1
PZZ 0.58 324 P 44 21 . 90 0.0
S 44 29.39
BHB 0.84 345 P 44 25.46 -0.8
S 44 35.84
PCP 0.86 54 P 44 26.69 0.0
RRL 1 .05 328 P 44 30 . 41 0.4

S.D. - 0.4 on 9 of 9 obs.

? AUG 07, 1991 15h 32m 32.21± 3.45s
33.140 S ±24. 8km 71.163 W ±21. 6km
DEPTH - 33.0km (normol)
NEAR COAST OF CENTRAL CHILE (135)

PEL 0.40 91 i PC 3241.50 0.1
i S 3249.60
TACH 0.55 160 iP 32 43.80 0.3
i S 3253.50
PCH 0.72 132 eP 32 45.80 -0.3
i S 32 57 . 50
LNV 0.84 194 iPd 32 47.50 -0.1
i S 33 00. 30
CHCH 0.90 152 iPc 32 48.50 0.0
iS 3302.10
S.D. -0.3 on 5of Sobs.

AUG 07, 1991 17h 58m 40.77± 0.37s
46.270 N ± 3.6km 7.283 E ± 3.9km
DEPTH - 10.0km (geophysicist)
SWITZERLAND (544)
ML 2.6 (LOG) .

D IX 0.21 155 iPd 58 46. 10 0.6
MMK 0.52 114 ePc 58 50.70 -0.7
LPL 0.85 207 Pg 58 57.78 0.5
Sg 59 09.30
LPG 0.86 286 Pg 58 58.00 0.5
Sg 59 09.50
TMA 1.12 98 ePc 59 01.50 -0.3
BNI 1.29 200 P 59 04.90 0.1
eSg 59 21.10
ZLA 1 . 43 32 ePc 59 07. 10 0.3
VDL 1.53 81 ePc 59 08.70 0.4
BSF 1.60 348 Pn 59 10.00 0.8

Pg 59 12.00
Sg 59 31 .00
FEL 1.68 17 ePn 59 09.02 -1.5
SLE 1.71 29 iPc 59 12.40 1.6
HAU 1.85 340 Pn 59 12.50 -0.3
Pg 59 15.60
Sg 59 38.60
LBF 2.39 289 Pn 59 20.00 -0.6

Sg 59 56.80
SBF 2.41 177 Pn 59 19.80 -1.1
SMF 2.41 280 Pn 59 21.30 0.4
Sg 59 56.70
LOR 2.56 294 Pn 59 22.50 -0.5

Sg 00 00.50
BGF 3.08 277 Pn 59 30.10 -0.3
Sg 00 17.40
S.D. -0.8 on 17 of 17 obs .

AUG 07, 1991 19h 24m 01.91± 0.34s
45.308 N ± 2.9km 21.051 E ± 3.1km
DEPTH - 25 . 4 ± 3 . 7 km
ROMANIA (358)
ML 3.8 (TTG), 3.7 (ZAG). MD 4.4
(TR I) , 4.2 (THE) . Fel t ot
Belgrade, Yugoslavia.

BEO 0.64 221 iPg 24 13.10 -1.4
iSg 24 25.30
SSR 0.66 132 ePc 24 14.00 -0.8
DEV 1.42 65 iPc 24 27.00 0.7
UZD 2.15 308 iPnd 24 37.00 0.2
TNR 2.29 80 ePd 24 39.00 0.2
PLE 2.31 212 iPnc 24 39.42 0.3
i Sn 25 09.23
DRA 2.36 104 ePc 24 50.00 10. 3X
I VA 2.57 199 iPnd 24 43.57 0.6
iSn 25 15.78
BUD 2.59 328 iPnd 24 42.90 -0.1
PSZ 2.73 343 iPnd 24 44.00 -1.1
CMP 2.81 89 ePc 24 50.00 3.8X
PVY 2.82 196 iPnd 24 47.17 0.7
iSn 25 21 .72
MTUR 2.83 90 ePc 24 56.00 9 . 4X
NKY 2.90 211 iPnc 24 47.65 0.1
iSn 25 23.65
BMR 2.91 35 ePc 24 57.00 9.5X
BRY 3.01 218 iPnc 24 48.78 -0.3
iSn 25 26.42
SRO 3.14 324 iPn 24 51.20 0.4
1.3s 0 . 56nm

T T f* I 1 t>

SKO

HCY

BDV

MLR
ZAG

PTJ

BUC1
BUC
i C D
1 o n.

SPC

HVAR

ZST

VR 1
PTT
VBY

VAY

MMB
OHR
KNT

VKA

GRG
RZN

c p c O t\ &

LJU

CEY

R 1 Y
SOH
KRA

KDZ
CFR
VOY

TR 1

KMR

IS p A
IV, D M

PA i G
ALN

FVI
KHC

SDI
KSP

PRU

WTTA

BRG

i (Sn) 25 36.30
! O *\ A ^ OL OL 1 £. O 4 D . W W
3, 1 1 o fi O / ft tf <s 3? i D r vi n X a Oi £ 4 *^1 D 1 . O £ ft o Ot v . O f.
i Sn 25 30 . 37
3.35 175 ePn 24 54 . 00 0.2
i 2504.10
i Sg 25 48 . 90
3. 40 214 i Pnd 24 54.23 -0.4
i Sn 25 55 . 1 7
3. 43 209 i Pnd 2455.43 0.5
i Sn 25 36.58
3. 45 85 ePd 24 56.50 1.1
3.60 280 ePn 24 56.70 -0.6

i Sg 25 58 .50
3.62 281 i Pnc 24 56.60 -1.2
eSn 25 40.00
3.67 103 eP 24 58.00 -0.4
3.70 102 ePd 24 40.00 -18. 7X
3.89 91 ePd 24 58.00 -3 . 4X
3.92 352 ePn 24 56.60 -5.5X
i 25 02.80
i 25 22 .80
i 25 54. 10
3.93 239 i Pn 25 02 .30 0-2
iSn 25 50.00
3 . 96 31 8 i Pn 2501.90 -0.6
i 2514.10
i 25 25. 10
i(Sn) 26 05.70
4 .02 80 ePc 25 04 . 00 0.6
4.05 64 eP 2507.00 3 . 2X
4.09 275 ePn 25 06 .00 1.7
e 2518.90

i (Sn) 26 14 . 40
4. 14 164 iPn 25 05. 00 0.0
i Sn 26 1 1 .00
4.20 151 iPd 25 07.00 1.1
4.20 183 ePn 25 05.80 -0.2
4.36 161 iPc 25 07 . 26 -0.9
eS 25 58.80
4.39 314 iPnc 25 14. 90 6.2X
i Sn 2607.10
4 . 46 1 67 ePc 25 10.50 0.8
4.49 142 iP 25 10.00 -0.3
4.58 155 eP 25 10.50 -0.9
eS 26 02. 10
4.63 281 ePn 25 17.80 5.8X
e 25 35.00

e(Sg) 26 40.00
4.68 278 e(Pn) 25 29.80 17. IX
e(Sn) 26 42. 10
4.70 273 ePn 25 15.30 2.3
4.79 159 ePd 25 14.30 0.0
4.81 351 iPd 25 14. 90 0.4
e 25 1 7 . 70
e 25 40.40
4.84 137 iP 25 13.00 -2.0
5.02 89 eP 25 41 .00 23 -6X
5.07 281 ePn 25 19 .30 1.0
e 25 36.50
eSg 26 55.20
5.14 277 e(Pn) 25 28.20 1.8
e(Sn) 26 15.90
e(Sg) 26 43.70
5.50 302 ePn 25 45.00 20. 7X
5.64 291 iPnc 25 29.10 2.7X
i 25 36.70
i 25 49.50
i 25 55.40
5.72 159 ePd 25 27.34 0.0
5.73 139 ePc 25 26.94 -0.5
eS 26 29.78
5.91 286 P 25 28.00 -2.0
6.37 310 Pn 25 35.00 -1.5
e 25 42.00
e 26 23.50
Sn 26 42.50
6.37 238 P 25 40 .00 3 . 3X
6.39 332 eP 25 37 .00 0.2
iS 25 52.50
6.42 319 Pn 25 35. 10 -2.2
e 25 42.20
Sn 26 45. 10
6.81 290 eP 25 43.00 8.1
i 26 12.80
i 27 83.48
7.32 322 e(P) 26 84.88 14. IX

07d 19h

e 27 14 . 00
e 28 03.00
e 28 19.00
SAL 7.41 276 P 26 05.00 1 3 . 9X

CLL 8.65 321 e(Pn) 26 06.00 6.0X
e(Sg) 28 30.00
MOX 8.28 314 e(P) 26 16.00 12. 7X
e 27 41 . 00
NB2 16.79 343 P 27 58 . 10 1.4

0 . 7s 1 . 1 0nm 3 . 1mb
S.D.=1.0 on 46of 65 obs .

&. AUG 07, 1991 19h 50m 05.08s
64 . 686 N 1 48 . 7 1 0 W
DE.PTH * 17.2km

CENTRAL ALASKA (i)
<AE|C>. ML 2.8 (AE 1C) .
1
NEA 0i 19 236 iP 50 10. 17 0.2
MOM 0,34 37 iP 50 12.57 0.2
WDU WKn Ct w.J4 T A 1 *? Q ! D A O 1 ^ T ^ fl 1 i £ y i r o w i ^ . o £ v.i
CCB 0.39 95 eP 50 13.08 -0.1
FBA 0.45 61 eP 50 14.21 0.1
iS 50 20.53
BWN 0.61 213 eP 50 16.52 -0.4
iS 50 24.57
MCK 0.96 186 iP 50 22.98 0.0
S 50 35.29
RND 1.29 183 eP 50 27.76 -0.5
iS 50 45.66
TRF 1 .42 210 eP 50 29.51 -0.7
eS 50 49.45
KTH 1.50 221 eP 50 29.99 -1.2
iS 50 51 . 17
HUR 1.76 194 eP 50 34.73 -0.3
S 50 58.98
PAX 2.24 139 eP 50 41.35 -0.7
FYU 2.38 36 eP 50 42.49 -1.3
CUT 2.39 198 eP 50 43.10 -1.0
IMA 2.50 306 eP 50 44.81 -0.9
SDG 2.59 145 eP 50 47.06 0.1
TOA 2.83 155 eP 50 51.52 1.1
GHO 2.93 182 eP 50 51.03 -0.7
SKT 3.00 206 eP 50 51.89 -0.8
KLU 3.45 157 eP 50 59.83 0.7

PMS 3,48 187 iP 51 00.91 1.4
21 obs. ossoc i a t ed

«c AUG 07, 1991 20h 27m 59.10s
37.390 N 1 18.467 W
DEPTH - 14.0km
CALIFORNIA-NEVADA BORDER REGION (40) <8RK>. ML 3.0 (BRK) .

BONR 0.58 13 P 28 10.00 -0.7
FR I 1.07 249 PC 28 18.47 -0.4
S 28 32.30
TNP 1.21 55 P 28 21 .50 0.1
CMS 1.65 294 PC 28 28.53 0.7
eS 28 49.57
KVN 1 . 68 10 eP 28 29.80 1.4
PKEM 1.87 225 eP 28 34.00 3.1
LLA 2.13 249 eP 28 36.27 1.6
e 29 02.00
PRI 2.16 235 eP 28 36.86 1.6
ARM 2.44 270 eP 28 41.00 1.8
PRS 2.56 246 eP 28 42.48 1.7
BCH 2.56 211 eP 28 41.50 0.6
ABL 2.61 194 eP 28 42.50 0.8
PCC 3.12 273 ePc 28 50.00 1.3
13 obs. associated

* AUG 07, 1991 20h 33m 03.06± 0.97s
3.526 N ±12. 8km 95.221 E ±11. 7km DEPTH 33.0km (normal)
4 . 3mb (3 obs .)
OFF W COAST OF NORTHERN SUMAT ERA (705)

PSI 3.79 102 iP 34 02.00 1.5
IPM 5.88 80 ePd 34 29.40 -0.9
8 . ts 1 2 . 00nm 4 . 9mb X
KGM 8.23 100 ePd 35 02.00 -1.1
CHG 15.62 13 eP 36 43.10 0.5
CHTO 15.62 13 eP 36 43.00 0.4
0.7s 3 . 65nm 3 . 7mb
PKI 25.68 340 P 38 32.40 0.1
DMN 25.82 339 P 38 35.40 1.9

KKN 25.93 340 P 38 33.00 -1.4
GKN 26.35 339 P 38 37.00 -1.2
WR2 44.97 123 iPc 41 17.50 0.2
0.5s 8.30nm 4 . 9mb
ASPA 46.37 128 eP 41 28.50 0.2
1.5s 5 . 70nm 4 . 3mb
2ST 79.46 318 eP 45 07.70 -0.1
S . D - - 1 . 2 on 1 2 o f 1'2 obs .

* AUG 07, 1991 21h 33m 34.I98± 2.79s
43.325 N ±14. 3 km 5.700 E ±18. 4 km
DEPTH - 5.0km (geophysicist)

NEAR SOUTH COAST OF FRANCE (379)
ML 2.2 (STR) .

CDR 0.35 8 iPgd 33 39.
e(Sg) 33 44.
e 33 44.
MVI F 1 .20 61 Pg 33 58.
So. 34 16.
AURF 1.31 64 Pg 3359.
TOUF 1 . 32 58 Pg 34 00 .
AUTN 1.42 61 Pg 3401.
Sg 34 23.
STV 1.49 51 P 3402.
S 34 24.
SAOF 1.50 63 Pg 3402.
ENR 1.54 54 P 34 02.
S 34 24.
PZZ 1 . 55 40 P 3404.
S 34 25.
DO I 1.62 43 P 3404.
eSn 34 30.
IMI 1 . 69 69 P 34 04 .
S 3427.
RRL 1.78 26 P 3407.
S 34 32.
ROB 1 .85 58 P 3407.
S 34 33.
BN 1 1.86 22 P 3408.
eSn 34 35.
BHB 1.89 36 P 3409.
S 34 33.
FIN 2.02 63 P 3410.
RSP 2.14 31 P 3412.

60 -2.5
10
60
45 0.5
34
77 0.0
27 0.3
74 0.0
15
25 -0.3
19
48 -0.1
85 -0.3
92
09 0.6
94
00 -0.4
00
91 -0.5
67
37 0.6
47
78 0.2
00
50 0.6
00
25 1.1
80
14 0.0
07 0.1
CK 1 2.17 59 P 3411.10 -1.1
eSn 34 44.
LSD 2.37 26 P 3417.
PCP 2. 39 58 P 3415.
PGF 2 . 54 107 Pg 3417.
S.D. - 6.9 on 21 of 2

AUG 07, 1991 23h 00m 26.
10.144 S ±1 1 . 7km 113. 468
DEPTH - 33.0km (normal)
5 . 0mb (8 obs .)
SOUTH OF JAVA

TRT 2.56 341 i Pd 01 05.
iS 01 32.
MBL 12-55 152 eP 03 20.
0.2s 10 . 00nm
eS 05 22.
WARS 20.25 144 eP 05 01.
e 05 07.
eS 08 32.
BAL 20.58 172 eP 05 05.
eS 08 40.
COOL 21 .84 162 eP 05 24 .
0.4s 18. 00nm
eS 09 03.

UUDO O O TQ 1 1 fi A D OAOT fin £ £ & . jy ilo e r wo & j .
0.5s 4 . 70nm
eS 09 00.
ASPA 23.68 127 eP 05 36.
1 .0s 7.70nm
CHG 32. 1 4 333 eP 06 54 .
CHTO 32. 1 4 333 eP 06 53 .
1.2s 7 . 29nm
GUN 46. 31 325 P 08 51 .
PKI 46.31 325 P 08 51 .
DMN 46.51 324 P 08 52.
0.5s 22.00nm
KKN 46.55 325 P 08 52.
0.7s 1 8 . 00nm
GKN 47.08 324 P 08 56.
0.5s 21 . 00nm

00

TO 1 Q o * i . y
27 -0.2
21 -0.5
1 obs .

30± 0. 43s
E ±1 6 . 6km

(282)

60 -0.8
50
00 -5.4X
5 . 6mb
00
00 -0.7
00
00
00 -0.1
00
00 6. 1 X
4 . 8mb
00
40 0.0
4 . 2mb
30
60 0.5
4 . 2mb
00 0.8
90 0.7
4 . 5mb
42 0.1
12 -0.3
66 -0.2
5 . 3mb
88 -0.3
5 . 2mb
66 -0.6
5 . 4mb

MLR 95.42 315 eP 13 50.00 1.0
S.D. =0.6 on 13 Of 15 Obs.

AUG 07, 1991 23h 36m 22.70± 0.84s
41.001 N ± 6.0km 23.560 E ± 7.2km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)
MD 2. 3 (THE) .

SRS 0.12 12 ePd 36 25. 76 6.0
eS 36 27.82
SOH 0.24 221 ePc 36 27.86 0.0

eS 36 31 . 50
KNT 0.53 288 ePc 36 33.26 -0.1
eS 36 40 . 74
THE 0.58 231 ePc 36 34.56 0.0
eS 36 42.06
OUR 0.74 154 ePc 36 37.14 0.0
VAY e.81 293 ePn 36 38.50 0.1
S.D. =0.1 on 6of 6obs.

& AUG 07, 1991 23h 5lm 00.77s
59.575 N 153.421 W
DEPTH - 1 08 . 7km
SOUTHERN ALASKA (2)
<AE 1 C>.

AUH 0.21 183 eP 51 15. 70 0.9
AUE 0 . 22 173 iP 51 15.51 0.8
AU 1 0 . 24 1 8 1 i P 51 1 5 . 60 0.8
iS 51 27 . 37
PD8 0.45 299 iP 51 16.57 -0.8
iS 51 28.73
MCNL 0.61 231 iP 51 17.65 -0.9
eS 51 30.64
CDD 0 . 66 190 iP 51 1 7 . 88 -1.1
S 51 30. 89
HOM 0.91 84 eP 51 20.59 -0.6
RED 0.91 21 eP 51 20 . 72 -0.6
iS 51 35.57
RSO 0.95 20 eP 51 21.12 -0.8
eS 51 36.27
REF 0. 99 21 iP 51 21 . 36 -0.9
eS 51 36.91
RON 1.00 19 iP 51 21.47 -0.8
iS 51 37 . 50
NCT 1 . 02 14 iP 5121.70 -0.8
eS 51 37.42
DFR 1 . 08 20 iP 51 22 . 37 -0.8
eS 51 38.75
SY 1 1 . 1 0 1 51 eP 5121.88 -1.4

p M PLJ i 11 Q ^ IP ** i '}*}*} f\ i ^ ^ n r M I. II y f. I r 31 £ £ . £ 3 1 . &
eS 51 39.34
RDT 1.12 26 iP 51 22. 55 -1.0
eS 51 39.20
NNL 1.17 66 iP 51 24.06 0.0
8RLK 1.30 81 eP 51 24.24 -1.3
eS 51 42.62
CKL 1.71 18 iP 51 29.84 -0.8
eS 51 52.64
SPU 1.75 22 eP 51 30.00 -1.0
eS 51 52.79
BGL 1 - 77 16 eP 51 30. 71 -0.6
SLKM 1.86 58 eP 51 31.33 -1.1
CGLM 1.87 21 eP 51 31.63 -1.0
SVW 1.89 326 eP 51 31.60 -1.2
NCG 1.94 18 eP 51 32.75 -0.8
SEW 2.07 73 eP 51 33.53 -1.6
SUA 2.31 34 eP 51 37.55 -0.8
PMS 2.54 47 eP 51 40.11 -1.3
SKT 2.59 20 eP 51 40.62 -1.3
LTI 2.85 78 eP 51 43.22 2.2
MTU 2.95 79 eP 51 44.06 -2.7
KNIM 2.96 72 eP 51 44.31 -2.6
KNK 3.07 51 eP 51 46.52 -1.9
CUT 3 . 23 27 eP 5149.31 -1.2
GLI 3.42 65 eP 51 50.50 -2.6
35 obs. associated

AUG 08, 1991 02h 09m 44.71± 0.61s
0.972 N ± 4.5km 122.631 E ± 5.1km DEPTH - 1 2 . 4 ± 3 .6 km
5.9mb (62 obs.) 6.4Msz (30 obs.)
MINAHASSA PENINSULA (265)
MS 6.3 (BRK). Mo = 4 . 0* 10* * 1 8 Nm (PPT). Felt along the Minahosso Peninsula. Complex event

61

08d 02h

MN 1

TSM

DAV
MKS

KUPT

TRT

OCP
BAG

KNA

KGM

IPM

MBL

HKC

MCO
WRA
PS 1

observed on broodbond
displacement seismogroms.
FAULT PLANE SOLUTION: P-Woves

NP1 : S t r i ke-255 0 i p=78 S 1 i p = 90
NP2: 75 12 90

Principal Axes:
T P 1 g=57 Azm= 1 65
P 33 345
Comment: The focal mechanism is
poorly controlled ond
corresponds to reverse
faulting. The preferred foult
plane is NP2 .
RADIATED ENERGY
No. of sto: 5 Focol mech. F
Energy 2 . 2±0 . 6 » 1 0 » * 1 3 Nm
MOMENT TENSOR SOLUTION

Dep 25 No.ofsta: 8
Moment Tensor; Scale 10**19 Nm
Mr r- 0 . 43 Mt t--1 . 20
M f f- 0 . 77 Mr t«=-0 . 44
Mr f 0 .61 Mt f- 0 .26
P r i nc i pa 1 axes:
T Vol = 1.32 Pig-38 Azm=l04
N -0.01 49 258
P -1 . 32 13 3

Best Double Co up 1 e : Mo= 1 . 3 » 1 0 » » 1 9 NP 1 : S t r i ke-1 36 Dip-53 S 1 i p = 160
NP2: 238 74 38

CENTROID. MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 24S, 70C M.W.: 14S, 32C Centroid Location:
Origin Time 02:09:57.6 0.1
Lot 1 . 54N 0.01 Lon 122. 63E 0.01

Dep 33.2 0.8 Ha 1 f -d u r o t i o n 7.3
Moment Tensor; Scole 10**18 Nm
Mrr = 6.62 0.09 Mtt 7.81 0.09
Mff- 1.19 0.13 Mrt 6.07 0.25
Mrf- 0.40 0.16 Mtf= 0.14 0.09
P r i nc i po 1 Axes:
T Vol = 8.85 Pig-70 Azm=187
N 1.18 2 92
P -10.03 20 1

Best Double Coup 1 e : Mo = 9 . 4 1 0 » » 1 8 NP1:Strike- 88 Dip=25 Slip- 86
NP2: 273 65 92

2 .26 78 ePc 10 21 . 50 -0.9
eS 1049.00
5. 79 305 iPd 1 1 06 . 90 -5 . 5X
0.2s 236.70nm 6.5mb
e 12 1 1 .50
6.75 26 eP + 11 23. 00 -3 . 0X
6.91 207 iPc 1 1 36. 00 7 . 7X
iS 12 38 . 00
1 1 . 09 175 eP 12 39.00 12. 8X
0.7s 207.30nm
13.18 229 iPc 12 54.60 0.3
0 . 9s 255 . 20nm 6 . 3mb
13.66 354 eP 12 50.00 -10. 7X
15.47 353 eP- 13 20.00 -4.6X
2.0s 823.53nm 5.7mb
iS 16 22.00
17 . 69 160 eP 1 3 55.00 2.5
0.7s 714.00nm 5.9mb
e 13 58.00
e 1403.00
19. 33 273 ePc 14 15. 20 2.4
1.1s 273 . 90nm 5 . 4mb
e 14 26.60
e 1447.00
21.87 280 ePc 14 40.40 1.0
1.1s 363.30nm 5.7mb
e 15 12 . 90
e 16 58 . 00
22 . 17 187 eP 14 41 . 30 -0.9
0.5s 76.00nm 5.4mb
e 1446.00
22 . 74 339 iP 14 49. 30 1.4
eS 18 18 . 00
22. 80 338 eP 14 49. 10 0.6
23. 75 152 eP 1 4 57 . 70 -0.1
23. 76 274 eP 14 58.00 0.1
e 18 45.50
e 26 27 . 00
e 29 00.00

WR2

TATO

MDG
ANP

NANU

PCT
PJG
GUA

2
NNT

LOE
PMG
NST
OIS
WARB

KHT
BDT

CHG

CHTO

RAB

SSE

Z
N
E

KM I
KM I

Z
N
E

CTAO

COOL
BAL

FORR

KLB

MUN

Z

NWAO

OLP

SHK
RKG

RMO

STK

MAJO

23.76 152 iPd 14 58.00 0.1 iS 22 57.47
i 1 5 04. 50 eSS 25 19. 32
23.89 357 ePd 14 56.06 -3.0X MAT 38.22 20 P 17 07.00 0.8
e 15 60.20 SHL 38.43 312 iP 17 04.50 -3.8X
23.93 105 eP 15 02.40 2.8 HNR 38.57 106 eP 17 09.00 -0.4
24.16 358 iPd 15 £0.00 -1.2 ADE 38.79 159 i Pd 17 11.60 0.6
eS 19 14.80 LZH 39.05 336 eP 17 12.00 -1.3
24.39 196 i Pd 15 03.10 -0.9 2.0s 405.00nm 5.8mb
e 20 52. 60 Z 24s 59.50um 6.3MszX
25.06 304 eP 15 12. 00 2.1 E 15s 25.77um

25.33 59 eP 15 14.50 1.4 pP 17 24.00 44kmX
25.34 59 eP 15 15.50 2.3 sP 17 30.00
0.9s 208.40nm 5.8mb i 17 39. 50
20s 8l.48um 6.2Msz PPPP 18 38.00
25.46 298 e-P 15 £5.40 -8.9X i 18 51.00
e 22 12. 20 S 22 56 . 00
26.25 310 eP 15 22.00 0.3 ScP 23 13.00
26.51 113 eP 15 23.00 -1.1 sS 23 14.00
26.57 305 eP 15 24.00 -0.6 SS 25 30.00
27.09 143 iPc 15 29.00 -0.4 ScS 27 19.50
27.27 172 eP 15 30.00 -1.0 LZH 39.05 336 i Pd 17 17.17 3 . 9X
0.5s 107.00nm 5.8mb 2.0s 405.00nm 5.8mb
e 15 32.00 Z 24s 59.50um 6.3MszX
e 15 36.00 E 15s 25.77um
27.43 301 eP 15 35.30 2.8X i 17 39.50
28.32 306 eP 15 41.80 1.4 PPPP 18 38.00
0.8s 143.30nm 5.8mb i 18 51.00
29.22 309 ePd 15 48.20 -0.5 iS 23 10.93
1.4s 63.95nm 5.2mb sS 23 14.00
eS 20 20 . 00 eSS 26 02.19

29.22 309 eP 15 48.30 -0.4 CMS 39.07 148 e(P) 17 13.00 -0.4
1.3s 2l5.28nm 5.8mb i 17 16.60
29.96 100 eP 15 55.00 -0.3 BJ 1 39.33 352 eP 17 14.00 -1.3
iS 21 04.00 1.0s 60.00nm 5.2mb
29.99 358 P 15 55.50 0.2 N 16s 22.10um
1.2s 68.00nm 5.4mb E 15s I3.60um
20s 71.20um 6.3Msz ePP 18 48.00
16s 30.90um eS 23 18.00
18s 52.00um eSS 26 04.00

pP 16 12.50 71kmX eScS 27 23.50
sP 16 23.00 BRS 40.44 136 iPc + 17 24.50 -0.3
PP 17 00.00 1.2s 45.50nm 5.1mb
PcP 19 07.00 i(pP) 17 33.40 30kmX
S 20 54.00 i (PP) 18 01 .00
PcS 22 38.00 i 19 13.00
ScS 26 17.00 e(S) 22 30.00
30.75 323 Pd 16 02.00 -0.4 COO 41.95 141 i PC 17 38.60 1.5
30.75 323 PC 16 04.00 1.6X i 17 42.80
3.0s 520.00nm 5.9mb BFD 42.21 156 ePd 17 20.70 -18. 4X
16s 24.30um 6.0MSZX i 17 25.00
16s I4.90um BWA 42.72 148 eP 17 47.40 4.0X
17s 26.1 0um i 1 7 50 . 30
pP 16 30.00 119kmX CAN 43.71 148 eP 17 52.00 0.6
sP 16 42 .00 i 17 57 . 30
i 17 02.00 RIV 43.79 145 e(P) 17 56.00 4.0X
S 21 06.00 Z 20s 19.43um 6.0Msz
31.21 133 eP 16 07.74 1.5 i 18 00.00
ed 1619.83 i 1 9 42 . 20
eS 21 1 4 . 90 e 2448.00
eSS 23 22.53 TOO 43.79 154 i Pd 17 53.50 1.4
31.71 182 eP 16 12.00 1.4 0.3s 160.00nm 6.3mb
31.91 190 eP 16 09.50 -2.7 i 17 54.70
0.5s 199.00nm 6.3mb CNB 43.90 148 i PC 17 55.00 2.0
e 16 14.00 0.4s 160.00nm 6.2mb
32.07 171 eP 16 11.50 -2.1 i 17 59.70
0.4s 112.00nm 6.1mb GUN 44.21 311 P 17 54.34 -1.6
32.71 188 eP 16 17.00 -2.3 PKI 44.39 310 P 17 55.02 -2.5
0.4s 97.00nm 6.1mb KKN 44.60 310 P 17 56.52 -2.5
e 16 22.00 DMN 44.65 310 P 17 57.18 -2.3
33.33 190 eP 16 23.00 -1.6 SAP 45.12 19 eP 18 06.00 3.4X
0.9s 147.00nm 5.9mb eS 24 42.00
20s 29.40um 6.0Msz GKN 45.20 310 P 17 59.24 -4 . 5X
e 16 27.00 KOD 45.82 283 eP 18 11.40 2.4
34.10 188 eP 16 29.00 -2.3 eS 24 05.00
0.6s 80.00nm 5.8mb HYB 46.31 293 ePc 18 14.50 2.0
e 16 34.00 1.0s 320.00nm 6.3mb
34.42 144 eP 16 34.00 -0.1 eS 24 56.00
i 16 39.40 HIA 48.17 357 ePd 18 25.37 -1.3
34.68 15 eP 16 33.50 -2.8 e 18 29.35
35.75 188 eP 16 47.00 1.6 iS 25 26.56 '
0.6s I54.00nm 6.1mb e 28 03.80
37.15 139 eP 17 03.40 6. IX DZM 48.47 121 i PC 18 28.90 -0.6
i 17 08.50 BKM 48.57 115 iP 18 37.20 7 . 0X
i 18 34.00 PVC 48.65 115 i PC 18 33.20 2.4
37.29 153 iPc 16 58.10 -0.3 TAU 49.00 156 eP 18 37.15 4 . 0X
0.8s 93.10nm 5.6mb e 18 51.05
38.22 20 ePd 17 04.46 -1.7 YSS 49.09 18 P 18 35.00 1.2

02h

62

POO 50.92

1 .05

ND 1

BOM

WMO

1 RK

VUN
SVA
DUE

GAR

THZ
LTZ
NGZ
TCW

MCQ

KHZ
MQZ
MRW
WEL

CAW
WDW

MOW

BLW
PGZ
HBZ

51
1 .
51

52

53

58
58
60
1

60

62
62
62
62
62
1 .
62
62
63
63

63
63

63

63
63
64

. 34
0s
. 96

. 78

. 38

. 05
. 07
. 23
0S

. 87

. 17
. 27
. 78
. 80
. 86
4s
. 90
. 98
. 10
. 17

. 28
. 31

. 55

. 68
. 88
. 05
0 . 8s

SMY 66
1 .

. 91
3s
Z 20S
CSY

MA 1 O

DRV
ADK
DHR

1 R4
1 R 1
IR5
1 R7
CRZF

TAB
SLY

BHD

67
0 .
67
0 .

68
7 1
73

74
74
74

. 67
7s
. 98
8s

. 61
. 54
. 89

. 56
. 76
. 8 1

74|. 87
77

78
78

79

. 55

. 63
. 97

. 64

293 iPc
86 . 00nm
i S
307 eP
60 . 00nm
293 eP
eS

329 ePd
ed
i S
esS
346 ePd
e

epP
esP
e
e
ePP
ePPP
eS
ePS
e
e
eSS
e
eSSS
1 12 eP
1 12 eP
305 eP
725 . 00nm
e
e
eS
315 eP
i PcP
iPP
ePcS
e

iS
iSS
iSSS
139 eP
141 eP
136 eP
138 eP
157 iPd
93. 20nm
1 40 P
141 P
138 P
138 P
S
ScS
138 eP
138 P
e
138 P
e
138 eP
137 P
133 eP
258 . 00nm
e
31 P
566 . 04nm
1 2 . 00um
185 iPc
46 . 60nm
309 eP
1 8 . 30nm
eS
173 eP
35 ePc
297 eP
iS
306 eP
306 eP
306 eP
307 eP
222 eP
eS
309 eP
306 ePd
e
e

304 ePd
iS

18 46.80
5
26 00.00
18 51.00
5
18 48.00
26 1 1 . 00
19 01 . 37
19 13.79
26 28. 77
26 41 . 68
19 04.00
19 20 . 00
19 34.00
19 40.00
19 47 . 00
20 33.00
21 17.00
22 25.00
26 36.00
26 58.00
27 54.00
29 00.00
29 27.00
30 07.50
32 09.00
19 41.40
19 46. 40
19 52.80
6
19 56. 70
22 32.70
28 07.40
19 55.00
20 10.00
21 58.00
24 22 . 00
26 17.00
28 20.00
32 22 . 00
34 38.00
20 07 . 40
20 08.20
20 13.90
20 10. 70
20 16.90
5
20 11.70
20 14.90
20 10.80
20 1 4 . 00
28 38.00
29 44.00
20 13.80
20 13.80
20 18.90
20 1 6.90
20 20.60
20 1 7 .50
20 18.10
20 19.50
6
20 25.00
20 39.00
6
6
20 45.20
5
20 47.00
5
31 26.00
20 49.30
21 08.00
21 20.00
30 46.00
21 24.00
21 26. 00
21 29.00
21 26. 00
21 50. 00
31 46.00
21 50 . 00
21 52 .00
22 06.00
24 46.00
21 54 .00
31 54 .00

- 1 . 4
. 6mb

- 0.2
. 5mb
- 8 . 0X

- 0.6

- 2 . 1

1 27kmX

1 . 1
6. 0X
- 2.8
. 8mb

- 4 . 7X

- 0 . 9
- 0.8
1 . 4
- 1 .7
4 . 4X
. 8mb
- 1 .3
1 . 4
- 3.6X
- 0.8

- 1 . 8
- 2.0

- 0.5

- 0.7
- 1 . 4
- 1 .2
. 5mb

0.2
. 6mb
. IMsz
1 .8
. 8mb
0.9
. 3mb

0.0
0.6
- 1 .7

- 1 . 7
- 0.8
1 .9
- 1 .5
7.9X

1 .6
1 .8

0.2

K 1 P

ARO
MSL

SON
AAE
SVW
NA 1

KDC

RSO
1 MA

HR 1
OBN

Z
E

BHL

MML
MBH
SLKM

APR

PAE

PPT

PMR
Z

TVO

KAS

ess
COL

FBA

PPCY
TOA
PMO

VAN

TPT

RUV

HLW

JOZ
SPA

Z
KEV

Z

eScS 32 11.00
79.73 69 ePc 21 58.93 4.4X
eS 32 00.
79.80 281 eP-f 21 57.
80.95 367 ePd 21 59.
ePcP 22 15.
eS 32 05.

: r 3

110 2 . 7X
00 -1 . 8
!>0

lie
eScS 32 14.00
ePS 32 50.00
81.75 34 eP 2206.
83. 79 279 eP 22 16.
85.16 29 eP 22 23.
85.85 269 eP+ 22 28.
cS 33 03.
eSS 38 30.
eLQ 45 46.
86.44 32 P 22 26.
1.6s 491 . 80nm
86.50 30 eP 22 29.
86.55 24 eP 2231.
0.7s 21 . 50nm
86.87 303 eP 22 30 .
86 . 93 325 eP 22 28 .
1.2s 1 500 . 00nm
15s 3 . 50um
15s 1 . 00um
e 22 50.
ePP 26 10.
eSKS 32 58.
ePS 34 04.
ePPS 34 58.
eSS 39 12.
eSSS 42 35.
86.95 304 P 22 33.
S 32 50.
87 . 13 302 eP 22 31 .
87 .57 300 eP 22 33.
87 . 75 30 eP 22 32 .
S 33 00.
87.99 1 07 eP 22 44 .
1.2s 145. 00nm
88 . 1 8 1 08 eP 22 46 .
1.2s 1 1 5 . 00nm
88 . 19 108 eP 22 46.

50 1.6
10 -0.1

)0 2.1
50 1.5
50
50
50
10 -1.8

6 . 5mb
50 0.3
50 2.5
5 . 5mb
50 -1.0
50 -2.6
7 . 1mb X
5 . 9MszX

50
30
30
30
30
30
30
30 1.6
30
70 -0.5
50 -1.1
30 -2.5
50
30 7.6X
6 . 2mb
30 8.6X
6 . 1mb
30 8.6X
1.2s 100.00nm 6.0mb
88.31 29 eP 22 34.k0 -2.7
22s 11. 83um 6 . 3Msz
e 22 56. B0
PP 26 1 3 . b0
SKS 32 59.50

88.50 108 eP 22 48.|00 9 . 0X
1.2s 1 35 . 00nm
88.51 31 1 eP 22 41 .
88.87 305 eP 22 39.
88.95 25 ePc 22 42.
ePP 26 19.
eS 33 22.
8B.95 25 eP 22 38.
0.8s 31 . 03nm
e 22 49.

6 . 1mb
00 2.3
00 -1.5
18 2.0
34
30
00 -2.2
5 . 6mb
20
S 33 28. b0
PKKP 40 21.00

89 .68 305 eP 22 45.|50 1 . 3
89.71 28 eP 22 45 . 80 1.9
89.74 105 iP 22 49.60 4.8X
1.2s 360 . 00nm 6 . 5mb
90 .00 105 iP 22 50 .50 4.5X
1.2s 175. 00nm 6 . 2mb
90 .01 105 i P 22 50 .50 4 . 5X
1.2s 270 . 00nm
90 . 24 1 05 i P 22 51 .
1.2s 1 70 . 00nm
90.64 300 eP+ 22 52.
e 33 04.
e 33 38.
90.93 243 eP 22 48.
90 .97 180 eP 22 53 .
0.8s 95 . 83nm
20s 18.47um
91 .05 340 eP 22 49.
0.8s 27 . 90nm
1 8s 24 . 40um
i 23 08.
e 26 40.
e 33 16.
e 34 54.
e 35 02.

6 . 4mb
60 4 . 5X
6 . 2mb
50 3 . 7X
80
80
80 -2.2
00 3.3X
6 . 2mb
6 . 5Msz
80 -0.9
5 . 6mb
6. 7Msz
40
90
80
80
80

MTD

SOD

BALM

ITU
KAF
KBS
NUR

KR 1
VR 1
PTT
LWI
MLR
BUL
1 NK

CMP
PVL
TNR
BMR
MBC

VTS
VAY
T IM
SPC

KRA

SKO

NVL

BEO
OHR

SRO

e 36 52.00
e 40 04.00
LR 07 34 . 00
91 . 28 253 i Pd 22 54 .50
i 26 34.20
91 . 43 337 i P 22 49 . 20
i 23 1 1 . 00
91 .60 29 «P 22 50 . 70
PP 26 30.00
SKS 33 23.00
92.10 311 iPd 22 56.00
92. 12 332 eP 22 52.50
92.97 350 eP 22 59.50
93.10331 i P 2305.20
. 1.0s 30.00nm 5
Z 18s 18. 90 urn 6
i 23 18. 40
e 25 26 . 00
e 3326. 00
e 34 08.00
e 35 1 8 . 00
e 40 1 8 . 00
LR 1010.00
93. 1 7 253 i Pd 22 49. 90
93 . 43 3 1 6 eP 2300.00
93.57 31 7 eP 23 03.50
93.86 268 iPc 23 08.00
94 . 81 316 eP 23 06. 00
94 . 1 1 250 i PC 23 03. 00
94 . 21 21 eP 23 03.00
1.4s 80 . 00nm 5
pP 23 22.00
94.67 315 ePd 23 12 .00
94.67 313 i P 2309.00
95. 16 316 ePc 23 09. 00
95 . 44 318 ePd 23 12. 00
95.51 12 eP 23 1 1 .50
1.0s 20 . 00nm 5
96. 29 313 i P 23 15. 00
96.92 312 eP 23 16.50
97 . 27 316 eP 23 23. 00
97 . 35 320 eP 23 17 . 00
e 27 31 . 80
97 .39 321 eP 23 20. 70
Z 21s 14. 90um 6
E 21s 13. 40um
e 23 22.90
e 23 32.70
e 27 28.00
e 34 00.00
e 36 40 . 00
97 . 67 312 eP 23 21 .00
Z 20s 6.88um 6
N 19s 4.86um
F 19s 7.53um
e 23 36.40
i PP 27 24.50
i 33 44.00
iSKS 34 00.00
iS 34 33.00
IPS 36 24.00
i SS 41 24 . 00
97.68 198 ePc 23 24.00
e 23 38.00
e 23 55.00
e 24 16.00
e 24 41 . 00
e 25 40.00
e 27 28.00
ePP 27 33.00
e 27 38.00
e 28 15 . 00
e 28 22.00
e 32 17 . 00
eSKS 33 55.00
eSKKS 34 15.00
eS 34 28.00
e 34 48.00
e 34 55.00
e 35 28.00
ePS 35 46.00
e 36 22.00
ePP 36 35.00
97 .95 315 eP 23 22.00
98.27 312 eP 23 22.30
e 26 36.30
98.87 319 iP 23 27. 10

2.5

- 2. 4

- 2.0

6.8
- 2. 4
0.9
5 . 8X
. 7mb

. 6MSZ

- 1 0 . 9X
- 1 . 3
1 .6
3.8X
1 .8
- 2. 1
- 1.4
. 9mb
68kmX
4 .9X
2.0
- 0 . 3
1 .5
1 .2
. 5mb
0. 3
- 0.8
4. 2X
- 2. 4

1 . 4
. 5MSZ

0.3
. 1Msz

3-8X

0. 1
- 1 .2

1 . 1

63

08d 02h

NB2

DAG

KSP

ZST
VKA

COP

KONO

PRU

PTJ
ZAG
BRG

BRN
CLL

VBY
KMR

KHC

LJU

TDS
CEY
VOY
TR 1

MOX

GRF

WTTA

YKA

SFI

99 .38
1.1s
99 . 41
0 . 9s
2 1 8s
N 18s
99.51

99 .59
100.03
3 . 5s
2 21s

100 . 46
Z 18s

160.61

100 .81
2 17s

100.85
100 .85
160 .95
1 . 2s

100 .97
1 01 . 40
2.5s
Z 18s

101 .42
101 .56

101 .64
Z 20s
N 22s
E 20s

101.79

181 .88
101 .93
102.22
102.39

102.43
1 . 8s
102.96
3.0s
2 22s

103.39
1 .3s

103.67
1 .0s
184 . 16

e 27
e 40
333 P 23
13. 1 9nm
352 eP 23
44 . 54nm
1 1 . 68um
1 2 . 5 1 urn
322 eP 23
i 23
319 eP 23

319 e (Pd i f 23
470 . 00nm
7 . 80um
i 23
i 27
LR 10
327 i P d i f f 2 3
19 . 38um
eS 34
i 37
332 «Pdiff23
iSKS 34
iSDIF 35
321 ePdi f f 23
5 . 70um
e 23
PP 27
SKS 34
S 35
eSS 42
31 7 ePd i f f 23
317 ePdi f f23
322 iPdi f f23
34 . 00nm
i 23
i 23
e 27
ePP 28
i 28
eSKS 34
eS 35
e 36
e 38
e 40
eSg 42
324 ePdi f f 23
323 ePdi f f 23
72 . 00nm
1 7 . 00um
eS 35
PKKP 39
PKKP 40
317 ePdi f f23
320 ePd i f f 23
i P P 27
eSP 36
321 i Pd i f f 23
1 8 . 00um
9 . 70um
1 1 . 50um
e 23
PP 28

317 e(Pdi f 23
e 27
eSKS 34
311 Pd i f f 23
317 ePdi f f 23
318 ePdi f f 23
31 7 ePd i f f 23
ePP 28

e(SP) 36
e(SSP)42
eLR 58
323 ePdi f f 23
25 . 00 nm
322 iPdi f f 23
91 . 00nm
1 3 . 00um
ePP 28

319 i (P d i f 2 3
37 .90nm
i 24
i 28
24 ePd i f f 23
2 . 60nm
316 Pdi f f 23

41 .80
27 . 60
27 . 50
5
24 . 80
6
6

39. 50
59 . 00
28.00
29 . 00
6
6
50 . 10
47 .50
40.00
44.00
6
16.00
35.00
35.91
07.61
04.55
35.20
6
51 .20
51.50
06 . 00
16.00
05 .00
36 . 10
38.30
36.20
5
40 .50

55.00
36.20
00.00
11.00
24.00
20.00
44.00
00.00
18.00
16.00
50 . 00

38. 00
5
6
22.00
51 .00
15.00
39.00
3B.00
51 .00
46.00
39.50
6

58. 00
03.00
40.00
43 .00
20 .00
40 .60
40 . 60
41 . 30
42 .00
06.00

58 . 00
44.00
40.00
43 . 50
5
45 .30
6
6
06 .50
46 . 70
6
09.50
09 . 40
54 .50
5
51 .90

- 0.6
4mb
- 3.2X
1mb
4Msz

1 0 . 6X

- 1 . 3
- 2.6X
4mb X
2Msz

1 1 .0X
7Msz

2.3X

0.5
2MszX

1 .0
3. 3X
0.9
8mb

14. 6X
0. 7
8mb
6Msz

1 . 4
- 0. 1

1 .0
6Msz

0.8

0.9
0. 7
0. 1
0.2

1 .5
6mb
1 .0

0mb

4MSZ

0. 1

0mb

7.4X
0mb
2 . IX

CRE
PGD
DBN

MEM

UCC

DOU

SNF
PNT
LPG

LPL

WDC
LRG

CDR

NEW

8KS
ORV
MAP
ARM
GDH

CMB

CMB
LLA
PR 1
FRI
SES
SES
ISA
TNP

LRM
CLC
PAS
PAS

MWC
SBB
FFC

FFC

RVR
GSC
GSC

PEC

PLM

PLM
ETOR

BAR
TPC
DUG

BW06

Ev I A
MSU
GUD

104.17
104.27
105. 73
2 18s

105 . 81

106.71

1 06 . 85
2 18s

106 .87
106 . 97
107.16
1 . 2s
107.16
1.1s
107.99
108. 10
Z 22s
108.43

108 . 91
2 22s
1 09 . 01
109.06
109.61
109.70
109 . 86

1 10.36

110.36
110.37
110.72
111.20
111.48
1 1 1 . 48
1 12. 56
112.70

112.84
113.19
113.27
113.27

113.34
113.37
1 13.53
0.9s
1 13. 53
1 . 3s
1 13. 95
113.97
1 13.97

114.15

114.56

114.56
1 14.89
114.92
114.95
115.06

116.10

116.11
116.21
1 16. 40

316 Pdi f f 24
316 Pdi f f 23
325 ePdi f f 24
1 2 . 50um
ePP 28
eS 35
ePS 37
eSS 43
eSSS 47
324 ePKP 28
PKKP 39
324 Pd i f f 24
PPS 38
324 Pd i f f 24
1 0 . 60um
PP 28
SKS 34
S 36
PKKP 39
e 42
324 ePKP 28
37 ePKP 28
319 ePd i f f 24
1 0 . 40nm
319 ePd i f f 24
8 . 55nm
47 ePKP 28
3 1 7 ePd i f f 23
1 1 . 50um
317 ePKPc 28
e 28
38 ePKP 28
1 3 . 1 6 urn
49 i Pd i f f 24
47 ePKP 28
320 ePdi f f24
50 PKP 28
359 ePd i f f 24
e 28
i 29
i 38
49 e(PKP)28
PP 29

49 e(PKP)28
50 e(PKP)28
51 e(PKP)28
50 ePKP 28
34 ePd i f f 24
34 ePKP 28
51 ePKP 28
48 ePKP 28
PKKP 39
38 ePdi f f24
50 ePKP 28
52 ePKP 28
52 ePdi f f 24
eSKS 35
iSDI F 36
52 ePKP 28
51 ePKP 28
26 ePd i f f 24
5 . 00nm
26 ePKP 28
19 . 00nm
52 ePKP 28
50 ePKP 28
50 ePdi f f24
eSKS 35
iSDIF 37
ePS 38
52 ePKP 28
PKKP 39
52 ePKP 28
PKKP 39
52 ePKP 28
317 ePKP 28
53 ePKP 28
51 ePKP 28
44 ePKP 28
PP 30
iPKKP 39
40 ePKP 28
PP 29
iPKKP 39
314 ePKP 28
46 PKP 28
317 ePKP 28

07 .20
52 .00
02 . 00

24. 00
56. 00
32.00
20 . 00
05 . 00
15.50
56.10
06. 00
38. 00
06 . 00

33.00
46 .00
10.00
51.00
43 .00

15. 80
16.00
07 . 00

06 . 40

18 . 00
56.50

21.10
43 . 60
14.00

22 . 00
18 . 00
04 . 00
24.00
23. 00
10 . 00
02 . 00
1 1 .00
16. 50
08 . 50
23.30
25. 30
21.70
25 . 70
37 . 00
20.00
25 .00
25.00
1 4. 20
37 . 70
36 .00
30 .00
35.19
10.88
56 . 90
34.00
28 . 00
43 .00

15 .00

30.00
29.00
40 . 69
13.20
01.34

49 . 64
28 . 40
10.50
26. 20
12.00
42 . 00
30.00
33.00
33.00
24. 00
03.50
06 . 00
27 .50
48.00
03.00
32.00
28. 80
32.20

1 7 . 2X
1 . 5
5 .5X
6 .5Msz

5 . 7X

5 . 1 X

4 . 4X
6 . 4Msz

4.0X
3 . 9X
3.5X
5 . 8mb
3 . 0X
5 . 7mb
3 . 7X
- 10. 8X
6 . 4Msz
6 . 1 X

- 1 . 8
6 . 5Msz
10 . 5X
1 . 7
- 10 . 0X
6. 3X
8.5X

- 2 . 4X

4 . 4X
6 . 4X
2 . 0X
5 . 3X
1 4 . 7X
- 0.6
1 . 9
1 .5

9 .0X
1 1 . 7X
5 . 5X
4 . 6X

9. 1 X
3 .2X
1 1 . 8X

- 9. 3X

4.2X
3 . 0X
6.9X

2 . 1 X

- 1 . 1

1 4 . 7X
2.5X
5 . 2X
5 . 2X
- 4 . 0X

- 2 . 5X

2 . 0X
- 1 .5
1 . 7

EGUA
PV09

EHOR
EPRU
PTO
EJ 1 F
Al_J
GI8L

PLAT
CN i L
GOL

GLO

ANMO

ALO

K 1 C

T 1 C

LI C

TUL

CCM

FVM

POW
ELC
BNH

TBR
LVNJ
PNJ
GMTN
NAV
BLA

CBN

JSC
LNV

CHCH
TACH
PCH

SAN
1 HA
PEL
LPA

ZON
RTLL
CYA
RDJ
BMA

UPA

VAO

1 TB
PT10
NNA

CA 1
ARE
CUMC
ANCC
SI LC
LPB

117.62 313 ePKP 28 34.30 1.5
118.37 44 ePKP 28 33.50 -1.0
PKKP 38 51.00
118.42 315 ePKP 28 36.00 1.8
118.78 314 ePKP 28 38.00 3.0X
119.13 319 ePKP 28 31.50 -3.9X
119.17 313 ePKP 28 38.00 2.3X
119.17 314 ePKP 28 37.50 1.7
119.36 314 ePKP 28 37 .50 1.4
119.53 313 ePKP 28 38.50 2. IX
119.63 314 ePKP 28 38.00 1.5
120.36 42 PKP 28 36 . 80 -1.4
222s 8 . 62um 6 . 4Msz
120.43 42 PKP 2837.00 -1.2
2.22s 1 1 . 5Sum 6 . 5Msz
121.89 47 ePKPc 28 39.10 -2 . 1 X
Z 22s 7.22um 6.3Msz

(PP) 30 27 .00
PKKP 38 41.70
SKKP 42 29.60
121.89 47 ePKP 28 39.00 -2.2X
Z 20s 5.94um 6.2Msz
126.97 279 PKP 28 51.68 0.3
1.0s 65 . 00nm
127.21 279 PKP 28 51 . 94 0.1
1.1s 1 06 . 00nm
127.26 279 PKP 28 52.04 0.1
0.9s 57.00nm
Z 20 s 7 . 50um 6 . 4Msz
128.76 40 ePKP 28 54.50 0.4
1.4s 83 . 40 nm
2 20s 9 . 84um 6.5Msz
N 22s 6 . 48um
E 22s 7.39um
e 3104.00
LR 12 25 . 00
130.16 35 «Pdiff25 57.13 1 1 . 4X
eSKKS 38 04 . 73
i SO I F 39 14.25
130.68 35 ePKP 28 57.00 -0.7
SKP 32 19.00
131.49 37 PKP 28 57.50 -1.8
131.85 34 PKP 28 56.50 -3.4X
132.98 14 ePKP 28 55.00 -6.9X
SKP 31 49.50

135.37 18 (PKP) 29 03.00 -3.5X
135.50 19 PKP 29 03.00 -3.8X
135.61 18 iPKP 29 11.30 4.4X
135.62 18 iPKP 29 11.40 4 . 4X
136.16 27 PKP 29 01.00 -7 . 2X
136 . 42 27 ePKP 29 10 .00 1.3
iSKP 32 40.50
136.87 23 ePKP 28 59.00 -10. 4X
e 31 55 . 00
138.38 30 ePKP 29 08.00 -4.4X
144.65 160 ePKP 29 21.00 -2.4X
144.93 161 ePKP 29 21.00 -3.0X
145.09 160 ePKP 29 22.00 -2.2X
145.26 161 ePKP 29 23.00 -1.6
145.36 160 ePKP 29 23.70 -1.0
145.41 159 ePKP 29 26.00 1.3
145.64 160 ePKPc 29 23.50 -1.7
146.23 179 1PKP+ 29 27.60 1.6
1.1s 1 41 7 . 72nm
Z 20s 4.26um 6.2Msz
PKS 33 00.00
147.77 162 ePKP 29 33.30 4.6X
148.03 162 ePKPd 29 30.00 0.9
151.52 164 ePKP 29 39.80 5.3X
154.24 211 ePKP 29 44.80 6.4X
154.87 210 ePKP 29 47.50 8.2X
e 30 08 . 10
155.80 65 iPKPc+29 44.00 3.2X
Z 21s 5 . 99um 6 . 4Msz
155.88 204 ePKP 29 42.50 1.7
e 30 1 1 . 10

156.12 187 e(PKP)29 57.00 16. 0X
157.65 120 e(PKP)29 47.00 3.9X
157.80 120 ePKP 29 45.80 2.4X
1 . 2s 39.06nm
2 22s 50.00um 7.3Msz
159.08 254 ePKP 29 47.70 2.9X
159.25 139 ePKP 29 43.00 -2.2X
159.41 85 ePKP 29 46.21 0.4
160.01 77 ePKP 29 49.98 4. IX
160.69 79 ePKPc 29 46.74 -0.3
161.27 146 PKP 29 45.00 -2.5X

08d 02h

i 29 51 .00
PP 34 1 7 .69
LR 6144.60
ZOBO 161.47 146 ePKPc 29 49.24 1.4
1.3s 1 89 . 62nm
ed 30 00.24
ePP 34 18.62
LR 6 1 44 . 66
CCH 161.55 153 ePKP 29 48.66 6.4
i 36 38 . 50
SOB1 161.68 243 ePKP 29 49.26 1.7
e 2951.16
e 36 35.36
e 36 41 . 70
BAG 162.74 212 ePKF'd 29 47.56 -1.1
SIV 164.64 166 PKP 29 48.86 -1.5
S.D. * 1.5 on 194 of 319 obs.

__ _ . _

% AUG 08, 1991 83h 31m 57 . 73± 0.60s
37.219 N ± 6.5km 3.688 W ± 5.4km
DEPTH = 10.0km (geophys i c i s t)
SPAIN (377)
mbLg 2 . 9 (MOD) .

ECOG 6.11 59 iPgd 32 00.20 -0.5
eSg 32 02.80
AFC 0.12 73 iP 32 00.50 -0.4
eS 32 03.00
EGUA 0.40 166 iP 32 04.50 -1.4
eS 32 10.50
EBAN 0.95 355 eP 32 15.00 -0.8
S 32 27.50
EHUE 1.05 55 ePgc 32 18.00 0.3
eSg 32 32.50
ENIJ 1.21 161 ePgc 32 21.36 1.6
EPRU 1.26 259 ePgc 32 21.86 0.6
eSg 32 38.86
EHOR 1.38 296 ePn 32 21.86 -1.2
eSn 32 46.66
EJIF 1.62 242 ePn 32 27.76 1.3
eSn 32 47.86
EVIA 1.76 33 ePn 32 28.66 6.9

eSn 32 48.50
S.D. -1.1 on 1 0 of 10 obs .

AUG 08, 1991 04h 00m 01.42± 0.25s 1.294 N ± 4.8km 122.663 E ± 5.8km DEPTH - 45.2km (4 depth phoses) 5.3mb (21 obs.) 5.4Msz (8 obs.)
MINAHASSA PENINSULA (265)
Felt ot Gorontolo.

MN! 2.18 86 eP 00 34.50 -1.4
TSM 5.64 302 iPd 01 21.00 -3.9X
0.3s 2 1 4 . 20nm 6 . 0mb
DAV 6.45 27 eP+ 01 34.00 -2.3
1.4s 5116. 28nm 7 . 0mb X
MKS 7.21 206 iPd 01 52.00 5 . 0X
OCR 13.35 353 eP 03 14.00 3.4X
TRT 13.41 228 ePc 03 16.00 4.6X
BAG 15.16 352 ePd- 03 33.00 -1.5
2.9s 2033. 33nm 5.8mb
eS 05 52.00
KNA 17.98 161 eP 04 11.00 1.2
0.7s 5 1 . 00nm 4 . 8mb
KGM 19.35 272 eP 04 19.00 -7.3X
e 04 35.80 82kmX
« 0448. 80
IPM 21.85 279 ePd 04 52.70 0.6
1.4s 1 90 . 90nm 5 . 3mb
HKC 22.46 339 eP 04 58.00 0.0
eS 69 06.00
MBL 22.49 187 eP 04 57.30 -1.0
WRA 24.01 152 P 05 12.80 -0.4
WR2 24,03 152 eP 65 12.10 -1.3
NANU 24171 196 eP 05 19.00 -0.9
0.3s 24.00nm 5.2mb
PCT 24[85 303 eP 05 30.70 9.4X
PJG 25ll4 60 eP 05 24.80 0.7
GUA 25.16 60 eP 05 25.00 0.8
0.5s 61 . 97nm 5. 4mb
NNT 25[34 297 eP 05 21.60 -4.4X
LOE 26 08 309 eP 05 32.50 -0.3

NST 26[42 304 eP 05 40.00 4. IX
PMG 26^61 114 eP 05 38.00 0.3
KHT 27^29 301 eP 05 46.00 2.0
OIS 27.33 144 i PC 05 44.40 0.1

WARB

BDT
CHG
CHTO
SSE

RAB
KM 1

CTAO
BAL
KLB
NWAO
TSRJ
I IDJ
STK

CHJJ
MTMJ
MAT

L2H

BJ I

ADE

CMS

BRS

COO
BFD
BWA
CAN
GUN
TOO
PKI
KKN
DMN
GKN
KOD

KUSJ
ASAJ
HYB

GBA

DZM
POO

1 RK

Z
N
E

Z
N
E

Z

Z
E

Z
N
E

27 .59
0.4s
28 . 16
29.65
29 . 05
29.67
7.0s
20s
1 4s
15s

29 . 99
30 .52
2.0s
18s
15s
15s

31.41
32.23
33 .03
34.42
36.25
36.85
37 . 56
0 .6s
37 .75
37 . 81
37 .91
1 .2s
1 9s

38. 77
2.0s
18s
15s

39.01
1 .0s
18s
16s
16s

39 .08
0.8s
39.32

40.65

42. 18
42 . 49
42.97
43.96
44.02
44.07
44 . 21
44 . 42
44 . 47
45.02
45.78

46.05
46. 19
46.21
1 .0s

46.38
0.9s
48. 61
50.82

53.07

172 eP 05
8 . 00nm
306 eP 05
308 eP 06
308 eP 06
357 P + 06
0 . 90nm
8 . 30um
3 . 60um
2 . 60um
pP 06
sP 06
S 1 1
PcS 12

101 e(P) 66
323 Pd 06
73 . 00nm
6 . 50um

1 . 60um
2 . 50um
pP 06
S 1 1
134 iPc 06
190 eP 06
188 eP 06
188 eP 06
19 eP 06
21 eP 07
153 eP 07
30 . 90nm
22 eP 07
20 eP 07
21 eP 07
45 . 31 nm
4 . 86um
eS 13
335 Pd 07
176. 00nm
6.71 um
4 . 25um

pP 07
sP 07
PP 08
PcP 09
S 13
PcS 13
sS 13
SS 15
ScS 17
352 eP 07
20 . 00mm
5 . 30um
2 . 90um
2 . 20um
ePP 09
eS 13
eSS 16
eScS 17
159 eP 07
205 .97nm

148 e(P) 07
e 15
137 iPd 07
e(S) 14
1 41 eP 07
156 eP 07
148 eP 07
148 i PC 08
310 P 08
154 eP 08
310 P 08
310 P 08
309 P 08
310 P 08
283 eP 08
eS 15
22 eP 08
20 eP 08
293 eP 08
80 . 00nm
eS 15
288 PC 08
2 . 99nm
121 i PC 08
293 eP 08
IS 09
346 eP 09

46.^0 -0.5
4 . 7mb
55.^0 3.3X
01 .£0 1.2
02 . »0 2.3
05 . 60 -0.2
2.6mb X
5 . 4Msz

1 7 . 00 46km
25 . 60
00 . 60
48 . 60
08 .
1 3.

25.
15.
21 .
25.
32 .
45 .
59 .

'30 -0.3
30 0.5

5. 1mb
5.3Msz

50 46km
30
50 0.8
30 -2.7
30 -2.7
30 -1.7
30 -2.4
03 .20 -4. IX
13 .&0 6.3

13.
1 4 .
1 4 .

03.
24 .

37 .
43.
57 .
48 .
1 A 1 D .
26.
36.
58 .
30.
25 .

00 .
26.
10 .
32 .
23 .

29 .
08 .
39.
00 .

5. 4mb
40 -1.5
?0 -1.2
30 -2.2
5. 3mb
5 . 3Msz
00
00 0.4
5 . 5mb
5.5Msz

00 49km
00
06
50
66
60
66
06
06
66 -0.3
4 . 9mb
5.4MS2

66
66
66
66
66 -2.4
6 . 6mb
66 1.6
66
76 0.6
06
53. 70 2.1
36 .00 -18. 0X
57.60 -0.4
07.50 1.5
08. 18 1.1
08 .00 1.2
08 .
10 .
10.
15.
21 .
06.
23.
22 .
24 .

10 .
24 .

84 6.3
66 0.5
06 -0.5
16 0.2
06 -6.2
06
36 0.8
96 -0.7
06 -6.2
5 . 6mb
56
70 -0.8
4 . 2mb X
43.90 0.8
57.00 -3.0
1 3.00
1 4 . 00 -2.4

DUE

GAR

YAK

MA 1 0
ADK

MJMA
AAE
SVW

TTA
NA I

KDC
I MA

AYN
OBN

GLH
ADI
HOL
SLKM
RUN
PMR

FBA

KEV
SOD
BALM
BUC
MLR
1 NK
BUL
MBC

KRA
DAG
NB2

KSP
BRG

CLL

BW06
ANMO
ALO

66.68

66. 66

60.81

67.81
71 . 26
0.8s
78.67
83. 77
84. 86
6.7s
84. 96
85.89

86. 15
86. 24
1 .5s
86 . 46
86.69
1.1s
Z 20s
N 20s
E 20s

86. 78
87.15
87. 29
87 .46
87 .66
88.01
0.9s
88.64
0.8s
90. 76
91.15
91 .30
93.80
93.86
93.90
94.24
95 . 19
0.8s
97 . 1 7
99.16
99. 1 1
0. 7s
99.28
100. 71

101.17
Z 18s
1 15.84
121 .65
121 .65

e
e
e
eS
ePS
e
eSS
eSSS
304 eP
eS
315 eP
i
ePP
ePPP
iS
eScS
eSS
4 eP
esP
ePcP
ePP
ePPP
eS
ePS
esS
iScS
309 eP
35 P
33. 10nm
296 eP
279 eP
29 P
31 . 98nm
27 eP
269 ePd
eS
32 eP
24 «P
34 . 30nm
299 iP
325 iPd

1 . 60 um
1 . 80um
1 . 50um
ePcP
i
i
e
ePP
eSKS
eS
ePS
e
eSSS
e
e
303 eP
303 eP
299 iPd
30 P
300 eP
29 P
15 . 00nm
25 P
11 .38nm
340 eP
337 eP
29 P
314 ePd
316 eP
21 eP
256 iPd
12 eP
3 . 00nm
321 eP
352 eP
333 P
6. 90nm
322 eP

09 23 .00
09 35.00
10 00.00
16 46 . 00
17 02 .00
17 35.00
20 24.00
22 00.00
10 07.10
18 18.30
10 10 .00
10 18 . 00
12 1 0 .00
13 50.00
18 26.00
26 02 . 00
22 16.00

1 ft A Q ft C* i v w y . o y
10 34 . 00
16 56.00
12 30 . 00
13 58 .00
18 22 . 00
18 46. 00
19 06 . 00
19 54 . 00
10 57 . 00
11 20 .00
5
12 62 . 00
12 36 . 80
12 34 . 20
5
12 34 .40
12 53 .00
23 14 .00
12 40.70
12 40.90
5.
12 42.70
12 41 .60

5.

12 46 -00
12 54 .00
13 09 . 00
14 07.00
16 25 .00
23 63.00
23 15.00
24 16 .00
24 38.00
32 56.00
35 66 . 00
36 66.00
12 43 .80
12 41 . 90
12 45 . 90
12 44.70
12 47 . 20
12 46 . 20
5.
12 52 . 60
5.
13 16. 60
13 1 4 .00
13 04 .60
13 26. 00
13 29 . 00
13 15 .00
13 15 .00
13 22 .00
4 .
13 39.70
13 20 .00 -
13 39 .20
4 .
13 4B . 00
322 ePd i f f 1 3 51 . 60
e 18 08 . 00

323 e(Pdi f 14 62 .60
2 . 00um
40 PKP
47 PKP
47 ePKP

5.
18 46.50
18 53.50
18 52 .00

30kmX

0.2

- 0 . 6
26kmX

- 1 .2

- 0. 3
2. 1
4mb
4 . 3X
2. 5
1 . 7
6mb
1 . 7
1 4 . 1 X

1 .8
1 . 5
4mb
1 . 7
0.0
3mb X
4MS2

41 km

1 .2
- 2.5
0.8
- 0. 6
0.2
- 1 .6
2mb
1 . 2
2mb
15 . 4X
1 1 . 6X
1 .2
10 . 9X
1 3 . 7X
- 0. 1
- 2.8
1 . 1
8mb
9. 3X
18 . 6X
0.2
4mb
8. 1X
5.2X

13. 6X
7Msz
5. IX
0.9
- 0.7

65

08d 04h

2 20s e.71um 5. 3Msz
FVM 130.46 35 PKP 19 15.66 5 . 9X
CHCH 145.22 160 ePKp 19 36.56 6.1
TACH 145.38 160 ePKP 19 37.50 0.9
PCH 145.55 160 ePKP 19 38.30 1.3
SAN 145.65 168 ePKP 19 38.50 1.4
PEL 145.93 160 ePKP 19 37.00 -0.6
1.0s 32 . 00nm
LPB 161.52 146 PKP 20 08.00 8.4X
e 24 27 . 00
20BO 161.71 145 PKP 20 02.00 2.0
i 24 13.00
CCH 161 82 152 PKP 20 02.30 2.5X
SOB1 161.85 244 ePKP 20 17.60 18. 0X
e 2046. 30
S!V 164.94 166 PKP 20 11.00 8.5X
i 2100.20
S.D. - 1.4 on 85 of 113 obs .

* AUG 08, 1991 05h 25m 40.09± 3.03s
30.582 S ±17. 8km 71.992 W ±24. 3km
DEPTH - 33.0km (normal)
NEAR COAST OF CENTRAL CHILE (135)

IHA 2.45 173 eP 26 19. 50 0.8
i 26 38.00
eS 26 51 .50
PEL 2.79 157 i Pd 26 23.10 -0.3
2ON 3.00 110 iPc 26 26.80 0.3
eS 26 48.80
SAN 3.08 159 IP 26 27.50 0.0
RTLL 3.12 105 i PC 26 28.20 0.1
TACH 3.19 164 iPc 26 29.30 0.2
PCH 3.28 158 iP 26 30.00 -0.4
LNV 3.40 172 iP 26 31.60 -0.5
CHCH 3.53 162 iPd 26 33.90 -0.1
CYA 5.81 70 iP 27 06.00 -0.2
S.D. - 0.4 on 10 of 10 obs.

39.496 N ±14. 1km 23.962 E ±21. 2km
DEPTH - 10.0km (geophy s i c i s t)
AEGEAN SEA (365)
MD 2 . 4 (THE) .

PAIG 0.48 333 i PC 44 25.30 -0.4
eS 4431.74
OUR 0.84 1 iPc 44 31.66 -0.4
eS 4443.10
LIT 1.28 299 ePd 44 39.70 0.0
eS 44 56.60
AGG 1.35 250 ePc 44 40.58 -0.2
eS 4500.10
KNT 1.85 334 eP 44 48.80 0.9
eS 45 1 4 . 02
S.D. -0.7 on 5 of Sobs.

7. AUG 08. 1991 06h 57m 1 8 . 93± 0.88s
43.528 N ± 9.4km 12.709 E ± 7.5km
DEPTH - 10.0km (geophysici st)
CENTRAL ITALY (381)

ARV 0.17 100 PC 57 23.00 0.1
eSg 57 28.00
ASS 0.46 184 P 57 28.00 -0.3
eSg 57 37.50
CRE 0.56 281 P 57 31.00 0.6
eSg 57 39.00
SFI 0.73 303 P 57 33.00 -0.3
eSg 57 44.70
PGD 0.80 296 P 57 34.00 -0.5
eSg 57 48.00
S.D. -0.7 on 5 of Sobs.

AUG 08, 1991 07h 03m 25.37± 0.27s
41.613 N ± 3.2km 20.842 E ± 2.8km
DEPTH - 10.0km (geophy s i c i s t)

ALBAN 1 A (391)
ML 4 .3 (SKO) , 4.0 (ROM) , 3.8
(TTG) . MD 4.0 (ATH) . Fe 1 t (VI)
in the Kisevo oreo, Yugoslav io.

OHR 0.50 184 iPgc 03 33.80 -1.8
i Sg 03 40 . 70
SKO 0.57 51 iPg 0337.10 0.1
iSg 03 45.50

PVY

ULC

VAY

GRG

TTG

I VA

K2N
KNT

BDV

tjis y

THE

HCY

LIT

PLE

SOH
KEK
IGT

SRS

BRY

LCI
OUR
PAI G

AGG
BRT
BAI
SSR
VLS
RDO
RO I
CSI

TDS
DRA
ALN
MMN

SCO
C2I

DEV
CMP
DUI
SOI
VLI
RF 1
U2D
SDI
MLR
VRI
ARV
ASS
BMR
CFR
SRO

T P 1

CRE
SFI
PGD
2ST

SPC
FVI
KBA
MME
BDI

1.18 327 ePg 03 48. 10 0.7
eSg 04 07.50
1 . 24 287 ePg 03 48. 80 0.4
eSg 04 07.50
1 . 33 102 iPn 03 50. 00 0.1
i 6402. 50
i Sn 64 06 . 00
1 . 35 119 ePd 03 50. 17 0.0
eS 0407.46

1 . 43 365 ePg 03 52 . 46 1.0
eSg 04 1 4 . 60
1 . 44 331 ePg 03 53 . 60 2.0
eSg 04 15 . 06
1 . 48 151 eP 03 51 . 00 -1.2
1.61 106 ePc 6354.38 0.4
eS 04 13.82
1 . 64 295 iPnd 63 56.26 1.8
eSn 04 22.00
1 . 82 312 ePn 04 60 . 70 3 . 6X
eSn 04 26.36
1 . 88 1 21 eP 63 57 . 69 -6.1
eS 04 22.00
1 . 93 296 iPnc 04 61 . 26 2.6
eSn 64 28.66
1 . 96 140 eP 04 00 . 30 1.3
eS 0426.74
2 . 02 329 iPnc 04 62 . 36 2.3
eSn 04 30.20
2 . 05 1 12 eP 04 01 .09 0.7
2 . 06 203 eP 04 66. 80 0.4
2.11 191 ePc 04 63. 17 1.9
eS 64 36.74
2.13 103 ePc 04 01 .33 -0.1
iS 04 26.53
2.14 368 iPnc 64 04 . 60 2.9
eSn 04 31 . 60
2 . 53 241 P 04 06. 00 -1.2
2.70 117 ePd 04 09. 98 0.4
2.73 127 ePd 04 69.33 -0.8

2.83 156 iPd 04 12.69 1.3
2. 84 256 P 04 12. 00 0.4
3.03 262 P 04 15.00 0.8
3 . 32 11 ePd 04 28.00 9 .7X
3 . 44 1 83 eP 04 21 . 50 1.4
3 . 56 96 eP 04 21 .50 -0.3
3 . 84 239 P 04 25.46 -0.4
3 . 92 244 P 64 25.96 -1.0
eSn 05 15.50
3 . 94 242 P 04 27 .50 0.3
3 . 95 38 ePc 04 31 .00 3 . 7X
3 . 99 99 ePc 04 26. 33 -1.5
4 . 07 247 P 0431.40 2-5
eS 05 17.56
4

OTOJEOD Ck A "t. ^ Ok Ck A Q

4 . 31 258 P 64 32.56 6.0
4 "! O O T O D Ck A T. *) t^Ot £k A
eS 05 22.00
4.52 1 9 eP 04 45 . 00 9 . 6X
4.76 38 ePd 05 65.00 26. IX
4. 78 273 P 04 40.09 0.8
5.11 228 P 64 42 . 56 -1.2
5 . 1 5 1 61 eP 64 43 . 66 -0.8
5.16 269 P 04 45. 46 0.9
5 . 24 343 iP 04 45.60 0.1
5 . 26 273 P 04 47. 50 1.5
5. 36 42 eP 64 48.50 1.0
6. 02 43 ePd 04 56.00 -0.6
6.13 291 P 64 57 . 56 -0.7
6. 23 286 P 05 60. 00 0.3
6.35 16 ePc 04 56.00 -5.2X
6.41 54 eP 05 25.00 22 .9X
6.46 345 eP 05 02.00 -0.7

6.56 311 e(Pn) 05 03.70 -0.6
e(Sn) 06 16.00
i Sg 66 56 . 86
6. 86 296 P 05 68.66 -0.6

7 .08 292 P 05 1 1 .50 -0.3
7.10 339 iP 05 10.90 -0.8
i 05 31 .60
i 05 46. 70
7.59 357 e(P) 05 28.70 9.9X
7 . 64 313 P 05 20.50 1.2
7 . 66 318 eP 05 20.00 0.2
7 . 88 292 P 05 23. 00 0.0
7 . 92 291 P 05 22.00 -1.3

CTI 7.99 307 P 05 22.87 -1.5

KMR 8.01 326 e(Pn) 05 26.00 1.5
BHG 8.33 320 iPd 05 30.10 1.0
SAL 8.48 302 P 05 31.00 -0.1
WTTA 8.67 314 iPnc 05 33.80 -0.2
iSn 07 1 1 . 20
i 08 14 . 20
OGA 8.79 310 eP 05.36.80 1.3
PGF 8.86 280 Pn 05 33.50 -3.0X
BOB 8.90 295 P 05 36.00 -1.0
KHC 9.09 328 PC 05 38.50 -1.0
1.2s 11. 00nm 5 . 1mb X
e 05 47.50
e 06 13. 00
PRU 9.46 334 eP 06 03.06 18. 5X
e 07 38 . 50
e 09 26.70
CKI 9.62 291 P 05 45.00 -1.9
KSP 9.75 343 eP 06 01.50 12. 9X
SBF 10.12 287 Pn 05 50.50 -3.3X

BRG 10.42 335 e(P) 05 57.00 -0.7
e 07 18.06
BNI 10.88 293 P 06 03.00 -1.2
LPG 10.94 296 Pn 06 04.20 -1.0
Sn 07 58.00
LPL 10.96 296 Pn 06 04.30 -1.1
Sn 07 58 . 00

MOX 11.06 328 e(P) 06 15.00 8.4X
e 0838. 00
CDF 11.75 310 Pn 06 13.60 -2.5
BSF 11.76 307 Pn 06 14.00 -2.2
Sn 08 20.60
HAU 12.11 307 Pn 06 17.00 -3.8X
SMF 13.20 298 Pn 06 32.20 -3.2X
LBF 13.21 300 Pn 06 32.20 -3.4X
LOR 13.38 301 Pn 06 35.80 -1.9
EKA 20.87 319 PC 08 07.40 -2.4
0.6s 3 . 1 0nm 3 . 8mb

% AUG 08, 1991 09h 50m 59.39± 1.17s
41.129 N ±13. 7km 28.694 E ± 5.6km
DEPTH - 10.0km (geophy s i c i s t)
TURKEY (366)

CTT 0.20 275 iPg 51 04.00 0.2
ISK 0.28 103 ePg 51 05.00 -0.3
eSg 51 10 . 00
YLV 0.76 137 ePg 51 14.00 -0.3
HRT 0.80 112 ePg 51 15.00 0.1
eSg 51 26.00
121 0.99 143 iPn 51 19.00 0.8
EDC 1.00 219 ePn 51 18.00 -0.4
S.D. -0.6 on 6of 6obs.

? AUG 08, 1991 11h 03m 10.71± 1.06s
82.293 N ±18. 3km 9.027 W ±13. 2km

DEPTH - 10.0km (geophy s i c i s t)
3.5mb (1 obs.)
NORTH OF SVALBARD (641)

DAG 5.82 203 iPc 04 40.10 1.2
0.5s 26.06nm 5.2mb X
GDH 16.24 243 eP 06 59.00 -1.0
SOD 17.04 130 eP 07 09.00 -1.1
NB2 22.00 153 P 08 10.30 4. IX
0.6s 1 . 20nm 3 . 5mb
KAF 22.14 134 eP 08 15.90 8.4X
NUR 23.56 137 eP 08 28.00 6.6X
INK 26.95 317 eP 09 04.00 10. 6X
GKN 62.93 82 P 13 39.80 0.6
GUN 63.18 81 P 13 37.60 -3.6X
KKN 63.22 82 P 13 42.00 0.8
DMN 63.38 82 P 13 41.20 -1.1
PKI 63. 45 82 P 13 43.60 0.7
WR2 115.98 39 iPKPc 22 09.20 14. 6X
S.D. -1.2 on 7of 13 obs .

AUG 08, 1991 11h 12m 38 . 42± 0.22s
26.879 N ± 5.3km 65.848 E ± 3.3km
DEPTH - 53.3km (13 depth phases)
5 . 3mb (57 obs .)
PAKISTAN (710)

OUE 3.44 16 eP 13 32.20 1.2

e(S) 14 23.00
NDI 10.23 77 iPd 15 00.80 -4 . 5X

68d 1 1 h

66

MA 1 O

DHR
H Y8

1 R5
IR1
1 R7
GKN
GBA

DMN
KKN
PK 1

RYD

KER
GUN
MJMA
SLY

6HD

TAB
KOD

MSL

ABHA
SHL

A YN
HR 1
BHL
DS 1
HOL
RMN
KVT

ess
KAS
CHTO

ELL
BDT

KHT
KM 1

LZH

NST
LOE
NNT
OBN

VR 1
MLR
CMP
VAY
1 RK

10.84
0. 9s

14.07
15 .06
1 . 6s

15. 49
15.51
15.70
16.7?
17 .09
1 . Is
17.14
1 7 J29
1 7 .I 4 1
Q.IS
17.46

17.75
17 .82
18. 45
19 .42

19.62

19.85
19 .86

21 .48

22.96
23.38

26.43
26.76
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27 .24
27 .58
28.32
28.94
30.04
31 .47
1 .3s
31 .93
32. 1 1
1 .0s
32.78
33. 13
2-©s

33.50
1 .2s
2 25s
N 12s

33. 73
34.45
34.79
35.32
1 .2s
I 16s
N 1 6s

36.31
36'.72
37 .27
38.22
38.32

eS
332 eP
43 . 65nm
eS
271 iPc
126 eP
86 . >0nm
eS
306 eP
307 iPc
308 iPc
82 P
138 P
56 . 30nm
83 P
83 P
83 P
448 . 00nm
267 eP
iS
299 eP
82 P
271 i Pd
302 ePc
ePPP
eS
294 ePd
eS
309 eP
1 44 eP
eS
362 ePd
eS
ePcP
253 eP
87 i P
i S
281 iPd
291 eP
292 P
287 eP
282 iPd
285 eP
308 eP
294 eP
367 eP
98 iPd
95 . 1 8nm
297 iP
160 eP
41 . 40nm
105 eP
85 Pd
1 95 . 00nm
pP
65 iPd
1 28 . 00nm
1 . 43um
0 . 56um
pP
SP
i
PPP

e(S)
102 eP
98 iPd
107 eP
331 iPd

0 . 40 urn
0 . 70um

ipP
i SP
ePP
i
e
eS
esS
eSSS
LO
LR
312 ePc
31 1 ePd
310 ePd
303 eP
38 eP
e

16 45 . 00
15 1 1 . 00
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18 16. 00
15 54 . 00
16 66 . 00
4
19 30 . 00
16 13. 50
16 13. 80
16 16. 00
16 24 . 86
16 .34 . 00
4
16 31 . 62
16 32.56
16 33.98 .
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16 43.00
19 38 . 00
16 43.00
16 39. 78
16 48. 70
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17 44.70
17 43. 60
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18 14.70
18 16.80
18 22. 00
18 24. 50
18 24.70
18 24 .60
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18 35. 00
18 45 . 00
18 56. 90
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19 15.20
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19 28.00
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19 27.00
19 31 . 00

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20 44.00
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25 00.00
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28 22.00
31 17 .00
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19 44 . 00
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19 55.00
19 55.80
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- 2. 5
- 3. 5X
9mb

- 1 . 5
- 1 . 5
- 1 . 8
- 5.8X
- 1 . 2
6mb
- 5. 1 X
- 5. 4X
- 5.6X
7mb
3. 2X

- 0. 5
- 4 . 8X
- 3. 3X
- 0. 1

- 0.3

1 , 1
- 0.5

- 0. 9

5.2X
0. 2

2. 7
1 . 6
5.5X
7 . 7 X
5. 3X
2. 0
0. 9
0.2

e. 4
- 0. 4
4mb

e.2
0.8

2mb
1 . 1
- 1 .0
6mb
35kmX
0. 1
7mb
6MszX

27kmX

0.5
- 1 .2
0.9
0. 8
6mb X
3MszX

45km

- 0.7
1 . 7
3.2X
0.2
0.3
79kmX

SKO
OHR
PSI

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SPC
KRA

UZD
SRO
GRI

CSI
C2I
SOI
MMN
ZST

MGR
BJ 1

SCO
PTJ
NUR

KAF
VBY
DU 1
KSP

LJU
CEY
VOY
USI
K8A
ASS
KHC

BRG

FVI
BHG
CRE
SFI
PGD
CLL

WTTA

SOD

FUR
OGA

MME
MOX

BDI
GRF

OSS
COP

BOB
SSE

39.16
39 .52
39 . 77
0 . 9s

40.23
41.47
41 . 89
1.0s

4 1 . 96
42. 38
42 . 73
0.1s
42.86
42.96
43 .91
43.09
43. 26

43. 43
43. 46
1 . 0s
2 20s
N 10s
E 12s

43. 63
43. 64
43.67
9. 9s

43. 88
44.07
44 . 32
44 . 35
1 . 0S
44 . 64
44 .68
45.08
45 .27
45.58
45 . 72
45 . 73
1 .0s

45 .81
1 . 2s

45.91
45. 98
46.26
46.35
46 . 44
46 . 47
1 .8s

46. 76
1 .0s
46.97

47.10
47.14
0 .8s
47.19
47 .22
1 .3s
47 . 26
47 . 33
1.1s
47 . 73
47 . 77
0. 8s
48.11
48 . 1 7
1.4s
2 20S

e
304 iP
303 eP
122 ePc
7 . 80nm
e
1 1 7 ePc
315 iP
316 eP
74 . 00nm
e
e

311 i P
312 iP
299 P
5 . 26nm
300 P
300 P
298 P
301 P
313 iP
e
e
301 PC
59 eP
87 . 00nm
0 . 48um
0 . 26um
0 . 39um
eS
eSS
302 P
309 eP
332 iP
69 . 36nm
e

334 iP
309 ePc
303 P
316 IP
55 . 00 nm
309 eP
309 iPc
309 ePc
299 P

31 1 e(P)
305 P
313 i PC
12.50nm
e
e
S
316 i PC
1 00 . 00nm
i
310 P
311 iPc
306 P
306 P
306 P
316 iPc
1 30 . 00nm
eS
311 iPc
25 . 99nm
340 iP
i
e

312 iPc
310 iPc
35 . 00nm
306 P
315 iPc
1 40 . 00nm
306 P
314 i PC
56 . 00nm
310 ePc
322 iPd
41 . 79nm
307 P
71 Pd
1 54 . 00nm
0 . 70um
pP
eS
eSS

21 23.80
20 02.00 -0.6
20 06.20 0.5
20 07 .60 -0.3
4 . 6mb
22 10. 60
20 24 . 90 1 3 . 1 X
20 22.70 1.0
2025.70 0.7
5 . 4mb
20 31.70 20kmX
20 43. 00

20 26.|50 6.9
20 30. 10 1.1
26 33.

20 34.
20 35.
20 35.
20 36.
20 36.
22 21 .

27 1.2
5 . 2nr.b
40 1.3
10 1.2
00 0.7
60 1.7
00 -0.2
70 663kmX
26 33.80
20 38.40 0. 7
20 38.50 0. 7
5.5mb
4. 4Msz

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20 40.
20 39.
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20 43.
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20 56.

21 12.
21 39.
27 32.
20 57 .

21 10.
29 57.
20 58.
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21 02.
21 03.
21 02.

27 12.

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50 0.5
5 . 3mb
50 0.1
10 0.3
20 0.2
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00 -0.1
30 1.2
50 0.5
4 . 8mb
50 63km
50
00
80 1.2
5 - 6mb
80 48km
30 -0.1
60 0.6
90 0.5
20 1.3
10 1.2
70 0.9
5 . 6mb
00
21 03. 70 -0.7
5 . 1mb
21 05.80 0.3
21 23.20 69kmX
22 54.00
21 06.80 -0. 1
21 07.80 0.4

21 08.
21 09.

21 07 .
21 10.

21 12.
21 13.

21 15.
21 16.

21 27.
28 12.
31 52.

5 . 4mb
80 0.9
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5 . 8mb
50 -0.8
00 1.3

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00 0.0
30 1.4
5.5mb
40 0.5
00 0.6
5 . 8mb
4 .6Msz
70 42kmX
00
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VOL
KEV

LLS
TMA
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ZLA
TNS
MMK
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ROB
FEL
SBF

ENR
LIBD
BBS
Dl X
GWF
STV
BHB
RSP
DOI
LSD
P22
CDF
ECH
NB2

RRL
LOMF
LPG

LPL

BSF
BN I
RSL
KONO
HAD

WTS

TRO
WLF

V I TF
CDR
MEM

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UCC
SNF

LBF

LOR

SMF

PLDF
SSF

AVF

LBL
AGO
GRC
PYM
BGF

MAF
TCF

CAF

LSF

RJF

48.18 309 ePc 21 15.40 -0.2
48.42 343 eP 21 17.00 0.2
0.8s 16.10nm 5.1 mb
i 21 30.80 48km
e 22 04 . 00
48.53 310 ePc 21 17.60 -0.6
48.57 309 ePc 21 17.60 -0.9
48.93 311 ePc 21 20.10 -1.0
48.98 31 1 ePc 21 20 . 60 -0.9
49 . 1 7 314 ePc 21 24.40 1.4
49.20 309 ePc 21 22.80 -0.7
49.21 306 P 2122.40 -1.8
49. 23 306 P 21 21 . 99 -1.5
49.26 31 1 P 21 22 . 6e -1.2
49.54 306 eP 21 25.50 -0.4
6 . 7s 39 . 70nm 5 . 6mb
49.55 306 P 21 24 .97 -1.0
49.55 312 P 21 25.50 -0.3
49.58 311 P 21 25. 35 -0.7
49.59 309 ePc 21 25.80 -0.7
49.60 313 P 21 25. 75 -0.5
49.62 306 P 21 24.97 -1.6
49 .67 307 P 21 24 . 66 -2.1
49 . 67 308 P 2124.25 -2.7
49. 68 307 P 21 25 . 60 -1.4
49 . 75 308 P 21 26 . 81 -0.9
49. 78 307 P 21 25. 69 -2.1
49. 79 312 P 21 26 . 89 -0.9
49 . 85 312 P 21 27 . 75 -0.4
49 . 88 329 P 21 27 . 30 -0.9
1.1s 38 . 40nm 5 . 3mb
50.01 307 P 21 28.76 -0.9
50. 03 310 P 21 28 . 92 -0.7
50.04 308 iPc 21 29.70 -0.2
1.4s 6 1 . 00nm 5 . 4mb
50.05 308 iPc 21 29-80 -0.2
0.8s 20.1 5nm 5 . 2mb
50.08 31 1 P 21 29 . 28 -0.7
50.09 307 P 21 29.30 -0.8
50. 13 308 P 21 29 . 80 -0.7
50. 25 327 iP 2131.20 0.2
50.38 31 1 eP 21 31 . 90 -0.3
2 22s 0. 13um 3.9Msz
59.39 31 7 eP 21 33 . 59 1.4
1.0s 65 - 00nm 5 . 6mb
e 21 46.00 45km
50.59 341 eP 21 33 . 90 0.5
50.60 313 iPc 21 34 . 49 0.7
i 21 47.60 48km
50.64 312 P 21 33.78 -0.3
50.75 306 ePc 21 34.00 -1.0
50 . 77 31 5 i PC 21 36 . 00 1.0
i 21 49.34 49km
50. 83 315 eP 21 36.50 1.0
0.9s 27 . 00nm 5 - 3mb
51 .64 314 P 21 42 . 30 0.7
1.0s 50 . 00nm 5 . 5mb
51.82 315 P+ 21 43.29 9.2
51 . 86 314 iPc 21 44 . 04 0.8
i 21 57.62 50km
51 .97 310 iPc 21 43.90 -0.4
1.0s 45 . 00nm 5 . 5mb
52.05 310 iPc 21 44.40 -0.5
0 . 4S 12. 05nm 5 . 3mb
222s 0 . 20um 4 . IMsz
52.07 310 iPc 21 44.70 -0.3
1 . 0s 75 . 00nm 5 . 7mb
52.23 309 P 21 46. 34 0. 1
52.29 310 iPc 21 46.49 -0.3
1.0s 66 . 00nm 5 . 6mb
52.40 310 iPc 21 46.90 -0.5
1.0s 31 . 00nm 5 . 3mb
52.51 308 P 21 48 .44 0.0
52.57 309 P 2148.73 0.0
52.59 310 P 21 48 . 96 0.2
52.66 308 P 21 49 . 63 0.1
52.75 309 iPc 21 49.90 -0.2
0.9s 26.20nm 5.3mb
52. 95 309 eP 2151.70 0.1
53.20 309 eP 21 53.30 -0.1
0.9s 22 . 1 0nm 5 . 2mb
53.36 307 eP 21 54 . 79 0.1
1.1s 47 . 60nm 5 . 4mb
53.67 309 iPc 21 56.40 -0.4
0.9s 20.45r»m 5.2mb
53.73 308 eP 21 57.40 0.2
1.0S 40 . 00nm 5 . 4mb

67

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LPO

IFF

YAK

MTD

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- 0. 3
. 2mb
- 0.4
. 4mb
. 1Msz
- 0.6
- 8.5X
65kmX
- 0.8
. 1mb
0.2
0. 1
- 0. 1
- 1 .0
- 0.2
- 0. 1
. 7mb
0. 1
. 6mb
0. 1
0.2
- 1 .0
1 6 . 1 X
- 0. 4
- 1 . 8
. 1mb
- 0. 1
. 1mb
2. 1
. 2mb
5.5X
. 3mb
63km
0.6
0.5
0. 3
0.0
. 2mb
- 1 .5
. 8mb
1 .0
90kmX
0. 1
. 3mb
62km
0. 4
. 3mb
0. 1
. 3mb
57km
- 0.3
- 0. 4
55km
0.5
61 km
13. 6X
6. 1X
- 1 . 8
bs.

AUG 08. 1991 I2h 32m 46.07± 0.55s
44.399 N ± 4.7km 7.397 E ± 4.8km DEPTH = 10.0km (geophysiCist)
NORTHERN ITALY (545)
ML 1.8 (GEN).

STV

ENR

PZZ

ROB

0.

0.

0.

0.

16

, 17

,24

,36

199

1 74

297

107

P
S
P
S

P
s
P

32
32
32
32
32
32
32

49 .
52
49.
52
51
55
53

. 84
. 52
. 94
. 30
. 44
. 31
. 88

0.

- 0.

0.

0.

. 0

. 1

. 2

. 5

S 32 58.33
8MB 0.45 348 P 32 55.10 -0.2
S 33 01 .27
IMI 0.60 144 P 32 58.25 -0.1
S 33 05.85
FIN 0.61 108 P 32 58. 25 -0.2
S 33 06.35
PCP 0. 83 80 P 33 02 . 13 -0.1
S.D. = 0.3 on 8 of 8 obs.

? AUG 08, 1991 12h 34m 25.34± 0.85s
22.821 N ±39. 0km 94.223 E ±31. 8km
DEPTH - 33.0km (normal)
BURMA (296)

SHL 3.47 322 eP 35 18.50 0.0
CHG 5.95 131 ePn 35 53.00 -0.5
ePg 36 17.50
eSg 37 41 .00
CHTO 5.95 131 eP 35 54.00 0.5
GUN 9.09 306 P 36 40.54 2.9X
0.5s 30.00nm 5.7mb X
PK I 9 .28 302 P 36 40.56 0.4
KKN 9 . 48 303 P 36 44 .28 1.3
0.6s 26.00nm 5.6mb X
DMN 9.53 302 P 36 43.92 0.3
GKN 10.08 303 P 36 49.20 -1.9
0.5s 13. 00nm 5 . 5mb X
S.D. -1.3 on 7of 8 obs .

% AUG 08. 1991 12h 41m 01.60± 0.50s
44.389 N ± 4.8km 7.358 E ± 5.1km
DEPTH - 10.0km (geo phy s i C i s t)
NORTHERN ITALY (545)
ML 2 . 0 (GEN) .

STV 0.15 190 P 41 05.34 0.3
S 41 08. 17
ENR 0. 1 7 165 P 41 05. 42 -0.1
S 41 07 .87
PZZ 0.22 302 P 41 06.90 0.5
S 41 10.69
ROB 0.38 104 P 41 09.57 0.2
S 4114.59
BHB 0.46 352 P 41 10.69 -0.2
S 41 16.64
IMI 0.61141P 4113.51 -0.5
S 4121.77
FIN 0.64 106 P 41 14.18 -0.2
S 41 22.79
RRL 0.67 323 P 41 14.63 -0.5
PCP 0. 86 79 P 4118.79 0.5
S.D. » 0.4 on 9 of 9 obs.

. AUG 08, 1991 13h 00m 55.12± 1.70s
19.630 N ±19. 4km 70.603 W ±14. 6km
DEPTH - 30 . 3 ± 13 . 9 km
4.2mb (7 obs.) 3.8Msz (1 obs.)
DOMINICAN REPUBLIC REGION (88)
Felt strongly in the Puerto
Plota area.

MCP 3.52 109 iP 01 49.80 0.7
MGP 3 . 70 1 15 iP 01 53.00 1.4
CLLP 4.11 111 iP 01 58.00 0.5
SJG 4.48 109 iP 02 01.00 -1.8
LPR 4.67 106 iP 02 04.00 -1.4
JSC 17.39 329 P 04 54.60 -2.5
BLA 19.51 336 eP 05 24.50 1.6
0.8s 1 0 . 07nm 4 . 2mb
CVL 19.52 341 P 05 27.60 4 . 5X
OLY 24.26 315 P 06 11.00 0.4
UYO 25.65 309 iPc 06 27.70 3.8X
TUL 27.45 311 eP 06 43.60 3.2X
0.8s 9 . 20nm 4 . 5mb
Z 18s 0.21um 3.8Msz
N 18s 0.09um
E 18s 0 . 1 7um
LR 15 18.00
MEO 28.98 307 i PC 06 55.00 0.7
ALO 35.11 303 eP 07 49.20 1.0
1.0s 2 . 50nm 4 . 1mb
ANMO 35.11 303 P 07 49.60 1.4
1.0s 5 . 00nm 4 . 4mb
2080 35.76 176 eP 08 02.00 7.8X
GOL 35.92 311 P 07 53.00 -2.1
1.0s 3 . 75nm 4 . 3mb

SIV 36.62 165 P 07 59.60 -1.2
GSC 43.47 301 eP 09 05.00 7 . 5X
SBB 44.22 300 eP 09 02.00 -1.5
BONR 45.09 304 P 09 11.10 0.3
NEW 47.01 318 eP 09 26.20 0.7
0.9s 2.63nm 4. 2mb
NB2 69.08 31 P 11 59.80 -0.3
0.9s 1 . 50nm 4 . 1 mb
S .D. - 1 . 5 on 1 7 of 22 obs.

AUG 08, 1991 13h 22m 30.80± 0.31s 11.949 N ± 5.7km 120.568 E ± 6.0km DEPTH - 21.7km (4 depth phases) 5.0mb (20 obs.) 4.5Msz (3 obs.)
PALAWAN, PHILIPPINE ISLANDS (252)

OCP 2.72 10 eP 23 39.00 24. 9X
BAG 4.44 0 ePc + 23 36.00 -2.6
«S 24 32.00
DAV 6.91 134 eP 24 14.00 0.6
TSM 8.06 200 eP 24 28.00 -1.5
MN I 11.26 158 «Pd 25 18.00 4.3X
MKS 17.09 184 «Pd 26 33.00 2.9
LOE 19.01 289 eP 26 55.00 1.1
SSE 19.06 2 P 26 50.00 -4.4X
Z 20s 1 . 80um
E 1 3s 1 . 00um
«S 30 20.00
esS 30 50.00
KGM 19.74 241 «P 27 03.50 1.1

NST 20.18 283 eP 27 07.00 0.1
NNT 20.37 274 eP 27 07.60 -1.3
IPM 20.67 251 ePc 27 13.80 1.8
1.0s 34 . 60nm 4 . 7mb
TRT 21.06 202 ePc 27 12.40 -3.6X
0.8s 145. 90nm 5 . 4mb
KMI 21.35 310 Pd 27 20.50 1.3
2.0s 200.00nm 5.2mb
Z 20s 2.60um 4.6Msz
N 12s 1 . 00 urn
E 12s 1 . 10um
«S 31 19.00
S 31 21.00
CHG 21.93 291 eP 27 27.00 2.2
CHTO 21.93 291 eP 27 24.90 0.2
1.1s 10. 60nm 4 . 2mb
PSI 23.33 248 eP 27 39.00 0.4
e 29 58.00
PJG 23.75 83 eP 27 43.60 1.0
GUA 23.79 84 «P 27 44.00 0.9
0.8s 35.82nm 5.0mb
BJ I 28.25 353 eP 28 22.00 -2.4
2 20s 0 . 90um 4 . 4Msz
N 12s 0.37um

eS 33 08.00
L2H 28.38 331 i PC 28 25.50 -0.4
1.5s 119. 00nm 5 . 4mb
Z 20s 1 . 28um 4 . 5Msz
E 12s 1 . 44um

pP 28 33.50 28km
sP 28 37.50
PP 29 24.00
«S 33 12.00
SS 34 40.00
KNA 28.69 163 eP 28 27.00 -1.6
1.0s 24 . 00nm 4 . 9mb
MAT 29.19 30 (P) 28 35.00 2.0
«S 33 45.00
SHL 30.27 301 «P 28 41.60 -1.3
WR2 34.48 157 iPd 29 17.50 -2.0
0.6s 105.00nm 5.9mb
GUN 36.11 301 P 29 33.94 0.2
0.9s 1 32 . 00nm 5 . 8mb
PKI 36.40 301 P 29 35.32 -0.8
KKN 36.57 301 P 29 37.18 -0.3
DMN 36.66 300 P 29 38.14 -0.2
1.0s 86.00nm 5.6mb
GKN 37.18 301 P 29 42.02 -0.5
1.2s 50.00nm 5.2mb
OIS 37.34 150 eP 29 42.70 -0.9
WARB 38.36 171 iPc 29 52.60 0.4
0.5s 34 . 00nm 5 . 4mb
HYB 40.94 283 «P 30 14.00 0.2
GBA 42.06 277 Pd 30 22.60 -0.3
0.6s 3 . 20nm 4 . 2mb
IRK 42.30 345 eP 30 27.00 2.5
RMQ 47.02 145 eP 31 09.50 6.9X

08d 13h

66

STK 48
0.
GAR 51
8WA 53
CAN 54
DZM 56
MAIO 59
MJMA 71
TTA 76
SVW 76
OBN 76

. 01
8s
. 94
. 1 7
. 1 7
. 28
. 76
. 74
. 45
. 64
. 85
Z 16s
E 16s

IMA 77
1 .
SIKM 79
PMR 79

CQA 7 Q rD" ' y
KEV 80
HOL 80
SOD 80

CSS 81
TOA 81
KAF 81
0.
NUR 82

VR 1 84
1 NK 84
MLR 84
MBC 85
KRA 87

NB2 88
0.
KSP 89
PRU 90
BRG 91
1 .
CLL 91
1 .
KHC 91
1 .
MOX 92
YKA 94
0.
S.D.

. 45
2s
. 31
. 74
. 97
. 1 1
. 39
. 58

. 02
. 06
. 53
7s
. 60

. 18
. 77
. 80
. 28
. 65

. 75
9s
. 65
. 99
. 04
4s
. 45
1 s
. 88
0s
. 51
. 43
8s

i
156 i PC
6 . 40nm
31 0 eP
151 eP
151 eP
127 i PC
305 eP
293 eP
28 eP
30 P
324 eP
0 . 40um
0 . 40 u m
i PcP
LR
25 eP
1 2 . 30nm
30 P
29 eP
*> CL & D
£ O r

339 eP
298 eP
337 i P
i
304 eP
28 eP
332 iP
6 . 00nm
330 eP
e
316 eP
21 eP
315 eP
12 eP
321 eP
e
333 P
3 . 20nm
322 eP
322 eP
323 eP
1 2 . 00nm
323 eP
1 3 . 00nm
321 P
3 . 50nm
323 eP
22 eP
1 . 70nm

33
31

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04

- 1.3 on 57 o f

AUG 08.
1 . 187
DEPTH
4 . 9mb

N
*

1991 13h 57m 36
i 7.7km 122.491
1 8 . 9 ± 9 . 5 km

. 00
. 40
4
. 00
. 30
. 16
. 00
. 00
. 30
. 10
. 00
. 00
4

50
. 00
. 20
4
. 10
. 60
. 60
. 00
. 30
. 70
. 80
. 00
. 00
. 00
4
. 00

A /\. WB
. 00
. 00
. 50
. 50
. 60
. 10
. 20
4
. 00
. 50
. 90
5
. 00
5
. 50
4
. 00
. 30

7 1 0kmX
- 0. 9
. 7mb
- 0.5
- 0. 3
- 0. 8
- 0.5
1 . 2
- 2.6
1 . 6
1 .5
- 1 . 7
. 8MszX

2.2
. 8mb
- 1 . 1
- 0.8
1 .0
- 0.3
0.7
- 0. 1
23km
3.2X
0. 5
- 0.8
. 7mb
- 0. 4
1 9km
- 1.9
- 0.3
5 . 4X
3. 7X
0. 7
1 7km
- 0.8
. 6mb
6. 6X
0. 9
1 . 1
. 0mb
3. 3X
. 2mb
5.7X
. 7mb
8 . 4X
1 4 . 1 X

70 obs.

. 34±
E ±

1.19s
8 . 1 km

(12 obs.)
MINAHASSA PENINSULA

MN 1 2

TSM 5
MKS 7
MTN 16
KNA 1 7
0.
KGM 19
1 PM 21
1 .
PS 1 23
0.

WR2 24
0.

NANU 24
0.
NNT 25
LAT 25
LOE 26
PMG 26
QIS 27
0.
WARB 27

f* LJ f* *} ft C n l> *, o
CHTO 28
i .

. 36

. 55
. 04
. 37
. 93
8s
. 18
. 70
0S
. 60
8s

. 02
6s

. 56
4s
. 24
. 67
. 01
. 72
. 35
5s
. 56

Q ft. y c
. 98
2s

84 ePd
eS
304 i Pd
205 ePc
149 eP
1 60 eP
54 . 00nm
273 eP
279 ePd
33 . 90nm
274 ePc
1 4 . 00nm
e
e
152 i Pd
91 . 30nm
e
1 96 eP
1 8 . 00nm
298 eP
108 ePd
309 eP
114 eP
143 i PC
26 . 00nm
1 72 eP
309 eP
309 eP
5 . 56nm

58
58
58
59
01
01

02
02

02

03
05
02

06
02

03
03
03
03
03

03
03
03

15
42
59
28
29
47

08
29

48

49
00
50

45
55

01
08
17
17
21

23
43
38

. 00
. 50
. 50
. 50
. 70
. 00
4
. 00
. 70
4
. 50
4
. 00
. 00
. 90
5
. 30
. 50
5
. 00
. 50
. 00
. 00
. 90
5
. 00
ft O
. V V

. 30
4

(265)

0.2

- 0.5
7.5X
2. 9X
0.5
. 7mb
6.2X
1 .3
. 7mb
1 . 4
. 6mb

- 0.2
. 5mb

- 0.8
. 0mb
- 1 . 9
1 .5
6. 9X
0.3
- 0.5
. 2mb
- 0.8
5

0 Y
. O A
1 . 1

. 2mb

CTAO
BAL
RMO
STK

MAT
LZH

BJ 1
GUN

CAN
PK 1
KKN
DMN
GKN

HYB
GBA

DUE
TOA
BUL
MBC
ZOBO
Z

SIV

S

« AUG
21 .

31 . 46 133 i Pd
32 . 09 189 eP
37. 40 139 <5P
37.54 153 iPc
0.7s 1 2 . 60nm
38.07 21 eP
38.79 336 eP
1.6s 18. 00nm
39. 10 352 eP
43. 96 311 P
0.4s 21. 00nm
43 . 96 1 48 i PC
44.15 310 P
44 . 36 310 P
44.46 310 P
44. 96 318 P
0.8s 29 . 00nm
46.09 293 eP
46.25 288 PC
0.6s 11. 30 nm
59.99 304 eP
89.59 28 eP
94.05 250 iPd
95.33 12 eP
161.72 146 PKP
18s 0 . 28um
LR
1 64 . 88 167 PKP
i
. 0 . - 1 . 1 on 29

04 00.00 0.8
04 02.50 -2.1
04 57 . 60 6 . 9X
04 51 .00 -0.2
4 . 8mb
04 53.00 -2.6
05 01 .00 -0.9
4 . 5mb
05 04 . 00 -0.1
05 45

05 45.
05 46 .
05 48
05 48 .
65 52 .

06 06 .
06 06 .

07 45 .
10 50 .
10 54 .
11 08 .
1740.

42 56 .
17 40 .
1837.
of 3

74 1.1
5 . 3mb
00 0.8
40 0.2
18 0.4
28 0.1
74 0.2
5 . 3mb
00 4 . 5X
10 3 .5X
5 . 0mb
20 0.6
90 17 . 0X
70 -0.7
00 7.9X
00 1.3

00
40 -0.7
70
9 obs .

08. 1991 13h 58m 10.|35± 0.89s
614 S ±24 .5km 174.122
DEPTH - 34 . 0km (

W ± 9 . 0km
3 deptlh phoses)
5 . 2mb (10 obs .)
TONGA

SVA
VUN
NDF
DZM
NANU

MAT

PLM
SBB
ISA
CMB
ORV

r-i *^ i- f*.*
GSC
BONR
TNP
KDC
PDB
RSO
SLKM

PMR

ALO

ANMO

TTA

PNT
BALM
IPM
FBA

IMA

BJ I
BDT
CHG

CHTO

EK A

KRA

1 SLANDS
Mo-6 . 0* 1 0* 1 6 Nm

7 . 80 295 eP
7 . 85 296 eP
8 . 82 294 eP
1 8 . 05 265 i PC
64.60 255 «P
0.4s 7 . 00nm
73.29 322 «P
1.0s 1 2 . 00nm
77.24 46 eP
77.41 45 eP
77.58 44 eP
77 .88 41 P
78.20 39 P
78.24 44 eP
78.44 45 eP
79.11 42 P
79.86 42 P
81.10 12 P
82.73 10 P
83.61 10 P
84.10 12 P
PP
85.31 12 eP
1.2s 1 7 . 50nm
85.31 50 eP
1.0s 5 . 00nm
85.32 50 P
1.0s 1 8 . 7Snm
85.47 8 eP
1.1s 23 . 44nm
e
85.60 32 eP
86.26 15 P
86.89 276 ePd
88.59 11 eP
1.1s 28.1 3nm
88. 78 8 eP
1.4s 11. 80nm
89.25 314 eP
93.41 287 eP
94.03 289 eP
1.0s 12 . 50nm
94.03 289 i P
1.0s 12. 50nm
pP
sP
1 4C C «s Q DWf&s- 1 *t iJ . D -J 3 n P. ~ C
1.3s 24 . 80nm
149.52 342 ePKP

(PPT) .

80 05 .
00 1 1 .
00 26 .
02 20.
08 45.

09 37 .

10 05.
10 18 .
10 05.
1007.
10 08.
10 10 .
10 10.
10 14.
10 18.
10 23 .
1029.
10 35.
1037.
1047.
1043.

10 46.

(173)

20 0.8
20 6 . IX
00 1.5
40 0.0
00 -2.0
5. 1mb
00 -3.3X
4 . 8mb
00 1.8
00 1 4 . 1 X
00 0.1
00 0.6
50 0.4
00 1.5
00 0.4
00 0.5
00 0.6
00 -0.2
00 -2.7
00 -1.5
20 -1.5
80 34km
80 -0.9
5 . 1mb
00 0.4
4 . 7rr>b
10 46.00 0.4
5.2mb
10 45.|50 -0. 1

10 56 .
1048.
10 48 .
1054.

5. 3mb
30 34km

00 1.6
80 -0.8
00 0.4
10 59J80 -0.8

11 01 .

11 01 ,
11 25.
11 27 ,

11 27.

11 38
11 43
17 57

1801

5.5mb
00 -0.6
5 . 0mb
50 -2.7
80 2.0
00 0.3
5 . 3mb
10 0.4
5 . 3mb
00 34km
50

O ft 1 ft 7 Y z v i y . / A

60 8.8X

KSP 149.70 347 ePKP 17 58.00 4.9X
CLL 149.84 351 iPKPd 17 58.20 4.9X
1.5s 25 . 00nm
i 1 8 09. 08
BRG 150.12 350 ePKP 17 48.80 -4.9X
1.3s 12 . 00nm
SPC 150.20 341 ePKP 18 01.20 7. IX
MOX 150.68 353 ePKP 18 01.00 6.4X
e 18 66 50
PRU 150.87 348 ePKP 17 59.76 4 9X
1.0s 8 . 30nm
i 1 8 1 1 . 90
KHC 151. .86 349 ePKP 18 63.56 7. IX
1.0s 1 1 . 1 8nm
e 1811.10
ZST 151.99 344 ePKP 16 ei'.4e 5.8X
SRO 152.01 34.2 ePKP 18 10.10 13. 5X
CDF 153.24 358 ePKP 18 17.40 18. 9X
1.0s 8 . 00nm
S . D . - 1 . 3 on 29 o f 44 obs .

? AUG 08. 1991 14h 16m 17.87± 2.96s
24.499 S ±20. 6km 179.905 E ±16. 4km DEPTH - 528 .2 ± 34.4 km
4 . 5mb (6 obs .)
SOUTH OF FIJI ISLANDS (171)

DZM 12.61 278 iPd 19 04.26 0.7
RMO 28.15 259 i PC 21 37.00 8.0X
CTAO 31.40 271 i Pd 21 57.00 0.6

c T K ^44^^>AQ«P 9 9 ^> "^ O ft CiQ j i r^ Jt.^j £ ** y c r f. f. £ -J £ v v . y
0.3s 2 . 50nm 4 . 3mb
WR2 42.26 267 i PC 23 25.30 -0.9
0.4s 23 . 40nm 5 . 1mb
WRA 42.28 267 P 23 25.00 -1.3
0.4s 13. 70nm 4 . 8mb
WARB 47.89 256 eP 24 08.76 -0.9
SPA 65.65 180 iPc 26 11.50 0 3
0.9s 18.18nm 4.6mb
PLM 83.24 49 eP 27 50.00 0.1
ISA 83.50 46 eP 27 51.00 0.0
CLC 84.16 46 eP 27 54.00 -0.3
GSC 84.39 47 eP 27 55.00 -0.4
CHTO 89.81 291 eP 28 22.50 1.3
0.9s 1 . 92nm 4 . 0mb
ALO 91.39 52 eP 28 28.00 -0.4
0.9s 2 . 31 nm 4 . 2mb
NUR 140.15 341 ePKP 34 48.00 0.9
NB2 142.66 351 PKP 34 46.80 -4.8X
0.9s 5 . 00nm
EKA 149.12 3 PKPc 35 05.70 3.5X
0.4s 2 . 30nm
KRA 150.11 334 ePKP 35 09.30 5.5X
KSP 150.81 338 iPKPd 35 11.00 6. IX
e 37 16.00
CLL 151.40 343 iPKP 35 12.10 6.4X
1.0s 28 . 00nm
pPKP 37 16.00
BRG 151.52 341 i PKP 35 12.20 6 . 3X
1.0s 20 . 00nm
i 35 19. 80
i 35 23.60
e 37 17 . 00
PRU 152.12 340 ePKP 35 13.50 6.7X
KHC 153.17 340 ePKP 35 16.00 7.6X
1.0s 17 . 90nm
i 35 27.50
S . D . - 0 . 9 on 1 4 of 23 obs .

7, AUG 08, 1991 15h 00m 24.21± 0.60s 39.444 N ± 6.0km 28.172 E ± 5.7km DEPTH - 10.0km (g«o phy s i c i s t)
TURKEY (366)

DST 0.39 65 ePg 00 32.00 -0.2
eSg 00 38.50
EDC 0.93 345 ePn 00 42.00 0.0
IZM .26 214 ePn 00 47.40 -0.3
IZI .34 48 ePn 00 49.00 0.0
YLV .45 39 ePn 00 50.50 -0.1
EZN .48 286 ePn 00 51.00 0.2
KHU .54 136 ePn 00 52.10 0.3

CTT 1.71 7 iPg 01 13.00 18. 8X
S.D. -0.3 on 7of 8 obs .

* AUG 08. 1991 I5h 26m 12 . 01± 0.84s 4.540 S ± 6.7km 151.900 E ± 1 1 . 4 km

69

88d 15h

DEPTH - 174.7 ± 7.8 km
5.1mb (7 obs .)
NEW BRITAIN REGION (192)

RAB C.44 38 IP 26 35.60 -1.8
IS 26 53.00
MDG 6.14 263 iPd 27 44.10 2.5
CTAO 16.40 199 iPc 29 55.00 1.2
e 30 25.00
eS 33 14.00
GUA 19.25 339 «P 30 26.10 0.7
P.9s 275.63nm 5.7mb X
PJG 19.32 339 eP 30 26.80 0.7
CIS 19.91 216 iPd 30 32.20 0.1
0.7s 45 . 00nm 5.1mb
i 34 05.90
RMO 22.03 188 «P 31 01.50 8.4X
MTN 22.11 247 eP 30 54.00 0.1
0.4s 44.00nm 5.3mb
DZM 22.41 142 iPc 30 58.40 1.5
BRS 22.74 178 iPc 31 02.00 2.0
WR2 22.94 227 iPc 31 02.90 0.9
0.4s 200 . 20nm 6 . 0mb X
i S 3457.60
WRA 22.95 227 P 31 14.00 11. 9X
0.5s 13. 30nm
KNA 25.31 242 iPc 31 23.80 -0.5
i 3126.40
WARB 32.37 226 iPd 32 27.00 -0.1
0.3s 15. 00nm 5 . 2mb
FORR 34.45 218 iPc 32 44.10 -0.8
0.3s 17. 00nm 5 . 2mb
MBL 35.24 239 «P 32 50.30 -1.4
COOL 39.04 224 eP 33 22.00 -1.4
NANU 39.47 240 «P 33 26.00 -1.0
KLB 41.83 226 «P 33 44.50 -1.8
BAL 42.08 228 «P 33 47.00 -1.3
MUN 43.15 226 eP 33 56.50 -0.5
LOE 54.11 295 iPc 35 22.00 0.7
BJ 1 55.18 327 «P 35 28.00 -0.7
CHG 57.07 296 «Pc 35 43.30 0.8
1.1s 12.66nm 4. 7mb
CHTO 57.07 296 iPc 35 43.20 0.7
1.8s 11. 50nm 4 . 7mb
pp 36 23.70 176kmX
sP 3634.60
LZH 60.42 316 iPc 36 06.00 0.5
1.2s 43.00nm 5. 2mb
pp 36 14.00 26kmX
sP 36 17.00

GUN 71.22 301 P 37 14.64 0.0
PKI 71.53 301 P 37 15.78 -0.7
KKN 71.70 301 P 37 17.10 -0.2
DMN 71.80 301 P 37 17.78 -0.2
GKN 72.30 301 P 37 20.54 -0.3
DUE 87.90 300 «P 38 44.50 0.9
NB2 116.36 340 PKP 44 35.40 -0.7
0.7s 1 . 00nm
KIC 156.68 276 PKP 45 59.00 10. 7X
S . 0 . - 1 . 1 on 3 1 o f 34 obs .

AUG 08. 1991 16h 01m 85 . 85± 1.07s
44.362 N ± 5.0km 8.368 E ± 8.7km
DEPTH - 5.0km (g«ophy s i c i s t)
NORTHERN ITALY (545)

CK 1 0.09 315 P 01 07.00 -0.9
«Sg 01 10.00
SAOF 0.70 238 Pg 01 20.00 0.2
Sg 01 34.18
AUTN 0.77 242 Pg 01 20.91 -0.5
DOI 0.82 280 P 01 22.00 -0.2

«Sg 01 33.00
TOUF 0.88 247 Pg 01 22.97 -0.3
AURF 0.89 238 Pg 01 23.34 -0.1
MV 1 F 0.99 242 Pg 01 25.22 0.0
CALN 1.23 241 Pg 01 30.19 0.9
LPG 1.61 315 Pg 01 36.00 0.7
Sg 01 53.70
LPL 1.64 315 Pg 01 36.50 0.9
Sg 01 54.20
PGF 1.87 166 Pn 81 38.66 -0.2
BGF 4.46 301 Pn 82 15.30 -0.4
S . 0 . -0.6 on 12 of 12 obs .

AUG 08. 1991 16h 01m 57.62± 8.67s 13.579 S ± 9.9km 77.329 W ± 9.5km

DEPTH - 18.0km (g«o phy s i c i s t) 4.8mb (9 Obs.) 4.5Msz (1 obs.)
OFF COAST OF PERU (114)

PT10 1.54 13 iPd 02 25.00 -0.1
«(S) 02 46.50
NNA 1.65 17 iPc 02 26.70 -0.1
0.7s 226 . 03nm
«S 0246.00
ARE 6.33 118 «P 03 33.00 -0.6
iS 05 19.50
ZOBO 9.29 108 P 04 17.20 2.0
LPB . 9.39 109 P 04 25.60 8.6X
Z 20s 8. 37 urn
LR 07 55.00
CCH 11.43 111 P 04 51.80 7.5X
SLA 15.73 137 iPd 05 46.20 5 . 8X
S 05 50.30
SIV 15.90 101 P 05 41.60 -1.7
BOG 18.37 10 «P 06 16.00 1.4
«S 1017.00
BMG 20.95 12 «P 06 43.00 -0.4
UYO 50.20 341 iPc 10 54.80 -0.9
OLY 50.62 345 P 10 57.60 -1.2
ALQ 55.61 331 «Pc 11 36.20 0.0
1.0s 5.7 5nm 4 . 6mb
ANMO 55.61 331 P 11 36.30 0.1
1.0s 21 . 25nm 5 . 1mb
DUG 62.84 330 P 12 26.80 0.7
TNP 63.55 326 P 12 31.30 0.4
0.6s 2.47nm 4. 6mb
NEW 70 . 99 333 P 1 3 1 7 . 60 0.1
1.0s 8.1 3nm 4 . 8mb
FFC 71.18 345 «P 13 17.00 -1.4
1.0s I2.00nm 5. 0mb
LIC 74.41 80 P 1338.10 -0.1
0.8s 7 . 50nm 4 . 8mb
Z 20s 0 . 25um 4 . 5Msz
KIC 74.72 79 P 1340.00 0.0
0.7s 13. 50nm 5 . 1mb
YKA 81.22 343 «P 14 14.60 -0.2
0.9s 4.60nm 4. 5mb
INK 90.88 342 eP 15 83.00 0.7
MBC 93.08 351 «P 15 13.50 1.3
1.0s 6 . 00nm 5 . 0mb
WRA 134.38 224 PKP 21 31.00 12. 5X
0.6s 1 . 20nm
BJ 1 151.09 338 «PKP 21 53.00 6.3X
S . D . - 1 . 0 on 20 o f 25 obs .

% AUG 08, 1991 16h 1 3m 43.20± 0.77s
44.840 N ± 5.8km 7.199 E ± 8.6km
DEPTH - 10.0km (geophy s i c i s t)
NORTHERN ITALY (545)
ML 1 . 8 (GEN) .

BHB 0.05 88 P 13 46.00 0.6
S 13 47 .33
RRL 0 . 31 285 P 13 50 . 00 0.3
S 13 53. 99
RSP 0.31 7P 13 58. 37 0.6
PZZ 0 . 34 192 P 13 51 . 05 0.7
S 13 55. 84
STV 0 .68 171 P 13 54 . 30 -1.1
LSD 0.62 357 P 1354.71 -1.1
S 14 03. 43
S . D . -1.1 on 6 o f 6obs.

AUG 08, 1991 16h 30m 06.39± 0.16s 20.226 S ± 4.0km 178.103 W ± 4.8km DEPTH - 578.6km (2 depth phases) 5 . 3mb (40 obs .)
FIJI 1 SLANDS REGION (181)
CENTROID, MOMENT TENSOR (HRV)
Doto Us«d: GDSN
L . P . B . : 16S , 25C
Ccntroid Location:
Origin Tim* 16:30:10.7 0.9
Lot 19.96S 0.08 Lon 178. 03W 0.88

D*p 598.8 4.3 Ho I f -d u r o t i on 1.8
Moment Tensor; Scole 10**17 Nm
Mrr- 0.22 0.06 Mtt 8.38 8.89
Mff- 0.16 0.09 Mrt 1.29 8.88
Mrf 8.14 0.09 MM 8.32 0.88
Principol Ax«s:
T Vol- 1.25 Pig-51 Azm-188
N 0.22 11 84

SVA
VUN
NDF
BKM
DZM
HBZ
PGZ

MNG

K 1 W
MTW
CAW
BLW
WDW
MRW
WEL
MOW
THZ
KHZ

LTZ
MOZ
AFR

PAE

PPT

PPN

T VO

BRS
COO

PMO

VAH

TPT

RUV

p n unTn\j

CNB

CAN
BWA
CTAO

ru^ * wi o

OLP

PMG

TOO

LAT
TAU
MDG
WR2

WRA

MTN
GUA

PJG
WARB
NANU

CSY

P -1 . 47 37 345

B«st Double Coup I « : Mo-1 . 4 * 1 8 * * 1 7 NP1:Strike- 26 Dip=13 Slip- 32
NP2: 265 83 101

3 . 87 302 «P 3128.10 -1.8
3 .93 304 *P 31 28.20 -2.1
4.87 300 *P 31 37.00 -0.5
13.17 279 iPc 33 03.00 6 .2X
14.53 260 iPc 33 10.60 0.2
1 7 . 59 1 89 P 3342.50 2.7
20 .89 192 P 34 09.00 -1.4
0.5s 67 . 00nm 5 . 5mb
21 . 05 1 94 P 3410.00 -1.9
0.3s 43 . 00nm 5 . 6mb
21 . 42 195 P 34 14.50 -0.7
21 .57 193 P 34 15.88 -1.5
21 .61 194 P 34 15.78 -1.3
21.77 193 P 34 17 .68 -8.8
21 .78 194 P 34 17 . 18 -1.4
21 .82 1 95 P 3418.20 -0.6
2 1 . 85 1 95 P 34 1 9 . 80 -0.1
21 . 87 1 94 P 3418.60 -0.7
22.79 198 P 34 26.80 -0.8
23 . 22 1 96 P 34 38. 30 -1.1
0.4s 45.00nm 5.5mb
23.91 198 P 34 36.20 -1.5
24 . 66 1 96 P 34 43 . 1 0 -1.1
26.92 89 iP 35 03.60 -0.6
1.0s 1 05 . 00nm 5 . 4mb
27.08 89 iP 35 04.70 -1.0
1.0s 75 . 00nm 5 . 3mb
27.11 89 iP 35 05.20 -0.7
1.0s 70 . 00nm 5 . 2mb
27.25 89 iP 35 06.20 -0.9
1.0s 25 . 00nm 4 . 8mb
27.37 98 iP 35 07 .38 -1.0
1.8s 60 . 80nm 5 . 2mb
27 .54 249 iPc 35 10.80 1.2
28 .92 243 iPc 35 22 . 30 0.7
0.7s 38 . 00nm 5 . 1mb
29.23 85 iP 35 24.60 8.3
1.1s 65 . 00nm 5 . 2mb
29. 42 85 iP 35 24.98 -1.0
1.1s 50 . 00nm 5 . 1mb
29-49 85 iP 35 25.90 -8.6
1.1s 90.00nm 5. 3mb
29.66 85 iP 35 27 . 10 -0.9
1.1s 110. 00nm 5 . 4mb
31.88 252 iPd 35 47.48 8. IX
i 37 22.50
i 38 26 . 20
32 .38 235 iPc 35 51 .90 1.7
0.9s 48 . 80nm 5.1mb
32.58 236 iPc 35 53.60 1.0
32 . 77 237 *P 35 53.00 -1.1
33 .42 264 iPc 36 01 .80 1.3
iPcP 38 40.50
iS 40 41 .80
iScS 45 21 .80
34 .20 244 iPd 36 07 .40 1.3
0.9s 72.08nm 5.3mb
e 38 47.80
35.05 252 iPd 36 14. 18 1.0
0.4s 58 . 88nm 5 . 5mb
35. 19 283 eP 36 14.58 0.1
1.8s 128 . 88nm 5 . 5mb
35 .98 233 iPd 36 22.50 1.8

1.8s 78.88nm 5.3mb
36.42 287 eP 36 25.08 0.5
36 . 75 224 eP 36 28.00 1.1
38. 12 288 iPd 36 38.88 8.4
44.52 262 eP 37 28.50 -0.7
0.3s 46 . 88nm 5 . 5mb
i 40 08.80
*S 43 22.50
44.54 262 P 37 27.00 -2.4
0.5s 34.10nm 5. 1mb
49.07 270 *P 38 03.00 -0.7
49.49 310 *P 38 85.80 -0.9
1.0s 328 . 00nm 5 . 8mb
49.55 318 *P 38 86.20 -1.0
50.82 252 eP 38 15.88 -1.5
61.37 255 *P 39 29.80 -8.1
0.4s 9 . 80nm 4 . 5mb
64.17 285 iPd 39 48 . 38 2.8
8.7s 49 . 88nm 5 . 1mb

08d 16h

70

KAK J
CHJ J
1 1 DJ
SPA

MAT

OFUJ
N 1 1 J
YAMJ
MTMJ
TSRJ
kUSJ
ADK

MRRJ
SMY
ASAJ
SON
SYP
PRS
GCC
BCH
SAO
PR 1
BKS

LLA
ARN
PAS
MWC
BAR
RVR
PLM
SBB
FR 1
ISA

CMB
WDC
ORV
CLC
M 1 N
TPC
GSC
GLA
LBFM
KDC
BONR
A 1 A
KVN
TNP
MAW
PDB
SVW
GMW
LON
MCW
TTA
PMR

KLU
BJ 1

TOA
PNT

NNT
NEW

ALO

ANMO

IMA

FBA

LRM
BW06
NVL

68.61
69. 14
69 . 34
69 . 96
1 .05

69. 93
6 .8s

69.98
76 00
70.14
76.19
7 d . 4 9
71.70
/ i .61
0.6s
71' .83
72.96
73.42
76.74
77 .55
77.69
77 . 70
77 .86
77 .90
78.03
78.06
0.8s
78.13
78. 19
78 .57
78.69
78.81
79.03
79 .04
79.11
79.16
79.21

79.33
79.53
79.53
79.89
79.95
80.02
80. 14
80.32
80.38
80.56
80.62
81 .26
81 .38
81.40
81.79
82.09
83.05
83.73
83.75
84. 42
84 .69
84. 77
0.9s
85.42
85.63
1 .0s

85.90
86.48
0.9s
87.10
87.21
0.9s
87 .31
0.9s

87 , 31
0.9s
87.99
0. 8s
88,00
0.8s
88.56
88.84
88.99

325 P
324 i Pd
323 iPd
180 i PC
1 1 8 . 50nm
i
324 i P d
39 . 55nm
eS
328 eP
325 P
326 P
323 iPd
322 i Pd
33? eP
1 eP
1 08 . 70nm
330 eP
355 eP
332 P
1 0 P
46 eP
44 ePd
43 ePd
45 P
43 eP
44 ePd
42 i PC
33 . 00nm
44 eP
43 P
47 eP
47 eP
49 eP
48 eP
48 eP
47 eP
44 i Pd
46 eP
e

43 i Pd
40 eP
41 P
46 eP
40 ePd
48 eP
47 eP
50 eP
39 P
1 4 P
44 P
157 eP
43 P
44 P
200 iPd
1 2 P
1 1 eP
34 P
35 P
33 P
10 ePd
13 i Pd
53 . 60nm
15 P
315 eP
27 . 00nm
e
eS
14 i Pd
34 i PC
27 . 00nm
284 eP
36 P
8 . 77 nm
51 eP
4 . 62nm
e
51 P
1 6 . 8 1 nm
1 0 P
1 8 . 7 1 nm
12 P
1 03 . 45nm
40 eP
43 P
183 Pd
e

40 12 .90
40 16. 30
40 17.40
40 22 . 90
5
43 02 . 80
40 20 . 50
5
48 50 . 00
40 21.20
40 21.60
40 22 . 40
40 22 . 50
40 24 . 50
40 31.10
40 31.10
5
40 38.00
40 37.50
40 42.50
40 58 . 00
41 05.00
41 06 . 41
41 06 . 15
41 07 . 50
41 07 . 05
41 08.34
41 08.30
4
41 08 . 25
41 08 .50
41 10 . 00
41 11.00
41 12 . 00
41 13. 00
41 13.00
41 13 . 00
41 13 . 60
41 14.00
43 16.00
41 14.60
41 15 . 69
41 15 . 00
41 17.00
41 17.40
41 18.00
41 18- 00
41 21 . 00
41 20.00
41 19.40
41 21.40
41 26. 20
41 25. 10
41 25.20
41 28.00
41 25 . 70
41 31 . 90
41 36.30
41 36 . 00
41 40.00
41 40 . 80
41 40. 40
5
41 43. 00
41 45.50
4
45 11.00
51 1 4 . 00
41 46.70
41 50.10
5
41 55.20
41 51 . 50
4
41 54.00
4
44 03 . 00
41 54.40
4
41 55.50
5
41 54.40
5
41 59. 80
42 00.50
42 01 . 00
44 08.00

- 0.9
- 0.8
- 0.9
1 .5
. 4mb

- 1 .3
. 0mb

- 0.8
- 0.5
- 0.5
- 0.9
- 0.5
- 0. 7
- 1.1
. 6mb
- 0.3
- 1.4
0.8
- 1 -_7
0.2
1 . 1
0.8
1 . 1
0.7
1 .0
1 . 1
. 8mb
0.6
0.5
0.0
0. 1
0 . 7
0.6
0.3
0. 1
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0.6
574km
0.7
0. 9
0. 1
0. 1
0.2
0. 4
- 0.3
1 .8
0.4
- 0 . 4
0.4
2.8
0. 4
0. 4
2.0
- 1 .8
- 0. 5
0.3
- 0.2
0.6
0.4
- 0. 3
. 2mb
- 1 .0
0.2
. 9mb

0.5
0.9
. 0mb
2. 4
- 1 .2
. 5mb
0.3
. 2mb X
599kmX
0. 7
. 8mb
- 0.6
. 0mb
- 1 .6
. 7mb
0. 4
- 0.2
0. 4
584km

KM 1

BDT

CHG

CHTO

SES
YAK

LZH

1 NK
YKA

MBC
SOB1
SOD
BUL

MTD

KAF

NB2

COP

EKA

LW 1
DMU
KAS
DCN

KRA

HR 1
Wl T
VR 1
KSP

<;pr o ' ^
MM I
CLL

JVI
MLR
BRG

WTS

PRU

MOX

MBH
BNS
ENN

UCC
SRO

89.14
2.5s
89. 44
1 .2s
90. 06
0 .9s
90 . 06
0 .8s
91.71
91 .80

92.53
1 .0s
Z 18s
E 14s

94. 03
96. 30
0.8s
102.54
128. 74
130. 31
1 32 . 1 1

133.07

134.86
0.5s
138. 70
0.8s
143.72
0.9s
144.74
0 .8s
145.44
145. 71
145.74
1 46 . 19
0.8s
1 46 . 96

147 .26
147 .26
147 .28
1 47 . 40
1 .0s

147 .58
147.73
147.77
1.1s

147 .90
147 .94
147 .97

1 48 . 06
0.9s

148.64

148.68
1.4s
148.72
1 49 . 04
149. 36
0.8s

149. 43
149. 43

e

«

297 Pd
130- 00nm
289 iPc
111 . 60nm
290 iPd
36 .55nm
290 iPd
3 1 - 30nm
36 ePd
338 i P
i PP
iSKS
i S K k S
eS
esS
308 iPd
44 . 00nm
24 . 00um
0 . 30um
PP

eS
15 «P
25 eP
2 . 50nm
1 2 ePd i f
121 ePKP
348 ePKP
215 ePKP
iPP
221 ePKP
i PP
344 ePKP
1 . 40nm
353 PKP
2 . 1 0nm
350 iPKPc
110. 92nm
5 PKPc
20 . 40nm
233 iPKPc
9 «PKP
315 «PKP
10 «PKP
63 . 00nm
339 ePKPd
e
300 ePKP
355 ePKP
327 ePKPd
343 ePKP
51 . 00nm
i d
i c
e
e
337 e PK P
299 ePKP
347 iPKP
1 00 . 00nm
pPKP
iSKP
298 ePKP
327 ePKPc
346 ePKP
i
i
i
epPKP
i
354 iPKPd
61 . 09nm
e
344 ePKP
i
e
e

348 iPKP
51 . 00nm
294 ePKP
354 ePKPd
355 iPKPd
28 . 00nm
e
357 PKP
338 iPKP

44 42.00
05 13.70
42 04.00

42 06.50

42 08.00

42 08 . 30

42 1 3 .60
42 12.00
45 58.
51 48 .
52 09 .
52 24.
56 28.

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80
80
90
42 19.60

44 23.00
52 38.00

42 23. |00
42 33 .

f43 04.
48 10.
48 12.
48 16.
50 52.
48 21 .
50 57 .
48 06 .

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48 17.70

48 35.70

48 38 .

48 44 .
48 41 .
48 44 .
48 43.

48 45 .
48 48.
48 47 .
48 47 .
48 46.
48 43 .

48 47 .
48 50.

70

50
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60
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50 49 . 00
51 33.
48 47.
48 49 .
48 47 .

50 59.
51 33.
48 49.
48 47 .
48 44 .
48 48.
48 52.
48 59.
51 03.
51 34.
48 48 .

48 53.
48 45.
48 50 .
48 55.
51 02.
48 50.

48 51 .
48 50.
48 51 .

48 58.
48 52.
48 51 .

50
40
00
60

00
90
30
50
50
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60
30
00
20
80

00
80
1 Q 1 V
50
30
20

30
50
00

00
80
50

1 .6
5 . 4mb
2 . 9
5 . 7mb
1 .5
5 . 3mb
1 . 9
5. 3mb
0 . 4
- 0.6

1 .3
5.5mb
6. 7Msz

- 0. 7
- 0. 7
4. 5mb
2.3X
- 0. 1
- 0.2
- 0. 9

2 -7X

- 1 4 . 3X

- 10. 5X

- 1 .3

- 0 . 1

2 .9X
1 . 0
2.9X
1 . 8

2 . 6X

3 .8X
4.0X
2. 7X
- 0. 3

3 5X
4.5X
3.7X

4.5X
3.0X
0.3

4.5X

0.5

4.9X

5. 1X
4 . 7X
4 . 7X

6. 4X
5.0X

BUD 149.46 337 e(PKP)48 52.00 5.4X
MEM 149.51 355 iPKPd 48 52.04 5 . 5X
i 48 58 . 60
ZST 149.51 340 i PKP 48 52.40 5.8X
GRF 149.67 348 iPKPd 48 52.70 5.8X
e 49 00 . 40
KHC 149.68 345 PKP 48 46.00 -0.9
1.2s 37 . 50nm
i 48 53. 00
i 49 00.50
VKA 149.70 341 ePKP 48 49.00 2.1X
i 4853.10
SNF 149.72 357 iPKPd 48 52.49 5.6X
i 48 59 . 77
DOU 150.12 357 PKP 48 52.90 5.4X
WLF 150.43 354 i PKPd 48 54.76 6.8X
i 49 03. 09
FUR 151.11 347 iPKPc 48 56.10 7 . 0X
i 49 06.40
BHG 151.16 345 iPKPc 48 55.90 6.7X
i 49 06 . 70
FIN 151.47 3 iPKPd 48 56.20 6.7X
0.8s 18- 80nm
CDF 151.55 352 ePKP 48 56.70 6.9X
1.0s 16. 00nm
LDF 151.65 3 iPKPd 48 56.70 6.9X
0.8s 14. 80nm
GRR 151.82 4 iPKPd 48 57.20 7.2X
0.6s 1 2 . 65nm
WTTA 151.89 346 iPKPd 48 57.50 7.0X
0.7s 23.70nm
i 49 09.00
e 51 10.00
e 51 48 .00
HAU 152.05 354 ePKP 48 57.90 7 4X
1.0s 12. 00nm
LPF 152.16 4 iPKPd 48 58.00 7.5X
0.6s 1 8 . 05nm
BSF 152.18 353 ePKP 48 58.00 7.3X
0.6s 4 . 50nm
SKO 152.74 327 ePKP 48 59.20 7 . 6X
e 4913.40
LOR 152.98 357 iPKPd 49 00.10 8.3X
0.8s 8 . 05 nm
SSF 153.20 358 iPKPd 49 00.40 8.4X
0.8s 6 . 05nm
LBF 153.25 357 ePKP 49 00.50 8.3X
0.8s 5 . 35nm
MFF 153.64 3 ePKP 49 01.40 8.8X
0.6s 4 . 50nm
TCF 154.00 360 ePKP 49 02.10 8.9X
1.0s 6 . 00nm
LSF 154.04 1 ePKP 49 01.70 8 . 5X
0.8s 9 . 40nm
MAF 154.07 359 ePKP 49 02.60 9 . 4X
0.7s 3 . 30nm
S . D . - 1 . 1 on 1 37 of 1 87 obs .

7. AUG 08, 1991 16h 46m 09 . 50± 3.31s
43.319 N ± 8.4km 13.185 E ±26. 9km DEPTH - 10.0km (geophy s i c i s t)
CENTRAL ITALY (381)

ARV 0.25 315 P 46 13.90 -1.0

eSg 46 18.50
ASS 0.46 237 P 46 18.30 -0.5

eSg 46 28.00
CRE 0.95 289 P 46 28.20 0.5
eSg 46 41.50
MNS 1.00 202 P 46 28.70 0.1
SF 1 1.14 302 P 4631.70 0.9
eSg 46 46.20
PGD 1.20 298 P 46 31.90 -0.1
eSg 46 48 . 40
S.D. -0.9 on 6of 6 obs.

* AUG 08, 1991 16h 49m 21.90± 2.18s 50.609 N ±13. 2km 154.686 E ± 1 4 . 6 km DEPTH - 197.3 ± 22. 4 km

4 . 3mb (15 obs .)
KUR 1 L 1 SLANDS (221)

KUSJ 10.15 226 iPd 51 43.10 -0.8
eS 53 27.20
ASAJ 10.43 236 eP 51 53.10 5 . 6X
HOOJ 11.36 228 eP 51 59.60 0.1
eS 53 57 . 10

71

08d 16h

MAT 18.38 226 eP 53 26.00 1.7
YKA 47.24 39 eP 57 37.20 1.0
0.6s 3 . 60nm 4 . 0mb
FFC 57.14 42 ePd 58 50.70 1.1
0.6s 6.00nm 4.5mb
BW06 61.68 56 eP 59 20.70 -0.4
0.8s 2 . 02nm 4 . 0mb
NB2 64.91 341 P 59 39.50 -2.1
0.6s 1 . 20nm 3 . 9mb
ANMO 68 97 60 eP 00 06.60 -1.0
1 . Os 2 . 50nm 3 . 9mb
WR2 72.50 206 eP 00 28.10 -0.4
8.4s 3 . 70nm 4. 5mb
WRA 72.50 200 P 00 28.00 -0.5
0.6s 1 . 90nm 4 . 0mb
LPL 60.31 338 eP 01 12.30 0.3
0.6s 3 . 60nm 4 . 3mb
LPG 80.32 338 eP 01 11.80 -0.4
0.8s 5.35nm 4. 3mb
MAF 80.58 341 eP 01 13.50 0.4
0.6s 5.40nm 4. 5mb
TCP 80.59 341 eP 01 14.00 0.8
0.8s 4 . 05nm 4 . 2mb
LSF 80.77 341 eP 01 14.90 0.8
0.7s 4.40nm 4. 3mb
CAF 81.92 341 eP 01 20.30 0.1
0.6s 3.60nm 4. 3mb
LFF 82.18 342 eP 01 21-00 -0.4
0.6s 6 . 30nm 4 . 5mb
LPO 82.34 341 eP 01 22.10 -0.2
0.6s 5.40nm 4. 5mb
S . D . = 1.0 on 18of 19 obs .

* AUG 08. 1991 17h 01m 50.93± 0.46s 1.497 N ±11. 9km 122.715 E ± 9.0km DEPTH «= 33.0km (normal)
4 . 7mb (6 obs .)
MINAHASSA PENINSULA (265)

MN 1 2.12 91 eP 02 25.00 0.2
eS 02 51 . 00
TSM 5.58 300 eP 03 12.00 -1.8
MKS 7.42 206 ePd 03 47.00 7.4X
1 PM 21.87 279 ePd 06 42.40 -0.5
PS 1 23.80 273 eP 07 03.00 1.1
e 09 00.00
WR2 24.18 152 i PC 07 04.20 -1.3
0.5s 25 . 50nm 5 . 0mb
NANU 24.92 196 eP 07 10.40 -2.2X

CHTO 28.97 308 e(P) 07 49.80 0.0
1.0s 2 . 75nm 3 . 9mb
MAT 37.70 21 (P) 09 15.00 9.8X
eS 15 08.00
STK 37.71 153 iPd 09 04.60 -0.7
1.1s 6 . 70nm 4 . 4mb
BRS 40.76 137 iP 09 30.50 -0.3
GUN 43.93 310 P 09 58.00 0.9
CAN 44.11 149 eP 09 59.80 1.8
PK 1 44.13 309 P 09 59.28 0.6
0.9s 15.00nm 4.8mb
KKN 44.33 310 P 10 00.66 0.4
0.8s 32.00nm 5.2mb
OMN 44.38 309 P 10 00.50 -0.1
GKN 44.93 309 P 10 05.42 0.4
HYB 46.18 293 eP 10 15.00 0.2
GBA 46.37 287 P 10 23.00 6.8X
0.8s 5.10nm 4. 5mb
YAK 60.60 4 eP 11 59.60 -0.9
SOBl 161.98 244 «PKP 22 00.50 9.7X
e 22 14 .60
S . 0 . -1.0 on 16 of 21 obs.

AUG 08. 1991 17h 12m 1 1 . 90± 0.91s 15.253 N ±10. 4km 94.153 W ± 7.2km DEPTH - 62 . 5 ± 7 . 8 km
4 . 6mb (Sobs.)
NEAR COAST OF OAXACA. MEXICO (66)

TPX 1.86 100 iP 12 41.50 -0.6
IS 13 03.00
SCX 2.08 45 iP 12 45.50 0.5
iS 13 12.00
MSM 4.83 321 (P) 13 22.50 -1.3
(S) 14 09. 50
LVVM 4.97 334 (P) 13 21.00 -4.8X
(S) 14 20.00
1 1 T 5 . 46 31 4 eP 13 34 . 00 1.1

ACX 5.72 287 (P) 13 34.50 -1.8
PPM 5.72312 i P 13 38. 50 1.8
MRX 8.04 304 iP 14 09.00 0.4
iS 15 40.50
UYO 18.83 359 iPd 16 23.20 -6.3X
MEO 19.85 349 iPd 16 39.00 -1.6
TUL 20.62 356 eP 16 49.60 1.1
0.8s 27 . 30nm 4.6mb
ALO 22.51 333 iPd 17 08.10 0.5
0.8s 1 0 . 26 nm 4 . 3mb
PLM 27.34 315 eP 17 54.00 0.8
GSC 28.48 319 eP 18 04.00 0.7
MWC 28.65 316 eP 18 04.00 -1.1
CLC 29.30 319 eP 18 11.00 0.2
LRM 34.13 337 eP 18 53.16 0.0
PNT 39.83 334 eP 19 41.00 0.3
0.4s 5 . 00nm 4 . 7mb
FFC 39.86 353 ePd 19 39.50 -1.3
0.4s 7 . 00nm 4 . 9mb
ZOBO 40.51 140 P 19 49.00 1.7
Z 24s 0 . 10um 3.6MszX
LR 34 34.00
SIV 45.07 132 P 20 22.80 -0.9
INK 58.66 344 eP 22 04.00 -0.8
MBC 62.43 353 eP 22 30.00 -0.3
NB2 84.04 28 P 24 37 . 30 0.5
0.9s 4 . 50nm 4 . 5mb
KIC 87.79 84 P 25 10.60 14. 6X
KHC 89.77 39 eP 25 04.50 -0.4
BDT 145.20 338 ePKP 31 44.60 -0.2
1.1s 49 . 90nm
HYB 146.75 13 ePKP 31 48.00 0.5
GBA 150.15 17 PKPd 31 57.00 4.2X
0.6s 4 . 1 0nm
S . D. -1.0 on 25 of 29 obs .

AUG 08. 1991 18h 22m 29.57± 0.66s 45.516 S ± 8.6km 72.691 W ±20. 5km DEPTH - 33.0km (normal)
5 . 0mb (3 obs .)
NEAR COAST OF SOUTHERN CHILE (144)
Felt in the Hudson Volcano areo.

LNV 11.59 5 eP 25 15.00 -0.6
PEL 12.45 8 eP 25 26.50 -0.8
SLA 21.54 18 iPd 27 19.00 0.9
CCH 28.58 13 eP 28 26.00 1.0
LPB 29 . 15 9 P 28 41 . 50 1 1 . 3X
ZOBO 29.41 9 P 28 33.00 0.3
1.1s 26 . 68nm 4 . 9mb
SIV 31.01 22 P 28 45.00 -1.3
SPA 44.68 180 eP 30 36.00 -4 . 8X
1.2s 23 . 94nm 4 . 9mb
SOBl 45.33 47 eP 30 47.00 0.7
NVL 46.12 153 Pd 30 51.00 -0.9
UYO 81.72 342 i Pe 34 36.00 -9.8X
MEO 83.29 339 iPd 34 53.90 0.0
ALO 85.71 333 eP 35 06.00 -0.3
1.1s 14. 24nm 5 . 1mb
ANMO 85.72 333 P 35 06.70 0.4
OUE 145.05 102 ePKP 42 05.40 0.2
CHG 152.48 163 ePKP 42 21.00 4.2X
LZH 170.22 163 ePKP 42 35.00 0.4
1.2s 1 6 . 00nm
S . D . -0.8 on 13 of 17 obs .

& AUG 08, 1991 18h 22m 32.23s
61 .684 N 150.700 W
DEPTH - 57.6km
SOUTHERN ALASKA (2)
<AE 1 C> . ML 2.5 (AE 1 C) .

SUA 0.22 185 iPc 22 41.80 0.0
eS 22 49.96
PWA 0.39 94 ePc 22 42.77 -0.2
eS 22 52.08
SKT 0.49 307 iPe 22 43.23 -0.8
eS 22 52-21
PMS 0.70 128 iPc 22 45.87 -0.7
eS 22 57.90
CGLM 0.73 240 iPd 22 46.50 -0.4
CUT 0.75 15 iPd 22 46.37 -0.7
eS 22 57.70
NCG 0.75 249 iPd 22 46.48 -0.7
eS 22 58.46
PLRM 0.75 96 ePe 22 46.26 -0.8
eS 22 58. 15

SPU 0.82 233 iPd 22 47.38 -0.7
eS 22 59 . 64
GHO 0.85 83 iPc 22 48.14 -0.3
eS 23 00.83
BGL 0.91 243 eP 22 48.82 -0.5
CKL 0.93 239 i Pd 22 48.74 -0.7
eS 23 02 . 1 1
NKA 0.98 196 ePd 22 51.20 1.2
KNK 1.11 103 iPc 22 51.38 -0.5
eS 23 06 . 83
SLKM 1.20 169 iPc 22 52.29 -0.8
eS 23 08.69
ROT 1.39 217 iPd 22 54.92 -0.8
eS 23 13.76
HUR 1.39 20 ePd 22 55.47 -0.2
eS 2313.39
DFR 1.46 222 ePd 22 56.10 -0.C
eS 23 15.35
RON 1.54 221 iPd 22 57.07 -0.9
eS 23 17 . 51
REF 1.54 220 ePd 22 57.29 -0.7
NCT 1.56 225 ePd 22 57.60 -0.6
RSO 1.58 220 iPd 22 57.72 -0.8
S 2318.70
ROW 1.58 221 ePd 22 57.78 -0.8
RED 1.62 219 iPd 22 58.30 -0.7
eS 2318.95
SEW 1.70 158 eP 22 59.49 -0.5
TRF 1.78 6 ePd 23 00.49 -0.8
eS 23 22 . 72
KTH 1.88 357 eP 23 02.05 -0.5
GLI 1.92 113 ePc 23 00.84 -2.2
eS 23 25.22
RND 1.93 26 eP 23 02.23 -1.0
KNIM 1.97 132 eP 23 00.96 -2.8
VZW 2.09 106 eP 23 04.24 -1.3
LTI 2.16 139 eP 23 03.66 -2.7
CNPM 2.18 187 eP 23 07.12 0.4
TOA 2.18 77 eP 23 06.48 -0.4
KLU 2.29 93 eP 23 06.98 -1.4
PDB 2.56 224 eP 23 10.58 -1.5
CDD 3.13 209 eP 23 19.31 -0.9
37 abs . ossoc i a t ed

ic AUG 08. 1991 18h 31m 50.20s
37 . 542 N 1 18.875 W
DEPTH - 9.0km
CALIFORNIA-NEVADA BORDER REGION (40) <BRK> . ML 3. 8 (BRK) .

BONR 0.61 48 iPc 32 01.50 -1.1
FRI 0.86 231 iPc 32 06.03 -0.8
CMB 1.29 293 iPd 32 13.58 -0.7
eS 32 30.45
TNP 1.42 67 iPd 32 15.80 -0.6
KVN 1 . 63 22 eP 32 19 . 50 0.2
PKEM 1.78 214 eP 32 22.40 1.1
LLA 1.89 241 i PC 32 23.66 0.6
PRI 2.00 226 ePc 32 25.21 0.5
eS 32 53.88
PHAM 2.10 216 eP 32 26.20 0.2
ARN 2.12 266 «P 32 26.90 0.5
SAO 2.19 250 ePc 32 28.01 0.6
MHC 2.21 266 ePc 32 28.85 1.1
iS 32 57 . 05
PRS 2.34 240 iPc 32 29.98 0.6
GCC 2.54 259 eP 32 32.49 0.2
BCH 2.55 203 eP 32 32.40 -0.1
BKS 2.69 278 eP 32 34.70 0.3
eS 33 08.60
ABL 2.70 186 eP 32 35.00 0.2
PCC 2.79 270 ePc 32 35.79 0.0
ORV 2.88 315 «P 32 39.77 2.7
SSK 3.46 164 eP 32 45.80 0.3
MIN 3.52 324 eP 32 53.78 7.5
MSU 5.38 78 eP 33 12.20 -0.6

ANMO 10.36 101 e(P) 34 20.50 -1.7 23 obs. associoted

* AUG 08, 1991 19h 01m 58.51± 2.52s 45.579 N ±17. 2km 26.502 E ±11. 0km DEPTH - 136.8 ± 23.9 km
ROMANIA (358)
MD 4.0 (BUC).

VR 1 0.33 28 iPd 02 16.00 -1.1
MLR 0.40 258 iPd 02 18.00 -0.3

08d 19h

72

I SR 0.44 176 iPc 02 19.80 0.6
MTUR 1.07 251 iPc 02 23.00 -0.1
CFR 1.23 108 iPd 02 26.00 1.5
PTT 1.36 357 eP 02 43.00 17. IX
TLB 1.47 132 iPc 02 26.00 -1.0
IAS 1.77 24 eP 02 48.00 1 7 . 5X
DRA 1.83 241 ePd 02 56.00 24. 8X
PVL 2.51 200 iPd 02 41.00 1.4
OEV 2.54 278 ePc 62 40.50 0.5
JMB 3.11 179 iPd 02 47.00 -0.4
RZN 4.10 199 iPd 03 00.00 -0.7
MMB 4.47 208 iPd 03 05.00 -0.5
S.D. '- 1.1 on 11 of .14 obs.

AUG 08, 1991 22h 08m 30 . 52± 0.33s
1.331 f N ± 6.5km 122.643 E ± 7.2km DEPTH - 33.0km (normol)
5.1mt> (11 obs.) 4.2Msz (3 obs.)
MINAHASSA PENINSULA (265)
CENTROID, MOMENT TENSOR (HRV)
Doto Used: GOSN
L.P -B. : 16S, -30C
Cen t r o i d Loco t i on :
Origin Time 22:08:32.9 0.8
Lot 1.70N 0.07 Lon 122. 86E 0.09

Dep 16.9 5.6 Ho 1 f-du r o t i o n 2.4
Moment Tensor; Scole 10»»16 Nm
Mrr- 3.52 0.58 Mtt=-4.65 0.35
Mff- 1.13 0.68 Mrt 1.37 1.72
Mrf 0.53 0.86 Mtf = 0.93 0.38
P r i nc i po 1 Axes:
T Vol- 3.91 Plg=72 Azm-128
N 1 .08 15 275
P -4.99 9 8

Best Double Coup I e : Mo-=4 . 4 » 1 0« « 1 6
NP 1 : S t r i ke=*1 1 5 D i p=38 S 1 i p = 115
NP2: 265 56 72

TSM 5.60 302 eP 09 51.50 -2.2
DAV 6.42 27 eP 10 05.50 0.2
MKS 7.24 206 iPc 10 25.20 8.5X
IPM 21.83 279 ePd 13 22.90 0.8
PSI 23.74 274 eP 13 42.00 1.1
e 18 00. 00
WRA 24.06 152 P 14 01.00 17. 1X
0.8s 1 6 . 70nm
WR2 24.07 152 eP 13 43.90 -0.1
0.5s 51 . 20nm 5 . 3mb
NANU 24.74 196 eP 13 50.00 -0.5
0.5s 32 . 00nm 5 . 2mb
NNT 25.31 297 eP 13 56.20 0.3
ASPA 27.15 157 iPd 14 12.20 -0.7
0.9s 10. 20nm 4 . 5mb
Z 18s 1 . 00um 4 . 4Msz
OIS 27.37 144 iPd 14 14.80 -0.1
1.0s 56 . 00nm 5 . 2mb
i 1 4 35 . 60
WARB 27.62 172 eP 14 16.00 -1.2
CHG 29.01 308 eP 14 29.50 -0.3
CHTO 29.01 308 eP 14 30.00 0.2
1.2s 7 . 99nm 4 . 3mb
SSE 29.63 357 eP 14 36. e0 0.8
Z 20S 0.60um 4.2MS2
N 17s 0 . 60um
S 19 30. 00
STK 37.60 153 eP 15 43.50 -0.5
0.6s 10.80nm 4.9mb
MAT 37.88 21 eP 15 39.00 -7.3X
eS 21 42.00
LZH 38.73 335 eP 16 05.00 1 1 . 4X
1.5s 1 7 . 00nm
Z 16s 0.48um 4.4MszX
E 1 5s 0 . 40um

pP 16 28.50 101kmX
sP 16 36 . 00
PP 1 7 39 . 00
BJ 1 38i98 352 eP 15 35.00 -20. 4X
Z 26s 6 . 30um 4 . IMsz
eS 21 52.00
BRS 40*69 137 iPc 16 09.80 0.0
COO 42 t 22 141 ePd 16 24.60 2.3X
GUN 43^98 310 P 16 37.76 0.6
CAN 44L00 148 eP 16 38. 00 1.2
PKI 44M8 310 P 16 38.84 0.2
0.7s 16. 00nm 5 . 0mb
KKN 44.38 310 P 16 40.54 0.3
0.8s 48.00nm 5.4mb

DMN 44
0 .
GKN 44
0.
H Y B 46
GBA 46
0.
OZM 48
OUE 60
GAR 60
YAK 60
OBN 86

PCH 1 45
PtL 145
Z080 161
S.D.

. 43 309 P
9s 37 . 00nm
. 98 310 P
9s 53 . 00nm
. 18 293 ePd
. 35 288 Pd
5s 3 . 1 0nm
. 65 121 i Pd
. 04 304 eP
. 62 315 eP
. 77 4 eP
. 64 325 eP
e

. 0 CQ y loo lAft e ADb'D r K r
. 97 160 ePKP
. 75 145 PKP

16 41 .02 0.4
5 .2mb
16 45 . 22 0.3
5 . 5mb
16 55.00 0.6
16 55 .60 -0.1
4. 5mb
17 13 . 90 0.1
18 30 . 00 -7 . 1 X
18 40.30 -0.5
18 39 . A0 -1.8
21 10.
21 23.

*> / O ft ft V ft O .

28 08 .
28 33.
- 1.0 on 30 of 3

% AUG 08, 1991 22h
43.096
DEPTH
PYRENEES
ML

J AU 0

OGE O
ESCF 0

ATE 0

LHE 0
ISSF 0

MADF 0

S.D.

N ± 8 . 0km

>6 -1.9
J6
>0 0.4

>e 0.1
)d 2.2
' obs.

T
19m 18 . #3± 1.17s
0. 399 W ± 8. 5km
10.0km (geophys i k i s t)

1 .0 (STR) .

. 06 159 Pg
Sg
. 09 323 Pg
. 13 262 Pg
Sg
. 22 267 Pg

Sg
. 25 222 Pg
. 30 257 Pg
Sg
. 31 279 Pg
Sg
=0.1 on

AUG 08. 1991 22h
35 .629
DEPTH
4 . 8mb
TUN 1 S 1 A
MD

PTS 1

CVT 2
MCT 2
PZ I 2
MEU 3
GIB 3

US 1 3
MNO ' 3
GIO 3
ATN 3

GMB 4
SOI 4

CZ 1 5
MGR 5
MMN 5
TDS 5
CSI 5
ROI 5
SCO 5
ORI 5
RFI 5
RDP 6
RMP 6
SDI 6
DU 1 6
AZ 1 6
MAO 6
8RT 6
LCI 6
AOU 6
ABA 7

PGF 7

ASS 7
VLS 7
KEK 7
1 GT 7

N ± 3 . 5km

= 22.0km (
(23 obs.) 4

4. 8 (ATH) .

. 21 13 P
eSg
. 24 24 P
. 55 38 P
. 98 61 P
. 02 60 P
. 03 38 P
eSn
. 30 21 P
. 35 46 P
. 38 54 P
. 96 49 P
eSn
. 22 52 P
. 29 54 P
eSn
. 05 44 P
. 46 33 P
. 47 38 P
. 47 41 P
. 53 40 P
. 54 43 P
. 70 29 P
. 83 39 P
. 95 17 P
. 18 7 P
. 23 7 P
. 30 15 P
. 41 19 P
. 50 12 P
. 79 357 P
. 82 38 P
. 84 45 P
. 85 IIP
. 07 282 iPrvc
iSn
. 21 344 Pn
Sn
. 47 6 P
. 60 68 eP
. 63 55 eP
. 91 58 ePd

! (378)

19 20. 07 0.0
19 22. £8
19 21 .
19 21 .
19 23.
19 23.
19 26 .
1923.
1924.
19 29.
19 24.
19 29.
7 of

46m 1 0 .
1 1 . 657

3 dept
. 2Msz (

46 34.
46 49.
46 46.
46 52 .
46 57 .
46 56 .
46 58.
47 32.
47 01 .
47 04.
47 03.
47 12.
47 52.
47 14.
47 15.
47 59.
47 25.
47 31 .
47 32 .

J8 0.0

)8 0.0
>2
>5 0.0
72
52 -0.1

)6 0.2
>9
75 -0.2
J6
1 obs .

i6± 0.32s
: ± 2 . 6km
i phases)
1 obs .)
(397)

50 2.6
»0
50 -0.3
50 1.0
59 -0.4
70 -1.4
30 0.1
00
10 -0.9
00 1.1
57 0.4
40 1.1
30
93 -0.2
40 -0.6
00
50 -1.3
60 -0.9
40 -0.2
47 33.50 0.7
47 34.40 0.7

47 34.|B0 1.0
47 36.|10 0.2
47 38. p0 0.8
47 40.t5l 0.9
47 43.00 0.3
47 44.00 0.6
47 44.60 0.1
47 44. 30 -1.7
47 48 .
47 51 .
47 51 .
47 52.
47 54.
47 54 .
48 16.
47 56 .
49 14 .
48 00.
47 59.
48 01 .
48 03.

97 1.8
70 0.4
00 -0.7
00 0.0
61 2.4
00 -1.2
00
50 -0.8
20
00 -0.9
00 -3.6X
50 -1.6
65 -3.2X

ARV
CRE
P I I
PGD
SFI
HVAR
BDI
MME
LMR

1 M 1
FRF

LRG
SBF

FIN
OHR
ROB
AGG

CK 1
ENR
VL 1
PCP
STV
CDR

KZN
DOI
PZZ
LI T

BHB
SKO
R l Y1 1
GRG
RRL
RSP
BN 1
VBY
VAY
CEY
ORX
LSD
KNT

PAI G

VOY
LPG
SOH
LPL
LJU
EALH
PTJ
SRS
FV 1
EN 1 J
NPS
EGRA
EPF

WTTA

EHUE
EVI A
CAP

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354
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342
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334
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344
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345
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332

57
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340
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341
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1 1
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9
341
57
341
1 1
286
16
56
4
281
88
309
314

360
5

285
289
325

313

eS
P
P
P
P
P
eP
P
P
Pn
Sn
P
Pn
Sn
Pn
Pn
Sn
P
ePn
P
ePc
eS
P
P
eP
P
P

49 28. 10
48 66.00
48 08.50
48 10. 00
48 12 . 06
48 13. 60
48 15.90
48 16 . 30
48 18.36
48 14. 50
49 44 . 20
48 18.60
48 16.40
49 48.60
48 17 .30
48 17. 30
49 49.40
A. ft *5 ft *5 ft 4 O Z. V . £. TO
48 23.00
48 22.80
48 21 .65
49 57 . 65
48 23.30
48 23.33
48 22.00
48 24.60
48 24.40

e(Pn)c48 22.70
e(Sn)
e
eP
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eP
eS
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ePn

e(P)
ePd
P
P
P
eP
ePn
eP
P
P
ePd
eS
ePc
eS

e(P)
Pn
ePc
Pn
eP
eP
eP
ePc
P
eP
eP
eP
Pn
Sn
iPd
. 60nm
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i
i
eP
eP
Pn
Sn
ePc

i(sP)
PP

50 02.70
50 08.50
48 24.00
48 28.20
48 28.80
48 28. 10
50 10.70
48 31 .08
48 33.50
48 35.50
48 33. 74
48 36 . 06
48 36.20
48 39.50
48 40.40
48 37.30
48 42. 10
48 40.40
48 44.60
48 39.53
50 29.60
48 38.02
50 29.53
48 46.00
48 44.40
48 41.21
48 44.50
48 45.50
48 46.00
48 45 . 60
48 46 . 1 4
48 50.00
48 52.00
48 51 .80
48 48.00
48 53.00
50 51 .30
49 06. 20
4
49 07.00
49 14. 80
49 36. 10
49 02. 80
49 00.00
48 57.60
51 02.00
48 59.50
49 03.20
49 09.50

- 1 .2
0.3
0.0
0. 3
6.9
2. 1
1 .6
1 . 7
- 2. 9

- 0. 3
- 3. IX

- 2.3
- 2. 7

- 1 .5
0.5
- 1.1
- 2.6

- 1 .6
- 1 .3
- 2.7
- 0.5
- 0.8
- 2.5

- 1 .6
- 6. 7
- 0. 7
- 3. IX

- 2.0
- 1 . 2
0. 7 /
- 1.9
- 6. 1
- 0.9
1 .5
1 .3
- 2.2
1 .9
- 0.7
3. 1X
- 1 .9

- 3.9X

2.8
0.9
- 2. 4
0. 7
1 .0
0. 1
- 0.8
- 1.4
0.7
- 1 .3
- 3. IX
- 6 . 9X
- 2. 8X

8.0X
. 9mb

4 . 4X
0.9
- 3. IX

- 1.4

e(sPPP49 27.00

ETOR
LPO

BHG
UZO
LOMF
AFC
RJF

1 1
12

12
12
12
12
12

. 96
. 07

. 12
. 13
. 25
. 35
. 36

300
322

4
23
344
282
325

i
eP
Pn
Sn
iPd

e(P)
P
eP
Pn

49 38.00
49 04.50
49 01 .90
51 08.20
49 08.40
49 12.00
49 06.93
49 09.50
49 05.40

1 . 8
- 2. 1

3. 7X
7.2X
0.3
1 .5
- 2.5

73

08d 22h

ECOG
SMF
LFF

FEU
MAF
BSF
LBF
8GF
AVF
TCF
SSF
HAU
I OR
E.CH
TOR 1
LSF
VKA

SRO
CDF
ZST
V 1 TF
GUD
V C O Y c rf
KHC

GWF
EPRU
GRF

MFF
PRU

WLF
MLR
ELL
Y LV
SPC
MOX

VR 1
8RG

DOU

MEM
LPF
KSP
LDF
KRA

BNS

ENN

CLL

CFR
GRR
FUN
WTS

BRN
PPCY
BBTK

Z

Z
N
E

Z

Z
N
E

Z
N
E

Z
E

Z

12 .37
12.47
12.48

12 53
12 61
12 72
12.72
12.77
12.77
12 81
12 . 95
12.98
13.01

1 3 . 6) 1
13 .01
13.07
13.09
1 3s

13.14
13.18
13.19
13.26
13.41
t "7 A Q
1 O . f O
13.57
1 . 0s
12s
12s
12s

13.67
13.69
1 4 06
1 1 s
19s
14.10
. 14.51
1 . 2s
1 1s
18s
1 4s

1 4 .59
14.64
14 . 79
14 . 79
14 .95
15.01
1 . 9s
15s
15s
1 4s
15.31
15. 33

15 . 35

15.52
15.57
15.57
15.60
15.63
14s
1 4s

15 67
10s
15.69
1 .0s
15.71
1.4S

15.75
15.75
15.88
16.72
0.9s
16 .82
16 .92
17.21

282 «P
334 Pn
321 Pn
Sn
349 P
330 Pn
345 Pn
335 Pn
331 Pn
333 Pn
329 Pn
334 Pn
344 Pn
336 Pn
347 P
307 eP
327 Pn
1 4 eP
1 . 90um
i
LR
20 eP
347 P
1 6 eP
343 P
297 eP
79 cP
5 P
8.66 nm
2.80 urn
1 . 50um
2 . 20um
e
c
S
349 P
281 «P
359 cP
26.00 nm
0 . 80um
325 Pn
7 eP
12.60 nm
1.10 urn
1 . 70 urn
2 . 40um
i
e

346 iPd
43 eP
80 cP
65 eP
22 cP
360 «P
1 40 . 00 nm
2 . 60um
2 . 00um
1 . 00um
43 i PC
5 cP
e
343 P
LR
346 P
327 Pn
1 1 eP
330 Pn
20 cP
1.90 urn
2 . 00um
c
e
349 ePc
1.00 um
346 cP
51.00 nm
3 cP
90 . 00nm
eS
48 cP
328 Pn
329 Pn
350 cP
21.00 nm
3 ePd
86 cP
70 eP

49 09.50
49 09.50
49 08.10
51 14.40
49 10.54
49 09 . 70
49 1 3. 30
49 13.40
49 11.60
49 1 2 . 80
49 12.70
49 1 5 . 90
49 16.60
49 17.10
49 16.95
49 16.00
49 14.80
49 19.06

49 26.00
55 30.00
49 20.20
49 19.40
49 19.10
49 19 .56
49 24.00
49 22 . 50
49 26. 00
4
6

49 30.50
49 45 . 00
52 08.00
49 26 . 07
49 29.00
49 33 . 30
4
5
49 31.00
49 36. 70
4
5

49 45. 40
50 56.20
49 45. 16
49 44.00
49 38.00
49 41 .00
49 47 . 00
49 43.00
5

49 51 . 00
49 54 . 00
52 04 . 00
49 51 . 00
52 43.00
49 58 . 20
49 48. 40
49 51 . 00
49 51 . 90
49 54.10

50 07.10
52 58 . 00
49 58.50

49 56. 50
4
49 54 . 00
4
53 07 . 00
49 55 . 00
49 52. 70
49 52.70
50 09.00
4
50 10.50
50 05.00
50 12. 60

1 .3
0.0
- 1.4

0.2
- 1 .5
0.5
0.6
- 1 .8
- 0.6
- 1 .2
0. 1
0. 4
0.5
0.3
- 0.7
- 2.6
1 . 4

1 .9
0.5
0.2
- 0.4
1 .9
- 0.5
2.0
6mb
7Msz

0.8
3.3X
2.9X
9mb
5Msz
0. 1
0.5
3mb
Qlul c f V

Wn S i A

7.8X
5.8X
- 2. 1
0.9
4 . 8X
0.2
0mb

4.3X
7 . IX

3.8X

8.8X
- 1 .6
0.9
1 . 4
3.2X

7.2X

4.9X
7mb
2.2
8mb

2.5
0.3
- 1 . 4
4.2X
3mb
4 .5X
- 2.3
0.9

HLW

ess
ADI
BHL

KVT
MML
JV I

r n P UU r

PRNI
HOL
AYN
DCN
EKA

DMU
KONO
N82

MSL

OBN

NUR

TAB
KAF

IR7
I R1
I R4

Ki f* i i*
SOD
LIC

KEV
MAIO
LWI
GAR
KR I
MTD
BUL
GKN

BNH
OMN
KKN

PK I
GUN
GBA

M8C
SOB1
YAK
LZH

YKA

I NK
FFC

BAD
CHTO

FVM

BJ I
MEO
LRM
BW06

17.52

17.71
19.62
19.78

19.86
19.93
20 . 03
O ft ft f. £ v v o

1 . 0S

20 . 26
20.71
21.63
22.16
22. 19
1 . 5s
'22.41
24 .07
25. 43
1 . 0s
25. 43

25.96
2 ft c. W S
Z 1 0s
N 1 0S
E 1 0s

26 . 27
0 . 7s

27. 76
28. 06
6.9s
31.51
31 .63
31 . 84
1 *> ft ft O £ . O 0
32.93
33.04
Z 20s
35. 20
38 . 41
40.94
46. 08
54 . 88
55.44
57.75
61 . 20
0.7s
61.47
61 . 75
61.81
0.7s
62.01
62 .22
62.58
0. 8s
64 .21
66. 62
70.69
71 . 65
1 . 5s
Z 25s

73. 15
0 . 7s
73.16
73.57
0. 9s
76 . 04
77.15
1 . 0s

77 . 25
0. 7s

77 .60
84.41
84.54
85.32

1 04 cP
c
86 cP
91 cP
88 P
S
67 eP
92 eP
94 eP
1 iPc
68 . 00nm
cS
98 eP
101 i Pd
101 i Pd
329 eP
337 Pd
22 . 40nm
330 cP
357 eP
359 P
1 1 . 80nm
79 ePd
ePP
cS
34 iPd

0 . 40um
0 . 66 urn
0 . 70um
e

iS
cSSS
LR
15 iP
21 .40nm
i
75 cP
15 cP
1 9 . 00nm
78 cP
79 ePd
79 cP
211 P
11 i P
212 P
0 . 5 1 urn
9 cP
75 cP
153 iPc
68 cP
159 iPc
157 cP
161 cP
75 P
20 . 00nm
306 P
75 P
75 P
23 . 00nm
75 P
74 P
93 PC
4 . 40nm
348 «P
239 cP
26 eP
59 cP
42 . 00nm
0 . 27um
sP
337 eP
1 . 90nm
347 eP
326 «P
8 . 00nm
239 ePc
76 cP
5 . 25nm
PP
308 P
1 3 . 61 nm
pP
50 «P
309 iPd
324 cP
321 P

50 07.50
53 42.00
50 16.00
50 41.40
50 40.00
54 24 . 00
50 43.10
50 43.50
50 45.30
50 44 . 80
4
54 35.00
50 47 . 00
50 51 . 90
51 02.50
51 1 0 . 30
51 07 .80
4
51 10.70
51 27.10
51 36.60
4
51 41.50
52 18 . 50
56 33.00
51 43.00

4

51 48.00
56 18. 00
58 00 . 00
02 32.00
51 46.20
4
52 10.20
52 01 .00
52 00.90
4
52 34 .00
52 35.50
52 37.00
52 43.70
52 45.00
52 44 . 60
4
53 06.00
53 34.00
53 54.90
54 35.00
55 32.30
55 47.10
56 02.00
56 25.34
5
56 34.80
56 28.82
56 28.44
5
56 31 . 12
56 33.70
56 33.00
4
56 46.00
57 02.70
57 25.90
57 34.00
5
4
57 47.00
57 39.70
4
57 45.00
57 42.50
4
57 59.50
58 07 . 00
4
58 14 .20
58 03 . 80
5
58 1 1 . 70
58 08.50
58 43.60
58 44.40
58 47.00

- 7. 4X

- 1.3
1 . 0
- 2 . 2

0. 2
- 0. 3
0.6
0 . 0
. 9mb

- 0 . 1
0. 1
1 . 4
4 . 1 X
1 . 3
. 4mb
2.0
2. 3
- 1.3
. 5mb
3. 4X

0.2
. 0mb X
. 2MSZX

18km

0. 6
. 9mb
1 1 1 kmX
1 . 3
- 1 . 1
. 8mb
0. 9
1 .3
1 . 0

A a W . O
0.0
- 1 .8
. 2Msz
1 . 4
1 . 9
1 . 6
0 . 3
- 9. 5X
1 . 3
- 0.3
- 0.9
. 4mb
7.2X
- 1 .3
- 1 . 9
. 4mb
- 0.8
0. 4
- 2.4
. 7mb
0.7
1 . 1
- 0. 3
1 . 4
. 3mb
. 4MszX

- 1 . 1
. 2mb
4 . 3X
- 0.8
. 8mb
1 .3
2. 7
. 5mb
23km
- 0. 8
. 1mb
25km
2. 1
1 .0
1 . 1
- 0. 3

1.0s 8 . 33nm 4 . 9mb
SIV 85.76 247 P 58 52.50 3.0X
PV09 88.15 318 P 59 01.50 0.2
DUG 88.88 321 P 59 05.50 1.0
ALO 89.12 314 eP 59 08.00 2.1
1.0s 1 . 75nm 4 . 3mb
TRT 103.36 90 iPdiff00 06.40 -4.2X
CAN 145.46 102 e(PKP)05 49.70 1.3
S.D. - 1.3 on 180 of 216 obs.

% AUG 08. 1991 23h 24m 1 5 . 1 7± 1.91s
23.859 N ± 8.6km 121.867 E ± 1 6 . 6 km DEPTH - 10.0km (geophysicist)
TA I WAN (244)

TWO 0.33 312 iPd 24 22.80 0.8
cS 24 26.70
TWF1 0.73 226 iPc 24 29.70 0.3
TWC 0.75 359 iPc 24 30.40 0.6
«S 24 40.20
TWO 1.03 294 iPc 24 34.10 -0.5
cS 24 46.80
TWZ 1.26 348 ePc 24 37.70 -0.9
TWK 1.40 245 iPc 24 40.50 -0.2
cS 24 58.60
S.D. - 0.9 on 6 of 6 obs.

? AUG 09. 1991 00h 51m 03.69± 6.01s
33.636 S ±11. 9km 71.668 W ±42. 3km
DEPTH - 10.0km (geophysicist)
NEAR COAST OF CENTRAL CHILE (135)

LNV 0.38 146 iPd 51 11.50 -0.1
iS 51 20.50
TACH 0.61 92 iPc 51 15.80 -0-2
iS 51 28.50
SAN 0.86 78 cP 51 20.50 0.2
CHCH 0.90 110 cP 51 21.00 6.1
PEL 0.96 59 iPc 51 21.90 -0.1
iS 51 38.90
PCH 0.96 89 iPd 51 22.00 -0.1
iS 51 39.40
S.D. -0.2 on 6of 6obs.

AUG 09. 1991 01h 13m 46.80± 0.38s
44.600 N ± 5.0km 142.525 E ± 4.2km DEPTH - 254 . 4 ± 4 . 9 km

4 . 5mb (42 obs .)
HOKKAIDO, JAPAN REGION (224)

ASAJ 0.49 170 eP 14 21.80 2.0
cS 1447.70
KUSJ 2.18 133 iPd 14 31.60 0.0
eS 15 06.40
HOOJ 2.28 166 cP 14 32.90 0.4
cS 15 06. 50
MRRJ 2.42 206 iP+ 14 35.10 1.3
cS 1 5 1 1 . 90
AOMJ 4.34 202 P 14 55.40 0.2
eS 15 46.50
OFUJ 5.55 187 P 15 09.40 -0.6
cS 1612.10
YAMJ 6.69 197 eP 15 24.20 0.0
cS 16 39.00
NIIJ 7.82 201 P 15 38.10 -0.4
cS 17 03.80
KAKJ 8.58 193 P 15 45.40 -2.7
cS 1716.10
MAT 8.69 204 t PC 15 48.90 -0.7
0.8s 34.33nm 4.4mb
«S 17 27.00
MTMJ 8.77 206 P 15 50.90 0.2
CHJJ 8.96 199 P 15 52.30 -0.7
IIDJ 9.77 203 P 16 02.80 -0.5
S 17 51 .00
TSRJ 10.34 211 P 16 10.70 0.2
YAK 18.99 341 eP 17 48.10 -2.9
CpP 18 04.00
iS 21 06.00
eSS 21 42.00
cScS 28 55.00
BJI 19.97 266 cP 1B 00.50 -0.6
1.0s 40 . 00nm 4 . 9mb
cS 21 29.00
LZH 30.45 267 eP 19 38.00 0.1
1.5s 79 . 00nm 5 . 1mb
pP 19 43.00 l7kmX

KM 1

TTA
SVW

1 MA

RSO
KDC

SLKM
PMR

FBA
TOA
CHG
CHTO

BALM
JAY
INK
GUN
KKN
PK 1
DMN
GKN
MBC

KEV

YKA

SOD
KAF

PNT

OBN

NUR
NEW

WRA

KOD
SES
WDC
FFC

ORV
Kl D *5 N D f.

LRM
ASPA

CMB
FRB
FR 1
BW06

DUG
KRA
PEC
SPC
KSP
PLM
CLL

BRG
PV09
PRU
SRO
ZST

MOX
GOL

KHC
GRF

MEM
WTTA

SKO
ALO

37 .52
1 .0s
38.89
39 . 16
0 .6s
39 86
0.5s
40 63
41.18
1 . 0S
41.86
42 .22
0.5s
42. 38
43.51
44 . 40
44 . 40
0.8s
45.53
46.93
47 . 35
47 . 67
48. 17
48. 20
48. 40
48.50
49.06
1 .0s
56.71
0.6s
56.92
0 . 9s
58.37
62.02
0.5s
62.28
0.6s
62.61
1 .08
63.72
64.23
0.8s
64.66
1 .6s
65. 16
65.90
66.01
66.95
0.7s
67.27
67.56
0. 7s
68.24
68.39
0.7s
68.92
69.23
70.01
71.84
0.8s
71.86
73.32
73.62
73.87
74. 13
74.17
74.97
1 .2s
74.98
75.08
75.48
75.75
75.94

76.01
76.24

1 .0S

76.55
76.95
0.9s
77 .93
78.82
0.9s
78. B8
79.14
1 .0s

sP
252 iPd
79 . 00nm
40 eP
43 P
27 . 09nm
35 i PC
21 . 70nm
43 P
48 eP
76 . 20nm
43 P
41 P

1 3 . 64nm
36 ePc
40 eP
249 ePd
249 IP
9 . 33nm
41 P
182 iPc
30 eP
269 P
270 P
269 P
270 P
270 P
18 eP
1 6 . 00nm
338 i P
7 . 80nm
33 eP
15. 1 0nm
336 IP
331 i P
6 . 00nm
47 eP
23 . 00nm
322 iPc

331 eP
47 P
29 . 1 7nm
189 P
2 . 20nm
260 eP
42 ePc
56 ePc
35 iPc
26 . 00nm
56 eP
337 P
9 . 70nm
47 ePc
189 iPc
1 3 . 20nm
57 eP
1 4 eP
58 eP
48 P
1 9 . 64nm
51 P
325 ePd
59 P
325 eP
328 iPc
59 P
330 IP
26 . 00nm
329 eP
50 P
328 eP
325 eP
326 eP
e
330 eP
47 P
7 . 00nm
328 P
330 iPd
1 0 . 00nm
333 PC
328 iPd
1 2 . 30nm
319 eP
51 ePc
4 . 25nm

19 46.50
20 39.50
5
20 48 . 70
21 02. 50

20 56.50
4
21 03. 70
21 07.90
5
21 12.10
21 15.00
4
21 17 .30
21 27.50
21 34.90
21 35.00
4
21 41.70
21 51 .20
21 55.50
22 00.02
22 03.76
22 03.96
22 05.62
22 06. 16
22 09.00
4
23 04 .00
4
23 06.60
4
23 15.60
23 39 . 90
4
23 44. 00
5
23 44. 70
7
23 51 . 20
23 56.20
5
23 59.00
3
24 03.90
24 07 . 40
24 08.50
24 13.60
5
24 16.00
24 16.00
4
24 22.50
24 23.90
4
24 26.50
24 20.00
24 32.00
24 43.80
4
24 44.50
24 52.00
24 54.20
24 55.60
24 55.00
24 57 .80
25 01.00
4
25 00.60
25 02.80
25 04.30
25 06. 30
25 07.60
36 41.60
25 08 .00
25 09 .80
4
25 11.00
25 13. 00
4

25 08.00
25 23. 40
4
25 24.50
25 26.00
4

1 .2
2mb
- 0 .2
1 1 . 3X

- 0 . 5
8mb
0 . 3
0.3
1mb
- 1 . 1
- 1 .0
6mb

0.0

0 .9
0.9
1 .0
2mb
- 0.9
- 2.7
- 0.9
0. 1

0 . 1
- 0 . 1

0.2

0 . 1

- 0 . 5
4mb
- 1 . 6
5mb
- 0 . 6
6mb
- 1 .6
- 1 . 9
5mb
0 .2
0mb
- 1.2
8mb X
- 1.7
- 0 . 3
1 mb
- 0.4
6mb
0 . 7
0.2
0.6
0.0
1mb
0. 1
- 1.4
6mb
0. 4
1 . 1
8mb
0.4
- 7 . 4X
- 0.6
0. 1
9mb
0.7
0. 1
0 . 2
0.3
- 1 . 5
0 . 5
- 0 .3
8mb
- 0.8
0.2
0. 1
0 .6
0 . 8

0.9
0 .8
3mb
0 .8
0 . 7
5mb
- 9 . 7X
0.6
6mb
1 .0
1 .2
1mb

e 26 26.00
CDF 79.41 331 eP 25 25.60 -0.2
0.9s 6.55nm 4. 4mb
OHR 79.95 319 eP 25 28.30 -0.3
HAU 80.07 332 eP 25 29.40 0.2
0.6s 3.60nm 4. 3mb
ARV 81.45 325 P 25 37.20 0.7
SFI 81 .53 326 P 25 38 .2^0 1.4
LOR 81.54 333 eP 25 36.30 -0.4
0.9s 4 . 90 nm
PGD 81 .62 326 P 25 38 .<
LBF 81 .75 333 eP 25 37 . '
1.0s 8 . 00 nm
SSF 81 .84 333 eP 25 38 ...
1.0s 6 . 00 nm
GRR 81 .99 336 eP 25 39.,
0.8s 8 . 05nm
LPL 82.09 330 eP 25 40.3
0.8s 7 . 40nm

SMF 82 . 10 333 eP 25 39. (
0.9s 11. 45nm
LPG 82 . 10 330 eP 25 40.!
0.8s 8 . 05nm
AVF 82. 13 333 eP 25 39 .£
0.9s 9 . 85nm
LPF 82 . 36 336 eP 25 41 .«
0.8s 8 . 05nm
BGF 82.50 333 eP 25 41 .'
0.8s 7 . 40 nm
MAF 82.88 333 eP 25 44. :
1.0s 1 2 . 00nm
TCF 82.94 333 eP 25 44.5
1.0s 6 . 00 nm
CS 1 83.08 321 P 25 45. <
ROI 83. 12 321 P 25 46.4
TDS 83 . 15 321 P 25 46 .«
LSF 83.19 334 eP 25 45.4
1.0s 1 4 . 00nm

4 2rr,b
0 1.3
0 -0.3
4 . 4mb
0 -0.1
4 . 3mb
- 0 0.2
4 . 5mb
0 0.1
4 . 5mb
.0 -0.2
4 . 6mb
|0 0.3
4 . 5mb
0 -0.1
4 . 5mb

'0 -0.1

4 . 5mb

0 -0.1

4 . 5mb

. 0 0.5

4 . 6mb

0 0.1

4 . 3mb

0 0.7

0 1.2
0 1.3

0 0.0

4 . 7mb
MFF 83. 3 9 335 eP 2 5 4 6 . £} 0 0.5
0.6s 3.60nm 4. 3mb
CZ 1 83.60 321 P 25 47. J0 -0.4
TUL 84.03 44 eP 25 50.2J0 0.5
0.6s 4.70nm 4. 5mb
CAF 84.20 333 eP 25 50.30 0.0
0.6s 3.60nm 4.4mb
WO 84.51 44 eP 25 52. 6^0 0.5
SOI 84.57 320 P 25 52.80 0.4

SOB1 144.62 6 (PKP) 32 54.00 -0.7
SIV 145.21 42 iPKPc 32 56.^0 0.6
RTLL 152.39 72 e(PKP)33 14.00 7.6X
S.D. = 0.9 on 106 of 110 obs.

AUG 09. 1991 01 h 31m 46. S
27 .005 S ± 6. 8km 64.519 ¥
DEPTH = 51 . 9 ± 14.4 km
4 . 3mb (1 obs .)
SANTIAGO DEL ESTERO PROV.. AF

Felt (III) o t Son t i ogo <
Es te r o .

SLA 2.43 339 i PC 32 25. (
(S) 34 30. (
ZON 5.80 218 eP 33 14 .;
eS 34 44.;
PEL 8.12 220 eP 33 45. (
i (S) 36 12. (
SAN 8.34 218 eP 33 48. J
PCH 8.38 217 eP 33 50.:
TACH 8.64 218 eP 33 51 .<
CHCH 8.70 216 eP 33 52.!
LNV 9 . 1 3 21 9 eP 33 56 .<

1 TB1 9.42 78 e(P) 3401.'
1 TB7 9.49 81 e(P) 34 05. <
ITS 9.54 79 PC 34 06. (
CCH 9 . 69 351 P 3404.'
CNCB 10.64 342 P 34 20.!

i 36 07 .(
LPB 10.94 342 eP 34 20. <
0.9s 1 09 . 24nm

i 34 25. (
ZOBO 1 1 .20 342 P 34 28 . ',
1.0s 35 . 00nm
SIV 11.42 1 7 P 3423.'
VAO 16.40 80 eP 35 34. <
e 4131.'
BMA 18.97 81 eP 36 07. <

BAO 19.08 57 e(P) 36 04. (

5± 0 .85s
i ± 7 . 2km

G. (132)
e 1

0 0.4

0

0 1.6

0
0 0.1
0

0 0.6
0 1.7
0 -1.1
0 -0.4
0 -2.7
0 -1.3
0 1.2
0 1.5
0 -2.5
0 0.5

0

0 -3.9X
6 . 0mb X

0
0 1.1

5 . 4mb X
0 -6 . 7X
0 -1.2

0

0 0.1
0 -4 . 4X

ALO

ASPA

WRA

S

& AUG
60 .

73.28
1 . 0s
126 . 57
0. 5s
129.88
0. 5s
. D. -

09 .
523 N
DEPTH =

325 eP
4 . 00nm
201 ePKP
6 . 60nm
203 PKP
2 . 60nm

43 16.00

50 46.20

50 53.00

1.4 on 1 9 o f 22

1991 02h 40m 48.01

1 . 1
4 . 3mb
- 0 . 4

0 . 1

obs .

s
152 . 081 W
77 . 1 km
SOUTHERN ALASKA

RDT

DFR

REF
RON
RSO
RED

ROW
NCT
NKA
NNL
SPU

CKL
BGL

CGLM

NCG

HOM

SLKM

BRLK

CNPM

SUA

PDB
AUE
AUH
AU 1

^ FW O t. «
PMS

SKT

PWA
MCNL
CDD

PLRM
PMR
SVW

SYI
BGM
GHO
KNK

CUT
KN 1 M
LT 1
MTU
GLI
HUR
VZW
KDC
VLZ
TTA
TRF
KTH
KLU
TOA
RND
SDG
PAX
GLB
NEA
WRH

<AE 1 O

0.17

0.31

0. 31
0.34
0 . 34
0 . 36

0 . 36
0 . 42
0 . 47
0 .62
0 . 66

0 . 69
0 . 76

0 . 79

0. 88

0 . 89

0 . 92

0.97

1 . 09

1.15

1 . 29
1 . 34
1 .35
1 .37

4 TO I.JO
1 . 43

1 . 49

1 .56
1 . 76
1 .78
1 . 79
1 . 79
1 .83
1 .93
1 .95
1 . 98
1 .98

2.08
2.16
2.16
2.27
2.48
2. 72
2. 76
2. 79
2.88
3.06
3 . 06
3. 09
3. 15
3.26
3. 27
3.72
3.99
4.13
4 . 30
4. 37

288 iPc
eS
283 iPc
eS
264 iPc
269 iPc
260 iPc
253 iPc
IS
264 iPc
276 iPc
62 iPc
141 i PC
1 i PC
IS
350 iPd
349 iPd
eS
3 iPd
eS
358 iPd
eS
166 ePd
eS
90 ePd
tS
141 i Pd
eS
157 iPd
IS
34 iPc
eS
236 eP
210 eP
211 eP
210 eP
eS
107 eP
58 iPc
eS
10 i Pd
eS
42 iPc
221 iPd
207 ePd
52 eP
52 eP
290 iPd
185 iPd
236 eP
49 i PC
62 ePc
eS
24 «P
93 ePc
101 eP
102 eP
80 eP
24 eP
76 eP
185 eP
75 eP
324 eP
15 eP
10 eP
69 ePd
58 ePc
26 eP
54 eP
49 «P
74 eP
18 «P
23 eP

40 59 . 02
41 08. 16
40 59.56
41 09.33
40 59.82
40 59.86
41 00.06
40 59.95
41 09. 63
41 00. 1 7
41 00.38
41 02.76
41 03.25
41 02. 71
41 14.80
41 02.96
41 03.79
41 16.80
41 04.20
41 16.90
41 05. 15
41 19.13
41 05.65
41 18. 38
41 05. 34

4 1 1 Q *7 ft i i y . £. o
41 05. 83
41 20.53
41 07 .32
41 23.09
41 08.66
41 25.39
41 09.42
41 10.56
41 1 1 .58
41 10.93
41 29.36
41 10.85
41 12.09
41 30.67
41 12.29
41 31 . 45
41 14.47
41 15 . 59
41 16.04
41 16.01
41 15.70
41 15.80
41 18.20
41 18.00
41 18.79
41 18 . 59
41 42.29
41 20 . 92
41 19.40
41 19. 75
41 21 . 72
41 23.54
41 29.45
41 28.23
41 28 . 40
41 29. 13
41 33.00
41 33.30
41 34. 48
41 33.66
41 36.46
41 36.54
41 41.94
41 46.45
41 47.04
41 50.48
41 50.80

(2)

1 . 1

- 0. 7

- 0.6
- 0. 7
- 0. 6
- 0. 7

- 0 . 6
- 0 . 7
1 . 4
0 . 4
- 0 . 6

- 0 . 7
- 0 . 6

- 0 . 5

- 0. 7

- 0.2

- 0. 9

- 1 .0

- 0.9

- 0.5

- 1.4
- 0 .9
- 0. 1
- 1 .0

- 1.1
- 0 . 6

- 1 .2

0 . 1
- 1 . 5
- 1.4
- 1 . 5
- 1 . 8
- 2.3
- 1 . 1
- 1.7
- 1 . 4
- 1 . 6

- 0. 5
- 3.2
- 2. 8
- 2. 4
- 3.4
- 0.9
- 2. 7
- 2.9
- 3. 4
- 2.0
- 1 . 9
- 1 . 0
- 2.8
- 1 . 4
- 1 . 5
- 2.3
- 1 . 6
- 3. 1
- 1 .9
- 2.6

75

09d 92h

CCB 4.59 24 eP 41 53.39 -3.0
MOM 4.79 20 eP 41 56.29 -3.0
BALM 4.80 80 P 41 54.00 -5.5
FBA 4.82 22 eP 41 57.50 -2.1
61 obs. associated

& AUG 09. 1991 03h 48m 13.33s
59 . 798 N 148. 024 W
DEPTH - 25.51'm
KENAI PENINSULA, ALASKA (14)
<AE IC> . ML 3.0 (AE 1 C) .

LTI 6.26 19 iPd 48 19.47 -0.4
MTU 0.27 44 ePc 48 19.66 -0.3
KNIM 0.57 iSiPd 48 23. 77 -0.9
eS 48 32.36
SEW 0.78 294 ePc 48 26,. 82 -1.3
eS 48 37.96
MID 0.93 113 ePc 48 28.78 -1.9
HIM 0.97 51 iPc 48 29.94 -1.3
eS 48 43.43
GLI 1.18 -23 iPd ' 48 32.50 -1.7
SLKM 1.31 364 ePc 48 34.95 -1.1
eS 48 53.69
CVA 1.36 56 ePc 48 35.11 -1.7
eS 48 52. 71
BRLK 1.45 270 eP 48 35.88 -2.3
VZW 1.46 29 iPd 48 36.92 -1.4
eS 48 55.08
SGAM 1.58 62 iPc 48 38.17 -1.7
VLZ 1.58 31 iPd 48 38.74 -1.2
eS 48 58.50
KNK 1.63 353 eP 48 39.61 -1.2
PMS 1.64 333 eP 48 39.07 -1.8
CNPM 1.65 262 eP 48 40.82 -0.2
NNL 1.67 280 eP 48 41.93 0.7
RAGM 1.78 69 ePc 48 40.97 -1.9
HOM 1.84 267 eP 48 44.50 0.8
NKA 1.86 302 eP 48 44.85 0.8
PLRM 1.88 344 eP 48 43.06 -1.2
PMR 1.88 344 eP 48 44.00 -0.3
HMT 1.96 72 eP 48 44.95 -0.6
KLU 1.99 30 iPd 48 44.71 -1.3
GHO 2.03 348 eP 48 45.64 -0.9
PWA 2.07 335 eP 48 47.03 0.0
SUA 2.14 322 eP 48 48.17 -0.1
ROT 2.32 291 eP 48 48.51 -2.2
SPU 2.43 307 eP 48 50.64 -1.6
REF 2.44 289 eP 48 50.11 -2.4
RED 2.46 287 eP 48 50.10 -2.6
RSO 2.46 288 eP 48 50.32 -2.5
DFR 2.46 291 eP 48 50.75 -2.0
RON 2.48 289 eP 48 51.25 -1.7
CGLM 2.48 309 eP 48 52.25 -0.8
TOA 2.48 21 eP 48 52.16 -0.9
ROW 2.49 288 eP 48 52.68 -0.6
SY I 2.54 244 eP 48 51.98 -1.8
CKL 2.55 305 eP 48 52.86 -1.2
NCT 2.57 289 eP 48 53.29 -1.0
NCG 2.60 310 eP 48 53.70 -1.0
BGL 2.61 306 eP 48 53.95 -0.9
GLB 2.65 50 iPc 48 53.55 -1.9
WAX 2.67 74 ePc 48 52.89 -2.8
TGL 2.76 67 eP 48 54.62 -2.3
SKT 2.78 323 eP 48 55.63 -1.5
CUT 2.83 338 eP 48 56.83 -1.0
SDG 2.99 23 eP 48 58.07 -2.1
COD 3.01 256 eP 48 59.10 -1.3
BALM 3.08 64 ePc 48 59.23 -2.3
PAX 3.41 20 eP 49 05.20 -1.0
RND 3.64 354 eP 49 08.99 -0.5
TRF 3.82 345 eP 49 10.77 -1.3
SVW 3.99 293 P 49 14.50 0.2
FBA 5.12 1 eP 49 28. 50 -1.9
MOM 5.18 359 eP 49 29.38 -1.8
56 obs . associated

AUG 09. 1991 06h 28m 03.25± 0.18s
1.409 N ± 3.4km 122.706 E ± 4.0km

DEPTH - 37.3km (8 depth phases) 5.5mb (37 obs.) 4.8Msz (5 abs.)
MINAHASSA PENINSULA (265)
CENTROID. MOMENT TENSOR (HRV)
Doto Used: GDSN
L.P.8. : 19S. 34C
Centroid Location:
Origin Time 06:28: 3.2 9.4

MN 1

TSM

DAV

CGP

B 1 P

MAP

PPR

PLP
OCP
TRT

BAG

SZP
CVP

MTN
PIP
KNA
JAY
KGM

IPM

HKC
MBL
PSI

PCT
NANU
PJG
GUA

NNT
LOE
NST
PMG
ASPA

KHT
CIS

WARB
8DT
CHG
CHTO

SSE

KMI

Lot 1.67N 0.03 Lon 122. 82E 0.05

Dep 29.8 3.3 Ha 1 f -do r a t i on 1.6
Moment Tensor; Scale 10»»17 Nm
Mrr~ 0.90 0.08 Mtt=-1.04 0.06
Mff= 0.14 0.12 Mrt 0.18 0.16
Mr f = 0.12 0.13 Mt f«= 0.22 0. 05

Principal Axes:
T Vol= 0.93 Pig-81 Azm-238
N e . 1 7 6 101
P -1.10 6 10

Best Double Coup I e : Mo- 1 . 0 * 1 0 « 1 7 NP1:Strike= 93 Dip=40 Slip- 80
NP2: 286 51 98

2.13 89 ePc 28 36.58 -0.7
eS 28 59. 00
5. 61 301 iPc 29 24.20 -2.3
0.9s 374.80nm 5.9mb
6.32 27 ePc + 29 36.00 -0.6
eS 32 39.00
7.27 16 iPd 29 49 . 00 -0.9
1.0s 181. 00nm 6 . 0mb
7 . 64 27 ePc 29 53 . 50 -1.4
0.8s 196.00nm 6.1mb
8 . 95 8 eP 30 13.00 -0.1
1.0s 345 . 00nm 6 . 4mb
9.20 335 iPd 30 27.50 10. 8X
1.0s 1 04 . 00nm
9.95 13 ePc 30 27 . 50 0.6
13.24 353 eP 31 00.00 -11. 3X
13.52 228 ePc 31 11.00 -4.0X
1.0s 97.00nm 5. 6mb
15. 05 352 eP- 31 36. 00 0.7
eS 34 26.00
16.19 352 eP 3156.50 6 . 7X
16. 22 357 ePd 31 56 . 00 5. 9X
1.3s 573 . 00nm 5 . 5mb
16 . 45 150 eP 31 52. 00 -1.0
16.94 353 ePd 32 02.50 3.4X
18.07 161 eP 32 13.00 -0.3
18.41 102 ePd 32 16.00 -1.5
19.39 272 ePc 32 28.50 -0.7
e 32 40.30 51kmX
21.88 279 ePc 32 55.30 0.4
1.2s 170. I0nm 5 . 3mb
22.37 339 eP 33 11.00 11. 3X
22.61 187 eP 33 00.20 -1.9
23.80 273 ePc 33 14 . 40 0.7
0.7s 26 . 50nm 4 . 9mb
e 37 09.00
e 43 00.00
24 .83 303 eP 33 25. 00 1.3
24.83 196 eP 33 22.00 -1.7
25 .04 60 eP 33 27 . 40 1.6
25 .06 60 eP 33 26. 70 0.8
1.2s 162. 50nm 5 . 5mb
25. 33 297 iPd 33 29 . 60 1.1
26.04 309 eP 33 34.50 -0.5
26.39 304 eP 33 38.50 0.2
26. 62 1 14 eP 33 40.00 -0.4
27 .20 157 iPc 33 44 .60 -1.1
1.6s 38 . 40nm 4 . 8mb
Z 20s 2.20um 4.7Msz
i 34 08 . 90 1 1 2kmX
eS 3804.10
27 . 27 309 eP 3347.79 1.3
27.40 144 iPc 33 46.99 -0.6
1.0s 146.90nm 5.6mb
i 34 03.80 72kmX
27 .69 172 eP 33 49 . 99 -1.1
28.12 305 eP 33 55. 19 1.1
29.91 308 eP 34 02. 19 0.0
29.01 308 eP 3402.19 0.0
1.0s 9 . 50nm 4 . 4mb X
pP 34 1 1 . 20 32km
sP 34 18.59
29. 56 357 P 34 06. 00 -0.8
1.0s 1 5 . 90nm 4 . 7mb
Z 20s 1 . 40um 4 . 6Msz
N 16s 1 . 50um
E 14s 0 . 70um

epP 34 18.00 46km
S 39 09.99
sS 39 29.99
eSS 49 49.99
30. 45 322 iPd 34 16.29 1.1
2.9s 69 . 90nm 5 . 9mb

FORR

OLP
TSRJ
RMO

STK

MTMJ
MAT

LZH

N 1 IJ
BJ 1

ADE

CMS
COO

BFD

BWA
GUN

CAN
TOO

PK 1
CNB

KKN

OMN

GKN

KUSJ
ASAJ
HY8

GBA

DZM
POO
NO 1
IRK

GAR

YAK

MCO

CSY

1 R1
IR7
TAB

Z 14s 1 . 20um 4 . 7MszX

pP 34 27 . 90 39km
S 39 1 8 . 90
32.49 171 eP 34 39.50 -2.1
0.4s 4 . 00nm 4 . 7mb
34 . 73 145 iPd 3452.00 0.0

36. 13 19 eP 35 03 , 60 -0.2
37 . 43 140 iPc 3521.20 6 . 3X
1.0s 69 . 00nm 5 . 5mb
37.64 153 iPc 35 16.40 -0.2
1.1s 35 . 90nm 5 . 2mb
37 . 69 20 P 35 31 . 00 13 -9X
37.79 21 eP 35 1 7 . 00 -0.8
1.4s 65.1 2nm 5 . 3mb
eS 4194.00
38 . 68 335 Pd 35 27 . 20 1.7
2.0s 88 . 00nm 5 . 2mb
Z 18s 1 . 26um 4 . 8Msz
E 14s 1 . 1 3 urn

pP 35 34.00 23kmX
sP 35 38.50
PP 37 00.00
S 41 22. 00
sS 4 1 32 . 00
SS 44 05.00
38 . 69 21 eP 35 24 .50 -0.9
38.91 352 eP 35 27 .50 0.4
1.2s 30 . 00nm 5 . 0mb
Z 16s 0.87um 4.7MszX

epP 35 38.50 39km
e 36 07 . 00
ePP 37 00.00
eS 41 24.00
sS 41 44.00
eSS 44 16.00
39. 17 159 iPc 35 29 . 30 -0.1
1.0s 600.00nm 6.3mb
39 . 40 148 eP 35 32 . 00 0.7
42 .24 141 iPc 35 56. 40 1.7
0.8s 42 . 00nm 5 . 2mb
42.57 156 ePd 35 38.60 -18. 7X
0.9s 114. 00nm
43. 04 148 iPc 36 93. 40 2.1
43. 98 310 P 36 99 . 90 0.5
0.9s 336.00nm 6.1mb
44.04 149 iPc 36 19.20 9.9
44 . 15 154 iPd 36 1 1 . 70 1.5
0.9s 48.00nm 5.3mb
i 38 31 . 90
44. 18 309 P 36 1 1 . 26 0.3
44.22 148 iPd 36 12.90 2.0
1.0s 72 . 00nm 5 . 4mb
44 . 38 31 0 P 3612.86 9.4
0.9s 236.00nm 6.0mb
44 . 43 309 P 36 13 . 34 0.4
0.9s 187. 00nm 5 . 9mb
44 .98 310 P 36 1 7 .58 0.4
0.9s 242. 00nm 6 . 1mb
45.93 22 eP 36 35.50 1 1 . 3X
46.07 20 eP 36 25. 70 0.4
46.21 293 iPc 36 27 . 20 0.3
1.0s 1 20 . 90nm 5 . 8mb
46.39 287 PC 36 27.90 -0.3
1.1s 60 . 30nm 5 . 5mb
48.63 121 iPc 36 46.10 9.2
50.82 293 iPd 37 09.20 -2.4
51.14 306 i Pd 37 84.00 -0.9
52.97 346 eP 37 17.80 -0.5
e 37 28.00 34km
e 38 03 . 50
e 4444. 00
60.61 315 iP 38 13.00 9.0
iS 46 39.00
iScS 48 99.00
iSS 50 32.00
60.69 4 iPd 38 12. 10 -9.8
i 38 23.00 37km
eS 46 24.00
e 47 57 .00
63.23 157 eP 38 30.50 0.5
0.8s 43.80nm 5.6mb
68.11 185 iPd 39 00.50 -0.6
0.5s 21 . 40nm 5 . 5mb
74.56 306 iPc 39 40.50 -0.2
74.67 307 iPc 39 41.00 -9.3
78.42 308 eP 40 02.00 -0.2
e 40 14.00 40km

09d 06h

76

MAW 80.22 200 eP 40 11.00 -0.1
1.0s 24 . 00nm 5 . 1mb
08N 86.62 325 iPd 40 44.50 0.5

218s 0 . 60um 5 . 0Msz
e 40 55.00 33km
e 41 38 . 00
e 51 16. 00
HR I 86 69 303 eP 40 45.90 0.8
US I St. . 99 361 eP 40 47 . 10 0.7
PRNI 87 32 300 eP 40 49.00 1.0
BBTK 89. 0 7 310 eP 41 60.00 3.7X

KEV 9e.67 340 eP 41 03.66 0.0
SOD 91.06 337 IP 41 03.60 -1.2
SPA 91 40 180 iPc 41 06.76 0.1
1.0s 32 . 50nm 5 . 7mb
KAF 91.77 332 iP 41 06.80 -1,4
BUL 94.32 250 \Pc 41 20.50 -0.5
1.0s 1 7 . 50nm 5 . 4mb
SLR 94.59 244 iPd 41 21.50 -0.6
1.0s 32 . 00nm 5 . 7mb
SEK 95.14 242 iPc 41 39.20 14. 6X
1.2s 23 . 44nm
KSR 95.84 244 IPc 41 27.50 -0.4
1.0S 15.00nm 5. 4mb
N82 99.03 333 P 41 38.90 -2.5
1.1s 5 . 60nm 5 . 0mb
KSP 99.22 322 eP 41 42.00 -0.4
e 4544. 50
CLL 101.10 323 ePdiff41 50.00 -0.9
MOX 102.13 323 e(Pdif42 08.00 12. 5X
ALO 121.54 47 ePKP 46 55.60 0.3
1.0s 7 . 50nm
KIC 126.98 279 PKP 47 17.64 1 1 . 5X
1.0s 2 4 . 50nm
TIC 127.22 279 PKP 47 18.14 1 1 , 5X
0.9s 21. 50nm
LIC 127.27 279 PKP 47 18.06 11. 4X
2 20s 0.25um 4.9Msz
TUL 128.38 40 ePKP 47 08.00 -0.2
1.6s 28 . 70nm
LNV 145.03 159 ePKP 47 38.50 -0.3
CHCH 145.31 160 ePKP 47 39.20 -0.2
TACH 145.47 160 ePKP 47 40.00 0.4
PCH 145.64 160 ePKP 47 41.20 1.2
SAN 145.75 160 ePKP 47 41.00 0.9
PEL 146.02 160 iPKPc 47 42.00 1.4
1.5s 250 . 00nm
VAO 156.31 204 ePKP 47 51.60 -4.5X
CNCB 161.43 146 PKP 48 04.90 2 . 3X
LPB 161.59 145 PKP 48 05.00 2 . 5X
20BO 161.78 145 PKP 48 04.70 1.8
2 24s 6.23um
LR 50 12.00
CCH 161.90 152 PKP 48 04.60 1.9
i 48 51 . 00
SIV 165.04 166 PKP 48 06.60 1.2
i 49 03. 20
S . D . = 1 . 0 on 92 of 1 1 2 obs .

AUG 09. 1991 06h 36m 42.48± 1.05s
65.278 N ± 5.3km 134.653 W ± 9.8km DEPTH - 10.0km (geophy s i c i s t)
4 . 3mb (1 obs .)
NORTHERN YUKON TERRITORY, CANADA(677)

INK 3.08 8 P 37 32.50 0.6
0.3s 1 52 . 20nm
FYU 4.52 291 eP 37 52.71 0.2
PAX 5.27 249 eP 38 02.96 -0.3
CTGM 5.28 218 eP 38 02.76 -0.7
BALM 5.50 223 eP 38 06.06 -0.4
SDG 5.54 245 eP 38 06.88 -0.1
FBA 5.57 272 eP 38 06.70 -0.6
CCB 5.62 270 eP 38 07.06 -1.0
GLB 5.64 231 eP 38 07.33 -1.0
MDM 5.74 273 eP 38 08.85 -1.0
WRH 5J78 268 eP 38 09.26 -1.0
TGL 5.87 223 eP 38 11.29 -0.3
TOA 6.03 243 eP 38 14.70 0.9
PNL 6.04 204 eP 38 13.13 -0.9
KLU 6.33 238 eP 38 18.24 0.2
RND 6.;45 260 eP 38 18.92 -0.9
VZW 6.85 237 eP 38 25.83 0.5
TRF 7.02 262 eP 38 27.20 -0.8
GHO 7J28 248 eP 38 32.17 0.7
KNK 7.31 244 eP 38 32.46 0.6

PLRM 7.46 247 eP 38 34.
PMR 7.46 247 eP 38 35.
PWA 7.72 249 eP 38 39.
PMS 7.84 246 eP 38 39.
1 MA 7 . 89 284 eP 38 40 .
SLKM 8.55 243 P 38 50.
YKA 9.26 98 eP 38 53.
0.4s 8 . 40nm
TTA 9 . 62 266 P 39 01 .

8RW 10.11 316 e(P) 39 10.
SVW 10.33 256 P 39 13.
M8C 12.04 18 ePc 39 32.
0.5s 20 . 00nm
FFC 19.20 108 eP 41 03.
0.9s 1 7 . 00nm
i 4412.
i 46 35.
S.D.-0.8 on 28 of 3

% AUG 09, 1991 06h 52m 08.
34.032 S ±17. 9km 70.888
DEPTH = 33.0km (normol)
CHILE-ARGENTINA BORDER REGlO

CHCH 0.22 63 i PC 52 15.
IS 52 28 .
TACH 0.38 354 i PC 52 18.
IS 52 33.
LNV 0.44 280 iPc 52 18.
IS 5231.
PCH 0.51 37 iP 5219.
IS 52 34.
SAN 0.61 18 i PC 5220.
IS 52 36.
PEL 0.90 1 1 i P ' 52 24 .
IS 52 43.
S . D . -0.8 on 6 of

* AUG 09, 1991 06h 59m 35.
41.261 N ±1 2 . 0km 22 . 439
DEPTH = 10.0km (geophysi
YUGOSLAV 1 A

ML 1 . 9 (SKO) . MD 2.5 (T

VAY 0.12 58 i Pg 59 38 .
iSg 59 40.
GRG 0.30 185 ePc 59 41 .
eS 59 46.
KNT 0.36 106 ePc 59 43.
eS 59 47.
SOH 0.82 122 ePd 59 51 .
eS 60 01 .
SRS 0.88 99 iPc 59 52.
eS 00 04.
S.D. - 0.2 on 5of

AUG 09 , 1 991 07h 1 0m 06 .
46 .321 N ± 5 . 4km 13.576
DEPTH = 10.0km (geophysi
AUSTRIA

ML 2.8 (VIE). MD 2.6 (T
Felt ot Kronjska Gora a
Ratece, Yugoslavia.

VOY 0.36 143 iPgd 10 14.
i Sg 10 22.
FV 1 0.61 297 P 1018.
eSg 10 25.
TRI 0.63 168 ePgc 10 19.
i Sg 10 32.
LJU 0.72112 ePg 10 19 .
eSg 10 29.
K8A 0.77 348 i Pgd 10 18 .
i Sg 10 27.
SCE 1 . 47 300 iPgd 10 33.
BHG 1 .48 341 iPgc 1 0 35 .
WTTA 1 . 63 306 i Pgd 1 0 36 .
i Sg 10 58 .
OGA 1 . 84 288 ePn 10 42 .
SAL 2.24 253 P 10 42.
SF 1 2.69 208 P 1051.
PGD 2.78 209 P 10 52.
KHC 2.81 0 ePn 1051.
e 10 54 .
KHC 2.81 0 Pg 1 1 00 .
Sg 1131.
WET 2.86 351 ePn 10 52.

71 0.8
30 1.4
30 1.8
64 0.4
60 0.8
20 1.0
100 -5.8X
5.5mb X
50 -2.4X

|00 -0.6
40 -0.2
00 -4 . 8X
5 . 7mb X
00 -5.7X
4 . 3mb
06
00
2 obs.

52± 1 .73s
« ±10 . 8km

N (127)

70 0.3
90
50 1.1
50
00 -0.2
60
40 0.0
50
30 -0.4

|68
10 -0.8
50

6 obs.

49± 2.15s
E ±14 . 4km
cist)
(383)
hE).

40 0.0
00
90 0.0

90
06 0.2
98
22 -0.2
90
42 0.0
22
6 obs.

43± 0.59s
E ± 7 . 0km
cist)
(546)
Rl).
nd

70 0.8
30
00 -0.8
00
80 0.8
50
20 -1.4
00
40 -3.2X
10
80 0.6
00 1.9
40 0.9
80
30 3. 8X
00 -2.1
00 0.5
00 0.1
50 -0.8
50
00 7 . 7X
00
50 -0.5

CRE 2.93 204 P 10 54.00 0.0

2ST 3.05 51 e(P) 11 41.40 45. 9X
PRU 3.73 10 ePg 11 13.00 7.8X
e 1 1 35. 30
e 1 1 44 . 00
eSg 11 59 . 50
MLR 8.67 91 eP 12 21.50 6.6X
S.D. =1.2 on 13 of 19 obs .

AUG 69, 1991 07h 14m 1 1 . 85± 0.41s
39.063 N ± 3.6km 23.314 E ± 4.6km
DEPTH = 10.0km (geophy s i c i s t)
AEGEAN SEA (365)
ML 3 .5 (ATH) . MD 3.4 (THE) .

AGG 0.77 267 i Pd 14 26.25 -0.6
eS 1 4 36 . 80
PAIG 0.91 18 iPd 14 29. 75 0.5
eS 1441.19
ATH 1.13 164 eP 14 32.20 -0.9
LIT 1 .22 329 i PC 1434.74 0.2
eS 1 4 5 1 . 09
OUR 1.37 22 ePc 14 36.59 -0.3
THE 1.59 350 i Pd 14 39.60 -0.5
eS 1459.67
K2N 1.72 317 eP 14 42.60 0.5
SOH 1.76 1 ePc 14 42. 56 0.0
GRG 2.02 340 ePc 14 45.88 -0.4
eS 1511.11
SRS 2.06 6 ePd 14 46.32 -0.6
KNT 2.12 351 ePd 14 48.00 0.2
eS 15 14 .50
FNA 2.27 320 ePc 14 50.43 0.3
eS 1518.11
PRK 2.31 85 eP 14 53. 70 3. 2X
VLS 2.31 248 eP 14 51.80 1.2
VAY 2.33 346 i Pn 14 51.00 0.3
VLI 2.36 187 eP 14 50.10 -1.1
E2N 2. 45 71 ePn 14 55.00 2.5
MM8 2.54 7 iPc 14 53.00 -0.8
RDO 2.69 39 eP 14 55.10 -0.8
KEK 2.80 285 eP 15 02.00 4 . 5X
OHR 2.81 317 iPn 14 58.40 0.7
1.0s 193. 00nm
Lg 15 57.50
R2N 2.83 22 i Pgd 14 57.00 -1.1
KD2 3.04 31 iPc 14 58.00 -2 . 9X
KGT 3.37 64 ePn 15 13.00 7.4X
VTS 3.53 359 i PC 15 08.00 0.1
DST 4.16 81 ePn 15 25.20 8.4X
NPS 4.21 153 eP 15 18.30 0.7
C2 I 5.58 274 P 15 37 .00 0.0
S .D. - 0-9 on 23 of 28 obs.

7, AUG 09, 1991 07h 39m 01.38± 1.56s
40.374 N ±11. 8km 21.796 E ± 9.5km
DEPTH - 10.0km (geophy s i c i s t)
GREECE (364)
MD 2. 1 (THE) .

FNA 0.52 322 ePc 39 11.96 0.0
LIT 0.60 117 eP 39 13.40 -0.1
eS 39 21 .96
GRG 0.74 38 eP 39 15.60 -0.4
KNT 1.15 46 eP 39 23. 10 0.2
eS 39 41 .60
SOH 1 .27 69 eP 39 25. 10 0.1
S.D. = 0.3 on 5 of 5 obs.

% AUG 09, 1991 08h 02m 40.42± 2.19s
45.099 N ± 7.9km 6.728 E ±17. 5km
DEPTH - 10.0km (geophy s i c i s t)
FRANCE (538)
ML 2.4 (GEN) .

RRL 0.18 167 P 02 44.68 0.0
S 02 48.31
RSP 0.38 82 P 02 47.47 -0.8
S 02 53.65
BH8 0.46 124 P 02 50.59 0.8
S 02 58.05
LSD 0.47 40 P 02 50.35 0.3
S 02 57.96
P22 0.65 156 P 02 53.31 -0.2
S 03 02.87
STV 0.95 153 P 02 58.46 -0.2
S.D. - 0.7 on 6 of 6 obs.

77

7. AUG 09. 1991 08h 18m 14.20± 0.99s
40.582 N ±11. 4km 27.493 E ± 7.9km
DEPTH - 10.0km (geo phy s i c i s t)
TURKEY (366)

KGT 0.19 228 ePg 18 19.00 0.5
EDC 0 37 130 iPg 18 22.00 0.2
i Sg 18 28.00
CTT 0.91 51 iPg 1832.00 0.4
i Sg 1 8 45 . 00
E2N 1.17 230 ePn 18 35.50 -0.5
HRT 1.67 81 ePn 18 43.00 -0.7
S.D. =6.8 on 5 of Sobs.

% AUG W9 . 1991 68h 1 Bm 49.63± 0.56s
47.497 N ± 8.0km 0.480 E ± 7.0km
DEPTH - 12 . 7 ± 5 . 6 km
FRANCE (538)
ML 3. 1 (LOG) .

MFF 0.99 206 Pg 19 09.00 0.8
Sg 1921.60
LPF 1.16 298 Pg 19 1 1 . 20 0.2
Sg 19 27 . 60
LDF 1.17 340 Pg 19 11.80 0.6
Sg 19 27 . 30
GRR 1 .27 315 Pg 19 13.00 0.1
Sg 19 30. 30
FLN 1.42 333 Pn 19 14.90 -0.2
Pg 19 16. 20
Sn 1 9 31 . 80
Sg 19 35. 20
LSF 1.44 150 Pn 19 16.00 0.6
Pg 19 16.90
Sg 19 35. 00
TCF 1.69 135 Pn 19 18.60 -0.5

Pg 19 20. 90
Sn 1 9 40 . 00

Sg 19 43. 30
BGF 1.87 119 Pg 19 23.70 2.1
Sg 1 9 48 . 70
MAF 1.92 131 Pg 19 24.90 2.6
Sg 19 49.20
AVF 2.08 109 Pn 19 24.90 0.2
Pg 19 27 . 80
Sg 19 53.50
SSF 2 . 1 1 101 Pn 19 24. 30 -0.7

Pg 19 29.80
Sg 19 55.80
RJF 2.31 162 Pn 19 27.60 -0.4
Pg 19 33. 60
Sg 20 00.80
LOR 2.31 94 Pn 19 27.40 -0.6
Pg 19 33.20
Sg 20 01 . 30
LBF 2.44 101 Pg 19 34.10 4.3X
Sg 20 65.20
SMF 2.45 109 Pg 19 34.50 4 . 5X
Sg 20 05.30
LFF 2.56 176 Pg 19 37.10 5.5X
Sg 20 09.40
CAF 2.80 156 Pn 19 33.60 -1.3
Pg 1943.20
Sg 20 17.80
S.D. - 1.2 on 14 of 17 obs.

% AUG 09, 1991 08h 37m 11.87± 0.70s
40.648 N ± 5.6km 29.179 E ± 6.6km
DEPTH - 10.0km (geo phy s i c i s t)
TURKEY (366)

YLV 0.17 119 iPg 37 15.50 -0.3
eSg 37 18.00
121 0.38 144 iPg 37 19.50 -0.3
iSg 37 24.50
HRT 0.41 65 iPg 37 20.50 0.2
ISK 0.43 348 ePg 37 21.00 0.4
CTT 0.76 312 iPg 37 26.00 -0.7
DST 1.12 202 ePn 37 33.50 0.5
S.D. - 0.6 on 6 of 6 obs.

% AUG 09, 1991 08h 37m 17.21± 0.64s
38.129 N ± 6.8km 14.584 E ± 4.9km
DEPTH - 10.0km (geo phy s i c i S t)
SICILY (398)

»nu v . f. f. isor j / z i . o« o . >
eSg 37 25.90
GIB 0 . 46 253 P 37 27 . 30 0.7
eSg 37 35.10
ATN 0.69 87 P 37 31.20 0.3
eSg 37 41.00
MEU 1.06 165 P 37 37.00 -0.3

eSg 37 51 . 50
SOI 1.16 92 P 3739.50 0.6

eSg 37 57.50
USI 1.25 298 P 37 39.90 -0.4
CZ 1 1.63 48 P 37 45 . 60 -0.4
S.D. =0.6 on 7of 7 obs.

& AUG 69, 1991 08h 49m 28.96s
38 . 788 N 1 1 1 . 587 W
DEPTH = 1 . 2km
UTAH (478)
<SLC-P>. ML 2. 8 (SLC) .

DAU 1.64 9 eP 49 59.20 -0.2
DUG 1.70 326 eP 49 58.70 -1.3
PV09 1.94 98 eP 50 04.60 0.9
PTI 4.12 352 eP 50 33.00 -1.6
BW06 4.27 21 eP 50 36.00 -0.8
GOL 4.91 77 eP 50 46.00 0.0
ANMO 5.62 131 eP 50 55.00 -0.9
ALO 5.62 131 eP 50 55.00 -1.0
8 obs. ossocioted

AUG 09. 1991 09h 33m 49.69± 0.29s
9.737 N ± 4.5km 84.054 W ± 4.9km DEPTH - 5.0km (g eophy s i c i s t) 4.7mb (22 obs.) 4.7Msz (4 obs.)
COSTA RICA (78)
At leost 30 houses domoged in
the Cortogo oreo. Some
landslides occurred. Felt in
muc h of Costo Rico.
CENTROID, MOMENT TENSOR (HRV)
Dato Used: GDSN
L. P. B . : 15S. 27C
Centra id Location:
Origin Time 09:33:57.9 1.0 Lat 9.96N 0.07 Lon 84.23W 0.07

Dep 15.0 FIX Ho 1 f-dura t i on 1.8
Moment Tensor; Scale 10**16 Nm
Mrr--2.03 0.41 Mtt--4.82 0.54
Mff- 6.86 0.67 Mrt- 0.00 0.00
Mrf- 0.00 0.00 Mtf- 6.08 0.45
P r i nc i po 1 Axes:
T Vol- 9.45 Pig- 0 Azm-113
N -2.03 90 180
P -7.41 0 23

Best Double Coup 1 e : Mo-8 . 4 1 0* 1 6
NP1 : S t r i ke-1 58 Dip-90 Slip ISO
NP2: 248 90 0

OCM 0.18 30 P 33 53 . 40 -0.1
HDC2 0.29 345 P 33 56.30 0.6
COM 0.34 122 P 33 56.40 -0.2
OPS 0 . 34 193 P 33 57 . 10 0.5
VTU 0.41 46 P 33 58. 10 0.2
EPA 0.59 295 P 34 01.10 -0.4
TIG 1 .02 133 P 34 09. 40 -0.1
CAO 1.03 268 P 34 08.90 -0.8
CTCR 1.53 123 P 34 16.60 ~ 1 . 2
JUD 1.53 286 P 34 16.90 -0.9
PBC 1.65 142 P 34 18.30 -1.2
RIN3 1.67 309 P 34 19.90 0.1
UPA 4.52 99 iPc 34 59.10 -1.3
(S) 35 45. 00
ANCC 9.44 130 i PC 36 09.71 0.2
CLMC 9.44 128 ePc 36 09.59 0.0
HOOC 9.65 130 ePc 36 11.75 -0.8
SILC 10.38 132 iPc 36 23.30 0.5
PURC 10.62 133 ePc 36 26.77 0.6
CUMC 10.67 144 ePc 36 27.25 0.4
PSO 10.81 141 eP 36 30.00 1.3
BOG 11.14 116 eP 36 36.00 2 . 9X
eS 39 06.00
BMG 11.18 103 eP 36 32.50 -0.9

NNA 22.74 161 eP 39 00.00 5.8X
0.8s 13. 43nm 4 . 5mb
SGS 23.57 7 P 39 06.00 4 . 0X
PRM 24.28 3 P 39 11.80 2 . 9X
JSC 24. 56 6 P 39 12.20 0.6

1 l\ L.

GBTN
UYO
CRT
BLA

ELC
MEO
CVL
ARE
20BO

L P B

CNCB
LVNJ
CCH
ALO

ANMO

TBR
SI V
GLD

GOL

GLA
TPC
PLM
RVR
GSC
PAS
SBB
BW06

CLC
ISA
BONR
PHAM
LRM
ARM
BAD
SES
SOB1
SCH
FFC

VAO
PNT
YKA

1 NX
MBC

PMR

FBA

GRR

LDF

MFF

LOR

HAU

BSF

CDF

NB2

HFS

MOX

CLL

£*j.ou i r +) y £*j.*ji? ~u.£
25.81 360 P 39 24 .00 0.5
26 . 12 340 iPd 39 24.76 -1.7
26 .85 350 P 39 32. 00 -1.1
27 .55 6 P 39 40. 00 6.5
1.2s 15.1 5nm 4 . 6mb
27 .82 351 P 39 40 00 -1.9
28.25 334 i Pd 39 45.40 -0.5
28. 57 9 P 39 46 00 -2.7
28.85 154 eP 39 57 . 00 5 . 3X
30 . 27 148 P 40 04.20 -0.6
224s 1 . 91 urn 4 . 7MszX
S 45 22.66
LR 50 24.06
. 30. 50 149 P 4007.00 0.3
2 15s 3 . 06um 5 . IMszX
S 45 18.00
LR 51 10.00
30.80 149 P 40 09.00 -0.4
32.02 13 P 40 18. 40 -0.9
32.24 147 P 40 21.60 -0.2
32. 3B 324 eP 40 21 .00 -1.8
1.0S 4 . 00nm 4 . 3mb
2 18s 1 . 63um 4 . 6MS2
32. 38 324 P 40 21 .20 -1.6
1.2s I3.67nm 4. 8mb
32. 46 14 P 40 23.50 0.3
34 .22 138 P 40 37.40 -1.3
35. 34 331 P 40 50.00 1.7
2 18s 1 . 56um 4 . 8Msz
35. 37 331 P 40 47 .40 -1.3
1.0s 6 . 25nm 4 . 4mb
Z 20s 1 .25um 4 . 7Msz
36 . 63 314 P 41 00. 40 1.3
38.05 314 eP 41 15.00 4.0X
38.24 313 eP 41 13.00 0.2
38.93 313 eP 41 24.00 5. 6X
39. 21 316 eP 41 23 00 2.2
39.58 313 eP 41 27.00 3 .2X
39. 60 314 eP 41 26.00 1.9
39 . 75 330 P 41 26 .00 0.6
1.0s 4 . 1 7nm 4 . 0mb
40. 03 316 eP 41 30.00 2.4
40 . 56 315 eP 41 35.00 3 . 1X
41 . 66 318 P 41 42.60 1.4
42.00 314 P 41 43.20 -0.5
43.40 331 eP 41 55.10 -0.2
43 .54 315 P 42 00. 10 3 .9X
43.72 125 ePd 41 57.90 -0.1
46. 26 336 eP 42 18.00 0.1
46.90 112 eP 42 24.00 0.6
47.01 14 eP 42 22.00 -1.7
47.08 346 iPd 42 22.60 -1.6
0.8s 18. 00nm 5 . 2mb
48. 75 132 eP 42 36. 40 -1.4
49.32 330 eP 42 42.00 0.3
57.11 344 eP 43 36.00 -3.3X
0.9s 5 . 90nm 4 . 6mb
66.79 342 eP 44 42.00 -2.6
69. 16 351 eP 44 57 .00 -1.8
1.0s 20 . 00nm 5 - 3mb
69.74 332 P 45 03.60 1.1
0.8s 4.31nm 4. 7mb
70.24 336 P 45 02. 70 -2.9
0.8s 4 . 31 nm 4 . 6mb
78.28 43 eP 45 55.50 3.2X
0.7s 5 . 50nm 4 . 8mb
78.76 42 eP 45 57 .60 2.6
0.8s 6 . 70nm 4 . 7mb
78 . 82 44 eP 45 58 . 20 2.8
0.8s 4 . 05nm 4 . 5mb
81 . 52 43 eP 46 1 1 . 70 1.9
0.8s 5 . 35nm 4 . 7mb
83. 12 43 eP 46 20. 40 2.3
0.6s 2 . 70nm 4 . 6mb
83.43 43 eP 46 21 . 80 2.0
0.8s 4 . 05nm 4 . 7mb
83 . 68 42 eP 46 23 . 20 2.2
0.8s 4 . 05nm 4 . 7mb
84. 10 29 P 46 21 .00 -1.8
0.9s 4 . 70nm 4 . 7mb
85.47 30 eP 46 27.70 -1.9

1.0s 8 . 70nm 4 . 9mb
86. 13 39 eP 46 36.00 2.9
e 46 46.00
86.86 39 iP 46 37.70 1.0
0.9s 8 . 00nm 4 . 9mb

09d 09h

78

8RG 87 53 39 eP 46 41.50 1.6
1.0s 16. 00nm 5 . 1 mb
KHC 87.67 41 eP 46 39.00 -1.7
Z 1 8s 0 . 60um 5 . 0Ms z
E 18s 0 . 70um
e 4643. 50
S 57 26 00
PRU 88. 10 40 eP 46 43.80 1.2
E 1 8s 0 . 40um
ZST 90.16 41 eP 47 04.50 12. IX
ASPA 141.24 244 ePKP 53 20.50 -3.7X
1.0s 5 . 70nm
WR2 141.59 250 ePKP 53 20.50 -4.4X
0.6s 3 . 70nm
WRA 141.61 250 PKP 53 20.00 -4.9X
0.8s 3 . 1 0nm
WRA 141.61 250 PKP 53 35.00 10. 1X
0.9s 3 . 50nm
CGP 146.15 301 ePKP 53 34.50 1.8
1.8s 1 55 . 00nm
GBA 150.42 39 PKPc 53 38.50 -0.8
0.9s 5 . 1 0nm
S . D . - 1 . 4 on 76 of 93 obs .

% AUG 09. 1991 09h 38m 41.65± 0.67s
43.094 N ±12. 0km 0.615 W ± 5.0km
DEPTH - 10.0km (geophy s i c i s t)
PYRENEES (378)
ML 1 .0 (STR) .

ESCF 0.03 118 Pg 38 42.66 -1.1
ATE 0.06 262 Pg 38 43.20 -0.8
Sg 38 45. 19
OGE 0.13 54 Pg 38 44.63 -0.1
ISSF 0.15 243 Pg 38 45.17 0.0
Sg 38 48.88
MADF 0.16 289 Pg 38 45.00 -0.3
Sg 38 47.75
JAU 0.19 107 Pg 38 45.85 -0.1
S.D. = 0.5 on 6 of 6 obs.

% AUG 09, 1991 09h 52m 5l.13± 0.93s
4e.531 N ± 7.5km 15.800 E ± 6.3km
DEPTH » 10.0km (geophy s i c i s t)
SOUTHERN ITALY (390)

SCO 0.38 274 P 52 59.00 0.2
eSg 53 04.00
MGR 0.44 206 P 52 59.50 -0.5
eSg 53 07.00
MMN 0.66 167 P 53 04.20 0.0
eSg 53 15.40
CS 1 0.84 153 P 53 07. 40 0.0
BRT 1.12 72 P 53 12.00 -0.2
eSr> 53 28.00
CZ 1 1 . 34 169 P 53 16.20 0.5
S.D. « 0.4 on 6 of 6 obs.

% AUG 09, 1991 10h 36m 54.631 4.53s
43.097 N ±14. 2 km 1.102 W ±30. 0km
DEPTH - 10.0km (geophys i c i s t)
PYRENEES (378)
ML 1 - 0 (STR) .

BOH 0.07 85 Pg 36 56.69 -0.4
Sg 36 57.73
ELYF 0.11 48 Pg 36 57.58 0.1
Sg 36 59. 16
MADF 0.21 77 Pg 36 59.55 0.3
Sg 37 03.39
ISSF 0.24 107 Pg 37 00.03 0.3
Sg 37 03.63
ATE 0.29 92 Pg 37 00.98 0.2
Sg 37 05. 10
ESCF 0.39 93 Pg 37 02.10 -0.5
Sg 37 08.39
LHE 0i.40117Pg 3702.82 0.0
S.D. =0.4 on 7 of 7 obs.

AUG 09. 1991 I2h 07m 52.68± 1.16s 10.737 S ±13. 8km 163.551 E ±19. 0km
DEPTH - 33.0km (normol)
4 . 8mb (5 obs .)
SOLOMON ISLANDS (193)

HNR :.78 290 eP 08 50.00 0.0
eS 09 39.00

CTAO 19.08 239 i PC 12 16.00 0.7
RMO 20.99 220 eP 12 44.00 8.3X
CMS 26.37 216 eP 13 27.70 -0.2
WR2 29.56 248 eP 13 52.90 -4.0X
6.6s 2.80nm 4. 2mb
ASPA 31.62 242 *P 14 09.10 -0.7
1.7s 6.1 0nm 4 . 1mb
KMI 69.13 302 IPc 18 59.00 0.6
1.5s 67.00nm 5. 5mb
CHTO 70.13 2?5 eP 19 02.00 -2.4
1.6s 26 . 25nm 5 . 1mb
LZH 72.96 313 eP 19 21.50 0.2
2.0s 32 . 00nm 5 . 0mb
YAK 77.18 344 *P 19 44.20 -0.4
PKI 84.60 299 P 20 25.140 0.4

KKN 8 4 . 7 7 2 ? 9 P 20 26. [20 0.6
DMN 84.87 299 P 20 27.20 1.0
GKN 85.38 259 P 20 28.60 0.2
S.D. - 1.0 on 12 of 14 obs.

7 AUG 09 . 1991 1 2h 1 4m 53
9 . 407 S ±1 3 . 6km 1 58 . 1 01
DEPTH - 33.0km (normol)
4 . 7mb (3 obs .)
SOLOMON ISLANDS

HNR 1 .82 91 eP 15 23
eS 16 09
RMO 19.16 206 eP 19 17
ASPA 27.12 236 eP 20 40
1.0s 6 . 50nm
KMI 63.91 304 i PC 25 32
2.0s 68 . 00nm
CHG 64.71 296 eP 25 37
CHTO 64.71 296 eP 25 36
1.1s 6 . 77nm
GUN 78.99 301 P 26 56
PKI 79.29 300 P 26 58
KKN 79.46 301 P 26 58
DMN 79.56 300 P 26 59
GKN 80.07 301 P 27 01
S.D. -0.5 on 7of 1

? AUG 09, 1991 12h 16m 58
21>499 S ±44. 4km 179.339
DEPTH - 390.0km (geophys
4 . 5mb (8 obs .)
FIJI ISLANDS REGION

DZM 13.22 265 iPc 20 08
RMO 29.52 254 eP 22 40
0.9s 24 . 00nm
CMS 32.60 245 eP 22 58
TOO 34.30 234 i PC 23 11
0.6s 8 . 00nm
STK 36.24 245 i P<J 23 28
0.6s 2 . 9<8nm
OlS 38.26 264 i PC 23 45
0.3s 3 . 00nm
ASPA 43.08 258 i Pd 24 23
0.6s 22 . 80nm
WR2 43.21 263 i PC 24 24
0.3s 30.80nm
WARS 49.34 253 eP 25 10
NANU 59.93 256 i P<J 26 25
0.4s 23 . 06nm
CHG 89.41 290 eP 29 13.
CHTO 89.41 290 eP 29 14»
0.8s 5 . 49nm
pP 30 45,
KHC 150.57 343 ePKP 36 I5 t
S.D. -1.2 on 10of 1

& AUG 09, 1991 I2h 47m 38 i
59. 594 N 152 . 180
DEPTH - 65.9km
SOUTHERN ALASKA
<AEIC>.

HOM 0.28 76 iPd 47 48
eS 47 56.
CNPM 0.49 98 iPc 47 50.
eS 47 59.
NNL 0.63 44 iPd 47 52.
AUE 0.65 249 eP 47 51 .
AUH 0.68 251 iPc 47 52.
AU 1 0.69 248 ePc 47 51 .

46± 0.61s
E ± 9 . 6 km

(193)

00 0.0
00
00 0.0
50 4 .8X
4 . 2mb
50 6. 5X
5 . 4mb
30 6.2X
00 4 .9X
4 . 7mb
86 0.3
14 0.0
90 0.0
90 0.4
36 -0.7
1 obs .

46± 3.89s
W ±68 . 7km
cist)

(181)

70 1 4 . 0X
00 9.3X
4 . 5mb
00 0.8
90 0.5
4 . 2mb
50 0.8
3 . 8mb
30 0.8
4 . 1mb
50 -0.1
4 . 7mb
60 0.0
5 . 1mb
40 -1.7
30 -2.1
5 . 0mb
90 0.4
00 0.5
4 . 5mb
30 393kmX
00 15. 0X
3 obs .

1 1 s
W

(2)

48 -0.4
63
15 -0.5
1 4
56 0.4
59 -0.8
23 -0.6
91 -0.9

eS 48 02.95
RED 0.88 340 iPd 47 54.49 -0.7
eS 48 06.97
RSO 0.92 342 iPd 47 55.18 -0.6
eS 48 08.30
REF 0.94 344 iPd 47 55.38 -0.7
eS 48 08.04
ROW 0.95 341 iPd 47 55.48 -0.7
RON 0.97 343 i Pd 47 55.74 -0.7
eS 48 09.29
ROT 0.99 354 i Pd 47 55.79 -0.8
i S 48 10.34
SYI 0.99 186 ePc 47 55.67 -0.9
eS 4810.40
CDD 1.00 229 iPc 47 55.97 -0.8
eS 48 1 0 . 60
DFR 1.03 346 iPd 47 56.46 -0.7
PDB 1.04 282 iPc 47 55.97 -1.2
eS 48 09.66
NCT 1.04 339 eP 47 56.53 -0.8
MCNL 1.18 251 ePc 47 57.63 -1.4
eS 48 1 2 . 67
NKA 1 . 25 22 iPd 48 01 . 03 1.2
SLKM 1.34 46 eP 48 00.51 -0.8
SEW 1.47 68 eP 48 02.71 -0.2
SPU 1.59 2 iPd 48 04.32 -0.4
eS 48 24.30
CKL 1.61 357 iPd 48 04.76 -0.2
BGL 1.68 357 eP 48 05.87 0.0
CGLM 1.72 3 ePd 48 06.40 -0.1
NCG 1.82 0 ePd 48 07.83 0.0
eS 48 31 . 44
KDC 1.86 185 eP 48 07.10 -1.2
SUA 2.01 20 ePd 48 10.13 -0.3
PMS 2.11 37 ePc 48 11.62 -0.1
eS 48 36.85
LTI 2.23 77 ePc 48 13.07 -0.4
SVW 2.29 313 iPc 48 12.69 -1.6
MTU 2.32 78 eP 48 12.94 -1.8
PWA 2.36 28 eP 48 14.45 -0.7
KNIM 2.36 69 eP 48 12.96 -2.3
SKT 2.42 7 ePd 48 15.55 -0.5
PLRM 2.51 36 ePc 48 16.20 -1.1
PMR 2.51 36 eP 48 16.50 -0.8
KNK 2.59 44 eP 48 17.48 -1.1
eS 48 47.72
GHO 2.71 35 eP 48 1 9 . 1 8 -1.1
GLI 2.85 61 ePc 48 19.45 -2.6
CUT 2.97 17 eP 48 21.67 -2.1
VZW 3.16 60 eP 48 25.04 -1.5
VLZ 3.29 60 eP 48 26.18 -2.1
KLU 3.63 56 ePc 48 31.34 -1.8
TTA 3.82 333 eP 48 31.10 -4.8
TOA 3.87 47 eP 48 35.59 -0.9
TRF 3.98 12 eP 48 37.17 -0.9
RND 4.14 21 eP 48 39.43 -1.0
GLB 4.53 62 eP 48 43.43 -2.4
BALM 5.10 69 eP 48 52.36 -1.5
FBA 5.71 19 eP 49 00.00 -2.2
5 1 obs . assoc i o t ed

% AUG 09. 1991 13h 08m 43 . 72± 2.66s
44.232 N ±14. 3km 8.543 E ±18. 5km
DEPTH - 10.0km (geophy s i c i s t)
NORTHERN ITALY (545)
ML 2. 1 (GEN) .

FIN 0.24 265 P 08 49.78 0.9
S 08 54.60
PCP 0.31 0 P 08 50 .29 0.1
S 08 55.21
ROB 0.49 278 P 08 53.98 0.4
S 09 01 . 88
IMI 0.57 236 P 08 55.42 0.1
S 09 03.93
ENR 0.81 270 P 08 59.01 -0.4
STV 0.88 271 P 08 59.62 -1.0
S.D. - 0.8 on 6 of 6 obs.

? AUG 09, 1991 14h 30m 17.97± 4. 80S 40.774 N ±19. 3km 30.111 E ±32. 3km DEPTH - 10.0km (geophy s i C i st)
TURKEY (366)

HRT 0.34 278 ePg 30 25.00 0.0
eSg 30 33.00
YLV 0.60 250 ePg 30 30.00 -0.1

79

89d 14h

121 8.65 228 iPg 36 31.20 0.1
CTT 1.33 287 iPn 36 42.50 0.6
CIN 3.54 267 ePg 31 14.60 -6.1
i Sg 31 17.60
S . 0 . =0.1 on 5of Sobs.

& AUG 09. 1991 15h 12m 14.97s
62 . 8S9 N 1 51 . 1 20 W
DEPTH =- 114.9km
CENTRAL ALASKA (1)
<AE I C> .

CUT 6 . 63 141 i P 1233.17 -0.3
eS 1247.18
KTH 0 . b? 8 i P 12 33. 73 -0.2
TRF 0.68 33 iP 12 33. 62 -0.5
HUR 0.68 82 eP 12 33.57 -0.4
S 12 47 .44
SKT 6.93 192 eP 12 35.75 -0.5
S 1251.54
RND 1.15 62 eP 12 38.14 -0.4
PWA 1.37 154 eP 12 40.70 -0.2
S 1301.22
SUA 1.44 173 eP 12 41.89 6.0
S 13 03 . 02
BWN .49 29 eP 1242.41 0.1
GHO .52 137 eP 12 42.37 -0.4
NCG .57 199 eP 12 42.75 -6.6
PLRM .66 144 eP 12 42.21 -1.4
BGL . 74 261 eP 1245.37 -0.1
SPU .77 195 eP 12 44.89 -6.9
CKL .79 199 eP 12 45.50 -0.7
PMS .81 155 eP 12 45.22 -1.0
eS 1308.83
NEA 192 27 eP 1246.78 -0.9
KNK 1.94 139 eP 12 46.83 -1.1
WRH 2.08 39 eP 12 49.06 -6.7
CCB 2.36 38 *P 12 51.72 -6.8
ROT 2 40 195 eP 12 53.66 -6.9
TOA 2 43 167 eP 12 53.81 -0.5
SLKM 2 43 169 eP 12 53.33 -0.9
MOM 2.44 30 eP 12 53.40 -1.0
PAX 2.59 86 eP 12 55.98 -8.4
SDG 2.60 96 eP 12 56.02 -0.4
GLI 2 . 77 135 eP 1 2 57 . 36 -1.4
KLU 2.81 118 eP 12 57.53 -1.8
VZW 2.83 128 eP 12 58.33 -1.3
VLZ 2.86 126 eP 12 58 06 -1.9
SEW 2.91 163 eP 12 59.23 -1.3
KNIM 3.62 146 eP 12 59.37 -2.7
LTI 3.26 156 eP 13 62.63 -2.6
CNPM 3.38 181 eP 13 66.26 -0.6
PDB 3.45 207 eP 13 06.82 -1.0
GLB 3.72 110 eP 13 09.92 -1.7
36 obs. ossocioted

AUG 09. 1991 15h 31m 52.78± 6.96s
10.818 S ±12. 6km 163.468 E ± 1 8 . 8 km DEPTH - 33.6km (normol)
4 . 9mb (4 obs .)
SOLOMON ISLANDS (193)

HNR 3.73 291 eP 32 56.00 0.6
eS 33 37.00
D2M 11.55 166 iPc 34 39.10 0.6
CTAO 18.96 239 iP 36 20.00 5 . 9X
RMO 20.88 220 eP 36 47.50 12. 8X
CMS 26.26 216 eP 37 27.00 0.1
ASPA 30.91 242 eP 38 67.20 -1.8
1.0s 6 . 20 nm 4 . 4mb
KMI 69.10 302 iPd 43 60.50 2.1X
2.0s 78.66nm 5. 4mb
CHG 70.09 295 eP 43 04.00 -0.2
CHTO 70.09 295 eP 43 64.30 0.1
1.2s 1 1 . 1 1 nm 4 . 8mb
LZH 72.96 313 eP 43 23.00 1.7
2.0s 35 . 66nm 5 . 0mb
pP 43 28.00 16kmX
YAK 77.24 344 eP 43 43.00 -2.0
GUN 84.26 300 P 44 26.28 2 . 9X
PKI 84.57 299 P 44 25.64 0.7
KKN 84.74 299 P 44 26.22 0.6
DMN 84.84 299 P 44 26.28 0.1
GKN 85.34 300 P 44 28.02 -0.5
S . 0 . -1.1 on 12 of 16 obs.

& AUG 09. 1991 16h 16m 28.70s

37 . 155 N 121. 558 W
DEPTH - 1 . 0km
CENTRAL CALIFORNIA (39)
<BRK> . ML 2.7 (BRK) .

ARN 6.26 6 iPc 16 32.66 6.6
MHC 6.26 346 iPd 16 32.86 0.1
IS 16 36. 35
GCC 0.37 251 iPc 16 36.16 0.6
SAO 6.46 167 iPd 16 37.28 6.6
LLA 6.73 137 eP 16 42.82 -6.4
eS 1654.42
PCC 6.74 298 iPc 16 42.44 -1.1
eS 16 55.85
PRS 0.84 170 iPc 16 44.94 -0.4
i S 16 58. 16
BKS 0.90 323 eP 16 44.50 -2.1
BKS 6.96 323 ePc 16 46.05 -0.6
eS 16 59.65
2SP 0.96 325 eP 16 47.12 -0.7
eS 17 01 .73
PRI 1.24 144 eP 16 52.00 -0.7
CMB 1 . 28 46 eP 16 51 . 92 -1.4
IS 17 10. 08
FRI 1.49 96 ePc 16 54.70 -1.9
eS 1714.49
ORV 2. 46 1 eP 1769.81 6.6
14 obs. ossociated

* AUG 09, 1991 16h 23m 29.64± 0.96s 4.512 S ±14. 1km 143.824 E ±14. 8km DEPTH = 112.8 ± 18.1 km
4 . 2mb (4 obs .)
PAPUA NEW GUINEA (202)

MDG 2. 08 1 1 1 eP 24 64 . 46 6.1
YYYY 2.74 129 eP 24 14.40 1.3
JAY 3.69 302 iPc 24 25.90 0.1
PMG 5.88 146 eP 24 54.00 -1.8
Ol S 16. 47 194 eP 27 15. 76 9.3
WR2 17.90 210 iPd 27 32.66 -1.6
6.8s 21 . 20nm 4 . 4mb
epP 28 01 .20
WRA 17.91 210 P 27 43.00 9 . 9X
0.6s 4 . 30nm 3 . 9mb
ASPA 21.31 206 eP 28 08.90 -0.1
0.9s 7 . 20nm 4 . 0mb
i 28 13. 50
eS 32 58.76
WARB 27.11 216 eP 29 05.20 1.3
MBL 28.58 233 iPc 29 18.00 0.8
CHTO 49.90 299 e(P) 32 13.00 -1.0
1.8s 7 . 04nm 4 . 3mb
SIV 148.63 130 PKP 43 07.20 6.1X
S . 0 - -1.2 on 10 of 12 obs .

? AUG 09, 1991 16h 51m 60.96± 6.79s 4.518 N ±36. 8km 77.164 W ±37. 7km DEPTH - 10.6km (geophysicist)
NEAR WEST COAST OF COLOMBIA (102)

CLMC 0.87 137 eP 51 18.68 0.8
HOBC 1.04 99 ePd 51 20.32 -0.3
eS 51 37.40
ANCC 1.04 163 ePc 51 20.09 -0.5
HOOC 1.17 153 ePc 51 22.37 -0.6
eS 51 40.90
SILC 2.00 156 eP 51 35.54 0.1
PURC 2.32 160 eP 51 40.92 0.6
S.D. = 0.8 on 6 of 6 obs.

& AUG 09. 1991 17h 07m 04.53s
36 . 987 N 122 . 234 W
DEPTH - 10. 1 km
CENTRAL CALIFORNIA (39)
<GM-P>. MD 3.2 (GM). Felt in the
Santo Cruz oreo.

ARN 0.67 57 i PC 07 17.50 -0.3
NWRM 1.56 341 eP 07 33.00 0.8
CMB 1.80 54 eP 07 35.00 -0.9
PHAM 1.87 127 eP 07 34.80 -2.1
BCH 2.50 135 eP 07 43.00 -3.0
ORV 2.63 12 eP 07 46.00 -1.7
ABL 3.24 130 eP 07 53.50 -3.2
BONR 3.27 72 eP 07 57.00 -0.2
TNP 4.13 73 eP 08 08.30 -1.0

9 obs. ossocioted

AUG 09. 1991 19h 11m 37 . 23± 0.45s 17.464 S ± 9.5km 167.692 E ± 7.3km
DEPTH = 10.0km (geophysicist)
4.5mb (5 obs.) 4.2MS2 (1 obs.)
VANUATU ISLANDS (186)

BKM 0.56 111 i Pd 11 48.50 -0.2
iS 1 1 55 .00
PVC 0.65 115 iPd 11 50.00 -0.2
i S 1159.00
D2M 4.73 194 iPc 12 50.10 -0.3
iS 13 43. 00
HNR 10.97 316 P 14 17.00 -0.4
RMO 19.71 240 iPc 16 18.80 8.9X
i 1 6 29 . 00
CTAO 20.46 259 eP 16 20.00 2.2
BWA 24.13 222 eP 16 55.00 0.7
CMS 24.24 231 eP 16 57.00 1.6
e 1 7 08 . 00

CAN 24.35 219 e(P) 16 59.90 3.5X
STK 27.63 234 eP 17 26.50 -0.5
0.7s 2.00nm 4. 0mb
WRA 31.66 260 P 18 01.00 -2.1
1.4s 2 . 90nm 4 . 0mb
ASPA 32.18 253 eP 18 06.00 -1.7
0.6s 8.80nm 4. 9mb
2 21s 0 . 50um 4 . 2Msz
i 1 8 1 1 . 90
MAT 60.51 333 eP 21 59.00 9.1X
SPA 72.65 180 iPd 23 05.10 -1.8
1.0s 20.00nm 5.2mb
CHTO 76.58 295 eP 23 28.90 -1.2
1.0s 4 . 25nm 4 . 5mb
YAK 84.73 343 eP 24 10.30 -2.0
SFI 146.67 327 PKP 31 19.70 0.5
PGD 146.77 327 PKP 31 20.10 0.4
LOR 147.43 339 ePKP 31 20.60 0.2
0.8s 4 . 05nm
LBF 147.64 339 ePKP 31 20.90 0.1
1.0s 6 . 00nm
SSF 147.73 340 ePKP 31 20.60 -0.3
0. 8s 2 . 70nm
SOI 147.79 315 PKP 31 22.30 1.1
LPL 147.83 334 ePKP 31 22.20 0.8
1.0s 5 . 00nm
LPG 147.84 334 ePKP 31 22.40 0.9
0.8s 4 . 05nm
SMF 147.98 339 ePKP 31 21.90 0.6
1.0s 9 . 00nm
AVF 148.02 340 ePKP 31 22.70 1.4
1.0s 6 . 00nm
MAF 148.78 340 ePKP 31 25.10 2.5X
0.8s 2 . 70nm
TCF 148.83 340 ePKP 31 25.60 2.9X
1.0s 7 . 00nm
MFF 149.25 343 ePKP 31 25.20 1 . 9X
1 . 0s 8 . 00nm
S.D. - 1 .2 on 23 of 29 obs .

? AUG 09, 1991 19h 11m 45.83± 6.30s 41.338 N ±42. 3km 22.514 E ±28. 3km
DEPTH - 10.0km (geophysicist)
YUGOSLAVIA (383)
MD 1 .5 (THE) .

VAY 0.05 111 iPg 11 47.40 -0.6
i Sg 11 48 . 80
KNT 0.34 121 ePd 11 52.58 -0.3
eS 1 1 57 .82
GRG 0.39 193 ePd 11 53.82 0.0
eS 1 1 59.80
SRS 0.84 105 eP 12 02.60 0.5
eS 12 13.00
S.D. -0.8 on 4 of 4obs.

% AUG 09, 1991 19h 50m 49.14± 0.63s
43.073 N ± 6.8km 6.562 W ± 5.2km
DEPTH - 10.0km (geophysicist)
PYRENEES (378)
ML 1 .0 (STR) .

ESCF 0.01 299 Pg 50 50.65 -0.4
ATE 0.10 277 Pg 50 51.80 -0.1
Sg 50 53.51
OGE 0.12 34 Pg 50 52.06 0.0

09d 19h

JAU 0.15 104 Pg 50 52.69 0.0
Sg 50 54 . 75
LHE 0.17 195 Pg 50 52.89 -0.1
ISSF 0.18 255 Pg 50 53.41 0.2
Sg 50 56.38
MADF 0.20 291 Pg 50 53.64 0 0
Sg 50 58.82
S . D . --0.2 on 7 of 7obs.

» AUG 09, 1991 20h 10m 48.03± 0.98s
1&.593 S ±11. 7 km 163.611 E ±16. 8 km DEPTH - 33.0km (normal)
4 . 7mb (5 obs .)
SOLOMON ISLANDS (193)

MNR 3.79 287 eP 11 44.00 -1.5
eS 12 52.00
DZM 11.73 167 iPc 13 36.10 -0.2
CTAO 19.20 238 iPc 15 12.00 -0.1
i 15 17 .00
RMO 21.14 220 eP 15 41.60 9 . 0X
CMS 26.52 216 eP 16 23.00 -1.6
i 16 43 .00
WRA 29.68 248 P 16 55.00 1.7
0.6s 2.00nm 4.1 mb
ASPA 31.14 241 eP 17 06.90 0.7
1.0s 7 . 50nm 4 . 5mb
KMI 69.10 302 iPd 21 55.50 1.9
1.5s 46 . 00nm 5 . 3mb
CHG 70.13 294 eP 22 03-90 4.2X
CHTO 70.13 294 eP 21 59.70 0.0
1.1s 7.36nm 4.7mb
LZH 72.91 313 eP 22 16.50 0.2
2.0s 32 . 00nm 5 . 0mb
YAK 77.06 344 eP 22 37.60 -1.7
GUN 84.27 300 P 23 20.92 2.3
PKI 84.59 299 P 23 19.98 -0.2
KKN 84.75 299 P 23 21.14 0.2
DMN 84.85 299 P 23 20.18 -1.3
GKN 85.36 299 P 23 23.50 -0.3
S . D . -1.3 an 15 of 17 obs .

AUG 09. 1991 20h 16m 01.07± 0.13s 23.320 S ± 3.4km 179.185 W ± 3.3km DEPTH « 464.7km (16 depth phases) 5.4mb (47 obs.)
SOUTH OF FIJI ISLANDS (171)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B. : 19S. 32C
Centroid Location:
Origin Time 20:16: 4.0 0.4
Lot 23.29S 0.05 Lon 179. 10W 0.04

Dep 456.0 2.0 Ho I f -du r o t i on 2.0
Moment Tensor; Scale 10»»17 Nm
Mrr- 0.55 0.04 Mtt- 0.09 0.08
Mff 0.65 0.07 Mrt 0.36 0.07
Mrf 1.97 0.07 Mtf 0.34 0.06
Principal Axes :
T Vol- 2.01 Pig-54 Azm- 95
N 0.19 5 191
P -2.21 36 285

Best Double Coup I e : Mo-2 . 1 » 1 0 1 7 NP1:Strike- 39 D i p- 1 0 Slip- 118
NP2: 190 81 85

SVA 5.63 336 iPc 17 31.80 -1.3
eS 18 44.30
VUN 5.73 337 iPc 17 32.40 -1.7
eS 1835.30
OVA 5.92 341 iP 17 34.90 -1.2
KRO 6.12 347 i PC 17 36.20 -2.0
SGE 6.31 334 ePc 17 39.60 -0.6
NDF 6.37 330 eP 17 39.10 -1.6
eS 18 47 .00
MBU 6.61 342 eP 17 41.30 -2.0
PVC 12.96 293 iPd 18 52.40 0.8
BKM 13.05 293 iPd 18 53.50 0.9
DZM 13.32 273 iPc 18 56.00 0.4
iS 21 21.10
ScP 26 40.20
HBZ 14.40 188 eP 19 07.20 0.7
PGZ 17.67 191 P 19 39.40 0.0
MNG 17.82 193 eP 19 39.30 -1.7
KIW 18.18 194 eP 19 44.10 -0.4
MTW 18.34 193 eP 19 46.10 0.1
CAW 18.38 194 eP 19 46.30 -0.1

BLW
WDW
MRW
THZ
KHZ
LTZ
MOZ
HNR
R R S

COO

AFR

PAE

PPT

PPN

TVO

RMO

CNB

CAN

BWA

PMO

VAH

TPT

RUV

CMS

CTAO

OLP
TOO

TAU
BFD

STK

OIS

MDG
ASPA

Z

WR2

WRA

JAY
FORR

MTN
WARB

18. 55 193 P 19 48. 20 0.2
18.55 194 e P 19 47.50 -0.5
18 . 58 195 eP 1948.50 0.2
19 . 55 198 P 19 58. 80 1.0
1 9 . 99 1 96 P 2001.40 -0.5
20.67 198 P 20 07 . 30 -1.2
21.42 196 e P 20 14., 40 -1.0
24 .27 301 eP 20 40. 00 -1.6

25.64 255 iPc 20 £. r* a £ 5 4 . , w v.«
i (pP) 22 13 .|©0
26.73 248 iPd 21 04.100 0.5
0.7s 103. 00nm 5 . 4mb
28.12 84 i P 21 14.20 -1.6
1 . 2s 225.00nm 5. 5mb
28.27 84 iP 2115.80 -1.2
1.2s 175. 00nm 5 . 4mb
28.30 84 iP 21 15.60 -1.5
1 .2s 295.00nm 5.6mb
28. 44 84 iP 2117 .[30 -1 .2
1.2s 145. 00nm
28 . 53 84 iP 2118.
1 . 2s 225.00nm
29.21 257 iPd 21 33.
0.6s 1 65 . 00nm
i 2147.
i 22 53.
i 27 26.

5 . 3mb
20 -1.3
5.5mb
00 7.8X
5 . 7mb
00 56kmX
00
90

29.79 239 iPd 21 31. (40 1.1
0.9s 97 . 00nm
e 2254.
i 2721.
30 . 08 239 iPd 2133.
e 22 59.
e 27 22.
30 .33241 iPd 21 33 .
e 22 55.
e 27 21 .
30.64 80 iP 21 36 .
1.2s 1 50 . 00nm
30 . 80 81 iP 21 37 .

5 . 3mb
00 474km
80
30 0.5
70
70
20 -1.7
10 464km
30
30 -1.3
5 . 3mb
40 -1.6
1.2s 100.00nm 5. 2mb
30 . 90 80 iP 21 38.60 -1 .2
1 . 2s 225.00nm 5.5mb
31 . 04 81 iP 21 39.60 -1 .3
1.2s 1 80 . 00nm 5 . 4mb
32. 00 248 iPd 21 49. 30 0.1
0.9s 160. 00nm 5 . 5mb
i 23 1 1 .^0 457km
i 27 29.00
32 . 23 269 iPd 21 51 .60 0.3
e(S) 26 30.|00
i(ScP)27 30.^0
33. 25 257 iP 22 00.00 0.2
33. 39 237 iPd 22 01 .|80 0.9
0.6s 107. 00nm 5 . 5mb
i 26 50.00
33. 87 227 iPct 22 05. &0 1.1
35.58 238 ePd 22 01.00 -18. 2X
0.7s 57.00nm
e 23 42.20 576kmX
35.64 247 iPd 22 20.
0.6s 27 . 60nm

10 0.4
4 . 9mb
iPcP 24 37.10
iS 27 22. b0
38.24 266 iPd 22 40.70 -0.5
1.0s 69 . 60nm 5 . 1mb
i 22 55.
i 27 51 .
38. 25 293 eP 22 40.
42. 87 260 eP 23 18 .
1.0S 145. 60nm
21s 0 . 30um
ePP 24 50.
iScP 28 10.
iS 29 07 .
iScS 32 30.
43.17 265 i PC 23 20 .
0.8s 1 88 . 50nm
iScP 28 10.
eS 29 1 1 .
43.19 265 P 23 19.
0.7s 135.1 0nm
43 .98 292 iPd 23 21 .
47.17 249 iPd 2351.
0.4s 1 68 . 00nm
48.16 273 eP 23 56 .
48.98 255 iPd 24 04.

40 57kmX
50
60 -0.7
00 -0.6
5 . 4mb
4 . 2Msz
60
10
80
20
00 -1.0
5.6mb
20
40
00 -2.2
5 . 5mb
20 -6.3X
20 -0.7
5. 8mb
00 -3.6X
90 -0.9

KNA

GUA

PJG
COOL
KLB

MBL

RKG

NWAO
BAL
MUN
NANU

CSY

CGP

SPA

KAKJ
CH J J
I I DJ
MAT

P I P
N I I J
OFUJ
MTMJ
YAMJ
TSRJ
AOMJ
KUSJ
HOOJ
MRRJ
ASAJ
MAW
SSE

AIA
HKC
KGM

SYP

PRS
GCC
PCC
BCH

SAO
PRI
BKS

ABL
ARN
PAS

MWC
BAR
FOX
FHC
PLM

RVR

PEC
SBB

FRI
ISA

CMB
I PM

ORV
CLC

0.4s 25.00nm 5.0mb
49.42 269 iPd 24 08.20 -0.9
0.4s 4 4 . 00nm 5 . 2mb
50. 75 31 3 eP 24 18 . 00 -0.9
1.1s 425 . 32nm 5 . 7mb
50. 82 313 eP 24 18 . 50 -0.9
53.12 248 iPd 24 34.20 -1.9
55.90 247 iPd 24 54.70 -1.0
0 . 5s 79 00nm 5 . 3mb
56.12 259 i Pd 24 56.00 -1.4
6.4s 4 9 . >0nm 5. 2mb
56 . 1 4 243 iPd 24 56 . 76 -0.7
0.4s 4 9 . &0nm 5. 2mb
56. 16 245 iPd 24 56 .80 -6.7
56.94 248 i Pd 25 O2.00 - 1 . d
57.15 246 iPd 25 04.00 -0.4
59.64 257 iPd 25 21.00 -0.4
0.4s 55 . 00nm 5 . 3mb
60 . 96 206 iPd 25 29.60 0.1
0.5s 1 4 . 40nm 4 . 7mb
i 25 35.30 !9kmX
63.29 293 i PC 25 45.00 -0.3
1.2s 1 7 6 . 00nm 5 . 5mb
66.82 180 i PC 26 07 .50 0.5
1.0s 86 . 00nm 5 . 3mb
i 27 43.80 450kmX
78. 57 326 P 26 28.20 -1.5
71.06 325 P 26 32 .00 -0.6
71.21 324 P 2633.00 -0.6
71.85 325 iPd 26 36 .40 -0.8
eS 35 20.00
71.88 300 eP 26 37.00 -0.7
71.96 326 P 26 37 . 80 0.0
72 . 07 329 P 26 38.20 -0.2
72.09 325 P 26 38.40 -0.3
72.16 327 eP 26 38.90 0.0
72. 30 323 P 26 39.90 0.1
73. 85 329 eP 26 50.40 1.8
73 . 97 333 eP 26 49.60 0.4
73 . 99 332 eP 26 50 . 90 1.6
75. 00 331 eP 26 55. 70 0.7
75. 67 333 eP 27 00. 10 1.4

78. 55 200 eP 27 15.00 1.0
78. 67 31 1 P 27 14.50 -0.7
1.2s 34.00nm 4. 8mb
Z 20s 0.30um 4.6MS2
E 12s 0.30um
eS 36 34.00
esS 36 46.00
78.82 157 eP 27 16.50 1.1
79.11 300 eP 27 19.20 1.5
79. 33 277 ePd 27 19.10 0.0
0.7s 103.50nm 5.5mb
80.42 46 eP 27 25.00 0.5
e 29 05.00 448kmX
80.61 44 iPc 27 26.38 1.1
80.64 43 iPc 27 26.08 0.7
80.69 42 ePc 27 26.44 0.8
80.74 45 P 27 27.00 0.9

pP 29 10.00 463km
80 . 82 43 ePc 2727.12 0.7
80.94 44 ePc 2728.24 1.1
81 .02 42 iPc 27 28.20 0.8
1.2s 321. 00nm 5. 8mb
81.11 46 P 27 28.70 0.5
81-13 43 P 27 28. 70 0.7
81 . 40 47 eP 27 30.00 0.6
e 29 14.00 467km
81 .52 47 !P+ 27 30.00 -0.3
81 .59 49 eP 27 31 .00 0.6
81 . 65 39 eP 27 32.07 1.6
81.83 39 iPc 27 33. 16 1.7
81 .84 48 iP+ 27 32.00 0.1
e 29 07.00 420kmX
81 . 85 48 eP 27 32.00 0.3
e 2916.00 467 km
81.94 48 P 27 32. 40 0.2
81 . 95 47 iP+ 27 33.00 0.7
e 29 13.00 446kmX
82.07 44 ePc 27 33 . 14 0.4
82.08 46 iP+ 27 34.00 1.1
e 29 1 7 . 00 461 km
82.27 43 iPc 27 34.48 0.7
82. 46 278 ePd 27 35.90 0.7
0.5s 86.90nm 5.6mb
82-52 41 iPc 27 35.70 0.8
82.75 46 iP+ 27 36.00 -0.3

81

09d 20h

TPC

M 1 N
GLA
LBFM
BONR

PS 1

KDC
TNP

KVN
PDB
NVL
BMW
SVW
GMW
LON
NNT
BJ 1

LOE
PGC
MCW
NST
TTA

PMR

KLU
KHT
TOA
BDT

PNT

KM 1

ALO

ANMO

CHG

r* i*f w n T i n\j

1 MA

FBA

LRM

Bwee
GOL
LZH

YAK

SES
ZOBO
PK 1
KKN
KKN

OMN
GKN
SOB1
BUL
MTD

82 . 82

82 . 94
83.08
83 . 40
83.54

83. 62

83. 79
84 . 31
1 . 0s

84 . 31
85.31
85 .85
85.92
86.26
86 . 84
86 .85
86.91
87.13
1 . 0s
Z 32s

87.18
87.21
87 .54
87 .84
87 . 90
0. 9s
88. 00
0. 9s
88 . 66
88.82
89.13
89 . 48
1 . 0s
89 . 59
1 .0s
89.66
2. 0s
90.01
1 . 0s

90 .01
1.0s

90. 17
0. 2s
90 . 1 7
1 . 0s

91 .20
0 . 8s
91 .22
0. 7s
91 .57
91 . 76
93.02
93 . 61
1 .8s
Z 18s
E 12s

94.29

94 . 78
101 .99
104 . 96
105 . 14
105.14
0.8s
105.22
105 . 74
127.95
129.00
130.07

48 iP +

41 ePc
50 P
40 P
44 P

pp
276 ePc
e
e
1 4 eP
44 P

45 . 83nm
pP
43 P
12 P
184 Pd
35 P
1 1 eP
34 P
35 P
285 eP
316 eP
34 . e0nm
0 . 38um
epP
eSKS
eS
290 eP
33 eP
34 P
288 vP
10 ePc
1 5 . 63nm
1 4 eP
49 . 30nm
15 P
287 eP
15 eP
289 eP
75 . 90nm
34 ePc
63 . 00nm
298 iPc
1 95 . 00nm
52 iPc
49 . 25nm
epP
52 P
1 62 . 50nm
pP
290 iPd
292 . 36nm
290 iPd
275.00nm
PP
10 eP
1 1 . 1 0nm
13 eP
18 . 90nm
40 eP
44 P
48 P
308 PC
71.1 3nm
0 . 24um
0 . 23um
PP
sP
S
sS
338 iPc
epP
eSKS
eS
37 ePc
114 Pd i f f
294 Pd i f f
294 Pd i f f
294 PKP
1 6 . 00nm
294 Pd i f f
294 Pdi f f
124 ePKP
214 ePKP
220 ePKP

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03
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12

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12

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1 4

1 4

60
1 4

15

18
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25.
28.

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03.
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04 . 29.
12 .
1 6 .
59 .
32.
09 .
23.
24 .
30 .

24 .
27 .
1 4 .
16 .
20 .

. 00 465km
. 00 0.4
. 00 470km
. 50 0.3
20 1.2
. 40 0.8
. 00 0.5
00 464km
40 -0 6
50 470km
00
10 0.3
40 0. 2

5 1mb
00 46 1 km
40 0.2
00 -1.3
00 0.1
46 0.8
80 -0.2
60 0.6
20 0.1
40 2.5
50 1.0
5 . 0mb
4 . 6MszX
50 465km
00
00
60 2.4
00 0.4
60 0.7
50 2.2
90 0.2
4 . 8mb
80 -0.3
5 . 3mb
40 -0.9
70 2.8
00 0.6
50 2.7
5 . 5mb
00 0.2
5 . 5mb
00 2.1
5. 7mb
90 0.6
5 . 4mb
50 460km
00 0.7
5 . 9mb
00 457km
00 1.9
6 . 9mb X
10 2.1
6 . 1mb
90 47 1 km
30 -1.7
4 . 9mb
20 -0.7
5 . 2mb
40 0.1
50 -0.7
00 -0.1
50 0.8
5 . 5mb
4 . 7Msz

00 94kmX
60
00
00
40 -0.6
00 448kmX
00
00
10 -0.5
00 2 . 5X
30 4 . 1X
20 4 . 4X
26 -1.4

60 4 . 4X
00 4 ,6X
20 -1.2
50 -0.9
96 1.5

KEV

KR 1
SOD
1 R4
1 R1
I R7
KAF
TAB
OBN

NUR

NB2

HFS

LWI
KVT
COP

KAS
HR I
EKA

JVI
BBTK
DMU

MBH
VR I
DCN

KRA

MLR
SPC

KSP

CLL

CMP
BRG

WT Q YV 1 O

PSZ
PRU

MOX

HOF
SRO

ZST

ENN

KHC

UCC
GRF

MEM

KDZ
ALN

131 .01
0.6s
131.17
133 . 09
1 35. 15
1 35.32
135.37
137.52
138 . 60
138.65
1 . 5s

1 39. 30
0 . 8s

141.62
0. 7s
142.12
0.8s
142.74
145.62
1 46 .55
0.9s
147.11
147 .82
147.89
0.8s
148.33
148.40
148.91
0. 7s
148.93
1 49 . 24
149.40
0.6s
1 49. 40
1 . 5s

149.91
1 49 . 98

1 50 . 01
0 . 8s

150.51
1 .3s
150.54
1 50 . 66

151 .00
0.8s
151.12
151 . 29
1 .5s

151 . 45

151 . 70
151 .85

152.00

152. 31
0.8s
152.34
1.1s

152 . 43
152.44

152. 46

152.50
152.51

348 iPKP
7 . 80nm
218 ePKP
347 i P K P
297 ePKP
297 ePKP
298 ePKP
343 ePKP
302 ePKP
329 ePKP

342 i PKP
16.10 nm
i
352 PKP
9 . 96 nm
350 ePKP
35 . 40nm
231 iPKPc
309 ePKP
348 iPKPc
57 . 1 4nm
31 1 ePKP
296 ePKP
4 PKPd
28 . 76nm
293 ePKP
309 ePKP
9 i PKPc
86 . 00nm
289 ePKP
323 ePKPc
10 i PKPc
75 . 00nm
335 ePKP
1 1 7 . 00nm
e
323 ePKP
334 ePKP
i
i
340 ePKP
95 . 00nm
i c
ePP
i
344 iPKP
1 3 . 00nm
324 ePKPc
343 ePKP
i
i
i
epPKP
352 e P K P
8 . 60nm
333 ePKP
341 iPKPc
38 . 20nm
i
i
i
346 ePKP
i
345 iPKPc
335 ePKP
i
336 ePKP
i
i
e
353 ePKP
6 . 06nm
342 iPKP
15.1 0nm
i
i
i
355 PKP
345 ePKP
i c
e

353 PKPd
i
e

317 i PKP
316 ePKPd

34 18.60

34 12.10
34 21.60
34 29. 00
34 30 . 00
34 28.00
34 21 . 60
34 26.66
34 33.00

34 24.30

34 34.40
34 33.20

34 34.50

34 41 . 00
34 49.00
34 51 . 30

34 50 . 50
34 55.00
34 53. 30

34 56.20
34 51 .00
34 55 . 30

34 57. 80
34 57.00
34 56.90

34 52.20

34 59.20
34 58.56
34 53.48
35 01 .56
36 47.66
34 52.00

34 59.20
36 47.50
36 54 . 60
34 53.70

35 06.00
34 54 . 20
35 02.00
35 06.80
35 09. 00
36 49.20
34 55.00

34 56 . 80
35 01 . 80

35 03.30
35 12. 30
36 50. 40
34 55.80
35 02.00
35 02.80
35 02.60
35 15.20
34 55 . 60
35 03.20
35 15. 00
36 52.60
34 58.00

34 57.00

35 64.00
35 16.50
37 02.50
35 05.00
34 56.10
35 04.50
35 16.70
34 57.70
35 04.80
36 54 . 10
35 05.00
35 03.88

- 0.9

- 9 . 4X
- 1.9
0 . 4

i .e
- i .e
- 10 . 5X

- 9 . ex
- 1 . 3

- 1 1 . 0X

- 6. 3X

- 5.8X

- 2. IX
2.0
3.5X

1 . 1
4 .2X
3. 2X

4 . 6X
- 0.5
3. 6X

5.2X
4 .5X
4 .5X

- 0 . 4

4 . 9X
- 0.3

- 1.4

- 0 .5

1 1 . 5X
- 0. 2

0 . 2

1 .5
6 . 4X

0 .2

6. 8X
6. 4X

- 0 . 9

1 . 2

6.6

8. 6X
- 1 .0

0 . 7

7 . 6X
6.5X

PLO 152.68 319 ePKP 35 04.00 6.4X
SNF 152.72 355 i PKP 35 17.40 20. 0X
DOU 153.11 355 PKPc 35 05.80 7.9X
e 36 49.60
VTS 153.26 321 ePKP 35 06.00 7.4X
WLF 153.37 352 i PKPc 35 06.82 8.5X
i 35 20.81
VAY 154.42 326 ePKP 35 61.50 1.5
1.2s 140. 00nm
iPKPob35 20.80
WTTA 154.58 343 iPKPc 34 59.60 -0.7
1.2s 1 3 . 1 0nm
i 35 08.80
i 35 26.50
epPKP 37 06.00
i 37 13.60
FLN 154.59 2 ePKP 34 59.60 -0.4
0.8s 8 . 05nm
Z 20s 0.1 0um 4 . 6Msz
SKO 154.67 322 ePKP 34 59.00 -1.3
1.5s 111. 00nm
LDF 154.77 1 ePKP 34 59.60 -0.6
0.8s 5 . 35nm
GRR 154.95 3 ePKP 35 00.20 -0.3
0.8s 5 . 35nm
BSF 155.08 356 ePKP 35 66.50 -0.3
1.0s 8 . 00nm
LPF 155.30 3 ePKP 35 01.10 0.2
1.0s 1 0 . 00nm
TRI 155.31 338 ePKP 35 02.40 1.4
OHR 155.59 321 ePKP 35 63.00 1.3
1.1s 1 26 . 00nm
iPK>ob35 31 .00
LOR 155.98 355 ePKP 35 02.00 0.0
1.1s 12. 20nm
Z 20s 0 . 13um 4 . 7Msz
SSF 156.21 355 ePKP 35 02.20 -0.1
1.0s 8 . 00nm
LBF 156.25 355 ePKP 35 02.20 -0.2
1.0s 6 . 00nm
SMF 156.60 355 ePKP 35 62.50 -0.3
0.8s 4 . 05nm
MFF 156.76 2 ePKP 35 03.00 0.1
0.8s 9 . 40nm
TCF 157.06 358 ePKP 35 03.40 0.0
1.0s 8 . 00nm
LSF 157.12 359 ePKP 35 03.10 -0.3
1.0s 10. 00nm
LIC 162.10 161 PKP 35 09.54 -0.1
KIC 162.31 162 PKP 35 09.60 -0.2
1.2s 31 . 50nm
TIC 162.50 160 PKP 35 09.98 -0.1
0.9s 13. 50nm
S.D. - 1.0 on 197 of 234 obs.

? AUG 09, 1991 20h 27m 41.98± 6.91s
44.455 N ± 7.3km 7.286 E ±14. 7km
DEPTH - 10.6km (geophy s i c i s t)
NORTHERN ITALY (545)
ML 1 . 3 (GEN) .

PZZ 6. 14 291 P 27 45.43 6.6
S 27 47.59
STV 0.21 172 P 27 46.68 0.0
S 27 49.52
ENR 0.25 157 P 27 47.28 0.0
S 27 50.63
BHB 0.39 358 P 27 49.94 0.0
S 27 54.97
S.D. - 0.0 on 4 of 4 obs.

? AUG 09, 1991 20h 35m 54 . 70± 3.74s 2.031 S ±43. 0km 138.910 E ±20. 4km DEPTH - 33.0km (normal)
4 . 5mb (3 obs .)
WEST IR 1 AN (201)

JAY 1.86 105 iPd 36 24.80 0.0
WR2 18.35 194 eP 40 08.10 -0.4
0.7s 38.20nm 4.7mb
eS 43 28.80
OlS 18.43 178 iPd 46 16.60 6.6
ASPA 22.65 192 eP 40 48.10 -0.4
6.9s 26 . 10nm 4 . 7mb
eS 44 52.50
WARB 26.75 205 eP 41 34.00 0.6
STK 29.80 175 eP 42 00.50 -0.4

09d 20h

82

0.7s 1 . 80nm 4 . 0mb
ZOBO 147.69 125 PKP 55 39.00 2.6X
S.D. = 0.6 on 6 of 7 obs.

_ __ _

"> AUG 09. 1991 20h 43m 16.78± 1.25s
18.635 S ±14. 4km 163.572 E ±22. 0km
DEPTH = 10.0km (geophy s i c i s t)
4.9mb (6 obs.) 4.6Msz (1 obs.)
SOLOMON ISLANDS (193)

HNR 3.76 288 eP 44 16.00 -0.2
UZM 11.70 167 iPc 46 07.00 0.1
CTAC 19.14 239 iPc 47 47.80 4.1X
RMQ 21.08 220 eP 48 13.00 9.2X
CMS 26.47 216 *P 48 54.00 -1.9
STK 29, 32 221 *P 4923.88 2.0
1.0s 1.30nm 3.7mbX
WR2 29.61 248 eP 49 20.10 -4.5X
1.2s 4 . 40nm 4.1mb
ASPA 31.09 242 eP 49 28.60 -9 . 1 X
1.7s 6 . 20nm 4 . 2mb
Z 23s 0 . 30um 3 . 9MszX
MAT 52.65 334 eP 52 36.00 2.6X
1.5s 27.78nm 5. 0mb
eS 00 08.00
KMI 69.09 302 Pd 54 26.00 0.3
2.0s 88.00nm 5. 6mb
CHG 70.11 294 eP 54 32.30 0.5
CHTO 70.11 294 eP 54 32.10 0.3
1.4s 15. 38nm 4 . 9mb
LZH 72.91 313 eP 54 51.00 2.5X
2.0s 56.00nm 5.3mb
Z 20s 0 . 30um 4 . 6MSZ
E 10s 0 . 1 9um

pP 54 54.00 10kmX
YAK 77.09 344 eP 55 08.10 -3.6X
IRK 80.55 328 eP 55 30.70 0.0
KKN 84.74 299 P 55 52.10 -1.0
NB2 125.73 344 PKP 02 22.80 2.8X
0.9s 2 . 30nm
S . D . -1.2 on 9of 17 obs .

* AUG 09, 1991 20h 57m 44.50± 0.60S
3.258 N ± 9.1km 126.492 E ±16. 5km DEPTH * 33.0km (normol)
4.4mb (6 obs.) 4.1MSZ (1 obs.)
TALAUD ISLANDS (263)

BIP 4.94 357 ePc 58 59.50 1.1
WR2 24.32 162 eP 03 00.60 0.1
0.9s 22 . 50nm 4 . 7mb
ASPA 27.72 165 eP 03 31.80 -0.3
0.4s 4 . 20nm 4 . 5mb
CHG 31.06 302 eP 04 02.20 0.2
CHTO 31.06 302 eP 04 02.00 0.0
1.0s 4 . 00nm 4 . 2mb
STK 37.78 159 eP 04 59.80 0.3
0.7s 3 . 60nm 4 . 3mb
eS 10 32.00
BJ 1 37.79 347 eP 04 58.00 -1.4
Z 32s 0.38um 4.0MSZX
LZH 38.79 330 eP 05 07.50 -0.6
2.0s 25 . 00nm 4 . 7mb
Z 20s 0 . 30um 4 . 1 Msz
GBA 49.51 285 P 06 35.00 0.7
0.7s 2 . 50nm 4 . 4mb
CUE 62.20 302 eP 08 05.50 -0.2
S.D. - 0.8 on 10 of 10 obs.

« AUG 09, 1991 21h 04m 28.67± 0.78s
ie.692 S ±10. 5km 163.556 E ±13. 4km DEPTH - 33.0km (normol)
4.7mb (5 obs.) 4.6Msz (1 obs.)
SOLOMON ISLANDS (193)

HNR 3.77 289 eP 05 26.00 0.1
DZM 11.65 167 iPc 07 16.20 0.4
iS 08 42.90
CTAO 19.10 239 i PC 08 51.00 -0.6
RMO 21.03 220 eP 09 19.00 6.9X
i 09 22.00
CMS 26.41 216 i Pd 10 04.50 0.3
i 1011.30
i 1 1 32.00
WR2 29.58 248 eP 10 32.50 -0.5
1 .is 6 . 70nm 4 . 3mb
ASPA 31.05 242 eP 10 40.70 -5.4X

0.9s 5 . 20nm 4 . 3mb
Z 1 7 s 0 . 60um
KMI 69.11 302 Pd 1537
2.0s 88.00nm ^ . «,,,, w

4 . 3MszX
50 3. 2X

C. &.rt\ K.

CHG 70.12 294 eP 15 42.20 1.9
CHTO 70.12 294 eP 15 40.10 -0.2
1.2s 1 2 . 50nm 4 . 9mb
LZH 72 . 94 31 3 eP 15 58.50 1.4
2.0s 35 . e0nm 5 . 0mb
Z 20s 0 . 30um 4 . 6Msz
YAK 77.14 344 eP 16 19.60 -8.7
KKN 84.75 299 P 17 00.30 -1.2
NB2 125.78 344 PKP 23 27.40 -1.0
1.0s 1 . 80nm

KHC 134.26 333 ePKP 23 45. [00 0.1
S.D. -1.0 on 12of 1

AUG 09. 1991 2th 09m 11
45 . 896 N ± 3 . 2km 3 . 168
DEPTH - 10.0km (geophys
FRANCE

ML 1 . 9 (LOG) .

AGO 0 . 1 6 351 Pg 0915
Sg 09 17
PYM 0. 18 218 Pg 09 16
Sg 09 18
PLDF 0.32 77 Pg 09 18
Sg 09 23
MAP 0.53 308 Pg 09 22
Sg 09 28
LBL 0.67 175 Pg 09 24.
Sg 09 32.
BGF 0.70 341 Pg 09 25
Sg 09 34
TCP 0.77 301 Pg 09 26.

5 obs .

65± 0.40s
E ± 4 . 0km
cist)
(538)

18 -0.2
64
00 0.2
99
02 -0.4
09
10 -0.3
70
26 -0.7
99
10 -0.4
00
50 -0.3
Sg 09 36. 10
SMF 0.88 32 Pg 09 28.80 0.2
Sg 09 40.10
AVF 0. 90 8 Pg 09 28 .
Sg 09 40.
SSF 1.19 1 1 Pg 09 33.
Sg 09 49.
LBF 1.22 27 Pg 09 34 .
Sg 09 50.
CAF 1 . 24 219 Pg 09 35.
Sg 09 52.
RJF 1 . 30 244 Pg 09 35.
Sg 09 52.
LOR 1 . 45 19 Pg 09 38.
Sg 09 57.
S.D. -0.5 on 14of 1

« AUG 09, 1991 22h 17m 09.
10.914 S ±1 1 . 7 km 163. 359

70 -0.2
10
90 0.1
10

90 0.5
60
50 0.7
10
80 0.0
50
70 0.7
00

4 obs .

74± 1.13s
E ±18 . 4km
DEPTH - 22.6km (2 dept|h phoses)
4 . 9mb (5 obs .)
SOLOMON ISLANDS

HNR 3 . 67 293 IP 1807.
eS 18 47.
DZM 11.48 1 65 i Pd 1 9 55 .
CTAO 1B.82 239 i PC 21 35.
RMO 20.74 220 eP 22 04.
CMS 26 . 1 2 21 6 eP 22 45 ,
STK 28 . 97 221 eP 23 09.
0.8s 1 . 00nm

(193)

20 0.7
00

00 -0.5
00 4 . 5X
00 1 2 . 5X
30 1.4
60 -0.3
3.6mb X
WR2 29.32 249 eP 23 11.U0 -1.7
0.6s 5 . 50nm 4 . 5mb
ASPA 30.78 242 eP 23 24J40 -1.7
1.0s 7 . 90nm 4 . 5mb
Z 24s 0 . 20um 3 . 7MszX
TOO 31.02 208 eP 23 30^00 1.9
WARB 37.82 241 eP 24 26J50 0.0
KMI 69.06 302 iPc 28 1 9 \ 50 2.9X
2.0s 78 . 00nm
CHG 70.03 295 eP 28 24 ,
CHTO 70. 03 295 eP 28 21 .
1.2s 16. 32nm
pP 28 29,
LZH 72.95 313 eP 28 39
1.6s 29 . 00nm
pP 28 46,
YAK 77.30 344 eP 29 03
KKN 84.69 299 P 29 43
NB2 125.94 344 PKP 36 08
0.7s 0 . 90nm

5 . 5mb

00 1.7

90 -0.4
5 . 0mb
00 23km
00 -0.7
5 . 1mb
00 23km
90 0.1
38 -0.5
40 -3.0X

SOB1 148.67 129 (PKP) 37 11.00 17. 1X
S.D. -1.3 on 13 of 18 obs .

% AUG 09, 1991 22h 48m 24.28± 1.58s
3.853 N ± 8.6km 76.010 W ±17. 6km
DEPTH - 33.0km (normol)
COLOMBIA (103)

HOBC 0.51 346 ePc 48 35.11 -0.1
CLMC 0.55 273 iPc 48 36.69 0.9
eS 48 51 . 70
HOOC 0.73 238 eP 48 39.00 0.6
eS 48 55.80
ANCC 8.92 249 eP 48 39.29 -1.6
eS 48 56.20
SILC 1.29 196 eP 48 45.72 0.5
eS 49 07.60
PURC 1.56 193 eP 48 50.27 -0.2
S.D. -1.2 on 6of 6 obs .

? AUG 09, 1991 23h 21m 22.97± 0.82s
71.741 N ±11. 9km 29.567 W ± 1 0 . 1 km
DEPTH - 10.0km (geophys i c i s t)
4 . 3mb (4 obs .)
EASTERN GREENLAND (636)

DAG 5.83 25 eP 22 51.00 -0.4
0.8s 33 . 58nm 5 . 1mb
AKU 7.36 140 e(P) 23 13.00 0.1
0.6s 34.67nm 5. 7mb X
i S 2431.30
GDH 8.37 264 eP 23 26.00 -1.0
i 23 34.00
i 24 48.00
i 25 42.00
i 27 01 .00
NB2 19.06 103 P 25 58.00 10. 6X
0.8s 1 . 50nm
SOD 19.45 75 eP 26 03.00 11. 0X
MBC 22.82 322 eP 26 41.00 14. 6X
1.0s 6 . 00nm
SCH 23.19 243 eP 26 30.00 -0.3
KSP 29.18 111 eP 27 36.50 10. 4X
FFC 34.08 279 eP 28 11.00 2.0
0.6s 4.00nm 4. 5mb
BLA 43.08 245 eP 29 24.00 -0.4
0.7s 2.74nm 4. 1mb
ANMO 53.14 270 eP 30 42.90 0.0
1.0s 2 . 00nm 4 . 0mb
S.D. -1.2 on 7of 11 obs.

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AUG 09, 1991 23h 31m 55 . 29± 0.32s 3.079 S ± 5.4km 129.783 E ± 7.1km
DEPTH - 21.4km (7 depth phoses)
5. 1mb (17 obs.)
CERAM (272)

MTN 9.80 172 eP 34 19.00 0.9
0.4s 167.00nm 6.7mb X
eS 36 07.00
JAY 10.92 87 ePd 34 32.40 -1.2
BIP 11.77 343 eP 34 45.50 0.5
1.2s 466.00nm 6.6mb X
CGP 12.53 336 eP 34 56.00 0.7
1.0s 42 . 00nm 5 . 6mb
WR2 17.35 165 eP 35 55.60 -2.3
0.5s 47.00nm 4.9mb
eS 39 15.40
TRT 17.68 254 i PC 36 01.90 0.0
PMG 18.37 111 eP 36 19.00 8.5X
CIS 19.84 152 iPc 36 26.60 -1.2
0.4s 39.00nm 5.1mb
MBL 20.41 208 eP 36 33.00 -0.9
ASPA 20.85 169 iPc 36 37.60 -0.8
1.1s 292 . 80nm 5 . 6mb
Z 22s 1 . 00um 4 . 1MszX
eS 40 25.80
CVP 22.63 339 eP 36 33.00 -17. 9X
WARB 23.17 187 eP 37 01.50 0.0
0.4s 10.00nm 4. 7mb
CTAO 23.33 138 i Pd 37 04.50 1.5
i (pP) 37 1 1 .00 23km
i 37 35.00
NANU 23.79 214 eP 37 05.00 -2.5
0.5s 15.00nm 4.8mb
KGM 26.93 281 eP 37 38.00 0.7

RMO 29.54 144 e(P) 38 02.00 1.2

83

09d 23h

i 38 07.70 20km
1 PM 29.72 285 ePd 38 03.00 0.5
0.8s 33 . 90nm 5 . 2mb
PSI 31.37 280 ePd 38 16.60 -0.5
e 39 29. 60 331kmX
ADE 32.79 166 iPc 38 29.30 0.0
0.8s 110.45nm 5. 8mb
LOE 34.36 307 eP 38 43.00 0.0
BWA 35.69 153 eP 38 56.58 2.2
i 39 02.30 20km
BFD 35.90 162 ePc 38 37.00 -19. 0X
0.9s 35 . 00nm
5DT 36.48 305 eP 39 02.90 1.9
CAN 36.70 153 eP 39 04.30 1.6

i 39 Q9.90 19km
TOO 37.23 159 eP 39 08.59 1.3
i 39 22.00 51kmX
CHG 37.34 307 ePc 39 08.90 0.6
1.0s 43.25nm 5. 2mb
CHTO 37.34 307 iPc 39 09.00 0.7
0.9s 36 . 44nm 5 . 2mb
pP 39 16.80 26km
KMI 38.40 318 PC 39 18.00 0.6
1.5s 50 . 00hm 5 . 1mb
MAT 40.19 11 eP 39 31.00 -0.9
0.8s 20.15nm 4. 9mb
eS 45 39.00
DZM 40.27 121 iPc 39 32.20 -0.7
BJ 1 44.69 345 eP 40 08.50 0.0
0.6s 5.00nm 4. 6mb
LZH 45.89 330 iPc 40 18.00 -0.3
1 .5s 42.00nm 5. 2mb
Z 30s 0 . 29um 4 . 0MszX
N 15s 0 . 26um

pP 40 24.50 22km
sP 40 29.50
KKN 52.68 309 P 41 05.40 -5.5X
HYB 54.47 294 eP 41 22.20 -1.8
GBA 54.50 289 Pd 41 22.20 -2.0
1.0s 1 1 . 60nm 4 . 9mb
IRK 59.21 342 eP 41 56.60 -1.2
e 4202.30 21 km
CSY 64.53 188 eP 42 32.60 0.0
0.3s 5.70nm 5.2mb
YAK 64.91 360 eP 42 34.10 -1.8
DUE 68.40 304 eP 42 58.60 -0.2
MAIO 76.08 308 eP 43 43.60 -0.5
MAW 78.50 201 eP 43 57.00 0.9
MJMA 86.38 296 IP 44 40.00 2.2
INK 95.33 22 eP 45 17.50 -1.2
MBC 97.87 13 eP 45 30.00 -0.1
0.7s 3.00nm 5. 0mb
NNA 149.59 120 iPKP 51 45.50 4.4X
CNCB 153.57 139 PKP 51 51.00 3.5X
LPB 153.70 138 ePKP 51 57.00 9.5X
ZOBO 153.87 138 PKP 51 48.00 0.0
1.2s 1 0 . 8 1 nm
i 51 57 . 20
PPO 155.02 178 (PKP) 52 00.60 11. 4X
SIV 158.22 151 ePKP 51 54.00 1.1
i 52 27 .80
S . D . - 1 . 2 on 42 o f 50 obs .

? AUG 10, 1991 00h 49m 55.63± 5.14s
2.525 N ±19. 2km 75.791 W ±37. 3km
DEPTH - 10.0km (geophysicist)
COLOMBIA (103)
MD 3. 4 (UVC) .

SILC 0.57 286 iPd 50 07.43 -0.1
eS 50 17.80
PURC 0.60 251 iPd 50 08.15 0.0
eS 50 19.00
HOOC 1.26 318 ePd 50 19.15 -0.1
ANCC 1.46 313 eP 50 22.29 0.3
eS 50 43.50
CLMC 1.55 330 eP 50 23.36 -0.1
S . D . -0.2 on 5of Sobs.

AUG 10, 1991 01h 43m 46.91± 0.54s
41.011 N ± 6.0km 22.415 E ± 4.2km
DEPTH « 10.0km (geophysicist)
YUGOSLAVIA (383)
ML 1 . 7 (SKO) . MD 2.2 (THE) .

GRG 0.05 190 iPc 43 49.22 0.1
»<; 43 <ia ?R

VAY 0.33 21 iPg
iSg
KNT 0.40 67 :Pc
eS
THE 0.56 132 ePc
eS
SOH 0.74 105 ePc
FNA 0.82 254 eP
SRS 0.90 83 ePd
eS
OHR 1.23 275 ePg
eSg
S.D. = 0.4 on

43 53. 40 -0.4
43 58. 00
43 55 . 44 0.4
44 01.24
43 57 . 84 -0.5
44 06.36
44 01.48 0.1
44 03.20 0.4
4404.24 0.1
44 16.80
44 09.50 -0.3
44 25.50
8 0 f Sobs.

& AUG 10, 1991 03h 26m 10.42s
62.298 N 149.872 W
DEPTH - 55.2km
CENTRAL ALASKA (1)
<AE 1 C> .

CUT 0.21 300 iPd 26 19.28 -0.2
PWA 0.65 180 iPc 26 24.00 0.1
HUR 0.69 9 iPd 26 23.63 -0.8
GHO 0.69 139 iPc 26 23.72 -0.8
eS 26 35 . 21
PLRM 0.79 153 iPc 26 24.65 -1.0
PMR 0.79 153 iPc 26 25.10 -0.5
SKT 0.84 248 iPc 26 25.75 -0.6
S 26 38.53
SUA 0.93 207 ePd 26 27.24 -0.4
eS 26 40.81
PMS 1.07 172 iPd 26 28.80 -0.6
KNK 1.11 142 iPc 26 29.32 -0.7
eS 26 44.83
TRF 1.17 351 i Pd 26 30.03 -1.0
RND 1.21 22 iPd 26 30. 15 -1.2
KTH 1.35 340 iPd 26 32.50 -0.8
eS 26 50.23
NCG 1.*1 231 eP 26 33.20 -1.0
CGLM 1.42 227 eP 26 33.95 -0.4
MCK 1.50 16 iPd 26 34.44 -1.0
SPU 1.53 224 ePd 26 34.98 -0.8
eS 26 55.34
BGL 1.58 230 eP 26 36.44 -0.2
CKL 1.61 228 eP 26 36.76 -0.3
NKA 1.69 203 ePc 26 38.95 0.9
TOA 1.75 95 i PC 26 39 . 00 0.1
SLKM 1.80 185 ePc 26 38.12 -1.5
BWN 1.89 5 iPd 26 39.64 -1.2
GLI 1.95 136 eP 26 40.33 -1.3
VZW 2.01 127 eP 26 41.23 -1.4
SDG 2.03 82 ePc 26 41.95 -0.8
eS 27 05.84
KLU 2.04 112 iPc 26 41.24 -1.7
eS 27 05.97
VLZ 2.05 123 eP 26 40.86 -2.2
TZL 2.10 95 ePc 26 43.07 -0.7
RDT 2.12 216 ePd 26 42.94 -1.1
PAX 2.14 70 ePc 26 43.55 -0.9
KNIM 2.21 151 ePd 26 42.65 -2.7
ROW 2.31 219 ePd 26 46.00 -0.9
RSO 2.31 218 eP 26 46.04 -0.8
NEA 2.32 9 i Pd 26 44.80 -2.0
WRH 2.32 19 i Pd 26 45.08 -1.8
LTI 2.47 156 i Pd 26 46.24 -2.7
HIN 2.51 138 eP 26 48.04 -1.5
CCB 2.53 21 iPd 26 47.77 -2.1
CVA 2.65 130 eP 26 49.96 -1.5
MDM 2.77 15 iPd 26 51.36 -1.9
FBA 2.77 19 iPd 26 51.90 -1.4
CNPM 2.86 194 eP 26 53.67 -0.9
SGAM 2.88 127 eP 26 52.73 -2.1
TTA 2.91 285 i PC 26 53.70 -1.6
SVW 2.99 249 eP 26 54.90 -1.5
GL8 3.00 104 ePc 26 54.39 -2.2
RAGM 3.15 125 eP 26 57.40 -1.4
HMT 3.35 124 eP 26 59.12 -2.3
AUE 3.41 212 eP 27 01.92 -0.4
AUH 3.42 212 eP 27 02.69 0.1
AUI 3.45 212 eP 27 01.70 -1.1
WAX 3.85 116 eP 27 05.89 -2.7
IMA 4.14 338 iPc 27 10.90 -1.7
KDC 4.75 197 eP 27 17.90 -3.2
INK 9.09 41 eP 28 20.00 -1.5
0.2s 1 . 69nm 4 . 7mb X
56 obs. ossocioted

* AUG 10, 1991 04h 27m 36.00± 0.88s 12.085 N ± 9.1km 120.305 E ±12. 2km
DEPTH = 10.0km (geophysicist)
4 . 4mb (3 obs .)
MINDORO, PHILIPPINE ISLANDS (250)

PGP 1.54 24 ePc 28 02.00 -1.6
TGY 2.10 1 7 i Pd 2813.00 1.4
iS 28 30 . 00
OCP 2.65 16 eP 28 20.00 0.6
PPR 2.77214 i PC 28 23 . 00 1.8
i S 2917.08
MAP 4.01 116 eP 28 38.00 -0.8
iS 29 07. 00
BAG 4 31 4 eP 28 4 3 . 0 0 -0.3
SZP 5.44 2 eP 29 04.53 5.4X

CVP 5.78 ; 5 ePd 29 05 . 00 1.2
PIP 6.21 3 eP 29 10. 50 0.5

CHTO 21.64 291 e(P) 32 26.00 -2.6
1.6s 4 . 50nm 3 . 8mb
LZH 28.14 331 eP 33 35.00 4.5X
2.0s 53 . 00nm 5 . 0mb
2 14s 0 . 30um 4 . 0M&2X
E 12s 0 . 27um
SHL 29.97 301 eP 33 48.00 0.8
STK 48.24 156 eP 36 29.10 10. 0X
0.9s 1 . 40nm
NB2 88.51 333 P 40 28.90 -1.0
0.8s 1 . 70nm 4 . 4mb
VAO 163.73 226 (PKP) 47 49.00 8.0X
S.D. = 1.5 on 11 of 15 obs.

? AUG 10. 1991 04h 36m 30.76± 3.23s
39.701 N ±15. 2km 20.613 E ±27. 2km
DEPTH - 10.0km (geophysicist)
GREECE-ALBANIA BORDER REGION (392)
MD 2. 5 (THE) .

FNA 1.23 28 ePc 36 52.52 -1.1
eS 37 1 1 . 56
OHR 1.42 6 ePn 36 57 . 00 0.4
AGG 1.49 116 ePc 36 57.16 -0.5
eS 37 17.00
LIT 1 .50 74 ePc 36 58. 40 0.7
eS 3717.96
GRG 1.85 47 ePd 37 03.52 0.6
eS 37 28.50
KNT 2.27 49 eP 37 08.80 -0.1
eS 37 37.90
S.D. - 0.9 on 6 of 6 obs.

AUG 18, 1991 05h 03m 15.78± 8.50s
37.295 N ± 6.1km 29.752 E ± 6.9km
DEPTH - 10.0km (geophysicist)
TURKEY (366)

ELL 0.56 167 i Pg 03 27.50 0.3
eSg 03 36.50
KHL 1.04 350 ePn 03 35.80 0.3
YER 1.18 263 iPn 03 38.20 0.3
IZM 2.26 300 ePn 03 53.10 -0.7
DST 2.47 339 ePn 03 56.90 0.2
YLV 3.28 355 ePn 04 14.00 5.7X
HR I 6.33 128 eP 04 51.70 0.1
MML 6.72 135 eP 04 56.60 -0.3
JVI 7.07 138 eP 05 01.10 -0.7
OS I 7. 36 139 eP 05 06.50 0.6
S.D. -0.5 on 9of 10 obs .

AUG 10, 1991 05h 23m 54.32± 1.19s
51.277 N ±11. 1km 15.696 E ± 6.4km
DEPTH - 5.0km (geophysicist)
POLAND (548)
ML 3.9 (VKA) .

KSP 0.58 139 iPd 24 03.80 -2.0
i S 24 13. 40
BRG 1.18 251 iPn 24 17.80 1.1
iPg 24 18.60
iSg 24 38.50
PRU 1.48 210 Pnc 24 22.10 0.4
0.2s 144.80nm
Pg 24 24. 1 0
i 24 27.70
Sn 2441.18

Sg 24 48.18
; fA. «<«< 9ft

10d 05h

CLL 1.69 272 iPn 24 23.50 -1.1
i Pg 2427.10
i Sg 24 53.00
KHC 2.54 213 iPn 24 37.00 0.1
Pg 2443.90
e 25 13 . 60
eSg 25 20.00
HOP 2.61 250 ePn 24 37.70 -0.2
MOX 2.66 258 ePn 24 38.50 0.0

i Pg 2446.60
iSg 25 26.60
WET 2.83 221 iPnc 24 41.10 0.5
KRA 2 . 96 1 13 eP 2445.00 2.1
eS 25 22.60
VKA 3.04 172 ePn 24 43.00 -1.0

iPg 24 52. 00
iSg 25 35.30
2ST 3.22 163 eP 25 11.70 25. 2X

e(Sn) 25 37 . 50
GRF 3.27 243 ePn 24 47.30 0.1

e(Pg) 24 59 .50
eSg 25 -45.00
SPC 3.59 124 e(Pn) 24 57.20 5.2X
i 2544.00
SRO 3.86 153 eP 25 04.00 8.3X
e 25 40.30
e 26 08.80
BHG 4.00 208 ePn 25 14.40 16. 7X
TNS 4.72 260 ePn 25 06.50 -1.4
eSn 26 28.40
WTTA 4.82 215 iPnc 25 10.20 0.8
ePg 25 31 . 00
i Sn 2602.00
iSg 26 34.50
SCE 4.98 213 eP 25 11.80 0.1
FVI 5.07 203 P 25 13.00 0.3

OGA 5.37 217 eP 25 18.80 0.7
CT I 5.88 209 P 25 24.00 -0.3
MEM 6.16 268 iP 25 28.00 -0.1
DOU 7.15 265 P 25 35.50 -6.6X
S.D. = 1.0 on 18 of 23 obs.

? AUG 10, 1991 05h 55m 09.60± 2.54s
31.971 S ±50. 1km 69.651 W ±52. 5km
DEPTH * 33.0km (normal)
SAN JUAN PROVINCE, ARGENTINA (137)

RTLL 1.19 58 i PC 55 30.00 -0.1
S 55 48.40
PEL 1.46 216 iPc 55 34.50 0.6
iS 55 55.60
PCH 1.80 204 eP 55 39.50 0.6
iS 56 06.30
TACH 2.00 213 i PC 55 40.70 -1.0
iS 56 08. 50
CHCH 2.13 203 i PC 55 43.10 -0.5
i S 56 12.60
S.D. =1.0 on 5 of Sobs.

? AUG 1®, 1991 06h 15m 33.19± 4.84s
50.981'N ±36. 6km 19.762 E ±31. 4km
DEPTH * 10.0km (geophysicist)
POLAND (548)
ML 2.9 (KRA) .

KRA 0.93 173 ePg 15 51.40 0.4
i SS 1600.60
SPC 1.82 170 iPn 16 04.60 -0.4
iSg 16 22. 20
KSP 2.20 268 iPg 16 10.70 0.4
0.6s 50 . 00nm
iS 16 34. 30
ZST 3.28 213 eP 16 25.60 0.0
SRO 3.31 197 eP 17 05.70 39. 7X
PRU 3.48 255 ePg 16 28.00 -0.4
! eSg 17 05.00
e 1 7 07 . 80
KHC 4l39 247 Pn 16 34.00 -7.5X
Pg 1 6 44 . 00
Sg 17 33.00
S.D. = 0.6 on 5 of 7 obs.

AUG 1^, 1991 06h 58m 32.71± 0.77s
40.543 N ± 9.0km 21.906 E ± 8.0km
DEPTH - 10.0km (geophysicist)
GREECE (364)

MD 1 . 7 (THE) .

FNA 0.47 301 ePd 58 41
eS 58 50
GRG 056 42ePc 5844.
eS 58 53
LIT 0.63135 ePc 58 44 .
eS 58 53.
OHR 1 . 0 1 304 ePn 5851.
PA I G 1.49114 ePd 58 59 .
AGG 1.55 168 i Pd 0901.
eS 59 22.
S.D. = 1.1 on & of

? AUG 10, 1991 67h 15m 07.
7 . 089 S ±1 5 . 2km 129.191
DEPTH - 179.3 ± 40.7 km
8ANDA SEA

AAI 3 . 52 344 i PC 16 02 .
MTN 6 . 03 1 62 i Pd 1636.
eS 1741.
KNA 8.62 1 83 eP 1709.
0.2s 24 . 00nm
eS 1841.
WR2 13.73 159 i PC 18 14.

eS 20 40.
0 I S 16.76 144 i PC 1853.
i 18 55.
eS 21 48.
ASPA 1 7 . 09 1 65 eP 1858.
0.5s 39 . 1 0nm
i 18 59 .
eS 22 03.
S.D. -1.5 on 6 o f

» AUG 10, 1991 08h 57m 51 .
40 . 052 N ±1 3 . 1 km 42.153
DEPTH - 10.0km (geophysi
4 . 4mb (3 obs .)
TURKEY

MSL 3.75 168 ePn 58 51 .
eP* 58 58.
ePg 59 07.
eSn 59 38.
iS» 59 50.
iSg 59 57.
TAB 3.81 1 20 eP 59 07 .
KVT 4.76 284 ePn 59 13.
SLY 5.17148 ePn 59 28 .
eSn 00 27.
eS» 00 43.

eSg 00 58.
KAS 6.51 284 eP 59 43.
BHD 7.00 164 ePn 59 56.
eP* 00 06.
eSn 01 07.

i Sg 01 41 .
BBTK 7.22 271 eP 59 56.
VR I 12.70 302 eP 0104.
MA I 0 1 4 . 1 5 1 00 eP 0123.
OBN 15.51 348 eP 01 37 .
OHR 16.26 281 eP 01 42.
SPC 18.02 308 eP 02 08.
ZST 19.68 303 eP 02 23.
KSP 21.00 309 eP 02 38.
PRU 21.79 306 eP 02 45 .
e 02 50.
KHC 22 . 17 304 iP 02 48.
CLL 23 . 1 1 309 eP 03 80.
1.5s 1 6 . 00nm
GRF 23.80 304 eP 03 06.

KAF 24.09 342 eP 03 08.
EKA 33 . 44 31 3 P 0432.
0.8s 3 . 20nm
S.D. -0.9 on 10 of 2

7. AUG 10, 1991 09h 56m 49.

DEPTH - 10.0km (geophysi
PYRENEES

ML 1.0 (STR) .

94 -0 . 3
i10

62 0.5

00

10 -1.3
50
80 -0.1
34 -0.2
82 1.3
20
6 obs .

22± 1.10s
E ±4 1 . 1 km

(280)

80 0.0
10 0.7
00
30 -0.3
5. 3mb
00
20 -1.6

30
30 0.1
00
00
30 1.1
5 . 1mb
30
80
6 obs .

87± 1 . 12s
E ±20. 8km
cist)

(366)

00 0.0
50
50
00
00
50
00 15. 0X
90 8 . 4X
50 17 . 3X
00
00
50
50 13 . 4X
00 1 9 . 1 X
50
50

00

00 15 . 9X
00 8. 7X
00 8.5X
00 5 . 0X
00 0.1
50 4 . 4X
70 -0.2
20 0.6
00 -0.6
10
00 -1.5
00 1.3
4 . 3mb
30 0.9

10 0.0
00 -0.7
4 . 3mb
0 obs .

22± 0.68s

cist)
(378)

ESCF 0.06 280 Pg 56 51.22 -0.3
Sg 56 52.48
JAU 0.10 108 Pg 56 52.09 0.0
Sg 56 53.85
OGE 0.10 11 Pg 56 51.96 0.0
ATE 0.15 277 Pg 56 52.85 0.2
Sg 56 55. 17
LHE 0 . 18 210 Pg 56 53 . 35 0.0
ISSF 0.22 259 Pg 56 53.93 -0.1
Sg 56 57.73
MADF 0.25 288 Pg 56 54.65 0.2
Sg 56 58.20
S.D. =0.2 on 7of 7 obs .

% AUG 10, 1991 11h 42m 44.09± 0.90s
39.166 N ± 7.1km 27.689 E ± 8.8km
DEPTH - 10.0km (geophysicist)
TURKEY (366)

I ZM 0.84 204 ePg 43 00.10 -0.2
eSg 43 13.10
DST 0.85 59 ePn 43 00.80 0.3
EDC 1.19 6 ePn 43 06.00 -0.2
EZN 1.24 302 ePn 43 07.60 0.4
KGT 1.32 347 iPn 43 08.10 -0.3
S.D. =0.5 on 5of Sobs.

& AUG 10, 1991 12h 18m 39.90s
36. 627 N 121 . 285 W
DEPTH - 7.0km
CENTRAL CALIFORNIA (39)
<BRK> . ML 2.6 (8RK) .

SAO 0.19 317 iPc 18 43.61 -0.3
LLA 0.28 92 iPc 18 45.42 -0.1
PRS 0.30 193 iPd 18 46.05 0.0
eS 18 50.24
PRI 0.70 134 ePc 18 53.47 -0.4
GCC 0.70 305 ePd 18 53.10 -0.8
ARN 0.75 345 iPc 18 54.60 -0.2
MHC 0.77 338 iPc 18 55.60 0.4
iS 19 06.30
PHAM 1.07 137 eP 18 59.50 -0.8
PKEM 1.10 120 eP 19 01.00 0.1
PCC 1.24 315 iPc 19 01.68 -1.5
FRI 1 .32 73 ePc 19 03.07 -1.4
eS 19 20.20
BKS 1.46 329 eP 19 04.30 -2.4
eS 19 28.40

BRK 1.47 328 e(P) 19 05.00 -1.7
CMS 1.58 27 iPc 19 07.50 -0.9
eS 1924.18
BCH 1.74 146 eP 19 08.50 -2.3
ABL 2.44 136 eP 19 18.50 -2.5
16 obs. associated

? AUG 10, 1991 !2h 40m 16.06± 1.52s
15.582 S ±37. 3km 73.118 W ±22. 0km
DEPTH - 33.0km (normal)
SOUTHERN PERU (117)

ARE 1.79 119 iPd 40 45.50 0.0
iS 41 14.50
ZOBO 4.85 99 P 41 33.00 3.8X
i 41 36.00
S 42 45.00
LPB 4.92 102 eP 41 30.00 0.0
CNCB 5.08 105 P 41 38.00 5 . 5X
NNA 5.08 314 eP 41 32.50 0.4
0.5s 7.75nm 4. 4mb
eS 42 37.00

PT10 5.11 313 e(P) 41 32.00 -0.4
iS 47 37.00
SI V 11 .60 94 P 43 02.50 0.0
S.D. -0.4 on 5of 7obs.

AUG 10, 1991 I3h 00m 12.82± 0.92s
24.255 N ±11. 7km 90.592 E ± 7.9km
DEPTH - 33,0km (normal)
BANGLADESH (316)

SHL 1.76 42 iP 00 43.60 2.0
eS 01 02.20
GUN 5.59 312 P 01 36.82 0.7
0.2s 76.00nm 5.9mb X
PKI 5.72 306 P 01 37.70 -0.3
0.2s 32.00nm 5.5mb X

85

19d 13h

KKN 5.93 308 P 01 41.02 0.1
0.3s 8 1 . £0nm 5 . 9mb X
DMN 5 .96 305 P 0141.34 0.0
0.3s 54 . 00nm 5 . 7mb X
GKN 6.52 306 P 01 47.42 -1.8
0.3s 1 8 1 . 00nm 6 . 4mb X
CHG 9.47 123 eP 02 42.00 11. 9X
CHTO 9.47 123 eP 02 29.10 -0.9
NDI 12.76 293 eP 03 21.00 6.2X
HYB 13.15 241 eP 03 21.20 1.3
LZH 16.42 41 e P 0401.50 -1.0
Z 30s 0 . 35um
N 15s 0 . 44um
sP 0419.50
WRA 61.20 132 P 10 45.00 18. IX
3 . 4s 0 . 80nm
S.D. - 1.4 on 9 of 12 obs.

AUG 10, 1991 I3h 33m 11.24± 8.46s
63.037 S ±14. 4km 164.391 W ±11. 3km DEPTH *- 10.0km (geophy s i c i s t) 5.8mb (5 obs.) 5.0Msz (1 obs.)
SOUTH PACIFIC CORDILLERA (691)

SPA 27.12 180 eP 38 56.00 0.1
1.3s 35 . 83nm 4 . 9mb
2 20s 4 . 37 urn 5 . 0Msz
TOO 39.41 286 eP 40 43.00 0.5
CNB 39.64 292 eP 40 46.00 1.4
CAN 39.79 292 eP 40 47.10 1.3

MAW 45.29 203 e(P) 41 31.00 1.0
STK 45.92 287 eP 41 36.00 0.5
0.8s 3 . 20nm 4 . 4mb
NVL 46.45 178 ePc 41 38.50 -0.7
e 4147.00
e 4150.00
e 41 59. 00
e 4205. 00
e 4206. 00
e 4211.00
e 42 45.00
ePP 43 29 . 00
eS 48 30.00
eSS 51 34.00
eSSS 52 47.00
e 53 08. 00
e 54 28.00
e 54 53.00
CTAO 54.34 299 eP 42 40.00 0.1
eS 50 24.00
ASPA 56.40 284 iPd 42 52.90 -2.0
1.1s 18.00nm 5. 0mb
CIS 56.66 292 i PC 42 55.30 -1.5
WRA 59.47 287 P 43 13.00 -3 . 5X
0.9s 9.70nm 4. 9mb
CNCB 78.05 103 P 45 13.00 0.9
LPB 78. 24 103 P 45 15. 00 2.0
ZOBO 78.46 103 P 45 13.00 -1.4
1.0s 20.00nm 5.1mb
2 24s 0 . 1 4um 4 . 2Msz X
SKS 55 26.00
LR 06 26.00

VAO 81.24 124 (P) 45 33.00 4.4X
SIV 81.80 109 Pd 45 31.00 -0.5
LZH 122.23 287 e(PKP)52 07.00 -0.2
2 30s 0.35um 4.8MszX
N 1 5s 0 . 44um
PKI 123.33 266 PKP 52 09.00 -0.8
DMN 123.50 265 PKP 52 10.40 0.4
KKN 123.58 266 PKP 52 09.20 -0.9
1.0s 28 . 00 nm
GKN 124.05 265 PKP 52 10.40 -0.6
MBC 141.91 16 ePKP 52 38.00 -4.9X
1.1s 7 . 00nm
!R1 144.90 235 ePKP 52 49.00 -0.4
IR7 145.19 235 ePKP 52 50.50 0.6
TAB 148.85 231 ePKP 52 56.00 0.2
e 53 04. 00
TOL 154.00 144 ePKP 53 15.00 11. 9 X
VRI 161.67 205 iPKPd 53 04.00 -8.0X
S . D . - 1 . 1 on 22 of 27 obs .

? AUG 10. 1991 13h 38m 19.69± 0.98s
37.253 N ± 9.8km 3.382 W ± 9.5km
DEPTH - 10.0km (geophy s i c i s t)
SPAIN (377)
V.KI ^ *> £ Sunn'1

AFC 0.13 271 iPgc 38 23.18 0.2
eSg 38 25.20
ECOG 0.15 279 i Pgd 38 23.11 -0.1
eSg 38 25.20
EGUA 0.44 199 iPgc 38 28.71 0.0
eSg 38 35.30
EHUE 0.84 48 ePg 38 35.99 0.0
eSg 38 45 . 50
S.D. =0.2 on 4of 4 obs .

AUG 10, 1991 14h 55m 30.31± 0.42s
50.654 N ± 4.7km 5.572 E ± 2.8km
DEPTH = 10.0km (geoph y s i c i s t)
BELGI UM (541)
ML 3.2 (UCC), 3.2 (LOG). 3.2
(BNS) .

ENN 0.25 63 iPgc 55 35.30 -0.3
6 . 5s 95 . 00nm

iSg 55 37.80
MEM 0.28 99 iPd 55 36.60 0.4
iS 55 40.07
KLL 0.47 91 iPd 55 39.60 -0.3
eS 55 44.90
UCC 0.78 281 iP 55 47.00 1.4
STB 0.81 94 iPd 55 45.80 -0.2
0.3s 1 40 . 00nm
i S 55 55 . 40
SNF 0.83 261 iP 55 47.50 1.1
DOU 0.84 229 i PC 55 48.40 1.9
WLF 1.06 159 iPd 55 52.24 2.0
i S 5606.61
BNS 1.06 72 iPd 55 59.00 -0.3
0.3s 783.00nm
iS 56 02. 70
BGG 1 .21 1 1 1 eP 55 53. 10 0.2
RUP 1.35 134 ePn 55 55.50 0.3
KOE 1.40 99 iPd 55 55.30 -0.5
iS 56 1 3 . 60
ABH 1.48 121 ePn 55 57.25 0.2
WTS 1.55 30 iPnd 55 58.80 0.8
0.5s I3.00nm
eSn 56 1 8 . 50
TNS 1.89 102 ePnc 56 02.30 -0.7
eSn 56 28.40
TOD 2.33 116 ePn 56 08.16 -1.1
CDF 2.50 153 Pn 56 12.20 0.4
Pq 56 18 . 10
Sn 56 41 . 70

Sg 56 48.90
HAU 2.70 169 Pn 56 15.90 1.3
Pg 56 21 .00
Sn 56 45.90

Sg 56 54.40
BSF 2.94164Pn 56 19. 1-0 1.1
Sn 56 50.50
Sg 57 02.60
LOR 3.57 199 Pn 56 26.90 0.0
Pg 56 39.20
Sn 57 06.60
Sg 57 23.00
LBF 3.82 197 Pn 56 30.70 0.2
Sn 57 1 1 . 80
Sg 57 29.80
SSF 3.85 202 Pn 56 30.50 -0.3
Sn 5711.60
Sg 57 30.00
AVF 4.14 202 Pn 56 34.00 -0.8
Sn 57 20.20
Sg 57 40.50
SMF 4.17 197 Pn 56 35.10 -0.3
Pg 56 49.80
Sg 57 42.50
LDF 4.24 243 Pn 56 36.10 -0.2
FLN 4.36 247 Pn 56 38.00 -0.1
GRR 4.76 244 Pn 56 43.10 -0.7
Sn 57 34.20

MAF 4.87 205 Pn 56 44.20 -1.1
TCF 4.91 208 Pn 56 44.90 -1.0
LPF 5.06 241 Pn 56 46.40 -1.5
Sn 57 41 . 00
LSF 5.16 213 Pn 56 48.30 -1.1
Sn 57 42.50
LPG 5.22 171 Pn 56 50.60 0.0
MFF 5.55 225 Pn 56 53.70 -1.2
S . D . - 0 . 9 on 33 of 33 obs .

? AUG 10, 1991 16h 09m 36.94± 9.95s
17.777 S ±24. 4km 178.548 W ±19. 0km DEPTH - 550.0km (geophy s i c i s t)
5 . 1mb (16 obs .)
FIJI 1 SLANDS REG ION (181)

DZM 14.74 251 iPc 12 46.40 2.8
RMO 31.43 248 iPd 15 23.10 8.0X
0.7s 40.00nm 5. 2mb
i 15 37 . 40

CNB 33.40 232 i Pd 15 32.70 1.1
0.6s 55 . 00nm 5 . 4mb
CAN 33.68 232 eP 15 34.10 0.2
BWA 33.79 234 eP 15 33.00 -1.8
PMG 34.31 279 eP 15 41.00 1.7
0.8s 62 . 69nm 5 . 3mb
CMS 34.97 240 iPd 15 45.40 0.7
0.7s 24.00nm 4.9mb
OLP 35.46 249 iPd 15 49.30 0.6
0.6s 119.00nm 5.7mb
TOO 37.15 231 i PC 16 03.40 0.9
0.7s 26.00nm 5.0mb
STK 38.58 241 i Pd 16 15.10 0.8
0.6s 15.30nm 4.8mb
BFD 39.21 233 eP 16 10.20 -9 . 1 X
CIS 39.55 259 eP 16 22.90 -0.2
WR2 44.50 259 i PC 17 00.90 -0.6
0.5s 39.50nm 5.2mb
WRA 44.52 259 P 17 00.00 -1.6
0.5s 26 . 70nm 5 . 0mb
ASPA 44.70 254 eP 17 02.80 -0.2
0.6s 1 43 . 90nm 5 . 7mb
MTN 48.67 268 eP 17 32.40 -0.9
FORR 49.91 244 i PC 17 41.10 -1.1
0.4s 24 . 00nm 5 . 1 mb
KNA 50.35 264 eP 17 44.50 -1.1
WARB 51.20 250 iPd 17 51.10 -0.7
0.4s 16. 00nm 4 . 8mb
MBL 57.88 256 i Pd 18 37.30 -1.4
0.4s 15 . 00nm 4 . 7mb
NANU 61.63 254 iPd 19 03.00 -0.5
0.4s 48 . 00nm 5 . 3mb
ANMO 86.12 52 eP 21 21.70 0.5
0.9s 1 . 26nm 3 . 6mb X
BW06 87.35 43 eP 21 26.80 -0.1
0.9s 3.18nm 4.1 mb
CHTO 88.83 290 eP 21 35.10 1.2
0.7s 1 . 91 nm 4.1mb
S.D. - 1 .2 on 22 of 24 obs.
__ _ _ _

AUG 10, 1991 16h 31m 51.81± 1.03s
45.057 N ± 8.5km 14.989 E ± 7.7km
DEPTH - 5.0km (geophy s i c i s t)
YUGOSLAVIA (383)
MD 2 .6 (LJU) . 2.5 (TRI) .

VBY 0.49 23 iPgc 32 00.60 -0.9
iSg 32 08.00
RIY 0.51 304 iPgc 32 00.30 -1.8
iSg 32 09. 10
CEY 0.79 330 e(Pg) 32 08.50 0.9
eSg 32 18.50
LJU 1.04 342 e(Pg) 32 13-00 1.1
eSg 32 27.00
TR 1 1 .08 307 eP 32 12.60 0.0
i 32 28.80
PTJ 1.08 39 iPgc 32 12.50 -0.2
eSg 32 26.60
VOY 1.24 322 ePn 32 16.10 0.7
eSg 32 33.80
HVAR 2.15 150 e(Pn) 32 29.00 0.2
FVI 2. 18 316 P 32 32 .00 2.8X
eSn 32 56.00
CTI 2.55 294 P 32 38.50 3.9X
eSn 33 04.00
S.D. -1.2 on 8of 10 obs .

? AUG 10, 1991 I7h 11m 55.94± 6.50s
44.398 N ±37. 5km 11.865 E ±33. 1km
DEPTH - 10.0km (qeophy s i c i s t)
NORTHERN ITALY (545)

SFI 0.48 181 P 12 05.90 0.3
eSg 12 13.30
PGD 0.53 191 P 12 06.50 -0.3
eSg 12 12.60
rPP A 77 \T\ P 1-7 11 CtCt _ft 1

10d 17h

86

MME 0.86 257 P 12 12.40 -0.3

eSg 12 22. 89
BDI 0.97 250 P 12 14.80 0.3
S . D . =0.4 on 5 of Sobs.

AUG 18, 1991 17h 36m 39 . 35± 1.15s
16.617 N ±11. 1km 61.490 W ±14. 5km
DEPTH = 33.0km (normol)
LEEWARD ISLANDS (92)
ML 2.4 (PDF) .

SEG 0.21 184eP 3648.00 1.9
DEC 0.51 126 eP 36 49.92 -9.3
BPA 0.55 321 eP 36 50.50 -0.2
S 3790. 56
DOG 0.59 192 eP 36 50.78 -0.6
PAG 0.61 197 eP 36 51.10 -0.5
S 37 01 .60
MGG 0.71 167 eP 36 52.58 -0.4
S 37 03.70
S . D . « 1 . 2 on 6 of 6obs.

AUG 10. 1991 18h 08m 25.67± 0.70s
51.332 N ±14. 0km 176.996 E ± 7.6km
DEPTH = 33.0km (normol)
4 . 2mb (5 obs .)
RAT ISLANDS. ALEUTIAN ISLANDS (6)
ML 4.7 (PMR) .

SMY 2.27 309 eP 09 03.60 2.0
ADK 3.98 80 eP 09 27. 20 1.4
SDN 14.01 65 eP 11 42.60 -1.2
SVW 17.96 46 eP 12 36.50 2.3
TTA 18.52 41 eP 1241.70 0.6
I MA 20.92 34 eP 13 07.60 0.1
1.0S 1 5 . 80nm 4 . 4mb
YAK 27.45 311 i Pd 14 08.60 -1.5
e 1433.00
e 18 47 .00
INK 29.02 36 eP 14 21.50 -2.7

MAT 31.19 257 (P) 14 42.00 -1.7
YKA 37.16 46 eP 15 34.20 -0.5
0.8s 2 . 00nm 4 . 0mb
NEW 41.35 67 eP 16 08.50 -1.3
BONR 46.46 80 eP 16 52.40 1.0
TNP 47.05 80 eP 16 56.00 0.0
CLC 48.25 82 eP 17 05.00 -0.2
BW06 48.81 70 eP 17 08.00 -1.7
SBB 48.84 83 eP 1711.00 1.3
GSC 49.07 82 eP 17 12.00 0.4
PLM 50.32 84 eP 17 21.50 0.2
TPC 50.33 83 eP 17 21.00 -0.2
BAR 50.89 85 eP 17 30.00 4.6X
GOL 53.19 70 eP 17 41.80 -1.2
ANMO 55.67 75 eP 18 01.00 0.0
ALO 55.67 75 eP 18 01.00 0.0
1.0s 3 . 25nm 4 . 3mb
NB2 67.40 353 P 19 18.20 -1.2
0.6s 2.20nm 4. 4mb
KHC 78.92 349 P 20 27.00 0.1
SRO 79.55 346 eP 20 32.10 1.8
WRA 80.21 220 P 20 36.00 1.9
1.0s 1 . 30nm 3 . 9mb
S.D. - 1.4 on 26 of 27 obs.

* AUG 10, 1991 18h 08m 46.62± 0.57s
38.040 N ± 5.3km 28.266 E ± 6.3km
DEPTH * 10.0km (ge ophy s i c i s t)

TURKEY (366)

IZM 0.87 295 iPg 09 03.20 -0.1
iSg 09 14. 70
YER 0.90 179 iPg 09 03.40 -0.6
KHL 1.03 74 ePg 09 05.70 -0.4
eSg 09 19.70
DST 1.59 10 ePn 09 15.00 0.1
ELL 1 t 84 134 iPn 09 19.50 0.9
EDC 2^32 352 ePn 09 26.00 0.5
EZN 2.34 320 ePn 09 26.00 0.3
KGT 2.52 343 ePn 09 28.00 -0.3
YLV 2.67 18 ePn 09 30.00 -0.4
S.D. -0.6 on 9of 9 obs .

? AUG ife, 1991 18h 13m 00.35± 6.84s
34.381iS ±62. 5km 68.649 W ±29 . 1 km
DEPTH - 33.0km (normol)
MENDOZA PROVINCE, ARGENTINA (139)

PCH 1.72 296 iPd 13 27.90 -0.7
iS 13 47 .S0
TACH 2.03 290 iP 13 33.60 0.6
i S 1356.40
PEL 2.10 305 iPd 13 33. P0 0.0
iS 13 57 .30
RTLL 3.05 3 i Pd 13 47 .60 0.2
S 14 26 .00
CYA 6.40 23 eP 14 34.f70 -0.1
S.D. =0.7 on 5of jobs.

? AUG 10. 1991 18h 22m 1 2 .
18.030 S ±52. 6km 115.920
DEPTH = 10.0km (geophysi
4 . 7mb (4 obs .)
EASTER ISLAND CORDILLERA

LPB 45 . 59 96 P 3041.
CNCB 45.66 96 P 30 38.
SI V 52.33 97 P 31 26.
GSC 53.04 359 eP 31 33.
ALO 53.44 1 0 eP 3135.
0.9s 6 . 5 1 nm
ANMO 53.44 10 ePc 31 36.
1.0s 8 . 75nm
ISA 53.45 357 eP 31 30.
MEO 55.05 1 7 i Pd 3147.
ARN 55.33 355 eP 31 49.
BONR 55.73 358 eP 31 52.
TNP 55.82 359 eP 31 53.
PV09 56.59 6 ePd 31 58.
GOL 58.27 1 0 eP 3210.
BW06 60.79 5 eP 32 26.
MCMT 62.61 2 eP 32 40.
LON 64.69 356 eP 32 53.
NEW 66.00 359 ePd 33 02.
0.8s 8 . 33nm
FFC 73.43 8 cP 33 45.
0.7s 6 . 00nm
S.D. -0.9 on 16 of 1

? AUG 10. 1991 1 8h 23m 21 .
50. 163 N ±47 . 3km 176.651
DEPTH - 33.0km (normol)
4 . 2mb (1 obs .)
RAT ISLANDS, ALEUTIAN ISLAND
ML 3.9 (PMR) .

SMY 3.03 329 eP 24 08.
ADK 4.55 65 eP 24 35.
TTA 19.56 39 eP 27 48.
I MA 22.01 33 eP 28 1 5 .
1.1s 1 0 . 10nm
YAK 28.07 313 cP 29 1 1 .
e 33 50.
S.D. -0.7 on 4 of

? AUG 10. 1991 19h 24m 04.
9 . 760 S ±1 8 . 2km 1 63 . 451
DEPTH = 33.0km (normol)
4 . 7mb (1 obs .)
SOLOMON ISLANDS

HNR 3.47 275 eP 24 58.
RMO 21 .69 218 eP 28 55.
e 2910.
KMI 68.53 302 Pd 3511.
1.0s 49 . 00nm
CHG 69.64 294 eP 35 13.
CHTO 69.64 294 eP 35 13.
1.1s 8. 2 4 nm
YAK 76.22 344 eP 3551.
S.D. - 0.2 on 5of

AUG 10. 1991 19h 30m 25.
40 . 684 N ± 6 . 7km 23 . 409
DEPTH - 10.0km (geophysi
GREECE

MD 2. 1 (THE) .

SOH 0.14 343 i PC 3030.
eS 30 31 .
THE 0.34 261 ePd 30 33.
eS 30 37.
SRS 0.45 18 ePd 30 35.
eS 30 41 .
KNT 0.62 321 ePd 30 38.

36± 3. 47s
V +54 . 7 km
:,st)

(684)

30 5. 1 X
30 1.4
*0 -1.2
30 0.5
30 -0.6
4 . 6mb
10 0.5
4 . 7mb
30 -5.5X
30 -0.2
30 -0.2
50 0.1
50 0.5
30 0.2
10 0.0
70 -0.9
30 0.9
80 0.5
10 0.5
5 . 0mb
00 -2.0
4 . 8mb
3 obs .

59± 3 . 82s
i ±15. 7km

5 (6)

30 0.0
80 5.9X
90 -0.5
10 0.5
4 . 2mb
70 0.0
00
5 obs.

90± 1 . 42s
E ±20 . 1 km

(193)

00 0.1

00 0.0
00
00 4 . 0X
5 . 5mb X
40 -0.2
60 0.0
4 . 7mb
60 0.1
6 obs .

79± 1.03s
E ± 9 . 3km
cist)
(364)

38 0.9
72
36 0.5
48
60 0.6
64
44 0.3

eS 30 47.00
PAIG 0.78 165 ePc 30 40.40 -0.6
eS 30 51 .20
GRG 0.81 290 ePc 30 42.04 0.5
eS 30 53.60
VAY 0.90 315 ePn 30 40.40 -2.6
LIT 0 . 91 231 ePc 30 43.84 0.6
i S 3056.84
S.D. =1.4 on 8 of Sobs.

AUG 10. 1991 20h 21m 51.78+ 0.33s
33.910 N ± 5.2km 92.158 E ± 5.8km DEPTH = 10.0km (ge ophy s i c i s t) 4.7mb (13 obs.) 4.5Msz (1 obs.)
OINGHAI PROVINCE. CHINA (325)

SHL 8.32 182 eP 23 54.50 -1.0
KKN 8.49 226 P 23 58.74 0.8
0.5s 174. 00nm 6 . 6mb X
LZH 9.83 74 eP 24 15.00 -1.3
1.8s 47 . 00nm 5 . 6mb
Z 1 0s 5 . 72um
N 11s 1 6 . 57 urn
pP 24 18.00
sP 24 20.50
PP 24 24.00
eS 26 08.00

Lg 27 00.00
e 27 17.00
KMI 12.70 131 eP 24 52.50 -3.0X
Z 11s 2 . 1 0um

pP 24 56.00
SP 25 06.00
Sn 27 50.00
NDI 13.79 252 eP 25 10.00 0.3
CHG 16.21 156 eP 25 43.00 1.8
CHTO 16.21 156 eP 25 42.20 1.0
1.1s 12.07nm 3. 9mb
eS 29 41 .00
BDT 17.70 158 eP 26 03.00 3. IX
NST 19.53 156 eP 26 22.00 -0.5
KHT 19.91 161 eP 26 25.00 -1.5
BJ 1 20 . 1 1 65 eP 26 28.50 0.1
1.2s 40 . 00nm 4 . 6mb
Z 1 0s 1 . 90um 4 . 7MszX
N 14s 3.32um
eS 30 19.00
IRK 20.33 22 eP 26 30.50 -0.2
e 26 46.00
e 28 00.00
HYB 20.46 220 ePc 26 31.30 -1.0
eS 30 24.00
NNT 22.32 160 eP 26 54.20 3. IX
GBA 24.24 217 PC 27 09.60 -0.2
0.9s 20 . 30nm 4 . 7mb
SSE 24.61 89 eP 27 15.50 2.2
Z 20s 1 . 40um 4 . 5Ms2
N 10s 1 . 80um
E 10s 1 .20um
S 31 40.00
YAK 36.81 29 eP 29 04.80 3 . 5X
OBN 43.55 317 eP 30 02.00 4.9X
Z 1 6s 1 . 20um 4 . 9MszX
BBTK 47.13 295 eP 30 26.00 -0.1
KAF 49.45 326 iP 30 44.80 1.2
0.8s 6.70nm 4. 7mb
SOD 49.81 333 iP 30 46.80 0.5
VR I 50.29 304 ePc 30 51.00 0.7
MLR 50.90 304 eP 30 56.50 1.4
KRA 53.97 311 eP 31 21.60 3.9X
Z 1 4s 0 . 90um 5 . 0MszX
SRO 55.52 308 eP 31 28.70 -0.4
HFS 55.67 324 eP 31 29.00 -1.1
0.6s 6.30nm 4. 8mb
Z 17s 0 . 33um 4 . SMszX
LR 53 12.00
KSP 56.07 312 eP 31 34.00 0.9
NB2 56.72 325 P 31 36.20 -1.5
1.1s 5 . 00nm 4 . 5mb
PRU 57.37 312 eP 31 46.70 4.4X
e 33 21.00
BRG 57.50 313 eP 31 44.00 0.7

CLL 57.96 313 e(P) 31 46.00 -0.5
KHC 58.21 311 P 31 52.00 3.7X
LPG 63.80 309 eP 32 26.40 -0.2
0.6s 2 . 70nm 4 . 6mb
LPL 63.80 309 eP 32 26.40 -0.1

87

10d 20h

0.8s 5 . 35nm 4 . 8mb
SBF 63.98 307 eP 32 26.00 -1.5
0.8s 8.05nm 5. 0mb
EKA 65.69 321 P 32 44.00 5.7X
1.8s 20 . 1 0nm 5. 0mb
WRA 66.95 137 P 32 47.06 6.2
1.0s 1 . 80nm 4 . 2mb
ASPA 69.68 139 eP 32 52.76 -11. 0X
1.4s 4 . 80nm
e 33 62 . 36
STK 86.31 139 eP 34 03.50 -1.0
1.1s 1 . 40nm 3 . 9mb
SIV 150.02 300 PKP 41 44.00 4.5X
S . D . = 1 . 0 on 29 o f 40 obs .

AUG 10, 1991 21h 41m 09.87± 0.97s
35.485 N ± 8.1km 140.121 E ± 8.3km
DEPTH - 33.0km (normal)
4 . 1mb (1 obs .)
NEAR EAST COAST OF HONSHU, JAPAN(228)

KAKJ 0.72 3 i P + 41 24.60 1.1
S 4134.20
CHJJ 1.07 302 i P+ 41 28.50 -0.2
S 4142.40
MDJ 1.80 270 iPd 41 39.40 0.2
S 4201.20
MAT 1.88 305 i PC 41 39.80 -0.4
IS 42 01 . 90
NIIJ 1.97 333 i P+ 41 41.10 -0.5
MTMJ 2.17 301 i P+ 41 44.30 -0-2
YAMJ 2.68 359 P 41 51.90 0.2
TSRJ 3.38 272 P 42 02.10 0.6
OFUJ 3.79 19 eP 42 06.80 -0.6
eS 42 49 70
WRA 55.40 187 P 50 43.00 -0.2
0.6s 1.10 nm 4 . 1 mb
S.D. = 0.6 on 10 of 10 obs.

% AUG 10, 1991 21h 46m 11.03± 0.55s
43.075 N ± 6.7km 0.634 W ± 4.4km
DEPTH - 10.0km (geophys i c i s t)
PYRENEES (378)
ML 1 .0 (STR) .

ESCF 0.04 85 Pg 46 13.05 -0.1
Sg 46 14.50
ATE 0.05 283 Pg 46 13.05 -0.2
Sg 4614.74
ISSF 0.13 248 Pg 46 14.43 0.2
Sg 4617.12
OGE 0.15 51 Pg 4614.71 0.1
MADF 0.15 298 Pg 46 14.58 -0.1
LHE 0.16 177 Pg 46 14.82 0.0
JAU 0.20 101 Pg 4615.43 0.0
Sg 4618.64
S.D. - 0.2 on 7 of 7 obs.

AUG 10, 1991 22h 27m 08.18± 0.33s
21.946 N ± 5.1km 67.858 W ± 6.7km
DEPTH = 10.0km (geophys i c i s t)
4.6mb (5 obs.) 3.7Msz (1 obs.)
NORTH ATLANTIC OCEAN (402)

MCP 3.58 169 P 28 05.00 0.1
CLIP 4.03 162 P 28 11.60 0.3
LPR 4 .07 152 P 28 12 . 00 0.1
SJG 4.14 157 i P 28 13.00 0.1
CPD 4.29 154 P 28 15.00 -0.1
BPA 7.47 130 eP 28 58.00 -1.9
S 30 17 . 00
PAG 8.29 134 eP 29 10.50 -1.0
S 30 41 .60
DEC 8.52 130 eP 29 13.00 -1.7
MGG 8.62 133 eP 29 15.00 -0.9
BBL 8.79 136 eP 29 18.00 -0.4
HOJ 9.24 246 eP 29 21.52 -2.9X
eS 30 54 . 25
BBJ 9.52 256 eP 29 23.11 -5.3X
eS 31 01 . 00
FDF 9. 59 137 eP 29 30.53 1.1
S 3116.10
BIM 9.80 138 eP 29 31.98 -0.3
SPJ 9.93 248 eP 29 29.45 -4.7X
eS 31 13.69
TRN 12-83 150 eP 30 15.40 2.0

JSC 17.03 319 «(Pn) 31 02.00 -5.9X

S 33 56.00
BLA 18.70 327 eP 31 27.00 -1.7
S 3435. 00
HOBC 19.24 206 eP 31 34.29 -1.3
GMTN 19.62 346 IP 31 41.70 1.9
PNJ 19.64 346 P 31 39.80 -0.2
CLMC 19.84 206 eP 31 42.16 -0.4

S 35 03 . 00
HOOC 20.25 206 ePd 31 45.40 -1.5
ANCC 20.30 207 eP 31 44.98 -2.2
SILC 20.84 204 eP 31 52.81 -0.4
PURC 21.19 204 eP 31 57.23 0.4
CUMC 23.03 206 eP 32 16.12 0.9
FVM 25. 15 314 eP 32 34. & O -1.0
UYO 26.36 303 iPc 32 46.30 0.0
TUL 28.01 306 ePd 33 00.60 -0.8
0.6s 5.50nm 4. 5mb
2 18s 0 . 1 6um 3 . 7Msz
N 18s 0 . 1 Sum
E 18s 0 . 1 6um
LR 40 54.00
MEO 29.78 302 i Pd 33 16.50 -0.9
ALO 36.11 300 eP 34 13.00 0.5
0.9s 7.77nm 4. 6mb
e 34 23 . 00
ANMO 36.11 300 eP 34 12.90 0.4
0.8s 8.02nm 4. 6mb
pP 34 22.80 33kmX
20BO 37.98 180 P 34 30.00 1.3
LPB 38.24 180 eP 34 32.00 1.2
SIV 38.28 169 iPc 34 31.30 0.6
CNCB 38.52 180 P 34 35.00 1.8
PV09 38.94 305 eP 34 36.50 0.1

pP 34 46.70 35kmX
CCH 39.12 177 eP 34 39.00 1.0
BW06 40.37 311 ePd 34 47.80 -0.4
SOB1 40.72 137 eP 34 55.10 4.1X
FFC 41.54 331 eP 35 07.00 9.8X
0.9s 8 . 06nm 4. 4mb
DUG 42.09 306 eP 35 02.70 0.6

pP 35 12.40 33kmX
LRM 43.29 314 eP 35 12.90 0.9
GSC 44.56 298 eP 35 24.00 1.7
RVR 44.96 297 eP 35 30.00 4.6X
CLC 45.24 299 eP 35 25.00 -2.7
SBB 45.36 298 eP 35 30.00 1.3
ISA 45.94 299 eP 35 34.00 0.8
NEW 47.06 316 eP 35 41.80 0.0
0.8s 1 1 . 67nm 5 . 0mb
pP 35 52 . 10 35kmX
MBC 60.06 348 eP 37 18.00 0.7
KHC 68.22 44 P 38 12.50 1.4
e 38 23.00
PRU 68.71 43 eP 38 21.00 6.9X
e 38 27 .50
S.D. =1.2 on 46 of 54 obs .

* AUG 10, 1991 23h 19m 27.89± 0.92s 2.449 S ± 8.1km 140.165 E ±25. 8km DEPTH - 33.0km (normal)
4 . 6mb (6 obs .)
NEAR N. COAST OF WEST 1 R I AN (197)

OIS 18.01 182 iPc 23 37.50 0.1
e 26 44 .00
WR2 18.29 198 i PC 23 41.00 0.0
0.6s 34 . 60nm 4 . 7mb
eS 2700.60
ASPA 21-95 196 iPc 24 19.50 -1.1
0.7s 26.40nm 4. 8mb
eS 2819.00
iPcS 31 12.20
RMO 25.28 162 eP 25 03.00 10. 0X
i 25 06 . 00
WARB 26.94 208 eP 25 09.00 0.7
STK 29.31 178 eP 25 30.00 0.4
0.8s 1.60nm 3. 8mb
SSE 37.94 333 Pd 26 44.00 -0.2
1.2s 12. 00nm 4 . 6mb
CHTO 45.72 299 eP 27 48.10 0.1
1.2s 5 . 90nm 4 . 4mb
KKN 60.69 304 P 29 39.02 0.0
0.9s 28 . 00nm 5 . 4mb
KIC 144.80 278 PKP 39 03.60 -0.6
TIC 145.06 278 PKP 39 04.60 -0.1
LIC 145.10 277 PKP 39 05.40 0.7

CNCB 146.26 126 PKP 39 11.00 3.7X
LPB 146.31 125 PKP 39 14.00 6.8X
ZOBO 146.43 125 PKP 39 11.00 3.4X
1.0s 7 . 50nm
CCH 147.42 12B ePKP 39 15.00 6.2X
SIV 152.13 132 PKP 39 23.70 8 . 0X
S.D. =0.6 on 11 of 17 obs.

* AUG 10, 1991 23h 29m 51.11± 1.99s 31.411 S ±15. 9km 179.934 W ±14. 4km DEPTH = 431.1 ± 18.7 km
4 . 8mb (1 1 obs .)
KERMADEC ISLANDS REGION (177)

e 31 28.20
WLZ 7.40 209 «P 31 41.20 0.5
«S 33 10.60
MOH 8.06 196 eP 31 46.70 -1.5
NGZ 8.56 204 «P 31 50.30 -3.7X
PGZ 9.69 197 eP 32 02.50 -4.0X
0. 4s 353.00nm 6. 1mb X
MTW 10.40 199 eP 32 09.40 -5.2X
MRW 10.71 202 eP 32 13.00 -5.0X
WEL 10.74 202 P 32 13.00 -5.4X
S 3408. 00
TCW 10.84 204 eP 32 13.10 -6.4X
THZ 11.82 207 «P 32 26.10 -4.2X
eS 34 29.70
KHZ 12.16 204 eP 32 29.10 -4.8X
LTZ 12.94 206 eP 32 38.20 -4.2X
MOZ 13.60 203 eP 32 45.50 -3.9X
eS 35 06.50
DZM 15.30 304 iP 33 08.90 1.4
iS 36 00 . 10
BRS 24.09 273 iPd 34 33.50 1.5
COO 24.14 265 eP 34 34.80 2.3
« 35 15.00
CAN 26.18 253 «P 34 51.60 0.7
BWA 26.68 255 eP 34 53.60 -1.7
RMO 27.78 272 iPd 35 13.40 8.4X
i 36 35.60
TOO 29.04 248 i PC 35 17.60 1.7
0.8s 28.00nm 4.7mb
CMS 29.14 261 «P 35 17.00 0.2
BFD 31.38 249 «P 35 37.00 0.8
CTAO 32.35 282 i PC 35 45.00 0.4
i S 40 27 .00
STK 32.64 259 i PC 35 47.40 0.5
1.1s 34 . 60nm 4 . 7mb
iS 40 31 .30
ADE 34.62 253 «P 36 03.20 -0.3
OIS 37.75 277 iPc 36 29.00 -0.7
ASPA 41.41 269 iPc 36 58.40 -1.2
0.5s 39.80nm 5.1mb
iS 42 38.20
WR2 42.47 274 iPd 37 07.00 -1.0

«pP 37 38.70 141kmX
« 38 30.80
eS 42 59.20
WRA 42.49 274 P 37 06.00 -2.2
0.4s 71 . 00nm 5. 4mb
FORR 44.14 257 eP 37 10.00 -11. 0X
0.3s 1 9 . 00nm
WARB 46.73 262 «P 37 39.00 -2.3
CSY 53.47 208 «P 38 31.50 0.7
0.7s 29 . 1 0nm 4 . 7mb
NANU 57.48 262 «P 38 58.00 -1.5
0.3s 9.00nm 4. 7mb
SPA 58.76 180 iPd 39 09.00 1.0
1.0s 63.50nm 5. 0mb
i 40 37.20
MAT 78.15 327 «P 41 04.00 -1.4
1.2s 17.19nm 4. 6mb
SSE 83.54 312 P 41 33.50 0.2
1.0s 10.00nm 4. 5mb
Z 20s 0.30um 4.7Msz
CHTO 92.36 290 «P 42 16.60 1.3
1.0s 4 . 00nm 4. 4mb
MBC 113.77 13 «PKP 47 40.00 0.2
1.0s 6 . 80nm
SOD 140.73 344 «PKP 48 25.00 -6 . 1 X
AKU 143.94 13 iPKP 48 37.30 0.7
1.0s 32 . 00nm
KAF 144.92 339 i PKP 48 38.00 -0.4
0.5s 16.80nm

88

10d 23h

OBN 145.01 323 iPKPd 48 39.10 0.3
1.0s 1150. 00nm
NUR 146.66 338 iPKP 48 43.60 2.3X
UPP 149.22 343 i PKP 48 24.60 -20. 7X
i 4831.00
NB2 149.47 349 PKP 48 50.70 4.9X
0.8s 15.1 9nm
HFS 149.87 346 ePKP 48 45.90 -0.4
1.1s 7 . 00nnr.
HRI 149.89 283 ePKP 48 52.50 5. IX
BHL 150.03 284 PKP 48 52.00 4.5X
JVI 150.04 280 ePKP 48 53.30 5.7X
KMN 150.42 277 ePKP 48 54. 00 5.8X
BBTK 152.24 297 ePKP 48 58.00 7.3X
S . D . =-1.3 on 29 of 5 1 obs .

? AUG 11, 1991 01h 10m 04.97± 0.70s 54.399 S ±26. 5km 130.731 W ±16. 9km DEPTH - 10.0km (geophy s i c i s t) 4.8mb (8 obs.) 4.9Msz (1 obs.)
SOUTH PACIFIC CORDILLERA (691)

SPA 35.78 180 iPc 17 08.20 2.3
1.3s 24.l7nm 4. 9mb
PEL 46.66 88 eP 18 33.80 -1.4
NVL 52.30 165 eP 19 12.50 -5.6X
e 2646.00
COO 08.61 260 iPc 20 14.90 10. 6X
0.7s 15. 00nm
CNCB 60.69 78 P 20 18.00 -1.3
LPB 60.84 77 P 2019.20 -1.0
20BO 61.04 77 P 20 20.90 -0.8
1.3s 49.29nm 5. 5mb
LR 38 32.00
CCH 61.28 80 eP 20 17.00 -6. IX
STK 63.48 252 eP 20 36.30 -0.9
0.9s 2 . 60nm 4 . 4mb
e 20 47 .00
SIV 65.32 83 Pd 20 46.80 -2.5X
ASPA 74.12 252 eP 21 41.30 -1.8
1.0s 8 . 40nm 4 . 7mb
i 21 52.00
WR2 76.82 254 eP 21 58.20 -0.3
0.6s 5 . 80nm 4 . 8mb
WRA 76.83 254 P 21 57.00 -1.6
0.7s 4 . 50nm 4 . 7mb
ANMO 91.41 20 (P) 23 14.00 1.9
1.0s 5 . 00nm 4 . 8mb
TNP 92.84 11 (P) 23 20.50 1.9
1.0s 5 . 50nm 4 . 9mb
CHTO 128.20 247 PKP 29 13.80 0.9
LFF 147.79 87 ePKP 29 50.20 2.6X
1.0s 8 . 00nm
MFF 148.20 84 ePKP 29 50.40 2.1
1.0s 8 . 00nm
CAF 148.56 88 ePKP 29 51.50 2 . 5X
1.0s 6 . 00nm
LSF 148.98 85 ePKP 29 53.20 3.7X
1.0s 6 . 00nm
TCF 149.40 86 ePKP 29 54.20 4.0X
1.0s 4 . 00nm
BGF 149.91 86 ePKP 29 54.10 3.2X
1.0s 10. 00nm
LMR 150.22 94 ePKP 29 56.50 5.0X
1.0s 6 . 00nm
EKA 150.40 66 PKPd 29 56.40 5.1X
0.9s 4 . 20nm
FRF 150.44 94 ePKP 29 56.90 5. IX
1.0s 8 . 00nm
SMF 150.54 86 ePKP 29 55.50 3 . 6X
1.2s 11. 90nm
LBF 150.80 86 ePKP 29 57.40 5. IX
1.2s 7 . 45nm
LOR 150.88 85 ePKP 29 57.60 5 2X
1.6s 6 . 00nm
Z 26s 0.1 7um 4 . 9Msz
LPL 151.62 91 ePKP 29 59.90 6. IX
0.6s 2 . 70nm
LPG I5ll62 91 ePKP 30 00.20 6.3X
0.9s 3 . 30nm
KHC 157.46 89 PKP 30 06.50 5.1X

CLL 158.04 83 e(PKP)30 07.00 5. IX
e 30 36.00
S.D.S-1.7 on 13 of 32 obs .

! ? AUG 11, 1991 01h 57m 24.24± 0.86s

45.473 N ±23. 7km 26.421 E ±12. 5km

DEPTH - 120.0km (geophy s I c i s t)
ROMANIA (358)
MD 4 . 1 (BUC) .

MLR 0.34 273 ePd 57 42.00 0.9
ISR 0.35 165 ePd 57 42.50 0.8
VR 1 0.45 28 iPc 57 42.50 0.4
MTUR 0.99 256 iPc 57 45.50 -1.1
CFR 1.25 103 iPc 57 48.00 -1.2
TLB 1 . 45 127 i Pd 5751
S . D . =1.2 on 6 of

AUG 11, 1 991 02h 36m 1 3
45.804 N ± 4 . 5km 11.187
DEPTH =- 10.0km (geophys
NORTHERN ITALY

ML 2.6 (VIE).

CT 1 0.41 53 Pd 36 21
eSg 36 26
SAL 0.50 247 P 36 22
eSg 36 30

50 0.1
6 obs .

46± 0.50s
E ± 5.8km
cist)
(545)

00 -0.8
60
70 -1.0
50
VVI 0.88 78 P 36 30 20 -0.2
eSg 36 44 40
OGA 1.07 354 iPgc 36 34 30 0.6
SCE 1.29 16 iPgc 36 37 50 0.1
FVI 1 . 36 54 P 3638110 -0.3

eSn 36 57(00
WTTA 1.49 12 iPgd 36 41J10 0.6
ic 3641
iSg 36 55
i 3701
SF I 1 .94 166 P 36 47
PGD 1 .97 169 P 36 47
P 1 1 2 . 1 4 193 P 3650
S.D.=0.6 on 10 of

AUG 1 1 , 1991 03h 07m 18
39 . 826 N ± 5 . 1 km 143.331

40
00
50
10 0.3
60 0.3
00 0.4
0 obs .

70± 0.34s
E ± 6 . 5km
DEPTH - 17.4km (3 depth phoses) 5.0mb (39 obs.) 4.6Msz (3 obs.) OFF EAST COAST OF HONSHU, JAPAN (229)

OFUJ 1 . 49 240 P 07 45
S 08 04
AOMJ 2.38 289 P 07 59
HOOJ 2.55 359 eP 08 00
eS 08 30
YAMJ 3.05 238 eP 08 07
eS 08 43
MRRJ 3.11 327 eP 08 09
eS 08 45
KUSJ 3.43 1 7 P 0811
eS 08 48
Nl 1 J 4.26 234 iP+ 08 25
ASAJ 4.32 353 P 08 24
eS 09 13
KAKJ 4.39 216 i P+ 08 24
eS 09 15
CHJJ 5.10 224 iP+ 08 35
MAT 5.20 233 iPc 08 38
1.0s 167 . 00nm

(S) 09 46
MTMJ 5. 42 235 P 08 42
I IDJ 6.11 226 P 08 51
TSRJ 7.23 236 P 09 06
SSE 1 9 . 99 251 eP 1148
Z 16s 2 . 23um
N 1 6s 1 . 0dum
i 1151

70 1.1
80
00 1.5
20 0.2
10
90 0.9
60
80 2.0
10
20 -1.2
50
00 0.7
80 -3.2
70
50 -1.5
30
70 -0.4
50 1.0
5 . 6mb
00
00 1.2
20 0.8
80 0.7
00 -5. IX

50 13km
sP 1 2 01 1.50
eS 15 48100
sS 16 04.80
BJI 20.80 279 eP 11 57^50 -3.9X
Z 14s 0 . 59um 4 . IMszX
E 14s 0 . 63um
YAK 23.72 344 eP 12 27
e 12 50
i PP 1300
ePPP 13 09
iS 1642
IPS 16 56
esS 17 13
eSS 17 52
eScS 23 01
LZH 31.18 276 eP 1 3 37
1.5s 60 . 00nm

80 -2.4
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ASPA

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WARB
NUR
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SPC
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BRG

CLL

PRU

SRO
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MOX

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MEM
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CDF
LOR

LBF

SSF

Z 15s 0.87um 4.5MszX
E 13s 0.62um
sP 13 44.50 76kmX
i 13 55 . 00
36.92 259 PC 14 27.50 -1.2
1.5s 80 . 00nm 5 . 3mb
pP 14 39.50 44kmX
43. 47 254 ePc 15 22.10 -0.5
0.9s 9.66nm 4. 6mb
43.47 254 P 1522.10 -0.5

pP 15 29.30 24km
43.52 32 eP 15 23 . 90 1.2

0.8s 8 1 0nm 4 . 6mb
45.50 38 eP 1539.00 0.6
51 . 22 28 eP 16 23 . 00 0.3
53 . 42 17 eP 16 46 . 50 7.4X
1.0s 7 . 00nm 4 . 6mb
54.60 239 ePc 16 47.80 -0.7
54.65 280 iPc 16 47 .80 -1.0
59.80 268 eP 17 24.00 -1.4
60.05 1 90 P 17 25 . 00 -1.9
0.7s 8.00nm 5. 0mb
61 . 57 287 eP 17 35.00 -2.5
62.94 265 PC 17 44.80 -1.8
0.9s 1 7 . 00nm 5 . 2mb
62.98 337 IP 17 45 . 00 -1.2
63. 13 355 iPc 1746.20 -0.8
0.9s 7 . 56nm 4 . 9mb
63 . 77 1 90 eP 1752.00 0.2
0.8s 4 . 90nm 4 . 7mb
65.14 46 eP 1801.00 0.4
0.6s 3.00nm 4. 6mb
66.52 333 eP 1807.80 -1.3
0.7s 6 . 90nm 4 . 9mb
66.76 323 eP 18 10.00 -0.8
2 16s 0.70um 5.0MszX
N 16s 0 . 30um
E 16s 0 . 30um
e 18 23.00 45kmX
67 . 49 1 96 i Pd 1815.80 0.1
68. 19 332 eP 1818.50 -1.2
70.55 34 eP 18 34.00 -0.3
0.6s 4.00nm 4. 7mb
71.11 46 eP 18 35.80 -2.4
72.16 336 eP 18 42 . 30 -1.5
0.5s 10.40nm 5. 1mb
Z 17s 0.22um 4.5MszX
LR 48 02.00
72. 19 338 P 1843. 20 -0.9
0.8s 8.40nm 4. 9mb
77.61 327 i Pd 1915.40 0.2
0.7s 17. 00nm 5 . 2mb
Z 18s 0 . 80um 5 . IMsz
78. 14 326 eP 19 18 .50 0.1
78.51 329 ePc 19 20.00 -0.1
79.40 330 eP 19 24.70 -0.3
1.0s 10. 00nm 4 . 8mb
79. 41 331 iPc 1924.60 -0.4
1.1s 1 8 . 00 nm 5 . 0mb
79.87 329 i PC 19 27.80 0.3
1.0s 8 . 30nm 4 . 7mb
e 19 45.50 64kmX
80.02 326 IP 19 28. 80 0.5

80.24 327 e(P) 19 30.50 1.0
80. 46 331 eP 19 31 .00 0.3
1.2s 12. 00nm 4 . 8mb
80.94 329 iPc 19 33.20 -0.1
1.0s 7.1 0nm 4 . 6mb
i 1 9 51 . 00 64kmX
80 . 99 34 1 P 19 34 . 00 0.6
0.8s 3 . 90nm 4 . 5mb
81 .65 51 eP 19 38.80 1.3
1.0s 5 . 50nm 4 . 6mb
e 19 43.50 15km
81 . 66 51 eP 1 9 38 . 70 1.2
1.0s 4 . 25nm 4 . 4mb
82. 48 334 P 1942.00 0.8
83.21 329 eP 19 45 .00 -0.3
0.8s 2.60nm 4. 5mb
83.90 332 eP 19 49.00 0.3
86.07 334 iPc 19 59.80 0.3
0.8s 17.45nm 5 . 3rob
2 20s 0. 17um 4.5Msz
86.28 333 i PC 20 00. 70 0. 1
0.8s 1 1 . 40nm 5 . 1mb
86. 37 334 iPc 20 01 .40 0.4
0.8s 11. 40nm 5 . 1mb

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lid 03h

LPL 86.55 331 eP 20 02.70 0.6
0.9s 9.85nm 5. 0mb
LPG 86.56 331 eP 20 02.80 0.5
0.8s 8.75nm 5. 0mb
GRR 86.60 337 eP 20 02.60 0.6
1.1s 29 . 30nm 5 . 4mb
SMF 86.62 333 eP 20 02.60 0.4
0.9s 1 1 . 45nm 5 . 1mb
AVF 86.66 334 i PC 20 02.90 0.6
0.8s 27.55nm 5.5mb
LPF 86.98 337 eP 20 04.60 0.7
0.8s 10.75nm 5.1 mb
MAF 87.42 334 eP 20 67.00 0.9
6.9s 13.90nm 5. 2mb

TCF 87. 49 334 eP 2oe7.ee 0.6
1.0s 8 . 00 nm 5 . 0mb
LSF 87.75 335 iPc 20 08.20 0.6
0.8s I7.45nm 5. 4mb
MFF 87.98 336 eP 20 09.60 0.9
RJF 88.58 334 eP 20 12.40 0.7
1.0s I2.00nm 5. 2mb
Z 20s 0 . 1 7um 4 . 5Msr
CAF 88.73 334 eP 20 13.40 1.0
LFF 89.16 334 eP 20 15.40 1.0
e.8s 9.40nm 5. 1mb
ZOBO 143.96 58 ePKP 26 59.00 3 . 2X

LPB 144.16 59 (PKP) 27 08.00 12. 0X
CNCB 144.44 59 PKP 26 56.00 -0.6
CCH 146.06 57 ePKP 27 01.00 2.0
SIV 148.12 49 PKP 27 04.80 2 . 8X

S081 149.28 8 (PKP) 27 09.00 5.1X
S . D . -1.1 on 74of 81 obs .

? AUG 11. 1991 03h 56m 08.43± 3.95s
45.269 N ±22. 0km 149.846 E ±33. 5km DEPTH = 96 . 3 ± 33 . 9 km
4 . 3mb (13 obs .)
KURIL ISLANDS (221)

KUSJ 4.28 241 P 57 13.10 0.6
S 57 59.60
ASAJ 5.26 260 P 57 30.50 4.4X
HOOJ 5.55 241 eP 57 31.80 1.7
S 58 31 .90
MRRJ 6.95 249 eP 57 49.90 0.6
OFUJ 8.66 227 eP 58 10.20 -2.5
eS 59 41 . 40

MAT 12.38 229 (P) 59 02.00 -0.4
F8A 38 . 73 37 P 03 24 .20 0.0
0.9s 2 . 20nm 4 . 0mb
KAF 63.80 334 eP 06 29.80 -2.2
NUR 65.55 334 eP 06 40.70 -2.5
WRA 66.42 196 P 06 49.00 -0.2
1.7s 2 . 30nm 3 . 8mb
NB2 68.86 340 P 07 02.00 -2.1
0.6s 1 . 1 0nm 3 . 9mb
HFS 69.02 338 eP 07 02.60 -2.4
0.4s 2.80nm 4. 5mb
LOR 83.12 337 eP 08 24.80 0.3
0.7s 2 . 20nm 4 . 2mb
Z 20s 0.05um 3.9MS2
L8F 83.35 337 eP 08 25.80 0.1
0.6s 2.25nm 4.3mb
AVF 83.69 338 eP 08 28.20 0.9
1.0s 6 . 00nm 4 . 5mb
SMF 83.70 337 eP 08 28.30 0.9
0.8s 4.05nm 4. 4mb
MAF 84.43 338 eP 08 32.40 1.3
0.8s 4.05nm 4. 4mb
TCF 84.46 338 eP 08 32.40 1.1
0.8s 2.70nm 4. 2mb
MFF 84.77 340 eP 08 33.90 1.2
0.6s 3.60nm 4. 5mb
CAF 85.76 338 eP 08 39.50 1.7
0.6s 1 . 80 nm 4 . 3mb
LFF 86.10 339 eP 08 41.20 1.8
0.6s 3.60nm 4. 6mb
S.D. = 1.6 on 20 of 21 obs.

* AUG 11. 1991 04h 30m 1 2 . 90± 0.98s 8.146 N ±13. 5km 126.817 E ±14. 2km DEPTH - 33.0km (normol)
4 . 8mb (3 obs .)
MINDANAO, PHILIPPINE ISLANDS (259)

BIP 0.57 278 eP 30 24.00 -0.4
CGP 2.12 278 iPd 30 47.00 0.3

iS 31 1 1 .00
PLP 3.50 329 ePc 31 06.50 0.1
eS 31 32.00
WR2 28.89 165 eP 36 10.20 -0.8
0.5s 4.00nm 4. 4mb
OIS 31.17 156 iPd 36 31.40 0.1
0.4s 7.00nm 4. 8mb
ASPA 32.37 168 eP 36 41.50 -0.3
0.2s 4 . 1 0nm 5 . 0mb
WARB 34.12 180 eP 36 58.00 1.0
S.D. - 0.7 on 7 of 7 obs.

» AUG 11, 1991 04h 34m 53.66± 2.40s
38.941 N ±ie.8km 19.758 E ±22. 9km
DEPTH = 10.0km (geophy s i c i s t)
IONIAN SEA (399)
MD 3. 0 (ATH) .

KEK 0.77 2 ePb 35 08.20 -0.5
VLS 1.00 139 ePb 35 12.80 0.1
AGG 2.01 87 ePc 35 27.80 -0.2
eS 35 52.68
KZN 2.07 48 ePn 35 30. 00 1.1
FNA 2.22 34 ePc 35 32.04 0.9
iS 35 58.88
OHR 2.31 20 eP 35 32.30 -0.1
LIT 2.41 60 ePc 35 32. 40 -1.4
eS 36 00. 16
S.D. =1.0 on 7 of 7 obs.

? AUG 11, 1991 04h 45m 00.17± 0.92s
9.544 S ± 9.5km 117.713 E ±13. 6km DEPTH = 33.0km (normol)
4 . 1mb (2 obs .)
SUMBAWA ISLAND REGION (285)

MKS 4.64 22 iPd 46 09.50 -0.2
TRT 5.34 290 ePc 46 19.80 0.1
MBL 11.73 170 eP 47 46.20 -2.1
0.3s 15.00nm 5. 6mb X
eS 49 47 . 00
NANU 13.11 189 eP 48 07.50 0.7
eS 50 18.00
WARB 18.59 154 eP 49 18.00 1.1
eS 52 32.00
WR2 19.12 125 eP 49 19.40 -3 . 9X
0.4s 5 . 1 0nm 4.1mb
eS 52 36 . 10
ASPA 20.89 134 eP 49 42.60 0.3
0.6s 5.80nm 4. 1mb
BAL 20.98 182 eP 49 48.00 4.9X
eS 53 24.00
KL8 21.94 180 eP 49 55.50 2.8X
eS 53 45.00
MUN 22.37 183 eP 50 05.00 8.0X
eS 53 59.00
S.D. =1.5 on 6of 10 obs .

& AUG 11. 1991 04h 45m 49.93s
61 . 925 N 143.928 W
DEPTH = 4 . 6km
SOUTHERN ALASKA (2)
<AE 1 C>. ML 3.3 (AEIC) , 2.9
(PMR) .

GLB 0. 49 1 73 iP 45 59. 92 0.2
eS 46 07 . 44
TZL 0.72 280 iP 46 03.92 -0.3
SDG 0.97 309 iP 46 07.53 -1.3
KLU 1.04 246 iP 46 08.79 -1.4
eS 46 22.68
TOA 1.07 281 iPc 46 10.40 -0.3
BALM 1.17 139 eP 46 11.67 -0.7
eS 46 28 . 47
PAX 1.27 326 eP 46 12.32 -1.8
eS 4629.16
TGL 1 . 29 155 eP 46 13 . 91 -0.4
eS 46 31 27
VLZ 1.40 236 eP 46 14.55 -1.6
eS 46 33. 10
TMW .47 17 eP 46 18.09 0.9
VZW .53 237 eP 46 16.26 -1.8
eS 4636.13
SGAM .56 204 eP 46 16.70 -1.7
WAX .57 160 eP 46 19.23 0.6
CTGM .58 127 eP 46 18.69 -0.1
RAGM 1.59 194 eP 46 20.30 1.5

HMT 1 .60 186 eP 46 20.05 1.0
CVA 1.64 213 eP 46 19.42 -0.1
GLI 1.85 237 eP 46 21.67 -0.9
eS 4645.04
KNK 2.22 259 eP 46 27.38 -0.6
GHO 2.37 268 eP 46 29.05 -1.2
KNIM 2.43 231 eP 46 30.71 -0.3
PLRM 2.50 265 eP 46 31.70 -0.2
PMR 2.50 265 eP 46 32.40 0.5
LT I 2.69 227 eP 46 34 . 31 -0.4
RND 2.72 305 eP 46 36.84 1.7
PMS 2.78 258 eP 46 36.41 0.4
PWA 2 .84 267 eP 46 38 . 10 1.3
HUR 2.86 294 eP 46 38.54 1.5
MCK . 2.93 310 *P 46 39.18 1.1
CUT 3.01 282 *P 46 40 .89 1.7
WRH 3.18 325 eP 46 42.02 0.5
SEW 3.25 238 eP 46 43.18 0.6
SUA 3 .28 265 eP 46 44 . 27 1.1
TRF 3.31 300 eP 46 44.39 0.8
SLKM 3.36 248 eP 46 44.64 0.4

FBA 3.46 332 e(P) 46 44.60 -0.9
SKT 3.59 274 eP 46 47.20 -0.3
NCG 3.96 266 eP 46 52.81 0.0
SPU 3.96 263 eP 46 54.43 1.7

SVW 5.66 267 e(P) 47 18.80 2.0
TTA 5.70 285 eP 47 16.90 -0.6
IMA 5. 97 318 eP 4721.30 0.1
42 obs. ossocioted

? AUG 11, 1991 04h 53m 28.68± 0.99s
42.526 N ± 7.3km 12.815 E ±16. 8km
DEPTH = 10.0km (geophy s i c i s t)
CENTRAL ITALY (381)

ASS 0. 56 348 P 53 40 . 00 0.0
RMP 0.72 187 P 53 43.10 0.3
eSg 53 53.00
RDP 0.77 185 P 53 43.50 -0.3
eSg 53 55.00
SD 1 1 . 1 1 1 37 P 53 49 . 50 0.0
eSg 54 07.00
S.D. = 0.4 on 4 of 4 obs.

? AUG 11, 1991 05h 15m 16.57± 4.27s
3.712 N ±11. 3km 75.688 W ±39. 1km
DEPTH = 28 .5 ± 12 . 7 km
COLOMBIA (103)

HOBC 0.78 325 eP 15 31.66 0.0
CLMC 0.89 281 ePd 15 32.96 -0.3
eS 1546.40
HOOC 0.97 256 iPd 15 34.29 -0.3
eS 15 48.70
ANCC 1.19 261 eP 15 37.93 0.5
SI LC 1 . 21 213 eP 15 37 .94 0.0
eS 15 55. 10
S.D. =0.6 on 5of Sobs.

& AUG 11, 1991 06h 09m 53.00s
37 . 620 N 118. 863 W
DEPTH = 5.0km
CALIFORNIA-NEVADA BORDER REGION (40) <BRK> . ML 3.5 (BRK) .

BONR 0.56 53 iPc 10 03.60 -0.6
FRI 0.92 227 iPc 10 10.37 -0.7
CMB 1.27 289 iPd 10 16.43 -0.7
eS 10 32.31
KVN 1.55 23 eP 10 21.00 -0.5
PKEM 1.85 213 eP 10 26.80 1.2
LLA 1 . 94 240 i PC 1027.87 0.9
iS 10 54.30
PRI 2.07 225 iPc 10 29.76 0.9
ARN 2.14 264 eP 10 30.50 0.6
PHAM 2.17 215 eP 10 30.70 0.4
MHC 2.23 264 iPd 10 32.95 1.7
SAO 2.23 248 iPc 10 32.12 0.9
PRS 2.38 238 iPc 10 34.50 1.1
GCC 2.57 258 ePc 10 36.18 0.3
BCH 2.62 202 eP 10 37.10 0.3
BKS 2.69 277 eP 10 38.70 1.0
eS 1 1 12 . 30
BRK 2.70 276 eP 10 38.80 0.9
ZSP 2.71 278 ePd 10 39.23 1.3
ABL 2.78 186 eP 10 39.70 0.5
PCC 2.80 269 ePd 10 39.73 0.5

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ORV 2.

M 1 N 3 .
SSK 3.
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PLM 4 .

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CKL 0.

BGL 0.

PLRM 0.

GHO 0 .

SLKM 0.

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ROW 1 .
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HUR 1 .
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LT 1 2.
TRF 2.
VZW 2 .
KTH 2 .
MTU 2.
RND 2 .
VLZ 2.
KLU 2.
SOG 2.
BWN 2.
TTA 2.
COD 2.
GLB 3 .
CCB 3 .
MOM 3 .
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« AUG 11
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DEPTH -
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FNA 0.

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64 108 iPc
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65 267 iPd
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65 247 iPd
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78 257 ePd
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03 133 ePc
03 7 eP
10 99 iPc
12 359 eP
13 132 eP
17 24 eP
19 96 eP
35 87 ePd
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81 12 eP
86 304 ePc
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LIT 0.60 144 ePd 30 21.88 0.5
eS 3031.00
OHR 1.07 299 eP 30 30.00 0.0
SRS 1 .29 65 ePd 30 32. 17 -1.6
S . 0 . =1.5 on 5of Sobs.

» AUG 11. 1991 07h 53m 24.46+ 4.12s
43.352 N ±25. 5km 19.807 £ ±18.0tm
DEPTH = 10.6km (geophy s i c i s t)
YUGOSLAVIA (383)
ML 2 . 0 (TTC) .

PLE 0.30 266 iPgd 53 30.
iSg 53 35.
I VA 0.49172i Pgd 53 34 .
iSg 53 41 .
PVY 6.77 171 iPgd 53 38.
iSg 53 50.
NKY 0.80 228 iPcjd 53 39.
i Sg 53 52 .
TTG 1.01 204 iPgd 53 42 .
iSg 53 58.
BRY 1 . 03 244 i Pgc 53 43 .
iSg 54 00.
BDV 1.29 214 iPgd 53 48 .
iSg 54 08.
HCY 1 . 32 227 iPgc 53 49 .
iSg 54 10.
ULC 1 . 45 197 i Pgc 53 51.
iSg 54 1 3 .
SKO 1.83 138 ePn 53 53.
S.D . - 0.7 on 9of 1

HI 0.0
19
H7 0.5
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>5 -1.0
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>9

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>5
>5 -0.4

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)7 0.9
>0

)0 -3.2X
) obs .
_ Y- _
7, AUG 11. 1991 07h 56m I8.ti0± 0.47s
43.085 N ± 6.6km 0.639 W ± 3.6km
DEPTH = 10.0km (geophy s i fc i s t)
PYRENEES ; (378)
ML 1 . 3 (STR) .

ATE 0.04 271 Pg 56 20 .
Sg 56 22.
ESCF 0.05 98 Pg 56 20.
Sg 56 22.
ISSF 0.13 243 Pg 56 2 1 .
Sg 56 24.
MAOF 0.15 295 Pg 56 21 .
Sg 56 24.

52 0.2
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27 0.1
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>7 0.0
51
t0 0.0
51
OGE 0.15 55 Pg 56 21 . J17 0.0
Sg 56 24.
LHE 0 . 17 176 Pg 56 21 .
Sg 56 25.
JAU 0.20 103 Pg 56 22.
ELYF 0.27 288 Pg 56 23.
Sg 56 28.
BOH 0.27 274 Pg 56 23.
Sg 56 28.
S . 0 . -0.1 on 9of

AUG 1 1 . 1991 08h 33m 22 .
36 . 166 N ± 6. 3km 35. 778
DEPTH = 10.0km (geophysi
4 . 1mb (4 obs .)
TURKEY

GAZ 1.53 48 iPn 33 50.
BHL 2 . 26 183 Pn 34 00 .
Sn 34 32.
HR 1 2 . 89 181 eP 3410.

>5
99 0.0

)0
t0 -0.1
79 0.0
&8
&5 -0.3
31
9 obs .

93± 0.71s
E ± 9 . 7km
cist)

(366)

50 0.3
30 -1.0
30
30 0.1
ATZ 3 . 36 187 eP 34 1 7 . fl 0 0.5
eS 34 55.J50
JVI 4.24 185 eP 34 29.60 0.4
B8TK 4.38 328 eP 34 32.00 1.0
eS 35 43.00

OSI 4.60 184 eP 34 34 . [20 0.1
ELL 4. 77 279 iPn 34 38 .
KHL 5.43 295 ePn 34 42.
YER 6.10 281 ePn 34 54 .
PGF 21.61 295 eP 38 15.
0.6s 4 . 50nm
LPG 23. 75 302 eP 38 36 .
0.8s 6 . 05nm
LPL 23.77 302 eP 38 36.
0.8s 4 . 70nm
SMF 25.98 304 eP 38 54.
0.7s 3 . 30nm
S . 0 . -1.2 on 13of 1

30 1.9
30 -4.0X
50 -0.8
10 0.3
4 . 1mb
50 0.2
4 . 2mb
10 -0.4
4 . 1mb
50 -2.7
4 . 1mb
* obs .

» AUG 1
39 . 516
DEPTH
4 . 2mb
K ! RCH ! Z

MA I 0 10

GBA 26
0.
HFS 41
0 .
NB2 42
0.
MBC 64
0 .
YKA 78
0.
WRA 82
0.
WR2 82
0.
S.D.

? AUG 1
32. 735
DEPTH
4 . 8mb
SOUTH OF

HBZ 5
MNG 9
KHZ 11

CMS 30
0.
STK 33
0.
ASPA 42
1 .

WR2 44
0.

WRA 44
0.
KAF 146
NUR 148
NB2 151
0.
S.D.

1 . 1991 08h 50m 02
N ±13. 8km 72.623
- 33 . 0 km (no rmo 1)
(7 obs.)
SSR

. 86 257 eP 52 38
eS 54 33
. 1 6 1 69 P 55 37
6s 1 . 60nm
. 54 320 eP 57 47
4s 1 . 60nm
. 79 321 P 57 57
8s 1 . 20nm
. 27 3 ePd 00 36
6s 6 . 00nm
. 17 3 eP 01 59
7s 1 . 40nm
. 54 123 P 02 22
7s 1 . 70nm
. 55 123 eP 02 21
3s 2 . 20nm
- 1.2 on 8of

1 , 1991 09h 03m 1 1
S ± 1 5 . 5km 178. 079
- 33 . 0 km (no rmo I)
(5 obs.)
KERMADEC ISLANDS

. 69 210 eP 04 38
. 41 21 1 eP 05 26
. 72 212 eP 05 58
S 08 05
. 51 262 eP 09 27
4s 9 . 00nm
. 95 260 eP 09 56.
5s 2 . 00nm
. 97 269 eP 1 1 09 .
7s 8 . 80nm
e 12 43.
. 1 4 275 eP 1118.
4s 20 . 90nm
i 11 33.
. 16 275 P 1118.
4s 1 1 . 70nm
. 71 339 ePKP 22 48 .
. 47 339 ePKP 22 52.
. 04 351 PKP 23 02.
9s 1 . 50nm

19± 0 . 72s
E ±1 4 . 0km

(716)

00 -0.5
00
00 1.8
3 . 8mb
70 0.0
4 . 1 mb
90 -0.2
3 . 7mb
60 0.8
4 . 9mb
90 0.7
4 . 1mb
00 -1.1
4 . 2mb
80 -1.4
4 . 7mb
8 obs .

68± 1.74s
W ±30 . 1 km

(179)

30 2.3
60 -1.4
20 -1.3
60
00 3 . 0X
4 . 9mb
20 2-1
4 . 3mb
60 0.0
4 . 2mb
70
40 -0.6
5 . 3mb
70
00 -1-2
5 . 1mb
80 -0.3
50 0.5
70 6. 7X

- 1.6 on 9of 11 obs.

» AUG 1 1 , 1991 09h 30m 12.
45. 302
DEPTH

N ±1 6 . 9km 125.717
- 10.0km (geophysi
OFF COAST OF OREGON

OBH 2
LVP 2
CPW 2

CZM 2
FL2 2
MTMW 2
ERK 2
VLMM 2

SMW 2
STD 2
JLK 2
ESD 2
TDL 2
CDFW 2
KOSW 2
LMW 2
TDH 2
APM 2
VB EM 2
GULW 2
ASR 3
LON 3
REMR 3
GLK 3
STW 3
WPW 3
FMW 3
R<;u 1

. 40 32 P 30 52
. 44 71 P 30 53.
. 45 46 P 30 52.
S 31 23.
. 51 62 P 30 52.
. 52 68 P 30 53.
. 56 72 P 30 54.
. 57 66 P 30 53.
. 60 83 P 30 54.
S 31 25.
. 60 38 P 30 54.
. 62 68 P 30 55.
. 64 70 P 30 56.
. 65 69 P 30 56.
. 66 66 P 30 55.
. 70 71 P 30 56.
. 72 64 P 30 56.
. 75 59 P 30 57 .
. 77 89 P 30 56.
. 87 80 P 30 59.

. 9<j Q ^ QTp y j ~ j 7 o ft *\Q _> y .
. 96 76 P 31 00.
. 01 72 P 31 00.
. 08 61 P 3101.
. 10 59 P 31 02 .
. 13 65 P 31 02.
. 18 26 P 31 03.
. 22 63 P 31 04.
. 25 58 P 31 04.
19 5 4 P 1 1 ft «i

13± 3.88s
W ±27 . 1 km
cist)
(30)

1 a t> i ID W.I
25 0-5
31 -0.6
93
88 -0.8
41 -0.5
29 -0.2
80 -0.7
74 -6.3
94
62 -0.4
14 -0.2
27 0.7
34 0.5
78 -0.2
77 0.4
63 -0.1
39 0.2
44 -1.1
31 0.5
92 0-2
99 0.9
96 0.1
85 0.1
13 0.0
90 0.3
56 0.5
00 0.1
29 -0.1
«it ft 9

1d 09h

RMW 3 . 46 50 P 31 07 . 25 0.0
vlCW 3 .89 41 P 3113.14 -0.1
S . D . = 0 . 5 on 30 o f 30 obs .

? AUG 11. 1991 18h 59m 56 . 55± 8.64s
45.851 N ±65. 1km 11.755 E ±28. 1km DEPTH = 10.0km (geophysicist)
NORTHERN I TALY (545)
ML 1.8 (VIE).

CT 1 0.21 340 P 00 00 . 70 -0.5
«Sg 06 05.36
VVI 8.49 74P 0006. 20 -02
eSg 60 15.60
FVl 1.33 OP 0816.80 0.0
v S g 00 32.00
WTTA 1.42 357 ePg 00 23.60 0.5
iSg 00 44.50
S.O. - 0.7 on 4 of 4 obs.

AUG 11, 1991 12h 18m 24.08± 0.22s
52.527 N ± 5.0km 159.482 E ± 3.7km DEPTH - 33.0km (normol)
5.6mb (54 obs.) 4.7Msz (7 obs.)
OFF EAST COAST OF KAMCHATKA (219)
CENTROlD. MOMENT TENSOR (HRv)
Doto Used: GDSN
L.P . B. : 16S, 24C
Centre id Locotion:
Origin Time 12:18:29.9 0.6
Lot 52.07N 0.11 Lon 159. 61E 0.10

Dep 33.0 FIX Ho I f -d u r o t i o n 1.6
Moment Tensor; Scole 10**16 Nm
Mrr=° 1.76 0.34 Mtt= 2.55 0.55
Mff 4.31 0.40 Mrt = 7.70 0.63
Mrf=-0.!9 0.87 Mtf--2.94 0.47
P r i nc i po I Axes:
T Vol«= 10.22 Plg=42 Azm= 12
N -3.19 33 247
P -7.03 31 134

Best Double Coup I e : Mo-8 . 6 * 1 0 * * 1 6
NP 1 : S t r i ke=1 70 Dip=34 Slip- 11
NP2 : 71 84 1 23

SMY 8.90 83 eP 20 32.40 -0.8
0.8s 230 . 40nm 6 . 4mb X
KUSJ 13.67 232 eP 21 33.70 -4.0X
ASAJ 13.98 240 P 21 43.50 1.6

ADK 14.62 83 e(P) 21 54.80 4.7X
HOOJ 14.90 233 eP 21 49.80 -4.0X
OFUJ 18.24 230 «P 22 31.30 -4.8X
YAK 18.52 313 iP 22 39.30 0.0
epP 22 54.00
ePP 23 02.00
ePPP 23 15.00
eS 26 10 . 00
i 2619.00
eSS 26 33.00
eSSS 27 01 . 00
YAMJ 19.73 231 «P 22 49.70 -4.0X
NMJ 20.96 231 P 23 04.90 -1.6
KAKJ 21.26 228 P 23 09.90 0.4
MAT 21.90 232 eP 23 15-00 -1.0
0.7s 32.1 9nm 4 . 9mb
eS 26 48.00
CHJJ 21.93 229 P 23 16.40 0.2
MTMJ 22.06 232 P 23 17.50 -0.1
TSRJ 23.79 234 P 23 34.50 0.1
TTA 25.41 48 «P 23 50.30 0.5
SVW 25.55 53 eP 23 52.00 0.9
1.1s 31 . 25nm 4 . 8mb
IMA 26.71 41 eP 24 01.60 -0.3
1.0s 1 1 . 60nm 4 . 5mb
RSO 26.98 54 P 24 05.00 0.5
FBA 29.09 44 «P 24 22.70 -0.5
BJ 1 31.94 264 eP 24 50.00 1.4
E 16s 0 . 73um
INK 34.55 37 ePc 25 10.70 -0.2
SSE 35. 10 248 P 25 1 7 .00 1.0
Z 20s 0 . 50um 4 . 3Msz
N 14s 0 . 40um

pP 25 34.00 68kmX
sP 25 44.00
eS 30 52-00
eSS 33 22.00
MBC 37.71 23 eP 25 38.00 0.4
0.6s 5 . 00nm 4 . 6mb

L2H

YKA

PNT

NEW

DAG

SES
FFC

ORV
IRM
SOD
CMB
FRI
CHG
1 SA
BW06

DUG
CLC
SBB
GSC
MWC
KAF

PLM
NUR
GLA
AKU

HFS

ANMO

ALO

SCH
MEO
TUL

HYB
FVM

KRA

KSP

W 1 T
CLL

SPC
BRG

WTS

PRU

MOX

GBA

MLR
KHC

ZST

ENN

SRO
MEM
UCC
SNF

41 . 96 270 eP 26 12 .00 -1.5
1.5s 28 . 00nm 4 . 8mb
43 . 83 42 *P 26 28 . 10 0.0
0.9s 10. 80nm 4 . 6mb
48 . 56 60 eP 27 05 00 -0.8
0.7s 8 . 0£nm 4 . 9mb
50 . 51 59 P 27 20. 10 -0.7
1.0s 9 . 00nm 4 . 7mb
50 . 97 359 «P 27 22 . 40 -1.4
0.7s 34 . 93nm 5 . 4mb
52 . 28 54 eP 27 33 00 -1.1
53 . 69 45 «P 27 44 . 30 -0.1
1.0s 24 . e0nm 5 . 2mb
53 .69 70 P 27 44.50 -0.1
54.53 59 eP 2749.60 -1.5
55.31 340 iP 27 55.20 -0.9
55. 36 71 eP 27 58.20 1.2
56. 47 71 eP 2B 06.00 1.2
57.42 258 eP 2B 11.00 -0.8
56.11 72 eP 28 17 .00 0.5
58. 12 60 P 28 16 .00 -0.8
1.0s 1 1 . 67nm 4 . 9mb
58. 15 64 P 28 1 7 . 00 0.1
58.51 7 1 eP 28 20 . 00 0.7
59. 1 7 72 eP 28 24 .00 0.1
59. 33 71 eP 28 26 .00 0.9
59 . 36 73 eP 28 26. 00 0.6
59.86 337 eP 28 25.60 -2.6
0.4s 5.70nm 5.1mb
60. 68 73 «P 28 51 .00 16. 6X
61 .65 337 eP 28 39. 10 -1.3
62.08 7 1 eP 28 44 . 00 0.3
62. 10 359 eP 28 43 . 80 0.5
0.9s 20.17nm 5. 3mb
64 . 37 342 eP 28 56 . 50 -1.9
0.7s 32.60nm 5. 5mb
Z 1 8s 0 . 37um 4 . 6Msz
LR 52 46.00
65. 43 64 P 29 06. 10 0.3
1.0s 5 . 00nm 4 . 6mb
65. 43 64 eP 29 05 . 30 -0.5
1.0s 6 . 00nm 4 . 6mb
e 29 22.00
66. 35 27 eP 29 09.00 -2.2

69. 78 59 e(P) 29 33.90 1.0
70.35 56 iPc 29 36.30 0.0
1.2s 26. 50nm 5. 2mb
Z 20s 0.50um 4.8Msz
N IBs 0.27um
E 20s 0. 14um
e 29 52.30
e 40 33.00
LR 54 24 .00
70.88 274 eP 29 41 . 20 1.4
71.38 52 P 29 41 .00 -1.5
1.2s 22 . 06nm 5 . 1mb
72.21 334 eP 29 47.00 -0.2
0.9s 22 . 00nm 5 . 2mb
Z 19s 1 . 30um 5 . 2Msz
72.42 337 eP 29 46.00 -2.4
id 29 48 . 60
72 . 59 343 eP 29 51 . 50 2.2
72. 75 339 iP 29 49. 00 -1.3
1.5s 48 . 00nm 5 . 3mb
72. 91 333 eP 29 51 . 00 -0.6
72. 94 338 eP 29 51 . 40 -0.1
1.3s 23 . 00nm 5 . 0mb
73. 35 343 eP 29 54 . 50 0.7
0.8s 1 4 . 00nm 5 . 0mb
73.63 337 iPd 29 56.00 0.5
1.0s 1 2 . 00nm 4 . 8mb
73.68 339 i Pd 29 56.40 0.6
1.6s 36 . 00nm 5 . 1mb
74.50 272 Pd 29 59.00 -2.0
1.0s 9 . 60nm 4. 8mb
74. 53 328 eP 30 01 . 00 0.0
74. 66 338 iP 30 01 .30 -0.2
1.4s 29 . 40nm 5.1mb
e 30 33 . 00
74. 66 335 eP 30 01 .80 0.3
e 38 15. B0
74 . 68 343 eP 30 02 . 00 0.4
1.2s 69 . 00nm 5 . 5mb
74.69 334 iP 30 02 . 40 0.7
74.82 343 iPc 30 02.58 0.2
74. 93 344 P 30 04 .60 1.6
75. 22 344 P 30 05.90 1.3

WR2 75.41 204 i PC 30 05.90 -0.2
0.9s 6 . 20nm 4. 6mb
WRA 75.41 204 P 30 05.00 -1.1
1.0s 7 . 70nm 4 . 7mb
DOU 75.56 344 P 30 06.50 -0.1
WLF 75.70 342 P 30 10.00 2.6
KBA 76.63 337 i PC 30 12.90 -0.1
0.7s 37 . 80nm 5 . 5mb
i 30 1 4 . 50
CDF 76.69 341 eP 30 13.00 -0.1
1.2s 20.85nm 5. 0mb
WTTA 76.86 338 eP 30 14.00 -0.2
1.7s 74.30nm 5. 4mb
i 30 15.60
FVl 77.22 337 P 30 15.88 -0.1
HAU 77.26 342 eP 30 16.10 -0.1
1.2s 23 . 80nm 5 . 1mb
Z 20s 0.32um 4.6Msz
BSF 77.34 342 eP 30 16.50 -0.3
1.2s 1 4 . 90nm 4 . 9mb
VVI 77. B8 337 P 30 18.60 -1.1
CT I 78.00 338 P 30 19.40 -1.0
GRR 78.08 347 eP 30 20.70 0.1
1 .2s 35.70nm 5.3mb
LOR 78.42 343 eP 30 22.60 0.0
1.2s 26 . 80nm 5. 1mb
Z 20s 0.28um 4.6Msz
LPF 78.45 347 eP 30 23.20 0.5
0.8s 9 . 40nm 4 . 9mb
LBF 78.68 343 eP 30 24.20 0.2
1.0s 8 . 00nm 4 . 7mb
SSF 78.68 344 eP 30 24.40 0.4
1.2s 1 1 . 90nm 4 . 8mb
AVF 78.97 344 eP 30 25.80 0.2
1.2s 23 . 80nm 5.1mb
SMF 79.03 343 eP 30 26.20 0.3
1.2s 22 . 30nm 5 . 0mb
ASPA 79.09 204 eP 30 26.70 0.3
1.2s 8 . 50r>m 4 . 6mb
SKO 79.13 329 eP 30 25.70 -0.8
BGF 79.29 344 eP 30 27.70 0.4
0 . Bs 6 . 70nm 4 . 7mb
VAY 79.36 328 eP 30 27.00 -0.7
LPL 79.57 341 eP 30 30.10 0.9
0 . Bs 1 4 . 80nm 5 . 0mb
LPG 79.58 341 eP 30 30.30 1.0
1.0s 29. 00nm 5 . 2mb
TCF 79.65 344 eP 30 29.70 0.4
0.6s 4.05nm 4. 6mb
MAF 79.66 344 eP 30 30.00 0.7
0.6s 11. 25nm 5 . 0mb
LSF 79.80 345 eP 30 30.50 0.4
0.8s 12.10nm 4. 9mb
SF 1 79.96 337 P 30 31 .40 0.5
MME 79.97 338 P 30 30.90 -0.5
BN I 80.03 341 P 30 33.00 1.5
ARV 80.09 336 P 30 31.50 -0.2
BDI 80.12 338 P 30 32.30 0.4
RvlF 80.72 344 eP 30 35.60 0.6
0.8s B . 05nm 4 . 8mb
Z 20s 0.38um 4.7Msz
CAF 81.00 344 eP 30 37.60 1.1
0.8s 12.10nm 4. 9mb
MNS 81.20 336 P 30 36.90 -0.7
LFF 81.21 345 eP 30 38.60 1.1
0.8s 13.45nm 5.0mb
LPO 81.38 345 eP 30 39.30 0.8
0.8s 16.1 0nm 5 . 1mb
HRI 81.49 315 eP 30 39.00 -0.4
SDI 81 .55 335 P 30 39.50 0.0
PGF 81.92 338 eP 30 41.90 0.4
1.0s 12. 00nm 4 . 9mb
MGR 82.55 333 P 30 44.30 -0.3
vIVI 82.81 315 eP 30 46.20 0.0
EPF 83.13 345 eP 30 48.00 0.3
1.0s 6 . 00nm 4 . 7mb
PRNI 84.32 314 eP 30 53.80 -0.1
S.D. - 0.9 on 113 of 119 obs.

7, AUG 11, 1991 12h 54m 07.62± 1.54s 42.065 N ±10. 2km 19.614 £ ± 8.4km DEPTH - 10.0km (geophysicist)
YUGOSLAVIA (383)
ML 1.8 (TTG) .

ULC 0.29 250 iPgd 54 13.63 -0.1
i Sg 54 18 . 48

1 1d 1 2h

92

TTG 0.45 324 iPgd 54 16.53 -0.2
i Sg 5424.13
PVY 0.59 27 iPgc 54 19.56 -0.1
i Sg 5429.10
BDV 0.62 291 iPgd 54 19.96 -0.3
i Sg 54 30 . 13
I VA 0.83 15 i Pgc 5423.98 0.2
i Sg 54 37 . 06
NKY 0.88 329 iPgd 54 24.46 -0 1
iSg 54 38.28
HCY 0.91 295 iPgd 54 25.43 0.4
iSg 54 39 . 76
BRY 1.15 317 iPgd 54 29.43 0.2
i Sg 54 47 . 68
S.O *=0.3 on 8of Sobs.

% AUG 11. 1991 13h 28m 03.79± 2.39s
45.361 N ±13. 9km 7.160 E ±19. 4km
DEPTH - 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.0 (LOG) .

LPG 0.32 296 Pg 28 10.50 0.0
Sg 28 17. 16
LPL 0.34 298 Pg 28 10.96 0.0
Sg 2817.30
BNI 0.46 228 P 28 12.40 -0.8
eSg 28 20.40
SBF 1.51 172 Pg 28 29.40 -1.6
Sg 28 51 .00
FRF 1.84 192 Pg 28 36.50 0.9
LRG 1.99 197 Pg 28 39.30 1.5
S.O. =1.4 on 6of 6obs.
_ ____ ^ _ -_

% AUG 11, 1991 13h 46m 1 3 . 86± 0.94s
39.359 N ± 7.8km 29.013 E ± 9.7km
DEPTH » 10.0km (geophysicist)
TURKEY (366)

DST 0.39 310 ePg 46 20.70 -1.1
121 1.04 20 ePg 46 34.16 0.6
KHL 1.11 159 ePn 46 34.60 -0.1
YLV 1.24 13 ePn 46 36.16 -0.8
EOC 1.33 318 ePn 46 39.00 0.7
KGT 1.71 310 ePn 46 44.60 0.8
S . D . = 1 . 0 on 6of 6 obs .

4 AUG 11. 1991 14h 26m 07.78s
59 .650 N 152 . 080 W
DEPTH - 69.7km
SOUTHERN ALASKA (2)
<AEIC>.

HOM 0.22 88 iP 26 18.07 -0.5
eS 26 25.44
CNPM 0.45 106 iP 26 19.85 -0.4
eS 26 28. 79
NNL 0.56 45 iP 26 21.63 0.3
BRLK 0.62 79 eP 26 21.53 -0.5
eS 2631.83
AUE 0.72 247 eP 26 22.43 -0.7
AUH 0.75 248 eP 26 22.89 -0.7
AU 1 0.76 246 eP 26 22.68 -0.8
eS 26 34.30
RED 0.85 336 eP 26 23.81 -0.9
eS 26 36.00
RSO 0.88 338 eP 26 24.54 -0.7
eS 26 37.77
REF 0.90 340 eP 26 24.64 -0.8
eS 26 37.33
ROW 0.91 337 eP 26 24.82 -0.8
eS 26 37 .61
RON 0.93 339 eP 26 25.22 -0.6
S 2638.10
DFR 0.99 342 eP 26 26.08 -0.4
NCT 1.01 335 eP 26 25.99 -0.8
eS 26 39.93
SYI 1.06 189 eP 26 26.75 -0.5
POB 1 .08 278 iP 2626.41 -1.1
S 26 40.82
COD 1.08 229 iP 26 26.83 -0.7
eS 26 41 . 13
NKA 1.17 21 eP 2630.13 1.4
SLKM 1.27 46 eP 26 30.11 0.0
SEW 1.40 70 eP 26 32.31 0.5
SPU 1.54 0 eP 26 33.39 -0.3
CKL 1.56 355 eP 26 33.95 -0.1

BGL 1.63 355 eP 26 34.92 0.0
CGLM 1.66 1 eP 26 35 . 34 -0.1
SUA 1.94 19 eP 2639.47 0.2
PMS 2.03 37 eP 26 40.45 0.0
LT I 2.17 78 eP 26 42 . 33 0.0
KNIM 2.29 70 eP 2642.27 -1.8
SKT 2 . 35 6 eP 26 44 . 91 0.0
PLRM 2.43 35 eP 26 44.94 -1.0
KNK 2.52 44 eP 26 46. 2 6 -0.9
GHO 2.63 35 eP 26 48.
CUT 2.90 17 eP 26 52.
33 obs. ossocioted

AUG 11, 1991 1 4h 43m 54 .
3.141 S ± 3. 3km 130 . 326
DEPTH - 33.0km (normol)
5.7mb (39 obs.) 5.3Msz (
CERAM
CENTROID, MOMENT TENSOR
Ooto Used: GDSN

10 -0.8
18 -0.3

28± 0.17s
E ± 4.4km

1 4 obs .)
(272)
(HRV)

L . P .B . : 24S. 50C
Centroid Location:
Origin Time 14:43:56.9 0.2
Lot 2.97S 0.02 Lon 130|.30E 0.03
Dep 26.5 1.6 Ho I f-du ro
Moment Tensor; Scale
Mrr= 3.84 0.11 Mtt«-

t i on 3.2
1 0« » 1 7 Nm
2.46 0.14
Mff 1.38 0.19 Mrt=-l4.25 0.34
Mrf= 3.69 0.31 Mtf= ,1-73 0.11 Principal Axes:
T Vo l= 6.84 PI g-62
N -0.12 2
P -6.72 28

Best Double Couple:Mo-6
NP1 : St r i ke=1 23 D i p= 1 7
NP2: 310 73

Azm>=223
130
38
. B» 10». 17

Slip- 83
92

AAI 2.19 256 iPd 44 31.100 1.9
MN 1 7.12 310 eP 45 38.50 -0.4
KUPT 9.64 223 eP 46 16.00 2.2
6.8s 208 . 70nm 6 . 4mb
MTN 9.68 175 eP 46 11.60 -2.9
eS 47 57.00
MKS 11.02 259 iPd 46 37.50 4 . 8X
0.9s 827.20nm 6.9mb X
OAV 11.21 335 eP 46 34.100 -1.3
KNA 12.62 187 iPd 46 50.50 -3.9X

0.3s 96 . 00nm 6 . 4mb
eS 49 08.00
CGP 12.81 334 eP 46 56.100 -0.9
1.0s 85 . 00nm 5 . 8mb
TSM 14.46 301 ePc 47 17.30 -1.4
MDG 15.56 98 eP 47 39.30 6.4X
WR2 17.17 167 iPc 47 47.10 -6 . 3X
0.4s 77.10nm 5. 2mb
eS 50 55.30
PMG 17.85 111 iPd 48 02.00 0.2
PGP 18.97 331 iPd 48 15.50 -0.1
1.0s 11. 00nm 4 . 0mb X
TGY 19.50 332 ePd 48 26.00 4.2X
OIS 19.53 153 iPc 48 20.00 -2.2
iS 5143.70
M8L 20.61 209 eP 48 31.00 -2.5
0.4s 41. 00nm
ASPA 20.70 171 iPc 48 32.
1.1s 2018. 90nm
Z 23s 15.70um
eS 52 22.
BAG 21.68 334 eP 48 43.
eS 52 41 .
RAB 21.83 93 eP 4846.
iS 52 46 .
GUA 22.61 41 eP 48 47.
0.7s 191 . 78nm
2 18s 9 . 87um
eS 52 50.
PJG 22.01 41 eP 4847.
e 4852.
CVP 22.34 338 i PC 48 52.
7.0s 118. 00nm
S2P 22. 75 335 ePd 48 57 .
WARE 23. 18 188 iPd 48 59.
0.8s 228 . 00nm
NANU 24.05 215 eP 49 06.
OLP 26.86 152 iPd 49 34.
1.3s 1 267 . 00nm
i 4947.

5 . 2mb
40 -2.0
6 . 4mb
5 . 3MszX
80
80 -0.7
00
00 0.1
00
70 0.1
5 . 6mb
5 . 3Msz
00
10 -0.6
30
50 1.6
4 . 5mb X
00 2.1
20 0.1
5 . 7mb
50 -1.0
20 0.3
6 . 4mb
30

KGM

FORR

COOL

RMO

£NP

HKC

B A L
I PM

K L B

MUN

CMS
PSI

NWAO

2
N
E
BRS

RKG
COO

NNT
LOE
SSE

2
N
E

NST
BWA

BFD

KHT
CAN
CNB

BOT

TOO

CHG

KM 1

2
N
E

TSRJ
1 1 OJ
02M
CHJ J
BKM
PVC
MTMJ
MAT

2

KAKJ
N 1 1 J
YAMJ

27.47 280 ePd 49 40.70 1.0
0.9s 2 1 6 . 30nm 5 . 8mb
27 .64 184 eP 49 40.00 -1.6
0.4s 26.00nm 5. 3mb
28.92 196 eP 49 51.00 -1.6
0.4s I4.00nm 5. 0mb
29.18 144 iPd 50 02.00 7.0X
i 50 1 7 . 90
29.42 344 eP 50 02.60 4.7X
eS 55 1 6 . 00
29.81 329 eP 50 62 . 00 1.4
eS 5500.00
30. 20 204 eP 50 02.00 -2.0

30 26 285 ePc 50 04.80 0.1
1.0s 2 1 6 . 1 0 n m 5.9mb
30.67 201 e P 50 06.50 -1.7
0 . 4s 34 . 00nm 5 . 5mb
31.61 203 eP 50 14 .00 -2.4
0.8s 56.06nm 5. 5mb
31 . 76 1 54 «P 5017.00 -0.7
31.91 280 ePc 50 1 9. 30 0.0
1.1s 495 . 00nm 6 . 3mb
32. 07 201 iPd 50 1 9. 30 -1.1
0.7s 58.00nm 5. 6mb
20s 7 . 30um 5 . 4Msz
20s 7 . 30um
20s 6 . 70um
32.28 141 i Pd 50 2 1 . 20 -1.2
i (PP) 51 36 .50
eS 55 33.00
33.63 200 iPd 50 34.20 0.2
34 . 07 1 46 iPd 50 38. 70 0.8
0.8s 42 . 00nm 5 . 4mb
i 50 46 . 20

34 . 17 298 iPd 50 42 . 30 3 . 4X
34. 82 307 eP 50 45 . 00 6.5
35.14 346 P- 50 44.00 -3.0
1.0s 25 . 00nm 5 . 1mb
20s 3.20um 5 . IMsz
12s 0 . 50um
12s 1 . 60um

pP 50 58.00 54kmX
sP 51 06.50
S 56 00.00
sS 56 14.00
SS 58 20.00
iScS 01 06.00
35. 23 303 eP 50 48 .50 0.5
35. 39 154 eP 50 50 . 30 1.1
i 51 12 .20
35. 69 163 iPd 50 53. 40 1.8
1.0s 4 1 3 . 06nm 6 . 3mb
36.12 300 eP 50 57.50 2.0
36 . 40 154 eP 50 57 .90 0.2
36. 56 1 53 iPd 51 00 . 40 1.3
i 51 21 .20
i 52 23.00
36. 95 304 eP 5103.50 1.1
0.8s 124. 60nm 5 . 8mb
36 . 99 160 iPd 51 04 . 60 2.0
1.0s 88.00nm 5. 6mb
i 52 25.00
37 . 81 306 ePc 51 10.10 0.4
0.9s 101.68nm 5.7mb
eS 56 58.00
38.80 318 P+ 51 19 .50 1.3
1.5s 400.00nm 6.0mb
20s 2 . 90um 5 . IMsz
10s 0 . 40um
11s 0 . 80um

pP 51 30.00 37kmX
S 5716.00
i 01 31 .00
38. 84 7 P 51 16 . 40 -1.7
39. 07 10P 5118.50 -1.6
39. 78 121 iPc 51 26 .00 -0.3
39. 82 1 1 P 5123.40 -2.8
39 . 88 1 1 4 iPd 5128.00 1.0
39.96 1 14 iPc 5129.20 1.5
40.13 9 P 51 26 . 50 -2.4
40 . 16 10 eP 51 25.00 -4 . 0X
0.8s 33.58nm 5.1mb
20s 3.55um 5.2Msz
eS 57 19.00
40.21 12 P 5127.10 -2.3
40.98 1 1 P 51 33.80 -1.9
42.08 1 1 P 5143.10 -1.7

93

1 1<J 14-h

TAU
OFUJ
AOMJ
BJ 1

L2H

MRRJ
HOOJ
SHL

KUSJ
ASAJ
GUN

PK 1

KKN
DMN
GKN
THZ
LTZ
KHZ
HYB

GBA

MOZ
MNG
1 RK

POO
NO 1

DRV

YAK

CUE

ADK
MA 1 O

MAW

CRZF

SDN
DHR
1 R 1
I R5
IR7
SVW
TTA
KDC
SPA

MJMA
TAB

4.2.4.0 161 eP 51 4-7.00 -0.3
43. 30 13 eP 51 55. 10 0.4
44.45 1 1 eP 5284.80 0.8
44.89 345 eP 52 06.50 -1.0
1.4s 88.80nm 5. 5mb
N 12s 1 . 40 urn
eS 58 38.00
eSS 01 46.00
eScS 02 05.00
46.21 330 PC 52 18. 50 0.3
2.8s 307 . 00nm 5.9mb
Z 28s 3 . 37um 5 . 1MszX
E 1 3s 1 . 93um
sP 52 30.50
ePP 53 57 .00
S 58 59.00
sS 59 13.00
SS 02 13.60
46.39 1 1 eP 52 18. 90 -0.4
46.81 13 eP 52 22 . 70 0.0
46. 92 310 i P 52 22 .60 -1.4
IS -59 12. 00
47.83 1 4 eP 52 29 . 50 -1.2
48.33 12 P 52 34.90 0.3
52 . 73 309 P 53 08 . 52 -0.3
6 . 7s 349 . 00nm 6 . 4mb
52 . 94 308 P 53 09.62 -0.7
1.1s 172. 00nm 5 . 9mb
53.14 308 P 53 1 1 . 28 -0.4
53.19 308 P 53 1 1 .90 -0.2
53.74 308 P 5315.54 -0.5
54 . 1 2 141 P 5318.60 0.2
54 . 30 1 43 P 5319.90 0.2
54.87 142 P 53 23.00 -0.9
54.99 294 iPc 53 24.50 -0.7
1.0s 170.00nm 6. 0mb
55 . 03 289 PC 53 24. 30 -1.1
0.7s 50 . 70nm 5 . 7mb
55 . 06 1 43 P 53 23 . 80 -1.4
55 . 16 139 eP 5325.10 -1.0
59.44 342 eP 53 55.50 -0.6
e 54 09.30
e 54 18 . 80
ePSP 54 39.00
e 55 10. 00
e 56 00.00
e 59 12. 00
i S 02 06.00
ePS 02 36.00
eSSS 03 46.00
eSS 06 00.00
e 06 48.00
eSSS 08 14.00
59.59 294 iPd 53 56.00 -1.7
59.95 306 iPc 53 58.50 -1.5
0.3s 116.88nm 6.5mb
eS 02 06.00
63.77 176 P 54 24.60 -0.3
S 03 30.00
64.98 360 IP 54 32.50 -0.3

epP 54 59.00 106kmX
ePP 55 08.00
eS 03 09.00
ePS 03 46.00
eScS 04 24.00
68.88 304 eP 54 58.30 -0.2
eS 04 04.00
70 . 74 32 eP 55 08.90 -0.2
76 . 53 308 iPc 55 43. 40 0.1

e 05 31 .00
78.64 201 eP 55 55.00 0.8
1.0s 88 . 00nm 5 . 7mb
79.78 224 eP 56 08.00 7.2X
eS 06 24.00
80.91 33 eP 56 06 . 50 0.0
82 .60 297 i P 56 17 . 00 1.0
83. 37 306 i PC 56 21 . 20 1.2
83 . 43 306 eP 56 22.50 2.2
83. 48 306 i PC 56 21 .30 0.8
85.09 28 eP 56 29.90 1.9
85.41 26 eP 56 30.90 1.3
85 .83 32 eP 56 32.60 1.0
86.88 180 iPc 56 32.20 -4.7X

1.0s 37.00nm 5.6mb
Z 20s 2.84um 5.7Msz
86.89 296 eP 56 36.70 -0.9
87.19 308 eP 56 40 . 00 1.1

I MA

PMR

F8A
NA I

OBN

I NK

NVL

MBC

VR I
SPC

NB2

SRO
PRU

8RG

CLL

KHC

VBY
LJU
CEY
VOY
WTTA

ARV
SFI
8DI
pec Dor

HAD

PGF

LPG

LPL

SBF

LOR

LBF

SMF

i 56 41 . 80
87.20 23 eP 56 39 . 10 0.7
0.7s 6 . 1 0nm 5 . 0mb
88 . 25 28 eP 56 43. 20 0.0
1.0s 40.80nm 5.7mb
89 .38 25 P 56 48 . 20 -0.4
93.44 269 ePDIF 57 12.50 3 . 8X
Z 24s 1 . 1 6um 5 . 3MszX
eScS 67 52.60
ePS 08 28.00
94.69 325 iPd 57 12. 8 C -0.5

Z 20s 1.10 urn 5 . 3Ms z
N 22s 0.80um
E 20s 1.1 0um
e 57 27.00
eSKS 07 47.00
eSKKS 08 14.00
iS 08 26.00
eSS 14 48.00
eSSS 18 28.00
95.18 22 ePd 57 15 . 30 0.0
0.8s 2l.00nm 5. 6mb
96 . 1 1 197 eP 57 22.00 2 . 4X
e 58 04.00
e 59 16.00
e 00 34.00
ePP 01 12 . 00
eSKS 07 55.00
e 08 06.00
eSKS 08 16.00
e 08 27.00
tS 08 43.00
e 09 00.00
e 09 07 .00
ePS 10 01 .00
e 1 0 40 . 00
ePPS 10 58.00
<? 12 10.00
eSS 15 18 .00
97.81 13 ePc 57 27 .00 -0.1
0.7s 13.00nm 5. 6mb
101.71 316 iPdiff57 43.00 -2.3
105.42 320 ePKP 02 10.00 -5.7X
e 02 30.80
106.49 334 Pdiff 58 04.70 -1.6
0.9s 4.50nm 5. 5mb
107.60 319 ePKP 02 33.80 15. 3X
108.78 322 ePKP 02 22.00 0.2
e 02 48.50
108.85 323 ePKP 02 22.80 0.9
e 02 54.00
109.27 324 ePKP 02 25.00 2 . 4X
Z 20s 0.50um 5.1MS2
i 02 51 .30
i 03 1 7 . 80
109.64 321 PKP 02 22.50 -1.0
e 02 30.00

109.64 317 e(PKP)02 24.70 1.1
109.97 318 e(PKP)02 25.00 0.8
110.13 318 e(PKP)02 24.50 0.0
110.40 318 ePKP 02 25.50 0.4

111.49 320 e(PKP)02 20.00 -7 . 2X
0.7s 8 . 80nm
i 02 27.90
111.81 316 PKP 0228.10 0.3
112.43 317 PKP 02 29.70 0.9
113.24 317 PKP 02 30.00 -0.5
114.32 322 ePKP 02 32.70 0.1
0.8s 10. 75nm
114.52 322 ePKP 02 33.20 0.3
0.6s 5 . 40nm
Z 20S 0.93um 5.4Msz
114.85 316 ePKP 02 34.00 0.2
0.8s 8 . 05nm
115.28 320 ePKP 02 35.20 0.5
0.6s 3 . 60nm
115.28 320 ePKP 02 35.10 0.4
0.6s 3 . 60nm
115.45 318 ePKP 02 34.90 0.1
0.6s 9 . 00nm
116.36 322 ePKP 02 36.90 0.5
0.7s 5 . 50nm

Z 20s 1 . 48um 5. 6Msz
116.41 322 ePKP 02 36.80 0.3
0.8s 1 8 . 05nm
116.64 322 ePKP 02 37.40 0.5

1.0s 8 . 00nm
SSF 116.67 322 ePKP 02 37.40 0.5
0.7s 12.1 5nm
AVF 116.88 322 ePKP 02 37.40 0.1
0.8s 7 . 40nm
BGF 117.30 322 ePKP 02 38.80 0.6
0.6s 1 4 . 45nm
MAF 117.62 322 ePKP 02 39.30 0.5
0.6s 2 . 25nm
TCF 117.81 322 ePKP 02 39.70 0.5
0.8s 1 0 . 75nm
LSF 118.25 322 ePKP 02 40.40 0.4
0.8s 12.1 0nm
CAF 118.52 321 ePKP 02 41.60 1.0
1.0s 1 0 . 00nm
RJF 118.70 321 ePKP 02 41.60 0.7
0.8s 8 . 05nm
Z 20s 1 . 42um 5 . 6Msz
ANMO 118.72 52 PKP 02 41.00 -0.5
ALO 118.72 52 «PKP 02 42.00 0.5
LPF 118.90 325 ePKP 02 41.70 0.6
1.0s 16. 00nm
MFF 119.09 323 ePKP 02 42.00 0.4
0.6s 10. 80nm
LPO 119.19 321 ePKP 02 4-2.80 1.0
0.7s 8 . 80nm
IFF 119.35 321 ePKP 02 43.00 0.9
0.7s 6 . 60nm
EPF 120.49 319 ePKP 02 45.10 0.7
0.8s 6 . 70nm

MEO 124.83 49 e(PKP)02 53.90 0.9
Till 126.42 47 ePKP 02 56.40 0.4
1.2s 21 . 70nm
Z 20s 0.94um 5.5Msz
N 22s 0.49um
E 22s 1 . 23gm
LR 43 43.00

UYO 128.18 48 e(PKP)03 01.00 1.6
TIC 135.38 276 PKP 03 06.66 -7 . 0X
LIC 135.40 276 PKP 03 06.12 -7.6X
Z 21s 0.46um 5.2Msz
MBO 145.84 291 iPKPd 03 35.30 3.1X
PT10 148.95 120 iPKPd 03 43.00 5.7X
NNA 149.10 120 ePKP 03 42.50 4.9X
1.0s 56 . 00nm
UPA 149.77 78 iPKPd 03 43.50 5.0X
1.3s 1 61 . 54nm
ARE 150.95 133 ePKP 03 43.00 2.4X
CUMC 151.74 94 ePKP 03 44.56 2.3
ANCC 152.86 88 ePKP 03 43.48 0.3
HOOC 153.09 89 ePKP 03 +4.80 1.0
CLMC 153.16 88 «PKP 03 44.52 0.7
CNCB 153.17 138 PKP 03 47.00 2.8X
LPB 153.29 138 PKP 03 52.20 8.0X
1.0s 80 . 00nm
Z 1 8s 1 . 37um 5 . SMsz
LR 55 30.00
ZOBO 153.46 137 PKP 03 47.10 2.5X
LR 56 14.00
BMA 153.76 192 ePKP 03 53.20 9.0X
CCH 153.93 142 ePKP 03 49.00 4. IX
PPD 154.93 176 ePKP 03 47.60 1.9
e 0411.10
SIV 157.90 150 PKP 03 51.20 1.4
i 04 21 .00
BAO 161.27 185 ePKPd 03 55.50 2.0
SOB1 164.93 215 ePKP 04 01.50 4.5X
S.D. - 1.2 on 150 of 180 obs.

? AUG 11, 1991 15h 14m 28.23± 0.97s
38.302 N ±11. 4km 21.947 E ± 9.7km
DEPTH - 5.0km (g«ophysicist)
GREECE (364)
ML 2.9 (ATM) .

VLS 1.08 264 ePb 14 48.50 -0.5
eSb 15 06.60
ATH 1.43 103 ePb 14 54.00 -0.9
VLI 1.77 153 ePb 15 00.50 0.8
KZN 2.01 356 ePn 15 03.70 0.5
OHR 2.9+ 343 eP 15 21.00 4.5X
S.D. -1.4 on 4of 5 obs .

AUG 11, 1991 I7h 04m 08.17± 1.05s
4-2.961 N ± 7.8km 16.230 E ±11. 4km
DEPTH - 10.0km (geophys i C i S t)
ADRIATIC SEA (382)

lid 1 7h

94

MO 3.1 (TRI) .

DU 1 1 . 85 226 P 04 40 40 0.2
?A I 1 . 90 1 65 P 0445.00 4 . 1 X
SD 1 2.19 236 P 0445.50 0.4
BRT 2 . i.' 0 1 6 0 P 0444.00 -1.4
eSn 05 08.50
AP.V 2.46284P 0450.50 1.5
SGO 2 . 5 0 1 9 6 P 044900 -0.5
ASS 2.62274P 0451.60 0.3
MNS 2.68 259 P 04 52.00 -0.2
MGR 2 87 190 P 04 53.30 -1.4
LCI 293153P 0458.00 2-5

TRI 3.27 328 e(Pn) 05 08.40 8. OX
i(Sr,) 05 37.50
VVI 4 . O 7 3 1 9 P 0511.30 -0.5
FV 1 4. 38 327 P 05 16 . 30 0.1
CT 1 4. 50 315 P 05 1 7 .00 -1.0
S.D. -1.2 on 12 of 14 obs .

> AUG 11, 1991 17h 25m 42.19± 3.41s
31.871 S ±29. 9km 70.169 W ±27. 1km
DEPTH - 109.8 ± 41.6 km
CHILE-ARGENTINA BORDER REGION (127)

JACH 0.88 204 iP 26 02.50 -0.1
iS 26 1 8 . 50
ROCH 1.31 213 iPc 26 07.50 0.2
iS 26 25.60
PEL 1.34 199 iPc 26 07.50 0.0
iS 26 25.50
RTLL 1.55 70 iPd 26 10.00 0.0
S 26 30.00
PCH 1.77 189 iPd 26 13.00 0.2
iS 26 35. 50
TACH 1.89 200 iPd 26 14.00 -0.3
iS 26 38.00
LCCH 1 99 216 eP 26 15.50 0.0
S.O =0.2 on 7 of 7obs.

AUG 1 > , 1991 I8h 52m 43.58± 0.87s
37.014'N ± 8.8km 29.328 E ± 6.3km
DEPTH * 10.0km (geophysicist)
TURKEY (366)

ELL 0.54 120 iPg 52 54.00 -0.4
YER 0.84 279 ePg 53 00.60 0.7
eSg 53 13.60
CIN 1.15 301 iPc 53 04.00 -1.1
KHL 1.32 7 ePn 53 07.00 -1.0
1 ZM 2.14311 ePn 5320.30 0.4
DST 2.65 348 «Pn 53 27.30 0-2
YLV 3.55 1 ePn 53 40 .00 0.1
BBTK 3.90 43 eP 53 46.00 1.0
S.D. - 0.9 on 8 of 8 obs.

« AUG 11, 1991 19h 46m 56.67± 1.11s
24.068 S ±12. 1km 66.904 W ±12. 0km
DEPTH «= 200.0km (geophysicist)
SALTA PROVINCE, ARGENTINA (129)

SLA 1.44 117 iPc 47 30.50 0.1
S 47 55.50
ANT 3.23 276 iPc 47 49.40 -0.1
iS 48 27 .80
CNCB 7.29 352 PC 48 43.50 1.4
S 50 08.00
LPB 7.58 351 P 48 45.00 -0.9
ZOBO 7.84 351 P 48 49.30 -0.2
S 50 17.80
S 1 V 9.72 35 P 49 13 . 00 -0.3
S.D. -1.0 on 6 of 6obs.

? AUG 11. 1991 20h 39m 45.72± 0.68s
15.946 S ±28. 8km 176.083 W ±22. 2km DEPTH = 300.0km (geophysicist)
4 . 9mb ; 9 obs .)
FIJI ISLANDS REGION (181)

DZM 17 60 247 iPc 43 35.10 1.8
COO 32 69 238 eP 45 53.70 1.1
0.0s 1 9 . 00nm 4 . 8mb
CNB 36.38 231 iPd 46 24.60 0.9
0.7s 77 . 00nm 5 . 3mb
CAN 36.66 232 eP 46 26.30 0.3
BWA 36.77 233 eP 46 25.70 -1.2
TOO 40.13 230 iPd 46 55.30 0.8

0.8s 56 . 00nm
STK 41.53 240 iPd 47 07
0.3s 9 . 20nm
CIS 42.24 257 eP 4713
WR2 47. 18 257 eP 4750
0.9s 47 . 60nm
WRA 47.20 257 P 47 51
0.8s 39.40nm
ASPA 47.49 252 eP 47 52
0.4s 80 . 90nm
FORR 52.83 243 eP 48 32
0.4s 28.00nm
WARB 54.05 249 i Pd 48 41
COOL 58.81 243 eP 49 14
MBL 60.63 254 eP 49 27
KLB 61 .69 242 eP 49 33
BAL 62.64 244 eP 49 40
MUN 63.00 242 eP 49 43
NANU 64.43 252 eP 49 53
ALO 83.14 51 eP 5140
1.2s 8 . 98nm
ANMO 83.14 51 P 5140
FBA 83.43 12 P 5140
KSP 143.79 347 ePKP 58 44
MOX 144.83 351 ePKP 58 49
PRU 144.97 348 PKP 58 48
FLN 147.08 5 ePKP 58 53
1.0s 20 - 00nm
LDF 147.27 5 ePKP 58 54
0.8s 8 . 03nm
GRR 147.41 6 ePKP 58 55
0.6s 4 . 50nm
LPF 147.74 6 ePKP 58 56
0.6s 5 . 40nm
LOR 148.77 0 ePKP 58 59
0.6s 1 . 80nm
SSF 148.97 1 ePKP 58 59
1.0s 6 . 00nm
LBF 149.05 360 ePKP 58 59
1.0s 9 . 00nm
AVF 149.24 1 ePKP 58 59,
0.6s 1 . 80nm
MFF 149.25 5 ePKP 59 00 .
0.6s 3 . 60nm
SMF 149.39 0 ePKP 59 00,
0.6s 1 . 80nm
BGF 149.47 1 ePKP 59 00.
1.0s 10. 00nm
TCF 149.72 2 ePKP 59 01 .
1.0s 6 . 00nm
LSF 149.72 3 ePKP 59 00.
1.2s 13. 40nm
MAF 149.79 2 ePKP 59 01 .
1.0s 6 . 00nm
LPL 150.43 356 ePKP 59 03.
0.8s 4 . 05nm
LPG 150.44 356 ePKP 59 01.
0.8s 4 . 05nm
OHR 150.98 333 ePKP 59 04.
CAF 151.07 3 ePKP 59 04 .
0.6s 3 . 60nm
LPO 151 . 26 4 ePKP 59 04 .
0.6s 4 . 50nm
S . D . - 1 . 1 on 26 of '

« AUG 11. 1991 21 h 11m 17.
21 .283 S ±15. 5km 175.535
DEPTH - 15.2km (2 dept
4 . 7mb (5 obs .)
SOUTH OF FIJI ISLANDS

NDF 3 .95 28 eP 1217.
SVA 4.18 42 iPc 1223.
eS 13 15.
VUN 4.27 41 eP 12 23.
OVA 4.71 41 eP 1230.
KRO 5.37 43 i PC 1239.
DZM 8. 49 263 iPc 1323.
COO 23.15 242 eP 16 25 .
RMO 25.01 253 eP 16 52.
i 16 56 .
STK 32.02 244 eP 17 45.
0.9s 1 . 70nm
ASPA 38. 45 258 iPc 1841.
1.0s 14. 90nm
WR2 38.48 264 iPc 18 40.
0.4s 9 . 50nm

4 . 9mb
40 1.4
4 . 5mb
00 1.2
60 -0.3
4 . 8mb
00 0.0
4 . 8mb
90 -0.3
5 . 4mb
00 -1.2
5 . 0mb
80 -0.4
00 -1.6
50 -0.5
00 -1.9
00 -1.1
00 -0.5
00 0.3
00 0.1
4 . 5mb
20 0.3
60 0.1
90 -1.7
00 0.6
60 0.0
90 1.8

50 2. 1 X

20 2.6X

20 3.0X

00 4 . 1 X

60 4. 4X

60 4 .2X

80 4.2X

10 4.5X

40 4 .6X

40 4 .5X

10 4 . 8X

90 4 .6X

40 5 . 0X

90 6.2X

40 3.6X

30 5.9X
60 6.2X

70 6. 0X

4 obs.

75± 0.73s
E ±1 2 . 1 km
h phoses)

(171)

00 -2.0
20 0.8
40
30 -0.4
40 0.5
60 0.3
40 0.3
00 0.5
00 9.5X
70 17km
60 -0.2
4 . 0mb
70 0.8
4 . 7mb
30 -0.8
4 . 9mb

WRA 38.50 264 P 18 40.00 -1.3
1.1s 9 . 20nm 4 . 4mb
KAKJ 66.24 329 P 22 10.80 3.6X
CHJJ 66.68 328 P 22 11.30 1.2
IIDJ 66.77 327 P 22 14.90 4.2X
MAT 67.46 328 eP 22 19.00 4.0X

(S) 31 19. 00
MTMJ 67.69 328 P 22 20.00 3.4X
TSRJ 67.81 326 P 22 17.40 0.2
SPA 68.85 180 eP 22 13.00 -10. 5X
1.0s 9 . 50nm
BJI 82.32 318 eP 23 57.00 16. 9X
SBB 84.24 49 eP 23 53.00 2.8X
PLM 84.26 51 eP 23 54.00 3.5X
ISA .84.29 48 eP 23 56.00 5.6X
CHG 84.88 292 <rP 23 58-00 4.4X
CLC 84.98 49 eP 23 57.00 3.2X
GSC 85.28 49 eP 24 01.00 5.6X
NVL 87.49 185 P 24 05.00 -0.6
e 24 18.00 43kmX
LZH 88.53 310 eP 24 19.60 8.3X
1.2s 19. 00nm 5 . 3mb
Z 24s 0 . 26um 4 . 6MszX

pP 24 24.00 14km
FBA 90.42 15 P 24 20.00 0.7

ALO 92.67 54 e(P) 24 33.00 2.4X
ANMO 92.67 54 P 24 33.10 2.5X
KSP 146.30 336 ePKP 31 04.00 6.0X
e 31 06. 50
BRG 147.12 338 iPKP 31 08.40 9. IX
0.8s 1 0 . 00nm
PRU 147.65 337 ePKP 31 09.20 9. IX
KHC 148.71 337 PKP 31 10.50 8 . 6X
1.4s 1 4 . 70nm
i 31 21 .50
LJU 150.83 332 e(PKP)31 15.00 9.8X
VBY 150.92 331 e(PKP)31 15.30 10. 0X
WTTA 150.99 337 e(PKP)31 09 . 00 3.4X
0.9s 7 . 70nm
i 31 19 . 40
VOY 151.11 333 e(PKP)31 13.10 7.4X
CEY 151.11 332 e(PKP)31 15.00 9 . 3X
S.O. -0.9 on 15of 40 obs .

AUG 11, 1991 21h 25m 49.76± 0.54s
45.432 N ± 5.2km 21.135 E ± 7.3km DEPTH - 10.0km (geophysicist)
ROMANIA (358)
ML 3.3 (VKA) .

TIM 0.31 1 1 iPd 25 58.00 1.8
SSR 0.71 143 ePd 26 02.00 -1.8
BED 0.78 218 iPg 26 07.30 2.4
iSg 26 19.20
OEV 1 .32 69 iPc 26 15.50 1.4
UZD 2.12 304 «Pn 26 26.00 0.3
BUD 2.52 325 ePn 26 30.70 -0.6
PSZ 2.63 342 iPn 26 31.20 -1.9
CMP 2.76 92 ePd 26 41.00 6.2X
BMR 2.77 35 «Pc 26 52.00 17. 0X
SRO 3.07 322 iPn 26 39.80 0.6
i (Sn) 27 14.10
VTS 3.21 151 eP 26 42.00 0.7
MLR 3.38 87 iPc 26 48.00 4.2X
SKO 3.47 176 ePn 26 50.00 5.2X
SPC 3.81 351 eP 26 49.40 -0.5
i 27 07 . 70
e 31 02.60

ZST 3.91 316 e(Pn) 26 50.00 -1.2
i 26 56.70
i 27 35.90
e 31 06.60
VAY 4.24 165 ePn 26 55.30 -0.5
OHR 4.33 183 ePn 26 57.00 -0.1

VKA 4.35 312 e(Pn) 26 58.50 1.1
iSn 27 47.20
eSg 28 10.00
e 31 12 . 00
RZN 4.56 144 iP 27 00.00 -8.5
KHC 6.33 308 Pn 27 24.50 -1.0

Pg 27 38.50
Sg 28 32.00
S . D . - 1 . 3 on 16 of 20 obs.

AUG 11, 1991 2lh 40m 45.07± «.56s
42.221 N ± 6.6km 145.125 E ± 9.1km DEPTH - 33.0km (normal)

95

lid 21h

4.6mb (15 obs.) 4.5Msz (2 obs.)
HOKKAIDO, JAPAN REGION (224)

KUSJ 0.93 341 iPd 41 00.90 -0.8
eS 41 11.50
HOOJ 1.37 277 P 41 09.70 1.6
eS 4126.76
ASAJ 2.63 317 P 41 26.70 0.7
eS 4159.80
MRRJ 3.01 275 eP 41 32.60 1.1
eS 4208.20
AOMJ 3.9* 247 eP 41 47.00 2.3
OFUJ 4.09 221 P 41 47.30 0.4
S 4231.86
YAMJ 5.61 226 P 42 C8.16 -0.3
S 43 10. 96
NIIJ 6.86 225 P 42 25.20 -0.7
KAKJ 7.13 214 P 42 28.30 -1.4
S 43 46.30
CHJJ 7.79 220 P 42 39.60 0.7
S 4482.70
MAT 7.80 226 iPd 42 38.60 -0.5
0.6s 16.67nm 5. 3mb X
(S) 44 06. 00
MTMJ 7.98 228 P 42 41.20 -0.6
YAK 21.86 340 eP 45 30.40 -5 . 9X
e 4924. 00
BJ I 21.87 274 eP 45 35.00 -1.7
LZH 32.35 273 eP 47 13.00 -0.6
1.0s 26.00nm 5. 1mb
FBA 43.20 35 P 48 46.60 2.5

epP 48 54.00 25kmX
CHG 45.43 254 eP 49 03.30 0.7
INK 48.47 29 eP 49 26.00 0.2
GUN 49.62 273 P 49 36.60 0.9
KKN 50.13 273 P 49 39.00 -0.4
0.9s 23 . 00nm 5 . 2mb
PKI 50.15 273 P 49 39.20 -0.6
DMN 50.36 273 P 49 41.20 0.0
GKN 50.49 274 P 49 41.60 -0.5
KAF 65.01 333 IP 51 20.80 -2.8
0.6s 2 . 30nm 4 . 5mb
NUR 66.71 332 eP 51 32.00 -2.5
NB2 70.48 338 P 51 56.40 -1.5
0.8s 4 . 40nm 4 . 6mb
HFS 70.51 337 eP 51 56.00 -2.0
0.5s 1 . 60nm 4 . 3mb
CLL 77.97 332 i Pd 52 40.70 -0.5
PRU 78.50 330 eP 52 44.50 0.4
KHC 79.56 330 eP 52 50.00 0.0
LOR 84.51 335 eP 53 16.40 0.7
0.8s 2 . 70nm 4 . 5mb
Z 20s 0 . 1 7um 4 . 4Msz
LBF 84.73 334 eP 53 16.60 -0.2
0.8s 2.70nm 4. 5mb
SSF 84.81 335 eP 53 17.90 0.7
0.8s 2 . 70nm 4 . 5mb
SMF 85.07 334 eP 53 18.60 0.1
0.8s 2.70nm 4. 5mb
LPL 85.09 332 eP 53 19.40 0.5
AVF 85.10 335 eP 53 18.90 0.3
0.8s 2.70nm 4. 5mb
LPG 85.10 332 eP 53 19.60 0.5
0.8s 2.70 nm 4 . 5mb
MAF 85.85 335 eP 53 23.10 0.7
0.8s 4 . 05nm 4 . 7mb
LSF 86.15 336 eP 53 24.50 0.6
0.8s 4 . 05nm 4 . 7mb
LRG 87.02 331 eP 53 28.40 0.3
6.8s 5.35nm 4. 8mb
Z 20s 0 . 22um 4 . 6Msz
LMR 87.07 331 eP 53 28.50 0.1
CAF 87.17 335 eP 53 30.10 1.2
0.6s 3.15 nm 4 . 7mb
SIV 145.52 49 PKP 00 22 70 1.0
S.D. = 1-1 on 42 of 43 obs.

& AUG 11. 1991 21h 40m 46.17s
61 . 639 N 1 50 . 846 W
DEPTH - 55.6km
SOUTHERN ALASKA (2)
<AEIC> . ML 2.6 (AE 1C) .

SUA 0.18 164 iPd 40 55.45 0.2
PWA 0.46 88 ePd 40 57.37 -0.1
eS 41 06.20
SKT 0.47 317 iPd 40 56.80 -0.8

iS 4105.75
CGLM 0.65 240 iPc 40 59.29 -0.5
S 41 09. 93
NCG 0.67 250 eP 40 59.45 -0.6
eS 41 10.27
PMS 0.73 122 ePc 41 00.14 -0.6
SPU 0.74 232 iPc 41 00.18 -0.7
eS 4111.28
CUT 0.82 19 iPc 41 00.94 -0.8
eS 41 12.82
PLRM 0.82 93 ePc 41 00.86 -0.9
BGL 0.83 244 eP 41 01.26 -0.8
S 4113.96
CKL 0.84 239 iPc 41 01.48 -0.8
eS 41 14.43
NKA 0. 92 192 eP 4104.83 1.7
GHO 0.93 81 ePc 41 02.80 -0.5
eS 41 16.73
KNK 1.17 100 ePc 41 06.06 -0.5
SLKM 1.18 165 ePd 41 05.64 -1.0
ROT 1.31 216 iPc 41 07.66 -0.9
eS 4125.11
DFR 1.38 221 i PC 41 08.86 -0.7
eS 4127.04
HUR 1.46 22 ePc 41 10.13 -0.4
RON 1.46 220 eP 41 09.85 -0.9
eS 41 28.84
REF 1.46 219 ePc 41 10.14 -0.7
NCT 1.48 224 eP 41 09.78 -1.2
RSO 1.50 219 ePc 41 10.76 -0.6
ROW 1.50 220 iPc 41 10.77 -0.6
RED 1.54 218 ePc 41 11.11 -0.7
NNL 1.62 188 eP 41 13.50 0.7
SEW 1 . 69 155 eP 4113.81 0.1
TRF 1.84 8iPc 4115.08 -0.9
KTH 1.92 359 i PC 41 16.39 -0.7
GL I 1 . 97 1 1 1 eP 4115.21 -2.4
RND 2.00 27 eP 4116.82 -1.4
CNPM 2.13 185 eP 41 19.05 -0.9
LTI 2-17 136 eP 41 19.62 -0.9
TOA 2. 26 76 eP 4121.10 -0.8
KLU 2.36 91 eP 41 21.49 -1.8
BWN 2.62 13 eP 41 23.69 -3.2
SDG 2.65 68 eP 41 27.13 -0.2
TTA 2.74 300 eP 41 26.76 -1.9
PAX 2.84 60 eP 41 30.43 0.2
WRH 3.11 23 eP 41 31 . 98 -1.8
39 obs. ossocioted
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? AUG 11, 1991 22h 04m 17.41± 2.43s
33.647 S ± 9.8km 117.964 E ±26. 5km
DEPTH - 10.0km (geophy s i c i s t)
WESTERN AUSTRALIA (590)

NWAO 0.94 319 eP 04 35.30 -0.1
eS 04 48.50
RKG 1.21 220 eP 04 40.00 0.0
eS 04 55.50
KLB 2.06 355 eP 04 52.40 0.0
eS 0519.00
MUN 2.23 318 eP 04 55.00 0.1
eS 05 22.50
S.D. -0.1 on 4of 4 obs.

% AUG 11. 1991 23h 38m 57.54± 1.73s
11.106 N ± 8.0km 61.923 W ±21. 5km
DEPTH - 33.0km (normol)
WINDWARD ISLANDS (95)

TCE 0. 44 158 IP 39 07 . 23 0.0
eS 39 14.35
TRN 0.68 132 IP 39 10.43 -0.3
iS 3922.76
TPP 0.91 149 eP 39 14.20 0.2
eS 39 28.27
GRW 1 . 08 14 iP 3916.41 0.0
eS 39 36.37
TPR 1.13 86 i P 3917.19 0.1
eS 39 35.91
S.D. -0.3 on 5of Sobs.

? AUG 12, 1991 00h 41m 23.95± 3.60s
31.397 S ±19. 0km 71.900 W ±32. 3km
DEPTH - 33.0km (normol)
NEAR COAST OF CENTRAL CHILE (135)

IHA 1.64 172 eP 41 51.00 0.2

i 42 05.60
iS 42 14 . 00
JACH 1.69 139 iP 41 50.00 -1.8
ROCH 1.74 155 i PC 41 52.50 0.0
PEL 2.02 150 iPd 41 55.90 -0.6
iS 42 17 .00
LCCH 2.09 172 iPc 41 58.00 0.7
TACH 2.39 160 iP 42 02.00 0.3
iS 42 27 .80
PCH 2.51 153 iPd 42 03.10 -0.3
CHCH 2.74 158 iPd 42 06.90 0.3
ZON 2.76 94 eP 42 09.00 2.2
eS 42 23.00
CYA 6.06 63 iP 42 52.60 -1.1
(S) 42 55.20
S.D. =1.2 on 16 of 10 obs.

» AUG 12, 1991 01h 29m 22.81± 1.67s 14.617 N ±10. 2km 119.396 E ±23. 9km
DEPTH - 33.0km (normol)
4 . 5mb (4 obs .)
LUZON, PHILIPPINE ISLANDS (249)

TGY 1.58 109 iPd 29 48.00 -0.8
iS 30 10.00
PGP 1.87 126 iPd 29 54.00 0.9
i S 30 17 .00
SZP 3.09 19 iPd 30 12.00 1.6
PIP 3.87 17 iPd 30 20.00 -1.4
1.0s 300 . 00nm
LZH 25.51 330 eP 34 54.60 4.4X
1.9s 21.00nm 4. 4mb
WRA 37.36 156 P 36 49.00 14. 7X
1.3s 1 . 90nm
WR2 37.37 156 i PC 36 33.60 -0.8
0.5s 9.70nm 4. 9mb
ASPA 40.61 159 eP 37 01.90 0.5
0.7s 8 . 1 0nm 4 . 6mb
NB2 85.87 332 P 42 03.90 3.5X
0.8s 1 . 60nm 4 . 3mb
S.D. - 1.5 on 6 of 9 obs.

% AUG 12, 1991 02h 04m 01.09± 0.88s
37.181 N ± 7.4km 3.521 W ±10. 6km
DEPTH - 5.0km (geophy s i c i s t)
SPAIN (377)
mbLg 2.8 (MDD) .

AFC 0.08 345 iPgc 04 02.00 -1.0
EGUA 0.35 186 ePg 04 07.50 -0.6
eSg 04 12.80
EHUE 0.97 49 ePg 04 20.70 0.6
eSg 04 35.00
EPRU 1.38 262 ePg 0-4 28.00 0.9
eSg 04 46 . 80
EVIA 1.66 29 ePn 04 31.20 0.1
eSn 04 53.00
S.D. -1.1 on 5of Sobs.

? AUG 12, 1991 03h 48m 37.59± 2.55s
9.694 S ±30. 7km 125.378 E ±11. 8km
DEPTH - 33.0km (normol)
4 . 2mb (1 obs .)
TIMOR (289)

KUPT 1.80 255 eP 49 07.00 0.1
MTN 6.45 120 eP 50 13.00 0.2
0.3s 1 00 . 00nm 6 . 1mb X
eS 51 27.00
KNA 6.87 152 eP 50 20.00 1.4
eS 51 35.00
WR2 13.39 141 «P 51 46.80 -1.0
0.2s 22 . 50nm 5 . 8mb X
eS 54 13.20
ASPA 16.11 151 eP 52 23.20 -0.1
0.3s 5.60nm 4. 2mb
eS 55 18.50
WARB 16.45 176 eP 52 27.00 -0.6
S.D. -1.1 on 6of 6 obs.

? AUG 12, 1991 04h 28m 52.89± 3.12s
10.945 N ±12. 4km 62.263 W ±34. 9km
DEPTH - 70.0km (geophy s i c i s t)
NEAR COAST OF VENEZUELA (97)
MD 3.3 (TRN) .

TCE 0.56 116 iPc 29 06.35 -0.1

12d 04h

96

iS 29 16 . 14
TRN 6 . 90 109 ePd 29 16 13
eS 2922.24
TPP 1.01 1 28 eP 2912.0S
eS 29 26. 74
GRW 1.34 26 eP 2916.77
eS 29 36.83
TPR 1,48 81 eP 2918.64
SVB 2.52 23 eP 2931.82

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S . D . =6.5 on 6of 6ot>s.

AUG 12, 1991 64h 59m 39.27+
45. 467 N±2.7km 21 . 153 E ±
DEPTH = 10.0km (geophysicis
4 . 2mb (4 obs .)
ROMAN I A

ML 4.5 (VKA). MD 4.2 (TTG)

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(IV) at Timisoora. Felt olor>g
the Yugos I ov i a-Roman i o border.
Also felt ot Be I g r ode ,
Yugo s I o v i o .

SSR 0.73 145 ePc 59 54.00

BEO 0.81 218 i Pgc 59 54 . 20
i Sg 00 06 . 70
GZR 1.15 93 i Pd 60 02 . 50
DEV 1.30 71 i PC 0005.00
UZD 2.12 303 iPnd 00 15.70
DRA 2.34 109 eP 60 28.00
PLE 2.48 211 iPnd 00 20.62
i Sn 00 51 .22
BUD 2.50 325 iPnd 00 21.40
CMP 2.75 93 i PC 00 31 . 00
I VA 2.75 200 iPnc 00 24. 77
i Sn 00 57 . 87
MTUR 2.77 94 P 6030.00
PVY 2.99 197 iPnc 00 28.14
i Sn 01 03 . 97
SRO 3.06 321 iPnc 00 29.20
1.0s 1 . 30nm
i 00 37 . 60
i (Sn) 01 06. 70
i 0125.70
ig 0147.00
NKY 3.07 211 iPnd 00 28.46
iSn 01 05.97
BRY 3.18 217 iPnc 00 29.86
i Sn 01 07.91
VTS 3.23 152 iP 66 30.00
TTG 3.33 205 iPnd 00 32.21
i Sn 01 12.01
MLR 3.37 88 Pd 00 35.50
SKO 3.50 176 ePn 00 34.50
1.4s 852 . 00nm

iPg 00 45 . 00
i 00 47 .80
iSg 01 29. 00
i 01 33 00
i 01 46.56
i 01 50 . 50
i 01 58 .00
HCY 3.58 213 iPnc 00 36.36
i Sn 01 17.11
BDV 3.60 209 i Pnd 00 36.69
i Sn 01 18.17
BUC1 3.64 106 ePd 00 58.00
ZAG 3.64 277 i(Pn) 00 37.50
i Sg 01 40 .20
PTJ 3.67 279 i Pnc 00 36.80
eSn 01 25 . 00
PVL 3.75 125 i Pd 00 38. 00
ULC 3.76 202 i Pnc 00 38.91
iSn 0122.24
SPC 3.77 351 iPn 00 40.50
i 00 50 .20
i 00 54.00
i (Sn) 01 20. 20
i 01 31 . 80
i (Sg) 01 47 . 70
Lg 01 53.00
1 SR 3.82 93 eP 00 42 . 50
ZST 3.90 316 iPn 00 39. 70
i 00 41 . 60
i 00 54 . 90
i (Sn) 01 20 . 80
VR 1 3.93 82 eP 00 43 . 00
HVAR 4.08 238 i Pn 00 43.20

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12. 0X
- 0.5

3. 7X
0. 1

0. 3

- 0. 3
- 8.3X
1 . 1

- 0.5

21 .2X
- 3.2X
9.7X
18. 6X
- 0.2

0.4
0.8

20. 9X
- 1 . 1
6.4X
0. 1

7.3X
1 .3

3 £ V. bX
0.0
2.7X
- 0 .8
4. 8X
1 . 0
- 0.3
- 0.2

- 1 .2

2.0
3.6X
1 . 9
- 0.3
- 1 . 0
- 0.4
- 4. 6X
4 . 5X
2.2
- 1.4
7 . 1X
1 . 4
0.7

1 .3
- 2. 3
0. 1
- 1 .7
2.3
- 1 .7

PRK 7.28 147 eP 01 27.00 -1.2
GRC1 7.45 302 i Pnc 01 29.30 -1.2
SAL 7.46 275 P 01 30.20 -0.6
BD I 7.64 263 P 01 33.00 -0.4
HRT 7.76 124 eP 01 35.00 0.0
HOF 7.90 311 eP 01 35.90 -0.9

CLL 7.97 320 (Pn) 01 36.00 -1.9
e 0154.00
DST 8.05 134 eP 01 37.00 -2.0
MOX 8.22 312 ePn 01 39.80 -1.6
1.5s 34 . 00nm 5 . 4mb X
Z 16s 0 . 50um
N 15s 0 . 40um
E 16s 0 . 40um
VLI 8. 84 171 eP 0151.50 1.5
CK 1 9.19 268 P 01 55.00 0.2
PGF 9.23 256 eP 01 55.60 0.1
TNS 9.77 304 eP 02 01.00 -1.9
SBF 9.91 266 eP 02 03.40 -1.3
CDF 9.94 292 eP 02 04.80 -0.4
0.6s 3.60nm 5.0mb X
LPG 10.12 275 eP 02 09.30 1.4
1.0s 20 . 00nm 5 . 5mb X
LPL 10.13 275 eP 02 09.50 1.5
0.8s 6 . 70nm 5 . 1mb X
BSF 10.16 289 eP 02 07.10 -1.1
BNI 10.22 273 P 02 07.00 -2.1
HAU 10.48 289 eP 02 11.80 -0.7
Z 20s 0.43um
FRF 10.54 265 eP 02 10.10 -3.2X
0.8s 8.05nm 5.2mb X
LMR 10.70 264 eP 02 13.00 -2.5
LRG 10.77 264 eP 02 13.70 -2.7X
WLF 10.97 298 P 02 25.00 5.8X
MEM 11.36 302 iP 02 24.80 0.2
ENN 11.47 303 eP 02 27.50 1.5
0.8s 15.00nm 5.4mb X
e(S) 06 20.00
WTS 11.49 310 e(P) 02 32.00 5.7X
LBF 12.00 283 eP 02 32.70 -0.5
DOU 12.06 299 P 02 36.80 2 . 8X
S 04 42.30
LOR 12.08 285 eP 02 35.40 1.0
Z 20s 0.40 urn 5.3MszX
SMF 12.09 282 eP 02 36.50 2.1
0.8s 5.35nm 4. 9mb
AVF 12.42 282 eP 02 38.20 -0.7
0.8s 4 . 05nm 4 . 7mb
TCF 13.23 280 eP 02 49.00 -0.6
OBN 13.77 40 eP 02 54.00 -2.7X

Z 12s 0.30um
E 12s 0.30um
ePP 03 09.00
eS 05 20.00
eSS 05 38.00
LO 07 06.00
LR 08 08.00
NUR 15.21 7 eP 03 15.00 -0.5
e 03 35.00
e 08 12.00
e 09 58.00
HFS 15.35 346 eP 03 18.10 0.8
0.4s 1 . 20nm 3 . 6mb
NB2 16.66 343 P 03 37.00 2.8X
0.7s 2 . 20nm 3 . 4mb
KAF 16.94 8 eP 03 36.70 -1.0
SOD 22.15 6 iP 04 39.80 3 . 4X
S.D. - 1.2 on 92 of 122 obs.

% AUG 12, 1991 07h 55m 01.33± 2.08s
15.950 N ±13. 1km 61.103 W ±23 . 1 km
DEPTH - 33.0km (normol)
LEEWARD ISLANDS (92)

MGG 0.21 261 eP 55 09.60 1.6
S 55 16.50
DEC 0.36 7 eP 55 10.00 0.0
S 55 18.00
BBL 0.56 220 eP 55 12.00 -0.8
S 55 22.00
PAG 0.56 278 eP 55 12.50 -0.4
BPA 1.31 327 eP 55 23.00 -0.4
S.D. - 1.3 on 5 of 5 obs.

* AUG 12, 1991 09h 19m 53.48± 1.96s
- 1.3 45.735 N ±11. 7km 26.660 E ±10. 8km

97

12d 09h

ROMANIA (358)

VRI 0.14 19iPc 2015.80 -0.2
3RD 0.35 129 iPc 20 16.50 0.8
MLR 8.56 244 iPc 2016.00 -1.4
I SR 0.60 188 iPc 20 16.00 -1.5
CLI 0.92 28 iPc 20 21.50 2.0
CFR 1.19 117 iPc 20 21.00 -0.6
CMP 1.23 248 iPd 20 23.00 0.9
MTUR 1. 23 246 i PC 2023.00 0.8
TLB 1.50 139 iPc 20 24.50 -0.1
. 'AS 1.59 23 eP 2024.00 -1.5
PSN 2.32 152 iPd 20 35.00 1.3
PVL 2.69 201 iPd 20 39.00 0.9
JMB 3.27 181 iP 20 45.00 -0.4
PLO 3.89 202 eP 20 52.00 -1.4
VTS 4.01 220 eP 20 55.00 0.0
R2N 4.28 200 IP 20 59.00 0.3
MMB 4.66 208 iP 20 59.00 -4.4X
S.D. = 1.2 on 16 of I7obs.

% AUG 12. 1991 09h 21m 38.65± 1.81s
42.358 N ±10. 0km 19.937 E ±12. 6km
DEPTH = 10.0km (geophy s i c i s t)
YUGOSLAVIA (383)
ML 1 . 7 (TTG) .

PVY 0.24 7 iPgd 21 44.08 0.3
i Sg 21 47 . 83

iSg 21 56.37
IVA 0.51 357 iPgc 21 48.77 -0.3
i Sg 21 56.88
ULC 0.65 233 iPgc 21 51.37 -0.2
i Sg 2201.95
BDV 0.83 265 iPgd 21 54.92 0.3
i Sg 22 07 . 45
HCY 1.07 275 iPgc 21 59.02 0.2
i Sg 22 15.00
BRY 1.16 298 iPgd 22 00.38 -0.1
iSg 22 1 7 . 62
S.D. = 0.3 on 7 of 7 obs.

? AUG 12, 1991 10h 23m 07.46± 3.14s
6.068 S ±21. 4km 147.107 E ±31. 4km
DEPTH - 58 . 7 ± 1 5 . 3 km
4 . 0mb (2 obs .)
EAST PAPUA NEW GUINEA REGION (207)

LAT 0.59 190 iPc 23 19.60 -0.8
YYYY 1.15 261 eP 23 28.30 0.6
eS 23 50.00
MDG 1.55 302 eP 23 33.00 -0.1
PMG 3.32 179 eP 23 59.00 0.9
eS 24 41 . 00
WR2 18.54 221 eP 27 21.30 -0.5
0 . 3s 2 . 90nm 4 . 0mb
ASPA 21.62 215 eP 27 54.60 0.0
0.5s 3 . 50nm 4 . 0mb
S.D. =1.0 on 6 of 6obs.

? AUG 12, 1991 11h 52m 01.93± 1.69s
6.588 S ±19. 2km 145.987 E ±24. 3km DEPTH = 1 22 . 1 ± 29.9 km
4 . 0mb (1 obs .)
PAPUA NEW GUINEA (202)

YYYY 0.34 357 iPd 52 19.80 0.1
LAT 1.01 94 iPd 52 24.80 0.3
MDG 1.35 351 eP 52 27.80 -0.3
eS 52 54.70
PMG 3.03 158 iPc 52 49.00 -0.4
eS 53 25.00
WR2 17.43 219 eP 55 59.20 0.2
0.3s 2.90nm 4. 0mb
S.D. - 0.6 on 5 of 5 obs.

AUG 12, 1991 12h 02m 24.37± 0.63s
51.925 N ±14. 4km 171.719 W ± 7.4km
DEPTH = 33.0km (normal)
4 . 3mb (5 obs .)
FOX ISLANDS, ALEUTIAN ISLANDS (9)
ML 4.5 (PMR) .

ADK 3.08 271 eP 03 13.00 1.3
SVW 12.75 38 eP 05 33.00 7.0X

PWA 15.35 42 eP 86 07.60 7.7X
IMA 16.85 26 eP 86 21.70 2.6
1.2s 8 . 50nm 3 . 8mb
KLU 16.98 46 eP 06 20.00 -0.7
F8A 17.90 34 eP 06 31.50 -0.5
1.0s 1 5 . 00nm 4.1mb
INK 24.52 34 eP 07 41.00 -0.4
MBC 31.47 21 eP 08 44.00 -0.5
LON 32.40 79 *P 08 55.00 2.0
PNT 32.58 74 eP 09 03.00 8.5X
0.6s 4.00nm 4.5mb
NEW 34.53 74 eP 09 16.00 4.6X
MAT 38.23 266 eP 09 43. C0 0.3
1.0s 1 1 . 00nm 4 . 7mb
BONR 39.41 89 eP 69 54.00 1.1
FFC 40.19 57 eP 09 58.00 -0.7
0.9s 7 . 00nm 4 . 4mb
BW06 41.91 77 eP 10 12.00 -1.3
PLM 43.28 93 eP 10 25.50 0.9
GOL 46.27 78 «P 10 52.00 3 . 4X

e 1 1 36 . 00

CVL 63.04 62 e(P) 12 50.00 -0.2
GUN 75.65 297 P 14 08.66 0.4
KKN 76.07 297 P 14 09.86 -0.6
PK 1 76.17 297 P 1410.50 -0.7
GKN 76.26 298 P 14 10.50 -1.0
DMN 76.31 297 P 14 11.18 -0.7
S.D. -1.2 on 19 of 25 obs.

AUG 12, 1991 12h 02m 43.98± 1.04s
27.753 S ± 5.2km 71.404 W ± 1 4 . 3 km
DEPTH - 37 . 1 ± 1 7 . 4 km
NEAR COAST OF NORTHERN CHILE (122)

ANT 4.13 13 iP 03 47 .00 0.7
iS 04 32.00
RTLL 4.39 145 e(P) 03 52.00 2.0
S 04 38.60

ZON 4.46 149 e(P) 03 50.00 -1.0
JACH 4.96 172 iP 03 59.50 1.3
CYA 5.00 99 eP 03 59.00 0.3
1 HA 5.26 182 eP 04 10.50 8.3X

e(S) 05 28.50
PEL 5.41 174 iPd 04 04.50 0.1
iS 05 1 1 .50
LCCH 5.71 181 IP 04 07.50 -1.0
PCH 5.90 173 eP 04 11.50 0.1
LNV 6.18 180 eP 04 13.50 -1.7
ARE 11.24 360 eP 05 27.00 1.5
eS 07 27.00
CNCB 11.34 17 P 05 27.00 -0.2
CCH 11.41 26 eP 05 26.00 -1.8
LPB 11.58 16 P 05 35.00 4 . 8X
ZOBO 11.82 16 PC 05 33.00 -0.7
SIV 15.12 41 P 06 10.60 -6.1X
VAO 22.57 83 eP 07 42.00 -0.4
WRA 126.44 211 PKP 21 46.00 0.7
0.9s 0 . 70nm
G8A 147.74 110 PKP 22 31.00 6.9X

S.D. -1.3 on 15 of 19 obs.

AUG 12, 1991 12h 05m 08.27± 0.87s
41.241 N ± 7.0km 22.467 E ± 5.7km
DEPTH - 10.0km (geaphys i c i s t)
YUGOSLAVIA (383)
MD 2.4 (THE) .

VAY 0.11 44 iPg 05 10.80 -0.3
i Sg 0512.40
GRG 0.29 190 iPc 05 14.46 0.1
eS 05 19.56
KNT 0.33 103 iPc 05 15.50 0.3
eS 05 20.60
THE 0.72 148 ePd 05 22.01 -0.3
eS 05 31 .52
SOH 0.79 122 iPd 05 23.82 0.1
eS 0534.16
SRS 0.86 98 ePc 05 25.00 0.2
eS 05 36.96
FNA 0.94 241 ePd 05 26.56 0.3
eS 05 39.28
LIT 1.14 179 iPd 05 29.20 -0.4
eS 05 47.60
S.D. -0.4 on 8of 8 obs .

AUG 12, 1991 13h 02m 30-24± 0.16s
14.170 S ± 3.4km 14.255 W ± 3.8km
DEPTH - 10.0km (geophy s i c i s t)
5.5mb (62 obs.) 5.5Msz (24 obs.)
SOUTH ATLANTIC RIDGE (*10)
Mo-6 . 0» 1 0* * 1 7 Nm (PPT).
CENTROID, MOMENT TENSOR (HRV)
Doto Used: GDSN
L. P.B. : 22S, 46C
Centroid Location:
Origin Time 13:02:39.0 0.3
Lot 13.78S 0.03 Lon 14.51W 0.02

Dep 15.0 FIX Half-duration 3.0
Moment Tensor; Scole 10**17 Nm
Mrr--0.96 0.09 Mtt = 1.94 0.12
Mff--0.97 0.14 Mrt- 0.00 0.00
Mrf- 0.00 0.00 Mtf 4.36 0.09
Pr i nc i pa 1 Axes:
T Val- 5.08 Pig- 0 Azm-216
N -0.97 90 180

Best Double Coup I e : Mo-4 . 6* 1 0 * * 1 7
NP1 : S t r i ke = 261 Dip-90 Slip=-180
NP2: 351 90 0

LIC 22.23 25 P 07 27.90 -0.9
1.2s 987.00nm 6.1mb
2 20s 10.60um 5.3Msz
S 1 1 33.00
KIC 22.48 25 PC 07 30.50 -0.7
1.2s 689.00nm 6.0mb
TT 28 20.00
TIC 22.62 24 PC 07 31.82 -0.9
1.3s 807 . 00nm 6 . 0mb
CAI 23.74 286 i Pd 07 42.90 -0.7
MBO 28.50 355 eP 08 29.30 1.3
BMA 29.56 249 eP 08 35.00 -2.6
WIN 30.86 110 iPd 08 48.50 -0.8
1.5s 138.89nm 5.6mb
220s 9 . 22um 5 . 4Msz
VAO 32.17 249 eP 09 00.30 -0.3
BAO 32.62 263 ePc 09 04.00 -0.7
f*FD 1*^QX 1 *> ft \ D f* Ck a 1 1 QOt 1 O
1.0s 190 . 00nm 5 . 9mb
PPD 36.01 252 eP 09 33.90 0.2
e 09 45.30
KIM 38.92 118 iPc 09 58.50 0.2
1.3s 182 . 69nm 5 . 6mb
FRS 39.62 120 iPd 10 03.70 -0.2
0.7s 78.77nm 5.5mb
KSR 40.22 113 iPd 10 08.00 -1.1
1.0s 60 . 00nm 5 . 2mb
PRY 40.90 115 iPd 10 14.50 -0.1
SEK 41.28 117 iPd 10 22.70 4.9X
1.1s 189 . 87nm 5 . 7mb
BUL 41.30 104 iPc 10 17.70 -0.3
0.6s 48.33nm 5.4mb
i 10 25.50
SLR 41.44 113 iPd 10 14.50 -4.5X
1.0s 85 . 00nm 5 . 4mb
Z 20s 5.32um 5.4Msz
KRI 42.30 100 iPc 10 17.30 -8.9X
iPP 1 1 59.50
LWI 44.14 78 iPc 10 43.00 1.7
MTD 44.18 100 eP 10 42.10 0.6
i P P 12 29.40
JOZ 45.03 115 iPc 10 48.00 -0.1
1.5s 1 1 1 . 1 1 nm 5 . 6mb
SIV 45. 17 261 iPc 10 50. 20 0.8
CCH 49.92 259 P 11 27.00 0.2
EJ 1 F 51 .02 9 iPd 1 1 35.88 1.4
EPRU 51.57 9 iPc 11 39.32 0.6
CNCB 51.71 260 i PC 11 41.00 0.2
LPB 51 .85 260 P 1141.90 0.2
Z 24s 6.59um 5.6MszX
S 1912.00

ZOBO 51.90 260 i PC 11 41.00 -1.3
1.1s 40 . 60nm 5. 3mb
Z 20s 1 . 90um 5 . IMsz
S 1910.00

LR 27 52.00
NAI 52.06 80 iPc 11 48.50 5.5X
2 20s 2. 13um 5.2Msz
iS 18 22.00
ENIJ 52.12 12 iPc 11 43.03 0.2

12d 13h

98

AFC
ECOG
RTLL
EHOR
EALH
EV I A
ACU
JACH
PCH
PEL

SAN
CHCH
EPLA
10L

ROCH
TACH
LNV
LCCH
PTO
GUD
ETOR
EROQ
EBR

ERUA
STS
AAE
ECR 1
EGRA
EMON
ETER
BTH

EPF
NVL

ATN
SOI
ASW

LPO

LMR

PGF

LRG

LFF

CDR

FRF

CAF

MGR
CS 1
RJF

RDP
RMP
OR 1
SBF

RF 1

IM 1
SD 1

52 . 1 3 11 i PC 11 43.54 0.4
52 . 15 11 i Pd 11 43.49 0.3
52. 32 241 ePd 11 44 . 00 -0.7
52 . 40 9 i PC 1144.84 -0.1
53 . 14 1 3 iPd 1151.32 0.9
53.67 1 1 eP 115391 -0.5
53 . 98 1 3 iPd 1157.31 0.7
54 .26 240 i Pd 1 1 59.50 0.5
54 . 29 239 ePc 11 59. 00 -0.2
54 . 38 239 iPc 1 1 59. 60 -0.3
1.0s 335.00nm 6.3mb
54.40 239 ePc 11 59.70 -0.2
54.45 238 iPc 12 80.00 -0.3
54 . 49 8 iPc 12 61 .03 0.7
54 .68 10 i PC 12 01 .50 0.3
1.1s 101.27nm 5. 8mb
i S 19 55.00
54 .64 240 i Pd 12 01 .80 -0.2
54.65 239 eP 12 01 .30 -0.8
55.07 238 iPc 12 04.00 -0.8
55.16 239 iP 12 05.00 -0.4
55.27 5 eP 12 06 . 40 0:4
55 . 33 9 i PC 1 2 06 . 92 0.3
55.87 1 1 iPc 12 10.46 0.0
56 . 38 1 3 i Pd 1214.64 0.6
56.39 13 eP 12 15.00 0.9
eS 20 08.00
56 . 66 6 eP 1217.10 1.1
57 .01 5 iPd 12 19.03 0.5
57 .43 69 eP 12 23. 90 1.6
57 .52 10 i PC 12 22.57 0.4
57 .53 12 i PC 12 23.25 1.1
57 .67 6 i Pd 12 23 . 86 0.7
58 .36 15 i PC 1227.70 -0.2
58 . 45 12 i Pd 1 2 29 . 20 0.6
i 12 30. 70
ePcP 12 57 . 00
e 14 31 .50
PP 14 36.00
eLR 36 40.00
58 . 47 13 iPc 12 29. 10 0.3
58.79 170 eP 12 31 .00 0.4
e 12 38 .00
e 12 50 .00
e 13 19.00
e 13 44.00
e 1 3 54 .00
ePP 14 40.00
eS 20 38.00
eSS 24 34.00
e 25 26.00
cSSS 27 14.00
59.04 27 P 1233.90 1.1
59.23 28 P 1234.70 0.6
59.71 51 iPc 12 29.00 -8.7X
eS 20 27.00
60.23 13 iPc 12 40. 80 -0.1
1.0s 56.00nm 5. 6mb
60 . 30 1 7 eP 1 2 4 1 . 20 -0.2
1.0s 22 . 00nm 5 . 2mb
60 . 35 20 cP 1 2 4 1 . 50 -0.4
1.1s 1 9 . 55nm 5 . 1mb
60 . 37 1 7 cP 1241.90 0.1
1.2s 44 . 65nm 5 . 5mb
Z 20s 13. 50um 6 . IMsz
60 . 38 1 2 i PC 1 2 42 . 00 0.1
1.6s 96.00nm 5. 9mt>
60.40 17 ePc 12 41.90 -0.2
e 14 52.20
60.55 17 eP 12 42. 90 -0.2
0.8s 16.10nm 5. 2mb
60.65 13 iPc 12 43.40 -0.4
1.2s 56 . 55nm 5 . 6mb
60. 72 26 P 12 43 .50 -0.8
60. 74 27 P 1 2 43.80 -0.6
60 . 89 1 3 i PC 1245.10 -0.3
1.1s 83 . 05nm 5 . 8mb
Z 1$s 1 . 00um 5 . 0Msz
60^96 23 P 12 46.60 0.6
61 100 23 P 12 47 . 30 1.1
61.05 27 P 1243.90 -2.6
61 .06 18 iPc 12 46. 30 -0.3
1.6s 36 . 00nm 5 . 5mb
61 [06 24 P 12 47 . 70 1.2
1.6s 600 . 90nm 6 . 5mb
61.23 18 P 1247.44 -0.4
61.34 24 P 12 48. 70 0.2

STV
ENR
AZ 1
MNS
PZZ
DU 1
VL 1
ROB
DO 1
F 1 N
AOU
LSF
MFF

CK 1
RRL
BHB
P 1 1
BN 1
TCF

MAF

POP
HLW

BRT
ASS
RSP
BD I
KEK
CRE
LPG

LPL

BGF
MME
LSD
SFI
ARV
SMF

AVF

ORX
AGG
SSF

LPF

LBF

D 1 X
MMK
LOR

Z
GRR

CRZF

TMA
KZN
LDF

FLN

Z
OHR

FNA
LIT
VDL
LLS
CT 1
PAIG
OSS
MBH
GRG
BSF

VV 1
HAU

Z
ZLA
TRI

61 . 37
61 . 38
61.43
61.49
61 . 54
61 . 55
61 .57
61.58
61 . 59
61 . 60
61 . 73
61.80
61.81
1.0s
61.82
61.84
61 . 90
61 . 90
61 .93
61 .98
1 . 0s
61 .99
1.4s
62 .01
62.02

62.04
62 . 08
62.18
62. 23
62 . 28
62 . 3 1
62 . 36
1.1s
62 . 37
1 . 0s
62 . 37
62. 38
62 . 43
62. 53
62. 55
62. 68
1 .0s
62. 71
1 .0s
62 . 83
62. 99
63 .00
1 .0s
63 . 03
1 .0s
63.03
1 .0s
63 . 08
63.21
63 . 27
1 . 0s
18s
63.41
1 .0s
63 . 43

63. 52
63 . 69
63 . 73
1.0s
63 . 83
0.9s
18s
63 . 85
63.87
63 . 89
64.04
64 . 25
64 . 33
64 . 36
64. 43
64.43
64 . 50
64 .52
1 .0s
64.53
64.57
1 .05
22s
64.63
64.76

1 8 P
18 P
23 P
22 P
1 7 P
24 P
34 eP
1 8 P
1 7 P
18 P
23 P
12 i PC
11 i PC
52 .-00nm
18 P
1 7 P
17 P
20 P
1 7 P
13 i PC
52 . 00nm
13 iPc
47 . 90nm
1 8 P
45 eP+
e
27 P
22 P
17 P
20 P
29 eP
21 P
17 i PC
48.85 nm
17 i PC
43 . 00 nm
13 eP
20 P
17 P
21 P
22 P
14 i PC
32 . 00nm
14 i PC
38 . 00nm
17 P
31 ePc
14 i PC
58 . 00nm
10 i PC
64 . 00nm
14 i PC
30 . 00nm
17 i PC
17 i PC
14 i PC
23 . 00nm
8 . 75um
10 iPc
64 . 00nm

135 e(P)
«(S)
1 8 ePc
30 iPc
10 i PC
40 . 00nm
10 i PC
31.1 0nm
9 . 50um
29 eP
30 ePc
31 iPc
18 iPc
18 ePc
20 P
32 ePc
18 ePc
47 cP
30 ePc
16 iPc
24 . 00nm
20 P
15 iPc
34 . 00nm
6 . 00 urn
17 i PC
21 iPc

1248.77 0.0
12 48.87 0.0
1249.48 0.3
1249.40 -0.1
1250.41 0.4
12 51 .50 1.5
12 50.00 -0.1
12 50 .00 -0.1
12 50.60 0.4
12 50.10 -C-> . 2
12 51 .R0 0.5

1 2 51 be 0.0
1251.

12 51 .
1252.
12 51 .
12 51 .
12 53.
1253.

12 53 .

12 51 .
1254.
21 23 .

50 -e . i
5 . 7mb
30 - 0 4
05 -0 . 1
23 -1.0
70 -0.5
B0 1.2
00 0.2
5 . 7mb
00 0.1
5 . 5mb
95 -1.1
00 0.7
00
12 52. 10 -1.1
12 53 .00 -0.5
12 54 .
12 53 .
12 55.
12 54 .
12 55.

1 2 55 .

12 55.
12 55.
12 56 .
12 56 .

41 0.1
60 -0.9
70 0.8
10 -1.0
90 0.3
5 . 6mb
90 0.3
5 . 6mb
40 0.0
00 -0.7
05 0.0
10 -0.3
12 56.100 -0.6
12 57 .120 -0.2
5. 5mb
12 57 .170 0.2

12 55.
13 00.
12 59 .

5 . 5mb
85 -2.7
08 0.5
40 -0.1
5 . 7mb
12 59. b0 0 . 0
5.8mb
12 59.40 -0.4
5.4mb
12 59.I70 -0.6
13 00 .C0 -1.0
1301.10 -0.2
5 . 3mb
6 . 0Msz
1 3 02. »0 -0. 1
5 . 8mb
1 3 00 .«0 -2 . 4
21 5 0 . !0 0
13 01 .
1304.
13 04 .

1304.

70 -1.5
30 0.0
10 -0.2
5.6mb
40 -0.5
5.5mb
6. 0Msz
13 05.80 0.5
13 05.96 0.6
13 05.14 -0.3
1 3 05.
1 3 06 .
1307.
1 3 09.
1308.
13 10.
13 09 .
13 08 .

1 3 09 .
13 09.

13 09
13 10

10 -1.5
30 -1.7
90 -0.5
16 0.7

00 -1.1

20 0.9
32 -0.1
60 -1.0
5 . 3mb
70 0.1
30 -0.5
5 . 5mb
5 . 7Msz

10 -1.1

50 -0.5

OUR
SKO

YER
VAY
SOH
KNT
SLE
CDF

FV 1
SRS
WTTA

ELL
MMB
JV 1
WLF
DOU

VTS
RZN
ALN
KHL
ECP

PLD
KDZ
BED
UCC
DST
EDO
MEM
KMR
ETA
ENN

HR 1
TNS
GRF

WET

DON
BNS

KHC

YLV
VKA

ITU
ZST

DMU
DBN

HRT
SRO

64.81
64 . 83
Z 17s
N 17s
E 17s

64 . 85
64.86
. 64.36
64.90
64 .92
65.18
0. 8s
65 . 19
65 . 21
65 . 40
1.4s

65 . 55
65. 63
66 .02
66 . 06
66 . 10
Z 18s

66. 14
66 . 19
66. 29
66. 38
66 . 42
0. 9s
66 . 50
66.52
66 . 64
66. 71
66.76
66 .86
66. 90
66.91
66 . 95
67 . 03
0. 9s
67 . 07
67 . 15
67 . 44
2.2s
Z 22s

67.46

67 . 50
67.51
Z 16s
67 . 67
1.5s
Z 20s
N 18s
E 20s

67 . 83
67 . 85
Z 19s
6B . 01
68. 07

6B.08
68.11
Z 20s

68. 17
68. 20

e(S)
eLR
32 ePc
29 IP
2 . 56um
2 . 48um
2.55um
iPP
IS
IPS
iSS
LR
37 eP
30 eP
31 ePd
30 ePd
1 7 ePc
16 i PC
1 3 . 45nm
20 P
31 ePc
19 i PC
83 . 1 0nm
i
i
38 IP
30 iPc
45 eP
14 i Pd
13 P
2 . 30 urn
e
S
e

29 i P
31 iPc
32 iPd
36 eP
5 eP
91 . 00nm
31 iP
31 i Pd
26 cP
13 P +
35 eP
34 eP
14 PC
20 iP +
5 eP
1 4 eP
34 . 00nm
44 eP
16 ePc
18 iPc
119. 00nm
4 . 1 0um

e(S)
19 iPc
e
5 eP
14 i Pd
2 . 70om
19 iPc
25 . 90nm
3 . 90 urn
1 . 30um
3 . 40 urn
e

i
PP
S
ss
35 eP
22 eP
1 2 . 80um
34 eP
22 eP
e
e
5 eP
1 3 eP
2 . 1 0um
eS
eSS
35 eP
23 iP
e

21 59.00
34 04.00
13 12.12
13 11.40
5

15 30. 00
21 56 . 00
22 28 . 00
25 46.00
43 30.00
13 03 . 00
13 1 1 . 00
13 12.32
13 12. 64
13 11.10
13 12 .90
5
13 14.00
13 13.84
13 14. 20
5
13 23 . 50
15 33 . 60
13 17 . 50
13 20. 00
13 20 . 40
13 29 . 51
13 19.80
5
13 29 . 00
22 07 .00
26 19 . 00
13 20 . 00
13 20 . 00
13 21.08
13 20 . 00
13 23 . 00
6
13 22 . 00
13 22. 00
13 22. 50
13 22.00

0. 7
- 0. 1
. SMszX

- 8. 9X
- 0. 7
0. 5
0.6
- 1 .0
- 0.9
. 2mt>
0.3
- 0.2
- 1 .2
7mb

1 . 1
3. 3X
1 .0
10. 3X
0. 3
4Msz

- 0. 1
- 0.5
0. 2
- 1.7
1 .5
0mb
- 0.2
- 0. 4
- 0.6
- 1 . 4
13 14 . 00 -10. 0X
13 23 . 00
13 25.20
13 24.30
13 26. 50
13 26. 00
5
13 27 .30
13 26. 40
13 27 .30
5
5
22 28.00
13 27.10
15 52 . 40
13 29.90
13 29 . 50
5
13 28. 60
5
5

13 37 . 50
15 54. 50
16 01 . 00
22 28 . 00
26 48.00
13 30. 40
13 30 . 50
6
13 32. 00
13 30. 90
19 20 . 90
21 09.60
13 32. 50
13 34.00
5.
22 40.00
26 56. 00
13 31 . 00
13 32. 10
43 01 . 80

- 1.6
0.6
- 0.5
1 . 6
0.5
5mb
1 . 1
0. 1
- 0.8
7mb
6Msz

- 1 . 2

1 . 5
1 . 0
SMszX
- 1 . 0
2mt>
6MS2

- 0.5
- 0.2
2Msz
0. 2
- 1 . 2

0.5
1 .8
4Msz

- 1 .9
- 0.8

99

12d 13h

WTS

MOX

PRU

PSZ
CMP

BRG

CLL

MLR
1 C D
1 o K
EKA

KSP

SPC

BMR
VR 1
KRA

KVT
MAW

SPA

TAB
HFS

NB2

UPP

NUR
OBN

KAF

SOD
FVM
CUE
UYO
DAG

TUL

68.38 14 eP 1 3 34 . 56 0.6
0.8s 46.00nm 5. 7mb
68.40 17 iPc 13 33.60 -0.6
1.7s 55 . 00nm 5 . 5mb
223s 3 . 80um 5 . 6MszX
eS 22 36.00
68 . 72 19 P 13 35. 00 -1.1
1.7s 33 . 90nm 5 . 3mb
2 20s 4 . 90um 5 . 7Msz
N 20s 3 . 30um
E 22s 2.00um
e 1343.50
e 1411.80
ePP 16 07.60
eS 22 42.90
SS 27 02.00
68.90 24 iPd 13 36.90 -0.5
69 . 03 29 ePc 1340.00 1.9
e 43 07 . 00
69 . 30 19 iPc 13 38. 10 -1.6
1.2s 30 . 00nm 5 . 3mb
i 1349.20
i 1612.40
eS 22 48.00
69.40 18 i PC 1 3 39 . 60 -0.6
1.8s 39 . 00 nm 5 . 3mb
222s 3 . 00um 5 . 5Msz
i 1354.00
eS 22 53.00
69.62 29 i PC 1341.50 -0.4
69.64 30 eP 1340.00 -1.9
69 . 86 7 Pd 1343.40 0.4
1.2s 43 . 90nm 5. 5mb
70.03 20 eP 1344.00 -0.1
1.2s 34 . 00nm 5 . 4mb
i PP 16 19.20
70.07 23 i P 1345.40 0.8
e 1354.10
e 1 4 35. 50
e 43 19 . 30
70.18 26 ePd 13 57 . 00 1 1 .9X
70.27 29 ePc 13 44 . 00 -1.7
70 .66 23 eP 1 3 52 . 00 4 . IX
Z 20s 3.80um 5.6Msz
E 20s 3.70um
eS 23 04.00
71.99 38 eP 1354.00 -2.2
72 . 09 157 eP 1 3 57 . 60 1.3
1.1s 34 . 00nm 5 . 4mb
75 . 92 180 i PC 1420.10 1.3
1.1s 88 . 69nm 5 . 8mb
Z 20S 1 . 85um 5 . 4Msz
76.90 45 eP 1 4 25. 00 0.3
77 . 39 14 eP 1 4 26. 50 -0.3
0.9s 30 . 90nm 5 . 4mb
2 1 8s 2 . 2 1 urn 5 . 5Msz
LR 4123.00
77 . 66 12 P 1 4 28. 90 0.6
1.1s 30 . 30nm 5 . 3mb
78.13 16iP 1431. 00 0.2
i 1 4 32 . 80
i S 2426.00
80.67 1 8 eP 1444.70 0.1
81.21 27 iPc 1448.50 1.0
ePcP 14 55.00
e 1501.00
e 15 1 1 . 50
ePP 17 54.00
e 1814.00
e 2100.00
i S 25 00 . 00
e 25 46.00
eSS 30 05.00
e 30 29.00
«SSS 33 24.00
LO 43 00.00
82 . 43 18 i P 1454.30 0.6
0.9s 36.10nm 5. 5mb
86. 59 15 iP 1 5 16 . 60 2.0
88 . 04 310 P 1522.20 0.0
89.62 59 eP 15 33.00 2.9X
89.95 305 i Pd 1 5 32. 00 0.7
90. 80 359 iPc 1 5 36. 20 1.9
1.2s 34 . 38nm 5 . 5mb
91 .50 307 eP 1 5 38. 70 0.3
0.8s 11. 70nm 5 . 3mb
2 20s 1 . 1 0um 5 . 3Msz

N 18s 0 . 1 4um
E 20s 0 . 76um

e(S) 2635. 00
e 2801.00
e 33 02 . 00
LR 55 34 . 00
MEO 93.40 305 iPc 15 48.20 1.0
FFC 100.12 324 ePdifM6 18.00 0.6
1.3s 1 5 . 60nm 5 . 4mb
MBC 107.26 346 ePKP 21 12.00 14. 4X
INK 113.71 339 ePKP 21 12.00 1.9
IRK 118.48 38 ePKP 21 21.00 1.3

FBA 120.33 339 (PKP) 21 21.50 -1.3
L2H 120.84 56 e(PKP)21 32.00 7. IX
230s 1 . 94um 5 . 6MsrX
E 20s 0 . 9 1 urn
IMA 121.51 342 «PKP 21 25.70 0.5
YAK 125.77 28 ePKP 21 33.50 0.1
STK 128.69 154 ePKP 21 41.20 1.3
1.0s 1 . 40nm
BJ 1 129.70 49 ePKP 21 42.50 0.9
N 18s 0.98um
ePP 23 51 . 50
e 25 06 . 00
eSS 41 16.00
ASPA 131.18 148 ePKP 21 57.00 12. 0X
1.2s 9 . 80nm
2 21s 0 . 30um 5 . 0Msz
ePKS 25 17.00
WRA 134.13 137 PKP 21 50.00 -0.6
0.9s 2 . 20nm
SSE 135.88 68 ePKP 22 03.50 9.9X
220s 1 . 40um 5 . 7Msz
E 20s 1 . 00um
PP 24 32.00
SS 42 24 . 00
ASAJ 144.23 29 PKP 22 96.90 -1.3
MRRJ 144.70 32 ePKP 22 09.30 0.3
AOMJ 145.62 35 ePKP 22 12.20 1.5
TSRJ 145.84 46 PKP 22 13.30 2.1
HOOJ 145.84 38 ePKP 22 12.20 1.2
KUSJ 145.97 28 PKP 22 11.90 0.7
MTMJ 146.52 43 PKP 22 14.50 2.0
MAT 146.81 43 ePKP 22 13.00 0-2

2 21s 0.72um 5.4Msz
NIIJ 146.92 41 PKP 22 13.70 0.8
YAMJ 146.99 39 PKP 22 15.50 2.5
IIDJ 147.21 45 PKP 22 17.40 3.9X
OFUJ 147.35 36 PKP 22 16.50 2.9X
CHJJ 147.61 43 PKP 22 17.10 3.0X
KAKJ 148.29 42 PKP 22 17.90 2 . 8X
S.D. - 0.9 on 236 of 256 obs.

AUG 12, 1991 13h 41m 45.59± 0.33s
43.272 N ± 3.4km 21.004 E ± 3.2km DEPTH -= 10.0km (geophysicist)
YUGOSLAVIA (383)
ML 3.0 (TTG) .

IVA 0.90 244 iPgc 42 02.30 -0.7
iSg 4212.69
PVY 1.01 229 iPgc 42 04.15 -0.7
iSg 4217.07
PLE 1.18 273 iPgd 42 07.00 -0.6
iSg 4221.34
SKO 1.34 166 ePn 42 09.50 -0.8
0.7s 183.00nm

i Sg 42 28 . 00
i 42 28 . 90
i 42 31 . 50
TTG 1.53 237 i Pgd 42 13.40 0.4
iSg 42 33 . 75
NKY 1.54 253 iPgd 42 13.64 0.4
iSg 42 33 . 90
BEO 1.60 346 iPn 42 14.20 0.3
iSg 42 35 . 50
BRY 1.84 259 iPgd 42 17.60 0.0
iSg 42 40 . 95
ULC 1.84 225 iPnd 42 19.12 1.6
iSn 42 42-59
BDV 1.88 239 iPnd 42 19.50 1.4
iSn 42 43 . 25
HCY 2.02 247 iPnd 42 21.07 1.0
i Sn 4245.90
OHR 2.16 184 iPn 42 22.10 -0.1
1.1s 175. 00nm

iSg 42 51 . 50

Lg 43 05.70
VAY 2.27 149 ePn 42 23.70 0.0
FNA 2.50 174 ePc 42 27.68 0.7
KNT 2.53 146 ePc 42 27.36 -0.1
eS 43 1 1 .80
GRG 2.54 155 ePd 42 27.68 0.2
SRS 2.89 137 iPd 42 32.10 -0.4
IS 43 20.32
DEV 2.94 27 iPc 42 40.00 6.8X
SON 3.01 144 ePc 42 34.00 -0.2
eS 43 23.88
THE 3.02 150 ePc 42 34.16 -0.1
HVAR 3.33 270 ePn 42 39.20 0.4
LIT 3.36 160 ePc 42 38.88 -0.3
OUR 3.68 142 ePd 42 43.08 -0.7
eS 4341.48
PAIG 3.90 148 iPd 42 46.14 -0.6
MLR 4.18 56 eP 42 52.50 1.6
AGG 4.36 166 ePd 42 53.08 -6 . 4
ISR 4.40 63 eP 43 10.00 16. 0X

PTJ 4.46 308 e(Pn) 42 53.40 -1.5
eSn 43 40.60

VBY 4.68 300 e(Pn) 43 06.20 8.2X
e(Sn) 44 25.40
VRI 4.84 56 eP 43 01.00 0.8

ZST 5.63 332 e(P) 43 10.00 -1.3
KHC 7.80 321 eP 43 41.50 -0.3
e 44 39.50
e 45 05.50
S.D. - 0.8 on 29 of 32 obs.

% AUG 12, 1991 I3h 54m 48 . 76± 0.90s
39.112 N ± 7.4km 27.577 E ± 9.4km
DEPTH - 10.0km (geophysicist)
TURKEY (366)

I2M 0.75 199 ePg 55 03.40 -0.1
eSg 55 15.90
DST 0.95 58 ePn 55 07.30 0.4
E2N 1.20 307 ePn 55 11.70 0.5
EDO 1.25 10 ePn 55 12.00 0.0
KGT 1.35 351 iPn 55 12.90 -0.7
S.D. " 0.7 on 5 of 5 obs.

« AUG 12, 1991 14h 23m 00.19± 2.72s
32.912 S ±12. 7km 71.674 W ±23. 7km
DEPTH - 33.0km (normol)
NEAR COAST OF CENTRAL CHILE (135)

IHA 0.12 166 eP 22 54.30 -11. 8X
iS 23 09.40
ROCH 0.56 96 iPd 23 10.70 -1.2
iS 23 20.50

LCCH 0.57 171 iPd 23 11.20 -0.6
IS 23 22.00
PEL 0.86 106 iPd 23 15.70 -0.3
iS 23 32.50
JACH 0.94 76 iPd 23 15.50 -1.6
IS 23 30.00
TACH 0.96 140 iPd 23 17.50 0.1
SAN 1.01 123 iPd 23 18.50 0.5
iS 23 34.60
LNV 1.06 168 iPc 23 18.50 -0.3
iS 23 36.00
PCH 1.20 126 iPd 23 21.50 0.7
iS 23 40.50
CHCH 1.33 140 iPc 23 23.60 1.0
iS 23 44.50
20N 2.88 63 eP 23 47.00 2.2
eS 24 29.00

RTLL 3.14 61 e(P) 23 48.20 -0.4
S 24 33.20
S.D. -1.2 on 11 of 12 obs .

AUG 12, 1991 14h 47m 03.84± 0.61s
41.327 N ± 5.7km 19.555 E ± 6.8km
DEPTH - 10.0km (geophysicist)
ALBAN 1 A (391)
MD 3. 1 (ATM) .

ULC 0.68 340 ePg 47 16.80 -0.5
«Sg 47 26.60
OHR 0.96 103 iPg 47 19.90 -2.3
0.4s 96 . 00nm

iSg 47 35.20
Lg 47 39.90
TTG 1.12 349 «Pg 47 24.80 -6 . 1

100

1 2d i 4h

eSg 47 41 .90
PVY 1.31 14 ePg 47 28.50 0.4
eSg 47 47.50
HCY 1.37 325 ePg 47 29.00 0.1
eSg 47 49.50
NKY 1.54 345 ePg 47 31.40 -0.1
eSg 47 53 . 40
SKO 1.55 65 iPn 47 30.90 -0.7
'1.0s 207 . 00nm
i S g 47 52.00
I VA 1 .56 9 ePg 47 32 .50 0.7
eSg 47 55.60
LC 1 1.57 231 P 47 30.90 -0.8
eSn 47 50.70

K E * 1 , 6 2 1 7 3 e P 4 7 3 4 . ;> 0 1.9
eS 47 58.80
BRY 1.74 335 ePn 47 35.40 1.0
eSn 48 00.20
8RT 1.83 257 P 47 38.70 3. IX
KZN 1 .97 120 eP 47 39 . 10 1.5
eS 48 06.40
VAY 2.27 89 ePn 47 35.40 -6.6X
MGR 3.26 250 P 47 54.90 -1.2
S.D . «= 1 . 2 on I3of 15 obs.

? AUG 12. 1991 15h 1 8m 19.44± 1.07s
44.509 N ± 6.4km 7.328 E ±11. 5km
DEPTH » 5.0km (geophysicist)
NORTHERN ITALY (545)
ML 1 .4 (GEN) .

P22 0.16 269 P 18 22.90 0.0
S 1824.75
STV 0.26 180 P 18 24.65 -0.2
S 1828.16
ENR 0.29 167 P 18 25.49 0.2
S 1829.29
BHB 0.34 352 P 18 26.19 0.0
S 18 30.62
S . D . - 0 . 2 on 4of 4 obs .

? AUG 12. 1991 I6h 41m 06.10± 1.56s
18.387 N ±10. 1km 71.615 E ±15. 7km
DEPTH - 33.0km (normol)
4 . 1mb (1 obs .)
ARAB 1 AN SEA (417)

POO 2.13 86 ePn 41 42.00 1.9
i Sn 42 14.20
HYB 6.68 97 ePn 42 44.00 -0.5
ePg 43 14.00
eSn 43 57 .50
eSg 44 34.00
GBA 7.34 130 Pd 42 53.40 -0.4
0.3s 2.20nm 4.6mb X
ROD 9.89 144 eP 43 29.40 0.0
OUE 12.49 341 eP 44 05.00 0.4
GKN 15.32 49 P 44 41.56 -0.2
DMN 15.43 51 P 44 44 . 40 1.0
PKI 15.64 52 P 44 45.80 -0.3
KKN 15.66 51 P 44 44.22 -2.0
GUN 16.17 52 P 44 46.18 -6.7X
WRA 72.36 119 P 52 37.00 5 . 9X
0.7s 1 . 40nm 4 . imb
S . D . = 1.3 on 9 of 11 obs.

% AUG 12. 1991 17h 51m 45.01+ 0.67s
46.596 N ± 9.1km 0.271 E ± 6.7km
DEPTH - 10.0km (geophysicist)
FRANCE (538)
ML 2.2 (LOG) .

MFF 0.29 271 Pg 51 50.30 -0.7
Sg 51 54.30
LSF 0>94 111 Pg 52 03.00 0.1
Sg 52 1 4 . 80
TCF 1 1 38 102 Pg 52 10.10 -0.1
Sg 52 27.70
RJF 1.56 146 Pg 52 14.20 1.4
Sg 5235.10
MAF 1.63 102 Pn 52 12.20 -1.7
Pg 52 14.40
Sg 52 35.20
LPF 1,69 329 Pg 52 15.00 0.3
Sg 52 35.30
BGF 1.78 90 Pg 5216.10 0.1
Sg 52 39.60

GRR 1.95 337 Pg 52 18.50 0.0
Sg 52 43.70
LOF 2.02 353 Pg 52 20.00 0.6
Sg 52 46.20
S . 0 . =1.0 on 9of 9obs.

? AUG 12 . 1991 1 9h 26m 1 0 .
50 . 390 N ±19. 4km 18.819
DEPTH = 10.0km (geophysi
POLAND

ML 2 .0 (KRA) .

KRA 0. 79 1 14 eP 26 25 .
i SS 26 36 .
SPC 1 . 52 142 i Pn 26 38 .
e(Sg) 27 01 .
KSP 1 . 67 287 ePn 26 41.
0.6s 61. 08nm

iPg 26 42.
iS 27 05 .
2ST 2.47 208 e(Pn) 26 52.
e 26 55.
e 27 29.

PRU 2.78 263 Pg 27 02.
0.4s 5 . 90nm
Sg 27 36.
BRG 3.14 281 ePg 27 10 .
iSg 2751.
KHC 3.62 252 Pn 27 06.
ePg 27 14.
e 2743.
Sg 2801.
S . D . = 1.4 on 5 o f

? AUG 12, 1991 1 9h 41m 28 .
12.045 N ± 9.2km 120.449
DEPTH « 33.0km (normol)
4 . 7mb (1 obs .)
MINDORO. PHILIPPINE ISLANDS

PGP 1 .53 19 eP 4153.
eS 42 12.
TGY 2.10 13 i Pd 42 02 .
iS 42 20.
PPR 2.82 217 iPd 42 12.
MAP 3.86 116 eP 42 27.
WR2 34.62 157 eP 48 13.
0.6s 5 . 60nm
S . D . =0.9 on 4 of

1 AUG 12, 1991 20h 42m 30.
4 1 . 057 N ± 9 . 1 km 22 . 301
DEPTH - 5.0km (geophysi
YUGOSLAVIA

MD 1 . 7 (THE) . ML 1.3 (S

GRG 0. 13 143 i PC 4233.
eS 42 34.

VAY 0.33 38 i Pg 42 37 .
iSg 42 42.
KNT 0.46 77 ePc 42 39.
eS 42 46.
FNA 0.75 249 ePd 42 45.
eS 42 56.
S . D . -0.2 on 4of

AUG 12. 1991 20h 55m 03.
41 . 039 N ± 6 . 4km 22 . 362
DEPTH - 5.0km (geophysi
YUGOSLAV 1 A

ML 2.4 (SKO) . MD 2.2 (T

GRG 0.09 160 iPc 55 05.
eS 55 06.

VAY 0.32 29 iPg 55 09.
i Sg 5514.
KNT 0.42 73 ePc 55 12.
eS 55 18.
THE 0.61 131 ePd 55 14.
eS 55 23.
FNA 0.79 252 ePd 55 18.
eS 55 28.
SRS 0.93 85 ePd 55 21 .
eS 55 34.
S . D . -0.4 on 6 of

& AUG 12 , 1991 2 1 h 11m 50 .

70± 1 .48s
E ± 9 . 6km
cist)
(548)

70 -0.4
20
30 0.2
10
00 0.9

80
B0
40 0.8
80
80
50 6.5X

60
00 8.9X
00

50 -1.6

00
00
50
7 obs .

____

37± 0. 98s
E ±13 . 8km

(250)

00 -0.6

00
60 0.6
00
00 0.0
00 0.1
50 -3.2X
4 . 7mb
5 obs.

61± 0.98s
E ± 7 . 7km
cist)
(383)
KO) .

34 0.1
30
40 0.1
40
78 -0.1
50
70 0.0
98
4 obs .

12± 0. 82s
E ± 6 . 2km
cist)
(383)
HE) .

60 0.4
88
60 0.0

60

00 0.4
72
93 -0.4
28
88 -0.1
80
16 -0.2
16
6 obs .

80s

38. 227 N 118. 758 W
DEPTH = 8 . 0km
4 . 4mb (7 obs .)
CALIFORNIA-NEVADA BORDER REGION (40) <BRK>. ML 4.8 (BRK), 4.6 (PAS).
Felt (III) ot Howthorne, Mino
ond Yerington, Nevodo. Felt
(III) at Dordonelle ond
Kirkwood, Colifornio. Also felt
ot Bridgeport and Lee Vining.
Col i f o r n i o .

BONR 0.45 127 eP 11 59.30 -0.7
KVN 0.97 32 eP 12 08.40 -1.2
TNP . 1 22 96 eP 12 13.20 -0.7
CMB 1.30 262 iPc 12 14.24 -0.8
eS 1229.11
FRI 1.45 212 iPd 12 16.88 -0.4
iS 12 33.77
ARN 2.37 249 eP 12 30.20 -0.4
LLA 2.37 228 eP 12 31.44 0.8
PKEM 2.42 207 eP 12 33.50 2.3
MHC 2.45 250 i PC 12 31.80 0.0
ORV 2.52 303 iPc 12 32.17 -0.5
eS 1259.37
PR 1 2 . 58 21 7 eP 12 35 . 22 1.6
SAO 2.59 236 eP 12 34.36 0.7
PHAM 2.72 209 eP 12 37.20 1.5
BKS 2.77 264 eP 12 34.40 -1.9

e(Pn) 12 38.70
iS 13 16 .80
ZSP 2.77 265 eP 12 35.96 -0.4
PRS 2.81 229 eP 12 38.49 1.6
GCC 2.84 246 eP 12 34.98 -2.2
PCC 2.96 257 eP 12 38.49 -0.4
BCH 3.22 200 eP 12 42.20 -0.5
LTCM 3.28 308 eP 12 44.00 0.5
GSC 3.31 151 eP 12 42.90 -1.2
ABL 3. 39 186 eP 12 48. 00 2.7
WDC 3.76 310 eP 12 49.57 -0.7

PEC 4.52 163 e(Pn) 13 04.00 2.9
Pg 13 15 . 00
Lg 14 16 . 00
PLM 5. 10 162 ePn 13 1 1 .50 2.0
Pg 13 23.60
i 1 4 28 . 00
MCMT 7.94 32 ePd 13 51.10 1.6
NEW 10.10 6 ePn 14 20.00 0.8
Lg 17 10.00
ANMO 10.42 105 e(Pn) 14 36.50 12.8
0.8s 1 5 . 86nm

iPg 15 05.00
Lg 1 7 1 8 . 00
SES 13.35 22 ePc 15 03.50 0.4
pP 15 12 . 00
MEO 16.58 96 e(P) 15 45.70 0.6
TUL 18. 47 90 iP 1610.70 2.0
0.6s 6 . 90nm 4 . 0mb
Z 22s 0.1 3um 4. 4Msr
LR 22 23.00

UYO 20.01 94 e(P) 16 27.00 0.3
FFC 20.06 29 iPc 16 24.20 -2.9
0.9s 19. 00nm 4. 4mb
FVM 22.26 82 eP 16 50.70 1.0
0.7s 11. 56nm 4 . 4mb
YKA 24.43 5 eP 17 10.70 0.1
1.0s 2 . 40nm 3 .8mb
PMR 29.99 331 eP 18 02.00 0.4
0.9s 6.25nm 4.4mb
SVW 32.36 327 eP 18 21.50 -1.1
0.7s 1 1 . 63nm 4 . 9mb
MBC 38.11 360 eP 19 11.00 -0.4
1.0s 9 . 00nm 4 . 5mb
38 obs. associated

& AUG 12. 1991 21h 22m 02.37s
38.212N 118.743W
DEPTH - 2.5km
CALIFORNIA-NEVADA BORDER REGION (40) <GM-P>. MD 3.0 (GM) .

BONR 0.43 126 iP 22 11.50 0.5
KVN 0.98 31 eP 22 20.00 -1.8
TNP 1.21 96 eP 22 25.10 -0.6
CMB 1.31 263 iP 22 26.50 -0.8
ARN 2.37 250 eP 22 43.50 0.6
5 obs . ossoc i o ted

191

AUG 12, 1991 2lh 57m 51.13± 1.13s
41.868 N ±11.1km 21.974 E ± 6.0km DEPTH = 5.0km (geophys ic i st)
YUGOSLAVIA (383)
ML 1.7 (SKO).

SKO
VAY

GRG
KNT

OHR

FNA
SRS

SOH

0.41
0.71

0 .97
0 .99

1.16

1.17
1 .43

1.47

S.O. = <

285
140

1 60
135

230

203
121

135

3. 6

i P
iPg
iSg
iPc
i Pd
i S
ePg
iSg
ePc
i PC
eS
ePc
eS
on

57
58
58
58
58
58
58
58
58
58
58
58
58
8 of

59 .
04 .
1 4 .
09

10 , 23 .
1 3 .
22 .
1 3.
18 .

40 . 18 .
37

00
. 40
. 30
, 74
, 18
. 61
. 60
, 80
. 94
66
06
. 54
. 54
8

- 0
- 0

- 0
- 0

0

0.
0

0.

obs .

. 4
. 8

. 2
. 2

. 3

. 4
. 9

. 1

AUG 12, 1991 22h 12m 41 60± 0.84s
6.992 S ± 8.7km 147 031 E ±14.5km DEPTH-= 55.3 ± 9 ? k m
4.5mb (2 obs.)
EAST PAPUA NEW GUINEA REGION (267)

LAT
YYY Y
MDG
PMG

WR2

0 .
1 .
2 .
2 .

1 7 .

34
29
13
40

80

355
305
324
1 77

222
0.2s
RMO
KNA
ASPA

20N
RTLL
S

7. AUG
40.

19 .
19 .
20 .
0. 6

128 .
128 .
. D.

12
417

46
89
83

1 75
242
216

i Pd
eP
i PC
eP
eS
eP
9 . 00nm
i Pd
eP
i Pd

12
13
13
13
i 3
16

51 .

09 . 15 .
1 9 .
51 .
47 .

40
80
80
00
00
20

- 0
6
0
- 0

0

. 2
. 0X
. 4
. 3

. 0
4 . 6mb
1 7
17
17

08.

1 1 . 2e .

00
60
20
s 1 6 . 86nm

70
98
-

N
DEPTH =

1 40
140
0.9

1991
± 7.

i PcP
ePKP
i PKPc
on

22h
6km

21
31
31

18 .
44 .
46.

50
00
00
9 of 10

39m
23 .

34.
91 3

10.0km (geophysi

1
0
- 0

. 2
. 2
. 9
4 . 4mb

- 1
0
obs .

18± 1 .
E
c i
GREECE

OUR
PAIG

SOH

SRS

KNT

S

% AUG
40.

0 .
0.

0 .

0.

1 .

. D.

12
525

10
52

59

74

07

-

N
DEPTH -

1 47
200

314

341

314

0. 9

1991
± 7.

eP
eP
eS
eP
eS
eP
eS
eP
eS
on

22h
3km

39
39
39
39
39
39
39
39
40
5 o

40m
24 .

36 .
45.
53 .
45.
55 .
49 .
58 .
53.
09.
f

1 4 .
323

10.0 km (geophysi

40
20

10
60
90
60
60
90
10
5

±14-

st)

. 0
. 5

06s
6km

(364)

- 0
0

- 0

0

- 0

obs .

70± 4.
E ±32.

. 4
. 5

. 5

. 9

. 5

19s
4km
Cist)
AEGEAN SEA

OUR
PAI G

SOH

SRS

THE

KNT
S

0 .
0 .

0 .

0 .

1 .

1 .
. D.

32
77

79

81

04

25
-

234
220

292

317

276

301
0 . 4

ePc
ePc
iS
ePd
eS
ePc
eS
ePd
eS
ePd
on

40
40
40
40
40
40
40
40
40
40
6 0

21 .
29 .
41 .
30 .
4 1 .
30.
42 .
34 .
49 .
37 .
f

74
54
66
10
06
74
26
26
22
74
6

(365)

0
- 0

- 0

0

- 0

- 0
obs .

. 4
. 2

. 1

. 3

. 1

. 3

AUG 12. 1991 22h 55m 23 T2± 9.71s
27.706 N ±14.8km 54.469 E ± 8.4km DEPTH - 33.0km (normal)
4.4mb (13 obs.) 4.1MSZ (3 obs.)
SOUTHERN IRAN (353)

I R4
IR1
IR7
MA I 0

8.10 339 eP
8.33 338 eP
8.62 339 eP
9.57 25 eP

57 25.00 2.9
57 26.00 0.7
57 27.00 -2.3
57 49.00 6.7X

OUE
BHL

ess
ND 1
BBTK
HYB
GBA

GKN
OWN
KKN
PK 1

VR 1
MLR
OBN
2
N

SFI
PGD
KHC

CLL
KAF
BOB
SBF

LPG

LPL

CHG
LZH

2
HFS

SOD
SMF

N82

CAF

RJF

2
LPO
LFF
BJ 1
YAK
LIC
MBC
1 NK
YKA

WRA

S

AUG
44 .

11.21
17.30

19.43
20.07
21.67
24.44
25 . 60
0.9s
26 . 65
27.11
27 . 24
27 . 38
6 . 9s
28 . 46
28 . 76
30.29
18s
18s

37 . 70
37.79
37.91

39.01
39.13
39 . 55
40 . 85
0 . 8s
41.56
0. 8s
41.57
0. 8s
41.62
42 . 37
1 . 8s
1 Bs
42 . 57
0.4s
43.13
43 . 72
0. 8s
44 . 09
0.9s
44 . 78
0. 8s
45 . 20
1 . 0S
20s
45. 39
45 . 72
51 . 76
59 . 05
60. 18
76 . 23
84 . 09
89 . 69
0. 8s
90. 58
0. 7s
. D . =

12.
806 N
DEPTH -

eS
74 eP
296 P
S
297 eP
82 eP
310 eP
1 1 0 *P
119 P
1 5 . 20nm
82 P
83 P
83 P
83 P
33 . wOnm
317 eP
316 eP
340 eP
0 . 20um
0 . 20um

(S)
eSS
307 P
307 P
316 P
e
e

319 e(P)
339 eP
308 P
306 eP
1 0 . 75nm
308 eP
4 . 05nm
308 eP
2 . 70nm
92 eP
66 eP
25 . 00nm
0 . 25um
331 eP
0 . 90nm
345 iP
310 eP
4 . 05nm
331 P
2 . 30nm
307 eP
4 . 70nm
307 eP
8 . 00nm
0 . 22um
307 eP
307 eP
59 eP
32 eP
261 P
358 eP
3 eP
355 eP
1 . 50nm
1 12 P
1 . 70nm
1.6 on 38

59 40
58 04
59 22
02 44
59 50
59 56
00 12
00 43
00 52

01 07
01 09
01 05
01 08

ei 20
01 29.
01 36 .

07 06 .
08 40 .
02 37 .
02 40 .
02 40 .
03 04 .
03 39.
03 03 .
02 49.
02 51 .
03 04 .

03 09 .

03 09 .

03 13 .
03 16.

03 16.

03 25 .
03 27 .

03 28 .

03 36 .

03 39 .

03 41 .
03 44 .
04 27 .
05 20 .
05 29 .
07 12 .
07 55 .
08 19 .

08 26.

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4 . of 44 ob

1991 22h 56m 09.
± 1 . 7km
9. 2 ± 1.6

6. 784
km

41±
E ±

FRANCE

RRL

BN!

BH8

PZZ

DOI

RSP

STV

LPG

ML 3.1

0.11

0. 26

0. 34

0 . 38

0. 45

0. 48

0

f- Q
. D O

0. 69

(GEN) . 3.0

0 Pd
S
343 P
eSg
84 PC
S
1 43 PC
S
132 P

eSg
44 P

s
145 P
S
358 Pg
sg

(LOG)

56 12.
56 15.
56 14.
56 17 .
56 16.
56 22 .
56 16.
56 22 .
56 18 .
56 24 .
56 19 .
56 26 .
56 22 .

56 31 .
56 22.
56 32.

12
38
40
70
65
55
83
86
10
40
1 7
25
33
99
70
80

- 0. 7
- 2 . 3

- 0 . 3
- 1.2
- 1.5
2 .2
0.3
6mb
5 . 8X
3.3X
- 1.3
- 0.3
0mb
2 . 3
8.5X
2. 1
8Msz

- 0. 1
2 . 1
0 . 4

1 4 . 3X
- 0 . 1
- 1 .5
0. 4
6mb
- 0.7
2mb
- 0.8
0mb
2. 4
- 0. 8
6mb
IMsz
- 1.1
9mb
2. 7
- 0.2
3mb
- 1 .8
0mb
0. 3
4mb
0.5
6mb
1MSZ
0. 3
1 . 3
- 2. 7
- 2.6
- 2.0
2. 0
3.0X
- 0.5
3mb
1 . 8
5mb
s .

0.17s
2 . 0km

(538)

- 0. 3

- 0.5

0 .2

- 0 . 3

- 0. 4

0.0

- 0. 7

- 0. 7

LSD

LPL

TOUF
ROB

AUTN

MV I F

SAOF

ALIRF

SBF

CALN
CK I

REVF
F I N

ORX

I M I

FRF

PCP

CDR

D I X
LRG

LMR

MMK
BOB
TMA
COLF
COLF
SMF

PGF
LBF

BSF
AVF
FEL
LOR

SSF
HAU
BGF

MAF

CAF
TCF
CDF
RJF
LSF
LPO
WTTA

LFF
EPF
MFF
DOU
MEM
LDF
LPF
FLN
GRR
S

* AUG
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. D.

12
804
DEPTH =

70 22

71 357

86 1 57
93 123

93 150

95 1 64

99 146

00 1 57

05 153

06 176
13 109

15 158
18 120

18 45

20 138

25 1 85

28 101

35 213

35 19
39 193

49 1 88

50 33
90 90
96 48
30 289
30 289
76 313

77 144
93 319

03 0
11 311
19 15
20 321

21 316
21 355
27 304

29 297

36 274
54 296
62 5
77 279
97 293
99 270
18 52

30 274
98 251
18 293
50 345
83 355
07 31 1
30 304
37 31 1
37 307
= 0.7

, 1991

P 56
S 56
Pg 56
Sg 56
Pg 56
P 56
S 56
Pg 56
Sg 56
Pg 56
Sg 56
Pg 56
Sg 56
Pg 56
Sg 56
Pg 56
Sg 56
Pg 56
P 56
eSg 56
Pg 56
P 56
S 56
P 56
S 56
P 56
S 56
Pn 56
Pg 56
Sg 56
P 56
S 56

e(Pg)c56
i (Sg) 56
i 56
eP 56
Pn 56
Pg 56
Sg 56
Pn 56
Sg 56
ePc 56
P 56
eP<J 56
Pn 56
P 56
Pn 56
Sn 57
Pn 56
Pn 56
Sn 57
Pn 56
Pn 57
eP 57
Pn 57
Sn 57
Pn 57
Pn 57
Pn 57

Pg 57
Sn 57
Sg 57
Pn 57
Sg 57
Pn 57
Pn 57
Pn 57
Pn 57
Pn 57
Pn 57
iPne 57
i 58
i(Sn) 58
Pn 57
Pn 57
Pn 57
P 57
Pe 57
Pn 57
Pn 57
Pn 57
Pn 57
on 59 o f

23h 23m

22 .80
32.50
22.90
33.10
25 . 99
27 .07
39 . 18
27 .86
40 . 64
28 . 09
43 . 44
28 . 38
42.74
29 . 33
44.52
29 . 80
42.60
29.96
30.70
45.60
31 .02
31 .64
46. 73
31.13
45. 41
31.83
47 .22
33 . 10
34 . 10
50 .00
33.49
50. 34
34 .90
48 .50
50 . 60
35 . 10
35.30
36 . 40
54.80
35. 10
56.60
37 .80
40 . 00
43.20
47 .63
52 .24
55.00
29.00
55.40
57 .90
33.40
58.20
00. 10
01 .05
01 .90
39. 70
01 . 80
01.10
02.20
10 .90
38. 90
54 .00
02.40
54. 20
ft T O ft V -J . £. \y
05. 90
06. 40
09 . 50
10. 70
11.90
16.30
03.80
09.80
15. 70
22.40
28.60
34.80
37.80
40. 90
43.80
44.20
44 . 40

- 0. 7

- 0.8

- 0.2
- 0.2

0.4

0. 4

0. 1

0. 9

0. 4

0.5
9.0

0. 1
0. 1

- 0.5

0.0

0.4

0.2

0.6

0.6
0.5

- 1 . 2

1 . 1
- 2. 3
- 0. 1
- 9.5
4.2X
0. 4

0.5
0.9

- 0.2
0.6
0.3
1 . 1

0.8
0. 1
0.4

0. 3

0. 1
0.3
- 0.5
0.6

- i .e
- 0. i
1 . 4

- 0. 7
- 3.7X
- 0.2
1 . 4
- 0.2
- 0.6
- 0. 9
- 1 . 4
- 1 . 3
61 obs.

38.62± 1 .50s
N ±12. 5km 21.224 E ±19. 2km
10.0km (geophys i c i s t)

12d 23h

102

GREECE (364) eS 09 43
MO 3. 0 (ATM) .

VLS 0.80 219 ePb 23 54. 10 -0.1
K'EK 1.43 310 e P b 2405.00 0.4
K'ZN 1.56 16ePb 24 06. 00 -0.5
OHR 2 33 352 ePn 24 16.00 -1.6
VAY 2.72 22ePn 2423.30 0.2
SKO 3.17 3 ePn 24 31 . 00 1.6
S . 0 . = 1.3 on 6 of 6obs.

AUG 12, 1991 23h 41m 39.78± 0.69s
41.028 N ± 5.0km 22.391 E ± 5.4km
DFPTH « 5.0km (geophysicist)
YUGOSLAVIA (383)
MD 2.0 (THE). ML 1.9 (SKO).

GRG 0.07 174 ePd 41 41.88 0.3
eS 41 43.60

VAY 0.32 25 iPg 41 46.00 -0.3
i Sg 41 51.00
KNT 0.41 71 ePc 41 48.40 0.5
eS 4155.00
THE 0.59 132 ePd 41 51.12 -0.4
eS 4159.72
SOH 0.76 105 ePd 41 54.84 -0.2
eS 42 06 . 12
FNA 0.81 253 ePd 41 56.04 0.1
eS 42 05 . 40
SRS 0.91 84 ePd 41 57.52 -0.2
eS 4211.08
LIT 0.93 175 ePd 41 57.40 -0.6
PAIG 1.47 138 e P c 4207.80 0.8
S.O. =0.5 on 9 of 9 obs.

AUG 12. 1991 23h 51m 21.47± 0.46s
41.644 N ± 4.0km 19.850 E ± 3.9km
DEPTH - 10.0km (geophysicist)
ALBAN 1 A (391)
ML 2. 8 (TTG) .

ULC 0.55 306 iPgc 51 33.00 0.3
i Sg 51 39.85
OHR 0.89 126 iPg 51 39.10 0.5
0.6s 72 . 00nm

i Sg 51 52.70
Lg 52 00.70
TTG 0.90 331 iPgd 51 38.26 -0.4
i Sg 51 49. 95
PVY 0.95 5 iPgd 51 39.06 -0.7
i S g 51 51.75
BDV 0.99 310 iPgd 51 40.60 0.3
iSg 51 53.75
IVA 1.23 2 iPgd 51 44.00 -0.4
i Sg 5200.68
SKO 1.23 74 iPg 51 44.20 -0.2
0.7s 177.00nm

i Sg 51 59. 00
Lg 52 02.20
HCY 1.29 309 iPgd 51 45.38 0.0
iSg 52 03. 35
NKY 1.33 332 iPgd 51 45.55 -0.5
iSg 52 03. 95
BRY 1.59 323 iPgc 51 50.51 0.7
i Sg 5212.36
PLE 1.72 349 iPgd 51 52.88 1.2
i Sg 52 15.05
LC 1 1.94 228 P 5153.70 -1.1
eSn 52 15.90
BRT 2.14 250 P 51 58.40 0.7
HVAR 2.95 302 ePn 52 12.80 3.6X
MGR 3.59 247 P 52 18.20 -0.1
SCO 3.60 254 P 52 18.40 0.0
SD I 4.52 273 P 5231.70 8.1
ASS S.51 287 P 52 45.00 -8.7
S . D . -0.6 on 17 of 18 obs.

AUG 13, 1991 01h 09m 27.55± 0.50s
41.032 N ± 4.2km 22.355 E ± 4.2km
DEPTH « 5.0km (geophysicist)
YUGOSLAVIA (383)
ML 2. 1 (SKO) . MD 2.0 (THE) .

GRG 0.08 155 ePd 09 30.06 0.5
VAY 9.33 29 iPg 09 34.20 0.0
i Sg 09 39. 30
KNT 9.43 72 iPc 09 36.58 0.4

THE 0.61 131 ePc 09 39

22
30 -0.5
eS 09 48 18
SOH 0.79 105 ePc 09 42 74 -0.6
LIT 0.94174 ePc 09 45
SRS 0.94 84 ePd 09 45
eS 09 59
SKO 1.16 324 ePn 09 50
i 1003
OHR 1.18 274 ePg 09 49
eSg 10 06
OUR 1.42 119 ePc 09 54
PAIG 1 . 50 137 ePc 09 55
S . D . =0.5 on 11 of

* AUG 13. 1991 01 h 38m 24
9 . 049 S ±1 8 . 7km 123 . 570
DEPTH = 68.3 ± 43.0 km
4 . 8mb (4 obs .)
T IMOR

KUP7 1 . 1 0 1 78 eP 3853

e(S) 39 06
MTN 8 . 33 1 18 eP 4026
0.3s 50.00nm
eS 41 53
KNA 8.37 143 eP 40 24
0.3s 1 8 . 00nm
eS 41 47
MBL 1 2. 57 1 96 eP 4121
eS 43 31
WR2 15.04 137 eP 41 53
0.2s 7 . 40nm
eS 44 26
NANU 15.50 209 eP 42 01
eS 44 43
ASPA 17.58 147 i Pd 42 26
0.3s 10.00nm
iS 45 30
CIS 1 9 . 25 1 28 eP 4247
eS 46 07

70 -0.2
50 -0.4
1 4
00 0.2
10
70 -0.4
00
42 0.4
54 0.5
11 obs .

42± 3.71s
E ±12 . 1 km

(289)

00 8 . 7X
00
00 1.1
5 . 8mb X
00
70 -0.8
5 . 4mb X
00
50 -0.7
00
00 -1.6
4 . 6mb
. 20
50 1.2

00
. 90 0.5
4 .5mb
50
00 0.7
00
GUN 51.76 316 P 47 28 i 60 0.8
0.4s 1 6 . 00nm 5 . 4mb
PK I 51 . 87 316 P 47 28180 0.2
0.4s 7 . 00nm 5 . 0mb
KKN 52.09 316 P 47 30160 0.4
DMN 52.10 316 P 47 28I20 -2.1
GKN 52.67 316 P 47 34 k 60 0.2
S . D . =1.2 on 12 of | 3 obs .

AUG 13, 1991 02h 11m 16
52 . 791 N ± 4 . 2km 34 . 944

DEPTH - 10.0km (geophys
5.2mb (44 obs.) 5.2Msz
NORTH ATLANTIC OCEAN

Ms 5. 4 (BRK) .
CENTROID, MOMENT TENSO
Doto Used: GDSN
L.P.B. : 19S, 36C
Centroid Locotion:

36± 0.14s
W ± 1 . 8km
cist)
21 obs.)
(462)

* (HRV)

Origin Time 02:1^:17.8 0.5
Lot 52.66N 0.05 Lon 3f.70W 0.08
Dep 15.0 FIX Hoi f-dur
Moment Tensor; Scole
Mr r--1 .65 0.07 M t t-
Mf f- 1.61 0.08 Mr t-
Mr f- 0.64 0. 32 Mt f
P r i nc i po 1 Axes:
T Vo 1- 1.98 P 1 g-
N 0.35 3!
P -2.33 6i

3 t i on 2.1
1 0» 1 7 Nm
0.04 0.10
0.99 0.23
- 0.83 0.08

J Azm-249
9 341
5 152

Best Double Coup 1 e : Mo = £ . 2 1 0 1 7
NP1 : S t r i ke-31 1 D i p-49
NP2: 184 56

VAL 15.10 83 i P 1449
S 1840
AKU 15.45 27 eP 15 00
1.9s 389 . 47nm
DCN 16.60 77 i Pd 1512
1.4s 285 . 08nm
DMU 16.74 75 iPd 15 14
ETA 17 .35 79 eP 1521
ECP 17.37 81 eP 15 21
1 .2s 345.00nm
GDH 18.66 339 iPd 15 40
1 . 5s 444 . 44nm

S 1 i p 131
- 53

70 -1.4
00
70 5.0X
5 . 4mb
50 2.1
5 .2mb
20 2.1
80 1.9
90 1.8
5 .4mb
50 4 . 6X
5 .4mb

EKA

SCH

EMON
PTO

ERUA

f" V D r\ DK

LPF

FLN

LDF

EMM
ASK
MFF
M 1 M
EPLA
GUD
UCC

SNF
DBN

LSF
LFF
DOU

TCF
RJF

DAG

Wl T
LPO
BTH

M A F
BGF

BNH
ENN

SSF

AVF

MEM
WTS

ETOR
KONO
LOR

CAF

EHOR
LBF

SMF

WLF
BNS

NB2

COLF
V 1 TF
EJ 1 F
EV 1 A
HAU

EROO
EBR

i 19 02.00
i 20 37.00
18.74 70 P 15 37 .00 -0.1
1.3s 86 . 90nm 4 . 8mb
18.83 289 ePc 15 35.70 -2.5
1.5s 393.00nm 5.4mb
20. 56 106 i Pd 1556.37 -1.2
21 .29 1 13 eP 16 03. 50 -1.5

e(S) 20 02. 00
21 . 31 108 eP 1604.57 -0.7
21.95 88 eP 1 6 1 1 . 80 0.2
1.5s 1 25 . 35nm 5 . 1mb
21.99 89 eP 1 6 1 1 . 00 -1.0
1.5s 156. 70nm 5 . 2mb
. 22.03 87 eP 16 12 . 60 0.2

1.2s 95 . 20nm 5 . 1mb
Z 20s 6.00um 5.0Msz
22.31 87 eP 16 15. 30 0.1
1.5s 141 . 00nm 5 . 2mb
22 . 76 262 P 1618.10 -1.5
23.06 55 eP 16 23. 70 1.3
23.18 91 eP 1 6 23.00 -0.7
23. 43 265 P 16 26. 30 0.2
23 . 43 1 1 1 eP 1627.41 1.1
24. 15 108 eP 1633.31 -0.1
24.19 79 P 1 6 34 . 00 0.6
S 20 54.00
24.24 80 i PC 1634.56 0.6
24 . 25 75 i P+ 1 6 36 . 00 2.0
Z 20s 5.00um 5.0Msz
eS 20 55.00
24 . 37 91 eP 1635.40 0.1
24.55 94 eP 1 6 38 . 30 1.3
24.58 80 Pc+ 16 37 .20 -0.1
1.0s 46 . 20nm 5 . 1mb

Z 18s 6 . 90um 5 . 2Msz
24.76 90 eP 16 38 .90 -0.2
24.83 93 eP 16 40 . 30 0.5
Z 21s 6 . 75um 5 . IMsz
24.84 9 i PC 1639.80 0.2
1.3s 57 . 69nm 5 . 1mb
24.91 73 eP 1 6 43 . 00 2.6
24.95 94 eP 16 42.00 1.1
24.97 99 ePd 16 42.00 0.9
e 1 7 26 . 00
ePP 18 02.00
e 18 37.00

e(PcP) 18 54.00
e 1 9 47 . 00
25.01 90 eP 1641.10 -0.4
25. 02 89 eP 16 41 .20 -0.4
1.2s 102 . 65nm 5 . 4mb
25.11 266 P 16 41 .60 -0.9
25 . 13 78 eP 16 42.00 -0.5
0.9s 34 . 00nm 5 . 0mb
25 .18 88 eP 16 42.60 -0.5
0.9s 33 . 60nm 5 . 0mb
25.22 88 eP 16 42.80 -0.6
1.0S 37 . 00nm 5 . 0mb
25.23 78 iPc 16 43.49 0.0
25 . 24 75 eP 16 44.00 0.4
1.0s 94 . 00nm 5 . 4mb
25.26 105 eP 16 43.89 -0.1
25.28 57 eP 16 46.50 2.6
25.30 87 eP 16 43.60 -0.7
0.9s 38 . 50nm 5. 1mb
Z 22s 3.25um 4.8Msz
25.36 93 eP 16 44.20 -0.6
1.2s 26.80nm 4.8mb
25 . 46 1 1 4 eP 1 6 46 . 05 0.3
25 .50 87 eP 16 45.50 -0.7
0.9s 36 . 85nm 5 . 1mb
25.58 88 eP 16 46.40 -0.5
0.9s 32 . 75nm 5. 0mb
25.67 80 i PC 1647.67 0.0
25 . 80 77 ePc 16 49.40 0.6
Z 16s 6.60um 5.2MszX
26 .00 53 P 16 49 .70 -1.0
0.9s 1 4 . 90nm 4. 7mb
26.04 91P 1651.19 0.0
26.17 83 P 16 52.02 -0.3
26. 33 1 17 eP 16 55.34 1.4
26. 44 109 eP 16 56. 13 1.1
26.48 84 eP 16 54.60 -0.6
Z 21s 3.25um 4.9Msz
26. 71 102 eP 16 57.39 0.0
26.77 102 eP 16 58.00 0.2

103

13d 02h

ECOG
AFC
3SF
GWF
CDF
ECH
EHUE
LOMF
HFS

BBS
LOF
PEL
ACU
SLE
LPL
LPG
2LA
Dl X
BN 1
CDR
MMK
MOX

Z
N
E

GRF

Z

DOI
LRG
Z
BRN
FRF
TMA
LMR
CLL

UPP

FUR
OSS
CK 1
LVNJ
3RG

BOB
WTTA

KHC
Z
N
E

PRU
Z
N
E

CT 1
MME
BD 1
FV 1
KTK 1
KMR

P I I
KSP
PGD
SFI
VOY
TR I

VKA

eS 21 30.00
26.78 1 13 eP 16 59. 12 0.9
26 . 81 1 13 eP 17 00 .20 1.7
26.82 84 P 1657.19 -1.3
26 . 83 81 P 16 58 . 41 0.0
26 .86 82 P 16 58 .06 -0.7
26 . 88 83 P 1658.51 -0.3
26. 95 111 eP 1701.66 1.9
77.06 85 P 1659.47 -1.1
27 . 30 55 eP 1701.50 -1.0
2.2s 242.60nm 5. 5mb
27 . 42 84 P 1 7 02 . 02 -1.8
27 .45 37 eP 1703.52 -0.3
27 . 54 83 P 1703.12 -1.9
27. 73 107 eP 1709.98 3-3X
27 .88 83 ePd 1707.30 -0.7
27 .89 88 eP 1709.00 0.7
27 . 91 88 eP 17 09. 40 0.8
27.94 83 ePd 17 07.90 -0.7
28 - 02 87 ePd 17 10.70 1.2
28 . 09 89 P 1711.40 1.4
28 . 27 92 eP 1711.50 0.0
28 . 37 86 ePd 17 13.10 0.4
28 . 54 75 i P 1713.80 0.0
2.4s 1 80 . 00r>m 5 . 4mb
18s 8 . 20um 5 . 4Msz
16s 2 . 40um
1 8s 5 . 00um
eS 22 05.00
28 . 68 77 eP 1714.60 -0.6
2.7s 270.00nm 5. 6mb
18s 2 . 70um 4 . 9Msz

e(S) 21 13.00
28 . 72 90 P 1717.00 1.3
28 . 75 92 eP 1716.40 0.6
20s 4 75um 5 . 1 Msz
28 . 8 1 7 1 eP 1717.00 0.8
28. 87 92 eP 1717.40 0.5
28 . 89 86 ePd 17 18.90 1.6
28. 91 92 eP 1717.50 0.3
29. 10 73 iPd 1718.30 -0.5
2.4s 2 1 5 . 00nm 5. 5mb
e 17 36.00
eS 2211.00
29.29 55 i P 1719.80 -0.7
IS 2214.00
29. 37 80 iPd 1721.20 -0.2
29 . 38 84 ePd 17 21.70 0.1
29.39 89 P 1721.30 -0.3
29. 39 262 P 1721.20 -0.4
29.81 74 i P 1724.30 -1.0
e 18 08 . 00
e 18 25.00
eS 22 20.00
29.92 87 P 17 26 .80 0.4
30.00 82 iPd 17 26.90 -0.3
2.0s 119.00nm 5. 4mb
i 1744.00
30.32 77 iP 17 29.50 -0.3
18s 4.30um 5.1 Msz
12s 1 . 30um
18s 4 . 30 urn
e 1 7 46 . 50
e 18 39.50
S 22 28.00
30. 52 75 eP 17 28 .00 -3 . 5X
15s 7 . 1 0um 5 . 4MszX
15s 1 . 30um
16s 4 . 70um
e 1 7 30. 50
e 1 7 48 . 00
S 22 33.00
30.60 84 P 17 32. 00 -0.4
30 . 98 88 P 1 7 36 . 00 0.0
30 . 99 88 P 1734.90 -1.0
31.01 82 P 17 35.70 -0.2
31 .08 36 eP 17 35. 70 -0.6
31.13 79 eP 1736.00 -0.9
i 1737.70
31.13 88 P 17 36.00 -1.0
31.19 73 ePd 17 36.80 -0.6
31.78 87 P 1743.40 0.5
31.83 87 P 17 42.90 -0.2
31 . 96 82 iPd 17 43 .80 -0.6
32 .05 83 eP 17 43.90 -1.1
eLR 26 58.00
32.33 77 eP 17 46.50 -0.9

LJU
SOD
CEY
NUR
CBN
Rl Y
ARV
ZST
KAF

VBY
MNS
RMP
KRA

SRO
SDI
PSZ
DU I
MGR
BRT
JSC
MBC

FFC

SKO

OHR
CMP
MLR
VR I
VAY
GRG
KNT
PVL
OBN

LI T
SRS
SON
FVM
RZN
YKA

AGG
OUR
KDZ
PA I G
RSSD
TUL

I NX

SES
UYO

4.0s 597.00nm 5.9mb X BBTK 46.81 78 iPd 19 48.00 0.1
Z 14s 2.40um 5.0MszX MEO 47.69 274 i PC 19 49.80 -5.0X
ic 17 48.00 GOL 48-52 284 P 20 02.20 0.8
e 18 54.00 2.0s 74.15nm 5.4mb
32.34 82 eP 17 47.00 -0.6 Z 20s 0.75um 4.7Msz
32.39 39 iP 17 46.30 -1.4 LRM 48.72 295 eP 20 03.80 0.9
32.43 82 eP 17 48.00 -0.4 BW06 48.99 290 P 20 04.70 -0.3
32.60 52 eP 17 48.90 -0.7 1.7s 53.03nm 5.3mb
32.60 261 e(P) 17 50.00 0.1 NEW 49.74 300 P 20 10.50 0.1
32.61 83 eP 17 50.50 0.6 1.2s 28.41nm 5.1mb
32.72 87 P 17 50.50 -0.5 Z 20s 4.00 U m 5.4Msz
32.82 77 eP 17 51.00 -0.7 PNT 50.38 302 eP 20 15-00 -0.3
33.02 49 iP 17 52.20 -1.1 0.8s 18.00nm 5.1mb
0.5s 14.00r>m 5.1mb DPW 50.55 300 P 20 16.20 -0.5
33.05 82 eP 17 53.00 -0.7 FBA .51.83 330 eP 20 26.30 0.2
33.19 89P 1753.40 -1.7 TIC 52. 11 141 P 2028-60 -0.1
33.54 90 P 17 59.20 1.2 ANMO 52.32 280 P 20 40.00 9.6X
33.63 72 eP 17 58.00 -0.8 2 19s 5 . 2 1 urn 5.6Msz
1.6s 119.00nm 5.6mb ALO 52.33 280 ePc 20 31.20 0.7
Z 19s 4.70um 5.2MSZ 1.2s 29.69nm 5.1mb
E 19s 4.60um Z 19s 5 . 90um 5.6MSZ
e 17 59.90 KIC 52.47 141 P 20 31.30 -0.2
e 18 15.50 BHL 52.49 81 P 20 30.00 -1.6
e 19 08 . 00 S 28 00 . 00
eS 23 16.00 LIC 52.49 141 P 20 31.40 -0.2
33.72 77 eP 17 58.80 -0.7 Z 21s 0.89um 4.8Msz
34.27 89 P 18 04.70 0.2 DUG 52.52 289 P 20 32.00 0.2
34.60 76 iP 18 08.00 0.8 I MA 52.68 333 eP 20 32.60 0.0
34.69 89 P 18 09.40 1.3 1.8s 118.e0nm 5.5mb
36.27 90 P 18 21.20 -0.2 AD I 52.80' 83 eP 20 33.20 -0.6
36.82 87 P 18 26.10 0.1 LON 53.15 301 P 20 35.50 -0.8
37.56 259 P 18 33.20 1.0 TOA 53.30 327 eP 20 38.30 1.2
38.23 337 ePd 18 38.10 0.6 MML 53.37 83 eP 20 38.00 0.0
1.0s 42.00nm 5.1mb BMW 54.07 301 P 20 41.60 -1.4
38.32 301 eP 18 39.50 1.1 PRN 1 54.59 85 eP 20 47.30 0.3
0.9s 24.00nm 4.9mb PMR 54.64 328 eP 20 47.00 0.1
38.73 83 eP 18 41.50 -0.6 2.0s 216.80nm 5.8mb
Z 18s 7.32um 5.5Msz T T A 55.73 332 eP 20 54.10 -0.9
N 18s 5.54um LBFM 56.83 296 P 21 03.00 -0.3
E 17s 5.57um SVW 57.04 330 eP 21 03.30 -1.1
iPP 20 12.00 BONR 57.17 291 P 21 01.30 -4.6X
iS 24 40.00 MIN 57.36 295 eP 21 06.00 -1.0
iSS 26 58.00 WDC 57.71 296 eP 21 07.70 -1.5
LR 34 54.00 ORV 57.85 294 eP 21 10.60 0.3
38.86 85 eP 18 43.50 0.3 GSC 58.17 288 eP 21 13.00 0.4
39.01 76 ePd 18 47.00 2.6 CLC 58.27 289 eP 21 14.00 0.7
39.42 75 eP 18 48.00 0.1 CMB 58.29 292 eP 21 13.70 0.3
39.67 74 eP 18 48.00 -1.8 FHC 58.34 297 eP 21 14.00 0.3
39.80 83 eP 18 50.70 -0.3 TPC 58.58 286 eP 21 16.00 0.5
39.92 84 iPd 18 51.96 0.0 GLA 58.61 284 eP 21 17.00 1.3
40.10 83 ePd 18 53.98 0.6 FR 1 58.64 291 eP 21 17.20 1.4
40.34 79 iPd 18 54.00 -1.4 ISA 58.88 289 eP 21 19.00 1.4
40.48 57 iPd 18 56.00 -0.3 SBB 59.20 288 eP 21 20.00 0.2
1.4s »«««*««nm 8.3mb X RVR 59.43 287 eP 21 20.00 -1.3
Z 19s 4.80um 5.4Msz MHC 59.49 293 eP 21 22.70 0.9
N 22s 2.00um CLMC 59.58 230 eP 21 23.19 0.5
E 18s 3.00um PLM 59.59 286 eP 21 23.00 0.4
e 19 03.00 LLA 59.61 291 eP 21 23.80 1.2
ePP 20 28.00 MWC 59.66 288 eP 21 34.00 10. 8X
iS 25 08.00 PAS 59.78 288 eP 21 37.00 13. 3X
eSSS 29 06.00 HOOC 59.97 230 eP 21 25.04 -0.5
LR 30 30.00 IR7 60.01 70 eP 21 26.00 0.6
40.49 85 ePc 18 56.00 -0.7 ANCC 60.04 230 eP 21 25.47 -0.2
40.54 83 ePd 18 57.28 0.2 IR1 60.26 70 iPd 21 27.50 0.4
40.58 83 iPc 18 57.72 0.3 IR4 60.50 70 i Pd 21 29.00 0.2
40.64 271 P 18 58.80 0.9 SYP 60.55 289 eP 21 20.00 -9.2X
40.87 81 iPd 18 59.00 -1.0 PURC 60.85 229 eP 21 33.13 1.3
41.04 316 eP 18 56.70 -4 . 2X SOB 1 61.96 187 eP 21 38.20 -0.5
0.9s 7.00nm 4.4mb SON 63.24 329 eP 21 46.50 -0.1
41.07 86 iPd 19 01.32 -0.1 0.7s 98 . 60nm 6.1mb
41.25 83 ePc 19 02.04 -0.8 MA I 0 64.51 63 i Pd 21 55.40 -0.1
41.32 81 iP 19 02.00 -1.4 e 30 40.00
41.32 84 iPd 19 03.66 0.2 BAD 69.07 193 ePd 22 24.00 -0.4
44.99 288 P 19 34.60 1.0 IRK 69.88 25 eP 22 28.00 -0.8
45.25 273 iPd 19 35.30 -0.1 e 22 37.10
1.0s 19.10nm 5.0mb SIV 72.13 206 P 22 40.30 -2.5
Z 18s 2.62um 5.2Msz OUE 73.20 62 eP 22 50.00 0.7
N 18s 1.99um CCH 74.92 211 P 22 57.50 -1.9
E 18s 2.03um PPD 75.86 196 eP 23 04.00 -0.3
e 21 30.00 LWI 76.25 113 ePc 23 06.40 -0.6
eS 26 28.00 GKN 83.92 51 P 23 47.40 -0.4
e 29 50.00 BJ I 84.21 22 eP 23 49.00 0.1
LR 34 26.00 2.0s 115.00nm 5.8mb
45.26 329 ePd 19 34.10 -1.0 Z 24s 0.96um 5.1MszX
1.2s 47.00nm 5.3mb N 16s 0.70um
45.27 299 eP 19 37.00 1.5 ePP 27 02.50
45.61 270 iPc 19 39.00 0.7 eS 34 19.00

104

13<J 02h

KKN
D M N
LZH

2
E

GUN
PK 1
SSE
2
N
E

DZM
WRA

WR2

OIS

AS PA

S

AUG
43 .

eSS 39 46.00
84 .40 50 P 23 50.80 0.5
84 . 47 51 P 23 51 . 60 0.9

84.59 32 eP 23 50. 70 0.1
2.0s 85.00nm 5. 6mb
22s 1 . 27um 5 . 3Msz
16s 0 . 67um

pP 23 59.00 26kmX
PP 2708.00
eS 34 18.00
eSS 39 55.00
84.57 50 P 23 52. 40 1.0
84.64 50 P 23 52 . 60 0.3
93,91 20 P 24 34. 00 -1.2
2 (is 1 . 90um 5 6Msz
2ds 1 - 90um

2(>s 1 . 00um
SKS 35 14.00
PS 37 06.00
145 22 324 i PKPc 30 55.60 -0.1
1 46. 18 18 PKP 30 57 . 00 -0.3
1.0s 37 . 80nm
146.18 18 iPKPc 30 57.50 0.2
0.7s 7 . 70nm
i 3103.40
147.55 10 ePKP 31 01 . 40 2.0
i 3107.60
149.70 21 iPKPd 31 06.60 3 . 8X
1.1s 24 . 70nm
. D. = 0.9 on 224 of 236 obs.

13, 1991 02h 39m 39.82± 0.46s
171 N ± 5.5km 0.284 W ± 4.9km
DEPTH = 10.0km (geo phy s i c i S t)
PYRENEES (378)

OGE
JAU
ESCF
ATE
LHE
MADF

ISSF

EPF

EGRA

ECR I

LPO

LFF

EROO

CAF

RJ F

ETOR

LSF

MFF

TCF

MAF

BGF

S

? AUG

ML 3.2 (LOG). mbLg 3.0 (MOD).
Felt (IV) in the Ossou Volley,
F r once .

0.14 269 Pg 39 43 . 95 0.8
0.15 205 Pg 39 42 .39 -1.0
0.23 247 Pg 39 44.51 -0.3
0.32 255 Pg 39 46.20 -0.2
0.36 224 Pg 39 45.88 -1.3
0 . 39 267 Pg 39 47 . 94 0.1
Sg 39 54.57
0.40 249 Pg 39 47.70 -0.4
Sg 39 53. 42
0. 48 107 Pg 39 49.80 0.3
Sg 39 56.30
0. 98 181 cP 39 59. 30 1.0
eS 40 13.00
1 . 73 252 eP 40 12.20 2.0
eS 40 34.00
1.85 35 Pn 40 12. 70 0.9
Pg 40 17.00
Sg 40 42 . 40
1.92 22 Pn 4014.20 1.4
Pg 40 18.40
Sg 40 45.00
2 . 40 1 67 eP 4024.00 4 . 2X
cS 40 53.00
2.44 43 Pn 40 20 . 60 0.3

Pg 40 27.80
Sg 41 00.40
2 .49 31 Pn 40 20 .80 -0.3
Pg 40 28.70
Sg 4101.60
2 . 70 2 1 0 eP 4024.00 -0.1
eS 40 56.00
3.34 22 Pn 40 31 . 70 -1.4

Pg 4044.70
Sn 4110.50
Sg 4128.00
3.43 2 Pg 4046.00 1 1 . 6X
Sg 41 30.30
3.59 29 Pg 40 49.00 12. 4X
Sg 41 35 . 20
3 .66 33 Pn 40 38 . 20 0.4
Sg 4137.50
4.05 32 Pn 40 41 . 00 -2.2
Sg 41 45.20
. D. -1.1 on 18of 21 obs .

13, 1991 02h 55m 52.09± 4.62s
"7 ft "7 hi i O ft C. L,« CO 1 A O Uf _i_ A A O 1. _^ 10./J7/ M X £ V . -J I* III U £. . *J V £. n I » W . O Mil

DEPTH - 33.0km (normal)

NEAR COAST OF VENEZUELA (97)
MD 3. 2 (TRN) .

TCE 0.55 100 IP 56 04.62 0.6

cS 56 1 6 . pi
TRN 0.90 99 iPd 56 08.69 -0.2
i S 5621.90
TPP 0.96 120 cP 56 08. B2 -0.3

eS 56 23. |78
GRW 1.49 25 IP 56 15.^0 -1.1
eS 56 38. 27
TPR 1.55 75 eP 5617.
SVB 2.67 23 eP 56 34.
cS 57 08.
S.D. -0.9 on 6 of

% AUG 13, 1991 05h 09m 44.
32.828 S ±15. 8km 71 . 362
DEPTH - 33.0km (normol)
NEAR COAST OF CENTRAL CHILE

IHA 0.31 230 eP 09 53.
IS 10 45.
ROCH 0. 33 116 iP 09 52.
i S 1004.
PEL 0. 65 119 iPd 09 58.
IS 1013.
JACH 0.66 78 iPd 09 57.
IS 1011.
SAN 0. 86 137 iP 1001.
i S 1018.
TACH 0.96 157 eP 10 00.
IS 1017.
PCH 1 . 06 1 38 eP 1004.
IS 10 25.
LNV 1.13 182 eP 1002.
IS 1021.
CHCH 1 . 25 152 iPc 10 06.
iS 10 28.
S.D. -1.2 on 9of

AUG 13. 1 99 1 05h 1 0m 28 .
32. 407 S ± 5 . 0km 71 .699
DEPTH - 33.0km (normol)
4. 3mb (3 obs .)
NEAR COAST OF CENTRAL CHILE

ROCH 0.81 134 iP 10 43.
JACH 0.97 107 i P 1047.

t9 -8.2
50 0.8
78
3 Ot>S .

58± 1.76s
V ±1 1 . 1 km

(135)

30 1.0

*0
50 -0.5
30
30 0.5
50
30 -0.7

50
30 0.9
30
30 -0.4

50
20 0.8
20
30 -2.1
30
50 0.5
50
3 obs .

37± 0 . 79s

(V ±1 2 . 4km

(135)

50 0.0
20 1.4
iS 1 1 01 .^0
LCCH 1.07 174 i P 1046.
PEL 1.13131 i Pd 1049.
SAN 1.36 140 i Pd 1052.
i S 1 1 09.
TACH 1 . 40 1 53 i P 10 52 .
iS 1 1 09.
LNV 1.56 171 i Pd 1052.
iS 1112.
PCH 1.57 141 iPd 1055.
iS 1115.
CHCH 1.76 150 i Pd 10 58 .
i S 1119.
RTLL 2. 95 70 e(P) 11 19.
S 1 1 59.
CYA 6.45 54 i P 1203.
S 12 08.

ANT 8.74 8 e(P) 12 58.
SLA 9.39 37 eP 12 52.
CCH 15.78 20 eP 1410.
ARE 15.88 1 eP 1417.
CNCB 15. 89 13P 1413.

00 -1.1
00 1.1
00 0.8
70
00 0.2
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80 -1.3
50
00 0.7
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00 1.0
60
00 5 . 0X
00
00 -0.5
20
00 22. 5X
00 7 . 4X
00 -0.1
00 5 . 7X
00 1.2

LPB 16.14 13P 1417.|00 2.2
1.0s 30 . 00nm 4 . 4mb
i 1421.
ZOBO 16.39 12 iPd 14 19.
1.0S 8 . 00nm
Z 18s 0 . 28um
LR 19 24.
SI V 18. 98 33 P 14 47 .
PPD 20 .83 65 eP 1508.
BAD 27 . 24 58 ePd 16 10.
LIC 74. 00 72 P 22 02.
TIC 74 . 26 7 1 P 22 03.
KIC 74.31 72P 2204.
0.6s 4 . 50nm

GOL 78.24 334 (P) 22 27.
GBA 146.16 116 PKPd 30 06.

00
00 0.8
3 . 8mb
5 . 4Msz
00
20 -2.6
30 -1.4
50 -1.1
10 -0.7
70 -0.6
00 -0.6
4 . 6mb
50 1.0
20 -0.1

0.6s 2 . 90nm
S . D . = 1 . 2 on 22 o f 26 obs .

? AUG 13, 1991 05h 56m 41.70± 4.88s
11.352 N ±17. 5km 59.403 W ±44. 4km
DEPTH = 26. 4 ± 7 . 0 km
NORTH ATLANTIC OCEAN (402)
MD 3.7 (TRN) .

TRN 2.08 251 cP 57 15.03 -0.6
eS 57 38.06
TPP 2.26 243 cP 57 17.68 -0.4
cS 5744.18
GRW 2.35 290 eP 57 18.82 -0.6
eS 5747.01
TCE 2.40 254 cP 57 20.24 0.2
eS 57 46.07
SVB 2.63 317 eP 57 23.50 0.2
eS 57 55 . 16
SLB 2.93 327 eP 57 27.02 -0.6
eS 58 02 . 17
BIM 3.54 333 eP 57 35.84 -0.5
S 5815.10
FDF 3.77 333 eP 57 39.54 0.0
0.2s 0 . 50nm
S 58 20.80
S . 0. =0.5 on 8of Sobs.

% AUG 13, 1991 06h 21m 07 . 22± 0.83s
60.385 N ± 4.9km 5.315 E ± 1 2 . 8 km
DEPTH = 5.0km (ge o phy s i c i s t)
SOUTHERN NORWAY (535)
MD 1 . 3 (BER) .

ASK 0.12 329 iPgc 21 09.89 0.2
eSg 21 11.41
EGD 0.12 201 iPgc 21 09.76 0.0
eSg 21 11.79
SUE 0. 73 338 iP 2121.51 -0.2
eSg 21 31.75
HYA 0.89 28 iP 21 24.81 0.0

eSg 21 38.17
KMY 1 . 1 8 1 82 i P 2129.61 0.0
eSg 21 44.86
S.D. -0.2 on 5of Sobs.

AUG 13, 1991 06h 56m 31.64± 0.35s
42.855 N ± 2.9km 111.270 W ± 2.7km DEPTH - 5.0km (geo phy s i c i s t)
EASTERN IDAHO (457)
ML 3.0 (GS) , 3.0 (BUT) .

ALPW 0.36 34 P 56 38.80 0.0
CHOI 0.46 5 P 56 41 . 10 0.2
REDW 0.59 31 P 56 43.20 -0.3
BEAW 0.62 50 P 56 43.60 -0.5
P IN I 065 355 P 56 44.80 0.1
TMI 0. 65 314 P 56 45 .00 0.3
TPAW 0.68 20 P 56 44.70 -0.5
SNOW 0.71 32 P 56 45.60 -0.3
PTI 0.81 271 eP 56 47.20 -0.7
BW06 1.26 93 ePn 56 55.30 -0.4
0.6s 38.76nm

Pg 56 56.40
CBTI 1.31 294 P 56 55.70 -0.8
LLRI 1.49 306 P 56 59.50 0.2
LJ 1 1 . 50 31 1 P 56 59.00 -0.4
HPI 1 . 58 303 P 57 01 .80 1.1
JGI 1 . 61 321 P 57 01 .00 0.1
LTMT 1.78 340 ePn 57 03.90 0.4
MCMT 2.28 330 ePn 57 10.80 0.1
BGMT 2.44 347 ePn 57 13.90 0.9
DAU 2.44 180 eP 57 13.00 -0.1
DUG 2.90 204 eP 57 19.00 -0.5
LRM 3.08 344 ePn 57 24.70 2.6X
HBMT 3.09 342 ePn 57 25.60 3 . 4X

BUT 3.29 344 (Pg) 57 25.00 0.0
eSg 58 21.30
SXM 3.29 1 ePn 57 30.50 5.4X
RSSD 5.41 74 ePn 57 55.50 0.3
0.5s 12.16nm 4. 8mb X
Lg 59 17.00
GOL 5.45 123 e(Pn) 57 57.00 1.2
Lg 59 22.50
S.D. - 0.6 on 23 of 26 obs.

? AUG 13, 1991 08h 04m 44.61± 0.97s

105

13d 08h

17.948 S ±16. 4km 166.026 E ± 9.2km DEPTH = 33.0km (normol)
VANUATU ISLANDS (186)

BKM 2.13 8 3 i P d 6519.46 6.8
i S 0549.46
PVC 2.19 85 iP 65 18.56 -0 8
i S 6547.56
DZM 4 . 1 3 1 75 i PC 9547.16 6.1
IS 06 56 . 10
WR2 29.99 261 iPc 10 53.10 0.5
0.3s 4 . 96nm 4 . 8mb
ASPA 36.52 254 i Pd 10 56.80 -6.5
0.4s 54.50nm 5. 7mb
S . D . =1.6 on 5 o f Sobs.

AUG 13, 1991 68h 16m 51.57± 1.59s
51.578 N ± 7.8km 7.032 E ±28. 5km
DEPTH = 5.6km (geophy s i c i s t)
GERMANY (543)
ML 2. 3 (8NS) . Fe 1 t (IV) ot
Reckling ho usen.

WTS 6.45 342 ePg 17 60.50 0.0
0.5s 29 . 00nm
BNS 6.61 171 ePg 17 03.00 -0.9
0.5s 1 45 . 00nm
eSg 17 10.80
ENN 1.06 221 iPn 17 12.60 -0.1
0.5s 31. 00nm
eSn 17 29 . 00
WLF 1 . 99 1 97 i P 1728.06 1.8
DOU 2.14 227 P 1 7 27 . 50 -0.8
S . D . = 1 . 5 on 5of 5 obs .

& AUG 13, 1991 08h 55m 03.45s
58 . 449 N 155. 532 W
DEPTH - 1 08 . 7km
ALASKA PENINSULA (12)
<AE 1 C>.

SPU 3.26 31 eP 55 53.32 -0.3
CGLM 3.37 30 eP 55 54.57 -6.7
SLKM 3.41 50 eP 55 53.62 -2.1
S 56 33 . 31
SEW 3.54 59 eP 55 55.91 -1.4
eS 56 36 . 66
SUA 3.87 36 eP 55 59.52 -2.5
S 56 44 . 15
SKT 4.07 28 eP 56 02.19 -2.5
PMS 4.11 45 eP 56 02.27 -3.1
S 56 48.26
LT 1 4 . 25 65 i P 56 04 . 84 -2.3
KNIM 4.42 61 iP 56 06.50 -2.9

GLI 4 . 92 57 iP 56 12 . 61 -3.8
VZW 5.24 56 eP 56 17.53 -3.2
VLZ 5.37 56 eP 56 19.06 -3.4
KLU 5.71 54 eP 56 23.65 -3.6
GLB 6.61 58 eP 56 35.77 -3.8
15 obs. ossocioted

AUG 13, 1991 09h 08m 11.80± 0.30s
54.135 N ± 8.4km 159.717 E ± 6.6km DEPTH = 33.0km (normol)
4 . 6mb (20 obs .)
NEAR EAST COAST OF KAMCHATKA (218)

KUSJ 14.81 228 eP 11 39.40 -1.0
ASAJ 14.97 235 eP 11 48.50 6.0X
HOOJ 16.01 229 eP 11 55.30 -0.6
YAK 17.58 309 IP 12 20.80 5.3X
e 30 40.60
ANM 20.34 45 eP 12 49.40 1.8
Nl IJ 22. 1 1 229 P 1307.80 2.1
KAKJ 22.48 225 P 13 10.80 1.5
CHJJ 23.11 227 eP 13 17.00 1.5
MTMJ 23.19 230 P 13 17.30 0.9
II DJ 24 . 06 228 P 1325.60 0.8
TTA 24.26 51 eP 13 27.90 1.4
SVW 24.49 55 eP 13 30.50 1.7
TSRJ 24.88 231 P 13 33.50 0.9
IMA 25.43 44 iPc 13 38.70 0.9
0.7s 14. 50nm 4 . 7mb
FBA 27.86 46 eP 14 00.40 0.6

MBC 36.17 24 eP 15 16.00 3.6X

YKA 42.55 43 eP 16 05.80 0.4
0.6s 5.70nm 4. 5mb
PNT 47.64 61 eP 16 46.90 -0.3
0.6s 4.00nm 4.6mb
SES 51.23 55 eP 1714.00 0.1
FFC 52.46 46 eP 17 23.00 -0.1
0.6s 7.00nm 4. 8mb
CLC 57.86 72 eP 18 01.00 -1.5
SBB 58.55 73 eP 18 07.00 -0.4
GUN 58.57 275 P 18 07.02 -0.9
GSC 58.68 72 eP 18 08.00 -0.3
KKN 59.01 275 P 18 10.08 -0.7
0.5s 36 . 08nm 5 . 8mb X
PKI 59.10 275 P 18 10.64 -0.9
0.7s I8.60nm 5. 3mb
GKN 59.23 276 P 18 10.98 -1.3
DMN 59.25 275 P 18 12.14 -0.4
0.7s 22 . 00nm 5 . 4mb
TPC 59.98 72 eP 18 16.00 -1.2
PLM 60.08 74 eP 18 19.00 1.0
GOL 61.61 61 P 18 28.00 -0.5
NB2 62.48 343 P 18 33.00 -0.7

HFS 62.89 342 eP 18 34.60 -1.7
0.4s 1 . 20nm 4 . 4mb
ANMO 64.61 65 P 18 47.20 -1.0
ALO 64.61 65 eP 18 47.00 -1.3
0.9s 4 . 20nm 4 . 5mb
MEO 68.84 60 iPd 19 13.60 -1.2
TUL 69.35 57 eP 19 16.20 -1.7
0.6s 3.50nm 4.6mb
PSI 71.06 247 eP 19 28.00 -0.5
GBA 74.58 272 Pd 19 47.70 -1.5
0.8s 4.30nm 4. 5mb

LOR 76.92 343 eP 20 01.90 -0.1
0.6s 4.05nm 4. 6mb
WRA 76.94 204 P 20 01.00 -1.3
0.9s 2.60nm 4. 3mb
LBF 77.17 343 eP 20 03.70 0.2
0.6s 2.70nm 4. 5mb
SSF 77.18 344 eP 20 04.10 0.7
0.7s 3 . 30nm 4 . 5mb
AVF 77.47 344 eP 20 05.10 0.1
0.6s 3 . 60nm 4 . 6mb
LPL 78.09 341 eP 20 09.90 1.1
0.8s 5 . 35nm 4 . 6mb
LPG 78.11 341 eP 20 09.90 1.0
0.8s 8.05nm 4. 8mb
MAF 78.15 344 eP 20 09.20 0.4
0.6s 3.60nm 4. 6mb
PGF 80.48 339 eP 20 23.20 1.6
0.6s 3.60nm 4. 5mb
S . D . - 1 . 1 on 47 of 50 obs .

AUG 13, 1991 10h 10m 26 . 1 0± 0.43s
36.544 N ± 5.1km 28.039 E ± 5.4km DEPTH - 93 . 5 ± 11.6 km
4.1mb (1 obs .)
DODECANESE ISLANDS (369)
MD 4.1 (HLW) .

YER 0.62 18 Pg 10 42.10 -0.4
ELL 1 .52 82 Pn 10 55. 00 2.2
I2M 1.95 342 Pn 10 58.00 -0.3
KHL 2.13 33 Pn 11 00.80 0.0
NPS 2.35 238 Pd 11 03.30 -0.4
eS 1 1 28. 90
DST 3.09 8 ePn 11 13.00 -0.8
EZN 3.54 338 iPn 11 20.00 0.1
EDC 3.80 358 ePn 11 23.00 -0.5
KGT 3.94 352 iPn 11 25.20 -0.3
VL 1 4.11 274 eP 1128.90 1.1
YLV 4.15 14 ePn 11 28.00 -0.4
AD 1 6 . 85 1 1 8 eP 1206.10 0.4
ATZ 7 .02 120 eP 1208.70 0.7
eS 1 3 19. 40
KOT 7.32 153 ePn 12 11.30 -0.8
eSn 13 25 . 30
JVI 7.60 125 eP 12 15.70 -0.4
PRNI 8.48 135 eP 12 26.90 -1.2
CZ 1 9.78 289 P 12 45. 80 0.1
CLL 18.25 329 iP 14 35.40 0.9
0.9s 1 1 . 00nm 4 . 1mb
S . D . -0.9 on 18 of 18 obs .

tc AUG 13, 1991 I0h 25m 56.20s

38. 240 N 118. 785 W
DEPTH - 20.0km
CALIFORNIA-NEVADA BORDER REGION (40) <BRK> . ML 3.6 (BRK) .

KVN 0.97 33 eP 26 13.30 -1.1
CMB 1.28 261 iPc 26 19.26 0.2
iS 26 35.30
FRI 1.45 211 iPd 26 21.89 0.6
eS 26 40.28
ARN 2.35 249 eP 26 35.50 l.l
LLA 2.36 227 eP 26 37.46 2.9
ORV 2.49 303 eP 26 37.16 0.7
PRI 2 . 58 216 eP 26 40. 98 3.2
SAO 2.58 236 eP 26 40.46 2.8

ZSP 2.75 265 eP 26 43.72 3.6
PRS 2.81 228 eP 26 43.78 2.9
PCC 2.94 257 eP 26 47.15 4.4
MIN 3.03 315 eP 26 48.92 4.7
8CH 3.22 199 eP 26 47.50 0.6
14 obs. associated

? AUG 13, 1991 11h 21m 17.89± 0.77s
20.943 S ±26. 7km 174.140 W ±14. 9km DEPTH - 33.0km (normol)
4.9mb (10 obs.) 4.7MS2 (4 obs.)
TONGA ISLANDS (173)

DZM 18.10 263 iPc 25 31.00 2.4
JAY 47.62 286 eP 29 53.00 -0.1
ASPA 47.93 257 iPd 29 53.60 -1.9
0.9s 1 0 . 30nm 4 . 9mb
Z 1 8s 0 . 70um 4 . 7Msz
i 30 01 . 00
WR2 48.09 262 iPd 29 54.70 -2.0
0.6s 9 . 1 0nm 5 . 0mb
WRA 48.11 262 P 29 54.00 -2.9
0.6s 3 . 40nm 4 . 6mb
MBL 61.18 257 eP 31 30.10 -1.9
NANU 64.76 254 eP 31 54.50 -1.2
CGP 66.79 289 eP 32 05.50 -3.3X
SPA 69.19 180 iPd 32 25.20 2.0
1.1s 17. 86nm 5 . 0mb
i 33 04.80
SYP 75.44 44 eP 33 10.00 9.3X

PLM 76.79 46 e(P) 33 04.50 -3.9X
ISA 77.11 44 eP 33 10.00 0.1

ORV 77.69 39 e(P) 33 20.50 7.5X
CLC 77.77 44 eP 33 13.00 -0.5
GSC 77.98 45 eP 33 20.00 5.2X

RSO 82.96 10 e(P) 33 50.00 9.2X
SLKM 83.45 12 P 33 42.00 -1.1
PV09 84.86 46 P 33 51.00 0.0
ALO 84.89 50 eP 33 50.70 -0.4
1.2s 7 . 03nm 4 . 7mb
ANMO 84.90 50 P 33 51.20 0.1
1.3s 1 4 . 42nm 5 . 0mb
IPM 86.81 276 ePc 34 02.00 1.2
BW06 86.85 42 P 33 59.50 -1.2
0.7s 2 . 24nm 4 . 5mb
FBA 87.94 11 P 34 04.50 -0.6
1.2s 32 . 58nm 5 . 5mb
GOL 87.99 46 P 34 08.00 1.7
BJ 1 88.77 314 eP 34 12.00 2.4
1.7s 49 .00nm 5 . 6mb
eS 44 36.00
SES 90.13 35 eP 34 15.00 -0.9
RSSD 91.00 43 P 34 20.00 -0.2
0.7s 2.77nm 4. 7mb
KMI 92.78 296 eP 34 31.00 2.1
INK 93.79 14 eP 34 32.00 -0.2
CHG 93.80 289 eP 34 35.90 2.5
CHTO 93.80 289 P 34 34.20 0.9
KRA 148.88 342 ePKP 41 04.10 4.6X
KSP 149.05 347 ePKP 41 04.50 4.7X
CLL 149.18 351 iPKPc 41 04.80 4.9X
1 . 4s 23 . 00nm
i 4108.70
BRG 149.46 350 iPKP 41 05.40 5.0X
1.7s 40 . 00nm
i 41 10.60
MOX 150.01 353 ePKPc 41 06.50 5 . 2X
1.6s 22 . 00nm
PRU 150.21 349 PKP 41 07.40 5.9X

KHC 151.21 349 PKP 41 10.00 6.9X

106

13d

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' AUG 13, 1991 11h 22m 22-97± 2.60s 32.621 S ±19.0km 70.271 W ±34.1km
DEPTH => 90.0km (geophy s i c i s t)
CHILE-ARGENTINA BORDER REGION (127)

JACH 0.28 257 iPc 22 36.20 -0.4

PEL

ROCH

PCH

TACH

CHCH

LNV

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S.D.

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7 obs

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: AUG 13, 1991 11h 27m 51.35± 0.72s
43.054 N ± 7.3km 0.478 W ± 5.5km
DEPTH - 10.0km (geophysiC ist)
PYRENEES (378)
ML 1.0 (STR).

ESCF
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OGE

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ISSF

MADF

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AUG 13. 1991 12h 16m 10.38± 1.48s
41.228 N ± 8.4km 22.487 E ±1 1 .0 km DEPTH * 5.0km (geophysiC ist)
YUGOSLAVIA (383)
MD 2.3 (THE).

VA Y

GRG

KNT

SOH

SRS

0.11

0 . 28

0 . 32

0 . 77

0 r 84

S.D.

34

194

102

121

97

0 .5

iPg
iSg
ePd
eS
iPc
eS
ePd
eS
iPc
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on

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obs .

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AUG 13. 1991 12h 41m 23.12± 0.97s

40. 259 N ± 7 . 2km 23. 772
DEPTH - 10.0km (geophys

E ±1 0 . 0km
cist)
GREECE (364)

OUR 0.18 65 ePd 41 26.96 -0.1
PAIG 0.34 192 ePd 41 30.16 0.0
eS 41 32.96
SON 0.65 331 ePd 41 34.72 -1.4
SRS 0.87 351 ePd 41 40.60 0.8
eS 41 53
KNT 1.12 324 e P c 4144
eS 41 59
S.D. -1.2 on 5of

* AUG 13, 19V1 15h 25m 01
15.316 N ± 6. 3 km 61.281
DEPTH - 146.1 ± 14.5 km
LEEWARD ISLANDS

MD 3.9 (TRN) .

BBL 0 . 28 31 7 ePd 2521
S 25 36.
FDF 0 .59 16B i Pd 25 23.
0.2s 4.1 5nm
S 25 32.
MGG 0.60 357 iPd 25 22.
S 25 38.
CRM 0.66 148 eP 25 23.
S 25 39.
DOG 0.78 336 eP 25 24.

16
80 0.7
40
5 obs .

01± 1 . 32s
W ±20 . 8km

(92)

06 -1.2
60
26 0.6

30
51 -0.1
30
35 0.3
50
11 0.2
S 25 41 .40
PAG 0.81 332 iPc 25 24.56 0.4
S 25 42.
B I M 0 . 82 1 66 i Pd 25 24 .
S 25 41 .
SFG 0.94 5 ePd 25 25.
DEC 1.01 12 ePd 25 25.
S 25 46.
SEG 1.10 349 eP 25 26.
S 25 48.
SLB 1 .50 171 i P 25 30.
eS 25 53.
MGH 1 .66 327 eP 25 32 . uu v . t.

30
47 0.2
90
41 0.3
56 -0.3
10
84 0.3
00
50 -0.2
00
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BPA 1.81 342 iPc 25 33.75 -0.3
S 26 00.: 00
SVB 2.03 179 eP 25 35.80 -0.9
eS 26 01 . 00
GRW 3.16 187 eP 25 52.00 1.1
eS 26 33.00
TCE 4.61 186 eP 26 10.00 -0.1
eS 27 01 .
TRN 4 . 64 1 8 1 eP 26 10 .
eS 27 01 .
S.D. -0.6 on 17of 1

? AUG 13, 1991 1 5h 33m 1 6 .
34.224 S ±22. 4km 179.808
DEPTH - 89 . 9 ± 32 . 1 km
4 .8mb (2 obs .)
SOUTH OF KERMADEC ISLANDS

HBZ 3.70 204 eP 34 14.
PGZ 7.10 205 eP 34 57 .
DZM 17.11311 i PC 37 1 1 .
ASPA 41.54 272 iPd 40 58.
0.9s 10. 70nm
WRA 42.88 277 P 41 07.
0.4s 1 0 . 40nm
NB2 152.24 34B PKP 52 55.
0.9s 1 . 60nm
HFS 152.61 345 ePKP 52 55.
0.8s 4 . 6®nm
S.D. -1.7 on 7of

* AUG 13. 1991 15h 58m 48.
6 . 794 N ± 8 . 1 km 76.371
DEPTH - 33.0km (normol)
4 . 5mb (3 obs .)
NORTHERN COLOMBIA

HOBC 2.43 174 eP 59 25.
eS 59 57.
CLMC 2.90 184 eP 59 33.
FUO 2.93 1 17 eP 59 36 .
BOG 3.15 133 iPc 59 44.
iS 00 28.
BMG 3.28 85 i Pd 59 40.

00
00 -0.4
00
7 obs.

50± 4. 15s
W ±36 . 1 km

(179)

10 1.6
70 -1.9
10 -0.3
00 1.2
4 . 7mb
00 -0.7
5. 0mb
60 0.3

50 -0.3

7 obs.

62± 0. 82s
W ±1 0 . 5km

(99)

92 -1.2
00
02 -0.7
00 1.8
50 7 . 1X
00
50 1.4

ANCC 3.29 189 eP 59 38.98 -0.2
HOOC 3.31 185 eP 59 38.30 -1.4
SILC 4.08 180 eP 59 51.60 0.9
PURC 4.44 180 eP 59 59.73 3.8X
SDV 6.05 70 ePn 00 18.50 0.1
TOV 7.16 65 eP 00 33.60 -0.2
CEOS 8.26 74 iP 00 46.60 -2.7
eS 02 20.50
ZOBO 24.32 160 eP 04 10.00 4.7X
LPB 24.58 161 eP 04 13.00 5.5X
CNCB 24.88 161 eP 04 12.00 1.4
i 04 1 6 . 00
SIV 27.24 146 P 04 34.00 2.1
FVM 33.57 340 P 05 29.00 1.2
1.0s 20 . 00nm 5 . 0mb
SOB1 38.76 114 eP 06 09.70 -2.4
GOL 41.85 326 P 06 38.30 0.7
1.0s 10. 00nm 4 . 5mb
YKA 62.21 341 eP 09 07.90 -1.2
0.6s 1 . 40nm 4 . 3mb
S.D. -1.6 on 16 of 20 obs .

% AUG 13, 1991 16h 10m 41.44± 4.27s
32.996 S ±17. 4km 71.255 W ±18. 2km
DEPTH - 63.9 ± 39 . 2 km
NEAR COAST OF CENTRAL CHILE (135)

ROCH 0.21 83 PC 10 51.50 -0.3
S 1 0 58.40
PEL 0 .50 107 P 10 54 .50 0.5
S 1 1 02. 00
LCCH 0.55 209 Pd 10 54.50 0.1
S 1 1 03.50
JACH 0.64 61 P 10 55.50 0.0
S 1 1 05.50
TACH 0.71 158 PC 10 56.10 -0.1
S 1106.10
PCH 0.88 135 P 10 58.20 -0.2
S 1 1 10 .00
CHCH 1.06 152 PC 11 00.80 0.0
S 1 1 15.00
S.D. -0.4 on 7of 7 obs .

* AUG 13, 1991 16h 35m 52.79± 0.54s
20.079 N ±11. 9km 45.800 W ± 8.5km
DEPTH - 10.0km (geophy s i c i s t) 4.8mb (18 obs.) 4.2Msz (2 obs.)
NORTH ATLANTIC RIDGE (403)

ZOBO 42.26 213 P 43 48.80 0.0
1.4s 18. 42nm 4 . 6mb
Z 24s 0.25um 4.0MszX
S 50 20.00
LR 56 52.00
FVM 42.46 305 P 43 51.00 1.4
LPB 42.47 213 P 43 56.00 5.7X
CNCB 42.64 212 P 43 52.00 0.1
LPF 45.49 42 eP 44 04.50 -9 . 5X
1.1s 14. 65nm 4 . 9mb
MFF 45.56 44 eP 44 04.90 -9 . 6X
1.2s 17. 85nm 4 . 9mb
GRR 45.74 41 eP 44 06.10 -9.9X
0.6s 3. 60nm 4 . 5mb
CAF 46.51 47 eP 44 22.30 0.1
1.0s 6 . 00nm 4 . 6mb
LSF 46.54 45 eP 44 22.70 0.4
1.2s 14 .90nm 4 . 9mb
TCF 47.00 45 eP 44 26.30 0.3
1.2s 1 3 . 40nm 4 . 9mb
BGF 47.50 45 eP 44 30.10 0.2
1.2s 1 7.85nm 5 . 0mb
AVF 47.90 44 eP 44 33.40 0.3
1.2s 14.90nm 5. 0mb
SSF 48.08 44 eP 44 34.70 0.2

1.2s 13. 40nm 4 . 9mb
SMF 48.19 45 eP 44 35.30 0.0
1.0s 8 . 00nm 4 . 8mb
LBF 48.37 44 eP 44 36.40 -0.3
1.2s 8 . 95nm 4 . 7mb
LOR 48.37 44 eP 44 36.90 0.2
1.0s 6 . 00nm 4 . 6mb
Z 20s 0 . 50um 4 . 5Msz
MEO 48.57 299 iPd 44 39.20 0.8
WTTA 53.53 46 iPc 45 15.20 -0.8
1.4s 17 .60nm 4 . 9mb
i 45 23.50
GRF 53.72 43 e(P) 45 23.10 6.0X

107

13d 16h

1.8s 1 6 . 00nm 4 . 7mb
2 22s 0.1 0um 3 . 8Msz

GOL 54.24 305 (P) 45 21.00 -0.5
FFC 54. 44 324 eP 4521.00 -1.4
1.6s 34.00nm 5.1mb
KHC 55.12 44 eP 45 27.60 -0.6
e 4635. 00
ZST 57.31 45 eP 45 48.70 5.5X
BW66 57.52 308 ePc 45 44.10 -1.0
1.3s 19. 26 rim 5. 0mb
SKO 60.09 52 eP 4558.40 -4.3X
YKA 62.61 331 eP 46 22.50 3.2X
1.3s 3 . 90nm 4 . 4mb
MBC 66.73 346 eP 46 48.60 2.2
OBN 69.47 37 eP 47 1 1 . 60 7.8X
INK 70.69 337 eP 47 09.00 -1.4
S . D . - 0 . 9 on 20 of 29 obs .

AUG 13, 1991 16h 55m 31.37± 0.51s 19.957 N ±11. 0km 45.851 W ± 5.7km DEPTH - 10.0km (geophy s i c i s t)
4 . 9mb (25 obs .)
NORTH ATLANTIC RIDGE (403)

LIC 41. 91 103 P 0324.30 0.4
ZOBO 42.13 213 P 03 26.20 -0.1
1.6s 23 . 8 1 nm 4 . 7mb
LPB 42.34 213 eP 03 40.00 12. IX
FVM 42.49 305 P 03 29.40 0.9
1.1s 28 . 05nm 4 . 9mb
CNCB 42.51 212 P 03 34.00 4.5X
EPF 44.91 49 eP 03 48.40 0.3
1.2s 17. 85nm 4 . 9mb
LPF 45.62 41 eP 03 53.80 0.2
1.0s 1 2 . 00nm 4 . 8mb
MFF 45.68 44 eP 03 54.30 0.2
1.2s 23 . 80nm 5 . 0mb
LFF 45.74 46 eP 03 54.40 -0.1
1.2s 20 . 85nm 5 . 0mb
LPO 45.96 47 eP 03 56.10 -0.3
1.2s I7.85nm 4. 9mb
CAF 46.63 46 eP 04 01.50 -0.2
1.2s 11. 90nm 4 . 8mb
LSF 46.66 45 iPd 04 01.90 0.0
1.0s 7 . 00nm 4 . 7mb
TCF 47.12 45 iPd 04 05.40 -0.1
1.2s 11. 90nm 4 . 9mb
MAF 47.34 45 eP 04 07.20 0.0
1.2s 11. 90nm 4 . 9mb
BGF 47.62 45 eP 04 09.40 -0.1
1.2s 17. 85nm 5 . 0mb
AVF 48.02 44 iPd 04 12.30 -0.3
1.2s 1 9 . 35nm 5 . 1mb
SSF 48.20 44 eP 04 13.70 -0.3
1.2s 1 1 . 90nm 4 . 8mb
SMF 48.31 45 iPd 04 14.40 -0.4
1.3s 14. 45nm 4 . 9mb
LBF 48.49 44 eP 04 15.70 -0.6
1.3s 9 . 05nm 4 . 7mb
LOR 48.49 44 eP 04 15.90 -0.3
1.2s 1 4 . 90nm 4 . 9mb
Z 20s 0 . 1 5um 4 . 0Msz
MEO 48.58 299 iPc 64 17.26 0.1
BN I 49.83 47 Pd 04 27.40 6.6
LPL 49.97 47 eP 64 28.40 0.5
1.2s 8 . 95nm 4 . 6mb
LPG 49.98 47 eP 04 28.50 0.4
1.2s 11.90nm 4. 7mb
SF 1 53.29 50 P 04 53 . 20 0.5
CT 1 53 . 45 47 P 04 52 . 90 -1.1
WTTA 53.65 45 iPc 64 54.00 -1.5
1.7s 59 . 00nm 5 . 3mb
i 05 00 . 40
ASS 53.78 51 P 04 56.40 0.1
GRF 53.84 42 eP 04 56.30 -0.3
1.4s 1 1 . 00nm 4 . 7mb
Z 22s 0 . 1 0um 3 . 8Msz
All 54.25 52 P 04 54.90 -4.8X
GOL 54.27 305 P 05 05.50 5.2X
FV 1 54.31 46 P 04 59.80 -0.3
FFC 54.51 324 eP 05 01.00 -0.5
1.4s 25 . 00nm 5 . 1mb
DU 1 54 .98 53 P 05 06 . 40 1.1
KHC 55.24 44 P 05 07.00 0.0
e 05 12. 60
CLL 55.28 41 eP 05 07.00 -0.2
PRU 56.00 43 eP 05 13.00 0.6

ZST 57.43 45 eP 05 21.30 -1.3
BW06 57.56 309 ePc 05 22.30 -1.6
1.3s 25 . 82nm 5 . 1mb
SES 59.12 317 eP 05 35.00 0.6
KRA 59.47 43 eP 05 37.60 0.8
SPC 59.59 44 eP 05 39.80 1.9
OHR 59.74 53 eP 05 37.70 -1.2
SKO 60.21 52 eP 05 38.50 -3.5X
VAY 61.07 53 eP 05 48.60 0.1
YKA 62.69 331 eP 05 57.90 -0.5
1.3s 5 . 60nm 4 . 6mb
MLR 63.39 48 eP 06 03.50 0.0
VR 1 63.93 48 ePd 06 06.00 .-0.9
MBC 66.84 346 eP 06 27.00 1.9
1.6s 20.00nm 5.1mb

OBN 69.59 37 eP 06 44.00 1.5
INK 70.78 337 «P 06 49.00 -0.5
S. D . -0.8 on 46 of 51 obs .

AUG 13. 1991 17h 45m 45.60± 0.48s 14.488 N ± 8.9km 93.959 W ± 6.6km DEPTH - 33.0km (normol)
4.7mb (19 obs.) 4.1Msz (3 obs.)
NEAR COAST OF CH I APAS . MEXICO (69)

TPX 1.69 76 i P 4614.00 0.7
i S 46 35 . 00
SCX 2.57 30 iP 46 27 .00 1.2
iS 46 56. 50
1 ISM 5.54 324 eP 4710.00 2.0
LVVM 5.74 336 eP 47 12.00 1.3
IIT 6. 14318 eP 4718.00 1.3

ACX 6.16 293 (P) 47 14.50 -2.2
PPM 6 . 38 316 i P 47 21 .50 1.2
i S 48 33 . 00
MRX 8.64 308 iP 47 52.00 0.6
MEO 20.63 349 i PC 50 22.50 -2.4
TUL 21.40 356 eP 50 29.80 -2.9
0.6s 7 . 50nm 4 . 3mb
PLM 28.01 316 eP 51 36.00 0.1
GSC 29.17 319 eP 51 50.00 3.7X
CLC 30.00 319 eP 51 54.00 0.4
ISA 30.46 318 eP 51 58.00 0.3
BW06 31.23 338 P 52 04.00 -0.5
TNP 31.25 323 P 52 04.80 0.1
LRM 34.91 337 eP 52 36.10 -0.4
SES 38.41 342 eP 53 06.00 0.3
ZOBO 39.82 139 P 53 19.00 0.6
SIV 44.42 132 P 53 55.00 -0.4
YKA 50.13 348 eP 54 38.30 -1.2
0.8s 6 . 1 0nm 4 . 7mb
SOB1 57.65 111 (P) 55 35.00 -0.5
INK 59.44 344 eP 55 45.50 -1.7
MBC 63.21 353 eP 56 11.50 -0.9
0.8s 1 0 . 00nm 5 . 0mb
EKA 78 .68 36 P 57 46 .00 3.1
0.8s 2 . 40nm 4 . 3mb
GRR 81.35 42 eP 57 59.90 -0.4
0.6s 3.60nm 4. 6mb
FLN 81.52 42 eP 58 00.10 -1.1
0.6s 4 . 50nm 4 . 7mb
Z 20s 0.08um 4.0Msz
EPF 83.35 47 eP 58 11.50 0.6
0.8s 3 . 35nm 4 . 5mb
TCF 83.86 44 eP 58 13.10 -0.3
0.8s 2 . 70nm 4 . 5mb
CAF 84.10 45 eP 58 14.50 -0.2
0.6s 2.70nm 4. 6mb
MAF 84.12 44 eP 58 15.10 0.4
0.8s 4.05nm 4. 6mb
BGF 84.22 44 eP 58 15.10 -0.1
0.6s 7.20nm 5. 0mb
AVF 84.50 43 eP 58 15.90 -0.6
0.8s 3 . 35nm 4 . 6mb
SSF 84.53 43 eP 58 17.00 0.3
0.8s 4 . 05nm 4 . 7mb
NB2 84.62 28 P 58 17.40 0.5
1.1s 10.70nm 4. 9mb
LOR 84.70 43 eP 58 17.40 -0.2
0.8s 3 . 35nm 4 . 6mb
Z 20s 0.08um 4. IMsz
HFS 86.09 29 eP 58 24.50 0.3
0.9s 7 . 70nm 4 . 9mb
HAU 86.11 41 eP 58 24.00 -0.6
0.6s 3.60nm 4. 8mb
Z 20s 0.08um 4. IMsz
BSF 86.45 42 eP 58 26.00 -0.4

0.8s 5.35nm 4. 8mb
CDF 86.58 41 eP 58 26.60 -0.4
0.8s 5 . 35nm 4 . 8mb
LPL 87.11 44 eP 58 30.60 0.8
LIC 87.44 84 P 58 32. 00 0.4
K 1 C 87 . 68 84 P 58 33.00 0.2
ZST 92 . 76 39 eP 58 57 . 60 1.7
e 21 30. 50
WRA 133.67 256 PKP 05 02.00 0.5
1.6s 0 . 80nm
BDT 145.97 337 ePKP 05 25.00 1.4
GBA 150.82 17 PKPc 05 34.50 3.2X
0.7s 4 . 1 0nm
S . D . - 1 . 1 on 45 o f 47 obs .

* AUG 13, 1991 17h 46m 47.19± 2. 38s
46.063 N ±17. 9km 14.547 E ± 9.7km
DEPTH - 10.0km (geophy s i c i s t)
YUGOSLAVIA (383)
MD 2 .4 (LJU) . 2.2 (TRI) .

LJU 0.02 205 iPgc 46 49.30 0.1
iSg 46 50. 10
CEY 0.33 195 iPgd 46 54.10 0.0
eSg 46 59.00
VOY 0.46 266 ePg 46 56.50 0.0
eSg 47 04.30
TRI 0.65 237 e(Pg) 47 00.10 -0.1
iSg 47 09.60
VBY 0.75 138 ePg 47 01.80 0.0
eSg 47 1 1 .50
S.D. «= 0.1 on 5 of 5 obs.

? AUG 13. 1991 17h 49m 53.34± 1.17s
39.635 N ± 8.7km 26.485 E ±10. 8km
DEPTH - 10.0km (geophy s i c i s t)
TURKEY (366)

EZN 0.23 327 i Pg 49 58.20 0.0
KGT 1 .03 37 iPg 50 12. 80 0.0
iSg 50 26.30
EDC 1.28 56 ePn 50 17.00 0.0
IZM 1.38 154 ePn 50 18.60 0.0
S.D. -0.0 on 4of 4 obs .

AUG 13, 1991 18h 09m 42.40± 0.42s 49.201 N ± 8.3km 155.552 E ± 7.6km
DEPTH - 37.1km (2 depth phoses)
4 . 6mb (27 obs .)
KUR I L I SLANDS (221)

KUSJ 9.68 235 eP 12 01.10 -1.1
S 13 41 .50
ASAJ 10.22 245 eP 12 14.30 4.6X
HOOJ 10.94 236 eP 12 20.00 0.6
eS 1 4 12. 40
MRRJ 12 15 242 eP 12 36.50 0.7
YAK 19.26 321 iP 14 05.40 -0.8
i PP 14 1 4 . 00
iPPP 14 26.00
iS 1 7 38.00
eSS 18 15.00
ePcP 18 39.00
IMA 30.86 38 eP 15 58.10 1.0
0.7s 2.60nm 4. 1mb
1 NK 38. 70 34 eP 1 7 05 . 00 1.1
MBC 41.73 21 eP 17 26.00 -2.7
YKA 47.98 39 eP 18 37.20 18. 2X
0.8s 2 . 40nm
CHG 54.27 257 eP 19 08.30 1.2
GUN 56.42 275 P 19 25.20 2.2
KKN 56.89 275 P 19 25.56 -0.6
PKI 56.95 275 P 19 26.26 -0.5
DMN 57.13 275 P 19 27.44 -0.5
GKN 57.17 276 P 19 27.28 -0.8
0.5s 13. 00nm 5 . 2mb
FFC 57.81 42 eP 19 32.00 0.0
1.0s 12. 00nm 4 . 9mb
LRM 58.43 55 eP 19 36.90 0.1
TNP 60.75 65 iP 19 52.90 0.1
pP 20 03.70 36km
BW06 61.99 56 P 20 00.50 -0.7

pP 20 1 1 .80 38km
GOL 66.40 56 P 20 30.60 0.1
NB2 66.42 342 P 20 27.60 -1.9
0.5s 0 . 70nm 4 . 0mb
HFS 66.72 340 eP 20 29.40 -1.9

108

13d 18h

WRA

GBA

KRA
KSP
CLL

ASPA

PRU
WTS

MOX

KHC
ENN

MEM
KBA

WTTA

GRR

LOR

LPF

LBF

SSF

AVF

SMF

LPL

LPG

MAF

TCF

LSF

CAF

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obs .

AUG 13. 1991 19h 16m 39.61± 0.71s
45.204 N ± 4.8km 7.381 E ± 5.9km DEPTH - 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.2 (GEN).

RSP

BHB

RRL

BN I

LPG

LPL

ORX

PZZ

b

0.10

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eS 52 28.73
0.32 187 iPd 52 23 . 98 -0.1
0.66 305 i PC 52 30 . 1 3 -0.7
eS 52 4 1 . 80
0. 72 346 eP 52 31 . 50 -0.4
0. 73 1 34 i PC 52 32. 62 0.3
eS 52 44.80
0.73 340 eP 5231.90 -0.4
eS 52 44 . 40
1 . 1 0 1 37 eP 5237.50 -1.4
1 . 1 4 121 eP 52 39. 00 -0.5
1 . 20 31 5 i PC 52 39 . 00 -1.5
1.34 75 i Pd 5241.24 -1.6
iS 52 58. 30
1 . 49 330 eP 5246.55 1.4
1.57 28 i PC 52 44. 99 -1.3
eS 53 04.70
1.77 145 eP 52 46.80 -2.6
14 obs . as soc i a t ed

13. 1991 20h 14m 13.71± 1.14s
061 S ± 4.6km 130.412 E ± 5.7km
DEPTH - 25.9 ± 8 . 5 km
5. 2mb (20 obs .)
CERAM

AA 1

MTN

JAY

MKS
DAV
KNA
CGP

MDG
WR2

PMG

PGP
01 S

MBL
ASPA

BAG

RAB
GUA

PJG
CTAO

WARB
NANU

OLP
KGM
FORR

(272)
CENTROID, MOMENT TENSOR (HRV)
Dota Used: GDSN
L.P.B. : 13S, 22C
Centroid Location:
Origin Time 20:14:17.4 1.0
Lot 2.71S 0.09 Lon 130. 25E 0.12

Dep 15.7 FIX Ha 1 f -du r o t i on 1.8
Moment Tensor; Scale 10»*16 Nm
Mrr- 3.69 0.43 Mtt 2.07 0.40
Mff--1.62 0.66 Mrt--4.29 1.36
Mrf- 2.67 1.06 Mtf- 2.17 0.32
Principal Axes:
T Vol- 6.24 Pig-63 Azm-205
N 0.25 5 306
P -6.49 26 38

Best Double Coup I e : Mo-6 . 4 » 1 0 « » 1 6 NP1 : S t r i ke-1 41 D i p- 1 9 Slip- 107
NP2: 304 71 84

2 . 30 254 ePc 1452.60 1.9
eS 15 02. 00
9. 75 1 76 eP 16 33. 00 -2.4
0 . 3s 207 . 00nm 6 . 9mb X
eS 18 18. 00
10.29 87 ePc 16 41.20 -1.8
eS 16 59.50
11.12 259 iPc 1701.50 7 . 3X
11.18 334 eP 16 57. 10 2.1
12. 71 187 eP 17 1 1 . 50 -4.2X
12.78 334 iPd 17 16.00 -0.6
1.2s 35 . 00nm 5 . 4mb
15.48 99 eP 1800.00 7 . 9X
17 . 22 167 i Pd 18 10.00 -4. 3X
0.4s 28 . 90nm 4 . 8mb
eS 21 13.60
17 . 79 1 12 eP 18 22. 00 0.7
1.1s 177. 22nm 5 . 1mb
18 .94 331 eP 18 37 .00 1.5
19.56 153 i Pd 1841.50 -1.3
0.5s 39.00nm 4.9mb
eS 22 08.00
20.73 209 eP 18 51.30 -3.7X
20 . 76 1 7 1 i Pd 1854.10 -1.3
0.6s 286.00nm 5.9mb
eS 22 30.90
21 . 65 334 eP 19 02. 50 -2.1
eS 23 04.00
21.74 94 eP 1907.00 1.7
21 .89 41 eP 19 06 . 70 0.0
1.1s 445.57nm 5.8mb
21.89 41 eP 1907.00 0.2
22 . 92 1 39 i PC 1917.50 0.5
i (pP) 19 35. 50 81 kmX
i (SP) 19 43.00
iS 23 30 . 00
e(ScP)26 38.00
23.27 189 i Pd 1921.70 1.3
24. 17 215 eP 19 28 .00 -1.0
0.6s 38 . 00nm 5 . 1mb
26.88 152 eP 19 55.00 0.5
27.55 280 eP 20 01 .50 0.8
27. 73 184 eP 20 02.00 -0.1

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13d 20h

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LOE

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KM !

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OFUJ
BJ 1

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KUSJ
ASAJ
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GBA

1 RK

YAK

CUE
MAW

1 R4
1 Rl
1 R7
SPA

i NK
MBC

LBF

SSF

AVF
TCF

MFF
NNA
ARE

0.4s 6 . 00nm 4. 6mb
29.19 145 e(P) 20 20.00 4.6X
e 20 35.00
i 21 09. 00
c 27 15. 00
36.31 204 eP 2024.00 -1.4
36.33 284 ePd 20 26.50 0.8
i.2s 56 . 0® nm 5.3mb
30.54 161 e P 20 27.40 0.0
0.6s 8 . 80 nm 4. 8mb
31.72 203 eP 26 36 . 00 -1.7

31 . 79 154 e(P) 20 39 . 00 06
31.99 28Ci *Pd 20 40.50 0.2
32.18 201 eP 20 40 . 60 -1.7
32 . 67 1 67 i Pd 2046.60 0.6
1.1s 1 77 . 22nm 5 . 9mb
34 . 85 307 eP 21 05 . 00 -0.1
35 . 42 154 eP 21 1 1 . 90 2.1
35. 74 163 iPc 21 14 . 80 2. 4X
36 . 43 1 54 eP 21 19 . 50 1.1

36 . 98 3Q4 *P 21 25 . 00 1.9
37 . 83 306 *P 21 31 . 00 0.7
1.3s 28 . 85nm 4 . 9mb
38 . 81 3 18 Pd 21 39.00 0.4
1.5s 1 20 . 00nm 5 . 4mb
39. 75 1 21 iPc 21 47 . 90 1.6
39. 91 114 iPc 21 54. 50 6 . 9X
41 . 98 IIP 22 03. 90 -0.5
43. 20 13 P 22 14 . 00 -0.3
44. 84 344 eP 22 26 . 50 -1.0
1.1s 25.00nm 5. 0mb
Z 1 6s 0 . 35um 4 . 4MszX
eS 29 00.00
46.18 330 P 22 38.00 -0.4
1.8s 91.00nm 5. 4mb
Z 20s 0 . 44um 4 . 4Msz
E 12s 0 . 3 1 urn

pP 22 53.00 58kmX
SP 23 02.50
PP 24 23.00
eS 29 1 8 . 00
46.71 13 eP 22 36 . 40 -5. 9X
47.73 14 eP 22 48 . 80 -1.5
48. 23 12 eP 22 52. 40 -1.9
52. 75 309 P 23 29. 42 0.0
52 . 96 308 P 23 30. 94 0.0
53. 16 308 P 2331.14 -1.2
53.22 308 P 23 31.82 -0.9
53. 77 308 P 23 35. 26 -1.4
54.34 285 eP 23 46.80 5.6X
55.04 294 eP 23 50.50 4.5X
1.0s 50 . 00nm 5 . 5mb
55.09 289 Pd 23 44.80 -1.5
0.5s 2.50nm 4. 5mb
59.39 342 eP 24 14.00 -2.2
e 2441.20
e 24 49.50
e 25 05.80
e 26 25.50
eS 32 24.00
ePS 32 43.00
64. 90 360 iP 2451.70 -1.0
ePcP 25 18.00
ePP 27 17.00
eS 33 32.00
ePS 33 47.00
68. 91 304 eP 25 19.50 0.4
78 . 74 201 eP 2616.00 0.8
1.0s 1 7 . 00nm 5 . 0mb
83. 20 306 i PC 26 41 . 00 1.4
83. 40 306 eP 26 42. 00 1.4
83.51 306 eP 26 42 . 50 1.3
86.96 180 iPd 26 57.80 0.0
1.2s 21.l3nm 5. 2mb
95.08 22 eP 27 35.00 -0.3
97.71 13 eP 27 47 . 50 0.3
1.0s 6 . 00nm 5 . 1mb
116.40 322 ePKP 32 57.60 0.6
0.6s 1.80 nm
116.66 322 ePKP 32 58.60 1.2
0.8s 2 . 70nm
116.87 322 ePKP 32 58.20 0.4
117.81 322 ePKP 32 59.00 -0.7
0.8s 2 . 70nm
119.09 323 ePKP 33 02.60 0.5
149.06 119 iPKP 34 04.00 5.9X
150.94 133 ePKP 34 10.00 8.9X

CNCB 153.17 138 PKP 34 12.00 7 . 3X
LPB 153.29 137 PKP 34 15.00 10. 3X
20BO 153.46 137 PKP 34 13.00 7.9X
1.3s 23 . 66nm

SIV 157.92 149 (PKP) 34 12.00 1.7
S.D. » 1.2 on 62 of 78 obs.

AUG 13, 1991 20h 41m 22.32± 0.37s
3.696 S ± 5.7km 130.406 E ± 7 . fl km
DEPTH = 33.0km (normol)
4.8mb (11 obs.) 4.8Msz (1 obs.)
CERAM (272)

AA I 2. 28 255 eP 42 00. 10 1.6
MTN 9.71 176 eP 43 41.00 -1.9
eS 45 27 . 06
KNA 12.68 187 eP 44 18.70 -4.4X
CGP 12.81 334 eP 44 24. 0e -0.9
WR2 17.19 167 eP 45 16.50 -5.2X
0.5s 1 5 . 50nm 4 . 4mb
e 45 20 . 10
e 45 23 . 10
iS 48 31 . 30
PMG 17.78 111 eP 45 31.00 1.9
0.9s 42.02nm 4.6mb
CIS 19.54 153 eP 45 49.00 -1.3
eS 48 56.00
ASPA 20.73 171 iPd 46 02.10 -0.7
0.5s 1 52 . 50nm 5 . 6mb
eS 49 47. 90
GUA 21.92 41 eP 46 14.70 0.0
0.6s 96.00nm 5.4mb
PJG 21.92 41 eP 46 14.60 -0.2
CTAO 22.90 139 i PC 46 25.50 1.0
WARB 23.24 189 i PC 46 28.10 0.4
NANU 24.14 215 eP 46 35.00 -1.4
I PM 30.33 284 ePd 47 33.70 0.3
STK 30.51 161 iPc 47 35.40 0.7
0.8s 2.80nm 4. 1mb
PSI 31.99 280 iPd 47 47.80 -0.2
LOE 34.86 307 eP 48 12.40 -0.5
BDT 37.00 304 eP 48 32.00 1.1
CHG 37.85 306 ePc 48 38.70 0.6
1.0s 10 . 50nm 4 . 7mb
KMI 38.83 318 PC 48 47.50 1.0
1.2s 40 . 00nm 5 . 1mb
BJ 1 44.87 344 eP 49 34.50 -0.9
1.0s 9 . 00nm 4 . 6mb
LZH 46.21 330 PC 49 45.00 -1.3
1.5s 34 . 00nm 5 . 1mb
pP 49 50.00 17kmX
YAK 64.93 360 iP 51 59.90 -0.6
MAW 78.71 201 iPd 53 23.60 1.0
1.0s 1 0 . 00nm 4 . 8mb
1 NK 95 . 1 1 22 eP 54 43.00 0.0
MBC 97.74 13 eP 54 55.00 0.1
1.0s 6 . 00nm 5 . 1mb
CNCB 153.15 138 PKP 01 22.50 10. 3X

LPB 153.27 137 (PKP) 01 20.00 7.8X
ZOBO 153.43 137 ePKP 01 22.00 9.4X
Z 20s 0.1 Sum 4 . 8Msz
LR 30 54.00
S . D . - 1 . 1 an 24 o f 29 obs .

? AUG 13, 1991 2lh 17m 57.74± 1.17s
28.814 S ±15. 8km 176.974 W ±23. 9km
DEPTH - 33.0km (normal)
4.6mb (4 obs.) 4.7MSZ (1 obs.)
KERMADEC ISLANDS REGION (177)

THZ 15.32 210 eP 21 35.30 2.1
KHZ 15.60 207 eP 21 34.30 -2.3
DZM 16.40 290 iPc 21 57.70 1 0 . 5X
STK 35.74 255 i PC 24 56.80 1.4
0.8s 2 . 20nm 4 . 1mb
ASPA 44.12 265 i PC 26 04.70 -0.2
0.8s 7.80nm 4. 6mb
Z 22s 1 . 10um 4 .7Msz
WR2 44.94 270 eP 26 11.30 -0.3
1.1s 9 . 60nm 4 . 6mb
WRA 44.96 270 P 26 11.00 -0.8
1.2s 9 . 60nm 4 . 6mb
MAW 74.10 200 eP 29 35.00 3 . 0X
BJ I 92.43 315 eP 31 06.00 -0.2
NB2 147.31 353 PKP 37 36.70 0.3
0.8s 7 . 20nm
UPP 147.41 346 iPKP 37 36.30 -0.2

HFS 147.86 350 ePKP 37 37.50 0.3
0.7s 8 . 70nm
KSP 155.83 339 ePKP 37 55.00 5.9X
e 38 1 4 . 50
S.D. -1.4 on I0of 13 obs .

AUG 13. 1991 22h 31m 44.85± 0.45s
18.896 N ± 3.8km 145.177 E ± 5.8km DEPTH = 603 . 7 ± 6 . 2 km
5. 1mb (22 obs .)
MARIANA ISLANDS (216)
CENTROID. MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 8S. 12C
. Centroid Location:
Origin Time 22:31:49.5 1.4
Lot 19.16N 0.12 Lon 145. 41E 0.08

Oep 627.5 9.1 Half-duration 1.4
Moment Tensor; Scale 10»*16 Nm
Mrr 3.00 0.30 Mtt- 0.34 0.37
Mff- 2.66 0.48 Mrt 2.99 0.44
Mrf=-0.46 0.49 Mtf--1.10 0.42
P r i nc i pa 1 Axes :
T Val- 3.23 Pig-10 Azm-239
N 1.65 29 143
P -4.88 59 346

Best Double Coup 1 e : Mo-4 . 1 » 1 0» » 1 6
NP1 : S t r i ke-359 Dip-43 Slip- -45
NP2 : 125 61 -124

PJG 5.29 183 eP 33 20.60 -0.1
GUA 5.33 183 eP 33 20.10 -1.0
0.5s 287.32nm 5.5mb
eS 34 37.00
1 IDJ 17.73 340 P 35 19. 20 0.3
KAKJ 17.80 347 eP 35 19.40 0.0
CHJJ 17.94 344 P 35 20.80 0.0
TSRJ 18.46 336 P 35 25.80 0.1
MTMJ 18.78 341 P 35 28.50 -0.2
NIIJ 19.06 345 P 35 31.50 0.3
YAMJ 19.72 348 P 35 37.50 0.2
HOOJ 23.47 356 P 36 11.60 0.6
MRRJ 23.71 352 eP 36 13.50 0.3
KUSJ 24.13 359 P 36 16.40 -0.5
ASAJ 25.24 356 P 36 27.50 0.9
MTN 34.45 205 eP 37 46.00 0.7
0.3s 118.00nm 6.0mb
OIS 39.59 188 iPc 38 27.60 0.3
WR2 40.03 196 iPd 38 31.30 0.4
0.3s 73.80nm 5.7mb
WRA 40.03 196 P 38 31.00 0.1
0.3s 36 . 90nm 5 . 4mb
LZH 40.13 304 P 38 33.20 1.5
1.5s 113. 00nm 5 . 2mb
pP 39 00.00 117kmX
ASPA 43.71 195 i PC 38 59.90 0.1
0.3s 29.50nm 5.3mb
i ScP 43 26 . 50
iS 44 44. 30
YAK 44.42 350 iP 39 04.10 -0.6
MBL 46.91 213 i PC 39 24.20 0.0
NANU 50.37 216 eP 39 50.00 0.1
STK 50.60 184 iPc 39 51.00 -0.5
0.7s 2 . 60nm 3 . 8mb X
FORR 52.11 199 eP 40 02.00 -0.4
0.4s 1 8 . 00nm 4 . 8mb
GUN 54.71 291 Pd 40 21.90 0.5
0.4s 84 . 00nm 5 . 4mb
PK 1 55.15 291 Pd 40 24.36 -0.1
0.4s 65 . 00nm 5 . 3mb
KKN 55.25 291 Pd 40 25.02 0.0
0.5s 43.00nm 5.0mb
DMN 55.42 291 Pd 40 26.34 0.1
0.4s 64 . 00nm 5 . 3mb
GKN 55.80 291 Pd 40 28.86 0.2
0.4s 55.00nm 5.2mb
ANM 56.21 23 eP 40 31.00 0.2
SVW 58.88 29 eP 40 49.20 0.3
TTA 59.30 27 eP 40 51.30 -0.3
IMA 61.30 24 eP 41 04.40 -0.4
1.3s 17. 70nm 4 . 2mb
PWA 61.69 29 iPc 41 06.20 -0.9
FBA 63.34 26 eP 41 17.10 -0.6
GBA 64.92 277 Pd 41 27.10 -1.2
0.5s 6 . 50nm 4 . 3mb
INK 69.39 23 eP 41 54.00 -0.6
OUE 70.83 296 eP 42 05.20 1.2

13d 22h

1 10

MBC 73.08 14 iPd 42 15
0.5s 27 . 00nm
YKA 78.05 28 eP 42 42
0.4s 10.70nm
WDC 79.64 51 eP 4252
BKS 80.62 53 eP 42 57
0.8s 1 6 . 00nm
ORV 80.69 51 eP 4257
PRS 81.73 55 eP 43 03
CMB 81.97 53 eP 43 04
PR I 82 . 33 55 eP 43 07
IR4 82.70 305 eP 43 09
IR7 82. 78305 eP 4309
FR I 82 . 80 53 eP 43 08
IR1 82.81 3 0 5 e P 4309
SOD 83.01 340 i P 4307
SES 84.09 39 iPd 43 14
0.4s 36 . 00nm
TNP 84.33 52 ePd 43 15
CLC 84 . 79 54 eP 4318
SBB 84.99 55 eP 4319
GSC 85.57 54 eP 43 22
KAF 86 . 03 336 i P 4321
0.4s 9 . 80nm
FFC 87.19 32 i Pd 43 29
0.7s 1 5 . 00nm
UPP 90.76 336 iP 43 43
HFS 92,02 338 ePKP 43 49
0.4s 6 . 50nm
NB2 92. 22 339 P 43 50
0.5s 2 . 40nm
KR 1 118.94261 i PKPc 49 1 8
BUL 120.53 257 ePKP 49 29
Kl C 141.16 307 PKP 50 04
TIC 141.18 308 PKP 50 04
LIC 141.46 308 PKP 50 04
ZOBO 148.17 91 PKP 50 22
LPB 148.24 91 PKP 50 23
CNCB 148.40 92 PKP 50 24

I"1 f M 1 *\ ft ^ ^ Q*7 f P W P \ *% ft T 1 u o n \ jio . £. £. y £, \r T^~) 3 v j \
S I V 154.80 88 PKP 50 28
S .0. - 0 . 8 on 65 of

? AUG 13 , 1991 23h 1 7m 23
33.843 S ±24. 0km 71 . 363
DEPTH * 59 . 4 ± 36 . 7 km
NEAR COAST OF CENTRAL CHILE

TACH 0.40 62 iPc 17 34
iS 17 42
LCCH 0.41 335 i Pd 1734
iS 17 42
CHCH 0.60 99 iPc 17 36
iS 17 46
SAN 0.70 57 iPd 17 38
iS 1 7 48
PCH 0.74 73 iPc 17 38
iS 1749
PEL 0.90 39 iPc 17 40
IS 17 53
ROCH 0.92 1 9 eP 1741
iS 17 53
JACH 1.33 29 iP 1746
iS 18 02
S.D. -0.2 on 8 of

& AUG 13, 1991 23h 17m 40
38.230 N 118. 773
DEPTH « 14.0km

. 90
5
. 70
4
. 20
. 70
4
. 80
. 60
. 50
. 00
. 00
. 50
. 30
. 00
. 80
. 60
5
P Ot. BW
. 00

.00
. 00
. 60
4

. 00
4
. 60
. 00
5
. 40
4
. 20
. 00
. 30
. 36
. 82
. 00
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. 00

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. 00

0.0
0mb
- 0. 4
6mb
0. 3
0.6
6mb
0. 4
0. 8
0 . 5
1 . 1
1 . 2
1 . 3
0. 2
0 . 7
- O. 7
0. 4
4mb
- 0. 1
0.0
0.0
0.2
- 1.7
9mb
0. 0
8mb
- 1.7
- 2. 1
0mb
- 1.7
5mb
- 9.9X
- 2. 1
- 5.8X
- 5 . 8X
- 5.8X
- 0.3
0.8
1 . 3
6 . 0X
- 3 . 2X
7 i obs .

- 51±

______

4 .38s
W ±1 9 . 8km

. 50
. 50
. 50
. 50
. 80
. 40
. 00
. 10
. 20
. 10
. 50
. 20
. 00
. 60

. 00

. 50

(135)

0.0

0. 0

0. 1

0. 1

- 0.2

0. 1

0. 2

- 0.2

8 obs .

. 10s
W

CALIFORNIA-NEVADA BORDER REGION

<BRK> . ML 3.2 (BRK) .

BONR 0.46 126 iP 17 48
KVN 0.97 33 iP 17 57
TNP 1.23 96 iP 1 8 02
CMB 1.29 262 eP 1803
ARN 2.36 249 eP 18 22
ORV 2.51 303 eP 18 22
PR 1 2 . 57 2 1 7 eP 1825
BCH 3 , 22 200 eP 1834
8 obs. ossocioted

& AUG 15, 1991 23h 31m 23
36 . 630 N 121. 295
DEPTH « 7 . 0km
CENTRAL CALIFORNIA

<BRK> . ML 2.6 (BRK) .

. 70
. 80
. 40
. 40
. 50
. 50
. 20
. 00

. 10s
W

(40)

- 1 .0
- 0.6
- 0. 4
- 0.2
3 .5
1 .5
3 . 0
2.7

(39)

SAO 0.18 318 iPc 31 26.62 -0.3
LLA 0.28 93 i PC 31 28.76 -0 . 1
i S 31 33. 22
PRS 0.30 191 iPd 31 29.26 0.0
eS 31 30. 28
GCC 0.69 306 eP 31 35.91 -1.0
PR 1 0.70 134 eP 31 36.50 -0 . 7
ARN 0.74 345 eP 31 37.50 -0.4
MHC 0.76 339 iPc 31 38.60 0.3
i S 31 49.20
PHAM 1.07 137 eP 31 4? .
PKEM 1 . 1 1 120 eP 3144.
PCC 1 .23 31 5 eP 3144.
FR 1 1.32 74 eP 3146.
e 3203.

CMB 1 .58 27 e(P) 31 50.
BCH 1 . 75 145 feP 31 52-
13 obs. ossocioted

? AUG 14. 1991 00h 35m 4 1 .
32 . 775 S ±25 -7km 71 . 440
DEPTH - 55 . 2 '± 36 . 6 km
NEAR COAST OF CENTRAL CHILE

ROCH 041 119 iPc 3553.
i S 36 00 .
LCCH 0.71 189 iPd 35 56.
i S 3606.
JACH 0.72 83 iPc 35 56.
IS 36 06.
PEL 0.73 1201 PC 3556.
i S 36 06 .

80 -0.8
50 0.2
50 -1.7
33 -1.5
39
50 -1.1
50 -1.6

94± 4. 45s
W ±24 . 1 km

(135)

00 0.1
50
00 -0.1
00
40 0.0
50
50 0.0
50
TACH 0.97 154 iP 35 59.60 0.0
i S 36 12-50
PCH 1.15 138 iPc 36 01.|60 -0.5
iS 36 1 6 . 6 0
CHCH 1.33 151 iPc 36 05.60 0.4
iS 36 22.60
S.D. =0.4 on 7of

AUG 14. 1991 09h 54m 07.
54.696 N ± 3.2km 160.690

7 obs .

78± 0. 20s
N ± 2 . 6km
DEPTH - 33.0km (normol)
4 . 9mb (54 obs .)
ALASKA PENINSULA (12)
ML 4.8 (PMR). Ms 4.8 (BRK).
Felt (II) o t King Cove .

SON 0.66 10 iPd 54 22.70 2.1
KDC 5.50 53 eP 55 29.
MCNL 5.69 35 eP 55 33.
CDD 5.74 39 eP 55 33.
S 56 38.
SY I 6.03 46 eP 55 37 .
AU I 6.11 37 eP 55 39.
S 56 47.
PDB 6.20 32 eP 55 40.
SVW 6.97 21 ePc 55 52.
HOM 6.99 4 1 eP 5551.

B0 0.3
08 1.0
68 0.8
70
06 0.2
01 0.9
34
11 0.7
00 1.8
56 1.1
CNPM 7.06 43 eP 55 51.31 -0.2

RED 7.14 33 eP 55 53.|93 1.3
ROW 7.18 33 eP 55 52-^8 -0.8
RSO 7.18 33 eP 55 52.74 -0.5
NCT 7.20 32 eP 55 53. p6 0.3
RON 7.22 33 eP 55 55.be 2.0
REF 7 .22 33 eP 55 55. 16 1.4
NNL 7.38 40 eP 55 56.^8 1.1
BGL 7 .92 30 eP 56 05. 17 1.6
SPU 7 .96 32 eP 56 05.^0 1.9
CGLM 8.07 31 eP 56 06.57 1.0
SLKM 8.09 40 eP 56 05 . bs -0.3
NCG 8.10 30 eP 56 07.37 1.3
SEW 8.13 44 iP 56 06.14 -0.2
SUA 8.58 34 eP 56 11.77 -1.0
TTA 8.61 1 4 eP 56 12 .60 -0.2
SKT 8.74 30 eP 56 1 4.&9 0.2
MTU 8.81 48 eP 56 14. b2 -1.3
PMS 8.83 37 iP 56 14.31 -1.7
KN 1 M 8.97 46 i P 56 1 6 .
PWA 9.00 35 eP 56 18.
PLRM 9.22 37 iP 56 20.
PMR 9 22 37 eP 56 21
KNK 9.34 39 eP 56 21 .
GHO 9.41 36 eP 56 21 .
CUT 9.44 31 eP 56 23.
GLI 9.53 44 eP 56 23.
VZW 9.85 44 i P 56 28 .

46 -1.5
00 -0.4
77 -0.5
20 -0.1
76 -1.3
72 -2.4X
89 -0.6
74 -2.0
83 -1.3

ADK
VLZ
ANM
KTH
TRF
KLU
TOA
SDG
GLB
TGL
PAX
BALM
I MA
FBA
PNL
S. I T
BRW
1 NK

YKA

MBC

NEW

FHC
WDC
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ORV
BRK
CMB

PRS
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TNP

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CLC
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COB ODD

GSC

MSU
RVR
TPC
PLM
RSSD
ASAJ
PV09
GOL

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NB2

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9 . 98
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11.91
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16. 76
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27.52
0 .8s
27 .95
28.92
29. 60
30.20
30. 95
31.88
1 .0s
32. 55
33.00
33. 64
1 .05
34 . 64
35.00
0.6s
35. 02
35. 56

35.72
35 . 84
36 . 23
36 . 48
37 . 14
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37 . 38
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43 .97
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45. 79
46 . 87
47 . 52
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22s
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58. 13
64 . 36
1 .3s
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64 . 43
0.9s
65.06
0.7s
65. 43
0. 8s
17s

260 eP
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348 eP
25 eP
27 eP
43 eP
40 eP
39 eP
46 eP
50 eP
37 eP
49 eP
1 4 ePc
27 eP
58 eP
70 eP
4 eP
32 eP
40 . 00nm
53 eP
6 . 1 Onm
21 eP
1 2 . 00nm
85 eP
1 1 . 67nm
105 eP
103 eP
103 eP
1 04 eP
107 eP
105 eP
1 8 . 50nm
108 eP
105 eP
101 eP
1 5 . 75nm
106 eP
88 eP
1 . 7 1 nm
105 eP
31 1 eP
e
106 eP
1 04 eP
96 eP
107 eP
105 eP
107 eP
82 eP
278 eP
93 eP
89 eP
2 . 43nm
95 eP
6 . 6 4nm
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270 P
271 P
273 P
271 P
273 P
85 ePc
7 . 30nm
0 . 09um
0 . 1 Sum
0 - 1 0um
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79 eP
1 2. 24nm
357 iP
1 8 . 30nm
18 i P
1 1 . 00nm
357 iP
297 PC
54 . 00nm
0 . 25um
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357 iP
32 . 00nm
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31 . 80nm
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- 0 . 3
- 2. 1
- 0 .2
- 1 . 5
- 1.9
- 1.5
- 2 . 1
- 1 .8
1 . 4
- 2. 6X
- 1.1
- 1 .3
2. 4X
- 2.2X
. 8mb
5.0X
. 2mb
0. 1
. 8mb
- 0.7
. 6mb
1 . 3
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- 0.2
- 0. 1
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- 0. 1
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0. 9
- 2.4

- 0. 1
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- 0. 1
1mb
- 0.6
2mb

- 0.6
- 0. 7
- 0.6
- 0. 9
0. 1
- 1 . 1
- 1.1
7mb
8MSZ

- 1 . 7
Omb
- 1 .8
3mb
0.9
8mb
- 1 . 0
- 2.5
5mb
4Msz
31 kmX

- 1 .5
3mb
- 0.9
5mb
- 1 . 4
5mb
9MszX

111

14d 01h

UPP
EKA

DMU
OBN

OCN
ETA
WTS

CLL

ENN

MEM
8RG

KSP
MOX

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FLN

PRU

KRA
GRF

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LOF

GRR

LPF

KHC

COf J r *^
CDF
HAU

8SF

ZST
LOR

SSF

MFF

L8F

AVF

8GF

SMF

WTTA

LSF

TCF

MA F

LFF

LPL

VR I
LPG

CAF

LPO
GUN

BN I
CMP

I_R 25 57.00
65 . 79 1 IP 04 50. 30 -0.8
68.79 14 PC 05 09.50 -0.6
1.0S 1 4 . 60nm 5 . Omb
69.63 1 6 eP 6515.10 -6.1
69 .65 350 i PC 05 14 .00 -1.3

e 05 25.00
70.10 17 eP 0518.00 -0.1
70.90 16 eP 05 23 . 40 0.4
73.17 8 eP 0537.00 0.6
1.0s 1 2 . 00nm 4 . 8mb
74.23 4 i PC 05 42 . 30 -0.3
1.1s 1 4 . 00nm 4. 9mh
e 65 50 . 00
74.31 9 eP 05 43 . 00 -0.1
1.0s 1 2 . 00nm 4 . 8mb
74.48 9 PC 05 44 . 1 0 6.1
74.71 4 i P 05 45 . 1 0 -0.3
1.0s 1 8 . 00nm 5 . 6mb
i 05 54.80
74.80 2 i Pd 0546.60 0.1
74.83 5 i PC 05 46. 30 0.2
1.1s 25 . 00nm 5.1mb
74.85 1 0 PC 05 45 . 80 -0.4
75 . 58 13 eP 05 50.20 -0.2
1.1s 1 7 . 1 0nm 5 . 0mb
75.61 3 PC 05 50 . 50 -0.1
1.0s 6 . 50nm 4 . 6mb
75 . 62 360 eP 05 50 . 90 6.3
75 . 76 5 i PC 05 51 .80 0.3
1.1s 1 8 . 0 0 n m 5.0mb
20s 0.04um 3.7Msz
75.79 13 eP 05 51 .50 -0.1
1.0S 1 2 00nm 4 . 8mb
75.89 1 4 eP 05 52 . 20 0.0
0.9s 1 1 . 45nm 4 . 9mb
76.22 14 i PC 05 54 . 30 0.3
0.9s 1 3 . 1 0nm 4. 9mb
76.43 4iPc 0556.00 0.7
1.1s 1 2 60nm 4 . 8mb
e 0603.50
76.49 359 eP 05 55.50 -0.3
76.77 8 eP 05 57 . 40 0.2
77.09 9 eP 05 59 . 10 0.2
0.9s 8.20nm 4. 8mb
77.30 9 eP 0600.20 0.0
0.9s 8.20nm 4. 8mb
77.47 2 iP 06 01 . 70 0.8
77.57 1 1 eP 06 01 .80 0.2
1.0S 9 . 00nm 4 . 8mb
77.74 11 i PC 0602.90 0.4
1.0S 1 7 . 00nm 5 . 0mb
77.74 14 iPc 06 03. 10 0.6
0.9s 16.40nm 5.1mb
77.87 1 1 eP 0603.20 0.0
0.9s 7 . 35nm 4. 7mb
77.99 1 1 i PC 0604.00 0.2
1.0s 10.00nm 4. 8mb
78.16 12 eP 06 05 .00 0.2
1.0s 1 1 . 00nm 4 . 8mb
78.19 1 1 i PC 0605.00 0.0
0.9s 8.20nm 4. 8mb
78.21 5 i PC 06 05 . 80 0.5
0.6s 9.70nm 5.0mb
i 0614.80
i 06 23.30
78.31 1 2 i PC 0605.90 0.3
1.0S 1 7 . 65nm 5 . 0mb
78.35 1 2 eP 0606.00 0.1
1.0S 6.00nm 4. 6mb
78.46 1 2 eP 06 06 . 50 0.0
0.8s 5.35nm 4. 6mb
79 . 49 1 3 eP 06 1 2 . 60 05
0.9s 1 6 . 40nm 5 . 0mb
79.59 9 eP 0614.00 1.1
0.9s 4 . 1 0nm 4 . 4mb
79 . 61 355 ePc 06 12 . 50 -0.2
79.61 9 eP 0614.20 1.1
0.9s 4.10nm 4. 4mb
79 . 68 1 2 eP 0613.50 0.4
0.9s 6.55nm 4.6mb
79 . 80 13 eP 0614.20 0.4
79.93 304 P 06 14.94 -0.2
0.9s I54.00nm 6.0mb X
80 .05 9 P 06 16.90 1.6
80.29 356 ePc 06 29.00 12. 6X

KKN 80.32 305 P 06 16.82 -0.3
0.9s 139. 00nm 6 . 0mb X
PKI 80.44 305 P 06 17.42 -0.5
0.7s 60.00nm 5. 7mb
GKN 80.44 305 P 06 17 34 -0.3
0.8s 90 . 00nm 5.8mb
OWN 80.55 305 P 06 18.26 -0.1
BOB 80.56 7 P 06 18.80 0.9
CHG 80.67 289 PC 06 17.50 -1.3
CK I 80.81 8 P 0619.30 0.2
MME 81.21 6P 0622.66 1.0
BD 1 81.34 6 P 0623.00 1.0
FRF 81.52 9 * P 06 23.50 0.6
0.9s 6.55nm 4.6mb
SFI 81.55 5P C 624. 60 1.6
LRG 81.60 9 eP 66 24.20 1.0
1.0s 8 . 00nm 4 . 7mb
Pll 81.67 6 P 06 23.40 -0.2
LMR 81.74 9 eP 06 24.90 0.9
1.0s 8 . 00nm 4 . 7mb
PVL 82.33 356 eP 06 27.00 0.0
PGF 82.73 8 eP 06 30 . 00 0.7
1.0s 20.00nm 5. 2mb
MAIO 83.01 328 iPc 06 31.60 0.8
VTS 83.03 357 eP 06 30.00 -0.9
MNS 83.13 5 P 06 31.40 0.1
NOI 83.24 311 eP 06 31.00 -1.0
SKO 83.69 358 eP 06 34.50 0.4
RZN 83.88 356 iPc 06 36.00 0.7
KDZ 83.89 355 IP 06 36.00 0.9
MMB 84.01 357 iPc 06 36.00 0.2
OHR 84.56 359 eP 06 38.50 0.0
MGR 85.48 3 P 06 43.40 0.3
ORI 85.58 2 P 0645.10 1.5
TDS 85. 98 2 P 06 46 . 10 0.5
IR7 86.02 335 i PC 06 47.50 1.4
OUE 86.06 320 eP 06 44.50 -1.9
IR1 86 28 335 iPc 06 48.00 0.7
IR4 86.39 335 i PC 06 49.00 1.1
GR I 86.82 2 P 0649.90 0.1
WRA 92.58 239 P 07 32.00 15. IX
0.9s 1 . 1 0nm
GBA 96.19 304 PC 07 34.00 0.3

0.6s 2 . 80nm 4 . 9mb
BUL 144.79 345 i PKPc 13 39.90 -2 . 9X
0.9s 1 6 . 39nm

i pP 13 49. 00
KSR 150.66 346 e(PKP)l3 48.00 -4 . 1 X
KIM 153.77 349 ePKP 14 06.00 9.6X
S.D. = 0.9 on 172 of 182 obs.

? AUG 14, 1991 02h 21m 01.23± 8.36s
20.022 S ±49. 8km 177.454 W ±69. 2km
DEPTH - 420 .0 ± 45 . 8 km
5 . 0mb (3 obs .)
FIJI ISLANDS REGION (181)

BKM 13.74 277 IP 24 02.00 0.3
DZM 15.17 259 iPc 24 16.00 -0.8
THZ 23.17 199 eP 25 34.00 -0.5
LTZ 24.29 199 eP 25 45.20 0.5
BRS 28.18 249 iPd 26 20.00 0.5
CTAO 34.05 264 iPc 27 10.50 0.6
TOO 36.59 233 i Pd 27 31.60 0.5
0.6s 17.00nm 4. 6mb
FORR 49.92 246 eP 29 16.00 -0.5
MBL 58.36 257 eP 30 16.00 -0.9
0.4s 25 . 00nm 5 . 0mb
NANU 62.02 255 eP 30 41.50 0.3
0.4s 28.00nm 5. 1mb
S.O. - 0.7 on 10 of 10 obs.

* AUG 14, 1991 02h 21m 24.05± 1.07s
10.909 S ± 8.5km 124.295 E ± 8.9km
DEPTH - 61 . 1 ± 1 1 . 5 km
4 . 9mb (7 obs .)
TIMOR (289)

KUPT 1.01 318 eP 21 43.50 1.1

e(S) 21 58. 50
KNA 6.49 138 eP 22 59.50 0.4
0.2s 85 . 00nm 5 . 9mb
eS 2411.00
MTN 6.96 107 i PC 23 06.20 0.5
MBL 11.06 202 eP 24 00.30 -1.6
0.3s 10. 00nm 5 . 3mb
eS 25 56.00

WR2 13.22 134 eP 24 28.50 -2.2
0.3s 88. 70nm 6.0mb X
IS 26 38 . 70
NANU 14.30 215 eP 24 44.00 -0.8
0.3s 9.00nm 4. 7mb
eS 2715.00
WARS 15.36 172 eP 24 59.00 0.5
eS 29 40.00
ASPA 15.64 145 iPc 25 02.30 0.1
0.6s 39.80nm 4. 8mb
eS 27 47.60
OIS 17.57 125 iPc 25 26.00 -0.4
0.5s 20 . 00nm 4 . 5mb
IS 2832.00
FORR 20.16 170 eP 25 58.50 2.6
BAL 20.83 199 eP 26 02.50 -0 4
eS 29 44.00
MUN 22.26 198 eP 26 19.50 2.4
e 26 31 . 00
eS 30 20.00
OLP 24.43 132 iPc 26 53.00 14. 7X
i 27 23.60
STK 26.29 145 eP 27 12.00 16. 4X
0.6s 2 . 80nm
i 27 47 . 10
eS 3158.00
CMS 28.57 139 i PC 27 16.60 0.2
0.7s 31 . 00nm 5 . 0mb
CHG 38.70 320 eP 28 43.40 -0.5
GBA 52.48 297 PC 30 32.00 -1.3
0.8s 5 . 50nm 4 . 6mb
CLL 111.73 321 iPKPc 40 02.10 8.7X
LOR 118.46 318 ePKP 40 26.20 19. 7X
SSF 118.75 318 ePKP 40 28.20 21. 2X
LDF 120.61 320 ePKP 40 10.80 0.3
FLN 120.77 321 ePKP 40 10.40 -0.4
0.4s 1 . 70nm
GRR 121.14 320 ePKP 40 11.30 -0.2
0.5s 2 . 90nm
LPF 121.38 320 ePKP 40 12.20 0.3
0.5s 4.35nm
S.D. - 1.3 on 19 of 24 obs.

& AUG 14. 1991 02h 53m 32.70s
65 . 286 N 142. 988 W
DEPTH - 1 9 . 4km
ALASKA (676)
<AEIC>. ML 2.8 (AEI C) .

TMW 1.97 180 eP 54 05.57 0.1
eS 54 30.65
F8A 2.07 261 iP 54 06.42 -0.5
eS 54 32.56
CCB 2.15 255 eP 54 07.25 -0.8
eS 54 34.71
MDM 2.24 264 iP 54 09.32 -0.1
eS 54 37.98
WRH 2.33 252 eP 54 10.85 0.3
eS 54 40.02
PAX 2.57 206 eP 54 14.68 0.6
S 54 46.38
NEA 2.69 257 eP 54 16.21 0.5
eS 54 49.47
SDG 2.99 203 eP 54 19.22 -0.8
BWN 3.00 251 eP 54 20.17 0.1
S 5457. 15

9 obs . ossoc i o t ed

& AUG 14, 1991 04h 30m 08.55s
60 . 1 45 N 152. 647 W
DEPTH - 96.5km
SOUTHERN ALASKA (2)
<AE I C> .

RED 0.28 347 iPc 30 22.16 -0.8
eS 30 32.87
RSO 0.32 351 ePc 30 22.59 -0.7
iS 30 33.68
REF 0.35 356 iPc 30 22.74 -0.7
eS 30 34.18
ROW 0.35 347 eP 30 22.75 -0.7
eS 30 33.38
RON 0.37 351 ePc 30 22.78 -0.7
eS 30 33.24
NCT 0.44 342 eP 30 22.77 -1.1
RDT 0.45 15 eP 30 23.10 -0.8
NNL 0.68 98 i PC 30 25.75 0.0

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' AUG 14. 1991 04h 44m 20.02± 4.21s 45.517 N ±31.4km 15.804 E ±24.2km DEPTH - 10.0km (geophysicist)
YUGOSLAVIA (383)
MD 2.5 (LJU), 2.3 (TRI). ML 2.3
(ZAG) . 2.1 (KBA) . Felt in the
Karlovoc oreo.

ZAG

VBY

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? AUG 14. 1991 04h 49m 24.35± 0.83s 2.261 N ±13.9km 126.701 E ±27.3km DEPTH 33.0km (normal)
4.6mb (3 obs .)
MOLUCCA PASSAGE (266)

WR2 23.32 162 iPd 54 29.00 -1.6
0.3s 16.50nm 5.0mb
i 5825. 80
OIS 25.97 151 eP 54 55.00 -0.9
ASPA 26.71 165 eP 55 04.70 2.0
0 . is I4.40nm 4.7mb
CHTO 31.77 303 P 55 47.80 -0.3
MAT 35^73 16 eP 56 22.00 -0.1
STK 36J78 159 eP 56 31.30 0.4

1 . j s 2.70nm 4.0mb
INK 91 53 22 eP 02 29.00 0.4

S . D . =1.4 on 7 of

? AUG 14. 1991 05h 26m 31 .
11. 244 N± 6. 9km 61. 827
DEPTH = 33.0km (normol)
WINDWARD ISLANDS

MD 3.4 (TRN) .

TCE 6 . 55 1 72 i P 26 42 .
eS 26 52.
TRN 0 . 72 1 45 tP 2645.
eS 26 55.
GRW 0.93 1 0 eP 2648.
SVB 2 . 09 16 eP 2704.
eS 27 32.
SLB 2 . 68 17 eP 2714.
eS 27 46.
S.D. =0.9 on 5of

? AUG 14, 1991 05h 48m 26.
52.893 N ±34. 5km 172.444
DEPTH = 33.0km (normal)
4.1mb (5 obs .)
ANDREANOF ISLANDS. ALEUTIAN

ADK 2.79 250 eP 49 1 1 .

e(S) 49 50.
SON 7.44 66 e (P) 50 1 6 .
PDB 12.23 48 e(P) 51 26.
INK 23.97 35 ePc 53 38.
M8C 30.74 22 eP 54 42.
0.6s 2 . 00nm
YKA 31.31 49 eP 5443.
0.9s 1 . 1 8nm
MAT 37.86 265 eP 55 40.
0.9s 9 . 24nm
N82 66.38 358 P 59 13.
0.7s 1 . 08nm
HFS 67.22 357 eP 59 17.
0.4s 1 . 00nm
KKN 75.24 296 P 00 08 .
PKI 75.34 296 P 00 88.
GKN 75.42 297 P 00 88.
S.D. = 1.5 on 11 of 1

AUG 14, 1991 06h 38m 34.
29.450 N ±15. 4km 114.013
DEPTH «= 5.0km (geophysi
4 . 6mb (1 0 obs .) 4 . 3Msz (
8AJA CALIFORNIA

MD 4.7 (ECX) . Felt at N
Rosorito, Punto Prieto
R o s o 1 i i t a .

SPX 2.03 322 ePn 39 07.
P8X 3.27 315 ePn 39 30.
ENX 3.33 317 ePn 39 30.
C8X 3.65 322 ePn 39 38.
GLA 3 . 66 349 eP 39 31 .
PLM 4.59 329 eP 39 43.
PEC 5.18 330 eP 39 52.
SSK 5.69 328 eP 40 82.
A8L 6.96 322 eP 40 19.
BCH 7.69 320 eP 40 30.
ALO 8.42 48 eP 40 39.
0.8s 7 . 46nm
ANMO 8.43 47 eP 40 39.
PR I 8.71 322 eP 40 44 .
FR 1 8 .90 329 eP 40 47 .
MSU 9.17 9 ePc 4052.
BONR 9.20 338 eP 40 50.
LLA 9.21 323 eP 40 51 .
PRS 9.24 320 eP 40 52.
PV09 9.89 23 eP 41 00.
CMB 10.07 330 eP 41 04.
KVN 10.16 342 eP 4104.
DUG 10.77 5eP 4115.
BRK 10.85 323 eP 40 56.
Z 20s 3 . 90um
eLR 44 40.
DAU 11.17 1 1 eP 4121.
ORV 1 1 . 82 331 eP 41 26.
GOL 12.45 33 eP 41 37.
Ml N 1 2.52 332 «P 41 38.
WDC 13.11 330 eP 4145.
MEO 14.11 64 i Pd 4206.
LRM 16.39 4 eP 42 30.

7 obs.

51± 1.81s
W ±42 . 1 km

(95)

80 0.0
00
28 0.0
12
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00 -1.0

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00 0.7
50
5 obs .

31± 1 . 46s
W ±1 8 . 1 km

IS. (7)

00 1.5
00
00 0.8
30 5. 4X
70 8.7
00 2.0
4 . 1mb
00 -2.2
3 . 7mb
00 -1.6
4 . 6mb
60 0.1
4 . 0mb
30 -1.5
4 . 3mb
00 8.3
40 0.0
40 -0.2
2 obs.

21± 1 .36s
W ± 7 . 1 km
cist)
4 obs.)
(48)
oe vo

and Son t a

30 -2.4
10 2 . 9X
90 2 . 9X
70 6. 0X
70 -1.0
30 -2.8
30 -2.0
50 0.9
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5 . 0mb
00 -1.1
38 0.4
70 1.2
10 1.7
00 -0.9
80 1.0
38 1.2
30 -0.1
00 1.4
00 0.1
00 2 .8X
50 -16 . 7X

00
50 3.6X
00 -0.4
50 2.3
30 2.3
00 1.3
60 9.6X
10 3.3X

TUL 16.63 63 i Pd 42 29.20 -0.4
1.0s 46.10nm 4. 6mb

Z 1 8s 0 . 39um 4 . 4Msz
N 1 8s 1 . 27um
E 18s 0 . 32um
eS 46 04.00
eLg 47 22.90
LR 4816.00
RSSO 16.66 26 eP 42 31 30 1.1
1.2s 23 . 69nm 4 . 2mb
UYO 17.27 69 e(P) 42 37.00 -0.7
LON 18.31 343 eP 42 51.00 8.4
BMW 18.46 340 eP 42 52.50 0.0
NEW 18.94 354 eP 42 56.09 -2.3
1.0s 22 . 56nm 4 . 3mb
OLY 19.93 67 eP 43 07.20 -2.6X
PNT 20.30 349 eP 43 16.00 2.4X
SES 21.04 5 ePd 43 21.00 -0.3
FVM 21.35 60 eP 43 22.50 -1.9
1.2s 47 . 06nm 4 . 7mb
ELC 22.08 63 eP 43 30.90 -0.9

PWLA 22.61 69 e(P) 43 37.00 0.0
GBTN 25.81 68 eP 44 09.00 1.0
TKL 26. 17 68 eP 44 12.00 0.7
JSC 2B.16 72 eP 44 29.80 0.3
LVNJ 33.78 60 eP 45 20.00 0.9
TBR 34.23 59 eP 45 24.00 1.0
INK 40.56 349 ePd 46 15.30 -0.4
FBA 41.27 339 eP 46 21.00 -0.6
0.5s 4.55nm 4. 5mb
MBC 46.94 358 eP 47 07.00 -0.2
1.0s 6 . 00nm 4 . 7mb
SIV 68.18 124 eP 49 31.00 -7.0X
FLN 82.16 38 eP 51 06.90 9.5X
Z 20s 0 . 1 Sum 4 . 4Msz
GRR 82.18 38 eP 51 07.00 9.5X
LPF 82.29 39 eP 51 06.80 8.8X
0.7s 4 . 40nm 4 . 7mb
SSF 85.33 37 eP 51 23.20 9.7X
RJF 85.34 40 eP 51 16.70 3. IX
0.Bs 6.70nm 4.9mb
Z 20s 0 . 1 Sum 4 . 4Msz
LOR 85.38 37 eP 51 23.60 9.8X
0.7s 3 . 30nm 4 . 6mb
Z 20s 0 . 1 3um 4 . 3Msz

LPO 85.53 40 «P 51 16.90 2.3X
LBF 85.63 37 eP 51 24.60 9.5X
CAF 85.88 40 eP 51 19.20 2.8X
HAU 86.19 36 eP 51 27.50 9.6X
Z 20s 0 . 1 3um 4 . 3Msz
BSF 86.53 35 eP 51 29.40 9.8X
S . D. = 1 . 3 on 40 o f 62 obs .

_______ __ ___ _______ ____

AUG 14, 1991 07h 40m 14.47± 0.56s 43.368 N ± 4.4km 110.669 W ± 5.2km DEPTH = 5.0km (geophy s i c i s t)
WYOMING (460)
ML 3.0 (GS) . 3.0 (BUT) .

SNOW 0.11 326 P 40 17.20 0.2
BEAW 0.12 161 P 40 16.50 -0 . B
REDW 0.13 268 P 40 17.50 0.1
MUD I 0.39 310 P 40 22.00 -0.3
TARW 0.46 330 P 40 23.80 -0.7
PACW 0.55 14 P 40 24.50 -1.0
PT I 1.34 249 i PC 40 39.00 -8 . B
HP 1 1.80 282 «P 40 47.00 0.3
BGMT 2.11 333 ePn 40 51.80 0.7
MCMT 2.14 314 ePn 40 52.70 1.1
LRM 2.76 333 ePn 41 02.60 2. IX
HBMT 2.79 331 ePn 41 03.00 2.1X
BUT 2.97 334 ePg 41 06.10 2.8X
eSg 41 46.10
DAU 2.99 189 eP 41 04.20 0.5
HRY 3.44 347 ePn 41 15.90 5.9X
RSSD 4.86 79 «P 41 31.00 0.7

GOL 5.41 131 e(P) 41 47.50 9.5X
S.D. =0.8 on 12 of 17 obs .

? AUG 14, 1991 07h 41m 43.62± 3.49s 3.968 N ±14. 1km 75.670 W ±31. 3km DEPTH - 31 . 7 ± 9 . 4 km
COLOMBIA (103)
MD 3. 4 (UVC) .

HOBC 8.60 318 eP 41 55.72 -8.2
CLMC 8.90 264 i Pd 41 59.96 -8.1

1 13

14d 07h

HOOC 1.08 243 iPd 42 02.50 -0.4
eS 42 18.80
ANCC 1.28 249 eP 42 05.76 0.4
S 1 LC 1.44 208 i PC 42 07.50 -0.6
eS 42 27.30
PURC 1.78 203 eP 42 13 49 0.4
S . D . =0.6 on 6 of 6obs.

? AUG 14, 1991 07h 48m 45.62± 1.15s
31.353 S ±28. 6 km 68.939 W ±30. 3 km
DEPTH = 121.6 ± 18.9 km
SAN JUAN PROVINCE. ARGENTINA (137)

ZON 6.29 131 iPc 49 02.50 -0.8
e S 49 14.00
RTLL 0.40 87 iPd 49 03.80 0.3
MDZ 1.53 177 iP 49 31.00 17. 1X
i S 49 52. 00
JACH 1.93 226 iP 49 20.00 1.1
IS 49 46.00
PEL 2.32 219 iPd 49 24.10 0.4
IS 49 53.50
ROCH 2.39 227 eP 49 25.00 0.2
i S 4954.00
PCH 2.62 210 iP 49 28.50 0.8
i S 50 01 . 70
TACH 2.85 216 iP 49 30.50 -0.1
i S 50 04. 50
CHCH 2.95 209 iP 49 32.50 0.5
i S 50 07. 60
LCCH 3.07 226 eP 49 32.50 -1.0
LNV 3.33 218 iP 49 35.50 -1.5
CYA 3.98 44 iP 49 46.00 0.1
S 50 31 . 10
S . D . =0.9 on 11 of 12 obs .

? AUG 14, 1991 07h 52m 31.39± 1.30s
36.866 N ±17. 4km 29.215 E ± 8.8km
DEPTH = 10.0km (ge ophy s i c i S t)
TURKEY (366)

ELL 0.57 102 iPg 52 43.00 0.0
iSg 52 53.00
YER 0.79 290 ePg 52 46.90 0.0
CIN 1.16 309 eP 52 53.00 -0.1
KHL 1.48 9 ePn 52 58.10 0.0
S.D. = 0.1 on 4 of 4 obs.

% AUG 14. 1991 08h 14m 43.04± 0.69s
39.575 N ± 6.5km 28.861 E ± 6.1km
DEPTH - 10.0km (geophy S i c i s t)
TURKEY (366)

DST 0.18 280 iPg 14 45.70 -1.5
IZI 0.89 32 iPg 14 59.90 -0.3
eSg 15 12. 90
YLV .07 21 ePn 15 02.50 -0.6
EDC .09 315 iPn 15 02.70 -0.8

KHL : .35 157 ePn 15 07.60 -0.4
1 SK .50 6 ePn 1511.00 1.1
CTT .60 348 i Pn 15 12.40 0.9
IZM .71 227 ePn 15 13.70 0.6
EZN .97 278 ePn 15 18.00 1.2
S.D. -1.0 on 10 of 10 obs.

& AUG 14, 1991 08h 24m 24.12s
59 . 884 N 150. 669 W
DEPTH = 54.7km
KENAI PENINSULA. ALASKA (14)
<AE I C> . ML 2.9 (AE I C) .

NNL 0.35 297 iPc 24 34.65 0.4
CNPM 0.46 219 iPd 24 34.80 -0.6
i S 2443.06
HOM 0.54 246 i Pd 24 36.14 -0.1
i S 2445.55
SEW 0.65 70 iPd 24 36.68 -0.9
eS 24 46.55
SLKM 0.66 19 iPd 24 37.56 -0.2
eS 24 47.70
NKA 0.91 342 iPc 24 42.16 1.3
ROT 1.11 309 ePc 24 42.95 -0.8
S 24 57.84
RED 1.18 298 iPc 24 43.84 -0.9
IS 24 59.33
REF 1.18 302 iPc 24 44.01 -0.8

S 24 59.61
RSO 1.19 300 iPc 24 44.16 -0.8
eS 2459.74
RON 1.22 302 iPc 24 44.27 -1.0
S 25 60 . 21
ROW 1.23 300 iPc 24 44.48 -1.0
eS 24 59.80
DFR 1 .23 306 eP 24 44 . 28 -1.1
S 25 00 . 66
NCT 1.32 302 iPc 24 45.66 -1.0
eS 25 02.69
LT 1 1.42 82 i PC 24 46.47 -1.5
eS 25 04 . 15
AUE 1.47 250 ePd 24 48.27 -0.4
eS 25 67 . 95
PMS 1.47 21 iPd 24 48.42 -0.3
eS 25 07. 17
SPU 1.47 333 iPc 24 48.32 -0.4
AUH 1.50 251 eP 24 49.29 0.1
S 25 0B.54
AUI 1.51 250 eP 24 48.88 -0.3
IS 2508.78
MTU 1.52 85 eP 24 49.17 -0.2
KNIM 1.54 71 iPd 24 47.99 -1.6
S 25 06.80
CKL 1.55 329 i PC 24 49.56 -0.4
IS 2509.49
SY I 1.55 215 iPd 24 49.05 -0.7
CGLM 1.57 336 eP 24 50.01 -0.2
SUA 1.59 359 iPd 24 49.92 -0.5
BGL 1.62 329 ePc 24 50.65 -0.2
S 2511.64
NCG 1.69 335 ePc 24 51.73 -0.1
S 2513.34
PDB 1.78 268 ePc 24 52.07 -0.9

COD 1.80 239 ePd 24 52.75 -0.5
PWA 1.81 12 ePd 24 53. 47 0.0
S 2516.88
PLRM 1.87 23 iPd 24 53.46 -0.8
KNK 1.88 34 iPd 24 53.60 -0.8
MCNL 2.00 251 eP 24 54.90 -1.1
GLI 2.04 59 iPd 24 54.53 -2.1
eS 25 17.80
GHO 2.08 24 ePd 24 56.52 -0.7
SKT 2.15 349 ePc 24 58.03 -0.1
eS 25 23.56
KDC 2.34 205 ePd 24 58.83 -2.0
VZW 2.35 58 iPd 24 59.32 -1.8
eS 25 26.96
VLZ 2.48 58 ePd 25 01.34 -1.5
S 25 29.93
CUT 2.54 4 ePd 25 02.06 -1.5
SCM 2.55 38 eP 25 03.82 -0.1
SVW 2.74 299 eP 25 05.42 -1.2
KLU 2.84 53 ePd 25 06.58 -1.5
S 25 39. 01
TOA 3.12 43 i Pd 25 1 1 . 70 -0.4
S 25 46 . 1 0
HUR 3.14 9 eP 25 11.60 -0.7
TZL 3.35 47 eP 25 14.62 -0.6
TRF 3 .58 3 i Pd 25 18. 44 -0.2
SDG 3 .63 41 eP 25 17 . 98 -1.2
RND 3.64 13 eP 25 18.97 -0.4
KTH 3.68 358 eP 25 19.78 -0.2
GLB 3.72 62 ePc 25 1B.09 -2.4
MCK 3.95 11 eP 25 23.44 -0.2
PAX 3.98 37 eP 25 22.97 -1.2
TGL 4.00 74 eP 25 21.54 -2.8
BALM 4.28 71 ePc 25 25.40 -3.0
BWN 4.34 7 eP 25 27.51 -1.6
WRH 4.76 14 eP 25 33.52 -1.5
NEA 4.77 8 eP 25 33. 74 -1.4
CCB 4.96 14 ePc 25 36.23 -1.7
FBA 5.21 14 eP 25 39.79 -1.6
MDM 5.22 11 i PC 25 40. 19 -1.3
PNL 5.70 87 eP 25 45.31 -2.9
63 obs. ossocioted

* AUG 14. 1991 08h 33m 58.41± 0.75s 9.739 S ±14. 4km 151.730 E ± 9.8km DEPTH - 33.0km (normol)
4 . 1mb (4 obs .)
DENTRECASTEAUX ISLANDS REGION (194)

PMG 4.52 274 eP 35 06.00 -0.4
HNR 8.11 89 eP 35 56.00 -0.8

WR2 19.60 237 eP 38 26.20 -0.8
0.6s 5.60nm 4.0mb
WRA 19.61 237 P 38 40.00 12. 8X
0.6s 3 . 90nm
ASPA 21.95 229 i Pd 38 50.60 -0.6
0.6s 1 1 . 50nm 4 . 5mb
STK 23.95 202 eP 39 12.30 1.6

MAT 47.76 345 eP 42 35 00 0.6
FBA 86.84 22 P 46 41.00 0 . i>
1.1s 2 . 00nm 4 . 3mb
S.D. =1.1 on 7 of Sobs.

* AUG 14, 1991 09h 01m 05 . 86± 0.53s 45.740 S ± 7.0km 72.591 W ±17. 9 km DEPTH - 10.0km (gt o phy s i c i s t)
5. 1mb (.5 obs .)
NEAR COAST OF SOUTHERN CHILE (144)

LNV 11.80 5 eP 03 56.00 -1.2
PEL 12.66 7 eP 04 09 . 00 0.2
AIA 20.08 170 eP 05 41.00 -0.9
SLA 21.73 18 eP 05 53.00 -6.4X
CCH 28.78 13 eP 07 15.00 8.8X
CNCB 29. 10 9 P 0710.50 1.1
ARE 29.20 2 eP 0711.00 1.0

PPD 29.34 43 (P) 07 10.00 -0.9
LP8 29. 36 9 P 07 12 . 00 0.4
Z 20s 1 . 42um 4 . 6Msz
LR 1910.00
ZOBO 29.62 9 P 07 1 4 . 30 0.2
1.0s 30.00nm 5.1mb
Z 20s 0.53um 4.2Msz
S 12 36 . 00
LR 1904.00
SI V 31.19 22 iPc 07 27 . 10 -0.3
SPA 44.45 180 iPc 09 18.80 0.3
1.0s 32 . 50nm 5 . 2mb
SOB1 45.43 47 eP 09 25.80 -0.9
NVL 45.89 153 P 09 29.50 -0.1
e 0951.00
e 1000.00
KIM 74.77 116 eP 12 51.00 3.0
SLR 79. 10 1 16 eP 13 1 1 . 00 -1.2
MEO 83.52 339 iPc 13 35.60 0.7
TUL 83.93 341 ePd 13 36.90 0.0
1.2s 46 . 00nm 5 . 6mb

LR 44 32.00
ALQ 85.94 333 eP 13 47.00 -0.3
1.0s 15. 00nm 5 . 1mb
GOL 89.99 335 P 14 06.70 0.0
1.1s 11. 54nm 5 . 0mb
INK 122.42 337 ePKP 20 01.00 -0.4
MBC 125.33 348 ePKP 20 05.00 -1.9
DUE 144.94 102 ePKP 20 46.00 1.1
CHG 152 25 163 ePKP 21 03.00 6.6X
S . D . = 1 . 1 on 21 o f 24 obs .

AUG 14, 1991 10h 32m 06 . 93± 0.36s
38.806 N ± 4.0km 1.008 W ± 4.2km
DEPTH = 10.0km (geophy s i c i s t)
SPAIN (377)
ML 4.2 (STR), 4.2 (LOG). mbLg
4.2 (MOD). Felt (V) ot Coudete.

ACU 0.55 122 iPgc 32 17.35 -0.8
ECHE 0.78 2 iPgd 32 24.04 1.8
eSg 33 23.50
EALH 1.00 199 iPgc 32 26.22 0.3
eSg 32 40.00
EVIA 1.18 262 iPgc 32 30.35 1.3
EHUE 1.59 232 iPnc 32 36.15 0.9
eSn 32 58.40
ENIJ 2.06 208 iPnc 32 42.34 0.3
eSn 33 06.60
ETOR 2.17 338 ePn 32 47.08 3.4X
EBAN 2.27 254 iPnc 32 44.93 -0.2
eSn 33 13.00

EROO 2.29 28 iPnc 32 46.12 0.8
eSn 33 14.00
EBR 2.32 29 iPn 32 48.00 2.3
iSg 33 22 . 00
AFC 2.53 233 ePn 32 50.01 1.1
eSn 33 20.50
ECOG 2.53 234 iPnc 32 49.68 0.8
eSn 33 21 .00

1 4d 1 0h

EGUA 2.

GUD 3.

ESEL 3 .

EGRA 3.

EHOR 3.

EPRU 3.

ECR 1 3 .
E P L A 4 .

ALJ 4 .
E J 1 F 4 .:
SALF 4.
TRGS 4.
EPF 4 .

G 1 BL 4 .
GRBF 4.
MOMI 4.
ETER 4.

PLAT 4.
CN 1 L 4 .
LSPF 4.
PERF 4.
ERUA 5.

LPO 6 .
LFF 6 .

PTO 6.

CAF 6.
EZAM 6.
RJF 6.
STS 7 .
LRG 7 .

LMR 7 .

LSF 7 .
MFF 7 .
TCF 7 .
MAF 7 .

BGF 8 .

PGF 8 .
AVF 8 .
SMF 8.
LPL 8.
SSF 8.
LBF 8 .
LOR 9 .
LPF 9 .
LDF 9.
FLN 9.
DOU 1 1 .

S.D.

? AUG 1 4
17 .530
DEPTH -
CH 1 APAS ,

OXX 2.

LVVM 3 .
1 1 SM 3 .

PPM 4.

ACX 5.;
ALO 20.
S.D.
|

% AUG 14
43 .641
DEPTH -

82 227 Pn
eSn
04 308 iPnc
eSn
18 71 i Pnd
eSn
43 9 ePn
eSn
48 255 iPnc
eSn
81 243 i Pnc
eSn
97 344 ePn
12 289 iPnc
eSn
22 241 eP
25 238 ePn
29 22 Pg
33 31 Pn
34 13 Pn

Pg
Sg
39 245 eP
47 25 Pn
49 238 eP
57 39 eP
63 236 eP
69 240 eP
69 27 Pn
71 38 Pn
88 309 iPnc
eSn
10 15 Pn
27 11 Pn

Pg
28 294 ePn
eSn
eS«

iSg
53 20 Pn
74 302 iPnc
76 15 Pn
02 308 iPnc
24 48 Pn
Sn
26 49 Pn
Sn
67 13 Pn
82 4 Pn
85 17 Pn
87 18 Pn
Sn
25 19 Pn
Sn
47 61 Pn
60 20 Pn
61 23 Pn
83 38 Pn
89 20 Pn
95 22 Pn
18 21 Pn
22 360 Pn
81 3 Pn
96 2 Pn
97 18 P
S
=1.2 on

. 1991 I2h
N ±24 . 7km

32 54 .
33 28.
32 56 .
33 33 .
32 57 .
33 35 .
33 04 .
33 46 .
33 00 .
33 41.
33 06 .
33 52 .
33 10 .
33 10 .
34 01.
33 13.
33 13.
33 14 .
33 15.
33 15 .
33 33.
34 26 .
33 14.
33 17.
33 15 .
33 17.
33 18.
33 18.
3321.
33 19 .
33 35 .
34 44 .
33 38 .
3341.
34 08 .
33 39 .
34 39 .
34 55 .
35 25 .
33 44 .
33 47 .
33 49 .
33 51 .
33 55 .
35 13 .
33 55 .
3511.
34 00 .
34 03.
3401.
34 01 .
35 26 .
34 08 .
35 33.
34 11.
34 13 .
34 11.
34 18.
34 18 .
34 18 .
34 21.
34 24 .
34 30 .
34 33.
3501.
36 58 .

84
00
67
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54

00

16
90
94
80
94
80
73
O ft y C
20
00
58
70
30
50
80
70
00
52
50
64
50
50
06
62
57
70
30
60
60
20
20
70
30
10
80
60
42
00
80
70
90
50
40
20
40
20
80
90
50
10
90
10
80
80
40
00
30
60
10
30
58 of 59

16m 21.
94 . 218

1 .9

0 . 6

- 0 . 4

2 . 8

- 1.2

- 0 . 1

1 . 6
- e . 4

6 2
0 . 4
0.9
0 . 8
1 . 0

- 1.1
1 .2
- 1 . 1
0.0

- 0 . 1
- 0. 9
1 . 6
- 0.2
- 0 . 7

- 0 .9
0.0

- 2. 7

- 1 . 3
- 0 . 6
1 .0
- 0.8
- 0 . 4

0 . 1

- 0.8
0.0
- 2 . 6
- 2 . 7

- 0 . 6

- 1 .2
- 1 .2
- 2. 5
0 . 4
0.5
- 0 . 4
- 0 . 8
1 .2
- 0 . 6
0 . 6
0.6

obs .

96± 4.35s
W ±33 . 8km
33 . 0km (no rma 1)
MEX 1 CO

43 260 iP
iS
05 316 eP
33 296 iP
(S)
46291 i P
(S)
43 264 eP
49 330 ePn
= 0.0 on

, 1991 I2h
N ±19. 8km

1700.
17 30 .
17 09 .
17 13 .
17 51 .
17 29 .
18 08 .
17 25 .
21 00 .
5 of

40m 32.
1 1 . 047

10. 0km (geaphysi

50
00
00
80
00
50
00
60
00
6

(61)

0.0

0.0
0 . 0

0 . 0

- 17 . 8X
0. 0
obs .

10± 1.99s
E
C i

± 6.1km
st)

CENTRAL ITALY (381)

P 1 1 0.39 282 Pd 40 40. 20 8.2
eSg 4045.10
BDI Q.53 322 P 40 42.20 -0.7
eSq 40 49.90
PGD > . 54 64 P 40 43 . 70 0.6

eSg 4051.
MME e . 6 1 336 P 4045

eSg 40 53
SFI ?i . 6 5 64P 4044.
eSg 40 53 .
S.D. = 1.0 on 5of

__ _____ ___ ___

AUG 14, 1991 1 2h 53m 26 .
54 . 389 N ± 2 . 4km 169. 296
DEPTH - 274.8km (geophysi
5.7mb (102 obs .)
FOX ISLANDS. ALEUTIAN ISLAND

mb 6 . 1 (BRK) . Felt (IV)
Nikolski and (III) ot S
Point. Also felt o t Out
and Unoloska. Depth fro
broodbond displacement

se i smog r ams . FAULT PLANE SOLUTION: P
NP 1 : S t r i ke= 85 D i p=63
NP2: 199 51

Principal Axes:

00

20 0.7
20
30 -0 7
50
5 obs .

02± 0.11s

(V ± 1.7km
cist)

S (9)
at
ond
c h Harbor
n

- Wove s

Slip- 135
36

T Plg-50i Azm- 46
P 7 145
Comment: The focal mechbnism is
poorly controlled ond
corresponds to reversle
faulting with o lorge
loterol strike-slip c
The preferred foult p
NP2.
RADIATED ENERGY
No . of s t a : 11 Foco 1
Energy 9 . 8±2 . 5»
MOMENT TENSOR SOLUTION

1 ef t-
ompo nen t .
lone is

mech . F
1 0 * * 1 2 Nm

Dep269 Na . of s t a : 1 7
Moment Tensor; Sco I e 10»»18 Nm
Mr r= 0 . 70 Mt t--0 . 55
Mf f =-0 .15 Mr t- 0 . 51
Mrf=-0.37 Mtf 6.71
Principal axes:
T Vo 1= 1.17 Pig-52 Azm- 47
N -0.06 37 241
P -1.11 7 1 46

Best Double Couple:Mo-1
NP1 : St r i ke-202 D i p-50
NP2: 85 62
CENTROID, MOMENT TENSOR
Dota Used: GDSN
L.P.B . : 22S , 62C
Centroid Location:

. 1 1 0* » 1 8
Slip- 38
133

(HRV)

Origin Time 12:53 i: 30.0 0.2
Lot 54.34N 0.03 Lon 169. 15W 0.02

Dep 277.6 1.2 Ho 1 f -du r o t i o n 3.8
Moment Tensor; Scole h 0 » * 1 7 Nm
Mrr- 5.83 0.19 Mtt--£.95 0.33
Mff- 0.12 0.25 Mrt- J3.77 0.23
Mrf 5.00 0.28 Mtf p. 99 0.25 Principol Axes: [
T Va 1 - 1 1 . 99 PI g-45
N -0.52 45
P -11.47 1

Best Double Couple:Mo=1
NP 1 : S t r i ke-206 D i p=59
NP2: 90 61

ADK 5.11 244 ePc 54 45 .
SON 5.17 76 i PC 54 44 .
MCNL 9.50 54 iP 55 38.
CDD 9.74 56 eP 55 40.
PDB 9.83 51 i P 55 43.
SVW 9.92 42 iPc 55 47.
KDC 9.98 63 i PC 55 43.
AUI 9.99 54 eP 55 44.
eS 57 32.
AUH 10.00 54 eP 55 46.
SMY 10.02 267 ePc 55 46.
AUE 10.03 54 eP 55 46.
SY 1 10. 25 59 eP 55 46.
eS 57 33.

Azm- 55
237
1 46
2* 10*. 18
slip- 35
1 44

30 1.0
30 -0.2
57 -0.4
57 -1.3
»5 0.4
90 2.8
10 -1.7
30 -0.2
54
94 0.9
30 1.6
36 0.9
77 -1.4
92

ANM
NCT
RED
ROW
RSO
RON
REF
DFR
HOM
RDT
TTA
CNPM
NNL
C" V 1 O r\ l_
8GL
SPU
NCG
CGLM
NKA
SLKM
SKT
SUA
SEW
PMS
PWA
CUT
PLRM
PMR
LT 1
MTU
GHO
KN 1 M
KNK
KTH
HUR
TRF
M 1 D
GLI
H 1 N
vzw
RND
VLZ
MCK
1 MA
BWN
CVA
KLU
SGAM
TOA
NEA

RAGM
TZL
WRH
HMT
SDG
CCB
MDM
PAX
COL
FBA
GLB
WAX
TGL
BALM
TMW
CTGM
YKU
FYU
PNL
BRW

S 1 T

1 NK

MBC

PGC

YKA

BMW
PNT
COR

10 . 40
10.75
10.75
10.76
10.78
10.80
10.81
10.87
10.96
10.98
10.98
11.11
11.26
11.31
1 1 . 32
11.42
11.49
1 1 . 50
1 1 . 57
11.94
12.04
12.11
12. 15
12.53
12.56
12.76
12.86
12.86
12. 89
12.97
13. 03
13.04
13 . 08
13.14
13.31
13.32
13 . 48
13.51
13.64
13.81
13 . 84
13.94
13.98
13.99
14.03
14.04
14.25
14 . 29
14 .35
14.40
14.51
14 . 66
14.69
14.70
14.78
14.89
14. 92
14.99
15.04
15.04
15.19
15.41
15 . 49
15.78
16.16
16 . 25
16.84
16.86
17 .02
17.84

19 .20
6. 6s

21 . 66
0.8s
28. 64
0.5s

28. 68
0.8s
28 . 91
0. 7s
29 .92
30.57
30.93

9 iP
48 eP
49 eP
49 eP
49 eP
49 eP
49 eP
48 eP
54 eP
49 eP
33 i PC
55 i P
53 eP
46 eP
46 eP
47 eP
45 iP
46 eP
49 eP
51 eP
44 eP
47 eP
54 eP
49 i P
47 eP
43 eP
48 eP
48 ePd
55 eP
56 IP
47 eP
54 eP
49 eP
38 iP
42 eP
39 eP
59 ePd
52 eP
55 eP
52 iP
41 eP
52 eP
40 eP
27 iPc
38 eP
54 eP
51 eP
55 eP
48 ePc
37 eP
56 eP
49 eP
38 eP
56 eP
47 eP
38 eP
36 eP
46 eP
37 ePc
37 ePc
52 iP
56 iP
55 iP
54 i P
46 eP
55 eP
60 eP
34 eP
60 eP
13 ePc
e
68 ePc
1 229. 40nm
e
e
36 eP
18. 1 0nm
22 iPc
1 08 . 00nm
pP
82 ePc
349 . 00nm
52 eP
1 14 . 70nm
86 eP
79 iPc
89 iPc

55 52. 91
55 55.58
55 55. 16
55 55.62
55 55.86
55 56.28
55 56.08
55 56.89
55 57.39
55 57.69
56 00.20
55 57. 66
56 01.79
56 03 . 32

56 03 . 64
56 03. 94
56 05.81
56 05.27
56 07.50
56 09.03
56 12.31
56 12. 33
56 10. 35
56 15.19
56 1 6 . 80
56 19.28
56 18.66
56 19.30
56 19.66
56 20.78
56 20.63
56 20. 34
56 21 . 33
56 26.09
56 26.63
56 26.83
56 27.60
56 26.29
56 28. 41
56 30.56
56 31.83
56 31.82
56 33.80
56 36.90
56 35.22
56 33 . 14
56 35. 18
56 36.38
56 37. 90
56 38.35
56 39.34
56 40.80
56 40.76
56 41 .55
56 42.03
56 42.92
56 43.58
56 43 . 84
56 44 . 79
56 45.00
56 46. 47
56 50.02
56 50.42
56 53.21
56 56.85
56 58.77
57 07.30
57 05.07
57 08.03
57 18.10
00 19.20
57 32.00
6
01 07.40
04 48. 70
57 55.60
4
58 59 . 50
5
59 46.50
59 00.30
6
59 01.10
5
59 1 1 .70
59 17 . 20
59 20. 27

2. 8
1 . 0
0.6
0. 8
0.8
1 . 1
0. 6
0. 9
0. 4
0. 3
2.7
- 1 . 2
1 . 0
1 ft T . O
2. 0
1 . 1
2. 1
1 . 4
2. 9
- 0. 1
1 . 9
0. 9
- 1.4
- 1 . 2
0. 0
0.0
- 1 .8
- 1 . 1
- 1 .2
- 1 . 1
- 2.0
- 2. 3
- 1 . 9
2. 1
0. 7
0.6
- 0. 4
- 2. 1
- 1 . 6
- 1 . 6
- 0. 6
- 1 . 7
- 0. 3
2.6
0. 6
- 1 . 6
- 2.2
- 1 . 4
- 0.7
- 0.8
- 1 .2
- 1 .5
- 1 . 9
- 1 .3
- 1 .8
- 2. 1
- 1 .8
- 2. 5
- 2.0
- 1 . 8
- 2. 3
- 1.4
- 1 . 9
- 2. 3
- 2. 7
- 1 . 8
0. 6
1 ft 1 . O
- 0. 6
1 . 1

1 . 1
. 5mb

0.8
. 6mb X
0. 7
. 7mb
237kmX
0. 9
. 0mb
- 0.2
. 6mb
1 .2
1 .2
1 .2

1 15

12h

K LI S J
f- S A J
NEW

FHC

FOX
HOOJ
LBFM
OPA
WDC
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HON
MRRJ
M I N
SES

ORV
ZSP
BKS

PCC
BUT
HRY
HBMT
GCC
LRM
ARN
CMB

MCMT
SAO
SXM
BGMT
PRS
LLA
LTMT
FFC

FR 1
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N I 1 J
KAK J
CWC
SYP

ISA

SBC

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MAJO

MAT

Z

CLC

MTMJ

31.81
32.41
32 .53

32 . 84
0.8s
33 . 61
33. 07
33 . 7 1
33. 75
33.82
34.61

34.11
34 . 34
34.52
34 . 96
0.7s

35 . 09
35. 73
35 . 79
0 . 8s

35 .96
36 . 36
36. 39
36 . 46
36. 51
36.53
36. 55
36. 75

36.88
37.01
37 .06
37.11
37 .35
37.40
37 . 48
37 .67
0 . 6s
37 . 86
37 .89
38.92
38 . 95
39 . 19
39 . 43

39 .50

39 .64

39.74
39 .86

39 . 86
1 .0s
20s

39.90

40.07

ec

i S
e
268 P
272 P
79 i PC
S
i ScP
96 ePc
435 . 29nm
96 i PC
269 P
93 i PC
161 P
95 i PC
161 i Pd
i d
i S
eSS
161 P
270 P
94 i PC
72 i PC
721 . 00nm
pP
95 i PC
98 i PC
98 i PC
6 7 8 . 0 0 nm

ipP
esP
ePcP
eS
e
esS
eLQ
98 i PC
79 ePc
78 i PC
80 i PC
99 i P c
80 i PC
98 eP
96 i PC
ec
ePcP
i S
esS
eSS
B1 iPc
98 i PC
78 i PC
80 i PC
99 i PC
98 i PC
81 i PC
61 i PC
263 . 00nm
97 ePc
98 i PC
266 P
263 P
96 i P +
100 eP
e
97 i P +
e

100 i PC
ec

esPd
ePcP
i S
eSS
264 P
265 iPd
e
eS
esS
eSS
265 eP
170. 00nm
1 . 42um
eS
96 eP
e
e
266 P

59 22
04 07
06 16
59 24
59 31
59 33
04 29
05 27
59 37

59 39
59 36
59 44
59 44
59 45
59 49
01 12
04 48
07 28
59 47
59 47
59 50
59 52

00 27
59 55
00 01
00 0 1

01 04
01 22
02 24

es 12
06 40
67 18
08 08
00 02
00 05
00 06
00 06
00 07
00 07
00 07
00 08
00 10
02 25
05 35
07 10
08 31
00 10
00 1 1
00 1 1
00 12
00 14
00 15
00 15
00 1 5

00 19
00 19
00 26
00 26
00 30
00 33
02 36
00 32
02 10
00 33
00 35
01 59
02 32
06 19
09 27
00 33
00 33
01 28
06 17
07 53
09 21
00 34

06 1 6
00 35
02 16
02 34
00 35

. 76 9kmX
. 65
. 77
. 10 -2.6
. 80 -0.2
. 50 0.5
. 50
. 50
. 50 1.8
6 . 1mb
. 20 2.0
10 -1.5
. 90 1.5
20 0.6
35 1.3
. 36 3.6X
. 40 455kmX
23
86
50 0.9
00 -1.4
88 0.8
80 -0.3
6 . 3mb
60 159kmX
35 0.6
31 1.2
60 1.0
6 . 2mb
00 308kmX
80
00

00
00
00
00
61 0.6
40 -0.2
20 0.5
70 0.2
31 0.7
30 0.2
80 0.7
93 0.1
86 7kmX
10
54
31
42
50 0.5
55 0.7
90 0.4
20 0.3
88 1.1
63 1.5
80 0.7
40 -0.8
5 . 9mb
01 1.1
95 1.6
30 -0.3
00 -0.9
00 0.9
00 2.0
00
00 0.5
00 553kmX
41 0.8
90 8kmX
77
88
62
92
10 -0.3
72 -0.7
90 268kmX
10
52
26
00 -0.4
5 .4mb
4.8Msz
00
00 0.2
00 578kmX
00
60 -0.6

SBB

GSC

PAS

MWC
1 IDJ
CIS
MSU
RVR

PEC

TSRJ
TPC

PLM
RSSO

H 1 A

HAY
BAR
WKYJ
PV09

1 KP
GLA

YONJ
TKSJ
GOL

GLO

SHK

SHNJ
KBS
KUMJ
ANMO

ALQ

DAG

KAGJ
GDH

1 RK

40.56

40. 72

40.74

40.75
40. 77
41.14
41 .23
41.31

41.51

4 1 . 85
42.00

42 . 07
42.35

42. 45

42.53
42.67
43.01
43.02

43.02
43.47

43.57
44.08
44.41
0.7s

44 . 46
0 .8s

44 . 49
0 . 9s
45 . 69
46 . 95
46.99
47 .01
1 .0s

47.01
0.9s

47 .78
0.7s
47 . 94
48.14
1.1s

48.51

98 i P +
e
96 i PC
ec

esPd
e

i S
esS
eSS
98 i P
ipP
esP
ePP
ePeP
ePPP
iS
eLg
eLR
98 i P +
265 P
99 eP
B8 IP
98 i P +
e
98 ePc
PP
iScP
266 P
97 i P +
e

98 i P +
76 iPc
i ScP
293 eP
epP
i S
eSS
i
97 eP
99 eP
265 P
86 i PC
iScP
98 eP
97 i P +
e
e
268 P
266 eP
B2 iPc
194. 1 7nm
iScP
S
82 i PC
729 . 4 1 nm
iScP
268 iPd
70 . 59nm
269 eP
360 eP
268 eP
88 i PC
1 85 . 00nm
ec
e

iS
esS
eScS
88 iPc+
1 57 . 56nm
epP
i sP
eSeP
9 iPd +
191 . 78nm
266 eP
26 iPc
405 . 06nm
i
i
e
i
305 eP
e
e

epP
esP

00 41
02 38
00 41
00 44
02 1 0
02 37
06 33
08 08
09 50
00 42
00 45
01 12
02 12
02 17
02 37
06 33
09 55
1 1 01
00 43
00 41
00 45
00 47
00 46
02 39
00 47
0240
06 01
00 50
00 52
02 43
00 53
00 54
06 04
00 54
01 52
06 54
10 11
11 21
00 56
80 58
01 00
01 00
06 08
01 01
01 04
02 13
02 48
01 04
01 08
01 11

06 13
07 25
01 12

06 14
01 11

01 20
01 31
01 30
01 31

01 33
02 58.
08 03.
09 37 .
10 57
0131.

02 30.
03 00 .
06 25.
01 36.

01 37 .
01 40 .

03 45.
08 21 .
10 10 .
13 29.
01 43.
01 52.
02 05.
02 14.
02 44.

. 00 0.8
. 00
. 99 0.4
. 20 7 kmX
. 00
. 00
. 58
. 76
. 98
. 00 0.4
. 00 10kmX
. 00
. 00
06
e«
66
. 00
. 00
00 1.0
70 -0.2
. 90 1.0
10 1.2
00 -0.3
00
60 -0.4
50
00
20 -0.4
00 0.0
00
00 0.3
00 -0.9
70
36 -1.0
29 280kmX
21
20
61
60 0.5
70 1.4
00 -0.1
00 -0.4
00
20 1.0
00 0.2
00 343kmX
00
30 -0.2
10 -0.4
50 0.1
5 . 5mb
80
50
40 0.7
6 . 1mb
50
20 -0.5
5 . 0mb
70 -0.5
50 1.0
90 -0.5
71 -0.1
5 . 4mb
37 6kmX
07
50
86
32
90 0.1
5.3mb
00 276kmX
00
00
30 -0.6
5 . 5mb
60 -1.1
00 0.3
5 . 7mb
00 761kmX
00
00
00
00 0.2
00
00
00 135kmX
00

BJ I

MEO
TUL

CCM

SSE

SCH

FVM

JNW
PJG
GUA

ELC
ELF
DLA
LDN
KEV

SOD
AKU

SCP

REY
BNH
LZH

BLA

TBR
CVL
PNJ
GMTN
HRV

ePcP 03 00.00
ePP 03 38.00
ePPP 04 30.00
e 04 58.00
e 0514.00
eScP 06 29.50
eS 08 18.00
e 08 33.00
e 1 0 04 . 00
eSS 12 00 .00
e 1305.00
eSSS 13 40.00
50.24 286 Pd 01 55.50 -0.6
1.0s 87 . 00nm 5.1mb
pP 02 58.00 294kmX
ScP 06 36.00
eS 08 38.00
esS 10 36.00
eScS 11 13.00
51.71 82 iPc 02 06.00 -1.2
52.52 79 iPc 02 1 1 . 30 -1.8
0.6s 38.40nm 5.0mb
Z 18s 0 . 54um 4 . 6Msz
N 18s 0 . 77um
E 18s 0 . 61 urn
eScS 11 24.00
LQ 1531.00
53.59 74 iPc 02 18.37 -2.6
ec 02 20.58 7 kmX
e 03 22.38
IS 09 27 .68
esS 11 13.63
eSS 13 13.23
53.67 274 iPc- 02 21.00 -0.6
1.1s 229 . 00nm 5 . 6mb
Z 20S 1 . 40um 5. 0Msz
N 16s 1 . 50um
E 16s 1 . 00um
PcP 03 20.00

pP 03 26.00 302kmX
ScP 06 52.00
IS 09 34 . 00
sS 1 1 30 .00
53.98 44 ePc 02 22.10 -1.4
0.9s 527.00nm 6.0mb
54.10 73 iPc 02 21 .50 -3. 1X
0.8s 1 060 . 61 nm 6 . 4mb
S 09 35.00
54.14 8 eP 02 25. 50 1.1
54.16 239 eP 02 22.00 -3.2X
54.18 239 eP 02 22.20 -3.1X
eS 02 58.20
55.27 73 iPc 02 30.80 -2.2
55. 37 63 P 02 32.80 -0.9
55. 47 63 P 02 34 . 10 -0.3
55.55 63 P 02 33.90 -1.0
55.60 353 ePc 02 33.87 -1.0
ec 02 36.08 7kmX
IS 09 56.90
e 1 1 48. 91
57.96 353 iP 02 51.00 -0.6
58.25 14 iPc 02 53.50 0.0
1 .9s 610.53nm 5.9mb
58.88 62 iPc 02 56.00 -2.1
ec 02 58.21 7kmX
59. 14 16 eP 03 00.80 1.2
59.40 55 iPd 02 59.00 -2.6
59.89 291 ePc 03 04.23 -1.1
1.5s 595 . 00nm 5 . 9mb
Z 17s 1 . 91 urn 5 . 3MszX
N 13s 2.64um
E 1 3s 1 . 76um

epPd 04 06.30 278kmX
sP 04 32.00
PPP 06 50.00
ScP 07 30.00
eS 10 52.89
sS 1232.00
i 12 39.66
60.16 67 iPc 03 05.00 -1.9
0.8s 671 . 1 4nm 6 . 3mb
60.49 60 ePc 03 07.00 -2.1
60.64 65 eP 03 09.00 -1.1
60 -70 60 iP 03 09.20 -1.2
60.70 60 iP 03 08.80 -1.7
60.80 57 iPc 03 09.20 -1.9
ec 03 1 1 . 40 7kmX

I4d

CBN

MRX
JSC
WMO

RGS
K A F

MOL
PPM
1 IT
FRO
LVVM
FOO
1 1 SM
ACX
HYA
SUE
NUR

NB2
BAG

ASK
BER
HFS

UPP

OXX
KONO

HNR
OBN

KM 1

DAV
EKA

COP

LAT
DMU

PMO

TPT

DCN

VAH

RUV

I3h

61.05
1.0s
61.49
61.88
62 . 33

62.93
63.19
0.3s
63 .36
63 . 48
63. 70
64.11
64 .23
64.27
64 . 27
64 . 49
64.74
64 . 80
64.91
0. 7s

64 . 92
65.25

65. 39
65 . 50
65. 80
0.4s
65. 97

66. 15
66 . 31

68. 66
68. 82
1 .0s
Z 20s
N 20s

68. 82
1 . 3s

69 . 91
70. 05
0. 8s
70. 28
0. 7s

70. 93
71.10
0 .9s
71.48
1 .0s
71 . 53
1 .0s
71 . 60
0.5s
71.77
1 .0s
71.78

ePcP
eS
eScS
e
64 eP
170 e e n m

96 (P)
70 i PC
307 P <l
ft
i S
eSKS

(sS)
0 eP
352 i P
1 44 . 40niTi
2 eP

94 (P)
94 (P)
3 eP

92 (P)
3 eP

93 (P)
97 (P)
2 *P
3 eP
352 i P
240 . 30nm
e
e
e
360 P
264 eP
ftS
3 i P
3 i P
358 eP
271 70nm
356 i P
iS
94 (P)
1 iPc
i d
i S
eSKS
eHSS
iSS
213 eP
344 iPc
2440 . 00nm
0 . 70um
0 . 60um
epP
esP

epPPP
i S
eSP
epScS
esScS
eSS
eSSS
284 ePd
333 . 00nm

epPd
eS
i sS
i
253 eP
8 Pd
1 1 2 . 20nm
359 iPd+
1 42 . 47nm
i
e

i S
227 eP
11 i PC
211 . 00nm
158 i P
85 . 00nm
158 iP
70 . 00nm
11 i PC
190 00nm
158 iP
80 . 00nm
158 iP

03 50
11 01
12 32
12 56
03 1 1

03 16
03 1 6
03 21
04 29
1 1 26
12 44
13 10
03 24
03 25

03 26
03 28
03 31
03 31
03 32
03 32
03 33
03 35
03 36
03 36
03 37

1 1 54
13 54
1 6 08
03 36
03 38
12 01
03 40
03 41
03 42

03 43
1 2 07
03 46
03 47
05 14
12 14
13 12
1 6 29
1 6 30
04 01
04 01

05 10
05 24
09 16
1 2 40
13 29
15 00
15 44
1 7 20
20 46
04 02

05 04
12 44
1 4 32
14 44
04 08
04 09

04 11

85 19
05 43
1 3 03
04 15
04 15

04 18

04 1 9

04 1 8

04 20

04 20

86
54
04
59
00 -1.8
5 . 6mb
00 0.2
20 -2.1
08 -0.2
50 3£i7tTnX
20
00
77
60 -0.2
80 -07
5 . 9mb
81 -0.8
50 -1.1
00 0.3
88 -0.5
50 -1.2
92 -0.5
50 -0.5
00 -0.5
01 -0.4
79 -0.1
00 -0.6
6 . 0mb
00
00
00
80 -0.9
50 -2.1
00
28 -0.3
95 0.7
00 -1.3
6 . 3mb
40 -0.9
00
50 0.2
76 1.3
67 399kmX
74
95
47
63
00 -0.5
00 -1.0
6 . 9mb X
4 .9Msz

00 382kmX
00
00
00
00
00
00
00
00
13 -0.6
5 . 9mb
49 270kmX
49
64
00

00 -1.1
70 0.2
5 . 6mb
00 0.2
5 . 8mb
98 381 kmX
00
00

10 -0.1
40 -0.3
5 . 9mb
60 0.2
5 . 4mb
00 0.4
5 . 3mb
50 -0.2
6.1mb
20 0.2
5 . 4mb
20 0.1

ETA
VAL
ECP

W I T
PMG

BRN
AFR

PPN

PPT

PAE

DBN

TVO

WTS

SHL

CLL

BNS

KSP

UCC
8RG

ENN

MEM

SNF
MOX

LOE

KRA

HOF
8GG
TNS
DOU

GUN

CHG

PRU

KKM

KKN

1 . 0S
72 . 36
72.61
72 . 85
0.8s
73.11
73. 35
1 . 1 s
73.54
73 . 56
0 .8s
73 . 62
0.8s
73.63
6 . 8s
73. 72
0 . 8s
73. 78

73 . 90
0.8s
73.94
0 . 6s

74.51

74 . 65
1 .5s

74 .98
0 .5s
75. 04
1 . 0s

75. 05
75 . 07

75.14
0.6s

75. 30

75. 33
75 . 33
1.7s

75 . 45

75 . 64
0.6s
2 20s

75. 67
75. 74
75.74
75. 76

75 . 80
0 . 4s
75. 94
1 .5s

75. 95
0.7s

76.09
1.1s
76.21

75 . 00nm
11 i PC
13 P
11 i PC
3 1 6 . 00nm
3 eP
225 iPd
379 . 75nm
358 eP
161 i P
70 . 09nm
160 i P
35 . 00nm
160 i P
3t> . Oonrn
16* i P
35 . 00nm
4 eP +
e
eS
e

160 i P
50 . 00nm
3 eP
51 . 00nm
epP
292 i P
i S
359 iPc
1 70 . 00nm
epP
eS
2 iPc
99 . 00nm
356 iPc
95 . 00nm
i c
4 P +
358 iPc
i PcP
ipP
e

i S
3 ePc
131 . 0&nm
epP
esP
3 i PC
PP
sP
4 iPc
359 iPc +
360 . 00nm

ipP
esP
eS
280 eP
e

354 iPc
90 . 00nm
1 . 50um

ie
e
e

359 iPc
2 iPc
1 i PC
4 i Pc+
pP
sP
S
e
298 P
220 . 00nm
283 i P c
1 94 . 44nm
e
eS
357 PC
62 . 80nm
e
e
S
261 ePd
108 60nm
298 P

5 . 4mb
04 23 . 30 0.2
0425.00 0.4
04 25 . $0 -0.2
6.1mb
04 29 . £0 1.6
04 28 .

0431.
04 30 .

04 31 .

0431.

04 31.

04 32 .
06 07 .
1340.
1501.
04 33 .

04 32 .

05 44 .
04 34 .
1344.
04 36 .

05 46 .
1348.

30 -1.3
6 . 0mb
30 1 1
30 0 . 4
5 . 4mb
10 03
5.1mb
10 0.3
5 . 1 m L>
30 6.5
5 . 1mb
38 0.7
30 430kmX
30
30
10 0.6
5 . 3mt>
D0 0.3
5 . 4mb
30 311 kmX
70 -1.5
30
10 -0.3
5 . 6mb
30 303kmX
30
04 38 . £0 0.0
5 . 8mb
04 38. (50 0.0
5 . 5mb
05 51 .
04 39 .
04 38 .
04 50 .
05 50 .
06 08 .

30 316kmX
30 0.4
30 0.1
30
20 310kmX
30
13 54 .80
04 39.80 -0.1
5 . 8mb
05 48.80 298kmX
06 23. 00
04 39.02 -0.1
05 47 . B0 293kmX
06 18 . 20
04 40 .
04 40 .

05 51 .
06 19 .
13 58.
04 40 .
05 46.
04 42 .

04 44 .
04 49 .
13 58.
1524.

16 0.0
70 0.5
5 . 8mb
80 304kmx
88
88
50 -0.9
80 281 kmX
20 0.3
5 . 7mb
5 . 3Msz
40 7kmX
98
00
80
0442.^0 0-4

04 42 .|50 0.1
04 43 . ll 0 0.5
04 42 .
05 53 .
06 19 .
14 02 .
16 35.
04 43 .

04 43 .

05 53 .
14 04 .
04 43.

05 04 .
05 55.
14 04 .
04 36 .

04 45.

70 0.1
50 307 kmX
00
80
00
18 -0.5
6 . 3mb
38 -0.8
5 . 6mb
00 381 kmX
00
80 0.2
5 . 5mb
70 78kmX
70
00
50 -8.6X
5 . 5mb
46 -0.3

WLF

GRF

PK 1
GKN

DMN

SPC

TSM
FUN

WET
KHC

GWF
LDF
GRR

LPF

CDF
VKA

ZST

VI TF
ECH
BMR
NST
PSZ
LI 80
FUR

KMR

HAU

FEL
BSF
SLE
8HG

BUD
GRC
ZLA
BBS
LOR

LOMF
WTTA

SSF
L8F
KBA

OZM
MFF
AVF
OGA
UZD
SMF
BGF
OSS
KHT
FV 1
LSF
TCF
NO 1

VDL

0.7s 270.00nm 6.1mb
76.25 3 i PC 04 45 . 73 0.5
i pP 05 55.61 302kmX
76.29 360 iPc 04 46.50 0.9
1.4s 389 . 00nm 5 . 9mb
76 . 32 298 P 04 46. 30 -0.2
76 . 37 299 P 0446.14 -0.4
0.6s 408 . 00nm 6 . 3mb
76 . 45 298 P 0446.78 -0.3

Q.6s 200.06nrn 6.0mb
7648 354 i P 04 47. 50 0.6
e 05 55.60 293kmx
e (S) 14 10.70
76.56 258 ePd 04 47.50 0.0
76.79 8 eP 04 48 . 00 -0.3
1.2s 1 96 . 35nm 5 . 7mb
Z 20s 0 . 35um 4 . 7Msz
76.82 359 iPc 05 02.20 13. 7X
76.83 358 iPc 04 49. 10 0.6
1.4s 183. 50nm 5 . 6mb
i 05 02.50 46kmx
i 06 01 . 20
S 1 4 1 4 . 00
76 . 98 2 P 0449.60 0.3
76.99 7 i PC 04 49.20 -0.2
77.13 8 i PC 0450.10 -0.1
1.2s 1 48 . 75nm 5 . 6mb
77.47 8iPc 0452.30 0.3
0.7s 74 . 95nm 5 . 5mb
77.53 2 P 04 52. 67 0.2
77.61 356 i PC 0453.20 0.4
3.0s 38l.00nm 5.6mb
i pP 06 04 . 30 306kmx
77 . 65 356 iP 04 54. 00 1.0
i 0603. 80 300kmX
77.69 3 P 04 53.55 0.3
77.73 2 P 04 53. 61 0.1
77.74 351 ePc 05 05.00 11. 5X
77 . 75 280 eP 04 53 . 50 -0.5
77.77 354 i Pd 04 54 . 90 1.1
77.80 2 P 04 54 .03 0.2
77. B2 360 iPc 04 54.50 0.5
1.8s 500 . 00nm 5 . 9mb
77.89 358 i P+ 04 55.00 0.7
ipP 06 06.70 309kmX
isP 06 45.40
77.91 3 i PC 04 54 . 80 0.3
0.6s 29 . 75nm 5 . 2mb
Z 20s 0 . 65um 5 . 8Ms Z
78.88 2 P 0455.58 0.0
78.10 3 P 0455.84 0.2
78 . 20 2 ePc 04 56.00 -0.1
78 . 25 359 iPc 04 56.90 0.6
1.3s 134. 00nm 5 . 5mb
78.26 354 eP 04 57.00 0.7
78. 48 5 P 04 58. 03 0.5
78 . 49 2 ePc 04 57 . 90 0.2
78 . 49 2 P 04 57 . 68 0.0
78.55 5 iPc 04 58.20 0.2
0.7s 77 . 50nm 5 . 6mb
Z 20s 0.63um 4.9Msz
78. 58 3 P 04 58. 65 0.4
78. 72 359 iPc 04 59 . 80 0.7
0.7s 91 . 70nm 5 . 7mb
i pP 06 09 . 30 297kmX
isP 06 47.30
78.74 5 i PC 0459.40 0.4
78.84 5 i PC 04 59 . 60 0.0
78. 88 358 i PC 05 01 - 10 1.1
0.6s 156. 00nm 6 . 0mb
i pP 06 1 1 . 00 299kmX
78 .95 203 iPc 05 01 . 00 0.6
78.96 8 i PC 05 00 . 60 0.4
79.00 5 iPc 05 00. 60 0.2
79. 12 360 iPc 05 02. 20 0.9
79.17 354 e(P) 05 01.00 -0.3
79. 1 7 5 ! PC 05 01 .50 0.2
79. 21 6 eP 05 01 .80 0.3
79 . 38 0 ePc 05 02 . 70 0.5
79.35 280 eP 05 02.40 -6.3
79. 38 359 P 05 02 . 60 0.3
79. 43 6 iPc 05 02 .90 0.2
79. 44 6 iPc 05 02.90 0.1
79.49 305 iPd 05 82.80 -0.5
0.7s 184. 93nm 6 . 0mb
iS 14 37. 00
79.49 1 ePc 05 04.00 0.7

1 17

14d 13h

MAP
MLR
CFR
AGO
PLDF
D I X
TMA
LJU

MMK
VOY

CT I
CMP
P7J
VV1
PYM
CEY

RSL
TRI
COLF
ORX
R JF

SAL
MA 1 0

VBY

LPL

LPG
NNT
LSD
LBL
SSB
R 1 Y
LFF
CAF
RSP
BEO
BN 1
LPO
RRL
BHB
BOB
EMON
PCP
PZZ
DOl
CK 1

ROB
STV
STS
F IN
MME
BO 1

PVL
1 M 1
SF 1
SBF

UCP
PGD
COR

PI 1
CRE
FRF

ERUA
EZAM
BTH

79.53
79 . 65
79. 76
79 . 73
79.84
79.87
79.87
79.89

79.91
79 . 92

79.94
79 '.'7
7 o r. »-*
79.99
86. 02
80.20

SQ . 24
80 . 24
80.29
80. 33
80 . 38
1.2s
Z 22s
80. 38
80 . 40
1 . 0s

80.41

80.41
1 . 2s
80 . 43
80.44
80.48
80.55
80.57
80 . 59
80 . 68
80.79
80. 79
80 .82
80 .87
80.97
81.01
81.10
81.21
81.34
81.43
81.43
81.44
81.54
0.8s
81 . 66
81 .70
81.71
81 . 75
81.79
81 .92
1 .0s

81.97
82 . 05
82. 06
82.08
0.5s
82.10
82.11
82.22

82 . 27
82 . 35
82. 36
0. 5s
82. 39
82.41
82. 42

6 eP
349 ePc
348 eP
5 P
5 P
2 ePc
1 ePc
357 ePc
epF-
eS
2 *Pc
358 *P
fe pP
359 P
360 i P d
356 iPc
309 P
5 P
357 ePc
epP
3 P
358 ePd
5 P
2 P
7 i PC
1 57 . 70nm
0 . 9 3 u m
0 P
322 iPc+
42 . 50nm
e

357 iPc
epP
3 eP
98 . 20nm
3 eP
278 eP
3 P
5 P
4 P
357 ePc
7 i PC
6 i PC
2 P
353 eP
3 P
7 i PC
3 PC
2 P
1 P
13 i PC
2 P
3 P
3 P
2 P
78 . 00nm
2 P
2 P
14 i PC
2 P
0 P
0 P
263. 10nm
e

349 i P
2 P
359 P
2 eP
55 . 40nm
70 P
359 P
4 ePc
e
0 P
359 P
3 eP

35 . 70i,m
13 i PC
14 eP
8 PC
i
i PcP
e

pP
e

i sP
ePP

05 03
05 05
05 03
05 04
05 05
0506
05 05
05 04
66 20
14 32
05 06
05 04
06 18
65 05
05 09
65 06
05 05
05 05
05 06
06 18
05 07
05 07
05 07
05 08
05 07

05 08
05 08

14 54
05 08
06 20
05 09

05 09
05 09
05 09
05 08
05 09
05 08
05 09
05 10
05 10
05 67
05 10
05 1 1
05 12
05 1 1
05 1 3
05 12
05 13
05 13
05 13
05 13

05 14
05 14
05 15
05 14
05 16
05 15

06 29
05 16
05 16
05 1 7
05 17

05 17
05 18
05 18
06 28
05 16
05 18
05 18

05 18
05 18
05 18
05 21
05 27
06 25
06 29
06 40
06 47
08 31

70 0.5
00 1.0
00 -1.0
54 0.3
26 0.3
20 0.9
70 0.5
60 -0.5
00 325trnX
00

80 1.3
80 -0.6
30 316kmX
60 0.1
00 3 . 4 X
00 0.3

60 -0.1
81 -0.1
50 -0.2
50 308kmX
97 0.8
30 0.4
89 0.6
26 0.7
80 0.1
5 . 7mb
5 . 1Msz
10 0.5
20 0.2
5 . 2mb
00
10 0.3
80 311 kmX
50 1.4
5. 5mb
90 1.6
20 0.8
90 1.4
74 0.1
25 0.5
60 -0.1
80 0.6
50 0. 7
62 0.7
50 -2.4
20 -0.2
10 0.3
98 1.7
44 0.0
30 1.2
62 -0.1
29 0.1
90 0.5
70 0.4
85 0.1
5 . 5mb
41 0.0
00 -0.7
35 0.7
62 -0.3
10 0.8
64 -0.2
6 . 0mb
92 318kmX
00 0.1
57 0.1
90 1.5
20 0.6
5 . 6mb
50 0.5
30 1.4
10 0.8
50 299kmX
90 -0.5
70 0.6
80 0.8
5 . 4mb
70 0.5
80 0.5
50 0.2
26

00

00
00 299kmX

00

50
00

MGP
LRG

ARV
EPF

KAS
LMR

LESF
MLS
HVAR
ECR I
LSPF
ENSF
VTS
GRBF
LPR

SJG
ASS
CPD
PLD
PERF
EGRA
CTAO

PTO

PGF
ETER
KDZ
RZN
MAO
MNS
AOU

MTN

MMB
IR7
AZI

IR1
RMP
ALN
RDP
SRS
SDl
BBTK
IR4
KNT
DUI
GUD
GRG
ETOR
SOH
RFI

EROO
FNA
EBR
EPLA
BRT
OUR
TOL

KUPT

LI T
MSL

PAIG
LCI
MGR
OR I
ECHE
ESEL

82.44
82 . 46
0 . 5s
2 22s
82. 47
82.55
0 . 6s
82. 59
82.59
0 .5s
82 .62
82. 68
82 . 68
82. 72
82. 75
82. 78
82.80
82.83
82.86

82.87
82.90
83.06
83.14
83.27
83. 33
83. 37

83. 42

83. 43
83. 45
83.51
83.55
83. 57
83. 59
83. 60
0.1s
83. 70
0.6s

83.75
83. 91
83. 97
0.7s
84 . 15
84.16
84 . 18
84 . 21
84 .23
84.24
84. 25
84.25
84.25
84.27
84 . 49
84.50
84.53
84.54
84 .64
0 .9s
84. 75
84. 76
84. 76
84.82
84 . 94
84.96
85.25
1 .8s

85.29
0.8s
85.34
85. 37

85.40
85. 45
85. 75
85.79
85.86
85.98

70 P
3 eP
52 . 50nm
0 . 60um
358 P
8 i PC
28 . 20nm
343 eP
3 eP
32 . 80nm
7 P
7 P
356 iPc
10 i PC
7 P
8 P
351 iPc
7 P
69 P
S

69 i (P)
359 P
69 P
350 iPd
6 P
8 eP
222 iPc
i
iScS
15 i P
i
1 i PC
6 eP
349 iPc
349 i P
360 P
359 P
358 P
1 2 . 70nm
238 eP
189. 00nm
e

350 iPc
328 ePc
358 P
52 . 80nm
328 ePc
358 P
348 ePd
358 P
350 ePc
358 P
343 eP
328 ePc
351 ePc
357 P
11 i PC
351 ePc
10 i PC
350 ePc
358 P
424 . 50nm
8 eP
352 ePc
8 eP
13 i P c
355 P
350 ePd
11 i PC
636.36 nm
e
ePP
i S
246 ePd
208 . 70nm
351 iPd
334 eP
esP
eSKS
eS
ePPS
350 ePd
354 P
356 P
356 P
9 eP
6 iPc

05 18.56
05 19 . 50
5
4
05 19. 36
05 19.10
5
05 21 . 50
05 28 . 16
5
05 20.07
05 20.06
05 19.00
05 20 . 42
05 20 . 80
05 21.47
05 20.00
05 20.99
05 20.60
06 00.16
05 20 . 00
05 21.70
05 22.50
05 22.00
05 28.27
05 23 . 77
05 24 . 00
05 29 . 00
15 19 . 00
05 24.20
06 34.30
05 24.30
05 23.91
05 25.00
05 23.00
05 22. 90
05 24 . 20
05 25.17
5
05 24 . 30
6
06 31 . 00
05 25.00
05 26.50
05 26 . 75
5
05 28.00
05 28.20
05 26. 72
05 28.40
05 27. 76
05 26.60
05 31 . 00
05 28.50
05 28.28
05 29.10
05 28 . 77
05 29 . 28
05 29.09
05 29.28
05 30.04
6
05 30.64
05 30 . 20
05 31 . 00
05 30.57
05 31 .00
05 31.16
05 32. 32
6
06 43. 23
08 52 . 25
15 38. 34
05 33. 50
6
05 32.68
05 31 . 00
06 45.50
15 32 . 00
15 43 . 50
17 47.00
05 33.28
05 34.43
05 34.40
05 35.80
05 35.89
05 36.97

- 0.2
1 .0
. 6mb
. 9Msz
0. 7
0 . 1
. 2mb
2.2
1 . 6
. 4mb
0.7
0. 4
- 0. 6
0.5
0.8
1 .2
- 0.5
6.5
- 0.4

- 1 .0

0.9
0.6
0. 1
5.6X
0.9
0.7
16kmX

0.9
297kmX
0.8
0 . 4
1 . 2
- 1 . 3
- 1 .2
0.0
0.8
. 7mb
- 0. 7
. 1 mb
280kmX
- 0. 1
0 . 4
0. 7
. 5mb
0.7
1 . 1
- 0 . 4
1 .0
0 . 3
- 1 .0
3.3X
0.7
0.7
1 . 4
- 0. 1
0 . 4
0 .0
0.2
0.6
. 3mb
0.6
0.0

0.9
0. 1
0. 0
0. 1
- 0.3
. 1mb
299kmX

0. 5
. 0mb
- 0.3
- 2.2

0.0
1 .0
- 0.6
0.6
0.3
0.9

BPA
CSI
1 PM

MGH
IDS

RO 1
AGG
01 S

CGL

CZ 1
EV 1 A
SEG
KGM
ACU
PAG
DOG
GR 1

DEC

EHOR
MGG

EHUE
BBL
TOV
BRS

SOI
SDV
ECOG
AFC
BMG
EPRU
HYB

RMO

WR2

WRA

WRA

ENI J
FDF

EJ 1 F
CLMC
B IM
ANCC
HOOC
FUO
PSI

ess
CEOS
BOG
SI LC
POO

GUAN
PURC
BOM
OLP

CUMC
HR 1
PSO
COO

ZNT
ASPA

86.06 66 eP 05 36.45 -0.4
86.08 356 P 05 37 . 10 0.4
86. 12 272 ePd 05 38. 70 1.5
1.0s 180 . 10nm 5 . 9mb
e 06 47 . 20 287 kmX
86 . 1 4 67 eP 05 36.80 -0.4
86. 20 356 P 05 37 .60 0.4
1.7s 104. 20nm 5 . 4mb
86 . 28 355 P 0539.10 1.5
86 .42 351 ePc 05 37 . 32 -1.0
86.50 227 eP 05 37 .00 -1.7
1.3s 167. 60nm 5 . 7mb
i 06 45.40 287kmX
86 .61 IP 0540.11 0.8
. 1.0s 5 . 80nm 4 . 4mb X
86 .65 356 P 05 37 .00 -2.3
86.65 10 iPc 05 39.52 0.0
86. 78 66 eP 05 39 .80 -0.5
86.85 269 ePc 05 41.40 0.8
86.98 9 eP 05 42 .26 1.3
87.00 67 eP 05 41 . 41 0.0
87 .03 67 eP 05 41 . 45 -0.1
87 .03 356 P 05 40. 70 -0.5
0.6s 31 . 90nm 5 . 4mb
87.10 66 eP 0541.10 -0.8
87 . 14 13 eP 05 41 . 54 -0.2
87.28 66 eP 05 42.30 -0.4
87.45 1 1 eP 05 43 . 30 -0.1
87.52 67 eP 05 43.60 -0.3
87.60 77 eP 05 45.20 0.9
87.77 213 iPd 05 44.50 -0.2
1.0s 1 3 . 20nm 4 . 8mb
i (pP) 06 55.00 295kmX
87 . 79 356 P 05 44 . 70 -0.1
87 .86 78 i P 05 45.40 -0.3
87 .88 1 1 eP 05 45. 22 -0.2
87 . 90 1 1 eP 0546.17 0.5
87 . 92 81 i PC 05 46 . 00 0.1
87.98 1 3 eP 05 46 . 29 0.4
88.24 298 i Pd 05 46.10 -1.2
1 . 0s 420 . 00nm 6 . 3mb
e 06 58.00 302kmX
e 07 23.00
eSKS 15 42.00
eS 1 6 03 . 50
88.28 217 iPd 05 56.40 9.3X
1 . 5s 275 . 00nm 5 . 9mb
i 07 06.40 293kmX
88.29 232 iPd 05 46.20 -1.1
0.9s 76.20nm 5.6mb
epP 06 56.70 295kmX
88.30 232 P 05 46.00 -1.3
0.9s 88 . 00nm 5 . 7mb
88.30 232 P 06 04.00 16. 7X
0.6s 1 0 . 00nm
88.33 10 eP 05 47.40 -0.1
88.35 67 eP 05 47.90 0.0
0.4s 0 . 40nm 3 . 6mb X
88 . 46 1 3 eP 0548.70 0.6
88.47 86 eP 05 48.39 -0.2
88.57 67 eP 05 49.49 0.6
88.59 86 iPc 05 48.58 -0.4
88.76 86 iPc 05 49.72 -0.4
88.83 82 eP 05 48.00 -2.5
88.87 273 i PC 05 49.80 -0.4
1.0S 103. 50nm 5 . 7mb
88.89 342 eP 05 50.00 -0.2
89 .05 76 IP 05 50.70 -0.5
89. 32 83 eP 05 54.00 1.2
89. 56 86 i PC 05 54.58 0.6
89.68 302 iPd 05 51.70 -2.4
0.7s 75 . 34nm 5 . 7mb
89 . 81 73 iP 05 55.20 0.4
89 . 84 86 eP 05 56 . 18 0.8
89.88 303 iPc 05 54.00 -0.9
90.02 220 eP 05 56.00 0.9
1.3s 1 033 . 00nm 6 . 6mb
i 07 06.00 292kmX
90.06 88 eP 05 57.35 0.9
90.06 339 eP 05 57.70 2.0
90 . 1 9 88 eP 05 57 . 50 0.6
91 . 00 213 eP 06 01 . 00 1.3
1.0s 79 . 00nm 5 . 6mb
e 07 09.00 282kmX
91 .21 340 eP 06 02.30 1.4
91.73 230 i Pd 06 03.00 -0.1
0.8s 75 . 00nm 5 . 7mb

1 4d 1 3h

1 18

i pP 07 13.00 291kmX
IS 16 07 . 30
i 1641.40
GBA 92.01 297 Pd 06 03.10 -1.6
0.8s 78 . 90nm 5 . 7mb
MKT 92. 43 339 eP 0608.20 1.7
MBH 93.62 339 eP 06 13.40 1.3
CMS 93.87 217 i PC 06 14.00 1.3
e 07 24.00 291kmX
KOD 94.82 295 eP 06 18.00 0.0
STK 95.78 220 eP 06 22.40 1.0
1.5s 4 . 20nm 4 . 4mb X
e 07 33.20 295kmX

CAN 96.30 213 eP 06 28.00 4.2X
» A N U S9.85245«?P 0639.00 -1.1
ZOBO 109.55 91 ePdiff07 34.00 9.9X
2 24s 0.35um 4.9MszX
SKS 17 38.00
LR 40 28.00
LPB 109.78 91 ePdiff07 36.00 11. IX
e 1149.00
e 1749.00
CNCB 110.06 91 ePdiff07 33.00 6.6X
i 1 1 29 . 00
i 17 38 . 80
SIV 113.45 85 Pdiff 07 40.70 -0.1
SIV 113.45 85 PKP 11 27.60 -5 . 1 X
TIC 117.78 18 PKP 11 39.20 -1.8
KIC 1 1 8 . 1'0 17 PKP 11 39.60 -2.0
LIC 118.19 18 PKP 11 40.00 -1.7
SOB1 119.19 62 ePKP 11 42.20 -1.5
PPD 123.86 81 ePk'P 11 48.90 -3.5X
ITB1 124.09 85 PKPc 11 52.50 -0.2

BMA 128.47 75 (PKP) 12 02.00 0.7
MTD 139.13 329 ePKP 12 19.70 -1.9
iPP 15 27 . 60
KRI 139.76 331 ePKP 12 12.20 -10. 6X
iPP 15 20 . 50
AIA 143.09 137 ePKP 12 24.60 -2.4
eS 13 39.30
eS 1536.60

BUL 143.19 331 iPKPc 12 24.00 -4.8X
ipPKP 13 38.70
i 1410.00
i P P 15 37.00
SPA 144.21 180 iPKPd 12 26.20 -2.9
1 .5s 272 .73nm
i 1538.70
e 23 47.00
SLR 148.56 329 iPKPc 12 36.00 -1.5
0.9s 184.87nm
i 1353.00
JOZ 148.86 321 e(PKP)12 37.00 -0.7
0.8s 59 . 70nm
e 1354.00
KSR 149.09 331 ePKP 12 34.00 -4.3X
i 12 42.50
PRY 149.92 329 ePKP 12 36.50 -3.0X
1.0s 95 00nm
i 1245-00
SEK 151.18 328 iPKPd 12 46.70 5 . 3X
1.0s 20 . 00nm
i 1254.20
KIM 152.41 333 iPKPd 12 43.00 -0.1
0.9s 60 . 50nm
i 12 50 .00
FRS 153.20 331 iPKPd 12 44.80 0.8
i 1252.70
CER 158.12 340 ePKP 12 48.00 -2.3
1.0s 70 . 00nm
i 1326.50
S.D. = 1.0 on 521 of 544 obs.

AUG 14, 1991 13h 41m 39 . 1 4± 0.82s
36.053 N ± 6.0km 35.889 E ± 9.7km DEPTH * 41 . 0 ± 1 1 . 0 km
4 . 4mb (10 obs .)
TURKEY (366)
MD 4.1 (HLW). Felt at Antokyo.

GAZ 1,54 43 iPn 42 03.60 -1.0
HR 1 2, 78 183 eP 42 23 . 10 0.8
ADI 3 02 191 iP 42 23.10 -2.5
KSHT 3 06 181 iPd 42 27.60 1.4
MMR 3 08 187 iPd 42 27.30 0.7
ATZ 3.26 189 eP 42 30.00 0.9
eS 43 10.70

ZNT 3. 87 191 eP 42 38 . 10 0.3
eS 43 24. 40
DSI 4.49 186 eP 42 47.00 0.5
BBTK 4.52 328 eP 42 56.00 9.6X
eS 43 59.00
YTIR 4.73 188 eP 42 50.00 0.0
ELL 4.87 280 iPn 42 54.00 2.0
KVT 5.02 1 ePn 42 56.
KAS 5.56 343 <?P 43 03.
KHL 5 . 56 296 ePn 4301.
YER 6.21 282 eP 4310.
CIN 6.45 286 eP 43 13 .
HLW 7.26213ePnc 4323.
eSn 4444.
CZ 1 1 5 . 97 287 P 45 20 .
SF 1 1 9 . 98 301 P 46 1 1 .
PRU 20 . 82 3 1 9 eP 4618.
KHC 20.89 316 P 46 19.
PGF 21.74 296 eP 46 31 .

CLL 22 . 37 320 e(P) 46 35.
FRF 23.60 297 eP 46 48.
1.0s 24 . 00nm
LMR 23.66 297 eP 46 49.
1.0s 1 6 . 00nm
BNI 23.84 301 P 46 49.
LPG 23. 89 302 eP 46 51 .
0.7s 8 .25nm
LPL 23.90 302 eP 46 52.
0.7s 7 . 13nm
CDF 24.37 309 eP 46 54.
BSF 24.49 308 eP 46 56.
HAU 24.82 308 eP 46 58.
LBF 26 . 1 0 305 eP 4710.
SMF 26.12 304 eP 47 10.
0.8s 1 2 . 10nm
LOR 26 . 24 305 eP 4711.
0.6s 3 . 60nm
SSF 26.43 305 eP 47 13.
0.9s 1 1 . 43nm
AVF 26.47 304 eP 47 13.
0.9s 8 . 20nm
MAF 26.90 303 eP 47 17.

70 2 . 7X
50 1.8
00 -0.8
80 0.0
00 -1.0
00 -2.4
50
10 -2.2
10 0.4
50 -0.9
00 -1.2
30 2.4
00 0.1
80 1.8
4 . 7mb
20 1.6
4 . 5mb
70 0.2
90 1.8
4 . 4mb
00 1.8
4 . 3mb
90 0.4
00 0.3
80 0.0
00 -0.8
40 -0.5
4 . 5mb
40 -0.7
4.1mb
50 -0.3
4 . 5mb
40 -0.7
4 . 3mb
80 -0.3
TCF 27.15 303 eP 47 20.20 -0.2
RJF 27.48 300 eP 47 23.40 0.0
0.7s 8 . 80nm 4 . 5mb
MFF 28.81 303 eP 47 34.50 -0.8
GRR 29.59 306 eP 47 40.60 -1.7
EKA 32.81 318 P 48 09.100 -1.5
0.8s 4 . 40nm 4 . 4mb
S . D . - 1 . 3 on 40 of 4fe obs .

AUG 14. 1991 13h 42m 36.kl± 0.29s
9.806 S ± 4.2km 151 . 791
DEPTH - 13.7km (2 dept
4 . 8mb (5 obs .) 4 . 4Msz (
DENTRECASTEAUX ISLANDS REGIO

PMG 4.59 275 eP 43 42.

RAB 5.59 4 e(P) 44 00.
HNR 8.05 88 eP 44 37.
OIS 15.88 226 i Pd 46 21 .
i 46 28.
DZM 18.61 133 i PC 46 54.
COO 20.67 180 eP 47 20.
ASPA 21.95 229 i Pd 4731.
0.6s 22.40nm
2 19s 1 . 50 urn

CMS 22.27 194 e(P) 47 33.
i 47 35.
STK 23 .91 202 eP 47 51 .
0.8s 3 . 40nm
BWA 24.70 187 eP 47 59.
CAN 25.52 185 eP 48 05.
I IDJ 46.91 344 P 51 09.
KAKJ 47.05 347 P 51 09.
CHJ J 47.18 346 P 5110.
MAT 47.84 345 eP 51 15.
0.9s 15 . 13nm
MTMJ 47.98 345 P 51 17.
N 1 1 J 48.31 346 P 5119.
KUSJ 53.04 354 eP 51 55.
ASAJ 54.31 352 P 52 05.
KMI 59.06 307 PC 52 39.
BJ 1 59.56 329 eP 52 41 .
LZH 64. 18 31B eP 53 14.
2.0s 67.00nm
Z 25s 0.37 urn

E ± 6 . 6km
h phases)
1 obs .)
N (194)

00 -5.0X
00 -1.2
00 1.2
50 0.3
00
40 -1.2
90 1.4
20 -0.4
4 . 8mb
4 . 4Msz
00 -1.7
30 8km
20 0.5
4 . 0mb
10 0.7
50 -0.7
10 0.7
50 0.1
50 0.2
00 -0.7
5.1mb
10 0.2
70 0.4
20 0.0
30 0.8
50 0.4
00 -0.9
00 0.7
5 . 5mb
4 . SMszX

pP 53 20.00 19km
SHL 68.05 303 IP 53 38.00 -0.3
YAK 73.64 349 eP 54 11.60 0.6
GUN 73.91 303 P 54 13.86 0.2
IRK 73.99 332 eP 54 13.20 0.0
PK 1 74.18 302 P 54 15.08 -0.2
KKN 74.36 302 P 54 16.18 0.0
DMN 74.44 302 P 54 16.88 0.2
GKN 74.97302P 5419.70 0.1
FBA 86.88 22 P 55 20.20 -1.4
1.0s 3 . 1 0nm 4 . 5mb
S.D. =0.8 on 30 of 31 obs .

AUG 14, 1991 14h 55m 21.14± 0.61s
38.979 N ± 5.4km 23.284 E ± 7.8km
DEPTH- 10. 3 ± 4. 8 km
GREECE , (364)
MD 3 . 1 (ATH) .

AGG 0.74 274 iPd 55 35.92 0.2
eS 55 47.68
PAIG 1.00 18 iPd 55 40.33 0.4
eS 55 54.56
ATH 1.06 161 ePn 55 40.40 -0.7
eSn 55 56.60
LIT 1.28 332 ePc 55 45.20 0.4
IS 56 04.96
OUR 1.46 21 ePd 55 47.12 -0.3
iS 56 05. 14
KZN 1.77 319 ePn 55 50.60 -1.4
SOH 1.84 2 iPc 55 53 .52 0.5
eS 56 18 .56
GRG 2.09 341 ePd 55 56.68 0.1
eS 56 23.64
SRS 2.15 6 ePc 55 57.04 -0.4
eS 56 22.92
KNT 2.20 352 ePd 55 58.52 0.3
eS 56 24.84
VLI 2.27 187 ePn 56 00.00 0.7
S.D. « 0 . 7 on 11 of 11 obs .

? AUG 14, 1991 15h 49m 37.89± 7.91s
17.582 N ±62. 2km 62.269 W ±16. 7km
DEPTH = 10.0km (geophysicist)
LEEWARD ISLANDS (92)
ML 3.8 (FDF) .

NEV 0.53 213 ePd 49 48.56 0.0
S 49 56.40
BPA 0.66 143 iPc 49 50.97 -0.1
S 50 01 .20

SEG 1.38 148 ePd 50 03.31 0.1
S 50 22.00
PAG 1.64 160 ePd 50 07.16 0.2
S 50 29.50
SFG 1.67 142 eP 50 08.00 0.7
DEC 1.71 137 eP 50 07.38 -0.6
S 50 30.30
MGG 1 .89 151 eP 50 10 . 41 -0.1
S 50 36.00
BBL 2.18 160 eP 50 14.63 -0.2
S 50 44.00
S.D. -0.4 on 8of 8 obs .

» AUG 14. 1991 16h 01m 24.05± 1.08s
35.282 S ±10. 4km 71.031 W ±11. 9km
DEPTH - 105.5 ± 8.4 km
4 . 7mb (4 obs .)
CENTRAL CHI LE (136)
Felt (IV) o t Cur i co , (III) ot Roncaguo and (II) ot Sontiogo.

CHCH 1.38 13 Pd 01 50.00 0.4
TACH 1 . 63 3 Pd 01 52.90 0.3
PCH 1.71 15 Pd 01 54 .20 0.5
SAN 1.85 10 Pd 01 55.50 0.1
S 02 16.00
LCCH 1.86 346 Pd 01 54.90 -0.6
PEL 2.15 8 Pd 02 00. 00 0.6
S 02 20.00
ROCH 2.30 0 Pd 02 01.20 -0.4
S 02 25. 10
IHA 2.31 347 PC 02 00.80 -0.5
S 02 24.70
JACH 2.62 8 P 02 05.00 -0.6
MDZ 3.00 38 P 02 16.80 6.0X
02 22.90

1 19

14d 16h

i 0236. 50
iS 02 45 . 30
ZON 4.21 28 eP 02 27.50 6.2
RTLL 4.49 29 iPc 02 36.96 -6.1
S 63 21 . 00

ANT 11.55 3 e(P) 64 06.66 -6.8
CNCB 1860 9P 6538.66 1.5
i 6607. 66
ARE 18 75 359 eP 65 39.06 1.1
LPB 18 . 86 9 P 6542.06 2 . 9X
i 06 1 1 . 60
ZOBO 19.11 9 P 0543.80 1.8
1.0s 27.50nm 4 . 5mb
i 06 12 . 80
<;, 1 V 2118 27P 0601.40 -1.1
PPO 21.71 58 eP 06 06.10 -1.6
e 06 09.40
NNA 23.78 346 IP 06 32.50 4.5X
0.8s 5 . 22nm 4 . 0mb
SOB1 37.82 54 eP 08 31.30 -0.6
SPA 54.90 180 eP 10 46.00 0.3
1.1s 13.1 0nm 4 . 9mb
LIC 74.40 71 PC 1252.28 -6.1
TUL 74.49 339 eP 12 51.60 -0.8
0.8s 1 6 . 20nm 4 . 9mb
K 1 C 74.71 71 PC 12 54 . 26 0.1
BW06 85.29 333 P 13 50.00 -0.2
BUL 86.10 112 i Pd 13 55.00 6.3
MTD 90.35 111 iPd 14 17.00 2.1
WR2 120.02 208 iPKPd 20 03.70 -6.4
0.5s 4 . 70nm
WRA 120.03 208 PKP 20 03.00 -1.1
0.6s 5 . 00nm
GBA 144.33 119 PKPc 20 47.80 -1.9
0.5s 26 . 70nm
PS I 146.26 162 ePKPd 20 54.80 1.8
YAK 150.22 340 iPKP 21 02.80 5. IX
S . 0 . =1.0 on 29 of 33obs.

? AUG 14, 1991 16h 34m 13.45± 1.10s
17.736 N ±14. 9km 93.563 W ±12. 9km DEPTH - 33.0l<m (normol)
CH 1 APAS , MEX 1 CO (61)

SCX 1 . 33 138 iP 3436.04 0.2
iS 3453.57
TPX 3.08 156 IP 35 00.74 -0.2
OXX 3. 09 258 iP 35 01 . 26 0.0
(S) 35 35 . 74
IISM 3.83 290 (P) 35 20.50 9.0X
(S) 3611.77
ACX 6.08 263 (P) 35 50.11 6.7X
ANMO 20.64 329 (P) 39 00.20 7 . 2X
INK 56.45 343 eP 43 54.00 0.0
S.O. - 0.3 on 4 of 7 obs.

& AUG 14, 1991 17h 28m 23.78s
61 . 1 14 N 1 49 . 837 W
DEPTH - 35.7km
SOUTHERN ALASKA (2)
<AEI C>. ML 2 6 (AE 1 C) .

PMS 0.19 45 iPc 28 30.36 -0.2
PWA 0.54 358 ePc 28 34.27 -0.6
iS 2843.37
SUA 0.56 309 iPd 28 34.86 -0.5
iS 2843.87
PLRM 0.59 35 ePc 28 34.60 -1.0
S 2843.18
SLKM 0.64 197 i PC 28 35 61 -0 7
eS 2844.64
KNK 0.73 65 iPc 28 36.83 -6.9
eS 2846.84
NKA 0.78 242 iPd 28 39.28 1.0
GHO 0.79 33 ePc 28 37.81 -6.8
eS 28 48.56
SEW 1.03 169 eP 28 46.90 -1.0
CGLM 1.07 281 ePd 28 41.99 -0 6
SPU 1.08 275 iPd 28 41.90 -0.7
NCG 1.16 286 iPd 28 43.57 -0.3
eS 28 58.59
SKT 1.19 318 ePc 28 44.00 -0.2
i S 2900.37
CKL 1.22 275 i Pd 28 44.15 -0.5
IS 29 00. 66
BGL 1.25 278 eP 28 44.76 -0.3
KNIM 1.29 126 iPc 28 44.23 -1.4

eS 29 01 . 70
NNL 1.29 214 eP 28 46.56 0.9
CUT 1.31 351 eP 28 45.87 -0.1

S 29 02 . 54
CLI 1.36 99 iPd 28 45.72 -0.9
eS 29 01 . 98
RDT 1.37 248 ePd 28 46.53 -0.4
eS 29 04 . 53
LTI 1.46 137 eP 28 46.60 -1.5
DFR 1.49 251 eP 28 48.49 -6.2
REF 1.54 247 ePd 28 49.15 -0.3
eS 29 09 . 1 0
RON 1.56 249 eP 28 49.18 -0.5
eS 29 09 . 41
MTU 1.56 135 eP 28 48.78 -0.3
RSO 1.57 247 eP 28 49.72 -u 3
e S 2 9, 1 0 . 4 0
ROW 1.59 248 eP 28 50.18 0.0
eS 29 10.76
VZW 1.60 91 iPd 28 49.50 -0.7
eS 29 08.84
RED 1.60 245 eP 28 50.08 -0.2
eS 2910.86
NCT 1.61 251 ePd 28 50.11 -0.4
S 2910.60
VLZ 1.70 88 eP 28 51.31 -0.3
eS 29 1 1 . 69
CNPM 1.74 204 ePc 28 51.80 -0.4
eS 29 13 . 03
KLU 1.93 77 iPd 28 53.98 -0.9
S 29 18.28
TOA 2.01 59 iPc 28 56.35 0.2
S 29 21 . 18
TRF 2. 36 355 eP 29 61 . 16 0.1
PAX 2.78 46 eP 29 06.83 -0.1
GLB 2.93 81 eP 29 07.91 -1.2
BALM 3.64 88 eP 29 17.05 -2.2
38 obs. os soc i o t ed

? AUG 14, 1991 17h 37m 24.89± 1.51s
7.893 S ±25. 1km 107.515 W ±27. 7km DEPTH = 10.0km (ge ophy s i c i s t)
4 .7mb (9 obs .)
NORTHERN EASTER 1. CORDILLERA (694)

Z080 39.35 106 P 44 57.80 0.7
1.0s 1 5 . 00nm 4 . 6mb
Z 24s 0.63um 4. 4MszX
S 5112.00
LR 5612.00
CNCB 39.56 107 PC 44 59.20 0.4
SDV 40.35 66 eP 45 10.10 5. IX
CCH 41 . 38 107 P 45 15 . 00 1.5
TOV 41.47 66 eP 45 11.50 -2.5
PLM 41.97 348 P 45 24.00 6.0X
ALO 42.61 1 eP 45 28.00 4 . 8X

1.0s 3 . 25nm 4 . 0mb
ANMO 42.62 1 P 45 28.70 5.4X
1.5s 17.36nm 4. 6mb
MEO 43.28 11 iPc 45 30.80 2.4
MDZ 43.57 130 eP 45 32.20 1.3
TUL 44.95 14 eP 45 44.00 2.1
0.8s 9.20nm 4. 8mb
PRI 45.51 345 eP 45 47.20 0.6
SIV 46.06 105 P 45 48.40 -2.7
FRI 46.09 346 eP 45 48.80 -2.1
TNP 46.62 349 P 45 56.00 0.6
1.4s 56 . 25nm 5 . 4mb
CMS 47.24 346 eP 46 00.40 0.3
GOL 47 . 39 2 P 46 03. 00 1.5
0.7s 2 . 79nm 4 . 5mb
FVM 48 . 35 18 P 46 10 . 70 2.0
JSC 48.76 29 P 46 09.70 -2.2
ORV 48.95 346 P 46 12.50 -0.9
WDC 50.18 345 eP 46 20.10 -2.7
BW06 50.46 358 P 46 26.60 1.5
NEW 56.55 352 P 47 05.00 -4 . 9X
TBR 57.59 29 P 47 09.00 -8 . 3X
SES 58.13 357 eP 47 21.00 0.0
FFC 62.56 4 eP 47 51.00 -0.1
1.0s 1 2 . 00nm 5 . 0mb
YKA 70.39 357 eP 48 38.40 -2.3
0.9s 3.00nm 4. 4mb
INK 78.21 350 eP 49 26.00 0.2
SVW 78.35 338 eP 49 26.60 -0.2
IMA 81.06 343 eP 49 42.90 1.4
MBC 84.28 357 eP 49 57.00 -0.6

1.0s 13. 00nm 5 . 1mb
S . D . = 1 . 7 on 25 o f 31 obs .

AUG 14. 1991 17h 43m 07.47± 0.16s
3.159 N ± 3.4km 127.949 E ± 4.9km DEPTH - 123.9km (6 depth phoses) 5 . 5mb (46 obs .)
TALAUD ISLANDS (263)
CENTROID, MOMENT TENSOR (HRV)
Do to Used : GDSN
L.PB.: 1 IS , 22C
Centroid Locotion:
Origin Time 17:43: 5.4 0.9
Lot 3.10N 0.07 Lon 127. 97E 0.07

Dep 138.4 2.3 Ho 1 f -d u r o t i o n 1.5
Moment Tensor; Scole 10**16 Nm
Mrr=-9.25 0.68 Mtt= 3.14 0.85
Mff= 6.11 1.14 Mrt= 2.15 0.62
Mrf=-3.82 0.71 Mtf= 2.43 0.84
P r i nc i po I Axes :
T Vol= 7.82 Pig- 9 Azm-114
N 2.84 16 21
P -10.66 72 232

Best Double Coup 1 e : Mo = 9 . 2* 1 0* * 1 6
NP1 : S t r i ke=222 Dip=39 S 1 i p= -64
NP2: 10 56 -109

DAV 4.56 329 eP- 44 18.00 2.4
TSM 10.12 277 ePc 45 35.00 4 . 2X
0.9s 7l2.10nm 6. 4mb
e 47 24.50
KKM 12.04 284 ePd 45 50.10 -6.2X
0.9s 132. 50nm 5 . 6mb
BAG 15.03 332 eP 46 34.00 -0.9
MTN 16.21 169 eP 46 49.00 -0.5
0.4s 208 . 00nm 5 . 8mb
TRT 18.71 235 i PC 47 15.00 -4. IX
0.7s 258 . 90nm 5 . 7mb
KNA 18.80 178 eP 47 19.00 -1.1
0.5s 53 . 00nm 5.1mb
LAT 21 . 37 1 17 eP 47 46.80 0.4
PMG 22.85 123 eP 48 01.00 0.2
WR2 23.81 165 i Pd 48 09.90 -0.3
0.6s 261. 00nm 5 . 9mb
e 52 20.20
e 52 45.80
KGM 24.63 268 Pd 48 21.00 3 . 0X
0.7s 1 5 1 . 80nm 5 . 6mb
MBL 25.44 198 eP 48 25.50 0.0
0.4s 14. 00nm 4 . 8mb
CIS 26.20 155 i PC 48 32.00 -0.4
0.9s 79 . 00nm 5 . 3mb
i 49 09.00 184kmX
IPM 26.90 274 ePc 48 39.00 0.1
0.6s 15. 40nm 4 . 8mb
e 49 14.20 172kmX
ASPA 27 29 168 i PC 48 41.40 -0.9
0.7s 20 . 10nm 4 . 8mb
i 49 07.90 124km
ePcP 51 35.70
eS 53 24.80
NANU 28.30 205 eP 48 51.50 0.1
0.4s 55 . 00nm 5 . 6mb
SSE 28.51 348 eP 49 02.50 9.3X
Z 20s 0 . 50um 4 . 1Msz
sP 49 36.00
S 53 24.00
PSI 28.99 270 ePc 48 58.90 1.1
WARS 29.20 182 i Pd 48 59.50 0.0
LOE 29.36 301 eP 49 01.00 -0.1
NST 30.07 296 eP 49 08.00 0.7
KHT 31.16 294 eP 49 17.50 0.6
BDT 31.67 298 eP 49 22.40 1.1
CHG 32.36 301 i Pd 49 28.00 0.7
1.0s 26 . 25nm 5 . 0mb
KMI 32.64 314 PC 49 32.50 2.5
2.0s 70 . 00nm 5 . 1mb
TSRJ 33.07 12 eP 49 34.80 1.6
OLP 33.50 153 eP 49 36.00 -1.1
i 50 54.40 422kmX
FORR 33.82 180 eP 49 38.40 -1.3
CHJJ 34.28 16 eP 49 42.80 -0.9
COOL 34.47 190 eP 49 44.00 -1.4
MTMJ 34.48 14 eP 49 43.90 -1.6
MAT 34.54 15 eP 49 44.00 -1.9
eS 54 58.00
KAKJ 34.77 17 eP 49 47.80 0.0

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194 i Pd
166 iPd
1 26 . 00nm
1 47 eP
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1 7 eP
154 eP
i
163 i Pd
1 1 4 . 00nm
i
18 eP
16 eP
1 55 eP
e

160 i Pd
126 i PC
306 Pd
1 59 . 00nm
395 Pd
46 . 80nm
395 Pd
156 . 00nm
305 Pd
1 23 . 00nm
305 Pd
69 . 00nm
290 iPd
2 1 0 . 00 nm
e

281 i P d
82 . 35nm
285 Pd
69 . 38nm
342 eP
e
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303 iPd
78 . 87 nm
290 i Pd
1 eP

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ePS
iScS
302 iPd
34 eP
49 . 20nm
187 i PC
72 . 70nm
307 iPd
1 8 . 67 nm
e
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305 iPd
296 iPd
305 iPd
306 iPd
29 ePd
epP
27 ePd
30 . 20nm
32 ePd
296 iPd
24 i Pd
epP
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5 . 6mb
1C -0.1
5 . 4mb
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00 1.3
40 0.9
5 . 7mb
00 -1.6
00 175kmX
00 0.2
00 3 . 1 X
00 1.5
40 1 55kmX
60 1.6
5 . 6mb
60 158kmX
50 -0.3
30 -0.2
10 1.4
40 149kmX
30 1.7
10 -0.1
48 0.5
5 . 8mb
84 0.0
5 . 3mb
44 0.2
5 . 8mb
10 0.3
5 . 7mb
94 0.1
5 . 5mb
10 0.2
6 . 0mb
50 150kmX
00 -0.2
5 . 6mb
70 -0.8
5 .7mb
00 -0.6
00 186kmX
00
00 -0.4
5 . 9mb
80 -3.2X
00 -1.2
00 1 1 5km
00
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60
00
30 0.3
10 -0.2
5 . 5mb
80 2.2
5 . 7mb
00 0. 1
5 . 0mb
00 138kmX
00
00 0.0
00 -1.3
00 0.0
50 0.0
70 1.7
10 128km
10 1.3
5 . 0mb
50 1.1
70 -0.9
50 1.6
80 127km
40 0.3
5 . 6mb

TOA 85.29 28 eP<J 55 33.90 2.5

epP 56 05.70 123km
OBN 88.21 325 i PC 55 44,50 -1.1
0.9s 6200. 00nm 7.6mb X
e 5621,001 43kmX
HRI 90.14 303 eP 55 55.30 0.0
INK 90.24 22 eP 55 54,00 -0.9
pP 5627,001 27km
MML 90.47 302 eP 55 57,10 0.4
PRNI 90.97 300 eP 55 59
HOL 91.00299 i Pd 5559
SOD 91 . 45 338 IP 55 59
MBC 92 . 24 1 3 eP 5604
KAF 92.66 333 iP 56 04
0.6s 5 . 30nm
SPA 93 . 1 4 1 80 i P<J 5608
1.0s 28 . 08nm
NUR 93.79 331 eP 56 07
MTD 96.99 254 i PC 56 25
HFS 99.08 332 eP 56 33
1.0s 1 6 . 58nm
Z 17s 0 . 09 urn
LR 32 12
NB2 99.83 334 P 56 36
0.9s 7 . 20nm
BUL 99.84 250 i P<J 56 38
LPG 108.96 320 ePKP 01 24
0.6s 1 . 80nm
LPL 108.96 321 ePKP 01 24
0.6s 2 . 70nm
LOR 109.94 323 ePKP 01 26
LBF 110.01 323 ePKP 01 25
0.7s 2 . 75nm

30 0.2
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00 -1.5
00 0.0
00 - ? 2
5 . 0mb
90 0.4
5.5mb
20 -4 . 1 X
80 -1.1
20 -2.3
5 . 6mb
4 . 4MszX
00
60 -2.4
5 . 3mb
00 -1.9
20 -0-2

20 -0.2

30 0.4
60 -0.4

n n n a SMF 110.25 323 ePKP 01 27. «« «.^
SSF 110.25 323 ePKP 01 26,30 -0.1
0.8s 3 . 35nm
AVF 116.47 323 ePKP 01 26
0.7s 4 . 46nm
BGF 110.89 323 ePKP 01 27
0.4s 4 . 00nm
TCF 111.41 323 ePKP 0 1 28
0.7s 4 . 46nm
LSF 111.84 323 ePKP 01 29

40 -0.4

70 0.0

60 -0.1

00 -0.5
0.7s 3 . 36nm
LPF 112.40 326 ePKP 01 31,40 1.0
MFF 112.65 324 ePKP 01 30 80 -6.2
0.6s 4 . 56nm
LPO 112.83 322 ePKP 01 31J10 -0.3
0.7s 6 . 66nm
IFF 112.97 322 ePKP 01 31J20 -0.4
0.6s 4 . 50nm
GOL 115.17 43 rPKP 01 36
1.0S 27 . 00nm
ALO 116.56 48 ePKP 01 39
K I C 131 .83 281 PKP 02 07
0.7s 7 . 50nm
TIC 132.85 282 PKP 02 08
LIC 132 . 13 281 PKP 02 08
0.8s 7 . 00nm
LCCH 144.75 151 ePKP 02 31
CHCH 144.81 153 ePKP 02 31
TACH 144.91 152 i PKPc 02 31
PCH 145.13 152 ePKP 02 32
SAN 145.20 152 ePKP 62 33

20 -0.3

00 -0.1
92 -0.8

32 -0.8
50 -0.7

00 -0.7
50 -0.4
90 -0.1
50 0.0
00 0.5
ROCH 145.43 151 ePKP 02 34 00 6.8

PEL 145.45 152 i PKPd 02 34)00 1.0
1.4s 220 . 93nm
i 03 14 00
JACH 145.87 151 ePKP 02 35,00 1.2
MDZ 146.50 154 ePKP 02 42 20 7.5X
CNCB 159.29 132 PKP 02 56.00 2.4
ZOBO 159.52 131 PKP 02 55,00 1.1
S I V 164 . 46 146 ePKP 02 55
S . D . -1.0 on 116 of i:

* AUG 14, 1991 I8h 13m 52
13.711 S ±12 .3km 167 . 562
DEPTH «= 33.0km (normol)
4 .2mb (3 obs .)
VANUATU ISLANDS

BKM 3 . 99 1 7 1 i P 1455
DZM 8.38 187 i PC 15 52
i S 1729
HNR 8.59 299 eP 15 56
eS 17 35
RMO 21 . 72 231 eP 18 52

00 -3.2X
7 obs .

83± 0.60s
E ±1 4 . 5km

(186)

30 2.1
10 -3.0
20
50 -1.4
06
60 9.3X

COO
OLP
STK

WRA

ASPA

MAT

YAK
MWC
ISA
SBB
RVR
PLM
CLC
GSC
SMF

AVF

BGF

MAF

TCF

LSF

MFF

22 . 14 218 eP 1851
25.31 236 eP 1924
29.88 228 eP 20 00
0.5s 2 . 50nm
32 . 36 254 P 20 1 9
1.6s 3 . 20nm
33.31 248 eP 20 31
0.9s 5 . 30nm

57.14 332 (P) 23 33
eS 31 52
81.12 343 IP 26 08
85.13 53 eP 26 28
85 . 30 52 eP 26 26
85.46 53 eP 26 29
. 85 . 08 54 eP 26 32
85 . 77 54 eP 26 28
86.02 52 eP 26 31
86.46 53 eP 26 33
144.43 341 ePKP 33 27
0.9s 4 . 90nm
144.46 341 ePKP 3327
0.9s 4 . 90nm
144.82 342 ePKP 33 28
0.9s 8 . 20nm
145.21 342 ePKP 33 30
0.9s 6 . 55nm
145.26 342 ePKP 33 30
0.9s 6 . 55nm
145.49 343 ePKP 33 30
1.0s 8 . 00nm
145.62 345 ePKP 33 3 1
1.0s 1 0 . 00nm
S . D . =1.7 on 20 of

AUG 14, 1991 1 8h 1 7m 00
1 4. 766 N ±12. 5km 93.747

. 50 4.0X
. 00 5.8X
. 70 1.0
4 . 3mb
. 00 -2.7
4 . 0mb
. 90 1.9
4 . 4mb
. 00 -5 . 8X
. 00
. 10 2.1
. 06 0.7
. 00 -2.6
. 00 6.1
. 00 2. 6X
. 00 -2.6
. 00 -0.6
. 00 -0.8
. 00 -0.5

. 20 -0.3

. 60 0.5

. 10 1.3

. 20 1.3

. 60 1.3

. 10 1.6

25 obs.

. 75± 0 . 66s
W ± 9.1km
DEPTH = 33.0km (normal)
4 .
NEAR

TPX

sex

OXX

I I SM
I I T
ACX
PPM
I 1 A
MRX
MEO
TUL

ALO

ANMO
GOL

SES
ZOBO
S IV
YKA

1 NK
MBC

EKA

LPF
LDF
BGF

AV F
SSF

NB2

LOR
SMF
HAU

BSF

CDF

7mb (1 2 obs .)
COAST OF CHIAPAS. MEXICO (69)

1.44 84 i P 1721
iS 1745
2.23 29 iP 17 42
iS 1813
3.67 309 iP 17 55
iS 18 45
5 . 45 321 (P) 18 25
6 .08 315 (P) 1833
6 . 24 290 (P) 1827
6.33313 i P 18 35
6. 41 314 (P) 18 33
8.64 306 (P) 19 06
20.40 349 iPd 21 37
21.14 355 eP 2146
0.6s 5 . 60nm
23.12 333 eP 22 06
1.0s 6 . 25nm

23.12 333 (P) 22 05
26.85 340 P 22 40
1.0s 20 . 00nm
38.21 342 eP 24 20
39.89 140 eP 24 35
44.45 1 32 P 25 09
49.91 348 eP 25 51
0.8s 6 . 50nm
59.23 344 ePc 27 00
62.95 353 eP 27 26
1.1s 1 5 . 00nm
78.34 36 PC 28 59
0.9s 3 . 50nm
80.96 43 eP 29 21
81.44 42 eP 2924
83.88 44 eP 29 29
0.7s 3 . 30nm
84 . 15 43 eP 29 30

84.18 43 eP 29 30
0.8s 2 . 70nm
84.28 28 P 29 32
1.0s 1 0 . 1 0nm
84.36 43 eP 29 31
84.52 43 eP 29 32
85.77 42 eP 29 39
0.9s 6 . 55nm
86.11 42 eP 29 40
0.7s 4 . 40nm
86.24 41 eP 29 40
0.7s 3 . 30nm

. 87 -2.9
. 29
. 00 5.9X
. 94
. 92 -0.9
. 06
. 00 3.2X
. 48 2.5X
. 00 -6 . 1 X
. 00 0.2
. 22 -2.1
. 50 0.0
. 00 -0.7
. 90 1.7
4 . 1mb
. 00 0.9
4 . 1mb
. 00 -0.1
. 80 0.3
4 . 7mb
. 00 0.8
. 00 0.9
. 80 -1.0
. 70 -1.2
4 . 7mb
. 30 -0.6
. 00 0.1
5.0mb
. 50 0.3
4 . 4mb
. 10 7 . 6X
. 70 8 . 7X
. 30 0.7
4 . 6mb
. 20 0.2

. 70 0.6
4 . 5mb
. 10 1 . 7X
4 . 9mb
. 90 0.9
. 20 0.4
. 10 1.0
4 . 9mb
. 60 0.7
4 . 8mb
. 50 6.6
4 . 7mb

121

14d 18h

LPL 86.77 44 eP 29 45.00 1.7X

2ST 92.42 39 e(P) 30 30.30 20. 8X
WRA 133.93 256 PKP 36 17.00 -0.1
1.6s 1 . 20nm
GBA 150.49 18 PKPd 36 54.70 8.8X
0.8s 3.70 nm
S . D . - 1 . 1 on 26 o f 36 obs .

AUG 14, 1991 18h 31m 51.04± 0.70s
40.124 N ± 5.6km 142.621 E ± 9.9km DEPTH = 49 . 4 ± 5 . 5 km
4 . 6mb (1 5 obs .)
NEAR EAST COAST OF HONSHU, JAPAN(228)

OFUJ 1.28 216 iPd 32 12. 80 0.0
S 3228. 30
AOMJ 1.77 285 P 32 19.80 0.0
eS 3244.10
HOOJ 2.31 12 P 32 27 , 90 0.5
eS 32 56,20
MRRJ 2.58 334 P 32 30.80 -0.3
eS 33 00,80
YAMJ 2.80 227 P 32 34.60 0.2
KUSJ 3.36 27 P 32 41, 50 -0.8
eS 33 1 8 . 60
ASAJ 3.99 0 eP 32 50.80 -0.4
NIIJ 4.04 226 P 32 52.60 0.7
KAKJ 4.36 207 P 32 54.80 -1.6
S 3346. 80
CHJJ 4.97 216 eP 33 04.00 -1.1
eS 34 02.40
MAT 4.98 226 iPc 33 06.10 0.8
0.6s 59 . 33nm

(S) 34 16. 00
MTMJ 5.18 228 P 33 09.00 0.9
IIDJ 5.95 220 P 33 19.60 0.8
TSRJ 6 . 97 231 P 3334.70 1.7
BJ I 20.22 278 eP 36 40,00 15. 6X
YAK 23.28 345 eP 36 53.00 -1.8
CHTO 43.02 253 P 39 46.50 -1.0
KKN 48.37 274 P 40 29.60 -0.6
PK I 48.38 273 P 40 29.00 -1.4
GKN 48.76 274 P 40 32.20 -0.9
INK 51.22 28 eP 40 51.06 -0.1
MBC 53.30 17 eP 41 07.50 0.9
PS I 54.28 238 eP 41 08.00 -6.5X
WRA 60.25 189 P 41 55.00 -1.6
0.8s 1 . 60nm 4 . 2mb
YKA 60.67 31 eP 42 10.80 11. 8X
0.9s 1 . 1 0nm
GBA 62.42 265 PC 42 09,90 -1.5
0.6s 2.90nm 4.6mb
HFS 71.66 336 eP 43 07.70 -1.4
0.4s 1 . 60nm 4 . 3mb
NB2 71.70 337 P 43 08.60 -0.8
0.8s 3.90nm 4. 4mb
CDF 83.38 332 eP 44 14.30 0.2
0.6s 1 . 80nm 4 . 3mb
LOR 85.56 333 eP 44 25.20 0.2
0.8s 4.05nm 4.7mb
LBF 85.77 333 eP 44 26.20 0.1
SSF 85.86 333 eP 44 26.90 0.4
0.7s 2.20nm 4. 5mb
LPL 86.02 331 eP 44 28.20 0.6
0.7s 2.20nm 4.5mb
LPG 86.03 331 eP 44 28.40 0.7
0.7s 2 . 20nm 4 . 5mb
SMF 86.11 333 eP 44 28.30 0.6
AVF 86.15 333 eP 44 28.40 0.5
0.6s 4 . 05nm 4 . 8mb
LPF 86.49 337 eP 44 30.40 0.9
0.5s 2.20nm 4. 6mb
BGF 86.53 333 eP 44 31.00 1.2
MAF 86.92 333 eP 44 32.70 1.0
0.7s 3.30nm 4. 7mb
TCF 86.98 334 eP 44 32.70 0.7
0.8s 2.70nm 4. 5mb
LSF 87.24 334 eP 44 34.00 0.7
0.8s 8.05nm 5. 0mb
MFF 87.48 335 eP 44 35.50 1.1
0.5s 2.20nm 4. 6mb
SIV 148.33 47 PKP 51 34.40 4.2X
S . D . -1.0 on 39 of 43obs.

AUG 14, 1991 19h 1 5m 03.67± 0.12s
13.593 S ± 3.7km 167.607 E ± 3.5km DEPTH - 13.8km (geophysicist)

6 1mb (65 obs.) 6.6Msz (36 obs.)
VANUATU ISLANDS (186)

BKM
PVC

D2M

HNR

NDF

SGE
MBU
VUN
SVA
RAB

BRS

LAT
CTAO

RMO

COO

OLP

HB2
NGZ
CMS

BWA

CNB

CAN

QIS

Mo«=2 . 0* 1 0« » 1 9 Nm (PPT). Depth
from broodbond displacement

se i smog r ams . FAULT PLANE SOLUTION: p-waves

NP 1 : S t r i ke=1 00 Dip=63 S I i p = 18
NP2: 2 74 152

Principal Axes:
T P I g = 3 1 Azm=3 1 8
P 753
Comment: The focal mechanism is
moderately well controlled and corresponds to strike-slip
faulting with o moderate
reverse component. The
preferred foult plone is not
determi ned.

RADIATED ENERGY
No. of sto: 13 Facol mech. C
Energy 2 . 8±0 . 8 * 1 0 » * 1 4 Nm
CENTROID. MOMENT TENSOR (HRV)
Dota Used: GDSN
L.P.B.: 25S. 68C M.W.: 19S, 35C
Centroid Location:
Origin T i me 19:15:7.40.1
Lot 13.71S 0.02 Lon 167. 83E 0.01

Dep 15.0 FIX Half-duration 6.3
Moment Tensor; Scale 10**18 Nm
Mrr = 3.81 0.05 Mtt 0.12 0.07
Mff=-3.68 0.08 Mrt=-0.73 0.19
Mr f = 1 . 66 0.21 Mt f- 6.12 0.05
Principal Axes:
T Vol= 4.73 Plg=32 Azm-318
N 3. 80 57 1 56
P -8.53 8 53

Best Double Couple: Mo=6.6«l0««18
NP 1 : S t r i ke=1 01 Dip=62 S I i p= 18
NP2 : 2 74 151

4 . 10 171 iPc 16 08 . 00 0.7
4.18171 iPc 1608.20 -0.2
iS 16 56. 60
8. 50 187 iPd 17 07 . 10 -2.3
iS 18 40 . 90
8. 57 298 ePc 17 12. 00 1.8
eS 18 50.00
10. 34 1 15 eP 1734.10 -0.6
LR 19 46.50
10.70 113 eP 17 35.60 -4.2X
1 1 . 24 1 09 eP 17 46 . 40 -0.6
1 1 . 33 1 1 4 eP 1747.20 -1.0
11.37 115 ePc 17 50. 00 1.3
17.87 300 IP 19 16.00 2.4
iS 22 48 .00
19. 50 223 iPc 19 35.60 2.0
1.0s 77 . 50nm 4 . 9mb X
iPP 20 12.00
i (S) 22 42.00
21.41 287 eP 19 54. 60 1.1
21.42 250 i PC 1954.50 0.9
eS 23 51 . 50
21.83 231 iPd 20 07 . 20 9.6X
i 26 13.30
e 31 42.00
22. 26 218 eP 20 03 . 00 1.0
e 26 08.00
25 . 42 236 eP 20 33 . 50 1.0
0.7s 1 2 1 2 . 00nm 6 . 7mb
i 26 44.30
25 . 74 1 60 eP 2035.60 0.2
26.44 166 eP 20 42.40 0.3
26. 78 225 iPc 20 45 . 20 0.1
1.0s 616.00nm 6.2mb
i 26 51 .00
i 26 55. 70
27.06 217 eP 20 47.20 -0.5
e 20 53 . 1 0 21 kmX
27.17 214 iPd 20 49.70 0.9
1.5s 524.00nm 6.0mb
i 21 02.60 51kmX
i 2412.60
i 25 16.00
i 28 1 6 . 00
27.38 215 eP 20 52. 20 1.6
i 20 57.20 18kmX
27.62 252 eP 20 52.00 -0.9

K 1 W
PG2

WEL

THZ
BLW
LT2
STK

MOZ
TOO

WR2

BFD

WRA
ASPA

ADE

T AU

GUA

PJG
MTN
KNA

FORR
WARB
AFR

PAE

PPT

PPN

TVO

PMO

KUPT

VAH

TPT

RUV

COOL

MBL

DAV
HON
K 1 P

OPA
KLB

NWAO

BAL
NANU
RKG
MUN

TSM
TRT

0.4s 46.00nm 5.6mb
i 2141.00251 kmX
i 27 03.60
27.91 1 68 eP 20 56 . 80 1.5
27 .97 166 eP 20 53. 80 -2.0
1.2s 906.00nm 6.4mb
28. 29 169 PC 20 59.00 0.3
S 25 44 .00

28.44172P 2101.50 1.3
28 . 51 168 P 20 58.50 -2.2
29 . 36 1 73 P 2106.90 -1.5
29 . 99 228 i PC 21 14.30 0.2
0.9s 75 . 80nm 5 . 5mb
eS 2621.80
30.32 173 eP 21 15.30 -1.6
30.96 216 iPd 21 2 3 . ' ' 0 1.1
Z 18s 192.30um 6.8Msz
i 21 29.00 18kmX
i 28 44.00
32.41 254 eP 21 33.60 -1.9
0.5s 81.30nm 5. 9mb
32. 43 219 iPd 2137.70 2.2
1.3s 729.00nm 6.4mb
32 . 43 254 P 2134.30 -1.4
33.40 248 iPc 21 42.90 -1.2
1.6s 168.20nm 5. 7mb
Z 20s 272.60um 7.0Msz
e 23 09.60 486kmX
i 24 28.90
33 . 66 226 i PC 2147.10 0.8
0.7s 506 . 85nm 6 . 6mb
34 . 06 207 eP 2151.00 1.5
ePP 23 04.00
eS 27 18.00
35. 10 319 eP 21 58. 70 -0.1
1.2s 437 . 50nm 6 . 2mb
Z 22s 29.33um 6.0Msz
35. 17 319 eP 2159.10 -0.2
35. 50 267 eP 22 02.50 0.3
37.60 262 eP 22 19.50 -0.4
0.8s 365.00nm 6.2mb
40.15 238 eP 2242.00 1.0
40. 34 246 iPd 22 43. 20 0.5
41.18101 iP 22 50 .50 0.9
1.4s 220 . 00nm 5 . 7mb
41.37101 iP 2252.00 0.9
1.4s 250 . 00nm 5 . 8mb
41.37 101 iP 22 52.00 0.8
1 . 4s 335 . 00nm 5 . 9mb
41.51 101 i P 22 53 . 40 1.1
1.4s 160.00nm 5.6mb
41 .68 102 iP 22 54 . 40 0.6
1.4s 235.00nm 5.7mb
43.09 98 iP 23 06.20 0.9
1.6s 810.00nm 6.2mb
43. 15 270 eP 23 1 1 .00 5. IX
0.8s 208 . 70nm 5 . 9mb
43.33 98 iP 23 08.00 0.8
1.6s 3l5.00nm 5.8mb
43.36 98 iP 23 08.50 1.0
1 . 6s 340 . 00nm 5 . 9mb
43.57 98 iP 23 09 .80 0.6
1.6s 455 . 00nm 6 . 0mb
45.96 240 eP 23 29 .00 0.7
0.4s 1 6 . 00nm 5 . 3mb
46.07 254 iPd 23 30.20 1.0
0.6s 79 . 00nm 5 . 9mb
46.52 294 eP- 23 33.00 0.2
48 . 41 45 P 23 46 . 20 -1.3
48.48 45 ePc 23 49. 48 1.4
eS 30 41 .27
eSS 34 53.97
48.66 44 P 23 48.50 -0.9
48.94 240 eP 23 50.50 -1.1
0.4s 33 . 00nm 5 . 7mb
49.62 238 ePc 23 56.04 -0.7

epPd 24 01.01 17kmX
ePP 25 52.82
eS 31 12.00
49.68 241 eP 23 56.00 -1.3
50.10 252 eP 24 00.50 -0.1
50. 12 236 eP 24 01 .50 0.9
50.31 240 eP 24 03.00 0.9
Z 20s 161 . 80um 7 . 0Msz
52.46 286 ePc 24 19.30 0.7
54.25 270 ePc 24 28.40 -3.4X
0.9s 243.00nm 6.2mb

1 4-d 1 9h

122

KKM

BAG

DRV

MAJO

MAT

SHK
ANP

SSE

HKC

YSS

CSY

SKR

KGM

SMY

AOK

PET

1 PM

PS 1

BJ 1

LOE
NNT
NST
SON
KHT
KM 1

BDT

CHG

H 1 A

SPA

54 . 62
1.1s
55 21
1 . 6s

56. 12

57.06

57 . 06
1 . 8s

08 24
5 S . 1 9

62 . 94
2.0s
Z 1 8s
N 1 6s
E 1 6s

63.36

64 .33

64.70
0.7s
64.77

65 . 58
1 2s
66. 29
1 .3s
Z 21s
66. 61
1 .9s
Z 28s
66. 78

68 . 49
1 .3s
69 . 99
1.0s
71 .59
1 . 8s
Z 21s
N 14s

71.94
72.12
72. 77
73.74
73. 88
73 . 99
2. 5s
Z 20s
N 16s
E 18s

74. 33
1 . 0s
74.91
1 . 4s

75. 47

i
761. 50

288 ePc
327 . 46nnr,
301 ePc-f
1 286 . 67nnri
eS
193 P
S
332 iPc
epPd
esPd
eS
332 iPc
6 1 3 . 64 nrt.
f-5
326 .-P
311 i P c
eS
316 Pd
6 1 0 . 0<?nm
27 . 7 0 u m
9 . 0 0 u m
1 2 . 30um
pP
sP
PP
i S
PS
sS
ScS
SS
304 eP
eS
341 i PC
eS
202 eP
43 . 00nm
352 iPc
eS
279 ePd
380 . 50nm
4 eP
377 . 36nm
20 . 80um
1 1 eP
719.1 0nm
20 . 00um
354 iPc
eS
281 ePc
339. 20nm
278 ePd
77 . 60nm
321 iPc
51 3 . 00nm
33 . 20um
7 . 05um
esPd
eS
eScS
294 eP
288 eP
291 eP
18 eP
290 eP
301 iPc
1 30 . 00nm
1 6 . 90um
2 . 00um
8 . 1 0um
ec

epPd
esPd
i
eS
i
sS
292 eP
48 . 30nm
294 iPc
223 . 26nm
eS
330 i P c
epPd
esPd
eS
i
180 iPc

24 26.30
6
24 38.00
6
32 23 . 00
24 43.10
32 30 . 00
24 50.15
24 54.86
24 56 . 77
32 59.96
24 49 . 70
6
32 52.00

1'4 'j9.se
25 06.00
33 20.00
25 31 .50
6
6

25 47 . 00
26 18.00
27 49 . 00
34 00 . 00
34 28.00
34 42 . 00
35 20.00
38 18 . 00
25 36.00
34 14.00
25 41 . 00
34 22 . 00
25 44.10
5
25 42 . 00
34 24.00
25 50 . 70
6
25 55.30
6
6
25 56.10
6
6
25 56.00
34 48 . 00
26 08.00
6
26 17 . 50
5
26 26.22
6
6

26 32.84
35 48.11
36 26 . 74
26 29 . 00
26 33.70
26 35.00
26 39.40
26 4 1 . 50
26 42 .22
5
6

26 43 .63
26 46 . 53
26 48.18
27 28.00
36 18 . 30
36 18.58
36 53.00
26 43.50
5
26 46 . 00
6
35 24.00
26 48.87
26 53.51
26 55.25
36 31.31
36 53 . 39
26 53.80

- 8 . 3X
3mb
- 1.0

7mb

- 1.5

- 1.6
1 5 ! mX

- 2 . 1

jnr.b

- o :
- 1.0

- 0 . 6
4mb
5Msz

57 kmX

0.9

0 . 0

0. 9
7mb
- 1 . 8

1 . 0
4mb
1 . 9
4mb
3MS2
0.5
5mb
3Msz
- 0 . 6

- 0 . 1
4mb
0 . 2
8mb
- 0.3
3mb
6MS2

- 0. 1
3 . 5X
1 . 0
0. 5
1 . 0
0. 9
5mb
3MS2

1 4 kmX

0 . 5
5mb
- 0 . 5
0mb

- 0.2
1 5kmX

- 1 . 0

LZH

KDC
PDB
SVW

RSO
ANM
YAK

SLKM

TTA

PMR

PCC
FOX
GCC
FHC
BRK

BKS

ZSP
PRS
KLU
SHL

SAO
MHC
ARN
SYP
TOA
LLA
PRI
BCH
SBC

woe
BALM
ABL
ORV
1 MA

PAF

M 1 N
CMB

S 1 T

FR 1
PAS

1 .5s
Z 20S

77 . 80

78 . 29
79.34
79. 97
1 . 3s
80. 32
80. 59
81.02

81.16

81.34
1 .9s
82.33
1 . 6s
Z 20s
82.95
83.01
83.05
83. 13
83.18
Z 20s
83.20
1 .0s

83.21
83.25
83 . 32
83.32

83.35
83. 43
83.51
83. 64
83.67
83. 67
83. 70
83 . 79
83.81

84 . 04
84.26
84. 34
84. 38
84 . 47
1 . 8s
84.56

84 . 61
84. 61

84 . 65
1 .2s
Z 18s
84.73
84.91

1 98 . 86nm 6
20 . 50um 6

* 26 54.|50
312 i PC 2763.58
epPd 27 68.29
esPd 27 09. ,78
eS 36 58 . 68
2 1 eP 2704.50
1 9 P 2710 .150
17 eP 27 1 6 .
30 1 . 89nm
1 9 eP 27 14.
1 1 eP 2718.
343 i P 27 18 .
i PcP 27 28 .
i PP 30 35 .
ePPP 32 47.
ePSP 33 17.
iS 37 29 .
eSKS 37 47.
ScS 38 00.
i PS 38 1 1 .
eSS 42 39.
eSSS 46 53.
20 P 2719.
pP 27 22.
16 eP 2721.
351 . 70nm
19 ePc 27 26.
464 . 1 0nm
40 . 00um
49 ePc 2731.
46 iPc 27 32.
49 ePc 27 30.

00
6
60
60

10
ij 0
00
00
00
00
00
00
00
00
00
80
30
50
6
00
6
6
12
92
79
45 i PC 27 3 1 .75
49 ePc 27 31 .50
1 90 . 00um 7
49 i PC 2731.
348 . 00nm
i 28 31 .
iS 37 52.
eSS 42 39.

e(SSS)47 02.
eLR 51 56.
eLO 51 57.
48 iPc 27 32.
50 iPc 27 32.
21 P 27 30.
298 IP 27 32.

30
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48
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i S 37 57 . 00
50 eP 27 32.17
49 i PC 27 33 . 45
49 P 27 32.30
52 eP 27 34.100
20 ePc 27 34.10
50 ePc 27 34.17
51 iPc 27 34.177
52 P 27 34.00
53 iPc 27 35.03
epPd 27 38.83
eS 38 00.37
46 iPc 27 35.
22 eP 27 35.

83
70
52 P 27 36. 80
47 eP 27 37.40
15 eP 27 36.160
375.00nm 6
221 iPd 27 52.
ePP 31 12.
eS 38 22.
eSS 42 44.
46 eP 27 38.
49 iPc 27 38.
ec 27 39.
eHPP 30 53.
ePP 30 54.
i S 38 08 .
ePS 38 54.
27 eP 27 39.
1 00 . 00nm
28 . 6dum
50 eP 27 39.
53 iPc 27 39.
ec 2741.

epPd 27 43.
ePcP 28 02.
e 30 00.

00
00
00
00
00
56
97
46
78
87
72
20
5
6
25
95
44
76
00
14

. 0mb
. 4Msz
2kmX
1 .0
1 5kmX

0 . 0
0 . 2
2. 3
. 1mb
- 1 . 2
1 . 7
- 1.1

- 0.2
8 kmX
0.5
. 1mb
0. 1
. 3mb
. 8Msz
1 . 4
3.0X
0 . 6
1 . 1
0 . 6
. 5Msz
0.3
. 5mb
250kmX

1 . 4
0.8
- 1 .2
0.3

0.3
1 . 1
- 0. 4
0. 5
1 . 1
3.7
1 . 0
- 0. 3
0.8
1 2kmX

0. 6
- 0. 4
- 0.3
0.4
- 0.5
. 3mb
1 4 . 3X

- 0.3
0.3
4kmX

1 . 4
. 9mb
. 7Msz
0.5
0.3

12kmX

MWC
COR

I RK

COL

FBA

I SA
SBB
RVR
BAR
PEC
PLM
CLC
BMW
I KP
GSC

TPC
GMW
TNP

LON
MCW
GLA
BRW
T I K

GUN

PNT

PK 1

KKN

DMN

GKN

NEW

MSU
DUG
1 NK
PT 1
OAU
WMO

A 1 A

ePP 30 52.29
eHPP 30 53.78
iS 38 12 . 00
eSS 43 04.00
ePKKP 46 00.00
eSSS 47 09.00
eLg 50 30.00
eLR 5301.00
85.02 53 feP 2741.00 0.5
85 . 1 5 42 iPc 27 42 .59 2.0
i S 3814.21
85.17 327 eP 27 39.00 -1.6
e 27 52.00
e 2800. 00
e 2808.50

epP 28 23.00 I77kmx
e 2906. 00
e 30 24.00
ePP 31 32.00
eSKS 38 06.00
eSKKS 38 36.00
eS 39 06.00
e 39 56.00
ePS 40 48.00
e 4146.00
e 4358. 00
e 4506.00
e 47 06.00
e 4750. 00
85.18 17 iPc 27 39 .52 -0.9
ec 2741.34

epPd 27 43.82 14kmX
esPd 27 45.64
iS 38 06. 61
85 . 18 17 eP 27 40. 10 -0.3
0.9s 266 . 67nm 6 . 5mb
85 . 1 9 52 eP 27 42 .00 0.8
85 . 36 53 eP 2742.00 0.0
85 . 47 54 eP 27 42 . 00 -0.5
85 . 60 55 eP 27 44 .00 0.8
85.61 54 P 27 43.00 -0.3
85.67 54 eP 27 43.00 -0.8
85.92 52 eP 27 45.00 0.2
85.97 40 P 2745.40 0.6
86. 04 55 eP 27 46. 10 0.6
86 .35 53 iPc 27 47 . 67 0.7
epPd 27 51.64 12kmX
eS 38 26.06
86 .55 54 eP 27 48.00 0.0
86. 69 39 P 27 48.80 0.5
86.97 50 P 27 49 .50 -0.6
1.0s 97.50nm 6. 0mb
86.98 40 iPc 27 49.00 -0.7
87.12 38 P 2748.80 -1.6
87.19 55 eP 2753.00 1.9
88.06 1 1 eP 27 57 . 70 3 . 3X
88.91 349 eP 27 59.50 1.1
eS 38 47.50
89.14 299 PKP 28 01.40 0.5
1.3s 543 . 00nm 6. 7mb
89.32 39 eP 2801.00 0.1
1.2s 354 . 00nm 6. 5mb
89.45 298 PKP 28 02.02 -0.3
1.6s 541.00nm 6.6mb
89.62 299 PKP 28 02.90 -0.1
1.0s 285 . 00nm 6 . 5mb
89.72 298 PKP 28 03.18 -0.3
1.2s 469.00nm 6.6mb
90.22 299 PKP 28 05.02 -0.7
1.4s 398 . 00nm 6 . 5mb
90.49 40 ePd 28 05.20 -1.2
Z 18s 21. 93um 6 . 6Msz
e 28 20.50 52kmX
90.87 51 P 28 09.50 0.9
90.88 49 P 28 09.00 0.5
91.71 19 eP 28 12.00 0.5
91.97 46 P 28 12.00 -1.5
92.09 49 P 28 13.80 -0.4
92.17 315 i PC 28 14.51 0.3
epPd 28 19.06 14kmX
esPd 28 20.55
ePP 31 51 .83
eHPP 31 52.83
iSKS 38 47.51
eS 39 18.74
ePS 40 27.38
92 . 34 161 eP 28 15.00 0.4

123

1 4d 1 9h

KOD

LRM
HYB

GBA

BWG6

NVL

ALO

ANMO

SES

GOL

YKA

GLD

NO 1
CR2F

POO

RSSD

MBC
MEO
FFC

FRU
OUE
CCM

NNA

MA IO

JSC

92. 50 280 eP 2817.20 0.6
eSKS 38 54.00
92.76 44 eP 28 18 . 20 1.1
93.19 287 ePc 28 19.00 0.1
1.6s 384.60nm 6.6mb
a 2905.601 84kmX
eS 39 20.60
93.29 283 PC 28 22.40 2.6
1.6s 1 1 8 . 30nm 6.1mb
93.94 47 ePd 28 21.00 -1.6
1.4s 47.67nm 5.7mb
PP 3209.00
94.22 186 e-P 28 23.00 -0.2
e 2838.00 51 kmX
e 2842.00
6 2900. 00

e 29 30.00
e 29 38.00
e 30 21 .00
e 30 50.00
e 31 22 .00
e 3 1 44 . 00
ePP 32 18.00
e 32 43 .00
e 32 54.00
e 3339. 00
e 34 21 .00
ePPP 34 38.00
e 35 04 .00
e 35 39 .00
eSKS 39 00.00
eSKKS 39 08.00
eS 39 33.00
e 40 23.00
94.39 55 iPc+ 28 24.20 -0.6
1.1s 3 1 . 65nm 5 . 6mb
2 22s 42.59um 6.9Msz
e 3207. 00
i 3405.00
94 .39 55 iPc 2824.84 0.0
tpPd 2830.14 1 7kmX
eHPP 32 12.60
i PP 32 12.93
eSKS 39 08.05
iS 39 40.55
IPS 40 51 . 79
94 . 92 39 eP 2828.00 1.3
1.0s 52 . 00nm 5 . 9mb
96.29 51 ePd 2834.70 1.2
1.0s 1 5 . 00nm 5 . 5mb
Z 21s 1 7 . 47um 6 . 5Msz
96 .39 27 eP 28 3 1 . 60 -1.5
0.8s 17.80nm 5. 6mb
96 . 42 51 eP 28 37.00 3.0X
1.2s 60.61nm 6. 0mb
2 22s 43. 11 urn 6.9Msz
96.74 298 iPc 28 34.00 -1.4
97 . 09 219 eP 28 42 . 00 5 . 3X
ePP 32 44.00
eS 39 28.00
eSP 41 19.00
eSS 46 47.00
97.71 287 IP 28 35.00 -5.0X
iS 39 20 . 00
98 . 1 6 47 eP 2841.80 0.1
1.0s 2 1 . 69nm 5 . 7mb
221s 23 . 37um 6. 7Msz
PP 32 35.00
99.14 1 3 eP 2846.00 0.8

100.71 57 e(Pdif28 56.70 3.4X
101.20 36 eP<Jiff28 54.00 -1.0
1.1s 19. 00nm 5 . 6mb
101.27 311 eP<Jiff28 56.00 0.3
105.82 298 ePdiff29 12.60 -3 . 8X
106.96 54 eP<Jiff29 20.15 -0.9
ePP 33 38.11
eHPP 33 42.25
eSKS 39 56.17
i 41 24 . 39
iPS 43 04 .88
111.23 109 eP<Jiff29 44.00 3 . 4X
1.0s 5 . 00nm
2 22s 10.00um 6.4Msz
112.45 304 ePKP 33 35.00 -6.6X
e 34 31 .00
e 4408.00
114.91 58 ePKP 33 40.90 -5 . 3X

SCP
SCP

LPB

ZOBO

CBN
GDH

CCH

KEV

I R4
I Rl
1 R7
DHR
SOD

KER
SEK

RYD
SI V
FRS

SLY

OBN

PRY

SLR

CER
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NUR

ARO
ABHA
MTD

8UL

AKU

PPD

KRI

UPP

e 34 01 .00 i 36 10. 70
117.29 51 ePdiff30 06.22 -0.7 NAI 129.06 257 IPKP+ 34 17.50 3.3X
117.29 51 ePKP 33 50.34 -0.2 2 24s I3.57um 6.6MszX
eHPP 34 58.95 SS 48 00.00
ePP 34 59.45 REY 129.08 5 ePKP 34 26.20 13. 8X
117.35 117 PKP 33 49.00 -2.9 NB2 129.62 345 PKP 34 13.40 -0.2
SKS 40 34.00 1.3s 28.50nm
LR 10 38.00 AAE 129.70 271 ePKP 34 17.60 2.1
117.44 117 PKP 33 51.00 -1.3 HFS 129.74 343 ePKP 34 12.70 -1.1
1.1s 28.42nm 1.2s I8.50nm

117.89 54 e(PKP)33 51.00 -0.8 2 19s 8.05um 6.4Msz
118.63 15 eP<Jiff30 17.00 4.8X LR 18 44.00
i 35 10.00 VAO 130.31 137 ePKP 34 16.70 0.6
i 40 02.00 e 34 23.50
i 51 15.00 KONO .131.23 345 ePKP 34 20.70 4. IX
118.67 119 ePKP 33 56.00 1.8 KAS 131.35 314 ePKP 34 21.00 3.4X
i 35 11.00 TRN 132.05 88 ePKP 34 21.00 1.5
118.72 345 ePKP 33 55.00 2.6 HRI 132.16 303 ePKP 34 19.80 0.4
2 24s 10.60um 6.4MSZX 8BTK 132.61 312 ePKP 34 22.00 1.9
e 34 07.00 DSI 132.80 301 ePKP 34 22.30 1.8
e 35 08.00 RDJ 132.81 140 ePKP 34 23.60 2.8X
e 44 52.00 CFR 133.44 321 ePKP 34 22.00 0.7
e 45 54.00 HOL 133.49 297 ePKP 34 22.00 0.1
LR 17 10.00 RMN 133.64 299 ePKP 34 22.90 0.6
119.46 303 ePKPd 33 55.00 -0.1 CSS 133.69 306 ePKP 34 21.00 -1.1
119.62 303 ePKP 33 56.00 0.6 WIN 133.89 219 ePKP 34 08.00 -15. IX
119.67 303 ePKPd 33 51.50 -3.9X 2 20s 35.46um 7.1Msz
120.37 293 iPKP 33 58.00 1.2 e 36 56.00
120.51 344 ePKP 33 56.00 0.2 VR 1 133.96 322 ePKP 34 15.00 -7.3X
e 34 08.00 ISR 134.45 321 ePKP 34 16.50 -6.8X
122.65 302 ePKP 34 07.00 5 . 9X MLR 134.63 322 ePKP 34 25.00 1.2
123.11 223 iPKPd 34 14.70 12. 4X ITU 134.75 315 iPKPc 34 24.00 0.1
i 34 22.40 BMR 134.79 326 ePKPd 34 40.00 16. 2X
123.54 291 iPKP 34 04.00 0.9 U2H 134.84 328 iPKPc 34 29.00 5.2X
123.61 120 PKP 34 02.00 -1.4 KRA 135.08 331 ePKP 34 26.20 1.9
123.62 220 iPKPd 34 03.20 0.2 e 34 28.30
0.7s 10.27nm e 3434.60
i 3411.00 e 3658.00
123.81 304 ePKPd 34 03.50 0.3 i 38 04.00
e 35 47.50 BUC1 135.17 321 iPKPc 34 26.00 1.4
123.90 328 iPKPc 34 04.00 1.3 CMP 135.28 322 ePKPc 34 28.00 3. IX
1.3s 1140. 00nm KHL 135.51 311 ePKP 34 26.00 0.4
Z 20s 8.00um 6.4Msz SPC 135.52 330 ePKP 34 16.60 -8.8X
N 20s 4.90um e 34 26.67
iPcP 34 21 .00 e 37 05. 10
iPP 35 44.00 KSP 136.17 334 ePKP 34 25.00 -1.3
eSKS 41 02.00 1.3s 85.00nm
eSKKS 42 46.00 PVL 136.19 320 iPKP 34 29.00 2.4
ePS 45 20.00 BRN 136.19 338 ePKPc 34 26.50 0.2
ePPS 48 20.00 ePP 37 08.50
eSS 52 56.00 LW! 136.23 252 ePKPd 34 28.60 0.8
eSSS 57 04.00 PSZ 136.53 329 ePKP 34 27.00 -0.2
124.13 224 ePKP 34 01.50 -2.8 HLW 136.55 299 ePKP+ 34 27.00 -0.7
1.0s 30 . 00nm e 37 12 . 00
i 34 08.00 e ' 37 54 .00
124.35 225 iPKPc 34 03.50 -1.3 e 40 02.00
1.6s I50.00nm e 44 06.00
2 20s 26.24um 6.9Msz e 46 20.00
e 35 54.00 DIM 136.64 318 ePKP 34 30.00 2.5
124.38 212 ePKP 34 03.50 -0.9 ALN 136.86 316 ePKPc 34 29.40 1.5
124.65 220 iPKPd 34 05.00 -0.2 KD2 136.91 318 ePKP 34 40.00 11. 9X
124.73 292 ePKP 34 06.70 1.4 RDO 137.08 317 ePKP 34 30.00 1.7
125.22 224 iPKPc 34 07.50 1.0 BRG 137.12 336 ePKP 34 19.50 -8.6X
125.94 338 ePKP 34 05.00 -1.5 2 20s 9.00um 6.5Msz
1.0s 46.00nm N 20s 10.00um
2 22s 12.30um 6.5Msz E 20s 2.50um
i 34 09.90 i 34 29.00
e 36 00.00 i 34 41 .30
e 46 02.00 iSKP 38 04.00
e 46 52.00 i 38 28.00
e 47 40.00 i 39 12.00
LR 24 30.00 e 51 24.00
126.14 274 ePKP+ 34 07.50 -0.9 CLL 137.15 337 iPKP 34 28.60 0.5
126.93 283 ePKP 34 12.70 2.6 1.9s 110.00nm
127.11 237 ePKP 34 09.00 -1.2 2 19s 6.00um 6.3Msz
i 36 09. 70 ePKS 38 03.00
127.55 231 ePKP 34 09.30 -1.8 PLD 137.15 319 ePKP 34 28.00 -0.5
i 36 06.00 TIM 137.21 325 iPKPc 34 29.00 0.6
127.82 3 iPKP 34 14.10 4. IX 8UD 137.26 329 e(PKP)34 28.00 -0.5
1.2s 40.63nm R2N 137.35 318 iPKP 34 28.00 -1.1
2 18s 12.37um 6.6Msz PRK 137.45 314 ePKP 34 33.00 3.9X
127.94 132 ePKP 34 10.00 -1.6 PRU 137.55 334 ePKPd 34 24.50 -4.5X
e 3416.10 N 21 s 9.10um
128.67 235 ePKP 34 03.80 -9 . 4X E 21s 5.80um

ipP 34 32.90 e 34 27.30
i 36 12.30 e 37 12.00
128.79 341 iPKP 34 11.40 -0.6 2ST 137.72 331 ePKP 34 27.70 -1.6

124

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ENN

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AGG
UCC
LJU

VBY
CEY
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VOY
WTTA

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e 46 1 1 . 60
137.74 352 PKP 34 35.00
1.6s 35 . 50nm
137.84 320 i PKP 34 32 . 00
1 38 . 03 343 e(PKP)34 33 . 00
138.^4 331 ePKP 34 20.00
6.5s 2668 . 00nm
Z 17s 3 . 40um 6
i 3432. 20
i P P 37 19 7 fi
138.04 319 i PKP 34 32.00
138.19 325 ePKP 34 30.56
138.21 337 ePKP 34 21.00
1.9s 1 20 . 00nm
Z 22s 8 . 40um 6
N 23s 7 . 40um
E 21s 4 . 40um
138.37 318 ePKPc 34 22 .08
138.51 317 ePKPc 34 32.28
138.61 334 PKP 34 24 . 60
1.5s 44 . 50nm
Z19s 9.40um 6
N 1 8s 4 . 50um
E 1 8s 5 . 50um
i 34 32.50
e 3720. 00
138.68 318 ePKPd 34 33 . 52
138.70 342 ePKP 34 26 . 00
1.3s 63 . 00nm
ePP 37 25.00
138.80 319 ePKPc 34 24.20
138.91 316 ePKPc 34 33 . 64
139.03 318 ePKPc 34 33.32
1 39.08 343 ePKP 34 21 . 00
Z 22s 8.50um 6
ePP 37 16.00
ePKS 38 04.00
eSS 56 10.00
139. 13 337 iPKP 34 27 . 00
Z 21s 11. 00um 6
e 34 35.90
e 37 26. 40
139. 19 333 ePKP 34 22 .00
i PP 37 16.80
i 37 27 . 00
i PKS 38 09 . 80
iPSP 49 34.00
139.22 319 ePKPd 34 33 . 32
139.49 341 iPKPc 34 35.80
1.8s 87 . 00nm
Z 17s 10. 30um 6
id 37 29 . 00
139.56 355 ePKP 34 37.30
139.57 309 ePKP 34 31.00
1 39.61 317 ePKPd 34 26 . 76
139.70 339 ePKP 34 25.70
139.81 314 ePKP 34 26 . 00

139.88 329 e(PKP)34 32.50
139.93 329 ePKP 34 26.00
1 39.97 319 ePKPc 34 34 . 64
1 39.97 318 ePKP 34 36.60
140.05 342 ePKP 34 29.00
1.2s 56 . 00nm
ePP 37 33.00
140. 14 355 ePKP 34 35 .20
1 40. 1 6 342 PKP 34 29 . 90
e 37 34.00
140. 26 316 i PKPc 34 35. 76
1 40. 48 343 PKP 34 33.00
146.48 330 ePKP 34 28.50
e 37 34.00

140. 51 329 e(PKP)34 36 . 40
140.75 330 ePKP 34 29.50
140.75 343 ePKP 34 38.00
1 40 . 80 331 ePKP 34 29 . 40
140.88 334 iPKPc 34 30.60
1 . 6s 21 9 . 00nm
i 34 37 . 30
i 34 41 . 30
i 34 53 . 70
i PP 37 37 . 70
140.89 332 PKP 34 29.78
0.1s 2 . 40nm
1401.93 312 ePKP 34 31.00
1 41 '. 04 343 PKP 34 27.00
Z 20s 8 . 00um 6
e 34 36.90

5 .9X

2 . 0
3 3X
- 1 C . ex

. 2 M s 2 X

1 .8

e. 2
- 9 . 2X

. 4Msr

- 8 . 7X
1 .3
- 6 . 4X

. 5Msz

2 . 1
- 5.0X

"7 A V / . 4 X
1 . 9
1 . 4
- 10. 6X
. 4MS2

- 4. 9X
. 6MS2

- 1 0 . 0X

0.9
3.3X

. 6MS2X

4 . 8X
- 2 . 1
- 6.3X
- 7 ,3X
- 7 . 4X
- 1 .0
- 7 . 4X
0.9
2 . 8X
- 4 . 5X

1 . 7
- 3.7X

1 .5
- 1 .2
- 5 . 9X

1 . 9
- 5.5X
3. 3X
- 5. 7X
- 4 . 8X

- 5.3X

- 4 . 5X
- 8. 3X
. 5Msz

GWF
R 1 Y
TR 1

ECP
OGA
HVAR
CDF
CT 1

FEL
ECH
VLS

v i T r
BSF
HAU

BBS
LCI
BRT
SAL

LOMF
ARV
FG4
SFI
PGD
ORI

CRE
ASS
FLN

DU 1

LDF
MME
AOU

RO 1
ORX
CSI
SOB1

TDS
BOB

BO I
SCO

SCO
SOI
AZ I
MGR
LBF
GRC
GRR
MNS
AC I
SSF
RF I

P I I

CZ I
LSD
GR I

LPL
LPG
SMF
PCP
AVF

LPF
RSP
RMP
RDP

CK I
BHB
BNI

BGF
F I N

e 37 32.00 RRL 144.77 336 PKP 34 41.05 -1.2
e 56 32.00 MAO 144.79 329 PKP 34 41.20 -0.8
141.04 339 PKP 34 29.29 -6. IX ROB 144.84 334 PKP 34 39.92 -2.2
141.06 330 ePKP 34 33.70 -1.7 SOI 144.90 319 PKP 34 41.00 -1.3
141.09 331 PKP 34 33.06 -2.4 DO 1 144.93 335 PKP 34 30.87 -11. 4X
0.8s 209.70nm 1.3s 210.40nm
141.21 354 iPKPd 34 41.50 6.0X GMB 144.97 319 PKP 34 41.08 -1.6
141.45 334 iPKPc 34 33.20 -3.2X 1.8s 1342. 4dnm
141.47 325 ePKP 34 32 60 -3.7X PZZ 144.99 335 PKP 34 40.43 -2.1
141.65 339 PKP 34 29.87 -6.7X PLDF 145.01 340 PKP 34 42.98 0.6
141.82 333 PKP 34 32.97 -4. OX AGO 145.09 341 PKP 34 42.98 0.5
0.5s 16.10nm STV 145.11 335 PKP 34 40.23 -2.4
141.83 338 PKP 34 30.25 -6.7X MAF 145.11 342 ePKP 34 41.70 -0.8
141.85 339 PKP 34 31.22 -5.7X IMI 145.14 334 PKP 34 41.25 -1.4
141.87 316 ePKP 34 33. 5C -3.7X 1CF .145.16 342 ePKP 34 41.60 -1.0
142.26 340 PKP 34 31.80 -5.8X 0.8s 22.85nm
142.31 339 ePKP 34 32.50 -5.3X ATM 145.22 320 PKP 34 41.00 -1.9
142.32 339 ePKP 34 32.70 -5.0X SAOF 145.22 334 PKP 34 41.57 -1.2
Z 21s I3.75um 6.7MSZ AUTN 145.27 335 PKP 34 42.48 -0.6
142.36 338 PKP 34 31.78 -6.0X TOUF 145.33 335 PKP 34 42.50 -0.7
142.37 321 PKP 34 39.24 1.3 SBF 145.37 334 ePKP 34 42.30 -0.8
142.50 322 PKP 34 35.40 -2.8 LSF 145.39 343 ePKP 34 42.20 -0.7
142.66 333 PKP 34 36.50 -1.7 1.0s 26.00nm
0.7s 236.30nm PYM 145.40 341 PKP 34 44.11 1.1
142.71 338 PKP 34 31.63 -6.8X AURF 145.40 335 PKP 34 42.48 -0.7
143.10 329 PKP 34 31.70 -7 . 4X MV 1 F 145.47 335 PKP 34 42.50 -0.8
143.33 324 PKP 34 35.79 -3.8X REVF 145.50 334 PKP 34 42.18 -1.1
143.33 330 PKP 34 36.70 -2.7 MFF 145.52 345 ePKP 34 43.00 -0.1
143.43 330 PKP 34 38.20 -1.7 CALM 145.69 335 PKP 34 43.67 0.0
143.45 322 PKP 34 3B.41 -1.4 PGF 145.73 331 PKP 34 42.76 -1.0
0.8s »»»*»». nm LBL 145.78 340 PKP 34 45.31 1.6
143.50 330 PKP 34 36.70 -3.2X GlO 145.80 319 PKP 34 47.91 4 . 0X
143.55 329 PKP 34 36.50 -3.5X MNO 145.84 320 PKP 34 45.70 1.5
143.58 347 ePKP 34 35.70 -4 . 0X FRF 145.95 335 ePKP 34 44.20 0.3
Z 20s 16.75um 6.8Msz LRG 146.16 335 ePKP 34 44.90 0.6
143.58 325 PKP 34 36.45 -3.6X Z 21s 15.00um 6.7Msz
1.7s 282.60nm LMR 146.19 335 ePKP 34 45.00 0.7
143.65 346 ePKP 34 35.80 -4 . 1 X MED 146.20 319 PKP 34 46.10 1.4
143.67 332 PKP 34 38.00 -2.4 CDR 146.21 336 ePKPc 34 45.30 0.9
143.68 327 PKP 34 39.95 -0.3 GIB 146.22 321 PKP 34 45.50 0.8
1.8s 134.20nm PZI 146.25 319 PKP 34 45.72 1.0
143.68 321 PKP 34 37.00 -3.3X 1.5s 393.80nm
143.70 336 PKP 34 37.15 -3. IX RJF 146.26 342 ePKP 34 45.10 0.7
143.73 321 PKP 34 37.40 -2.9 Z 21s 15.50um 6.8Msz
143.76 127 ePKP 34 37.10 -4 . 0X USI 146.27 323 PKP 34 45.80 1.2
e 34 43.30 CAF 146.43 341 ePKP 34 46.20 1.5
143.77 321 PKP 34 37.70 -2.7 LFF 146.82 343 ePKP 34 46.60 1.3
143.79 333 PKP 34 37.74 -2.6 LPO 146.92 342 ePKP 34 47.40 1.9
1.2s 390.90nm ERC 147.06 322 PKP 34 48.50 2.5
143.82 332 PKP 34 37.50 -2.9 0.3s 200.90nm
143.82 323 PKP 34 34.68 -5.7X CVT 147.17 321 PKP 34 49.40 3.4X
2.3s 708.40nm CGL 147.99 327 PKP 34 48.50 1.0

143.82 323 PKP 34 39. [50 -0.9 2.5s 728.10nm
143.90 326 PKP 34 38.00 -2.6 PTS 148.22 321 PKP 34 54.15 6.4X
143.91 327 PKP 34 38.10 -2.4 0.1s 37.90nm
143.94 322 PKP 34 38.60 -2.0 CA I 148.33 128 iPKPd 34 49.50 0.9
143.99 341 ePKP 34 37.36 -3.2X BTH 148.75 343 PKPc 34 50.00 1.5
144.00 342 PKP 34 40.74 0.3 pP 35 00.00
144.01 347 ePKP 34 37.50 -3.0 SP 35 09.50
144.03 328 PKP 34 37.80 -3.0 e 36 13.00
144.04 321 PKP 34 38.60 -2.2 ePP 37 29.00
144.07 341 ePKP 34 38.10 -2.6 eSKP 38 21.00
144.09 325 PKP 34 39.56 -1.2 e 40 09.00
1.9s 3163. 00nm e 42 34.00
144.11 331 PKP 34 37.68 -3. IX OGE 148.79 343 PKP 34 50.16 1.6
1.5s 751.30nm JAU 148.88 343 PKP 34 50.98 2.1
144.16 321 PKP 34 37.60 -3.4X ESCF 148.90 343 PKP 34 49.70 1.0
144.18 336 PKP 34 39.20 -2.0 MADF 148.91 343 PKP 34 50.57 1.8
144.23 320 PKP 34 39.59 -1.6 ATE 148.93 343 PKP 34 50.57 1.8
1.5s 1112. 10nm ELYF 148.93 344 PKP 34 49.83 1.0
144.29 337 ePKP 34 39.60 -1.8 BOH 149.00 344 PKP 34 50.85 1.9
144.30 337 ePKP 34 39.70 -1.8 ISSF 149.01 343 PKP 34 50.94 1.9
144.34 341 ePKP 34 38.80 -2.3 LHE 149.07 343 PKP 34 50.85 1.8
144.36 334 PKP 34 38.69 -2.6 EGRA 149.64 342 ePKP 34 53.78 4.0X
144.36 341 ePKP 34 38.60 -2.5 ECR 1 149.85 345 ePKP 34 55.66 5.4X
0.8s 20.80nm EMON 149.94 353 ePKP 34 54.68 4.4X
144.39 347 ePKP 34 38.90 -2.2 STS 150.62 354 ePKP 34 56.30 5.0X
144.39 336 PKP 34 39.51 -1.9 EBR 150.63 340 iPKP 34 52.00 0.7
144.43 327 PKP 34 39.80 -1.6 iPP 38 36.00
144.46 327 PKP 34 40.09 -1.5 EROO 150.65 340 ePKP 34 58.62 7.2X
1.5s 1661. 70nm ESEL 150.66 335 ePKP 34 59.50 8.1X
144.56 334 PKP 34 39.30 -2.3 ERUA 150.95 352 ePKP 34 59.22 7.4X
144.64 336 PKP 34 38.38 -3 . 3X ETOR 151.41 343 «PKP 34 59.38 6.7X
144.70 336 PKP 34 40.38 -1.6 GUD 152.10 347 ePKP 34 55.93 2.2
1.8s 1462. 30nm ECHE 152-21 341 ePKP 35 01.86 8.0X
144.73 342 ePKP 34 40.20 -1.6 TOL 152.80 346 iPKPc 34 54.67 0.1
144.77 334 PKP 34 39.61 -2.4 1.5s 36 1 . 1 1 nm

125

14d I9h

EPLA 153.65 349 ePKP 34 59.06 4.1X
PDA 153.20 24 ePKP 35 02.00 6.8X
EVIA 153.56 342 ePKP 34 59.06 3.2X

EH HE 154.35 342 e(PKP)34 59.36 2.5
EPRU 155.86 346 ePKP 35 17.96 19. IX

EJIF 156.41 346 e(PKP)35 08.77 9.2X
KIC 169.59 227 PKP 35 18.84 6 . 3X
1.8s 333 . 50nm
UC 16 9 . 70 225 PKP 3512.78 0.2
Z 22s 2 1 . 60 urn
TIC 169.99 227 PKP 35 14.28 1.5
S . D . = 1 . 3 on 355 of 470 obs .

» AUG 14. 1991 19h 28m 41.42± 1.11s
13.586 N ±18 rirr. 91.733 W ±10. 9 km
DCPTH - 3 3 . « 1- m (normol)
4 . 9mb (6 obs .)
NEAR COAST OF GUATEMALA (71)

IPX 1.41 339 IP 29 03.54 -1.4
i S 29 19 . 84
SCX 3 . 25 345 i P 29 33 .50 2.2
(S) 30 1 1 . 88
OXX 5.94 306 i P 3010.01 0.4
(S) 31 1 7 . 00
LVVM 7.60 324 IP 30 31.50 -1.2

(S) 31 50 . 76
1 1 SM 7 . 63 315 iP 30 34 . 00 0.9
iS 31 55 . 00
MT 8. 31 311 (P) 30 43. 26 0.4
(S) 32 00.16
ACX 8.49 294 iP 30 43.00 -2.2
PPM 8.57 310 iP 30 48.93 2.2
(S) 32 19 . 35
I I A 8 . 65 31 1 i P 3050.17 2 . 9X
MRX 10.91 305 (P) 31 18.50 0.1
SOV 21.21 161 eP 3327.50 0.5
GOL 28.65 338 P 34 36.80 -0.7
CLE 29.19 1 6 i P 3442.30 0.3
TNP 33 . 28 322 P 35 1 8 . 60 03
PNT 42.36 333 eP 36 35.00 0.9
0.8s 32.00nm 5.1mb
YKA 51.49 347 eP 37 43.70 -1.9
0.7s 7.60nm 4. 8mb
INK 60.91 344 ePd 38 52.50 -0.5
pP 39 36.50 190kmX
MBC 64.35 353 ePd 39 14.50 -1.3
0.7s 8.00nm 4.9mb
pP 39 5 1 . 00 1 53kmX
EKA 78.15 36 PC 40 37.60 -1.2
1.0s 14.50nm 5. 0mb
NB2 84.38 28 P 41 12.00 0.4
1.0s 4.80nm 4. 6mb
NFS 85.84 29 eP 41 18.70 -0.1
0.7s 5.60nm 4. 9mb
CHG 146.13 342 ePKPc 48 21.60 1.8
1.0s 1 7 . 50nm
LOE 146.46 336 ePKP 48 23.00 2.7X
BDT 147.58 341 ePKP 48 26.80 4.8X
1.0s 55 . 20nm
HYB 147.74 18 ePKP 48 26.00 3.6X
KHT 150.02 340 ePKP 48 33.50 7.6X
GBA 150.93 22 PKPc 48 34.10 6.8X
0.9s 3 1 . 00nm
S . D . =1.3 on 21 of 27 obs .

» AUG 14, 1991 20h 20m 40.35± 0.56s
13.657 S ±13. 2 km 167.622 E ±18. 1km DEPTH - 33.0km (normol)
4 . 7mb (7 obs .)
VANUATU ISLANDS (186)

DZM 8.44 187 iPd 22 41.30 -2.2
iS 2417.20
RMO 21.80 231 iPd 25 42.40 10. 8X
i 25 49.00
COO 22.22 218 iPd 25 37.40 1.6
1.0S 36 . 00nm 4 . 8mb
i 2541.60
CMS 26.74 225 eP 26 20.00 1.1
i 26 25 . 40
STK 29.96 228 iPd 26 49.20 1.3
0.5s 7.70nm 4. 8mb
i 26 54.20
WR2 32.41 254 iPc 27 09.00 -0.6
0.7s 1 1 . 60 nm 4. 9mb
WRA 32.43 254 P 27 08.00 -1.8

0.7s 9 . 40nm 4 . 8mb
ASPA 33.39 248 i Pd 27 17.40 -0.7
0.9s 1 1 . 00nm 4 . 8mb
NANU 50.09 252 eP 29 35.50 1.0
MAT 57.12 332 eP 30 25.00 -1.2
0.9s 3.36nm 4.4mb
YAK 81.09 343 eP 32 52.80 -0.5
YKA 96.44 27 e P 3406.80 -0.3
0.6s 0.90nm 4. 4mb
LBF 144.06 341 ePKP 40 12.60 -1.8
SSF 144.14 341 ePKP 40 13.10 -1.4
1.1s 4 . 90nm
LPG 144.36 337 ePKP 40 14.30 -1.0
SMF 144.40 341 ePKP 40 13.40 -1.5
1.1s 7 . 35nm
AVF 144.43 341 ePKP 40 13.80 -1.1
0.9s 3 . 30nm
BGF 144.79 342 ePKP 40 15.00 -0.6
1.0S 1 0 . 00nm
MAP 145.18 342 ePKP 40 16.40 0.1
1.1s 7 . 35nm
TCP 145.23 342 ePKP 40 16.70 0.3
1.1s 7 . 35nm
SBF 145.44 334 ePKP 40 17.10 0.2
1.0s 24 . 00nm
LSF 145.46 343 ePKP 40 17.00 0.2
1.1s 9 . 75nm
MFF 145.58 345 ePKP 40 17.70 0.8
1.2s 1 1 . 90nm
PGF 145.79 331 ePKP 40 18.50 0.9
0.9s 1 3 . 1 0nm
FRF 146.01 335 ePKP 40 19.00 1.2
1.0s 1 0 . 00nm
LRG 146.22 335 ePKP 40 19.70 1.6
0.9s 6 . 55nm
LMR 146.26 335 ePKP 40 19.80 1.6
RJF 146.32 342 ePKP 40 22.00 3.8X
CAP 146.50 341 ePKP 40 22.10 3.5X
1.1s 6 . 1 0nm
LFF 146.88 343 ePKP 40 23.00 3 . 9X
LPO 146.98 342 ePKP 40 22.00 2.7
S. D. = 1 . 3 on 27 of 31 obs .

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& AUG 14. 1991 20h 44m 19.16s
63 . 1 75 N 151. 022 W
DEPTH - 12.2km
4 . 4mb (1 3 obs .)
CENTRAL ALASKA (1)
<AE I C>. ML 4.8 (AE 1C) , 5.0
(PMR). Felt (Ml) at Skwentna
ond (li) at Kontishna and
Po 1 me r .

KTH 0.38 7 iPc 44 26.85 -0.3
TRF 0.43 50 iPc 44 27.57 -0.6
HUR 0.66 107 iPd 44 31.68 -9.5
iS 44 40 . 29
CUT 0.85 156 iPd 44 35.53 0.3
RND 1.01 76 iPd 44 37.66 -0.4
MCK 1.09 58 iPc 44 39.29 -0.2
BWN 1.22 34 iPc 44 42.21 0.6
SKT 1.22 191 iPc 44 41.79 0.1
eS 44 57.81
PWA 1.62 160 iPc 44 47.40 -0.1
NEA 1.65 31 ePd 44 46.98 -1.0
GHO 1.71 144 ePd 44 48.63 -0.4
i S 4511.94
SUA 1.72 176 iPc 44 49.44 0.3
iS 45 13. 24
PLRM 1.82 150 ePc 44 50.36. 0.0
eS 45 14.95
PMR 1.82 150 iPc 44 50.90 0.5
WRH 1.84 44 iPc 44 49.93 -0.B
NCG 1.86 197 iPc 44 51.20 0.1
CGLM 1.93 194 iPc 44 52.30 0.1
BGL 2.02 199 ePc 44 53.88 0.4
CCB 2.05 42 iPc 44 52.73 -1.1
PMS 2.06 160 ePc 44 53.98 0.1
SPU 2.06 194 iPc 44 54.03 0.0
CKL 2.08 198 ePc 44 54.76 0.4
KNK 2.14 145 ePc 44 55.30 0.2

MDM 2.17 33 ePc 44 54.29 -1.3
FBA 2.24 38 iPd 44 56.00 -0.6
TTA 2.29 266 i Pd 44 56.60 -0.7
NKA 2.44 182 iPc 45 01.91 2.5
TOA 2.48 113 iPd 45 00.40 0.3
PAX 2.54 92 ePd 45 00.37 -0.5

SDG
RDT
SLKM
NCT
RDN
REF
TZL
RDW
RSO
RED
KLU
GLI
vzw
SVW
VLZ
I MA
NNL
SEW
KN IM
LT I
H I N
HOM
CVA
TMW
CNPM
PDB
GLB
SGAM
AUE
AUI
RAGM
FYU
HMT
MCNL
Ml D
CDD
TGL
BALM
SY I
WAX
CTGM
KDC
ANM
I NK

SDN
SI T
YKA

MBC

MCW
LON
NEW

FFC

BW06
MSU
SOD
NB2

HFS

MOX

i /*» p
LU n

MFF
SSF

LBF

AVF

SMF

LSF

TCF

? AUG
6.

2.60 1 02 i Pd 45 01 . 59 0.0
2.69 195 ePc 45 03 . 28 0.2
2 . 70 172 iPc 45 03. 62 0.4
2 . 77 200 eP 45 04 . 58 0.3
2.80 198 iPc 45 04 . 75 0.2
2.81 197 i PC 45 05 . 24 0.4
2 . 83 1 1 1 eP 45 03 . 88 -10
2.83 198 ePc 4505.69 0.5
2.84 198 iPc 4505.76 8.4
2.89 197 i PC 4506.24 0.4
2 . 92 1 23 eP 4506.11 -0.1
2 . 96 1 39 iPd 45 07 . 29 0.6
2 .99 1 33 iPd 45 07 . 49 0.3
2 . 99 228 eP 45 07 . 46 0.1
3.61 131 iPd 45 07 . 62 0.2
3.12 340 iPd 45 08. 90 -0.3
3 . 1 5 183 i PC 4510.94 1.5
3. 17 166 eP 45 1 1 .85 2.1
3.24 150 i PC 45 10.11 -0.6
3 . 49 1 53 i PC 45 1 3 . 58 -0.7
3.52 140 ePc 45 14.76 0.1
3 . 54 185 eP 45 16 . 45 1.5
3.63 134 i PC 45 16.78 0.5
3.63 84 eP 45 16. 77 0.4
3.66 182 ePc 45 17.18 0.4
3. 72 206 eP 45 17 . 45 -0.2
3.79 114 iPd 45 18.90 0.3
3.85 132 eP 45 19 .03 -0.3
3 . 99 1 98 eP 45 22 . 96 1.6
4. 02 198 eP 45 23 . 31 1.5
4.11 130 ePc 45 22.80 -0.3
4.20 33 ePc 45 23.23 -1.2
4.29 129 eP 45 24. 39 -1.3
4.31 203 eP 45 26 . 40 0.4
4. 39 147 eP 45 29.20 2.3
4.45 198 eP 45 27 .90 0.0
4.56 1 18 eP 45 29. 32 -0.3
4.61 1 1 4 eP 45 29 . 33 -0.9
4.63 189 eP 45 30 .95 0.5
4. 74 122 eP 45 31 . 85 -0.3
5 . 07 1 1 2 eP 4536.19 -0.6
5 . 49 188 eP 4541.50 -1.2
6. 49 289 eP 45 55 .70 -1.0
8.83 47 eP 46 27 .00 -2.3
0.9s 10. 20nm 5.1mb
9 . 22 2 16 P 46 38 . 00 3.2
9.93 121 eP 46 42 .50 -2.0
16.51 76 eP 4815.10 3.5
0.6s 6 . 20nm 3 . 9mb
16.73 26 eP 48 20 . 00 5.7
0.8s 6 . 00nm 3 . 8mb
21 .20 120 eP 49 06.00 -0.4
23.17 121 eP 4927.00 0.9
23 . 85 1 1 3 eP 49 33 . 00 0.4
0.9s 6 . 58nm 4 . 2mb
26.05 86 eP 49 58.00 4.5
0.6s 7 . 00nm 4 . 5mb
31 . 42 1 1 1 eP 50 41 . 00 -1.2
33 . 92 1 18 eP 5104.00 0.0
49 . 74 1 eP 5313.00 0.6
55.38 10 P 53 52 . 30 -2.4
0.5s 0 . 60nm 3 . 9mb
56. 46 9 eP 53 59.50 -2.9
0.4s 1.1 0nm 4 . 2mb
65 . 70 12 e(P) 55 10.00 5.0
68. 1 1 18 eP 55 21 . 70 1.3
0.7s 2 . 75nm 4 . 5mb
68.15 21 eP 5522.40 1.8
68.26 1 8 eP 5522.80 1.5
0.7s 2.20nm 4 . 4mb
68.41 1 8 eP 5523.20 1.0
0.7s 2 . 20ron 4 . 4mb
68.51 19 eP 55 24 . 1 0 1.3
0.6s 1 . 80r»m 4 . 4mb
68.72 18 eP 55 25 . 50 1.4
0.6s 1 . 80nm 4 . 4mb
68.76 20 eP 5525.60 1.2
0.7s 2 . 20nm 4 . 4mb
68.83 20 eP 55 27 . 10 2.3
95 abs. associated

14. 1991 21h 38m 07.28± 1.08s
918 S ±13. 6 km 124.677 E ±31. 4 km
DEPTH - 579.8 ± 19.1 km

4 . 5mb (2 abs .)
BANDA SEA (280)

14d 21 h

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Kuri O.JB i»oer oa^/.ae -u.i
eS 40 24.00
WR2 16.00 145 iPc 41 25.70 0.2
0.2s 45 . 80nm 5 . 6mb X
epP 41 45 . 30
ASPA 18.86 153 iPc 41 53.10 0.3
0.3s 25 . 50nm 5 . 3mb X
WARB 19.25 175 iPc 41 57.20 0.8
OIS 19.83 135 iPd 42 01.20 -0.5
0.2s 14.00nm 5. 2mb X
FORR 24.62 173 eP 42 38.50 -1.1
STK 29.43 150 iPc 43 27.00 0.3
0.2s 1 1 . 20nm 5.1mb
MAT 45.05 15 eP 45 34.00 0.1
0.8s 2 . 99nm 3 . 9mb
S.D. - 0.8 on 8 of 8 obs.
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& AUG 1 k , 1991 21h 50m 25.50s
34 .250 N 117. 950 W
DEPTH * 10.0km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 3.2 (PAS). Felt ot
Monrovio ond Posodeno.

MWC 0.09 254 iPd 50 28.10 -0.2
PEM 8.11 141 iPc 50 28.14 -0.2
PAS 0.21 241 eP 50 29.80 -0.3
S 50 32.99
SSK 0.22 100 iPc 50 30.02 -0.3
PCF 0.24 146 iPc 50 38.35 -0.2
TCC 0.26 192 eP 50 30.85 -0.2
SCY 0.44 251 *Pc 50 33.78 -0.7
SBB 0.45 13 iPd 50 34.00 -0.7
VPO 0.46 160 eP 58 34.60 -0.3
TWL 0.53 273 eP 50 35.31 -1.0
PEC 0.75 118 iPc 50 39.00 -1.1
CIS 0.92 204 eP 50 42.50 -0.6
CIW 0.93 213 eP 50 42.50 -0.7
ABL 1.21 300 eP 50 46.90 -1.3
PLM 1.27 134 iPc 50 48.30 -1.0
GSC 1.41 42 ePd 50 51.40 0.1
BCH 1.99 299 eP 50 59.30 -0.4
17 obs. ossocioted

« AUG 14. 1991 22h 31m 1 6 . 84± 0.68s
3.575 S ± 9.0km 151.131 E ±11. 3km DEPTH >= 33.0km (normal)
4 . 4mb (6 obs .)
NEW IRELAND REGION (190)

RAB 1.20 121 iPd 31 36.00 -1.4
iS 32 57 . 50
LAT 5.13 233 eP 32 33.80 0.4
MOG 5.59 252 *P 32 40.10 0.3
PMG 7 . 01 214 eP 33 01 . 80 1.1
CTAO 17.09 196 iPc 35 15.00 0.1
OIS 20.27 213 eP 35 50.60 -1.9
i 35 55.20
RMO 22.90 185 i Pd 36 28.00 9.1X
1.2s 1 62 . 00nm 5 . 4mb
i 36 51 . 30
WR2 23.07 224 i PC 36 19.90 -0.8
0.8s 9 . 1 Onm 4 . 3mb
DZM 23.64 142 iPc 36 26.90 0.7
BRS 23.73 176 iPd 36 27.08 -0.1
OLP 23.81 195 iPc 36 28.00 0.2
ASPA 26.80 218 eP 36 49.50 0.8
1.1s 14.88nm 4. 5mb
CMS 28.21 190 eP 37 08.00 -0.7
STK 29.55 197 eP 37 24.10 3.3X
0.8s 2.50nm 4. Omb
MAT 41.69 344 (P) 39 03.80 -1.2
0.8s 5 . 22nm 4 . 3mb
BJ I 53.96 327 eP 40 38.00 -1.7
CHG 55.96 295 eP 40 53.00 -1.7
SHL 64.26 300 eP 41 49.50 -2.2
YAK 67.44 349 eP 42 10.50 -0.6

GUN 70[. 07 301 P 42 31.98 3 . 5X
PK 1 70.38 301 P 42 33.02 2.6
KKN 70.55 301 P 42 33.50 2.2
OMN 70.65 301 P 42 35.06 3. IX
GKN 71.15 301 P 42 33.36 -1.5
INK 87.92 21 eP 44 07.00 2.9
YKA 95.12 28 eP 44 42.00 4 . 3X
0 . ^s 1 . 78nm 4 . 5mb
KHC 122.84 328 ePKP 50 12.40 2.7
S.D. =1.6 on 22 of 27 obs .

& AUG 14, 1991 22h 49m 38.
60 . 1 8 1 N 153.194
DEPTH - 138.0km
SOUTHERN ALASKA
<AE I C> .

RED 0 . 32 41 i P 4957.
RSO 0.36 38 iP 49 57
ROW 0. 36 32 eP 49 57 .
REF 0.39 38 i P 4957.
RDN 0 . 40 33 eP 49 57 .
NCT 0. 40 19 eP 4957.
DFR 0.48 31 eP 49 57 .
RDT 0.56 44 i P 4958.
PDB 0.64 232 eP 49 58.
AUE 0.83 186 eP 50 00,.
AUI 0.86 188 eP 50 00.
eS 50 17 .
CKL 1.10 22 IP 50 02.
eS 50 22.
NKA 1 . 1 2 59 eP 5004.
SPU 1.15 29 eP 50 02.
BGL 1.16 20 eP 50 03 .
CNPM 1.19 123 i P 5003.
eS 50 22.
CDD 1.28191 i P 50 03.
S 50 22.
NCG 1.33 22 eP 50 05 .
SY I 1 . 63 165 eP 50 07 .
SUA 1.76 42 eP 50 09 .
eS 50 33.
SEW 1.88 91 eP 50 10 .
SKT 1.98 23eP 5012.
PMS 2.08 58 eP 50 12.
CUT 2.64 31 eP 50 19.
LT 1 2.68 91 eP 50 20 .
KNIM 2.73 84 eP 5020.
MTU 2.78 92 eP 50 22 .
GL I 3.10 74 eP 50 25 .
TRF 3.56 22 *P 50 31 .
29 obs. ossocioted

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? AUG 14, 1991 22h 54m 21 .
1 3 . 788 S ±10. 1 km 167.556
DEPTH = 33.0km (normal)
4 . 7mb (2 obs .)
VANUATU ISLANDS

BKM 3 . 91 170 iP 55 22 .
DZM 8 . 31 187 iP<J 56 21 .
iS 57 57 .
RMO 21 . 67 231 i PC 59 23.
i 59 25.
STK 29.82 229 i PC 00 29.
0.5s 9 . 30nm
ASPA 33.28 248 i Pd 00 58.
1.8s 6 . 40nm
MAT 57.21 332 eP 04 08.
SSF 144.24 341 ePKP 13 54.
1.2s 5 . 95nm
CZ I 144.28 320 PKP 13 54 .
LPL 144.45 337 ePKP 13 56.
0.7s 1 . 6Snm
LPG 144.46 337 ePKP 13 56.
0.7s 2 . 20nm
SMF 144.50 341 ePKP 13 54.
0.7s 1 . 6Snm
AVF 144.53 341 ePKP 13 55.
0.7s 2 . 20nm
BGF 144.89 342 ePKP 13 57.
1.0s 1 0 . 00nm
MAF 145.28 342 ePKP 13 58.
1.0s 4 . 00nm
TCF 145.33 342 ePKP 13 58.
1.0s 5 . OOnm
SBF 145.53 334 ePKP 13 58.
0.9s 19 . 6Snm
LSF 145.56 343 ePKP 13 59.
1.0s 6 . 88nm
MFF 145.69 345 ePKP 13 58.
PGF 145.87 331 ePKP 14 80.
0.9s 1 3 . 1 Onm
FRF 146.10 335 ePKP 1 4 00 .
1.8s 1 2 . 00nm
LRG 146.31 335 ePKP 14 01.
1.8s 8 . 00nm

39s
W

(2)

06 0.8
43 0.8
38 0.8
56 -0.8
63 -0.6
42 -0.9
48 -12
19 -0.8
31 -1.1
07 -0.7
19 -0.9
45
67 -0.7
1 1
06 0.7
78 -1.0
60 -0.3
49 -0.6
73
87 -1.2
95
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E ±22. 7km

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OUR
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4 . 67
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eS
356 eP
132. 00nm

ii
i
136 <=P
279 ePn
e

eSg
157 i PC
i S
276 ePn

e(Sg)
67 <=P
271 ePn
146 i Pd
168 ePc
iS
126 IP
91 eP
98 eP
164 ePd
279 ePn
e

e(Sn)
*Sg
175 eP
275 P
142 cP
214 P
169 ePd
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301 ePn
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- 1.4
- 0.8
- 0 .4
3. 2X
- 1.1

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1 .5
4.3X
3.8X
- 0.6
5mb X

- 1 .2

- 2. 1

5.5X
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2 . 9X
2.9X
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- 0.6
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2 . 9X
- 1 .5
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5.0X
- 2. 3
3.9X
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1 SK
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WTS

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eSn

*Sg
134 eP
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269 P
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10.7 5nm
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266 eP
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292 eP
1 10 eP
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34 . 00nm
275 eP
20 . 85nm
289 «P
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1 1 9 eP
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1 2 . 00nm
3 . 25um
265 eP
7.70 nm
264 eP
306 ePc
234 . 80nm
302 P
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14.00 nm
310 eP
4 . 00nm
335 eP
1 6 . 44nm
107 eP
283 eP
298 P
7 . 80nm
S
285 eP
3. 25um
282 eP
282 eP
6 . 00nm
281 eP
6.55 nm
280 eP
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NB2 16.65 343 P 39 56.40 0.B
0.9s 4 . 80nm 3 . 6mb X
KAF 16.93 8 eP 39 55.20 -3.BX
DSI 17 . 76 1 37 eP 40 12.00 2.5
MBH 19.03 141 eP 40 23.40 -2.0
SOD 22.14 6 IP 41 02.80 5.0X
KER 22.70 110 eP 41 08.00 4.2X
KEV 24 . 52 5 eP 41 27 . 00 6 . 0X
e 49 32 . 00
LWI 47.99 170 iPc 44 45.50 3.5X
GKN 52.43 87 P 45 18.80 3.0X
DMN 53.00 87 P 45 22.20 2.0
KKN 53.01 86 P 45 22.20 2.6
0.6s 14.00nm 5. 1mb
PK 1 .53.24 86 P 45 22 . 80 0.8
GUN 53.36 86 P 45 27.10 4.2X
BUL 65.66 172 eP 46 52.10 4.7X
YKA 66.71 339 eP 46 56.50 2.9X
1.1s 1 . 90nm 4 . 2mb
CHG 68.36 85 eP 47 04.00 -0.6
SLR 71.17 173 eP 47 12.50 -9 . 1 X
TUL 81.02 313 eP 4B 19.80 2.7
0.6s 3 . 60nm 4 . 6mb
BW06 81.78 326 P 48 23.30 2.1

GOL 82.59 321 (P) 4B 28.80 3 . 3X
S.D. - 1.4 on 126 of 16B obs.

» AUG 15, 1991 00h 34m 20.27± 1.17s
23.786 N ±11. 0km 122.609 E ± 1 5 . 5 km
DEPTH - 33.0km (normal)
4 . 0mb (3 obs .)
TAIWAN REGION (243)

TWO 0.97 288 iPc 34 36.60 -1.0
TWC 1.07 320 iPc 34 39.20 0.2
eS 34 55.00
TW2 1.61 324 ePd 34 48.50 1.8
TWG 1.71 236 ePd 34 47.50 -0.7
eS 35 10 . 40
ANP 1.71 325 eP 34 50.00 1.7
SSE 7.39 350 Pn 36 06.00 -2.5
pP 36 12.00
sP 36 18 . 00
WRA 44.94 164 P 42 35.00 0.9
1.0s 1 . 60nm 3 . 9mb
NB2 79.18 333 P 46 22.70 -0.5
0.7s 1 . 30nm 4 . 0mb
YKA 82.83 23 eP 46 42.40 0.1
0.8s 1 . 80nm 4 . 2mb
S.D. -1.6 on 9of 9obs.

? AUG 15. 1991 00h 56m 33 . 43± 3.62s
23.719 N ±16. 6km 122.394 E ±36. 5km
DEPTH - 33.0km (normal)
TAIWAN REGION (243)

TWO 0.81 296 iPc 56 47.80 -0.6
eS 57 01 . 50
TWC 1.02 331 iPc 56 50.20 -1.2
TWG 1.51 234 i PC 56 58.60 0.2
TW2 1.56 332 ePd 56 59.60 0.4
ANP 1.66 332 eP 57 02.70 1.9
SSE 7.43 352 eP 58 21.50 -0.7
pP 58 30.50
S.D. -1.4 on 6of 6obs.

AUG 15, 1991 01h 34m 33.65± 0.35s
45.485 N ± 3.6km 21.286 E ± 4.1km
DEPTH - 10.0km (geophy s i c i s t)
ROMANIA (358)
MD 4.5 (TRI). ML 4.4 (VKA). Felt (VI) in the epicentrol area ond
(V) o t T i m i soaro .

TIM 0.26 350 iPc 34 42.00 2.9
SSR 0.70 152 iPc 34 48.00 0.5
BED 0.89 222 i Pgc 34 50.00 -0.6
iSg 35 03 .00
OEV 1.20 70 iPc 34 54.60 -2.0
UZD 2.19 301 iPnd 35 10.30 -0.2
DRA 2.25 110 ePc 35 24.00 12. 5X
CEI 2.34 20 eP 35 24.00 11. 2X
BUD 2.54 323 iPrtd 35 15.80 -0.5
PS2 2.62 339 iPr. 35 15.80 -1.0
CMP 2.65 93 ePc 35 23.80 5.7X
BMR 2.67 34 ePc 35 38.00 20. 6X
MTUR 2.68 94 eP 35 23.00 5.4X

1 5d 01h

128

VTS
MLR
SKO

BUC 1
ISR
SPC

PIT
2ST

VAY
OHR
VKA

KNT

RZN
GRG
KRA

SRS
KDZ
SOH

KZN
TR 1

RDO
LI T
OUR
KMR

FV 1
8HG
ARV
KSP

KHC

PRU

SDI
ASS
CT 1
MGR
SF 1
WTTA

ORE
MNS
8RG

GRC1
CLL

MOX
TOO
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WLF
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154 i P
88 ePc
178 ePn
263 . 00nm
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iSg

i 167 ePc
93 eP
350 rPn
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i (Sg)
66 eP
315 i Pn
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i (Sn)
167 iPn
185 ePn
311 i Pnc
i
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164 ePd
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146 IP
169 ePc
349 eP
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158 ePc
1 40 eP
1 61 ePd
eS
176 eP
275 ePnd
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iSg
143 eP
170 i P d
158 ePd
300 ePn
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294 eP
255 P
330 eP
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308 iPn
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317 Pnd
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238 P
252 P
278 P
220 P
260 P
288 iPnc
i
i Sn
258 P
247 P
320 ePn

301 Pnc
320 eP
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312 ePn
301 eP
289 eP
275 eP
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275 eP
2 . 20nm
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1.0s 1 . 50nm 3.1mb
S . D . = 1.2 on 44of 62 obs .

AUG 15, 1991 01h 53m 07.96± 0.43s
44.281 N ± 5.4km 10.792 E ± 4.4km DEPTH = 10.0km (geo phy s i c i s t)
NORTHERN ITALY (545)
ML 2. 7 (LOG) .

MME 0.11 217 P 53 20.00 9.0X
eSg 53 25.
BDI 0.26 21 3 PC 53 19 .
eSg 53 25.
P 1 1 0 . 59 1 99 PC 5321.
eSg 53 29 .
PGD 0.78 121 P 53 23.

eSg, 53 32.
SFI 0.84 1 15 P 53 25 .

eSg 53 35.
CRE 1 .06 128 P 53 27 .
eSg 53 40.
SOB 1 .08 297 P 53 34 .
ARV 1 . 74 1 1 6 P 5339.
ASS 1 . 82 131 P 53 37 .
PGF 2. 17 218 Pn 53 43 .
Sn 54 07 .
SBF 2.46 261 Pn 53 48.
Sn 5416.
FRF 3 .08 258 Pn 53 57 .
Sn 54 31 .
LPG 3.12 294 Pn 53 59 .
LMR 3.24 255 Pn 53 59.
Sn 54 35.
LRG 3.31 257 Pn 54 00 .
Sn 54 36.
FEL 4 .08 333 ePn 54 1 1 .
BSF 4.51 323 Pn 54 18.
Sn 55 07.
CDF 4 . 80 331 Pn 5421.
HAD 4.84 322 Pn 54 22.
Sn 55 15.
LBF 5. 49 302 Pn 5431.
S.D. =0.9 on 17 of 2

AUG 15, 1991 02h 32m 50.
3.132 N ± 7 . 0km 84.299
DEPTH - 10.0km (geophysi

50
30 5 . 8X
50
50 1.6
50
40 0.1
30
30 1.1
10
50 -0.5
30
30 6 . 0X
40 1.0
50 -2.1
60 -1.1
30
90 0.2
30
80 0.3
10
00 0.6
20 -0.6
00
70 -0.1
70
66 -0.2
10 0.1
80
90 -0.1
50 -0.1
80
80 0.0
0 obs .

63± 0.40s
W ± 6 . 0km
cist)
4.7mb (20 obs.) 4.2Msz (4 obs.)
OFF COAST OF CENTRAL AMERICA (76)

YANA 6.57 119 eP 34 29.70 -0.5
GGP 6.58 120 eP 34 29.30 -1.1
OUR 6.64 120 P+ 34 30.
PSO 7.23 105 eP 34 39.
BOG 10. 32 81 eP 35 27 .
i S 37 30.
FUO 10.78 77 eP 35 28 .
BMG 11.84 70 i Pd 35 44 .
SDV 14.74 67 eP 3621.
TOV 15.85 65 eP 36 36.
NNA 16 . 75 154 eP 3647.
1.2s 31. 25nm
Z 22s 3.89um
Z080 25.05 141 iPc 38 19.
1 .8s 52 . 19nm
Z 22s 0.76um
S 42 52.
LR 46 24.
CCH 27. 14 139 eP 38 41 .
SI V 29 .81 130 P 39 00.
JSC 31.12 5 P 39 10.
BLA 34 . 10 6 P 39 37 .
1.0s 1 5 . 00nm
MEO 34 . 18 339 i Pd 39 46.
TUL 34 . 31 343 i Pd 39 38 .
0.8s 6 . 00nm
Z 22s 0.49um
N 20s 0.27um
E 18s 0 . 1 Sum
LR 50 56.
FVM 35. 1 4 352 P 39 45
0.7s 1 0 . 20nm
ALO 37.75 330 eP 40 09.
0.9s 10. 08nm
ANMO 37.75 330 P 40 09.
0.9s 1 1 . 1 3nm
GLD 41 .09 335 P 40 38.

50 -0.6
50 0.2
00 4.9X
00
50 0.0
00 1.2
80 0.5
00 0.4
00 -0.1
4 . 3mb
4 . 2MS2
00 1.7
4 . 9mb
4.2Msz
00
00
00 4.6X
20 -0.1
90 -0.6
50 -0.1
4 . 9mb
00 9. 7X
50 -0.9
4 . 6mb
4 .2Msz

00
20 -1.3
4 . 8mb
80 1 . 0
4 . 6mb
80 1.0
4 . 6mb
20 1.7

0.9s 3 1 . 58nm 5 . 0mb
GOL 41.12 335 P 40 37.30 0.5
1.0s 7 . 50nm 4 . 4mb
PV09 41.87 330 P 40 40.00 -3.0
PLM 42.77 318 P 40 51.60 1.2
PEC 43. 30 319 P 4055.50 1.1
RSSD 44.39 340 P 41 04.50 1.1
0.6s 9 . 06nm 4 . 8mb
BW06 45.44 334 P 41 11.30 -0 6
1.2s 7 . 99nm 4 . 5mb
LRM 49.12 334 eP 41 40.30 -0.4
ORV 49.51 322 P 41 44.00 0.5
NEW 53.05 333 P 42 09.20 -1.0
0.7s 4 . 40nm 4 Snrib
PNT .54.96 332 eP 42 24.00 -0.1
YKA 63.36 345 eP 43 20.40 -1 7
0.8s 2 . 60nm 4 . 5mb
INK 72.97 343 eP 44 22.00 0.1
MBC 75.62 352 ePc 44 37.50 0.4
0.7s 6 . 00nm 4 8mb
LPF 83 . 17 42 eP 45 18 . 40 0.0
GRR 83.31 42 eP 45 19.00 -0.1
1.1s 9 . 75nm 4 . 9mb
FLN 83.58 41 eP 45 20.60 0.2
1.2s 14. 90nm 5.1mb
Z 22s 0 . 20um 4 . 4Ms 2
LDF 83.81 42 eP 4521.90 0.3
CAF 85.23 45 eP 45 29.30 0.4
MAF 85.59 44 eP 45 30.90 0.3
1.1s 9 . 75nm 4 . 9mb
BGF 85.78 44 eP 45 31.70 0.1
1.3s 1 8 . 05nm 5.1mb
AVF 86.13 43 eP 45 32.90 -0.3
1.4s 8 . 70nm 4 . 7mb
SSF 86.23 43 eP 45 33.40 -0.4
SMF 86.46 44 eP 45 34.60 -0.4
LOR 86.47 43 eP 45 34.70 -0.3
0.9s 5 . 75nm 4 . 8mb
Z 22s 0.08um 4.0MS2
LBF 86.55 43 eP 45 35.00 -0.4
WRA 138.78 243 PKP 52 30.00 10. IX
0.7s 2.1 0nm
S . D . -0.9 on 43 of 47 obs.

AUG 15, 1991 02h 38m 15.01± 0.70s
45.608 S ±12. 5km 72.543 W ±13. 9km DEPTH - 10.0km (geophy s i c i s t)
5 . 2mb (9 obs .)
NEAR COAST OF SOUTHERN CHILE (144)
This is one of o series of
eorthquokes probobly ossocioted
with the eruption of Hudson
Vo I c ono .

PEL 12.53 7 eP 4116.50 0.3
LPA 15.42 51 eP+ 42 10.00 15. 9X
eS 4515.00
SLA 21 .60 18 iPc 43 08 . 80 1.7
CCH 28.65 1 3 P 44 15 . 30 1.2
ARE 29.07 2 iPc 44 18.50 0.5
1.0s 23 . 0@nm 4 . 9mb
PPD 29.22 43 (P) 44 18.00 -1.0
LPB 29.23 9 P 44 19.00 -0.5
ZOBO 29.48 9 P 44 22.00 0.0
1.0s 30 . 00nm 5.1mb
VAO 30.67 51 (P) 44 31.00 -0.9
SIV 31.06 22 PC 44 34.80 -0.5
SOB1 45.32 47 eP 46 35.70 0.8
KIM 74.80 116 eP 49 53.00 -4.3X
SLR 79.13 116 eP 50 14.00 -7.5X
JSC 79.91 353 P 50 24.20 -0.9
SLA 82.75 354 P 50 40.00 0.0
BUL 83.33 112 iPc 50 44.00 0.3
1.0s 15. 00nm 5.1mb
MEO 83.41 339 iPc 50 42.10 -1.4
TUL 83.82 341 eP 50 44.50 -1.0
1.2s 41 . 60nm 5 . 5mb
FVM 84.76 346 P 50 49.80 -0.4
1.0s 20 . 00nm 5 . 3mb
ALO 85.84 333 eP 50 55.70 -0.2
1.0s 16 . 75nm 5 . 2mb
ANMO 85.85 333 P 50 55.60 -0.3
1.0s 18. 00nm 5 . 2mb
KRI 86.37 110 eP 50 52.40 -6 . 6X
PLM 88.24 324 P 51 09.50 1.9
PEC 88.84 324 P 51 12.00 1.8
GOL 89.89 335 P 51 14.50 -0.9

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I5d 02h

1.0s 6 . 25nm 4 . 8mb
GLD 89.89 335 P 51 14.80 -0.5
0.8s 28.24nm 5. 6mb
PV09 89.96 332 P 51 15.90 0.1
RSSD 93.61 338 P 51 32.00 -0.3
MBC 125.21 348 ePKP 57 14.00 -1.8
1.0s 6 . 00nm
CHTO 152.36 162 PKP 58 07.70 2.0
S.D. - 1.1 on 26 of 30 obs.

% AUG 15, 1991 02h 43m 17.95± 0.88s

DEPTH - 33.0km (normol)
LEEWARD ISLANDS (92)
ML 2 . 0 (FDF) .

DEC 0.05 97 iPd 43 23.42 -0.2
S 43 26.50
SFG 0.10 230 ePd 43 23.51 -0.2
SEG 0.38 283 eP 43 26.89 0.1
S 43 31 . 30
MGG 0.44 206 eP 43 27.80 0.1
S 43 33.30
DOG 0.56 239 eP 43 29.30 -0 . 2
S 4336. 70
PAG 0.61 242 eP 43 29.80 -0.4
S 4337. 50
BBL 0.87 204 eP 43 34.36 0.5
S 4345. 30
BPA 1 . 01 316 eP 4336.20 0.3
S.D. - 0.4 on 8 of 8 obs.

48.463 N ±14. 7km 145.408 E ± 1 2 . 1 km DEPTH - 497 .3 ± 15.7 km
4 . 1mb (13 obs .)
SEA OF OKHOTSK (663)

ASAJ 4.75 205 iPd 56 39.50 1.6
KUSJ 5.39 185 i Pd 56 41.90 -1.9
S 57 51 .30
HOOJ 6.26 195 i P+ 56 51.00 -1.2
S 58 06.80
MRRJ 6.76 208 P 56 58.20 1.0
eS 58 19.00
OFUJ 9.76 197 P 57 29.00 0.4
eS 5918.40
YAMJ 11.00 203 eP 57 42.40 0.8
MAT 13.03 207 iPc 58 03.20 0.2
0.5s 7.75nm 4. 5mb
FBA 38.11 39 P 01 49.20 0.5
GUN 49.74 268 P 03 20.80 0.2
KKN 50.22 268 P 03 23.40 -0.5
0.5s 1 2 . 00nm 4 . 6mb

DMN 50.46 268 P 03 24.40 -1.3
GKN 50.51 269 P 03 25.00 -0.9
0.5s 1 4 . 00nm 4 . 6mb
YKA 52.60 35 eP 03 39.40 -1.1
0.5s 1 . 80nm 3 . 7mb
NB2 64.78 337 P 05 02.00 -0.7
0.7s 4 . 30nm 4 . 2mb
HFS 64.89 336 eP 05 02.00 -1.3
0.5s 7.50nm 4. 6mb
CLL 72.59 331 i Pd 05 49.40 -0.2
0.9s 10.00nm 4. 4mb
MEM 75.33 335 PC 06 05.20 0.2
CDF 76.92 333 eP 06 13.80 -0.1
BSF 77.59 333 eP 06 17.00 -0.5
FLN 78.76 338 eP 06 23.40 -0.2
Z 22s 0.15um 4.3Msz
LDF 78.83 337 *P 06 23.80 -0.1

0.8s 3 . 35nm 3 . 8mb
Z 19s 0 . 08um 4 . 0Msz
LBF 79.18 334 eP 06 25.60 -0.3
GRR 79.20 338 eP 06 26.00 0.1
0.5s 2 . 90nm 4 . 0mb
SSF 79.25 335 eP 06 26.10 -0.1
SMF 79.53 334 eP 06 27.60 -0.1
0.8s 2.70nm 3. 7mb
AVF 79.54 335 eP 06 27.80 0.1
LPF 79.58 338 eP 06 28.20 0.3
LPL 79.68 332 eP 06 29.20 0.5
LPG 79.69 332 eP 06 29.40 0.5
TUL 79.89 46 eP 06 29.10 -0.6
0.8s 5 . 80nm 4. 1mb

MAF 80.28 335 eP 06 32.20 0.6
0.8s 3.35nm 3. 9mb
LSF 80.55 335 eP 06 33.20 0.2
1.0s 6 . 00nm 4 . 0mb
MFF 80.67 337 eP 06 33.90 0.3
RJF 81 . 42 335 eP 06 38 . 70 1.2
Z 20s 0.1 Sum 4 . 3Msz
CAF 81.61 335 eP 06 39.60 1.1
LFF 81. 97 335 eP 0641.10 0.9
LPO 82.08 335 eP 06 41.60 0.8
S.D. =0.8 on 39 of 39 obs .

7. AUG 15, 1991 02h 55m 23.71± 0.52s
41.135 N ± 7.5km 15.075 E ± 8.0km
DEPTH = 10.0km (geophysicist)
SOUTHERN 1 TALY (390)

SCO 0.60 163 P 55 34.00 -1.9
eSg 55 42.50
DUI 0. 70 319 P 55 36 60 -1.0
MGR 1.06 160 P 55 43.30 -0.4

eSg 55 58.70
SDI 1.11 301 P 55 44. 80 0.3
BA 1 1.35 90 P 5548.50 0.0
AZ 1 1.50 305 P 5551.40 0.8
BRT 1.63 98 P 55 52.20 -0.4
CSI 1 . 64 145 P 55 53. 50 0.7
TDS 1 . 76 146 P 5554.90 0.4
ROI 1 . 93 143 P 55 57 . 20 0.2
CZ 1 2 . 08 157 P 5600.40 1.4
ASS 2.64 318 P 56 07.00 -0.1

AUG 15, 1991 03h 27m 00.29+ 2.03s
58.984 N ±22. 8km 10.154 E ± 9.3km
DEPTH = 10.0km (geophysicist)
SWEDEN (536)
MD 2 . 7 (BER) .

ODD1 2.03 299 IP 27 36.05 1.1
eSg 28 03.53
HFS 2.14 56 eP 27 36.60 0.1
0.2s 13. 50nm
KMY 2.54 277 i PC 27 41.52 -0.7
iSg 28 17 . 02
EGO 2.82 299 eP 27 46.27 0.1
eSg 28 54.34
ASK 2.93 303 ePg 27 51.83 4.2X
i S g 28 30.51
HYA 2.96 319 eP 27 47.65 -0.4

i Sg 28 33. 74
MOL 3.82 342 iP 28 00.04 -0.3
eSg 28 57.61
S.D. =0.8 on 6of 7 obs.

% AUG 15, 1991 03h 32m 14.84± 1.05s
39.267 N ± 5.4km 16.472 E ± 9.2km
DEPTH = 10.0km (geophysicist)
SOUTHERN ITALY (390)

ACI 0.22 292 P 32 19. 60 -0.1
CZ 1 0.27 260 P 32 20. 60 0.1
ROI 0.31 14 P 32 21 . 90 0.5

eSg 32 27.40
TDS 0.40 345 P 32 22.20 -0.9
CSI 0.53 345 P 32 25.20 -0.3
MGR 1 . 12 321 P 32 36. 40 0.6

eSg 32 52.20
SOI 1 . 24 195 P 32 37 . 60 -0.2

eSg 32 55.00
SCO 1 . 57 326 P 3243.00 0.3
S.D. - 0.6 on 8 of 8 obs.

AUG 15, 1991 04h 39m 05.24± 0.37s
45.772 S ± 6.0km 72.305 W ±12. 0km
DEPTH - 10.0km (geophysicist) 5.3mb (15 obs.) 5.0Msz (5 obs.)
NEAR COAST OF SOUTHERN CHILE (144)

LNV 11.82 4 eP 41 56.00 -0.8
CHCH 11.89 7 eP 41 58.50 0.7
TACH 12.15 5 eP 42 01 . 70 0.4
PCH 12.21 7 eP 42 03 . 00 0.8
LCCH 12.29 3 eP 42 02.00 -1.2
PEL 12.67 6 eP 42 07.50 -0.8
i 42 10.50
MDZ 13.14 13 eP 42 21.50 6 . 9X

RTLL
A 1 A
SLA
ANT
CCH
PPD

ARE

1 D R

ZOBO

VAO
NNA

SPA

SOB1
NVL

PSO
BOG

FRS

K I M

SEK

KSR

SLR
JSC
BLA

BUL
MEO
CBN
TUL

FVM

ALO

ANMO

KR 1
TBR
GLA
MTD
PLM
TPC
PEC
RVR

SBB
GOL

GLD

GSC
PV09
CLC
1 SA
RSSD

BW06

KRA

eS 46 18 . 60

14.73 13 e(P) 42 32 . 90 -2.5
20.01 170 eP 43 40.00. -0.6
21.70 1 7 i Pd 4400.00 1.6
22.07 5 eP 44 03 . 50 1.6
28.77 12 P 45 05 . 90 0.4
29.23 43 eP 45 09 . 90 0.6
e 4520.10
29.23 2 i PC 45 09. 50 -0.1

Z 20s 7.09um 5.3Msz
LR 47 12.00
ScS 55 44.00
29. 62 8 P 45 13. 40 -0.1
1.2s 69 . 59nm 5 . 3mb
Z 20s 3 . 94um 5 . 0Msz
S 50 28.00
LR 56 52.00
30. 64 51 eP 45 21 .00 -0.9
33.89 352 eP 45 49.50 -0.8
1.0s 10. 00nm 4 . 7mb
Z 18s 1 . 55um 4 . 8Msz
44.42 180 iPd 47 16.80 -0.9
1.1s 47 . 62nm 5 . 3mb
45.31 46 eP 47 26 . 20 1.1
45 . 77 153 eP 47 28 . 00 0.0
e 47 36.00
e 47 39.00
e 47 53.00
e 48 04.00
e 48 49 . 00

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eSS 57 48.00
46. 97 353 eP 47 41 . 50 2 . 9X
50 . 20 358 eP 48 07 . 00 3. 5X
eS 55 24.00
74 . 23 1 16 eP 50 44 .20 0.2
1.2s 39 . 06nm 5 . 3mb
74.58 1 15 iPc 50 46 .00 -0.3
1.3s 48 . 08nm 5 . 4mb
76 . 66 1 17 eP 51 13 . 20 15 .0X
0.9s 1 2 . 60nm
77 . 93 1 15 eP 51 08.00 2.7
1.0s 1 5 . 00nm 5 . 0mb
78.90 115 iPc 51 10.50 -0.1
80.09 352 P 51 14.50 -1.8
82 .93 353 P 51 31 .80 0.6
2.0s 94 . 94nm 5 . 6mb
83 . 1 1 1 12 eP 51 31 .30 -1.5
83.63 338 i Pd 51 34.00 -0.8
83. 72 356 eP 51 37 . 00 1.9
84.03 341 iPd 51 35.90 -0.9
1.2s 75 . 30nm 5 . 8mb

N 22s 0.1 9um
E 22s 0.1 2 urn
LR 20 58.00
84 .96 346 P 51 39. 30 -2.1
1.5s 60.98nm 5.6mb
86.06 332 ePc 51 46.80 -0.4
1.0s 27 . 75nm 5 . 4mb
86 . 07 332 P 51 47.00 -0.2
1.0s 30 . 00nm 5 . 4mb
86.15 110 eP 51 43.70 -4.4X
86 .55 359 P 51 49.50 0.4
87 . 39 325 eP 51 55.00 1.5
87 . 48 1 1 1 eP 51 59.70 5.2X
88.48 324 eP 52 00.00 1.1
88.80 325 eP 52 01 .00 0.7
89 . 07 324 P 52 02.70 1.1
89.24 324 eP 52 05.00 2.7
89. 72 324 eP 52 07 .00 2.2
90.03 324 eP 52 08.00 1.9
90.11 335 P 52 05.60 -1.0
1.0s 5 . 75nm 4 . 8mb
90. 1 1 335 P 52 06.20 -0.3
1.5s 50 . 00nm 5 . 5mb
90. 15 325 eP 52 08.00 1.4
90. 18 332 P 52 05.50 -1.5
98.91 325 eP 52 13.00 2 .9X
91.14 324 eP 52 07.00 -4.2X
93.83 338 P 52 21 .70 -1.8
1.1s 5 . 28nm 4 . 8mb
94 . 19 333 P 52 23.50 -1.8
1.5s 17 . 16nm 5 . 2mb
124.31 51 ePKP 58 10.60 5.5X

15d 84h

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e ei 1 3 .60
F8A 124.83 330 PKP 58 03.20 -2.4
M8C 125.40 348 ePKP 58 05.50 -0.9
1.0s 1 3 . 06nm
NB2 125.84 37 PKP 5808.46 0.6
1.2s 7 . 90nm
OBN 135.63 51 fePKP 58 27.00 0.5
? . Os 1 1 0 . G0nm
Z "19s 0 . 60uin 5.3Msz
E 19s. 0 . 6t> urn
MA I 0 142 92 87 ePKP 53 40.00 -0.5
DUE 144.73 102 ePKP 58 44.00 0.1
NDI 150.58 115 ePKP 58 56.00 3.0X
CHTO 152.15 162 PKP 59 00.00 4.4X
P K I 1 5 4 . G t. 126 P > P 59 00.00 0.7
WAT 15^.37 259 ePKP 59 04.00 4.4X
8J 1 171.54 230 PKP 59 12.00 -2.1
Z 22s 0 . 3 1 urn
e 00 24 . 00
ePP 04 12.00
IRK 173.13 18 ePKP 59 16.00 1.6
S.D. = 1.3 on 56 of 68 obs.

» AUG 15. 1991 04h 44m 37.48± 0.93s
45.518 N ± 7.7km 21.130 E ±12. 8km
DEPTH * 10.0km (geophysicist)
ROMANIA (358)

SSR 0.79 146 iPc 44 52.00 -0.8

8EO 0.84 215 iPg 44 55.00 1.2
i Sg 45 07 . 50
UZD 2.07 302 e(Pn) 45 11.00 -1.7
BUD 2.45 324 e(Pn) 45 19.00 1.0
PSZ 2.55 341 iPn 45 20.00 0.4
8MR 2.70 36 ePd 45 43.00 21. 3X
CMP 2.76 94 ePc 45 46.00 23. 3X
SPC 3.72 351 eP 45 37.30 0.9

ZST 3.85 316 e(Pn) 45 37.30 -0.7
i 45 44 . 60
i 4624. 60
VKA 4.29 312 ePn 45 44.00 -0.3
i Sn 46 36 . 90
KHC 6.28 308 eP 46 22.50 10. 1X
Sn 47 25.20
S.D. -1.2 on 8of 11 obs .

& AUG 15, 1991 04h 48m 02.20s
33 . 970 N 116. 570 W
DEPTH = 8 . 0km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 2.7 (PAS). Felt in
the Polm Springs oreo.

TPC 0.45 72 iPc 48 10.60 -0.8
i S 4816.80
PEC 0.50 261 iPc 48 11.60 -0.6
PLM 0.66 202 iPd 48 14.80 -0.8
RVR 0.67 272 i PC 48 14.40 -1.2
SSK 0.96 285 eP 48 19.80 -1.0
MWC 1.26 282 eP 48 25.20 -0.7
SB8 1.26 305 eP 48 25.20 -0.7
BAR 1.29 1B4 eP 48 25.10 -1.2
GSC 1.34 352 eP 48 26.20 -1.0
CIS 1.63 250 eP 48 30.60 -0.7
10 obs. ossoc i o t ed

AUG 15, 1991 04h 58m 58.61± 0.24s
4-1.120 N ± 3.2km 22.034 E ± 2.3km
DEPTH * 10.0km (ge o phy s i c i s t)
4 . 3mb (1 4 obs .)
YUGOSLAVIA (383)
ML 4.3 (SKO). MD 4.1 (THE). 4.1 (ATM). Felt (V) in the Kozuf
oreo ond (IV) ot Kovodorci. Also felt ot Edhesso, Greece.

GRG 0.32 120 iPc 59 05.32 0.0
VAY 0.45 63 iPgc 59 08.46 0.6
i Sg 5914.80
KNT 0,65 86 iPc 59 11.88 0.2
KZN 0.84 194 iPgc 59 14.00 -0.8
THE 0.86 124 ePd 59 14.32 -0.8
eS 59 26. 16

OHR 0.93 270 iPgc 59 18.10 1.6

iSg 59 31 .60

SKO

SOH
LI T

SRS

OUR

PA 1 G

KEK

RDO
ALN
VLS
LCI
ATH
EZN
8RT
PRK
SSR

R F n D t U

BA i
DRA
DMK
BUC1
OR 1
ROI
CSI

TDS
HVAR
ACI
TNR
CTT
IZM
CZ 1

MGR
SCO
ISR
MLR
ISK
SOI

TLB
HRT
ATN
CFR
SDI
YER
AZI
VBY
BMR
BUD
MEU

PSZ
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MNS
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PGD
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VV 1
FVI
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66
0.5s

OGA

Lg 59 34.30 PGF

9
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79
83

333 iPgc
iSg
106 iPc
161 ePc
eS
90 ePc
i S
1 17 ePd
eS
133 i PC
eS
231 ePn
eSg
88 i P n d
93 ePc
201 ePn
257 Pd
157 ePn
110 ePn
268 P
119 ePn
357 iPc
343 ePg
iSg
272 P
24 ePc
79 iP
41 ePc
258 P
251 P
255 P
eSn
253 P
298 iPnc
250 P
1 9 ePc
88 eP
1 22 eP
249 P
eSn
261 P
266 P
38 ePC
32 eP
88 eP
239 P
eSn
50 eP
90 eP
242 P
46 eP
278 P
127 eP
280 P
314 iPc
9 ePd
342 e(Pn)
236 P
eSn
348 iP
310 i P
283 P
292 P
289 P
315 ePc
310 eP
312 i Pd
292 P
335 iP
294 P
293 P

352 e(P)
332 iPc
i
308 P
312 P
294 P
324 eP
307 P
313 i Pd
21 . 80nm
i
iS
i
i
310 eP
283 eP

59 18.10

59 32.|30
59 18.124
59 17J84
59 34 . 04
59 26J80
59 36.41
59 28 . 72
59 51.00
59 29.12
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00 10.90
00 14.70
00 15.00
00 12.00
00 13.70
00 15.40
01 14.50
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00 19.
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1 .2

- 0. 1
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3. IX

- 0.2
- 0 . 1
1 .9
- 0.3
1 .0
- 0.2
1 .6
0.0
0.3
0.0

1 . 1
3.0X
- 0.9
21 . 6X
0.9
4 . 8X
0. 1

2 . 1
0.6
2.0
2. 1
- 1 . 1
0. 1
1 . 3

1 .2
0.7
0.7
0.9
0.2
- 2.2

1 -0
- 2 .6
- 1.1
- 5. IX
- 0.8
0. 4
0. 1
1 . 1
24. 5X
0.3
- 4 . 1 X

- 0.9
0.2
1 .6
- 0.6
0.8
0.6
0. 1
0.6
- 0.3
0. 7
1 .0
1 . 1
2.3
1 .6

- 2.6
- 1 .0
0.7
1 0 . 4X
- 1.4
0. 1
8mb X

0.4
6.3X

KHC

PRU

KSP

GRC1
SBF

BRG
FRF

LRG

CLL

LPG

MOX
LPL

RSL
CDF

8SF

HAU

WLF
SMF

LBF

LOR

SSF

AVF

MEM
BGF

MAF

TCF
MFF
OBN

LDF

FLN

GRR

LPF
HFS

M D O N D £

EKA

K I C
GBA

0 . 8s
9 . 99
Z 1 9s
E 19s
10.36

10.51

10. 82
11.12
0 . 8s
11.25
11.65
0.9s
. 11.84
0 . 8s
Z 1 9s
11.95

11.96
0. 5s
11.96
11.98
0 . 5s
12.10
12.76
0. 8s
12.78
0. 8s
13.12
0. 7s
Z 20s
14 . 03
14.23
0 . 6s
14.24
0. 7s
14.40
0 . 6s
Z 20s
14.57
0.8s
14.59
0. 9s
14.62
14.86
0. 7s
14.97
0 . 9s
15.23
16 . 89
16.98
Z 12s
17 . 36
0 . 9s
17.63
Z 20s
17.77
0. 9s
17. 79
19.73
0. 4s
Z 1 4s

21.02
0. 7s
21.83
0. 8s
42 .05
55. 23
0 . 5s
S.D. - 1

1 0 . 75nm
326 P 01 25
0 . 56um
6 . 50um
332 eP 01 30
e 0136
340 eP 01 34
e 05 54
320 ePn 01 37
289 eP 01 39
1 0 . 75nm

333 e(P) 01 51
287 eP 61 48
1 1 . 45nm
287 eP 61 56
1 4 . 80nm
0 . 1 7um

332 e(P) 01 50
e 04 16

eSg 23 48
297 eP 01 49
1 0 . 20nm
326 eP 61 52
297 eP 81 49
5 . 85nm
297 P 01 52
31 0 eP 0200
6 . 76nm
307 eP 62 00
8 . 05nm
307 eP 02 04
7 . 70nm
0 . 1 Sum
31 3 P 0224
299 eP 02 19
6 . 30nm
366 eP 02 19
8 . 80nm
301 eP 02 22
4 . 50nm
0 . 1 3 urn
360 eP 02 24
8 . 75nm
299 eP 02 24
9 . 85nm
316 P 02 31
298 eP 02 28
6 . 05nm
296 eP 02 30.
6 . 55nm
296 eP 02 34 .
296 P 02 55.
30 eP 0301.
0 . 30um
303 eP 03 03.
8 . 20nm
303 eP 03 06.
0 . 08um
302 eP 03 08.
9 . 85nm
301 eP 03 08.
348 eP 03 29.
1 . 20nm
0 . 08um
LR 09 58.
345 P 0343.
4 . 60nm
319 P 0404.
5 . 50nm
222 P 06 55'.
103 PC 08 30.
3 . 50nm

5 . 3mb
. 50 0.4

. 50 1.1
. 00
. 00 1.8
. 50
. 40 6.8
. 40 -1.4
5 . 2mb X
. 00 8. 6X
. 40 0.6
5 . 2mb X
. 90 6.4
5. 3mb

00 -1.8
00
00

60 -2.8
5 . 4mb X
00 -0.1
40 -3 . 1 X
5 . 1mb X
68 -1.4
70 -2.1
4 . 9mb X
90 -2.2
5. 0mb X
50 -3. IX
5. 0mb X

00 4.5X
60 -2.5
4 . 5mb
00 -3.3X
4 . 6mb
80 -1.6
4 . 3mb

30 -2.3
4 . 4mb
60 -2.3
4 . 4mb
00 3 . 8X
80 -1.7
4 . 2mb
50 -1.4
4 . 1mb
60 -0.6
80 -0.7
00 3 .4X

10 0.8
3 . 9mb
30 0.5

00 0.5
3 . 9mb
40 0.6
60 -1.5
3. 5mb
5. 6Msr
00
Q A _ A £ y <v <v . o
4 . 0mb
00 1 1 .3X

40 3 .3X
90 -3.3X
4 . 6mb
. 2 on 94 of 113 obs .

AUG 15, 1991 05h 03m 42.
41.053 N ± 3.9km 22 . 076
DEPTH - 10.0km (geophysi
YUGOSLAV 1 A

GRG
VAY

FNA

KNT

MD 3 .5

(SKO).

0.26
0. 46

0.59

0.63

(ATH) . 2.9 (THE)

111 iPc 03 48.
54 iPg 03 52.
iSg 03 58.
243 iPd 03 55.
eS 04 03.
80 iPc 03 55.

95± 0.39s
E ± 3 . 0km
cist)
(383)
. ML 3.3

92 0.4
30 0.0
60
12 0.1
32
52 -0.1

131

15<J 05h

eS 04 03.88
KZN 0.78 197 iPbd 03 57.80 -0.4
eSb 04 14.00
THE 6.80 122 i Pd 03 57.80 -0.6
i S 04 09. 56
OHR 0.97 274 i Pgc 04 01.70 0.3
0.6s 388 . 00nm

i Sg 04 1 4.90
Lg 0417.80
SOH 1.06 103 ePd 04 02.04 0.2
eS 04 15.22
LIT 1.00 162 ePc 04 01.56 -6.4

SKO 1.63 333 iPgc 04 02.20 -0.3
i S g 04 16.50
SRS 1.15 8 6 e P d 0404.72 6.3
eS 04 26. 12
OUR 1.62 116 ePc 04 12.25 0.7
eS 04 33.72
PAIG 1.66 132 ePc 04 12.16 -0.1
eS 04 35. 16
AGG 2.04 174 ePd 04 18.16 0.4
iS 04 43. 56
RDO 2.62 87 ePn 04 25.40 -0.6

PRK 3.69 118 ePg 04 58.40 17. 2X
S . D . =0.4 on 15 of 16obs.

AUG 15, 1991 05h 18m 25.74± 1.06s
41.110 N ± 9.6km 22.054 E ± 6.5km DEPTH - 10.0km (ge o phy s i c i s t)
YUGOSLAVIA (383)
MD 1.9 (THE) . ML 1.4 (SKO) .

GRG 0.30 120 ePd 18 31.80 -0.3
eS 18 36.04

VAY 0.44 61 iPg 18 35.00 0.2
i Sg 1 8 4 1 . 30
FNA 0.61 238 ePc 18 37.80 -0.3
eS 1 8 46 . 40
KNT 0.64 85 iPc 18 38.40 -0.2
eS 1 8 47 . 00
THE 0.84 124 ePc 18 41.16 -0.8
eS 18 53. 80
SOH 1.03 106 ePc 18 45.08 -0.1
eS 18 57 .96
LIT 1.06 162 ePd 18 46.40 0.7
eS 1901.64
OUR 1.66 117 ePc 18 55.56 0.6
S.D.-0.6 on 8 o f Sobs.

AUG 15. 1991 05h 21m 34.18± 0.67s
18.660 S ± 4.8km 168.868 E ± 6.9km DEPTH - 145. 0 ± 5.9 km
5 . 0mb (15 obs .)
VANUATU ISLANDS (186)

PVC 1.06 330 iPc 21 59.10 -0.1
i S 22 19. 00
BKM 1.15 329 iPc 22 00.56 0.4
i S 22 19. 50
DZM 4.09 213 iPd 22 35.00 -1.2
i S 23 20. 90
HNR 12.61 315 eP 24 34.00 4.5X
eS 26 41 . 00
BRS 17.16 237 i PC 25 28.80 2.1
COO 19.44 229 i Pd 25 52.40 0.6
i 25 56.00
RMO 20.12 244 i Pd 26 08.00 9.2X
0.4s 24.00nm 5.0mb
i 26 20.00
CTAO 21.38 262 iPd 26 13.06 1.6
i 26 34.00
NOZ 21.43 160 eP 26 11.60 -0.1
MNG 22.61 167 eP 26 23.00 -0.2
K 1 W 22. 73 168 P 26 24 . 70 0.3
PGZ 22.79 165 P 26 24.70 -0.2
TCW 22.95 169 P 26 27.20 0.7
PMG 22.96 291 iPd 26 27.20 0.4
1.0s 200.00nm 5.5mb
CAW 23.60 168 P 26 27.20 0.2
MRW 23.05 169 P 26 27.50 0.1
MTW 23.13 167 P 26 28.00 -0.3
WDW 23.14 168 P 26 28.20 -0.1
THZ 23.29 172 P 26 30.50 0.7
BLW 23.33 167 P 26 30.00 -0.2
MOW 23.34 168 P 26 30.20 -0.1
CNB 23.95 222 iPd 26 37.60 1.3
0.2s I5.00nm 5 . 2mb

KHZ
BWA

OLP

CAN

LTZ
CMS

STK

WR2

WRA

ASPA

MTN
FORR

WARB

MBL

NANU

1 IDJ
MAT

MTMJ
N 1 IJ
ASAJ
SPA

BJ 1

YAK
NVL
F8A
MOX
KHC
SKO
GRF

OHR

BHG

ENN

DCN

MEM

UCC
FVI
WTTA

SNF

WLF
DOU

CDF

BSF

HAU

SF 1
PGD
MME
FLN

ORX
BOB
LDF

MNS

24.01
24 . 04

24. 04
0. 6s
24.19

24. 22
24. 40
0. 6s
27.87
0. 4s
32. 56
0.8s
32.58
0. 7s
32.93
0. 9s
36. 73
38. 76
0.4s
39. 61
0.5s
46. 03
0. 4s
49 . 87
6 . 5s
61 . 33
62. 08
1 .0s
62 . 29
62.32
66. 92
71 . 46
1 . 0s
76. 27
1 . 0s

86 . 19
89. 38
89.63
143. 31
143.66
143.87
144.22
Z 20s
144.72
0. 8s

145.02
0. 6s
145.21
0.6s

145. 25
0.9s
145.32

145.65
145.89
145. 92
0.8s

145.92

1 46 . 1 0
1 46 . 20
0.7s

146.77
0.7s
147.44
0.7s
147 . 45
0. 7s
148 . 27
148. 37
148. 65
148. 76
0.6s
148. 78
148.81
148.83
0.5s
148 . 90

e
171 P
225 eP
i
246 iPd
1 98 . 00 nm
223 eP
i
1 74 PC
234 iPc
26 . 00nm
237 IP
1 1 . 30nm
262 iPc
1 5 . 50nm
262 P
2 . 20nm
255 IP
177. 60nm
273 iPc
244 eP
28 . 00nm
251 iPc
1 3 . 00nm
258 iPd
9 . 00 nm
256 iPd
1 3 . 00 nm
331 P

332 (P)
24 . 00nm
332 P
333 P
340 eP
180 i Pd
41 . 00nm
321 eP
20 00nm
e
343 eP
187 P
17 P
336 ePKP
332 PKP
317 i PKP
335 iPKP
6 . 50um
316 PKP
8 2 . 00nm
i
331 iPKPd
46 . 00nm
341 ePKP
1 9 . 00nm
e
356 ePKP
86 . 00nm
341 iPKPd
e
343 PKP
330 PKP
332 iPKPd
1 4 . 70nm
i

i 342 iPKPd
e

340 iPKPd
342 PKPd
25.50nm
e
337 ePKP
1 8 . 75nm
337 ePKP
8 . 80nm
338 ePKP
9 . 90nm
328 PKP
328 PKP
329 PKP
346 ePKP
7 . 20nm
334 PKP
331 PKP
346 ePKP
3 . 65nm
325 PKP

27 1 1 . 00
26 35.90
26 35.90
27 08 . 50
26 37.30
5
26 39.60
27 14. 80
26 38 . 80
26 40.80
4
27 12. 00
4
27 51 . 50
4
28 04.00

27 55.60
5
28 28.70
28 45.50
5
28 53.20
4
29 44.70
4
30 1 4 . 40
4
31 35.90
31 37 .00
5
31 42. 50
31 43.30
32 13. 60
32 39.60
5
33 08.00
4
33 43.50
33 59.60
34 14. 50
34 15.20
40 50.00
40 51 . 20
40 51.70
40 53.20
5
40 48.80

40 54.50
40 55.60

40 56.00

41 32. 00
40 55.50

40 56 . 12
41 32. 70
40 57.90
40 57.80
40 58.40

41 35. 40
41 46 . 30
40 58 . 07
41 35.60
40 59.26
40 59. 10

41 32. 60
41 00 . 40

41 02.00

41 02. 30

41 05 . 70
41 05. 90
41 06.20
41 05. 30

41 05. 16
41 06 . 30
41 05.50

41 05.60

- 0 .8
- 1 . 2

0 .2
. 8mb
1 .0

0 . 0
0. 2
. 9mb
- 0. 2
. 9mb
- 2 .2
. 8mb

1 0 . 1 X

- 1.4
8mb
- 0 . 5
- 0.5
4mb
0.0
9mb
- 0 . 4
8mb
- 0. 4
9mb
- 0 . 8
- 4 . 6X
1mb
- 0 . 6
0 . 2
0 .8
- 0 . 9
2mb
- 0. 4
8mb

- 0. 2
- 0 .6
- 1 . 0
- 2.6
- 2. 1
- 2.2
- 1 . 0
3Msz
- 6 . 6X

- 0 . 1

0. 2

- 0 . 3

0. 1

1 .3
0 . 7
1 . 0

1 . 0

1 . 9
1 . 6

1 .8

2.3

2.7X

4 . 7X
4 . 5X
4.2X
3 . 6X

3 . 2X
4.3X
3. 7X

3.5X

LOR

LBF

GRC
GRR

SSF

LSD
LPL

LPG

PCP
SOI
RSP
SMF
AVF
LPF

BHB
BN 1
F 1 N
RRL
D ("* C"
D (j r

ROB
PZZ
PLDF
STV
1 M 1
AGO
MAF
TCF

PYM
LSF

MFF

LBL
RJF

LFF

LPO

148 . 93
0. 6s
149.14
0. 7s
149 . 16
149.19
0.9s
149 . 23
0. 7s
149 . 26
149 . 38
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149 . 39
0. 5s
149 . 39
149 . 42
149.47
149 . 49
149.52
149. 57
0 . 7s
149 . 71
149 . 79
149 . 80
149 . 85
149 . 89
0. 7s
149 . 89
150. 05
150. 15
150. 17
150. 18
150.24
150. 27
150 . 32
0. 6s
150 . 55
150.56
0.7s
150 . 70
0. 7s
150 . 92
151 . 42
0. 7s
151 . 99
0. 7s
152 . 08
0.7s
S .D. =

& AUG 1 5 ,
61.140 N
DEPTH -

3. 5mb (

340 ePKP
1 7 . 60nm
340 ePKP
4 . 40nm
341 PKP
347 ePKP
1 1 . 45nm
340 e P K P
16.06 nm
334 PKP
335 ePKP
5 . 45nm
335 ePKP
7 30nm
332 P K- P
315 Ft. f
334 PKP
339 ePKP
340 ePKP
347 ePKP
1 5 . 45nm
334 PKP
334 PKP
332 PKP
334 PKP
J "^ A. ** 1 I A c D r V r\ Pr
1 1 . 60nm
332 PKP
333 PKP
339 PKP
333 PKP
332 PKP
340 PKP
341 ePKP
341 ePKP
4 . 95nm
340 PKP
342 ePKP
7 . 70nm
344 ePKP
5 . 50nm
339 PKP
341 ePKP
4 . 40nm
342 ePKP
4 . 40nm
341 ePKP
4 . 40nm
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07 . 72
08 . 85
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07 . 52
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08. 13
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08 . 84
09. 60
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09. 59
09.90

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10 . 65
12. 00

13. 40

13.60

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4 . 9X
3.9X
4.3X
4. 4X
4. 7X

3.4X
5 .5X
4.3X
5. IX
5 . 0X

3.9X
4 . 1 X
4.8X
4. IX
4. 7X
4 . 8X
5.5X
5.5X

5. 0X
5.4X

5.8X

5.5X
6.2X

6.8X

6.8X

of 107 obs .

1991 05h 56m
151 .
67 . 8km
2 obs .)

65.21s
389 W

SOUTHERN ALASKA

SPU

CGLM
NCG

CKL
BGL
RDT

SLKM
PWA
REF
NCT

RSO

ROW
RED

PMR
SVW
AUH
GLI
H 1 N
KLU

TOA
TTA
CVA

<AE 1 C>

0. 33

0. 34
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1.18
2 . 05
2.06
2.11
2.51
2 . 66

2. 67
2.82
2. 82

278 IP
eS
300 iP
306 i P
eS
277 iP
285 iP
222 i P
eS
1 37 eP
54 iPc
225 iP
233 iP
eS
225 i P
eS
227 i P
224 iP
eS
66 iPd
271 iPd
211 eP
95 iP
105 eP
80 i P
eS
66 i Pd
312 iPd
100 iP
eS

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22. 44
36.04
22. 77
36.81
22. 77
23.07'
37.43
26.70
36 . 40
37. 98
36.00
42. 32
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47 . 10
47 .00
46. 57
20.28

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- 2.2
- 1 .5

0.3
- 2.0
- 2.3

150

M 1 D
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RAGM
KDC
HMT

KA I M

FBA
WAX
SNH

BALM
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i MA
YKA

MBC

55h

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132

: AUG 13, 1991 06h 16m 28.71± 0.49s 60.379 N ± 3.5km 5.296 E ± 7.2km DEPTH * 5.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.8 (BER) .

EGD
ASK
SUE

ODD1

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AUG 13, 1991 06h 33m 33.67± 0.37s 41.056 N ± 3.9km 22.081 E ± 3.1km DEPTH * 10.0km (geophysicist)
YUGOSLAVIA (383)
MD 3.4 (ATM). 3.1 (THE). ML 3.4 (SKQ) .

GRG

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iPd
eS

i Pgc
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ePc
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VRI 5.88 34 ePd 35 02,00 -0.9
S.D. =0.7 on 20 of 21 obs .

AUG 15, 1991 06h 50m 35.73± 0.35s
45.558 S ± 6.1km 72.233 W ±11. 0km DEPTH - 10.0km (ge ophy s i c i s t) 5.5mb (19 obs.) 5.1Msz (8 obs.)
NEAR COAST OF SOUTHERN CHILE (144)

LNV 11.61 3 eP 53 23
CHCH 11.67 7 eP 5327
TACH 11.93 5 eP 5329
PCH 12.00 7 eP 53 31
LCCH 12.08 3 eP 53 36
PEL 12.46 6 e P 5336
MDZ 12.92 13 eP 53 56
' IS 58 03
RTLL 14.51 13 ePc 54 02
LPA 15.22 51 eP- 54 20
1.1s 1 21 5 . 1 9nm
eS 57 27
A I A 20.22 1 70 eP 55 12

50 -0.9
00 1.6
00 0.2

00 1.2
00 -0.8

50 0.6
76 14 . 5X
60
70 -0.3
00 7.8X
6 .2mb

00

00 -1.2
SLA 21 .48 1 7 i Pd 55 28J00 1 . 3
ANT 21 .85 4 eP 55 30
CCH 28.55 12 eP 56 35
ARE 29.01 1 i Pd 56 38
PPD 29.04 43 eP 56 38
e 5641
LPB 29.14 8 P 56 39
1.1s 101. 27nm
2 18s 8 . 93um
i 56 42
LR 08 22
Z080 29.40 8 P 56 41
1.0s 80 . 00nm
2 20s 1 . 96um
i 56 44
S 0150
LR 08 24
VAO 30.47 51 eP 56 56
e 56 56
NNA 33.69 352 eP 57 19
1.1s 24 . 05nm
Z 1 8s 2 . 58um
SPA 44.63 180 iPd 58 43
1.0s 50 . 09nm

00 -0.2
00 1.0
00 -0.2

30 0.3
20
00 -0.5
5 .5mb
5 .4Msz
00
00
00 -1.0

5 .5mb
4 .7Msz
00
00
00

50 -0.4
10
00 0.0
5.0mb
5.0Msz
90 -6.0X
5.4mb
SOB1 45.12 46 eP 58 54J30 0.2
e 5901.10
NVL 45.94 153 eP 58 56J00 -3.8X
e 59 07,00
e 59 38.
PSO 46.77 353 eP 59 10
PURC 47.81 354 eP 59 18.
HOOC 48.97 354 eP 59 25
ANCC 49.03 354 eP 59 23
BOG 49.98 358 eP 59 34
eS 06 52
FUO 50.82 358 eP 59 37
SDV 54.21 2 eP 00 04
TOV 55.13 3 eP 00 13
HVD 73.80 117 eP 02 12.
1.0s 80 . 00nm

i 02 15,
FRS 74.28 116 i PC 02 15
1.2s 125. 00nm

00

00 2.5X
51 2.6X
02 0.5
32 -1.4
00 1.6
00
50 -1.2
00 0.1
40 2.9X
10 -0.2
5 .7mb
60
30 0.5
5 . 8mb
i 02 17J20
K IM 74.62 1 15 iPc 02 16,
1.2s 62 . 50nm
SEK 76.71 1 1 7 eP 02 4 1 ,
i 02 43,
PRY 77.60 116 e (P) 02 35
1.0s 1 0 . 00 nm
KSR 77 .98 1 15 eP 02 27 ,
LIC 78.81 69 P 02 38
Z 20s 0 . 28um
SLR 78.95 1 1 5 i Pit 02 39
1.0s 50 . 0fcnm
Z 19s 2 . 08um
K 1C 79. 10 69 P 02 40
TIC 79. 13 69 P 02 40
JSC 79.88 352 P 02 45
BLA 82.72 353 P 03 00
0.9s 14.88nm
BUL 83. 14 1 12 iPc 03 05
1.0s 30 . 06nm
MEO 83.45 338 i PC 03 04
TUL 83.84 341 eP 03 03

50 -0.5
5 . 5mb
00 12. 0X
50
00 1.1
4 . 9mb
00 -9.0X
92 -1.5
4 . 6Msz
00 -2.3
5 .5mb
5 .5Msz
26 -1.8
74 -1.5
50 -0.2
10 -0.5
5.2mb
00 1.5
5 . 4mb
50 0.1
20 -3. 1X

1.2s 1 06 . 70nm 5 . 9mb
Z 20s 0 . 5 1 urn 4 . 9Msz
N 22s 0.33um
E 20s 0 . 1 7um
LR 32 36.00
FVM 84.76 346 P 03 08.50 -2.4
ALO 85.90 332 eP 03 14.20 -2.7
1.1s 45.89nm 5. 6mb
Z 1 8s 0 . 94um 5 . 2Msz
ANMO 85.90 332 P 03 14.90 -2.0
1.2s 62 . 50nm 5 . 7mb
KRI 86.18 110 eP 03 11.60 -7.2X
TBR 86.33 358 P 03 19.80 1.2
GLA 87.24 325 eP 03 23.00 -0.3
MTD .87.51 111 eP 03 27.00 1.8
PLM 88.33 324 eP 03 29.00 0.3
TPC 88.65 325 eP 03 31.00 0.9
PEC 88.92 324 P 03 32.00 0.6
RVR 89.10 324 eP 03 33.00 0.9
PAS 89.56 323 eP 03 35.00 0.7
MWC 89.58 324 eP 03 36.00 1.3
BNH 89.77 IP 03 36.50 1.5
SBB 89.89 324 eP 03 37.00 1.1
GOL 89.93 335 P 03 34.50 -1.8
0.8s 6 . 40nm 4 . 9mb
GLD 89.94 335 P 03 36.50 0.3
1.0s 36 . 00nm 5 . 6mb
GSC 90.00 325 eP 03 37.00 0.5
PV09 90.02 332 P 03 35.30 -1.4
CLC 90.77 325 eP 03 40.00 0.1
ISA 90.99 324 eP 03 42.00 1.0
RSSD 93.65 338 P 03 53.00 -0.2
1.1s 12.42nm 5. 2mb
BW06 94.02 333 P 03 53.20 -1.8
1.3s 13.66nm 5. 2mb
ORV 95.56 324 P 04 05.70 3.9X
GRF 119.28 48 ePKP 09 27.00 1.0
MOX 120.05 47 ePKP 09 29.00 1.6
CLL 121.15 47 ePKP 09 31.00 1.6
KRA 124.14 51 ePKP 09 35.60 0.4
e 09 38.00
MBC 125.21 348 ePKP 09 35.00 -1.5
1.0s 29 . 00nm
NB2 125.63 37 PKP 09 38.10 0.2
1.2s 1 1 . 70nm
OBN 135.45 51 ePKP 09 54.00 -2.6
Z 18s 0.90um 5.5Msz
E 19s 0.80um
MAIO 142.86 87 ePKP 10 08.00 -2.9
DUE 144.73 101 ePKP 10 12.50 -1.9
NDI 150.62 114 ePKP 10 22.00 -1.6
CHTO 152.34 162 PKP 10 27.00 0.6
DMN 154.61 127 PKP 10 31.86 2.2
GKN 154.64 126 PKP 10 31.56 2.0
PKI 154.75 128 PKP 10 31.82 1.9
KKN 154.84 127 PKP 10 32.10 2.2
GUN 155.27 128 PKP 10 32.94 2.3
MAT 155.46 259 ePKP 10 38.00 7.8X
LZH 170.08 161 ePKP 10 44.00 -0.3
9.0s 0 . 59nm
Z 22s 0.76um
ePP 15 42.00
BJ 1 171.72 231 ePKP 10 40.00 -4.7X
Z 21s 0 . 43um
e 12 00.00
ePP 15 52.00
S.D. - 1.3 on 74 of 88 obs.

& AUG 15, 1991 07h 10m 52.10s
33. 880 N 1 17.590 W
DEPTH - 9.0km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 2.5 (PAS).

SSK 0.34 345 iPd 10 58.80 -0.4
PEC 0.36 88 iPc 10 58.90 -0.5
MWC 0.52 312 eP 11 01.80 -0.8
eS 1109.20
PLM 0.80 131 eP 11 06.80 -1.1
CIS 0.83 235 eP 1 1 08.00 -0.2
SBB 0.83 346 iPd 11 07.20 -1.1
6 obs. associated

AUG 15, 1991 07h 16m 07.15± 0.50s
40.786 N ± 5.3km 77.657 W ± 4.1km DEPTH - 1.0km (geophy s i c i s t)
PENNSYLVANIA (+73)

133

15d 07h

mbLg 3 .8 (GS) . Felt (V) ot
Centre Holl; (IV) ot Modisonburg
ond Spring Mills; (III) ot
Coburn ond Julion. Also felt ot
Pleosont Gop ond Milheim.

SCP 0.16 273 P 16 18.06 -8.3
DCP 0.68 149 P 16 19.00 -1.7
S 1630.00
MVL 1.27 128 P 1631. 00 -0.5
S 1650.00
BVD 1 .94 121 eP 1642.50 1.0
eS 1709.50
DHN 2. 08 349 IP 16 43. 14 -0.4
S 1 7 09 . OS
LVNJ 2.1-0 88 iPc 16 45.57 0.3
S 17 13. 32
PRIN 2.28 100 iPc 16 46.74 0.3
S 1716.17
GPD 2.43 83 eP 16 48.51 -0.2
S 17 20.54
TBR 2.63 81 i P 1651.00 -0.4
GMTN 2.64 87 (Pn) 16 51.80 0.2
NA2 2 .66 182 eP 16 52 . 58 0.7

PNJ 2.66 86 (Pn) 16 52.30 0.4
CVL 2.87 193 eP 16 55.50 0.6

BLA 4.17 212 e(P) 17 17.00 3.6X
NAV 4 .24 216 eP 17 14.50 0.2
S . D . -0.7 on 14 of 15obs.

% AUG 15, 1991 07h 35m 59.63± 0.96s
60.578 N ± 5.6km 5.101 E ±14. 3km
DEPTH = 5.0km (geophy s i c i s t)
SOUTHERN NORWAY (535)
MD 1 .5 (BER) .

ASK 0.11 154 eP 36 02.17 0.3
eS 36 04,36
BER 0.23 149 eP 36 04.42 0.2
eS 36 08 . 85
EGD 0.31 169 eP 36 05.58 -0.4
SUE 0.51 341 eP 36 09.91 0.1
HYA 0.79 42 IP 36 15.33 -0.2
eS 36 28 . 1 1
S.D. - 0.4 on 5 of 5 obs.

AUG 15. 1991 08h 10m 17.11± 0.55s
45.826 S ± 7.6km 72.825 W ±21. 8km
DEPTH = 10.0km (geo phy s i c i s t)
5 . 0mb (3 obs .)
NEAR COAST OF SOUTHERN CHILE (144)

UNV 11.91 6 eP 13 08.00 -1.8
PCH 12.32 9 eP 13 18.50 3.0X
PEL 12.77 8 eP 1321.00 -0.5
MDZ 13.28 15 eP 13 32.70 4.4X
LPA 15.71 51 eP+ 14 06.00 6.0X
eS 1 7 13 . 08
SLA 21 .87 18 iPc 15 12 .00 0.1
CCH 28.90 13 P 16 20.80 2.2
ARE 29.30 3 eP 16 22.00 -0.1
UPB 29.47 9 P 16 24.00 0.2

PPD 29.52 44 (P) 16 20.08 -3.7X
2OBO 29.73 9 P 16 26.00 -0.3
Z 20s 0.73um 4.3Msz
LR 30 00.00
SPA 44.37 180 iPc 18 28.20 -0.9
1.0s 30.00nm 5. 1mb
NVL 45.89 153 P 18 40.50 -0.4
BUL 83.43 112 eP 22 46.90 0.6
MEO 83.55 339 i Pd 22 46.80 0.5
TUL 83.96 341 eP 22 47.50 -0.8
1.0s 1 2 . 20nm 5 . 1mb
ALO 85.95 333 eP 22 59.00 0.5
1.0s 6 . 50 nm 4 . 8mb
GOL 90.00 335 eP 23 18.30 0.3

PV09 90.06 332 e(P) 23 19.00 0.7
MBC 125.38 348 ePKP 29 18.00 -0.3
CHTO 152.21 163 PKP 30 13.10 5 . 5X
S.D. = 1.0 on 16 of 21 obs.

AUG 15. 1991 88h 21m 22.71± 0.47s
41.076 N ± 5.2km 22.077 E ± 3.5km
DEPTH = 10.0km (geophy s i c i s t)
YUGOSLAVIA (383)
ML 2. 3 (SKO) . MD 2.2 (THE) .

GRG 0.27 116 iPc 21 28.70 0.2
eS 21 32.94

VAY 0.45 56 iPg 21 31.60 -0.2
iSg 21 38.20
FNA 0.61 241 ePc 21 34.82 -8.2
eS 21 43.22
KNT 0.63 82 ePc 21 35.10 -0.2
eS 2143.82
THE 0.81 123 ePd 21 37.66 -8.7
eS 2150.14
OHR 0 . 97 273 ePg 21 41.20 0.1
eSg 21 54.80
SOH 1.00 104 ePc 21 41.98 0.3
eS 21 54 . 50
SKO 1.02 332 ePg 21 42.00 0.1
i Sg 21 55. 10
LIT 1 .02 162 ePc 21 42 . 30 0.2
eS 21 56.86
SRS 1.15 87 ePc 21 44.50 0.3
eS 21 59.90
S.D. -0.4 on 10 of 10 obs .

» AUG 15. 1991 08h 51m 21.87± 0.57s
45.746 S ± 7.7km 72.390 W ±30 . 1 km DEPTH - 10.0km (geophy s i c i s t)
4 . 9mb (3 obs .)
NEAR COAST OF SOUTHERN CHILE (144)

LNV 11.80 4 eP 54 12.50 -0.6

PEL 1 2 . 65 7 eP 54 25. 00 8.3
CCH 28 . 76 12 P 57 21 .00 -1.0
ARE 29.21 2 eP 57 27 .00 1.0
LPB 29.35 8 P 57 27.00 -0.4
ZOBO 29 . 60 8 P 57 30.00 0.1
SPA 44.45 180 i PC 59 32.80 -1.7
1.0s 20 . 00nm 4 . 9mb
NVL 45.82 153 P 59 45.00 -0.1
e 59 51 .00
SLR 78.97 115 eP 03 22.00 -5.5X
MEO 83.58 339 i PC 03 51.30 0.1
TUL 83.98 341 IP 03 52.40 -0.8
1.0s 8 . 50nm 4 . 9mb
ALO 86.01 333 eP 04 03.60 0.0
1.1s 6 . 96nm 4 . 7mb
ANMO 86.02 333 P 04 03.50 -0.1
MBC 125.36 348 ePKP 10 23.50 0.5
1.0s 7 . 00nm
OUE 144.80 102 ePKP 11 00.60 -0.1

CHTO 152.20 162 (PKP) 11 15.20 2.9
S.D. -1.1 on 16 of 17 obs.

* AUG 15, 1991 09h 46m 16.11± 0.39s
45.801 S ± 7.0km 72.611 W ±14. 0km DEPTH - 13.2km (5 depth phoses) 5.4mb (12 obs.) 5.4Msz (10 obs.)
NEAR COAST OF SOUTHERN CHILE (144)

LNV 11.87 5 eP 49 06.00 -1.8
TACH 12.20 7 eP 49 12.00 -6.4
PCH 12.27 8 eP 49 14.50 1.1
LCCH 12.34 4 eP 49 08.00 -6.2X
SAN 12 . 42 8 eP 49 16.50 1.1
PEL 12.73 7 eP 49 16.00 -3.5X
i 49 20.40
ROCH 12.87 6 eP 49 23.00 1.4
RTLL 14.80 14 ePd 49 45.20 -1.6
LPA 15.58 51 eP- 50 00.00 3.2X
1.0s 576.00nm 5.8mb
eS 53 08.00
AIA 20.02 170 eP 50 51.00 0.0
ANT 22 . 12 5 eP 5 1 1 3 . 00 0.3
CCH 28.84 13 P 52 18.50 2.0
ARE 29.27 2 i Pd 52 20.30 0.0
1.0s 30 . 00nm 5 . 0mb
PPD 29.40 43 eP 52 19.90 -1.2
LPB 29 . 42 9 P 52 21 .00 -0.9
2 18s 19. 93um 5 . 8Msz
i 52 23.00
LR 04 03.00
7ODA *> Q £ A QD *^ O *> t Aft ft fi
S 57 52.00
LR 04 06.80
VAO 30.82 51 eP 52 32.00 -1.9
NNA 33.89 353 eP 53 00.80 -0.6
1.2s 40 . 63nm 5 . 2mb
2 20s 5.32um 5.3Msz

SPA 44.39 180 iPd 54 26.70 -1.1
1.0s 47 . 50nm 5 . 3mb
Z 20s 2.70um 5.2Msz
i 5617.10
SOB1 45.48 47 eP 54 37.40 0.6
NVL 45.84 153 eP 54 38.00 -1.0
e 54 48.00
e 55 33.00
ePP 56 32.80
eS 01 27.00
e 01 33.00
e 0147.00
e 02 39 .00
eSS 04 36.00
e 04 56 . 00
eSSS 05 20.00
e 09 50.00
PSO 46.98 354 eP 54 51.50 2.5
BOG 50.22 358 eP 55 16.00 2.0
eS 02 34.00
FUO 51.05 359 eP 55 19.00 -1.3
llf"1 "7 Q 1 *s AQD *s ft *> O 1 ft ft ft
Z 20s 0 . 70um 5 . 0Msz
JSC 80.09 353 P 58 25.00 -1.6

pP 5828.60 11 km
BLA 82.93 354 P 58 39.50 -2.0
1.2s 34 . 85nm 5 . 4mb
BUL 83.30 112 eP 58 43.30 -0.8
MEO 83.58 339 i Pd 58 44.30 -0.6
TUL 83.98 341 iPc 58 45.60 -1.3
1.4s 150.90nm 6. 0mb
Z 22s 1 . 3 1 urn 5 . 3Msz
N 24s 0 . 79um
E 20s 0 . 36um
eS 09 24 .00
LR 28 03.00
FVM 84.93 346 P 58 50.00 -1.6
ALO 85.99 333 eP 58 56.00 -1.2
1.1s 53.80nm 5. 6mb
Z 1 8s 2 . 06um 5 . 6Msz
ANMO 85.99 333 P 58 56.00 -1.2
1.0s 46 . 25nm 5 . 6mb
KRI 86.35 110 eP 58 50.40 -9 . 0X
TBR 86.57 359 P 58 59.20 -0.4
GLA 87.29 326 eP 59 05.00 1.6
MTD 87.67 112 eP 59 08.60 2.9
PLM 88.37 324 P 59 07.40 -1.3

pP 59 12.50 16km
TPC 88.70 325 eP 59 12.00 1.9
PEC 88.96 324 P 59 09.00 -2.4
RVR 89.14 324 eP 59 14.00 1.9
MWC 89.62 324 eP 59 15.00 0.3
SBB 89.93 324 eP 59 18.00 2.1
BNH 90.01 1 P 59 18 . 1 0 2.1
GOL 90.04 335 P 59 15.70 -0.9
1.3s 23 . 44nm 5 . 3mb
pP 59 19.80 13km
GLD 90.05 335 P 59 15.30 -1.2
1.3s 45.98nm 5. 6mb
pP 5919.90 1 4km
GSC 90.05 325 eP 59 18.00 1.5
PV09 90.11 332 P 59 16.60 -0.4
SYP 90.68 323 eP 59 16.00 -3.5X
CLC 90.81 325 eP 59 22.00 2.1
ISA 91.03 324 eP 59 23.00 2.0
RSSD 93.77 338 P 59 32.70 -0.9
1.4s 14.73nm 5. 2mb
BW06 94.12 334 P 59 33.20 -2.0
1.3s 1 3 . 66nm 5 . 2mb
pP 59 37.00 12km
ORV 95.60 324 P 59 46.50 4.7X

GRF 119.64 48 e(PKP)05 08.70 2.3
1.8s 9 . 00nm
Z 20s 1 . 20um 5 . 5Msz
MOX 120.41 47 ePKP 05 10.00 2.1
CLL 121.51 47 ePKP 05 13.00 3. IX
Z 1 8s 1 . 50um 5 . 7Msz
PMR 123.34 326 PKP 05 13.00 0.0
KRA 124.50 51 ePKP 05 17.60 1.9
FBA 124.75 330 PKP 05 14.80 -0.9
MBC 125.39 348 ePKP 05 16.00 -0.7
1.0s 18. 00nm
SVW 125.68 324 PKP 05 08.00 -9.8X
NB2 125.99 37 PKP 05 19.20 0.8
1.4s 1 2 . 60nm
NFS 126.59 38 ePKP 05 19.60 0.1
1 . 4s 15. 70nm

15d 10h

134

OBN 135.81 51 «PKP 05 38.00 0.9

Z 18s 2.00um 5.9Msz
N 18s 0 . 60um
E 18s 1 . 70um
«PKS 09 08.00
DUE 144.94 102 «PKP 05 53.80 -0.8
OCP 146.86 205 ePKP 05 44.00 -13. 8X
BAG 148 69 205 ePKP-t 06 64.00 3.0X

Nt) I 150.76 115 ePKP 06 06. 00 2.4
CHTO 152.19 163 PKP 06 05.20 -0.8
PK1 154.80 129 PKP 06 00.00 -9.8X
MAT 155.15 259 ePKP 06 09.00 -6.6
2205 0 . 35um 5 . 2Msz
YAK 159.28 330 e P K P 06 11.40 -2.4

« 1030.813
SSE 161.81 221 PKP 06 18.00 0.7
Z 20s 0.60um
PP 1 0 24 . 60
LZH 169.93 163 PKPd 06 24.50 0.5
7.0s 0 . 97nm
Z 24s 1 . 59um
e 07 36.00
PP 1124.00
eSKKS 18 10 00
BJ I 171.36 231 ePKP 86 20.00 -4.3X
Z 24s 1 . 03um 5 . 5Msz
e 0742. 00
ePP 11 34.00
IRK 173.22 16 ePKP 06 22.00 -2.7
« 0647.00
S.D. = 1.5 on 65 of 77 obs.

? AUG 15, 1991 09h 57m 28.77± 1.02s
56.284 S ±21. 2km 141.427 W ±22. 7km DEPTH «= 10.0km (geophysicist)
5. 2mb (7 obs .)
SOUTH PACIFIC CORDILLERA (691)

SPA 33.89 180 iPc 04 13.20 -0.3
1.0s 82 . 50nm 5 . 6mb
SNA 50.35 163 iPc 06 25.80 -1.3
1.4s 255. 81 rim 6. 0mb
NVL 51.82 169 P 06 39.00 0.7
CMS 55.06 264 eP 07 08.70 6.0X
CTAO 63.73 273 i Pd 08 08.00 5.3X
i 08 1 3 . 00
LPB 67 . 16 86 P 08 27 .00 1.7
e 1058.00
ZOBO 67.36 85 P 08 29.00 2.2X
1.5s 2 1 . 51 nm 5 . 1 mb
CCH 67.56 88 (P) 08 46.00 18. 3X
ASPA 67.74261 IP 0831.78 3.2X
0.9s 1 2 . 00nm 5 . 1mb
WR2 70.46 263 i PC 08 44.40 -0.8
0.7s 7 . 80nm 4 . 9mb
i 08 48.30
WRA 70.48 263 P 08 47.00 1.7
0.8s 7 . 30nm 4 . 9mb
ANMO 95.62 28 eP 10 53.50 -1.7
1.0s 1 2 . 50nm 5 . 3mb
DUE 147.15 229 ePKP 17 14.30 3.2X
TOL 147.77 102 ePKP 17 17.00 5.4X
S.D. =1.7 on 7 of 14obs.

AUG 15, 1991 10h 58m 13.99± 0.69s
45.713 S ±10. 1km 72.557 W ±20. 8km DEPTH = 10.0km (geophysicist) 5.3mb (3 obs.) 5.1Msz (3 obs.)
NEAR COAST OF SOUTHERN CHILE (144)

LNV 11 78 5 eP 01 02.08 -2.9
TACH 12.11 6 eP 0 1 1 1 . 00 1.5
PCH 12.18 8 eP 01 09.50 -1.0
PEL 12.64 7 eP 01 10.50 -6 . 1 X
i 01 22 . 80
MDZ 13.13 14 eP 01 37.38 14. 2X

e(S) 05 38.38
LPA 15.49 51 iP + 02 04.80 10. 8X
eS 05 09.08
CCH 28.75 13 P 04 14.40 0.3
ARE 29. 18 2 eP 0420.00 2.1

PPD 29.31 43 (P) 04 17.00 -1.7
LPB 29*. 33 9 P 04 20.60 1.2
Z 18s 9.62um 5.5MS2
i 04 23.80

LR 16 22.00

VAO 30.74 51 (P) 04 32.00 0.5
SPA 44.48 180 iPd 06 25.80 -1.1

1.0s 42 . 50nm 5 . 3mb
SOB1 45.39 47 (P) 06 37.00 2 . 5X
NVL 45.90 153 eP 06 37.00 -0.8
e 0853. 00
e 1 1 52 .00
e 1 2 1 1 . 00
eS 13 22
e 1 3 48
e 15 38
BUL 83. 30 112 eP 1044
MEO 83.51 339 i Pd 10 44
TUL 83 . 9 1 34 1 eP 1045
1.2s 34 . 40 run
Z 1 8s 8 . 42um
N 20S 0.24um
E 20S 0.1 Sum
LR 4114
ALO 85.93 333 eP 18 53
1.1s 1 3 . 29nm
Z 18s 0 . 69um
ANMO 85.93 333 P 10 53
KR I 86 . 34 1 1 0 eP 1053
GLA 87 . 24 326 eP 1107
TPC 88 . 65 325 eP 1114
SBB 89 . 88 324 eP 1118
GOL 89 . 98 335 P 1115
GSC 90 . 00 325 eP 1116.
CLC 90 . 76 325 eP 1127.

BW06 94 .06 334 (P) 11 33 .

80

ee

00
00 1.5
10 1.1
20 0.2
5 . 5mb
4 . 9M3Z

00
00 -2.3
5 . 0mb
5 . IMsz
50 -1.8
60 -4 . 2X
00 5. 4X
00 5 . 7X
00 3 . 9X
50 0.7
00 1.3
00 8.8X
60 0.2
MBC 125.31 348 ePKP 17 15.00 0.0
0.6s 3 . 00nm
DUE 144.92 102 ePKP 17 54.10 1.1
CHTO 152.26 162 PKP 18 08.20 3.7X
PKI 154.83 128 PKP 18 00.00 -8.3X
S . D . - 1 . 5 on 20 o f 31 obs .

AUG 15. 1991 1 1 h 50m 03.50± 0.46s
45.748 S ± 7.0km 72.537 W ± 1 8 . 1 km DEPTH = 10.0km (geophysicist) 5.1mb (4 obs.) 4.5Msz (1 obs.)
NEAR COAST OF SOUTHERN CHILE (144)

LNV 11.80 5 eP 52 53.100 -1.8
PCH 12.20 8 eP 53 01 . 00 0.7
PEL 12.66 7 i P 53 06 . 60 0.2
LPA 15.50 51 eP- 53 49.00 5.4X
eS 56 59.00
CCH 28.77 13 P 56 05.00 1.2

PPD 29.32 43 (P) 56 17.00 8.7X
LPB 29.36 9 P 56 09.00 -0.2
ZOBO 29.61 9 P 56 12 .
1.2s 30 . 41 nm
Z 20s 1 . 05um
LR 09 12.
SPA 44.45 1 80 i Pd 58 15.
1.0s 30 . 00nm
NVL 45.87 153 eP 58 28.
e 58 35.
eS 0517.
FRS 74 . 39 1 17 eP 0136.
SLR 79. 07 1 16 iPd 0208.
LIC 79.08 69 P 0213.
UYO 81 . 97 342 i PC 02 24 .
BUL 83.27 1 12 iPd 02 30 .
MEO 83.54 339 iPc 02 32.
TUL 83.94 341 ePc 02 34.
1.2s 29 . 1 0nm
ALO 85.96 333 eP 02 45.
1.1s 1 3 . 6 1 nm
ANMO 85.96 333 P 02 45.
KR 1 86. 32 1 10 iPd 82 39 .
MTD 87 .64 1 12 eP 02 54 .
GOL 90.01 335 P 03 04 .
BW06 94.09 334 P 03 22.
MBC 125.34 348 ePKP 09 04.
0.9s 7 . 00nm
NB2 125.91 37 PKP 09 06.
1.2s 4 . 70nm
DUE 144.90 102 ePKP 09 42.
ND I 150.74 115 ePKP 09 57 .
CHTO 152.23 162 PKP 09 59.
PK I 154 . 80 1 28 PKP 10 00 .
S.D. - 1 .0 on 22 of 2

AUG 15. 1991 12h 16m 15

00 0.3
5 . 0mb
4 .5Msz
00
20 -1.0
5 . 1mb
00 0.9
00

00
70 -6.5X
50 -1.2
70 4 . 1 X
70 0.2
30 -1.6
50 -0.1
40 -0.2
5 . 4mb
20 0.2
5 . 0mb
40 0.4
30 -7.9X
60 1.0
00 -0.4
70 -0.4
00 -0.6

00 -0.2

80 0.3
00 5.5X
20 5.2X
00 2.3
9 obs .

43± 0.38s

45.815 S ± 6.2km 72.299 W ±11. 8km
DEPTH = 10.0km (geophysicist) 5.4mb (18 obs.) 5.7Msz (9 obs.) NEAR

LNV
CHCH
TACH
PCH
LOCH
SAN
PEL

ROCH
MDZ
LPA

A I A
ANT
CCH
PPD
LPB
Z

ZOBO

NNA

Z
SPA

Z

SOB1
NVL

PSO
BOG

PPN

VAH

HVD

FRS

K IM
CRZF

SEK

p D V

" P. T

KSR

SLR

Z
LIC
Z
K I C
TIC
JSC
UYO
BLA

BUL
MEO
TUL

Z
N
E

FVM

COAST OF SOUTHERN CHILE (144)

11.86 4eP 1906.00 -1.6
11.93 7 eP 1908.50 -0.1
12.19 5eP 1912.50 0.5
12.26 7 eP 1912.50 -0.5
12.34 3 eP 1912.00 -2.0
12.41 6 eP 1916.00 1.0
12.72 6eP 1917.50 -1.6
i 19 1 8 . 50
i 1920.10
1286 5 e P 1923.50 2.3
13.18 1 3 eP 1931.30 6. OX
15.42 50 eP- 20 08.00 5.5X
1.2s 1 1 00 . 00nm 6 . 0mb
eS 2318.00
19.97 170 eP 20 50.00 -0.3
22.11 5eP 2112.50 0.0
28.81 1 2 P 2214.40 -1.6
29 .26 43 eP 2219.50 -0.2
29 . 41 8 P 22 22 . 00 0.5
19s 29 . 86um 5 . 9Msz
LR 3404.00
29.66 8 P 2222.60 -1.4
1.2s 60 . 1 4nm 5 . 3mb
LR 34 04.00
33. 93 352 i P 23 00 . 00 -0.9
1.1s 18.99nm 4. 9mb
18s 0 . 88um 4 . SMszX
44.38 180 iPd 24 24.90 -2.6

1.0s 60.00nm 5. 4mb
20s 6 . 85um 5 . 6Msz
i 2611.70
45. 33 46 eP 24 37 . 50 2.0
45 . 73 1 53 eP 2438.00 0.1
e 2443. 00
ePcP 26 18.00
e 28 27 . 00
eS 31 27 . 00
e 32 40.80
eSS 34 36.00
e 34 55.00
e 35 23.80
47.02 353 eP 24 51.00 1.9
58. 24 358 iP 25 18. 00 4 .0X
eS 32 34.00
68. 74 266 eP 27 21 . 00 -0.6
0.8s 20 . 00nm 5 . 4mb
69.05 270 eP 27 23.00 -0.4
1.0s 40.00nm 5. 6mb
73. 72 1 17 eP 27 53. 20 1.7
1.2s 93 . 75nm 5 . 7mb
i 27 56.50
74 . 20 1 16 eP 27 50. 70 -3 . 4X
0.7s 23.97nm 5. 3mb
i 2758. 70
74 . 55 1 15 eP 27 56 . 00 -0.3

75.84 144 e(P) 27 58.00 -5.2X
e(S) 39 44 . 00
76.64 117 eP 28 21.20 12. 9X
1.0s 25 . 00nm

77 . 53 1 16 e(P) 28 1 1 . 00 -2.2
77 . 91 1 15 eP 28 16 .00 0.7
1.0s 20 . 00nm 5 . 2mb
78. 88 1 15 iPc 28 21 . 00 0.4
1.0s 35 . 00nm 5 . 4mb
20s 3.55um 5.7Msz
78.95 69 P 2825.54 4 . 7X
20s 0 . 80um 5 . 1Msz
79. 24 69 P 28 27 . 22 4.8X
79.27 69 P 28 25. 14 2.5
80. 1 3 352 P 28 25 . 00 -1.7
82. 10 342 iPd 28 35 . 80 -1.3
82. 97 353 P 28 42 . 30 0.7
0.9s 14. 88nm 5 . 2mb
83. 09 1 12 eP 28 42. 20 -0.7
83.67 338 i Pd 28 44.50 -0.7
84.07 341 ePd 28 46.00 -1.2
1.6s 1 98 . 20nm 6 . 1mb
22s 2 . 16um 5 . 5Msz
22s 1 . 25um
22s 0.74um
LR 58 32.00
85.00 346 P 28 50. 00 -1.8

135

15d 12h

0.7s 19. 05nm 5 . 4mb
ALO 86.10 332 eP 28 56.80 -0.8
1.0s 25 . fc0nm 5. 3mb
Z 1 Ss 3 . 35um 5 . 8Ms z
ANMO 86.11 332 P 28 57.00 -0.6
1.0s 2S.75nm 5. 4mb
KRI 86.14 110 eP 28 50.00 -8.2X

i pP 29 09.30 70kmX
TBR 86.59 359 P 28 59.70 0.2
MTD 87.46 111 eP 29 10.56 5.9X
PLM 88.51 324 eP 2911.60 1.7
TPC 88.84 325 eP 29 12.00 1.3
PEC 89.10 324 P 29 13.90 2.0
RVR 89.28 324 eP 29 13.60 0.3
PAS 89.74 323 eP 29 18 66 3.1X
MWC 89.76 324 e H 29 17.00 1.8
S8B 90.07 324 eP 29 18.60 1.6
GOL 90.15 335 P 29 15.20 -1.8
0.9s 9.47nm 5. 0mb
GLD 90.15 335 P 29 18.56 1.6
0.8s 35 . 29nm 5. 7mb
GSC 90.18 325 eP 29 18.00 1.0
CLC 90.95 325 eP 29 22.06 1.5
ISA 91.17 324 eP 29 23. 66 1.5
CWC 91.68 325 eP 29 43.60 19. 0X
RSSD 93.87 338 P 29 34.46 0.5
8W06 94.23 333 P 29 35.60 -0.6
2.0s 27.66nm 5. 3mb
ORV 95.74 324 P 29 48.06 5.7X
MOX 120.26 47 ePKP 35 11.26 3.7X
KRA 124.34 51 ePKP 35 18.60 3.3X
FBA 124.87 330 PKP 35 13.40 -2.5
MBC 125.45 348 ePKP 35 15.50 -1.2
1.0s 2 1 . 00nm
HFS 126.46 38 ePKP 35 17.70 -1.4
1.0s 9 . 70nm
Z 20s 2.48um 5.9Ms2
LR 19 1 4 . 06
KAF 132.84 39 ePKP 35 33.06 1.8
OBN 135.65 51 ePKP 35 40.00 3.3X

Z 18s 2.50um 6. 0Ms 2
N 18s 0 . 70um
E 1 8s 2 . 40um
ePP 38 15.00
ePKS 39 06.00
MAIO 142.92 87 ePKP 35 50.00 -0.7
CUE 144.72 162 ePKP 35 53.20 -0.9
1.0s 60 . 00nm
BAG 148.77 204 ePKP+ 36 04.00 3.0X
NDl 150.56 115 ePKP 36 06.50 3.3X
CHTO 152.11 162 PK'P 36 08.40 2.6
MAT 155.36 259 ePKP 36 05.00 -4.7X
Z20S 0.71 urn 5. 5Msz
YAK 159.40 336 ePKP 36 10.60 -3.2X
e 4031.00
LZH 169.85 162 PK'P 36 24.50 0.6
7.0s 1 . 27nm
Z 22s 2.28um
E 1 6s 1 . 44um
e 37 36.00
PP 4122.60
BJ 1 171.52 230 ePKP 36 20.00 -4 . 3X
9.0s 0 . 63nm
Z 24s 1 . 35um
e 3741.00
PP 41 32.00
PPP 45 37.00
IRK 173.16 18 ePKP 36 21.06 -3.6X
S.D. =1.4 on 58 of 80 obs.

* AUG 15, 1991 12h 55m 36 . 52± 0.60s 45.761 S ± 8.9km 72.465 W ±27. 3km DEPTH - 16.0km (geophy s i c i s t) 5.1mb (4 obs .)
NEAR COAST OF SOUTHERN CHILE (144)

LNV 11.82 4 eP 58 27.00 -1.0
PCH 12.22 8 eP 58 32.00 -1.5
PEL 12.68 7 eP 58 41.00 1.4
ARE 29.22 2 eP 01 42.00 1.2
LPB 29.37 9 P 01 47.00 4.7X
ZOBO 29.63 8 iPc 01 45.00 0.2
1.2s 27 . 03nm 4 . 9mb
Z 22s 1 . 00um 4 . 4Msr
eLR 35 34.00
SPA 44.43 186 iPc 03 47.50 -1.5

1.1s 32.1 4nm 5 . 1mb
NVL 45.83 153 P 04 00.00 0.2
e 0404. 00
e 04 08.00
BUL 83.22 112 iPc 08 04.00 -8.7
MEO 83.58 339 iPc 08 06.60 0.8
TUL 83.98 341 ePc 08 08.10 0.3
1.6s 67.00nm 5. 6mb
ALO 86.00 333 eP 08 18.00 -0.2
1.2s 14.84nm 5. 6mb
ANMO 86.01 333 P 08 18.60 8.4
KRI 86.26 110 eP 08 12.20 -7.8X
GDL 90.05 335 P 08 37.00 -8.6
BW06 94.13 334 P 08 54.90 -1.4
MBC 125.37 348 ePKP 14 37.00 -0.6
1.1s 7 . 0 6 nm
OUE 144.85 162 ePKP 15 15.40 0.0
CHTO 152.20 162 PKP 15 36.20 3.2
S.D. -1.3 on 17 of 19 obs .

7. AUG 15. 1991 I3h 07m 27.17± 0.92s
41.126 N ±14. 9km 28.456 E ± 1 2 . 1 km
DEPTH = 10.0km (geophy s i c i s t)
TURKEY (366)

CTT 0.03 317 iPg 07 28.60 -0.6
ISK 0.46 97 iPg 07 36.10 -0.4
eSg 07 42.60
DMK 0.87 323 iPg 07 44.40 0.5
eSg 07 55.90
YLV 0.89 128 ePg 07 44.10 -0.2
HRT 0.97 168 ePg 07 46.10 0.5
IZI 1.10 135 ePg 07 48.10 0.2
S.D. - 0.6 on 6 of 6 obs.

» AUG 15, 1991 13h 19m 46.30± 0.64s
5.950 N ±14. 2km 82.358 W ±14. 0km
DEPTH - 10.0km (geophy s i c i s t)
4 . 7mb (4 obs .)
SOUTH OF PANAMA (83) '

ANCC 5.98 114 iPc 21 16.87 -0.2
eS 22 25.00
CLMC 6.13 109 iPc 21 19.69 0.4
HOOC 6.21 113 ePc 21 19.95 -0.7
CUMC 6.68 138 eP 21 25.95 -1.5
SILC 6.82 118 eP 21 29.44 0.2
PSO 6.90 133 eP 21 30.00 -0.3
PURC 6.98 121 eP 21 32.70 1.1
NNA 18.65 163 iPc 24 08.50 2.1
0.8s 20 . 1 5nm 4 . 4mb
ARE 24.73 154 eP 25 13.00 3.4X
ZOBO 26.19 148 P 25 28.00 4.3X
LPB 26.42 148 P 25 36.00 10. 4X
MEO 32.37 335 iPd 26 17.50 -0.8
ALO 36.42 326 eP 26 53.00 -0.3
1.4s 1 9 . 1 9nm 4. 7mb
LCCM 47.25 332 eP 28 22.60 0.9
SES 50.39 336 ePd 28 46.30 0.6
PNT 53.42 330 eP 29 09.00 0.5
0.5s 4.60nm 4. 6mb
INK 70.88 342 iPd 31 06.00 0.9
M8C 73.14 351 eP 31 18.50 0.1
1.0s 12.00nm 4. 9mb
KIC 77.09 85 P 31 48.40 6.2X
WRA 141.74 245 PKP 39 18.00 -2.9
0.8s 1 . 96nm
S . D . - 1 . 2 on 1 6 of 20 obs .

AUG 15. 1991 13h 35m 59 . 46± 0.11s
16.664 S ± 2.8km 168.010 E ± 3.3km DEPTH - 170.8km (geophy s i c i s t)
5 . 9mb (57 obs .)
VANUATU ISLANDS (186)
mb 5.7 (BRK). Mo-3 . 0 » 1 0 » * 1 8 Nm
(PPT). Depth from broadband displacement seismogroms.
FAULT PLANE SOLUTION: P-Woves

NP1 :St r i ke-247 Dip-83 Slip- 90
NP2: 67 7 90

P r i nc i po 1 Axes:
T Plg«=52 A2m«=157
P 38 337
Comment: The focal mechonism is
poorly controlled ond
corresponds to reverse
faulting. The preferred fault

BKM
PVC

DZM

NDF
VUN
SVA
HNR

MBU
BRS

COO

RMO

CTAO

WLZ
HBZ

Rl V

WHH
NGZ
CNZ
NOZ

MDG
MOH
OLP

TTH
MNG

CMS

BWA

plane is NP2 .
RADIATED ENERGY
No. of sto: 14 Facal mech. C
Energy 3 . 6±6 . 9 » 1 0 » 4 1 3 Nm
CENTROID, MOMENT TENSOR (HRV)
Data Used : GDSN
L.P . B . : 25S, 65C
Centroid Location:
Origin Time 13:36: 6.2 0.1
Lot 15.89S 0.02 Lan 167. 95E 0.01

Dep 189.2 0.6 Ho 1 f -du r a t i on 5.4
Moment Tensor; Scale 10»*18 Nm
Mrr= 0.34 0.04 Mtt= 0.45 0.05
Mff--0.79 6.05 Mrt=-3.88 0.04
Mrf=-8.94 0.04 Mtf=-0.61 0.04
P r i nc i po I Axes :
T Val- 3.48 Pig-45 Azm-176
N -0.30 15 70
P -3.19 41 326

Best Double Coup I e : Mo-3 . 3* 1 0* * 1 8
NP1 : St r i ke-348 D i p- 1 5 Slip- 8
NP2: 250 88 105

1 . 61 172 Pd 36 34 . 60 2.5
1 . 69 176 Pd 36 35.50 2.6
S 37 03.50
6. 16 194 Pd 37 30.60 1.3
S 38 41 .90
9. 19 102 P 3813.00 3. 5X
10.18 102 ePc 38 26.10 3.6X
16. 20 103 ePc 38 26.80 4. IX
10.26 309 ePd 38 26.00 2.5
eS 40 16.00
10.31 97 ePc 38 28.50 4. 2X
18.07 229 iPd- 40 01.40 0.6
1.6s 89 . 00nm 5 . 1mb
i (PP) 40 26.00
i (S) 43 22.00
i (ScS)51 27 .50
20.65 223 iPc 40 28. 50 1.3
1.6s 693. 00nm 6 . 1mb
i 41 31 .00
i 44 31 .50
i 4751.70
20.70 237 iPc 46 38.60 10. 2X
0.7s 318.00nm
i 41 14.20
i 4802. 00
e 51 14.00
21.06 256 iPc 40 32.92 1.5
i 46 38.00
i pP 40 44.00 45kmX
e 41 63 . 38
iSP 41 10.00
i 41 26.00
ePP 41 37.00
iS 4417.74
i 4564.10
iScP 47 51 .00
iScS 51 35.00
22 . 70 164 P 40 48.30 1.1
23.30 159 P 46 53.40 0.4
S 4447.00
23.31 218 iPc 46 55.00 1.8

! 41 37 .60
iS 44 53.00
i 45 52 .00
23 . 92 164 P 4160.00 0.9
23. 97 165 PC 41 01.10 1.5
23.98 165 Pd 4161.10 1.5
24 . 13 161 PC 4100.70 -0.2
eS 45 62.80
24. 32 294 *P 41 64.50 1.6
24.34 163 P 41 63.00 0.1
24. 45 241 iPc 41 64 .90 0.8
0.9s 2000. 00nm 6.7mb
i 48 61 .60
24. 63 163 eP 41 65.60 6.1
25. 31 167 PC 41 1 1 .00 -0.9
S 45 20.80
25. 38 229 iPc 41 12. 70 6.1
6.9s 275.66nm 5.9mb
i 4154.00211 kmX
i 48 63.90
i 51 52.76
25.38 220 iPc 41 1 1 .30 -1.3

15d I3h

136

CNB

K 1 W
P&Z
CAN

TCW
CAW
MRW
WEL

WDW
MTW
THZ
BLW
MOW
KHZ
LTZ
01 S

MOZ

STK

TOO

JAY

BFD

TAU

WR2

WRA

ADE

ASPA

MTN

GUA

PJG

KNA

FORR
WARS
APR

PAE

25.41
0.4S

25 . 43
25.50
25.63

25.64
25 .69
25 . 74
25.80

25.83
25.83
25.96
26 .03
26.03
26.69
26 .88
27 .32
0.5s

27 .84

28.71
0.9s

29.23
0.5s

30.06
0.7s
30.82

32 .07

32 .20
0. 7s

32.22
1 . 2s
32 .28
0.7s
32 .90
0.5s
Z 22s

35 .83
0. 4s
37.24
1 .0s
37 .30

37 . 70
0.4-s

39.23
39.73
40.38
1 .6s
40.56
1 .6s

e
iScP
218 i Pd
184 . 00nm
i
i
i
i
1 68 PC
165 P
218 i PC
e

i ScP
169 P
1 68 PC
168 P
168 Pc+
PP
PPP
S
ScS
1 68 P
167 PC
172 PC
167 PC
168 PC
171 PC
173 PC
256 iPc
95 . 00nm
i
i
i
173 i PC
e

232 iPc
1 50 - 70nm

ipP
iPcP
i ScP
eScS
219 i PC
101 . 00nm
i
294 ePd
1 72 . 60nm
222 IP
i
i
i
209 iPc

ie
258 iPd
1 86 . 90nm
iPcP
eS
iScP
eScS
258 P
40 . 20nm
229 iPc
452 . 05nm
251 iPc
1886. 40nm
5 . 50um

ipP
i PcP
eS
iScP
iScS
270 iPd
85 . 00nm
321 iPd-
752 . 00nm
321 iPd
PP
e
265 eP
93 . 00nm
e

241 iPc
248 iPc
98 i P
205 . 00nm
99 i P
240 . 00nm

4 1 45
48 03
41 13

4 1 36
41 47
44 41
48 43
41 11
41 12
41 15
41 49
48 05
41 14
41 14
41 14
41 15
41 50
42 14
45 35
51 50
41 15
41 15
41 17
41 17
41 17
4 1 22
41 25
41 30

44 45
48 09
51 59
41 33
42 25
41 42

42 24
44 49
48 14
52 06
41 47

48 16
41 55

42 02
43 09
44 51
48 21
42 1 1
44 58
48 26
42 1 2

44 58
47 1 0
48 26
52 23
42 29

42 13

42 19

42 59
44 59
47 21
48 28
52 24
42 44

42 56

42 56
43 23
44 30
42 59

43 39
43 13
43 17
43 21

43 23

10 167kmX
70
40 0.5
6 . 0mb
70 108kmX
80
00
50
80 -1.1
30 -1.2
00 0.1
80 l72kmX
40
20 -0.7
30 -1.1
70 -1.0
60 -0.7
00
00
00
60
36 -1.3
26 -1.4
50 -0.3
20 -1.2
10 -1.4
70 -1.7
70 -0.5
10 -0.2
5 . 7mb
50
40
50
50 -1.2
90 271 kmX
90 0.1
5 . 7mb
10 204 kmX
00
10
10
20 -0.1
5 .8mb
00
00 0.1
5 . 9mb
00 0.7
00 354kmX
60
40
80 -0.3
00
00
30 -1.2
5 .9mb
60
50
10
00
00 15 . 3X

90 -0.1
6 . 3mb
10 -0.4
7.0mb X
5 . 2MszX
80 196kmX
10
50
00
90
10 -0.4
5 . 8mb
30 0.0
6 . 3mb
80 0.0
50 116kmX
00
90 -0.3
5.8mb
00 I83kmx
20 0.4
30 0.3
96 -0.4
5 . 5mb
40 -0.4
5 . 6mb

PPT

PPN

AA I
PMO

VAH

TPT

RUV

COOL

MBL
DAY
KLB

NWAO

MKS
BAL

RKG

MUN

NANU
K I P

OPA
TSM

OCP
KAKJ
CHJ J
I I DJ
WKYJ
KAGJ
TKSJ
MAJO

MAT

TSRJ
MTMJ
Nl IJ
YAMJ
KUMJ
OFUJ
SHK

YONJ
SHNJ
ANP
AOMJ
HOOJ
CSY

KUSJ
MRRJ
ASAJ
SSE

KGM

YSS
SMY

ADK

40. 57
1 . 6s
40.71
1.6s
41.01
42.44
1 . 6s
42 . 66
1 . 6s
42 . 70
1 ,6s
42 . 90
1 . 6s
45.12
0.4s
45.81
47.89
48.09
0 . 4s
48.69
Z 20s
48.79
48. 89
0 . 5s
49.11
0 . 7s
49.44
0. 9s
49 . 75
49 . 98

50.17
53 . 55

55 . 50
58. 27
58.65
58.67
58 . 76
58. 98
59. 36
59 . 41

59.41
1.1s

59.62
59.63
59. 65
60. 00
60. 01
60. 13
60.50
1.1s
60. 60
61 . 04
61.10
61 . 91
62 . 46
62 .58
0.7s
62 .64
63. 27
64 . 22
64 . 97
1 .0s
Z 20s
E 13s

66. 35
0.9s

66. 78
68. 71
1 .3s

68.96

98 iP
31 5 . 00nm
98 i P
1 1 5 . 00nm
283 eP
95 i P
445 . 00nm
95 i P
315. 00nm
95 i P
430 . 00nm
95 iP
495 . 00nm
242 iPc
78 . 00nm
256 iPc
295 eP+
242 iPc
74 . 00nm
240 iPc
4 . 90um
277 iPd
243 iPc
74 . 00nm
238 iPd
1 85 . 00nm
242 iPc
387 . 00nm
254 iPc
43 eP
IS
i sS
eScS
eSSS
43 P
288 ePc
e
301 eP
334 P
333 P
331 P
329 P
323 eP
327 P
332 iPd
epPd
iS
US)
eScS
332 iPd
702.53nm
eS
330 P
332 P
333 P
335 P
324 eP
337 P
327 iPd
1670 . 89nm
328 iPd
325 P
31 1 eP
336 eP
340 P
203 iP
372 . 80nm
341 P
338 P
340 P
316 i Pc-
272 .00nm
2 . 80 urn
0 . 60 urn
pP
SP
IS
i
sS
279 ePd
109 . 40nm
e
341 P
4 ePd
377 . 40nm
e

10 ePd

43 23. 70 -0.2
5 . 7mb
43 25. 00 0.0
5 . 2mb
43 27 . 00 -0.6
43 39 .80 8 . 7
5 . 8mb
43 41 .q0 0.2

43 41 . (.

43 43.1

44 00 . C

44 06. 2
44 22.6
44 23.6

44 27.7

44 27.6
44 29.6

44 31.3

44 33. 1

44 37 .6
44 35.2
51 35. 8
52 48.6
54 15.5
55 38.7
44 40.3
45 05.2
49 52.6
45 26 . 0
45 37 . 6
45 40.0
45 40.5
45 41.6

5 . 7mb
0 0.3
5 . 8mb
0 0.2
5 . 8mb
0 -0.6
5 . 6mb
0 0.3

e -0.4
0 -0. B
5 . 6mb
0 -0.7
5 . 5Msz
0 -2.4

1 PM

PS 1
BJ 1

SPA

KHT
KM 1

0 -0.9
5 . 5mb
0 -0.3 i
5 . 8mb |
0 -1.1

6 . 0mb
0 0.4
7 -3.0
4
8
8

0 0.6
0 0.1
0
0 6 . 9X
0 -0.7
0 -1.0
0 -0.7
0 -0.2

45 43.5)0 0.2
45 45.6I0 -0.3
45 45.44 -0.8
46 25.17 1 70kmX
53 37.78
54 52 . 48
55 19.72
45 45.10 -1.1
6 . 4mb
53 32 .0
45 47.4
45 47.1
45 46.9
45 50.3
45 50.0
45 50.6
45 53 .0

0
0 -0.2
0 -0.7
0 -0.8
0 C . 1
0 -0.3
0 -0.4
0 -0.6
6 . 8mb
45 54.00 -0.3
45 56.20 -1.0
45 57.20 -0-7

46 03.2)0 0.2
46 06. 7^0 0.2
46 09.30 2.2

46 06.5
46 11.0
46 18.4
46 22 .0

47 05.0
47 28.0
54 48.0
55 36.0
56 03.0
46 32.2

47 13.7
46 35.0
46 46.0

47 29.5
46 47.0

6 . 4mb
0 -1.2
0 -0.9
0 0.4
0 -1.1
6.1mb
5 . 5Msz

0 182 kmX
0
0
0
0
0 -0.1
5 . 7mb
0 175kmX
0 0.7
0 -0.1
6 . 0mb
0 183kmX
0 -0.7

KM 1

H 1 A

LZH

SVW
RSO

ANM
SLKM

YAK

TTA

PCC
GCC

PMR

BRK
PRS

BKS

FHC
SAO

MHC

ARN

SHL

SYP

LLA
PR 1

1.7s 653 . 00nm 6 . 1mb
e 47 31 . 00 1 85kmX
69.33 281 ePd 46 50.60 -0.2
0.9s 85.1 0nm 5 . 5mb
e 47 15.90 99kmX
e 4733.10
70.73 279 ePd 46 58.40 -0.9
73. 75 321 i Pd 4716.96 0.5
1.4s 4l0.88nm 6. 0mb
Z ? 1 s 3 . 40um 5 . 6Msz

epPd 47 58.35 1 70kmX
sP 4823.00
eS 56 32 . 42
iScS 57 10 . 99
74 . 04 1 88 i PC 47 1 7 7fi -0.3
1.0s 30e.W0nm 6.0mb
Z 20s 1 . 89um 5.4Msz
i 56 36.50
75. 10 290 i Pd 47 26 .00 1.3
75.61 302 P- 47 20.00 -7.8X
3.0s 3700. 00nm 6.6mb
e 47 30 . 00

pP 4811.0021 4kmX
sP 48 36.00
S 56 55.00
PS 57 50.00
75.61 302 i Pd 47 29 . 25 1.5
3.0s 3700. 00nm 6.6mb
i pPd 48 11.13 1 72kmX
sP 48 36 . 00
i S 56 55 . 54
PS 57 50.00
77 . 79 330 i Pd 47 39 . 29 0.2
epPd 48 21.17 171 kmX
esPc 48 39.05
i S 57 16. 00
(sS) 58 35 . 46
7974312iPd 4751.76 1.6
i S 57 39 . 65
i ScS 5750. 69
82.21 1 7 ePd 48 02 . 90 0.6
82. 52 18 ePc 48 02 . 00 -2.2

pP 48 47.80 l86kmX
82. 93 1 1 eP 48 07 .00 1.1
83.35 19 ePd 48 06.90 -1.2
pP 48 52.50 l85kmX
83. 49 343 eP 48 08 . 70 0.0
iPcP 48 15.00
epP 48 53.00 1?9kmX
ePP 51 37.00
ePPP 53 32.00
eS 58 10.00
e 58 32.00
83.60 1 6 ePd 4810.20 0.8
1.3s 137.20nm 5. 6mb
84. 28 49 eP 4813.94 0.7
84 . 36 49 eP 48 14 . 53 0.9

epP 49 00 . 1 1 185kmX
84.52 19 ePd 48 13.50 -0.4
2.1s 416. 00nm 5 . 9mb
Z 18s 1 . 90um 5 . 5Msz
e 48 59.30 l85kmX
84.52 48 eP 4815.30 0.9
84.52 50 eP 48 16.04 1.5

epP 49 01.23 1 83kmx
84.54 48 i Pd 4815.50 1.0
1.1s 51. 00nm 5 . 2mb
i pP 4901.10 !85kmx
: S 58 20. 00
e 5930. 00
eSS 04 06.00
e 0440. 00
eLO 10 42.00
eLR 20 00.00
84 59 45 ePd 48 16.21 1.5
84.65 50 eP 48 15 . 89 0.8

epP 49 01.37 1 84kmX
84.74 49 eP 4816.50 0.8
1.2s 306.00nm 6.0mb
84.83 49 P 48 17 . 40 1.4

pP 49 03.80 I88kmx
84.83 298 i P 48 17 .00 0.5
iS 58 22.00
84.84 52 eP 48 18 .00 1.7
e 49 03.00 I82kmx
84.95 50 eP 4817.47 0.8
84.97 50 eP 4817.99 1.1

137

15d 13h

SBC

BCH
WDC

K LU

ORV
10A
CMB

FR 1

M 1 N

PAS
MWC

BALM

ISA

SSK
SBB

RVR

COR

IMA

PEC

PLM

CLC

COL

FBA

BONR
1 RK

GSC

TPC

GMW
LON

85.00

85.02
85. 48

85 . 48

85 . 7?
85.84
85.94

86.01

86.02

86 . 07
86. 18

86. 40

86.41

86 . 46
86.54

86 .62

86.71

86.75
2. 2s
86. 75

86. 79

87 . 13

87 . 40

87 . 40
1 . 3s
87 .42
87 . 43

87 . 54

87 . 69

88. 34
88. 60

52 eP
eSKS
iS
i PS
e

i sS
51 P
46 ePd
epP
20 P
pp
47 eP
20 eP
49 ePd
i pPd
ePP
eHPP
i SKS
i S
i
i sS
esS
eSS
esSS
eSSS
eLO
50 eP
epP
46 eP
epP
53 eP
53 eP
e

22 e(P)
ipP
51 eP
e
53 P
53 eP
e
53 eP
e
42 ePc
epP
eHPP
ePP
eSKS
i S
1 5 ePd
279 . 60nm
54 ePd
PP
PP
54 eP
e
52 eP
e

17 ePd
epPd
eSKS
i S
17 ePd
63.30 nm
49 P
327 eP
e

epP
e
ePP
iS
eScS
e
ePS
esScS
e
eSS
eSSS
5? eP

epPd
eSKS
i S
i sS
54 eP
e
39 P
40 ePd
epPd

48 15.44
58 21 . 22
58 32.53
59 23.85
59 47 . 02
59 48 . 68
48 18 .90
48 19.64
49 05 . 79
48 17.60
49 03.60
48 20.98
48 21.20
48 21.31
49 03.69
51 42.34
51 43. 33
58 28.37
58 39.40
59 30 . 44
59 58 . 86
00 02.00
04 24 . 00
65 32 . 00
07 48.00
10 13 . 00
48 22. 32
49 09 . 81
48 21.62
49 05.91
48 20.10
48 24.00
49 10.00
48 21.30
49 07.90
48 24.00
49 11.00
48 25.20
48 25.00
49 11.00
48 25.00
49 13.00
48 25.27
49 07 . 48
51 48 . 61
51 48 . 77
58 30.37
58 47.35
48 25 . 10
5
48 25 . 60
49 12.30
51 50. 00
48 26.00
49 12.00
48 28.00
49 08 . 00
48 26 . 45
49 10.32
58 35.57
58 48.12
48 26 . 60
5
48 29.90
48 28 . 00
48 41.00
49 09.50
50 05 . 00
51 47.00
58 38 . 00
58 52 . 00
59 01.00
00 00. 00
00 22 . 00
03 18.00
05 00 . 00
07 38 . 00
48 29 . 93
49 13.13
58 36.56
58 56.26
00 15.71
48 31.00
49 16.00
48 33 . 70
48 33.17
49 17 . 54

- 1 . 5

1 . 8
0 . 5
1 8 6 k m X
- 1.3
1 86kmX
0 . 4
0. 6
- 0 . 2
1 7 01 m X

0 . 5
1 92kmX
- 0. 4
1 78kmX
- 2 . 1
1 . 0
1 86kmX
- 2 . 1
1 88kmX
0 . 0
1 90kmX
0.8
0. 4
1 86kmX
0. 1
1 94kmX
0. 2
1 69kmX

0. 1
. 7mb

0.0

1 89kmX

0. 0
1 85kmX
0 . 6
1 59kmX
- 1 . 5
1 76kmX

- 1.4
. 4mb
0.9
- 0. 4

1 65kmX

0. 5
1 73kmX

0.9
1 80kmX
0.8
- 1 .0
1 77kmX

MCW
A 1 A
GUN
PK 1
PNT
KKN

OWN

GKN
NVL

NEW

MSU
KOD

SNA

1 NK
WMO

HYB

GBA

LCCM

BW06

CRZF

ALO

ANMO

SES
GOL

GLD

NOI

POO
RSSD

MBC

ePP 51 58.01 SAN 105.49 132 ePKP 54 12.00 8 . 0X
88.81 38 P 48 36.30 1.2 PEL 105.63 132 ePKP 54 11.00 6.7X
89 90 161 eP 48 40.00 0.1 OUE 107.29 297 Pd i M 49 59.80 0.4
90.66 299 PKP 48 44.74 0.2 JSC 115.85 59 e(PKP)54 23.00 -0.6
90.96 298 PKP 48 45.94 0.1 PP 56 09.00
91.00 39 eP 48 46.00 0.8 LPB 115.88 118 PKP 54 25.00 0.3
91.13 298 PKP 48 46.96 0.4 i 05 01.00
1.2s 1041. 00nm 6.8mb ZOBO 115.98 117 iPKPd 54 25.00 -0.1
91.22 298 PKP 48 47.38 0.4 2 22s 0.92um 5.3Msz
1.2s 911.00nm 6.7mb LR 31 34.00
91.74 299 PKP 48 48.84 -0.4 KEV 121.19 345 iPKP 54 32.00 -0.7
91.84 188 iP 48 49.00 0.2 0.8s 27.90nm
e 48 56.00 HVD 121.23 218 iPKPc 54 34.50 0.3
e 49 09.00 1.3s 57.69nm

epP 49 33.00 175kmx TBR .121.23 51 ePKP 54 32.70 -1.0
e 49 52 .00 PP 56 47 . 50
e 50 02.00 SEK 121.55 221 iPKPd 54 46.50 1 1 . 6X
e 52 19.00 0.7s 20.55nm
ePP 52 42.00 FRS 121.95 218 iPKPd 54 34.70 -0.6
e 52 50.00 0.7s 106.16nm
e 53 12.00 SDV 122.45 90 iPKPc 54 36.60 -0.4
e 53 39.00 PRY 122.60 222 i PKPd 54 36.50 -0.4
e 59 41.00 1.0s 45.00nm
e 00 28.00 SLR 122.88 224 ePKP 54 35.00 -2.5
i sS 00 52.00 1.5s 155.56nm
e 0137.00 i 54 55 . 30
e 02 01.00 BNH 122.92 47 e(PKP)54 35.00 -1.8
e 02 48.00 PP 57 52.50
e 03 40.00 SOD 122.97 343 iPKP 54 35.20 -1.0
e 04 26.00 KIM 123.00 219 iPKPd 54 37.20 -0.4
e 05 39. 00 0.9s 126 . 05nm
eSSS 08 48.00 KSR 123.71 223 i PKPd 54 39.00 -6.2
eSS 09 48.00 TAB 124.57 305 ePKP 54 41.00 0.6
92.11 40 P 48 49.80 -0.6 SLY 125.48 302 ePKP 54 28.00 -14. 0X
1.5s 116.62nm 5.8mb PPD 125.98 133 ePKP 54 42.20 -1.3
92.13 51 P 48 52.00 1.1 MTD 126.04 235 iPKPc 54 43.20 -0.6
93.30 280 iPc 48 59.20 2.4 ipPKP 55 32.20
0.9s 80.67nm 5.9mb i PP 56 35.30
93.58 183 iPc 48 56.60 -0.2 i SKP 57 43.60
1.0s 436.00nm 6.6mb OBN 126.20 328 ePKP 54 43.00 0.2
93.92 19 eP 48 55.00 -3.2X 1.2s 90.00nm

94.17 314 iPd 49 00.95 1.0 epPKP 55 33.00
epPd 49 43.82 l70kmX esPKP 55 53.00
ePP 52 44.51 ePP 56 39.00
eS 59 51 .79 eppp 57 22.00
e 0041.72 esPP 57 40 . 00
94.19 287 ePd 49 00.80 0.3 eSKP 58 02.00
1.4s 375.00nm 6.4mb ePKS 58 15.00
e 49 45.00 l76kmX eSKS 01 30.00
94.22 283 Pd 49 00.70 0.1 eSKKS 03 15.00
1.2s 130.80nm 6.0mb eSS 13 03.00
94.66 44 eP 49 02.60 0.3 eSSS 18 02.80
e 49 48.00 181kmX BUL 126.28 229 iPKPd 54 42.50 -1.8
95.33 47 e(P) 49 05.20 -0.4 i 55 32.00
1.6s 32.89nm 5.4mb i PP 56 38.10
pP 49 53.50 194kmX i 57 44.00
95.42 219 eP 49 11.00 5 . 3X BHD 126.60 300 ePKP 54 45.00 0.7
ePP 53 09.00 ePP 56 29.50
eS 59 14.00 eSKP 57 44.50
95.47 55 eP 49 06.30 0.0 ePKS 58 03.00
1.0s 16.75nm 5.3mb eSKS 01 34.00
Z 20s 1.37um 5.4Msz iSKKS 83 22.50
epP 49 55.00 196kmX KAF 126.69 339 i PKP 54 42.40 -1.2
95.47 55 ePc 49 06.60 0.3 0.9s 27.90nm

pP 49 55.20 195kmX MSL 127.29 304 ePKP 54 39.00 -6 . 5X
PP 52 27 .50 « 55 28. 80
SKS 59 24.20 ePP 56 45.00
96.57 40 eP 49 10.00 -0.7 eSKP 57 47.50

97.54 51 e(P) 49 14.00 -1.6 ePKS 58 84.50
1.0s I3.25nm 5.3mb eSKS 01 32.50
pP 50 04.60 204kmX eSKKS 03 23.00
SKS 59 35.70 KR 1 127.55 233 i PKPd 54 36.80 -9.9X
97.66 51 e(P) 49 20.00 3.9X i pPKP 55 26.10
Z 20s 3.00om 5.8Msz iSKP 57 39.30
98.22 297 iP 49 17.00 -1.6 VAO 128.25 138 ePKP 54 47.40 -0.4
1.1s 75.95nm 6.1mb e 56 50.90
iS 59 36.50 NUR 128.37 338 iPKP 54 45.60 -1.2
98.80 287 i PC 49 19.50 -1.9 0.8s 54.30nm
99.56 47 eP 49 23.60 -1.0 AKU 130.25 3 i PKP 54 50.90 0.7
Z 20S 1.92om 5.6MS2 1.4s 81.40nm

(pP) 50 11.00 190kmX i 55 39.30
PP 53 27.30 UPP 131.24 341 i PKP 54 52.40 0.2
e 54 16 . 50 i 56 51 . 30
SKS 59 43 . 00 i 56 59. 40
101.44 13 ePdiff49 33.50 1.5 NB2 132.09 345 PKP 54 53.50 -0.4
2.0s 129.80nm 6.2mb 1.1s 19.00nm
pP 50 17.50 HFS 132.20 343 «PKP 54 42.40 -11. 7X

15d 13h

138

KAS
KONO

0. 4s
133.31
133.70

0 . 80nm
312 ePKP
345 ePd i f

54 57 . 50
f 5 1 57.97

0 . 6
2 . 4
eHSKKS03 48.96

SBTK
ess
LW 1
VR 1
1 SR
MLR
9MR
KRA

CMP
ELL
TNR
SPC

HLW

KSP

PSZ
BRG

CLL

SRO

PRU

ZST

VKA

Wl T

MOX

VAY
WTS

SKO

GRF
DBN

PLE

134.52
135. 41
135.78
1 36 . 13
1 36 . 60
136.79
137.04
137.41

137.45
137.61
137.71
137.83

138. 05

1 38. 54
1 . s

138. 82
139.51

139. 56
1 .0s

139. 70

139.93

140.04

140. 37
3.9s

149.49

140 .62
1 .7s

141.01
141.16
1 .0s

141 .40
1 .05

141.53
141'. 54
Z 2I0S

!

141 .90

eSKKS
311 ePKP

04 02 . 20
55 62 . 08

304 e(PKP)55 02 . 00
249 iPKPc
321 ePKPc
320 ePKP
321 e P K P
325 ePKPd
336 ePKP
e

321 ePKPd
307 ePKP
322 ePKPd
329 ePKP

ie
e
i
i
297 ePKP
e
333 ePKP
97 . 00nm
i c
i c
i d
ed
i c
327 ePKP
335 iPKP
i
i
i
i pPKP
eSKP
eSKKS
e
e
336 ePKP
24 . 00nm
iSKP
SKKS
32B iPKP
i
i
333 ePKP
e
e
330 ePKP
i
i

ie
330 iPKPc
1 007 . 00nm
i
i
i
i
i
342 ePKP
e
e
336 ePKPc
42 . 00nm
i PKS
317 i PKP
341 ePKP
45 . 00nm
e
e
e

319 i PKPc
1 06 . 00nm
i
336 iPKPc
343 ePKP
0 . 40um
e
e
e
e
322 iPKPd

55 02 . 90
54 44.00
54 53 . 00
54 54 . 00
55 16.00
54 53 . 30
55 54.10

55 07.ee
54 54 . 60
54 54.00
54 54.90
55 d& . 50
55 54 . 40
57 39.30
57 52 . 40
58 22 . 00
55 04 . 00
58 23 . 00
54 55 . 00

55 05.50
55 58.50
57 58.50
58 24.50
58 26.00
55 03 . 00
54 53.90
55 03 . 00
55 08 . 50
55 17.00
56 01 . 00
58 27 . 00
04 40.00
07 04.00
17 28. 00
54 59.00

58 27.29
04 39.00
55 01.00
58 04.50
58 26 . 70
55 01 .09
57 33 . 40
58 08 . 50
55 01 . 90
55 09.00
58 06.60
58 26. 70
06 40.70
55 03.80

55 10. 30
55 59 . 20
58 09.80
58 28.60
10 1 1 .80
55 08.00
56 01.00
58 12.00
55 03 . 20

58 30 . 00
55 04 . 00
55 07 . 00

56 00 . 50
58 15.00
58 30 . 00
55 05 . 80

55 51.50
55 06 . 30
55 07 .00

55 52 . 00
58 18.00
00 01 . 00
01 18.00
55 07.80

2 . 7
1 . 0
0 3
- 18 0X
- 1 0 . OX
- 9.5X
12. 3X
- 1 1 . 0X

2 4
- 1 1 . 3X
- 1 1 . 1 X
- 10. 5X

- 2 . 1

- 1 1 . 4X

- 4 . 1 X
- 1 4 . 2X

- 9 . 2X

- 7.5X

- 7. 9X

- 7 . 2X

- 6 . 0X

- 1 . 8

- 6 . 9X

- 7 . 1 X
- 4. 0X

- 6 . 0X

- 5.5X
- 4 . 7X
5. 2MS2

- 5. 0X

SOB1

BNS
DMU
TNS
PTJ
ZAG
OHR

BHG

NKY
ENN

TTG
MEM

DCN
KBA

BRY
FUR
ULC
LJU

VBY

BDV

ucc

HCY
CEY

VOY

ETA
SNF

FV 1
WTTA

Rl Y
WLF

TR 1
GWF
DOU

DOMF
ECP

HVAR
SIR
OGA
Wl
CDF
CTI
LIBD
VAL
FEL
ECH
LCI
BRT
V 1 TF
BSF
HAU

BBS

141.93 129 ePKP 55 06.90
e 55 07 . 90
i 55 1 1 . 40
i 5832.10
141.94 340 ePKPc 55 07.50
142.04 355 fePKP 55 09.20
142.13 339 ePKP 55 08. 00
142.18 328 ePKP 55 08.150
142.22 328 i PKPc 55 09 .
142.27 318 iPKP 55 08 .
0.8s 313.00nm
142. 36 332 i PKPc 55 09.
1.4s 3 1 2 . 00nm
142.44 322 i PKPd 55 09.
142 . 50 341 ePKP 55 08.
1.0s 33 . 00nm
e 56 02.
e 58 23.
142. 50 321 iPKPd 55 08.
142. 61 341 iPKPc 55 09.
e 55 57.
PP 58 23.
1 42 . 62 355 ePKP 55 10.
1 42 . 62 331 i PKPd 55 09 .
1.0s 1 00 . 70nrr,
i c 55 09.
i 55 1 4.
i PP 5824.
i 58 35.
142.66 322 iPKPd 55 09.
142.71 334 ePKP 55 10.
142.78 320 i PKPd 55 10.
142 .80 329 ePKPd 55 10 .
e 5824.
142.81 328 ePKPd 55 10.
i 58 24.
i 58 33.
1 42 . 85 321 i PKPd 55 09 .
142.94 343 PKP + 55 11.
e 56 01 .
i PP 58 27 .
142.95 321 i PKPd 55 10.
143.07 329 ePKPd 5511.
e 58 25.
143.12 330 i PKPd 55 1 1 .
e 58 24.

50
40

40

00
50

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00
90
38
40
00
00
70

90
50
70
00
70
30
10
50
50
00
80
90
90
00
00
00
40
00
50
00
80
143.17 354 ePKP 55 12.00
1 43 . 22 343 i PKPc 55 1 1 .45
PP 58 26.50
143.24 331 PKP 55 1 1 . 50
143.25 333 iPKPc 55 12.10
1.6s 411. 00nm
ic 55 13J00
i 55 26.
i 55 33.
i PP 58 26.
i 58 37.
143. 36 328 ePKPd 55 1 1 .
143. 39 340 iPKPd 55 12.
i 56 01 .
143.41 329 ePKPd 55 1 1 .
143.47 338 PKP 55 12.
143.50 342 PKPc- 55 12.
e 55 59.
PP 58 30.
SKS 05 03.
143.68 343 PKP 55 12.
143.69 354 ePKP 55 13.
0.4s 1 36 . 00nm
143.70 324 i PKPd 55 12.
143. 75 338 PKP 55 13.
143.83 333 ePKP 55 14.
1 43 . 86 331 PKP 55 13.
144.07 338 PKP 55 14.
144.17 332 PKP 55 14.
144.17 337 PKP 55 14.
144.18 358 i PKP 55 15.
144.25 337 PKP 55 14.
144.28 338 PKP 55 14.
144.50 319 PKP 55 15.
1 44 . 66 320 PKP 55 16.
144.69 339 PKP 55 16.
144.74 338 PKP 55 16.
144.75 339 ePKP 55 15.
1.2s 976 . 25nm
Z 22s 0.75um
144.78 337 PKP 55 16.

60
60
40
40
40
36
95
20
38
80
00
00
00
78
10

40
47
00
80
51
50
57
00
93
82
70
30
62
59
90

5
75

- 6 . 7X

- 4 . 9X
- 3 . 3X
- 4 . 9X
- 4 . 7X
- 3 . 6X
- 5 . OX

- 3 . 9X

- 4 . 8X
- 4 . 9X

- 4 .8X
- 4 . 2X

- 3. 5X
- 4 . 3X

- 4 . 5X
- 3 . 6X
- 4 . 1 X
- 3 . 6X

- 4 . 1 X

- 4 . 4X
- 3 . 1 X

- 4 . 1 X
- 3. 6X

- 3. 8X

- 2 . 5
- 3 . 2X

- 3 . 3X
- 3.0

- 3. 6X
- 2 . 6

- 3 . 9X
- 2 . 8
- 2 . 3

- 2-7
- 2 . 3

- 3 . 3X
- 2 . 1
- 2 . 1
- 2 . 1
- 1 . 8
- 2. 1
- . 8
- . 2
- . 8
- . 8
- . 4
- . 1
- 0.7
- 0.9
- 1 . 5

4Msz
- 0.7

FG3
SAL
LOMF
RSM
ARV
OR 1
SF 1

PGD

DU 1

ORE
RO 1
ASS
CS 1
IDS

MMN
SCO

MME
FLN

ORX
MGR
LDF
SDI
BOB
BDI
AZ 1
AC 1
LOR

CZ 1
MNS
RFI

GRI

LBF
P 1 1
GRC
CAI
GRR
SSF
LSD
RSL
RMP
LPL
LPG

RDP
PCP
SMF
RSP
AVF
LPF
CK 1
SOI
BHB
GMB

MAO
BNI

F 1 N
RRL
BGF
ROB
ATN
PZZ
PLDF
STV
1 M 1
AGO
MAF
SAOF
TCF
AUTN
TOUF
SSB
SBF
AURF
COLF

1 44 .92 322 PKP 55 1 7 . 54
145.02 332 PKP 55 17.70
145.13 337 PKP 55 18.25
145.34 328 PKP 55 20.40
1 45 . 39 327 PKP 55 18.70
145.60 320 PKP 55 19.28
145.65 329 PKP 55 19.54
1.1s 3621 . 80nm
145.74 329 PKP 55 19.55
e 58 43 . 80
145.80 324 PKP 55 19.28
1 0s 290.20nm
145.81 328 PKP 55 19.20
145.81 319 PKP 55 20 . 90
. 145.84 327 F'KP 55 19.80
145.87 319 PKP 55 20.70
1 45.91 319 PKP 55 19.57
1.1s 284 . 00nm
145.99 320 PKP 55 20.40
146.00 321 PKP 55 19.70
1.1s 470 . 90nm
146.01 330 PKP 55 20 . 80
146.06 346 iPKPc 55 19.30
1.3s 507 . 70nm
Z 22s 0 . 82um 5
1 46 . 10 335 PKP 55 18.87
146. 1 1 321 PKP 55 20. 00
146.13 346 iPKPc 55 19.50
146.14 324 PKP 55 20 . 20
1 46 . 15 332 PKP 55 20 .50
1 46 . 15 330 PKP 55 20 .30
146.16 325 PKP 55 20 . 20
146.17 319 PKP 55 20.80
146.23 340 iPKPc 55 19 .90
1.2s 418 . 40nm
Z 22s 0.85um 5
146.29 319 PKP 55 20.80
146.31 326 PKP 55 19.70
146.31 323 PKP 55 21.68
1.3s 1 767 . 50nm
1 46 . 34 318 PKP 55 20 . 86
1.4s 1 481 . 60nm
146.44 340 iPKPc 55 20.50
1 46 . 44 330 PKP 55 20 .70
1 46 . 45 341 PKP 55 25 .61
146.48 130 iPKPc 55 20.60
1 46 . 49 347 iPKPc 55 20 . 1 0
146.52 341 iPKPc 55 20.40
1 46 .58 335 PKP 55 21 .02
146.60 336 PKP 55 20.61
146.69 325 PKP 55 22.20
1 46 . 70 336 iPKPc 55 21 . 20
146 . 70 336 iPKPc 55 21 . 20
1.2s 37 1 . 90nm
146.71 325 PKP 55 22 . 70
146.73 333 PKP 55 19.89
146.78 340 iPKPc 55 20.90
146.79 335 PKP 55 20 . 82
146.81 341 ePKP 55 20.80
1 46 . 87 347 i PKPc 55 21 .00
146.94 333 PKP 55 21.50
1 46.99 317 PKP 55 22 .30
147.03 334 PKP 55 19.38
147.06 317 PKP 55 24.12
1.1s 643 . 50nm
147.09 328 PKP 55 24.00
147.10 335 PKP 55 20 .04
1.4s 698 . 80nm
147.14 333 PKP 55 20 . 61
147.17 335 PKP 55 22 . 46
147.18341 i PKPc 55 21.50
147.22 333 PKP 55 20.82
1 47 . 33 318 PKP 55 23 .60
1 47 . 38 334 PKP 55 21 .53
147.45 340 PKP 55 27.86
1 47 . 49 334 PKP 55 22 . 05
1 47 .52 333 PKP 55 22 . 77
147.54 340 PKP 55 27.71
147.57 341 i PKPc 55 22.10
1 47 .60 333 PKP 55 24 .95
147.62 341 iPKPc 55 22.30
147.65 333 PKP 55 25.49
147.71 334 PKP 55 25 . 32
147.73 338 PKP 55 22.57
147.75 333 iPKPc 55 23.60
147.78 333 PKP 55 25.43
147.82 339 PKP 55 23.02

- 0. 4
- 0. 1
0. 1
2. 0
0. 1
0.2
0.6

0. 1

- 0.2

- 0. 2
1 . 4

e. 4
1 . 2
0.0

0. 7
0. 0

0. 9
- 0. 2

5Msz
- 1 . 0
0. 1
- 0. 1
0. 2
0. 6
0. 4
0. 3
0. 8
0. 0

5Msz
0. 6
- 0 5
1 . 6

0. 5

0. 2
0 . 4
5. 4X
- 0 .6
- 0. 1
0. 1
0. 2
- 0. 1
1 . 4
0 . 2
0 . 1

1 . 8
- 0 . 9
0. 1
- 0. 2
0.0
0 . 2
0. 4
1 . 0
- 1.9
2 . 5

2 . 6
- 1 .5

- 0. 8
0. 7
0 . 1
- 0 . 8
1 . 7
- 0 . 4
5. 9X
0.0
0. 7
5. 7X
0. 0
2 . 7
0 . 1
2.9
2 . 7
0 .2
1 . 1
2 . 9X
0. 5

139

15d 13h

PYM 147.84 340 PKP 55 29.06 6.5X
MV 1 F 147.85 334 PKP 55 25.32 2.6
LSF 147 86 342 iPKPc 55 22.40 -0.1
REVF 147.88 333 PKP 55 25.66 3.0X
GIO 147.89 317 PKP 55 27.84 5.0X
MNO 147 95 318 PKP 55 27.10 3.9X
MFF 147.99 345 iPKPc 55 22 80 0.1
PGF 148 06 330 PKP 55 26.40 3.3X
CALN 148.08 334 PKP 55 26.40 3.3X
LBL 148.22 339 PKP 55 30.10 6.9X
MEU 148.27 316 PKP 55 27.80 4.2X
PZI 148.32 316 PKP 55 27.34 3 . 7 X
1.2s 253.80nm
FRF 148.33 334 ePKP 55 25.40 2.1
C- ! B 148. 35 319 PKP 5526.10 2.4
US 1 148.44 321 PKP 55 27.20 3.CX
tRG 148.54 334 iPKPc 55 26.20 2.6
1.5s 448 . 85nm
Z 22s 0.55um 5.3Msz
LMR 148.58 334 iPKPc 55 26.30 2.6
COR 148-61 335 ePKPd 55 27.50 3.7X
e 5610.70
e 5617.60
RJF 148.71 341 iPKPc 55 24.00 0.1
1.5s 323 . 85nm
Z 22s 8 . 95um 5 . 5Msz
MCT 148.81 318 PKP 55 31.85 7.3X
0.5s 34.20nm
CAF 148.88 341 iPKPc 55 24.80 0.6
ERC 149.22 320 PKP 55 29.50 4.5X
LFF 149.28 342 iPKPc 55 25.20 0.5
1 .2s 229 . 10nm
LPO 149.38 341 iPKPc 55 25.50 0.6
LSPF 150.69 339 PKP 55 33.68 6.7X
LESF 150.83 340 PKP 55 33.86 6.7X
ETER 150.91 337 ePKP 55 33.18 5 . 9X
GRBF 150.91 339 PKP 55 33.48 6. IX
MLS 150.96 340 PKP 55 33.30 5.9X
SALF 151.10 340 PKP 55 33.89 6.2X
EPF 151 13 341 iPkPc 55 28 20 0.5
1.0s 7 1 . 08nm
BTH 151.21 342 ePKPc 55 34.40 6.7X
BTH 151.21 342 iPKP 55 41.60 13. 9X
i sP 55 47.50
i 55 57 . 10
i 56 22.50
i pP 56 24.50
i 56 30.00
i 56 35.50
i 57 22.50
pPP 59 29.00
pPKS 00 07.00
eSKP 00 22.00
SKKKS 05 32.00

e(PS) 09 04. 00
ENSF 151.34 341 PKP 55 35.96 7.9X
ECRI 152.32 345 ePKP 55 30.91 1.5
EMON 152.43 353 ePKP 55 29.67 0.1
ESEL 153.05 334 ePKP 55 38.52 8. IX

EROQ 153.09 339 ePKP 55 38.23 7.7X
STS 153.11 354 ePKP 55 31.16 0.7
ERUA 153.43 352 ePKP 55 31.16 0.2
ETOR 153.87 343 ePKP 55 32.53 0.8
GUD 154.58 346 ePKP 55 33.53 0.9
ECHE 154.66 340 ePKP 55 42.22 9.5X
PTO 154.84 354 ePKP 55 33.30 0.5
TOL 155.28 345 ePKP 55 34.00 0.5
EV 1 A 156.02 341 ePKP 55 45.57 10. 9X
TIO 164.59 345 iPKPd 55 45.50 1.4
i 56 34.00
i 5641.00
i 57 26.00
i 0418.00
KIC 168.02 217 PKPc 55 46.78 -8.3
1.4s 1 95 . 58nm
LIC 168.08 216 PKPc 55 46.60 -8.5
1.5s 21 3 . 50nm

TIC 168.41 217 PKPc 55 46.82 -0.5
1.5s 205 . 50nm
S.D. - 1.1 on 336 of 437 obs.

AUG 15, 1991 15h 23m 31.40± 0.58s 39.989 N ± 6.3km 20.737 E ± 4.6km DEPTH - 10.0km (geo phy s i c i s t)
GREECE-ALBANIA BORDER REGION (392)

KEK 0.77 249 eP 23 45.60 -0.9
eS 23 58 . 00
KZN 0.85 68 eP 23 47.30 -0.6
eS 24 02 . 50
FNA 0 . 93 31 i Pd 23 49 . 1 8 0.0
eS 2403.78

OHR 1.12 2 i Pg 23 52 . 80 0.3
0.6s 235 . 00nm

i Sg 24 08 . Sw
Lg 2413.20
LIT 1.35 85 ePc 23 55.82 -0.4
eS 24 17 46
AGG 1.57 128 i PC 24 00.58 1.3
*S 24 24 . 06
GRG 1.60 52 ePc 23 59.46 -0.3
VAY 1.93 46 ePn 24 63.00 -1.5
KNT 2.02 54 ePc 24 05-98 0.1
SKO 2.05 15 ePn 24 07.60 1.3
0.9s 1 1 4 . 00nm
i 2434. 60
i Sg 24 36 . 50
Lg 24 42.30
SOH 2.16 67 ePc 2408.58 0.5
PA 1 G 2.26 91 *Pc 24 09.22 -0.2
eS 24 37 62
SRS 2.45 62 ePc 24 12.02 0.0
OUR 2.51 81 ePc 24 13.06 0.2
BRT 2. 84 289 P 2418.00 0.4
eSn 25 05.00
S.D. =0.8 on 15 of 15 obs.

? AUG 15, 1991 15h 53m 37.27±14.l5s
43.198 N ±57. 3km 128.131 W ±97. 6km DEPTH = 10.0km (geophy s i c i s t)
OFF COAST OF OREGON (30)

HBO 4.28 79 P 54 44.03 0.0
GT2 4.65 63 P 54 49 . 20 0.0
BMW 4.78 45 P 54 50.60 -0.6
RVW 4.84 5 1 P 5451.86 -0.1
VLMM 4.95 60 P 54 53.50 -0.1
LVP 4.99 53 P 5454.19 0.1
VBEM 5.06 66 P 54 55.11 -0.1
MTMW 5.08 54 P 54 55.32 -0.1
FL2 5.10 52 P 54 55 . 37 -0.2
CZM 5.15 49 P 54 56 . 03 -0.2
VLL 5.15 62 P 54 56. 59 0.2
ERK 5.16 51 P 54 56 . 49 0.0
HSR 5.18 53 P 5457.26 0.4
JLK 5.18 53 P 54 56 .82 0.0
STD 5.19 52 P 54 57 . 00 0.1
CDrW 5.23 54 P 54 57.30 -8.1
TDL 5.26 51 P 5457.87 -0.1
APM 5.27 59 P 5458.10 0.1
KOSW 5 .34 50 P 5459.18 0.2
LMW 5.41 48 P 54 59.91 -0.1
ASR 5 .52 55 P 5501.55 0.0
GLK 5.73 52 P 5504.77 0.3
RVC 5.75 47 P 55 05 . 13 0.4

FMW 5.90 49 P 55 07.05 0.0
GL2 5 .90 60 P 55 06. 51 -0.4
GSM 6.01 46 P 55 08.56 0.2
S.D. - 0 . 2 on 27 of 27 obs.

& AUG 15. 1991 16h 00m 00.00s
37 . 087 N 116. 002 W
DEPTH « 0.0km
4 . 2mb (2 obs .)
SOUTHERN NEVADA (41)
<DOE>. ML 4.0 (BRK). 37' 05'
14. 40" N. , 116' 00' 06 . 45" W. . Surfoce Elev. 1307 m.. Depth of
Buriol 503 m.. Shot Time
160000.000, "FLOYDATA , " Nevodo
Test Site (Dept. of Energy).

TNP 1. 39 316 i PC 00 26. 20 -0.4

GSC 1.90 200 iPc 00 33.00 -1.0
BONR 2.02 296 i PC 00 35.60 -0.5
ISA 2.45 235 ePc 00 41.20 -0.8

FRI 2.97 269 iPc 00 48.76 -0.5
eS 01 30.82
SSK 3.18 206 eP 00 52.80 0.3
MSU 3.35 64 eP 00 54.00 -0.9

ABL 3.43 230 eP 00 55.00 -1.1
CMB 3.61 287 eP 00 57.55 -0.9
PLM 3.79 191 eP 01 00.00 -1.2
BCH 3.81 241 eP 01 00.20 -1.2
PRI 3.87 257 eP 01 02.22 0.0
DUG 3.98 38 eP 01 02.50 -1.3
LLA 3.99 265 eP 01 04.22 0.4
SAO 4.37 267 eP 01 09.30 0.0
ORV 4.98 301 eP 01 16.94 -0.9
DAU 4.98 47 eP 0119.70 1.6

BKS 5.02 281 e(P) 01 28.00 9.6
BW06 7.54 39 eP 01 52.00 -2.1
ALO 8.02 103 eP 01 59.10 -1.8
GOL 8.75 69 eP 02 10.00 -1.0
RSSD 11.49 49 eP 02 46.50 -2.1

TUL 16.30 88 e(P) 03 54.80 3.0
1.8s 19 . 10nm 3 . 9mb
PMR 32.05 330 eP 06 31.00 0.7
1.0s 5 . 00nm 4 . 4mb
26 obs . ossoc i oted

* AUG 15, 1991 16h 13m 1 4 . 45± 1.45s
24.085 S ±13. 3km 36.456 E ± 1 4 . 5 km
DEPTH - 33.0km (normol)
4 . 5mb (1 obs .)
MOZAMBIQUE CHANNEL (582)
mbLg 3.9 (BUL) .

JOZ 5.17 229 eP 1432.50 0.9
0.5s 1 40 . 85nm 5 . 7mb X

CIR 5.45 303 iPn 14 37.90 2.4
SLR 7.60 256 i Pd 15 05.60 -0.3
S 16 25 . 60
BUL 8.26 297 iPn 15 13.00 -2.1
i Sn 1636.30
iSg 17 23 . 90
MTD 8.58 327 iPnc 15 24.50 5.0X
iSn 1702.50
PRY 8.59 249 eP 15 20.00 0.3
1.0s 100. 00nm 5 . 9mb X
S 16 46.50
KSR 8.85 256 iPd 15 23.00 -0.3
1.0s 150. 00nm 6 . 1mb X
S 16 55. 00
SEK 8-98 240 iPc 15 37.70 12. 6X
S 17 12.20
KRI 9.65 317 iPn 15 37.60 3.3X
iSn 17 18.00
iSg 18 25 . 00
FRS 11.42 238 iPd 15 58.30 0.0
S 17 53.00
KIM 11.45 244 iPc 15 57.50 -1.4
S 1654. 00
HVD 11.70 234 eP 16 03.00 0.7
S 18 04 . 50
GBA 54.83 51 PC 22 43.70 -0.2
0.8s 4.1 0nm 4 . 5mb
S.D. -1.4 on 10 of 13 obs.

% AUG 15, 1991 17h 39m 53.88± 0.89s
44.436 N ± 6.3km 11.663 E ± 8.7km
DEPTH 10.0km (geophy s i c i s t)
NORTHERN ITALY (545)

SF I 0 .53 165 P 40 04 . 60 0.0
eSg 40 14.00
PGD 0.56 176 P 40 05.40 0.0
eSg 40 15.50
MME 0.73 251 P 40 08.70 0.3
eSg 40 20.00
CRE 0 . 83 165 P 40 10 .20 0.1
eSg 40 24.00
PI 1 1 .09 229 P 40 14 .00 -0.3
eSg 40 29.00
CT I 1.61 360 P 40 22.50 0.0
eSn 40 41.50
S.D. -0.3 on 6of 6 obs.

? AUG 15, 1991 18h 58m 17.55± 9.61s
34.151 S ±53. 1km 72.051 W ±59. 9km
DEPTH - 33.0km (normol)
NEAR COAST OF CENTRAL CHILE (135)

LCCH 0.78 31 iP 58 31.00 -1.1
iS 5841.00
TACH 1.05 62 iPd 58 35.10 -0.9

15d 1 8h

140

1 HA 1.17

CHCH 1.18

SAN 1 . 35

PCH 1 . 38

ROCH 1 . 46
Ptl 1 .52

JACH 1.91

M D 2 2.96
S. D ~

AUG 15,
45. 408 N
DEPTH «
ROMAN I A

TIM 0.34
BED 0 . 74

DEV 1 . 36
UZD 2.11
TNR 2.25
BUD 2 . 52
PSZ 2 . 64
CMP 2.79
BMR 2.81
MTUR 2.81
SRO 3.07

MLR 3 . 42

SKO 3. 44
1 .3s

SPC 3.83

I SR 3.86
ZST 3.91

VR 1 3.98
VAY 4 . 23
OHR 4.30
VKA 4.34

KNT 4 . 45
FNA 4 . 63
SRS 4.66
KRA 4.71

SOH 4.88
OUR 5.50
KHC 6 . 32

PRU 6.36

WTTA 6.80
0.7s

BRG 7 . 26

S .D. =

& AUG 15,
60 . 983 N
DEPTH -

1 7

80

59

68

37
49

40

66

e. 8

1991
± 3.

IS 58 48
eP 58 38
i S 58 54
iPd 58 38
iS 58 52
iPd 58 40
iS 58 56
i Pd 5841
iS 58 58
iP 58 42
i Pd 5843
iS 5901
eP 58 49
i S 5912
eP 59 13
on 9 o f

19h 35m 22
7km 21 . 085

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10

0 . 3

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0.2

1 . 1

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obs .

. 05± 0.36s
E

10.0km (geophysici

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83
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342
91
35
92
323

87

176
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352

92
317

81
165
183
313

162
177
156
351

159
156
309

318

289

321

1 . 1

1991

iPc 35 30
iPg 35 39
iSg 35 52
iP 35 46
e(Pn) 35 59
ePd 36 00
ePn 36 03
iPn 36 04
ePc 36 09
ePc 36 20
eP 3614
iPn 36 1 2
i 36 46
i 36 53
ePd 36 17
e 5012
ePn 36 16
9 00 nm
i 36 28
iSg 3717
i 37 22
iPn 36 22
i 36 41
e 37 05

e(Sg) 37 33
ePc 36 24
i P n 3623
i 36 30
e(Sn) 37 07
e 4511
ePc 36 24
ePn 36 28
ePn 36 27

e(P) 36 30
i 36 39
i 36 46
i 37 25
ePc 36 30
ePc 36 38
ePd 36 33
eP 36 34
e 37 01
ePc 36 37
ePc 36 44
Pn 36 57
Pg 37 04
eSn 38 06
Sg 38 13
Pn 36 56
e 38 03
eP 37 08
3 . 1 0nm
i 37 41
e(Pn) 37 34
e 39 37
on 25 of

20h 03m 46
151.141

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± 4.5km
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(358)

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- 0. 7
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12. 2X
6. 5X
0.9

0. 4

- 0. 1

- 0.2

1 .2
- 0.2

- 0.5
0. 1
- 1 .6
0.4

- 0.2
4 . 6X
- 1 . 1
- 0.4

0.3
- 1.1
- 0. 6

- 1 . 7

3.5X
4 . 5mb

23. 3X

obs .

. 24S
W
8 . 1 km
KENAI PENINSULA
< AE'I C> " '

(PMR) .

NKA 0.25

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191

, ALASKA
3. 1 (AEIC) .

iPc 03 53

3.

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(14)
4

2.5

SPU
SUA
CGLM
CKL
NCG

SLKM
BGL
RDT

PMS
DFR
PWA
REF
RON
NNL
pen n b U
ROW
NCT

RED

SKT

PLRM

PMR
SEW

GHO
HOM

KNK

CNPM

CUT
KN 1 M

LT 1
PDB
AUE
GLI

AUH
MTU
AUI

HUR
SVW
VZW
VLZ

CDD
SYI
TRF
KLU
KTH

TOA
RND
TZL
MCK
TTA
SDG
BWN
KDC
PAX
GLB
WRH
CCB
MOM
FBA
BALM
1 MA

AUG
4 1

0. 49
0 .52
0.53
0. 62
0 .65

0.66
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0.74

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1 .02

1.15

1.15
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1 .35

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1 . 46

1 . 49
1 79

1 .88
1 .93
1 .97
1 .98

1 . 99
2.00
2.01

2.12
2.18
2.23
2.34

2.41
2. 46
2.51
2.58
2.58

2.63
2.66
2 . 94
2 .94
3.02
3.08
3.29
3.32
3.34
3.58
3.77
3.98
4.21
4.22
4 . 28
5.23
61 obs

295 iPd
22 iPc
308 iPd
291 iPd
311 i Pd
S
136 ePd
295 iPd
237 iPd
iS
70 iPd
243 eP
42 ePc
238 iPd
240 eP
185 eP
237 iPd
239 eP
245 iPd
S
236 iPd
eS
350 iPc
eS
57 iPc
eS
57 eP
136 eP
eS
52 ePc
191 eP
S
70 eP
eS
182 iPc
eS
16 i Pd
109 iPc
eS
1 1 9 ePc
233 eP
215 eP
91 iPc
eS
216 eP
1 1 9 ePc
216 eP
eS
1 9 ePc
275 ePc
86 eP
84 ePc
eS
213 ePd
195 ePd
9 ePd
76 iPc
2 ePd
S
63 ePd
23 ePd
66 eP
1 9 eP
312 ePc
57 eP
13 eP
193 eP
51 eP
79 ePc
21 ePc
21 eP
1 7 ePc
20 ePc
85 eP
349 ePc

03 56.02
03 56.84
03 56.97
03 58.32
03 58.81
04 08 . 10
03 58.65
03 59. ?4
04 00.
04 10.
04 01 .
04 02.
04 03.
04 03.
04 02.
04 05.
04 03.
04 03.
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157

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04 20.

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04 45 . 08
04 20.135
04 21 .fel
04 21 . J50
04 48.76
04 24.109
04 23.40
04 24.170
04 26.
04 55.
04 26.
04 28.
04 29.
04 29.
04 30.
05 00.
04 31 .
04 31 .
04 35.
04 36.
04 36.
04 37.
04 40.
04 39.

23
06
66
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27
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36
90
90
17
97
66
40
79
44
30
04 41 .52
04 42 . 92
04 46 . 65
04 49.73
04 52.53
04 53.40
04 52. 13
05 06.70

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- 0 . 4

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- 0 . 9

- 0. 7
- 0 . 8
- 0 . 5
- 0 . 9
- 1 . 3
0. 6
- 0.9
- 1 . 0
- 1 .0

- 0.9

- 0. 4

- 1 . 3

- 0 . 9
- 0 . 7

- 1 . 1
- 1.1

- 0 . 4

- 1 . 0

0 . 1
- 0.2

0.0
0. 2
0.5
- 0.2

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1 .0
0. 7

1 .6
0.0
0. 6
0.6

0. 0
1 . 0
1 . 1
0. 3
1 . 3

2 . 1
1 . 0
1 . 9
2.5
1 . 2
1 . 7
1 . 3
- 0. 1
1 . 7
- 0. 2
0. 7
0. 9
0 . 5
1 . 2
- 1 . 1
0.0

. associated i
15, 1991 20h
QCQ M J. «; t Ixm

DEPTH - 1 1 . 2 ± 5 .

52m 07 .
22.077
7 km
YUGOSLAV 1 A

VAY

FNA

MD 2.5

0.27
0.45

0.60

(THE) . ML

1 1 4 ePd

56 iPq
iSq
242 iPd

35±
E ±

2.3 (3KO)

52 13.
52 16.
52 22.
52 19.

rk Q

o O

40
30
1 4

0.56s
3 . 7km

(383)

0. 3
0. 2

0 . 0

eS 52 27.24
KNT 0.63 81 ePc 52 19.40 -0.2
eS 52 28.08
THE 0.80 123 ePd 52 21.96 -0.5
eS 52 32.92

OHR 0.97 273 iPg 52 26.00 0.6
0.5s 76 . 00nm

iSg 52 39.60
Lg 5241.70
SOH 1.00 104 iPd 52 26.08 0.2
eS 52 39.44
LIT 1.02 162 ePc 52 25.96 -0.2
iS 5240.10
SKO 1.02 332 ePg 52 26.00 -0.3
. 0.4s 95 . 00nm

iSg 52 39.30
Lg 52 44.20
SRS 1.15 87 ePd 52 28.60 0.2
eS 52 43.92
OUR 1.62 116 ePd 52 36.80 1.2
PAIG 1.67 132 ePd 52 36.72 0.4
eS 52 59.20 -
S . D. -0.5 on 12 of 12 obs .

AUG 15, 1991 20h 54m 56.04± 1.64s
0.935 N ± 8.1km 125.952 E ± 8.6km DEPTH = 42 . 7 ± 1 5 . 7 km
5 . 1mb (13 obs .)
MOLUCCA PASSAGE (266)

AA I 5 . 1 1 1 54 eP 5613.10 1.0
eS 57 13.20
TSM 8.73 293 ePc 57 04.00 1.2
MKS 8.90 227 i Pd 57 04.50 -0.6
1.0s 382 . 70nm 6 . 4mb X
MTN 14.62 160 eP 58 20.50 -1.5
KNA 16.81 171 eP 58 59.50 9 . 5X
LAT 22.32 110 ePd 59 53.20 1.6
KGM 22.65 273 eP 00 03.00 8. IX
IPM 25.16 279 ePc 00 19.80 0.7
1.0s 54.00nm 5. 1mb
OIS 25.20 149 iPd 00 18.70 -0.8
0.9s 100. 00nm 5 . 4mb
NANU 25.47 203 eP 00 23.00 1.1
ASPA 25.65 163 iPc 00 22.70 -1.0
1.0s 54.1 0nm 5. 1mb
iS 04 49.30
WARB 26.97 179 iPc 00 36.40 0.6
CTAO 28.85 137 iP 00 52.00 -0.9
FORR 31.67 176 i Pd 01 16.30 -1.4
0.4s 23 . 00nm 5 . 4mb
CHTO 31.90 306 P 01 18.00 -1.9
1.0s 1 6 . 50nm 4 . 8mb
STK 35.84 157 i PC 01 52.80 -0.9
0.6s 17. 70nm 5. 2mb
MAT 37.20 16 (P) 02 04.00 -1.1
0.8s 7.46nm 4. 6mb
BJI 39.93 348 eP 02 27.50 -0.3
0.8s 6 . 00nm 4 . 4mb
LZH 40.55 332 eP 02 32.50 -0.7
1.5s 26 . 00nm 4 . 8mb
Z 25s 0.27um 4.0MSZX
BWA 41.00 151 eP 02 39.30 2.5
CAN 42.01 151 eP 02 45.70 0.7
DZM 45.63 123 iPc 03 14.10 -0.5
GUN 46.79 309 P 03 24.30 0.3
0.7s 56 . 00nm 5 . 7mb
PKI 47.00 308 P 03 25.52 -0.1
KKN 47 . 20 308 P 03 27. 16 0.1
DMN 47.26 308 P 03 27.76 0.2
0.8s 26 . 00nm 5. 3mb
GKN 47.81 308 P 03 31.44 -0.3
1.0s 50 . 00nm 5.5mb
KOD 49.07 283 eP 03 41.10 -0.7
HYB 49.38 292 eP 03 43.00 -0.9
e 03 45.50
GBA 49.63 287 Pd 03 44.70 -1.0
1.1s 1 6 . 90nm 5. 0mb
YAK 60.99 2 iP 05 06.80 -0.3
IR4 77.26 306 iPd 06 49.00 0.9
I R1 77 . 46 306 eP 06 51 .00 1.8
IR7 77.56 306 eP 06 51.00 1.3
OBN 88.87 325 iPd 07 49.00 2.0

KAF 93.70 332 eP 08 08.20 -1.0
MDZ 145.30 158 ePKP 14 36.80 5.2X
S.D. - 1 .2 on 34 of 37 obs.

AUG 15, 1991 21h 46m 45.01± 0.60s 44.908 N ± 9.8km 151.884 E ± 1 0 . 4 km DEPTH - 33.0km (normol)
5 .
KUR 1

KUSJ

ASAJ
HOOJ

MRR J

OFU J

YAMJ

N 1 1 J
KAKJ
CHJJ
MAT

MTMJ
1 1 DJ
YAK

TTA
1 M A
LZH

1 NK
CHTO
GUN
KKN

PK 1
OMN
GKN
NO 1

FFC

KAF

WR2

WRA

NUR
UPP
GBA

|J Q O
N D £

HFS

KRA
KSP
SPC
VR 1
CLL

BRG

MLR
PRU

MOX

WTS

SRO
ZST
KHC

ENN

MEM

Pmb (42 obs.) 4.1Msz (6 obs.)
L ISLANDS REGION (222)

5.48 253 P 4805.30 -1.1
S 49 04 .60
6 . 66 266 eP 48 23 .90 0.9
6 . 73 251 eP 4824.20 0.2
cS 49 37.50
8. 22 256 eP 4845.90 1.0
cS 5£i 12.60
9.57236c-P 4902.50 -1.0
<?S 50 43 . 70
11.13 237 eP 49 24.70 -0.2
cS 51 27.90
12.37 236 P 49 42 . 10 0.6
12.43 230 P 49 42 .30 -0.1
13.20 232 P 49 51 . 80 -0.8

13.31 236 (P) 49 54 . 00 0.0
0.8s 5.22nm 4. 5mb
eS 52 19.00
13.52 237 P 49 56 . 70 -0.1
14.22 233 cP 50 08 . 20 2.2
21 . 44 331 cP 5126.90 -5. 1 X
c 51 56 . 00
c 55 13 .00
34 .38 40 cP 53 22 .40 -8. 3X
35. 81 35 cP 53 41 . 20 -1.7
37.11 273 PC 53 55 .00 0.7
1.5s 99 . 00nm 5. 5mb
Z 1 7s 0 . 34um 4 . 2MszX

pP 54 10.00 58kmX
43.67 31 ePd 5449.00 1.3
50.86 257 P 55 43 . 50 -1.2
54 . 31 275 P 5610.90 0.1
54 . 81 276 P 5614.52 0.2
0.8s 53.00nm 5.6mb
54.85 275 P 56 1 4 .64 -0.1
55.04 276 P 56 16 . 36 0.3
55. 14 276 P 56 16 . 44 -0.2
59.93 282 i PC 56 49.70 -0.5
0.5s 28 . 1 7nm 5 . 7mb
62.71 39 cPc 5709.60 1.0
1.0s 12. 00nm 5 . 0mb
64.75 335 i P 5719.10 -2.7
0.6s 3 . 60nm 4 . 6mb
66.49 198 iPd 57 31 . 40 -2.0
0.7s 3.80nm 4. 6mb
i 57 52.30
66 . 49 1 98 P 5738.00 4 . 6X
1.2s 1 . 70nm 4 . 0mb
66.50 335 cP 57 30.50 -2.6

69.08 337 ip 57 46.90 -2.2
69.53 269 Pd 57 52.60 0.0
0.8s 8.50nm 4. 9mb
69.69 341 P 57 50.80 -2.2
0.8s 1 2 . 1 0nm 5. 0mb
69 . 88 339 cP 5751.70 -2.4
0.6s 14.80nm 5. 2mb
Z 1 9s 0 . 08um 4 . 0Ms2
LR 2544.00
76.60 330 iPd 58 33.10 -0.4
77.16 333 i Pd 58 36.00 -0.7
77 .22 330 cP 58 37 .80 0.5
77 . 44 324 cPd 58 37 . 00 -1.3
77.78 335 i PC 58 39.20 -0.8
1.2s 34.00nm 5. 3mb
77 .87 334 cP 58 40. 10 -0.5
1.0s 1 2 . 00nm 4 . 9mb
78 . 07 324 cP 5842.00 0.1
78. 46 333 PC 58 43.20 -0.6
1.0s 10.10nm 4. 8mb
78.78 335 cP 58 45.00 -0.6
1.4s 1 8 . 00nm 4 . 9mb
78.89 339 cP 58 46.00 -0.1
0.9s 1 4 . 00nm 5 . 0mb
79 .07 330 i P 58 47 .30 0.1
79 . 16 331 cP 58 48 .20 0.5
79 .52 334 i PC 58 50 .00 0.4
1.0s 1 2 . 50nm 4 . 9mb
c 59 06.50
80. 24 339 eP 58 53 .50 0.1
1.0s 25 . 00nm 5 . 2mb
80.36 339 PC 58 53.60 -0.4

If LF O 1 . 1 9 J JO re O»K>O.*3K> "f.DA

DOU 81.19 339 P 59 12.00 13. 6X
WTTA 81.77 334 i PC 59 02.20 0.4
0.9s 7.70nm 4. 7mb
e 59 27 . 00
CDF 82.03 337 eP 59 02.70 -0.3
0.9s 9.85nm 4. 8mb
HAU 82.65 337 eP 59 05.70 -e . 5
Z 20s « . 1 0um 4 . 2Msz
BSF 82.69 337 eP 59 05.90 -0.6
SKO 82.82 325 eP 59 05.00 -2.1
VAY 82.90 324 eP 59 08.00 0.5
FLN 83.63 342 eP 59 11.10 0.0
0.7s 5.50nm 4. 8mb
Z 21s 0.0 8 urn 4.6MS2
LDF 83.71 342 eP 5911.60 0.1
LOR 83.99 339 eP 59 13.20 0.2
0.8s 6 . 70nm 4 . 9mb
Z 20s 0 . 1 0um 4 . 2Msz
GRR 84.07 342 eP 59 13.60 0.3
0.7s 8 . 80nm 5 . 0mb
LBF 84.22 339 eP 59 14.30 0.1
1.1s 9 . 75nm 4 . 9mb
SSF 84.27 339 eP 59 14.70 0.3
0.9s 6 . 55nm 4 . 8mb
LPF 84.44 342 eP 59 15.70 0.5
0.8s 9 . 40nm 5 . 0mb
AVF 84.56 339 eP 59 16.40 0.6
1.1s 18.30nm 5. 2mb
SMF 84.57 339 eP 59 16.40 0.5
1.1s 28 . 10nm 5 . 4mb
SF I 84.68 332 P 59 1 7 . 80 1.4
PGD 84 . 76 332 P 59 18. 60 1.5
MME 84.81 333 P 5918.10 0.7
LPL 84.82 336 eP 59 18.30 0.8
0.9s 9.85nm 5.0mb
LPG 84.83 336 eP 59 18.40 0.8
0.9s 9 . 85nm 5 . 0mb
BGF 84.91 339 eP 59 18.10 0.5
0.8s 470nm 4. 7mb
BDI 84.96 333 P 5918.90 0.9
MAF 85.29 339 eP 59 20.80 1.3
0.8s 11. 40nm 5 . 1mb
TCF 85.32 339 cP 59 20.40 0.7
1.1s 7 . 35nm 4 . 8mb
LSF 85.53 340 cP 59 20.90 0.2
1.0s 1 0 . 0enm 5 . 0mb
MFF 85.59 341 eP 59 21.70 0.7
0.9s 8.20nm 4. 9mb
SBF 86.12 335 cP 59 25.00 1.2
0.8s 12.1 0nm 5 . 2mb
RJF 86.41 340 eP 59 26.10 1.0
0.8s 5 . 35nm 4 . 8mb
Z 21s 0 . 08um 4 . 1Msz
CAF 86.63 339 cP 59 27.70 1.5
0.7s 6.60nm 5. 0mb
FRF 86.63 335 eP 59 26.50 0.3
LRG 86.81 336 eP 59 27.70 0.7
1.1s 22 . 00nm 5 . 3mb
Z 20s 0 . 75um 5 . 1Ms2
LMR 86.88 335 cP 59 27.80 0.4
0.9s 11. 45nm 5 . 1mb
LFF 86.95 340 cP 59 28.90 1.2
0.8s 8 . 05nm 5 . 0mb
LPO 87.08 340 cP 59 29.40 1.1
0.9s 9 . 85nm 5 . 0mb
S . D . -1.0 on 79 of 84 obs .

AUG 15, 1991 22h 32m 51.72± 0.71s
42.691 N ± 6.1km 0.930 E ±11. 7km
DEPTH - 10.0km (gco phy s i c i s t)
PYRENEES (378)
ML 3. 1 (LDG) .

EPF 0.55 308 Pg 33 03.70 0.7
Sg 33 1 1 . 20
EGRA 1.05 242 cP 33 03.50 -7.9X
cS 33 1 1 . 50
EBR 1.90 190 cPg 33 25.00 0.6
cSg 33 49.00
EROO 1.91 192 cP 33 24.50 -0.1
cS 33 45.00
LPO 2.00 5 Pn 33 25.00 -0.9

Pg 33 29.40
Sg 33 57.80
LFF 2.25 357 Pn 33 27 .80 -1.8
Pg 33 33. 10

ig o* <oo . i v
CAF 2.38 20 Pn 33 31 . 60 0.2

Pg 33 38 . 60
Sg 34 08.90
ECRI 2.54 269 eP 33 44.00 10. 3X
eS 34 12.50
RJF 2.65 9 Pn 33 34.60 -0.6
Pg 33 42.90
Sg 3417.10
ETOR 2.91 231 eP 33 38.20 -0.8
eS 34 08.20
LSF 3.58 7 Pg 33 59.00 10. 5X
Sg 3445.00
TCF 3.71 14 Pg 34 01.90 11. 6X
Sg 34 50.60
MAF 3.72 18 Pn 33 50.00 -0.4
Pg 34 02.60
Sg 3451.10
MFF 3.99 349 Pn 33 55.50 1.4

Sg 34 59.00
BGF 4.10 19 Pg 34 09 . 10 13 . 3X
Sg 35 02.00
AVF 4.45 22 Pg 34 16.00 15. 3X
Sg 35 13.80
SMF 4.47 27 Pn 34 02 . 60 1.6

Sg 35 15.00
SSF 4.74 22 Pg 34 22.00 17. 1X
LBF 4.81 26 Pg 34 25.00 19. IX
LOR 5.03 23 Pg 34 27.40 18. 5X
S . D . - 1 . 2 on 1 1 of 20 obs .

AUG 15. 1991 22h 40m 01.27± 0.53s
43.124 N ± 5.1km 10.790 E ± 4.5km
DEPTH = 10.0km (geophy s i c i s t)
CENTRAL 1 TALY (381)

PM 0.63 342 PC 40 14.20 0.3
eSg 40 22.50
MAO 0.76 159 P 40 16.90 0.8

eSg 40 27 . 40
BDI 0. 95 352 P 40 20.00 0.6
cSg 40 32.60
CRE 0.99 59 P 40 19.20 -0.8
cSg 40 32.28
PGD 1.01 42 P 40 20. 10 -0.4
eSg 40 33.90
MME 1.07 357 P 40 22.60 1.0
SF I 1.11 44 P 40 21 . 60 -0.4
eSg 40 38.00
ASS 1 . 37 92 P 40 26.50 0.0
eSg 40 44.50
PGF 1.44 247 Pn 40 28.20 0.7
Sn 40 48.00
BOB 1 .91 330 P 40 35 .00 0.8
SBF 2.55 288 Pn 40 42.40 -1.0
LMR 3.14 275 Pn 40 50.60 -1.0
LRG 3.25 277 Pn 40 52.70 -0.6
S . D . -0.8 on 13of 13 obs .

« AUG 15. 1991 22h 43m 04 . 07± 1.51s 44.481 N ±15. 7km 149.488 E ±12. 6km DEPTH - 78 . 6 ± 14.4 km
4 . 7mb (3 obs .)
KUR 1 L 1 SLANDS (221)

KUSJ 3.73 250 cP 43 59.40 -0.9
cS 44 39.70
ASAJ 4.93 268 cP 44 17.60 0.4
HOOJ 4.98 247 eP 44 19.30 1.4
cS 45 13 .70
MRRJ 6.46 254 cP 44 38.40 0.0
cS 45 51 . 40
AOMJ 7.79 243 cP 44 56.40 -0.4
cS 46 19.90
OFUJ 7.95 230 eP 44 58.00 -1.0
S 46 24.00
YAMJ 9.50 232 P 45 20.20 0.1
S 47 04.50

MAT 11.68 231 (P) 45 50.80 0.5
0.8s 8 . 96nm 4 . 7mb
INK 44.92 31 cP 51 11.00 -1.1
KKN 53.15 275 P 52 16.80 0.6
PK 1 53.18 274 P 52 16.20 -0.4
DMN 53.38 274 P 52 17.80 -0.1
GKN 53.48 275 P 52 18.20 -0.3
FFC 64.10 38 eP 53 32.00 0.3
0.8s 8 . 00nm 4 . 7mb

15d 22h

142

TNP 66
1 .
S.D.

AUG 1
43 . 125
DEPTH
CENTRAL

PI! 0

MAO 0

BD 1 0

CRE 1

PGD 1

MME 1
SF I 1
PGF 1

ASS 1
BOB 1
SBF 2
LMR 3
LRG 3
S.D .

. 65 59 P 53 49 . 30 0.8
0S 5 . 75nm 4 . 5mb
=0.8 on 15 of 15 obs.

5, 1991 22h 46m 42.70± 0.51s
N ± 5.0km 10.735 E ± 4.3km
= 16.0km (geophy s i c i s t)
ITALY (381)

. 62 346 PC 46 55 . 60 0.5
eSg 47 04.50
. 77 156 P 46 57 80 0.1
eSg 47 07.70
. 94 354 P 47 01 50 Q .6
e S g 47 15.00
. 02 60P 4702.40 0.3
eSg 47 15.00
. 04 43 P 47 02 . 80 0.4
eSg 47 16.30
. 07 359 P 47 03.30 0 3
. 14 45 P 47 03. 30 -0.7
. 40 246 Pn 4709.60 1.2
Sn 4728.60
. 41 92 P 4708.00 -0.5
. 89 331 P 4714.00 -1.3
. 51 288 Pn 47 24 . SO -0.3
. 1 0 275 Pn 4731.80 -0.7
. 21 277 Pn 4734.00 -0.1
=0.8 on 13 of 13 obs.

AUG 15, 1991 23h 06m 03.49± 0.43s 41 .074
DEPTH

N ± 4.4km 22.082 E ± 3.3km
* 10.0km (geophy s i c i s t)
YUGOSLAVIA (383)
MD

GRG 0

VAY 0

FNA 0

KNT 0

THE 0

OHR 0
0.

SOH 1

SKO 1
0.

LIT 1

SRS 1

OUR 1

PA I G 1

AGG 2
S.D.

2.5 (THE) . ML 2.3 (SKO) .

. 27 116 i Pd 0609.22 0.0
eS 06 13 86

. 44 56 i Pg 0612.50 0.0
i Sg 06 18.50
. 61 242 i Pd 06 15.14 -0.7
eS 06 23.58
. 62 82 i Pd 0615.61 -0.4
eS 06 24.46
. 80 123 ePd 06 18.58 -0.5
eS 06 29.86

. 97 273 iPg 06 21 . 90 -0.1
5s 55 . 09nm

i Sg 06 35 . 30
Lg 06 36.00
I. 00 104 ePd 06 22.18 -0.2
eS 06 36.34

. 02 332 ePg 06 23.20 0.4
6s 60.09nm

iSg 06 35.90
Lg 06 42.00
. 02 162 ePc 06 23. 06 0.3
eS 06 37.42
. 14 87 i Pd 06 25 . 02 0.1
eS 0640.18

. 62 116 ePd 06 32. 58 0.4
eS 06 54.78
. 67 133 ePc 06 32 .90 0.0
eS 06 55. 74
. 06 175 ePd 0639.22 0.7
- 0.4 on 13 of 13 obs.

& AUG 15, 1991 23h 06m 16.05s
60 . 153
DEPTH
SOUTHERN

N 1 53 . 944 W
= 1 75 . 2km
ALASKA (2)
<AE I C> .

PDB 0. 39 199 i P 06 39 . 10 0.6
cS 06 56.59
OPT 0.62 144 iP 06 40.09 -1.0

RED 0

iS 06 58 .91
. 64 65 eP 0640.51 -0.8
NCT 0.65 50 eP 06 40.44 -1.0
ROW 0.65 59 IP 06 40.49 -1.0
RSO 0.67 62 eP 06 40.72 -0.9
RON 0.69 58 eP 06 40.63 -1.0
REF e
OFR 0
AUL 6
AUW C
AUP «

. 70 61 eP 06 40.88 -0.9
. 76 54 eP 0641.01 -1.0
. 82 161 iP 06 41.26 -1.0

AU I
RDT
CDD
HOM

SVW

CKL

NNL
BGL
SPU

CRP CGLM"

CNPM

NCG
SYI

SUA

SKT
SEW

PMS

PWA

PLRM

CUT

GHO

KNK

LT I

KN I M

MTU

GLI

TRF

VZW

VLZ

KLU

TOA
PAX
WRH
GLB
CCB
BALM

AUG
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37 eP
39 eP
114 i P

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34 eP
152 eP
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62 eP
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30 eP
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06 41.45
06 41 J68
06 43 . 76
06 44 . 24
07 06.03
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06 55.66
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07 03,51
07 38 4 77
07 05.21
07 41 ,07
07 08 J61
07 48.63
07 13J81
07 57 , 90
07 I2j77
07 54 4 61
07 14,53
07 56
07 1 6
08 03
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07 30
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07 34
07 39
obs. associated

5,
N
DEPTH -

1991 23h
± 3. 9km

20m 44
22.067

54
65
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35±
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1 0 . 0km (geophy s | c i s
YUGOSLAV I A

MD 3. 1 (ATH) , 2 .
(SKO) .

GRG

VAY

FNA

KNT

KZN

THE

OHR

SOH

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. 84 161 eP 06 41 . 72 -0.8 |

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eS

56 i Pg
iSg
242 iPd
eS
81 i Pd
iS
197 iPbd
eSb
122 ePd
eS

273 iPg
1 1 4 . 00nm

iSg
Lg
104 i Pd
eS
1 6 1 ePd
eS

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38s
9km

(383)
8 (THE} . ML 2

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SRS

OUR

PA I G

AGG

RDO

1 .02 333 iPg 21 03.50 -0.1
0.4s 148. 00nm

i Sg 21 17 . 20
Lg 21 19. 90
1.15 87 ePd 21 06. 02 0.1
eS 2121.46
1 . 63 116 ePd 21 13.66 0.5
eS 21 36. 17
1.68 132 i Pd 21 14.06 0.2
eS 21 36.70
2.05 174 ePc 21 19.78 0.4
eS 21 46.22
2.62 87 ePn 21 27.00 -0.5
S.D. =0.4 on 15 of 15 obs.

AUG 15, 1991 23h 27m 53 . 80± 0.15s 52.823 N ± 3.6km 170.789 W ± 2.3km DEPTH - 104.5km (25 depth phases)
5.
FOX

ADK
SON
SMY
KDC
SVW
ANM
RSO
TTA
PMR
M 1 D
1 MA
TOA
FBA
BALM
YKU
BRW
S 1 T

INK

PGC
MBC

YKA

KUSJ
ASAJ
PNT

HOOJ
YAK

MRRJ
FHC
NEW

WDC
OFUJ
ORV
SES

3mb (78 obs .)
ISLANDS, ALEUTIAN ISLANDS (9)
Felt (IV) at N i ko I sk i .
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L. P.B. : 20S, 38C
Cen t r o i d Loc o t i on :
Origin Time 23:27:55.4 0.2
Lot 52.62N 0.03 Lon 170. 77W 0.03

Dep 112.0 1.5 Ho I f-doro t i on 2.3
Moment Tensor; Scale 10*»17 Nm
Mrr=-2.24 0.07 Mtt- 1.02 0.10
Mff= 1.22 0.08 Mrt- 1.78 0.07
Mrf--0.74 0.07 Mtf 0.97 0.10
P r i nc i po 1 Axes:
T Vol- 2.74 Plg=20 Azm= 41
N 0.31 11 307
P -3.05 67 191

Best Double Coup I e : Mo«2 . 9* 1 0 « * 1 7 NP1 : S t r i ke-1 50 Dip-27 Slip- -65
NP2: 302 66 -102

3. 74 258 ePc 28 51 .60 1.2
6.56 63 ePc 29 26.90 -2.3
9.16 275 eP 30 06.50 1.9
1 1 . 52 57 eP 30 32.30 -3.8X
11.70 39 ePc 30 39.30 0.9
12.10 11 ePc 30 46.50 2.8
12 .50 45 P 30 48.70 -0.4
12. 78 32 ePc 30 54.20 1.5
1 4.59 44 eP 31 14.90 -1.0
15. 09 54 eP 31 20.40 -1.9
15.79 26 ePc 31 32.30 1.1
16. 08 45 ePd 31 33.20 -1.6
16.83 35 eP 31 42.00 -2.0
17.44 51 P 31 48. 70 -2.9
18.42 56 eP 32 03.00 -0.3
19.57 1 4 eP 32 15.20 -0.2
20.65- 64 ePc 32 26.70 0.2
0.8s 1 32 . 50nm 5. 3mb
23. 45 34 ePc 32 52.30 -1.7
0.5s 177. 00nm 5 . 7mb

pP 33 17.60 122kmX
29. 82 79 eP 33 54.00 1.5
30. 43 22 eP 33 57.50 -0.1
0.5s 124.00nm 5.9mb
30. 60 49 eP 33 58.20 -1.1
0.4s 7 . 90nm 4 . 8mb
30. 89 270 P 33 59.70 -2.3
31 . 59 273 P 34 07 .60 -0.5
31 . 79 75 eP 34 10.00 0.1
0.8s 82 . 00nm 5 . 5mb
32 . 16 270 eP 34 12.00 -1.1
32.21 310 eP 34 10.80 -2.5
i 34 37.00 119kmX
e 39 15.00
33. 48 272 eP 34 23.30 -1.3
33. 62 92 ePd 34 27 .01 1.1
33. 74 76 eP 34 26.00 -0.9
0.7s 1 68 . 00nm 6 . 0mb
pP 34 50.00 106km
ScP 40 37.50
e 41 30.00
34.63 91 ePd 34 35.24 6.7
35.13 266 eP 34 37.80 -e . 9
35.89 92 ePd 34 45. 16 e.0
36.26 69 eP 34 48.00 -0.2
0.5s 64.00nm 5.8mb
pP 35 12.00 103km

143

15d 23h

ZSP
8RK
PCC
YAMJ
GCC
MHC
CMB
SAO
LRW
KAK J
N I I J
PRS
LLA
PR 1
Ffi 1
CHJ J
MAT

MTMJ
FFC

TNP

1 1 OJ
SYP
1 SA
CLC

TSRJ
SBB
PAS
MWC
GSC
RVR
PEC

TPC
PLM
BAR
RSSD

PV09

GOL

GLO

ANMO

ALO

K8S
DAG

BJ 1

GOH

MEO
TUL

FVM

SCH

TRO
CLE
KTK1

36 . 45
36 . 49
36 . 66
36 . 69
37 . 20
37.21
37.52
37.71
37 73
37.89
37 . 92
38 . 04
38.11
38 . 59
38.61
38.71
38. 86
1 . 0s

39. 07
39 . 23
0. 6s
39 . 42
0. 7s

39. 74
40 .09
40 . 23
40 . 66

40 .87
41.28
41.44
41.46
41.49
42 . 03
42 . 23

42 . 75
42 . 78
43.36
43.62
0.7s

44.04

45 . 54
0. 7s

45 .59
0 . 8s
48. 00
1.1s

48 .00
1 . 7s

48.51
49 . 46
0. 8s
49. 82
0. 6s

49. 94
1 . 0S

52 - 84
53. 73
0 . 8s

55 . 43
0 . 8s
55.73
0. 5s
57 . 65
57 .96
58 . 04

94 eP
94 eP
95 eP
267 eP
95 eP
95 eP
93 i Pd
95 eP
77 eP
264 eP
266 eP
96 ePd
95 ePd
95 eP
93 ePd
265 eP
266 iPd
40 . 00nm
eS
266 eP
59 i PC
95 . 00nm

90 e(P)
28 . 89nm
pP
ScP
e
265 eP
96 eP
94 eP
93 i Pd
e
267 eP
94 eP
95 eP
95 eP
93 iPd
95 eP
95 ePd
ScP
Q A *a. P
y *» c r
95 eP
96 eP
74 eP
34 . 60nm
PP
sP
ScP
83 ePd
ScP

(S)
79 iPd
48 . 54nm
pP
79 eP
1 1 7 . 65nm
85 eP
23 . 73nm
PP
85 eP
43 . 27nm
e
359 eP
8 iPc
1 1 1 . 94nm
286 eP
1 2 . 00nm
pP
eS
esS
eScS
24 i Pd
1 84 . 00 nm
e
e
80 i Pd
77 eP
27 . 60 nm
e
eS
7 1 eP
75 . 76nm
43 ePc
77 . 00nm
356 eP
62 iP
354 eP

34 54
34 50
34 51
34 51
34 56
34 57
34 59
35 00
35 01
35 01
35 01
35 03
3504
35 09
35 08
35 09
35 10

40 54
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35 12

35 1 4

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36 04

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36 05

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44 20
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48 20
36 59
37 05

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37 17

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37 33
37 36
37 36

77 4 . 9X
80 0.6
78 6. 2
80 -0.1
03 -0.1
20 0.8
80 0.8
79 0.4
80 0.9
00 -0.9
50 -0.7
90 0.7
80 1.0
60 1.6

90 f) . 9
30 6.5
00 -0.1
5 . 2mb
00
30 -0.7
60 -0.3
5 . 8mb
00 -0.9
5 . 2mb
20 109km
50
60
80 0.4
00 1.6
00 -0.5
00 0.0
00
60 0.0
00 -0.1
00 0.7
00 0.3
00 0.2
00 -0.1
00 -0.8
50

en 0 en 0 Q 0 1. i
00 0.5
00 0.0
10 -1.1
5 . 3mb
20 103km
00
80
10 -0.7
00
00
00 -0.6
5 . 4mb
70 105km
00 0.0
5 . 7mb
60 -0.3
4 . 9mb
40
00 -1.0
5 . 0mb
00 1 06km
80 0.8
90 -0.5
5 . 9mb
50 -1.0
5 . 1mb
50 90kmX
00

00

00
20 0.1
6 . 0mb

00
00

50 -0.9
40 -1.5

5 . 3mb
50 104km
00
00 -2.3
5 . 8mb
10 -1.1
6 . 0mb
69 -0.9
20 -1.0
21 -1.2

LOF
SOD
LZH

AKU

BNH

MOR7
BLA

TBR

CVL

CBN

NSS
JSC

SGS

KAF

MOL
NUR
NB2

HFS

KONO
JAY
OBN

EKA

OMU

DCN

SHL

Wl T
WTS

GUN
KKN
CLL

PK I

GKN
OMN
KSP

BNS

BRG

UCC
ENN

MOX

MEM

SNF

59. 32
59. 42
59. 62
1 .2s
Z 28s
E 14S

59. 98
1 . 8s
61 . 04

61.15
61.61
0.7s

62 . 06

62. 12

62.55

62 . 96
63.28

64.49

64.61
0. 4s
64 . 94
66. 34
66. 48
0.7s
67.34
0. 3s
Z 21 s

67 . 88
68 . 47
70 . 08
0. 9s
Z 20s
N 20s

71 . 73
1 . 2s
72. 80
1 . 0s
73. 31
1 . 0s
74 . 26

74.71
75. 54
1 . 0s
75. 74
76.16
76.19
1 . 0s

76. 27
0 . 8s
76. 34
76. 40
76. 54

76 . 57
1 .0s
76. 60
1 .2s

76. 67
76. 75
0. 9s

76 . 89
1 . 0s

76.91

76. 96

358 eP
352 iP
291 eP
45.00 nm
0 . 5 8 urn
0 . 34um
sP
13 iP
46 . 00nm
54 eP

epP
357 eP
65 eP
33.3 3nm
o pP
58 eP
PP
sP
63 eP
epP
62 eP
e
359 eP
68 eP
epP
68 eP
epP
351 iP
24 . 80nm
1 eP
352 iP
359 P
24 . 90nm
358 eP
66 . 50nm
0 . 37um
LR
360 eP

234 e(P)
344 eP

0 . 50um
0 . 20 urn
LR
ePcP
e
eS
eScS
eSS
7 Pd
59 . 50nm
1 0 eP
1 28 . 00 nm
10 eP
1 1 6 . 00 nm
291 eP
eS
2 eP
2 eP
42 . 00nm
297 P
298 P
358 iPc
34 . 00nm
i
297 P
20 . 00nm
298 P
298 P
355 i P d
e

1 i Pd
44.00 nm
357 i P c
42 . 00nm
epP
e
3 P
2 eP
69 . 00nm
e

358 iPc
39 . 00 nm
eS
2 i Pd
e

3 i PC

37 44
37 45
37 47

38 1 4
37 51

37 56
38 21
37 57
38 01

38 26
38 04
38 29
38 43
38 04
38 30
38 09
38 33
38 09
38 1 1
38 37
38 20
38 36
38 20

38 22
38 31
38 32

38 37

01 01
38 42
38 46
38 54

02 00
39 19
42 04
47 52
48 44
52 43
39 05

39 12

39 14

39 20
48 42
39 25
39 28

39 29
39 31
39 31

39 58
39 31

39 32
39 33
39 33
40 01
39 33

39 33

40 01
40 34
39 34
39 35

40 03.
39 35.

49 12.
39 35.
40 03.
39 35.

. 52 -1.7
. 80 -1.1
. 50 -1.4
5 . 5mb
4 . 6Msz X

. 00

. 80 1.0

5 . 5mb
. 60 -1.7
. 70 1 0 1 km
. 22 -1.5
. 50 -8.8
5 . 5mb
. 90 182km
. 86 -0.4
. 90 106km
. 60
. 70 -0.9
50 104km
00 0.7
00 95km
62 -1.1
70 -1.5
00 101km
00 -1.2
00 59kmX
00 -1.5
5.5mb
77 -6.8
20 -1.4
50 -1.0
5.2mb
40 -1.5
6 . 0mb
4 . 6Msz
00
20 -6 . 1
70 0.2
00 -1.8
8.2mb X
4.8Msz

00
00
00
00
00
00
60 -0.1
5 . 3mb
20 0.1
5 . 7mb
30 -0.7
5 . 7mb
00 -1.2
00
00 1.9
00 0.2
5. 2mb
42 -0.5
48 -0.6
30 -0.2
5.1mb
90 107km
86 -0.9
5 . 0mb
18 -0.8
16 -0.3
50 0.0
00 107km
60 0.0
5. 2mb
50 -0.3
5 . 1mb
00 1 07 km

00

30 0.1
00 0.4
5 . 5mb
00 109km
70 0.3
5 . 2mb
00
80 0.3
60 108km
70 -0.1

KRA

OZM
DOU
PRU

WLF
SPC
KHC

F LN

GWF
LDF

GRR

VKA
CDF
ZST

LPF

V 1 TF
ECH
L1BO
SRO

HAU

NO 1
FEL
BSF

BUD
BHG
SLE
ZLA
GRC
LOR

LOMF
WTTA

SSF

KBA

LBF

VR 1
MFF

AVF

OGA

LLS
SMF

BGF

OSS
FV 1
VDL
TCF

LSF

MAF

CMP
AGO
TMA
01 X
PLDF
CTI
MMK

77.10 353 iPd 39 36.50 -0.1
e 39 56.00 72kmX
77.17 202 iPc 39 37 .50 0.2
77 .38 3 Pd 39 38.20 0.1
77 . 47 356 PC 39 38.60 0.0
1.0s 1 9 . 30nm 4 . 9mb
e 4004.00 97 km
S 4923. 00
77.86 2 i Pd 39 41 . 50 0.8
77 . 93 353 iP 39 42 . 20 0.8
78 . 36 357 i PC 39 44 . 00 0.4
1.0s 25 . 70nm 5 . 0mb
i 40 1 1 . 50 1 07 km
78.46 7 eP 39 43. 40 -0.7
1.0s 38.00nm 5 . 2mb
Z 20s 0.25um 4.5Msz
78 .57 1 P 39 44 .85 0.1
78.65 6 eP 39 44.60 -0.5
0.8s 45.65nm 5.3mb
78.80 7 eP 39 45.60 -0.3
0.9s 42.60nm 5.3mb
79. 1 1 355 iPd 39 48.20 0.6
79.13 IP 39 47 . 83 0.0
79.14 355 iP 3948.30 0.5
1.0s 52 . 80nm 5 . 3mb
e 40 1 5 . 70 106km
79.14 7 eP 3947.70 -0.1
1.0s 56 . 00nm 5 . 3mb
79. 30 2 P 39 48. 76 0.1
79.32 1 P 39 48 . 74 -0.1
79.40 IP 3949.50 0.4
79.44 354 i P 3949.80 0.4
e 40 1 7 . 80 1 08km
79.52 2 eP 39 47 .97 -1.9
0.8s 29.55nm 5.2mb
Z 22s 0 . 22um 4 . 5Msz
79. 64 304 eP 39 50 .00 -0.8
79 .67 IP 39 50.55 -0.3
79.70 2 eP 39 50.70 -0.3
0.9s 34 . 40nm 5 . 2mb
79.72 353 e(P) 39 51.00 0.1
79.79 357 i Pd 39 52.20 0.9
79.79 0 ePd 39 51 .60 0.3
80.07 1 ePd 39 53.50 0.7
80 . 1 2 4 P 39 54.00 1.0
80. 18 4 eP 39 53.30 -0.1
1.1s 69 . 60nm 5 . 4mb
Z 19s 0 . 1 7um 4 . 4Msz
80. 18 2 P 39 53.70 0.2
80.27 358 iPc 39 54 .60 0.5
0.7s 26 . 00nm 5 . 2mb
i 40 22 . 1 0 1 06km
80 . 38 4 eP 39 54 . 60 0.2
0.8s 47.00nm 5. 4mb
80.41 357 i PC 39 55.70 0.9
1.0s 1 22 . 00nm 5 . 7mb
i 40 23.50 107km
80 . 47 4 eP 39 54 . 70 -0.3
0.8s 33 . 60nm 5 . 2mb
80.55 348 ePd 39 55.00 -0.3
80.63 7 eP 3955.90 0.1
1.0s 60 . 00nm 5 - 4mb
80.64 4 eP 39 55.70 -0.1
0.8s 43 . 65nm 5 . 3mb
80.68 359 eP 39 56.90 0.6
0.8s 24 . 00nm 5 . 1mb
80.69 0 ePd 39 57 .30 1.0
80.80 4 eP 39 56.60 -0.1
0.8s 51 . 05nm 5 . 4mb
80 .85 4 eP 39 56.90 0.0
1.1s 53 . 70nm 5 . 3mb
80. 87 359 ePc 39 57 .90 0.7
80 . 92 358 P 3957.60 0.4
81 .07 360 ePd 39 59.70 1.4
81.09 5 eP 39 58.20 0.0
0.8s 23 .50nm 5 . 1mb
81.09 5 eP 39 58. 10 -0.1
0.8s 51 . 70nm 5 . 4mb
81.17 5 eP 39 58.80 0.2
0.7s 22 . 05nm 5 . 1mb
81.35 349 ePc 40 02.00 2.4
81.37 4 P 40 00 . 22 0.6
81 . 45 0 ePc 40 00.90 0.6
81 . 46 1 ePc 40 01 . 90 1.4
81.47 4 P 40 00.82 0.6
81.49 358 P 40 00 . 80 0.4
81 .50 1 ePc 40 02.08 1.4

15d 23h

CTAO
PYM
ORX
COLF
SAL

LPL

RJF

2
LPG

LSD
Ml N

LBL
C C R
J 3 D

LFF

RSP
CAP

BNI
RRL
LPO

BHB
BOB
PCP
PZZ
CK 1
ROB
STV
F IN
MME
BD 1
SF 1
KVT
1 M 1

D f r» r v U
SBF

P 1 1
CDR
CRE
FRF

ARV
1 O f
LK U

Z
LMR

EPF

MLS
01 S
SKO

PGF

MNS
AOU
1 PM

BBTK
VAY
ALN
SRS
KNT
RDP
OHR

KGM
SOH
FNA
OUR
WR2

WRA

LI T
PA 1 G

81 .60
81 . 66
81.92
81.92
81.94
0.1s
82. 02
0.8s
82.03
1 . 0s
22s
82 . 04
1 . 0s
82 .08
82.11
0.5s
82. 19
0*5 *? fit O £. . £. \>
82.35
0.8s
82.39
82 .44
0. 9s
82. 48
82.61
82 .63
1 .0s
82. 70
82. 79
83.01
83.03
83. 13
83.25
83. 30
83 . 34
83 . 35
83. 49
83.61
83.63
83. 64
o » c c
O J . 0 O
83. 68
1 .0s
83.83
83.84
83.90
83, 97
0 . 9s
84.00
84.07
1 .0S
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84.19
1 .05
84.22
1 .05
84. 34
84. 77
84 . 99

85.01
0 9s
85. 12
85.13
85. 29
0. 8s
85. 48
85. 52
85 .53
85.61
85. 65
85. 75
85.91
0 .9s
85. 92
85.93
86L 18
86^34
86L61
0.6s
86 62
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86. 74
86. 78

220 iPc
4 P
1 P
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359 P
1 9 . 1 0nm
2 eP
12.1 0nm
5 eP
24 . 00nm
0 . 28um
2 eP
1 6 . 00nm
1 P
237 eP
1 37 . 00nm
4 P
3 P
6 eP
30 . 90nm
1 P
5 eP
29 . 50nm
2 P
2 P
6 eP
32 . 00nm
1 P
360 P
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2 P
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1 P
1 P
359 P
359 P
358 P
340 eP
1 P

T C O D
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1 eP
48 . 00nm
359 P
3 ePd
358 P
2 eP
34 . 40nm
357 P
2 eP
26 . 00nm
0 . 20 urn
2 eP
38 . 00nm
7 eP
22 . 00nm
6 P
226 PC
351 P

S
PS

0 eP
99 . 90nm
357 P
357 P
271 ePd
53 . 1 0nm
342 eP
350 eP
347 iPc
349 i PC
350 iPc
357 P
351 eP
47 . 00nm
268 eP
349 iPc
351 i P c
349 iPc
230 iPd
38 . 70nm
230 P
3 . 50nm
350 iPc
349 iPc

40 01
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1 .2
. 8mb
- 0 .2
. 0mb
. 6Msz
1 . 1
. 8mb
1 . 4

- e .8
. 0mb
- 0.2
0.3
0.2
. 2mb
1 .3
0.2
. 2mb
1 .9
1 . 7
0 . 1
. 2mb
- 0 . 4
1 . 1
0. 1
0.5
0.2
- 0 . 4
- 0.3
0.0
1 .3
- 0 . 1
1 .6
0.5
0. 3
1 . 4
0 . 1
. 4mb
- 0 . 1
1 . 4
1 .2
0.5
. 3mb
0 .9
0 . 7
. 1mb
. 5Msz
0 . 7
. 3mb
- 0.5
. 0mb
0 .6
- 0 . 7
0.0
1 06km

0 . 1
. 7mb
- 0.2
1 . 0
0. 3
. 5mb
15 . 2X
0. 8
0.2
0.3
0.5
0.2
0.2
. 5mb
0.8
- 0. 3
- 0.2
0.2
- 0.9
. 6mb
12. 6X

- 0.2
- 0.8

TOL 86 . 96
MGR 87.25
AGG 87.82
PSI 88.05
HYB 88.16

OLP 88.24
1 .0s
TOV 88.85
SDV 89.07
CAR 89.94
ASPA 90.03
0.7s
STK 94.00
0 . 9s
ZOBO 110.43
Z 20s

LPB 110.65
CNCB 110.93
TIC 119.54
K 1C 119.86
PPD 124.99
LW 1 127.02
MTD 139.96

KR 1 140.66

SPA 142.64
1 . 9s
BUL 144.09

SLR 149.38
0 . 5s

JOZ 1 49 . 47
KSR 149.97
0 . 6s

PRY 150.76
1.0s
K IM 153.34
1 .0s
FRS 154.08
1 . 0s
HVD 154.81
S.D. -

& AUG 16,
62.074 N
DEPTH -

10 eP 40
355 P 40
350 iPc 40
272 iPd 40
297 eP 40
e 41
219 i PC 40
423 . 00nm
75 eP 40
77 eP 40
73 eP 40
229 iPd 40
112. 80nm
2 1 9 eP 41
7 . 20nm
90 ePKP 46
0 . 1 2 urn

IP ^ a LrC JO
90 (PKP) 46
90 PKP 46
16 PKP 46
16 PKP 46
80 ePKP 46
335 ePKPc 46
325 ePKP 47
iSKP 50
328 ePKP 47
i PP 47
iSKP 50
i 50
1 80 i PKPc 47
35 . 00nm
328 ePKP 47

i pP 47
325 iPKPc 47
86 . 62nm
i 47
317 ePKP 47
327 ePKP 47
8 . 9 3 rim
i 47

325 iPKPc 47
25 . 00nm
328 iPKPc 47
35 . 00nm
326 i PKPc 47
45 . 00nm

325 e(PKP)47

28
28

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90
30 .170
32 J50
33 . 00
23.00
35 . 00
6
39 .50

38 .|60
45 .100
42 .

00 .

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1 2 .
1 7 .
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32.
42 .

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48 . 00
1 2 .,60
36 .: 60
04 .40
31 .
30 .
42 .
08.

15.
56 .
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34.

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36.
0.9 on 257 of 27

1991 00h 09nn
151 .
95. 3km

13.
600

CENTRAL ALASKA
<AE 1 C>

SKT 0.10

CUT 0.71

NCG 0.72

SUA 0.74

CG LM 0 79
BGL 0.90
PWA 0.92
SPU 0.92

CKL 0.95

PLRM 1 . 27
PMS 1 . 28

HUR 1 . 29

GHO 1 . 30

NKA 1 . 35
TRF 1.51

KTH 1.52
RDT 1 .55

KNK 1.64

RON 1 .66

161 i PC 09
eS 09
61 i P c 09
eS 09
202 iPc 09
eS 09
146 i PC 09
eS 09
194 i PC 09
205 iPc 09
1 1 7 i PC 09
194 i PC 09
eS 09
202 ePc 09
eS 09
1 1 1 eP 09
130 ePc 09
eS 09
44 ePd 09
eS 09
102 ePc 09
eS 09
172 ePc 09
23 iPd 09
eS 09

12 i PQ 09
195 eP 09
eS 10
1 13 iPc 09
eS 1 0
200 iPc 09

25.
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29 .
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02.
41 .

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0.6
- 0. 4
- 1.4
- 0. 9
- 1.1
202kmX
1 .0
. 4mb X
2 . 1
0.0
2 . 4
- 0.5
. 1mb
0. 4
. 1mb
4 . 1 X
. 5Msz

- 4 . 1 X
0. 4
- 0. 7
- 1 .2
- 0. 5
0. 6
1 . 1

- 8 . 4X

- 6 . 7X

- 3 . 1 X

- 2 . 1

4 . 0X
- 6 . 6X

5. 3X

7 . 4X

8 .2X

1 . 7
1 obs .

36s
W

99
83
93
64
07
56
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48
66
1 1
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86
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98
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82
71
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92
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88
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35

(D

0. 7

- 0.7

- 0 . 9

- 0. 3

- 0 . 9
- 0.6
0 .0
- 1.1

- 0.8

- 1.0
- 0 . 6

- 0 . 9

- 0 .6

1 . 4
- 1 . 1

- 1.4
- 1 .0

- 1 .0

- 0.6

REF 1.68 199 eP 09 41.67 -0.6
RSO 1.71 200 ePc 09 42.26 -0.4
RED 1.76 199 eP 09 42.19 -0.9
RND 1.84 42 ePd 09 43.53 -0.7
NNL 2.04i76eP 0947.97 1.1
MCK 2.06 35 eP 09 46.35 -0.8
TTA 2.22 295 eP 09 47.15 -2.1
SEW 2.24 151 eP 09 49.06 -0.3
C-LI 2.47 117 eP 09 50.22 -2.4
KNIM 2.55 131 eP 09 51.17 -2.5
CNPM 2.56 176 eP 09 54.37 0.5
PDB 2.62 210 eP 09 53.79 -0.8
VZW 2.62 111 eP 09 52.50 -2.2
KLU 2.76 100 iPc 09 54.86 -1.7
FID . 2.80 116 eP 09 54.43 -2.6
CCB 3.10 32 «;P 69 59.39 -1.7
35 obs . ossoc i o t ed

* AUG 16. 1991 00h 27m 44.84± 1.90s
45.957 N ± 8.0km 15.510 E ±14. 5km
DEPTH = 5.0km (geophy s i c i S t)
YUGOSLAVIA (383)
MD 2.9 (LJU) . 2.5 (TRI) . Fe 1 t
(IV) at Kr sko.

VBY 0.49 202 iPg 27 54.30 -0.3
iSg 28 01 .00
LJU 0.69 278 ePg 27 58.00 -0.6
eSg 28 07.40
CEY 0.79 254 ePg 28 02.00 1.4
eSg 28 1 1 . 30
VOY 1.13 274 ePnd 28 06.20 -0.3
eSn 28 22.50
TRI 1.25 259 ePg 28 07.70 -0.7
iSg 28 25.20
FVI 2.00 290 P 28 20.20 0.6
eSn 28 51 . 20
KHC 3.44 338 Pg 28 40.00 -0.1
Sg 29 37.50
S.D. -0.9 on 7 o< 7 obs.
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7. AUG 16. 1991 00h 38m 52 . 66± 1.21s
16.994 N ±12. 2 km 99.266 W ± 9.5km
DEPTH - 33.0km (normal)
NEAR COAST OF GUERRERO. MEXICO (58)

ACX 0.58 258 iP 39 04.00 -0.4
iS 39 13.50
III 1.39 352 eP 39 17 .52 1.4

(S) 39 33.00
PPM 2.15 16 eP 39 27.59 0.2

(S) 39 55.00
IIT 2.21 24 (P) 39 26.00 -2.0
1 1 A 2.22 15 iP 39 28.04 0.2
UNM 2.33 2 (P) 39 30.00 0.3
(S) 40 01 .00
OXX 2.43 88 iP 39 32.00 0.8
(S) 40 05.00
1 1 SM 2.68 42 eP 39 33.22 -1.1
iS 4010.61
MRX 3.26 326 (P) 39 48.00 5.4X
(S) 40 29.00
LVVM 3.82 44 (P) 39 51.20 0.6
S.D. -1.2 on 9 o < 10 obs.

AUG 16. 1991 00h 58m 20.05± 0.57s
50.628 N ± 6.0km 129.988 W ± 6.8km DEPTH - 10.0km (geophy s i c i S t)
4 . 0mb (8 obs .)
VANCOUVER ISLAND REGION (25)

SJB 1 . 46 334 P 58 46. 10 -0.3
PHC 1.63 86 PC 58 49.50 0.7
S 59 10.46
BBS 1.95 36 P 58 55.80 2.3
S 59 19.50
EDB 1 . 99 1 1 1 P 58 52.50 -1.6
BNB 2.24 331 P 58 57.20 -0.6
S 59 25.50
ETB 2.55 118 P 59 00.25 -1.9
GDR 2.68 107 P 59 02.85 -1.1
CWB 2.82 335 P 59 05.70 -0.3
CBB 3.02 100 P 59 08.76 0.0
VlB 3.07 330 P 59 08.50 -1.0
BTB 3.10 110 PC 59 08.87 -1.2
OZB 3. 36 1 18 P 59 12.57 -1.1
MGB 3.80 113 P 59 18.62 -1.3

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SHB 4.07 102 P 59 23.20 -0.5
PGC 4.69 112 eP 59 32.00 -0.4
MBW 5.56 106 P 59 45.26 0.2
CMW 5 .58 1 10 P 59 45. 74 0.6
8LH 5.91 1 1 5 P 59 52 . 22 2.5
RPW 5.93 108 P 59 50.08 0.0
HTW 6.68 115 P 59 52.99 0.8
RMW 6.24 117 P 59 54.87 0.4
GSM 6 . 48 1 1 9 P 59 56. 72 0.0
FMW 6.62 121 P 59 59.96 0.0
LON 6 .66 122 P 06 00 . 63 0.3
ERK 6.67 127 P 00 00.56 -0.1
TDL 6.71127P 0001.04 0.0
FL2 6.74 128 P 00 02.02 0.4
NLW 6.80 108 P 06 02.13 -0.3
PNT 6.82 97 P 00 03.00 0.5
0 . .9s 3 . 60 rim 4 . 4mb
WPW 6.83 122 P 00 03.03 0.2
MTMW 6.93 129 P 00 04.50 0.3
TWW 6.95 117 P 00 05.69 1.2
ETW 7 . 02 1 12 P 00 05 . 37 -0.1
TBM 7 . 09 1 16 P 00 06.93 0.5
CBSW 7.10 110 P 00 04.41 -2.1
ASR 7 . 1 6 1 25 P 00 07 . 72 0.3
DHW2 7.18 108 P 00 07.44 -0.3
WTV 7.20 110 P 00 07.53 -0.4
NAC 7.21 1 19 P 00 08. 25 0.3
EBG 7.25 117 P 00 08.98 0.4
EPH 7.58 112 P 00 12.23 -1.0
TDH 7 . 67 131 P 00 15 .07 0.6
MDW 7.88 117 P 00 16.56 -0.8
WAH2 7.91 115 P 00 17.26 -6.5
VBEM 7.93 131 P 00 18.07 -0.2
OD2 8 . 09 109 P 00 19 . 10 -1.2
DPW 8.19 105 P 00 21.10 -0.7
NEW 8.71 101 «P 00 27.50 -1.5
SES 12.07 84 ePd 01 15.70 0.8

LCCM 12.98 105 eP 01 27.20 -0.1
YKA 14.55 29 eP 01 57.40 9.8X
0.6s 1 . 90nm 3 . 9mb
80NR 15.16 142 eP 02 03.50 7.5X
PMR 15.24 323 «P 02 04.00 7.4X
TNP 15.49 139 «P 02 03.50 3.3X
PHA 15.57 323 «P 02 11.90 11. IX
BW06 16.03 111 «P 02 07.70 0.5
1.0s 1 1 . 1 7 nm 3 . 9mb
FBA 17.07 334 eP 02 31.00 11. 0X
FFC 17.42 66 «Pc 02 25.00 0.6
1.1s 15.00nm 4. 0mb
MSU 17.49 127 eP 02 27.00 1.3
SVW 17.68 316 «P 02 33.30 5.7X
INK 17.82 356 «P 02 33.00 3.7X
RSSD 18.69 100 «P 02 40.70 0.3
0.7s 6.57nm 3. 9mb
IMA 19.64 331 «Pc 02 56.90 5.3X
1.8s 57 . 20nm 4 . 6mb
GOL 20.41 113 «P 03 60.50 0.4
GLD 20.47 113 «P 03 01.50 0.9
ANMO 23.18 124 eP 03 29.50 1.7
1.0s 4 . 50nm 4 . 0mb
ALO 23.18 124 eP 03 29.20 1.4
1.0s 3.00nm 3.8mb
TUL 28.62 108 «(P) 04 29.50 11. IX
S.D. - 0.9 on 59 of 69 obs.

» AUG 16, 1991 01h 19m 10.36± 0.95s
45.489 N ± 9.3km 21.157 E ± 7.5km

ROMANIA (358)

TIM 0.25 1 6 i PC 191750 1.8
BED 0.83 217 iPgd 19 27 50 1.1
i Sg 1940.50
DEV 1.29 72 i P 1 9 35 . 00 0.8
UZD 2.11 303 «(Pn) 19 46.00 -0.1
BUD 2.48 324 e(Pn) 19 51.00 -0.4
PSZ 2.58 341 IP 19 53.00 0.0
BMR 2.72 36 ePd 20 16.00 21. 2X
SRO 3.04 321 «P 20 04.60 5.3X
« 20 31 . 10
MLR 3.37 88 «Pd 20 13.50 9.3X
SKO 3.52 177 «Pn 20 14.00 7.8X
SPC 3.75 351 «P 20 24.10 14. 4X

ZST 3.88 316 «(Pn) 20 09.40 -1.9
i 20 17.00
« 20 52.60

VR 1 3.92 82 «Pd 20 10.00 -1.9
VKA 4.33 312 «P 20 19.00 1.3
i 2107. 40
KHC 6.31 308 ePn 20 45.00 -0.7
Pg 20 54.00
e 2157.50
«Sg 22 08.00
S.D. - 1.5 on 10 of 15 obs.

» AUG 16. 1991 01h 23m 27.54± 0.89s
30.861 N ±12. 3km 78.651 E ± 7.6km
DEPTH = 33.0km (normol)
4 . 2mb (2 obs .)
NORTHERN INDIA (308)

NDI 2.56 210 iPnd 24 06.80 0.0
iSn 24 36.00
GKN 5.95 117 P 24 55.70 -0.1
DMN 6.50 118 P 25 04.02 0.3
KKN 6.55 116 P 25 04.26 0.0
PK 1 6 . 75 1 1 7 P 25 07 . 24 0.0
GUN 6.96 113 P 25 09.84 -0.3
HYB 13.38 180 «P 26 28.50 -9.2X
«S 29 07.00
HFS 51.39 325 «P 32 30.90 0.0
0.4s 1 . 20nm 4 . 2mb
WRA 73.56 126 P 35 05.00 5 . 6X
0.8s 1 . 70nm 4.1mb
S.D. - 0.2 on 7 of 9 obs.

% AUG 16, 1991 01h 43m 08.16± 0.61s
46.472 N ± 7.4km 3.007 E ± 5.1km
DEPTH - 5.0km (geophy s i c i S t)
FRANCE (538)
ML 1 .9 (LOG) .

BGF 0.14 308 Pg 43 1 1 . 30 0.2
Sg 43 12.80
MAF 0. 39 231 Pg 4316.40 0.3
Sg 43 21 .90
AVF 0 . 40 37 Pg 4316.70 0.5
Sg 43 22.20
TCP 0.58 252 Pg 43 19.60 -0.2
Sg 43 27.00
SMF 0.60 73 Pg 43 20.10 -0.1
SSF 0.68 30 Pg 43 21.30 -0.5
Sg 43 30.90
LBF 0.84 52 Pq 43 25. 00 0.1
Sg 43 36. 10
Sn 43 38.80
LOR 0.99 36 Pg 43 27.30 -0.1
Sg 43 40.30
Sn 43 42.50
LSF 1.05 258 Pg 43 28.10 -0.3
S.D. -0.4 on 9of 9 obs.

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AUG 16. 1991 01h 47m 59.04± 0.38s
22.710 N ± 6.2km 143.189 E ± 8.9km DEPTH - 136.3km (3 depth phoses)
4 . 9mb (1 9 obs .)
VOLCANO ISLANDS REGION (213)

GUA 9. 27 170 P 50 12. 80 2.0
MAT 14.44 344 «P 51 18.00 -0.2
0.8s 5.22nm 3. 9mb
«S 53 51 . 00
SSE 21.30 298 iPc 52 36.50 0.5
1.0s 1 48 . 00nm 5 . 3mb

0.5s 8.00nm 4.7mb
LZH 36.53 300 «P 54 54.00 0.7
1.5s 57.00nm 5.1mb
CHG 41.44 273 «P 55 24.00 -10. 0X
0.8s 10.07nm 4. 6mb
CHTO 41.44 273 P 55 34.20 0.2
« 56 03.00 127km
BDT 41.77 271 «P 55 38.00 1.4
0.6s 25.00nm 5.1mb
CIS 43 . 15 185 iPd 55 47 . 80 0.1
0.4s 14.00nm 5. 0mb
e 57 28.00 556kmX
WRA 43.26 192 P 55 48.00 -0.7
0.4s 12. 40nm 4 . 9mb
ASPA 46.97 192 iPc 56 16.60 -1.6
0.5s 23.80nm 5.1mb
DIM 49.94 151 iPd 56 40.60 -0.5
GUN 51.68 288 P 56 54.80 0.2

0.4s 23.00nm 5.3mb
PKI 52.14 288 P 56 57.60 -0.5
0.4s 14.00nm 5.1 mb
KKN 52.22 288 P 56 58.80 0.3
DMN 52.40 288 P 56 59.80 -0.1
GKN 52.75 289 P 57 02.00 -0.3
0.8s 36.00nm 5. 3mb
STK 54.30 182 iPd 57 12.60 -0.7

FORR 55.19 196 eP 57 18.90 -0.8
INK 66.64 24 eP 58 36.00 -0.5
MBC 69.88 15 ePc 58 57.50 1.1
0.6s 4.00nm 4. 4mb
pP 5931.501 39km
MAIO 72.05 362 eP 59 12.00 1.7
SOD 78.80 339 iP 59 48.00 0.3
KAF 81.81 335 iP 00 03.20 -0.5
0.5s 4 . 60nm 4 . 5mb
SES 82.28 38 «P 00 08.00 1.5
NUR 83.38 334 eP 00 11.40 -0.4
0.4s 4.50nm 4. 7mb
TNP 83.43 52 (P) 00 14 .00 1.1
pP 00 50.20 143km
FFC 84.97 32 «P 00 19.00 -0.9
0.7s 4 . 00nm 4 . 4mb
HFS 87.80 337 eP 00 32.10 -1.5
0.5s 4.30nm 4.7mb
Z 1 9s 0 . 03um 3 . 7Msz
LR 32 59.00
NB2 88.01 339 P 00 33.50 -1.2
0.8s 3.20nm 4. 4mb
ROCH 148.20 116 ePKP 07 31.50 4. IX
PEL 148.44 117 iPKP 07 32.50 4.9X
PCH 148.49 118 iPKP 07 32.50 4.8X
RTLL 150.60 114 e(PKP)07 37.00 6. IX
e 07 49.90
S . D . - 1 . 0 on 29 of 34 obs .

AUG 16, 1991 01h 56m 59.25± 0.45s
41.097 N ± 4.9km 22.075 E ± 3.4km DEPTH - 10.0km (geophys i c i s t)
YUGOSLAVIA (383)
MD 2.2 (THE) . ML 1.6 (SKO) .

GRG 0.28 120 ePd 57 04.74 -0.5
eS 57 08.50

VAY 0.44 59 iPg 57 08.30 0.2
i Sg 57 1 4 . 20
FNA 0.62 240 i PC 57 11.62 -0.1
eS 57 20.78
KNT 0.62 84 ePc 57 11.38 -0.5
«S 57 19.82
THE 0.82 124 ePc 57 15.02 -0.1
eS 57 26.10
OHR 0.96 271 ePg 57 17.50 -0.1
eSg 57 30.50
SKO 1.00 332 ePg 57 18.20 0.1
iSg 57 31 . 70
SOH 1.01 105 ePc 57 18.14 -0.2
eS 57 31 .58
LIT 1 .04 162 ePd 57 18. 98 0.0
eS 57 34.22
SRS 1.15 88 ePd 57 20.70 0.0
eS 57 36.06
OUR 1.64 117 ePc 57 29.10 0.9
PAIG 1.69 133 ePd 57 29.22 0.3
IS 57 52.54
S.D. -0.4 on 12 of 12 obs.

* AUG 16, 1991 02h 05m 40.98± 0.96s 22.023 S ± 9.7km 68.640 W ±11. 9km DEPTH - 127.6 ± 12.1 km
4 . 5mb (2 obs .)
NORTHERN CHILE (123)

ANT 2.34 224 i PC 06 18.70 -0.9
iS 06 45.20
SLA 3.95 134 iPc 06 43.50 2.5
CCH 5.18 27 P 06 58 .80 1.0
CNCB 5.22 7 P 07 00.00 1.4
LPB 5.49 5 P 07 01 .20 -0.9
ZOBO 5.74 5 P 07 06.20 0.4
ARE 6.15 334 eP 07 09.00 -2.1
iS 08 17.00
NNA 12.69 321 i P+ 08 46.00 7.9X
0.8s 2.99nm 3.9mb X
ITB1 13.35 104 PC 08 54.50 7.9X

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16d 02h

PPD 16.07 93 eP 09 19.10 -1.9
e 09 22 . 70
VAO 20.05 97 eP 10 04.40 -1.9
ALO 67.07 327 eP 16 23.50 0.7
C.9s 5.46nm 4.4mb
AMMO 67.07 327 ePd 16 23.70 0.9
0.7s 4 . 79nm 4. 5mb
KIC 68.61 73 P 16 32.20 -0.3
SFS 81 . 25 334 eP 1 7 45 . 00 1.1
S.D. = 1.7 on 13 of 1 5 obs .

AUG 16, 1991 02h 42m 38.45± 0.67s
42.709 N ± 6.0km 12.747 E ±10. 7km DEPTH = 16.0km (ge o ph y s i c i s t)
CF.N 1 RAL 1 T ALY (381)

MNS 0.33 189 P 42 44.40 -0.9

eSg 42 50.80
ASS 0.37 350 PC 42 45.00 -1.0
eSg 42 52.60
AOU 0.60 126 P 42 50.60 0.0
eSg 43 01 . 90
ARV 0.80 10 P 42 53.70 -0.3
eSg 43 06.60
ORE 1.09 328 P 42 59.70 0.7
SD 1 1 . 28 1 41 P 4303.00 0.8
SF 1 1 .38 332 P 43 03 . 00 -0.6
eSg 43 21 .80
PGD 1.39 328 P 43 05.30 1.3
S.D.=1.0 on 8of Sobs.

AUG 16. 1991 03h 01m 5 1 . 1 0± 0.54s
48.170 N ± 9.0km 154.572 E ±11. 2km DEPTH = 33.0km (normol)
4 . 7mb (19 obs .)
KUR I L I SLANDS (221)

K'USJ 8.57 237 eP 03 55.70 0.0
eS 05 29.00
ASAJ 9.22 248 eP 04 10.40 5.7X
HOOJ 9.83 238 eP 04 13-70 0.6
eS 05 59.70
MRRJ 11.10 244 eP 04 31.20 0.7
OFUJ 13.02 230 eP 04 52.90 -3.4X
eS 07 1 1 .60
YAMJ 14.55 232 eP 05 14.60 -1.7
NIIJ 15.79 232 P 05 31.40 -1.0
CHJJ 16.70 229 eP 05 41.90 -2.2
MAT 16.73 232 i PC 05 45.10 0.7
0.7s 1 2 . 33nm 4.1mb
eS 1 1 20 . 00
IIDJ 17.70 230 eP 05 56.30 -0.3
TSRJ 18.68 234 P 06 09.50 1.0
FBA 34.44 40 eP 08 35.30 -1.8
0.6s 8.62nm 4.9mb
INK 39.92 33 eP 09 23.00 -0.1
MBC 42.92 21 eP 09 50.00 2.3
CHG 53.41 257 ePc 11 1 1 . 00 1.1
1.0s 1 2 . 50nm 4 . 9mb
eSg 21 40.00
GUN 55.86 275 P 11 28.40 0.3
0.4s 1 6 . 00nm 5 . 4mb
KKN 56.34 275 P 11 31.60 0.2
0.6s 23.00nm 5.4mb
PKI 56.40 275 P 11 32.40 0.4
0.4s 8 . 00nm 5 . 1 mb
DMN 56.58 275 P 11 33.60 0.4
GKN 56.63 276 P 11 33.60 0.2
NB2 67.20 342 P 12 43.10 -0.5
0.7s 1.10nm 4.1 mb
HFS 67.47 340 eP 12 43.40 -1.8
0.4s 1 . 50nm 4 . 4mb
HYB 67.95 272 eP 12 49.00 0.1
WR2 70.18 200 eP 13 03.10 0.7
0.7s 5 . 10nm 4 . 7mb
WRA 70.18 200 P 13 02.00 -0.4
0.9s 4 . 1 0nm 4 . 5mb
ASPA 73.87 200 eP 13 25.90 1.6
0.8s 4 . 60nm 4 . 5mb
PRU 76.33 335 eP 13 37.50 -0.6
KHC 77.38 335 eP 13 43.00 -1.0
LOR 81.58 340 eP 14 08.10 1.5
0.9s 4.1 0nm 4 . 4mb
SSF 8*1.86 340 eP 14 0B.40 0.4
AVF 82-15 340 eP 14 09.20 -0.3
0.7s 3 . 30nm 4 . 5mb
SMF 82.18 340 eP 14 09.40 -0.3

BGF B2 . 48 341 eP 1412
0.7s 3 . 30nm
LPL 82 .54 338 eP 1412
0.7s 3 . 30nm
LPG 82.55 338 eP 14 12
0.7s 58 . 45nm
MAF 82 . 86 341 eP 1413
1.1s 13. 45nm
TCF 82 .88 341 eP 1413
LSF 83.06 342 eP 14 14
1.0s 7 . 00nm
SBF 83.90 337 eP 14 18
0.9s 8 . 20nm
CAF 84 .20 34 1 eP 14 20
LFF 84. 48 342 eP 1421
LMR 84.64 337 eP 14 22
1.0s 8 . e0nm
S .D . -1.0 on 40 of

& AUG 16, 1991 03h 10m 34
37 . 656 N 118. 863
DEPTH - 6.3km
CALIFORNIA-NEVADA BORDER RE

<GM-P> . MD 3.0 (GM) .

BONR 0.54 56 i P 1045
CMB 1 . 26 288 eP 1057
TNP 1 . 37 71 i P 1 1 00
KVN 1.52 23 i P 1102
ARN 2.15 263 eP 1112
PHAM 2. 20 215 eP 11 12
BCH 2 . 66 202 eP 1119
7 obs. ossocioted

» AUG 16, 1991 03h 40m 47
36 . 427 N ±23 . 8km 30.743
DEPTH = 10.0km (geophys
TURKEY

MD 4 . 1 (HLW) .

ELL 0 . 74 296 i Pg 41 03
eSg 41 15
YER 2.10 290 iPn 4121
HR 1 5 . 1 8 126 eP 4206
MML 5.54 135 eP 42 12
DSI 6 . 19 140 eP 42 21
KOT 6.54 172 ePn 42 26
eSn 43 33
S . D . -1.3 on 6of

AUG 16, i991 04h 47m 47
39.547 N ±13 .0km 20.578
DEPTH = 10.0km (geophys
GREECE-ALBANIA BORDER REGIOt

1 GT 0.19 266 i PC 4751
eS 47 55
FNA 1.38 26 ePd 48 1 1
eS 48 31
AGG 1.46111 i PC 48 1 4
eS 48 36
OHR 1.57 6 ePn 48 1 7
LIT 1.57 69 i PC 48 15
eS 48 39
KNT 2.40 47 ePc 48 26
S . D . =1.4 on 6of

? AUG 16, 1991 05h 44m 33
45.559 N ±53. 7km 6.899
DEPTH - 5.0km (geophys
FRANCE

ML 2 . 2 (GEN) .

LSD 0 . 21 1 19 P 44 38
S 4441
RSP 0.48 148 P 44 43
S 44 49
RRL 0 . 64 1 87 P 4446
S 44 54
BHB 0.76 160 P 44 48
S 44 57
PZ2 1 . 06 172 P 44 54
S 45 07
S.D. - 0.2 on 5 of

? AUG 16, 1991 06h 28m 20
40.375 N ±26. 7km 23.876

,00 0.7
4 . 5mb
. 30 0.4
4 . 5mb
. 30 0.2
5 . 8mb X
. 50 0.2
4 . 9mb
. 20 -0.2
,00 -0.3
4 . 7mb
10 -0.6
4 . 9mb

40 0.2

00 -w.5
20 -0.1
4 . 9mb
\2 obs .

50s
W

;ION (40)

00 -0.3
60 -0.7
30 0.0
90 0.6
50 1.2
80 0.8
10 0.4

36± 1.28s
E ±1 7 . 7km
cist)
(366)

50 1.5
00
40 -1.6
40 -0.4
20 0.2
30 0.3
00 0.0
50
6 obs .

65± 1.10s
E ± 8 . 5km
cist)
1 (392)

50 -0.4
78
98 -1.0
62
74 0.7
34
50 1.8
46 -0.2
22
62 -1.0
6 obs .

80± 9.15s
E ±27 .2km
cist)
(538)

13 0.0
51
46 0.0
10
84 0.1
22
99 -0.1
40
22 -0.2
1 4
5 obs .

1 4± l.7Bs
E ±22. 5km

DEPTH - 5.0km (geophy s i c i s t)
GREECE (364)

OUR 0.09 116 iPd 28 22.14 0.0
eS 28 23.56
SOH 0.60 318 ePd 28 31.60 -0.5
eS 28 41 .05
SRS 0.77 344 ePc 28 35.69 0.1
eS 28 47.40
KNT 1.08 317 ePd 28 41.44 0.5
eS 28 56.52
S.D. =0.7 on 4of 4obs.

AUG 16, 1991 06h 30m 1 4 . 92± 1.05s
25.987 S ± 9.5km 27.664 E ± 1 1 . 5 1- m
DEPTH = 5.0km (geo phy s i c i s t)
REPUBLIC OF SOUTH AFRICA (584)
mbLg 3.5 (BUL).

SLR 0.61 66 i PC 30 26.50 -0.7
S 30 38.90
K1M 3.76 222 eP -31 24.00 9.0X
S 32 14.00
JOZ 4 . 21 1 1 1 eP 3122.00 0.9
C . 5s 63 . 38nm
S 31 57.00
FRS 4.28 208 eP 31 21.80 -0.4
S 32 10.50

HVD 4.98 202 e(P) 31 40.50 8.2X
S 32 21 .00
BUL 5.88 9 iPn 31 46.00 1.0
eSn 32 53.70

iSg 33 20.00
KRI 9.29 12 ePn 32 36.40 3.7X
Sn 34 1 6 . 40
Sg 35 08.30
MTD 9.86 22 Pn 32 39.80 -0.7
Sn 34 21 .90
Sg 35 18.90
S.D. =1.2 on 5of 8 obs .

% AUG 16, 1991 08h 30m 11.61± 0.79s
42.468 N ± 7.5km 13.124 E ± 8.6km
DEPTH = 10.0km (geophy s i c i s t)
CENTRAL ITALY (381)

AOU 0.24 119 P 30 15.70 -1.0
eSg 30 19.20
MNS 0.34 256 P 30 18.60 0.0

eSg 30 25.30
AZ 1 0.53 154 P 30 22.60 0.2
ASS 0.69 331 P 30 24.20 -1.1
eSg 30 35. 10
SD 1 0.92 1 46 P 30 29.90 0.7
ARV 1 .04 353 P 30 32.50 1.3

eSg 30 44.90
S.D. -1.2 on 6of 6 obs .

AUG 16, 1991 08h 59m 58.83± 0.63s
1.911 S ± 8.4km 128.760 E ±18. 5km DEPTH = 33.0km (normol)
4.8mb (5 obs .)
HALMAHERA (267)

AAI 1 .85 198 ePc 00 30. 10 1.3
eS 01 1 1 . 00
MTN 11.12 168 eP 02 39.00 0.4
WR2 18.74 163 eP 04 15.30 -2.2
0.4s 20 . 80nm 4 . 7mb
eS 07 36.30
OIS 21.34 151 iPd 04 45.80 0.3
0.3s 1 7 . 00nm 4 . 9mb
ASPA 22-19 167 i Pd 04 53.50 -0.5
0.8s 29 . 30nm 4 . 8mb
eS 08 54.00
STK 32.17 159 eP 06 26.80 0.9
1.1s 1 . 60nm 3 . 8mb
CHG 35.83 306 eP 06 57.00 -0.6

MAT 39.26 12 (P) 07 27.00 0.9
BJI 43.31 346 eP 07 59.00 -0.3
LZH 44.37 331 eP 08 09.00 0.8
2.0s 32 . 00nm 4 . 8mb
pP 08 16.20 24kmX
SHL 44.94 310 eP 08 12.00 -0.9
S.D. -1.1 on 11 of 11 obs .

» AUG 16. 1991 09h 29m 46.65± 0.94s

DEPTH - 33.8km (normol)
5 . 2mb (7 obs .)
NEAR N. COAST OF WEST IRIAN (197)

JAY 0.18 110 iPd 29 50.49 -2.7
i S 29 56 . 80
MDG 5.92 118 eP 31 22.40 8.0X
PMG 9.54 137 eP 32 14.00 9 . 2X
MTN 13.90 222 eP 33 01.00 -2.7
0.3s 83 . 90nm 6 . 0mb
eS 35 30.60
KNA 17.58 221 eP 33 50.00 -0.9

OIS 18.02 183 e(P) 33 52.00 -4.3X

6 33 56 . 00 i 34 ee .0e
e 37 04.80
HNR 20.50 111 P 34 35.80 18. 3X
WARB 27.11 288 iPc 35 29-98 1.3

0.5s 5 . 70nm 4 . 6mb
FORR 30.59 201 eP 36 08.40 8.6
NANU 31.44 229 eP 36 06.50 -8.9
0.4s 1 3 . 00nm 5 . 1mb
AOE 32.39 183 iPd 36 18.00 2.4X
0.8s 53.73nm 5. 5mb
BWA 32.64 168 iPc 36 21.80 4.0X
CAN 33.63 167 eP 36 29.78 3.3X
COOL 33.70 211 iPc 36 27.30 8.2
0.4s 10.00nm 5.1mb
BFD 34.60 177 i Pd 36 38.00 3.3X
BAL 35-95 216 eP 36 46.00 -0.3
0.4s 10.00nm 5.1 mb
MUN 37.24 215 eP 36 57.00 -8.1
NWAO 37.37 213 eP 36 59.00 0.8
Z 28s e.20um 3.9MS2

SPA 87.56 180 iPc 42 34.80 2.3
1.0s 15.50nm 5. 2mb
KIC 145.17 278 PKPc 49 23.70 0.1
TIC 145.43 278 PKPc 49 24.40 0.4
LIC 145.47 277 PKPc 49 24.40 0.3
CNCB 145.95 125 PKP 49 30.00 4.5X
LPB 146.80 125 PKP 49 29.00 3.6X
ZOBO 146.11 124 PKP 49 29.00 3 . 2X
1.0s 1 0 . 50nm
CCH 147.12 128 PKP 49 35.50 8.4X
S . D . -1.4 on 16 of 28 obs.

% AUG 16, 1991 09h 56m 28.05± 8.74s
48.524 N ± 6.2km 23.690 E ± 8.3km
DEPTH - 18.0 km (geophysicist)
GREECE (364)

OUR 0.29 130 iPd 56 26.53 8.4
eS 56 36.20

SOH 0.39 319 iPc 56 27.66 -0.4
eS 56 33.73
PAIG 0.60 181 iPc 56 31.33 -8.8
eS 56 39.84
SRS 0.60 353 eP 56 32.20 0.1
eS 56 40 . 60
KNT 8.88 317 ePd 56 37.00 0.1
eS 56 48.96
LIT 1.81 246 ePc 56 39.80 0.6
eS 56 53.73
S.O. -8.7 on 6of 6obs.

% AUG 16. 1991 10h 02m 51.56± 0.68s
46.386 N ±10. 1km 2.720 E ± 7.5km
DEPTH - 10.0km (geophysicist)
FRANCE (538)
ML 2.8 (LOG) .

BGF 8.19 27 Pg 02 56 . 00 0.2
Sg 02 59 . 00
MAF 0.28 213 Pg 02 55.80 -0.1
Sg 02 58 . 60
TCF 0.37 255 Pg 02 59.10 6.0
Sg 03 04.00
AVF 0.60 47 Pg 03 03.10 -0.5
Sg 03 18.90
SMF 8.82 71 Pg 03 87.78 8.3
LSF 8.84 261 Pg 83 07.88 8.1
Sg 0318.68
S CJ T O 4 C* C*
S . D . -8.4 on 6of Sobs.

? AUG 16, 1991 10h 34m 51.51± 3.50s
38.510 N ±32.4!<m 14.838 E ± 9.6km
DEPTH - 10.0km (geophysicist)
S 1 C 1 LY (398)

MNO 0.59 191 P 35 03.60 0.0
eSg 35 1 1 .50
ATN 0.60 125 P 35 03.60 -0.1
eSg 35 12.70
GIB 0.82 231 P 35 07.50 0.0
eSg 35 18.60
SOI 1 . 05 1 14 P 35 1 1 . 40 0.1
eSg 35 26.40
S . D . «=0.1 on 4 o < 4obs.

? AUG 16, 1991 10h 59m 51.73± 1.78s
28.736 S ±22. 6km 178.185 W ±23. 8km DEPTH - 497 .9 ± 12.4 km

FIJI ISLANDS REGION (181)

KRO 4.15 325 ePc 01 11.30 -0.7
SVA 4.16 308 ePc 01 12.10 0.1
VUN 4.23 309 eP 01 12.00 -0.6
M8U 4.80 321 eP 01 18.70 1.0
DZM 14.45 262 i PC 02 58.00 1.1
TOO 35.68 234 i PC 06 89.70 1.2
0.5s 1 2 . 00nm 4 . 7mb
STK 37.60 244 i PC 06 25.40 1.1
0.6s 5 . 40nm 4 . 3mb
ASPA 44.37 257 iPd 07 18.80 0.0
0.9s 39 . 00nm 4 . 9mb
i 08 53.00
i S 1317.10
WR2 44.45 262 iPc 07 18.80 -0.6

i 07 46.50
WRA 44.47 262 P 07 18.00 -1.6
0.3s I5.40nm 5.0mb
FORR 49.07 247 iPc 07 54.10 -0.4
0.3s 20 . 00nm 5 . 0mb
WARB 50.67 253 i Pd 08 06.00 -0.4
MBL 57.61 258 i Pd 08 55.10 -8.6
0.4s 19. 00nm 4 . 8mb
KLB 57.86 245 eP 08 56.50 -8.8
0.3s 5.00nm 4.3mb
NWAO 58.18 243 eP 08 59.00 -0.4
BAL 58.87 246 iPc 09 03.60 -0.6
MUN 59.14 244 eP 89 06.00 0.1
NANU 61.24 255 eP 89 20.00 0.1
MAT 70.34 324 eP 10 16.00 -0.2
TNP 81.77 44 P 1 1 19.00 -0.1
F8A 88 . 49 12 P 1 1 50 . 90 0.0
0.8s 3 . 00nm 4 . 2mb
CHTO 90.23 290 iP 12 02.00 2.1
CLL 148.27 347 iPKP 18 42.80 4.8X
8.9s 13. 00nm

BRG 148.46 345 i(PKP)18 43.88 5.4X
1 .0s 10.80nm
i 1848.40
S . D . « 0 . 9 on 22 of 24 obs.

? AUG 16, 1991 11h 38m 14.91± 3.28s
38.344 N ±27. 1km 133.748 E ±34. 2km DEPTH - 483 . 7 ± 45 . 1 km
SEA OF JAPAN (660)

TSRJ 3.32 147 i P + 39 27.70 0.2
MTMJ 3.67 117 iPd 39 30.60 0.2
MAT 3.98 116 iPd 39 32.78 -0.1
0.6s 12. 67nm
NIIJ 4.38 183 eP 39 35.20 -0.3
IIDJ 4.39 129 eP 39 36.60 0.2
CHJJ 4.77 117 eP 39 39.10 -0.6
YAMJ 4.95 90 eP 39 41.50 0.1
KAKJ 5 . 55 1 1 1 eP 39 47 . 10 0.1
OFUJ 6.24 81 eP 39 54.00 0.2
eS 41 88.88
HOOJ 8.32 58 eP 40 16.00 0.5
eS 41 48.60
ASAJ 8.84 46 eP 40 20.60 -0.4
KUSJ 9.58 57 eP 48 29.00 0.0
eS 42 15.38
S . D. « 0 . 4 on 12 of 12 obs .

* AUG 16, 1991 12h 82m 08.67± 0.92s

16d 89h

DEPTH - 33.8km (normal)
4 . 4mb (4 obs .)
VANUATU ISLANDS (186)

DZM 8.33 188 iPc 84 69.10 -1.1
iS 85 44 .90
HNR 8.70 299 P 04 15.00 -0.3
CMS 26.68 225 i Pd 07 48.00 1.3
STK 29.91229iPd 0817.10 1.3
0.5s 2.50nm 4. 3mb
WR2 32.41 254 eP 08 37.10 -0.9
0.5s 4.00nm 4. 6mb
ASPA 33.38 248 iP 08 46.10 -0.3
. 0.7s 4 . 1 0nm 4 . 4mb
FSA 85. 33 17 P 1443.00 -0.3
1.0s 2 . 28nm 4 . 3mb
ANMO 94.45 55 (P) 15 27.60 8.4
S.D. - 1.1 on 8 of 8 obs.

? AUG 16, 1991 12h 1 3m 29.77± 8.19s
42.920 N ±70. 5km 24.151 E ±14. 5km
DEPTH - 10.0km (geophysicist)
BULGARIA (359)

SRS 1.85 193 ePc 14 81.24 -0.5
eS 1423.40
VAY 1.98 217 ePn 14 83.80 -0.7
KNT 1.99 208 ePd 14 04.96 1.1
eS 1427.48
SOH 2 . 18 196 eP 1 4 86 . 80 0.2
SKO 2.22 246 eP 14 15.50 8 . 3X
ALN 2 . 47 144 ePc 14 18.68 0.1
OUR 2.59 183 eP 14 12.20 -0.1
eS 1443.76
S.D. = 0.9 on 6 of 7 obs.

% AUG 16, 1991 I2h 24m 38 . 24± 0.74s
40.189 N ± 5.6km 23.685 E ± 6.4km
DEPTH - 5.0km (geophysicist)
GREECE (364)

PAIG 0.27 168 ePd 24 35.24 -0.4
eS 24 38.96
OUR 0.32 63 iPc 24 37.24 0.5
eS 24 41 . 92
SOH 0.66 343 ePd 24 43.36 -0.1
eS 2451.84
THE 0.66 312 eP 24 43.20 -0.2
eS 2451.84
LIT 0.86 264 ePc 24 47.92 0.6
eS 24 59.60
SRS 0.93 359 ePd 24 48.84 -0.4
eS 25 81 .72
S.D. -0.6 on 6of 6obs.

* AUG 16, 1991 12h 49m 43.51± 0.84s
14.471 N ±12. 5km 93.944 W ± 8.4km
DEPTH - 33.8km (normal)
4 . 4mb (12 obs .)
NEAR COAST OF CH I APAS , MEXICO (69)

iS 58 34.50
SCX 2 . 58 29 iP 58 25 . 80 1.1
iS 58 58.50
OXX 3.73 314 iP 58 40.80 -0.3
iS 51 25 .00
1 1 SM 5.57 324 eP 51 87.50 1.3
LVVM 5.76 336 eP 51 89.00 0.1
IIT 6. 16318 eP 5116.00 1.1
ACX 6.18 293 eP 51 13.00 -1.9
PPM 6.48 316 iP 51 28.00 1.5
MRX 8.66 308 eP 51 50.00 0.4
UYO 19.61 359 i Pd 54 88.20 -4 . 0X
MEO 20.65 349 i PC 54 28.50 -2.6
TUL 21 .41 356 eP 54 32 . 10 1.4
0.6s 5 . 60nm 4 . 2mb
Z 28s 0.33um 3.7MSZ
N 20s 0.23um
E 22s 0. 15um
LR 61 04.08

BOG 21.89 115 e(P) 54 41.68 5 . 8X
e(S) 58 56.88
ALO 23.29 333 eP 54 49.88 0.2

ANMO 23.30 333 P 54 49.90 8.3

16d 12h

148

1.0s 8 . 75nm 4 . 2mb
GOL 27.06 340 P 55 23.90 -1.3
0.8s 5.95nm 4. 3mb
BAR 27.51 315 eP 55 40 . 00 10. 9X
PLM 28.03 316 eP 55 34.00 0.0
PEC 28.56 317 P 55 40.00 1.4
CLC 30.0? 319 eP 5552.60 0.3
RSSD 36.78 346 P 55 55.60 -3 . 5X
1.3s 9 . 29 nm 4 4mb
TNP 31.27323P 5682.80 6.6
1.0s 5.00 nm 4 . 3mb
LCCM 34.73 338 eP 56 32.20 -0.6
ORV 34.77 321 P 56 34.60 1.6
SES 38.43 342 eP 57 03.60 -0.8
ZOBO 39 7C-* 139 P 57 1 7 . 60 0.9
2 2\lt 6.22um 4.wMsz
LR 09 44.00
PNT 40.62 334 eP 57 23.00 1.1
0.6s 5.00nm 4. 4mb
FFC 40. 65 35 3 eP 57 23. 00 0.9
0.6s 5.00nm 4. 4mb
YKA 50.15 348 eP 58 35.70 -1.9
0.8s 5 . 50nm 4. 6mb
INK 59.46 344 eP 59 43.00 -2.2
FBA 62.07 337 P 00 00.60 -2.5
0.7s 5 . 8 1 nm 4 . 8mb
MBC 63.22 353 eP 00 09.00 -1.5
1.1s 15. 00nm 5 . 0mb
NB2 84.63 28 P 02 15 . 20 0.3
0.7s 5.60nm 4. 9mb

2ST 92.76 39 eP 02 54.60 0.8
e 2047. 40
e 26 14 . 20
WRA 133.68 256 PKP 09 00.00 0.6
1.8s 1 . 70nm
GBA 150.83 17 PKP 09 35.00 5.8X
0.7s 2 . 50nm
S . D . -1.3 on 31 of 36 obs .

? AUG 16, 1991 I3h 22m 34.03+ 3.22s
14.064 N ±42. 2km 94.225 W ± 1 7 . 0 km
DEPTH «= 33.0km (normol)
4 . 4mb (3 obs .)
OFF COAST OF CHIAPAS, MEXICO (68)

TPX 2.08 66 iP 23 07.00 -0.3
(S) 23 31 .00
SCX 3.07 30 iP 23 21 .50 0.2
iS 23 56.00
OXX 3.85 322 (P) 23 35.00 2.5X
IISM 5.75 329 (P) 24 15.00 15. 6X
PPM 6.52 320 eP 24 16.00 5 . 3X
MEO 21.00 350 iPd 27 16.50 -0.6
YKA 50. 49 348 eP 3131.70 1.1
0.9s 2.80nm 4. 3mb
INK 59.78 344 eP 32 36.00 -1.9
MBC 63.59 353 eP 33 05.00 1.6
1.0s 5 . 00nm 4 . 6mb
DOU 84.90 40 P 35 23.00 16. IX
NB2 85.11 28 P 35 1 1 . 50 3. 7X
0.9s 2.60nm 4. 4mb
S -D . = 1.6 on 6of 11 obs .

AUG 16, 1991 13h 40m 16.34± 0.63s
41.094 N ± 7.1km 22.078 E ± 4.1km
DEPTH «= 10.0km (ge o phy s i c i s t)
YUGOSLAVIA (383)
MD 1.9 (THE) . ML 1.3 (SKO) .

GRG 0.28 119 ePd 40 22.08 -0.2
eS 40 26. 16

VAY 0.44 58 iPg 40 25.40 0.2
i Sg 4031.60
FNA 0.62 240 ePc 40 28.36 -0.4
eS 40 36.24
KNT 0.62 83 ePc 40 28.68 -0.2
THE 0.82 124 iPd 40 32.48 0.4
eS 40 42.48
OHR 01.97 271 ePg 40 35.00 0.2
SOH 1.00 105 ePd 40 34.72 -0.7
iS 40 48. 68
LIT 1 .04 162 eP 40 36. 40 0.4
eS 4051.48
SRS 1.14 88 ePc 40 38.04 0.3
eS 40 53.04
S . D . =0.4 on 9of 9 obs.

AUG 16, 1991 I3h 50m 48.06± 1.04s
41.124 N ± 8.8km 22.043 E ± 6.4km DEPTH = 10.0km (geo ph y s J c i s t)
YUGOSLAVIA (383)
MD 1.8 (THE) . ML 1.3 (SK'O) .

GRG 0.32 122 ePd 50 54.04 -0.6
iS 50 58 H 08
VAr 0.44 63 iPg 50 57 H 30 0.2
iS9 51 03
FNA 0.61 236 iPc 51 00
eS 51 08
KNT 0.65 86 ePd 51 60
eS 51 09
THE 0.85l25ePd 5104
eS 5114
SOH 1 . 04 1 07 i PC 5107
eS 51 21
LIT 1 .08 161 ePd 51 08.
eS 51 22.
SRS 1.17 90 ePc 51 10
eS 51 25.
S. D . =0.4 on 8of
fc
AUG 16. 1991 1 4h 1 6m 4 1
42 .302 N ± 3. 8km 142.889
DEPTH - 57.2km (7 dept
4 . 9mb (49 obs .)
HOKKAIDO. JAPAN REGION

HOOJ 0.31 74 iP+ 16 52.
MRRJ 1 . 35 276 iPd 1706.
eS 1724.
SAP 1 . 37 304 i P 1707.
iS 1725.

30
21 -0.2
28
72 -0.3
1 2
76 0.3
68
60 -0.1
80
80 0.5
64
16 0.2
28
8 obs .

37± 0.21s
E ± 4 . 4km
h phoses)

(224)

60 1.3
10 1.9
40
00 2.4X
90
KUSJ 1.56 59 iPd 17 08J00 0.8
e S 17 2 7 .! 7 0
ASAJ 1.82 354 iPd 17 13.00 2.2
eS 1737.*°
AOMJ 2.57 228 eP 17 23.
eS 1754.
OFUJ 3 .35 196 P 1732.
eS 1810.
YAMJ 4 . 67 209 P 1751.
NIIJ 5.87212P 18 08.
KAKJ 6.44 200 P 1813.

* * V

50 2.2
90
50 0.1
10
70 0.8
30 0.4
10 -2.7
eS 19 23.90
MAT 6 . 80 214 i PC 18 21 . 00 0.2
0.7s 34 . 93nm 5 . 1mb
eS 19 41 .00
MTMJ 6 . 93 216 P 1823.
CHJ J 6 . 94 207 P 1821.
1 IDJ 7 .84 21 1 P 18 35.
TSRJ 8.63221 i Pd 1847.
BJ 1 20.21 273 eP 2111.
1 . 0s 20.00nm
Z 22s 0.80um
eS 24 52.
SSE 20 .63 244 P 2116.
0.7s 10 . 00nm
Z 20s 0.50um
E 12s 0.40um
pP 21 20.
eS 25 10.
esS 25 16.
YAK 21.25 343 IP 2121.

70 0.9
40 -1.3
80 0.5
60 1.4
00 -2.9
4 . 4mb
4 .0Msz
00
50 -1.7
4 . 3mb
3. 9Msz

50 !5kmX
00
00
30 -3.0
ePP 21 40.100
ePPP 21 54.00
IS 25 1 1 .00
eSS 25 43.00
ePcP 25 45.00
eScS 32 38.00
IRK 27.70 304 eP 22 24.50 -1.3
e 22 38.
e 28 45.
e 29 22.
LZH 30.69 271 eP 22 53.
1.5s 31 . 00nm
Z 20s 0 . 48um
N 10s 0 . 24um
pP 23 07.
sP 23 12.
TTA 40.51 38 eP 24 1 7 .
SVW 40.70 41 eP 24 18.
IMA 41.62 33 ePc 24 24 .
0.9s 7 . 50nm

l-U^ A ~*. B7 91 1? a.O ~ > A At

50 57km
00
50
00 0.1
4 . 8mb
4 . IMsz

00 56km
50
10 1.1
60 1.1
80 -0.3
4 . 4mb
00 0.2 ~.,w

FBA

TOA
GUN
KKN
PK I
DMN
GKN
I NK
MBC

i KA

HY B
OUE
SOD
MA 10
WRA

WR2

GBA

PNT
KAF

OBN

NEW

NUR

ASPA

WDC
SES
ORV
FFC

UPP
HFS

Z

NB2

LCCM

CMB
TNP

I SA
CLC
BW06
SBB
GSC
KRA

SPC
IS CO r. j r
CLL

BRG

PRU
SRO
ZST
MOX

EKA

KHC

GRF

Z
ALO

VAY Ck-n

0.8s 16. 42nm 4 . 8mb
44.09 35 ePc 24 45.30 0.2
0.9s 22.90nm 4.9mb
45 . 1 1 39 eP 2454.80 1.4
47 . 95 272 P 25 17 . 18 0.6
48. 47 272 P 25 20.96 0.6
48. 49 272 P 25 21 .06 0.4
48 . 69 272 P 25 22.68 0.5
48. 83 273 P 25 23.26 0.2
49.21 29 eP 25 24 . 00 -1.2
51.16 18 eP 25 39.00 -1.0
0.5s 5 . 00nm 4 . 8mb
58. 71 32 eP 26 33.50 -1.5
0.5s 1 . 46nm 4 . 3mb
59 . 59 266 eP 26 41 . 00 -0.7
60.56 285 eP 26 48.00 -0.4
60.57 337 iP 26 46.30 -1.4
62.34 295 eP 26 57.00 -3.2X
62.43 189 P 26 59.00 -1.7
1.2s 3 . 50nm 4 . 4mb
62. 43 189 eP 26 59 . 30 -1.4
0.8s 6 . 00nm 4 . 8mb
i 27 15.90 62km
62.85 264 Pd 27 02.80 0.8
0.8s 8 . 00nm 4 . 9mb
63.66 46 eP 27 08.00 -0.6
64.17 332 iP 27 10. 20 -1.5
0.5s 6 . 80nm 4 . 9mb
64.59 322 iPd 27 14.00 -0.5

e 27 36.00 86kmX
65.61 46 P 27 20. 40 -0.9

pP 27 35.00 52km
65.86 331 eP 27 20. 70 -1.8
0.4s 13. 50nm 5 . 3mb
66. 16 189 eP 27 25 . 50 0.6
0.9s 3 . 90nm 4 . 4mb
67 . 08 56 eP 27 31 .00 0.3
67.43 42 ePd 27 32.50 -0.3
68.33 56 eP 27 38.36 -0.3

68,69 34 iPc 27 39.90 -0.6
0.8s 9 . 00nm 4 . 8mb
68. 73 334 iP 27 39. 40 -1.2
69.76 336 eP 27 45.90 -1.0
0.5s 16.10nm 5. 2mb
20s 0.08um 4.0MSZ
LR 54 49.00
69. 78 337 P 27 45.80 -1.3
0.8s 10.1 0nm 4 . 8mb
69.93 46 eP 27 48.20 -0.2
e 28 02 . 1 0 49kmX
69.95 57 eP 27 48 .80 0.2
71 .86 55 P 28 00.00 -0.3

epP 28 14.90 53km
72.63 58 eP 28 04.00 -0.7
73.08 57 eP 28 07.00 -0.3
73. 20 47 P 28 07.50 -0.6
73.67 58 eP 28 1 1 .00 0.3
73.91 57 eP 28 12.00 -0.1
75.37 326 i Pd 28 20.40 0.2
0.6s 21. 00nm 5 . 2mb
75.91 325 eP 28 22.90 -0.6
76.22 328 eP 28 25.00 0.0
77.09 330 eP 28 29.00 -0.8
1.0s 19. 00nm 5 . 1mb
e 28 46.00 61km
77 . 09 330 eP 28 28.70 -1.1
0.8s 1 0 . 00nm 4 . 9mb
e 28 50.50 82kmX
77.58 329 P 28 32.50 0.0
77 . 79 325 eP 28 34.60 1.0

77.99 326 e(P) 28 35.40 0.6
78. 1 4 331 eP 28 35 .70 0.1
1.7s 23 .00nm 4 . 9mb
78 .54 341 Pd 28 37 .90 0.2
0.7s 4 . 90nm 4 . 6mb
78.64 329 iPc 28 38 . 50 0.1
0.9s 5.30nm 4. 5mb
e 29 01 .50 87kmX
79. 07 330 iPc 28 41 . 10 0.4
0.9s 14. 00nm 4 . 9mb
21s 0.1 0um 4 . IMsz
80.37 51 eP 28 48.80 0.6
1.0s 3 . 75nm 4 . 3mb
e 29 05.20 59km
80.85 319 eP 28 51 .20 0.9
80. 90 320 eP 28 51 .50 0.9

149

160 14h

WTTA 88.92 329 eP 28 50.50 -0.3
0.6s 5 . 40nm 4. 7mb
CDF 81.56 332 eP 28 54.30 0.3
6.7s 4.40nm 4.5mb
OHR 81. 87 320 eP 28 56. 00 0.3
BSF 82.22 332 eP 28 57.20 -0.3
HAU 82.23 332 eP 28 57.40 0.0
222s 8 . 1 Sum 4 . 3Msz
LOR 83.71 333 eP 29 05.10 0.0
e> . 8s 12.10nm 5. 0mb
Z 22s 0 . 1 Sum 4 . 3MS2
FLN 83.75 337 eP 29 05.00 -0.2
0.9s 6.55nm 4. 7mb
LDF 83.80 336 eP 29 05.80 0.3
LBF 83.92 333 eP 29 06.20 0.0
6.8s 50.35nm 5.6mb
SSF 84.01 333 eP 29 06.80 0.2
0.7s 35.85nm 5.5mb
GRR 84.20 337 eP 29 07.60 0.1
0.7s 11. 00nm 5 . 0mb
LPL 84.23 331 eP 29 08.60 0.6

LPG 84.23 331 eP 29 08.70 0.6
1.1s 15. 85nm 5 . 0mb
SMF 84.26 333 eP 29 08.10 0.3
0 . 8s 12. 75nm 5 . 0mb
AVF 84.30 333 eP 29 08.40 0.4
0.7s 14.90nm 5. 1mb
LPF 84.57 337 eP 29 09.80 0.5
0.7s 7 . 70nm 4 . 9mb
BGF 84.67 334 eP 29 10.30 0.4
0.7s 6.05nm 4. 8mb
MAF 85.06 334 eP 29 12.80 1.0
0.7s 1 1 . 60nm 5.1mb
TCF 85.12 334 eP 29 12.60 0.4
LSF 85.37 334 eP 29 13.80 0.4
0.7s 8.80nm 5. 0mb
SBF 85.38 329 eP 29 13.30 -0.2
0.8s 14.80nm 5. 2mb
MFF 85.59 335 eP 29 15 20 0.8
0.9s 1 3 . 1 0nm 5 . 1mb
LRG 86.13 330 eP 29 17.50 0.3

LMR 86.18 330 eP 29 17.60 0.2
0.9s 1 9 . 65nm 5 . 3mb
RJF 86.21 334 eP 29 18.40 0.8
0.9s 9.85nm 5. 0mb
222s 0 . 1 Sum 4 . 3Msz
CAP 86.37 333 eP 29 19.70 1.3
0.8s 14.1 0nm 5 . 2mb
LFF 86.79 334 eP 29 21.70 1.3
0.9s 1 8 . 00nm 5. 3mb
LPO 86.87 334 eP 29 22.00 1.2
0.7s 13. 25nm 5 . 2mb
ZOBO 142.88 55 ePKP 36 12.00 0.9
LPB 143.10 55 ePKP 36 22.00 10. 7X
CNCB 143.38 55 PKP 36 11.00 -0.9
SOB1 146.87 7 ePKP 36 18.80 1.6
S . D . - 1.0 on 106 of 109 obs .

40.063 N ±11. 1km 24.849 E ± 4.8km
DEPTH = 5.0km (ge ophy s i c i s t)
AEGEAN SEA (365)

OUR 0.72 293 i Pd 47 29.22 -0.1
eS 4739.74
PAIG 0.91 262 iPd 47 32.86 0.1
i S 47 46 . 05
EZN 1.16 101 ePn 4737.10 0.0
ALN 1.24 47 ePd 47 38.34 -0.1
i S 47 56 .06
SOH 1.37 304 eP 47 40.70 0.0
eS 48 00.34
SRS 1.42 318 ePc 47 41 .90 0.4
eS 4801.10
KNT 1.85 307 ePc 47 47.34 -0.2
S . D . -0.2 on 7 of 7 obs.

AUG 16. 1991 14h 51m 35.31± 0.77s
40.523 N ± 8.1km 25.050 E ± 6.5km

AEGEAN SEA (365)

OUR 0.84 257 eP 51 51.00 -0.5
eS 52 00.24
ALN 0.84 63 ePc 51 57.88 6.3X

eS 52 15.88
KDZ 1.16 14 iPc 51 55.00 -2.0
RZN 1.19 348 iP 51 58.00 0.4
EZN 1.20 125 ePn 51 57.10 -0.5
PAIG 1.21 241 eP 51 55.80 -2.0
eS 52 07 . 60
SRS 1.26 299 eP 52 02.40 3.7X
eS 52 20.84
SOH 1.32 284 ePd 52 01.32 1.5
eS 52 20.28
MMB 1.46 317 eP 52 02.00 0.2
PLD 1.60 351 eP 52 07.00 3.3X
KNT 1.75 292 ePd 52 09.52 3 . 6X
iS 52 23.76
LIT 2.00 259 eP 52 10.10 0.5
eS 52 28.04
VAY 2.04 294 ePn 52 10.70 0.6
DMK 2.42 57 ePn 52 19.00 3 . 4X
VTS 2.49 327 iP 52 22.00 5 . 4X
DST 2.89 107 ePn 52 24.00 1.7
S . 0 . = 1.4 on 10 of 16 obs .

? AUG 16, 1991 I5h 02m 54.68±15.44s
46.697 N ±97. 0km 15.237 E ±48. 8km
DEPTH - 10.0km (geophy s i c i s t)
YUGOSLAVIA (383)
MD 2.5 (LJU) , 2.2 (TR 1) . Fe 1 t
(IV) ot Mu to .

LJU 0.82 217 ePg 03 10.20 -0.3
e 03 18. 10

e(Sn) 03 23.90
CEY 1.11 211 e(Pn) 03 15.80 0.2
eSg 03 27.90
VOY 1.14 235 ePg 03 16.20 0.1
eSn 03 32.70
VBY 1.19 179 ePg 03 16.90 0.0
i Sn 03 32 . 40
i 0335. 30
TRI 1.42 227 ePg 03 24.70 4 . 2X
iSg 03 38.50
S.D.-0.4 on 4of 5 obs .

AUG 16, 1991 15h 23m 17.76± 0.36s
44.370 N ± 2.7km 7.334 E ± 3.3km
DEPTH - 10.0km (geophy s i c i S t)
NORTHERN ITALY (545)
ML 2. 3 (LOG) , 2.2 (GEN) .

STV 0. 13 183 P 23 21 .31 0.4
S 23 23.26
PZZ 0.21 309 P 23 22. 74 0.2
S 23 25.62
TOUF 0.36 190 Pg 23 25.19 -0.1
AUTN 0.38 170 Pg 23 25.71 0.1
Sg 23 30. 21
ROB 0. 39 101 P 23 26. 44 0.6
S 23 32.08
SAOF 0.42 157 Pg 23 25.86 -0.4
Sg 2331.95
BHB 0.47 354 P 23 26.60 -0.8

S 2332. 67
AURF 0.48 181 Pg 23 27.29 -0.3
Sg 23 33.90
MVIF 0.49 196 Pg 23 27.48 -0.3
SBF 0.51 172 Pg 23 28.40 0.2
Sg 23 35.00
IMI 0. 61 1 39 P 23 29. 20 -0.9
S 23 37.92
FIN 0.65 104 P 23 30.74 0.0
S 23 39.66
RRL 0. 68 325 P 23 31 .50 0.2
PCP 0.88 78 P 23 35.25 0.5
S 2346. 94

FRF 0.95 212 Pg 23 35.40 -0.4
Sg 23 46.90
LRG 1 . 15 218 Pg 23 39.70 0.4
Sg 23 53.40
LMR 1 . 20 210 Pg 23 40. 70 0.7
Sg 23 55.00
S . D . -0.5 on 17 of 17 obs .

AUG 16, 1991 16h 38m 44.61± 0.71s
35.383 N ± 7.2km 23.694 E ± 4.9km
DEPTH - 41 .6 ± 1 1 .2 km
3 . 9mb (10 obs .)
CRETE (370)

MD 4.2 (HLW).

AGG 3.79 344 ePc 39 43.88 1.8
eS 40 29.20
YER 4.10 63 ePn 39 48.00 1.5
PAIG 4.54 360 ePc 39 52.48 -0.1
eS 40 50.56
LIT 4.81 349 ePd 39 56.64 0.2
eS 40 48 . 52
OUR 4.95 3 ePd 39 58.32 0.0
eS 4049.44
ELL 5.22 73 iPn 40 04 .50 2-2
SOH 5.44 357 eP 40 04.50 -0.9
FNA 5.69 342 ePd 40 08.52 -0.5
iS 41 09 . 80
VAY 5.99 352 eP 40 13.00 -0.1
SOI 6.70 296 P 40 23. 30 0.4
LCI 6.71 319 P 40 20. 90 -2.2
C2 1 7.14 305 P 40 29.60 0.5
ATN 7.16 295 P 40 30 . 20 0.7
eSn 41 39.20
TDS 7 .24 308 P 40 30.60 0.1

MEU 7.29 286 P 40 32.40 1.0
CS 1 7 .33 309 P 40 30 . 10 -1.8
BRT 7.50 319 P 40 32.40 -1.8
MMN 7.59 309 P 40 36.80 1.4
MGR 8.00 309 PC 40 40.80 -0.4
SCO 8.40 310 PC 40 46.20 -0.4
HLW 8.48 128 ePn 40 49.00 1.2
eSn 42 1 6 . 50
KOT 8.75 126 ePn 40 51.00 -0.5
HRI 10.18 99 eP 41 09.90 -1.5
JVI 10.31 106 eP 41 11.70 -1.3
PRNI 10.75 115 eP 41 18.00 -1.0
PGF 13.48 306 eP 42 05.20 9.7X
0.5s 5.1 0nm 4 . 6mb
SBF 15.10 309 eP 42 22.80 6.0X
0.5s 5.85nm 4. 1mb
FRF 15.47 307 eP 42 26.70 5.2X
0.6s 3 . 60nm 3 . 7mb
SMF 18.68 313 eP 43 01.20 -0.4
LBF 18.77 314 eP 43 02.60 -0.1

LOR 18.99 315 eP 43 05.30 0.0
0.5s 1 . 80nm 3 . 6mb
AVF 19.04 313 eP 43 06.10 0.2
SSF 19.09 314 eP 43 06.30 -0.1
0.6s 3 . 60nm 3 . 8mb
BGF 19.24 312 eP 43 09.10 0.9
0.6s 4 . 05nm 3 . 9mb
DOU 20.24 322 P 43 18.70 -0.1
MFF 21.12 309 eP 43 28.80 1.0
0.5s 3.65nm 4.0mb
LDF 21.97 314 eP 43 36.80 0.4
FLN 22.26 314 eP 43 39.40 0.2
LPF 22.26 312 eP 43 40.20 0.9
0.8s 8 . 05nm 4 . 2mb
HFS 25.60 348 eP 44 10.20 -1.2
0.4s 1 . 40nm 3 . 9mb

* AUG 16. 1991 !7h 45m 41.36± 0.72s 20.999 S ±10. 7km 169.801 E ±13. 5km DEPTH - 32.3km (2 depth phoses) 4.4mb (6 obs.) 4.1Msz (1 obs.)
VANUATU ISLANDS (186)

DZM 3.30 251 iPd 46 31.90 -0.2
i S 4707.60
PVC 3.53 336 iP 46 35.80 0.5
iS 47 18 .00
8KM 3.63 336 iP 46 37.20 0.6
OLP 24.02 252 eP 50 58.00 3.6X
i 51 07.00 32km
i 51 10 .00
STK 27.41 241 iPc 51 28.60 2.5
1.0s 1 . 20nm 3 . 5mb
ipP 51 37.90 33km
WR2 33.18 265 eP 52 16.10 -1.3
0.4s 2 . 20nm 4 . 4mb
WRA 33.20 265 P 52 16.00 -1.5

ASPA 33.26 259 iPd 52 17.90 -0.2
1.2s 6 . 60nm 4 . 4mb
NWAO 47.90 244 eP 54 19.00 0.4
Z 20s 0.20um 4.lMsz
MAT 64.55 332 eP 56 16.00 -1.5

150

1 6<J 1 7h

SPA

CHG
KSP
BRG

CLL

SRO
PRU

ZST

EKA

MOX

KHC

GRF

MEM
WTTA

WLF
DOU
CDF

BSF

FLN

LDF

LOR

GRR

SSF

LPL

LPG

SMF

AVF
LPF

BGF

TCF

LSF
PGF

MFF
LPO

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PKPc
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4X
7X

0X

3X

2X
3X

5X
7X

AUG 16, 1991 I8h 17m 17.25± 0.68s
41.087 N ± 5.5km 22.416 E ± 5.4km DEPTH - 10.0km (geophysicist)
YUGOSLAVIA (383)
ML 2.1 (SKO). MD 1.8 (THE).

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GRG

VAY

KNT

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SOH

FNA

SRS

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177

iPc
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iSg
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eS
ePc
iS
ePc
eS
ePd
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ePd
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ePc
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PA 1 G 1 . 5 1 1 40 i Pd 1744
S . D . =0.4 on 9of

AUG 16, 1991 18h 24m 44
28 . 1 21 S ± 6 . 7km 71. 367
DEPTH - 43 . 0 ± 1 3 . 5 km
NEAR COAST OF CENTRAL CHILE

ANT 4.48 11 e(P) 25 51
JACH 4.59 172 eP 25 56
CYA 4.93 95 eP 25 58
S 26 54
PEL 5 . 04 1 73 eP 26 00
i 2610
i (S) 27 26
MDZ 5.22 15G eP 26 09

, i 26 17
i 27 07
i 27 28
LCCH 5 . 34 1 82 i P 26 02
TACH 5.53 176 eP 26 05.
PCH 5 . 53 1 73 i P 26 07.
CHCH 5.83 174 eP 26 10
IS 2716
CNCB 11.68 16 P 27 33

LPB 11.92 15 (P) 27 46
ZOBO 12.17 15 eP 27 37
Z 20s 0 . I5um
LR 31 32.

VAO 22 . 58 82 (P) 29 41 .
KIC 72.74 73P 3609.
WRA 126.14 210 PKP 43 43.
0.5s 2 . 89nm
GBA 147.59 110 PKPc 44 25.
0.4s 2 . 30nm
S . D . - 1 . 4 on 13of 1

? AUG 16, 1991 1 9h 29m 24 .
20. 823 S ±27 . 2km 1 78 . 739
DEPTH « 558 .9 ± 18.7 km
4 . 8mb (1 2 obs .)
FIJI I SLANDS REG I ON

NDF 4 . 72 310 eP 30 53.
DZM 13.85 262 i PC 32 23.
BRS 26 . 77 250 i PC 34 23.
CTAO 32.77 265 i Pd 35 14.
CMS 33.40 244 iPc 35 19.
OLP 34.30 253 iPd 35 26.
TOO 35 . 15 234 i PC 35 33.
0.7s 26 . 0&nm
STK 37.03 244 i P<J 35 49.
0.5s 1 0 . 80nm
iPcP 37 54.
OIS 38 . 89 263 i Pd 36 03.
0.5s 7 . 00nm
ASPA 43 . 77 257 iPd 36 42.
0.6s 36 . 20nm
i PcP 38 16 .
i S 42 33.
WR2 43.85 263 i PC 36 42.
0.4s 33 . 30 nm
WRA 43.87 263 P 36 42.
0.3s 30 . 90nm
MTN 48 . 48 271 eP 3718.
FORR 48.49 247 eP 37 17.
WARS 50.07 253 i Pd 37 29.
M8L 57.01 258 i Pd 38 18.
0.4s 20 . 00nm
NWAO 57.61 244 eP 38 23.
0.8s 9 . 00nm
BAL 58.29 246 eP 38 27.
0.6s 1 9 . 00nm
MUN 58.56 245 iPC 38 29.
NANU 60.64 255 eP 38 43.
MAT 70 . 06 324 i PO 39 41 .
TNP 82.24 44 ePd 40 47 .
0.9s 8 . 40nm
PNT 87.31 34 eP 41 12.
0.6s 7 . 00nm
BW06 89.68 43 P 41 22.
CHG 89.70 290 ePd 41 26.
0.9s 1 3 . 66nm
NB2 139.21 353 PKP 47 y& .
0.9s 2 . 30nm
HFS 139.74 350 ePKP 47 40.
0.4s 3 . 50nm

86 0.6
9 obs .

01± 1.14s
W ±1 7 . 0km

(135)

,00 -0 2
50 3.6X
00 0.5
1 0
00 0.9
50
60
10 7 . 4X
40
40
80
00 -1.3
70 -0.3
00 0.9
00 -0.2
00
00 1.4
00 1 1 . 4X
00 -1.1

00
00 -1.0
00 -1.0
00 -1.0

70 2.6

6 obs .
- - - - - - -

40± 2 . 09s
W ±22 . 7km

(181)

50 0.4
10 1.0
00 1.0
10 0.8
00 0.5
70 0.6
60 0.5
5 . 0mfc>
30 0.8
4 . 7mb

3d
40 -0.4
4 . 5mb
60 -0.1
5 . 1mb

30
80
60 -0.7
5 . 2mb
00 -1.5
5 . 3mb
00 -0.7
50 -1.1
20 -1.1
80 -0.8
4 . 8mb
00 -0.5
4.1mb
00 -1.2
4 . 6mb
00 -1.0
00 -0.8
10 -1.0
00 -1.8
4 . 3mb
00 -0.9
4 . 6mb
20 -2.1
00 1.4
4 . 9mb
50 -10 . 6X

00 -10 . 0X

EKA 145.38 4 PKP 47 59.00 -0.8
1.0s 8 . 30nm
DMU 146.39 9 ePKP 48 02.40 0.9
DCN 146.88 9 ePKP 48 03.80 1.5
KRA 147.29 338 ePKP 48 04.80 1.7
* 48 09 .20
KSP 147.79 342 ePKPd 48 06.50 2.6
ic 48 07 . 00
SPC 147.89 336 ePKP 48 07.60 3.3X
MLR 148.11 326 ePKPc 48 07.30 2.6
CLL 148.21 346 iPKPd 48 07.60 3.1X
0.8s 27.00nm
i 48 1 2 . 90
BRG 148.39 345 iPKPd 48 08.00 3.2X
1.2s 22 . 00nm
i 48 13.40
WTS 148.59 353 iPKP 48 08.80 3.8X
0.8s 1 9 . 00nm
« 48 1 4 . 00
PRU 149.05 343 PKPd 48 09.60 3.8X
0.9s 9 . 1 0nm
« 48 1 6 . 80
MOX 149.14 347 «PKP 48 10.10 4.1X
1.3s 1 9 . 00nm

ZST 149.86 339 «(PKP)48 10.80 3.7X
ENN 149.89 354 ePKP 48 11.50 4.5X
0.8s 9 . 00nm
« 48 1 9 . 50
MEM 150.04 354 PKP 48 11.50 4.3X
KHC 150.09 344 PKP 48 12.00 4 . 5X
i 48 21 .50
GRF 150.12 347 ePKP 48 12.10 4.6X
e 48 21 . 20
SNF 150.28 356 PKP 48 12.40 4.8X
DOU 150.67 356 PKP 48 13.60 5.3X
« 4822. 40
WLF 150.96 353 PKP 48 15.00 6.3X
CDF 152.05 351 «PKP 48 16.80 6.3X
0.6s 3 . 60nm
FLN 152.09 2 ePKP 48 15.80 5.5X
0.3s 3 . 00nm
LDF 152.27 2 «PKP 48 16.00 5.4X
0.3s 1 . 70nm
WTTA 152.31 345 i PKPd 48 17.00 6.0X
0.7s 1 0 . 40nm
i 48 30.70
GRR 152.45 3 «PKP 48 16.80 5.9X
0.4s 3 . 45nm
HAU 152.57 353 «PKP 48 17.80 6.7X
BSF 152.69 352 «PKP 48 18.00 6.6X
LPF 152.79 3 «PKP 48 17.40 6. IX
0.6s 8 . 1 0nm
LOR 153.54 356 ePKP 48 20.00 7.6X
0.7s 2 . 75nm
SSF 153.76 357 ePKP 48 20.50 7.8X
MFF 154.26 2 ePKP 48 20.60 7.2X
S . D . - 1 . 3 on 31 o f 58 obs .

% AUG 16. 1991 20h 1 5m 54.08± 1.03s
40.135 N ± 8.0km 23.487 E ± 9.4km
DEPTH - 10.0km (geophy s i c i s t)
GREECE (364)

PAIG 0.25 144 iPc 15 59.52 0.0
eS 1603.60
OUR 0.43 62 iPc 16 02.64 -0.2
eS 16 08.68
THE 0.64 321 ePd 16 06.89 0.0
iS 16 16.50
SOH 0.69 352 ePc 16 06.96 -0.9
iS 16 16. 40
SRS 0.98 5 ePd 16 13.68 0.9
eS 16 26. 12
KNT 1.12 337 ePd 16 15.12 0.1
eS 16 29.80
S . D . =0.7 on 6of 6 obs .

« AUG 16, 1991 21h 00m 15.84± 0.90s
41.517 N ± 9.2km 13.775 E ± 9.5km
DEPTH = 14 . 2 ± 5.3 km
SOUTHERN ITALY (390)

SDI 0.19 9 PC 00 19.00 -1 .5
eSg 00 24.80
AZI 0.53 332 PC 00 24.90 -1.5
eSg 00 34.70
RDP 0.83 287 P 00 30.80 -0.7

151

16d 21h

RMP

AOU
MNS

SCO
ASS
MGR
ARV
MAO
SF 1
PGD
CT t
KHC

eSg 08 44.90
e . 86 29e P ee 3 1 . ee -0.9

esg ee 45.ee

6.88 342 P 08 33. 90 1.5 i . i a 31 7 P ee 37 . 2e -e . 5
esg ee 57.ee i . 50 1 29 P ee42.ee -e . 3
1 . 76 332 P 00 47 . 30 1.2

i . 93 135 P ee 49. 00 e.s
? . 07 343 P 60 52 . 86 2.2
2.15 296 P 0651.70 6.6
2. 79 330 P 01 02. 06 1.3

2 . 86 328 P (3103.00 1.9
4. 78 342 P 0128.00 -1.2
7 62 359 eP 02 07.00 -1.9

S.D. - 1.5 on \(j of 15 obs.

AUG 16, 1991 21h 20m 28.04± 0.83s
52.101 N ± 5.9km 170.984 W ± 3.3km DEPTH - 52 . 3 ± 1 . 3 km
4 .
FOX

ADK
SON
KDC
TTA
PMR
KLU
1 NK
KUSJ
MBC
YKA

A C A t M j M O
HOOJ
PNT
NEW
OFUJ
SES
N 1 1 J
CHJ J
MAT

MTMJ
BONR
1 1 OJ
FFC

ISA
cue
SBB
GSC
MSU
PLM
BAR
ALO

1 RK

BJ 1

SSE

SCH
LZH

NB2

HFS

CHG

GUN
WTS

KKN

GKN

BDT

8mb (52 obs.) 4.1Msz (7 obs.)
ISLANDS. ALEUTIAN ISLANDS (9)

3.53 269 iPc 21 22.60 6.9
7.02 58 eP 2211.50 0.9
12.63 55 eP 2318.50 -6.5
13.47 31 eP 2337.56 -0.6
15.19 43 eP 2468.60 7 . 5X
16.53 46 feP 24 14. 06 -3.6X
24.12 34 eP 25 38 . 00 -1.4
30.78 271 P 26 38.30 -2.1
31.14 21 eP 2643.00 -63
31.16 48 eP 2644.20 06
0.5s 1 . 1 enm 3 . 9mb
31.51 274 P 2646.70 -O. 2
32 .04 271 eP 26 50 40 -1.1
32 .09 74 eP 26 53. 60 1.6
34 .04 75 eP 27 08.06 -0.9
34 .97 267 eP 2716.90 0 .0
36 .63 68 ePc 27 30 . 20 -O . 6
37.76 267 P 2740.76 0.3
38 . 53 266 P 2747.50 0.6
38.69 267 eP 27 48.06 -0.3

1.0S 22 . 06nm 5 . 6mb (s) 34 ie.ee

38.91 267 P 2751.46 1.2
38.95 96 eP 27 51 . 46 6.6
39 . 56 266 P 2756.50 0.9
39 .71 58 eP 27 57 . 66 6.6
6 . 8s 1 6 . eOnm 4 . 7mb
40.31 93 eP 28 01 .00 -0.7
46. 75 92 eP 28 1 9 . 66 13. 7X
41 .35 93 eP 28 16. 00 -0.3
41.57 92 eP 2812.66 -6.1
42 .38 85 eP 28 18. 00 -0.9
42.84 94 eP 2823.06 0.4
43.41 95 feP 2828.00 0.9
48.19 84 eP 29 04.60 -0.6
1.0S 2.00nm 4.1mb
49.01 306 i P 2910.00 -1.0
e 29 34.00
49 .90 286 eP 29 1 7 . 50 -0.5
1.0s 8 . 00nm 4 . 7mb
52.83 274 PC 29 40.50 0.3
1.2s 68 . 00nm 5 . 6mb
Z 20s 0 . 50um 4 . 6Msz
56.34 42 feP 30 04.00 -1.6
59.76 291 eP 30 29.00 -0.9
1.4s 39 . 06 nm 5 . 3mb
Z 20s 0 . 35um 4 . 5Msz
sP 30 55.00
67 . 20 359 P 3116.80 -1.4
0.7s 2.80nm 4. 4mb
68 .06 357 eP 31 21 . 20 -2.3
0.4s 3 . 80nm 4 . 8mb
Z 17s 0 . 06um 3 . 9MszX
LR 0057.06
75 . 43 282 eP 32 08 .00 -0.1
6.9s 1 3. 87nm 4 . 9mb
75 . 97 297 P 3211.42 0.0
76.26 1 eP 32 12. 50 0.3
0.9s 6.00nm 4. 5mb
76.39 298 P 32 13.34 -0.3
0.9s 57.00nm 5.6mb
76.58 298 P 32 1 4. 08 -0.5
0.9s 62.00nm 5.6mb
76.60 281 eP 32 15. 00 0.4

DMN

CLL

BRG

ENN

MOX

MEM
SNF
KRA
DOU
PRU
f* Uu D Fr

WLF

KHC

FLN

LDF

GRR

CDF

LPF

HAU

P C C" D b r

LOR

WTTA

SSF

LBF

MFF

AVF

LLS
SMF

BGF

OSS
VDL
TCF

LSF
MAF

TMA
D I X
MMK
LPL

RJF

LPG
LFF

CAF

BN I
LPO
BOB
OUE
MME
BO I
C F 1 b r 1
PGD
SBF

P 1 1
FRF

LRG

0.7s 25.80nm 5.3mb
76 .63 298 P 32 14.82 -0.2
0.9s 47 . 00nm 5 . 5mb
76.91 357 iP 32 15. 30 -0.5
1.0S 1 3 . 00nm 4 . 9mb
77 . 32 357 iP 32 17 . 40 -0.7
0.9s 1 4 . 00nm 5 . 0mb
77.48 2 eP 32 1 9 . 00 0.1
0.7s 1 2 . 00nm 5 . 0mb
77.61 358 iP 32 19.80 0.1
1.1s 1 9 . 00nm 5 . 0mb
77.64 2 P 3219.40 -0.4
77 . 69 3 P 32 20. 40 0.3
77 .6<d 353 eP 32 19.60 -1.2
78.11 3P 3222.60 0.1
78.18 356 PC 32 22.60 -0.3
78.57 359 iPc 32 25.30 0.3
0.9s 16.00nm 5.0mb
78.58 2 P 32 25.00 0.0
79 .07 357 iP 32 28.00 0.2
1.0s 6 . 1 0nm 4 . 5mb
79.19 6 eP 32 27.70 -0.7
Z 2 1 s 0.1 0um 4 . 1Msz
79.38 6 eP 32 28.80 -0.6
0.7s 5 . 50nm 4 . 6mb
79.54 7 eP 32 29.80 -0.5
0.9s 9.85nm 4. 7mb
79 . 86 1 eP 32 31 .80 -0.3
0.6s 3 . 60nm 4 . 5mb
79 . 88 7 eP 32 31 .80 -0.3
0.9s 1 1 . 45nm 4 . 8mb
80 . 25 2 eP 32 34 .00 -0.1
0.7s 4.40nm 4.5mb
Z 22s 0.05um 3.8Msz
80.43 2 eP 32 34.80 -0.4

0.7s 7.70nm 4. 7mb
80.91 4 eP 32 37 .60 0.0
0.9s 9.85nm 4.7mb
Z 22s 0.08um 4.0Msz
80.99 358 iPc 32 38.40 0.1
0.7s 8 . 20nm 4 . 8mb
81.10 4 eP 32 38.80 0.2
0.8s 9 - 40nm 4 . 8mb
81 . 20 3 eP 32 39.00 -0.2
0.8s 6.05nm 4. 6mb
8 1 . 36 6 eP 32 40 . 10 0.1
0.9s 9.85nm 4. 8mb
81 . 37 4 eP 32 39.90 -0.1
0.8s 10.05nm 4. 8mb
81.41 0 ePd 32 41.10 0.6
81 . 53 4 eP 32 40.80 -0.1
0.7s 11. 60nm 5 . 0mb
81.58 4 eP 32 40. 90 -0.2
0.8s 8.75nm 4. 8mb
81.59 359 ePd 32 42.10 0.7
81.79 360 ePc 32 43.90 i.4
81 . 82 5 eP 32 42.20 -0.2
0.Bs 5.35nm 4. 6mb
81.82 5 eP 32 42 . 30 -0.1
81 .90 5 eP 32 42.90 0.1
0.7s 6 . 05nm 4 . 7mb
82.17 0 ePd 32 45.00 0.6
82.19 1 ePc 32 46 . 40 1.8
82.22 1 ePd 32 46. 10 1.3
82.74 2 eP 32 49. 40 1.9
0.8s 4 . 05nm 4 . 5mb
82. 76 5 eP 32 47 .00 -0.3
Z 22s 0 . 1 0um 4 . IMsz
82 .76 2 eP 32 49.60 1.9
83.08 6 eP 32 49. 10 0.2

0.7s 6 . 60r,m 4 . 8mb
83.17 5 eP 32 49. 70 0.3
0.8s 5.35nm 4. 6mb
83.21 2 Pd 32 51 . 30 1.6
83. 36 6 eP 32 50. 40 0.0
83.51 360 Pd 32 52.00 0.8
83.67 312 eP 32 53. 10 0.7
84 .07 359 P 32 55. 20 0.9
84.21 359 P 3254.80 0.0
84 . 33 358 P 32 56.00 0.8
84 .38 358 P 32 56. 70 1.0
84.41 1 eP 32 56 . 10 0.4
1.0s 1 6 . 00nm 5 . 0mb
84 .55 359 P 32 55.80 -0.5
84.70 2 eP 32 57.80 0.7
0.9s 9 . 85nm 4. 9mb
84.80 2 eP 32 58.30 0.7

0.9s 9 . 85nm 4 . 9mb
Z 21s 0.05um 3.9Msz
LMR 84.92 2 eP 32 59.10 0.9
0.9s 8.20nm 4. 8mb
EPF 84.95 6 eP 32 58.20 -0.3
0 . Bs 6 . 05nm 4 . 8mb
SKO 85.69 351 eP 33 02.00 -0.1
PGF 85. 73 0 eP 33 02. 80 0.4
0.8s 26 . 85nm 5 . 5mb
WR2 86.06 230 eP 32 55.30 -8.8X
0.5s 1 . 60nm 4 . 5mb
i 33 03. 80
WRA 86.06 230 P 33 03.00 -1.1
0.9s 6.90nm 4. 9mb
WRA 86.06 230 P 33 11.00 6.9X
0.7s 1 . 30nm 4 . 3mb
WRA 86.06 230 P 33 21.00 16. 9X
0.9s 2.1 0nm
PSI 87.95 272 eP 33 14.00 0.5
HYB 88.38 297 eP 33 15.20 -0.4
ASPA 89.47 229 iPc 33 20.60 0.2
1.0s 24.1 0nm 5 . 5mb
GBA 92.10 295 PC 33 32.30 -0.5
1.0s 13. 60nm 5 . 3mb
STK 93.36 219 iPc 33 38.60 0.5
0.7s 1 . 20nm 4 . 4mb
BUL 144.63 327 iPKPc 39 58.40 -2.0
0.8s 9 . 33nm

WIN 149.86 345 e(PKP)40 14.00 5.2X
SLR 149.89 324 iPKPc 40 13.50 4.8X
0.9s 37 . 82nm
FRS 154.61 325 iPKPd 40 23.80 8.7X
0.8s 11-1 9nm
S.D. - 0.8 on 106 of 115 obs.

* AUG 16. 1991 22h 04m 59.78± 1.40s
36.514 N ±12. 1km 71.177 E ± 8.4km
DEPTH - 137.6 ± 15.9 km
4 . 7mb (1 2 obs .)
AFGHANISTAN-USSR BORDER REGION (717)

OUE 7.23 210 iPd 06 45.00 0.7
eS 0B 03.20
NDI 9.32 145 eP 07 12.50 0.4
0.6s 16.67nm 4. 9mb
iS 08 50.00
MAIO 9.42 272 iPc 07 12.30 -1.3
0.5s 57.1 4nm 5 . 5mb
eS 08 53.00
GKN 14.19 123 P 08 15.20 -0.6
DMN 14.76 123 P 0B 22.60 -0.5
KKN 14.76 122 P 0B 22.34 -0.8
PKI 14.99 122 P 08 26.06 0.0
0.5s 127. 00nm 5 . 5mb
GUN 15. 10 120 P 08 27. 56 0.1
0.4s 109. 00nm 5 . 5mb
HY8 20.11 159 eP 09 26.00 1.2
eS 13 00,00
SHL 20.79 116 eP 09 33.50 1.8
eS 13 12.00
GBA 23.49 165 PC 09 58.50 0.5
0.6s 3.50nm 4. 0mb
HFS 43.14 322 eP 12 48.00 0.3
0.4s 2 . 60nm 4 . 3mb
NB2 44.46 323 P 12 58.50 0.1
0.6s 3 . 1 0nm 4 . 2mb
MBC 67.32 3 ePc 15 42.00 0.9
0.5s 8.00nm 4. 8mb
INK 73.87 9 ePc 16 21.10 0.6
YKA 81 .23 3 eP 17 01 .50 0.5
0.5s 1 . 50nm 4 . 0mb
WRA 81.88 122 P 17 04.00 -1.1
0.4s 3 . 30nm 4 . 4mb
WR2 81.99 122 eP 17 02.50 -2.7
0.5s 11. 00nm 4 . 9mb
i 17 04.99
ASPA 84.14 125 iPd 17 16.30 -0.3
0.6s 8.40nm 4. 8mb
S.D. -1.1 on 19 of 19 obs .

AUG 16, 1991 22h 08m 11.57± 0.48s
44.657 N ± 4.5km 10.917 E ± 5.4km DEPTH - 10.0km (geophy s i c i s t)
NORTHERN ITALY (545)
ML 2.8 (LOG) .

MME 9.49 199 Pd 08 23.90 2.3

16d 22h

152

BDI

PGD

P I I

SF I

BOB

CT I

VV I TK I

FV 1
PGF

SBF
WTTA

FRF

LMR

CDF

HAU

LBF
LOR

eSg 08 32.00
0.64 201 Pd 08 25. 40 1.0
eSg 08 35.50
0 .97 143 P 0830.10 -0.1
eSo. 08 42 . 90
0 .98 197 PC 08 29 . 60 -0.5
eSg 08 41.60
1 .00 1 37 PC 0830.50 0.1
eSg 08 43.80
1 .05 277 P 0836.50 5. 0X
eSg 08 52.20
1 . 4S 20 P 08 39. 50 1.1
eSn 08 58.20
1.70 38 P 0841.10 -6.3
2<27 61 PC 08 47.86 -1.9
eSn 09 12.90
2.34 33 P 08 51 .60 1.0
2.53 214 Pn 08 51 . 40 -2.0
Sn 09 20.20
2 . 62 254 Pn 08 54 . 80 0.0

2.66 11 e(Pn) 08 59 . 00 3. 7X
iSg 09 43 . 70
3.27 252 Pn 09 03. 30 -0.5
Sn 0941.40
3.44 249 Pn 09 05.40 -0.9
Sn 09 44 . 70
4.52 328 Pn 0922.40 0.8
Sn 1013.00
4.61 318 Pn 0923.40 0.5
Sn 1014.40
5.38 298 Pn 09 33 . 80 -0.1
5.57 300 Pn 09 36.00 -0.5
S . D . =1.2 on 17 of 19 obs .

AUG 16. 1991 22h 26m 17.21± 0.17s
4 1.697 N ± 1.9km 125.385 W ± 2.6km
DEPTH * 10.0km (geophysicist)
5 .
OFF

5mb (64 obs.) 6.3Msz (26 obs.) COAST OF NORTHERN CAUFORNIA(34)
ML 5.9 (BRK). Mo-5 . 0» 1 0* » 1 8 Mm
(PPT). Felt (V) ot Redwoy ond
Trinidod. (IV) ot Corlotto ond
(III) ot Bridgeville, Ferndole.
Fort B r ogg , Hy des v i I I e . Redcrest
and Rio Dell, California. Also
felt ot Crescent City ond
Eureka. California. Felt (IV) ot
Coquille, North Bend ond Sixes,
Oregon. Felt (III) ot Agness.
Brookings. Charleston. Grants
Poss, Lake Oswego . Lakeside ond
Langlois, Oregon. Also felt ot
Coos Boy, Eugene ond Medford,
Oregon .
FAULT PLANE SOLUTION: P-Woves

NP1 :S t r i ke=310 Dip=90 Slip 175
NP2: 220 85 -360

Principal Axes:
T Plg= 4 Azm= 85
P 4 175
Co mm en t: The focal mechanism is
moderately well controlled ond
corresponds to strike-slip
faulting with a small reverse
component. The preferred fault
plane is not determined.
RADIATED ENERGY
No. of sto: 8 Focal mech. F
Energy 5 . 0± 1 . 7 * 1 0 « 1 4 Nm
MOMENT TENSOR SOLUTION

Dep 13 No . o f s t a : 1 3
Moment Tensor; Scale 10*»18 Nm
Mr r= 0 . 04 Mt t=-3 . 64
Mf f= 3. 60 Mr t= 0 . 32
Mr f = -0 .51 Mt f--0 . 98
Principal axes:
T Va l= 3.81 Plg= 8 Azm= 82
N -0.02 81 287
P -3.79 4 173

Besit Double Coup I e : Mo-3 . 8 1 0 * * 1 8 NFM : S t r i ke-2 1 8 Dip=82 S 1 i p= 3
NP2 : 127 87 171

CE^TROID, MOMENT TENSOR (HRV)
Dado Used: GDSN
L.P.B.: 19S, 54C M.W.: 1 3S . 26C
Certtroid Location:
Origin Time 22:26:18.9 0.2

FHC
WDC
LBFM
LTCM
M I N
ORV
NWRM
KMOR
GMO
PGO
VBEM
TDH
BRK
BKS

VLMM
CROR
NLO

VFP
VLL

PCC
RVW

APM
LVP

MTMW
VTHM
FL2
BMW
JLK

CDFW

SHW
HSR

GULW

ESD
VGB

STD

ERK
SOSW

C2M
TDL

MHC
ASR
ARN
KOSW
ONR

CMB
GCC
GL2

JBO
CPW

GLK
LON

WPW
OBH

GHW

Lot 41.23N 0.02 Lon 125. 56W 0.02 SMW 5.81 14 P 27 44.02 -1.5

Dep 15.0 FIX Half-duration 6.1 S 28 47.96
Moment Tensor; Scole |1 0 « 1 8 Nm PATW 5.83 42 Pd 27 46.19 0.4
Mrr= 0.12 0.03 Mtt=-t2.86 0.04 MEW 5.84 19 P 27 46.75 0.9
Mff= 2.74 0.04 Mr t 0.71 0.11 S 28 51.59
Mrf= 1.02 0.10 Mtf=-0.66 0.03 FMW 5.87 26 P 27 45.83 -0.7
Principal Axes: S 28 52.39
T Vol= 3.21 Plg=20 Azm=261 GSM 6.07 24 P 27 48.80 -0.5
N -0.16 67 113 OOW 6.10 8 P 27 48.73 -0.8
P -3.05 11 355 MXC 6.10 35 P 27 48.87 -0.7

Best Double Co up I e : Mo = 3 . 1 * 1 e 1 8 LLA 6.14 144 eP 27 47.40 -2.7
NP1:Strike= 40 D i p=68 S 1 i p= 6 KVN 6.16 113 eP 27 50.96 0.3
NP2: 307 84 158 BRVW 6.16 37 P 27 49.90 -0.6
HDW 6.18 15 P 27 49.54 -1.2
1.38 130 iPc 26 42.30 -0.3 S 28 56.59
2.42 117 iPc 26 58.00 0.5 PRS 6.20 148 eP 27 47.10 -3.9X
2.65 96 iPc 27 02.80 1.9 EBG 6.25 32 P 27 50.95 -0.8
2.88 120 eP 27 04.20 0.2 RSW 6.28 40 P 27 51.49 -0.7
3.16 114 iPd 27 08.00 -0.1 OFK 6.29 6 P 27 51.88 -0.4
3.65 125 iPd 27 14.00 -0.9 MOW 6.36 38 P 27 52.56 -0.7
3.76 149 eP 27 14.50 -2.0 WG3 6.40 45 P 27 53.05 -0.8

4.17 19 Pd 27 20.65 -1.7 FRI 6.44 135 e(P) 27 53.70 -0.6
4.25 48 PC 27 23.49 -0.1 WIW 6.46 41 P 27 54.04 -0.5
4.33 28 P 27 24.71 0.2 BLN 6.54 14 P 27 55.44 -0.3
4.35 38 PC 27 24.65 -0.4 S 29 08.11
4.44 35 PC 27 25.72 -0.6 LOCW 6.59 38 P 27 56.05 -0.5
4.51 147 eP 27 24.50 -2.6 BONR 6.61 122 eP 27 57.20 0.1
4.52 147 iPc 27 24.90 -2.4 OSP 6.61 5 P 27 56.69 -0.1
iS 28 17.00 PGC 7.09 10 eP 28 02.00 -1.4
4.54 31 Pd 27 27.44 -0.2 TNP 7.24 117 eP 28 06.30 0.4
4.59 43 PC 27 27.77 -0.5 SAW 7.36 33 P 28 06.06 -1.2
4.61 17 P 27 28.12 -0.4 OD2 7.42 38 P 28 06.47 -1.7
S 28 22.76 ISA 8.09 136 eP 28 17.00 -0.6
4.61 37 P 27 28.40 -0.2 SYP 8.33 148 eP 28 20.00 -1.0
4.63 34 P 27 28.47 -0.4 CLC 8.45 131 eP 28 24.00 1.4
S 28 23.68 SBC 8.51 147 ePd 28 20.80 -2.6
4.79 150 iP 27 28.00 -3.1 PNT 8.63 26 P 28 23.50 -1.5
4.84 22 P 27 32.14 0.3 1.0s 28.60nm 5.5mb
S 28 24.67 NEW 8.79 39 ePd 28 26.20 -1.1
4.85 32 P 27 31.32 -0.7 SBB 9.18 137 eP 28 31.00 -1.7
4.87 25 P 27 31.44 -0.9 GSC 9.27 131 ePd 28 34.41 0.4
S 28 27.55 MWC 9.44 140 eP 28 35.00 -1.4
4.90 27 P 27 31.62 -1.1 PAS 9.44 141 ePd 28 34.46 -1.8
4.95 44 PC 27 33.04 -0.3 eLg 30 37.00
5.00 25 P 27 33.30 -0.9 eLR 31 06.00
5.02 17 eP 27 32.20 -2.2 SSK 9.63 138 eP 28 38.00 -1.0
5.02 27 P 27 33.70 -0.7 MCMT 9.67 67 i PC 28 39.50 -0.1
S 28 27.69 RVR 9.96 138 eP 28 42.00 -1.4
5.03 27 P 27 33.79 -0.7 HBMT 10.11 62 ePc 28 45.80 0.1
S 28 32.08 LTMT 10.11 69 ePc 28 46.20 0.4
5.04 26 eP 27 34. 00 -0.7 PEC 10. 15 138 eP 28 45. 00 -1.0
5.04 26 P 27 34.07 -0.6 BUT 10.21 61 ePc 28 47.00 -0.1
S 28 31^95 LRM 10.22 62 ePc 28 46.80 -0.5

5.04 32 P 27 34,54 -0.1 BGMT 10.32 66 i PC 28 48.30 -0.3
S 28 33.80 TPC 10.57 133 eP 28 52.00 0.2
5.07 26 P 27 35.08 -0.1 LCCM 10.61 63 i PC 28 51.90 -0.5
5.07 40 P 27 35jl1 0.0 PLM 10,73 138 eP 28 53.00 -1.1
S 28 34,24 HRY 10.94 58 ePc 28 56.70 -0.2
5.08 26 P 27 34,61 -0.7 SXM 11.15 62 i PC 28 59.50 -0.4
S 28 33,01 BAR 11.36 140 eP 29 02.00 -0.6
5.10 24 P 27 35.00 -0.6 BW06 11.79 79 i PC 29 08.80 0.2
5.11 26 P 27 35,14 -0.5 GLA 12.03 132 eP 29 11.00 -0.7
S 28 33,24 PV09 12.85 99 ePc 29 24.00 1.1
5.17 23 Pd 27 36 07 -0.4 SES 13.21 44 ePc 29 25.00 -2.3
5.18 25 Pd 27 36J09 -0.7 1.4s 288.00nm 6.2mb
S 28 32,36 pP 29 39.00
5.22 145 ePd 27 35100 -2.4 GOL 15.31 91 eP 29 55.20 0.0
5.23 30 P 27 36.48 -0.9 GLD 15.41 91 iPc 29 56.80 0.3
5.27 144 eP 27 35,40 -2.5 1.0s 760.00nm 6.0mb
5.29 25 P 27 38i28 0.1 RSSD 15.83 74 eP 29 59.00 -2.B
5.31 12 P 27 37 48 -0.9 2 20s 94.92um
S 28 36J54 ANMO 16.30 108 i PC 30 08.90 1.0
5.31 132 i Pd 27 38 40 -0.1 2.0s 1191. 18nm 5.7mb
5.35 150 eP 27 35 30 -3.7X ALO 16.30 108 i Pc + 30 09.00 1.1
5.39 36 P 27 38 83 -0.8 1.8s 1056. 82nm 5.7mb
S 2843 50 eS 33 1 8 .00
5.51 45 PC 27 41.37 0.0 SIT 16.65 341 eP 30 13.30 1.4
5.52 16 P 27 40 14 -1.3 2.8s 4260. 00nm 6.1mb
S 28 39.56 2 20s 85.00um
5.57 28 P 27 41.57 -0.7 FFC 20.20 42 i PC 30 52.90 -1.8
5.67 26 P 27 42.62 -0.9 0.8s 660.00nm 6.0mb
S 28 45.55 YKA 21.80 14 eP 31 09.30 -1.6
5.71 28 P 27 43.06 -1.1 0.9s 1 92 . 30nm 5.5mb
5.73 10 P 27 42.53 -1.8 BALM 21.94 338 eP 31 11.00 -1.5
S 28 43.66 KLU 23.38 335 eP 31 26.00 -0.6
5.79 22 P 27 45.22 0.1 KDC 23.53 322 ePd 31 28.50 0.5
S 28 50.18 TUL 23.71 94 iPc 31 31.30 1.4

153

I6d 22h

TOA
PMS
PMR

RSO
PDB
COM

COL

FBA
SON
SVW

FVM

1 NK

TTA

IMA
MRX
PPM
ANM
CUE
1 1 SM
BRW
K 1 P
NAV
BLA
OXX
MBC

JSC
SCP

CVL
AOK

CBN
LVNJ
TBR
GMTN
PNJ
1 LT

BNH
FRB

HRV

SCH

SMY

GOH

UFA

T 1 K

CLMC
BMG
HOOC
TOV
SOV
FUO
SI LC
BOG

PURC
CUMC
PSO
BPA

2 . 4s
Z 18s
N 20s
E 20s

23 .92
24 . 43
24 . 52
2 . 8s
2 19s
25.15
25. 37
26 . 35

26.53

26 .53
26 .63
26 . 68
1 .0s
26 . 98
1 . 5s
27 . 02
1.1s
27 . 86
2 . 2s
29 . 07
30.04
32 . 04
32 .27
32 53
32 . 86
33 . 54
34 08
34 . 39
34 71
34 . 72
34 .75
1 .0s
35 . 25
35 . 39

35 . 88
35.88
1 .0s
36 .60
37 .62
37 . 90
38 . 01
38 . 03
38 . 49

39 .00
39. 13
1 .0s
39. 38

39.98
1 . 0s
41 . 39
Z 18s
45. 39
1 .2s

51.82
2 22s

55. 66

57.55
57 . 62
57 . 81
58 06
58 . 08
58. 31
58.59
58 . 70

58 .84
58 . 88
59.06
59. 18

4856 . 20nm
39. 70um
77 7 7 urn
37 .82um
*S
LR
336 ePd
331 P
332 ePd
3498 . 50nm
45.1 0um
328 eP
325 eP
87 iPc

ec

339 iPd
ed
eS
339 eP
313 eP
327 ePd
260 . 00nm
86 ePc
585 . 37nm
353 ePd
149. 60nm
330 ePd
704 . 30nm
337 ePd
130 (P)
127 i P
329 *P
75 i P
125 (P)
342 eP
244 ePc
82 eP
82 ePc

126 (P)
3 eP
7 3 . 80nm
87 ePc
75 i PC
ec
80 eP
304 eP
80 . 00nm
79 iPd
74 eP
73 eP
74 i P
74 i P
331 i P d
IS
67 ePd
36 eP
1 1 4 . 00nm
70 i PC
ec

iPP
eS
50 eP
1 39 . 00nm

307 e(P)
1 3 . 33um
28 ePd
203.1 3nm
i
i
1 1 6 eP +
24 . 07um
i
338 iPd
eS
1 17 eP
112 i P c
118 eP
107 * P
108 eP
1 13 eP
1 18 eP
114 i PC
IS
118 eP
121 eP
120 eP
94 eP

6
5

36 07 . 00
39 22.00
31 33. 60
31 36 . 50
31 38 . 00
6
6
31 42 . 60
31 45.00
31 55.77
32 00. 07
31 55 . 28
31 59.25
36 32.23
31 56.00
31 58.30
31 56 . 70
5
32 00. 10
6
31 59. 10
5
32 07 . 80
6
32 18 . 90
32 32.50
32 49.50
32 47.60
32 50.00
32 56.80
32 58 . 30
33 03 . 68
33 06 . 70
33 09.00
33 14 30
33 08 50
5
33 13 . 20
33 14.72
33 19. 02
33 19.50
33 16.70
5
33 26.20
33 34 . 00
33 36 . 50
33 37 . 50
33 37 . 80
33 39.80
39 38.00
33 45 . 30
33 47.00
5
33 49 . 1 1
33 52.75
35 21 . 06
39 55 . 58
33 53.00
5
34 12 . 00
5
34 38.59
6
41 23. 00
44 32.00
35 28.00
6
37 33.00
35 52.00
43 40.00
36 09.99
36 09.00
36 1 1 . 59
36 14 50
36 13.70
36 14 .50
36 17.61
36 20.00
44 28.00
36 20.62
36 20.86
36 23.00
36 24.00

. 6mb X
9Msz

1 . 8
- 0 . 3
0.5
5mb X

0MSZ

- 1 . 3
- 0 . 7
0 . 7

- 1.2

- 0 . 4
0 .9
- 1 . 2
9mb
- 0 . 8
1mb
- 1 . 8
6mb
- 0.9
1mb
- 0 . 7
4 . 0X
2. 7
- 0.2
- 0 . 3
3.5X
- 0 . 4
- 0 .2
0 .2
- 0 . 2
4 . 6X
- 0 . 5
5mb
- 0 . 6
- 0.2

0 . 4
- 2 .2
5mb
1 . 1
0 . 3
0 . 4
0.5
0. 7
- 0. 9

0.0
1 .0
5mb
0 . 7

- 0. 3
6mb
7 . 2X
9MSZ
1 .5
0mb

0 . 4
2MSZ

- 3.2X

0.4
- 1 . 0
0. 0
1 . 5
0. 4
- 0. 6
0.5
2.2

1 .5
1 . 5
2.6
3.2X

AKU

CAR
PAG
TPT

PMO

RUV

VAH

MGG
YAK

FDF

B IM
YSS

KUSJ
ASAJ
HOOJ
KEV
2

OFUJ
YAMJ
SOD
NNA

Z
APA
N 1 1 J
CHJ J

MAJO

MAT

Z

DMU
MTMJ
DCN

EKA

N82

1 IDJ
ETA
ECP
H 1 A

TSRJ
NFS

2

KAF

UPP

NUR

Z

ARE
CDP
Z

59.26
1 . 4s
59 . 65
59. 94
60 . 02
1.6s
60. 1 3
1 . 6s
60.14
1 . 6s
60 . 26
1.6s
60 . 28
60 . 43

61.16
0.3s
61 . 35
62.21

63.12
63 . 82
64 . 39
67 .03
20s

67 . 29
68 . 85
69.20
69.61
1 . 0s
20s
69. 89
70 .07
70. 80
71 . 00

71 . 00
1 . 3s
20s

71.16
71.23
71.41
1.1s
71 . 60
1.1s
71.69
1 . 0s
71.85
72 .32
72.63
72. 88

73. 04
73.11
0.5s
16s

74 .05
0. 7s
74 .32
1 . 0s

75 . 24
1.1s
22s

76 . 30
76 .59
19s

27 eP
60 . 47 nm
1 04 *P
95 eP
205 IP
1 40 . 09 nm
205 IP
1 1 5 . 00nm
205 IP
1 65 . 00nm
205 IP
1 25 . 00nm
95 eP
328 eP
ePP
ePPP
eS
ePS
iSS
iSSS
96 eP
0 . 44nm
96 eP
309 eP
eS
305 eP
307 P
305 eP
10 eP
1 6 . 00um
e
e
e
e
LR
303 eP
303 eP
11 i P
129 eP
17 . 0Gnm
5. 32um
9 ePc
302 P
301 P
302 ePc
ed
iS
eHSS
eSS
302 iPd
59 . 62nm
5 . 6 7 urn
eS
33 eP
302 P
34 eP
1 45 . 00nm
31 P
1 7 . 60nm
21 P
1 7 . 80nm
301 P
34 eP
34 eP
322 ePd
ec
IS
303 P
20 eP
4 . 30nm
1 3 . 60um
LR
13 eP
1 2 . 20nm
18 i P
1 00 . 00nm
iS
15 IP
69 . 60nm
1 7 . 20um
i
e
LR
127 eP
23 eP
1 4 . 58um
i S

36 20.20
5
36 32.50
36 31 . 00
36 24 . 10
5
36 24.80
5
36 24 . 80
5
36 25.90
5
36 32.00
36 25. 40
38 42 00
40 04 . 00
44 38 . 00
45 14.00
48 06.00
51 28.00
36 40.00
4
36 41 . 70
36 40.00
45 08.00
36 43.20
36 50.70
36 56 . 10
37 06.00
6
37 1 1 .00
46 06.00
50 42.00
53 32.00
07 22.00
37 14.10
37 22.30
37 24.40
37 31 .00
5
5
37 29.60
37 29.70
37 34.20
37 37.62
37 40.76
46 51.13
51 25.40
51 25.56
37 35 . 1 0
5
5
46 50.00
37 39.00
37 35.80
37 38. 70
6
37 43.00
5
37 38.80
5
37 40.90
37 46.20
37 45.90
37 46.34
37 50. 15
47 12.42
37 49.50
37 48.20
4 .
6
03 04.00
37 53. 50
5.
37 54.80
5.
47 32.00
38 01 . 00
5 .
6 .
38 05.20
47 10. 00
09 12.00
38 10.00
38 17.00
6 .
48 00.00

- 0. 5
. 5mb
8 . 4X
4 . 9X
- 2.3
. 8mb
- 2.3
. 8mb
- 2 4
. 9mb
- 2 . 1
8mb
3. 7X
- 3. 3X

5.7X
0mb X
6 . 0X
- 1 .0

- 3 .9X
- 1 . 0
0. 6
- 6 . 0X
2Msz

0. 0
- 1 . 6
- 1.1
2.2
2mb
8Msz
- 0. 1
- 1 . 6
- 1 .6
0.6

- 1 . 9
6mb
8Msz

1 . 3
- 2 . 7
- 0.5
0mb
2. 7
1mb
- 2.0
1mb
- 1 . 3
1 . 6
- 9.5
- 1.7

0. 4
- 0. 9
8mb
3MszX

- 1 .0
0mb
- 1 - 3
8mb

- 0 . 4
6mb
3Msz

1 .6
7 . 9X
3Msz

I RK

DBN
2

FLN

Z
GRR

WTS

LDF

UCC

LPF
SNF
ZOBO

LPB
2

ENN

DOU
Z

CNCB
MEM
BNS
Z
MFF
WLF
CCH
LSF

CLL

LOR

Z
MOX

Z
N
E

SSF

TCF

BGF

AVF

GUA
LBF

MAF
HAU
CDF
SMF
LFF

BRG

RJF

Z
BSF

76.99 331 eP 38 09.50 -2.0
ePcP 38 23.00
e 38 53.00
epPcP 39 43.00
e 40 05 . 00
e 49 41 .00
eSS 52 44.00
77 .22 29 eP 38 14 . 00 1.3
20s 14. 00um 6 . 3Msz
eS 48 08.00
eSS 53 30.00
77 .68 34 eP 38 15 . 70 0.4
1.2s 35 . 70nm 5 . 3mb
19s 25 . 00um 6 . 6Msz
77 .82 34 eP 38 16 . 90 0.9
1.2s 62.50nm 5. 6mb
77 .89 28 eP 38 1 8 . 00 1.7
0.8s 8 . 00nm 4 . 9mb
77.96 34 eP 38 17.30 0.4
1.2s 47.60nm 5. 5mb
77 .98 30 P 38 18 .00 1.1
S 48 15 . 00
78.02 35 eP 38 17 . 80 0.7
78.18 30 P 38 19 . 00 1.0
78.20 124 ePc 38 18.67 -0.6
1.0s 30 . 50nm 5 . 3mb
eLR 57 37.00
78 . 42 125 P 38 19 . 00 -1.3
21s 8 . 96um 6 . IMsz
PS 48 18.00
LR 58 16.00
78.58 29 eP 38 26.00 5.8X

0.9s 24,00nm 5.3mb
78.64 30 P 38 20.30 -0.2
18s 12. 90um 6 . 3Msz
S 48 21 .00
SS 53 26.00
78. 70 125 P 38 22 .00 0.0
78. 74 29 PC 38 22 . 50 1.5
78.87 28 i PC 38 20 . 40 -1.4
19s 1 8 . 70um 6 . 4Msz
79.51 35 eP 38 25.70 0.3
79.57 30 P 38 21 . 00 -4 . 6X
80.27 124 P 38 30.50 0.3
80.50 34 eP 38 30.90 0.2
1.0s 1 9 . 00nm 5 . 0mb
80.54 25 i P 38 31 .50 0.8
1.8s 54 . 00nm 5 . 2mb
e 38 49.00
eS 48 41 . 00
80.64 32 eP 38 31 . 90 0.5
1.4s 52 . 30nm 5 .4mb
15s 50 . 00um 7 . 0MszX
80.66 26 i Pd 38 32 . 10 0.7
1.9s 66 . 00nm 5 . 3mb
17s 22.00um 6.6MSZX
18s 1 6 . 00um
19s 9 . 00um
iS 48 40.00
80.67 33 eP 38 32.00 0.5
1.5s 57.45nm 5. 4mb
80.76 34 eP 38 32.30 0.2
1.0s 1 5 . 00nm 5 . 0mb
80.80 33 eP 38 32.40 0.1
1.1s 32 . 95nm 5. 3mb
80.82 33 eP 38 32.50 0.2
1.3s 39. 70nm 5.3mb
80.91 280 eP 38 20.20 -13. IX
80.92 32 eP 38 33.20 0.3
1.5s 41. 80nm 5 . 2mb
80.96 34 eP 38 33.40 0.3
81 .01 30 eP 38 33 .50 0.1
81 .02 30 eP 38 33. 80 0.3
81.14 33 eP 38 33 .90 -0.1
81 .20 35 eP 38 35.00 0.6
1.2s 38 . 70nm 5 . 3mb
81 .21 25 i P 38 34 .50 0.2
2.0s 1 30 . 00nm 5 . 6mb
i 38 55.40
e 41 16.00
e 45 10.00
iS 48 48.00
e 53 58.00
81 . 25 35 eP 38 34 .60 0.0
1.2s 35 . 70nm 5. 3mb
18s 42.50um 6.8Msz
81 .32 30 eP 38 35.30 0.2

154

16d 22h

SJ 1 81 .32
1 .8s
Z 24s
N 1 7s

i, R F 81.34
1 . 8s
Z 22s
LPO 81.60
EPLA 81 .75
CAF 81.78

1 . 1[s
K S P 8 1 .1 9 5
PRU 82J17
Z 2ls
N 19s
£ 19s

ZLA 82.21
BTH 82.21

GUD 82.27
OBN 82.36
1 .2s
Z 18s
N 18s
E 16s

EPF 82.53
KHC 82.61
Z 18s
N 29s
E 18s

EGRA 82.89
TOL 82. 96
1 .5s

D1X 83. 61
LPL 83.22
0.7s
LPG 83.24
1.1s
MMK 83.25
EVAL 83.26
LSD 83.43
VDL 83.45
OSS 83.53
TMA 83.55
WTTA 83.57
1 .6s

BN 1 83 . 58
ORX 83.61
KRA 83. 70
1.1s
Z 18s
E 18s

KMR 83.73

RSP 83.73
RRL 83.73
EHOR 83.86

OuO ft "* Q Q D n D o J y y
PZZ 84. 26
VKA 84 . 24
5.0s
Z 16s

317 eP 38 34.50 -0.6
29 . 00nm 5 . 0mb
7.05um 5.9MszX
3. 7 3 urn
ePP 41 38.00
eS 48 40.00
eSS 53 54.00
27 i PC 3836.20 1.1
40 . 00nm 5 . 2mb
17. 00 urn 6.4MS2
35 eP 3836.90 0.4
43 i PC 38 3$. 81 1.5
35 eP 3837.70 0.2
2 4 . 4 0 n m 5.2mb
23 eP 3839.00 0.8
25 P 38 33. 30 0.5
1 7 . 20um 6 . 4Msz
1 6 . 60um
9 . 40um
e 3940. 00
S 48 59 .00
30 eP+ 38 41.60 1.9
37 eP 38 43.00 3 . 3X
i 38 56.00
41 i PC 38 40 . 68 0.5
10 i PC 38 39 .50 -0.7
1 50 . 00nm 6 . 0mb
1 1 . 00um 6 . 3Msz
9 . 90um
1.60 um
i PcP 3849. 00
i 38 55.00
i 39 16.00
ePP 41 38 . 00
ePPP 43 48.00
i 4510.00
i S 48 54 . 00
iSS 54 52.00
eSSS 58 20.00
LR 06 1 2 . 00
37 eP 3841.70 0.3
26 i P 38 42 .00 0.3
1 1 . 00um 6 . 3Msz
25 . 00um
1 6 . 00um
e 39 03.50
S 49 04.00
38 eP 38 46.01 2.8X
41 ePc 38 45.25 1.9
138. 89nm 5 . 9mb
ec 38 47 . 57
i S 49 04 . 75
ePS 49 51.18
31 ePc 38 47.00 2 . 9X
32 eP 3846.40 1.3
5 . 50nm 4 . 9mb
32 eP 38 46 . 70 1.4
1 7 . 1 0nm 5 . 2mb
31 ePd 3848.40 3 . IX
45 i PC 3846.83 1.6
31 P 3848.38 2.1
30 ePd 38 49.80 3 . 5X
29 ePd 3848.70 2.1
30 ePc 3848.80 2.0
28 i Pd 3847.26 0.4
68 . 70nm 5 . 6mb
i 38 48.50
32 P 38 48. 50 1.6
31 P 3848.07 1.1
22 ePd 38 47.90 0.7
57 . 00nm 5.7mb
I9.50um 6.5Msz
1 2 . 60um
e 38 50.90
e 3905.10
eS 49 15 . 00
26 eP 38 50.00 2.6
i 3907. 30
32 P 38 48.38 0.8
32 P 38 48. 99 1.2
44 eP 38 49 . 75 1.5
32 P 38 49 . 40 0.6
32 P 38 50.22 0.2

25 e(P) 38 49. 00 -1.0
634 . 00nm 6 . 1mb X
10. 10um 6.3MszX
i 39 10. 20

GIBL
DOI
EROO
KBA

CDR
EBR

LI JA
STV
CN I L
FVI
ZST
ALJ
SPC

SAL
CTI
EVI A
ROB
CKI
PCP
MOM I
LRG
Z
EJ IF
FRF

SBF

PLAT
F I N
BOB
LMR
VV I
HNR
I M I
SSE

Z
N
E

ECOG
AFC
EHUE
SRO
VOY
EGUA
NKM

LJU
PSZ
UZH
TR I

CEY
MME
BDI
AVE

R I Y
P I I
PTJ
ZAG
VBY
PGD
SFI
PGF

1FR
ARV
ASS
T 10
VR I
DZM
CMP
WMO

LR 20 22. 00 ed 39 21 . 41
84.25 45 eP 38 54. (00 3.7X LZH 90.43 322 eP 39 21.00 0.6
84.26 32 P 38 52. '50 2.2 2.0s 106.00nm 5.8mb
84.31 38 eP 38 50 68 0.2 Z 19s I3.94um 6.4MS2
84.31 27iPd 3849. 60 -1.8 N 18s 11.01um
1.5s 59.40nm 5.6mb E 17s 7.93um
i 38 52 . 20 sP 39 31 . 00
84.35 33 ePc 38 50.30 -0.3 PP 43 00.00
84.35 38 eP 38 53.00 2.4 SKS 49 48.00
eS 49 1 9 . 00 S 5011.00
84.48 44 eP 38 53.50 2.0 SS 56 20.00
84.51 32 P 38 51.35 -0.2 MDZ 90.61 135 eP 39 28.00 7. IX
84.54 45 eP 38 53.00 1.3 SCO 90.70 29 P 39 32.30 11. 0X

84.54 28 P 38 52.70 1.2 SOB1 91.97 100 (P) 39 30.06 2.5
84.55 24 eP 38 52.36 0.8 VAY .92.42 24 eP 39 26.00 -3.3X
84.55 45 eP 38 53.50 1.6 e 39 28.00
84.57 22 eP 38 52.40 0.5 39 41.00
i 3910.70 S 5027.50
84.58 29 P 38 53.20 1.5 SP 51 37.00
84.62 28 P 38 52.70 0.7 SS 56 39.00
84.63 41 i PC 38 53.60 1.4 03 14.00
84.68 32 P 38 52. [07 -0.3 PPD 93.24 117 eP 39 29.40 -3.7X
84.73 31 P 38 53.40 0.9 e 39 35.70
84.74 31 P 38 52.38 -0.2 BBTK 96.45 17 eP 39 52.00 4.0X

84.75 45 eP 38 54.00 1.2 CTAO 101.90 254 e(Pdif40 13.00 0.5
84.78 33 eP 38 53.50 0.8 CTAO 101.90 254 e(Pdif40 25.00 12. 5X
19s 25.00um 6.6Msz eSKP 44 21.00
84.79 45 eP 38 55.29 2.4 eSKS 53 27.00
84.80 33 eP 38 53.50 0.6 CTAO 101.90 254 ePdiff40 09.95 -2 . 6X
1.3s 65.00nm 5.7mb ec 40 12.10
84.87 32 eP 38 53.50 0.2 WRA 110.51 261 PKP 44 54.00 2.3X
0.8s 16.10nm 5.3mb 1.1s 1.40nm
84.88 45 eP 38 52.50 -0.9 WRA 110.51 261 PKP 44 59.00 7.3X
84.89 32 P 38 52.07 -1.3 0.8s 1.60nm
84.90 30 P 38 54.50 1.1 WRA 110.51 261 PKP 45 08.00 16 3X
84.94 33 eP 38 54.10 0.6 1.5s 1.00nm
84.95 28 P 38 54.60 1.0 KOD 124.22 332 ePKP 45 31.00 12. 6X
84.98 253 P 38 54.00 -0.1 SPA 131.51 180 ePKP 45 31.00 0.4
85.01 32 P 38 52.89 -1.1 1.5s 50.00nm
85.12 308 P+ 38 56.00 1.4 Z 19s 8.10um 6 4Msz
1.2s 34.00nm 5.4mb LW 1 134.38 38 ePKPc 45 40.36 2 5X
20s 3.20um 5.7MS2 SNA 139.63 154 iPKPc 45 43.10 -2.5X
14s 0.90um 1.4s 83.72nm

15s 2.70um WIN 143.31 70 e(PKP)45 45.00 -8.8X
PP 42 26.00 NVL 143.84 158 ePKP 45 50.00 -3 . 0X
SKS 49 20.00 e 46 08.00
S 49 30.00 e 46 15.00
PS 50 46 .00 e 46 25.50
SS 55 00 .00 e 46 41 .00
85.14 43 eP 38 56.15 1.3 e 47 12.00
85.17 43 eP 38 56.44 1.4 e 47 28.00
85.22 42 eP 38 56.87 1.7 ePP 47 35.00
85.25 24 eP 38 55.70 0.7 e 48 15.00
85.41 27 eP 38 53.30 -2.7 ePPP 50 07.00
85.48 43 iPc 3B 57.88 1.5 e 50 30.00
85.58 45 iP 39 01.00 4. IX e 56 06.00
i 39 07 . 00 ePPS 58 14.00
85.62 27 eP 38 57.50 0.6 e 59 14.00
85.62 23 iP 38 59.00 2.0 e 59 38.00
85.64 21 eP 39 00.00 3.0X e 01 56.00

85.65 27 e(P) 38 58.20 1.1 eSSS 07 52.00
i (SP) 49 44 .00 e 09 12.00
i (SS) 54 58 . 00 e 13 37 .00
i (SSS)58 36.00 e 17 22.00
i LR 06 24.00 KRI 147.21 48 ePKP 45 53.00 -7.4X
85.85 27 eP 38 58.30 0.2 MTD 148.25 45 ePKP 46 04.00 2.0X
85.85 30 P 39 00.10 1.6 BUL 149.24 54 iPKPc 46 07.00 3.5X
85.93 30 P 38 59.40 0.8 1.0s I7.50nm
86.11 48 iP 39 01.00 1.4 Z 20s 7 . 80um 6.5Msz
i 39 12.50 N 20s 4.26um
86.18 27 eP 39 00.90 1.2 E 20s 2.84um
86.19 30 P 39 00.10 0.3 PDF 149.44 77 i PKPd 46 11.00 7 . 6X
86.22 26 eP 39 00.30 0.3 0.6s 22.00nm
86.30 26 eP 39 01.50 1.2 KIM 152.57 71 iPKPc 46 16.00 7.7X
86.34 27 ePc 39 02.00 1.5 1.2s 50.00nm
86.51 30 P 39 03.60 2.0 SLR 153.07 62 iPKPc 46 16.80 7 . 8X
86.52 29 P 39 03.80 2.5 1.3s 98.08nm
86.60 32 eP 39 02.40 0.4 Z 20s 8.16um 6.5Msz
0.9s 16.40nm 5.2mb FRS 153.53 73 iPKPd 46 18.40 9. IX
87.19 46 iP 39 08.00 2 . 9X 0.7s 30.82nm
87.28 29 P 39 07.00 1.8 S.D. - 1.2 on 326 of 379 obs.
ft 7 CC OQ p -7 Q -I « ~J Q. C <5 V _ _ . __________ «_ ____________ __

87.96 49 iP 39 10.00 1.2 ? AUG 16, 1991 22h 35m 15.09± 1.33s
89.33 19 eP 39 15.00 0.0 68.351 N ±15. 1km 21.191 E ±12. 4km
89.38 239 i PC 39 17.10 1.6 DEPTH - 10.0km (geophy s i c i s t)
89.47 20 ePc 39 07.00 -8 . 6X SWEDEN (536)
89.83 337 ePd 39 16.78 -0.6 MD 2.6 (8ER).

155

16d 22h

KTK 1
TRO
LOF
MOR7

1.00 47 eP
1.52 329 eP
2.86 269 eP
3.25 233 iP
S.D. = 0.9 on

35 34.18 8.1
35 41.95 -8.4
36 82.15 8.6
36 86.70 -8.4
4 o f 4 o bs.

1991 23h 81m 19.48s
1 25.404 W

c AUG 16,
41.452 N
DEPTH = 5. 1 km
OFF COAST OF NORTHERN CAL!FORNIA(34; <GM-P> . MD 3.2 (GM) .

FHC
LBFM
LTCM
ORV
ARN

1 ,
2 .

O
L.

3 ,
5,
5

. 25
. 65
. 78
. 53
. 88
obs

1 "J 1
91
1 15
121
143

eP
eP
*P
e(P)
eP

01
02
02
02
02

4 1
01
03
1 4
34

. 48
. 50
. 50
. 50
. 78

- 1 .
- 2 .
- 2
- 1 ,
- 3 .

. 8
. 2
. 0
. 6
. 4
. ossoc i o t ed

tt AUG 16, 1991 23h 15m 54.66s
41.452 N 125.493 W
DEPTH = 5.8km
3.5mb (1 obs.)
OFF COAST OF NORTHERN CALIFORNIA(34) <GM-P> . MD 3.2 (GM) .

FHC
LBFM
LTCM
ORV
ARN

1
2
2
3
5
YKA 22
1

7. AUG

6

. 31
. 71
. 84
. 59
. 12
. 85
8s

1 19
91
1 15
121
1 42
1 4
2

eP
eP
eP

e(P)
eP
cP
. 80 nm
obs. ossocio

17 ,
28.991
DEPTH
WESTERN

BAL

MUN

KLB

NWAO

NANU
0

MBL
0

WARB

S .D

S

1991 00h
± 8 . 4km 1

16
16
16
16
1 7
20

1 7 .
37 .
39.
48 .
10.
48.

88
68
58
00
28
28

- 2
- 2
-
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-
-

2
4
3
3

. 4
. 3
. 8
. 1
. 7
. 5
3 . 5mb
ted

88m 40.
15. 849

= 10.0km (geophysi
AUSTRAL I

1

2

3

4

6

8

9

. 77

. 99

. 87

. 10

. 4 1
2s

. 59
3s

. 98

=

155

1 74

148

163

357
1

26
1

76

1 . 4

A

i Pd
i S
i PC
i S
eP
eS
eP
eS
eP
. 00nm
eS
eP
. 00nm
eS
eP
eS
o n

88± 1 .
E
c i

±20

st)

31 s
. 2km

(590)

89
09
09
18
89
18
09
10
10

12 .
34 .
28.
82 .
32 .
06.
44 .
27 .
18 .

58
78
38
88
88
68
08
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08

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12
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12
6 of

28.
87 .

12 .
06 .
54 .

88
88

08
58
80
7

18

-

obs

8

X

. 8X

. 8

? AUG 17, 1991 00h 19m 88.84± 1.33s 17.57-3 S ±46.4km 177.335 W ±31. 1km DEPTH-- 488.0km (geophysicist)
4. 1mb (5 obs .)
FIJI ISLANDS REGION (181)

STK

WR2

WRA

ASPA

MTN
TNP

TTA
BJ I
I NK
KSP
CLL

BRG

KHC

39
1 .
45
8.

45
8.
45
8.

49
79
0.
81
84
91
145
145
1 .
145
1 .
147
S.D.

. 69
2s
. 68
6s

. 78
5s
. 87
5s

. 83
. 88
9s
. 97
. 27
. 38
. 87
. 35
1 s
. 58
2s
. 30
»

241
1
259
9

259
2
254
21

268
44
3
18
315
15
345
349
1 4
347
9
347
1 . 3

i Pd
. 20nm
eP
. 48 nm
e
P
. 68nm
eP
. 50nm
i S
eP
P
. 32 nm
eP
eP
eP
ePKP
i P K P c
. 00nm

25

26

28
26

26

33
27
30

30
30
31
37
37

e(PKP)37
. 80nm
ePKP
on 13

37
of

57

44

33
45

46

84
18
21

37
51
22
52
53

54

59

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. 70

. 78
. 00

. 38

. 50
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. 08
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. 58
. 68

. 40

. 88
13

8.
3 . 1mb
- 8 .
4 . 3mb

- 0 .
3 . 8mb
- 0 .
4 . 7mb

8 .
- 2 .
4 . 1mb
- 1 .
1 .
- 8 .
8.
8 .

1 .

2.
obs .

8

9

8

8

6
1

0
1
5
0
6

8

7

& AUG 17, 1991 82h 85m 59.19s
41 . 7 1 4 N 125. 863 W

4 . 2mb (1 obs .)
OFF COAST OF NORTHERN CALIFORNIA(34) <GM-P> . MD 3.4 (GM) .

FHC 1.68 122 ePc 86 26.80 -3.0
L8FM 3.80 96 eP 86 47.50 -1.4
LTCM 3.21 117 eP 06 49.00 -2.5
ORV 3.96 122 eP 86 58.00 -4.2
ARN 5.58 141 eP 07 20.30 -3.8
FFC 28.43 42 eP 18 39.50 -8.7
8.9s 1 1 . 08nm 4 . 2mb
6 obs. ossocioted

7, AUG 17, 1991 82h 06m 13.39± 0.46s
39.298 N ± 4.2km 27.918 E ± 4.7km
DEPTH - 18.8km (geo phy s i c i s t)
TURKEY (360)

eSg 86 35.28
IZM 1.82 210 iPn 86 32.48 -8.4
EDC .86 358 iPn 06 33.08 -0.3
E2N .34 294 iPn 06 38.58 8.5
KHL .59 127 ePn 06 41.68 -8.1
1 2 1 .59 49 i Pn 06 42 . 88 8.2
YLV .78 41 ePn 06 43.50 8.2
ALT 1.73 97 ePn 06 44.80 8.3
CTT 1.98 12 ePn 06 46.88 -8.1
HRT 2.84 41 ePn 06 48.88 -8.2
GPA 2.18 61 ePn 06 58.00 8.9
YER 2.17 172 ePn 06 58.08 -8.1
DMK 2.53 357 ePn 86 55.08 -8.2
BBTK 3.79 80 eP 87 14.88 8.8
IS 08 21 .80
S.D. -=8.6 on 14 of 14 obs.

* AUG 17. 1991 83h 1 4m 05.51± 1.88s
23.544 S ±18. 4km 67.874 W ±12. 5km
DEPTH - 33.0km (normol)
CHILE-ARGENTINA BORDER REGION (l27)

SLA 1.86 138 iPd 14 35.58 -0.3
S 15 88.58
ANT 3.87 266 iPc 14 53.60 8.8
IS 15 32 . 70
CCH 6.19 8P 1538.00 8.6
CNC8 6.75 353 iPc 15 47.00 1.5
S 17 1 1 .88
LPB 7.84 352 P 15 49.80 -8.4
Z080 7.30 352 P 15 53.00 -8.2
S 17 28. 00

ARE 8.18 329 e(P) 16 83.88 -2.1
eS 17 37.00
S.D. -1.4 on 7of 7 obs .

AUG 17, 1991 83h 46m 21.48± 8.49s
41.186 N ± 5.4km 22.859 E ± 3.7km
DEPTH - 10.8km (geophysicist)
YUGOSLAVIA (383)
MD 2. 4 (THE) . ML 2.8 (SKO) .

GRG 0.38 120 iPd 46 27.18 -8.6
VAY 0.44 61 iPg 46 38.50 8.8
i Sg 46 36 . 70
FNA 8.61 238 ePc 46 33.66 -8.1
eS 46 41 .54
KNT 0.64 85 iPd 46 33.94 -0.3
eS 46 42.22
THE 0.83 124 «Pd 46 36.66 -0.9
eS 46 47.58

OHR 8.95 271 iPg 46 39.58 -8.2
i Sg 46 53 . 28
Lg 46 54.20
SKO 0.98 332 iPg 46 48.20 8.1
i Sg 46 54 . 50
SOH 1.02 186 ePc 46 48.82 0.0
eS 46 54 . 86
LIT 1.86 162 «Pc 46 41.38 0.0
eS 46 55.42
SRS 1.16 89 ePd 46 43.18 0.8
«S 4658.94
OUR 1.65 117 ePd 46 51.46 8.9
eS 47 14 66

eS 4713.74
S.D. =8.6 on !2of 12 obs .

7. AUG 17. 1991 84h 00m 1 0 . 1 4± 8.64s
39.897 N ± 4.9km 28.855 E ± 6.5km
DEPTH = 18.0km (geophysicist)
TURKEY (366)

DST 0.34 211 iPg 08 16.68 -8.6
i Sg 08 2 1 . 1 0
1 Z 1 0.65 47 iPg 00 22. 50 -8.6
eSg 08 31 .58
YLV 8.78 30 iPg 88 24.50 -0.8
eSg 00 36.00
HRT .11 34 i Pn 00 3 1 . 80 8.8
ISK .18 8 «Pn 88 32.58 0.4
GPA .18 78 ePn 88 32.48 0.2
ALT .28 138 iPn 08 34.88 8.8
CTT .29 346 iPn 88 34.58 8.5
DMK 2.18 337 ePn 08 46.88 8.3
S.D. =0.6 on 9of 9obs.

AUG 17, 1991 85h 14m 49.18± 8.24s
5.486 S ± 4.9km 152.618 E ± 6.8km DEPTH «= 35.8km (3 depth phoses) 5 . 2mb (15 obs .)
NEW BRITAIN REGION (192)

RAB 1.36 341 iPc 15 14.88 1.9
0. 5s 2828. I7nm
iS 15 22 .88
PMG 6.67 234 eP 16 31.88 3 . 6X
eS 1 7 44 . 88
HNR 8. 26 1 19 P 16 51 .88 1.3
S 17 32.88
CTAO 15.78 283 eP 18 37.88 6 . 5X
OIS 19.68 219 iPc 19 17.88 8.2
8.6s 34 . 88nm 4 . 8mb

DZM 21.24 142 i Pd 19 34.18 -8.6
BRS 21.79 188 i Pd 19 48.98 8.8
MTN 22.42 249 eP 19 46.80 -8.4
8.4s 292 . 80nm 6 . 1mb
OLP 22.45 288 eP 19 48.88 1.3
WR2 22.84 229 eP 19 51.88 8.5
8.6s 56 . 58nm 5 . 2mb
e 19 58.58 27km
ASPA 25.52 223 i PC 28 16.60 8.2
0.6s 52 . 18nm 5 . 3mb
KNA 25.53 245 eP 28 17.18 8.7
0.4s 97 . 88nm 5 . 7mb
STK 28.21 288 i Pd 28 39.68 -1.3
8.6s 2 . 60nm 4 . 1mb X
WARS 32.24 228 eP 21 17.88 8.3
FORR 34.16 219 eP 21 32.98 -8.4
MBL 35.38 241 eP 21 44.08 0.1
NANU 39.61 241 eP 22 19.08 -0.4

0.4s 7 . 88nm 4 . 7mb
MUN 43.83 228 eP 22 47.08 -8.4
NST 56.04 293 eP 24 27.38 -8.1
CHG 58.11 296 eP 24 41.80 -8.3
LZH 61 .59 316 eP 25 06.28 8.3
1.5s 31 . 88nm 5 . 2mb
pP 25 17.00 36km
sP 25 22.58
ADK 62.87 21 eP 25 12.30 -1.6
8.6s 25 . 62nm 5 . 5mb
YAK 69.58 349 eP 26 88.28 11. 7X
e 28 52.88
ANM 76.48 17 eP 26 37.68 8.6
KDC 76.89 27 eP 26 39.88 -8.3
SVW 77.52 23 eP 26 43.68 8.7
TTA 78.47 2 1 eP 26 48 . 48 8.3
0.8s 14. 88nm 5 . 8mb
SLKM 79.37 25 eP 26 51.68 -1.4
PMR 88.38 24 eP 26 58.88 -8.3
8.9s 28 . 48nm 5 . 1mb
I MA 81.16 19 ePd 27 83.00 8.4
1.4s 29 . 70nm 5 . 1mb
TOA 81.86 25 eP 27 87.28 1.0
FBA 82.59 22 ePd 27 09.08 -8.8
8 - 9s 35 . 98nm 5 . 4mb
BALM 83.02 26 eP 27 11.78 -0.6
SPA 84.55 188 iPd 27 19.58 -0.5
8.6s 28.33nm 5.5mb

156

1 7 d e 5 h

INK 89.1-6 21 ePd 27 41.88 -0.4
MBC 94.82 14 ePc 28 88.28 0.0
1.0s 7 . 00nm 5 . 0mb
: i.'A 96.12 28 eP 28 14.00 -0.3
0.7s 2.80nm 4. 8mb
3 R G 123.16 330 i P K P 33 44.20 0.4
i'HC 124.43 329 ePKP 33 46.00 -0.4
WTTA 126.60 328 ePKP 33 50.00 -0.9
0.9s 6 . 9 6 n m
i 3353. 00
ZOBO 134.27 119 PKP 34 08. 60 1.2
PPD 143.99 140 ePKP 34 21.20 -2.5

VAO 145.83 147 (PKP) 34 28.60 1.2
TRN 145.95 79 ePKPc 34 27.80 0.7
1.0s 1 20 . 06 nni
e 3440.50
S.O. - 6.9 on 42 Of 45 obs.

% AUG 17, 1991 05h 41m 29.24± 1.18s
16.171 N ± 9.1km 61.159 W ±12. 8km
DEPTH = 33.0km (normol)
LEEWARD ISLANDS (92)
ML 2 .0 (PDF) .

DEC 0.17 34 iPc 41 36.25 0.6
S 4143.50
MGG 0.29 211 iPd 41 37.68 0.8
S 4145.20
SEG 0.40 305 ePc 41 39.20 0.8
S 4147.50
DOG 9.46 253 eP 41 39.76 0.4
PAG 0.52 254 eP 41 40.50 0.3
S 4149.30
BBL 0.71 206 eP 41 41.50 -1.4
BPA 1.10 323 eP 41 46.80 -1.6
S . D . = 1.2 on 7 of 7 obs.

» AUG 17, 1991 06h 01m 33.84± 0.97s
6.953 N ± 9.7km 73.243 W ±15. 4 km
DEPTH * 1 53 . 7 ± 9 . 8 km
4 . 4mb (3 obs .)
NORTHERN COLOMBIA (99)

BMG 0.20 55 eP 01 56.00 -0.2
BOG 2.45 199 iPd 02 16.00 0.6
IS 0247.00
HOBC 3.87 228 ePc 02 33.19 -0.1
CLMC 4.50 227 eP 02 41.50 -0.1
HOOC 4.84 224 eP 02 44.94 -1.3
ANCC 4.97 227 eP 02 47.63 -0.1
eS 03 34 . 90
S 1 LC 5.24 216 eP 02 52.19 0.4
PURC 5'. 55 214 eP 0256.48 0.5
UPA 6.55 288 i PC 03 09.20 0.3
0.5s I9.72nm 4. 7mb
8BJ 12.02 341 eP 04 26.34 5.0X
ZOBO 23.62 168 P 07 03.00 30. 2X
Z 20s 0 09um 3 . 2Msz
eLR 19 04.00
GOL 43.52 323 P 09 25.00 0.9
0.8s 5.95nm 4.3mb
YKA 63.10 340 eP 11 45.90 -0.9
0.6s 2 . 50nm 4 . 3mb
S.D. - 0.8 on 11 of 13 obs.

AUG 17, 1991 06h 1 8m 20.20± 0.21s
10.038 N ± 3.3km 69.979 W ± 3.5km
DEPTH = 10.0km (ge ophy s i c i s t)
4 . 9mt> (40 obs .)
VENEZUELA (101)
Fore shoe k . Felt.

TOV 0.31 144 iPgd 18 29.20 2.5
iSg 1834.20
SDV 1.31 209 iPnc 18 45.60 1.0
iSn 1901.60
MORO 1 .83 63 IP 1854.20 2.1
CAR 3.04 81 IP 1910.80 1.5
OLLA 3.13 90 eP 19 13.30 2.7X

LLAV 3|. 15 82 IP 1912.70 1.8
BMG 4|.25 226 i PC 19 28.00 1.4
GUAN 4J. 27 91 iP 19 2B . 80 2.0
FUG 5L87 220 eP 19 51.00 1.3
BOG 6.73 217 i Pd 20 04.00 2.1
i S 21*5.00

HOBC
TPP

MGP
GRW

TRN

CLLP
MCP
SJG
APR
CLMC
FCV

TPR
SVB

LPR
HOOC
ANCC
UPA

SLB

S I LC
B IM
FDF

BBL
MVM
PURC
PAG

MGG
GWJ

DEC
SFJ

BBJ

PSO
CUMC
YANA
OUR
GGP
NNA

PT10

SGS
ZOBO

JSC
ARE
LPB

CNC8
OXX
CCH
TKL
BLA
CVL
PPM
LVNJ
TBR

TCE 8.12 85 eP 26 20.89 -0.1 | MRX
e 20 25.34 | FVM

8. 32
8 . 40

8. 40
8 . 43

8 . 46

8 . 65
8 . 78
8 .84
8 Q A.. y 4
8 .95
9.10

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9.14
9 . 29
9.42
9. 48

9.52

9 .66
9 . 78
9 .80
0 . 3s
9 . 92
9 .95
9.95
10.04

10.27
10.33

10 .69
10 .80

10 .89

11.43
11.95
13.22
13.24
1 3.28
22.92
0.7s

23.04

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1.1s

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228 eP
87 eP
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75 eP
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85 eP
e
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eS
22 P
18 P
24 i P
*? ft D / W r
227 «Pc
69 «P
e
e
eS
82 eP
69 eP
e
«S
25 P
226 «Pc
227 «Pc
264 «P<J

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i
66 eP
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eS
221 eP
62 eP
61 eP
9 . 25nm
56 eP
62 «P
220 «P
53 eP
S
54 «P
321 eP
«S
53 «P
318 eP
eS
320 eP
«S
220 eP
222 eP
221 P
220 eP
221 P
197 i PC
89 . 04nm
i
eS

198 i (P)
i
339 P
176 P
S
LR
339 eP
183 eP
176 P
420 . 25nm
S
LR
176 P

288 (P)
172 Pd
336 P

342 e(P)
346 P
291 eP
353 P
354 eP

291 (P)
336 eP

20 37.04
20 40.02
20 22.43
20 22. 45
20 30. 12
20 42 . 70
20 22.00
20 27.;70
20 40 . 33
20 49 . 17
20 28.03
20 32 78
20 40.150
23 10.100
20 27 .>80
20 28. 10
20 25.40
20 30.50
20 31 .54
20 31 .82
20 46.50
22 26.23
23 28.64
20 38.58
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27 40.
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- 2 . 1
- 5.7X

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- 1 . 1
- 2.8

3 . 7X
- 2.7

- 3 . 1X
- 2 . 1
- 1 .5
- 2. 1

- 2. 9

- 1 .9
- 2 .9
- 3 . 6X
8mb
- 5.0X
- 2.5
- 1 . 3
1 . 4

- 2.7
0 .0

- 6. 6X
- 0 . 1

0 . 4

- 9. 4
- 1 .0
- 2. 1
1 . 4
3.5X
0. 1
4mb X

0 . 7

0. 4
- 0. 7

1 . 7
- 1 .9
- 0.9
0mb X

0 . 1
- 1 . 2
0 . 7
- 0.2
0.8
0. 1
3 . 9X
1 .0
0.5
0.9
- 0. 4

ANT
EMM
TUL

Z
N
E

SLA
M 1 M
PPD

VAO
RTLL
ALO

Z

ANMO

MOZ

ROCH
PEL
GLO

GOL
SAN
PCH
TACH
SCH

RSSO

PV09
GLA

MSU
BW06

TPC

PLM

PEC
GSC

RVR

SBB

CLC

TNP

1 SA

LRM
FFC

BONR
KVN
SES

FR8

ORV
BKS

Z
N
E

NEW

LBFM
PNT

YKA

1 . 0s
33.54
34 . 64
34 . 83
0.6s
18s
1 8s
18s

34.83
35 09
36 . 76

39. 82
41.16
41.47
1.0S
22s

41.47
0.9s
42 . 69

42. 78
42.94
43. 08
1 .0s
43.15
43.25
43. 42
43.46
44 . 74
0. 8s
44.94
1 .5s
45 . 04
47.12

47.17
47 . 46
1.1s

48 . 42

48.84

49 . 24
49 . 40

49.44

50. 00

50 . 17

50 . 65
0.6s
50 . 80

50 .82
51.28
0.8s
51.41
51.64
52 .53
1 .0s

53.63
0.7s
54. 29
54 . 34
0.9s
20s
20s
20s

54 . 80
0.8s
55. 15
56.75
0. 8s
61 .39

60 . 00nm

181 e(P)
3 P
322 iPc
8 . 60 nm
2 . 44um
1 . 9 1 urn
1.64 urn
i
LR
173 i PC
1 P
150 eP
e
146 eP
178 ePd
312 eP
45 . 25nm
2. 2 2 urn
e
312 eP
9 . 45nm
1 79 eP
i
181 eP
181 eP

319 (P)
30 . 00nm
319 eP
181 eP
181 eP
181 eP
3 eP
42 . 00nm
325 eP
20 . 1 6nm
316 eP
306 eP
e
314 P
320 eP
1 4 . 88nm
epP
307 eP
e
306 eP
e
306 eP
308 eP
e
306 eP
e
307 eP
e
309 eP
e

31 1 ePd
7 . 59nm
308 eP
e
322 eP
337 iPc
20 . 00nm
311 P
312 P
328 ePc
79 . 00nm
PP
1 eP
55 . 00nm

312 e(P)
310 eP
1 09 . 00nm
1 . 1 0um
2 . 1 0um
1 . 1 Bum
e
eS
e
eLO
eLR
323 eP
1 5 . 83nm
314 P
323 eP
27 . 00nm
338 eP

5
25 03.00
25 13.50
25 13.00
4
5

25 27.10
36 39.00
25 13.50
25 17 . 50
25 29.50
25 43.30
25 54 . 20
26 04.50
26 10.00
5
5
26 24.50
26 10.10
4
26 20.80
28 21.10
26 20.00
26 22.00
26 23.00
5
26 23.00
26 26.00
26 20.00
26 26.50
26 36.00
5
26 37.00
4
26 39. 10
26 55 . 00
27 09.00
26 56.50
26 56.30
5
27 00.80
27 04.00
27 20.00
27 09.00
27 23.00
27 10.80
27 13.00
27 28.00
27 10.00
27 27 .00
27 17 .00
27 31 .00
27 15.00
27 32.00
27 22. 10
4
27 24.00
27 37.00
27 23.90
27 25.50
5
27 29.00
27 30.00
27 35.70
5
27 50.00
27 45.00
5
27 50.00
27 50.00
5
4

28 04.00
35 42 . 00
36 04.00
42 10.00
45 00.00
27 51 .00
5.
27 55.50
28 07 .00
5.
28 37.20

. 5mb X
0 . 7
1 .8
- 0. 4
. 8mb
. 0MszX

- 0. 2
2. 0
- 0. 4

- 1 . 5
- 1 . 9
0.8
. 2mb X
. 0MS2X

0 . 9
. 5mb
1 . 8

0 . 1
0. 9
0 . 6
. 0mb
0 . 0
2 . 5
- 5. 0X
1 . 3
0 . 7
4mb X
- 0 . 4
8mb
0. 7
0 . 4

1 . 3
- 1 . 1
0mb
15kmX
- 0 . 8

0. 8

- 0. 3
0 . 7

- 2.5

0. 0

- 3. 3X

0. 1
8mb
1 . 0

0. 7
- 0.8
1mb
1 . 1
0 . 5
- 0.2
6mb X
53kmX
1 . 4
7mb X
1 . 0
0. 6
9mb
9MszX

- 1 .6
1mb
0.0
0. 4
3mb X
- 1 . 4

157

17d 06h

T 10

AVE

I FR

T I C
L I C

K I C
DCN
DMU
LPF

EKA

GRR

EPF

MFF

FLN

LDF

IFF
LPO
RJF

LSF

CAF

TCF

MAF

BGF

1 NX

M8C

AVF

SSF

SMF

LOR

LBF

DOU

VI TF
LRG

LMR
ENN

MEM
HAU

FRF
BN 1
LPL

LPG

BSF
LOMF
W 1 T
ECH
WTS

SBF

0.8s
61 . 54

61 . 66

63.59

64 . 28
64.33
2 20s
64 . 59
65. 83
66 . 26
68 . 54
1 0s
68.68
0.7s
68. 71
1 .0s
68 . 84
0.9s
68. 93
0.7s
69. 02
0 . 8s
Z 22s
69. 23
0.7s
69 . 34
69. 63
69.92
0 . 8s
Z 22s
70 . 63
0.9s
70 . 27
0. 8s
70.51
0.8s
76 . 75
0.9s
76.97
0.8s
71.16
0. 5s
71.24
0.9s
71.34
6. 8s
71.47
0. 9s
71.66
0.8s
71.73
6. 8s
2 22s
71.79
6. 8s
72 . 47

73 . 23
73. 26
Z 20s
73. 36
73. 38
6. 8s

73. 42
73. 46
2 22s
73. 47
73 . 54
73 . 66
0. 8s
73 . 62
0. 8s
73 . 75
73 . 75
74 . 00
74 . 02
74 . 82
0

7 e
. / S

74 . 05
0.8s

11 . 66nm
60 eP
i
58 eP
i
i
58 eP

i 87 P
88 P
6 . 39 urn
88 P
36 eP
35 eP
42 eP
16. 06nm
34 PC
6 . 40nm
42 eP
1 0 . 00nm
48 eP
7 . 35nm
44 eP
7.70 nm
42 eP
12. 1 0nm
0 . 68um
42 eP
5 . 50nm
46 eP
46 eP
45 eP
5.35 nm
2 . 1 7um
44 eP
6.55 nm
46 eP
6 . 70nm
44 eP
4.05 nm
45 eP
6 . 55nm
44 eP
9 . 40nm
339 eP
25 . 00nm
349 eP
24 . 00nm
44 eP
3 . 35nm
44 eP
4 . 90nm
44 eP
7 . 4 0nm
44 eP
8 . 05nm
1 . 50 um
44 eP
4 . 70nm
41 P
e
S
43 P
48 eP
1 . 40um
48 eP
40 eP
36 . 00 nm
e
40 PC
43 eP
1.13 um
48 eP
46 P
46 eP
6.05 nm
46 eP
5 . 35nm
43 eP
44 P
38 eP
43 P
39 eP
35 . 00nm
e
47 eP
9 . 40nm

28 53
28 58
28 45
28 55
29 26
29 10
29 1 3
28 58
28 58

29 08
29 1 1
29 1 3
29 27

29 29

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32 49
39 34
36 04
29 57

29 57
29 57

32 55
29 55
29 57

29 58
30 00
29 59

30 00

29 59
29 59
29 59
36 00
29 58

32 55
36 01

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. 06
. 66
. 00
. 00
. 06
. 60
56
02
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60
00
94
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00
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00
90
60
5
30
00
90
4 .
20
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59
00
70
50
5 .

00
80
4 .

1mb
12 . 7X

4 . 1 X

1 6 . 1 X

- 0.5
- 0. 8
6MS2X
- 0.3
3 . 2X
3. 3X
2 . 8X
6mb
3.4X
9mb
3.6X
0mb
3 . 4X
9mb
3.3X
0mb
3 . 2X
1mb
SMszX
3 . 2X
8mb
2.8X
3.0X
2.8X
7mb
4MszX
3 . 0X
8mb
3. IX
8mb
2 ,9X
6mb
3 . IX
8mb
3 . 0X
0mb
- 0. 9
6mb X
1 . 4
3mb
3 . 0X
5mb
2 .9X
6mb
3 .0X
8mb
2 . 7X
9mb
2MszX
2.5
6mb
2 . 6X

1 1 . 5X
3 . 8X
2MSZX
3. 4X
2.9X
5mb

1 . 5
2 . 8X
1 MszX
3 . 4X
4 . 5X
4 . 0X
7mb
4 . 1 X

6mb
2 . 7X
3 .0X
1 . 3
2 . 7X
0 . 6
5mb

3.5X
9mb

CDF
GWF
KLU
TOA
PGF

A 1 A
FBA

PMR

MME
SLKM
NB2

WTTA

VV 1
FVI
KHC
2
E

1 MA
BRG

PDB
PRU
2
N
E

SVW
TTA
PT J
UPP
HVAR
RUV

ZST

TPT

VAN

PMO

KRA
Z
E

KEV

SOD

NUR

MLR
GKN
KKN
DMN
GUN
PK 1
STK

ADE
OIS

S

AUG
10.

74 . 16
74 . 36
74 . 53
74 . 73
75.18
0. 8s
75. 20
75.86
0. 7s
76 . 07
0.6s
76.41
76 . 52
77 . 02
1.8s
77 . 02
1 .0s

77 .59
77 . 82
78 . 28
26s
20s

7B . 34
78 . 46
1.1s

78. 49
78.87
19s
20s
20s

79. IB
79. 33
80.06
80. 20
80 .62
80.66
1.4s
80. 66

80 .84
1.4s
80 . 90
1.4s
81.10
1 . 4s
82.34
22s
22s

83 . 07
0.6s

83 . 35

83 .62
0 . 8s

87 . 04
134 . 90
135.41
135.47
135 .62
135 . 66
143 . 60
0.7s
1 43 .94
149 .66

. D. -

17 ,

43 P 30 01
42 P 30 02
331 P 30 00
332 eP 36 63
49 eP 30 68
5 . 35nm
178 eP 30 04
335 eP 30 10
7.10 nm
331 eP 30 69
1 7 . 24nm
47 P 36 16
330 eP 30 12
30 P 30 15
13 . 30nm

44 e(P) 36 18
35 . 70nm
i 30 29
i 36 33
45 P 30 22
44 P 30 22
42 P 30 25
0 . 50um
0 . 70um
e 30 36
e 30 48
S 46 30
336 eP 30 23
40 eP 36 23
32 . 00nm
i 30 37
i 30 49
i 3106
i 33 22
329 P 30 23
41 P 30 26
0 . 50um
0 . 30um
0 . 60um
e 30 28
e 36 40
S 40 36
330 eP 30 27
332 eP 30 30
45 eP 30 31
31 iP 30 35
48 iP 30 52
253 iP 30 50
60 . 00nm
43 eP 30 35.
i 30 49.
e 33 28
253 iP 30 51
60 . 00 nm
253 iP 3051.
50 . 00nm
253 iP 30 52.
50 . 00nm
41 eP 30 47.
1 . 00um
1 . 1 0um
e 3102.
20 eP 30 49.
7 . 80nm
i 31 08.
23 iP 30 52.
i 3108.
30 eP 30 53.
27 . 90nm
i 31 09.
44 eP 3113.
32 PKP 37 42.
32 PKP 37 42.
32 PKP 3741.
31 PKP 37 42.
32 PKP 37 41.
229 ePKP 37 54.
1 . 50nm
222 ePKP 37 54.

246 e(PKP)38 1 1 .
i 38 30.
i 4110.

. 46 2.9X
. 64 2. 7X
. 10 -0.7
. 60 1.7
. 40 3.5X
4 . 6mb
. 66 0.3
80 2.9X
4 . 9mb
60 0.2
5 . 3mb X
60 4 . 6X
10 0.0
80 1.0
5 . 0mb
00 2. 7X
5.4mb X
90
20
20 3.9X
90 3 . 5X
00 3.0X
4 . SMszX

50
30
00
50 1.4
60 0.7
5 . 3mb X
60
00
40
00
00 0.1
50 1.3
4 .9MSZX

90
30
00
80 1.1
90 3. 3X
90 0.1
10 3.0X
90 18. IX
00 1 4 . 6X

70 0.8
90
40
00 1 4 . 7X

20 14 . 5X

40 1 4 . 7X

70 4 . 1 X
5. 1MSZX

80
00 2.0
5 . 1mb
50
80 4 . 3X
10
00 3. IX
5. 5mb
66
00 5. 5X
18 0.1
26 -0.9
22 -2.1
48 -1.2
34 -2.4
70 -2.9

90 -3.2X
00 3 . 2X
70
70
1.4 on 127 of 1 98 obs .

1991 06h 18m 34.
045 N ± 8.6km 69.948
DEPTH - 10.0km (geophysi

03± 0.37s
W ± 6.1km

5 5mb (14 obs.) 5.2Msz (4 obs.)
VENEZUELA (101)

SOA
8PA
TPX
JSC
BLA
CBN
TBR
FVM

SOB1

ANMO

JACH
GLD
RSSD

PV09
8W06

BAR
PLM
PEC
MWC
PAS
TNP

FR 1
PR 1
CM8
LLA
SAO
ORV
M 1 N
NEW

WDC
FOX
FHC
PGC
PTO
ECOG
AKU

EN IJ
ETOR
E8R
CDR
WLF
RRL
PZZ
LSD
DOI
BHB
pep r\ 3 r
STV
IMI

cist) | ORX

Ms 5.4 (8RK) . At least 1 00
houses were domoged (V) in the Borquisimeto oreo. Felt (III) ot Logunillos. Felt ot Corocos and
in Corobobo, Laro, Merido,
Tochiro and Trujillo.
CENTROID. MOMENT TENSOR (HRV)
Dota Used: GDSN
L .P.B. : 23S . 51C
Ce n t r o i d Loco t i on :
Origin Time 06:18:33.7 6.4
Lot 9.74N 0.04 Lon 69.83W 6.05

Dep 15.0 FIX Ho I f-du r o t i on 2.4
Moment Tensor; Scale 10«*17 Nm
Mr r- 0.31 0.09 Mt t= 1.18 0.10
MM 1.48 0.14 Mrt 0.15 0.28
Mrf--0.22 0.39 Mtf 2.19 0.09
P r i nc i pa 1 Axes :
T Vol= 2.41 Plg= 1 Azm=209
N 0. 33 85 112
P -2.74 5 299

Best Double Coup 1 e : Mo = 2 . 6 » 1 0 » * 1 7
NP 1 : S t r i ke=344 Dip=86 S 1 i p = -3
NP2: 74 87 -176

9.23 68 eP 20 47.70 -2.5
10.50 48 eP 21 04.60 -3.7X
22. 31 285 eP 23 38.70 5.3X

26.25 338 e(P) 24 14.00 2.8X
28.65 342 eP 24 33. 60 6.5
28 . 82 348 eP 24 35.60 0.5
31 .20 354 eP 24 56 . 20 6.6
33 . 36 330 eP 2514.10 -0.4
0.8s 109.85nm 5.8mb
34 . 67 123 eP 25 28.06 1.8
e 25 32.60
41 . 49 312 eP 26 23.90 0.7
1.3s 96 . 1 5nm 5 . 4mb
42.49 181 ePd 2633.00 1.7
43 .09 319 e(P) 26 37 .00 6.7
44 . 95 325 eP 26 52.60 1.2
1.5s 73 . 73nm 5 . 4mb
45. 06 316 eP 26 57 .00 4 .6X
47 . 47 320 eP 27 1 1 . 40 0.1
1.5s 164.00nm 5.9mb
PcP 28 40.50
48 .51 305 eP 27 20.00 0.7
48.86 306 eP 2722.70 0.5
49.26 306 eP 27 25.40 0.4
50.07 306 eP 27 31.00 -0.4
50. 13 306 eP 27 32.00 0.3
50. 67 31 1 eP 2736.10 0.1
0.7s 37.78nm 5.4mb
52. 18 309 iPd 27 46.45 -0.7
52.66 308 eP 27 50.22 -0.8
53.01 310 iPd 27 53.50 0.0
53. 01 308 eP 27 53.80 0.3
53.44 309 ePd 27 59.17 2.6X
54.31 312 ePd 28 03.90 6.9
54.64 313 iPd 28 05.58 0.0
54.81 323 eP 28 05. 50 -1.0
1.0s 65 . 00nm 5 . 6mb
e 28 19.50
55. 39 313 eP 28 08.74 -2.1
56.43 312 eP 2819.21 0.9
56.50 313 eP 28 19. 88 1.0
58 .79 321 eP 28 33.00 -1.7
61 . 95 49 eP 29 05.50 9. 0X

65.21 54 e(P) 29 23.00 4 . 8X
65 . 82 21 eP 2918.70 -2.7
1.2s 26. 56nm 5. 3mb
66.26 54 e(P) 29 28.80 4.0X
66. 79 50 e(P) 29 28.80 0.6
68 . 7 1 50 (P) 29 42 . 00 1.9
72.81 47 ePc 3006.40 1.5
73.41 41 P 30 07 .00 -1.2
73 .59 46 P 30 10.41 0.7
73 . 89 47 P 30 1 1 .53 0.7
73 . 87 46 P 30 12. 15 0.8
73 .90 47 P 30 13.40 2.1
73.93 46 P 30 10.92 -0.4
73.93 46 P 30 12.66 1.1

73.95 47 P 30 12.76 1.2
74 .35 47 P 30 13.69 -0.2
74.46 45 P 30 1 4 . 40 -0.2

I7d 86h

158

FIN 74.59
CK 1 74.64
PCP 74 . 83
A 1 A 75.20
FBA 75.81
1 . 0s
PMR 76.88
8. 8s
SLKM 76.53
GRF 76.71
1 . 5s
Z 22s
MOX 76.96
2 6s
Z 19s
N 26s
E 22s

HFS 78 . 19
8.5s
SVW 79.19
8. 7s
KSP 79.92

VKA 80.11
2.5s
SRO 81 . 48
ANM 83.33
BMR 84.97
V A Y 85.33

VR I 87 . 48
OBN 91.11
1 . 0s

Z 22s
N 22s
E 22s

SNA 92.06
0.9s
NVL 96.71

LW I 99.00
MAT 126.62
BJ 1 129.85
Z 23s
LZH 133.75
Z 22s
E 20s

CNB 136.38
ROD 141.83
LAT 143.30
LOE 151.51
NST 152.62
WRA 154.59
1 .2s
S . D. -

AUG 17,

47 P 30
47 P 30
47 P 30

1 78 *(P) 30
335 *P 30
40 . S0nm
331 eP 30
68 . 97nm

33d e(P) 30
41 eP 30
22 . 00nm
0 . 70um
40 eP 30
25 . 09nm
6 . 40um

0 . 60um
0 . 30um
eS 40
31 eP 30
2 . 20nm

330 e(P) 30
1 04 . 65nm
40 eP 30
ic 30
43 *P 30
1 49 . 00nm
43 eP 31
334 *P 31
43 ePd 31
49 eP 31

44 eP 31
33 eP 31

1 . 50um
0 . 30um
0 . 90um
i 31
i 32
i 32
* 42
e 43
LR 04
1 62 i Pd 31
3 1 . 93nm
161 P 32
e 32
e 32
e 34
e 35
e 48
e 50
e 59
91 ePc 32
332 ePKP 37
354 ePKP 37
0 . 94um
7 ePKP 37
1 . 08um
1 . 09um
sPKP 38

(PP) 40
229 ePKP 37
59 ePKP 38
272 ePKP 38
17 ePKP 38
21 ePKP 38
244 PKP 38
7 . 00nm

15
15
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02
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- 0.2
0 . 0
- 0.3
- 1 . 1

2 . 3
5mb
2 . 8X
8mb
- 1 .8
0 . 7
0mb
9Msz
1 . 0
0mb
8Msz

- 2.0
5mb X
3. 2X
0mb
0.8

- 0 . 8
5mb
12 .5X
4 .5X
- 0 . 8
5 . 2 X

- 3.3X
- 0. 1
3mb X
4MSZ

- 0. 1
7mb
- 0.5

4 . 9X
- 0.8
- 0. 2
4MSZX
0. 0
5Msz

0.8
- 1.7
- 2 . 4
- 3.4X
15. 0X
- 1 . 7

1.2 on 64 of 81 obs.

1991 06h 24m
42.304 N ± 7. 4 km 15.
DEPTH w

29.
539

10.0km (geophy s i

58±
E ±

0. 73s
7 . 7 km
Cist)
ADR 1 AT I C SEA
ML ^ . 7

DU 1 1.03

SD 1 1 . 42

RF 1 1.54
AOU 1 . 58
AZ 1 1.60

SCO 1 75

BRT 1 89

(LOG) .

232 P 24
eSg 25
246 PC 24
eSg 25
230 P 24
273 P 24
259 P 24
eSg 25
186 P 24
eSg 25
138 PC 25

49.
0? .
55.
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57 .
59.
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58.
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70
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80
10
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(382)

0.2

- 0 . 4

0. 2
1 . 7
1 . 1

- 1 . 4

0. 1

MNS
MGR
RDP
AR V

ASS

OR I
MMN

CSI
LCI
TDS
CZ I
SFI
VBY

PGD
CEY

LJU

VOY

MME
OHR
PGF
BOB
WT T A

SBF
r corK r
UMR
LRG
LPG

LPL

BSF

CDF
HAU

SMF
LBF

LOR

BGF
S

______

» AUG
34 .

2.12
2.16
2.17
2 . 25

2 . 26

2 . 34
2 . 44

2 . 59
2 . 68
2.71
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3 .21
3.53

3.81

3.91

4.01
4.11
4 .85
5. 07
5.68

6.14

6e. <%. o D
6 . 72
6 . 84
7.10

7 12

8 30

8.43
8 . 64

9 .42
9 . 47

9 . 67

10.02
. D. -

1 7 ,
198 S
DEPTH -

4 . 1mb (
NEAR

STK

BFD

TOO

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FORR

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WR2

SOUTH

3.13
0.2s

4.10

6 . 20

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O Q - £ y

7 .73

8.24

8.80

9.85

11.43
0.5s

13.39

13.60

14 .80

273 P
180 P
256 P
303 Pd
eSn
291 Pd
eSn
163 P
172 P
eSn
1 67 P
136 P
167 P
171 P
302 P

356 * (P n)
eSn
30 1 P

347 e(Pn)
eSn

349 e(Pn)
eSn

343 e(Pn)
e
eSn
300 P
105 eP
275 Pn
301 PC

332 i (Pn)
e(Sg)
287 Pn
284 Pn
282 Pn
283 Pn
300 Pn
Sn
300 Pn
Sn
315 Pn
Sn
319 Pn
314 Pn
Sn
301 Pn
304 Pn
Sn
305 Pr,
Sn
299 Pn

25 06. 70
25 05.30
25 07.50
25 16 .20
25 38.70
25 16 .80
25 39.40
25 13 . $0
25 1 4 . £0
25 50 . 28
25 10. $0
25 15 . $4
25 14.40
25 18.^0
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25 39 .
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26 35 .$0
26 37.00
28 10. £0
26 45-80
26 47.10
28 27 .30
26 50. £0
28 34 . t0
26 54 .60
1.6 on 32 of 4

1991 06h 28m 55.
±12. 0km 139.082
33. 0km (normal)
1 obs .)
COAST OF AUSTRALI

43 eP
27 . 60nm
eS
e
138 eP

iPg
eS
125 eP
eS
i
e

66 i Pd
i S
94 eP
eS
101 eP
eS
32 eP
e
287 eP
eS
335 eP
6 . 50nm
eS
303 eP
eS
2 eP
eS
342 eP

29 48.

30 24 .
30 34 .:
29 57.i
30 10.i
30 52 .1
30 28.i
31 29. i
32 15.1
37 48 .1

\ Ct *) ft ' O o _. o . 31 36 .(

30 50. i
32 17.
30 52.'
32 15 . <
31 08. i
37 55. i
31 17.!
33 03. !
31 40.;

33 41.1
32 05.i
34 28.i
32 08.i
34 35.i
32 23.!

1 . 1
- 0.9
1 . 2
2 . 7

3.2X

4 . 6X
4 . 2X

- 1 .6
2 . 3
0.5
- 1 . 6
3 . 7 X
1 8 . 9X

3. IX
22. 0X

1 4 . 0X

4 . 5X

2 . 4
1 . 1
0. 3
2.3
6

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0 . 7
0.9
- 0. 1
0.6
- 2 . 1

- 2 . 1

- 0. 9

0. 8
- 0.5

- 2.5
- 2 .0

- 1 . 6

- 2.6
: obs .

17± ' ±

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90

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90

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>0

0.87s
9 . 5km

(600)

4 . 6X

- 0. 2

1 . 0

0. 0

2. 1

- 2.9

4.8X

0. 1

0.8
1mb X

- 0.6

- 0.3

- 0.2

0.6s 5.00nm 4. 1mb
eS 35 09.30
S . D. =1.5 on 10 of 12 obs .

? AUG 17, 1991 06h 36m 22.83± 1.71s
68.053 N ±17. 7km 20.930 E ±15. 8km
DEPTH - 10.0km (geo phy s i c i s t)
SWEDEN (536)

KTK1 1.28 40 eP 36 46.29 -0.3
TRO 1.75 336 eP 36 54.09 0.8
LOF 2.77 275 i PC 37 06.90 -1.1
MOR7 3.00 237 eP 37 11.85 0.6
S . D . =1.6 on 4 of 4obs.

? AUG 17. 1991 06h 42m 00.70± 3.77s
48.394 N ±28. 6km 7.710 E ±18. 5km
DEPTH = 10.0km (geophy s i c i s t)
FRANCE (538)
ML 1.9 (LOG) .

CDF 0.29 274 Pg 42 06.70 -0.1
Sg 42 10.20
FEL 0.56 159 ePg 42 12.13 0.0
BSF 0.83 228 Pg 42 16.70 -0.2
Sg 42 27.20
HAU 0.99 247 Pg 42 19.80 0.3
Sg 42 32.30
S.D. = 0.4 on 4 of 4 obs.

AUG 17, 1991 07h 04m 1 1 . 1 0± 0.52s
23.896 S ± 5.1km 66.542 W ± 8.1km
DEPTH = 21 1 . 1 ± 6 . 5 km

4 . 5mb (6 obs .)
JUJUY PROVINCE, ARGENTINA (128)

SLA 1 .26 131 i Pd 04 47 . 20 2.8
S 05 14 .50
ANT 3.55 272 iPc 05 08.30 0.0
i S 0548.70
CYA 4.58 172 iP 05 28.80 7.7X
S 06 1 7 . 00
CCH 6.49 3 P 05 45.70 -0.2
CNCB 7.18 349 P 05 56.00 1.0
S 07 17 .00
LPB 7.47 348 P 05 59.00 0.2
S 07 20.50

RTLL 7.60 193 e(P) 06 00.00 -0.1
(S) 07 22.00
ZOBO 7.73 349 P 06 02.00 -0.4
S 07 24.00
ARE 8.73 327 eP 06 13.00 -2.0

eS 07 46.00
MDZ 9.18 192 eP 06 25.60 5.0X
JACH 9.45 201 eP 06 24.00 -0.1
PEL 9.91 201 eP 06 29.00 -0.9
PCH 10.30 199 eP 06 36.00 1.0
CHCH 10.63 199 eP 06 38.00 -1.2
LNV 10.89 202 eP 06 40.00 -2.5
PPD 14.15 85 eP 07 23.20 -0.5
e 07 27.30
VAO 17.98 91 eP 08 08.00 -0.6
e 0811.20
SOB1 28.52 64 eP 09 47.90 -1.3
NVL 63.82 159 P 14 24.00 1.5
SPA 66.25 180 iPd 14 39.80 1.5
1.0s 27 . 50nm 4 . 9mb
LIC 67.01 72 P 1442.10 -1.5
K I C 67 . 32 72 P 14 44 . 40 -1.2
0.6s 1 1 . 50nm 4 . 8mb
ALO 69.69 326 eP 15 00.30 0.3
0.9s 4 . 83nm 4 . 2mb
ANMO 69.69 326 P 15 00.20 0.2
GOL 72.91 330 P 15 19.60 0.5
1.0s 10.00nm 4. 5mb
BW06 77.28 329 P 15 44.90 1.2
PNT 86.83 328 eP 16 34.00 1.5
0.6s 4.00nm 4. 4mb
YKA 94.17 340 «P 17 06.00 -0.3
0.7s 1 . 40nm 4 . 2mb
ASPA 128.72 204 iPKPd 22 55.70 0.4
0.6s 10.1 0nm
WR2 131.89 207 ePKP 23 01.80 0.4
0.6s 8 . 00nm
WRA 131.91 207 PKP 23 02.00 0.6
0.5s 5 . 1 0nm
S . D . - 1 . 2 on 29 o f 31 obs .

159

4 AUG 17, 1991 07h 08m 31.70s
59 . 642 N 151. 434 W
DEPTH = 50.4km

< At 1 C> . ML 2.8 (AEIC).

HOM e . 1 1 279 i Pd 08 39 1 3 1.1
i S 68 45 . 40
CNPM C-i 15 139 iPd 68 39.22 -0.7
eS 6845.43
NNL 641 10iPc 6842.40 0.4
OPT 6.91 271 iPc 68 47.46 -1.0
eS 09 00.25
A U E 1 03 1' i> 5 i P c 68 49.12 -0.9
RED ' ''3 320 eP 08 49.18 -0.9
eS 09 03.02
AUP 1 65 255 iPc 08 49.67 -0.8
eS 09 03.82
AUL 1.05 257 iPc 08 49.56 -0.8
ROT 1.65 333 iPc 08 49.88 -0.6
eS 0904.14
RSO 1.06 322 eP 08 49.86 -0.8
S 09 04. 00
AGU 1.06 255 ePc 08 49.71 -0.8
eS 0904.13
SLKM 1.06 34 ePd 08 50.09 -0.4
eS 0905.18
REF 1.06 324 ePc 08 49.81 -0.9
eS 09 04 . 34
AUH 1.06 256 i PC 08 49.77 -0.8
eS 0904.82
AUI 1.06 254 iPc 08 49.50 -1.0
eS 09 03. 84
AUW 1.07 256 iPc 08 49.80 -0.8
ROW 1.09 321 iPc 08 50.17 -0.9
eS 09 04.82
RON 1.10 323 *P 08 50.22 -0.9
eS 69 64. 67
SEW 1.10 64 ePd 08 56.67 -0.4
NKA 1.11 5 e P d 0852.55 1.4
SYI 1.15 206 iPd 08 50.74 -0.9
S 09 05.80
COD 1.34 239 iPc 08 53.41 -1.0
POB 1.41 277 ePc 08 54.09 -1.2
i S 09 1 1 . 65
MCNL 1.55 254 ePc 08 56.01 -1.4
SPU 1.58 349 iPc 08 57.48 -0.3
CKL 1.62 344 eP 08 57.69 -0.8
BGL 1.69 344 eP 08 59.45 0.0
CGLM 1.70 351 eP 08 59.44 0.0
NCG 1.80 349 iPc 09 01.09 0.1
LT 1 1.85 76 eP 09 00.79 -0.8
PMS 1.86 29 eP 09 02.37 0.7
KNIM 1.99 68 eP 09 01.89 -1.6
KNK 2.31 38 eP 09 07.53 -0.5
SKT 2. 35 359 eP 0907.61 -1.0
GLI 2.49 58 ePd 09 08.74 -1.9
FID 2.71 64 ePd 09 11.37 -2.4
VZW 2.81 58 «P 09 13. 60 -1.7
KLU 3.29 53 ePc 09 20.81 -1.3
38 obs . ossocioted

? AUG 17, 1991 07h 18m 14.67± 5.17s
4.170 N ±27. 3km 77.011 W ±40. 5km
DEPTH - 33.0km (normol)
NEAR WEST COAST OF COLOMBIA (102)
MD 2 . 6 (UVC) .

CLMC 0.53 123 ePc 18 26.27 0.4
eS 18 31 . 90
ANCC 0.67 168 iPc 18 28.08 0.4
eS 18 35.20
HOOC 0.79 152 iPc 18 28.97 -0.7
HOBC 0.89 78 eP 18 30.86 -0.1
S . D . =0.9 on 4 of 4 obs.

? AUG 17, 1991 07h 21m 1 3 . 92± 3.67s
48.392 N ±27. 9km 7.706 E ±18. 2km
DEPTH = 10.0km (geophy s i c i s t)
FRANCE (538)
ML 1 . 5 (LOG) .

CDF 0.29 274 Pg 21 19.90 -0.1
Sg 2123.40
FEL 0.56 158 ePg 21 25.31 0.0
BSF 0.83 228 Pg 21 29.90 -0.1

HAU 0.99 247 Pg 21 32.90 0.2
Sg 21 45.20
S . D . =0.3 on 4 of 4 obs.

% AUG 17, 1991 07h 31m 55.33± 1.35s
16.188 N ±11. 0km 61.653 W ±16. 3km
DEPTH - 33.0km (normol)
LEEWARD ISLANDS (92)
ML 1 .6 (FDF) .

DOG 0.16 168 ePc 32 01.55 0.0
S 32 03.80
PAG 0.16 189 eP 32 01.50 -0.1
S 3204. 50
SEG 0.26 34 ePc 32 02.79 0.2
S 32 06.40
MGG 0.42 130 ePc 32 05.08 0.3
S 32 1 1 .00
DEC 0.58 78 ePd 32 06.77 -0.4
S 32 14.00
S . D . -0.4 on 5of Sobs.

% AUG 17, 1991 07h 59m 13.72± 0.62s
44.623 N ± 6.1km 10.160 E ± 6.1km
DEPTH = 10.0km (geophy s i c i s t)
NORTHERN ITALY (545)

BOB 0.53 286 P 59 24.20 -0.2
eSg 59 33.50
MME 0.58 138 P 59 25.20 -0.4
eSg 59 35.60
BDI 0.64 151 P 59 26.10 -0.5
eSg 59 36.90
P I I 0 . 94 164 P 5931.70 0.1
eSg 59 44 . 40
SAL 1.02 15 P 59 34 .00 1.0
eSg 59 49.00
PGD 1 . 35 123 P 59 40. 00 1.4
eSg 00 00.00
CK I 1.36 262 P 59 39.00 0.3
eSg 59 58.00

eSg 59 59.00
CT 1 1.77 36 P 59 43. 30 -1.4
S . D . -1.0 on 9of 9 obs.

& AUG 17, 1991 08h 07m 38.36s
61 .538 N 147.931 W
DEPTH - 6.7km
SOUTHERN ALASKA (2)
<AE I C>. ML 3.0 (AEIC). 3.1
(PMR) .

KNK 0.28 244 i PC 07 44.61 0.5
i S 07 48.34
SCM 0.41 44 iPc 07 46.28 -0.4
GHO 0.53 297 iPc 07 49.37 0.4
eS 07 56.84
PLRM 0.58 276 iPc 07 49.97 0.0
eS 07 57.68

PMR 0.58 276 iPc 07 50.50 0.6

eS 08 04.04
VZW 0.82 125 iPd 07 54.08 -0.5
IS 08 05. 10
PMS 0.84 250 iPc 07 54.87 0.0
VLZ 0.87 117 iPc 07 54.18 -1.2
eS 08 05. 74
PWA 0.94 278 ePc 07 56.90 0.4
KLU 0.97 92 iPc 07 55.78 -1.3
eS 08 09.32
TOA 1.01 55 iPc 07 57.80 0.0
FID 1.06 138 eP 07 57.93 -0.7
KNIM 1.20 175 ePd 08 00.85 -0.1
eS 08 16.58

SUA 1.35 268 ePc 08 03.63 -0.1
CUT 1.41 309 ePc 08 04.42 0.0
iS 08 22.59
SDG 1.50 48 ePc 08 04.81 -1.0
eS 08 24.46
LT 1 1.50 179 eP 08 05.36 -0.4
SLKM 1.52 228 eP 08 06.25 0.2
S 08 26.51
MTU 1 . 56 175 eP 08 07. 73 1.1
SEW 1.62 208 eP 08 08.05 0.6

eS 08 29 . 78
SKT 1.77 286 eP 08 09.76 0.1
eS 08 33. 12

PAX 1.84 38 iPc 08 10.15 -0.6
RND 1.92 348 eP 08 12.36 0.4
CGLM 1.97 265 eP 08 14.02 1.4
GLB 1 .98 91 eP 08 1 1 . 18 -1.5
SPU 2.02 262 iPc 68 14.76 1.5
NCG 2.03 268 ePd 08 15.46 1.9
THY 2.14 27 eP 08 15.58 0.5
CKL 2.15 263 eP 6815.55 0.3
BGL 2.16 265 eP 08 15 . 58 0.2
TRF 2 . 21 331 eP 0816.87 6.7
NNL 2-23 229 eP 08 18.77 2.5
MCK 2.25 349 eP 08 17.75 1.1
ROT 2.38 248 eP 08 20.45 1.9
KTH 2.45 327 eP 08 20.01 0.5
REF 2.55 248 eP 08 22.73 1.7
RON 2.57 249 eP 08 21.94 0.7
RSO 2.59 247 eP 08 22.87 1.3
TGL 2.60 105 eP 08 21 . 82 0.2

CNPM 2.60 220 eP 08 22.78 1.3
ROW 2.60 248 eP 08 24.54 2.8
HOM 2.63 226 eP 08 23.49 1.6
BALM 2.74 98 ePc 08 24.04 0.3
TMW 2.91 50eP 0828.07 2.1
WRH 2.95 359 eP 08 26.04 -0.4
NEA 3.10 351 eP 08 30.46 1.9
CCB 3.12 1 eP 0830.05 1.2
OPT 3.23 236 eP 08 32.01 1.6
CTGM 3.24 97 eP 08 33.13 2.4
FBA 3.38 1 eP 08 34 . 20 1.6
MDM 3.44 358 eP 08 34.32 0.9
PDB 3.55 243 eP 08 35.56 0.6
SVW 3.73 267 eP 08 38.30 0.6
CDD 3.87 230 eP 08 40.30 0.7
KDC 4.45 213 eP 08 47.80 0.0
IMA 5.21 333 eP 08 58.90 0.2
INK 9.12 36 eP 09 51.00 -2.2
61 obs. ossocioted

* AUG 17, 1991 08h 10m 28.16± 2.08s 51.348 N ±26. 1km 176.293 W ± 7.9km DEPTH - 33.0km (normo 1)

ML 4.5 (PMR) . Felt (III) on
Adok.

ADK 0.59 336 i Pd 10 39.70 -0.3
SMY 6.09 287 eP 11 58.20 0.1
SON 10.25 61 eP 12 55.50 -0.4
SVW 15.02 41 eP 14 03.70 4.2X
PDB 15.02 47 P 13 59.00 -0.5
KDC 15.17 56 eP 14 01 .80 0.4
IMA 18.68 29 eP 14 46.30 0.7
KLU 19.44 47 P 14 47.50 -7 . 0X
FBA 20.02 36 P 14 56.50 -4 . 1 X
S . D . -0.6 on 6 of 9 obs.

& AUG 17, 1991 08h 44m 47.30s
41 . 778 N 125 .908 W
DEPTH - 3 . 0km
4 . 3mb (2 obs .)
OFF COAST OF NORTHERN CALIFORNIA(34) <BRK>. ML 3.7 (BRK) . MD 4.0
(GM).

FHC 1.75 123 iPd 45 16.47 -2.3
e 4526. 40
FOX 1.92 130 iPd 45 19.19 -1.9
WDC 2.81 114 eP 45 32.00 -2.0
eS 46 04.30
LBFM 3.05 97 eP 45 36.80 -0.7
LTCM 3.26 117 eP 45 38.50 -1.9

ORV 4.02 122 iPc 45 48.75 -2.4
ORV 4.02 122 eP 45 58.00 6.9
2SP 4.75 143 eP 45 59.71 -1.8

BRK 4.81 143 e(P) 45 57.10 -5.2
BKS 4.81 143 eP 46 00.10 -2.3
PCC 5.07 146 eP 46 02.97 -3.0
ARN 5.57 141 eP 46 10.20 -2.9
LRM 10.53 63 eP 47 21.10 -1.4
FFC 20.41 42 eP 49 27.00 -1.0
0.9s 36 . 00nm 4 . 7mb

168

I7d 08h

YKA 21.81 14 eP 49 46.50 4.3
0.8s 4.40nm 3.9mb
16 obs. associated

Si AUG 17, 1991 08h 52m 59.00s
41.787 N 126.098 W
DEPTH = 5.0km
4.4mb (1 obs.)
OFF COAST OF NORTHERN CALIFORNIA(34) <BRK>. ML 3.7 (BRK). MD 3.9
(GM) .

FHC
FOX
woe

LBFM
LTCM
M 1 N
ORV
ZSP
BRK
BKS
PCC
ARN
LRM
FFC

YKA

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* AUG
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15

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DEPTH *

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1 21
1 41
142
1 4 1
145
1 40
63
43
1 7
1 4
2

eP
i Pd
ePc
eS
eP
eP
eP
ePc
eP

e(P)
i PC
eP
eP
eP
i PC

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eP 58 04

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- 2
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- 2
- 1
- 2
- 2
- 3
- 2
- 1
0

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. 8

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. 0
. 1
. 9
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. 5
. 6
. 3
. 5
. 1
. 2
4mb
10.5
. 1 0nm
obs. ossocioted

S

1991 08h
±1 3 . 4km
149.0
MENDOZA PROVINCE

JACH

MDZ

RTLL .
PEL

ROCH

SAN

PCH

TACH

CHCH

LCCH

LNV

CYA

S

& AUG
41 .

1 .

1 .

1 .
1 .

1 .

1 .

1 .

1 .

2.

2.

2.

4 .

. D .

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88

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17.
773 N

230

142

56
218

230

210

204

213

203

228

217

44

0 . 6

1 991

± 20

53m
69 .

49
655

67± 1 .
W ±12.

32s
8km
. 6 km
, ARGENTINA

iPc
iS
i P
iS
iPd
i Pe
iS
i Pe
IS
eP
iS
iPc
iS
i PC
iS
i PC
iS
i Pd
iS
i PC
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iP
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on

08h

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1 2 obs .

. 56s
W
DEPTH = 22. 1 km
OFF COAST OF NORTHERN CAL!FORNIA(34) <GM-P>. MD 3.6 (GM).

FHC 1.57 128 eP 58 59.00 -2.4
LBFM 2.84 97 eP 59 20.00 0.3
LTCM 3.08 119 eP 59 21.00 -1.9
ORV 3.84 124 eP 59 30.90 -2.8
ARN 5.43 143 eP 59 53.00 -3.3
5 obs. associated

? AUG 17, 1991 09h 17m 36.15± 1.24s
41.170 N ±19.4km 28.494 E ±15.7 km DEPTH - 10.0km (geophysicist)
TURKEY (366)

ISK
DMK

HRT
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iPg
iPg
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obs .

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% AUG 17, 1991 10h 54m 37.47± 0.75s
39.182 N ± 7.2km 27.929 E ± 7.7km
DEPTH = 10.0km (geophy s i C i s t)
TURKEY (366)

DST 0.69 52 ePg 54 50.10 -1.0
eSg 55 00.60
IZM 0.94 214 ePg 54 55.40 0.0
EDC 1.16 358 ePn 55 00.^0 0.8
EZN 1.40 298 ePn 55 02. $0 -0.5
KHL 1.51 124 ePn 55 05 . 10 0.4
1 Z 1 1.66 45 ePn 5507.10 0.3
eSg 55 08.^0
S.D. =6.8 on 6of $ obs .
j.
? AUG 17, 1991 11h 08m 46.is± 2.33s
2.251 N ±10. 8km 127.323 E ±24. 9km DEPTH - 114.2 ± 26. 1 km

4 . 9mb (4 obs .)
MOLUCCA PASSAGE (266)

MNI 2.61 252 ePd 09 28.50 0.0
WR2 23.12 163 iPd 13 44.00 6.3
0.3s 81. 00nm 5.6mb
ASPA 26.55 166 iPd 14 15.60 -0.3
0.4s 9 . 00nm 4.7mb
FORR 32.92 179 eP 15 11.50 -0.8
KLB 34.86 194 eP 15 29.60 -0.1
0.4s 9 . 00nm
MAT 35.57 15 eP 15 35.
MUN 35.64 196 eP 1536.
NWAO 36 . 27 194 eP 1541.
STK 36 . 55 159 iPc 1543.
0.3s 3 . 60nm
S.D. =0.5 on 9 of

? AUG 17, 1991 1 2h 35m 39 .
25.51 0 S ±17 . 5km 179. 753
DEPTH - 537 .8 ± 33. 7 km

5 . 0mb
i30 0.0
U0 0.4
l}0 0.1
70 0.5
4 . 7mb
J obs.

»6± 2.87s
i ±1 8 . 2km

4 . 9mb (6 obs .)
SOUTH OF FIJI ISLANDS

DZM 12 . 66 283 iPc 38 24 .
THZ 1 7 . 1 7 198 P 39 10 .
LTZ 18 . 29 198 P 39 19.

(171)

30 -0.5
50 0.4
70 -1.2
COO 25.07 252 iPc 40 24.J20 1.1
0.4s 17.00nm 5. 0mb
CAN 28.17 242 iPc 40 51.10 0.9
BWA 28.47 244 eP 40 51.60 -1.2
CMS 30.32 251 iPc 41 09.30 0.5
CTAO 31.30 273 iPd 41 17.80 0.7
TOO 31.41 239 eP 41 19. p0 1.0
0.6s 10. 00nm 4 . 6mb
STK 33.95 250 iPc 41 40.00 0.7
0.3s 8 . 20nm 4 . 8mb
ASPA 41.58 262 iPd 42 41.|80 6.1
0.5s 41. 20nm
iPcP 46 36.
iS 48 22.
WRA 42. 10 268 P 4244.
0.3s 29 . 30nm
FORR 45 . 52 251 eP 4311.
WARS 47.52 257 iPc 43 22.
TNP 86.54 45 P 47 27.
0.9s 4 . 88nm
HFS 144.07 348 ePKP 54 13.

5 . 2mb
40
00
00 -1.9
5 . 3mb
80 -0.6
00 -5.8X
60 1.0
4 . 2mb
50 -1.0
0.3s 1 . 40nm
S.D. -1.1 on I5of 16 obs .

____ ____ _____________ _ ______

AUG 17, 1991 I2h 39m 03.82± 0.12s
10.617 N ± 2.1 km 62.176
DEPTH - 63.2km (9 dept
5.2mb (74 obs.)
NEAR COAST OF VENEZUELA

MD 5.4 (TRN) . Felt s t ro
the Port of Spoin ond P
Fortin oreos, Trinidad.
(IV) at St. Augus t i ne ,
CENTROID, MOMENT TENSOR
Dota Used: GDSN
L.P.8. : 18S, 40C
Centroid Location:
Or i g i n T i me 12:39
Lot 10.54N 0.04 Lon 62

Dep 45.2 3.8 Hoi f-durc
Moment Tensor; Scale
Mrr--0.57 0.05 Mtt-

W ± 2 . 2km
h phase s)

(97)
ng I y in
O i n t
Pel t
T r i n i d od .
(HRV)

: 7.0 0.4
,20W 0 . 05
t ion 2.1

TCE
TRN
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o n T D U 1
GRW
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FCV
SOA
SL8
GUAN
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B I M

MVM

FDF

PML
PMCB
PCM
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f p 14 Lr n M
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LLAV

OLLA

CAR

MGG
PAG

DOG
SFG
DEG
SEG
MORO

MGH
CEOS

BPA
NEV
CPB
TOV

CPD
SJG
LPR
SDV

CLLP
MGP
APR
MC P
FUO
BOG

BBJ
SPJ
UPA

NNA

PT10
ZOBO

LPB

1 0»» 1 7 Nm
0.62 0.06 H8F

Mf f--0 .04 0.09
Mr f = 0.25 0.06
Principol Axes:
T Vo I = 1.57
N 0 . 02
P -1 . 59

Mr t= 1.43 0.10
Mt f=-0. 17 0.06

P 1 g=34 Azm= 0
9 264
55 161

Best Double Couple:Mo=
NP1 : S t r i ke=1 24
NP2 :

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161

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CNCB
SGS
CCH
ARE
SOB1
JSC

CAI
CBN

CVL
8LA

TKL
GBTN
TBR

PWLA
PPD

EMM
BNH
ELC
PPM
OLY
VAO
FVM

BMA
UYO
TUL

SIO
MEO
RTLL
MDZ

JACH
ROCH
SCH

PEL

SAN
PCH
LCCH
TACH
CHCH
LNV
ALO

ANMO

GLD

GOL

RSSD

PV09
BW06

DAU
MSU
FRB

27.85
28 . 09
28.09
28 .44
?8 .92
29. 31

30.19
30 . 67
1 .0s
30.92
31.17
0. 7s
31 . 72
31.97
32 . 2 1

33.83
34. 15

34 . 31
34. 75
36.03
36. 16
36.35
36.58
37.20
0. 7s

37 . 52
37.68
39.51
0 . 6s
2 20s
N 1 8s
E 22s

39. 79
40.96
42.14
43.72

43.80
44.16
44.24
0 . 6s
44.26
1 . 2s
44 . 56
44 . 70
44.75
44.81
45.03
45.19
46.95
1 . 0S
Z 20s

46.96
1 . 3s

47.90
1 .0s

47 . 98
0. 7s
49. 13

50.21
52. 12
0.7s

52.42
52.46
53.24
0.5s

192 iPd
326 P
188 P
199 eP
132 eP
326 ePc
PcP
i ScP
123 i Pd
336 eP
34 . 00nm
334 P
331 P
47 . 22nm
325 P
325 P
343 ePd
e
320 P
162 eP
e
e
353 P
349 P
322 P
288 eP
318 P
156 eP
322 ePc
132. 65nm
e
ScP
152 eP
314 i PC
315 i P
63 . 80 nm
0 . 93um
0 . 37 urn
0 . 7 1 um
e
e
LR
314 eP
312 i PC
188 i P c
1 88 i Pd
i
190 i PC
191 eP
356 ePc
67 . 00nm
190 i Pd
250 . 00 nm
190 ePc
190 iPd
191 i PC
190 i PC
190 i Pd
191 eP
308 eP
50 . 00nm
0.64 um
e
308 ePc
1 03 . 37nm
pP
ScP
S
315 ePd
40.00 nm
pP
(sP)
PP
ScP
315 P
1 8 . 96nm
321 ePd
iScP
312 ePd
317 i PC
24 . 37nm
ScP
S
313 P
311 P
356 eP
8 1 . 00nm

44 51
44 52
44 53
44 57
44 58
45 02
48 07
51 42
45 09
45 15

45 16
45 19

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45 26
45 27
45 51
45 42
45 45
45 47
46 03
45 46
45 50
46 00
46 04
46 02
46 06
46 09

46 33
52 08
46 1 3
46 1 4
46 29

52 40
55 27
58 14
46 31
46 40
46 50
47 09
47 28
47 05
47 08
47 08

47 09

47 1 1
47 1 2
47 12
47 13
47 15
47 15
47 30

47 46
47 30

47 46
52 48
54 18
47 37

47 53
48 03
49 32
52 53
47 37

4745
52 56
47 55
48 07

53 09
55 27
48 1 2
48 1 2
48 16

30 1.1
00 0.4
00 0.9
00 1.8
60 -0.7
40 -0.2
00
60
10 -1.5
30 0.8
5.0mb
50 -0.3
50 0.5
5 . 3mb
80 -0.1
00 -0.1
40 -0.6
00 105kmX
30 0.1
10 0.0
00 7kmX
60
00 -0.1
50 0.5
60 -0.3
80 1.9
70 -0.9
30 0.6
80 -1.0
6 . 0mb
00 98kmX
50
30 -0.3
40 -0.4
30 -0.8
5. 7mb
4.6MS2

00
00
00
20 -1.2
20 -1.8
80 -0.9
00 4 . 4X
40 80kmX
60 0.3
00 -0.3
40 -0.1
5 . 6mb
00 0.0
5.9mb
40 0.0
70 0.2
50 -0.3
10 -0.2
00 -0.1
50 -0.7
40 -0.2
5 . 4mb
4.6MSZ
50 63km
50 -0.1
5 . 6mb
70 63km
30
80
20 -0.7
5.3mb
60 64km
30
50
00
00 -1.6
5.2mb
40 -2.0
50
50 -0.3
70 -2.5
5 . 3mb
00
00
00 -0.6
20 -0.6
00 -1.7
6 . 0mb

FFC

TPC
BAR
PLM
GSC
LRM
RVR
SBB
CLC
MWC
PAS
IMP

SES

T 1C

1 SA
L 1C

K 1 C

BONR
EJ 1 F
ERUA
EPLA
EMON
ECOG
AFC
TOL

GUD
NEW

EN 1 J
EV 1 A
LBFM
ETOR
ECR 1
PNT

ECP
ETA
LON
EROO
EBR

AKU

EPF

LPF

GRR

MFF
PGC
LFF

FLN

LDF

LPO

YKA

EKA

RJF

LSF

CAF

TCF

MAF

BGF

54 .04
0. 7s
54 . 33
54. 56
54 .84
55.19
55. 23
55. 39
55. 89
55. 94
55.99
56. 07
56. 16
0. 8s
56. 32
1.1s

56.59
1 . 0s
56.60
56.64
Z 20s
56. 90
1 . 0s
56. 96
57 . 09
57 . 29
57 . 44
57.47
58 . 74
58 . 76
58 . 91
0 . 6s
59 . 01
59 . 10
0 . 8s

59 . 76
59 . 83
60. 41
60 . 60
60. 66
61.01
0 . 9s
61 . 03
61.31
61 . 66
62 . 44
62 . 50

62. 67
1 . 0s
62. 80
0 . 7s
62. 98
0.6s
63. 19
0.6s
63. 22
63. 23
63. 46
0. 8s
63. 53
0 . 6s
Z 22s
63. 72
0.6s
63. 72
0 . 7s
63. 87
0 . 8s
63.93
0.7s
64 .08
0.8s
Z 22s
64.28
0 . 8s
64 . 38
0 . 8s
64 . 75
0 . 7s
64.98
0. 9s
65.23
0.7s

333 iPc
29 . 00nm
304 eP
303 eP
303 eP
306 eP
319 cP
304 eP
305 eP
306 eP
304 eP
304 eP
309 P
9 . 80nm
325 ePc
1 00 . 00 nm
PP
89 Pd
1 9 . 00nm
306 eP
90 P
0 . 1 7um
89 Pd
36 . 50nm
308 P
53 eP
46 eP
49 iPc
45 eP
53 eP
53 eP
50 iPc
33 . 33nm
49 i PC
320 cP
62 . 50nm
PP
e
53 eP
51 eP
312 P
49 i PC
47 i PC
321 ePc
27 . 00 nm
36 eP
35 eP
318 P
49 eP

49 (P)
eS
19 i P
37 . 00 nm
47 eP
40.86 nm
4 1 eP
1 3 . 55nm
4 1 eP
18.05 nm
43 eP
319 eP
45 eP
18. 80nm
4 1 cP
36 . 05nm
0 . 22um
4 1 eP
1 0 . 80nm
45 eP
23 . 1 5nm
336 eP
35 . 30nm
33 Pd
7 . 90nm
45 eP
1 7 . 45nm
0 . 28um
44 eP
1 B . 80 nm
45 eP
32.25nm
44 eP
1 2 . 70nm
44 eP
1 1 . 45nm
44 eP
1 8 . 75nm

48 21.10 -2.7
5. 4mb
4828.00 1.6
48 28.00 -0.1
48 30 . 00 -0.3
4834.00 1.3
48 32.50 -0.6
48 35.00 1.0
4838.00 0.3
48 38 .00 0.0
48 39.00 0.4
48 40 .00 1.1
48 38.50 -1.3
4 . 9mb
48 39.40 -1.1
5 . 8mb
48 57.00 68km
48 41.18 -1.8
5 . 1mb
48 43.00 0.2
48 4 1 . 84 -1.5
4.2MSZ
48 43.76 -1.4

5 . 4mb
48 45.00 -0.6
48 47 . 65 1.5
48 47.49 0.0
48 48.49 -0.1
48 48 . 25 -0.5
4858.57 0.7
4858.47 0.5
4901.00 2.1
5 . 6mb
48 59.64 0.0
48 57 . 20 -2.9
5.8mb
49 13.80 63!<m
51 40 . 50
4905.14 0.4
4906.43 1.1
49 08.00 -1.4
49 10.92 0.4
49 11.14 0.3
49 12.00 -1.1

5 . 4mb
49 13.00 0.0
49 15.00 0.0
49 15.50 -2.1
49 23 . 56 0.8
49 25 . 00 1.9
57 52.00
4924.80 1.0
5 . 4mb
49 25.60 0.4
5 . 6mb
49 25.80 -0.4
5 . 2mb
49 27 . 20 -0.4
5 . 3mb
49 27 . 70 -0.1
49 26.00 -1.8
49 29.20 -0.2
5 . 2mb
49 29.50 -0.3
5 . 6mb
4 . 3MS2
49 30.70 -0.4
5 . 0mb
49 30.90 -0.3
5 . 3mb
49 28.60 -3 . 2X
5.4mb
49 32.00 -0.3
4 . 8mb
49 34.30 0.8
5 . 1mb
4 . 4Msz
49 34.40 -0.4
5 . 1mb
49 35.20 -0.3
5 . 4mb
49 37.30 -0.6
5 . 0mb
49 38.90 -0.4
4 . 9mb
49 40.50 -0.4
5.2mb

AVF

SSF
SMF

LOR

LBF
SNF
DOU

LRG

LMR

FRF

BN 1
RRL
LPL

LPG

HAU

PZZ
DO 1
WLF
STV
BHB
ENN

LSD
SBF

MEM
RSP
BSF

D 1 X
1 M 1
CDF

ORX
F IN
CK 1
PCP
CGL

PGF

LLS
BOB
VDL
OSS
P 1 1

BDI
PGD
CT 1
SF 1
GRF

CRE
WTTA

MOX

VV 1
MNS
RDP
ASS
ARV
SI T
FVI
MBC

CLL

65.62
0.8s
65. 77
65.92
0 .9s
66.05
0. 8s
Z 22s
66. 08
66.95
67 . 06
0.6s

67.21
0. 8s
Z 22s
67.30
0.8s
67.43
0.7s
67 .63
67 . 69
67.73
0.9s
67.74
0. 9s
67 . 83
Z 22s
67 . 87
67 .97
67 .97
67 . 99
68. 02
68 . 02
0 . 7s
68 . 02
68 .03
0.8s
68 . 04
68 . 05
68 . 10
0.6s
68. 28
68. 36
68.51
0.7s
68 .62
68.62
68 . 69
68 .90
69.04
1 .2s
69.04
0.6s
69. 46
69.56
69 . 74
70. 23
70.24
0.1S
70.32
71 . 12
71.21
7 1 . 22
71 .24
0.9s
Z 22s
71 .27
71 .29
0. 7s

71 .59
2.1s
71.74
71.75
71.75
71.76
71 .98
72.00
72. 03
72.23
0 . 6s
72.52
1 .6s

43 eP 49 42.60 -0.8
1 0 . 05nm 4 . 8mb
43 eP 4943.50 -0.9
44 eP 4944.80 -0.6
1 3 . 1 0nm 4 . 9mb
43 eP 49 45.30 -0.8
1 4 . 80nm 5 . 0mb
0 . 22um 4 . 3Msz
43 eP 4945.20 -1.2
40 PC 49 50.60 -1.2
40 PC 4951.90 -0.6
8 . 20nm 4 . 9mb
S 58 42.00
SKS 59 46 . 00
47 eP 49 53.30 -0.2
1 2 . 1 0nm 4 . 9mb
0 . 22um 4 . 3Msz
47 eP 49 53.80 -0.3
9 . 40nm 4 . 8mb
47 eP 49 54.60 -0.4
12.1 5nm 5 . 0mb
46 P 49 57 . 50 1.1
46 P 49 56.94 0.0
45 eP 49 57 . 30 0.1
30 . 30nm 5 . 3mb
45 eP 49 57 . 60 0.3
27.85nm 5.2mb
42 eP 4956.40 -1.1
0 . 25um 4 . 4Msz
46 P 4957.96 0.1
46 P 49 58.90 0.5
41 P 49 58 .00 -0.2
47 P 4958.27 -0.3
46 P 49 58. 06 -0.6
39 eP 49 58.00 -0.5
22 . 00nm 5 . 2mb
45 P 4959.19 0.2
47 eP 49 58 . 50 -0.3
1 4 . 80nm 5 . 0mb
40 P 5001.60 3 . 0X
46 P 49 59. 19 0.2
43 eP 49 58.00 -1.2
1 3 . 55nm 5. 1mb
45 ePd 50 00.60 0.0
47 P 49 59.09 -1.8
42 eP 50 00.70 -1.0
1 6 . 55nm 5 . 1mb
45 P 50 01 .86 -0.6
47 P 50 01 . 45 -1.0
46 P 50 03.20 0.4
46 P 50 03.81 -0.3
52 P 50 05.38 0.2
1 3 . 50nm 4 . 8mb
49 eP 50 04.60 -0.5
1 2 . 65nm 5 . 0mb
44 ePd 50 08.00 0.3
46 PC 50 07.50 -0.7
44 ePd 50 09. 10 -0.4
44 ePc 50 12.00 -0.4
47 P 5011.72 -0.5
26 . 70nm 6 . 1mb
47 P 50 1 1 . 20 -1.7
47 P 50 1 6 . 60 -1.2
45 P 5017.20 -1.1
47 P 50 1 7 . 80 -0.4
41 iPc 50 17.70 -0.6
1 3 . 00nm 4 . 9mb
0.20um 4.3Msz
48 P 50 17 . 70 -1.0
44 i Pd 50 1 7 . 90 -1.0
8 . 1 0nm 4 . 8mb
i 50 24.30 21kmX
i 50 34.70
40 eP 50 25.00 4.7X
46 . 00nm 5 . 0mb
45 P 50 20.50 -0.9
49 P 50 21 .30 -0.2
50 P 5021.70 0.2
48 P 50 20.80 -0.8
48 P 50 22.20 -0.6
327 eP 50 22.90 0.4
44 P 50 23.20 0.2
348 ePc 50 22 .00 -1.6
48 . 00nm 5 . 6mb
40 eP 50 26.00 0.2
29 . 00nm 5 . 0mb
i 50 48.60 86kmX

17d 12h

162

SOI
KHC

NB?

VO r

DU I
BRG

CE .
I NK

PRU

SCO
VBY

HFS

KSP
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ZST

A I A
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KRA

TRO
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CMP
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PDF

SNA

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FRS

HVO

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72. 73
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72.74
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73 . 65
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1 . 6s
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1 . 8s

73 .69
73.71

73 . 82
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29 P
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45 eP

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338 eP
43 . 00 nm
41 eP
38 . 30nm
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51 P
46 eP
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30 eP
32 . 40nm
40 eP
22 eP
43 eP
i
i
181 eP
31 iP
43 eP
41 eP
e
21 i PC
42 e(P)

331 P
50 eP
331 eP
49 eP
21 eP
334 ePc
59 . 40nm
50 eP
30 eP
9 . 00nm
331 ePc
24 . 90nm
43 ePd
23 iP
29 eP
1 0 . 00nm
46 ePd
336 ePc
18.40 nm
45 i Pd
327 eP
45 eP
329 P
333 eP
331 eP
325 eP
35 iPd

i
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120 iPc
21 . 1 3nm
163 i P d
103. 1 3nm
56 eP
60 eP
58 eP
92 iPd
119 i PC
105 . 04nm
120 iPd
89 . 04nm
120 iPc

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- 0 .6
9mb
1 6kmX

0 .3
1mb
- 0 . 1
60km
0 .5
0.2
0mb
1 5 k m X

8.5
- 4.2X
3mb
- 0 .5
0mb
60km

0.7
0.7
6 1 km
- 0 . 4
5mb
0. 3
1 . 2
- 1 . 3
20kmX

1 . 8
- 0.3
- 0.2
0 . 7
1 7kmX
1 . 3
5. 2X
39kmX
- 1 .5
0. 7
0.2
- 0 .6
1 .0
- 0.9
4mb
0.5
0 .0
0mb
- 0. 4
1mb
4 . 7X
0. 0
0 . 0
1mb
1 .8
- 0. 3
0mb
2.5
0 . 6
1 . 1
- 0.3
- 0 .5
- 0.3
0.4
0.8
5mb X
22kmX

1 .5
6mb
0.5
0mb
5.2X
1 7 . 3X
14 . 5X
1 . 7
1 .0
3mb X
1 .0
3mb X
1 .5

BUL

NVL

MTD
YAK
NO I
MAT
BJ I

GKN
KKN
DMN
PKI
GUN
LZH

Z

GBA

KOD
CAN

TOO
CHG

BFD

BDT

CMS

LOE
NST
ADE

STK

OLP
NNT
CTAO

PSI
NWAO

MUN
ASPA

S

* AUG
6.

0.7s 68 . 49nm 6 . 2mb
94.32 110 iPd 52 17.40 -0.9
1.0s 1 2 . 50nm 5 . 3mb
94. 76 161 P 52 21 . 00 1.9
e 52 40.00 68km
e 56 12.00
96. 56 106 i Pd 52 32. 40 3 . 9X
107.00 354 ePKP 57 34.40 10. 8X
124.64 44 ePKP 57 58,50 0.1
129.32 339 ePKP 58 04.00 -3.2X
129.58 2 ePKP 58 07.50 0.0
1.0s 7 . 00nm
e 58 24.00
129.94 39 PKP 58 09. 76 1.0
130.49 39 PKP 58 10^78 0.8
1 30 . 5 1 39 PKP 58 10
130.73 39 PKP 58 10
130.77 38 PKP 58 1 1
131.71 15 ePKP 58 12
2.0s 39.00nm
25s 0 . 43um
pP 58 23
sP 58 28
133.26 60 PKP 58 17

. 78 0.7
. 48 -0.1
,06 0.4
50 0.6

5 . 1MszX
. 50
. 00
,00 1.8
0.7s 4 . 50nm '
134.84 64 ePKP 58 20

142.49 224 e (PKP) 58 29
e 58 45
143.42 218 i PKPd 58 31
145.33 33 ePKPc 58 36
1.3s 120.1 9nm
145.43 216 iPKPd 58 38
1.2s 267 . 00nm
i 59 02
i 0212
146.65 34 ePKP 58 40
1.1s 4 1 . 40nm

00 1.4
,10 -2.7
, 60
. 50 -1.8
,40 -0.6

. 20 1.6

. 20
. 00
. 80 1.7

146.79 227 ePKP 58 40.00 1.0
i 58 4 U 60
147.93 30 ePKP 58 45,00 3.8X
148.55 34 ePKP 58 46 h 00 3.8X
149.18 215 i PKPd 5848
0.8s 53.73nm
149.50 222 iPKPd 58 44
0.5s 11. 20nm
i 58 48
150 . 45 234 ePKP 58 51
1 *\ ft 77 ">» Q ^Pl/D *\C *^O I 3 U . / / O O C r l\ r* 3 O ^J £.
151.05 248 iPKPc 58 52
i 59 09
157.00 56 ePKPd 58 55
157.79 179 ePKP 58 55
1.0s 1 8 . 00nm
158.69 176 ePKP 58 57

,10 5 . 3X

. 30 1.0

. 50
. 70 6. 8X
O ft 7 *> Y O V 1 . £. A
. 00 6. 0X
. 00
. 50 1.2
,00 0.2

00 1.2
159.92 228 ePKP 58 57,90 0.5
1.3s 7 . 70nm
. D. - 0 . 9 on 272 of 3

17, 1991 12h 56m 1 0
323 S ±1 1 .5km 130. 279
DEPTH - 160 . 7 ± 13.9 km
5.0
BANDA

AA 1
MTN

KUPT
KNA

WR2

OIS

ASPA

WARB
FORR
KLB

BDT

ntb (5 obs .)
SEA

3.34 321 ePd 57 03
6.54 173 iPc 57 45
0.3s 295 . 00nm
eS 58 46. w

3 1 obs .

24± 1 . 34s
E ±17 . 2km

(280)

40 0.5
30 0.2
6 . 1mb X
a a
7 . 62 240 eP 58 00 . 00 0.3
9.48 189 eP 58 23
0.3s 47 . 00nm
eS 00 03
14.11 164 eP 59 22
0.4s 61 . 00nm
i 59 28
IS 01 52
16.79 148 i P 59 58
0.2s 22 . 00nm
iS 02 55
1 7 . 59 1 69 i Pd 0007
0.4s 49.1 0nm
eS 03 14
20 . 05 1 90 i Pd 0034
24. 48 185 eP 0116
27.73 203 eP 01 46
0.3s 4 . 00nm

20 -1.1
5 . 5mb X
00
10 -2.2
5 . 3mb
60
60
40 0.9
5 . 2mb

00

70 0.6
5 . 2mb
00
30 1.4
60 0.6
00 0.3
4 . 6mb
38. 78 308 eP 03 21 .00 0.1

GBA 56.07 291 Pd 05 33.50 -1.6
0.6s 2 . 1 0nm 4 . 2mb
S . D . -1.3 on 12 of 12 obs .

AUG 17, 1991 13h 01m 48.43± 0.32s
44.425 N ± 2.3km 7.319 E ± 3.5km
DEPTH « 10.0km (geophy s i c i s, t)
NORTHERN ITALY (545)
ML 2.6 (LOG) . 2.4 (GEN) .

DOI 0.09 326 Pd 01 52.00 0.8
i Sg 01 54 . 00
PZZ 0.18 297 PC 01 52.75 0.3
S 0255. 09
STV 0 . 1 8 1 79 Pd 6152.66 0.1
S 01 55 . 00
TOUF 0.41 187 Pg 01 56.57 -0.4
BHB 0.42 355 P 01 56.76 -0.2
S 02 02.27

AUTN 0.44 170 Pg 01 57.61 0.2
SAOF 0.47 159 Pg 01 57.54 -0.5
Sg 02 03.95
AURF 0.54 179 Pg 01 58.91 -0.4
Sg 0206.21
MVIF 0.54 193 Pg 01 59.10 -0.3
Sg 02 06 . 23
SBF 0.57 172 Pg 02 00.90 0.9
Sg 02 07.30
RRL 0.63 323 P 02 00.94 -0.2
S 0208. 83
IMI 0 .66 141 P 02 01 . 25 -0.3
S 02 09.86
FIN 0 . 67 1 08 P 02 01 . 90 0.1
S 02 10 . 99
RSP 0.73 357 P 02 01.96 -0.9
S 02 1 1 .50
CALN 0.74 205 Pg 02 03.30 0.2
Sg 02 12.23
PCP 0.89 82 P 0206.11 0.6
S 0217.75
FRF 0.99 210 Pg 02 07.50 0.3
Sg 0219.10
LRG 1 . 19 216 Pg 0210.70 0.1
Sg 02 25.30
LMR 1.24 209 Pg 02 11.20 -0.2
Sg 02 26.50
S.D.-0.5 on 19 of 19 obs .

* AUG 17, 1991 I3h 37m 15.62± 0.58s 11.545 N ±10. 5km 86.914 W ± 8.8km DEPTH - 29.5km (3 depth phoses) 4.6mb (11 obs.) 4.lMsz (2 obs.)
NEAR COAST OF NICARAGUA (74)

UPA 7.70 109 ePc 39 10.80 2.2
PPM 13.54 305 iP 40 29.20 0.4
MRX 15.96 302 (P) 41 02.10 2.4
SDV 16.24 98 eP 4105.50 1.9
TOV 16.92 94 eP 41 09.70 -2.3
GUAN 20.95 92 eP 41 57.10 -1.8
SGS 22.33 14 P 42 16.00 3.5X
PRM 22.82 10 P 42 19 . 70 2.4
JSC 23.21 12 P 42 23 . 00 1.9
GBTN 24.14 5 P 42 31.50 1.4
TKL 24. 17 6 P 42 32 . 20 1.8
MEO 25.46 337 i PC 42 43.00 0.3
TUL 25.56 343 i PC 42 43.50 -0.1
1.0s 88 . 20nm 5 . 3mb

Z 20s 0 . 48um 4 . 0Msz
N 22s 0.35um
E 22s 0.58um
eS 4748.00
LR 51 19 . 00
BLA 26.22 12 P 42 51.00 1.2
CVL 27.39 15 P 43 01.50 1.0
ALO 29.29 326 eP 43 17.20 -0.8
1.2s 8 . 59nm 4 . 4mb
ANMO 29.30 326 P 43 17.50 -0.5
1.0s 1 9 . 38nm 4 . 8mb
LVNJ 31 .05 18 P 4334.20 1.0
TBR 31 .52 19 P 4337.50 0.2
GOL 32.47 333 P 43 44.50 -1.4
0.7s 4 . 25nm 4 . 5mb
ZOBO 33.31 146 P 43 54.00 0.2
Z 20s 0 . 38um 4 . 1Msz
i 44 04.00 35km
LR 55 04.00

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17d 13h

LP8 33.53 146 eP 43 58.00 2.4
CNCB 33.82 146 P 43 57.00 -1.3
e 4638. 00
BAR 34.48 312 eP 44 18.00 1 4 . 8X
PLM 34 . 96 31 3 P 44 09 . 00 1.5
e 4416.50 26km
MSU 35.05 324 P 44 08.00 -0.3
RVR 35.66 314 eP 44 14.00 0.8
RSSD 35.66 339 P 44 13.06 -0.4

pP 4421.40 28km
GSC 35.96 316 eP 44 17.00 1.1
MWC 36.25 314 eP 44 19.80 0.5
SBB 36.34 314 eP 44 22.06 3.6X
CLC 36.79 316 eP 44 24.00 1.2
BW06 36.82 332 P 44 21.80 -1.4
0.7s 3.90nm 4.4mb
ISA 37.30 315 eP 44 28.00 6.9
TNP 37.83 320 P 44 31.50 -0.2
0.7s 1 . 1 1 nm 3 . 8mb
BONR 38.45 319 P 44 37.80 0.8
LCCM 46.24 333 eP 44 51.30 -0.3
LBFM 42.65 320 P 45 12.30 0.8
NEW 44.45 331 P 45 24.00 -1.8
0.7s 5 . 25nm 4 . 5mb
FFC 44 69 348 ePc 45 26.30 -1.3
0.7s 1 2 . 00nm 4 . 9mb
SCH 45.99 16 eP 45 36.00 -2.0
PNT 46.37 331 eP 45 46.00 -1.0
0.7s 12.00nm 5. 0mb
FRB 53.72 10 eP 46 34.00 -2.9
YKA 54.62 345 eP 46 41.20 -2.4
0.8s 4 60nm 4. 6mb
INK 64.22 343 if 47 47.00 -2.7
MBC 66.98 352 eP 48 65.00 -2.3
10s 6 . 00nm 4 . 7mb
STK 131.06 238 ePKP 56 30.60 3 . 8X
0.7s 1 . 76nm
ASPA 139.41 247 ePKP 56 42 40 -0.4
0.7s 6 . 80nm
WRA 139.51 253 PKP 56 41.00 -2.0
0.5s 7.60 nm
NWAO 149.28 222 ePKP 57 08.00 8.9X
0.7s 8 . 00nm
CHG 149.29 349 ePKPc 57 03.30 3 . 8X
1.0s 23 . 75nm
LOE 149.99 343 ePKP 57 06.60 5.4X
MUN 150.55 223 iPKPc 57 11.00 9 . 9X
GBA 150.59 32 PKPd 57 02.20 0.7
1.0s 1 5 . 66nm
BDT 156.80 348 ePKP 57 07.26 5 . 4X
0.7s 60 . 20nm
NST 152.07 345 ePKP 57 14.00 10. 3X
S.D. - 1.5 on 46 of 56 obs .

% AUG 17. 1991 I4h 45m 53.14± 1.84s
46.741 N ± 8.2km 27.675 E ±16. 1km
DEPTH - 10.0km (geophy s i c i s t)
TURKEY (366)

EDC 6.42 160 ePg 46 62.00 0.3
eSg 46 07.50
CTT 0.70 54 iPg 46 68.60 1.6
eSg 46 19.10
DMK 1.08 3 ePn 46 13.00 -6.5
ISK 1.10 72 ePn 46 13.00 -0.7
YLV 1.36 97 ePn 46 16.60 -0.7

eSg 46 32.60
S.D. -1.4 on 5of 5 obs .

AUG 17, 1991 14h 56m 0 1 . 1 8± 0.65s
32.023 S ± 8.1km 67.832 W ± 9.5km
DEPTH - 116.0 ± 7.9 km
4 . 4mb (1 obs .)
MENDOZA PROVINCE, ARGENTINA (139)

MDZ 1.22 225 IP 56 31.16 5.6X
i S 56 44 . 80
J A C H 2. 43 2541 PC 5641.50 0.9
i S 57 12 . 50
PEL 2.66 244 i PC 56 43.90 0.4
i 57 1 1 . 50
i (S) 57 15.50
PCH 2.76 234 iPc 56 46.00 1.0
SAN 2.78 238 i PC 56 45.60 0.5
iS 57 18.50
ROCH 2.85 250 iPc 56 45.50 -0.8
i S 57 20 . 00

CHCH 3.04 236 i PC 56 49.60 0.9
TACH 3.08 237 i PC 56 49.30 0.2
IS 57 25.00
IHA 3.37 252 eP 56 51.50 -1.5

i (S) 57 23 . 50
LCCH 3.47 244 IP 56 54.60 -0.3
LNV 3.57 236 iPd 56 54.50 -1.2
CYA 3.98 27 eP 57 00.50 -0.8
SLA 7.55 16 iPc 57 49.50 -0.8
CCH 14.66 6 (P) 59 29.06 4.7X
CNCB 15.15 359 P 59 31.00 0.3

LPB 15.42 359 (P) 59 34.00 -6.1
ZOBO 15.69 359 P 59 39.00 1.5
PPD 17.75 66 eP 00 61.70 -6.6
VAO 26.54 69 eP 00 33.70 1.3
ANMO 75.86 328 P 07 36.50 0.0
TNP 83.56 323 P 08 17.80 0.2
1.6s 5 . 25nm 4 . 4mb
WR2 124.12 265 iPKPd 14 47.70 -0.2
6.4s 5 . 30nm
e 15 66.60
WRA 124.13 205 PKP 14 47.00 -1.0
1.1s 1 . 60nm
S . 0 . -0.9 on 21 of 23 obs.

AUG 17, 1991 15h 47m 38.39± 0.50s
41.262 N ± 8.5km 72.345 E ± 9.0km
DEPTH = 33.0km (normol)
4 . 1mb (4 obs .)
K 1 RGHI Z SSR (716)

MAIO 11.18 248 eP 50 20.00 0.9
eS 52 18.00
GKN 16.63 139 P 51 30.46 -0.2
KKN 17.12 138 P 51 37.54 0.6
DMN 17.19 138 P 51 37.50 -0.3
GUN 17.34 136 P 51 39.50 -0.3
PKI 17.37 138 P 51 39.26 -0.9
YAK 39.55 39 IP 55 08.50 0.9
HFS 40.08 318 eP 55 11.06 -1.0
6.4s 1.40nm 4.1 mb
NB2 41.32 320 P 55 20.96 -1.2
1.6s 3.40nm 4. 6mb
M8C 62.54 3 eP 58 01.00 6.4
INK 69.04 10 eP 58 42. 50 0.2
YKA 76.44 3 eP 59 20.00 -5.9X
6.6s 2.70nm 4. 4mb
WRA 83.67 123 P 00 06.00 0.9
0.8s 0 . 80nm 3 . 9mb
S.D. -0.9 on 12 of 13 obs.

* AUG 17. 1991 16h 13m 49.46± 6.94s
40.036 N ± 7.1km 20.660 E ±11. 0km
DEPTH = 10.0km (geophy s i c i s t)
GREECE-ALBANIA BORDER REGION (392)

IGT 6.56 207 i PC 14 00.82 6.0
i S 1409.30
FNA 0.93 36 ePd 14 07.82 0.6
eS 1421.02
OHR 1.08 6 ePn 14 09.60 -0.3
LIT 1.41 87 iPc 14 14.62 -0.5
eS 14 35. 82
AGG 1. 64 127 i PC 14 18. 66 0.2
eS 1443.78
S.D. -0.6 on 5of Sobs.

& AUG 17, 1991 16h 27m 52.16s
41 . 827 N 125.627 W
DEPTH = 22 . 1 km
OFF COAST OF NORTHERN CALIFORNIA(34) <GM-P> . MD 3.0 (GM) .

FHC 1.61 129 eP 28 17.00 -2.4
LBFM 2.84 98 eP 28 37.50 0.2
2 obs. ossocioted

AUG 17, 1991 I7h 50m 27.55± 0.22s
44.105 N ± 1.9km 6.975 E ± 2.2km
DEPTH - 10.0km (geophy s i c i s t)
FRANCE (538)
ML 2.8 (GEN) , 2.7 (LOG) .

TOUF 0.22 115 Pg 50 32.47 0.1
MVIF 0.24 148 Pg 56 32.99 6.1
Sg 56 38.00
STV 6 . 29 61 PC 50 33.75 6.1

S 50 37.90
AURF 0.33 136 Pg 50 34.84 6.3
Sg 50 40.22
AUTN 0.34 108 Pg 50 34.93 0.2
CALN 0.36 190 Pg 50 35.15 0.2
PZZ 0.41 13 PC 50 35.97 0.0
S 50 41 . 53
SBF 0.41 126 Pg 50 36. 20 0.2
Sg 50 42. 10
SAOF 0.43 106 Pg 50 36.47 0.6
Sg 50 42. 48
DOI 0.44 26 PC 50 36. 60 0.0
eSg 50 43.20
REVF 0.46 142 Pg 50 37.30 0.3
FRF 0.59 204 Pg 50 39.30 -0.3
Sg 5047.50
IMI 0 . 69 1 06 P 50 41 . 16 -0.1
S 50 49.73
BHB 0.77 16 P 50 42. 15 -0.4
S 50 52.56
LRG 0.79 215 Pg 50 42.70 -0.2
Sg 50 53.50
RRL 0.83 351 P 50 43.44 -0.3
S 50 54 . 04

LMR 0.84 204 Pg 50 43.80 0.0
Sg 50 55.00
FIN 0 . 89 83 Pd 50 44 . 79 0.1
S 50 55.89
8NI 0. 97 347 PC 50 46 . 70 0.6
eSg 50 58.20
CDR 0.97 244 ePg 50 46.10 0.0
i 50 47 . 60
eSg 50 59.50
CK 1 0 . 99 71 PC 50 46 .60 0.3
eSn 51 00.40
RSP 1.07 1 1 P 50 47 .07 -0.6
S 51 00.93
PCP 1.21 68 P 50 50 . 54 0.4
S 51 06 . 10
LSD 1.36 5 P 5053.18 0.4
S 51 10. 78
LPG 1.40 354 Pg 50 54.20 0.8
LPL 1.42 353 Pn 50 53.40 -0.2
Pg 50 54.50
ORX 1 .69 25 P 50 56.37 -0.9
PGF 2.15 136 Pn 51 02.15 -1.8
SMF 3.37 320 Pn 51 21.40 0.2
LBF 3.57 325 Pn 51 23.70 -0.4
CAP 3.61 285 Pn 51 24.50 -0.2
8GF 3. 81 312 Pn 51 29.40 1.9
LOR 3.84 326 Pn 51 26.90 -1.1
HAU 3.93 354 Pn 51 29.10 -0.1
S.D. -0.6 on 34of 34 obs .

* AUG 17, 1991 18h 19m 08.70± 0.98s
23.381 N ± 7.7km 121.719 E ±12. 4km DEPTH - 33.0km (normol)
4 . 4mb (1 obs .)
TAIWAN (244)

TWD 0.71 351 iPd 19 21.60 -0.6
TWG 0.82 227 ePd 19 24.20 0.4
eS 19 35.20
TWK 1.14 265 iPd 19 28.10 -0.3
eS 19 42.50
TWO 1.20 318 iPc 19 29.40 0.1
eS 1 9 44 . 60
TWC 1.23 6 ePc 19 30.20 0.6
SSE 7.70 357 ePn 21 20.00 18. 7X
eSS 23 31 .00
ASPA 48.24 165 eP 27 48.20 -0.3
0.9s 3.60nm 4. 4mb
S.D. -0.6 on 6of 7obs.

% AUG 17, 1991 18h 28m 12.22± 0.49s
39.902 N ± 3.9km 28.857 E ± 4.9km DEPTH - 5.0km (geo phy s i c i s t)
TURKEY (366)

DST 0.35 211 iPg 28 19.00 -0.2
eSg 28 23.50
1 Z 1 0.64 47 ePg 28 25. 10 0.0
eSg 28 32.60
YLV 0.77 31 ePg 28 27.10 -0.6
eSg 28 37. 10
EDC 0.88 301 ePg 28 30.00 0.4
HRT 1.11 34 iPn 28 33.10 -0.4

1 7d 1 8h

164

ISK
GPA
CTT
ALT
KHL

1.17 7 ePn 28 34 .60 0.1
1.18 70 ePn 28 35 . 50 0.8
1.29345 i Pn 2836.60 0.1
1.29131 i Pn 2836.76 0.1
1.66 162 ePn 28 42.00 -0.2
S . D . =0.5 on 10 of 1 0 obs .

? AUG 17. 1991 18h 47m 22.35± 0.77s 1 9.531 S -(-17.8km 177.254 W ±18. 2km DEPTH *= 450.0km (geophy s i c i s t)
4 .
FIJI

NOZ
LTZ
CNB
TOO
STK

WR2

ASPA

FORR

TNP
ANMO
1 NK

Sc AU
40

3mb (4 obs.)
1 SLANOS REG 1 ON (181)

19.45 191 e P 51 17.70 -1.2
24 h 81 199 eP 52 08 . 90 0.3
33^35 235 eP 53 24 .60 1.1
37.04 233 eP , 53 54.00 0.4
38-85 243 i PC 54 09. 50 1.0
0.6s 3 . 80nm 4 . 0mb
45.41 261 eP 54 58.30 -2.7
0.3s 4.30nm 4. 4mb
45. 43 256 i PC 55 01 . 50 0.3
0.7s 14. 60nm 4 . 5mb
eS 01 1 7 . 00
50.29 246 eP 55 38 . 20 0.3
0.4s 7 . 00nm 4 . 3mb
80.35 44 (P) 58 46.20 -0.7
86 . 25 51 (P) 5917.00 0.6
93.16 1 5 eP 5948.00 0.5
S.D.-1.3 on 11 of 11 obs .

G 17, 1991 1 9h 29m 40.00s
. 235 N 1 24 . 348 W
DEPTH - 12 . 0km
6 .
NEAR

0mb (94 obs.) 6.2MS2 (21 obs.)
COAST OF NORTHERN CALIF. (35)
<BRK> . ML 6.0 (BRK) .
Mo = 3 0»10**18 Nnrt (PPT). Domoge
(VII) ot Honeydew ond
Whitethorn. Slight domoge (VI)
at Gorberville, Myers Flot and Piercy. Also slight damage ond
landslides in the Petralia orea.
Felt (V) at Alder point.
Corlotto. Covelo, Fields
Lankjing, Finley, Fortune, Fort
Bra^g, Leggett, Loleta.
Manchester, Phillipsville,
Redcrest, Redway, Rio Dell,
Salyer, Weatt, Westport, Willits
and Zenio. Felt from Grants
Pass, Oregon south os for os
Sacramento and San Francisco.
Depth 10.1 kilometers from
broadband displacement
se i smog r oms .
FAULT PLANE SOLUTION: P-Woves

NP1 : S t r i ke=1 68 Dip=68 S 1 i p= 90
NP2: 348 22 90

Principal Axes:
T P!g=67 Azm= 78
P 23 258
Comment: The focal mechanism is
poorly controlled and
corresponds to reverse
faulting. The preferred fault
plane is NP2 .
RADIATED ENERGY
No. of sta: 13 Focal mech. M
Energy 4 . 0± 1 . 1 * 1 0 * » 1 3 Nm
MOMENT TENSOR SOLUTION

Dep 6 Na.afsta:12
Moment Tensor; Scale 10»»18 Nm
Mrr- 2 .05 Mt t- 0. 38
M! f=-2 . 43 Mr t- 1 .02
Mr f = -1 .91 M t f--1 . 1 9
P rl i nc i pa 1 axes:
i Val- 3.39 Pig-56 Azm= 40
N -0.09 28 184
F -3.30 17 283

Best Double Coup 1 e : Ma-3 . 3 » 1 0» » 1 8 NFl:Strike- 48 Dip-38 Slip- 141
NF2: 171 68 59

CEtTROlD, MOMENT TENSOR (HRV)
Dala Used: GDSN
L.P.B. : 19S . 50C M.W. : 9S , 1 7C
Centroid Location:

FOX

FHC

WDC

LTCM
Ml N
NWRM
LBFM
ORV
ZSP
BKS

P C" C"
r O O

HSO
ARN
GCC
CMB
HBO
SAO
LLA
PRS
FR 1
GMO
KVN
PR 1
GT2
BONR
VBEM
CROR
TDH
PGO
KMOR
VFP
VLMM
VLL
VTHM
APM
NLO
VGB
TNP
MTMW
LVP
RVW
GULW
CDFW
JLK
HSR
SHW
REMW
ESD
JBO
STD
SOSW
ERK
ASR
GL2
BMW
TDL
CZM
KOSW
PATW
LMW
GLK
LON
WPW
REMR
SBC
PRW
RVC

Origin T i me 19:2^:42.3 0.2 Lot 40.02N 0.03 Lon 124. 38W 9.03

Dep 15.0 BDY Ha 1
Mome nt Tensor;
Mr r= 1 . 20 0.02
Mf f =-0 .72 0.83
Mr f=-1 .55 0.08

Principol Axes:
T Vo 1 = 2.09
N -0.40
P -1.70

Be 3 t Doub 1 e Coup 1

f-durotion 3.9
Scole 10»»18 Nm
M t t =-0 .47 0.03
Mr t=~0 .08 0 . 08
M t f = 0 . 46 0.03

P 1 g=60 Azm = 1 03
1 4 348
27 251
e : Mo=1 . 9» 1 0» « 1 8

NP1 : S t r i ke = 31 1 D i p=22
NP2: 173

0.39 43 i Pd
eS
0.63 26 iPc
eS
1.42 75 i P
eS
1.70 90 IP
2.10 86 i PC
2.11 147 i PC
2.17 58 iPc
2.29 106 iP
2.81 144 eP
2.87 144 i PC
iSn

eSg
3.13 150 iP
3.42 16 P
3. 62 142 iP
3.69 1 49 i PC
3.78 124 ePc
3.91 22 PC
4.15 1 46 eP
4.49 142 i PC
4.55 148 i PC
4.87 130 i PC
4.90 30 PC
4.97 102 i P
5.01 143 i PC
5.15 17 PC
5.23 114 eP
5.23 22 PC
5. 35 26 P
5. 39 20 P
5.41 1 4 P
5.43 6 P
5.50 22 P
5.57 17 P
5. 58 20 P
5.68 28 P
5.84 19 P
5. 89 6 P
5.89 25 PC
5.94 109 iPc
5.99 1 4 P
6. 00 13 P
6.03 IIP
6 . 03 19 P
6.11 15 P
6.12 1 4 P
6.14 1 4 P
6.15 14 P
6.17 14 P
6.17 1 4 P
6.19 31 PC
6.20 14 P
6.21 1 4 P
6.24 13 P
6. 25 18 P
6.28 23 PC
6.29 7 P
6.31 14 P
6.34 12 P
6.42 13 P
6.57 29 PC
6.60 12 P
6.63 17 P
6.77 15 P
6.77 17 P
6.83 15 P
6.86 1 46 ePc
6. 88 28 P
6.92 14 P

73

29 47
29 53

S 1 i p= 51
1 04

66 -0.5
63
29 52,32 -0.2
30 00.90
30 03,43 -2.2
30 20.85
30 08, 00 -1.6
30 13,01 -2.6
30 13.10 -2.4
30 15.30 -1.4
30 15.00 -3.2

30 23| 54 -1.9
30 23| 70 -2.7
30 58
31 06

65
50

Q A _ X O

30 26 f u-r -^ . t.

30 3254 -1.7
30 34 i 70 -2.5
30 34. 45 -3.6

30 36[51 -2.9
30 39
30 41
30 46
30 48
30 52
30 53
30 53
30 53
30 56
30 57
30 57
30 59
30 59
31 01

53 -1.7
40 -3.1
57 -2.9
49 -1.7
96 -1.8
. 51 -1.8
. 80 -2.5
. 98 -2.9
. 41 -2.3
. 80 -2.3
. 73 -2.3
. 66 -2.0
. 58 -2.7
. 23 -1.2
31 01 f 35 -1.5
31 01 L 72 -2.2
31 02L64 -2 . 0
31 03L55 -1 . 4
31 04, 72 -1.5
31 061 94 -1.5
31 08. 55 -3.6
31 07 . 56 -1.6
31 06
31 07
31 08
31 09
31 09
31 10

. 20 -3.9
. 99 -2.7
. 53 -2.2
. 05 -2.0
. 07 -2.1
. 50 -1.8
31 10.62 -1.8
31 11.44 -1.4
31 1 1 .53 -1.4
31 12.23 -1.0
31 11.64 -1.6
31 1 2:. 12 -1.2
31 1 1 . 48 -2.1
31 12.63 -1.1
31 12.06 -2.1
31 12.00 -2.2
31 12
31 12
31 13
31 13
31 15
31 17
31 18
31 17
31 19
31 19
31 20
31 18
31 21
31 22

. 52 -2.1
. 52 -2.3
10 -2.1
85 -1.7
44 -1.2
29 -1.4
39 -0.9
71 -2.0
18 -2.4
28 -2.4
73 -1.8
86 -4.0
31 -1.7
19 -1.6

FMW
MXC
BRVW
WG3
OBH
SMW
LNOR
W I W
GBL
MJ2
WAH2
LOCW
RMW
ET3
00 W
CRF
GSC
HTW
PAS
JCW
PGC

PEC
PLM
NEW
MSU
MCMT
PNT
LTMT
HBMT
BGMT
LRM
BUT
LCCM
HRY
SXM
BW06
PV09
SES

GOL
GLD

ANMO

ALO

RSSD
SI T

Z
FFC

MEO
SIO
TUL

Z
N
E

YKA

UYO
KDC
TOA
CCM

SLKM
PMR

Z
FVM

RSO
PDB
CGX
COL

FBA

SON
SVW
MRX

6 .97
6 . 99
7.01
7 . 05
7.10
7.12
7.17
7.21
7 . 29
7 . 29
7 . 39
7 . 40
7 . 45
7 . 46
7 . 50
7.51
7 . 74
7.79
7 . 82
8.14
8 . 44
1 . 2s
8 . 55
9.12
9 . 55
9 . 58
9 . 65
9 .68
10.02
10.23
10.34
10.34
10.37
10.70
11.16
1 1 . 26
11.38
11.91
13.79
1 . 2s

1 4 . 57
14.67
1.2s
15.13

15.13
1 . 7s
1 5 . 55
18.29
1 . 5s
18s
20.81
0. 6s
21.12
22.51
22 84
1 .6s
18s
20s
22s

23.05
1 . 3s
24.50
25. 17
25 . 57
25 . 69

25 . 85
26.18
1 . 4s
18s
26 . 33
1 . 0s
26.81
27 . 02
27.19
28.18

28 . 18
1 .8s
28 . 21
28.34
28.50

15 P
24 P
25 PC
33 P
3 P
6 P
36 PC
29 P
28 PC
28 PC
26 P
27 PC
1 3 eP
30 P
1 P
27 P
127 iPc
13 P
139 iPc
1 1 P
4 eP
31 4 . 00nm
136 i PC
137 ePc
30 ePc
96 eP
58 ePc
1 9 P
61 ePc
53 iPc
57 iPc
53 iPc
52 ePc
54 iPc
50 ePc
54 ePc
72 iPc
93 iPc
38 ePc
955 . 00nm
PP
86 eP
86 iPc
1 979 . 80nm
105 i PC
epPc
1 05 i Pc +
1 442 . 31 nm
69 ePc
341 eP
626 . 40nm
52 . 40um
38 iPc
1 1 8 . 00nm
97 iPc
92 eP
92 iPc
986 . 40nm
22 . 54um
44.23um
1 8 . 81 urn
eS
LR
1 2 eP
201 . 50nm
95 iPc
324 eP
336 eP
84 iPc
epPc
eS
330 eP
333 eP
404 . 60nm
1 9 . 00um
84 ePc
1 80 . 00nm
328 eP
326 eP

133 (P)
339 iPc
esPd
339 ePc
596 . 40nm
315 eP
328 ePc

129 (P)

31
31
31
31
31
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22. 59
22 . 52
22 .67
23. 53
24 . 48
24 . 88
25 99
25 . 66
26 . 73
26.77
28 . 07
28 . 40
29 . 00
28 . 84
31.77
29 . 35
32. 91
34.29
32 . 47
38.69
43. 00
6
42 . 60
50. 00
56. 10
58 . 80
59 . 1 0
59 . 00
04 . 80
06 . 40
08.40
08 . 20
08 . 60
12 . 60
18.80
20. 30
22 . 80
31 . 90
53.00
6
12 . 00
06 .00
07 .20
6
14.36
16.76
14.00
6
14.80
57. 70
5

18. 80
5
21 .30
35.20
39. 00
6
5

02 . 00
08 . 00
44. 40
5
55. 50
08 .30
11.40
06.60
09. 33
40.13
13. 50
17 . 30
5
5
11.70
5
23. 40
24 . 00
27 .00
33.60
37 .82
34.10
6.
35.20
36.00
38.50

- 1 .9
- 2. 1
- 2.2
- 1 . 9
- 1 .6
- 1 .6
- 1 . 2
- 2 . 0
- 2. 0
- 2 . 0
- 2 . 1
- 1 . 9
- 2 . 2
- 2 . 4
0.0
- 2.5
- 2.3
- 1 .6
- 3.8
- 2. 1
- 1 .8
. 5mb
- 3. 9
- 4 . 5
- 4.2
- 2. 2
- 2 . 8
- 3. 0
- 2.2
- 3 . 5
- 2. 9
- 3.2
- 3. 1
- 3. 7
- 3.6
- 3.6
- 2.8
- 0.9
- 4. 6
5mb

- 2.0
- 2. 1
5mb
- 0.9

- 1 . 3
1mb
- 5. 9
2. 8
5mb

- 4 . 7
4mb
- 5.5
- 5. 5
- 5 . 0
1mb
7Msz

- 1.4
5mb
- 4 .6
2. 0
1 . 2
- 4 . 8
1 0kmX

0. 8
1 . 6
9mb
7Msz
- 5. 6
7mb
1 . 6
0.6
1 . 4
- 0. 3

0.2
1mb
0.9
0. 6
1 .3

165

1 7d 19h

1 NK

TT A
PPM
1 MA

1 1 T
LWM
ACX
CLE
OXX
ANM
OPA
BLA
K 1 P

SCP

CBN
MBC

LVNJ
ADK

IPX
&MTN
PNJ
BNH
HRV

FRB

LPS

1 LT

M 1 M
SCH

SMY

GDH

STH
PET

MCP
MGP
APR
CLLP
SJG
LPR
DAG

HOBC
CLMC
ANCC
BMG
HOOC
SDV
TOV
FUG
SI LC
T 1 K

BOG

PURC
CUMC
PSO
YANA
OUR
OU 1 L
BPA

28.57
1 .3s
29 . 52
33 . 55
30 72
2 . 4s
30. 78
31 . 43
31.50
32.17
33. 22
33. 93
34 . 09
34.15
34.18

35.02

36.12
36.17
1 . 0s
37 . 29
37 . 36
1 .9s
37 . 67
37 . 69
37.71
38.87
39.15

39. 86
1 . 0s
40.15
1 .3s

40.15

40.26
40 . 33
1.6s
42 . 90
Z 18s
46. 31
1 .5s

46. 36
51.92

53. 46
53. 72
53. 73
54 . 07
54 . 37
54.47
54 . 64
1 . 0s
Z 19s
N 20s
56.14
56.19
56. 25
56 . 36
56.44
56. 88
56 . 89
57.01
57.21
57 . 31

57 . 38

57.46
57 . 46
57 . 65
57.81
57. 89
58. 07
58.28

353 eP
239 . 00nm
331 ePc
126 i P
337 *Pc
608 . 7 0nm
1 26 eP

122 (P)
131 i P
74 i P
126 iP
329 ePd
247 P
81 ePc
247 ePc
eS
74 i P c
i sPd
ePP
ePcP

78 e(P)
2 ePc
1 00 . 00nm
73 eP
306 ePc
946 . 80nm

123 (P)
72 i P
72 i P
66 ePd
69 i PC

epPd
ePP
ePcP
eScP
eS
35 eP
215. 00nm
120 i PC
1 28 . 85nm
eS
332 iPc
iS
64 eP
49 ePc
1 9 1 0 . 00nm
308 eP
6 . 67um
28 ePc
777 . 78nm
esPd
ePP
i
i
1 04 eP
312 iPc
iS
96 P
97 P
96 P
96 P
96 i P
96 P
16 i Pd
78 . 00nm
48 . 61 urn
28 . 37 urn
1 1 6 ePc
117 i PC
118 i PC
112 i PC
118 i PC
1 08 PC
107 i PC
1 13 eP
118 i PC
339 iPc
eS
114 i PC
iS
118 i P c
121 i PC
1 20 eP
122 i Pd
1 22 P +
123 P
94 eP

35 34.00
5
35 46.70
35 55.70
35 57.30
6
35 56.70
36 01 .50
36 04.50
36 06.60
36 20.20
36 24.90
36 30.00
36 2 1 . 90
36 23.29
42 02.25
36 29.02
36 34.24
37 49.11
39 04.15
36 42.00
36 43.00
5
36 50.00
36 54.20
6
36 57.00
36 54.60
36 54.40
37 03.50
37 06.38
37 09.69
38 35.27
39 16.98
43 05 .86
43 17.17
37 12.00
5
37 17 . 50
5
43 33.00
37 1 7. 50
43 28.00
37 15. 30
37 16.10
6
37 43.00
5
38 05 . 44
6
38 10.41
39 52. 10
44 55.00
48 1 2 . 00
38 10. 89
38 50.00
46 20 . 00
39 00.80
39 02.20
39 02. 40
39 04.50
39 06.80
39 07 . 30
39 07.80
5
6

39 19.72
39 20.45
39 20.36
39 21 .50
39 21 .80
39 25.50
39 26.20
39 25.00
39 28.45
39 27. 00
47 26.00
39 30.50
47 33. 50
39 30.54
39 31.12
39 33.00
39 33.80
39 34.20
39 35.30
39 32.00

- 3. 3
8mb
0.6
- 0. 4
0. 5
0mb
- 1 .2
- 1 .8
0. 5
- 3.0
1 . 0
0 . 3
4 . 3
- 5 . 0
- 3. 9

- 5.3

- 1 . 6
- 0 .6
6mb
- 3. 4
0. 3
2mb
0. 1
- 2.2
- 2 .5
- 3. 2
- 2.6
1 1 kmX

- 2. 6
8mb
- 0. 2
5mb

0 . 6

- 2.8
- 2. 6
5mb
3.3
6MS2
- 1 .3
5mb

3.0
- 0 . 4

- 1 . 5
- 1 .9
- 1 .8
- 2. 2
- 2. 2
- 2.5
- 2. 4
7mb
6MSZ

- 2.2
- 1.9
- 2.3
- 2 . 0
- 2.5
- 1.9
- 1.1
- 3.5
- 1 . 5
- 2.5

- 0. 6

- 1 . 3
- 0.8
- 0. 1
- 0.5
- 0.5
- 0.8
- 5.0

KBS
CAR
PAG
TPT

RUV

PMO

VAH

DEC
MGG
BBL
AKU

SLB
PPN

YAK

PPT

APR

PAE

TRN
TPP
KUSJ
ASAJ
HOOJ
TRO
MRRJ
PT10
NNA

KEV

OFUJ
YAMJ
SOD
RGS
APA
KAKJ
ASK
N I I J
BER
VAL

DMU

DON

CHJ J
MAJO

MAT

EKA

PDA
MTMJ
NB2

ETA
I I DJ
ECP

KONO

58 . 39
58 . 54
59 . 03
59. 05
1.4s
59.16
1.4s
59 . 1 6
1.4s
59. 29
1 . 4s
59. 33
59. 38
59. 49
60. 20
1,6s
60. 87
62 . 04
1 .6s
62 . 08

62. 12
1 . 6s
62.16
1 . 6s
62 . 21
1 . 6s
62 . 59
62 . 76
64.61
65. 33
65 . 88
67.18
67 . 22
68 . 08
68. 08
1 . 3s
Z 20s
68 . 33

68.74
70.31
70 . 48
70 . 94
71.21
71 . 38
71 . 48
71.52
71.60
71.84

71.95
1 . 6s
72. 18
1 .5s
72. 24
72. 45

72. 45
1.1s

72. 45
1.4s
72.51
72 . 68
72 . 78
1 . 4s
73. 10
73. 29
73 . 39
1 . 6s
73. 47

9 iPc
104 i P
95 eP
206 iP
175. &0nm
206 i P
3 1 0 . 00nm
207 iP
1 2 0 . 0 0 n m
206 i P
185. 00nm
94 eP
95 eP
95 eP
27 i PC
1 60 . 00nm
97 eP
207 iP
255 . 00nm
329 iP
i PcP
iPP
iS
ePS
eScS
eSS
eSSS
207 iP
430 . 00nm
208 iP
255. 00nm
207 i P
280 . 00nm
100 eP
100 eP
306 eP
308 eP
306 eP
13 i P
307 eP
129 iPd
129 ePc
32 . 69nm
4 . 79 urn
10 i PC
epPd
esPd
ePP
iS
eScS
304 eP
304 iP+
11 i P
20 eP
9 iPc
302 P
24 eP
303 P
24 eP
36 iP
S
34 iPc
335 . 00nm
34 i PC
570 . 00nm
302 P
303 iPc
esPd
eS
eSS
303 iPc
72.1 5nm
«S
31 P
1 00 . 60nm
55 eP
303 P
2 1 P
244 . 60nm
34 eP
302 P
35 iPc
570 . 00nm
22 iPc

epPd
esPd
ePP

39 36.20
39 36.90
39 38.00
39 42 . 40
6
39 43. 30
6
39 43 . 40
5
39 44 . 40
6
39 40.00
39 41.00
39 41.50
39 47 30
5
39 52.68
40 03.90
6
40 01 .30
40 26.00
42 18.00
48 27.00
48 52.00
49 47 . 00
51 32.00
55 08.00
40 04 . 40
6
40 04.60
6
40 05.00
6
40 01 .80
40 04 .03
40 17 .20
40 23.60
40 25.50
40 33.80
40 36.90
40 40.00
40 40.50
5
5
40 39.86
40 42.84
40 44 . 50
43 13.14
49 41 .50
50 39.72
40 44 . 40
40 54.60
40 54 . 00
40 57 . 10
40 58.30
41 01 . 90
41 01 .00
41 01 . 90
41 01 . 20
41 02.20
50 25.00
41 02 . 60
6
41 04 . 20
6
41 06.00
41 07.27
41 11.41
50 33. 10
55 20.27
41 07.20
5
50 33.00
41 06 . 00
5
41 09.00
41 08 . 50
41 07.40
6
41 09 . 90
41 12.60
41 1 1 . 60
6
41 12.27
41 15.25
41 16.74
43 54.48

- 0.8
- 2 . 0
- 4 . 3
0. 3
. 0mb
0 . 4
. 2mb
0 .5
. 8mb
0 . 6
. 0mb
- 4.4
- 3. 6
- 4 . Q
2 . Z
. 9mb
- 2.2
1 . 4
. 2mb
- 1.1

1 . 3
4mb
1 .2
2mb
1 . 3
. 2mb
- 4 . 6
- 3. 5
- 2 . 1
- 0. 4
- 2 . 0
- 1 . 6
0 . 8
- 1.7
- 1 . 3
4mb
7MSZ
- 2 . 7
1 0kmX

- 1 .3
- 0 . 7
- 1 . 8
- 1 . 5
- 1 . 9
9. 1
- 0. 9
- 0. 7
- 1 .5
- 2 . 0

- 2. 3
2mb
- 2.0
4mb
- 0 . 9
- 0.9

- 1 .0
7mb

- 1 .8
7mb
0.6
- 1 .2
- 2.4
1mb
- 1 . 7
- 0.5
- 1 . 7
4mb
- 1.4
10kmX

HFS

TSRJ
H I A

ARE

KAF

UPP

NUR

ZOBO

CNCB
SHK
COP

Wl T
DBN

FLN

GRR

I RK

LDF

LPF

WTS

CCH
UCC
STS
SNF
DOMF
EMON
EZAM
ENN

DOU

MEM
BNS

ePPP 45 35.79
iS 50 44 .26
74.21 20 eP 41 16.20 -1.8
1.3s 362 . 40nm 6 . 2mb
Z 18s 22 . 02um 6 . 5Msz
LR 1 2 16 .00
74.49 303 P 4119.90 -0.1
74.51 322 i PC 4118.42 -16
esPd 41 22.89
ePP 44 03.78
eHPP 44 04.27
iS 50 55 .29
74.79 128 iPc 41 22.00 -0.3
1.0s 330 . 00nm 6 . 3mb
75.28 1 4 i P 4122.20 -1.9
1 . 3s 270 . 1 0nm 6 . 1mb
75 . 46 19 iPc 4123.10 -2.0
1.3s 600.00nm 6.5mb
i S 51 04 . 00
76.44 15 iP 41 29.20 -1.5
1.2s 283 . 30nm 6 . 2mb
Z 20s 1 6 . 40um 6 . 3Msz
e 4420. 00
e 46 12 .00
e 51 1 6 . 00
e 56 16.00
e 57 16 .00
LR 1 5 1 2 . 00
76.72 125 ePc 41 30.67 -2.9
esPd 41 35 . 30
eHPP 44 22.65
i PP 44 24 . 80
S 51 28.00
LR 05 30.00
77 .22 125 iPc 41 35 . 30 -1.0
77.22 304 eP 41 35.00 -0.5
77.63 23 i Pd+ 41 37.00 -0.3
1.0s 1 1 2 . 00nm 5 . 9mb
Z 19s 7 . 64um 6 . 0Msz
i 44 32.00
iS 51 32.00
78.09 28 eP 41 41 . 00 1.1
78.12 29 i P+ 41 40.00 -0.1
Z 16s 10. 00um 6 . 2MszX
ePP 44 33.00
eS 51 38.00
eSS 57 10.00
78.46 34 i PC 4140.80 -1.2
1.6s 161 . 70nm 5 . 8mb
Z 20s 17. 50um 6 . 4Msz
78. 58 35 iPc 41 41 .90 -0.8
1.5s 313. 40nm 6 . 1mb
78.65 332 eP 41 42.30 -0.8
ePcP 41 51 .00
e 42 03.00
epP 4221.001 56kmX
e . 42 24. 30
ePP 44 40.00
ePPP 46 52.00
e 4812.00
e 49 28.00
eS 51 34.00
eSS 56 38.00
eSSS 00 38.00
78.74 34 iPc 41 42.40 -1.2
1.5s 188 . 05nm 5 . 9mb
78.77 35 iPc 41 42. 70 -1.1
1.6s 298 . 50nm 6 . 1mb
78.81 28 i PC 41 42.90 -1.0
1.4s 1 01 . 00nm 5 . 7mb
ePP 44 40.00
78.81 124 iPc 41 43.50 -1.2
78.85 30 Pc+ 41 43.20 -0.9
78. 97 42 iPc 41 43.26 -1.7
79.05 31 i PC 4144.16 -1.0
79.18 31 P 4144.83 -1.1
79.20 41 i PC 4144.48 -1.8
79.42 43 i PC 41 46 06 -1.4
79.47 30 iPc 41 46.80 -0.7
1.4s 246 . 00nm 6 . 0mb
ePP 44 44.00
79. 50 31 P+ 41 46. 30 -1.4
1.3s 200 . 00nm 6 . 0mb
PP 44 45.00
S 51 51 .00
79.63 30 i PC 41 47.24 -1.1
79.78 29 iPc 41 48.50 -0.7

19h

166

Z 15s
ERUA 80 . 04
P T 0 80.18

MFF 80 . 25
1 . 5s
K 0 E 80.42
WLF 80 45
BRN 80 . t>4
TNS 80 . 85
ANT 81 . C3
LSF 81.26
1 . 5s
LOR 81.45
1 . 5s
2 18s
SSF 81.47
CLL 81 .52
1 .8s

TCF 81 . 53
1.4s
VI TF 81 55
GWF 81.57
BGF 81.59
1 . 3s
AVF 81.62
1 .5s
MOX 81.62
2.1s
2 15s
hi 1 6s
E 17s

LBF 81.73
1 .5s
MAF 81.73
1 . 3s
HAU 81.87
1.4s
2 20s
COF 81 . 90
LFF 81.93
1.4s
SMF 81.94
1 -Ss
STR 81.94
GUA 81 .95
1 .2s
PJG 81 . 95
RJF 81 .99
1 .5s
2 19s
ECH 82.01
BSF 82. 18
ECR 1 82. 19
BRG 82.20
2.3s

L IBO 82.24
EPLA 82.29
STU 82,32
1 .9s
2 2fcs
LPO 82.33
CAF 82.53
1 .7s
LOMF 82.59
FEL 82.62
GRB1 82.69
1 . 7s
2 18s
BBS 82^76
GUD 82.85
SLE 82.89
BTH 82.90

BJI 82.93
1 .Bs
2 16s
N 15s

1 4 . 00um
42 iPc
44 eP
eS
35 i PC
1 98 . 50nm
29 i PC
30 i PC
25 tPc
29 i PC
131 i Pc +
35 iPc
1 56 . 70nm
33 i PC
244 85nm
27 . 50 urn
33 i PC
25 iPc
265 . 00nm
eS
34 i PC
1 43 . 75nm
31 P
30 P
34 i PC
1 33 . 60nm
33 i PC
1 82 . 80nm
27 iPc+
320 . 00nm
8.10 um
7 . 1 6um
3 . 20um
eS
33 i PC
1 46 . 25nm
34 iPc
1 29 . 95nm
31 iPc
95 . 85nm
1 .52um
30 P
36 i P c
1 74 . 25nm
33 iPc
133. 20nm
30 P
281 eP
400 . 00nm
281 eP
35 iPc
156 . 70nm
22 . 50um
30 P
31 P
39 iPc
25 iPc
500 . 00nm
eS
ePPS
30 P
43 iPc
29 iPc+
31 5 - 79nm
7 . 09um
36 iPc
35 iPc
172. 80nm
31 P
36 P
27 eP
231 . 00nm
8 . 60um
31 P
42 i PC
30 ePc
38 Pd
pP
ePP
esPP
318 i P c
45 . 00nm
4 . 1 0um
1 . 96um
ePP
eS
ePS

6
41 49.40
41 50.00

52 00 . 00
41 50.80
5
41 51.70
41 52.20
41 53. 50
41 53.40
41 55.70
41 55.80
5
41 57.10
6
6
41 57.10
41 57.50
6
52 1 2 . 00
41 57 . 20
5
41 57 . 64
41 57.71
41 57 . 60
5
41 57 . 60
5
41 58. 00
6
6

52 12.00
41 58 . 40
5
41 58. 50
5
41 59 . 30
5
5
41 59 . 66
41 59. 70
5
41 59. 20
5
42 00.18
42 02.70
6
42 03.00
41 59.88
5
6
42 00 . 00
42 00.99
42 01.24
42 01 . 20
6
52 20 . 00
54 28.00
42 01 . 53
42 01 . 60
42 01.10
6
6
42 01 .60
42 02 .50
5
42 03.07
42 03.15
42 03.20
6
6
42 04 . 09
42 04.84
42 04.90
42 04 . 00
4? 10.50
45 10.40
45 27 . 00
42 05.19
5
5

45 12. 47
52 26 . 73
53 22 . 06

4MSZX
- 1.4
- 1 . 5

- i . e
9mb
- 0 .9

- e . 5
- 0 . 2
- 1.6
- 0 . 4
- 1.4
8mb
- 1 . 0
0mb
7Msz
- 1 . 1
- 0 . 9
0mb

- 1.4

8mb

- 1 . 0

- 1.0
- 1 . 2
8mb
- 1.4

9mb
- 0. 9
0mb
2MszX

- 1 . 2
8mb
- 1.1
8mb
- 1.0

7mb

4MSZ

- 0.9
- 0.9
9mb
- 1.5
8mb
- 0. 4
1 . 5
4mb
1 .8
- 1 .2
9mb
6Msz
- 1 .0
- 1.0

- 0.9
- 0.8
2mb

- 0 . 6

- 1 .0

- 1 .5
1mb

0MSZ

- 1.1
- 1 .3
9mb
- 1.1
- 1.2
- 1 . 4
1mb
2Msz
- 0.9
- 0 .8
- 0. 7
- 1 . 7
2 1 kmX

- 0.7
4mb

9MS2X

KSP

2LA
PRU

EPF

TBT
ENSF
TOL

EGRA
KHC

FUR

MLS
OBN

LESF
EMS
EVAL
ETOR
LLS
Dl X
CHI E
GRBF
LSPF
LPL

LPG

MMK
LSD
VDL
EHOR
TRGS
BN I
TMA
oss
ORX
WTTA

CTFE
VOCF
BHG
RRL
RSP
OGA

KMR
SLA
KRA

82 . 98
1 . 5s
83 . 09
83 . 16
2.ls
2 1 8s
N 15s
E 14s

83 . 22
1.6s
83.70
83.40
83. 47
1 .5s

83. 56
83 . 58
1 . 6s
2 16s
N 16s
E 16s

83. 59
2 . 2s
83.62
83 . 65
1 . 5s
2 19s
N 20s
E 18s

83.66
83. 67
83 . 74
83. 77
83. 83
83 . 86
83 . 90
83 . 92
84.01
84.04

1 . 5s
84.07
1 . 6s
84 . 10
84 . 26
84. 33
84. 37
84 . 39
84 . 40
84.41

84 . 42
84 . 45
84. 48

1 .8s

84 . 49

84 . 50
84 . 54
84 . 55
84.55
84.59
1 . 9s
84 . 69
84. 70
84 . 77
1 . 6s
E 18s

eSS
24 i PC
1 95 . 00nm
30 eP +
25 i PC
31 7 . 70rtm
6 . 1 0um
6 . 2 0 u m
2 . 80um

ePP
eS
37 i PC
1 92 . 80nm
58 i P
38 P
42 iPc
1 1 94 . 44nm
ed
esPd
ePP
38 i PC
26 i PC
1 1 3 . 80nm
1 1 . 3 0 u m
6 . 40um
7 . 0 0 u m

s
28 i PC
660 . 06nm
37 P
11 i Pc +
4 1 0 . 00nm
1 4 . 00um
1 4 . OOum
1 . 90um
i PcP
i
iPP
ePPP
i PPPP
i S
iSKKS
ePS
i SS
eSSS
LQ
37 P
32 ePc
45 iPc
40 i P c
30 ePc
31 ePc
59 eP
37 P
37 P
32 iPc
161 . 90nm
32 iPc
291 . 50nm
31 ePc
32 PC
30 ePc
44 IPC

37 P
33 Pd
31 ePc
30 ePc
31 PC
28 i P c
352 - 00nm
i
57 iP
36 P
27 iPc
33 PC
32 PC
29 iPc
390 . 00nm
27 iP +
129 iPc
22 iPc
522 . 00nm
4 . 39um
i

57 58.00
42 05.00 -1.0
6 . 1mb
42 06.20 -0.5
42 06.10 -0.8
6 . 1mb
6 . OMsz

42 i 3 . fee
45 19 .
52 30 .
42 06 .

42 <?8 .
42 08 .
42 07 .

42 11.

50
30

to -1.1
6 . Omb
?e e.o
24 -0.2
S4 -0.8
6 . 9mb
25
42 12.57
45 21.84
4209.98 0.9
42 08.20 -1.0
5 . 8mb
6 . 3MszX

42 12.
45 19 .
52 34 .
42 09 .

42 08 .
42 08 .

42 11.
42 47 .
45 20 .
47 22 .

48 44 . 52 30 .
52 56 .
53 26 .

50
30
00
00 -0.2
6 . 5mb
43 -1.0
00 -1.3
6 . 4mb
6 . 4Msz

00

1 O

00
00
00

00
00
00
57 54 . 00
01 50.00
06 56 . 00
42 08.82 -0.8
4209.90 O.O
42 09 . 15 -1.0
42 09.48 -0.9
4210.60 -0.1
42 10.90 O.O
42 11.80 0.7
42 09 .82 -1 . 2
4210.76 -0.7
4211.70 -O.I

42 12.

42 12.
42 12 .
42 13.

6 . Omb
00 O.O
6 . 3mb
50 0.4

83 -0.1
50 0.3
42 12.43 -0.9
42 12. 58 -1 .O
4213.40 -0.1
42 1 2 . 90 -0.7
42 13.70 0.1
4213.55 -0.2
42 13.40 -0.5
6 . 3mb
42 21.60
42 14.
42 12 .
42 13.
42 14.
42 14.
42 14 .

42 14.
42 13 .
42 14.

42 26 .

50 0.4
95 -1.0
60 -0.4
37 0.0
17 -0.1
70 0.2
6 . 3mb
30 -0.4
50 -1.7
20 -0.8
6 . 5mb

80

BHB
PERF
EBAN
ETER
EROO
EBR

CN 1 L
EPRU
PZ2
DO 1
CUR
GGC
EVI A
MOMI
VKA

2

ECHE
KBA

EJ 1 F
HNR
STV
SAL
FV 1
CT 1
2ST
LRG

2
CK 1
PCP
FRF

SPC
ECOG
SBF

AFC
FIN
LMR

BOB
EHUE
1 M 1
VV 1
CFTV
EGUA
NKM
SRO
ACU
AVE

LJU

TR 1

SSE

2
N
E

PS2
MME
U2H

BUD
CEY
BDI
ESEL

84 . 81
84 . 81
84 .89
84.95
84 . 97
85 . 01

85 . 01
85.02
85 . 02
85 . 08
85.13
85. 1 4
85. 20
85.23
85 . 24
6.3s
15s

85. 24
85. 26
1 . 8s

85. 27
85. 31
85 . 32
85 . 47
85. 47
85.52
85 . 55
85.56
1 . 6s
18s
85.57
85 .58
85 . 60
1 . 5s
85 . 63
85 . 67
85 .68
1 .7s
85.70
85.71
85 . 73
1 .6s
85.75
85.77
85.83
85 . 86
85.93
86 . 00
86 . 04
86 . 27
86. 35
86.50

86. 56

86.58

86 .64
1 . 4s
18s
14S
14s

86 .66
86 . 72
86.72

86.79
86. 79
86.79
86.97

i 4224. 20
e 4234.00
IS 52 46. 00
32 PC 4214.99 -0.4
36 P 42 1 4 .59 -0.9
43 iPc 4215.49 -0.4
36 i PC 4215.31 -0.8
39 i PC 42 14.91 -1.3
39 iPc 42 15.00 -1.4
eS 52 42.00
46 eP 42 1 8 . 00 1.5
45 i PC 42 16.21 -0.4
33 PC 4216.42 -0.2
32 P 4215.40 -1.4
34 eP 4215.50 -1.5
57 i P 4218.00 0.6
42 iPc 42 16 .93 -0.6
45 eP 42 17 .50 -0.1
25 iPc 42 16.80 -0.7
3291 . 00nm 6 . 7mb X
7 . 30um 6 . 2MszX
LR 24 27.00
40 i PC 4217.18 -0.5
27 iPc 42 17.10 -0.7
392 . OOnm 6 . 3mb
i 42 24.30
45 iPc 4218.08 0.3
254 P 4225.00 6.8
33 PC 42 16 .53 -1.5
30 PC 4217.70 -0.9
28 PC 4217.30 -1.3
29 PC 42 1 7 .SO -1.2
25 i PC 4218.60 -0.4
34 i PC 42 1 8 . 40 -0.7
1 99 . OOnm 6.1mb-
22.50um 6.6Msz
32 PC 42 1 7 . 80 -1.4
32 PC 42 1 7 . 96 -1.3
33 iPc 42 18.50 -0.8
1 98 . 50nm 6.1mb
22 i PC 4219.40 -0.3
43 iPd 42 19.55 -0.4
33 iPc 42 18.60 -1.2
220 . 55nm 6 . 1mb
43iPc 42 19. 87 -8.3
32 PC 42 18.58 -1.4
34 i PC 42 1 8 . 90 -1.1
174.1 5nm 6 . 0mb
31 PC 42 19. 40 -0.8
42 i PC 42 1 9 . 95 -0.5
32 PC 42 19.09 -1.5
29 PC 42 19.30 -1.3
56 i P 42 2 1 . 00 -0.3
44 iPc 42 20.77 -0.7
46 iPd 42 20.50 -1.2
24 i P 4222.40 -0.2
41 ePc 4223.54 0.3
48 iP 42 23.00 -1.0
i 42 40.00
27 ePc 42 22 .60 -1.5
eS 52 58.00
28 iPc 42 22 .90 -1.2
iPP 45 44.00
iS 53 02.00
iSP 53 48.00
iSS 58 36.00
iSSS 02 00.00
i LR 10 36 .00
309 Pd+ 42 24.00 -0.6
77 . 00nm 5 . 7mb
3 . 60um 5 . 8Ms z
2 . 1 8um
1 . 30um
sP 42 28.00
PP 45 52.00
SKS 52 48.00
S 53 04.00
PS 54 06.00
SS 58 48.00
23 iPd 42 24.50 -0.1
31 Pd 42 24.30 -0.9
21 iPc 42 25.00 0.2
iS 52 50.00
24 eP 42 25.00 -0.1
28 i PC 42 24 . 20 -1.9
31 P 42 23.50 -1.8
38 iPc 42 24.88 -1.3

167

17d 19h

PI 1
R 1 Y
PTJ
Z AG
VBY
PGO
SF 1
PGF

UZO
1 FR
CRE
BMR
JACH
ROCH
LCCH
ARV
PEL

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ASS
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TACH
PCH
CHCH
MDZ
MNS

T 1 M
DZM
RMP
ROP
Q £ f\
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AZ 1
HVAR
BAD
SO 1
CGL

RF 1

VR 1
MLR
SOB1

CFR
WMO

BUC1
PPD

BRT
CAI
MGR
LZH

SKO

S 1 M

OHR

CVT
LAT
VAY

MCT

87 .05
87.12
87.18
0 ~J O £ o / . i b
87 . 28
87 . 38
87 40
87.41
2.0s
87.44
87 . 63
87 . 68
87 .93
87 94
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88 t) 6
88 . 1 7
88 .25
1 . 5s
88 . 31

88 . 43
88.51
88 52
88 . 72
88 . 89
89.01
89. 02
0. 9s
89 . 03
89. 33
89. 52
89 . 57
89 . 61
89. 65
89. 73
89.90
90 . 04
90. 1 8
1 .2s
90. 45
1.7s
90 . 45
90. 60
90. 92

91.45
91.48

91 . 68
91 . 87

92.02
92 . 04
92 . 05
92 . 07
2 . 0s
Z 18s
N 15s
E 1 5s

92 . 49

93 . 02

93. 05
1 . 6s
93. 08
93. 22
93 . 44
1.4s

93. 46

31 PC
28 i PC
27 eP
27 i PC
27 i P c
30 PC
30 PC
33 iPc
396 50nm
25 iPd
47 i Pd
30 PC
2 1 ePc
1 37 eP
138 t Pd
1 38 eP
30 PC
137 iPc
361 . 1 1 nm
50 iPc
i
30 PC
138 ePc
138 eP
138 ePc
138 eP
136 *P
36 P
45 20nm
23 i PC
248 i PC
31 P
31 P
24 eP
30 P
28 eP

1 1 1 *Pc
30 P
34 P
8.60 nm
30 P
838 . 30nm
20 ePc
20 eP
101 i PC
e
19 eP
337 iPc
esPd
eHPP
ePP
21 i PC
1 17 eP
e
28 PC
97 iPc
30 P
323 iPc
222. 00nm
11 . 7 1 urn
7 . 99um
4 . 84um
esPd
eHPP
ePP
SKS
S
PS
SS
25 iPc
i
ipP
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i PP
i S
IPS
iSP
15 eP
eS
26 iP
1 63 . 00nm
33 P
264 eP
24 i P
95 . 00nm
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32 P

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24.10
25 . 70
25 .90
26 . 60
26 . 80
27 . 70
27 . 80
27 . 30
6
27 . 90
30 . 00
28 . 20
32. 00
30 . 50
31 . 00
31 .00
30 .90
31.80
6
32.00
56 . 00
31 . 50
33 . 00
32. 50
34. 00
33. 60
39. 50
34 . 47
5
36 . 00
39 .00
36 . 50
37 . 20
36. 80
37 . 50
37 .30
39. 30
38 . 80
40 . 59
4
41 .68
6
44 . 00
42 .00
44.70
17.70
45. 00
47 . 36
52 . 00
21.13
21 . 30
46. 00
48 .60
55. 40
48 . 40
49. 90
47 . 70
50. 41
6
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54. 88
30 . 63
31 . 63
20.00
44 . 00

00.00
48 . 00
50.50
51 .00
57 . 40
09 .80
32 .00
57 . 00
07 . 00
08 . 00
52 . 00
00. 00
52 . 80
6
54. 60
58 .00
55 . 00
6
01.40
56. 10

- 2. 3
- 1 . 0
- 1 . 3

ft Q "O . y
- 0 . 8
- O . 6
- 0 . 3
- 1 . 1
3mb
- 0 . 4
0 . 3
- 1 . 5
1 . 4
- 0. 3
e.e
- e. 2
- 1 . 0
- 0.5
5mb
- 0 . 9

- 1.7
- 0. 4
- 1 . 0
- 0.5
- 1.7
3.6
- 1 .5
7mb
0. 1
1 . 3
- 1 . 8
- 1.4
- 1 . 9
- 1 . 4
- 2. 0
- 1 .2
- 2.0
- 1 . 0
8mb X
- 0. 9
7mb
1 . 4
- 1 .5
- 0.5

- 2 .2
- 0. 1

- 2.2
- 0.7

- 1 .5
- 0. 4
- 2 . 4
0. 0
2mb
4MSZ

- 1 .6

22kmX

- 2 . 4

- 1 .9
2mb
- 0.2
2.3
- 1.4
0mb

- 0.7

KEK
KZN
RDO
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FRU

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HKC
BAG

BBTK
DAV
KM I

CTAO
MSL

MA I 0

BHD

GUN
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KKN
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WRA

ASPA

BAL
NWAO
MUN
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SNA

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MTD
PDF

BUL
NPA
K 1 M

SLR

Z

FRS

HVD

JOZ

& AUG
40.

93 . 97
94.10
94 . 50
94 . 86
95 . 55

96 .59
20s

97 . 32
97.51

97.61
100.48
101.59

102 . 25
102.90

103 . 76

106 . 12

106.61
106 . 70

106 . 93
106 . 96
1 07 . 08
1 07 . 15
107 .37
107 . 66
20s
107. 76
108 . 56

1 1 1 . 06
1 . 8s
111.06
1.4s
1 1 3 . 56
0. 9s
1 30 . 19
130.88
131 .22
135.03
137.61
1 37 . 98
1 . 0s
143 . 02
1 . 0s
148.67
148.94
1 .0s
149 . 42
151.14
1 K O O T
1 J £ . L 3

2 . 3s
1 53 . 00
1 . 0s
20s

153.16
1 . 2s

153 . 72
1 . 2s

156.71
507 obs

27 eP 42
25 eP 42
22 eP 43
262 eP 43
346 ePc 43
eSKS 53
131 eP+ 43
4 . 26um
ePP 47
ePPS 56
307 eP 43
299 eP 43
eS 53
1 8 i P 43
289 e P d i f f 4 3
317 ePd i f f 43
ePP 47
eHPP 47
iSKS 54
eSDIF 55
ePS 56
254 ePd i f f 43
10 ePd i f f43
ePP 47
eSKS 54
ePS 57
357 ePd i f f 43
e 47
10 ePd i f f 44
ePP 47
eSKS 54
ePS 57
332 PKP 48
22 ePKP 48

e 50
e 57
333 PKP 48
333 PKP 48
333 PKP 48
333 PKP 48
65 PKP 48
65 PKP 48
0 . 20um
65 PKP 48
340 ePd i f f 44
ePP 48
261 Pd i f f 44
1 . 30nm
261 PKP 48
6 . 60nm
258 ePKP 48
6 . 30nm
261 ePKP 48
258 ePKP 48
260 ePKP 48
40 ePKPc 49
29 ePKPd 49
155 ePKP 48
76 . 00nm
73 ePKP 49
35 . 00nm
49 iPKPc 49
81 i PKPc 49
1 70 . 00nm
57 iPKPd 49
34 ePKP 49
75 iPKPc 4-9
545 . 45nm
66 ePKPc 49
1 80 . 00nm
5.67 um
e 49
eSKP 52
77 i PKPc 49
1 48 . 44nm
i 49
78 iPKPd 49
109. 38nm
i 49
64 e(PKP)49
. associated

17, 1 991 1 9h 37m
263 N
DEPTH -
NEAR f* f\ A C T Pi

57.50
57.60
00. 00
04. 00
05. 00
40. 00
10. 00
5
04.00
08 . 00
17. 00
14.00
55. 20
12.00
19.50
32 . 08
45. 98
46. 81

1 "> 7 ft 1 £ . 1 O
13.53
44. 08
36. 42
38.50
48. 50
20. 00
00. 1 0
43. 00
03. 00
02.00
54. 00
37. 50
30. 50
07 . 52
10. 00
35.00
42 . 00
07. 12
07. 30
07 . 36
06. 92
13.12
15. 68
4 .
15. 66
06. 00
34.00
22.00

13.00

17. 90

51 .00
51 .00
53.00
00.20
07.50
53. 30 -

09.00

24. 90
26.00

23. 10
29.00
35.00

28.72

6 .
36.50
55.70
30.80

37.20
38.60

52.50
34.00

00.84s

- 1.4
- 2 . 0
- 1 . 3
0. 8
- 1 . 2

- 0 . 6
9Msz

2. 6
- 1 . 6

- 3 . 7
- 9 . 3
- 1.7

- 0. 1
- 0. 6

- 0. 1

8 .5

0 . 5
3 . 3

- 0. 4
- 0. 2
- 0. 6
- 1 . 1
4 . 7
6. 7
7MszX
6 . 5
1 . 5

6 . 2

_ 0 0
£ . £

- 2 . 1

- 0 . 6
- 1 .8
- 0. 5
- 1 . 3
1 . 1
11.8

- 6 . 8

- 0 . 2
0. 9

- 3. 2
0.2
4 . 7

- 2. 7

4MSZ

- 0. 5

6 . 3

- 2.2

1 24 . 382 W
8 . 8km
r KiriDTUC'DIJ f* * i i r

<GM-P>. MD 3.4 (GM).

(35)

FHC 0.62 29 iPc 37 13.40 0.1
LBFM 2.18 59 eP 37 35.30 -2.7
2 obs. as soc i o t ed

& AUG 17, 1991 19h 39m 17.80s
39.993 N 123.992 W
DEPTH - 6 . 0km
NEAR COAST OF NORTHERN CALIF. (35)
<BRK> . ML 3.4 (BRK) .

FOX 0.53 360 iPd 39 29.27 0.9
i 39 35 . 81
FHC 0.81 0 iPc 39 33.46 -0.4
iS 39 41 . 85
WDC 1.26 62 eP 39 39.20 -2.3
eS 39 56.90
LBFM 2.09 49 «P 39 57.00 2.9
4 obs . associated

& AUG 17, 1991 19h 42m 06.70s
40. 302 N 1 24 . 425 W
DEPTH - 8 . 0km
NEAR COAST OF NORTHERN CALIF. (35)
<BRK>. ML 3 .5 (BRK) . MD 3.2
(GM) .

FOX 0. 40 56 i PC 42 15. 31 0.6
FHC 0.60 34 i PC 42 18.98 0.2
IS 42 26.50
WDC 1.47 78 i Pd 42 30.07 -3.4
iS 42 46. 50
LBFM 2.19 61 eP 42 43.00 -1.1
4 obs . os soc i o t ed

& AUG 17, 1991 19h 45m 02.56s
40. 309 N 124 . 44 1 W
DEPTH - 9.6km
NEAR COAST OF NORTHERN CALIF. (35)
<GM-P> . MD 3.0 (GM) .

FOX 0.40 58 iPc 45 11.15 0.4
eS 4518.20
FHC 0.60 35 iPc 45 14.63 -0.1
i 4524.18
WDC 1.48 79 eP 45 27.28 -2.0
e 45 27 . 30
ORV 2.38 107 iPd 45 40.19 -2.2
4 obs. associated

% AUG 17, 1991 19h 46m 48.11± 0.79s
43.048 N ± 8.1km 0.466 W ± 6.1km
DEPTH - 10.0km (geophy s i c i s t)
PYRENEES (378)
ML 1 .0 (STR) .

JAU 0.07 98 Pg 46 50.69 0.0
Sg 46 52 . 12
ESCF 0.09 291 Pg 46 50.19 -0.5
Sg 46 51 . 34
OGE 0.12 357 Pg 46 51.12 0.0
ATE 0.18 282 Pg 46 52.49 0.4
Sg 46 54 . 31
LHE 0.18 220 Pg 46 52.10 -0.1
MADF 0.28 291 Pg 46 54.03 0.1
Sg 46 58 . 15
S . D . -0.4 on 6 o f 6obs.

& AUG 17, 1991 20h 00m 43.00s
40. 308 N 124. 322 W
DEPTH - 15.0km
NEAR COAST OF NORTHERN CALIF. (35)
<BRK>. ML 2.9 (BRK). MD 3.5
(GM).

FHC 0.56 27 iPd 00 53.80 -0.1
WDC 1.39 78 iPc 01 05.60 -2.1
iS 01 23 . 30
LTCM 1.68 93 eP 01 10.00 -2.0
MIN 2.08 88 ePd 01 15.40 -2.5
LBFM 2.12 60 eP 01 17.00 -1.5
ORV 2.30 108 eP 01 18.00 -2.9

BRK 2.91 146 e(P) 01 26.80 -2.8
PCC 3.19 151 eP 01 31.20 -2.3
GCC 3.74 150 ePc 01 38.80 -2.6
9 obs . ossac i a t«d

& AUG 17. 1991 20h 09m 44.47s

17d 20h

168

+ 0 . 285 N 124. 483 W
DEPTH « 2.7km
NEAR COAST OF NORTHERN CALIF. (35)
<GM-P> . MD 3.0 (GM) .

FHC 0.64 36 iPc 09 57.90 0.6
LBFM 2.24 61 eP 10 22.00 -1.2
2 obs. associoted

& AUG 17. 1991 20h 1 7m 25.80s
40 . 235 N 124. 267 W
DEPTH * 7.0km
NEAR COA$T OF NORTHERN CALIF. (35)
<BRf!> . ML 3.5 (BRK) .

FOX 0 35 36 Pd 1733.45 0.5
FHC 0,61 21 PC 17 37.56 -0.4
S 17 46.21
WDC 1.36 75 PC 17 49.51 -1.7
S 18 06 . 80
LTCM 1.64 90 eP 17 54.00 -1.2
MIN 2.04 86 iPc 17 59.34 -1.8
LBFM 2.12 58 eP 18 00.50 -1.8
ORV 2.23 107 iPd 18 02.65 -1.1
BRK 2.83 146 e(P) 18 10.70 -1.5
PCC 3.10 151 eP 18 13.74 -2.3
ARM 3.59 143 eP 18 21.00 -2.6
GCC 3.66 150 iPd 18 22.98 -1.1
PRS 4.51 149 eP 18 34.95 -1.2
12 obs. associated

& AUG 17, 1991 20h 55m 56.50s
+ 0. 232 N 124 .322 W
DEPTH - 13.0km
4 . 0mb (1 obs .)
NEAR COAST OF NORTHERN CALIF. (35)
<BRK>. ML 3 . 6 (BRK) .

FOX 0.38 41 iPc 56 04.15 -0.4
eS 56 10. 15
FHC 0.62 24 iPd 56 08.72 -0.1
eS 56 16 . 70
WDC 1.40 75 iPc 56 19.56 -2.2
eS 56 36.70
LTCM 1.68 90 eP 56 23.80 -1.9
MIN 2.08 86 iPc 56 29.26 -2.4
LBFM 2.16 58 iPc 56 31.50 -1.3
ORV 2-27 106 iPd 56 31.17 -3.1
BKS 2.86 145 iPd 56 41.10 -1.5
PCC 3.12 150 eP 56 44.04 -2.2
ARN 3.61 142 eP 56 50.50 -2.8
GCC 3.68 150 iPc 56 50.87 -3.4
CMS 3.77 124 e(P) 56 53.00 -2.6
SAO 4.13 146 eP 56 58.05 -2.6
ISA 6.49 133 eP 57 33.00 -1.1
CLC 6.90 128 eP 57 49.90 9.2
e 59 40.00
SBB 7.57 135 eP 57 42.00 -7.2
MSU 9.56 96 eP 58 14.80 -2.3
FFC 20.80 38 eP 00 35.00 -4.8

0,4s 3.00nm 4. 0mb
18 obs. associated

& AUG 17, 1991 20h 58m 52.42s
41 . 789 N 125.888 W
DEPTH - 1 . 6km
OFF COAST OF NORTHERN CALIFORNIA(34) <GM-P> . MD 3.1 (GM) .

FHC 1.74 124 iPc 59 21.30 -2.6
eS 59 39.80
WDC 2.80 114 iPd 59 37.00 -2.2
eS 00 07.80
LBFM 3.03 97 eP 59 41.50 -1.1
MIN 3.54 113 ePd 59 49.20 -0.6
ORV 4.01 122 eP 59 53.00 -3.3
PCC 5.07 147 eP 00 07.20 -4.1
ARN 5.57 141 eP 00 14.50 -3.9
7 obs. assacioted

AUG 17. 1991 21h 14m 58 . 89± 1.63s
13.756 S ± 8.8km 167.688 E ± 7.4km DEPTH - 42. 7 ± 1 4. 4 km
4 . 8mb (6 abs .)
VANUATU ISLANDS (186)

BKM 3.93 172 iP 15 59.00 0.8

DZM 8.35 188 i Pd 16 58.10 -2.4
i S 1832.00
HNR 8.72 299 eP 17 05.00 -0.4
eS 1859.00

BRS 19.44 223 e(PKP)19 26.00 1.1
PMG 20.57 280 eP 19 38.00 1.2
CTAO 21.44 250 iP 19 43.00 -2.6
COO 22.19 218 iPc 19 55.00 1.9
0 L P 25 39 236 £ P 20 25 ' fi ft ("4 Q
i 20 30
CMS 26.72 225 i Pd 20 37
0.8s 53 . 00nm

CNB 27.08 214 e(P) 20 44
STK 29.94 229 i PC 21 06
0 . 6s 1 2 . 40nm

TOO 30. 87 216 e(P) 21 14
WR2 32.44 254 eP 21 25

. 00
. 00 0.7
5 . 2mb
. 00 4 . 3X
. 10 0.7
4 . 8mb
. 00 0.5
. 70 ,-1.8
1.0s 6 . 1 0nm 4 . 4mb
ASPA 33.41 248 iPc 21 35.10 -0.8
0.8s 13.60nm 4. 9mb
ADE 33.60 226 e(P) 21 37,10 -0.3
WARB 40.34 246 eP 22 34.00 -0.3
NWAO 49.60 238 eP 23 49.00 0.9
0 . 5s 4 . 00nm 4 . 7mb
MUN 50.30 240 eP 23 55.00 1.5

MAT 57.24 332 (P) 24 45.00 0.6
KM 1 74.14 301 Pd 26 37,00 3.6X
CHG 75.05 294 eP 26 41
PRS 83.29 50 eP 27 23
LLA 83.72 50 eP 27 25
PRI 83.75 51 eP 27 26
WDC 84.10 46 ePc 27 26
ORV 84.43 47 eP 27 28
CMB 84.66 49 eP 27 29
FRl 84. 78 50 eP 27 30
MWC 85.05 53 eP 27 32
ISA 85.23 52 eP 27 33

30 2.8
30 0.6
80 0.9
30 1.1
80 0.1
30 -0.1
,80 0.1
. 50 0.3
. 00 0.1
. 00 0.4
SBB 85.39 53 eP 27 33L00 -0.4
RVR 85.51 54 eP 27 34,00 0.1
PLM 85.70 54 eP 27 35
CLC 85.96 52 eP 27 37
GSC 86.39 53 eP 27 38
TPC 86.58 54 eP 27 40
YKA 96.50 27 eP 28 25
0.5s 0 . 90nm
LOR 143.96 341 ePKP 34 29
1.0s 5 . 00nm
SMF 144.52 341 ePKP 34 30
1.1s 7 . 35nm
AVF 144.54 341 ePKP 34 30
1.1s 6 . 1 0nm
BGF 144.91 342 ePKP 34 3
0.8s 6 . 70 nm
MAF 145.29 342 ePKP 34 32
1.2s 1 1 . 90nm
TCF 145.34 342 ePKP 34 33
1.0s 7 . 00nm
SBF 145.55 334 ePKP 34 34
1.0s 24 . 00nm
LSF 145.57 343 ePKP 34 34
MFF 1 45 . 70 345 ePKP 34 34
0.9s 6 . 55nm
PGF 145-91 331 ePKP 34 34
1 . 0s 16.00nm
FRF 1 46 . 13 335 ePKP 34 36
LMR 146.37 335 ePKP 34 35
0.9s 8 . 20nm
S . D. - 1 .2 on 47 of

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? AUG 17. 1 991 21 h 31m 24
18. 941 S ±29. 3km 174. 777
DEPTH - 130.0km (geophys
4.8mb (7 obs.)
TONGA ISLANDS

DZM 1 7 . 86 257 i PC 35 3«
CTAO 36.69 262 iP 38 1S
STK 41 . 20 243 eP 38 5S
0.8s 1 . 90nm
WR2 47.82 260 iPc 39 41
0.5s 1 4 . 70nm
WRA 47.84 260 P 39 41
0.5s 1 1 . 00nm
ASPA 47.84 255 iPd 39 4!
0.7s 29.50nm
MAT 70.82 321 eP 42 21
0.7s 4 . 1 1 nm

. 00 -0.1
. 00 0.8
. 00 -0.4
. 00 0.7
. 20 0.5
4 . 5mb
. 80 -1.7

. 40 -2.0

. 30 -2.1

. 90 -1.2

. 30 -1.5

. 40 -0.5

. 00 -0.4

. 10 -0.2
. 60 0.2

. 40 -0.7

. 10 0.8
. 30 -0.3

49 abs.

. 94± 0 . 76s
W ±18. 3km
icist)

(173)

. 00 3.1
. 50 -1.6
. 10 0.7
3 . 9mb
. 50 -2.9
5 . 0mb
. 00 -3.6X
4 . 9mb
. 40 -2.2
5 .2mb
. 00 -1.4
4 . 4mb

SPA

TNP
PV09
ALO

ANMO
BW06

| f\J K

CHG
ZOBO
KRA

KSP
CLL

BRG

MOX

PRU
KHC

ZST
SRO
FLN

LDF

GRR

LPF

CDF

HAU

BSF

WTTA

LOR

LJU
SSF

LBF

VOY
MFF

AVF

VBY
BGF

LSF

TCF

MAF

LPL

LPG

71 . 18 180 iPc 42 30. 00 -1.3
1.2s 21 . 83nm 4 . 8mb
78 . 32 43 P 4311.70 -0.8
83 .90 46 P 43 41.40 -0.4
84.07 50 ePc 43 42.20 -0.4
1.2s 1 2 . 58nm 4 . 7mb
84 .07 50 P 43 42.30 -0.3
85 . 77 42 P 43 50 . 70 -0.3
92.00 1 4 eP 4418.00 -1.5
92.59 289 eP 4423.90 0.6
99 . 83 1 1 1 P 4504.00 6 . 9X
146.80 343 ePKP 50 51.70 0.6
e 5113.70
146.98 347 iPKPd 50 52.70 1.3
147.12 351 iPKPc 50 52.60 1.1
1.2s 28 . 00nm
147.39 350 iPKP 50 53.40 1.4
1.0S 1 0 . 00nm
147.96 352 ePKP 50 55.00 2.0
1.4s 13. 00nm
148.14 349 ePKP 50 55.50 2.3
149.14 349 PKP 50 58.50 3.6X
e 51 39 . 50
149.26 344 ePKP 50 59.10 4.0X
149.29 343 ePKP 51 00.80 5.7X
149.90 8 ePKP 51 00.00 4 . 0X
0.5s 4 . 35nm
150.11 7 ePKP 51 00.40 4 . 1 X
1.1s 1 2 . 20nm
150.21 8 ePKP 51 00.80 4 . 3X
1.1s 17.1 0nm
150.54 9 ePKP 51 01.70 4.8X
0.3s 4 . 25nm
150.56 357 ePKP 51 01.90 4.8X
0.9s 4 . 90nm
151.00 358 ePKP 51 03.00 5.3X
0.6s 6 . 30nm
151 16 358 ePKP 51 03.10 5.0X
0.6s 3 . 60nm
151.27 351 i PKPc 51 03. 50 5 . 1 X
0.6s 1 4 . 70nm
e 51 39.00
151.73 2 ePKP 51 04.70 5.9X
0.7s 6 . 60nm
151.90 346 ePKP 51 04.50 5.4X
151 .92 2 ePKP 51 05 .30 6.2X
0.8s 8 . 05nm
152.01 2 ePKP 51 05 . 30 6.0X
0.6s 4 . 50nm
152.05 347 ePKP 51 04.60 5.2X
152 . 06 8 ePKP 51 05.20 5-9X
1.1s 9 . 75nm
152.18 3 ePKP 51 05 . 50 6. 1X
0.9s 5 . 75nm
152.23 345 ePKP 51 06.40 6 . 8X
152.39 4 ePKP 51 06.00 6.2X
0.5s 4 . 35nm
152.60 6 ePKP 51 06.10 6 . 0X
0.8s 5 . 35nm
1 52 .61 5 ePKP 51 06. 40 6. 3X
0.7s 4 . 40nm
152.71 4 ePKP 51 07.10 6 . 9X
0.6s 3 . 60nm
153.47 358 ePKP 51 09.30 7.7X
0.6s 1 . 35nm
153.49 358 ePKP 51 09.40 7.7X
0.6s 1 . 35nm
S . D . - 1 . 7 on 20 of 47 obs .

AUG 17, 1991 22h 17m 14.68± 0.16s 41.821 N ± 2.0km 125.397 W ± 2.6km DEPTH - 13.5km (geophysicist)
6 .
OFF

2mb (80 obs.) 7.1Msz (22 obs.) COAST OF NORTHERN CALIFORNIA(34)
ML 6.8 (BRK). Mo-6 . 0 « 1 0 * * 1 9 Nm
(PPT). Felt (V) at Klomath, Phillipsville, Rio Dell and Trinidad; (IV) ot Bridgeville. Fortune, Myers Flot and
Whitethorn. Also felt (V) at Lokeside, North Bend and Pistol River, Oregon; (IV) ot Caas Bay, CoquiMe, Murphy, Reedsport,
Rague River, Roseburg. Sixes and Scottburg, Oregon. Felt as for
as Socromento. California and
Eugene, Oregon. Depth from

169

17d 22h

FHC

FOX
WDC

LBFM
LTCM
MPOR
HBO
M 1 N
ORV
NWRM
GT2
KMOR
GMO
PGO
VBEM
TDH
VLMM
NLO

CROR
VFP
VLL
BRK
BKS

RVW

ARM
LVP
MTMW
VTHM
PCC
BMW
J LK

CDFW

broodbond displocement
se i smog r oms .
FAULT PLANE SOLUTION: P-Woves

NP 1 : S t r i ke=1 25 Dip = 87 Slip 180
NP2: 215 90 -357

P r i nc i po I Axes:
T Plg= 2 Azm= 88
P 2 350
Comment: The focol mechonism is
moderotely well controlled ond
corresponds to strike-slip
foultinq. The preferred foult
plone is not determined.
RADIATED ENERGY
No. of sto. 8 Focol mech. F
Energy 7 . 8± 1 . 3* 1 9* * 1 5 Nm
MOMENT TENSOR SOLUTION

Dep 12 No.ofsto:14
Moment Tensor; Scole 19*«19 Nm
Mr r--e. 11 Mt t 2 . 21
Mf f - 2 . 32 Mr t--0 . 49
Mr f- 9 . 00 Mt f- 9. 22
Principol oxes:
T Vol= 2.33 P 1 g= 1 Azm- 93
N 8 00 77 185
P -2.33 13 3

Best Double Cou p 1 e : Mo = 2 . 3 * 1 0 « « 1 9
NP 1 : S t r i ke-1 38 Dip-81 S 1 i p 1 7 1
NP2 : 47 82 -9

CENTROID, MOMENT TENSOR (HRV)
Doto Used: GDSN
L.P.B.: 18S, 47C M.W.: 21S. 48C
Centre id Locotion:
Or i g i n T i me 22:17:20.80.1
Lot 41.71N 0.01 Lon 125. 63W 0.01

Dep 15.0 FIX Ho 1 f-du r o t i on 13.1
Moment Tensor; Scole 10»«19 Nm
Mrr- 0.10 0.03 Mtt=-3.95 0.03
Mff- 3.85 0.03 Mrt- 1.20 0.10
Mrf- 1.73 0.10 Mtf- 0.01 0.03
P r i nc i po 1 Axes:
T Vol- 4.55 Pig-22 Azm-273
N -0.24 62 53
P -4.31 16 177

Best Double Coup 1 e : Mo-4 . 4 * 1 0* * 1 9
NP1 : S t r i ke-31 4 Dip-62 S I i p= 176
NP2: 46 86 28

1 . 47 133 iPc 1738.89 -1.9
eS 18 00.00
1.68 140 ePc 17 41.49 -2.2
2.49 119 ePc 17 54.79 -0.6
e 1820.69
2.67 99 eP 1758.70 0.4
2 . 95 1 22 eP 1800.80 -1.2
3.00 26 P 1803.29 0.5
3.03 47 PC 18 03. 39 0.1
3.22 116 ePc 18 95.80 -0.2
3 . 73 1 26 eP 1810.82 -2.3
3. 87 149 eP 1810.50 -4.5X
4.04 33 P 1816.76 -0.6
4.06 19P 1816.10 -1.6
4.17 50 P 1819.42 -0.1
4.22 29 P 18 20. 10 0.0
4.26 39 P 18 20. 23 -0.6
4.35 36 P 1 8 2 1 . 23 -0.7
4.44 32 P 18 22.92 -0.3
4.49 18 P 1823.50 -0.4
S 19 16.93
4.51 44 P 1823.68 -0.5
4.51 38 P 1823.75 -0.6
4. 53 35 P 1824.21 -0.3
4. 62 147 iPc 18 21 . 50 -4 . 2X
4.63 147 iPd 18 20.95 -4 . 9X
eS 1901.60
e 1948.15
4.73 23 P 1827.54 0.2
S 1924.51
4.75 33 P 18 27 . 66 0.0
4.76 26 P 18 27 . 32 -0.5
4 . 79 28 P 1826.83 -1.4
4.86 45 P 1829.06 -0.2
4.90 151 iPc 18 24.70 -5.0X
4.91 18P 1828.18 -1.6
4.92 27 P 1829.04 -0.9
S 19 28 . 76
4.93 28 P 18 29 . 22 -0.9

SHW

HSR

GULW
STD
VGB
ERK
SOSW
CZM
TDL
ASR
KOSW
ONR

GL2
MHC
LMW
ARN
CMB
CPW
JBO
GCC
GLK
LON
WPW
REMR
OBH

RVC
SMW

MEW

PATW
FMW
YAKW
SAO
NAC
GSM
OOW
MXC
PRW
GMW
HDW
BRVW
OSD

EBG
OFK
RMW
KVN
TWW
SEA
LLA
PRS
WG3
TBM
BVW
Wl W
GBL
MJ2
WAH2
BLH

OSP
LNOR
OT2
CRF
OHW
JCW
PGC

CMW
WTV
CBSW
MCW
RPW
NLW
SAW
TNP
OD2
DHW2
MBW
PNT
NEW
GSC

4.93 26 P 18 29.99 -0.2 PAS 9.55 141 ePd 19 32.25 -2.4
S 19 32.96 MCMT 9.63 68 ePc 19 35.50 -0.6
4.93 27 P 18 29.88 -0.4 HBMT 10.06 62 ePc 19 41.50 -0.6
S 19 30.44 LTMT 10.08 70 eP 19 42.80 0.5
4.94 33 P 18 30.21 -0.1 BUT 10.16 61 ePc 19 43.20 -0.2
4.97 26 P 18 30.41 -0.4 LRM 10.17 62 ePc 19 43.10 -0.5
4.99 41 P 18 30.87 0.0 PEC 10.24 138 ePc 19 40.20 -4 . 1 X
4.99 25 P 18 31.03 -0.1 BGMT 10.28 66 ePc 19 44.90 -0.2
5.00 27 P 18 30.84 -0.3 LCCM 10.56 63 ePc 19 48.00 -0.8
5.06 23 P 18 31.79 -0.1 MSU 10.64 104 eP 19 50.00 0.0
5.08 26 P 18 32.35 0.1 PLM 10.82 139 eP 19 49.00 -3.4X
5.12 31 P 18 32.04 -0.9 HRY 10.88 59 ePc 19 53.00 -0.2
5.18 25 P 18 33.70 0.0 SXM 11.10 62 ePc 19 56.00 -0.2
5.19 12 P 18 32.84 -0.9 BW06 11.77 80 ePc 20 04.00 -1.4
S 19 33.70 GLA 12.12 133 eP 20 07.30 -2.6
5.29 37 P 18 34.45 -0.9 PV09 12.88 100 ePc 20 22.00 1.7
5.33 146 ePd 18 31.00 -4.9X SES 13.12 44 eP 20 22.00 -1.2
5.33 24 P 18 36.14 0.2 0.9s 854.00nm 6.9mb
5.37 145 eP 18 31.80 -4.6X pP 20 37.00
5.40 133 ePd 18 34.50 -2.3 GOL 15.32 91 eP 20 51.30 -1.1
5.40 17 P 18 35.46 -1.3 GLD 15.42 91 ePc 20 53.00 -0.6
5.43 46 P 18 37.11 -0.1 ANMO 16.34 109 i PC 21 07.08 1.6
5.46 150 ePc 18 32.00 -5.6X ALO 16.35 109 iPc+ 21 05.20 -6.3
5.47 29 P 18 37.39 -0.4 1.5s 1944. 44nm 6.0mb
5.56 26 P 18 38.22 -0.8 eS 24 20.00
5.60 28 P 18 38.87 -0.9 SIT 16.53 341 ePc 21 07.30 -0.1
5.61 26 P 18 39.90 0.0 Z 20s 0.10um
5.61 11 P 18 38.09 -1.6 YKU 19.86 338 eP 21 51.40 3.5X
S 19 41.82 YKA 21.68 14 eP 22 05.50 -1.1
5.68 24 P 18 40.56 -0.2 1.1s 1181. 30nm 6.2mb
5.69 14 P 18 39.69 -1.2 MID 21.91 331 eP 22 10.10 1.2
S 19 45.19 KDC 23.43 322 eP 22 23.20 -0.7
5.73 19 P 18 41.92 0.6 TUL 23.72 95 i PC 22 25.50 -1.5
S 19 48.28 2.2s ******* nm 7.2mb X
5.75 43 P 18 41.96 0.3 Z 18s 328.38um 6.8Msz
5.76 26 P 18 41.47 -0.5 N 20s 723.62um
5.86 35 P 18 44.85 1.7 E 29s 399.77um
5.91 147 eP 18 38.39 -5.6X eS 27 96.00
5.91 32 P 18 43.27 -0.6 LR 30 23.00
5.97 24 P 18 44.16 -0.6 TOA 23.80 336 ePd 22 30.10 2.5
5.98 8 P 18 44.01 -0.9 SLKM 24.08 329 eP 22 29.80 -0.5
6.00 36 P 18 45.19 0.0 PMR 24.41 332 ePd 22 34.40 1.1
6.02 41 P 18 45.27 -0.2 2.6s 9708. 00nm 7.0mb
6.02 17 P 18 44.04 -1.4 PWA 24.71 332 ePd 22 37.70 1.4
6.06 15 P 18 44.91 -1.2 RSO 25.05 327 eP 22 40.20 0.4
6.07 38 P 18 45.89 -0.3 PDB 25.26 325 eP 22 41.00 -0.6
6.12 11 P 18 47.42 0.4 CCM 26.35 87 i PC 22 53.60 1.6
S 19 55.08 FBA 26.41 339 ePd 22 52.30 0.0
6.15 33 P 18 46.90 -0.4 SDN 26.54 313 cP 22 53.40 -0.1
6.17 7 P 18 46.62 -0.9 SVW 26.57 327 eP 22 53.90 0.1
6.19 23 P 18 47.72 -0.2 INK 26.90 353 ePd 22 54.00 -2.7
6.22 114 eP 18 47.50 -0.9 1.1s 378.00nm 6.0mb
6.22 30 P 18 50.69 2.3 FVM 26.99 86 eP 22 56.80 -1.0
6.23 20 P 18 50.69 2.3 1.0s 560.00nm 6.2mb
6.24 145 ePc 18 44.00 -4.6X TTA 27.75 330 ePd 23 04.30 -0.3
6.31 149 eP 18 44.00 -5.6X CGX 28.85 133 (P) 23 18.50 3.5X
6.32 46 P 18 49.09 -0.7 1 MA 28.95 336 ePd 23 15.30 -0.1
6.35 31 P 18 51.00 0.8 MRX 30.12 130 eP 23 29.00 2.8X

6.37 37 P 18 51.01 0.6 UNM 31.59 127 (P) 23 45.00 5.6X
6.37 42 P 18 49.69 -0.7 PPM 32.12 127 IP 23 45.00 0.6
6.40 40 P 18 50.31 -0.6 ANM 32.16 329 eP 23 44.90 1.2
6.42 40 P 18 50.68 -0.4 MT 32.35 126 eP 23 48.00 1.9
6.47 38 P 18 51.68 -0.1 CLE 32.51 76 iP 23 47.50 0.5
6.47 21 P 18 51.34 -0.5 1 1 SM 32.94 125 (P) 23 52.00 1.1
S 20 05.12 LVVM 32.95 123 (P) 23 51.50 0.5
6.49 5 P 18 52.10 0.0 ACX 33.14 131 eP 23 55.80 3.2X
6.54 49 P 18 52.49 -0.4 BRW 33.42 342 eP 23 53.90 -0.6
6.60 40 P 18 52.98 -0.7 KIP 34.12 244 ePc 23 58.25 -2.9
6.60 39 P 18 53.75 0.1 ed 24 03.71
6.81 16 P 18 57.14 0.6 esPd 24 05.20
6.83 20 P 18 55.29 -1.6 ePP 25 10.67
6.97 11 eP 18 58.00 -0.7 HON 34.19 243 P 24 00.00 -1.7
1.2s 3213. 00nm 7.3mb X MBC 34.62 3 eP 24 04.50 -0.4
7.00 18 P 18 58.54 -0.8 1.0s 408.00nm 6.3mb
7.04 32 P 19 00.36 0.5 BLA 34.70 82 ePc 24 05.30 -0.7
7.09 31 P 19 01.96 1.4 0.8s 570.47nm 6.5mb
7.09 14 P 18 59.48 -1.1 OXX 34.80 126 iP 24 09.10 1.9
7.17 21 P 19 00.01 -1.7 JSC 35.25 88 ePc 24 10.00 -0.7
7.21 28 P 19 03.13 0.8 SCP 35.36 75 iPc 24 12.44 0.8
7.26 34 P 19 01.94 -1.0 esPd 24 17.90
7.31 118 ePc 19 02.80 -1.0 ePP 25 30.98
7.33 38 P 19 03.44 -0.5 iS 29 53.53
7.34 31 P 19 04.27 0.2 eScP 30 23.33
7.39 18 P 19 04.01 -0.8 ADK 35.80 304 eP 24 12.00 -3.2X
8.52 26 P 19 20.40 -0.1 0.9s 134.70nm 5.8mb
8.70 39 cP 19 23.70 0.6 Z 20s 140.90um 6.7Msz
9.36 131 ePd 19 33.04 0.9 CBN 36.58 79 eP 24 22.80 0.9

I7d 22h

170

sex
LVNJ
TBR
GMT N
PNJ
I LT

8NH
HRV

SCH

SMY

Z
LPS

GDH

STH
PET

DAG

APR
MGP
SJG
LPR
T I K

CPD
KBS
CLMC
BMG
ANCC
HOOC
TOV
SDV
SK I
FUO
REY
SI LC
BOG
CPB
JNW
PURC
CUMC
MGH
PSO
AKU

BPA
CEOS
CAR
SEG
PAG
OLLA
TPT

PMO

DEC
RUV

MGG
YAK

VAH

37 .59
37 . 59
37 .88
37 .99
38 .66
38 .38

38 . 96
39 . 34

39, 91
1 1 s
41 L 3 1
1 .6s
10s
41 L63

T
45. 28
1 .2s

47. 53
50.29

53.33
0.8s
54.69
54.70
55. 34
55. 42
55.54

55.56
56.95
57.62
57 .68
57 . 69
57 .88
58.10
58. 12
58. 36
58.37
58.63
58.65
58. 75
58.85
58.88
58.91
58.95
59. 13
59. 13
59 . 16
2.0s
59. 19
59 .67
59.68
59.86
5S.96
68. 10
60. 13
1 .6s
60.24
1 . 6s
60.25
60.25
1 .6s
60.30
66.32

1

60. 37
1 .6s

122 (P)
74 eP
73 ePc
74 iP
74 i P
331 i Pd
IS
67 ePc
7C i PC
ec

esPd
ePP
eS
56 eP
473. 6i6nm
367 eP
338 . 80nm
1 42 . B6um
120 iPc
85 . 00nm
e
eS
28 ePc
421 . 88nm
ePP
i
i
i
105 eP
310 iPc
iS
16 i Pd
265.67nm
97 P
97 P
96 eP
96 P
338 iPd
eS
96 P
9 eP
1 1 7 eP
112 eP
1 18 ePc
118 ePc
107 eP
108 eP
95 eP
1 13 eP
30 eP
118 eP
114 i PC
94 eP
20 eP
1 18 eP
121 ePc
95 eP
120 eP
27 iP
729 . 4 1 nm
94 eP
106 eP
104 eP
95 eP
95 eP
104 eP
205 iP
420 . C0nm
205 iP
330.00 nm
94 eP
205 iP
505 . 00nm
95 eP
328 iP
ePP
ePPP
eScP
ePcS
ePSP
eS
ePS
eScS
eSS
eSSS
205 iP
505 . 00nm

24 36.00
24 30 .00
24 33.70
24 33.90
24 34 .50
24 36 . 00
30 34 .00
24 42.00
24 46 . 75
24 50. 06
24 52.87
26 08 .93
30 55. 22
24 48.00
6
24 58 . 70
5
6
25 06.50
5
28 04 .00
31 32 .00
25 36 . 24
6
27 1 8 .62
27 35.00
30 21 .00
35 30.00
25 53 . 27
26 08 .00
33 24 . 00
26 34.10
6
26 45.50
26 45.00
26 51 . 00
26 51 .50
26 49 . 00
34 39 .00
26 52 . 50
27 04 .00
27 05 . 31
27 05.00
27 05 . 42
27 08 . 02
27 10.40
27 09 . 40
27 1 5 . 63
27 09 . 00
27 18.80
27 13.27
27 1 7 . 00
27 1 5. 46
27 18.00
27 16.18
27 16.09
27 1 6 . 80
27 1 9 .00
27 22.00
6
27 17.27
27 21 .60
27 22.80
27 21 .95
27 22 .61
27 24.80
27 23.00
6
27 23.90
6
27 22 . 67
27 24 .00
6
27 25.34
27 21 . 40
29 31 .00
31 81 .00
32 10.00
32 15.00
34 19 .00
35 32.00
36 00.00
37 17 .00
38 51 .00
41 23 .00
27 24 .90
6

5. 4X
- 0. 4
0.9
0 .2
0. 7
- 0.6

0 .2
1 . 7

- 1 .6
1mb
- 2 . 3
8mb
9Msz
2.3
4mb

3. IX
3mb

1 .8
- 4.3X

- 0.9
3mb
- 0.2
- 0.8
0.5
0. 4
- 2.3

0.5
2. 7
- 1 .6
- 2.3
- 1 .9
- 0.9
0.2
- 1.1
3.7X
- 3. 4X
5.6X
- 1 .2
1 .9
0. 1
3. IX
- 0.2
- 0.6
- 0.5
1 .2
5 . 2X
5mb
- 0.5
8.5
1 .5
- 0. 4
- 0.5
0.7
- 1 .0
3mb
- 0.8
2mb
- 2.4
- 0.8
4mb
0.0
- 3.5X

- 0.7
. 4mb

BBL
GUAN
PDF

B 1 M
MVM
SLB
FCV
YSS

GRW
PPN

PPT

AFR

PAE

TVO

TCE
TRN
TPP
SAP

KEV

SOD

FRO
FOO
PT10
RGS
APA
HYA
ASK
BER
MAJO

MAT

VAL

DMU

DCN

EKA

NB2

ETA
PDA
KONO

ECP
H 1 A

HFS

Z

KAF

UPP

NUR

SHK

60. 43
60.98
61.18
0 .6s
61.37
61.48
61.84
62.12
62.12

62. 45
63.10
1 . 4s
63.18
1.4s
63.22
1 .4s
63.27
1 .4s
63.27
1.4s
63. 34
63. 63
63.82
65.12

66.91

69 . 08

69 .24
69.41
69.69
69. 72
69. 77
70.09
70 . 35
70 . 47
70.93

70.93
1 .2s

71 .03

71 .06
1 .3s
71.31
1 .2s
71 .50
1 . 4s
71 .58
1.1s
72.23
72.26
72.31

72.54
72.78

73.00
1 .0s
18s

73.93
0 .9s
74.21
1 .3s

75.12
0.9s

75.68

95 eP
103 eP
96 eP
1 . 94nm
96 eP
96 eP
97 eP
97 eP
309 eP
eS
98 eP
206 iP
305 . 00nm
206 iP
345 . 60nm
206 iP
1 85 . 08nm
206 iP
360 . 08nm
206 iP
285 . 08nm
100 eP
100 eP
100 eP
306 eP
eS
10 iPd
epPd
ePP
iS
ePS
11 iP
i
23 eP
23 eP
129 eP
20 eP
9 eP
23 eP
24 eP
24 eP
302 ePc
esPd
iS
ePS
eSS
eHSS
302 eP
95 . 31 nm
eS
36 iP
S
33 eP
1 64 . 00nm
34 eP
238 . 00nm
31 P
49 . 60nm
21 P
124 . 30nm
34 eP
55 iPd
22 ePd
iS
34 eP
322 iPd
iS
eScS
20 eP
80 . 1 0nm
127 . 65um
LR
13 eP
50 . 70nm
18 iP
700 . 00nm
i
iS
15 iP
1 6 . 98nm
i
e
e
e
e
e
304 eP

2727.25 1.0
27 29.90 -0.2
2733.42 2.1
4 . 5mb X
2733.40 0.7
27 35.84 2.4
27 36 . 70 0.8
27 36.61 -1.1
27 35.100 -2.3
36 03 .00

27 42 .|20 2 . 2
27 45.50 1.6
6 . 3mb
27 46.10 1.6

27 46

27 46

27 47

27 44
27 44
27 46

6 . 3mb
. 40 1.7
6 . 1mb
. 90 1.8
6 . 4mb
. 00 1.8
6 . 3mb
. 13 -1.7
. 41 -3 . 3X
. 27 -2.6
27 55.00 -2.1
36 39
28 07
28 10
30 32
37 01
37 24
28 20
56 27
28 27
28 28
28 27
28 25
28 25
28 31
28 33
28 34
28 30

. 60
,64 -1.0
,52 11 kmX
. 78

< 6 1

. 95
. 2-0 -1.4
. 80
. 32 4.6X
. 72 5.0X
. 00 0.9
. 60 -0.6
. 30 -0.5
,60 3 . 7X
. 60 4. 1 X
. 40 4. 2X
. 78 -2.7
28 36i 91
37 48
38 05
42 1 9
42 20
28 28

37 47
28 35
38 00
28 34

28 34

28 37

28 33

28 42
28 44
28 43
38 09
28 44
28 42
38 08
38 52
28 43

57 26
28 49

28 50

28 55
37 28
28 56

29 01
29 58
33 46
38 46
40 02
43 3d
28 57

. 27
. 49
. 74
i. 40
. 60 -5 . 5X
5 . 8mb
. 00
. 00 1.2
. 00
. 90 0.9
6 . 0mb
. 00 -1.4
6 . 2mb
. 00 0.5
5 . 4mb
. 40 -3 . 6X
5 .9mb
. 20 1.3
. 00 2.7
. 91 2.6
. 01
. 30 1.6
. 81 -1.5
. 49
. 77
. 90 -1.5
5 . 7mb
7 .2Msz
. 00
. 10 -1.6
5 . 6mb
. 70 -1.6
6 . 5mb
. 90
. 00
. 30 -1.3
5 . 1mb X
. 90
. 00
. 00
. 00
. 00
. 00
. 00 -4.3X

ARE

COP

PUL

I RK

W I T
DBN

FLN

GRR
WTS

LDF

UCC

LPF

SNF
DOMF
ZOBO

ENN

LPB

EMON
DOU

MEM
BNS

CNCB
ERUA
KOE

MFF

WLF
BRN
PTO

TNS
CCH
LSF

CLL

76. 3B 127 iPc 29 05.00 -0.7
1.3s 38.46nm 5. 3mb
76. 48 23 i PC- 29 1 0 . 00 4. 6X
1.2s 231.25nm 6.1mb
iS 38 56 . 00
76.81 1 2 eP 2966.00 -1.1
eS 38 56.00
76.88 331 eP 29 05. 80 -1.9
c 29 24.06
e 2933. 00
e 29 42.00
e 30 66.00
e 30 15. 50
e 31 00.06

ePP 32 fnO.QO
e 3242.60
ePPP 33 44.6u
e 35 28.00
e 36 48.00
eS 38 54 . 60
eScS 39 32.00
ePS 39 54.00
e 4034. 00
e 4366. 60
eSS 43 34.00
e 4538. 06
eSSS 47 60.00
e 4922. 00
e 52 56.00
77.06 28 eP 29 14 00 5 4X
77.12 29 i P- 2913.00 4 . 1 X
Z 20s 92 . 30um 7 . IMsz
iS 39 05.00
eSS 44 03 . 00
77 .58 34 eP 29 1 1 .00 -0.6
1.4s 1 82 . 95nm 6 . 0mb
Z 19s 2 1 7 . 50um 7 . 5Msz
77 .72 34 eP 29 1 1 . 90 -6 5
77.78 28 eP 29 1 3 . 50 6.9
1.1s 1 23 . 00nm 5 . 9mb
ePP 02 10.00
77.87 34 eP 29 12.60 -0.6
1.5s 282 . 05nm 6.1mb
77.88 30 P- 29 14.00 0.8
S 39 10.00
77 .92 35 eP 29 1 3 . 00 -0.5
1.7s 558 . 75nm 6 . 4mb
78.08 30 Pd 29 1 6 . 90 2.6
78.23 31 P 29 1 4 .84 -0.3
78.28 124 ePc 29 1*4.97 -1.6
epPc 29 18.95 13kmX
ePP 32 21 .02
78.48 29 eP 29 16.00 -0.5
1.0S 137.00nm 6.0mb
ePP 32 15.00
78 .49 125 P 29 15.00 -2.5
1.0s 120.00nm 5.9mb
Z 22s 73 . 33um 7 . 8Msz
SKS 39 14.00
LR 50 24.00
78.53 41 eP 29 16. 97 0.0
78.53 30 Pc+ 29 17 . 30 8.5
1.2s 327 . 80nm 6 . 3mb
S 39 14.00
SS 44 25.00
78.64 29 P 29 19 .40 2.1
78 . 76 28 ePc 29 18.80 0.7
Z 20S 1 34 . 90um 7 . 3Msz
eS 39 27.00
i 45 01 .50
78. 78 125 i PC 29 18.00 -1.3
79 . 39 42 eP 29 22 . 46 0.8
79.41 28 ePc 2922.70 1.2
i c 29 27 .90
79 .42 35 eP 29 21 .30 -0.4
2.0s 5l3.10nm 6. 2mb
79.47 30 iPd 29 24.88 3.0X
79 .53 24 ePc 29 26.00 3. 8X
79 .58 43 eP 29 22. 70 0.0
iS 39 30.00
79 . 83 28 ePc 29 24.60 0.6
80 . 35 124 P 29 26 . 00 -1.4
80.40 34 eP 29 26.20 -0.8
1.6s 1 92 . 80nm 5 . 9mb
80. 43 25 eP 29 27 .00 0.0
2.4s 800.80nm 6.3mb
Z 20s 123.00um 7.3Msz

171

17d 22h

LOR 80.54
1.4s
MOX 80.55
2 . 3s
2 23s
N 22s
E 19s

SSF 80.5?
GWF 80.58
VI TF 80.60
TCF 80.66
fclGF 80.71
AVF 80.72
L8F 80.82
1 .6s
MAF 80.86
GUA 80.88
1 .0s

PJG 80 . 89
HAD 80.91
1 .2s
CDF 80.92
HOF 80.92
2 18s
SIR 80.96
ECU 81.04
SMF 81.04
BRG 81.10
1.4s

LFF 81 11
1 4s
RJF 81.15
1.4s
BSF 81 . 22
BJ I 81.23
1 .2s
2 20s
N 17s
E 1 9s

GRFO 81 .24
LI 80 81.26
STU 81.32
1 . 4s
2 20s
ECR 1 81.46
LPO 81 .50
1 .6s
LOMF 81.63
FEL 81 .64
GRB1 81 .64
2 21s

EPLA 81 .66
CAF 81.69
1 .3s
BBS 81 .80
KSP 81.84
2.0s

PRU 82.06
3. 4s
2 20s

GUD 82. 18
08N 82.24
1 . 7s
2 25s
N 32s
E 20s

e
eS
p.p.
32 eP
204 . 20nm
26 eP-
999 . 00 nm
76 . 00um
73 - 00um
63 . 00um
i S
33 eP
29 P
31 P
34 eP
33 eP
33 eP
32 eP
1 92 80nm
34 eP
280 eP
272. 00nm
eS
280 eP
30 eP
71 . 40nm
30 P
26 i PC
1 00 . 00um
29 P
30 P
33 eP
25 i P
90 . 00nm
i
i
i
i
i S
35 eP
209 . 1 0nm
35 eP
1 74 . 25nm
30 P
31 7 eP
1 0 . 00nm
48 . 20um
36 . 60um
1 9 . 20um
eS
eSS
27 ePc
30 P
28 iPd-
223 . 26nm
78 . 0 1 urn
39 eP
35 eP
186- 55nm
31 P
30 P
27 iPc
25 - 00um
e
43 eP
35 eP
1 01 . 1 0nm
30 P
23 eP
558 . 00nm
i c
25 P
1 5 1 0 . 70nm
1 75 . 00um
i S
iSS
4 1 eP
10 ePd-
500 - 00nrn
1 4 . 00um
32 . 00um
20 - 00um
i
i PP
i PPPP
iS
IPS

29 42.00
39 36.00
56 22.00
29 27.20
5
29 27.00
6
7

29 40 . 00
29 27.20
29 28.68
29 28.68
29 27 . 70
29 27.90
29 27.90
29 28.60
5
29 28.80
29 26.50
6
39 32.00
29 27.30
29 28.90
5
29 30.56
29 33.50
7
29 31 .60
29 31.24
29 29. 40
29 39.20
5
29 33.20
29 35.30
29 48 . 00
35 24 . 40
39 48 . 00
29 30.20
6
29 30.00
5
29 33.25
29 30.00
4
6

39 44.00
44 56.00
29 32.01
29 32.64
29 34.00
6
7
29 32 . 51
29 32.20
5
29 34 . 49
29 34.56
29 33.10
6
29 38.00
29 34 . 81
29 33.00
5
29 35.29
29 34.50
6
29 39.00
29 35.40
6
7
39 55.00
45 08 . 00
29 36.30
29 35.00
6
6

30 52.00
32 40.00
36 07.00
39 52.00
40 38.00

- 0. 6
9mb
- 0. 7
4mb
0MSZX

- 0. 7
0. 8
0. 7
- 0. 7
- 0.7
- 0.8
- 0. 7
9mb
- 0.6
- 3.5X
2mb

- 2.7
- 0.8
6mb
0 . 7
3.8X
2Msz
1 .8
0.9
- 1 .0
- 0. 4
6mb

- 0 . 5
0mb
- 1 .0
9mb
1 .8
- 1.4
7mb X
9Msz

0. 7
1 .2
2. 2
0mb
IMsz
- 0.2
- 0.6
9mb
0.9
0 . 9
- 0. 4
5MS2

1 .0
- 0.8
7mb
1 .0
0.0
3mb

- 0 .2
5mb X
4MSZ

- 0.3
- 1.4
3mb
2MszX

EPF

KHC

EGRA
TOL

MLS
ETOR
LPL
TBT
LPG

EVAL
LSD
WTTA

ORX
KRA

2
E

KMR

RSP
RRL
CHI E
EHOR
8MB
P22
VKA

2

ETER
DOI
KBA

EROO
CDR
E8R

EBAN
CTFE
STV
FV 1
2ST

EPRU
CNI L
SPC
2

SAL
CTI
EVIA
ECHE
CK 1

PCP
AUTN
MOM 1
LRG

2
EJ IF
FRF

82. 44
2. 0s
82.50

82 .80
82.82
1 .8s

82. 83
83.06
83. 12
83. 12
83.14
1 . 7s
83.18
83.33
83. 46
2. 0s

83.51
83. 59
1.7s
18s
22s

83.62

83.63
83. 63
83. 75
83. 78
83 . 89
84.10
84.13
5.0s
15s

84.14
84 . 16
84.21
2.2s

84.22
84 .25
84.26

84 . 26
84 .29
84.41
84 . 44
84 . 44

84 . 44
84 . 46
84 .46
1 6s

84.48
84.51
84 . 54
84 . 54
84 .63
2.2s
84 . 64
84 . 66
84 .67
84 .68
2.0s
19s
84.70
84. 71

ePPS 41 06.00
iSS 45 12 .00
iSSS 49 10.00
37 eP 2936.40 -1.4
408 . 1 5nm 6 . 2mb
26 P 29 38 . 50 0.5
e 2943. 50
e 30 05.50
S 40 02.00
38 eP 2941.65 2.1
41 i PC 2941.08 1.3
863 . 64nm 6 . 6mb
epPd 29 45.72 15kmX
iS 4008.00
37 P 2942.27 2.5
40 eP 29 40. 85 -0.3
32 eP 29 41 .60 0.1
58 eP 29 44 .00 2.5
32 eP 29 41 .80 0.1
220 . 55nm 6 . 1mb
45 eP 29 42 .29 0.6
31 P 2942.81 0.2
28 eP 29 43 . 50 0.3
478 . 00nm 6 . 3mb
i 2947.40
31 P 7943.22 -0.1
22 iPd 29 43 . 00 -0.5
683 . 00nm 6 . 6mb
73 . 80um 7 . 1 Msz
1 02 . 10um
i 2947.10
i 2949. 20
i 32 58.00
eS 4008.00
26 eP 2945.00 1.3
i 2947. 50
i 40 22 . 70
32 P 29 44 . 35 0 . 4
32 P 2944.76 0.6
58 eP 294800 3 . 3X
44 eP 29 44.34 -0.3
32 P 2944.96 -0.2
32 P 2946.91 0.5
25 eP 29 46 .00 -0.3
5597 . 00nm 7 . 0mb X
75 . 80um 7 . 2MszX
i 29 50.20
i 29 53.30
i 40 1 7 . 00
LR 1117.00
36 eP 2947.15 0.7
32 P 29 48 . 70 2.1
27 iPd 29 46 . 70 -0.3
646 . 00nm 6 . 5mb
i 29 51 .00
i 30 05. 10
38 eP 2947.22 0.4
33 ePd 2949.70 2.7
38 eP 29 47 .00 0.0
eS 40 1 3 . 00
42 eP 29 48 . 08 0.9
57 eP 29 50 . 00 2.5
32 P 29 47 . 42 -0.5
28 P 29 46 . 70 -1.1
24 iP 29 47 . 30 -0.5
i 29 51 .60
44 eP 2948.98 0.9
45 eP 29 52 .00 3 . 9X
22 i P 2947.70 -0.5
245 . 70um 7 . 7MszX
i 29 52 . 40
i 30 05.70
e(PP) 33 05.40
29 P 29 50 . 10 2.1
28 P 2948.90 0.5
41 eP 2948.55 -0.1
40 eP 2949.81 1.2
31 P 29 48.59 -0.3
828 . 1 0nm 6 . 6mb
31 P 2949.47 0.5
32 P 29 50.38 1.1
45 eP 29 51 .00 1.8
33 eP 2948.90 -0.2
606.40nm 6.5mb
210 . 00um 7 . 5Msz
45 eP 29 50.85 1.5
33 eP 29 48.60 -0.7

S8F

F 1 N
BOB
PLAT
LMR

VV 1
1 M 1
GGC
HNR
SSE

ECOG
AFC
SRO

VOY

NKM
LJU

PS2
UZH

TR 1

BUD
CFTV
CEY
MME
BOI
AVE

Rl Y
P 1 1
PTJ
2AG
ESEL
VBY

SLA
U2D
PGD
SFI
CEI
PGF

CRE
BMR
1 FR

ARV
ASS
MAO
T 1 M
T 10

MNS
PTT
1 AS
DEV
8EO
RMP
RDP
ABA
A2 1

1 .3s
84 . 77
1 . 3s
84 . 79
84.79
84 .80
84 .84
1.6s
84 . 84
84.91
84.94
85.01
85.03
1 .2s
2 20s
N 16s
E 16s

85. 06
85.08
85. 15
2 17s

85.31

85 . 50
85.51

85. 51
85 . 53

85.54

85.65
85.69
85 . 74
85.75
85.83
86 .03

86.08
86.09
86.11
86.19
86.20
86.23

86. 30
86 . 32
86 . 40
86. 41
86. 44
86 .50
2.0s
86.70
86.73
87.12

87.18
87 . 44
87 . 44
87 . 88
87 . 89

88.05
88.14
88 . 18
88.22
88 . 49
88.55
88.60
88.66
88.67

281 . 60nm
32 eP
151 . 65nm
32 P
30 PC
45 eP
33 eP
310. 95nm
28 P
32 P
57 eP
253 P
308 P +
1 02 . 00nm
35 . 80um
1 1 . 00um
1 9 . 00um
i
sP
i
PP
S
sS
PS
SS
43 eP
43 eP
24 eP
91 . 40um
e

i
27 eP
i
45 iP
27 eP
eS
23 iP
21 iP<j
iS
27 ePd
eS
iSP
iSS
iSSS
i LR
23 e(P)
55 eP
27 eP
30 PC
30 P
48 i P
e

27 e(P)
30 P
26 eP
26 eP
37 eP
27 ePd
i
128 i Pd
24 iPd
30 P
29 PC
21 eP
32 eP
758 . 00nm
30 PC
20 ePc
46 iPd
i
29 P
29 P
31 P
23 iPc
49 i Pd
i
i
i
30 P
19 eP
18 eP
22 ePc
24 eP
30 P
30 P
39 iPc
29 P

6
29 48.90
6
29 48.65
29 51 .00
29 52.50
29 49.50
6
29 50.20
29 50 .91
29 53.00
29 49.00
29 48.00
5
6

29 56.50
30 06.60
31 52.00
33 00.00
40 00 . 00
40 20.00
41 00.00
45 26 .00
29 51.46
29 51 . 28
29 50.90
7
29 55.20
30 08.90
29 51 .50
29 55.20
29 55.00
29 52.00
40 21 .00
29 55.00
29 55.00
40 25.00
29 53.50
40 22.10
41 16.00
46 06.00
50 20.60
57 40. 00
29 54.00
29 56.00
29 55.00
29 55. 10
29 53.60
29 55.50
30 45.50
29 55.60
29 55.30
29 55.50
29 57.00
29 56.54
29 56.60
30 00.50
29 56.00
30 01 . 50
29 58.90
29 58.50
30 04 . 00
29 57.60
6
29 59.50
30 05.00
30 03.80
30 48.50
30 02.00
30 05.90
30 03. 30
30 10.00
30 05.50
30 08.00
33 32.00
50 1 7 . 00
30 04. 90
30 10.00
30 07. 00
30 10.00
30 09.00
30 11.50
30 11.40
30 1 1 .00
30 1 1 .90

. 3mb
- 0.8
. 1mb
- 1 .0
1 .2
2.6
- 0.4
. 3mb
0.3
0.5
2.3
- 2 . 1
- 3- IX
. 9mb
. 8Msz

0.2
- 0.2
- 0.5
. 2MszX

- 0 .9

1 . 7
- 1 . 3

1 . 7
1 .7

0. 1

0. 1
1 .5
0. 5
0.3
- 1.4
- 0. 5

- 0.4
- 0.8
- 0.9
0. 4
- 0.2
- 0.2

- 1 .5
4 .2X
1 .0
0 .8
6.2X
- 0. 7
6mb
0.2
5.8X
2.2

0.5
3.0X
0.5
5 .2X
0.2

- 0.8
3.9X
0.8
3.6X
1 .3
3.4X
3.0X
2.2
3.3X

17d

SOI
VR 1
CGL

CMP
MLR
DIM
RF 1

KOCH
WMQ

LCCH
PEL
CFR
CFR
SAN
LNV
TTG

LZH

LZH

PCH
BUC
BUC1
CHCH
8RT
MGR
BAO
SKO

MMN
CS 1
S IM

TDS
ERC

RO 1
OUR

SOB1

CVT
VAY

22h

89.05
89 . 22
89.31
1 .8s
89 . 36
89. 38
89.44
89 . 47
1 .6s
89 .65
89 .71

89.77
89.95
90.121
90.21
90.21
90.23
90. 28

90.33
2 . 0s
Z 24s
N 17s
E 17s

90. 33
2.0s
Z 24s
N 1 7s
E 17s

90. 42
90 . 43
90. 47
90. 60
90 . 99
91 .06
91 .20
91 . 37
2.0s
Z 16s
N 16s
E 18s

91.43
91.64
91 69

91.76
91.77
0.4s
91 . 92
91.96

2j2s

9!!. 00

9:> . 1 6
9:?. 31

29 P 30
19 ePc 30
33 P 30
75 . 40nm
20 ePc 30
20 eP 30
239 i P c 30
29 P 30
988 . 00 nm
137 eP 30
337 eP 30
ePP 33
eSKS 40
i S 41
e 4 1
ePS 42
138 eP 30
137 eP 30
18 eP 30
18 ePd 30
137 eP 30
138 eP 30
25 iPd 30
i S 41
322 eP 30
427 . 00nm
72 . 39um
79 . 70um
58 . 89um
pP 30
sP 30
PP 33
SKS 40
S 41
sS 41
SS 47
322 «Pd 30
427 . 00nm
72. 39um
79 . 70um
58 . 89 urn

pP 30
sP 30
PP 33
SKS 40
S 41
sS 41
SS 47
137 eP 30
20 iPc 30
20 iPc 30
137 eP 30
27 P 30
29 P 30

1 10 e(P) 30
24 eP 30
236 . 08nm
68 . 85 urn
57 . 43um
63 . 48um
i 38
i 38
i 30
i 33
iPP 34
i 34
i S 40
i SKS 41
i 41
i SP 42
iSS 47
LR 1 5
29 P 30
29 P 30
14 i P d 30
eS 41
29 P 30
32 P 30
1 2 . 90 nm
28 P 30
2 5 i P 30
327 . 00nm
i 33
100 eP 30
e 34
32 P 30
24 IP 30

10.50
10 .00
14.57
5
20.00
15 . 00
10.10
15 .27
6
1 4 . 00
16.49
44.88
46 . 96
06. 93
13.39
09 .45
18.00
19.00
18.00
1 1 .00
23.00
20 .00
18.00
12. 40
15.00
6
7

26 .00
30. 00
46 .00
42 .08
82.88
17 . 00
00.00
1 8 . 44
6
7

26.00
30.00
46 . 00
42.00
02.00
17 .00
00.00
13.00
23.00
22.00
19.00
22.30
22.50
20.00
21 .00
6
7

24.00
26.20
40 .20
33.50
01 . 50
03.50
59.50
24.00
25. 08
36 .00
31 .88
38 . 80
22. 40
24 . 80
26 . 00
20. 00
25 . 50
26.95
5
25 . 80
23.00
6
39 . 70
25.00
10.10
28 . 90
25. 40

- 0 . 1
- 1 . 3
2. 7
7mb
8 . 0X
2 .8X
- 2 .5
2 . 8X
8mb
0 .5
2 . 8

4.3X
4 . 3X
2.2
- 4 . 8X
7 . 2X
4.2X
1 .8

- 1.8
4mb
0MSZX

35kmX

1 . 6
4mb
0MszX

24 kmX

- 3 . 9X
6 . 1X
4. 9X
1 . 4
2.8X
2 .6
- 0.8
- 0.3
2mb
2MszX

8. 8
2.2
3. 3X

2. 4
3. 7X
. 7mb
1 . 9
- 1.1
. 3mb

8.5

4. 8X
- 0.2

FNA

MCT

GRI

KNT

SRS

SOU

CAI
THE
SOI
PPD
LI T

ALN
M80
FRU

PA I G

ITU
PMG
AGG
KAS
HKC
BAG

BBTK
ALT
KHL
LPA

DAV
RDJ
KM 1

TAB

MSL

MA 10

SLY
»

BHL

IR7
IR1
1 R4
BHD

HLW

PRN 1

172

1.8s 338.80nm 6. 4mb
i PP 34 10.40
92 . 44 25 ePc 30 29 . 44 3. 1 X
e 30 54.02
92 . 53 31 P 30 30. 36 3 . 4X
1.0s 54.60nm '5. 9mb
92.54 29 P 30 29. 26 2.5

1.2s, 46 . 40nm 5. 8mb
92.56 23 iPc 30 30 . 12 3. 3X
i 30 33.46
i 42 45. $8
92.80 23 iPc 30 30.7,6 2.9X
i 3042.46
i 4242.16
93.60 23 iPc 30 31.72 2.6X
e 30 33.42
93 . 01 96 eP 30 29.fc0 0.7
93.06 24 iPc 30 31 . 16 2.1
93 .06 30 P 30 31 . 10 2.0
93. 30 1 17 eP 30 28.80 -1.5
93.41 24 iPc 30 32.68 2.0
e 30 46.78

i 4258. (58
93.70 21 iPc 30 37 . |l 2 5. 1 X
93.73 67 ePc 30 46.30 13. 8X
93.82 345 eP 30 32.00 -0.6
i SKS 41 06 .130
93.92 23 iPc 30 26. p0 -6.5X
i 30 51 .(29
i 42 42. (28
94.27 19 iPd 3036.^0 1.4
94.31 261 eP 30 31 .60 -4.0X
94. 34 25 iPc 30 37 .64 2. 8X
95.07 1 6 eP 30 40 .60 1.6
95. 74 307 eP 30 44.60 2.4
96.06 298 eP 30 40. ©0 -3.4X
eS 40 50.00
96. 33 1 7 iPd 30 47 .00 2.7
96.47 1 9 eP 3046.70 1.8
97 . 02 20 eP 30 48 .00 0.6
98.22 130 eP+ 30 50.00 -2.3
Z 20s 45.39um 7.0Msz
ePP 35 00.00

eSKS 41 30. [00
eSKKS 41 41 .00
«PS 43 54.00
eSS 49 16.00
99 .23 288 «P 30 56.00 -1.5
99.39 112 eP 31 09.! 60 11. 7X
99. 89 31 7 eP 30 58. 00 -2.7
Z 38s 92.20um 7.0MszX
N 15s 9 . 00um
E 15s 15. 80um
S 41 43 J00
sS 42 34J00
100. 13 7 ePd i f f 31 05. 00 3. 7X
e 35 05, 00
e 43 09, 00
101.47 9 ePdi f f 31 10 50 3. 4X
ePP 35 18 50
eSKS 41 32 00
eS 42 31 00
ePS 44 23 00
iPPS 45 10 50
102.13 356 ePdiff31 14,00 3.8X
i 35 18 ,00
102.50 8 ePdiff31 15.00 3.3X
iPP 35 27 .00
eSKS 41 41 .00
eS 42 40.00
102.66 16 Pdiff 31 15.00 2.4X
PP 35 28.00
S 42 52.00
102.76 3 ePdiff31 19.00 5.9X
103.05 3 ePdiff31 19.00 4.6X
103.24 3 ePdiff31 20.50 5.3X
104.68 9 ePdiff31 22.50 1.0X
ePP 35 30.00
e 35 45.00
eSKS 41 55.00
eS 42 45.00
ePS 44 42.00
105.52 21 ePdiff31 29.00 3.7X
e 34 50.00
e 35 46.00
eS 42 13.00
105.95 18 ePKP 35 53.40 13. 7X

ND I

CHG

T I C
CUE

LI C

K I C
WRA

WRA

WRA

WRA

WRA

WRA

STK

HYB
PSI
GBA

KOD
ARO
SPA

LW I
LW I
NA I
SNA

W I N

NVL

MTD
BUL

POF

NPA
K I M

SLR

FRS

HVD

106.80
Z 18s

107 .06

107 . 40
107 . 45

107.71
Z 22s
107 . 80
110.52
0. 9s
1 10.52
1.1s
1 10.52
0. 9s
1 10.52
1 . 3s
110.52
1.1s
110.52
1 . 8s
1 12. 49
1 . 0s
117.04
120.21
120.97
1.1s
124.10
125.82
131 . 63
1 .0s
Z 20s

1 34 . 28
134 .28
136.57
1 39 . 75
1 .3s
1 43.28
1 . 5s
143. 96

148. 17
149.17
1 .0s
Z 28s
N 20s

149.42
1.1s
158.24
152. 53

153.82
1 . 3s
Z 28s

153 .58
0.7s

154 . 10

339 ePdi f f31 36.80
25 . 89um
eS

6.
42 1 4 . 80
316 ePdi f f 31 32.88
e
64 PKP

35 58.30
35 37 . 44
349 ePdi f f 31 35.00
ePP
ePPP
eSKS
ePS
64 PKP
0 . 90um
64 PKP
261 Pdiff
1 . 90nm
261 Pd i f f
2 . 40nm
261 PKP
3 . 90nm
261 PKP
1 . 1 0nm
261 PKP
5 . 50nm
261 PKP
3 . 1 0nm
247 ePKP
1 . 30nm
334 ePKP
306 ePKP
334 PKPc
1 2 . 50nm
332 ePKP
14 ePKPd
180 iPKPc
1 00 . 00nm
28 . 83um
i
37 ePKPc
37 iPKPc
26 ePKP-
154 ePKP
1 53 . 85nm
70 ePKP
1 38 . 89nm
158 ePKP
e
e
e
ePP
e
e
e
ePPP
e
e
e
e
e
eScS
eSKKS
e
e
e
e
e
e
45 ePKP
53 iPKPc
1 0 . 00nm
68 . 79um
38 . 30um

ipP
i
77 iPKPd
177.22nm
31 ePKP
71 iPKPd
i
62 iPKPd-
326 . 92nm
63 . 12um
i
72 iPKPc
99.32nm
i
74 ePKP

36 03.00
38 18.00
42 22.00
45 1 3. 00
35 39.80
5.
35 39.82
31 49.00

31 57.00

35 47.00

35 56 . 00

36 80.00

36 07 . 00

35 50 . 40

36 00.00
36 06.00
36 10.10

36 19.60
36 08.58
36 25.40

7 .
40 00.00
36 37.10
36 37 .40
36 44.00
36 32.50 -

36 44.00

36 45.00
36 57.00
37 02.00
37 1 1 .00
38 00.00
38 25.00
38 41.00
39 20.00
40 18.00
40 56.00
41 1 1 . 00
41 50.00
42 12.00
42 37.00
43 20.00
44 30.00
45 33.00
46 12.00
46 56.00
47 46.00
50 20.00
51 00.00
37 00.70
36 57 .00

7 .

37 00.00
59 18. 60
37 05.00

37 02.00
37 10.00
40 53.50
37 07.00

7 .
37 26.00
37 12.20

37 34.20
37 1 1 .20

5 .0X
8Msz

- 0.4

- 5. 4X
0 . 9

- 3.6X
3MSZX
- 3. 8X
1 . 2

9. 2X

- 1 .6

7 . 4X

11 4X

1 8 . 4X

- 1.6

- 1.1
- 1 . 2
1 . 6X

4 .5X
- 9. 5X
- 2. 3

0Msz

2 . 6X
2. 9X
5.2X
10. 2X

- 6 . 6X

- 5. 0X

2 . 0X
- 3. 3X

4Msz

4 . 8X

0. 2
5. 0X

1 .2

4Msz

6. IX

4 . 0X

173

6 . 4s 1 44 . 87nm
i 37 46.88
J02 156.66 59 e(PKP)37 15.88 4.5X
CRZF 174.99 158 ePKP 37 33.08 8.9X
ePP 43 83.88
eS 49 57.88
eSS 53 42.80
S.D. = 1.2 on 431 of 558 obs.

& AUG 17, 1991 22h 42m 37.28s
4 1 . 473 N 126 . 203 W
DEPTH - 5 . 0km
OFF COAST OF NORTHERN CALIFORNIA(34)

: e R K > . ML 4.0 (BRK).

FHC 1.80 111 iPc 43 06.88 -2.4
WDC 2.91 107 iPc 43 22.98 -2.2
eS 43 52.88
LBFM 3.25 91 eP 43 29.88 -1.8
LTCM 3.34 111 eP 43 28.58 -2.7
MIN 3.66 186 iPd 43 33.30 -2.6
eS 44 1 8 . 88
ORV 4.86 117 eP 43 38.38 -3.1
PCC 4.95 142 eP 43 58.88 -3.1
7 obs. ossociated

& AUG 17. 1991 22h 47m 47. 80S
41 . 732 N 125. 652 W
DEPTH - 5 . 0km
OFF COAST OF NORTHERN CALIFORNIA(34) <BRK>. ML 3.6 (BRK). Double
event, second shock about 33
seconds later (BRK) .

FHC 1.56 126 ePc 48 13.60 -2.7
eS 48 32.80
WOC 2.62 115 eP 48 29.30 -2.1
i S 48 54 . 80
LBFM 2.85 97 eP 48 33.70 -1.3
MIN 3.36 113 eP 48 45.30 3.1
iS 49 06.80
ORV 3.83 123 eP 48 46.50 -2.3
ARN 5.41 143 eP 49 07.70 -3.5
6 obs. ossociated

& AUG 17. 1991 22h 56m 09.70s
41 .527 N 126. 227 W
DEPTH - 5.0km
4 . 5mb (1 obs .)
OFF COAST OF NORTHERN CALIFORNIA(34) <BRK>. ML 3. 9 (BRK) . MD 4.5
(GM).

FHC 1.84 112 iPc 56 39.77 -2.5
e 57 15. 08
FOX 1.97 120 eP 56 42.46 -1.6
WOC 2.94 108 iPc 56 56.42 -1.6
e 57 16 . 30
eS 57 28.60
LBFM 3.27 92 eP 57 02.00 -0.8
LTCM 3.38 112 eP 57 02.00 -2.2
MIN 3.69 107 ePd 57 06.87 -2.0
e 57 20.60
ORV 4.10 117 eP 57 09.30 -5.2
PCC 5.00 142 eP 57 23.80 -3.4
ARN 5.53 137 eP 57 31.50 -3.3
FFC 20.75 42 eP 00 53.00 -0.6
1.2s 26 . 80nm 4 . 5mb
18 obs. os soc i o t ed

& AUG 17, 1991 23h 00m 25. 80S
41 .878 N 125. 687 W
DEPTH - 5.0km
4 . 8mb (3 obs .)

<BRK>. ML 4.2 (BRK). MO 4.1
(GM).

FHC 1.67 129 eP 88 53.50 -2.3
iS 81 13.50
WDC 2.70 117 iPc 81 09.80 -0.9
iS 01 42- 50
LBFM 2.89 99 eP 81 13.00 -0.6

ORV 3.93 125 ePd 81 27.30 -8.9
KMOR 4.89 22 P 01 29.42 -8.9
S 82 1 2 . 72

GT2 4.12 36 P 01 28.48 -2.4
PGO 4 . 29 32 P 0131.83 -1.4
GMO 4.31 52 P 01 30 . 99 -2.7
VBEM 4.37 42 P 01 31.92 -2.5
NLO 4.52 20 P 01 35.83 -0.6
VLMM 4.52 35 P 01 34.75 -1.8
VLL 4.62 38 P 01 36.05 -1.9
CROR 4.62 46 P 01 35.54 -2.5
RVW 4.78 25 P 0138.92 -1.2
BRK 4.78 145 eP 01 37.50 -2.7
LVP 4.82 28 P 01 38.54 -2.3
MTMW 4.85 30 P 01 33.87 -2.4
BMW 4.93 20 P 01 40.59 -1.8
JLK 4.98 30 P 01 40.93 -2.1
VTHM 4.98 47 P 01 41.07 -2.0
SHW 4.99 29 P 01 41.57 -1.6
CDFW 4.99 31 P 01 40.86 -2.3
STD 5 .03 29 P 01 42 . 25 -1.5
ERK 5 . 05 27 P 01 42. 36 -1.7
PCC 5.05 149 eP 01 40.60 -3.4
VGB 5 .09 43 P 0142.13 -2.5
CZM 5.11 26 P 01 42.99 -1.8
ASR 5 . 20 33 P 0143.84 -2.4
ARN 5.54 143 eP 01 48.50 -2.5
JBO 5.56 48 P 01 49.15 -2.1

RSW 6 . 30 42 P 8159.11 -2.6
WIW 6.48 43 P 02 01.18 -2.9
LNOR 6.68 51 P 02 04.15 -2.9
LRM 10.34 63 ePc 02 56.18 -2.1
PV09 13.10 99 ePc 83 34.80 -1.5
FFC 20.23 42 iPc 05 02.80 -2.3
0.7s 56 . 80nm 5 . 0mb
NB2 71.61 21 P 1148.60 -1.2
1.2s 9 . 20nm 4 . 8mb
BRG 81.15 25 eP 1245.80 2.4
1.2s 1 0 . 80nm 4 . 7mb
40 obs. ossocioted

& AUG 17. 1991 23h 05m 01.70s
41 . 468 N 126. 222 W
DEPTH - 5.8km
OFF COAST OF NORTHERN CALIFORNIA(34) <BRK>. ML 3. 7 (BRK) .

FHC 1.82 111 iPc 85 31.52 -2.4
eS 85 53.00
FOX 1.93 119 eP 05 33.58 -2.0
WDC 2.92 106 iPd 05 47.80 -1.9
eS 86 20.88
LBFM 3.26 91 eP 85 53.68 -1.1
LTCM 3.35 111 eP 05 53.58 -2.3
MIN 3.67 106 eP 85 57.88 -2.7
e 06 42 . 00
ORV 4.07 116 eP 85 57.92 -8.1
BRK 4.71 138 eP 86 12.58 -2.6
BKS 4.72 138 eP 86 12.30 -3.0
PCC 4.95 142 eP 86 15.50 -3.0
ARN 5.49 137 eP 06 22.58 -3.6
M8C 35.00 3 eP 12 02.58 6.0
12 obs. associated

& AUG 17, 1991 23h 13m 38.50s
41 . 848 N 1 25 . 745 W
DEPTH - 5.0km
OFF COAST OF NORTHERN CALIFORNIA(34) <BRK>. ML 3.8 (BRK). MD 3.6
(GM).

FHC 1.69 128 iPd 14 06.58 -2.3
iS 1426.78
WDC 2.73 117 eP 14 21.68 -2.2
iS 14 53 . 08
LBFM 2.93 99 eP 14 25.08 -1.9

ORV 3.96 124 eP 14 38.38 -2.9
BRK 4.79 145 ePc 14 50.18 -2.9
PCC 5.06 148 *P 14 53.20 -3.6
ARN 5.55 143 eP 15 01.08 -2.8
LRM 10.39 63 eP 16 87.90 -3.6
FFC 20.27 42 i PC 18 20.30 2.8
8.8s 26 . 08nm 4 . 6mb
10 obs. associated

«c AUG 17, 1991 23h 16m 31.65s
68.887 N 152.814 W
DEPTH - 104 . 1 km

17d 22h

SOUTHERN ALASKA (2)
<AE I C> .

RED 0. 33 4 i PC 16 46 . 44 -0.8
eS 16 58 . 36
RSO 0.38 5 i PC 16 46.90 -0.7
ROW 0.40 0 iPc 16 46.93 -0.8
REF 0.41 8iPc 1647.11 -0.6
eS 16 58. 77
RON 0.43 3 iPc 16 47.19 -0.6
NCT 0.48 353 iPc 16 47.40 -0.7
iS 1 7 00.00
OPT 0.48 206 ePd 16 47.33 -0.7
eS 16 59.29
DFR 0.51 7 iPc 16 47 .50 -0.8
ROT 0.53 22 iPc 16 47.69 -0.7
eS 17 00.51
HOM 0.73 126 eP 16 49.75 -8.2
S 17 83.73
PDB 0.76 247 i Pd 16 49.18 -1.0
eS 17 02.63
NNL 0.76 93 i PC 16 50. 45 8.2
AUL 0.77 204 iPd 16 49.59 -8.8
AUE 0.78 201 ePd 16 49.45 -1.0
AUP 0.79 203 ePd 16 49.78 -0.8

AUW 0.79 205 ePd 16 49.73 -0.8
eS 1704.35
AGU 8.79 203 ePd 16 49.80 -8.9
AUI 0.82 203 ePd 16 49.74 -1.0
eS 17 03.90
CNPM 0.98 125 iPd 16 51.81 -0.6
eS 1 7 07 . 63
NKA 1.02 49 iPc 16 54.02 1.2
CKL 1.14 12 iPc 16 53. 72 -0.6
SPU 1.16 18 iPc 16 53.74 -0.8
eS 1711.31
MCNL 1.19 221 ePd 16 53.64 -1.2
i S 17 10.36
BGL 1.20 10 i PC 16 54.60 -0.4
CDD 1.24 200 iPd 16 53.83 -1.5
eS 17 12.32
CGLM 1.29 18 ePc 16 55.48 -0.6
SLKM 1.36 71 ePc 16 55.26 -1.6

NCG 1.36 13 iPc 16 56.29 -0.6
SYI 1.50 171 iPd 16 57.13 -1.3
eS 17 16.75
SEW 1.69 88 iPc 16 59.39 -1.4
SUA 1.71 35 iPc 17 00.86 -0.5
SVW 1.72 308 iPd 17 00.20 -1.2
PMS 1.98 53 ePc 17 03.72 -0.9
SKT 2.00 18 iPc 17 83.95 -1.0
PWA 2.13 41 ePc 17 05.60 -8.9
KDC 2.35 176 iPd 17 07.20 -2.3
PLRM 2.35 48 eP 17 07.37 -2.1
PMR 2.35 48 eP 17 08.70 -0.8
LT 1 2. 49 89 eP 17 09. 43 -1.9
KNK 2.52 56 ePc 17 09.64 -2.1
KNIM 2.55 82 eP 17 09.26 -2.9
MTU 2.59 90 eP 17 11.18 -1.6
CUT 2.63 27 eP 17 12.20 -1.0
GLI 2.94 72 eP 17 15.09 -2.4
FID 3.21 75 eP 17 17.28 -3.8
TTA 3.24 333 i Pd 17 20.00 -1.6
VZW 3.24 78 eP 17 20.16 -1.4
HUR 3.28 26 eP 17 21.11 -0.9
MID 3.34 99 eP 17 22.00 -0.8
VLZ 3.36 69 eP 17 20.79 -2.3

KTH 3.59 14 eP 17 24.68 -1.7
KLU 3.66 64 iPc 17 24.56 -2.8
TOA 3.81 55 eP 17 28.00 -1.3
55 obs. associated

& AUG 17, 1991 23h 28m 08.10s
40 . 268 N 124. 428 W
DEPTH - 1 1 . 0km
NEAR COAST OF NORTHERN CALIF. (35)
<BRK>. ML 3.6 (BRK). MD 3.6
(GM).

FOX 0.42 53 iPd 28 16.16 -8.5

i 28 28.72
WDC 1.47 77 iPd 28 32.45 -2.1
LTCM 1.76 91 eP 28 36.70 -2.1

17d 23h

1 74

MIN 2-16 87 iPc 28 42.04 -2.6
e 29 36 . 00
LBFM 2.21 60 eP 28 43.50 -1.9
ORV 2.36 107 iPd 28 45.36 -2.6
BRK 2 .93 1 44 eP 28 56 . 50 11
PCC 3 19 149 iPd 28 56.73 -2.4
e 2858. 70
ARM 3.69 141 eP 29 84.10 -2.2
10 obs . os soc i o t ed

4 AUG 18, 1991 00h 03m 22. 88s
40 . 243 N 124. 282 A
DEPTH - 13.8km
NEAR COAST OF NORTHERN CALIF. (35)
<BRK>. ML 3 7 (BRK). MO 4.0
(GM)..

FOX 0.i36 3B iPc 03 30.26 0.0
FHC 0.i60 22 iPd 03 34.89 0.2
i eS 0341.47
WDC 1.37 75 iPc 83 45.68 -1.9
LTCM ' 1.65 91 eP 03 49.70 -1.9
MIN 2.05 86 iPc 0355.15 -2.4
e 6355. 20
LBFM 2.12 58 eP 03 57.40 -1.3
ORV 2.25 107 iPd 03 57.23 -3.0
BRK 2.84 146 e(P) 04 08.70 0.1
PCC 3. 1 1 151 eP 0410.70 -1.8
ARN 3.60 143 eP 04 17.00 -2.5
GCC 3.67 150 eP 04 19.07 -1.4

CMB 3.75 125 e(P) 04 20.00 -1.6
MSU 9.53 97 eP 05 41.50 -1.5
13 obs. associated

% AUG 18, 1991 00h 55m 34.98± 1.84s
39.823 N ± 9.3km 23.951 E ±12. 8km
DEPTH = 5.0km (geophy s i c i s t)
AEGEAN SEA (365)

PAIG 0.23 297 ePc 55 39 94 0.2
eS 55 43.34
OUR 0.51 3 iPc 55 45.42 0.2
eS 55 52.66
SOH 1.10 336 ePd 55 55.54 -0.5
iS 56 09 . 93
THE 1.11 317 ePc 55 56.42 0.2
eS 56 10 . 26
LIT 1.16 284 ePd 55 56.82 -0.3
SRS 1-32 348 ePc 55 59.66 -0.2
eS 56 1 7 . 42
AGG 1.49 238 ePc 56 02.46 0.0
KNT 1.56 329 eP 56 03.80 0.4
eS 56 24.98
S.D.-0.4 on 8of 8 obs .

AUG 18. 1991 01h 19m 43.16± 0.39s
46.704 N ± 4.7km 10.474 E ± 3.4km
DEPTH - 10.0km (geophy s i c i s t)
NORTHERN ITALY (545)
MD 2.9 (TRI). ML 2.8 (LOG). 2.4 (VIE), 2.3 (FUR) .

OSS 0.23 266 iPc 19 46.80 -1.4
OGA 0.41 66 iPgc 19 50.40 -1.3
VDL 0.73 253 ePc 19 55.30 -2.3

SCE 0.91 68 iPgc 19 59.30 -1.4
WTTA 0.97 54 iPgc 20 00.50 -1.3
i Sg 20 14. 70
CT I 1.05 128 P 20 01.30 -1.7
eSn 20 14.10
TMA 1.26 242 ePd 20 05.00 -1.7
VVI 1 . 53 1 1 7 P 20 10 . 60 0.0
eSn 20 30.80
FUR 1.56 20 eP 20 13 . 50 2.5
FVI 1.59 93 P 20 1 1 . 10 -0.3
eSn 20 32.10
ZLA 1.62 299 eP 20 14.20 2.3
SLE 1.72 309 eP 20 14.20 0.9
MMK 1.86 250 eP 20 15.30 -0.2
BHG 1.93 57 i Pnc 20 19.90 3.5X
FEL 2.04 306 ePn 20 18.67 0.5
BOB 2.07 201 P 20 19.30 0.9
eSn 20 45.20

GRC1 2.40- 17 e(Pg) 20 33.10 10. 0X
eSg 20 59.20
VOY 2.46 105 ePn 20 26.80 2.7
eSn 20 59 . 10

TRI 2. 49 1 12 ePnd 20 27 . 70
iSn 20 59.00
BD I 2 . 64 1 78 P 2027.60
BSF 2 . 75 296 Pn 20 27 . 10
Pg 20 35.40
Sn 21 01 .00
Sg 2112.60
CDF 2 . 76 309 Pn 20 28. £0
Sg 21 12.60
LPG 2 . 86 246 Pn 20 31 . 20
LPL 2.86 247 Pn 20 32.40
Sn 21 06. 00
LJU 2 . 89 102 ePn 20 35 .80
eSn 21 12.50
SF 1 2 . 95 160 P 2030.50
P 1 1 2 .98 179 P 20 31 . 40
HAU 3.09 296 Pn 20 32.20
Sg 21 21 .30
BNI 3.13 239 P 20 36.30
KHC 3.20 40 Pg 20 43.60
e 21 23 .100
Sg 21 26.00
CRE 3 . 25 1 61 P 2035.70

VBY 3.54 108 e(Pn) 20 47.40
SBF 3.56 218 Pn 20 40 . 40
FRF 4.15 222 Pn 20 48 . 00
LRG 4. 36 223 Pn 20 50 . 70
LMR 4 . 39 221 Pn 20 51 .100
LBF 4.47 276 Pn 20 52.30
LOR 4.56 280 Pn 20 53.60
SMF 4.57 272 Pn 20 53.i?0
SSF 4 . 79 277 Pn 20 56 . 50
AVF 4.90 274 Pn 20 58.30
BGF 5 . 26 27 1 Pn 2103.00
S . D. = 1 .3 on 35 of 42 o

4 AUG 18, 1991 02h 04m 56.30s
48 . 263 N 124 . 415 |w
DEPTH 1 0 . 0km
NEAR COAST OF NORTHERN CALIF.

<BRK> . ML 3.6 (BRK) . MD 3 .
(GM).

FOX 0.41 51 iPd 05 04.41
FHC 0.63 31 iPc 05 08.65
eS 05 17 . 13
e 05 18.00
WDC 1.47 77 eP 05 20 . 85
LTCM 1 . 75 91 eP 05 25.00
MIN 2.15 87 i Pd 0530.34
e 05 57.30
LBFM 2.20 60 eP 05 32.00
ORV 2.35 107 iPd 05 32.62
PCC 3 . 1 8 1 49 i Pd 0545.93
ARN 3.68 141 eP 05 52.30
9 obs. ossocioted

3.3X

0 . 9
- 1 . 1

0.2

1 . 3
2.5

5.8X

- 0. 3
0 . 1
- 0. 7

2.8X
8. 5X

0. 4
8.2X
0. 8
0. 1
- 0 . 3
- 0. 3
- 0.2
- 0.2
- 0.2
- 0.6
- 0. 2
0

£-

bs .

(35)
4

- 0.3
- 0.3

- 1.9
- 1 .9
- 2.5

- 1 . 6
- 3.0
- 1.4
- 2.2

4 AUG 18. 1991 02h 08m 35.90s
41 . 460 N 1 26 . 31 0 W
DEPTH = 4.0km
4 . 2mb (3 obs .)
OFF COAST OF NORTHERN CALIFCRNIA(34) <BRK>. ML 3.6 (BRK).

FHC 1.88 110 iPc 09 06.59 -2.5
FOX 1.99 117 iPd 09 08.07 -2.6
WDC 2.98 106 eP 09 22.65 -2.3
IS 09 56.80
LBFM 3.33 90 eP 09 28.70 -1.3
LTCM 3.41 110 eP 09 28.50 -2-5
MIN 3.74 106 iPd 09 33.09 -2.7
ORV 4.13 116 iPd 09 37.97 -3.2
BRK 4.75 138 e(P) 09 45.20 -4.8
PCC 4.99 141 eP 09 50.80 -2.5
ARN 5.53 136 eP 09 57.00 -4.0
FFC 20.84 42 iPc 13 20.10 -0.8
1.0s 32.00nm 4. 6mb
YKA 22.19 14 eP 13 39,40 4.9
0.8s 1 . 40nm 3. 5mb
MEO 22.75 98 e(P) 13 38,00 -2.3
TUL 24.38 93 eP 13 57,30 1.2
0.8s 6 . 80nm 4. 3mb
e 14 03 60
14 obs. associated

tc AUG 18, 1991 03h 2lm 53 00s
40. 277 N 124.420 W

DEPTH - 9 . 0km
NEAR COAST OF NORTHERN CALIF. (35)
<BRK>. ML 3.3 (BRK). MD 3.0
(GM).

FOX 0.41 53 iPc 2201.47 0.2
i 2207. 32
FHC 0.62 32 i PC 22 05.56 0.1
e 22 15. 00
eS 2215.37
WDC 1.47 77 eP 22 17.42 -2.2
MIN 2.15 87 iPc 22 27.49 -2.2
LBFM 2.20 60 eP 22 28.70 -1.7
ORV 2.36 107 iPc 22 31.49 -1.0
PCC 3.20 150 iPc 22 41.25 -3.1
7 obs . assoc i o t ed

? AUG 18, 1991 04h 32m 34.16±24.55s
43.021 N ±119. km 128.401 W ±154. km
DEPTH - 10.0km (geophysicist)
OFF COAST OF OREGON (30)

NLO 4.68 47 P 33 46.60 0.0
GT2 4. 90 62 P 3349.77 0.0
BMW 5.05 45 P 33 51.25 -0.5
RVW 5.11 50 P 33 52.33 -0.2
VLMM 5.21 59 P 33 53.77 -0.4
LVP 5.26 53 P 33 54.78 0.0
TDH 5. 27 62 P 33 54 . 90 -0.1
MTMW 5.35 54 P 33 55.73 -0.3
FL2 5.36 52 P 33 56.20 -0.1
VLL 5.41 61P 3357.41 0.5
C2M 5.41 49 P 33 56.56 -0.3
SHW 5. 42 52 P 33 57 . 85 0.7
ERK 5.43 51 P 3357.12 -0.1
CPW 5.44 42 P 33*56.87 -0.4
JLK 5.45 53 P 33 57.28 -0.2
STD 5. 46 52 P 33 57 . 56 0.0
ESD 5. 48 52 P 33 58 . 1 4 0.2
VFP 5. 49 63 P 33 58 . 23 0.1
CDFW 5.49 54 P 33 57.67 -0.4
SOSW 5.51 52 P 33 58.55 0.2
TDL 5.52 51 P 33 58.36 -0.2
APM 5.53 58 P 33 58.73 0.2
KOSW 5.60 50 P 33 59.81 0.2
GULW 5.67 57 P 34 00.69 0.1
LMW 5. 67 48 P 34 01 .23 0.6
ASR 5.78 55 P 34 01.94 -0.2
LON 5. 98 49 P 3405.33 0.4
GLK 5.99 51 P 34 05.22 0.1
REMR 6.01 49 P 34 05.46 0.1
WPW 6.10 51 P 34 06.44 -0.2
GL2 6.16 59 P 34 06.87 -0.6
FMW 6.17 48 P 34 07 .65 0.0
GSM 6 . 27 46 P 3409.13 0.1
RMW 6.43 44 P 3411.39 0.1
HTW 6. 68 42 P 34 14 . 89 0.1
EBG 6.78 52 P 34 16.74 0.6
S.D- - 0.3 on 36 of 36 obs.

% AUG 18, 1991 05h 01m 25.27± 0.70s
39.782 N ± 5.7km 28.669 E ± 7.0km
DEPTH - 10.0km (geophysicist)
TURKEY (366)

DST 0.18 190 iPg 01 29.20 -0.1
eSg 01 32.20
I Z I 0. 83 48 iPg 01 41 . 20 -0.2
eSg 01 52.20
EDC 0.84 313 ePg 01 41.50 0.1
eSg 01 55.50
YLV 0.95 34 ePg 01 42.70 -0.7
eSg 01 55.70
HRT 1.29 36 iPn 01 49.80 0.6
1 SK 1 . 32 13 iPn 01 49 . 30 -0.3
GPA 1 . 36 68 iPn 01 50 . 60 0.4
CTT 1.38 352 i Pn 01 50.70 0.2
S.D. -0.5 on 8of 8 obs .

? AUG 18, 1991 05h 08m 41.54± 4.41s
38.569 N ±38. 2km 21.873 E ± 9.6km
DEPTH » 10.0km (geophysicist)
GREECE (364)

AGG 0.58 38 ePc 08 54.08 0.8
eS 09 03.32
IGT 1.54 309 ePd 09 08.92 -0.1

175

18d 05h

eS 09 28.20
LIT 1.60 17 ePd 09 09.28 -0.7
eS 09 29.64
PAIG 1.95 45 fcPc 09 05.72 -9.3X
FNA 2.24 350 *Pc 89 19.04 -0.3
eS 09 45.28
OUR 2.40 42 iPc 89 22.06 0.6
GRG 2.42 10 ePd 09 13.44 -8.3X
SON 2.52 26 iPd 09 23.04 -0.2
i S 09 53 . 41
OHR 2.67 342 <r P n 09 27.40 2.0
KNT 2.71 1?ePd 09 25. 40 -0.5
eS 0956.64
VAY 2.80 11 ePn 09 27.20 0.0
SRS 2.87 27 ePc 09 27.32 -0.8
eS 10 01 . 32
SKO 3.42 355 ePn 09 35.00 -0.9
e 10 25.00
S . D . -1.0 on 11 of 13obs.

_ _

? AUG 18. 1991
32. 193 S ±41 . 41
DEPTH - 129.8 d
CH 1 LE-ARGENT 1 NA E

JACH 0.70 226

PEL 1.11211

ROCH 1.15 227

MDZ 1.19 126

SAN 1.37 204

PCH 1.49 197

TACH 1 . 65 208

CHCH 1.82 197

LCCH 1 . 84 225

LNV 2.12 214

S.D. - 0.6 <

05h 24m 25.66± 6.29s
<m 70 . 002 W ±12 . 0km
t 47.6 km
30RDER REG I ON (127)

Pd 24 46.20 -0.2
S 2503. 00
Pd 24 49 . 60 -0.3
S 25 08.50
Pd 2451.00 0.4
S 25 10 .50
P 24 50 .80 0.0
S 25 07 .90
Pd 24 52.60 -0.1
S 25 1 3 .50
Pd 24 54 . 10 0.0
S 25 17 .00
Pd 24 56 .00 0.1
S 25 20.00
Pd 2458.50 0.6
S 25 24 .00
P 24 58 .50 0.5
S 25 23.50
Pd 25 00.50 -1.0
S 25 29.00
an 1 0 o i 10 obs .

AUG 18, 1991 05h 45m 12.54± 0.77s
4.092 S ± 6.4km 127.052 E ±10. 0km DEPTH - 256 . 6 ± 8 . 8 km
5 . 0mb (1 7 obs .)
BANDA SEA (280)

AA 1 1.21 71 iPd 45 50.00 0.3
i S 46 1 3 .50
MTN 9.59 155 eP 47 26.30 -0.5
0.3s 260 . 00nm 5 . 8mb X
eS 49 12.00
KNA 11.71 172 iPd 47 54.20 0.8
0.5s 35 . 00nm 4 . 8mb
KKM 14.78 313 ePd 48 26.10 -5.3X
1.0s I52.40nm 5.4mb
WR2 17.30 156 iPc 48 57.10 -2.6
0.5s 227 . 40nm 5 . 9mb
eS 52 02.60
MBL 18.36 202 i Pd 49 09.80 -0.9
0.4s 1 8 . 00nm 4 . 9mb
CIS 20.42 144 iPc 49 30.90 -0.6
0.4s 38.00nm 5.3mb
ASPA 20.55 162 i Pd 49 32.00 -0.8
0.5s 224.60nm 5. 9mb
eS 53 05.60
i 53 18 .50
PMG 20.64 106 eP 49 35.00 1.4
NANU 21.49 210 eP 49 42.00 0.2
WARB 21.97 181 iPd 49 47.10 0.6
0.4s 6.00nm 4. 4mb
OLP 27.76 145 iPd 50 39.00 -0.9
STK 30.83 155 iPd 51 05.90 -0.9
0.5s 27 . 40nm 5 . 1mb
CMS 32.47 149 iPc 51 20.30 -0.8
COO 35.26 141 eP 51 45.00 0.2
CHG 35.84 310 ePc 51 51.40 1.6
0.9s 27.31nm 4. 8mb
BFD 35.86 159 iPc 51 51.00 1.3
BWA 36.12 149 eP 51 53.60 1.6
CAN 37.12 150 iPd 52 01.00 0.6

CNB 37.30 149 eP 52 02.40 0.5
0.9s 28.00nm 4.8mb
TOO 37.35 156 iPc 52 04.00 1.7
1.0s 59 . 00nm 5.1mb
MAT 41.75 14 eP 52 37.00 -1.4
1.1s 16.46nm 4. 3mb
BJI 45.04 348 eP 53 04.00 -0.6
1.1s 1 0 . 00nm 4.1mb
LZH 45.49 333 eP 53 09.00 0.5
GUN 50.84 311 PC 53 49.98 0.0
0.7s 61.00nm 5. 2mb
PKI 51.02 311 PC 53 50.82 -0.5
KKN 51.23 311 PC 53 52.62 -0.1
0.8s 60.00nm 5.1mb
DMN 51.27 310 PC 53 52.96 -0.1
0.9s 40 . 00nm 4 . 8mb
GKN 51.83 311 PC 53 56.90 -0.2
0.6s 43 . 00nm 5 . 0mb
YAK 65.95 1 iP 55 32.70 -0.3
S . D . - 1 . 0 on 29 of 30 obs .

» AUG 18, 1991 06h 16m 53.82± 1.12s
43.157 N ±10. 4km 0.886 E ± 8.8km
DEPTH - 10.0km (geophy s i c i s t)
FRANCE (538)
ML 2 .6 (LOG) , 2.6 (STR) .

EPF 0.42 253 Pg 17 02.80 0.4
Sg 1 7 09 . 30
SALF 0.46 151 Pg 17 01.32 -1.8
GRBF 0.57 123 Pg 17 06.35 0.9
TRGS 1.03 129 Pg 17 14.41 1.0
LPO 1.54 8 Pg 17 32.40 11. 0X
Sg 17 59.80
LFF 1.79 357 Pg 17 35.80 10. 9X
Sg 18 04.00
CAF 1.96 25 Pg 17 38.80 11. 3X
Sg 18 10.60
BGF 3.68 22 Pn 17 51.30 -0.6
Sg 19 06. 20
S.D. -1.7 on 5of 8 obs .

% AUG 18, 1991 06h 26m 32 . 95± 0.92s
38.903 N ± 6.4km 15.985 E ± 1 6 . 1 km
DEPTH - 40.6 ± 22.9 km
SICILY (398)

CZ I 0.34 20 P 26 41 . 60 0.0
ACI 0.48 21 P 26 43. 50 0.1
TDS 0.80 20 P 26 47.40 -0.5
eSg 26 57.00
ROI 0.81 34 P 26 47 .80 -0.2
SOI 0.83 176 P 26 48 . 30 0.0
eSg 27 00.70
CSI 0 .90 15 P 26 50 . 10 0.8
MMN 0.99 0 P 26 50.60 0.2
eSg 27 02.60
MGR 1.28 345 P 26 54.40 -0.2
eSg 27 10.60
SCO 1 . 73 343 P 27 01 .00 -0.1
S.D. - 0.4 on 9 of 9 obs.

& AUG 18, 1991 07h 44m 30.55s
56.829 N 153 . 065 W
DEPTH - 35 . 4km
4 . 1mb (1 obs .)
KODIAK ISLAND REGION (13)
<AE I C>. ML 3.6 (AE 1C) , 3.7
(PMR) .

KDC 0.97 18 iPc 44 47.20 -0.6
SY I 1 . 82 1 1 i P 44 58 . 82 -1.2
CDD 2.13 352 eP 45 03.64 -0.9
eS 45 28.20
MCNL 2.46 345 eP 45 07.60 -1.5
AUI 2.52 356 eP 45 09.02 -1.0
eS 45 43.60
AUE 2.54 356 eP 45 10.00 -0.3
AGU 2.55 356 eP 45 09.69 -0.8
AUP 2.55 356 eP 45 09.81 -0.6
eS 45 38.08
AUH 2.55 356 eP 45 09.93 -0.5
AUW 2.56 355 eP 45 09.77 -0.7
AUL 2.57 356 eP 45 09.92 -0.7
OPT 2.83 358 eP 45 13.29 -1.2
CNPM 2.87 19 eP 45 13.50 -1.5
HOM 2.94 14 eP 45 14.63 -1.2

PDB 3.03 349 iP 45 15.16 -2.0
NNL 3.35 15 eP 45 20.47 -1.4
RED 3.60 2 eP 45 23. 16 -2.3
RSO 3.65 2 eP 45 24 . 28 -1.9
ROW 3.67 2 feP 45 24.47 -2.0
REF 3 .68 3 eP 45 24 . 36 -2.2
RDN 3.70 2 eP 45 24.83 -2.0
NCT 3.74 1 eP 45 25. 26 -2.2
RDT 3.77 5 eP 4525.41 -2.4
DFR 3.78 3 eP 45 25.83 -2.2
SEW 3.79 29 eP 45 24.71 -3.3
SPU 4.40 6 eP 45 34.18 -2.5
SDN 4.42 253 eP 45 36.00 -1.0
SVW 4.49 344 ePc 45 35.50 -2.5
KNIM 4.50 36 eP 45 34.47 -3.6
NCG 4.61 5 eP 45 37 . 59 -2.2
PMS 4.78 21 eP 45 39.79 -2.4
PMR 5.19 21 eP 45 44.20 -3.6
FID 5.21 38 eP 45 43.81 -4.4
VZW 5.42 36 eP 45 47.44 -3.6
VLZ 5.54 36 eP 45 49.25 -3.5
TTA 6.30 348 eP 46 00.30 -3.2
TOA 6.35 31 eP 46 01.60 -2.6
FBA 8.49 15 eP 4632.60 -1.5
IMA 9.28 358 eP 46 42.50 -2.5
MBC 23.00 20 eP 49 34.00 1.4
0.6s 4.00nm 4.1mb
40 obs. ossocioted

AUG 18, 1991 37h 47m 57.03± 0.54s
39.012 N ± 4.4km 29.706 E ± 5.1km DEPTH - 8 . 2 ± 3 . 1 km
TURKEY (366)

ALT 0.32 82 iPg 48 02.00 -1.6
KHL 0.70 192 iPg 48 11.00 -0.1
i Sg 48 20 . 50
DST 1.03 306 iPn 48 17.50 0.9
I Z I 1.34 352 iPn 48 23. 30 1.4
GPA 1.36 20 iPn 48 22.60 0.4
YLV .57 351 iPn 48 25.20 -0.1
EYL .59 12 ePn 48 26. 70 1.1
GBZT .79 354 ePn 48 27.80 -0.5
HRT .81 359 ePn 48 28.80 0.1
EDC .95 314 iPn 48 32.60 1.9
1 ZM 2.01 253 ePn 48 32.50 0.9
ISK 2.11 347 ePn 48 33.00 0.0
YER 2.18211 iPn 48 35 . 60 1.4
ELL 2.27 176 iPn 48 35.90 0.5
CTT 2.35 336 iPn 48 37.30 0.8
BBTK 2.51 70 iP 48 44.00 5.2X
IS 49 13 . 00
EZN 2.74 288 ePn 48 43.30 1.2
DMK 3.18 333 ePn 48 48.40 0.2
ALN 3.39 305 eP 48 52.10 0.9
i 4946.06
KDZ 4.21 310 iPd 49 02.00 -0.8
OUR 4.61 288 iPc 49 08.33 -0.2
RZN 4.66 307 i Pd 49 09.00 -0.4
PAIG 4.75 283 ePc 49 10.42 -0.2
PLD 4.91 311 iPc 49 12.00 -0.8
SOH 5.21 292 ePd 49 16.46 -0.6
MMB 5.25 301 iP 49 16.00 -1.6
PVL 5.34 323 iPd 49 18.00 -0.9
KNT 5.65 295 ePc 49 23.30 0.0
i 50 28.02
LIT 5.68 283 ePd 49 21.02 -2.8
VTS 6.09 308 iP 49 29.00 -0.6
FNA 6.65 288 ePc 49 36.90 -0.5
MLR 7.05 338 eP 49 46.00 2.9X
S . D . - 1 . 1 on 30 o f 32 obs .

& AUG 18, 1991 08h 05m 28.17s
40 . 306 N 124 . 432 W
DEPTH - 9 . 0km
NEAR COAST OF NORTHERN CALIF. (35)
<GM-P> . MD 3.0 (GM) .

FHC 0.60 34 ePc 05 40.30 0.0
LBFM 2.19 61 eP 06 04.00 -1.5
ORV 2.38 107 eP 06 05.50 -2.4
3 obs. associated

» AUG 18, 1991 09h 31m 35.00± 0.95s
37.022 N ± 7.8km 23.261 E ±13. 6km DEPTH - 10.0km (geophy s i c i s t)
SOUTHERN GREECE (368)

18<J 09h

MD 3.2 (ATH) ,

VLI 0.40 221 ePb 31 43.10 -0.1
ATH 1.02 21 ePb 31 53.48 -0.8
AGG 2.13 348 ePc 32 16.06 5.0X
NFS 2.59 132 ePn 32 17.70 0.0
PAIG 2.92 6 «Pd 32 28.78 6.5X
LIT 3.13 349 ePd 32 24.58 -0.7
SOH 3.79 1 ePc 3237.14 2.3
KNT 4.14356ePc 3238.90 -0.8
S . D . -1.5 on 6 of Sobs.

« AUG 18. 1991 16h 47m 40 . 59± 0.50s
1.495 N 4 7.8km 122.636 E ±10. 5km DEPTH = 46.6km (2 depth phases) 4.Cmb (4 obs .) 4.4Msz (1 obs.)
MINAHASSAI PENINSULA (265)

MN 1 2.20 91 ePd 48 16.00 0.6
eS 48 41 . 00
DAV 6.28 28 eP 49 14.00 0.9
MKS 7.38 205 ePc 49 29.50' 1.0
BAG 14.96 352 eP 51 10.00 -1.0
IPM 21.79 279 tPd 52 40.90 10. 3X
0.8s 22 . 40nm
WR2 24.22 152 iPd 52 53.00 -1.3
0.5s 33 . 80nm 5.1 rab
NANU 24.89 196 eP 52 58.60 -2.8
NST 26.28 304 eP 53 28.00 14. 2X
ASPA 27.31 157 iPd 53 22.60 -0.5
1.2s 1 1 . 20nm 4. 4mb
OlS 27.51 144 iPc 53 23.30 -1.7
CHG 28.91 308 eP 53 48.00 10. 4X

SSE 29.47 357 e(P) 53 26.00 -16. 5X
Z 20s 0 . 90um 4 . 4Msz
N 1 6s 1 . 00um
S 58 38.00
MAT 37.73 21 eP 55 05.00 11. 2X
1.2s 31 . 25nm
eS 01 10.00
STK 37.75 153 i Pd 54 53.30 -0.6
0.8s 5.40nm 4. 5mb
epP 55 04.50 40km
L2H 38.58 335 eP 55 14.50 13. 4X
1.8s 32 . 00nm
E 15s 0 . 41 urn
PP 56 31 . 50
BJI 38.81 352 eP 55 13.50 10. 8X
1.5s 1 8 . 00nm
ADE 39.27 159 ePd 55 07.20 0.5
BWA 43.15 148 eP 55 41.10 2.5
GUN 43.87 310 P 55 46.84 1.9
PK 1 44.07 309 P 55 47.58 1.1
CAN 44.15 149 eP 55 47.70 1.1
TOO 44.26 154 eP 55 49.00 1.5
KKN 44.27 310 P 55 48.30 0.3
DMN 44.32 309 P 55 48.94 0.5
GKN 44.87 310 P 55 53.00 0.2
GBA 46.30 287 P 56 07.00 3. IX
0.5s 4 . 50nm 4 . 7mb
IRK 52.87 346 eP 57 03.50 9.5X
DUE 59.94 304 eP 57 45.00 0.0
YAK 60.61 4 eP 57 45.70 -3.0
e 58 00.00 52km
MAIO 67.66 309 eP 58 34.00 -1.4
eS 67 42.00
OBN 86.51 325 eP 60 20.00 0.2
ZOBO 161.89 145 PKP 67 43.00 3.7X
S . D . - 1 . 5 on 22 o f 32 obs .

AUG 18. 1991 10h 52m 51.31± 0.16s
17.994 S ± 4.9km 178.572 W ± 4.0km DEPTH t= 577.8km (7 depth phases) 5 . 4mb (49 obs .)
FIJI ISLANDS REGION (181)

KRO 21.06 289 i PC 54 05.10 -6.1
MBU 2.78 291 i Pd 54 09 20 1.3
VUN 2|.82 269 i PC 54 08.90 0.8
SVA 2.83 267 eP 54 08.80 6.7
SGE 3.36 276 i PC 54 13.10 1.6
NDF 3.80 273 eP 54 14.50 0.3
PVC 12.49 269 iPc 55 35.80 6.8
BKM 12.56 269 i PC 55 36.50 6.8
DZM 14.65 251 i Pd 55 57.00 0.5
iS 58 32.00
HBZ 19.72 187 eP 56 45.00 6.3

NOZ
HNR
THZ
KHZ
LTZ
8RS

COO

. CNB

CTAO

CAN
BWA

PMG
CMS

OLP

YYYY
TOO

MDG
TAU
STK

BFD

OlS

ADE

HON
WR2

WRA

ASPA

GUA
PJG
MTN

KNA

WARS

COOL

KLB

NWAO

RKG
BAL

MUN

NANU
MKS
CSY

KAKJ
CHJ J
1 1 DJ
TRT

MAT

26.76
22.52
24.79
25.26
25.91
27 . 98

29 . 60
& . 7s

33. 25
0.9s

33 .28

33. 53
33 . 64

34 . 32
34 . 85
0.6s
35 . 36
0 6s

36. 51
37 . 00
0 . 7s

37 . 05
38.07
38 . 46
0 . 6s

39 . 06
1 . 0s

39 . 49
0 .5s

41.46
0.7s
43.96
44 . 44
0 . 6s
44.46
0. 7s
44 . 62
0 .6s

47 . 74
47.81
48.64
0 . 3s
50. 31
0.4s
51.11
0 . 3s
55.78
0. 4s
58.65
0 . 4 S
59 . 03
0 .6s
59 . 17
59.61
0.4s
59. 95
0.8s
61 .55
61 . 75
66 . 00
0. 7s
66.54
67 . 09
67 . 30
67 . 54
0.6s
67 .88

188 eP
289 eP
195 P
1 94 P
196 P
245 iPc
* (pP)
239 iPd
130 . 00nm
i
i
i
232 iPc
494 . 00nm

i 261 i Pd
e

i(S)
233 iPd
234 iPd
i
280 i Pd
241 i Pd
1 59 . 00nm
249 iPd
366 . 00 nm
i
284 iPd
231 iPd
246 . 00nm
i
i
286 «(P)
222 iPd
241 i Pd
249 . 76nm
i S
233 iPd
359 . 06nm
i
i
i
e

259 i Pd
39 . 00nm
i
237 iPd
51 3 . 70nm
28 P
260 iPc
486 . 60nm
260 P
318. 30nm
254 iPc
2643 . 50nm
i PcP
i S
iScS
309 iPd
309 eP
269 iPd
272 . 00nm
264 iPd
1 69 . 68nm
251 iPd
48 . 00nm
245 iPd
85 . 00nm
244 i Pd
109 . 00nm
242 iPd
68 . 00nm
240 eP
245 iPd
84 . 00nm
243 iPd
1 79 . 00nm
254 eP
274 ePc
205 iPc
38 . 80nm
324 P
324 P
322 P
269 iPd
147. 70nm
323 iPd

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54 . 20 0.0
10.80 -0.3
27 .90 -2.5
32.30 -2.1
38
59
12
13

29
00.
50 . vv

00 -2.2
00 0.5
00 52kmX
00 0.6
5 . 7mb
70 70kmX
20
rt A

44 J40 1.2
6 . 1mb
02 . 90
43.10 -0.4
55.00 45kmX
02.00
46.20 0.7
44.90 -1.6
02. 20
52.20 0.0

57.;00 0.6

5 . 8mb
01 .'00 0.3
6 . 2mb
09.00 27kmX
1 0 .180 0 . 4
1 5. 00 1.0
5 . 9mb
25.00 34kmX
46 . 00
14 . 50 -e .2
23 . 50 0.8
27.10 1.1
6 . 0mb
4 1 .
32 .

44
32 .
1 4 .
19 .
33.

05.
50.

08.
12 .

12 .

1 4 .

40
40 1.6
5 . 9mb
00 42kmX
60
60
00
40 -1.1
5.2mb
40 144kmX
60 0.5
6 . 2mb
00 -1.7
50 -1.1
6 . 2mb
00 -1.7
6 . 0mb
30 -0.7
6 . 9mb X
44 . 70
08 . 10
1 0 .100
38.
38.
44 .

56.

03.

35.

20 -0.6
20 -1.0
30 -1.3
6 . 3mb
90 -0.9
5 . 9mb
10 -0.5
5 . 4mb
10 -1.5
5 . 4mb
5 5 .1 1 0 -1.0
5 . 5mb
57 . 80 -0.8
5 . 1mb
59j00 -0.5
01 . 26 -1.3
5 . 4mb
03-90 -0.8

1 4 .

16,
47 .

45
49.
50
47

5 . 4mb
00 -1.3
50 -0.2
20 4.5X
5 . 0mb
80 -0.5
00 -0.7
50 -0.6
20 -5.7X
5 . 7mb
53! 46 -1.2

N 1 1 J
YAMJ
MTMJ
TSRJ
KKM

ADK

SMY

SON
SSE

SYP
GCC
PRS
PCC
SAO
BCH
BRK
BKS

ZSP
PR 1
PHAM
MHC
ARN
HKC
ABL
FOX
FHC
MWC
BAR
SSK
RVR
FR 1

PLM
SBB
PEC
1 SA
CMB

WDC

ORV
KDC
M 1 N
CLC
CWC
TPC
GSC
LBFM
GLA
BONR
PDB
KVN
TNP

SVW

BMW
LON

IPM
PGC

TTA

PWA
RMW
PMR

ANM
S 1 T
KLU
PSI

MAW

BJ I

Z
MSU

0. 8s
67 . 94
68. 05
68 . 14
68 . 47
68 . 61
0.8s
69 .60
0.7s
70.71
0.8s
74 . 64
75 . 67
0. 8s
76 . 34
76. 38
76. 40
76. 40
76.59
76.62
76. 70
76. 72
0. 8s
76.74
76. 76
76. 77
76.79
76. 87
77 . 06
77 .03
77.19
77 . 36
77 . 51
77.70
77 . 76
77.87
77 . 87

77.91'
77.92
77 .97
77 .99
78.01

78. 1 1

78.16
78.51
78 . 55
78 . 67
78 . 67
78.87
78 .95
78 . 96
79 . 23
79 . 34
80 01
80. 06
80. 13
0.7s

80 . 95
0.8s
81 . 25
82.20

82.31
82. 47
0.8s
82.58
1.1s
82.61
82. 62
82. 72
0.6s
82 . 92
83.01
83.39
83. 70
0.9s
83.73
0.8s
83. 74
1 .5s
16s
83. 77

22.39nm
324 eP
326 P
323 P
321 P
284 ePd
113. 60nm
1 ePc
1 04 . 80nm
355 ePc
28 . 28nm
1 1 ePc
310 PC
20 . 00nm
46 i P +
43 i PC
44 i PC
43 iPc
44 ePc
46 P
43 ePc
43 iPc
1 25 . 00nm
43 iPc
45 ePc
45 P
43 ePc
43 P
299 eP
47 P
40 i PC
39 iPc
48 iP +
50 eP
48 P
48 eP
45 iPc
e

49 i P +
47 i P +
48 P
46 iP +
43 i PC
e

40 iPc
e

42 i PC
1 4 ePc
41 ePc
46 eP+
46 i P+
49 i P+
47 iP +
40 P
50 i P +
44 P
12 P
43 P
45 i PC
43.33nm
PP
PP
11 iPc
88 . 28nm
35 P
35 P
PP
277 ePd
33 ePc
61 . 00nm
10 iPc
96 . 98nm
13 ePc
35 P
14 i PC
44 . 80nm
6 eP
22 eP
15 P
275 iPd
1 07 . 50nm
200 iPd
36 . 00nm
315 eP
53 . 00nm
0 . 58um
46 P

02 54
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02 55
02 57
02 51

03 03

63 09

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64 0.6

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04 15
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64 22

4 . 7mb
. 20 -0.6
. 20 -0.3
. 50 -0.7
. 70 -0.4
. 50 -8.0X
5 . 5mb
. 10 -1.3
5 . 5mb
. 70 -1.2
4 . 8mb
. 70 -1.5
. 00 -0.5
4 . 7mb
. 00 -6. 2
. 53 0.3
. 98 0.6
. 62 0.3
. 44 0.0
. 20 0.4
. 30 0.4
. 50 0.4
5 . 4mb
. 28 0.1
21 0.7
60 0.2
30 0.6
. 40 0.4
70 0.8
20 0.1
45 0.9
21 0.7
00 -0.7
00 -0.5
50 -0.5
00 -0.3
42 0.2
10 575km
00 0.2
00 0.3
80 -0.1
00 6.0
14 6.1
30 565kmX
67 0.2
00 578km
67 -0.1
90 -0.2
47 -0.5
60 -0.6
00 -0.7
06 0.3
06 -0.1
26 0.0
00 0.5
86 0.5
56 -1.4
86 -0.1
20 -0.1
5. 0mb
90 570km
60
30 -0.6
5 . 3mb
66 -0.1
40 0.0
66 583km
50 0.9
90 0.3
5 . 2mb
30 0.2
5 . 2mb
20 -0.9
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00 -0.6
5. 2mb
90 0.3
20 0.0
00 -1.2
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5 . 4mb
66 0.9
4. 9mb
56 0.4
4. 9mb
5. 1MszX
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18d 1 1 h

TOA
PNT

I MA

LOE
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ALO

ANMC

NST
LRM
BDT

CHG

GOL

GLD

SES

LZH

NVL
YKA

TUL

MBC

PK i
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BUL

MTD

KR 1

NB2

EKA

DMU

DCN

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ETA
VAL
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KSP

VR 1

ECP

SPC
CLL

BRG

HR 1
WTS

MLR
MML
LW 1
PRU

MOX

BNS

MKT
ENN

83. 86
84 . 89
0 . Ss
85. 88
0. 7s
80 .92
85 . 92
0 . 4s
86 . 27
1 .8s

86 .27
0 .8s

86 . 77
87.14
88. 31
0.7s
88 . 88
1 . 0s

S9 .03
6 . 8s
89 . 16
1.1s
90 . 18
1 . 1 S
90.82
1.4s

91.18
94 . 47
0.9s
94.71
0 . 8s
160.46

e . 7s
103.29
125 .99
133.65

134.44

135 .64

136 . 44
0.7s
1 42 .56
0. 7s
143.59
0 . 9s
144.08

e . 8s
144.73
144.86
144.90
145.01
145.15
0. 9s

145.17

145.34
0. 8s
145 . 36
1 45 .51
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145.71
1.1s
145 . 71
145.81
1 . 8s
145 . 82
146.22
146.37
1 46 . 39
0. 7s
146.42
1 .6s
146 . 79
0.8s
146.84
147.11

pP
15 iPc
34 i PC
141 . 00nm
10 ePc
10.1 0r>m
296 iPd
13 i P c
42 . 70nm
52 i PC
40 . 00r>m
epP
52 P
27 . 99nm
pP
288 eP
40 eP
289 eP
30.1 0nm
290 iPd
45 . 00r>m
e
48 P
20 . 83r>m
48 ePc
86.79 r>m
36 iPc
1 79 . 06nm
308 Pd
69 . 00nm
i
pP
sP
183 P
25 eP
1 3 . 3enm
54 ePd
8 . 4<?nm
12 ePd i f
5.06 nm
295 Pd i f f
302 ePKP
216 i PKPd
iSKP
222 iPKPc
iSKP
220 ePKP
i SKP
353 PKP
1.30 nm
4 PKPd
6 . 40nm
8 i PKPc
1 39 . 00nm
9 i PKPc
1 26 . 00 nm
339 ePK'P
8 e P K' P
13 i PKP
354 ePKP
343 i P K P c
38 . 00 nm
e
e
328 ePKP
6

8 ePKP
1 1 9 . 00nm
338 ePKP
347 i PKPc
41 . 00 nm
346 i PKP
29.00 nm
303 ePKP
354 ePKP
63 . 00nm
329 ePKP
302 ePKP
236 i P K P d
345 PKP
7 . 1 0 nm
348 ePKPc
37.00 nm
353 ePKPc
14.00 nm
299 ePKP
355 ePKP

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00 575km
70 0.3
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5 . 6mb
90 -0.3
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5 . 0mb
60 583km
50 2.3
80 0.0
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5 . 3mb
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5 . 1mb
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00
00 103kmX
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40 -8.2X
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70 -1 3 . 4X

90 -4.3X

80 -2.2

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70 3. 6X
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40 2.6X

00 2. 7X

10 3.0X

UCC
MEM
ZST

RMN
KHC

SNF

GRB1

DOU

WLF
KHL
KDZ
RZN
FLN

VTS
CDF

LDF

WTTA

GRR

MMB
HAU

BSF

LPF

LJU

AMAN
VBY
AGMR

VAY
SKO
LOR

SSF

LBF

AVF

SMF

MFF

BGF

OHR
TCF

LSF

MAF

LPL

LPG
RJF

LFF
CAF

LPO
BTH

0.8s 18. 00nm
e 1 1
147.19 357 PKP 11
1 47 . 26 355 i PKPc 1 1
147.27 340 e(PKP) 1 1
e 28
147.40 299 ePKP 11
147.42 345 i PKP 1 1
1.1s 1 5 . 50nm
i 1 1
147.48 357 PKPc 1 1
i 1 1
147.61 347 i PKPc 1 1
Z 21s 0.1 0um
e 1 1
147.87 356 PKPc 11
0.8s 45 . 00nm
1 48 . 1 8 354 i PKPc 1 1
148.21 315 ePKP 1 1
148.75 324 i PKPd 1 1
149.11 325 i PKPd 1 1
1 49.27 2 i PKPc 1 1
0.9s 40 . 95nm
149.28 328 i PKPd 1 1
149.29 352 i PKPc 1 1
0.7s 1 2 . 1 0nm
149.45 2 i PKPc 11
0.9s 2 1 . 30nm
149.63 346 i PKPc 1 1
0.6s 1 1 . 60nm
i 1 1
1 49 .63 3 iPKPc 1 1
0.6s 1 7 . 1 5nm
149.72 326 i PKPd 1 1
149.80 353 i PKPc 1 1
0.7s 1 1 . 00nm
1 49.92 353 iPKPc 1 1
0.7s 11. 00nm
149.97 3 i PKPc 1 1
0.9s 44 . 20nm
1 49 . 99 342 ePKP 1 1
e 14
150.03 287 iPKPd 1 1
150 .25 340 e(PKP) 1 1
150.43 286 i PKPd 1 1
1.0s 226 . 00nm
150.52 326 ePKP 11
150.62 329 ePKP 1 1
150.74 357 iPKPc 1 1
0.7s 20 . 40nm
150.96 357 iPKPc 11
0.7s 16. 55nm
151 .01 356 i PKPc 1 1
0.8s 13. 45nm
151.24 357 i PKPc 1 1
0.9s 9 . 00nm
151 . 36 357 ePKP 1 1
0.9s 6 . 55nm
151.44 2 i PKPc 1 1
0.8s 21 . 50nm
151.49 358 i PKPc 1 1
0.7s 14. 90nm
151.59 328 ePKP 1 1
151 .78 359 iPKPc 1 1
0.7s 8 . 80nm
151.82 360 i PKPc 1 1
0.8s 18. 80nm
151 .84 358 ePKP 1 1
0.7s 7 . 70nm
152.20 352 ePKP 11
0.7s 3 . 85nm
152.22 352 ePKP 1 1
152.77 360 iPKPc 11
0.7s 6 . 60nm
153.13 1 ePKP 1 1
153.14 359 ePKP 1 1
0.8s 6 . 05nm
153. 39 0 ePKP 1 1
154.91 3 ePKP 1 1
S . D . - 1 . 0 on 159 o f

& AUG 18, 1 991 1 1 h 07m
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3.6X
3. 1X
3. 7X

3. 2X
3.5X

2 .8X

3 . 7X
. 6Msz

3. 8X

4.5X
3. 8X
1 .2
3.4X
4 . 7X

4.3X
5.0X

4 . 8X

5.0X

5.3X

4. 7X
5.5X

5.3X

5.5X

6 .0X

5.8X
7 . IX
6 . 1 X

5.0X
5. 7X
6 . 4X

6. 7X

6.3X

6 . 4X

6.5X

6 . 6X

6. 9X

- 1 .0
6.8X

6 . 8X

7.4X

8.0X

8.0X
7.7X

8. IX
8.3X

8.2X
- 5.5X
21 5 obs .

22.
. 240 N 124. 348

30s
W
DEPTH - 1 1 . 0km
4 .
NEAR

50 2.7X |

3mb (5 obs .)
COAST OF NORTHERN CALIF.

<BRK> . ML 3.8 (BRK) . Fe 1 t

(35)
(V) at

Garberville, Honeydew, Loleta
and Whitethorn; (IV) at Piercy, Redcrest and Rio Dell; (Ml) at Bridqeville, Myers Flot and
Weo t t .

FOX 0.39 44 iPd 07 29.87 -0.5
iS 07 35.90
FHC 0.63 26 iPc 07 34.50 -0.3
iS 0743.00
WDC 1.42 76 iPc 07 45.65 -2.4
eS 08 07.85
LTCM 1.70 90 eP 07 50.00 -2.1
MIN 2.10 86 iPc 07 55.29 -2.7
NWRM 2.11 147 eP 07 55.20 -2.7
LBFM 2.17 59 eP 07 57.40 -1.7
ORV 2.30 106 iPc 07 57.30 -3.4
ZSP 2.81 144 iPd 08 06.38 -1.6
BKS 2.88 144 «P 08 06.50 -2.4
e 0817.00
e 09 00.00
PCC 3.14 150 iPc 08 09.96 -2.6
MHC 3.58 143 eP 08 16.80 -2.3
ARN 3.63 142 eP 08 17.00 -2.6
GCC 3.70 149 iPd 08 17.34 -3.2
i 08 19.30
CMB 3.79 124 «P 08 13.29 -8.6
CMB 3.79 124 eP 08 20.00 -1.9
HBO 3.91 22 P 08 21 .69 -1.9
PRS 4.55 148 iPd 08 30.73 -1.9
FRI 4.87 130 iPd 08 35.96 -1.2
KVN 4.97 102 eP 08 35.80 -2.9
PRI 5.02 144 iPc 08 37.94 -1.4
GT2 5.15 17 P 08 39.30 -1.8
BONR 5.23 114 eP 08 40.70 -1.8
VBEM 5.23 22 P 08 40.32 -2.1
CROR 5.35 27 P 08 42.05 -2.0
TDH 5.39 20 P 08 43.86 -0.8
VLMM 5.56 17 P 08 45.97 -1.1
VTHM 5.67 28 P 08 47.49 -1.1
VGB 5.89 25 P 08 49.99 -1.6
TNP 5.95 109 eP 08 50.30 -2.3
MTMW 5.99 14 P 08 50.90 -2.1
LVP 6.00 13 P 08 51 .44 -1.7
FL2 6.13 13 P 08 52.91 -2.1
SHW 6.15 14 eP 08 53.20 -2.1
JBO 6.18 31 P 08 54.58 -1.1
SOSW 6.21 14 P 08 54.85 -1.3
ASR 6.24 18 P 08 54.57 -2.0
GL2 6.27 23 P 08 55.57 -1.5
TDL 6.30 14 P 08 55.68 -1.8
LON 6.76 15 eP 09 01.20 -2.7
PEC 8.55 136 eP 09 26.00 -2.9
MSU 9.58 96 eP 09 41.00 -2.4
SES 13.79 38 eP 10 39.00 -0.9
GOL 14.57 86 eP 10 49.00 -1.5
ANMO 15.13 105 eP 10 56.50 -1.2
1.0s 1 3 . 75nm 4 . 3mb
ALO 15.13 105 eP 10 56.00 -1.8
1.0S 4 . 25 nm 3 . 8mb
FFC 20.81 38 eP 12 01.00 -4.9
0.5s 8 . 00nm 4 . 3mb
FFC 20.81 38 eP 12 05.00 -0.9
0.6s 1 3 . 00nm 4 . 5mb
MEO 21.12 97 iPc 12 07.80 -1.5
PMR 26.17 333 eP 13 00.00 1.9
0.8s 5 . 1 7 nm 4 . 3mb
WRA 111.06 261 PKP 25 58.00 0.3
1.4s 0 . 80nm
51 obs. associated

% AUG 18, 1991 11h 56m 53.21± 0.54s
16.773 S ± 5.9km 128.609 E ± 6.7km DEPTH - 10.0km (geophysicist)
3 . 8mb (4 obs .)
WESTERN AUSTRALIA (590)

KNA 1.03 9 iPc 57 12.90 0.3
iS 57 23.60
MTN 4.60 32 eP 58 04.50 0.0
eS 58 54.00
ASPA 8.47 145 iPd 58 59.70 0.8
0.6s 235.00nm 6.6mb X
eS 00 33.80
MBL 9.38 241 eP 59 11.40 -0.1
0.2s 7.00nm 5.7mb X
eS 00 53.00

178

18d 1 1 h

WARB 9.54 191 eP 59 14.70 1.0
0.3s 11. 00nm 5 . 8mb X
eS 00 55.00
QIS 11.08 112 eP 59 34.00 -0.9
<=S 61 30 . 00
i 0242-00
NANU 13.60 243 eP 00 08.90 0.3
0.2s 7.00nm 5. 3mb
eS 02 36.00
BAL 17.54 216 eP 01 06.00 0.5
0.3s 2.00nm 3. 7mb
eS 04 02.00
KLB 17.75 212 eP 01 02.30 0.3
0.3s 3 . 00nm 3 . 9mb
e S < > 4 05.70
MUN 18.86 214 eP 01 14.00 -1.8
eS 04 33.00
NWAO 19.09 210 eP 01 18.00 -0.5
0.4s 2 . 00nm 3 . 7mb
eS 04 40.00
STK 19.11 144 eP 01 18.70 -0.1
0.5s 1 . 70nm 3 . 5mb X
eS 04 37 . 70
S.O. = 0.8 on 12 of 12 obs.

7. AUG 18. 1991 I2h 05m 22 . 76± 0.65s
16.696 S ± 6.8km 128.559 E ± 9.4km
DEPTH - 10.0km (geophy s i c i s t)
WESTERN AUSTRALIA (590)

KNA 0.96 12 iPc 05 41.40 0.4
iS 05 52. 10
MTN 4.56 33 eP 06 33.00 -0.5
eS 07 45.00
ASPA 8.56 145 eP 07 29.90 0.2
0.9s 1 8 . 00nm 5 . 6mb X
eS 09 00.50
MBL 9^37 240 eP 07 41.00 0.0
0 . 3s 2 . 00nm 5 . 0mb X
eS 09 21 . 00
WARB 9.61 190 eP 07 44.00 -0.1
0.3s 2.00nm 5.0mb X
eS 09 29.00
NANU 13.59 243 eP 08 38.00 -0.1
eS 1 1 00. 00
S.D. - 0.4 on 6 of 6 obs.

? AUG 18, 1991 12h 20m 15.30± 2.28s
24.704 N ±23. 8km 122.652 E ±18. 4km
DEPTH * 33.0km (normol)
3 . 6mb (1 obs .)
TAIWAN REGION (243)

TWC 0.74 263 iPc 20 30.60 1.4
eS 20 39.70
TWZ 1.05 292 iPc 20 33.50 -0.2
eS 20 44. 70
ANP 1.13 295 eP 19 50.80 -44. 2X
eS 20 05.20
TWO 1.15 237 iPc 20 35.20 0.1
eS 20 48.00
TWO 1.71 256 ePd 20 41.90 -1.3
WRA 45.81 165 P 28 36.00 0.0
0.6s e.50nm 3. 6mb
S.O. - 1.4 on 5 of 6 obs.

? AUG 18. 1991 12h 26m 25.58± 8.07s
16.088 N ±70. 5km 97.741 W ± 1 7 . 9 km
DEPTH - 33.0km (normal)
OAXACA. MEXICO (60)

OXX 1.39 44 iP 26 48.80 -0.2
III 2.81 324 (P) 2710.00 0.6
I 1 SM 2.90 7 (P) 27 1 1 . 50 1.0
1 1 T 2.97 350 (P) 27 12 . 00 0.3
PPM. 3.08 344 iP 27 11.80 -1.7
LVVM 3|.83 19 (P) 27 13.00 -10. 7X
(S) 28 02.00
MRX 4.87 318 (P) 27 46.30 7.9X
S.O. «=1.5 on 5of 7 obs .

? AUG T8. 1991 I3h 17m 48 . 1 3± 1.02s
43.20£(N ± 7.1km 10.825 E ±10. 2km
DEPTH - 10.0km (geophysicist)
CENTRAL 1 TALY (381)

P 1 1 0! .56 337 P 17 59. 10 -0.3

eSg 18 06
MAO 0.83 163 PC 18 04

eSg 18 15
BO 1 0.87 349 P 1805

eSg 18 16
CRE 0.92 63 P 18 05
eSg 18 16
SF 1 1 . 03 46 P 18 08
eSg 18 19
S.O. =0.5 on 5 of

? AUG 18. 1 991 1 3h 1 8m 12
19.330 N ±23 .9km 99.218
DEPTH = 5.0km (geophys
CENTRAL MEXICO

UNM 0.03 87 iP 18 12
i S 1813
TAC 0.08 1 7 i P 1813
IS 1814
IIC 0.44 355 i P 1821
MA 0. 56 109 i P 1824
(S) 18 33
PPM 0. 62 1 15 i P 1823
i S 1834
III 0. 98 194 (P) 1 8 35
(S) 18 47.
MRX 1 . 90 282 (P) 1 8 49
S.D. -1.1 on 5of

? AUG 18, 1991 I3h 32m 03.
13 .988 N ±15. 1 km 60 .508
DEPTH - 75. 7 ± 54 . 4 km
WINDWARD ISLANDS

MO 2 . 7 (TRN) .

SLB 0.54 253 eP 3217.
eS 32 27.
MVM 0.68 326 iPc 32 18.
S 32 29.
BIM 0. 76314 eP 3219.
S 32 30.
CRM 0.86 333 eP 32 20.
PDF 0.97 320 eP 32 22.
0.1s 1.1 5nm
S 32 35.
SVB 1 . 01 226 eP 32 22.
eS 32 36.
S.D. =0.2 on 6 of

AUG 18, 1991 14h 45m 07.
24 . 321 N ± 4 . 3km 142. 083
DEPTH - 541 . 6 ± 9 . 2 km
4 . 5mb (12 obs .)
VOLCANO ISLANDS REGION

GUA 1 1 . 05 1 66 P 4737.
1 IOJ 1 1 . 69 343 P 47 43.
KAKJ 11.96 353 P 47 45 .
eS 49 53.
CHJJ 11.99 348 P 47 45.
eS 49 53.
TSRJ 12. 36 336 P 4751.
MAT 12.63 346 eP 4751.
MTMJ 12.77 344 P 47 53,
N 1 1 J 13.15 349 P 4757.
YAMJ 13.92 353 eP 48 06.
OFUJ 14.72 359 eP 48 15
SSE 19.68 295 Pd 49 03
1.0s 17. 00nm
2 20s 0.60um
i 49 22
L2H 34.86 299 eP 51 14
1.0s 13. 0®nm
KMI 35.66 280 Pd 51 22
pP 51 41
CHTO 40.37 271 P 52 00
1.0s 1 0 . 00nm
WRA 44.64 190 P 52 32
0.5s 30.0enm
CIS 44.67 183 iPc 52 33.
ASPA 48.36 190 iPc 53 00.
0.4s 9 . 56nm
eS 59 17.
GUN 50.22 287 P 53 15.
PK 1 50.69 287 P 53 19.
0.6s 21 . 00nm

$0
20 0.1
*e
::0 0.3
:;0
40 -0.4
00

1)0 0.4 <>e
& obs .
f
?5± 4.56s
V* +33 . 5km
cist)
(523)

78 -1.0
30
00 -1.3
06
00 -0.1
00 0.6
20
80 -0.9
00
00 3.6X
00
36 3 . 7X
7 obs .

5l± 6.74s
W ±79 . 0km

(95)

56 0.1

|24
76 0.0
70
54 -0.2
90
88 0.1
33 0.1

40
72 0.0
55
6 obs .

26± 0.63s
E ± 6 . 7km

(213)

20 0.5
30 0.1
20 -0.6
70
50 -0.7
90
10 1.1
00 -1.7
40 -0.8
60 -0.3
20 0.5
50 1.8
00 1.3
4 . 6mb
4 . 2Msz
50 107kmx
50 -0.2
4 . 5mb
00 0.5
00 78kmx
00 0.3
4 . 4mb
00 -1.2
5 . 1mb
30 -0.1
90 -0.7
4.7mb
10
60 -0.3
20 -0.1
4 .8mb

KKN 50.77 287 P 53 19.80 0.1
0.8s 48 . 00nm 5 . 0mb
GKN 51.29 287 P 53 23.40 -0.1
D2M 51.84 151 iPd 53 27.90 6.6
BRS 52.44 168 iPc 53 32.00 0.6
STK 55.89 181 i PC 53 55.00 -0.6
0.6s 4 . 30nm 4 . 0mb
FORR 56.47 194 P 53 58.60 -1.0
BWA 58.73 174 eP 54 15.30 0.2
CAN 59.68 173 eP 54 21.40 0.1
FBA 59.82 28 P 54 21.40 -0.5
0.6s 3 . 00nm 3 . 8mb
TOO 61 . 64 1 77 P 54 35. 00 0.8
MBC 68.58 15 eP 55 16.50 -0.6
0.5s 6.00nm 4.4rrib
YKA 74.62 28 eP 55 51.40 -0.7
0.6s 3 . 40nm 4 . 0mt
PNT 77.09 42 eP 56 06.00 0.1
SES 81.65 38 ePc 56 30.40 0.6
LRM 82-96 43 P 56 37.50 0.8
TNP 83.23 51 P 56 38.20 0.1
FFC 84-.14 32 eP 56 42.00 0.0
0.8s 17. 00nm 4 . 7mb
PLM 85.54 55 P 56 49.60 0.1
KRI 116.86 263 i PKPd 03 01.30 8.8X
PEL 150.05 115 iPKPd 03 58.50 6. IX
20BO 150.61 80 PKP 04 00.20 5.8X
i 06 24.50
CNCB 150.92 81 PKP 04 02.50 7.7X
S . D. = 0 . 8 on 37 of 41 obs .

AUG 18, 1991 14h 45m 26.58± 0.76s 24.330 N ± 4.4km 142.046 E ± 6.5km DEPTH = 549.5 ± 9 . 7 km
5 . 0mb (1 9 obs .)
VOLCANO ISLANDS REGION (213)

PJG 1 1 . 01 165 eP 47 56 . 60 10
GUA 11.07 165 P 47 56.10 -0.1
pP 50 02.30
MAT 12.61 346 iPc 48 10.80 -1.0
1.0s 53 . 00nm 4 . 9mb
eS 50 22.00
BJ I 26.79 312 eP 50 24.00 -0.5
LZH 34.82 299 PC 51 33.50 0.3
1.5s 1 27 .00nm 5 . 3mb
2 1 5s 0 . 24um 4 . 1MszX
i 51 40.00
pP 51 52.00 78kmX
sP 52 00.00
PP 53 07.00
LOE 38.19 267 eP 52 01.50 0.6
YAK 38.59 351 eP 52 03.20 -0.4

epP 52 28.00 108kmX
ePP 53 15.00
ePPP 53 37.00
ePcP 54 48.00
i 56 57.00
iS 57 17 . 00
eSS 59 09.00
IRK 39.96 324 eP 52 14.80 0.0
e 52 31 . 00
CHTO 40.34 271 P 52 18.50 0.2
1.0s 27 . 50nm 4 . 8mb
WR2 44.64 190 eP 52 52.10 0.1
0.5s 145. 00nm 5 . 8mb
iScP 57 23.30
eS 58 47.00
WRA 44.64 190 P 52 52.00 0.0
0.8s 77.70nm 5.3mb
OIS 44.68 183 P 52 52.20 -0.1
PSI 46.82 249 ePc 53 09.70 0.8
0.8s 77 . 70nm 5 . 3mb
ASPA 48.36 190 eP 53 19.70 -0.7
0.6s 23 . 00nm 4 . 9mb
iPcP 54 36.80
eS 59 37.70
e 02 15. 30
GUN 50.19 287 P 53 35.16 0.8
0.4s 124. 00nm 5 . 8mb
PK 1 50.66 287 PC 53 37.94 0.1
KKN 50.73 287 P 53 38.44 0.2
DMN 50.92 287 P 53 39.96 0.3
0.6s 127. 00nm 5 . 6mb
GKN 51.26 287 P 53 42.18 0.2
DZM 51.86 151 iPc 53 45.90 -0.3
WARB 52.38 198 i PC 53 50.00 0.2

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18d 14h

0.4s 1 5 . 00nm 4 . 7mb
NANU 53.26 211 eP 53 56.00 -0.1
STK 55.90 180 iPd 54 14.30 -0.1
0.4s 3.20nm 4. 0mb
IS 01 20. 28
FORR 56.47 194 P 54 17 30 -1.1
NDI 57.55 298 iPc 54 25.50 -0.5
0.8s 67.16nm 5 . 0mb
H1B 59.30 276 iPc 54 38.28 0.3
BAL 59.78 205 eP 54 40.00 -0.7
0.6s 52.06nm 5.0mb
FBA 59.83 28 P 54 41.00 0.3
0.6s 3 . 1 0nm 3 . 8mb X
MUN 61.19 205 eP 54 49.58 -8.5
NY.AO 61.66 204 <_ P 54 52.50 -0.5
HOD 62.76 269 <=P 55 01.00 0.1
ODE 65.91 294 eP 55 21.00 0.6
MBC 68.58 15 ePc 55 35.50 -0.2

MAIO 76.31 302 iPc 55 47.30 0.6
OBN 78.72 326 iPd 56 33.90 0.9

LRM 82 . 97 43 P 5657.10 1.7
TNP 83. 25 51 P 56 58. 40 1.5
0.8s 4 . 4 1 nm 4 . 1 mb
pP 58 53.20 524kmX
FFC 84.15 32 eP 57 01.00 0.3
0.7s 14.80nm 4. 7mb
UPP 84.64 335 IP 57 02.00 -0.9
NB2 86.12 338 P 57 08.80 -1.4
0.8s 15.40nm 4. 8mb
KRA 89.96 327 ePd 57 28.10 -0.1
KSP 91.21 329 eP 57 33.50 -0.5
BRG 92.27 330 eP 57 38.30 -0.6
1.1s 10.00nm 4. 8mb
CLL 92.39 331 eP 57 39.00 -0.4
1.1s 16.08nm 5. 0mb
PRU 92.61 329 Pd 57 40.10 -0.4
KHC 93.66 329 P 57 44.50 -0.9
OHR 95.12 320 eP 57 51.20 -1.0
MTD 115.03 262 iPKPc 03 07.60 0.1
BUL 118.76 260 ePKP 03 11.30 -3 . 3X
TIC 135.52 310 PKP 03 48.00 1.4

LIC 135.82 309 PKP 03 48.40 1.2
LPB 150.75 80 ePKP 04 11.00 -1.9
S . D . -0.8 on 52 of 53obs.

& AUG 18, 1991 I5h 14m 13.40s
40. 490 N 126.31 3 W
DEPTH - 5 .0km
OFF COAST OF NORTHERN CALlFORNIA(34) <BRK>. ML 3 . 3 (BRK) .

FOX 1.77 88 iPc 14 43.07 -1.8
FHC 1 . 80 79 i PC 1442.77 -2.6
eS 15 04. 30
WDC 2.88 87 iPd 14 58.76 -2.0
i S 1531.50

Ml N 3. 60 91 eP 15 08 . 23 -2.9
eS 1 5 50 . 80
ORV 3.81 103 iPd 15 11.59 -2.5
2SP 4.05 128 eP 15 14.55 -2.8
BRK 4.09 128 eP 15 14.30 -3.6
PCC 4.28 133 iPd 15 16.28 -4.3
eS 16 05.38
MHC 4.81 129 ePc 15 24.30 -4.1
GCC 4.83 134 iPd 15 23.68 -4.8
ARN 4.87 129 eP 15 25.00 -4.1
SAO 5.32 133 eP 15 30.30 -5.2
GT2 5.53 31 P 15 38 . 15 -0.3
KMOR 5.54 21 P 15 37.87 -0.8
PRS 5.68 135 eP 15 35.20 -5.4
TDH 5.83 33 P 15 41 . 78 -1.0
VLMM 5.94 30 P 15 43.30 -0.9
CROR 5.96 39 P 15 42.82 -1.7
NLO 5.97 20 P 1544.61 0.0
VFP 6. 00 35 P 1544.29 -0.8
VLL 6.02 33 P 1545.42 0.1
RVW 6.23 24 P 15 47.87 -0.3
FR 1 6.23 122 iPd 15 45.85 -2.4
LVP 6.26 26 P 15 47.44 -1.3
MTMW 6.29 27 P 15 47.30 -1.9
VTHM 6.31 40 P 15 48. 19 -1.3
BMW 6.39 20 P 15 49.85 -0.7
FL2 6. 39 26 P 15 49. 42 -1.2

CDFW 6.43 28 P 5 49.69 -1.4
SHW 6.43 26 P 5 50.88 -0.3
HSR 6.43 27 P 5 50.47 -0.7
VGB 6 . 46 37 P 550.29 -1.2
ESD 6.46 27 P 5 50.84 -0.8
STD 6.47 26 P 550.57 -1.2
ERK 6.49 25 P 551.14 -0.9
SOSW 6.50 27 P 5 51 . 32 -0.8
C2M 6.56 24 P 5 52.29 -0.6
TDL 6.57 26 P 15 52 . 35 -0.9
ASR 6.62 30 P 15 53.04 -0.8
KOSW 6.68 25 P 15 53.97 -0.6
GL2 6.78 34 P 1 5 55 . 06 -1.0
LMW 6.83 24 P 15 57-. 10 6.3
JBO 6.87 42 P 15 56 . 27 -1.0
CPW 6.88 18 P 15 56. 66 -0.7
GLK 6.97 28 P 15 57.91 -0.8
LON 7.06 26 P 15 59.04 -0.9

RVC 7.18 25 P 16 00 .88 -0.7
PATW 7.21 39 P 16 00.90 -1.0

FMW 7 . 26 26 P 16 02 . 45 -0.5
MAC 7.40 31 P 1603.81 -0.9
GSM 7 . 46 24 P 1604.84 -0.8
MXC 7.49 34 P 16 05.02 -0.9
GMW 7.50 19 P 16 05.20 -0.8
HOW 7.53 17 P 16 05.79 -0.8
BRVW 7.55 35 P 16 05.67 -1.1
RSW 7 .66 37 P 1 6 06 . 80 -1.6
RMW 7.69 23 P 1608.86 0.1
WG3 7.76 42 P 16 08 .01 -1.7
TBM 7 .85 30 P 16 10 .68 -0.3
WAH2 7.95 36 P 16 11.04 -1.3
LOCW 7.98 36 P 16 11.43 -1.3
HTW 8.01 23 P 1612.56 -0.6
ETW 8.31 29 P 16 16.82 -0.7
JCW 8.32 21 P 16 16.58 -0.9
MCW 8.56 16 P 16 20.36 -0.5
RPW 8.66 22 P 1621.41 -0.9
MBW 8.87 19 P 16 24.76 -0.5
PNT 10.02 26 eP 16 42.00 1.0
71 obs. associated

& AUG 18, 1991 15h 29m 20.39s
58 . 1 75 N 151. 523 W
DEPTH - 0 . 0km

<AE 1 C> . ML 2.7 (AE 1 C) .

NCT 2.50 344 eP 30 02.68 -0.4
eS 30 32.47
SPU 3.03 355 eP 30 07.29 -3.3
eS 30 47.28
CKL 3.06 353 eP 30 07.47 -3.6
PMS 3.24 17 eP 30 13.30 -0.2
eS 30 53.88
VZW 3.84 39 eP 30 16.05 -6.1
5 obs. associated

AUG 18, 1991 15h 33m 18.81± 0.83s
0.066 N ± 7.4km 123.200 E ± 8.6km DEPTH - 1 77 . 3 ± 9. 4 km

MINAHASSA PENINSULA (265)

MNI 2.14 50 ePc 33 58.50 0.9
MKS 6.44 215 ePc 34 52.00 -0.3
KKM 9.16 311 ePd 35 26.50 -1.9
I PM 22.60 282 ePc 38 06.50 1.2
0.9s 59 . 50nm 5 . 1mb
WR2 22.70 152 iPd 38 05.20 -1.0
0.5s 55 . 40nm 5 . 3mb
pP 38 34.80 149kmX
ASPA 25.78 157 i PC 38 36.50 1.4
0.8s 11.10nm 4. 6mb
i 39 1 4 .60
OIS 26.03 143 iPd 38 36.60 -0.9
0.7s 15. 00nm 4 . 8mb
LOE 27.27 310 eP 38 49.00 0.3
BDT 29.31 307 eP 39 08.00 1.1
CHG 30.23 309 eP 39 15.40 0.3
0.9s 1 8 . 9 1 nm 4. 8mb
MAT 38.87 19 iPd 40 27.50 -1.0
0.8s 10. 45nm 4 . 6mb
LZH 40.10 335 Pd 40 40.50 1.7
1.6s 38 . 00nm 4 . 8mb

BWA 41.65 148 eP 40 51.10 -0.3
CAN 42.64 148 eP 41 00.00 0.6
GUN 45.23 311 P 41 20.66 0.1
0.7s 92 . 00nm 5 . 4mb
PK I 45.41 310 P 41 22.04 0.0
0.8s 26.00nm 4.8mb
KKN 45.62 310 P 41 23.46 -0.1
0.8s 73 . 00nm 5 . 3mb
DMN 45.66 310 P 41 24.22 0.3
0.9s 48 . 00nm 5 . 0mb
GKN 46.22 310 P 41 28.20 0.0
0.8s 67 . 00nm 5 . 2mb
OUE 61.21 305 eP 43 16.20 -1.4
YAK 61 . 99 3 i P 43 20. 70 -1.2
e 44 00 . 00
BUL 94.33 250 iPd 46 15.50 -4.5X
0.8s 9 . 33nm 5 . 0mb
S . D . - 1 . 1 on 21 of 22 obs .

? AUG 18. 1991 I5h 50m 47.23± 3.11s
15.860 N ±28. 8km 97.754 W ±13. 7km DEPTH - 30.7km (2 depth phases) 4 . 1mb (4 obs .)
NEAR COAST OF OAXACA, MEXICO (66)

OXX 1.57 39 IP 51 15.80 2.4
IS 51 35 . 00
ACX 2.26 297 iP 51 22.30 -0.9
iS 5151.70
III 2.99 327 i P 51 35 . 70 1.9
iS 52 09.82
1 1 SM 3.13 7 i P 51 35 . 92 0.3
(S) 52 22.50
IIT 3 . 19 351 i P 5136.91 0.3
(S) 52 12.50
PUE 3.19 352 (P) 51 39.00 2.3
(S) 52 09.00
PPM 3.30 345 iP 51 38.11 -0.3
(S) 52 17.00
MA 3. 38 345 eP 51 39.26 0.1
UN'M 3.71 339 iP 51 47.50 3.4X
LVVM 4.05 18 iP 51 46.19 -2.5
(S) 52 48.43
MRX 5.03 320 (P) 52 02.50 -0.1
TPX 5.38 99 (P) 51 23.00 -44. 6X
CGX 6.65 306 (P) 52 10.59 -15. 0X
(S) 54 04.50
UYO 18.47 9 e(P) 55 01.00 -1.6
MEO 18.86 358 iPd 55 05.30 -2.1
TUL 20.05 5 eP 55 20.70 0.0
0.6s 5 . 80nm 4 . 1mb
Z 18s 0 . 07um 3 . IMsz
LR 03 10.00
ALO 20.54 339 eP 55 25.40 -0.7
1.1s 9 . 49nm 4 . 1mb
ANMO 20.55 339 P 55 25.50 -0.7
e 55 34.60 34km
TNP 28.01 326 P 56 39.30 1.5
1.0s 4 . 25nm 4.1mb
e 56 47.00 27km
FFC 38.92 356 eP 58 12.00 0.2
0.6s 6 . 00nm 4 . 5mb
S.D. - 1.5 on 17 of 20 obs.

& AUG 18. 1991 16h 36m 11.96s
60 . 241 N 152 . 255 W
DEPTH - 89.3km
SOUTHERN ALASKA (2)
<AEI C>.

RED 0.31 305 iPc 36 25-05 -0.6
eS 36 35.32
RSO 0.33 312 iPc 36 25.41 -0.5
eS 36 35.99
REF 0.33 318 iPc 36 25.41 -0.5
eS 36 35.85
ROT 0.34 347 iPc 36 25.18 -0.7
eS 36 35.88
ROW 0.37 312 iPc 36 25.48 -0.7
eS 36 37.03
RON 0.37 318 PC 36 25.51 -0.6
DFR 0.41 329 PC 36 25.67 -0.6
NCT 0.46 314 PC 36 25.90 -0.8
NNL 0.52 112 PC 36 27.23 0.2
HOM 0.66 152 PC 36 28.01 -0.2
eS 36 40.37
NKA 0.71 45 iPc 36 30.05 1.3

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18d 16h

OPT 8.77 220 iPd
eS
CNPM 0.88 144 iPc
eS
SPU 0.95 6 i Pd
eS
CKL 0.96 358 i Pd
BGL

SLKM
AUL
AU E
AUP
AGU
AUH

A.UW
PDB

CGLM
AU 1
NCG
SEW
SUA

CDD
MCNL

SY 1
PMS

SKT
PWA
SVW

1 . S3 356 iPd
eS
. 05 74 e P c
1.05 215 ePd
. 65 213 i P d
1.06 214 i Pd
. 07 214 ePd
. 07 215 e P d
eS
. 07 216 iPd
1 . 07 246 i Pd
iS
. 08 6 eP
1.09 214 ePd
1.17 2 eP
1.41 94 eP
. 43 30 i Pd
eS
. 49 209 i Pd
. 58 226 iPd
eS
1.64 1 82 i Pd
1.66 52 ePc
eS
1.78 11 i Pd
1.83 38 ePd
. 87 299 i PC
eS
PLRM 2.04 47 eP
eS
KNK 2.28 56 iPc
eS
LT 1 2.21 93 i PC
GHO 2.23 45 ePd
KN I M 2.25 85 i PC
MTU 2.32 94 eP
CUT
KDC
GL I
F I D

VZW
HUR

. 37 23 eP
1 . 50 183 ePd
1 . 63 74 ePc
. 90 77 ePc
eS
: . 93 71 ePc
i .02 23 eP
VLZ 3 . 05 78 eP
MID 3 . 1 0 1 03 eP
KLU 3.34 65 i PC
TRF 3.35 15 eP
KTH 3.38 1 0 eP
TOA 3.49 55 eP
RND 3.56 25 eP
MCK 3.84 23 eP
SDG 3.96 52 eP
BWN 4.16 17 eP
PAX 4.24 47 eP
GLB 4 . 30 70 eP
WRH 4.67 23 eP
CCB 4.88 23 eP
BALM 4.94 76 eP
MOM 5.09 26 eP
FBA 5.11 22 eP
65 obs. ossoci

& AUG 18, 1 991 1 7h
64.941 N
DEPTH
CENTRAL

32 . 9km
ALASKA
<AtlC>. ML 3.3
(P
Fo

MOM
FBA
CCB
NEA
WRH
BWN

MCK

RND

MR) . Felt in
i r bonks oreo.

0.13 82 i PC
0. 32 97 i PC
0.43 1 33 i Pd
0.43 213 i Pd
0.51 158 iPd
0.87 288 iPc
eS
1.23 188 eP
eS
1 . 55 185 eP

36 28 . 56
36 41.83
36 29 . 80
36 43 . 89
36 30.71
36 45 . 63
36 30 . 88
36 31.78
36 46 . 90
36 31.37
36 31.47
36 31 . 37

36 31 . 70
36 32 . 14
36 31.75
36 47 . 20
36 31 . 72
36 31 .50
36 46.75
36 32.33
36 31.70
36 33 . 29
36 35.13
36 36 . 92
36 56 . 26
36 36 . 42
36 36 . 42
36 55.31
36 38 . 79
36 39 . 55
37 00.40
36 40 . 61
36 41.73
36 41.07
37 03 .29
36 44.00
37 07.84
36 45 . 75
37 1 1 . 48
36 45 . 30
36 46 . 38
36 45.16
36 46 . 95
36 48 . 43
36 48 . 64
36 49 . 88
36 53.19
37 25 . 80
36 54 . 24
36 58.36
36 56. 12
36 58.23
37 00 . 57
37 01.94
37 02 . 64
37 03. 33
37 04.96
37 09 . 01
37 09 . 75
37 13 . 25
37 13.81
37 13.35
37 19 . 34
37 21.99
37 22.58
37 25. 12
37 25.27
o ted

1 2m 24.81s
148 . 538 W

(AEIC) , 3.6
the Ester-

12 30 . 40
12 33 . 10
12 34.09
12 34 . 22
12 35 . 38
12 40.31
12 51 .93
12 46. 07
13 02 . 92
12 50 . 60

- 0.8

- 0.8

- 0 . 7

- 0. 7
- 0. 6

- 1.1
- 1 .0
- 1 . 1
- 1 .0
- 0.6
- 1 .0

- 1 .0
- 1 .3

- 0.6
- 1 .2
- 0. 7
- 1 . 7
- 0. 4

- 1 . 6
- 1 .6

- 1 . 0
- 0.7

- 1 . 2
- 0.6
- 1.9

- 1 . 2

- 1 . 7

- 2.2
- 1 . 5
- 2.9
- 2 .0
- 1 .3
- 2 .8
- 3.3
- 3.8

- 3. 1
- 0.2
- 2.8
- 1 .3
- 2. 5
- 1.4
- 1 .0
- 1 .8
- 1 .2
- 0.9
- 1 . 8
- 1 . 0
- 1 .8
- 3.0
- 2 .0
- 2 . 3
- 2.7
- 2 . 1
- 2.2

(D

- 0.5
0.3
- 0.3
- 0.2
- 0.2
- 0.4

0.3

0 . 1

eS 13 12l 19 Sn 39 37 . 10
TRF 1.68 208 eP 12 52 44 0.0 eSg 39 44.50
eS 13 15 60 CLL 1.78 275 i(Pg) 39 22.80 0.0
KTH 1.74 218 i PC 12 52i7l -0.5 i Sg 39 48. CO
eS 13 17i37 KHC 2.50 216 Pn 39 33.00 -0.3
THY 1.96 140 eP 12 57,07 0.7 Pg 39 40.00
HUR 2.03 194 eP 12 58,29 0.9 Sn 40 09.50
eS 13 24, 43 Sg 40 19 .00
FYU 2.13 38 ePd 12 58.80 0.1 MOX 2.71 260 ePg 39 42.50 6.2X
eS 1325.19 eSg 40 21 . 50
PAX 2.40 144 ePd 13 02.90 0.2 S.D. = 0.4 on 4 of 5 obs.
eS 13 31.47

I MA 2.42 300 eP 13 03.20 0.1 AUG 18, 1991 19h 59m 25 . 62± 0.53s
CUT 2.66 198 ePc 13 06^65 0.4 41.973 N ± 2.3km 125.480 W ± 6.1km
SDG 2.77 150 eP 13 08i.l4 0.4 DEPTH - 10.0Um (g eo ph y s i c i s t)
TOA 3.04 159 eP 13 12.76 1.0 4.5mb (11 obs.) 4.1Msz (1 obs.)
GHO 3.19 183 ePc 13 13.79 0.0 OFF COAST OF NORTHERN CALIFORNIA(34)
eS 13 50.70 ML 3.7 (BRK). Felt (III) ot
SKT 3.26 206 ePc 13 14.78 0.0 My r t I e- Po i n t , Pistol River ond
eS 13 52.34 Sixes, Oregon.
PWA 3.36 191 eP 13 16.70 0.5
PMR 3.37 185 eP 13 22.70 6.3 FHC 1.62 136 Pd 59 53.68 -0.7
KNK 3.54 179 eP 13 21.12 2.3 00 14.69
SUA 3.63 197 eP 13 20.30 0.1 00 31.50
KLU 3.66 160 eP 13 21.98 1.5 WDC 2.62 121 PC 00 09.47 0.8
PMS 3.74 188 eP 13 22.05 0.4 S 00 41.50
TTA 3.87 242 eP 13 22.00 -1.5 LBFM 2.76 102 eP 00 12.10 1.2
NCG 3.91 206 eP 13 23.94 -0.2 HBO 2.98 50 P 00 14.15 0.2
CGLM 3.97 205 eP 13 24.38 -0.6 S 00 52.48
BGL 4.09 207 eP 13 26.90 0.3 LTCM 3.09 124 eP 00 16.00 0.7
SPU 4.10 205 eP 13 26.37 -0.4 MIN 3.35 118 i PC 00 20.97 1.8
CKL 4.14 206 eP 13 27.52 0.2 ORV 3.87 127 i PC 00 27.30 0.9
FID 4.31 166 eP 13 30.31 0.6 KMOR 3.93 21 P 00 26.59 -0.8
SVW 5.02 223 «P 13 51.20 11.4 S 01 10.71
34 obs. ossocioted GT2 3.94 35 P 00 28.09 0.6
S 01 14.15

AUG 18, 1991 17h 47m 23.02± 1.43s GMO 4.12 52 P 00 29.80 -0.4
33.271 S ± 6.5km 71.199 W ± 7.8km PGO 4.12 31 P 00 31.03 1.1
DEPTH - 51.8 ± 18.4 km VBEM 4.19 41 P 00 30.57 -0.5
NEAR COAST OF CENTRAL CHILE (135) TDH 4.26 38 P 00 31.87 -0.3
S 0123.31
ROCH 0.34 28 PC 47 33.10 0.1 V LMM 4.35 34 P 00 33.43 0.1
S 47 41 .60 S 0123.20
LCCH 0.37 237 P 47 33.00 0.0 NLO 4.37 19 P 00 34.06 0.5
TACH 0.44 150 PC 47 33.90 0.1 S 01 21.97
IHA 0.44 303 PC 47 33.90 0.1 CROR 4.44 46 P 00 34.43 -0.2
S 47 42.20 VLL 4.45 37 P 00 34.87 0.2
PEL 0.45 74 PC 47 34.30 0.3 RVW 4.62 24 P 00 37.51 0.5
SAN 0.49 112 PC 47 34.20 -0.1 LVP 4.65 27 P 00 37.15 -0.5

S 47 43|.00 APM 4.66 35 P 00 39.32 1.6
PCH 0.67 122 PC 47 36.70 0.0 MTMW 4.69 29 P 00 37.32 -0.8
S 47 47.00 S 01 30.24
JACH 0.78 41 PC 47 37.20 -0.9 BMW 4.78 19 P 00 38.71 -0.8
CHCH 0.80 146 PC 47 38.20 -0.2 S 01 32.49
S 47 56.50 BRK 4.78 148 eP 00 37.50 -1.9
MDZ 2.01 80 eP 48 03.40 8.2X BKS 4.79 148 i PC 00 38.00 -1.5
IS 48 30.50 BKS 4.79 148 IP 00 38.40 -1.1
RTLL 3.01 51 ePc 48 10.00 0.5 eS 01 31.80

(S) 48 56 . 80 e 01 59.60
S.D. «= 0.5 on 10 of 11 obs. eLO 03 11.00
VTHM 4.80 46 P 00 39.41 -0.3
? AUG 18. 1991 19h 1 2m 3 .53± 3.63s S 01 34.86
22.907 N ±30- 3km 121.442 E ±29. 5km J LK 4.81 29 P 00 39.82 -0.1
DEPTH - 33.0km (normol) SHW 4.82 28 P 00 40.95 0.9
TAIWAN REGION (243) CDFW 4.82 30 P 00 39.50 -0.5
S 0133.71
TWG 0.35 256 i Pd 12 4J.00 0.0 HSR 4.82 28 P 00 40.13 0.0
eS 12 51.50 ESD 4.86 28 P 00 41.38 0.8
TWK 0.95 292 iPd 12 So. 20 -0.4 STO 4.87 28 P 00 40.68 0.0

eS 13 03-00 ,ERK 4.89 26 P 00 40.28 -0.7
TWC 1.73 12 eP 13 84.20 -0.6 VGB 4.91 42 P 00 40.77 -0.5
HKC 6.74 266 eP 14 16.00 0.2 S 01 37.82
SSE 8.16 358 ePn 14 36.30 0.7 C2M 4.95 25 P 00 41.88 0.2
2 12s 0.50um TDL 4.97 27 P 00 42.10 0.0
eSn 16 3i . 50 S 0136.78
S.D. «= 0.7 on 5 of 5 obs. ASR 5.03 33 P 00 42.49 -0.5
.. __________ s 01 41.79

? AUG 18, 1991 19h 38m 5' . 88± 6.80s PCC 5.06 151 eP 00 41.70 -1.7
51.175 N ±32. 0km 15.81!> E ±48. 0km KOSW 5.07 27 P 00 43.69 0.2
DEPTH - 10.0km (geophy !i i c i s t) GL2 5.21 39 P 00 44.84 -0.7
POLAND (548) LMW 5-22 25 P 00 46.35 0.7
CPW 5.27 18 P 00 46. 19 -0.2

BRG 1.22 256 iPg 39 14.60 0.0 S 01 43.67
iSg 39 33.90 GLK 5.37 30 P 00 47.67 -0.1
PRU 1.44 215 ePn 39 18.30 0.3 JBO 5.37 48 P 00 47.84 0.0
ePg 39 20.00 LON 5.45 28 P 00 48.57 -0.4
e 39 24.10 OBH 5.48 12 P 00 48.23 -1.0

181

18d 20h

MHC
WPW
ARN
CMS
SMW

GHW
RVC
FMW
OOW
GSM

GMW

MXC
HOW

BRVW
EBG
RMW
RSW
MOW
TBM
WG3
BLN
Wt W
KVN
MJ2
BLH
WAH2
JCW

ETW
CMW
WTV
RPW

MBW
TNP

ISA
PNT

CLC
SBB
LRM
DAU
BW06

PV09
SES

GOL

GLO

RSSD

ANMO
ALO

FFC

YKA

MEO
TUL

PMR

FBA

FVM

OLY
JSC
NB2

S 01 46 . 85
5 . 49 1 46 eP 00 48 . 20 -1.4
5.50 30 P 0048.77 -0.9
5 . 53 1 45 eP 00 48 . 60 -1.4

5.55 133 e(P) 00 50.80 0.5
5 .56 15 P 00 49 . 40 -1.0
S 01 50.46
5.56 23 P 00 50 . 74 0.3
5.57 26 P 09 50 . 98 0.4
5.66 27 P 00 51 . 94 0.0
5.84 9 P 00 54 . 36 0.1
5.85 25 P 00 54 . 52 -0.1
S 01 59 . 33
5.89 1 8 P 00 54 . 60 -0.5
S 01 57 .76
5. 92 37 P 90 55.30 -0.1
5.93 16 P 00 55. 19 -0.4
S 01 58.66
5.99 39 P 00 56 . 28 -0.2
6 . 06 34 P 00 57 . 66 0.2
6.08 24 P 0058.12 0.4
6.12 42 P 00 58 . 09 -0.2
6.19 40 P 0059.94 0.7
6.26 32 P 01 00 . 50 0.2
6.26 47 P 00 59 . 79 -0.5
6.29 1 6 P 01 00 . 95 0.3
6. 30 43 P 00 59 . 64 -1.1
6 . 34 1 1 5 eP 01 02 . 00 0.5
6.35 42 P 01 00 . 69 -0.8
6.35 21 P 01 01 . 66 0.1
6.39 40P 0102.49 0.4
6.71 21 P 01 05 . 48 -1.1
S 02 18.81
6.72 31 P 01 06 . 20 -0.6
6.87 19P 0110.11 1.2
6.94 33 P 0109.34 -0.5
7.05 22 P 01 1 0 . 65 -0.8
S 02 26.27
7.26 19P 0114.41 0.0
7.43 119 ePn 01 16.50 -0.5

Pg 01 45.00
8 . 34 1 37 eP 01 32 . 00 2.5
8.41 27 P 01 31. 00 0.6
0.6s 4 . 40nm 4 . 9mb X
8.69 132 eP 01 57 .00 22 . 7X
9. 43 138 eP 01 43.00 -1.6
10.16 63 ePd 01 54 . 80 0.0
10.83 94 eP 02 05 . 00 0.9
11.81 81 ePc 02 1 6 . 80 -0.5
1.3s 1 8 . 03nm 5 . 2mb X
e 0242. 50
e 03 05.00
12 . 96 1 00 eP 02 34 . 30 1.5
13 . 06 45 eP 02 32 . 00 -1.8
pP 02 46.00
15.39 92 ePc 03 03.50 -1.1
0.8s ll.16nm 4. 2mb
15.49 91 ePc 03 05.40 -0.4
6 . 7s 53 . 33nm 4 . 9mb
15.82 75 eP 03 07.00 -3.2X
1.2s 23.69nm 4. 3mb
16 . 45 1 09 ePc 03 1 9 . 20 1.0
16.45 109 ePc 03 18.70 0.4
1.5s 27.78nm 4. 2mb
20.05 42 eP 04 01.00 -0.4
1.1s I21.00nm 5. 1mb
21.55 1 4 eP 04 1 6 . 60 -0.2
1.0s 1 6 . 30nm 4 . 4mb
22.21 100 i Pd 04 25.60 1.8
23 . 80 95 eP 04 41 . 60 2.4
1.6s 40 . 20nm 4 . 7mb
Z 20s 0 . 68um 4 . 1 Msr
N 1 8s 0 . 83um
E 20s 0 . 43um
e 04 46.70
eS 09 31 . 00
LR 1 2 21 . 00
24.24 332 ePd 04 45.30 2.1
1.0s 20 . 00nm 4 . 7mb
26.25 339 eP 05 04.50 2.2
1.0s 5 . 75nm 4 . 2mb
27.04 87 ePc 05 10 . 50 0.7
1.0s 25 . 00nm 4 . 9mb
27.18 92 eP 05 1 1 . 50 0.4
35.31 88 eP 06 22.60 -0.1
71.46 21 P 10 47 .80 -0.1
1.0s 2 . 1 0nm 4 . 2mb

BRG 80.99 25 e(P) 11 53.80 12. 2X S.D. - 0.9 on 101 of 104 obs.

& AUG 18, 1991 20h 05m 46.59s
63 . 083 N 149. 259 W
DEPTH = 74.3km
CENTRAL ALASKA (1)
<AE 1 C> .

HUR 0.20 239 i Pd 05 57.82 -0.1
eS 06 06 . 4 1
RND 0.37 29 i Pd 05 58.88 -0.1
eS 06 08. 31
TRF 0.59 399 i Pd 06 01.17 0.1
eS 06 13. 40
MCK 0.67 12 iPd 06 01.70 0.0
eS 06 13.28
CUT 0.82 215 iPd 06 03.13 -0.3
eS 06 14.66
KTH 0.89 303 iPd 06 04.26 0.0
eS 06 17.95
BWN 1.10 355 iPd 06 06.42 -0.4
GHO 1.33 173 ePc 06 09.20 -0.7
eS 06 28.54
PWA 1.47 192 eP 06 11.60 0.0
WRH 1.49 20 ePc 06 11.08 -0.8
PLRM 1.50 178 ePc 06 11.60 -0.4
PMR 1.50 178 eP 06 11.70 -0.3
NEA 1.50 3 ePd 06 11.22 -0.9
eS 06 29 . 30
SKT 1.53 225 iPd 06 11.76 -0.7
eS 06 31 . 14
THY 1 .62 77 eP 06 15 . 04 1.3
CCB 1.70 22 ePd 06 13.73 -1.0
KNK 1 .72 167 eP 06 15 . 23 0.2
PAX 1.73 92 ePc 06 15.11 -0.2
eS 06 37 . 81
TOA 1.73 123 iPc 06 16.20 0.9
SUA 1.77 204 ePc 06 16.24 0.4
SDG 1.80 106 ePd 06 16.33 0.2
eS 06 38. 09
PMS 1 .85 185 eP 06 17 .06 0.2
FBA 1 .94 19 eP 06 17 .50 -0.5
1.0s 5 . 75nm
MOM 1.94 13 eP 06 15.32 -2.8
TZL 2.06 119 eP 06 19.21 -0.5
NCG 2.16 220 eP 06 20.70 -0.6
KLU 2.23 134 ePc 06 21.47 -0.7
SPU 2.32 216 eP 06 23.10 -0.2
BGL 2.34 220 eP 06 24.42 0.7
CKL 2.38 219 eP 06 24 . 71 0.4
VLZ 2.39 144 eP 06 22.87 -1.4
VZW 2.40 147 eP 06 23.41 -1.0
GLI 2.44 154 eP 06 23.82 -1.1
SLKM 2.62 190 eP 06 28.07 0.5
FID 2.69 149 eP 06 27.36 -1.0
KNIM 2.84 165 eP 06 30.30 -0.2
TMW 2.85 82 eP 06 29.58 -1.1
ROT 2.93 212 eP 06 32.33 0.5
GLB 3.03 120 ePd 06 32.42 -0.9
RDM 3.07 214 eP 06 34.10 0.3
NCT 3.07 216 eP 06 34.65 0.8
REF 3.07 214 eP 06 34.84 0.9
TTA 3.08 270 ePd 06 33.10 -0.9
ROW 3.11 214 eP 06 35.47 1.0
RSO 3.11 214 eP 06 35.64 1.1
IMA 3.55 330 ePc 06 40.10 -0.5
SVW 3.59 239 eP 06 40.00 -1.0
HMT 3.64 137 eP 06 40.06 -1.7
CNPM 3.69 196 eP 06 42.45 0.0
TGL 3.83 125 eP 06 42.78 -1.7
WAX 4.03 128 eP 06 45.91 -1.3
51 obs. ossocioted

AUG 18, 1991 21h 52m 06 . 00± 0.20s 31.939 S ± 3.4km 71.483 W ± 5.5km DEPTH « 45.7km (16 depth phoses) 5.4mb (45 obs.) 4.9Msz (6 obs.)
NEAR COAST OF CENTRAL CHILE (135)
Felt (IV) in the epi cen t ro I
area.

CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B. : 15S. 29C
Cen t ro i d Lacatian:
Origin Time 21:52:13.9 0.5
Lot 31.95S 0.07 Lon 71.90W 0.11

JACH

1 HA

ROCH
PEL
LCCH
SAN

TACH
PCH
CHCH
MDZ

RTLL
ANT
SLA

LPA

CNCB
ARE
LPB

1 TBl
SI V
NNA

PPD

VAO

BMA

BAD
Al A
SOB1

SNA

NVL

JSC

BLA

MEO
TUL

FVM

TBR

LtC

TUH

TIC
KIC

Dep 46.3 7.2 Half-duration 2.0
Moment Tensor; Scale 10*«16 Nm
Mrr- 2.80 0.40 M t t «= 0.81 0.60
Mff 3.61 0.80 Mrt=-0.99 0.43
Mrf 7.31 0.96 Mtf= 1.72 0.37
Principal Axes:
T Vol- 8.92 Plg«54 Azm-114
N 9. 46 15 3
P -8.47 32 263

Best Double Coup 1 e : Mo«8 . 2» 1 0 * * 1 6 NP1 : S t r i ke=3l 2 Dip=18 S 1 i p= 37
NP2: 186 79 105

1 . 06 135 iPc 52 27 .00 2.3
iS 52 39 . 50
1 .09 187 iPc 52 25. 30 0.2
i(S) 52 35.80
1 . 10 159 iPc 52 26.50 1.0
1 . 38 151 iPc 52 30.70 1.5
1 .53 183 iPc 52 31 .50 0.2
1 .66 156 iPc 52 34.50 1.3
iS 52 52.00
1 . 77 165 iPc 52 35.00 0.3
1 . 87 1 54 i PC 5236.70 0.6
2.11 161 iPc 52 40.00 0.5
2 . 42 1 1 4 i P 52 52 . 80 8 . 8X
iS 53 09. 10
i 53 28.30
2.64 78 ePc 52 52.00 4.8X
8. 26 7 eP 54 01 .80 -4 . 2X
8.91 38 i PC 5414.00 -1.2
S 5435.00
11.70 108 eP- 54 52.09 -1.1
0.9s 215 . !3nm 6 . 2mb
eS 57 15.00
15.39 13 i PC 5545.10 2.8
15.41 360 eP 55 45 .00 2.8
15.64 12 P 55 46 . 00 0.6
1.0s 140. 00nm 5.1mb
LR 00 56.00

16.71 69 e(P) 56 02.00 3.7X
18.49 33 P 56 18.00 -2.6
20.46 345 iP 56 43.00 0.5
1.3s 1 44 . 23nm 5 . 2mb
20. 48 66 eP 56 41 .90 -0.6
e 5645.10 1 2kmX
23. 46 74 eP 57 12 . 40 0.1
e 57 1 6 . 50 15kmX
e 5730. 30
e 57 52.30
25.91 76 eP 57 35.00 -0.6
e 57 38.30 12kmX
26.84 58 ePd 57 44.00 -0.3
33.63 175 e(P) 58 40.00 -3.9X
36. 27 58 eP 59 06 .80 -0.2
e 59 25.80 78kmX
i 0131.70
53.29 157 iPc 01 21 .00 -1.0
0.9s 176.47nm 6.1mb
58. 03 157 P 01 55.00 -1.2
e 02 60.00 l6kmX
e 0209. 00
e 02 15.00
e 02 24. 00
e 02 35.00
66. 50 351 P 02 52.00 -1.0

pP 03 05 . 00 45km
69. 30 352 P 03 09 .80 -0.6

pP 0322.70 44 km
71 . 09 337 iPd 03 21 .20 -0.2
71 . 24 339 iPd 03 21 .90 -0.4
1.0s 19.70nm 5. 0mb
Z 22s 0.09um 4.0Msz
LR 37 37.00
71.77 344 P 03 24 .50 -0.9
1.0s 50 . 00nm 5 . 4mb
pP 03 37.00 43km
72 . 76 358 P 03 31 .50 0.4

pP 03 45.00 47km
73.68 72 PC 03 36.94 -0.2
0.8s 99 . 00nm 5 . 8mb
Z 22s 0.50um 4.8Msz
73. 75 1 19 iPd 03 37 .50 0.2
1.0s 80.00nm 5.6mb
73.93 71 P 03 38.62 0.0
73. 99 72 PC 03 38.92 0.0
0.8s 213. 50nm 6 . 1mb

18d

MAW

22h

75. 02
1 . 0s
BNH

POP

76 .

76 .

16

21
1 . 0s
GLA
BAR
W 1 N

76 .
77 .
77 .

50
15
27
1 . 5s
GLD 77 . 89
1 . 0s

GOL 77 . 90

1 . 05.

TPC
RVR

MWC
GSC

SBB
HVD

CLC

FRS

77 .
78.

79 .
79 .

79 .
79 .
6 4
80 .

80 -

95
54

07
27

31
77
3

08

08
0.7s
K IM 80. 18
1 . 9s
SYP
ISA

RSSD

80.
80 .
81 .

32
40
32
0. 8s

TNP

CSV

81 .
1 .0<

82.

67
s

08
0 . 7s

BW06

PRS

CMB
ORV
LRM

WDC
JOZ
SCH

82 .
1 . 1

82.
83 .
84 .
85 .

86 .
86 .
86 .

15
s

43
21
93
84

22
32
49
1 . 3s
BUL 87 . 70
1 .0s
SES

NEW

FFC

89.

89 .

90.

1 4

68

22
1 .0s
KR 1
PNT

MTD
BTH
EPF

90.
91 .
0 .8
91 .
99.
99.

30
53
s
90
13
41
0.7s
LFF 1 00 . 73
0 . 6s
LPO

MFF

P 1 F
r\ %l r

LPF

CAF

GRR

tSF

FLN

100. 85
0 .6s
101,17
0 . frs

1 0 1 u '"

1 . 1
Z 22
101 .
1 .0
101 .

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102 . 0 . 9

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93
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21
s

164 iPc 03 43
86,00 nm
0 P 03 50

pP 04 05
1 16 iPc 03 52
7 0 . 00nm
324 eP 04 08
322 eP 0411
109 iPc 03 57
1 38 . 89nm
334 P 04 01
60 . 00nm
pP 0414
334 P 04 01
1 7 . 50nm
pP 0414
323 eP 04 16
323 eP 04 03
e 04 18
322 eP 04 23
324 eP 04 10
e 04 23
323 eP 04 09
120 i Pd 0422
1 1 0 . 1 7nm
324 eP 04 14
e 04 26
1 19 iPc 0411
1 7 4 . 66nm
1 1 8 i Pd 0412
394 . 74nm
321 eP 04 28
323 eP 04 13
337 P 04 19
1 8 . 03nm
pP 04 32
325 P 04 21
27 . 50nm
pP 04 35
181 eP 04 27
23 . 20nm
333 P 04 23
1 0 . 9 1 nm

pP 04 36
321 eP 04 29
323 eP 04 30
324 eP 04 38
333 eP 04 42
e 04 57
324 eP 04 42

1 20 e(P) 0442
3 ePc 04 44
1 20 . 00nm
1 1 2 i P 0447
35 . 50nm
336 ePc 04 57
pP 05 11
331 P 04 59

pP 05 13
343 eP 05 01
21 . 00nm
1 10 i Pd 0455
331 eP 05 09
1 1 . 00nm
111 iPd 05 12
45 iPd 05 44
45 eP 05 45
4 . 40nm
44 ePd i f f 05 51
9 . 00nm
44 ePd i f f 05 51
5 . 40nm
42 ePdi f f05 53
6 . 60nm
44 ePd i f f 05 53
1 2 . 20nm
0 . 63um
40 ePd i f f 05 53
8 . 00nm
44 ePdi f f 05 54
6 . 05nm
40 ePdi f f05 55
7 . 70r>m
43 ePd i f f 05 56
8 . 20nm
40 ePd i f f 65 57
9 . 85nm

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182

- 0.2
7mb
0 . 1
50 km
0.6
6mb
1 5 . 1 X
1 4 . 5X
- 0 2
8mb
1 . 1
6mb
45km
0 2
Omb
46km
15. 1X
- 1 . 1
53km
15. 8X
1 . 8
44km
0 .6
1 1 . 5X

1 . 6
40km
- 0 . 8
1mb
- 0.9
0mb
1 4 . 1 X
- 1 . 2
0 .2
1mb
46km
0.7
2mb
46km
5 . 1X
3mb
- 0 . 4
8mb
46km
4 . 3X
2.2
1 .6
0 .9
48km
- 1.4
- 2 . 2
0 .0
0mb
- 3 . 9X
6mb
- 0.3
46km
- 0.3
44km
- 1.4
4mb
- 8 . 4X
0 . 4
3mb

1 .0

0 .8
0.9
1mb
0 . 4
5mb
0 . 2
3mb
0 . 4
4mb
0 .0
4mb

1MSZ

- 0 . 1
3mb
0 . 4
3mb
- 0 . 1
4mb
0. 3
4mb
0 . 1
5mb

Z 22s 0.38um 4.9Msz VZW 0.45 23 iPd 10 47.29 -0.7
LDF 102.31 40 ePdiff05 57.70 0.0 eS 10 54.46
0.8s 8 05nm 5.4mb KNIM 0.51 234 iPc 10 48.06 -0.8
TCF 102.34 43 ePdiff05 58.10 0.2 eS 10 55.76
0.7s 2 75nm 5.0mb VLZ 0.56 30 iPc 10 48.89 -0.9
MAF 102.51 43 ePdiff05 59 . 0'0 0.4 eS 10 57.09
0.9s 4.90nm 5.2mb CVA 0.58 99 iPc 10 49.01 -1.1
BGF 102.86 43 ePdiff06 00.60 0.5 eS 10 57.96
0.bs 6 05nm 5.4mb MTU 0.76 210 iPc 10 52.10 -1.0
AVF 103.28 43 ePdiff06 02.20 0.2 LTI 0.77 218 iPc 10 52.13 -1.2
0.8s 3.35nm 5.1mb eS 11 03.01
SMF 103.48 43 ePdiff06 03.40 0.5 SGAM 0.85 99 iPc 10 53.24 -1.5
1.0s 14.00nm 5.7mb eS 11 05.36
SSF 103.51 43ePdiff&603.20 0.2 KLU 0.98 29 iPc 1055.41 -1.5
0.7s 3.85r»m 5.3mb eS 11 08.37
LBF U0.74 43 ePdiff06 04.30 0.2 KNK 1.08 316 iPc 10 57.81 -0.8
1.1s 7.35nm 5.4mb eS 11 12.53
LOR 103.83 43 ePdiff06 04. S0 0.0 RAGM 1.14 102 eP 10 57.53 -2.0
0.7s 4.40nm 5.4mb HMT 1.35 102 eP 11 01.03 -1.5
2 20s 0.35um 4.9Msz SEW 1.37 248 ePc 11 01.12 -1.7
LPL 104.61 45 ePdiff06 09.70 1.4 eS 11 18.66
1.1s 11.00nm 5.7mb PMS 1.43 296 i PC 11 03.10 -0.5
LPG 104.61 45 ePdiff06 09.70 1.3 eS 11 22.12
0.9s 6.55nm 5.5mb KAIM 1.44 119 eP 11 02.35 -1.4
BSF 105.82 43 ePdiff06 13.50 0.1 PLRM 1.44 312 ePc 11 03.21 -0.5
KHC 110.42 44 ePKP 10 33.50 -1.0 GHO 1.49 320 ePc 11 04.26 -0.3
e 1116.30 eS 1124.02
CLL 111.01 42 ePKP 10 36.8> 0.5 TOA 1.51 13 eP 11 04.48 -0.3
MBC 112.00 349 ePKP 10 36. $0 -0.2 TZL 1.58 26 eP 11 05.37 -0.4
1.0s 12.00nm SLKM 1.64 267 ePc 11 05.49 -1.2

PWA 112.39 330 ePKP 10 27. (.0 -18. 2X GLB 1.71 61 iPc 11 05.93 -1.8
SKO 112.52 54 ePKP 10 27.ei0 -11. 2X eS 11 26.85
e 10 37. :0 PWA 1.76 306 eP 11 08.44 0.1
FBA 112.97 333 PKP 10 37.;.0 -1.5 SDG 2.00 18 eP 11 10.97 -0.9
IMA 115.69 333 ePKPc 10 44. V0 0.4 TGL 2.01 85 eP 11 09.50 -2.6
0.9s 8.40nm WAX 2.01 94 eP 11 09.47 -2.7
MLR 116.84 51 ePKP 10 47. <I0 -0.1 SUA 2.04 295 eP 11 11.61 -0.9
VRI 117.48 51 ePKP 10 46. $0 -1.6 SNH 2.07 101 eP 11 12.73 -0.3
ASPA 119.61 207 iPKPc 10 50. $0 -2.1 NKA 2.13 275 eP 11 14.60 0.8
0.5s 8.40nm NNL 2. 26 256 eP 1114. 52 -1.1

NUR 120.16 35 ePKP 10 51.7,0 -1.0 BALM 2.27 78 iPc 11 13.30 -2.6
0.5s 6.50nm PAX 2.43 16 eP 11 17.86 -0.3
KAF 121.25 33 iPKP 10 53.^0 -0.8 CNPM 2.44 244 eP 11 16.17 -2.0
0.6s 14.80nm SPU 2.57 284 eP 11 18.35 -1.7
SOD 122.13 27 iPKP 10.56.^0 -0.2 SKT 2.60 303 eP 11 18.76 -1.7
WRA 122.78 209 PKP 10 57.00 -1.9 NCG 2.66 289 eP 11 19.72 -1.8
0.6s 19.50nm RDT 2.71 271 eP 11 19.63 -2.5
OBN 125.63 42 iPKPd 11 03.00 -0.4 38 obs. associated
1.1s *»» »»* nm - _______ _ __
Z 20s 0.50um 5.2Msz & AUG 18, 1991 22h 22m 18.60s
MAIO 139.52 70 iPKPc 11 20.00 -10. 4X 40.310 N 124.348 W
e 1410.60 DEPTH « 1 1 . 0 km
DUE 144.50 82 ePKP 11 38.70 -0.8 NEAR COAST OF NORTHERN CALIF. (35)
0.1s 4666. 67nm <BRK>. ML 3.1 (BRK). MD 3.5
GBA 146.20 116 PKPc 11 42.30 -0.1 (GM).
0.8s 47 . 40nm
YAK 146.94 342 ePKP 11 40.70 -1.5 FOX 0.34 52 iPd 22 26.11 0.4
i 11 57.00 FHC 0.56 29 i PC 22 30.31 0.3
e 1206.30 ' eS 2239.04
e 15 08. J0 WDC 1.41 78 iPc 22 42.16 -2.0
HYB 149.30 111 ePKP 11 47.30 -0.1 IS 22 58.30
1.0s 170.00nm LTCM 1.70 93 eP 22 46.80 -1.6
i 11 51.20 WIN 2.10 88 iPd 22 52.09 -2.2
KGM 149.84 170 ePKP 11 42.30 -6.3X IS 23 17.70
MAT 155.08 289 ePKP 11 54.30 -1.1 LBFM 2.13 60 eP 22 53.70 -1.1
1.2s 14.06nm ORV 2.32 108 i PC 22 54.91 -2.4
CHG 164.34 144 ePKP 12 05.50 -0.3 ZSP 2.87 145 i PC 23 03.30 -1.8
e 12 59.30 BRK 2.93 146 e(P) 23 03.50 -2.4
BJ 1 169.81 325 ePKP 12 08.00 -1.2 PCC 3.20 151 iPc 23 07.00 -2.7
LZH 174.33 42 ePKP 12 12.90 0.5 ARN 3.68 142 eP 23 14.10 -2.6
1.8s 35.00nm 11 obs. associated

sP 12 34.90 AUG 18, 1991 23h 01m 44.40± 0.47s
S.D. = 1.0 on 104 Of 123 obs. 45.459 N ± 4.7km 20.978 E ± 4.8km
DEPTH - 10.0km (geophy s i c i s t)
& AUG 18. 1991 22h 10m 38.76s YUGOSLAVIA (383)
60.646 N 146.910 « ML 3.0 (VKA).
DEPTH = 20 . 6km
SOUTHERN ALASKA (2) TIM 0.33 32 iPc 01 51.50 0.4
<AEIC>. ML 2.5 (AElC). BEO 0.74 210 ePg 01 59.50 0.7
iSg 02 12. 30
FID 0.24 64 iPd 10 43.78 -0.8 SSR 0-80 137 iPd 02 00.00 0.0
eS 10 48.22 DEV 1.41 72 i Pd 02 09.00 -1.2
GLI 0.25 339 iPc 10 44.62 -0.1 UZD 2.02 305 ePn 02 25.50 6.7X
eS 10 49.28 TNR 2.32 84 ePd 02 24.00 0.7
HIM 0.32 141 iPc 10 45.26 -0.6 BUD 2.43 327 e(P) 02 25.00 0.2
iS 10 51.36 DRA 2.45 107 ePd 02 50.00 25. 0X

183

I8d 23h

PSZ 2.57 344 IP 02 26. 00 -0.8
BMR 2.81 37 iPd 02 40.00 9.8X
CMP 7.87 92 ePd 02 45.00 14. 0X
SRO 2.99 323 iPn 02 33.46 8.8
i 0310.20

i 0322.80
MLR 3.49 88 eP 0241.50 1.5
SKO 3.50 174 ePn 02 49.50 9.5X

SPC 3.76 353 e(Pn) 02 44.0fi 0.1
e 02 54.50

2ST 3.82 317 e(Pn) 02 44.00 -0.5
i 0251.40
i 0330. 40
VBY 4.02 273 ePn 03 08.10 20. 7X
eSn 64 00 . 60
Vft 1 4.05 82 eP 02 47.t30 -0.7
VKA 4.25 313 ePg 02 59.00 8.3X
iSg 03 42.20
VAY 4.30 164 ePn 02 50.30 -1.0
KHC 6.23 309 eP 03 18.50 -0.1
Pg 03 28.20
e 04 30.50

Sg 04 42.00
S.D. = 0.8 on 14 of 21 obs.

? AUG 18. 1991 23h 21m 03.91± 6.25s
18.571 N ±40. 8km 65.821 W ±38. 0km
DEPTH " 33.0km (normol)
PUERTO Rl CO REGION (90)

LPR 0 . 26 1 90 P 21 1 1 . 40 0.1
S 21 19 . 60
CPD 0.54 190 P 21 15.00 -0.1
SJG 0.55 214 i P 2115.10 -0.2
CLLP 0.87 236 P 21 20.20 0.5
APR 0.87 262 P 21 19.70 0.0
MGP 1.33 245 P 21 26.00 -0.3
S D . =0.4 on 6of 6obs.

AUG 19, 1991 00h 32m 59.78± 1.13s
42.438 N ±10. 3km 0.586 E ± 6.2km
DEPTH = 10.0km (geophysicist)
PYRENEES (378)
mbLg 2.9 (MOD). ML 2.7 (STR),
2.7 (LOG) .

ENSF 0.41 333 Pg 33 09.43 1.2
SALF 0.55 54 P 33 10.90 0.0
EPF 0.62 343 Pg 33 12.50 0.2
Sg 3318.70
EGRA 0.71 250 iPgd 33 13.60 -0.2
eSg 33 21 . 00
LESF 0.78 41 Pg 33 14.73 -0.3
GRBF 0.81 60 Pg 33 15.96 0.4
LSPF 1.10 62 Pg 3321.71 1.3
EROO 1.62 185 ePg 33 37.00 8.6X
eSg 34 01.20
ETER 1.69 94 ePg 33 35.20 5.8X
eSg 33 58.20
LPO 2.29 11 Pg 33 41.70 3 . 6X
Sg 3409.80
LFF 2.50 3 Pg 33 45.00 3.9X
Sg 3415.80
ETOR 2.56 232 eP 33 56.50 14. 5X
eS 34 30 . 00
CAF 2.71 23 Pn 33 42. 40 -1.8

Pg 33 50.30
Sg 34 19 . 30
RJF 2.94 13 Pg 33 54.00 6 . 6X
Sg 34 28.00
LSF 3.87 10 Pn 34 00.40 -0.2
TCF 4.02 16 Pn 34 02.10 -0.6
BGF 4.43 21 Pg 34 22.50 14. 0X

? AUG 19. 1991 00h 36m 05.45± 3.36s
18.141 N ±14. 7km 100.327 W ±35. 7km
DEPTH - 33.0l-m (normol)
GUERRERO. MEXICO (59)

III 0.85 74 eP 3621.30 0.1
iS 3636.00
ACX 1 . 34 160 i P 36 28.00 8.0
iS 36 41 . 60
UNM 1.61 42 (P) 36 32. 50 0.4
PPM 1.86 60 IP 36 35.00 -1.0
iS 37 10 .00

I I T 2.11 65 (P) 3639.30 0.0
(S) 37 15.00
I I SM 2.92 73 eP 36 51 . 20 0.5
S.D. = 0.7 on 6 of 6 obs.

» AUG 19. 1991 08h 46m 14.78± 1.13s
2.327 S ± 7.6km 79.267 W ±19. 5km
DEPTH = 105.4 ± 12.6 km
4 . 6mb (6 obs .)
NEAR COAST OF ECUADOR (105)
MD 4.6 (GUI).

TUNG 1.22 42 P 46 38.90 0.2
OU 1 L 1 . 60 1 2 P 46 43 . 40 0.0
eS 47 04 . 50
VC1 1.88 27 P 46 47 . 80 0.7
GGP 2. 24 17 P 46 52.20 0.4
S 47 22.00
OUR 2.26 19 eP 46 51.80 -0.2
S 4723. 20
YANA 2.30 18 i P+ 46 53.00 0.4
ANGL 2.58 42 P 46 53.00 -3.2
eS 4733.00
CAYA 2.71 28 P 46 59.10 1.0

NNA 9.89 166 eP 48 34.00 -1.7
0.6s 1 0 . 00nm 4 . 9mb
PT10 9.95 167 i(P) 48 37.00 0.6
LPB 17 . 89 143 P 50 21 . 00 2. IX
CNCB 18.17 143 P 50 23.00 0.6
SIV 22.48 128 P 51 06.80 0.5
TUL 41.05 339 eP 53 47.70 -1.7
0.6s 6 . 20nm 4 . 6mb
MEO 41.13 336 iPd 53 50.20 0.1
ALO 45.00 328 ePd 54 22.00 0.4
0.8s 1 1 . 57nm 4 . 7mb

1.0s 1 2 . 50nm 4 . 7mb
BW06 52.56 332 P 55 18.70 -1.2
TNP 53.34 323 P 55 25.30 -0.3
0.9s 4 . 30nm 4 . 5mb
SES 59.16 337 eP 56 06.00 -0.7
MBC 81.73 351 eP 58 22.50 0.1
0.9s 9 . 00nm 4 . 6mb
WRA 140.28 235 PKP 05 36.00 2.1
0.8s 1 . 1 0nm
GKN 150.19 30 PKP 05 56.08 5.7X
KKN 150.68 29 PKPd 05 57.28 6. IX
0.7s 34 . 00nm
DMN 150.75 29 PKPd 05 56.96 5 . 6X
0.7s 8 . 00nm
GUN 150.87 28 PKP 06 00.34 8.7X
PKI 150.93 29 PKPd 05 57.60 5.9X
0.9s 1 6 . 00nm
S.D. - 1.2 on 22 of 28 obs.

? AUG 19, 1991 01h 1 5m 32.58± 2.99s
11.023 N ±11. 9km 61.937 W ±48. 4km
DEPTH - 33.0km (normol)
WINDWARD ISLANDS (95)
MD 3 . 2 (TRN) .

TCE 0.37151 ip 15 40. 93 -0.4
eS 1 5 50. 39
TRN 0.64 125 eP 15 44.85 -0.4
eS 15 57 . 04
TPP 0.85 146 eP 15 48.72 0.6
eS 1603.21
GRW 1.16 13 eP 15 51.91 -0.7
eS 1609.61
SVB 2.33 17 eP 1610.22 0.8
eS 16 39.58
S.D. - 0.9 on 5 of 5 obs.

15.875 S ±16. 3km 75.165 W ± 1 3 . 2 km
DEPTH - 33.0km (normol)
4.8mb (4 obs.) 4.3Msz (2 obs.)
NEAR COAST OF PERU (115)

ARE 3.58 100 eP 42 06.00 -0.7
i S 42 53 . 80
PT10 4.16 335 IP 42 14.50 -0.2
e 42 16. 00

e(S) 43 20.50
NNA 4.19 337 IP 42 14.50 -0.7
0.7s 10 . 27nm

i 42 17 . 50
iS 43 15. 00
LPB 6.82 96 P 42 54. 00 1.4
1.0s 392 . 00nm 6 . 2mb X

CNCB 6.96 99 i PC 42 56.20 1.5
ANT 8.98 151 e(P) 43 03.50 -18. 8X
SIV 13.56 92 P 44 18.40 -6.0X
PSO 17.09 353 eP 45 13.00 2.6
BOG 20.39 3 eP 45 55.00 5.8X
IS 49 56 . 50
FUO 21.25 4 eP 46 02.00 4.0X
PPD 23.36 109 eP 46 17.10 -1.4
BAD 26.15 93 ePd 46 44.20 -1.0
VAO 27.49 109 eP 46 56.90 -0.5
TUL 55.08 340 ePd 50 41.70 -1.3
1.4s 37 . 70nm 5 . 2mb
Z 20S 0 . 1 0um 3 . 9Msz
LR 1110.00
ALO 58.63 330 eP 51 07.50 -0.9
0.9s 3 . 78nm 4 . 5mb
ANMO 58.63 330 P 51 07.30 -1.1
GOL 62.05 334 P 51 31.50 -0.4
TNP 66.61 325 P 52 04.00 2.5
K 1C 73.11 78 P 52 40. 20 -1.2
Z 20s 0 . 38um 4 . 7Msz
SES 73.13 337 eP 52 41.00 0.1
FFC 73.93 344 eP 52 45.00 -0.4
1.0s 11. 00nm 4 . 8mb
NVL 74.15 160 P 52 52.00 5 . 5X
e 53 00.00
SPA 74.23 180 eP 52 49.00 1.8
1.0s 10.00nm 4. 8mb
MAT 143.94 311 ePKP 00 43.00 -3.0X
1.0s 1 2 . 00nm
S.D. - 1.4 on 18 of 24 obs.

AUG 19. 1991 02h 46m 49.51± 1.08s

DEPTH - 10.0km (geophy s i c i s t)
3 . 7mb (2 obs .)
SOUTHERN GREECE (368)
MD 3. 7 (ATH) .

VLI 1.23 72 ePb 47 11.50 -0.9
VLS 1.95 339 ePn 47 26.00 3.0
ATH 2.41 47 ePb 47 33.50 3.9X
AGG 2.75 14 ePc 47 35.98 1.5
eS 48 10.80
IGT 3.30 344 ePd 47 43.28 1.0
eS 48 23.80
NPS 3.53 107 ePn 47 47.10 1.6
KEK 3.61 339 ePn 47 46.60 0.0
LIT 3.82 12 ePc 47 50.08 0.4
eS 48 36.40
K2N 3.95 3 ePn 47 52.40 0.8

PAIG 3.97 25 ePc 47 51.48 -0.2
FNA 4.42 359 ePd 47 58.48 0.2
eS 48 50.84
THE 4.43 15 ePd 47 58.52 0.3
OUR 4.43 26 ePd 47 56.88 -1.4
GRG 4.65 9 iPd 48 01.32 -0.2
SOI 4.66 293 P 48 00.60 -0.9
eSn 48 53.00
SOH 4.70 18 ePc 48 02.09 0.0
OHR 4.78 354 ePn 48 03.28 -8.1
LC 1 4.84 326 P 48 83.28 -8.9
eSn 48 55.20
KNT 4.93 13 ePc 48 05.28 -0.1
eS 49 02.44
VAY 5.03 9 ePn 48 06.40 -0.4
SRS 5.04 19 iPd 48 06.29 -0.6
ROI 5.04 311 P 48 06.40 -0.5

eSn 48 57.20
ATN 5.13 292 P 48 07.60 -0.6
eSn 49 03.10
TDS 5.23 311 P 48 09.90 0.3
eSn 49 05.80
CS 1 5 . 33 31 1 P 4812.30 1.2
OR 1 5.42 315 P 48 13.20 0.8
eSn 49 12.30
SKO 5.61 360 ePn 48 13.00 -2.0

iSg 49 15.00
BRT 5.62 325 P 48 14.30 -0.8
eSn 49 15.50
RDO 5.74 32 ePn 48 15.60 -1.2

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19d 02h

MGR 6.00 311 P 48 19.70 -0.7
eSn 49 23.80
SCO 6.41 313 P 48 26.50 0.3
MLR 9.73 19 eP 49 15.00 2.4
HFS 24.32 351 eP 52 05.00 -3.0
0.5s 1 . 30nm 3 . 8mb
2 17s 0 . 05um 3 . 0MszX
LR 6143.00
NB2 25.55 348 P 52 15.40 -4.4X
0.7s 0 . 8£ nm 3.5mb
S . D . - 1 . 2 on 33 o f 35 obs .

AUG 19, 1991 03h 23m 27.59± 0.62s
51.091 S ± 8 0tm 159.355 E ± 7.9km
DEPTH = 1ft. 0km (geophysicist)
& . Omb (4 obs .)
NORTH OF MACOUARIE ISLAND (165)

MCO 3.42 184 iPc 24 29.10 -1.9
0 . J s 576 . 40nm
eS 24 58. 10
MSZ 8.62 45 P 25 36 . 60 1.4
S

OT Ckft 1 ft £. 1 OO.lv
MMCZ 8.94 51 P 25 40.00 0.3
MHZ 8.97 52 P 25 39.60 -0.5
TAU 11.58 310 eP 26 19.00 -5.9X
eS 28 10.00
LT2 12.11 52 eP 26 21 .90 -2.0
THZ 13.18 50 P 26 36.30 -1.1
MNG 15. 32 53 P 27 96.30 0.9
TOO 16.72 319 i PC 27 22.90 -0.5
eS 3010.00
eTT 42 23.00
CNB 17.34 332 eP 27 32.90 0.8
eS 30 34.00
eTT 42 58.00
BFD 18.35 313 iPc 27 43.70 0.1
1.0s 1 41 . 00nm 5 . 1mb
COO 21.23 342 eP 28 17.00 1.2
DZM 29.49 13 iPc 29 34.20 0.2
ASPA 33.71 315 iPd 30 99.70 -1.3
0.8s 22 . 20nm 5 . 1mb
Z 22s 0.70um 4.3MS2X
WR2 36.78318iPd 30 35. 50 -1.6
1.9s 6.50nm 4. 4mb
SPA 39.10 180 iPd 30 58.50 2.1
1.1s 26 . 79nm 4 . 8mb
NVL 56.23 192 P 33 19.00 0.4
e 33 14.00
e 33 36.90
OBN 146.22 300 ePKP 43 99.90 1.5

e 43 14 . 00
e 43 30.90
MLR 148.92 278 ePKP 43 22.00 9 . 6X
SKO 150.01 269 ePKP 43 18.50 4.6X
S.D. «= 1.3 on 17 of 20 obs.

? AUG 19, 1991 03h 26m 29.47± 2.43s
36.967 N ±30. 5km 69.849 E ±19. 1km
DEPTH - 264.6 ± 50.2 km
HINDU KUSH REGION (718)

CUE 7.18 201 eP 28 04.50 0.1
eS 29 21 . 30
MAIO B.35 269 eP 28 19.90 0.0
eS 29 57.00
ND 1 10.32 141 eP 28 43.50 -0.3
0.5s 2 1 . 1 3nm 4. 5mb
GKN 15.33 121 P 29 45.88 0.2
0.4s 42 . 00nm 5 . 2mb
DMN 15.90 122 P 29 53.06 0.7
KKN 15.91 121 P 29 52 . 42 0.1
0.5s 79.00nm 5. 4mb
PKI 16. 14 121 P 2955.06 0.1
0.5s 33 . 00nm 5 . 0mb
GUN 1^.25 119 P 29 55.38 -0.8

S.Oj «= 0.6 on 8 of 8 obs.

AUG 19. 1991 03h 51m 36 . 1 3± 0.56s
41.096 N ± 5.0km 22.060 E ± 4.3km
DEPTH - 10.0km (geophy s i c i s t)
YUGOSLAVIA (383)
MLi 1 .8 (SKO) .
i
GRG 6.29 118 iPc 51 42.24 0.0
IS 51 46 . 40

VAY

FNA

KNT

THE

SKO

S OH

LI T

SRS

OUR

PAIG

S.D

AUG

0.45 60 t Pg
iSg
0 . 60 239 i Pd
eS
0.64 84 ePc
eS
0.83 124 i Pd
eS

0 . 99 332 ePg
iSg

1.02 105 i Pd
eS
1.05 162 ePc
eS
1.16 88 ePd
eS
1 . 65 117 ePc
eS
1.70 133 ePd
eS
. «= 0.4 on

51 45 .90

51 51 . }0
51 48. $9
51 56.28
51 48. 60
51 57 . 32
51 51 . 68
52 02.60
51 55 00
52 08.56
52 09.00
51 55 . 45
52 08.60
51 55. 68
52 10
51 57
52 13
52 06

!J6
!)2
12
16
52 28. 16
52 06.00
52 28.48
11 of 11

- 0.2

- 0. 1

- 0. 3

- 0 . 4

0 . 1

0 . 0

- 0. 2

0 . 1

1 . 0

0 . 0

obs .
-

19, 1991 04h 24m 48.77± 0.67s
40 . 322 N ± 2 . 4km
DEPTH
4 . 2mb

10.0km
(5 obs .)

126.404 W

(geo phy s i C i

± 7.1km
st)

OFF COAST OF NORTHERN CALIFORNIA(34) ML

FOX

FHC

WDC

LTCM
NWRM
LBFM
M I N

ORV

2SP
BRK
BKS

PCC
MHC

ARN
CMB
SAO
PRS
LLA
GT2
K MO R
GMO
PGO
VBEM
TDH
VLMM
CROR
PRI
NLO
VFP
VLL
FR I
LVP
MTMW
VTHM
BMW
FL2
CDFW
SHW
HSR
VGB
ERK
TDL
ASR
LMW
GLK
BCH
LON
PATW
FMW

3 . 7 (BRK) .

1 . 85 83 i PC

i 1.90 75 i PC
eS
2.96 84 i PC
i S
3.28 91 eP
3.30 123 eP
3.57 72 eP
3.67 88 iPc
i S
3 . 85 100 iPd
e
4 . 00 125 eP
4 . 05 126 eP
4 . 06 1 26 eP
e
e

4.22 131 i Pd
4.76 127 ePd
4.76 1 32 iPd
4,82 126 eP
5.20 114 i PC
5.26 131 i PC
5.61 134 i PC
5.66 129 i PC
5.71 31 P
5.72 21 Pd
5.76 43 ePc
5.90 28 P
5.92 35 PC
6.01 33 P
6.12 30 P
6.13 39 PC
6.15 131 iPd
6.15 20 P
6.17 34 P
6.20 32 P
6.21 120 i PC
6.44 26 P
6.47 27 P
6.49 40 P
6.57 20 P
6.57 25 P
6.61 27 P
6.61 26 P
6.61 26 P
6.63 37 PC
6.67 25 P
6.75 25 P
6.80 29 P
7.01 24 P
7.15 28 P
7.16 1 34 eP
7.24 26 P
7.38 39 PC
7.44 26 P

25 21 . J54-
25 44.75
25 21 .fe3
25 41 .60
25 36.50
26 09. 60
25 40.50
25 41 .90
25 45. 20
25 46 . 64
26 28.00
25 49.83
26 34.56
25 51
25 52
25 52
26 01
26 43
25 54
26 02
O C ft O
£. O O £.
O C ft O
£.*) O £.

26 ie
26 08
26 1 3

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60
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10

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1 4
50
83
81
89
26 14.70
26 15
26 16
26 16
26 19
26 18
26 20
26 21
26 21
26 22
26 22.
26 22
26 23
26 23
26 25
26 25
26 26
26 27
26 27
26 28
26 28
26 28
26 28
O 2 £ D OP/ B
26 30
26 31
26 34
26 36
26 34
26 37
26 38
26 39

96
ft 1 0 1
18
49
55
07
63
25
45
99
1 4
29
93
63
69
47
75
38
03
84
63
50
76
54
25
52
17
70
23
98
95

0. 7

- 0 . 4

- 0 . 2

- 0 . 7
- 0 . 5
- 0. 4
- 0 . 3

0.5

- 0. 3
0. 6
0 . 1

0. 1
0. 0
ft "? * v . £.
- 0. 7
2. 3
- 0 .6
- 0.5
- 0. 3
0. 3
0. 1
- 0.3
1 . 2
- 0 . 1
0 . 1

0. 2
- 0. 4
9.5
1 . 1
- 0.2
0. 7
1 . 3
- 0 . 4
- 0 .8
- 0 . 2
- 0 . 1

- 0. 6
- 0. 3
0. 4
0. 1
- 0.2
- 0.6
0. 1
0. 1
0. 5
0.2
- 1 .5
0. 1
- 0. 1
- 9.2

TNP
NAC
GSM
PRW
MXC
GMW
HDW
BRVW
EBG
RSW
RMW
MD W
WG3
W 1 W
TBM
GBL
MJ2
WAH2
LOCW
CRF
ET3
ETW
J C W
CMW
WT V
RPW
MBW
PNT

NEW

LRM
BW06
PV09
SES
GOL
ANMO
ALO

RSSD

FFC

FFC

MEO
TUL

S

AUG
85.

7 . 48 1 04 eP 2641.00 0.3
7.58 30 P 2642.00 0.0
7.64 24 P 2643.14 0.3
7 . 66 38 P 26 42 . 65 -0.4
7.67 33 P 26 43 . 27 0.1
7.68 19 Pd 26 43 . 35 0.1
7.71 1 7 P 26 43 .99 0.2
7.73 35 Pd 26 43 . 98 0.0
7.83 31 P 26 45 . 66 0.3
7.84 37 PC 26 45 06 -0.5
7.87 23 P 26 46 . 31 0.3
7 . 93 35 P 26 46 63 -0.1
7.93 42 P 26 46 . 1 6 -0.7
8.01 38 PC 26 47 . 43 -0.4
8.03 30 P 26 48. 78 0.5
8.05 37 oPc 26 47.99 -0.5
8.06 37 ePc 26 48.24 -0.4
8.13 35 Pd 26 49 . 48 0.0
8.15 36 P 26 49 . 73 -0.2
8.26 36 P 26 50 . 60 -0.7
8.28 39 P 26 50 . 87 -0.8
8.49 29 P 26 55. 01 0.2
8.56 2 1 Pd 2654.81 0.1

8.66 1 9 P 2657.50 0.4
8.71 30 P 26 57 . 74 0.0
8.84 22 P 26 59 . 45 -0.1
9.05 19P 2703.69 0.6
10.20 26 eP 27 18. 00 -0.2
0.6s 1 6 . 00nm 5 . 6mb X
10. 35 37 e(P) 27 20!00 -0.3
0.7s 16. 00nm 5 . 5mb X
e 27 40.00
11.59 57 eP 27 37 . 60 0.2

12.86 74 e(P) 27 56.60 -3.9X
13.48 92 eP 28 06. 30 3. 5X
14.74 42 eP 2819.00 9.0
16.13 85 eP 28 40 . 50 3. 1 X
16.68 102 ePd 28 48 5* 4.2X
16. 68 102 eP 28 48 50 4 . 2X
1.0s 4 . 75nm 3 . 6mb
16.99 70 e(P) 28 50. 00 1.9
1.3s 11. 40nm 3 . 8mb
21.75 40 i PC 29 41 . 80 -0.2
1.1s 22 . 00nm 4 . 5mb
21.75 40 eP 2948.00 6 . 0X
0.9s 35.00nm 4.8mb
22.69 95 iPd 29 55.60 4.0X
24.42 9 1 eP 3012.80 4 . 4X
1.0s 8.30nm 4. 3mb
. 0. -0.6 on 83 of 91 obs.

19, 1991 95h 03m 30.38± 0.33s
463 N ± 6.9km 14.456 E ± 7.9km
DEPTH - 19.0km (geophy s i c i s t) 5.0mb (12 obs.) 4.5Msz (1 obs.) NORTH

DAG

KEV
MBC

SOD
NB2

I NK
FBA
KRA
RSSD

BW06
BJ I

GOL
LZH

2
E

TNP

TUL
ANMO

ALO

OF SVALBARD (641)

9.81 228 iPd 06 02 . 30 8. 0X
1.3s 84.62nm 6. 0mb
15 .94 164 eP 07 15. 00 -0.8
17.32 325 eP 07 33 . 50 0.3
0.5s 1 8 . 90nm 4 . 5mb
18.33 165 eP 07 45.00 -0.7
24 . 56 1 84 P 0853.00 2.1
1.3s 1 2 . 80nm 4 . 4mb
25.81 333 «P 09 03.00 0.5
29.63 345 P 09 38. 30 1.0
35.59 174 eP 10 30. 20 0.9
48.38 302 eP 12 1 4.20 0.2
1.0s 12. 20nm 4 . 9mb
50.08 307 P 12 26.50 -0.6
51.22 75 eP 12 36. 09 0.6
1.5s 28.90nm 5.0mb
52.87 303 e(P) 12 48.00 -0.3
54 . 18 87 eP 12 58 . 00 0.2
1.5s 40 . 00nm 5 . 2mb
20s 0 . 39um 4 . 5Msz
15s 0 . 40um

pP 13 05.00 23kmX
sP 13 09.00
55.22 314 ePc 13 05.30 -0.1
0.7s 2.56nm 4. 4mb
55.97 293 e(P) 13 15.50 4.9X
57 .67 303 eP 1322.10 -0.9
1.3s 1 4 . 42nm 4 . 8mb
57.67 393 eP 13 22.00 -1.0
1.3s 1 2 . 50nm 4 . 8mb

185

19d 05h

GKN 60.70 107 pa 13 43.53 -0.3
GUN 60.88 106 Pd 13 44.90 -0.5
KKN 60.96 107 Pd 13 45.70 -0.1
07s 87.00nm 6. 0mb
OMN 61.12 107 Pd 13 46.78 -0.2
6 . 9s 28 . 00nm 5 . 4mb
PK 1 61.18 167 Pd 13 47.10 -0.3
0.8s 25 . 00nm 5 . 4mb
S . D . = 0. 8 on 20 of 22 obs .

AUG 19, 1991 05h 21m 21.86± 1.49s
22.737 N ± 6.6km 142.873 E ± 9.3km DEPTH « 108. 7 ± 13 .8 km
5 . 1mb (18 obs .)
VOLCANO ISLANDS REGION (213)

GUA 9.35 168 eP 23 38.10 2.8
1.0s 224 . 00nm 5 . 9mb
KAKJ 13.63 351 eP 24 30.00 -1.6
«S 26 51 . 40
CHJJ 13.69 347 P 24 30.20 -2.3
S 26 54.80
MAT 14.34 345 eP 24 41.00 0.1
0.7s 1 9 . 1 8nm 4. 5mb
eS 27 10.00
KUMJ 14.45 315 P 24 48.20 5.8X
MTMJ 14 48 343 eP 24 42.70 -0.1
NIIJ 14.84 348 eP 24 45.30 -1.9
SHNJ 15.34 320 P 24 57.50 3.9X
YAMJ 15 58 352 eP 25 01.30 4.7X
eS 27 40.60
OFUJ 16.32 357 eP 25 07.40 1.5
eS 27 57.80
HOOJ 19.59 1 eP 25 48.40 4.6X
MRRJ T9.69 356 eP 25 49.10 4.3X
KUSJ 20.36 4 eP 25 57.20 5.5X
CVP 20.37 268 ePc 25 56.00 4.1X
SSE 21.03 298 PC 26 00.00 1.5
6 . 5s 1 50 . 00nm 5 . 6mb

ASAJ 21.33 360 eP 26 04.00 2.6
BJ 1 28.42 314 eP 27 08.50 0.3
LZH 36.27 300 eP 28 17.50 0.9
1.5s 60 . 00nm 5 . 3mb
Z 20s 0.39um 4.2Msz
E 1 5s 0 . 40um
sP 28 38.00
KMI 36.67 282 Pd 28 22.00 1.9
1.5s 60 . 00nm 5 . 3mb
WR2 43.23 192 i Pd 29 12.10 -1.9
0.3s 30.50nm 5.6mb
i S 34 40 . 90
WRA 43.23 192 P 29 12.00 -2.0
0.3s 7 . 20nm 4 . 9mb
ASPA 46.94 191 eP 29 41.60 -1.9
0.6s 6.40nm 4. 6mb
GUN 51.39 288 P 30 19.26 1.1
PK I 51 .85 288 P 30 21 .98 0.4
KKN 51.93 288 P 30 22.68 0.6
0.8s 1 1 9 . 00nm 5 . 9mb
DMN 52.11 288 P 30 24.00 0.5
STK 54.32 181 iPd 30 37.90 -1.3
0.4s 4.80nm 4. 8mb
FORR 55.13 196 eP 30 44.00 -1.1
SVW 56.64 31 eP 30 56.50 0.8
IMA 58.72 25 eP 31 10. 80 0.5
0.7s 2.40nm 4. 4mb
NDI 58.81 291 iPc 31 11.00 -0.3
PMR 59.81 31 eP 3117.10 -0.5
1.2s 1 7 . 50nm 5 . 0mb
HYB 60.25 278 ePd 31 21.50 0.2
FBA 60.89 27 eP 31 24.70 -0.2
GBA 62.42 274 PC 31 34.70 -1.2
6.7s 14.30nm 5. 1mb
KOD 63.51 270 «P 31 44.00 0.5
INK 66.74 24 ePd 32 02.00 -1.0
MBC 69.92 15 «Pd 32 22.50 -0.1
0.5s 20 . 00nm 5 . 2mb
YKA 75.68 28 eP 32 56.00 -0.5
0.5s 7.50nm 4. 8mb
OBN 80.46 326 eP 33 22.00 -0.7

SES 82.44 38 ePd 33 33.20 -0.1
TNP 83.65 51 P 33 40.00 0.1
LCCM 83.97 43 «Pd 33 41.50 0.1
FFC 85.10 32 iPd 33 47.10 0.5
0.7s 22.00nm 5.2mb
HFS 87.66 337 «P 33 57.30 -1.7

0.4s 11.70nm 5. 3mb
NB2 87.88 339 P 33 58.60 -1.5
0.7s 4.40nm 4. 6mb
ALO 92.79 50 e(P) 34 25.00 1.3
ROCH 148.47 116 ePKP 40 57.00 2.9
PEL 148.71 117 iPKPd 40 58.00 3.7X
0.7s 54 . 79nm
PCH 148.76 118 ePKP 40 57.50 3.1X
LPB 150.22 84 PKP 40 57.08 -0.4
i 4104.00

CNCB 150.41 84 PKP 40 59.00 1.1
i 4104.00
SIV 156.45 78 (PKP) 41 00.00 -5.7X
S.D. «= 1.4 on 43 of 53 obs.

? AUG 19. 1991 05h 23m 56.64± 0.96s
14.101 N ±24. 7km 90.672 W ± 1 9 . 1 km
DEPTH - 33.0km (normol)
4 . 3mb (1 obs .)
GUATEMALA (70)

TPX 1.73 298 IP 24 24.20 -0.7
IS 24 41 . 30
SCX 3.23 324 iP 24 53.30 7.1X
OXX 6.54 298 (P) 25 33.00 -0.3
(S) 26 44.00
LWM 7.87 316 (P) 25 50.50 -1.2
I I SM 8.06 308 IP 25 54.90 0.6

(S) 27 18 . 50
IIT 8.80 305 (P) 26 08.00 3. IX
PPM 9.08 304 IP 26 10.00 1.0

III 9.46 298 (P) 26 24.20 1 0 . 3X
MRX 11.50 300 IP 26 42.00 0.3
ALO 25.17 328 eP 29 21.00 0.2
TNP 33.52 320 P 30 36.00 0.3
1.0s 4 . 25nm 4 . 3mb
SIV 41.83 135 P 31 45.20 -0.1
S.D. -0.8 on 9of 12 obs .

? AUG 19, 1991 05h 58m 24.06± 0.61s
6.224 S ±24. 6km 104.616 E ±28. 9km
DEPTH - 33.0km (normol)
4 . 7mb (7 obs .)
SUNDA STRAIT (276)

NANU 19.36 148 eP 02 48.50 -1.4
WR2 31.95 118 iPd 04 49. 1$ -0.2
0.3s 6.80nm 5. 0mb
epP 04 57.00 27kmX
ASPA 33.07 125 eP 05 04.60 5 . 5X
1.2s 6 . 40nm 4 . 4mb
GBA 33.41 306 Pd 05 02.90 0.9
0.6s 3.60nm 4. 5mb
PKI 38.39 332 P 05 43.94 -0.6
0.7s 8.00nm 4. 6mb
GUN 38.46 333 P 05 45.04 -0.2
DMN 38.56 332 P 05 45.66 -0.3
KKN 38.63 332 P 05 46.08 -0.4
0.7s 44 . 00nm 5 . 3mb
GKN 39.11 331 P 05 50.18 -0.3
STK 42.92 131 iPd 06 22.60 1.1
0.4s 2.90nm 4. 4mb
NDI 43.60 324 iPc 06 27.00 -0.1
MLR 86 . 51 316 eP 1 1 06 . 00 0.8
KAF 90.02 333 eP 11 20.30 -1.1
0.8s 6.40nm 4. 9mb
TNP 130.59 44 PKP 17 36.00 2.1
TUL 145.02 30 ePKP 17 59.90 -0.2
0.6s 3 . 50nm
S.D. -1.0 on 14 of 15 obs .

AUG 19, 1991 06h 05m 51.30± 0.15s
46.944 N ± 2.9km 85.302 E ± 2.5km
DEPTH = 29.5km (21 depth phos«s)
5.5mb (88 obs.) 5.1Msz (11 obs.)
NORTHERN XINJIANG. CHINA (332)
CENTROID, MOMENT TENSOR (HRV)
Doto Used: GDSN
L.P.B.: 14S. 21C
Cen t ro i d Loco t i on :
Origin Time 06:05:43.4 1.1
Lot 46.03N 0.08 Lon 85.41E 0.11

Dep 54.8 6.6 Ho 1 f-du r a t i on 1.6
Moment Tensor; Scole 10»*16 Nm
Mrr- 6.17 0.92 Mtt--8.63 1.21
Mff- 2.46 1.92 Mrt 3.95 1.04
Mr f= 2.73 1.11 Mt f- 0. 36 1 . 04

I RK

LZH

GKN
GUN

KKN

ND I

DMN
PK I

MA 1 0

OUE

BJ 1

KM 1

IR7
1 R4
1 R 1
1 R5
TAB
POO
CHTO
OBN

SSE

GBA

KAF

NUR
KOD
KTK 1
D D T I/ D D 1 K
BBTK
TRO
CFR
TSRJ
MRRJ
TLB

P r i nc i po 1 Axes:
T Vol- 8.30 Pig-63 Azm=243
N 1.41 22 101
P -9.71 15 5

Best Double Coup I e : Mo-9 . 0 » 1 0 1 6 NP1:Strike= 68 Dip«=36 Slip- 51
NP2 : 293 63 114

13.42 60 eP 09 04.80 2.8
e 09 17 .50
e 1 1 38 . 00
eSg 12 41 . 00
e 1 2 44 . 00
17 .58 121 Pd 09 56. 70 1.0
1.5s 334 . 00nm 5 . 2mb

Z 18s 5.20um
pP 10 02.50
PP 1 0 12 . 00
eS 13 08.00
SS 13 30.00
18.91 182 P 1012.18 -0.1
19.01 1 78 P 1013.64 0.1
1.0s 817. 00nm 5 . 9mb
1 9 . 12 1 80 P 1014.42 -0.3
0.6s 158. 00nm 5 . 5mb
19 . 30 202 eP 1015.70 -0.9
0.6s 40 . 00nm 4 . 9mb
19 . 30 181 P 10 16 .90 -0.1
1 9 . 34 180 P 1017.50 0.0
0.8s 280.00nm 5.6mb
21 . 93 250 iPc + 10 44 .20 0.1
0.7s 84.18nm 5. 3mb
eS 1 4 54 . 00
21 . 95 227 i PC 10 44. 30 -0.1
eS 1444.40
23. 33 96 eP 10 59.50 1.9
1.2s 30 . 00nm 4 . 7mb
Z 1 6s 5 . 26um 5 . 1 MszX
e s P 11 08.00
eS 15 10.00
Lg 18 00.00
25 . 83 1 41 eP 1 1 22 . 00 0.1
2 16s 1 . 80um 4 . 7MszX
S 16 00.00
sS 16 25.00
28 . 15 259 eP 1 1 43.00 0.0
28 . 22 258 eP 1 1 44 . 00 0.4
28.26 259 eP 11 43.00 -1.0
28.45 258 eP 11 45.00 -0.7
29.81 267 eP 12 01 .00 3. IX
29.86 202 iPd 11 55.50 -2.8
30.21 154 P 12 00.50 -0.9
31.13 303 iPc+ 12 08.60 -0.6
1.0S 280 . 00nm 6 . 0mb
7 14s 5 . 20um 5 . 3MszX
E 14s 4 . 50um

i pP 12 20.00 43kmX
esP 1228.00
ePP 13 01 . 00
ePPP 13 30.00
e 13 55.00
e 1407.00
ePcP 14 37.00
eS 17 10.00
eSS 18 54.00
31 . 73 107 eP 12 06.50 -8 . 1X
1.0s 25 . 00nm 5.1mb
Z 1 6s 1 . 80um 4 . SMszX
N 12s 0.80um
E 12s 0 . 90um

pP 12 32.50 1 18kmX
eS 17 23.00
iScS 22 58.00
33.88 194 PC 12 33.50 0.0
0.8s 47 . 20nm 5 . 5mb
36.02 317 IP 12 50.90 -0.4
0.7s I73.40nm 6.1mb
36.95 314 iP 12 58.90 -0.2
37 . 1 9 1 93 eP 1 3 03 . 00 1.1
37.33 328 i PC 13 01.95 -0.3
38 .22 279 eP 13 10.00 -0.2
38.22 279 eP 13 1 1 .00 0.8
38 . 88 329 eP 1315.31 0.1
38.94 289 iPc 13 17 .00 1.0
39 . 15 88 P 13 25.80 8 . 0X
39.20 76 eP 13 25.70 7 . 5X
39.26 288 iPc 13 19.00 0.4

190 06h

186

PIT
ASAJ
BRD
VR 1
EYL
GPA
MTMJ
MAT

MLR
1 1 DJ
UPP

HUC
DUC1
MOR7
JVI
CMP
LOF
BMR
CHJ J
KBS
TNR
KUSJ
PVL
KAK J
ELL
PRN 1
0 1 M
OEV
BAG
KRA

ALN
SPC

HFS

ROO
PLD
E2N
YER
RZN
PRK
PSZ
RGS
VTS
NB2
MMB
SRS
BUD
BED
KSP
SOH
SRO

KNT
PAIG
VAY

1 PM
THE
UZD
KONO
MOL
GRG
2ST

LI T
VKA

BRN

ATH
KZN

39. 39
39 .50
39 . 52
39.59
39 .63
39 . 66
39.83
40.13
1 . 8s
40.24
40.50
40. 52

40.59
40.66
40 . 68
40 . 69
40.91
40.92
40 . 92
40 .93
41.19
41.24
41 . 30
41.61
41.65
41.72
41 . 89
42.01
42.02
42.15
42.18
1.1s
Z 20s
E 20s

42.22
42 . 33

42. 37
0 .5s
Z 19s

42 . 44
42.53
42 . 56
42 . 62
42 . 72
42 . 88
43.05
43.13
43. 29
43. 30
43. 42
43. 74
43. 77
44.03
4 4; . 0 4
44.04

4 4| . 0 6

44.17
44.27
44.31
0 . 8s
44 . 34
44.39
44 . 42
44.49
44 .53
44 . 60
44.64

44 . 97
4^.08
2 , 0S
Z 15s

4$. 19

45.26
45.34

292 eP
72 P
290 eP
291 iPc
281 IP
281 i P
86 P
85 eP
23 . 00nm
290 iPc
87 P
314 i P
i
i
280 tP
289 iPc
324 iPc
267 eP
291 i P d
327 iPc
295 ePc
85 eP
344 eP
291 ePd
73 P
288 iPc
84 P
277 iP
265 eP
286 i P
292 iPc
124 eP
299 iPc
552 .00nm
4 . 60um
4 . 70um
i
eS
284 ePd
298 iPc
i
i
315 eP
45 . 30nm
1 . 67um
LR
285 eP
286 iPc
283 iP
278 eP
286 iPc
282 eP
296 iP
320 eP
288 iPc
317 P
286 iPc
286 ePc
296 iPd
292 eP
302 iPc
286 ePc
297 iP
i
286 iPc
284 ePc
287 iPc
258 . 00nm
157 ePc
286 ePc
295 i P
315 eP
320 eP
286 ePd
298 i PC
i
285 ePc
298 iPc
731 . 00nm
4 . 50um
i
i
LR
305 iPc
ed
282 eP
286 eP

13 20 . 50
13 28 . 30
13 21 . 00
13 22 . 00
13 22 .20
13 22.90
13 30 . 60
13 33. 00
4
13 28 .00
13 37 . 40
13 28.50
13 41 . 50
15 01.10
13 28.00
13 32 .80
13 29.94
13 31 . 60
13 34.00
13 31.23
13 34.00
13 38.80
13 34.40
13 36 . 00
13 43.10
13 40.00
13 4-5 . 30
13 39.40
13 41 . 60
13 43.00
13 44.00
13 52 . 40
13 43 . 20
6
5

13 55. 20
20 08 . 00
13 43.92
13 45.90
13 57 . 40
15 23. 20
13 43.30
5
4
30 57.00
13 45 . 50
13 46 . 00
13 46.50
13 46.00
13 48 . 00
13 49.00
13 50 . 90
13 50 . 00
13 52 . 00
13 50 . 90
13 53.00
13 56. 40
13 54 . 60
13 57 . 30
13 53 . 40
13 58 . 72
13 59 . 90
14 1 0 . 30
14 00.12
14 00 .52
14 01 . 00
6
14 03.90
14 01 . 28
14 02 . 30
14 01 . 00
14 01 . 52
14 03. 20
14 03 . 80
14 16.10
14 05. 76
14 07.80
6
5
14 1 9 . 80
15 55 . 90
33 48.00
14 08 . 20
14 20 . 50
14 08 . 00
14 08 . 20

0 .8
7 . 6X
0.2
0 .6
0.2
0 .8
7 .0X
7 . 0X
9mb
1 . 1
8 . 3X
- 0 . 3
49 kmX

- 1.6
1 .8
- 0 .2
0 .9
1 . 7
- 0 .8
1 . 7
6 . 3X
0 . 2
1 . 0
7 . 7X
2 . 0
6 . 9X
0 . 3
1 . 1
1 . 7
2 . 7
9.5X
0 .6
2mb
4Msz

44kmX

0 . 9
1 .8
4 1 kmX

- 0.8
5mb
9Msz

0. 7
0 . 4
0 . 7
- 0 . 4
0.6
0.5
1 . 0
- 0.2
0. 1
- 0 .8
0 . 1
1 . 0
- 0 . 9
- 0 . 4
- 4. 3X
0.8
2.0
36kmX
1 .2
0 .8
1 .0
1mb
3.4X
0 . 6
1 . 4
- 0.3
0 . 0
0.7
1 . 2
45kmX
0 . 3
1 . 6
2mb
SMszX
43kmX

1 . 3
45kmX
0. 4
- 0. 2

BRG

PRU

NPS
OHR

HYA
PS 1
CLL

BER
ASK
KHC

VL 1
KMR

IGT
HOP

MOX

KEK
VBY

LJU
VLS
GRB1

CEY
BHG

KBA

VOY

TRI

LCI
DAG

FVI
BRT
FUR

WTTA

KKM
TNS

OGA

CT 1
WTS

OR 1
ROI
BNS

45 . 39
1 . 6s

45.41
1 5s

40.44
45 . 58
1.4s

45 . 59
45 . 64
45. 75
1 . 2s

46. 25
46 . 28
46. 34
1 .3s
Z 18s
N 18s
E 18s

46. 45
46. 49

46 . 69
46. 82

46. 83
1 . 5s
Z 16s
N 19s
E 20s

46. 95
46. 98

47.17
47 . 23
47 . 36
0. 9s
Z 19s

47 . 38
47 . 39

47 . 41
1 .2s

47 . 57

47 . 80

47 .83
47 . 90
0.7s
47 . 98
48. 04
48. 1 4

48. 35
1 . 2S

48 . 64
48. 83

48.9 1

48 .93
48.93
1 .05

48.95
49. 1 4
49. 20
1 .4s

303 iPc
280 . 00nm
i
i

ie
301 i P C
257 . 50nm
i
e
277 eP
287 iP
8 4 . 00 nm
i
318 e P
161 tPd
303 iPc
1 20 . 00nm

ipP
317 eP
318 eP
300 iPc
1 64 . 00nm
5 . 00um
1 . 50um
3 . 50um
e
e
281 eP
299 i PH-
ipP
i
i PcP
i PP
286 ePc
303 iPc
i
303 iPc
1 20 . 00nm
1 . 60um
2 . 00um
0 . 90um
S
286 eP
295 iPc
i
296 eP
284 eP
302 iPc
74 . 00nm
4 . 00um
e
296 eP
299 iPc
i
298 iPc
243 . 00nm
i
i
297 eP
e

296 iPc
i
288 PC
342 iPd
22 . 60nm
298 PC
289 PC
300 iPc
i
299 iPc
481 . 00nm
i
i
137 eP
304 ePc
ed
299 iPc
i
298 PC
307 eP
40 . 00nm
e
288 P
288 P
305 ePc
191 . 00nm

1 4 09.00 0.4
5 . 9mb
14 21 . 00 43kmX
14 34.10
16 03 . $0
29 56.00
1409.50 0.8
5 . 9mb
14 21.60 44kmX
15 54.00
1 4 08.90 -0.3
14 09.80 -0.4
5 . 5mb
14 22.20 45kmX
14 10.70 0.7
14 20 . £0 9 . 7X
14 1 1 .60 0.2
5 . 7mb
14 23.70 44kmX
14 15. 00 -0.2
14 15.10 -0.3
14 16.70 0.5
5 . 8mb
5.5Msz

14 25. 60 28km
14 29.00
14 1 4 . 80 -2.3
14 19.00 1.7
14 31.00 43kmX
14 55.40
15 53.90
16 07 .90
14 1 8 . 48 -0.5
14 20.50 0.6
14 32.80 45kmX
1 4 20. 60 0.7

21 17
1 4 20
14 22
1 4 34
14 23
14 21
14 25

5 . 7mb
5 . 1MszX

. 00
. 00 -1.0
. 09 0.8
. 40 45kmX
. 00 0.3
. 80 -1.5
. 50 1.3
5 . 7mb
5 . 4Msz
14 37.40 43kmX
14 36J00 1 1 .6X
1 4 25
14 38

80 1.3
30 46kmX
1 4 25 60 0.8
6. 1mb
14 38
1 4 40
14 25
14 37
14 27
1 4 40
14 26
14 27

00 45kmX
00
50 -0.5
90 45kmX
40 -0.3
00 46kmX
,80 -1.1
. 00 -1.0
5.3mb
14 28L90 -0 . 1
14 29L 90 0.3
14 31 . 50 1.2
14 44.00 46kmX
14 32.80 0.6
6 . 4mb
14 44.90 44kmX
14 50.30
14 35.00 0.5
14 36. 10 0.5
1 4 48
14 37
14 59
1 4 36
14 37

1 4 49
14 37
1 4 48
14 38

10 43kmX
00 0.5
30 92kmX
00 -0.5
00 0.7
5 . 4mb
00 43kmX
70 1.0
40 2.3
40 0.0
5 . 9mb

CSI
TOS
MMN
DU I

ARV
SCO
AC I
MGR
OSS
CZ 1
GR 1

AOU
SDI
ASS
SFI
AZ 1
RFI
GWF
CRE
SLE
PGD
ENN

MEM

VOL
LLS
MNS
ZLA
PEL
SOI
LIBD
GMB

CDF
WLF

MME
ECH
BDI
TMA
ATN
BBS
PI 1
UCC

BOB
BSF
SNF

DOU

HAU

MMK
LOMF
VI TF
ORX
01 X
MEU
PCP
PZ 1

Gl B
CK 1
USI
LSD
F 1 N
RSP
RSL
LPG

LPL
BHB
IMI
PGF
DOI

Z 12s 2.40um 5. 4MszX
ic 1447.70 31 km
id 1450.60
49.21 288 P 1439.70 1.0
49. 24 288 PC 14 39 . 90 1.0
49 . 34 288 P 1441.20 1.6
49. 40 291 P 14 40.84 0.7
1.1s 246 . 90nm 6. 2mb
49 . 41 294 PC 1440.20 0.1
49 . 43 290 P 1441.00 0.7
49 . 50 288 P 1442.30 1.5
49.50 289 P 1441.10 0.3
49 . 52 299 ePc 14 41.60 0.4
49 . 61 288 P 1442.60 0.9
49 . 64 287 P 1442.61 0.6
0.7s 91.90nm 5. 9mb
49 . 71 293 P 1443.10 0.6
49.78 292 PC 14 43.20 0.1
49.80 294 PC 14 43.80 0.6
49.87 295 PC 14 44.80 1.2
49.88 292 P 1444.90 1.2
49 . 89 291 P 1444.80 1.0
49.89 303 P 1443.54 -0.2
49 . 96 295 PC 1444.90 0.4
49.97 301 ePc 1 4 44 . 50 01
49. 97 295 PC 14 45. 90 1.2
49 . 99 305 eP 1445.00 0.5
1.3s 10 1 . 00nm 5 . 7mb
e 1458.00 48kmX
e 16 37 . 00
50 . 02 305 i PC 1446.20 1.5
i 1457.04 37kmX
50.03 299 ePc 14 45 . 20 0.1
50.12 300 ePc 14 45.60 -0.2
50. 15 293 PC 1445.70 -0.1
50.18 301 ePd 1 4 46 . 00 0.0
50.20 301 P 14 45. 66 -0.6
50. 29 286 PC 14 47 . 10 0.2
50. 31 302 P 1 4 46. 48 -0.4
50 . 36 287 P 1448.08 0.4
0.8s 82 . 60nm 5 . 6mb
50 . 37 302 P 1 4 46 . 94 -0.5
50.40 304 Pd 14 47.00 -0.5
e 1 5 01 . 00 52kmX
50 . 44 296 Pd 1449.50 1.2
50.53 302 P 14 48.30 -0.4
50.57 296 PC 1449.20 0.1
50.58 299 ePc 14 48.50 -0.7
50 . 63 287 P 1448.90 -0.6
50. 70 301 P 14 49 . 75 -0.2
50 . 80 295 P 1450.60 0.0
50.85 306 P 14 51 . 60 0.6
e 15 03.80 44kmX
50.91 297 P 1451.90 0.2
50.94 302 P 14 51 . 45 -0.4
51 . 03 306 P 1453.00 0.6
i 1504.52 41 kmX
51 .06 305 Pd 1453.10 0.5
Z 1 4s 1 . 50um 5 . 2MszX
e 1505.10 43kmX
S 22 18. 00
51.11 302 i PC 1452.70 -0.3
0.6s 15. 35nm 5 . 1mb
Z 20s 1.83um 5 . 1 Msz
51 . 15 299 ePc 14 53. 20 -0.4
51 . 16 301 P 14 53. 15 -0.4
51 .21 303 P 14 53.50 -0.3
51 .35 299 P 14 53.67 -1.4
51.46 380 ePc 14 56.10 0.0
51 . 57 286 P 1457.10 0.3
51 . 58 297 P 1455.41 -1.3
51 .62 286 P 14 57 . 00 -0.1
1.2s 118.90nm 5. 7mb
51 .67 287 P 1 4 55. 70 -1.8
51 . 80 297 P 1457.60 -0.8
51 .82 289 P 14 58 . 00 -0.5
51 . 94 299 P 1459.62 -0.1
51 . 96 ?97 P 1458.18 -1.4
52 . 04 299 P 1457.77 -2.5
52. 14 299 P 15 00. 58 -0.5
52. 16 299 iPc 15 01 . 80 0.4
0.5s 6.20nm 4. 8mb
52. 16 299 iPc 15 01 .80 0.5
52.28 298 P 14 58.80 -2.6
52 . 32 297 P 1 5 01 . 56 -0.7
52. 36 295 P 15 02.67 -0.1
52.39 298 P 15 01 .50 -1.4

187

19d 86h

BN I
RRU
PZZ
SAOF
STV
EKA

AUTN
SBF

TOUF
AURF
REVF
MV I F
LOR

CALN
LBF

SSF

FRF

SMF

AKU

LMR

AVF

LRG

SSB
CDR

BGF

CGL

BRW
MAF

TCF

LDF

FLN

USF

GRR

DMU

CAF

LPF

RJF

ETA
MFF

DCN

ECP

LPO

ANM
LFF

MBC

MLS
EPF

BTH

52.44
52. 45
52 . 48
52. 48
52.48
52. 54
0.7s
52. 55
52.62
0.8s
52 .65
52.67
52. 73
52 . 77
52 .93
W.9S
Z 22s
53.01
53.01
0.9s
53-24
1 .0s
53.26
0.8s
53. 27
0.6s
53.33
1 .2s
53.47
0.6s
53. 48
0.9s
53.50
0.7s
Z 22s
53.59
53. 74

53.90
1 . 3s
53.95
1 . 3s
54. 13
54.24
0.8s
54. 41
1.1s
54.48
0.8s
54.59
0.6s
Z 21s
54.83
1 . 0s
55.00
0.7s
55. 15
0.8s
55.25
1 .2s
55.30
0.6s
55.36
0.7s
Z 21s
55. 46
55.59
1.1s
55.64
1 .0s
55.83
0.7s
55.91
0. 6s
56.01
56.02
1 . 2s
56.07
0.6s
56.96
57 .36
0.9s
57 .63

299 P
299 P
298 P
297 P
298 P
314 Pd
30 . 50nm
297 P
297 .Pc
64 . 5wnm
297 P
297 P
297 P
297 P
302 i P c
21 . 30nrr,
1 . 20um
297 P
302 iPc
1 3 . 90nm
302 iPc
30 . 00nm
297 iPc
29 . 55nm
302 iPc
1 4 . 00nm
330 iP
67 . 1 9nm
297 iPc
1 2 . 65nm
302 i PC
32 . 75nm
297 iPc
1 5 . 45nm
2 . 1 7 urn
300 P
298 ePd
e

302 iPc
43 . 30nm
291 P
29 . 70nm
21 ePc
302 iPc
32 . 25nm
302 iPc
29 . 30nm
366 iPc
37 . 60nm
306 iPc
50 . 50nm
2 . 68um
302 iPc
1 4 . 00nm
306 iPc
25 . 35nm
314 iPc
1 34 . 00nm
301 iPc
59 . 50nm
305 iPc
18 . 95nm
301 iPc
1 7 . 65nm
1 . 52um
312 eP
304 iPc
36 . 65nm
313 eP
1 86 . 00nm
312 eP
87 . 00nm
301 iPc
54 . 1 0nm
29 eP
302 iPc
74 . 40nm
7 i PC
94 . 00nm
299 P
300 iPc
41 . 75nm
300 PC
PP
sP
ePcP
eLR

15 03
15 03
15 01
15 03
15 01
15 03

1 5 04
15 04

15 04
1 5 04
1 5 04
15 05
15 05

15 07
15 06

15 08

15 08

15 08

15 09

15 10

15 10

15 10

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15 12
15 24
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15 35
15 37

15 52
16 04
16 89
16 43
34 15

40
20
46
28
56
20
5
01
50
5
48
62
98
46
80
5
4
18
30
4
30
5
80
5
60
5
60
5
40
5
10
5
60
5
5
99
50
30
20
5
89
5
30
20
5
30
5
40
5
08
5
5
70
4
00
5
20
6
90
5
00
5
40
5
5
60
40
5
20

00
5
30
5
00
40
5
50
6
33
90
5
00
80
70
00
08

0. 1
- 0. 3
- 2 . 1
- 0. 2
- 2 .0
- 0 .5
4mb
- 0. 3
- 0. 1
. 6mb
- 0.5
- 0.4
- 0 4
- 0. 4
- 1 .0
1mb
9Msz
- 0. 4
- 1 . 1
9mb
- 0.8
2mb
- 0.4
3mb
- 0. 7
1mb
0. 2
5mb
- 0. 3
1mb
- 0.6
3mb
- 0.3
1mb
2MSZ
- 0. 7
- 0.2
4 1 kmX
- 0.6
3mb
- 0.5
2mb
0. 1
- 0. 2
4mb
- 0.4
2mb
- 0. 7
5mb
- 0.9
7mb
2MS2
- 1 .0
9mb
- 0.9
4mb
- 0.7
0mb
0.0
5mb
- 1 . 1
3mb
- 0.2
2mb
IMsz
- 0.6
- 0.8
3mb
1 1 . 8X

- 0.8
9mb
- 0.2
8mb
1 .0
0. 1
6mb
- 0.8
0mb
- 0.8
- 1 . 1
5mb
1 1 . 2X
46kmX

ESEL
I MA

EROO
ECRI
ETOR
TTA

ECHE
GDH

FBA

I NK

GUD
SVW
EV I A
TOL

ERUA
EHUE
EBAN
EPLA
PDB
ECOG
AFC
PMR

EGUA
PTO
TOA
EHOR
KLU
EPRU
EJ I F
EVAL
KDC
FRB
LW I
YKA

NPA

SCH
WRA

WR2

LSZ

KR I

PGC
MCW
PNT

SES

GMW
ASPA

RMW

OIS

NEW

BMW
LON

BUL

SHW
T 1C

KIC
LIC

57 . 73
58 . 60
1 . 0s
58 . 63
59 . 30
60. 1 1
60 . 18
1 . 3s
60.21
60 . 22
0 . 8s

61.10
0.8s
61.47
0 .9s
61.48
61.64
61.74
61.89
1.1s
62. 1 2
62. 31
62. 82
62 . 98
63.10
63 . 25
63. 25
63. 31
0 .8s
63. 54
63.76
63. 76
63. 92
64.33
64 . 47
64 . 95
64 . 98
65 . 23
67 . 74
69 . 54
69 . 76
0.8s
74 . 28
1 .2s

75.90
79 .89
0.5s
79 . 90
0.5s

80 . 31

0 Q e. y s

80. 77

81 .56
81.66
81.71
0.9s
82. 82
0.9s

82.75
82.84
0.7s

83.04

83.09

83. 18
0.9s

83. 66
83.72

84.82

84.15
85.42
1 .0s
85.43
85. 73

e
e

295 iPc
24 ePc
36 . 00nm
298 iPc
301 i PC
299 iPc
28 ePc
34 . 00nm
297 iPc
344 i PC
59 . 70nm
i
23 ePc
43 . 50nm
15 iPc
89 . 00nm
300 iPc
29 ePc
297 iPc
299 iPc
1 1 3 . 92nm
303 iPc
297 iPc
298 i PC
301 iPc
29 P
297 eP
297 iPc
26 ePc
20 . 60nm
296 iPc
303 IP
24 ePc
298 iPc
25 P
297 iPc
297 iPc
299 iPc
30 eP
348 eP
243 iPc
10 eP
31 . 30nm
226 iPc
600 . 00nm
i
344 eP
134 P
14.1 0nm
134 i Pd
26 . 00nm
epP
235 iPd
119. 00nm
i
233 iPd
ipp
19 eP
18 P
16 eP
41 . 00nm
10 i PC
60 . 00nm
PP
1 9 P
136 iPc
1 0 . 30nm
i
1 8 P
PP
130 eP
i
15 P
36 . 1 8nm
PP
1 9 P
18 P
PP
232 iPd
ipp
19 P
275 PC
28 . 50nm
274 PC
274 PC

35 40.00
36 24.00
15 41 . 52
15 47 . 20
5
15 47.01
15 52.45
15 57.19
15 58. 60
5
15 58. 35
15 57 . 40
5
16 06.00
16 04 . 30
5
16 06., 20
5
16 06.92
16 09.40
16 09. 12
16 10.00
5
16 11.57
16 12.54
16 16. 00
16 17 . 30
16 18.00
16 18 . 08
16 17.94
16 18 . 60
5
16 19.78
16 22 . 30
16 22. 50
16 23.18
16 25. 30
16 26. 33
16 29.05
16 30 . 02
16 31.90
16 45. 00
16 58. 80
16 59.00
5
17 28.00
6
17 40.00
17 35.00
17 58.00
5
17 58. 70
5
18 07 . 80
18 01 .90
5
18 14 . 80
17 54.50
18 07 . 50
18 08. 00
18 08. 80
18 08. 00
5
18 09. 20
5
18 19. 00
18 14.70
18 14 .30
5
18 23. 50
18 15.80
18 25. 00
18 15.00
18 24 . 90
18 15.80
5.
18 25. 40
18 17 .00
18 18.70
18 28. 50
18 16. 50
18 29.50
18 19. 20
18 27 .30
5.
18 27. 62
18 28 . 76

0.0
- 0.3
. 4mb
- 0 . 8
- 0. 1
- 1.0
0. 2
. 3mb
- 0. 5
- 1.0
. 8mb
28km
- 0. 2
. 6mb
- 0. 7
. 9mb
- 0.6
1 . 2
- 0.2
- 0.2
. 9mb
- 0 . 1
- 0.6
- 0. 3
- 0. 1
0. 2
- 1 . 3
- 1.5
- 0 . 6
. 3mb
- 1.3
- 0.2
0. 2
- 0. 4
- 0.7
- 0.9
- 1.2
- 0 . 5
0 . 2
- 2 . 6
- 0.8
- 1.0
5mb
0.5
5mb
40kmX
- 1.4
- 0.7
2mb
0 .0
5mb
29km
0.8
9mb
44kmX
- 9 . 1 X
44kmX
0 . 9
1 .0
0.0
5mb
- 0 . 4
6mb
31 km
1 .3
0. 2
0mb
29km
0.8
29km
- 0.4
31 km
0. 1
5mb
30km
- 1 . 2
0 .3
31 km
- 3.8X
44kmX
- 1 . 6
- 0. 1
4mb
0 . 2
- 0. 1

Z 21s 0 . 28um 4 . 6Msz
LRM 86.31 12 eP 18 31.20 -0.5
BNH 86.53 343 P 18 32.80 0.3
SLR 88.75 229 eP 18 44.00 0.6
RSSD 88.95 7 P 18 44.20 -0.2
0.7s 69 . 20nm 6.1mb
pP 1853.00 27km
WDC 89.40 21 eP 18 46.80 0.5
e 1 8 56 . 00 29km
BW06 89.70 11 P 18 47.10 -0.9
Ml N 89. 85 20 eP 1848.70 0.1
e 18 58 . 10 29km
TBR 90. 43 345 P 18 50 . 00 -1.1
ORV 90.62 20 «P 18 51.90 -0.1
e 1900. 80 28km
LVNJ 90.84 345 P 18 52.60 -0.4
CMS 92.33 20 eP 19 00.70 0.7
e 1 9 1 0 . 30 38km
TNP 92.99 18 P 19 03.88 -0.2
0.8s 6.1 3nm 5 . 1mb
GOL 93.21 8 P 1904.50 0.2
1.0s 14. 06nm 5 . 3mb
STK 93.40 135 iPc 19 13.50 8.9X
0.6s 5.90nm 5. 2mb
FRI 93.48 20 eP 19 06.00 0.8
e 1915.50 30km
FRS 93.53 229 eP 19 05.20 0.0
1.2s 1 5 . 63nm 5 . 3mb
LLA 93.55 21 eP 19 07.30 1.8
e 1916.70 29km
PRI 94.07 21 e(P) 19 09.40 1.3
e 19 19.00 30km
ISA 95 .04 19 eP 19 20 .00 7 . 5X
CLC 95.09 19 eP 19 14.00 1.3
e 1923.00 28km
GSC 95.75 18 eP 19 26.00 10. 2X
ELC 96.01 356 P 19 15.60 -1.2
SBB 96.12 19 eP 19 18 .80 0.5
e 19 28 .80 31 km
TUL 97.52 1 e(P) 19 18.50 -5.1X
ANMO 97.80 10 P 19 25.80 0.6
1.0s 2l.88nm 5. 6mb
ALO 97 .80 1 0 eP 1 9 25.30 0.1
1.1s 8 . 54nm 5 . 2mb
Z 20s 0 . 35um 4 . 9Msz
e 19 35.50 32km
SPA 136.75 180 ePKP 25 09.80 -2.4
0.8s 11. 67nm
i 25 21 .80
PPD 137.19 298 ePKP 25 13.40 0.0
e 25 23.30
SIV 138.43 387 PKP 25 15.40 -0.5
ARE 144.04 320 i PKPd 25 24.50 -1.6
0.8s 4 1 . 04nm
S . D. -0.9 on 314 of 338 obs.

* AUG 19. 1991 06h 32m 04.19± 0.75s 15.947 N ±12. 6km 92.473 W ±11. 7km DEPTH - 208 . 4 ± 7 . 8 km
4 . 3mb (4 obs .)
MEXICO-GUATEMALA BORDER REGION (62)

SCX 0.80 349 ip 32 35.50 1.7
iS 32 57 .00
TPX 1 .06 169 i P 32 35 . 50 0.0
iS 32 58. 00
OXX 4.23 286 iP 33 09.00 -0.9
iS 33 55.80
LVVM 5.34 315 iP 33 22.80 -1.8
1 I SM 5.57 304 iP 33 25.00 -1.7
(S) 34 24.00
IIT 6.35 300 eP 33 38.60 0.9
PPM 6.64 299 iP 33 41.50 0.4
III 7 . 1 1 291 i P 33 47 . 50 0.6
(S) 34 59.00
ACX 7.15 278 iP 33 46.00 -1.2
MRX 9.10 296 (P) 3414.00 1.3
MEO 19.54 345 iPc 36 16.30 -1.6
TUL 20.10 352 ePd 36 22.80 -0.7
0.6s 7 . 30nm 4 . 4mb
Z 20s 0 . 49um 3 . 9Msz
e 36 37.50
LR 03 01 .80
ALO 22.70 329 eP 36 50.68 1.5
0.8s 6 . 98nm 4 . 3mb
ANMO 22.70 329 P 36 58.40 1.3
TNP 31.08 328 P 38 85.88 8.6

19d 06h

188

0.9s 6 . 25nm 4 . 3mb
PNT 39.95 332 eP 39 20.00 0.4
SIV 44.36 134 P 39 55.40 -0.3
YKA 49.04 347 eP 40 30.60 -1.0
0.6s 5 . 70nm 4 . 2mb
PPD 55.24 132 eP 41 17.10 -1.0

VAO 58.99 130 (P) 41 33.00 -11. 5X
WRA 135.39 258 PKP 51 03.00 1.4
0.4s to . 60 nm
S.D. = 13 on 20 of 21 obs .

? AUG 19. 1991 08h 02m 06.32± 1.26s
461.734 N ±21. 9km 73.261 E ±18. 3km DEPTH =» 33.0km (normal)
4 . 3mb (4 obs .)
K 1 RGH 1 2 SSR (716)

MAIO 11.65 252 «P 04 54.00 0.6
HFS 40.94 319 eP 09 46.20 -0.7
0.4s 5.10nm 4.6mb
NB2 42.17 320 P 09 56.00 -1.0
0.7s 2.40nm 4. 0mb
MBC 63 . 02 3 eP 12 33 . 50 1.8
0.6s 14. 00nm 5 . 3mb
INK 69.44 10 eP 13 15.00 2.4X
WRA 82.80 124 P 14 28.00 -0.6
2.4s 2 . 20nm 3 . 8mb
S.D. =1.7 an 5 of 6 abs.

& AUG 19, 1991 09h 25m 41.44s
1 8 . 758 N 1 56 . 645 W
DEPTH « 52.0km
HAWA II (613)
<HVO-P> . MD 4.0 (HVO) . Felt at
Hawfliian Ocean View Estates.

KUH 0f89 55 iPd 25 56.70 -1.2
i «S 26 07 . 32
SPT 0^95 76 iPd 25 56.97 -1.8
CPH 1,00 43 iPd 25 57.88 -1.5
eS 26 09 . 84
KHU 1.09 63 iPd 25 59.08 -1.7
KIH 1.12 48 iPd 25 59.86 -1.4
«S 26 12 . 46
PPL 1.19 70 iPd 26 00.19 -1.8
WOH 1.19 65 iPd 26 00.27 -1.8
HUH 1.20 39 ePd 26 00.95 -1.4
SWH 1.20 55 iPd 26 00.66 -2.0
TRH 1.23 58 iPd 26 01.08 -1.8
MWH 1.23 54 iPd 26 01.08 -1.6
WIH 1.23 55 iPd 26 01.07 -2.0
WOB 1.27 52 iPd 26 01.68 -1.9
HTC 1.27 68 iPd 26 01.48 -1.7
AIN 1 .28 61 i Pd 26 01 .63 -1.8
eS 2616.24
DES 1.32 64 iPd 26 01.97 -2.0
KFH 1.33 60 iPd 26 02.43 -1.8
PLL 1.36 55 iPd 26 02.52 -2.2
HLP 1.37 67 iPd 26 02.92 -1.7
HMH 1.38 52 iPd 26 03.26 -1.7
eS 2618.77
CPK 1.40 63 iPd 26 03.00 -2.0
MLH 1.40 58 iPd 26 03.21 -1.9
KNH 1.40 66 iPd 26 03.16 -2.0
MLX 1.41 60 iPd 26 03.64 -1.7
OUT 1.43 64 i Pd 26 03.38 -2.2
WKH 1.44 40 ePc 26 04.18 -1.5
UWE 1.44 62 iPc 26 03.40 -2.3
i S 26 19 . 90
AHA 1.44 65 iPd 26 03.57 -2.1
eS 2619.87
PWH 1.44 69 iPd 26 03.83 -1.7
RIM 1.44 64 iPd 26 03.55 -2.1
NPH 1.44 63 iPd 26 03.51 -2.2
ESR 1.48 64 iPd 26 03.93 -2.3
PUH t.48 65 iPd 26 03.99 -2.2
HPU t.5l 48 iPd 26 05.07 -1.9
KAE 1.53 69 iPd 26 04.95 -1.8
MKA 1.53 66 iPd 26 04.55 -2.3
KOH 1.59 31 iPd 26 06. 04 -1.7
WHA 1.61 69 ePc 26 05.87 -2.1
KKU 1.67 47 iPd 26 07.24 -1.7
MVH 1.67 63 iPd 26 06.76 -2.0
HUL 1.71 67 «Pd 26 06.92 -2.4
HIL 1.75 57 iPd 26 08.10 -1.8
«S 26 17 . 60
NGH 1.79 58 «Pc 26 08.88 -1.6

t

HBH 1 . 82
POH 1 . 83
KPO 1 . 86

65 ePd
67 ePd
66 ePd
46 obs. ossoci
_

AUG 1 9 ,
43.228 N
DEPTH =
YUGOSLAV 1 A
ML 2.4

1 VA 0.88

PVY 0.99

PLE 1.18

SKO 1 . 38

TTG 1.51

NKY 1 . 53

BED 1 . 64

VTS 1.74

8DV 1 . 86

HCY 2.00

OHR 2.12
VAY 2.23
MMB 2.60
PVL 3.17
KDZ 3 . 63
MLR 4 . 20
VR I 4.87
S.D . -

& AUG 1 9 .
60.535 N
DEPTH -

1991 1 1h
± 7.4km

26 08 . 77
26 09 . 26
26 09. 01
a ted

00m 39.5B±
21 . 003 E ±

10.0km (geophysicis

(TTG) .

247 ePg
eSg
230 ePg
eSg
276 ePg
eSg
165 ePn

iPg
i Sn
iSg
Lg
239 ePg
eSg
255 ePg
eSg
346 iPn
iSg
111 i P
i S
240 ePn
eSn
248 ePn
eSn
184 ePn
148 eP
128 eP
B9 eP
114 eP
56 eP
55 eP
1.2 on

1991 1 1 h

70 . 5km

00 55.00
01 04.60
00 57.60
01 08. 10
61 01 .«0
01 1 4 . 40
01 02.30
01 03. 10
01 20.80
01 22. 80
01 27 . 40
01 07.^50
01 26. 00
01 07 . 50
01 25 . 60
01 07 . 80
01 28 . 50
01 11.00
01 34. 100
01 13 . 30
01 37.00
01 15
01 40
01 20
01 28
01 23
01 29
0 1 50
0 1 46
01 54
14 of

12m 31
151 . 886

KENAI PENINSULA, ALASKA
<AE 1 C>

RDT 0. 26

NKA 0 . 38
DFR 0.40
REF 0.41
RON 0 . 43

RSO 0.44
RED 0.45

ROW 0 . 46

NCT 0.52
NNL 0.58
SPU 0.65

CKL 0.70
BGL 0- 77
CGLM 0.78
SLKM 0.82
NCG 0.88

HOM 0.89
CNPM 1 . 06

SUA 1 . 09
OPT 1.11

SEW 1 . 29
PMS 1 . 34
PDB 1 . 38

AUL 1 . 39
AUE 1 . 40
AUP 1.41
AUW 1.41
SKT 1 . 46
PWA 1 . 48

279 iPd
eS
57 iPc
279 i P d
264 iPd
268 iPd
eS
261 i Pd
256 iPd
eS
264 iPd
eS
273 iPd
149 i Pd
353 iPc
eS
342 ePd
342 ePd
356 eP
91 «Pc
352 «Pd
«S
1 72 eP
162 ePd
eS
30 ePc
218 ePd
eS
109 eP
57 ePd
238 iPd
IS
215 eP
213 eP
214 eP
215 eP
7 ePc
40 ePc

12 41
12 50
1 2 44
12 42
12 43
12 43
12 52
12 43
12 43
12 53
12 43
12 53
12 43
12 45
12 45
12 57
12 45
12 46
12 47
12 47
12 48
13 01
12 48
12 50
1 3 05
12 50
12 50
13 05
12 53
12 54
12 53
13 10
12 54
12 53
12 54
12 54
12 55
12 56

00

00

00
40

00

00
00
70
00

- 2. 1
- 1 . 7
- 2. 4

0 . 55s
4 . 9km
O

(383)

- 1 . 6

- 0 .8

- 0. 7

- 1 .3

0. 9

0.5

- 0.7

0 .8

1 .6

1 .2

4 . 4X
1 1 . 3X
0.6
- 1.4
13 . 0X
1 . 4
- 0.6
7 obs .

26s
W

92
99
65
77
06
09
88
28
23
18
46
84
70
55
42
12
76
68
00
34
16
49
18
38
77
81
71
73
56
1 1
15
66
75
80
89
47
08
42

(1*)

- 0.6

1 . 4
- 0. 7
- 0.6
- 0.8

- 0.7
- 0.8

- 0 . 7

- 0.9
0.5
- 0.5

- 0.8
- 0. 7
- 0. 4
- 0.6
- 0.5

- 0 . 4
- 0.5

- 0.5
- 0.8

- 0.2
- 0. 4
- 1 .8

- 0.5
- 1 . 4
- 0.6
- 1 .0
- 1.1

0.0

PLRM
MCNL
KNK
GHO
SVW
SY I
CUT
KN I M
LT I
GLI
VZW
FID
VLZ
TRF
KLU

1.71 50
1 . 83 223
1 . 89 61
1 . 90 48

1 GO O ft O i . y £ z. o y
1.95 188
2.03 22
2.07 93
2 . 07 102
2.38 80
2 . 67 76
2.67 83
2.78 75
3.02 14
3.06 69

«P
eP
ePc
eP
eP
eP
eP
eP
eP
eP
eP
eP
eP
eP
eP
44 abs. ossacia

AUG
46.

19, 1 991
675 N ± 3.
DEPTH - 8.7

1 1 h
6km
± 2.

12 59
12 59.
13 00.
1301.
13 00
13 03
13 04 .
13 01.
1 3 02 .
1 3 05 .
13 10.
13 09.
13 11.
13 17 .
13 15 .
ted

23m 25.
10.492
7 km

1 1
80
85
75
O C / o
80
01
16
00
82
39
22
89
39
98

- 0.3
- 1.4
- 1 . 2
- 0. 4
- 2. 1
1 .0
0. 1
- 3. 3
- 2. 4
- 3. 0
- 2 . 4
- 3. 6
- 2.5
- 0 . 5
- 2. 3

86± 0.33s
E

NORTHERN ITALY

ML 3.3 (STR) , 3.

OSS
OGA
VDL
SCE
WTTA

WATA

CT I

LLS
SAL

TMA
FVI

FUR
2LA
SLE
MMK
BHG
KBA

BOB

FEL
BBS

DIX
VOY

TR I

MME

LOMF

ECH
BSF

CDF
LPG

LPL

SFI

PGD

Pi I
GRF

HAU

BN I

VITF
VBY

SBF

(LOG) . 3.0

0.24 273
0.41 62
0. 73 255
0.91 66
e.70 on *% DO^

0.99 48

1 . 02 128

1 .05 281
1.07 179

1 . 26 244
1.58 92

1 . 58 19
1 .65 300
1 . 75 309
1 . 86 251
1.94 56
2.00 77

2. 04 201

2.07 306
2.19 292

2 . 21 256
2.44 104

2.47 112

2.49 177

2.60 286

2.74 305
2 . 77 296

2. 79 310
2. 66 247

2 .86 247

2 . 92 160

2.93 162

2.95 180
3.06 9

3.12 297

3.12 240

3. 43 298
3.52 108

3.54 219

(FUR)

iPc

i Pgc
iPc
i Pgc
i Pgc
iSg
i Pgc
iSg
P

eSg
ePd
P

eSg
ePd
P
eSg
iP
eP
«P
«P
i Pnd
i Pgd
iSg
PC
eSn
«Pn
Pn

Sg
eP
i Pn
«Sn
ePn

iSg
P
«Sn
Pn

Sg
Pn
Pn
Sn
Pn
Pn
Sn
Pn
Sn
P
«Sn
P
«Sn
P

«(Pn)
«(Pg)
eSg
Pn
Sn

Sg
P
eSn
Pn
«Pn
eSn
Pn
Sn

2 (KBA)
. MD 3.

23 29 .
23 33 .
23 38.
23 42 .
23 43
23 57 .
23 43.
23 58 .
23 44 .
23 57 .
23 44 .
23 45.
24 00.
23 47 .
23 53.
24 14.
23 55.
23 57.
23 56 .
23 58.
24 01 .
24 01 .
24 29.
24 02.
24 29 .
24 01 .
24 03 .
24 35.
24 05.
24 09 .
24 42.
24 10.
24 41 .
24 08 .
24 36 .
24 10 .
24 48.
24 10 .
24 11.
24 43.
2411.
24 14.
24 47.
24 14.
24 48 .
24 13.
24 45.
24 14 .
24 46 .
24 14 .
24 25 .
24 30 .
25 03.
24 16 .
24 52 .
25 04 .
24 19.
24 57 .
24 20.
24 28 .
25 16.
24 23.
25 06.

1

70

10

10

00

^ ft OB
50
70
80
00
60
00
20
50
60
80
80
80
00
Qfl y o
16
80
50
50
20
30
87
84
62
90
50
00
40
70
00
00
1 4
32
39
10
80
18
50
60
60
60
00
00

00

00
20
00
80
90
00
60

00

70
40
75
80
50
20
40

± 3 . 3km

(545)
3 . 1

(TRI) .

- 1 .3
- 1 . 2
- 2 . 4
- 1 . 6
- 1.4

- 1 . 2

- 1 . 3

- 1 .8
- 0 . 9

- 1.9
- 0. 3

1 . 6
1 . 8
0.3
- 0. 3
2.5X
1 . 1

1 . 3

0.5
0 . 9

2.3X
2 . 8X

3.5X

0. 6

1 . 3

- 0. 4
- 0.3

- 0. 4
1 . 8

1 . 9

- 0.3

0. 3

0. 4
9. 7X

- 0. 1

3 . 4X

0. 2
7. 0X

0.9

1 89

19d 1 1 h

ABH 3.76 336 ePn 24 25.53 6.2
FRF 4.14 223 Pn 24 36.86 6.2
Sn 25 18. 36
LRG 4.35 224 Pn 24 33.86 0.2
LMR 4 37 222 Pn 24 33.46 -6.6
L8F 4.48 276 Pn 24 35.06 -6.6
LOR 4.58 286 Pn 24 36.56 -0.4
SMF 4.58 272 Pn 24 36.50 -0.4
SSF 4.81 277 Pn 24 39.60 -0.6

BGF 5.27 271 Pn 24 45.90 -0.8
MAF 5.56 268 Pn 24 48.90 -1.0
TCF 5.73 269 Pn 24 52.10 -1.2
S.D. = 1.1 on 44 of 51 obs .

AUG 19. 1991 11h 34m 07.30± 0.78s
37.491 N ±16. 1km 71.999 E ±12. 5km DEPTH = 130.0km (qeophy s i c i s t)
4 . 9mb (8 obs .)
AFGHANISTAN-USSR BORDER REGION (717)

OUE 8.41 211 eP 36 15.00 7.2X
eS 37 37.30
ND 1 9 . 81 152 eP 36 27 .00 0.7

MAIO 10.09 267 eP 36 31.00 0.9
eS 38 20.00
GKN 14 .22 128 P 37 24. 1 0 0.1
0.4s 55.00nm 5.2mb
KKN 1 4 . 78 127 P 37 31 . 30 0.2
0.5s 75.08nm 5.3mb
DMN 14 . 79 128 P 37 32. 64 1.3
0.4s 36.00nm 5.0mb
GUN 15.08 125 P 37 34.58 -0.5
0.4s 66.00nm 5.2mb
GBA 24.28 167 Pd 39 11.60 -2.1
0.5s 5 . 50nm 4 . 3mb
HFS 42.79 321 eP 41 53.20 0.1
0.4s 5 . 1 0nm 4 . 6mb
NB2 44.08 322 P 42 03.10 -0.5
0.7s 2 . 20nm 4 . 0mb

AUG 19, 1991 12h 39m 08 . 25± 1.80s
22.253 N ±12. 3km 123.696 E ±12. 1km DEPTH = 27 . 7 ± 13.1 km
4 . 5mb (3 obs .)
SOUTHEAST OF TAIWAN (247)

TWO 2.65 314 iPc 39 50.60 9.5
TWC 2.89 324 ePd 39 54.00 0.6
eS 40 23.90
CVP 4.86 202 iPd 40 28.00 6.7X
eS 40 53.00
PIP 4.86 217 eP 40 20.50 -0.9
BAG 6.51 207 eP 40 51.40 6.5X
SSE 9.09 346 Pnd 41 18.20 -2.4
0.8s 20 . 00nm 5 . 4mb X
Z 14s 0 . 80um 4 . 4Msz
N 11s 0 . 50 urn

pP 41 25.30
eS 43 40.50
TSRJ 17.03 36 eP 43 07.80 1.7
MTMJ 18.81 37 P 43 28.60 0.4

BJ I 18.85 342 (P) 43 27.50 -1.0
MAT 19.01 38 eP 43 29.00 -1.5
1.2s 64.06nm 4. 7mb
CHJJ 19.13 41 eP 43 31.80 -0.2
Nl IJ 19 . 95 38 eP 43 41 . 90 0.9
YAMJ 21.19 38 P 43 51.40 -2.4
LZH 22.09 313 eP 44 08.00 4.9X
1.5s 28.00nm 4. 5mb

pP 4421.50 57kmX
sP 44 28.50
OFUJ 22.74 38 eP 44 08.60 -0.7
ASAJ 26.84 31 eP 44 48.90 0.7
KUSJ 27.16 35 eP 44 54.30 3.2X

FBA 69.46 27 (P) 50 16.00 0.2
NB2 81 .00 333 P 51 22.70 1.0
0.9s 2.90nm 4. 3mb
S.D. -1.4 on 15 of 19 obs .

? AUG 19. 1991 13h 23m 59.73± 0.89s
40.940 N ± 7.5km 23.316 E ± 8.0km DEPTH - 10.0km (qeoph y s i c i s t)
GREECE (364)

SOU 0.12 166 iPc 24 02.98 0.2
eS 24 04.88
SRS 0.27 50 iPc 24 05.40 -0.1
eS 24 09.33
KNT 0.39 305 ePc 24 67.76 0.1
eS 24 12.96
THE 0.41 221 ePd 24 07.84 -0.2
eS 24 13.28
S.D. =0.3 on 4 of 4obs.

? AUG 19, 1991 13h 24m 18.81± 1.33s
40.882 N ± 9.8km 23.422 E ± 1 2 . 2 km
DEPTH = 10.0km (geophysicist)
GREECE (364)

SOH 0.08 221 eP 24 22.00 0.7
eS 24 23.90
SRS 0.27 29 eP 24 24.30 -0.2
eS 24 28.50
THE 0.43 234 eP 24 26.80 -0.7
eS 24 32.30
KNT 0.49 305 eP 24 28.90 0.2
eS 24 32. 10
S.D. =1.0 on 4of 4obs.

& AUG 19, 1991 13h 32m 21.54s
63. 503 N 153. 037 W
DEPTH = 37 . 4km
CENTRAL ALASKA (1)
<AE IC> . ML 2.8 (AE 1C), 3.1
(PMR) .

KTH 0.95 86 eP 32 38.64 0.0
eS 32 51 .57
TRF 1.24 91 eP 32 42.76 0.0
eS 32 59.76
TTA 1.47 248 eP 32 45.10 -0.8
HUR 1.63 107 eP 32 48.23 0.0
CUT 1.68 130 eP 32 49.22 0.3
SKT 1.68 155 eP 32 48.41 -0.6
eS 33 10.51
MCK 1.85 81 eP 32 51 . 33 -0.1
RND 1 .88 91 eP 32 52. 1 1 0.2
NCG 2.15 169 eP 32 55.10 -0.7
eS 33 22.76
8GL 2.27 172 eP 32 57. 12 -0.4
SUA 2.31 151 eP 32 57.65 -0.4
eS 33 26.06
CKL 2.34 172 eP 32 58.17 -0.3
PWA 2.36 1 40 eP 3301.10 2.4
SPU 2.37 168 eP 32 58.74 -0.2
WRH 2.39 64 eP 32 59.60 0.5
MDM 2.56 53 eP 33 00.37 -1.2
CCB 2.57 61 eP 33 01.22 -0.4
eS 33 31 .89
GHO 2.57 131 eP 33 01.66 -0.1
IMA 2.59 354 eP 33 04.60 2.5
PLRM 2.64 135 eP 33 02.64 0.1
PMR 2.64 135 eP 33 05.60 3.0
FBA 2 .69 56 eP 33 04.50 1.2
SVW 2.69 208 eP 33 04.20 0.8
PMS 2.79 143 eP 33 04.62 -0.2
NCT 2.95 179 eP 33 06.03 -1.2
RDT 2.96 174 eP 33 06.36 -0.9
KNK 2.99 133 eP 33 08.42 0.7
eS 33 44.62
TOA 3. 45 1 1 1 eP 33 16.70 2.5
PAX 3.47 95 eP 33 16.51 2.0
SDG 3.55 103 eP 33 17.38 1.7
PDB 3.77 189 eP 33 16.52 -2.2
KLU 3.87 118 eP 33 20.32 0.2
32 obs. associated

7. AUG 19, 1991 13h 54m 08 . 00± 0.56s
44.386 N ± 5.7km 7.372 E ± 5.3km
DEPTH = 10.0km (qeoph y s i c i s t)
NORTHERN ITALY (545)
ML 1 .6 (GEN) .

STV 0. 15 193 P 54 1 1 .71 0.2
S 54 14.43
PZZ 0.23 302 P 54 13.27 0.3
S 54 17.24
ROB 0.37 104 P 54 15.81 0.2
S 54 20.63
BHB 0. 46 350 P 54 17.52 0.1
S 54 23.42

(Ml 0.60 142 P 54 19.96 -0.3
S 54 28.04
FIN 0.63 106 P 54 20.22 -0.4
S 54 29.34
RRL 0.68 322 P 54 21.07 -0.6
S 54 30.78
PCP 0.85 79 P 54 24.85 0.3
S 54 35.24
S.D. =0.4 on 8 of 8obs.

? AUG 19, 1991 14h 34m 32.47± 7.38s
12.154 S ±65. 9km 118.096 E ±35. 8km DEPTH = 33.0km (normal)
4 . 1mb (4 obs .)

MBL 9.11 170 eP 36 44.00 -0.7
0.3s 20.00nm 5.8mb X
eS 38 24.00
NANU 10.64 193 eP 37 04.00 -1.7
0.3s 23 . 00nm 5 . 9mb X
eS 39 01 .00
WARB 16.11 151 eP 38 18.50 0.3
eS 41 12.00

1.2s 2 . 00nm 3 . 1mb X
eS 41 36. 10
BAL 18.41 184 eP 38 46.00 -0.9
0.3s 6.00nm 4. 2mb
eS 42 01 .00
COOL 18.85 172 eP 38 54.00 1.7
0.4s 4 . 00nm 4 . 0mb
eS 42 10.00
ASPA 18.88 129 eP 39 01.90 9.1X
0.6s 5 . 1 0nm 3 . 9mb
KLB 19.35 181 eP 39 00.00 1.8
0.4s 6 . 00nm 4 . 2mb
eS 42 23.00
MUN 19.81 185 eP 39 06.00 2 . 8X
eS 42 34.00
S.D. =1.6 on 7 of 9 obs.

50 . 490 N 1 30 . 1 16 W

DEPTH = 10.0km (qeophy s i c i s t)
4 . 0mb (3 obs .)
VANCOUVER ISLAND REGION (25)
<PGC>. ML 4. 2 (PGC) .

SJB 1.56 339 Pd 15 31.50 -1.1
PHC 1 . 72 82 P 15 35.36 0.3
S 15 56.72
EDB 2.02 107 P 15 38.33 -1.1
BBB 2.11 36 P 1541.10 0.4
S 16 06.00
BNB 2.33 335 P 15 42.80 -1.1
S 1611.10
ETB 2. 57 1 14 P 15 46.21 -0.9
GDR 2.72 104 P 15 48.64 -0.8
CWB 2.92 337 P 15 51.50 -0.7
CBB 3.08 97 P 15 54.56 0.1
BTB 3.14 107 PC 15 54.66 -0.8
S 16 30.02
VIB 3.15 332 P 15 54.60 -0.9
OZB 3.37 1 15 P 15 57.46 -1.2
ALB 3.63 108 P 16 01.51 -0.7
MGB 3.82 111 P 16 04.39 -0.8
SHB 4.12 100 PC 16 08.97 -0.3
PFB 4.17 115 P 16 09.20 -0.7
PGC 4.71 110P 16 17. 65 0.0
STW 4.82117P 16 19. 42 0.2
SNB 4.83 108 P 16 19.56 0.2
OSD 4.98 120 P 16 21 .89 0.2
MCW 5.07 108 P 16 23.50 0.7
BLN 5.30 1 15 P 16 26.25 0.3
OHW 5 . 40 1 1 1 P 1 6 28 . 78 1.4
HDW 5.44 119 P 16 28.40 0.3
MBW 5.60 105 P 16 30.48 0.0
CMW 5.61 109 P 16 31.03 0.6
CPW 5.80 125 P 16 34.11 1.0
JCW 5.82 1 10 P 16 33.69 0.3
RPW 5.97 107 P 16 35.26 -0.2
Q MUf fi A Q 1 *? Q D 1 & 1Q A A *) 1
HTW 6.10 113 P 16 38.43 1.2
GSM 6. 40 1 18 P 16 42.44 0.8
LMW 6.45 123 P 16 43.80 1.5
RVC 6.45 120 P 16 43.40 1.1

190 I5h

190

CZM 6
RVW 6
D CT hi D fi K t MK O
PMW 6
KOSW 6
ERK 6
LON 6
TDL 6
FL2 6
STD 6
LVP 6
SHW 6
REMW 6
SOSW 6
ESD 6
HSR 6
WPW 6
NLW 6
J LK 6
GLK 6
PNT 6
0.
MTMW 6
CDFW 6
TWW 6
ETW 7
T8M 7
C8SW 7
ASR 7
MAC 7
DHW2 7
WTV 7
EBG 7
VLMM 7
SAW 7
VTG 7
MXC 7
EPH 7
7DH 7
BVW 7
MOW 7
WAH2 7
RSW 8
OD2 8
MJ2 8
DPW 8
ET3 8
Kl ETUtf Q
N tVf O

SES 12
YKA 1 4
0.

ewee 16
MSU 17
FFC 17
e.
ALO 23
1 .
87

. 48 1 26 P 1644.32 1.6
. 56 129 P 1645.22 1.5
. 66 121 P 1645.66 1.2
. 62 1 19 P 1645.64 0.8
. 63 1 24 P 1646.82 2.0
. 66 126 P 1647.60 1.8
. 66 1 2 1 P 1645.99 0.8
. 69 125 P 1646.96 1.2
. 72127P 1647.81 1.6
. 76126P 1648.16 1.5
. 78 128 P 1648.66 1.7
. 79 126 P 1649.18 2.1
. 81 1 26 P 1649.47 2.0
. 81 1 26 P 1648.71 1.4
83 126 P 16 49. 86 2.2
. 83 126 P 16 49.86 2.2
. 83 120 P 1 6 48 . 91 1.2
. 84 197 P 16 47 .39 -0.4

. OO e A i I o i e O D r

1 1 A O 4. ** Q ;? . Ci y

1 1 1Q\ . y
. 88 122 P 16 49 .85 1.5
. 88 96 P 1649.00 0.7
7s 2 . 00nm 4 . 3mb X
. 91 127 P 1651.06 2.3
. 93 126 P 1650.72 1.7
. 97 1 15 P 1651.55 2.0
. 05110P 1651.11 0.4
. 11 114P 1652.25 0.8
. 1 3 1 08 P 1 6 52 . 05 0.2
. 15 124 P 1653.61 1.5
. 21 118P 1654.12 1.2
. 22 196 P 16 52. 62 -0.5
. 23 109 P 1653.26 0.0
. 26 1 1 6 P 1654.48 0.9
. 34 129 P 1657.95 3.2
. 57 108 P 1657.51 -0.4
. 57 1 14 P 16 58 . 41 0.5
, 60 1 1 7 P 1658.91 0 . 5
61 1 10 P 16 58. 35 -0.1
64 1 30 P 1700.93 1.9

[71 1 1 5 P 1700.26 0.4
t89 1 15 P 17 02.29 0.0
^ 93 1 14 P 17 02 . 86 0.0
. 1 1 1 1 6 P 1705.48 0.0
. 12 108 P 17 04.85 -0.8
. 15 1 15 P 17 05.22 -0.7
. 23 1 04 P 1706.93 -0.3
. 39 1 1 4 P 1708.70 -0.6
. 77 100 «P 17 13. 80 -0.8
. 16 83 «Pd 18 01.70 0.7
. 71 29 «P 1 8 35.20 0.7
5s 2 . 70nm 4 . 1mb
. 06 1 1 1 «P 1856.00 3.6
. 47 126 «P 19 14.50 4.2
. 55 65 «P 1913.00 2.1
5s 5 . 00nm 3 . 9mb
. 17 123 «Pc 20 14.00 1.4
3s 6 . 25nm 4 . 0mb
obs. associated
_______ ___ __

? AUG 19. 1991 15h 27m 32 . 45± 5.87s
16.268
DEPTH

N ±41. 8km 100.840 W ±31. 2km
- 33 . 0km (no rmo I)
NEAR COAST OF GUERRERO. MEXICO (58)

ACX 1

III 2

MRX 3

PPM 3

1 1 T 3

OXX 4

1 1 SM 4

S. D .

» AUG 1
7. 38J
DEPTH
4 . 6mb
BANDA Si

KUPT !

. 12 57 IP 27 55. 30 3 . 5X
IS 28 06 .50
. 47 32 i P 2811.50 0.0
IS 28 36.00
. 43 354 IP 28 25. 00 0.1

(S) 28 57 .50
. 49 37 IP 28 25. 00 -1.3

(S) 29 04.00
. 65 41 IP 28 29 .50 1.2

(S) 2912.00
. 03 78 (P) 28 33 .50 -0.1
(S) 29 20.30
. 27 50 IP 28 36 .80 0.0

(S) 29 25.00
=1.0 on 6of 7obs.

9. 1991 I5h 37m 26.92± 2.35s
S ±17. 2km 128.717 E ± 1 5 . 1 km
« 169.6 ± 23.9 km
(6 obs .)
A (280)

. 75 241 iPd 38 53.50 2.2

IS 39 52.00
MTN 5.92 157 «P 38 53. $0 -0.2
eS 39 45.00
KNA 8.31 180 eP 39 23.60 -1.8
IS 40 52 . 00
WR2 13.64 157 eP 40 32.40 -2.2
0.3s 8.60nm 4. 6mb
i 4040.10
eS 42 54.80
MBL 16.16 211 eP 41 04.50 -1.5
0.3s 5.00nm 4. 4mb
eS 43 52. 60
CIS 1 6 . 8 1 1 42 eP 4115.00 1.0
i S 44 12.46
ASPA 16.94 163 iPd 41 17. 6tt 1.5
0.5s 18.00nm 4.7mb
«S 4415.80
WAR8 18.80 186 eP 41 37.00 1.0
«S 44 57 . 00

NANU 19.72 219 iPc 41 45.10 -0.4
0.3s 8.00nm 4. 6mb
STK 27 . 17 155 iPd 42 58 . 10 1.7
0.6s 6.00nm 4. 4mb
PKI 54.42 312 P 46 39.00 -0.3
KKN 54.63 312 P 46 46.20 -0.5
DMN 54.66 311 P 46 40. B0 -0.2
GKN 55.22 312 P 46 44.60 -0.3
0.4s 14. 00nm 5.1mb
S.D. = 1.5 on 14of 14 obs .
- -

» AUG 19, 1991 16h 53m 52.60± 2.41s
43.915 N ± 9.1km 113.787 W ±21. 5km DEPTH - 5.0km (ge ophy s i c i s t)
EASTERN IDAHO (457)
ML 3. 0 (BUT) .

HP 1 0 . 54 1 12 «P 54 03 .60 0.2
MCMT 1.13 36 ePn 54 15.10 0.6
LTMT 1.35 63 «Pn 54 17.70 -0.6

PTI 1.47 135 «(P) 54 20.00 0.1
8GMT 1.82 43 ePn 54 24.80 -0.2
H8MT 2.06 24 ePn 54 28.40 -0.1
LRM 2.13 26 «Pn 54 29.60 0.1

BUT 2.27 22 (Pg) 54 30.90 -1.5X
eSn 55 00 . 60
eSg 55 04.60
S . D . = 0 . 5 on 7of 8 obs .

? AUG 19, 1991 18h 28m 44.73± 4.85s
16.975 N ±20. 3km 60.772 IW ±32. 8km
DEPTH - 16.4 ± 10.8 km
LEEWARD ISLANDS

ML 3. 1 (PDF) .

DEC 0.71 203 eP 28 58
S 29 08
SFG 0.82 210 «P 29 00
SEG 0.90 231 «P 29 01
S 29 1 1
BPA 1 . 04 274 eP 2904
S 29 16
MGG 1.17 207 eP 29 06
S 29 20
DOG 1.24 221 eP 29 07
PAG 1 .28 223 «P 29 07
S 29 24
MGH 1.41 260 eP 29 09
S 29 27
B8L 1 .59 205 «P 29 1 2 .
S 29 31 .
S.D.=0.3 on 9of

% AUG 19, 1991 19h 24m 25.
44 . 569 N ± 5 . 3km 7 . 246
DEPTH - 10.0km (geophysi
NORTHERN ITALY

ML 1 .8 (GEN) .

P22 0.12 238 P 2428.
S 2431
BHB 0.27 3 P 2431
S 24 35
STV 0 . 33 1 70 P 2432

(92)

60 0.2
10
60 0.4
41 -0.1
10
22 0.3
50
20 0.0
30
00 -0.3
90 0.0
80
40 -0.2
10
10 -0.3
70
9 obs .

____

69± 0.74s
E ± 8 . 8km
cist)
(545)

91 0.1
Ok VG. O
57 0.1
06
49 -0.1
S 24 37 t 01
ROB 0.52 121 P 24 36 . 39 0.1
S 24 42.65
RSP 0.58 1 P 24 37.42 -0.2

S 2444.49
S . D . =0.2 on 5of Sobs.

? AUG 19, 1991 19h 41m 59.13± 6.15s
39.955 N ±43. 7km 25.061 E ±40. 3km
DEPTH = 10.0km (g« ophy s i c i s t)
AEGEAN SEA (365)

EZN 0.98 97 iPg 42 17.30 -0.4
«Sg 42 26.80
KDZ 1.71 9iPg 4227. 00 -2.2
iSg 42 45.00
RZN 1 . 75 352 IP 4231.00 1.1

DIM 2.12 10 ePg 42 35.00 -0.1
iSg 42 56. 08
JMB 2.76 24 «Pg 42 45.00 0.8
CTT 2.83 64 «Pn 42 46.00 0.8
S.D. - 1.6 on 6 of 6 obs.

AUG 19, 1991 21h 31m 1 1 . 55± 1.21s
4.086 S ±18. 6km 149.774 E ±13. 1km
DEPTH - 33.0km (normol)
4 . 7mb (3 obs .)
BISMARCK SEA (203)

RAB 2 . 39 93 «P 31 48.00 -1.3
CIS 19.13 210 «P 35 34.00 -0.8
MTN 20.38 244 «P 35 44.50 -3.8X
WR2 21.78 222 iPc 36 00.80 -1.8
0.5s 1 2 . 30nm 4 . 6mb
OLP 22.99 193 «P 36 16.00 1.5
BRS 23.35 173 iPc 36 21.00 2.9X
DZM 24.10 139 iPc 36 26.90 1.5
ASPA 24.77 217 iPc 36 32.10 0.2
0.6s 11.40nm 4. 6mb
Z 20s 0 . 50um 4 . 0Msz
LZH 58.64 317 eP 41 09.00 0.7
2.0s 25 . 00nm 5 . 0mb
pP 41 16.50 25kmX
S.D. -1.6 on 7 of 9 obs.

» AUG 19, 1991 21h 52m 02 . 45± 1.10s
17.131 N ± 9.6km 100.455 W ± 8.8km
DEPTH = 67 . 2 ± 8 . 7 km
4 . 3mb (8 obs .)
GUERRERO. MEXICO (59)

ACX 0.63 114 iPc 52 13.90 -2.6
IS 5225.00
III 1 .56 37 iP 52 29.20 0.5
(S) 52 58.50
UNM 2 . 50 29 iP 52 43.20 1.3
(S) 53 22. 13
PPM 2.59 42 iP 52 42.70 -0.7
IS 53 21 .90
1 IA 2.64 40 iP 52 43. 26 -0.2
MRX 2.65 345 iP 52 43.70 0.0
IS 53 22.30
II T 2.78 47 iP 52 45. 30 -0.4

PUE 2.87 48 (P) 52 49.00 2.0
(S) 53 32. 50
1 1 SM 3. 46 57 iP 52 55. 10 0.0
(S) 53 57 .30
OXX 3.57 90 iP 52 57.50 0.7
(S) 53 43.30
CGX 3.83 312 IP 53 01 . 30 0.8

(S) 53 54.80
LVVM 4.60 55 (P) 53 12.50 1.4
(S) 54 20.50
TPX 8.18 105 (P) 54 23.00 22. 0X
ALO 18.53 344 eP 56 15.00 -1.3
1.2s 19.14nm 4. 2mb
ANMO 18.54 344 P 56 10.50 -5.8X
1.3s 54 . 33nm 4 . 6mb
TUL 19.16 12 eP 56 21 .20 -2.1
0.8s 35 . 60nm 4 . 7mb
« 56 25.80
PLM 21.89 321 P 56 53.30 1.8
PEC 22.44 321 P 57 00.00 3.2X
FVM 22.57 21 P 56 56.40 -1.6
PV09 22.61 342 P 56 56.50 -2.2
GOL 22.89 350 P 57 01.80 0.3
0.6s 4 . 1 2nm 4 . 0mb
JSC 24.23 42 P 57 13.00 -1.2
TNP 25.54 328 P 57 26.90 0.2

0.6s 4 . 9 1 nm 4 , 2mb
BLA 26.69 38 P 57 37.30 0.2

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19d 21h

BWC6 26.72 345 P 57 37.58 -8.1
8.8s 3.57nm 4. 8mb
RSSD 27.67 354 P 57 43.88 2.2
LRM 36.31 343 eP 58 09.88 -8.9
PNT 35.67 338 eP 58 57.06 1.0
0.5s 3 . 00nm 4 . 5mb
LPB 46.21 135 (P) 88 26.80 2.7X
YKA 46.39 351 eP 80 23.30 -0.3
1.0s 3.60nm 4. 3mb
CNCB 46.49 135 P 00 27.50 1.9
SIV 50.90 128 P 00 58.70 -0.4
INK 55.27 346 eP 01 31.00 0.2
RSO 57.04 332 P 01 43.00 -0.9
WRA 128.16 258 PKP 11 04.00 0.6
2.0s 1 . 40nm

% AUG 19, 1991 22h 04m 45.02± 8.94s
16.305 N ± 6.3km 61.731 W ±12. 4km DEPTH - 27 .6 ± 9.8 km
LEEWARD ISLANDS (92)
ML 1 .8 (FDF>.

S 04 58.00
PAG 0.28 170 ePc 04 51.73 -0.3
S 04 58.00
DOG 0.29 158 ePc 04 52.15 -0.1
MGG 0.55 134 eP 04 56.71 0.5
DEC 0.65 89 eP 04 57.20 -0.5
BPA 0.75 351 eP 04 59.40 0.0
BBL 0.82 163 eP 05 00.60 0.1
S . D . =0.5 on 7 of 7obs.

& AUG 19, 1991 23h 31m 13. 25s
61 . 784 N 151 .015 W
DEPTH = 75 . 4km
SOUTHERN ALASKA (2)
<AE 1 C> .

SKT 0.31 309 iPd 31 24.53 -0.8
S 3133. 67
SUA 0. 35 158 iPd 31 25 . 71 0.1
PWA 0.56 103 ePd 31 27.06 -0.2
NCG 0.67 236 iPc 31 27.96 -0.6
eS 3139.81

CUT 0.71 29 iPc 31 28.23 -0.7
eS 3139.67
SPU 0.78 220 iPc 31 29.18 -0.6
eS 31 41 . 98
BGL 0.84 232 ePc 31 29.91 -0.6
CKL 0.87 228 iPc 31 30.02 -0.8
PMS 0.88 127 eP 31 30.52 -0.4
PLRM 0.92 101 iPc 31 30.32 -0.9
GHO 0.99 90 eP 31 31.60 -0.7
eS 31 46.80
NKA 1 . 05 186 eP 3134.61 1.7
KNK 1.28 106 iPc 31 35.03 -0.9
eS 3152.61
HUR 1.36 28 ePc 31 35.72 -1.2
eS 3153.18
ROT 1.39 210 iPc 31 36.84 -0.5
iS 31 55 . 74
DFR 1.44 215 ePc 31 37.60 -0.5
RON 1.53 214 iPc 31 38.74 -0.6
eS 31 59.42
REF 1.54 213 iPc 31 39.03 -0.4
ROW 1.57 214 iPc 31 39.52 -0.4
RSO 1.57 213 iPc 31 39.55 -0.4
RED 1.61 213 iPc 31 39.83 -0.6
TRF 1.71 11 iPc 31 40. 30 -1.5
NNL 1.75 185 eP 31 43.35 1.1
KTH 1.78 1 i PC 3141.38 -1.2
SEW 1 . 85 155 eP 3144.17 0.7
RND 1.91 31 ePc 31 42.79 -1.7
GLI 2.10 114 eP 31 44.61 -2.3
KNIM 2.15 131 eP 31 44.98 -2.7

VZW 2.26 107 eP 31 46.81 -2.5
CNPM 2.27 183 eP 31 48.39 -0.9
TOA 2.31 80 iPc 31 49.09 -0.9
SVW 2.31 255 iPc 31 48.39 -1.6
LTI 2.33 137 eP 31 47.99 -2.2
VLZ 2.34 104 eP 31 48.03 -2.2

OPT 2.48 208 eP 31 50.65 -0.5
FID 2.42 113 eP 31 48.76 -2.7
MTU 2.44 136 eP 31 49.33 -2.3

KLU 2.45 95 iPc 31 49.74 -2.1
PDB 2.54 219 i PC 31 51.85 -1.1
TZL 2. 66 82 -P 31 53. 58 -1.1
SDG 2.67 71 eP 31 54.68 -0.3
PAX 2 . 85 63 iPc 3156.04 -1.3
NEA 2.94 17 tP 31 56.20 -2.4

MCNL 3.08 214 eP 31 59.77 -0.8
CDD 3.15 206 eP 32 00.67 -0.8
HDA 3.21 33 eP 32 00.09 -2.3
CCB 3.22 25 ePc 32 00.00 -2.5
MDM 3.43 20 ePc 32 02.90 -2.5
FBA 3.45 23 tP 32 03.29 -2.4
GLB 3.46 93 eP 32 03.57 -2.3
52 obs. ossocioted

% AUG 20, 1991 00h 39m 57.08± 1.51s
45.148 N ±11. 5km 2.795 E ±11. 6km
DEPTH - 5.0km (geophy s i c i s t)
FRANCE (538)
ML 2 . 3 (LOG) .

CAF 0.56 247 Pg 40 07.80 -0.6
Sg 40 16 . 90
RJF 0.92 280 Pn 40 15.10 0.0

Pg 4016.10
Sg 40 29 . 30
Sn 40 30.70
MAF 1.09 352 Pg 40 17.10 -0.9
Sg 40 32.50
TCF 1.21 340 Pg 40 20.20 0.1
Sg 40 37 .30
LPO 1.23 248 Pg 40 20.90 0.4
Sg 40 38.20
BGF 1.41 1 Pg 4023.30 -0.1
Sg 40 42.00
LSF 1.41 322 Pg 40 24.00 0.5
Sg 4044.10
SMF 1.67 26 Pg 40 26.30 -0.8
Sg 4047.40
AVF 1.69 13 Pg 40 27.00 -0.4
Sg 40 49.50
SSF 1.98 14 Pg 40 33.20 1.6
Sg 40 58.00
S . D . -0.8 on 10 of 10 obs.

AUG 20, 1991 01h 50m 48 . 29± 0.83s
44.646 N ± 5.7km 8.115 E ± 5.9km
DEPTH - 5.0km (geophy s i c i s t)
NORTHERN ITALY (545)
ML 2.0 (GEN) . 2.0 (LOG) .

PCP 0.32 109 P 50 55 . 10 0.3
S 50 59.05
ROB 0.39 207 P 50 55.43 -0.8
S 50 59. 64
FIN 0. 44 171 P 50 56. 05 -1.1
S 5101.08
BHB 0.64 288 P 51 00.97 -0.1
S 51 09 . 58
STV 0.69 235 P 51 01.79 -0.4
S 5110.79
PZZ 0. 74 259 P 51 02. 71 -0.4
S 5111.63
IMI 0. 75 193 P 5103.17 -0.3
S 5111.63
RSP 0.79 310 P 51 03.74 -0.5
S 5115.02
SBF 0.92 212 Pg 51 06.30 -0.1
Sg 5118.10
LPG 1.29 312 Pg 51 12.60 -0.2
Sg 51 29.80
FRF 1 . 52 225 Pg 5117.60 1.5
Sg 51 36.20
LMR 1.75 222 Pg 51 21.50 2.0
Sg 51 43.00
S . D . = 1.0 on I2of 12 obs .

% AUG 20, 1991 02h 26m 55.23± 2.23s
37.397 N ±15. 4km 15.973 E ±15. 4km DEPTH - 10.0km (geo phy s i c i s t)
SICI LY (398)

SOI 0.68 5 PC 27 08.00 -0.6

eSg 27 18.50
ATN 0.86 332 P 27 1 1 . 80 0.0
eSg 27 24.90

MEU 0.88 251 PC 27 12.10 -0.1
eSg 27 24.90
MNO 1.15 29B P 27 17.00 0.2
CZ 1 1.82 4 P 27 26 .90 0.1
TDS 2.28 7 P 27 34 .00 0.6
S . D . =0.5 on 6of 6obs.

& AUG 20, 1991 03h 04m 43.40s
40 . 268 N 1 24 . 470 W
DEPTH - 5 . 0km
NEAR COAST OF NORTHERN CALIF. (35)
<BRK>. ML 3.1 (BRK). MD 3.4
(GM) .

FOX 0.44 55 iPd 04 52.74 0.4
FHC 0.65 35 iPc 04 56.34 0.0
; c ft *^ ft *^ o Q
WDC 1.51 77 ePc 05 08.66 -2.4
IS 05 31 .20
MIN 2.19 87 iPc 05 18.26 -2.9
e 05 23.90
ORV 2.39 106 iPd 05 21.82 -2.1
5 obs . assoc i a ted

? AUG 20. 1991 04h 20m 55.28± 0.99s
9.718 N ±14. 9km 69.600 W ± 1 7 . 4 km
DEPTH - 33.0km (normal)
4 . 6mb (5 obs .)
VENEZUELA (101)

BMG 4.33 233 iPc 22 03.00 2.4
FUO 5.89 224 eP 22 35.00 12. 2X
BOG 6.73 221 eP 22 39.50 4.8X

e(S) 24 24.00
CLMC 9.02 230 eP 23 05.80 -0.7
HOOC 9.35 229 eP 23 09.19 -1.9
ANCC 9.49 230 ePc 23 11.42 -1.4
FDF 9.64 58 eP 23 14.80 -0.2
0.3s 1 . 66nm 4 . 7mb
SILC 9.68 224 eP 23 15.03 -0.7
UPA 9.83 267 eP 23 12.60 -4.9X
0.8s 20 . 90nm . 5 . 4mb
S 24 51 .20
PURC 9.96 223 ePc 23 20.32 0.6
PSO 11.44 223 eP 23 41.50 1.7

0.6s 13. 33nm 4 . 6mb
LPB 26.12 177 P 26 38.00 9.3X
e 32 13.00
CNCB 26.41 177 P 26 40.00 8.5X
e 32 55.00
SIV 26.90 162 P 26 41.20 5.7X
ANMO 41.96 313 P 28 45.00 -0.1
TNP 51.14 312 P 29 57.00 -0.5
0.7s 2.78nm 4. 3mb
YKA 61.83 338 eP 31 14.00 0.8
0.7s 1 . 20nm 4 . 1mb
WR2 154.74 244 ePKP 40 56.70 10. 2X
0.7s 4 . 10nm
WRA 154.76 244 PKP 40 56.00 9.5X
0.7s 1 . 50nm
S . D . - 1 . 4 on 1 1 o f 20 obs .

% AUG 20. 1991 04h 51m 3l.38± 0.65s
40.442 N ± 4.8km 23.075 E ± 5.2km
DEPTH = 5.0km (geophysicist)
GREECE (364)

THE 0.21 336 iPd 51 35.46 -0.2
iS 51 38 . 66
SOH 0.43 29 iPc 51 40.16 0.1
eS 51 46.96
LIT 0.56 233 ePc 51 43.16 0.5
PAIG 0.69 138 ePd 51 44.84 -0.4
eS 51 56.56
OUR 0.70 99 ePc 51 45.08 -0.3
eS 51 55.64

KNT 0.73 349 ePd 51 45.32 -0.7
eS 51 57.32
SRS 0.78 30 ePc 51 48.28 1.3
eS 51 58.20
S . D . = 0.7 on 8of Sobs.

* AUG 20, 1991 05h 06m 25 . 86± 0.86s
30.630 N ±12. 1km 79.767 E ±10. 7km
DEPTH - 33.0km (normal)

20d 05h

192

4 . 2mb (
T I BET- I ND I A
MD 4.1

NDI 2
CUE 1 1

SHL 1 1

POO 1 3

HY8 1 3

GBA 17
6 .
M A 1 O 17
KOD 20
LZH 20
1 .
CHG 20
NFS 52

95
08

82

19

20

08
5s
32
4 1
81
5s
98
13
0 . 5Js
NB2 53 40
07s
WR2 72 67

e . 3s

S .D. -

AUG 20 ,
48 848 N
DEPTH =
4 7mb

5 obs .)
BORDER REGION

(NDI) .

229 i Pnc
27 1 eP

c(S)
112 iP
i S

;: 0 5 e P
iS
185 ePd
eS
188 PC
2 . 90nm
294 eP
187 eP
68 eP
23 . 00nm
120 eP
325 ePKP
1 . 50nm
326 P
1.10 nm
127 eP
1.40 nm
e

i
1.5 on

07
09
1 1
09
1 1
09
1 1
09
12
10

10
1 1
1 1

1 1
15

15

17

18
18
9 of

i r»«.

1 3
04
10
15
21
25
38
28
03
22

32
02
1 1

15
35

44

54

00
04

A A 1991 05h i sin TV
+ 9 . 0km 154.219
=> 33.0 km (nor mo 1)

. 80
. 50
. 60
. 00
. 00
. 00
. 60
. 50
. 00
. 50
3
. 00
. 00
. 00
4
. 00
. 30
4
. 40
4
. 10
4
. 60
. 60

(305)

2 . 4
- 0 . 7

- 0.3

- 8 . 4X

- 5. 1X

- 1 .2
9mb
- 1 . 0
- 1 .2
3.9X
3mb
6 .3X
0.5
2mb
0 . 1
0mb
1 .6
4mb

13 obs .

45±
E ±

0 . 36s
5. 2km

32 obs .)
KUR i L i SLANDS

MAT 16
ft
ADK 18
1 .
YAK 19
TTA 30

98
s
75
s
00
37
0 .8s
SVW 30 48
0.9s
1 MA 31.68
0 . 7s
RSO 31
PMR 33
FBA 34

90
59
06
0.9s
1 NK 39
Y K A 48

49
80
0.7s
CHG 53 34
0.8s
GUN 55
KKN 56

57
05
0.6s
PK 1 56 1 1
0 .6s
DMN 56 28
0.6s
GKN 56 33
0 . * s
ORV 58 . 1 9
FFC 58 66
0. 7s
LRM 59
TNP 61

35
69
0 . 7s

BW06 62|. 92
0.

PEC 64
RSSD 64
PV09 66
NB2 66
6 .
GOL 67
0 .
ANMO 70

3s
54
91
08
48
7s
. 32
5 s
1 1
0 .8s
ALO 70
0.
WR2 70
0 .
WRA 70

. 1 1
9s
. 74
3s
. 74

230 eP
8 . 22nm
70 P
60 . 00nm
323 eP
44 ePc
1 1 . 1 0nm
47 ePc
1 2 . 70nm
38 ePc
7 . 70 nm
49 P
46 eP
40 ePc
40 . 50nm
34 ePc
38 eP
3 . 1 0nm
256 eP
1 4 . 93nm
274 P
275 P
58 . 00nm
274 P
1 5 . 00nm
275 P
55 - 00nm
275 P
28 . 00nm
65 P
41 i PC
9 . 00nm
54 eP
64 P
5 . 56nm
55 P
9 . 1 8nm
67 P
51 P
58 P
34 1 P
1.10 nm
55 P
2 . 26nm
60 P
4 . 1 0nm
60 eP
4 . 20nm
200 eP
3 . 20nm
200 P

23

23

24
25

25

f) C
£ O

26
26
26

27
28

29

29
29

29

29

29

29
29

29
29

30

30
30
30
30

30

30

30

30

30

43

59

03
51

53

03

12
20
24

10
23

00

16
19

19

21

20

32
36

42
57

05

15
1 ft 1 O
26
25

34

52

51

55

55

. 00
4
. 20
4
. 50
. 90
4
. 40
4
. 00
4
. 20
. 20
. 20
5
. 00
. 80
4
. 00
5
. 06
. 36
5
. 58
5
. 12
5
. 54
5
. 80
. 30
5
. 20
. 30
4
. 60
4
. 50
. 20
. 40
. 40
4
. 20
4
. 00
4
. 80
4
. 50
4
. 00

(221)

6 . 1 X
0mb
0 .5
8mb
1 . 9
0 . 7
7mb
1 . 3
7mb
0.3
7mb
7 . 4X
1 .0
0 .9
4mb
1 . 1
0 .0
4mb
1 . 3
0mb
0.7
0 . 7
8mb X
0 . 3
2mb
0. 7
7mb
- 0. 1
6mb
- 0.6
- 0.2
0mb
0 .5
- 0. 4
8mb
- 0.2
9mb
- 0.8
- 0. 7
- 0 . 1
- 3 .0
1mb

- 0 . 1

4mb
0 .5
5mb
0 . 2
5mb
0 . 4
9mb
- 0. 1

GBA

TUL

KHC
GRR

AVF

SMF

LPL

LPG

MAF

LSF
RJF

CAF

0 .5s
71.20 269
0.6s
75.22 52
0 . 8s
76.67 335
80 . 77 343
0.8s
81.43 340
0 . 5s
81.46 340

2 . 30nm
Pd 30 57
6 . 60nm
eP 31 20
8 . 1 0nm
eP 31 28
eP 3151
5 . 35nm
eP 31 54
2 . 90nm
eP 31 55
1.0s 11. 00nm
81 . 82 338
0. 5s
81 . 84 338
0.5s
82. 14 341
0.6s
82 .34 341
83 .24 341
0 . 7s
83 . 49 340

eP 31 57
3 . 65nm
eP 31 58
3 . 65nm
eP 31 58
4 . 05nm
eP 31 59
eP 32 03
5 . 50nm
eP 32 05
1.1s 13. 45nm
LFF

LPO

S

* AUG

83 .76 341
0 . 7s
83 . 91 341
0 . 7s
. D . - 0.9

20 , 1991
31.1*' 1 1 1 C -I- 1 ft ? x ' v .
DEPTH - 152.9
CH I LE

JACK

RTLL
ROCH

PEL

I HA

MDZ

SAN

LCCH

PCH

TACH

CHCH

LNV

ANT
CNCB
LPB
S IV
S

______

? AUG
60 .

- ARGENT 1 NA

1 . 56 180

1 . 83 97
1 . 88 191

2. 02 182

2.10 205

2.30 140

2.33 181

2.49 199

2.50 179

2.55 187

2.81 181

2-91 194

7.38 1
14.44 10
14.70 9
17.39 32
. D - - 0.7

20, 1991
244 S ±29.

eP 32 06
5 . 50nm
eP 32 07
4 . 40nm

4 . 5mb
40 -0.7
4 . 9mb
70 -0.7
4 . 8mb
50 -0.9
30 -0.4
4 . 6mb
70 -0.4
4 . 5mb
00 -0.3
4 . 8mb
80 0.3
4 . 7mb

we 0.3
4 . 7mb
60 -0.3
4 . 6mb
60 -0.3
60 -1.0
4 . 8mb
20 -0.7
5. 0mb
40 -0.8
4 . 8mb
20 -0.8
4 . 7mb
on 43 of 4)5 obs.

05h 26m 15
3km 70.591
± 21.3 km

f -
8 8± 0.56s
W ±1 3 . 5km

BORDER REGIOJN (127)

iPd 26 46
iS 2709
iPd 26 49
eP 26 49
i S 2717
iPd 26 52
i 27 09
iS 27 20
eP 26 53
iS 2712
eP 27 02
i 2713
iS 27 23
eP 26 56
i S 2730
iPd 26 56
iS 27 26
i PC 26 58
iS 27 36
iPc 26 58
iS 27 30
iP 27 02
iS 27 42

50 -0.2
50
50 -0.2
50 -1.0
60
00 0.1
50
00
50 0.8
10
40 7 .2X
60
20
00 0.5
50
60 -0.9
50
80 1.1
00
20 0.0
60
00 0.5
10
i P 27 02 400 -0.7
iS 27 37 00
eP 28 02 j 50 0.3
P 29 35
eP 29 43

00 0.1
00 5. 1X
P 3010130 -0.4
on 1 4 o f

05h 28m 01
8km 23.792

6 obs.

32± 0.88s
W ±38 . 8km
DEPTH - 33.0km (normol)
SOUTH

SNA

SANDWICH

13.41 148

ISLANDS REGION (153)

i PC 31 11
0.9s 35.29nm
NVL

PPD
S IV
CCH
SOB!
CNCB
LPB
MBC

FBA
S

* AUG

17.81 141

42 .80 321
51.75 312
52.46 306
52.52 339
53 .72 304
54.02 304
148.55 333
1 .05
154.54 305
. D . - 0.8

20, 1991

P 32 14 t
e 32 31
e 32 47
eP 35 58
P 37 06
P 3713

(P) 37 13
P 37 23
P 37 25.
ePKP 47 50
9 . 00nm

(PKP) 47 55

50 0.0
5.3mb
00 6 . 3X
00
00
50 1.1
60 -1.0
00 -0.2
00 -0.3
00 0.2
00 0.2
00 9 . 5X

00 5.5X
on 7 of 10 obs.

06h 04m 03. 09± 0.73s

26.304 S ± 7.0km 27.462 E ± 1 8 . 0 km
DEPTH - 5.0km (geophy s i c i s t)
REPUBLIC OF SOUTH AFRICA (584)
mbLg 3.6 (BUL).

PRY 0.62 179 eP 04 16.00 0.5
S 04 22.00
KIM 3.41 224 iPc 04 58.00 -0.1
S 0536.50
FRS 3.92 208 i Pd 05 04.50 -0.7
S 0547. 80
JOZ 4.28 106 eP 05 35.00 24. 7X
1.0s 70 . 00nm
S 06 10.50
BUL 6.22 10 iPn 05 37.90 -G.I
i Sn 0647.00
i S g 07 17.10
KRI 9. 64 !2iPn 0627. 30 1.6
i Sn 07 08 . 40
i Sg 08 03 . 90
MTD 10.22 23 iPn 06 32.80 -0.9
i Sn 0819.60
i Sg 0917.30
LSZ 10.99 4 iP 06 43 . 10 -1.2
i 0652. 30
i Sn 08 40 . 80
i Sg 0951.40
i 10 30 .80
TIC 45. 45 312 P 12 26. 00 0.9
S . D . - 1 . 1 on 8of 9obs.

? AUG 20. 1991 06h 23m 41.34+ 6.66s
3.808 N ±23. 5km 77.023 W ±60. 4km
DEPTH - 32 . 2 ± 14 . 8 km
NEAR WEST COAST OF COLOMBIA (102)
MD 3 . 2 (UVC) .

ANCC 0.33 152 i Pd 23 49.48 0.0
eS 23 55.90
CLMC 0.46 81 iPc 23 51.91 0.4
HOOC 0.51 131 iPd 23 51.96 -0.4
HOBC 1.04 58 eP 23 59.57 -0.2
S I LC 1.30 148 ePd 24 03.79 0.0
PURC 1.62 156 eP 24 08.70 0.2
S.D. - 0.5 on 6 of 6 obs.

AUG 20, 1991 07h 45m 09.25± 0.64s
41.172 N ± 6.9km 22.032 E ± 4.7km
DEPTH - 10.0km (geophy s i c i s t)
YUGOSLAVIA (383)
MD 2. 9 (THE) .

GRG 0.35 128 i PC 45 15.74 -0.8
VAY 0.43 70 iPg 45 19.00 0.9
iSg 45 25.30
FNA 0.63 232 ePd 45 21.98 0.0
i S 45 30 . 10
KNT 0.65 91 iPd 45 22.14 -0.2
iS 45 30. 86
THE 0.89 127 ePd 45 26.33 0.0

SKO 0.91 331 ePg 45 25.00 -1.7
i Sg 45 41 . 60
i 4542. 40
OHR 0.93 267 ePg 45 28.70 1.6
eSg 45 41.80
SOH 1 .06 109 iPc 45 29.41 0.1
eS 45 42.30
LIT 1.13 162 ePc 45 29.74 -0.6
eS 45 45.26
SRS 1.18 92 ePc 45 32. 18 0.9
eS 45 46.58
PAIG 1.77 134 ePd 45 39.70 -0.4
eS 4601.98
S . 0 . -1.0 on 11 of 11 obs.

AUG 20, 1991 08h 46m 40.58± 0.17s
37.646 N ± 3.9km 72.150 E ± 2.7km
DEPTH - 135.0km (4 depth phoses) 5 . 2mb (67 obs .)
TAJ I K SSR (715)
CENTROID, MOMENT TENSOR (HRV)
Doto Used: GDSN
L.P.B.: 13S, 21C
Cen t r o i d Loco t i on :
Origin Time 08:46:44.1 1.0
Lot 37.46N 0.12 Lon 72.08E 0.09

Dep 141.7 3.5 Ho I f-durat ion 1.6

193

20<J 08h

DUE

NO 1
MA 1 O

GKN
KKN
OMN
PK 1
GUN
TEH
1 R4
IR7
1 R1
1 R5
POO

TAB
KER
SHL

HYB

GBA

LZH

1 RK
KOD
KM 1

OBN

CHG
MML
BBTK
PRN 1
NST
YLV
KHL
ELL
CFR
BJ 1

VR 1
MLR
NNT

ALN
CMP
TNR
BMR
DEV
OUR
KAF

SRS

Moment Tensor; Scole 10««16 Nm
Mrr«= 1.05 0.56 Mtt 0.49 0.89
Mff--0.57 0.82 Mrt--6.34 0.66
Mrf--7.03 0.65 Mtf--0.05 0.94
P r i nc i po I Axes:
T Vol= 9 74 Plg=47 Azm=132
N -0.47 0 222
P -9.27 43 313

Best Double Coup I e : Mo = 9 . 5* 1 0* * 1 6 NP1:Strike= 45 0 i p= 2 S 1 i p= 93
NP2: 222 88 90

8 . 60 21 2 i PC 48 41 . 60 -2.0
1.0s 85.00nm 5. 4mb
eS 50 1 3 . 10
9.89 153 1 PC 48 57.80 -2.8
10.22 266 iPnd 48 59.20 -5.7X
0.7s 95.30nm 5.6mb
eSn 50 38.00
14.22 129 P 49 51.30 -5.8X
14.77 128 P 49 58.24 -5.9X
14.79 129 P 49 59.10 -5.4X
15 . 01 128 P 50 81 . 82 -5. 4X
15.07 126 P 50 02.48 -5.5X
16.76 270 eP 50 18.00 -10. 8X
17.26 268 i PC 50 34 .00 -0.9
17.39 270 i Pd 50 36 . 50 0.1
17.39 269 iPc 50 36.00 -0.4
17.52 269 eP 50 37 .00 -1.0
19 . 10 1 75 i PC 50 51 . 20 -4.2X
1 . 5s 355.56nm 5 .5mb
IS 54 31 .20
20.38 279 eP 51 89.00 0.5
20.51 268 eP 5111.00 1.1
20 . 63 120 i P 51 10. 00 -1.1
iS 5441.00
20 . 92 163 eP 51 13 . 50 -0.5
1.0s 330.00nm 5.7mb
eS 54 55.50
24.40 167 Pd 51 47.50 -0.2
1.0s 80.00nm 5. 2mb
25 . 35 84 eP 51 57 . 00 0.4
1.4s 69.00nm 5. 0mb
Z 15s 0.29um 3.9MszX

pP 52 06.00 32kmX
PP 52 25.00
eS 56 09.00
26.78 47 eP 5209.50 0.1
27 . 7 1 1 69 eP 5218.90 0.5
28 .81 107 Pd 52 28 .50 0.3
2.5s 130. 00nm 5 . 2mb
sP 52 55.00
29.67 318 iPd 52 34.50 -0.7
0.5s 340 . 00nm 6 . 3mb X
epP 53 03.00 133km
e 53 1 1 . 00
ePP 53 39 . 00
ePPP 53 54.00
eS 57 44 . 00
i 5811.00
esS 58 35.00
eSS 58 44.00
eSSS 59 06.00
29 .99 121 eP 52 38 . 80 0.4
30 . 39 27 1 eP 5243.10 1.2
30 .63 286 eP 52 45 . 00 1.0
31 .50 268 eP 52 53 . 10 1.5
33 . 02 124 eP 53 06.00 1.2
33.09 289 eP 53 05.00 -0.3
33.39 285 eP 53 07.30 -0.7
33 . 46 282 IP 53 09. 90 1.3
33 . 50 297 eP 53 09.00 0.2
34.12 72 eP 5314.00 -0.1
1.0s 8 . 00nm 4 . 4mb
34 . 48 298 eP 53 18 . 50 1.4
35.04 298 iPd 53 23.50 1.4
35 . 06 1 28 eP 5324.00 1.7
e 12 50. 00
35.52 290 ePc 53 26.82 0.8
35 . 70 298 iPc 53 29 . 00 1.5
36.20 298 ePc 53 34.00 2.3
36.61 302 ePc 53 27.00 -8 . 1 X
37.14 299 ePd 53 42.00 2.5
37.17 289 iPc 53 48. 41 0.6
37.18 326 IP 53 39 .00 -0.6
0.4s 17. 50nm 5 . 2mb
37 .31 291 ePc 53 41.90 0.9

NUR
PA 1 G
SON
KNT
VAY
GRG
L 1 T
AGG
SPC
SKO
KRA

BEO
FNA
PSZ
SOD
OHR
SSE

UPP

KTK1
KSP

VKA

LCI
I PM
PRU

VBY

YAK

PS I
TRO
BRG

LJU
CEY
TDS
CS I
KHC

MOR7
CLL

GRl

AC I
MMN
CZ I
VOY
MGR
TRI
KBA

SCO
SOI
BHG
GMB

DU I
FVI
NB2
LOF
ATM
MOX

37 . 45 323 iP 53 41 . 40 -0.5
37.49 289 ePc 53 43.02 0.5
37 . 54 290 iPc 53 44.09 1.0
37.82 291 ePc 53 45.62 0.3
38. 03 291 iP 53 47 . 70 0.7
38 .22 291 ePc 5349.78 1.0
38.34 290 ePd 53 49.94 0.2
38. 71 288 ePc 53 53.58 0.8
38.71 304 i P 53 53 . 60 0.7
38. 73 293 i P 53 53 . 50 0.6
38.87 306 eP 53 53.30 -0.7
08s 174.00nm 5. 9mb
i 53 55 . 20
i 55 24 . 40
38 . 97 297 eP 53 55. 00 0.1
39.02 291 ePc 53 55.50 0.1
39.02 302 eP 53 56.20 0.8
39. 10 334 iP 53 54 . 60 -1.0
39. 3B 292 eP 53 58.50 0.2
40 . 63 84 P 54 10. 50 1.9
Z 20s 0 . 50um 4 . 4Msz
esS 03 28 . 00
40.75 321 iP 54 08.30 -0.9
i 54 09 . 60
40.95 336 eP 54 09.91 -0.9
41.17 307 iP 54 1 3 . 30 0.5
0.7s 48 . 00nm 5 . 3mb
i 55 52.30
41 . 38 303 iPc 54 16 . 10 1.5
2.5s 205 . 00nm 5 . 4mb
i 55 51 . 70
41 . 66 29 1 P 5416.10 -0.8
42.17 134 ePd 5422.90 1.5
42. 35 306 P 54 22. 50 0.0
1.2s 63 . 30nm 5 . 2mb
e 54 30. 10
e 56 04 . 00
42.50 299 eP 54 24.50 0.7
i 54 25. 40
42.52 36 i P 5422.29 -1.4
i pP 55 02.00 183kmX
ePPP 56 53.00
ePS 00 50.00
i sS 01 27 . 00
iScS 04 09.00
42.58 138 ePc 54 24. 80 0.1
42.60 336 eP 54 23.83 -0.4
42.65 307 iP 54 25. 20 0.3
1.2s 1 40 . 00nm 5 . 5mb
i 54 26.40
i 54 32.50
i 54 53. 40
i 56 10. 60
i 59 55 . 40
42.90 300 i P 54 27 .50 0.5
43. 03 300 eP 54 29. 00 0.9
43 . 04 291 P 54 29 . 30 1.1
43 . 04 29 1 P 5428.80 0.6
43.07 305 iP 54 29 . 50 1.1
1.1s 39.80nm 5. 0mb
e 54 35.50
43.19 330 eP 54 28.53 -0.5
43 . 20 308 i P 54 29 . 60 0.3
1.5s 130.00nm 5. 4mb
iScP 59 57 . 10
43.21 289 P 54 29 . 72 0.1
0.6s 1 1 8 . 1 0nm 5. 8mb
43. 22 290 P 54 30 . 00 0.3
43 . 23 29 1 P 5431.40 1.7
43.31 290 P 54 30. 80 0.4
43.34 300 eP 54 30.70 0.0
43 . 49 292 P 5431.90 0.1
43. 49 300 P 54 31 .80 0.0
43.53 302 iPc 54 31 . 70 -0.7
i 54 33.50
43. 55 292 P 54 33. 20 0.9
43. 70 289 P 54 34. 70 1.1
43. 74 303 eP 54 34. 70 0.9
43 . 82 289 P 54 35 . 24 0.5
0.6s 37.70nm 5. 3mb
43. 89 294 P 54 36. 20 1.0
44.00 301 P 54 35. 50 -0.4
44.03 322 P 54 34 . 70 -1.3
44.04 333 eP 54 34.73 -1.2
44. 12 289 P 54 37 .20 0.2
44. 14 307 iP 54 37 .80 0.8
1.6s 130.00nm 5.4mb

RFI

SDI
VV I
GRF

ARV
RGS
AZI
WTTA

FUR

KONO
ASS
MEU
CT I
MNS
RMP
RDP
OGA
CRE
SFI
Gl B
PGD
SAL
OSS
MOL
MME
P I I
VDL
LLS
SLE
BOB
TMA
ZLA
FEL
WTS

GWF
ASK
LIBD
CDF
BBS
MMK
ECH
ORX
CK I
PGF

F I N
MEM
ENN

KBS
D I X
BSF
WLF
LOMF
IM I
HAU

LSD
RSP
VI TF
DO I
STV
SBF

CGL

LPG

LPL
PZZ
RSL
RRL
BNI
DOU
UCC
SNF
FRF

44.33 294 P 54 39 .90 1.4
1.7s 1383. 40nm 6.4mb X
44.34 294 P 54 39 .30 0.5
44.36 301 P 54 39 . 80 1.0
44.52 306 eP 54 41.00 0.9
Z 18s 0.30um 4.3Msz
i 5442. 20
44.53 297 P 54 41 .00 0.8
44.54 325 eP 54 39.10 -0.8
44. 55 295 P 54 42 . 20 1.9
44.65 302 iPc 54 40.80 -0.5
0.3s 1 3 . 00nm 5 . 2mb
i 5441.90
i 5619.40
44 . 73 304 i Pd 5442.70 1.0
1.4s 1 93 . 00nm 5 . 6mb
44. 79 320 eP 54 41 .20 -0.8
44.83 296 P 54 44 . 10 1.4
44.85 288 P 54 44 . 70 1.8
44.87 301 P 54 42.70 -0.3
44 . 99 295 P 5444.00 0.1
45. 12 295 P 54 45. 30 0.4
45 . 1 3 295 P 5445.10 01
45. 13 302 i PC 54 44 . 30 -0.9
45 . 20 297 P 5446.50 0.9
45 . 20 298 P 5446.70 1.3
45.25 289 P 54 45.20 -0.8
45 . 30 298 P 54 47 . 80 1.3
45. 73 300 P 5451.00 1.4
45.76 302 ePd 54 49.60 -0.5
45.84 324 eP 54 49.71 -0.5
45 . 94 298 P 5452.70 1.1
46 . 18 298 P 54 52. 60 -0.6
46.26 302 ePd 54 52.50 -1.6
46.49 302 ePc 54 55.10 -0.8
46.64 304 ePc 54 57.10 0.3
46 . 67 300 P 54 57 . 80 0.6
46. 75 301 ePc 54 56.70 -1.2
46.77 303 eP+ 54 58.00 0.1
46.93 304 P 54 58.53 -0.8
46.94 310 ePd 54 59.50 0.5
1.0s 1 02 . 00nm 5 . 5mb
46.96 306 P 54 59 .31 -0.1
46 . 98 321 i P 5459.50 0.2
47. 15 304 P 54 59.97 -0.8
47 . 30 305 P 55 01 .42 -0.7
47 . 36 304 P 55 01 . 48 -1.0
47.38 302 ePd 55 01.90 -1.0
47.42 305 P 55 02.48 -0.5
47 . 47 301 P 55 01 .67 -1.8
47 .57 299 P 55 04.60 0.5
47.57 297 iPc 55 04.00 -0.3
0.7s 45 . 20nm 5 . 3mb
47 .67 299 P 55 03 . 72 -1.2
47.68 308 PC 55 05.70 0.9
47.70 308 eP 55 05.00 0.0
1.0s 31.00nm 5. 0mb
47. 70 347 eP 55 06.80 2.1
47.74 302 ePc 55 05.40 -0.4
47 . 75 304 P 55 05. 41 -0.2
47 . 77 307 iPc 55 06. 97 1.4
47.83 304 P 55 04.82 -1.4
47 .97 299 P 55 07 .31 0.0
48.00 304 iPc 55 07.10 -0.3
0.9s 40 . 95nm 5 . 2mb
Z 21 s 0 . 1 3um 3 . 9Ms z
48 .07 301 P 55 08 . 64 0.4
48.08 301 P 55 05 .77 -2.4
48. 19 305 P 55 08.37 -0.5
48.26 300 P 55 08.50 -1.0
48.27 299 P 55 08.64 -1.0
48.30 299 iPc 55 10. 10 0.3
1.1s 1 90 . 45nm 5 . 8mb
48.32 293 P 55 10.01 -0.1
0.9s 8 . 30nm 4 . 5mb
48.34 301 iPc 55 10.40 0.0
0.6s 28 . 20nm 5 . 2mb
48.34 301 iPc 55 10.50 0.2
48.36 300 P 55 08.74 -1.6
48.37 301 P 55 10.07 -0.4
48. 46 300 P 55 10.90 -0.4
48 .50 301 P 55 1 1 . 50 0.0
48.67 308 PC 55 13.10 0.6
48.67 309 PC 55 13.70 1.3
48.77 308 PC 55 14.20 0.9
48.94 299 iPc 55 14.50 -0.1
0.7s 55 . 1 0nm 5 . 5mb

20d 08h

194

LMR

OOMF
LRG

Z
CDR
LBF
LOR

2
SMF

SSF

AVF
GRC
PLDF
AGO
BGF

LBL
P>M
MAF
7CF
LSF

CAF

MAT

RJF

2
ETER
LDF

EKA

FLN

2
LPO

GRR

LFF

MFF

LPF

ESEL
MLS
EPF

DAG

EBR
EROO
EGRA
ETA
OMU
ECP

DCN
ECR 1
ECHE
ETOR
AKU

EV 1 A
GUD
EHUE
EN 1 J
TOL

EBAN
AFC
ECOG
EGUA
ERUA
EPLA
EHOR
EPRU
EJ 1 F
EVAL

49. 10 298 eP 55 15. 70 -0.2
0.6s 1 4 . 45nm 4 . 9mb
49.12 308 P 5514.87 -1.1
49.17 299 i PC 5516.38 -e . 1
6.9s 4 4 . 20nm 5 . 3mb
22s 8 . U-ium 3 . 8Msz
49.51 299 ePc 5519.78 06
49.81 384 iPc 55 28.48 -8.9
49 81 304 iPc 55 20 40 -e . 9
0.6s 1 8 . 05nm 5.1mb
20s 8 . 1 5um 4 . 0Msz
49.99 383 i PC 55 22.88 -0.6
8.6s 28.85nm 5. 3mb
50.18 384 iPc 55 22.80 -0.7
0.7s 27 . GCnm 5 2mb
50.27 384 iPc 55 24.30 -0.5
50.32 304 P 55 24.76 -0.3
50.32 303 P 55 24.72 -0.5
50.62 303 P 55 27.04 -0.5
50.67 303 iPc 55 27.20 -0.6
0.9s 30 . 30nm 5.1 mb
50.78 302 P 55 28.48 -0.3
50.79 302 P 55 28.40 -0.5
50.95 303 iPc 55 29.90 -0.1
51.17 303 i PC 5531.60 0.0
51.63 303 eP 55 34.20 -0.9
0.7s 32 . 50nm 5 . 3mb
51 . 67 302 iPc 55 35. 50 0.0
0.9s 35 . 20nm 5 . 2mb
51 .69 70 (P) 55 35.00 -0.7
1.2s 25 . 00nm 4 . 9mb
51.93 302 i PC 5537.40 0.1
0.9s 32 . 75nm 5 . 2mb
22s 0 . 1 0um 3 . 8Msz
51 .97 298 eP 55 37 . 30 -0.4
52.03 307 iPc 55 37.10 -0.9
0.6s 37 . 00nm 5 . 4mb
52. 1 1 316 Pd 55 37 . 70 -0.8
0.8s 30.00nm 5.2mb
52. 21 307 eP 55 38 . 20 -1.1
0.8s 33.60nm 5.2mb
21s 0 . 22um 4 . 2Msz
52 .34 302 eP 55 40. 10 -0.3
6 . 9s 24 . 55nm 5 . 0mb
52.55 307 iPc 55 41.00 -0.9
8.6s 45.1 0nm 5 . 5mb
52. 56 302 iPc 55 41 . 90 -0.1
0.7s 47.40nm 5.5mb
52.63 304 iPc 55 41.40 -1.1
0.6s 1 9 . 85nm 5 . 2mb
52.78 306 eP 55 42.70 -0.8
0.7s 12.15nm 4. 9mb
52 .83 295 eP 55 44 . 20 0.2
52.98 300 P 55 44.35 -0.8
53.47 300 eP 55 47.50 -1.3
0.7s 1 1 . 00nm 4 . 9mb
53.92 343 iPd 55 50.70 -0.9
0.7s 47 . 95nm 5 . 5mb
54.15 297 eP 55 54.00 0.3
54.21 297 eP 55 53.20 -1.0
54.22 299 eP 55 50.36 -3.8X
54.55 313 eP 55 55 . 30 -1.1
54.59 315 eP 55 55. 70 -1.1
54. 79 312 eP 55 57 .00 -1.2
0.6s 80.00nm 5.8mb
54.96 314 eP 55 58.40 -1.1
55.58 300 eP 56 03.60 -0.5
55.65 296 eP 56 04.71 0.0
55.94 298 eP 56 05. 72 -1.1
56 . 49 330 i P 56 1 1 . 60 1.4
0.9s 15.97nm 5. 0mb
57.13 296 eP 56 14.46 -0.8
57 . 48 299 eP 56 16 . 67 -1.0
57.54 295 «P 56 17.70 -0.4
57.61 294 «P 56 18.06 -0.5
57.71 298 i PC 56 19 . 50 0.3
1.2s 1 7 1 . 88nm 5 . 9mb
5J . 24 296 sP 56 21 . 95 -1.0
5£.46 295 eP 56 23.78 -0.8
5Ji. 46 295 eP 56 23.20 -1.4
511. 66 294 eP 56 24.78 -1.0
511.82 302 eP 56 26.44 -0.4
5<l.06 299 eP 56 27.83 -0.7
5i>.43 296 eP 56 30.39 -0.7
5II.80 295 eP 56 32.55 -1.1
60.20 295 eP 56 35.32 -1.0
6D. 61 297 eP 56 38.81 -0.3

BRW 65.96 15 eP 57 14.10 0.4
MBC 66.15 3 ePd 57 14.50 -0.3
0.6s 175 00nm 6.2mb
ANM 68.62 23 eP 57 31.00 0.5
I MA 70.75 18 eP 57 42.50 -1.1
0.8s 27 . 0?inm 5.1mb
INK 72.63 10 iPd 57 53.80 -0.6
0.7s 30 . 00nm 5. 2mb
Tl A 72 .63 21 eP 57 55 . < d 0.7
1.1s 24 . 40r.m 4 . 9mb
FBA 73.11 17 eP 57 57 . ' 0 -0.2
0.8s 78 . 60nm 5 . 5mb
SVW 74.18 22 eP 58 04 . 40 0.7
PWA 75.35 19 eP 58 09 0 -1.1

epP 58 43. $0 139km
RSO 75.54 21 P 58 1 1 .80 0.2

pp 5B 44.^0 132km
PMR 75.59 19 eP 58 11.10 -0.5
0.8s 32 . 80nm 5.1mb
KIC 75.77 267 PC 58 13. f0 0.0
0.5s 8.00nm 4. 7mb
TIC 75.82 267 PC 58 13.58 -0.1
0.7s 14.50nm 4. 9mb
TOA 75.89 18 eP 58 14.60 0.6
LIC 76.08 267 PC 58 15.08 0.0
0.6s 16. 50nm 4 . 9mb
BALM 77.71 16 P 58 23.50 0.0
KDC 77.85 23 eP 58 25.00 0.9
YKA 80.06 3 eP 58 35.70 -0.2
0.5s 40.90nm 5. 4mb
SCH 81.40 337 eP 58 43.00 -0.2
WRA 81.83 123 P 58 44.00 -1.9
0.8s 6 . 60nm 4 . 4mb
FFC 87.86 357 eP 59 15.50 0.0
0.6s 5.00nm 4. 7mb
SES 92 . 29 2 eP 59 37 .00 0.7
PNT 92.79 8 eP 59 40.00 1.4
0.8s 19.00nm 5. 4mb
NEW 94.07 6 P 5944.68 0.1
0.7s 20 . 00nm ! 5. 5mb
pP 00 19.60 136km
TBR 95 . 77 335 P 59 53 . 50 1.1

RSSD 98.54 357 P 00 06.00 0.9
0.8s 8 . 0 1 nm 5 . 3mb
BW06 99.94 IP 00 13. 00 1.4
TNP 104.15 8 Pdiff 00 31.90 1.8
ALO 107.77 359 ePKP 05 07.00 1 3 . 6X
LPB 139.23 290 PKP 06 03.00 8.9X
CNCB 139.32 290 ePKP 05 55.00 0.6
PEL 149.50 267 ePKP 06 16.00 5.5X
PCH 149.52 266 ePKP 06 16.50 5.9X
LNV 150.34 266 ePKP 06 18.00 6 . 4X
S.D. = 0.9 on 249 of 26U obs.
|
& AUG 20, 1991 08h 52m 08.70s
36 . 442 N 120. 340 W
DEPTH 1 7 . 0km
CENTRAL CALIFORNIA (39)
<BRK> . ML 2 . 5 (BRK) .

PRI 0.40 22l"iPd 52 16.68 -0.3
i S 5222.80
PHAM 0.61 184 «P 52 20.00 -0.5
FRI 0.75 43iPd 52 22. 07 -0.8
IS 52 32 . 10
PRS 0.84 263 eP 52 24.59 0.2
eS 52 36.86

SAO 0.95 290 iPd 52 25,94 -0.3
GCC 1.45 294 eP 52 37.31 3.1
CMB 1.59 359 eP 52 36.20 0.0
eS 52 58 00
7 obs. ossocioted

AUG 20. 1991 09h 19m 29 52± 0.36s
36.368 N ± 8.1km 71.593 E ± 7.7km DEPTH = 33 . 0km (normo I)
4 . 8mb (14 obs .)
AFGHANISTAN-USSR BORDER REGiON (717)

ND 1 9 . 0 1 1 47 i PC 21 42 . 00 1.7
MAIO 9.76 273 eP 21 51.00 0.2
0.8s 24 . 89nm 5 . 5mb
eS 23 28 .00
GKN 13.83 123 P 22 45.82 0.2
DMN 14.40 124 P 22 53.30 0.1
KKN 14.40 123 P 22 53.36 0.2
0.7s 213 . 00nm 5 . 8mb X

PKI 14.63 123 P 22 56.26 0.0
GUN 14.74 121 P 22 57.44 -0.3
0.3s 74 . 00nm 5 . 5mb
HYB 19.86 160 eP 24 02.30 1.5
SHL 20.42 116 IP 24 07.60 0.9
eS 27 42.00
GBA 23.27 165 P 24 41.00 6.0X
0.6s 2.50nm 3. 9mb
CHG 29.74 119 eP 25 43.60 8.5X
MLR 35.26 299 eP 26 26.00 2.8
KAF 38.00 327 IP 26 47.00 1.3
0.4s 2 . 30nm 4. 4mb
NUR 38.21 324 eP 26 48.30 0.7
SOD 40.06 335 IP 27 03.20 0.3
UPP 41.47 322 iP 27 15.00 0.5
HFS 43.47 322 eP 27 30.76 -0.1
0.4s 12. 20nm 5 . 0mb
NB2 44.77 323 P 27 40.70 -0.8
0.7s 10.80nm 4.8mb
EKA 52.71 316 P 28 43.00 0.1
0.9s 5.90nm 4. 5mb
MTD 64.99 223 iPd 30 06.40 -2.2
MBC 67.45 3 ePd 30 23.50 0.0
0.6s 5 . 00nm 4 . 8mb
BUL 69.35 223 i PC 30 34.00 -2.1
IMA 72.10 18 ePc 30 51.40 -0.9
0.8s 8.00nm 4. 8mb
INK 73.96 9 eP 31 03.00 0.2
FBA 74.46 16 ePc 31 05.40 -0.4
0.7s 13.10nm 5. 8mb
RSO 76.89 21 eP 31 20.00 0.0
PMR 76.94 19 ePc 31 19.10 -0.8
0.8s 3 . 80nm 4 . 5mb
TOA 77.24 17 eP 31 21.90 0.2
YKA 81.35 3 eP 31 42.70 -1.8
0.6s 3 . 90nm 4 . 6mb
WRA 81.52 122 P 31 44.00 -1.2
0.4s 2.90nm 4. 6mb
WR2 81.54 122 iPd 31 44.10 -1.2
0.5s 7.70nm 5. 0mb
S.D. =1.1 on 29 of 31 obs .

AUG 20. 1991 09h 31m 31.58± 0.62s 10.478 N ± 4.9km 61.687 W ± 9.2km DEPTH - 42.8 ± 6.7 km
TRINIDAD (98)
MD 4.3 (TRN). Felt on Trinidod.

TCE 0.23 343 iPc 31 39.66 0.3
eS 31 46 . 74
TPP 0.28 125 iPc 31 40.26 0.4
TRN 0.33 59 i PC 31 40.08 -0.3
eS 3148.17
TPR 1.14 52 i P 3151.87 0.6
BOT 1.17 54 eP 31 52 . 25 0.5
eS 32 10.47
GRW 1 . 67 1 eP 31 59. 25 0.3
eS 32 22 . 71
FCV 2.70 9 eP 32 14.05 0.5
eS 32 47.94
SVB 2.81 9 eP 32 15. 54 0.4
eS 32 49 . 1 7
SOA 2.93 10 eP 32 17 . 62 0.9
eS 32 53.35
SLB 3. 39 1 1 eP 32 23 . 43 0.0
eS 33 04 . 17
SLW 3.60 12 eP 32 24.94 -1.4
BIM 4. 06 8 eP 32 32. 47 -0.4
MVM 4.12 11 eP 32 33.59 -0.2
S 33 19. B0
FDF 4.26 7 eP 32 35.28 -0.5
0.2s 1 . 74nm
PML 4.31 6 eP 32 36. 31 -0.1
CRM 4.32 10 eP 32 36.80 0.3
PMCB 4.32 7 eP 32 36.15 -0.6
PCM 4.34 6 eP 32 36.36 -0.5
CXM 4.34 7 eP 32 36.79 -0.2
BBL 5.02 2 eP 32 46.00 -0.4
MGG 5.42 4 eP 32 52.00 -0.1
PAG 5.52 0 eP 32 53-00 -0.5
S 33 40.00
DEC 5.83 6 eP 32 54.00 -3.9X
MGH 6.23 355 eP 33 04.02 0.6
BPA 6.53 359 eP 33 04.00 -3.7X
SIV 26.31 179 P 37 04.20 -1.1
LPB 27.58 193 eP 37 30.00 12. 7X
CNCB 27.82 193 P 37 29.00 9.3X

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20d

i 4611.70
BW66 52.55 317 (P) 40 44.90 1.5
NB2 72.63 29 P 43 07.40 11. 0X
0.9s 1 . 1 0 nm
S.D =0.7 on 25 of 30obs.

? AUG 20, 1991 10h 19m 44.17± 7.90s
33.426 N ±62.1 I'm 21.806 E ±22. 6km DEPTH =- 10.0km (gtophysicist)
GREECE (364)

A G G 0.72 34 iPc 1958.60 0.2
i S 20 05 . 56
LIT 1.75 17 ePc ?0 14.36 -0.5
<rS 2035.92
PAIG 2.09 44 cPc 20 19.88 0.2
eS 20 41 .08
FNA 2.38 352 ePc 20 24.08 0.2
eS 20 49.76
OUR 2.54 41 ePc 20 25.88 -0.2
SOH 2.67 26 cPc 20 32.16 4.1X
S.D. -0.5' on 5 of 6obs.

AUG 20, 1991 10h 34m 59.12± 0.33s
18.544 S ± 8.2km 175.826 W ± 8.0km DEPTH = 267.6km (4 depth phoses) 4.7mb (20 obs.)
TONGA ISLANDS (173)

DZM 17.00 255 iPc 38 44.00 1.5
KUZ 19.60 201 P 39 10.60 1.7
URZ 20.59 196 cP 39 17.90 -0.8
NOZ 20.70 194 eP 39 22.00 2.2
RUZ 21.90 199 eP 39 30.30 -1.1
THZ 25.06 200 P 40 01.40 0.3
KHZ 2546199P 40 04. 30 -0.3
LTZ 26.19 200 eP 40 10.00 -1.3
e 40 16.90 25kmX
BRS 30.15 247 iPd 40 48.00 1.3
CTAO 35.77 261 iPd 41 35.00 0.2
CMS 36.87 242 iPc 41 44.20 0.3
OLP 37.62 250 eP 41 50.00 -0.2
0.7s 1 21 . e0nm 5 . 5mb
STK 40.50 242 eP 42 14.50 0.7
0.4s 7.50nm 4.4mb
OIS 41.95 260 eP 42 25.00 -0.8
WR2 46.91 260 iPc 43 04.30 -0.9
0.4s 26 . 80 nm 4. 9mb
WRA 46.93 260 P 43 04.00 -1.3
0.6s 11.30nm 4. 4mb
ASPA 46.99 255 iPd 43 05.80 0.0
0.6s 127.50nm 5.4mb

cS 49 35.20
MTN 51.24 268 eP 43 37.00 -1.2
FORR 51.93 245 cP 43 42.30 -0.7
KNA 52.85 264 iPc 43 49.80 -0.2
0.4s 38.00nm 5.2mb
WARB 53.39 251 iPc 43 53.30 -0.6
0.3s 8.00nm 4. 7mb
MBL 60.21 256 i PC 44 41.00 -0.7
0.2s 6 . 00nm 4 . 8mb
KLB 60.74 244 e P 44 44.00 -1.2
NWAO 61.08 242 eP 44 51.00 3.5X
BAL 61.73 245 eP 44 50.00 -1.8
MUN 62.03 243 eP 44 53.00 -0.7
NANU 63.90 253 eP 45 06.00 0.0
0.3s 10.00nm 5 . 0mb
MAT 69.90 322 *P 45 43.00 -0.2
0.7s 8 . 22nm 4 . 6mb
PLM 76.32 48 P 46 20.00 -0.7
PEC 76.41 47 P 46 20.30 -0.6
ORV 76.87 40 P 46 23.00 -0.3

TNP 78.71 43 P 4633.60 0.0
0.7s 5.56nm 4.4mb
pP 47 36.60 267km
BALM 83.74 16 P 46 58.90 -0.2
PNT 83.90 33 cP 47 00.00 0.0
0.7s 9.00nm 4. 7mb
PV09 84.34 46 P 47 03.30 0.5
ALO 84.58 51 eP 47 04.00 0.0
1.0s 6 . 50nm 4 . 4mb
e 48 07.00 263km
ANMO 84.59 51 P 47 04.30 0.3
0.8s 5.97nm 4. 5mb
pP 48 08.20 267km
NEW 84.60 35 P 47 03.10 -0.5
0.6s 5.91 nm 4 . 6mb

FBA 85.91 12 P 47 09.50 -0.1
0.6s 1 2 . 32nm 4 . 9mb
pP 48 15.00 274km
8J 1 85 . 97 31 4 cP 4711.50 1.1
1.6s 41.00nm 5. 0mb
8W06 86.15 42 P 47 10. 50 -1.1
PSI 86.35 274 cPc 47 13.60 0.8
GOL 87 . 49 47 P 4717.70 -0.4
0.7s 2.67nm 4. 2mb
KMI 90.31 296 PC 47 34.50 3.0X
2.0s 50 . 00nm 5 . 1 mb
RSSD 90.33 43 P 47 30.30 -0.9
0.8s 6 . 0 1 nm 4 . 6mb
CHG 91.52 289 cP 47 39.70 2.7
CLL 146.57 350 iPKPd 54 11.00 2.7
0.9s 1 1 . 00nm
i 54 23.90
e 55 18.00

BRG 146.82 349 i(PKP)54 11.20 2.5
PRU 147.55 347 cPKP 54 13.00 3.1X
KHC 148.56 348 ePKP 54 16.00 4 . 4X
FLN 149.62 6 cPKP 54 18.10 4 . 9X
0.9s 8 . 20nm
LDF 149.82 6 cPKP 54 18.60 5.1X
GRR 149.95 7 cPKP 54 19.20 5.5X
0.9s 9 . 85nm
CDF 150.10 356 cPKP 54 19.70 5 . 6X
LPF 150.28 7 cPKP 54 19.90 5.7X
0.9s 1 3 . 1 0nm
HAD 150.56 357 cPKP 54 20.80 6.1X
0.6s 4 . 50nm
8SF 150.71 356 cPKP 54 21.00 6.0X
0.6s 3 . 60nm
LOR 151.35 0 ePKP 54 22.60 6.7X
0.7s 4 . 40nm
SSF 151.55 1 ePKP 54 23.30 7.1X
0.8s 5 . 35nm
L8F 151.64 0 ePKP 54 23.20 6 . 9X
0.6s 4 . 05nm
MFF 151.79 6 ePKP 54 23.40 6 . 9X
AVF 151.82 1 «PKP 54 23.40 6 . 9X
SMF 151.97 0 ePKP 54 23.80 7 . 0X
0.8s 3 . 35nm
8GF 152.04 2 cPKP 54 24.20 7 . 3X
0.7s 5 . 50nm
LSF 152.28 4 ePKP 54 24.20 6 . 9X
0.8s 5 . 35nm
TCF 152.29 3 ePKP 54 24.40 7. IX
MAF 152.37 2 ePKP 54 25.10 7.7X
0.6s 2. 70nm
S . D . - 1 . 1 on 46 o f 67 obs .

% AUG 20, 1991 11h 08m 36.52± 0.83s 42.919 N ± 7.3km 12.896 E ± 1 2 . 6 km DEPTH - 10.0km (gcophysicist)
CENTRAL 1 TALY (381)

ASS 0.23 311 P 08 41.40 -0.1
eSg 08 46.60
MNS 0.56 197 PC 08 45.70 -2.2
eSg 08 55.20
ARV 0.58 3 P 08 46.80 -1.5
eSg 08 57.00
AOU 0.68 146 P 08 48.50 -1.5
CRE 0 . 99 316 P 08 55.50 0.2
AZ 1 1 . 01 1 57 P 0857.40 1.8
eSg 09 12.70
RDP 1 . 17 187 P 08 57. 90 -0.5
cSg 09 16.60
SDI 1 . 39 150 P 09 01 .50 -0.5
S.D. =1.4 on 8of Sobs.

% AUG 20, 1991 11h 15m 38.66± 0.68s
37.246 N ± 6.7km 2.368 W ± 5.7km
DEPTH - 10.0km (gcophysicist)
SPA IN (377)
mbLg 2.6 (MDD) .

ENIJ 0.30 155 iPg 15 45.00 0.0
cSg 15 49.20
AFC 0.94 271 cPg 15 56.60 -0.1
ECOG 0.96 272 cPg 15 56.80 -0.1
cSg 16 10.60
EALH 0.97 51 ePg 15 57.00 -0.1
cSg 16 09.70
EGUA 1.04 247 ePg 15 58.50 0.2
cSg 16 1 1 .50

EV I A 1.39 356 ePn
cSn
S.D. - 0. 2 on

AUG 20 , 1991 1 1 h

16 04.40
16 23. 00

0. 2

6 o f 6 obs .

28m 56.37±

44 ft i o r» C i. 288 N±2.7km .,<.*<. ^
DEPTH » 10.0km (geophysicis
NORTHERN ITALY

ML 3.0 (LOG) , 2

PCP 0.49 301 P
S
808 0.53 25 PC
cSg
OKI 0.62 283 P

eSg
FIN 0.67 264 P
S
ROB 0.90 271 P
S
IMI 0 . 97 248 P
S
SDI 1 . 08 102 P

cSg
MME 1.13 94 Pd
eSg
P 1 1 1 . 16 1 19 P
eSg
SAOF 1.17 256 Pg
sg
AUTN 1 . 26 257 Pg
sg
S8F 1 . 29 251 Pn
Sn
STV 1 . 30 269 P
S
DOI 1.37 280 P
cSg
TOUF 1 . 38 259 Pg
PZZ 1 . 47 279 P
S
MV I F 1.48 255 Pg

Sg
ORX 1 . 57 329 P
S
RSP 1 . 59 304 P
S
SAL 1 . 65 36 P
CALN 1.70 252 Pg
PGF 1.74 183 Pn
RRL 1.79 292 P
S
LSD 1 . 83 311 P
S
TMA 1 . 83 354 eP
BN I 1.91 294 P
PGD 1.91 1 02 P
FRF 1 . 93 249 Pn
Sn

Sg
SF I 2. 00 100 P
LPG 2.08 306 Pn
Sn
LPL 2.10 307 Pn
Sn
LMR 2.12 244 Pn
Sn
LRG 2.17 248 Pn
P9

Sg
VDL 2.21 6 eP
CDR 2.50 257 cP
c
OSS 2.50 16 eP
LLS 2.58 358 eP
WTTA 3.45 30 iPnd
i
iSn
i
SLE 3.51 353 eP
HAU 4.19 334 Pn

sg
CDF 4.32 343 Pn
Sn
SMF 4.40 304 Pn
LBF 4.51 309 Pn
Sn

9 (GEN) .

29 05.36
29 12.36
29 05 . 40
29 12.00
29 08 . 30
29 17 . 60
29 10.10
29 20.05
29 13.47
29 25.75
29 15.33
29 29.32
29 16.20
29 31 . 30
29 17 .50
29 32.30
29 18.20
29 33 . 50
29 18.25
29 35. 33
29 19 . 75
29 40.47
29 20.50
29 37 .60
29 20 . 13
29 37.80
29 21.80
29 38 . 70
29 20. 25
29 23 . 36
29 41.22
29 23.22
29 43.63
29 24.08
29 43. 75
29 24.65
29 45.53
29 25.50
29 27 . 05
29 26.25
29 28. 38

?Q *> 1 "* "* £. y w> t . o o
29 27.95
29 52.08
29 28.70
29 30.00
29 29.30
29 29.70
29 52.80
29 59. 60
29 31.10
29 33.20
29 58.00
29 33.50
29 58.40
29 31 . 60
29 56.50
29 33.80
29 38. 60
30 06.00
29 34.30
29 44.30
30 12. 50
29 39. 10 .
29 39.40
29 52.60
29 53. 10
30 34.50
30 35.60
29 51 . 50
30 00.80
30 49.30
30 03.20
30 51 .30
30 04.60
30 05.60
30 54.20

0 . 25s
2 . 0km
t)
(545)

- 1 .0

- 1.7

- 0. 6

0. 5

- 0.2

0. 5

- 0 . 5

- 0 . 3

0 . 3

0.0

- 0 . 2

0 . 1

- 0. 3

0. 3

- 1 . 6
0 . 3

0. 1

- 0. 4

- 0. 1

0 . 0
0. 7
- 0. 7
0.6

- 0. 3

0. 5
0. 6
- 0. 2
0 . 1

0. 6
1 . 2

1 . 3

- 0. 7

0 . 8

0 . 5
6 . 5X

1 . 2
0. 3
1 . 2

- 0.5
- 0. 9

- 0.5

- 0. 2
- 0. 7

196

* 0 a iin

LOR 4. 74 31 1 Pr> 30 10. 10 0.5
Sn 31 00.40
AVF 4.77 304 Pr> 30 09.30 -0.6
BGF 4.97 299 Pn 30 12.90 0.1
S.D. » 0.7 on 45 of 46 obs.

* AUG 20, 1991 11h 46m 33.19+ 8.90s
26.267 S ±14. 8km 27.467 E ±20. 2km
DEPTH = 5.0km (ge ophy s i c i s t)
REPUBLIC OF SOUTH AFRICA (584)
mbLg 3.4 (8UL) .

SLR 6.90 54 i PC 46 51.50 0.4
S 47 01 . 59
KIM 3 4 4 1' 2 3 i P d 472880 0.1
S 48 08.50
FRS 3.95 208 iPc 47 35.70 -0.1
S 48 18.80
BUL 6.! 19 10 iPn 48 08.60 1.0
i Sn 49 1 6 . 70
i Sg 49 47 . 00
KRI 9.60 12 iPn 48 48.60 -6.6X
iSn 50 27.30
i Sg 51 20. 40
MTD 10.19 23 iPn 49 91.80 -1.5
i Sr> 50 49. 80
i S g 51 46.90
S.D. =1.3 on 5 of 6obs.

7. AUG 20, 1991 12h 29m 29.20± 0.77s
38.003 N ±10. 5km 14.995 E ± 6.6knn
DEPTH - 10.0km (geo phy s i c i s t)
S I Cl LY (398)

MNO 0.25 253 P 29 35.30 0.7
eSn 29 40.20
ATM 0.40 67 P 2938.50 1.1
eSn 29 45 . 90
GIB 0.77 269 P 29 44.20 0.0
eSn 29 55. 10
SOI 0.84 85 P 29 45.60 0.2
MEU 0.90 183 P 29 45.90 -0.6
eSn 29 55.50
CZ I 1.51 36 P 29 54. 80 -1.4
S.D. - 1.2 on 6 of 6 obs.

AUG 20, 1991 12h 29m 38.17± 8.65s 5.815 S ± 5.4km 128.525 E ± 7.7km DEPTH 4- 335.6 ± 9 . 1 km
4 . 9mb (1 4 obs .)
BANDA SEA (280)

AAI 2,14 351 ePc 30 30.00 0.5
eS 31 1 7 . 00
KUPT 6.50 228 ePd 31 19.00 4.0X
e(S) 32 20.00
MTN 7.44 160 eP 31 24.20 -2.0
KNA 9.88 179 iPd 31 54.90 -0.7
eS 33 48.00
JAY 12.58 75 ePc 32 29.40 1.1
CGP 14.68 345 eP 32 53.00 8.2
0.5s 22.00nm 4.8mb
KKM 17.02 314 ePc 33 18.20 0.6
1.0s 102.50nm 5.1mb
MBL 17.43 288 eP 33 21.30 -0.3
OIS 18.18 145 iPc 33 28.00 -1.3
i 33 32.30
i 36 43.00
i 37 22.00
ASPA 18.49 164 iPd 33 32.90 0.5
0.4s 83.60nm 5. 4mb
eS 36 44 . 00
e 36 53.50
PMG 18.80 102 eP 33 37.00 1.5
WARB 20,. 33 185 eP 33 52.10 1.5
e 3400. 40
eS 38 1 1 . 00
NANU 20.85 216 eP 33 57.00 1.5
0.3$ 14.00nm 4. 8mb
CTAO 22.32 131 IP 34 11.00 1.3
i 35 00.00
FORR 24.91 181 eP 34 33.60 8.2
GUA 25.19 40 P 34 34.80 -1.3
KLB 27.56 200 eP 34 57.00 -0.3
MUN 28.46 202 eP 35 04.50 -8.7
PSI 30.75 285 ePd 35 25.50 0.1
BDT 37.09 309 eP 36 20-20 1.1

0.7s 5 1 . 1 0nm
CHG 38.06311 i PC 3628.
1.0s 28 . 75nm
MAT 43.10 1 1 eP 3706.
1.0s 1 5 . 00nm
LZH 47 .68 333 eP 37 44 .
1.6s 44 . 00nm
pP 37 49.
eS 4412
GUN 53. 07 31 1 P 3824.
0.4s 87 . 00nm
PK I 53 .25 31 1 P 38 25.
0.5s 3 1 . 00nm
KKN 53 . 46 31 1 P 3827
0.5s 6 1 . 00nm
DMN 53 . 49 31 1 P 3827.
0.5s 37 . 00nm
GKN 54 . 05 31 1 P 3831.
0 . 4s 79 . 08nm
GBA 54.26 291 PC 38 32.
0.9s 7 . 20nm
ND 1 60.10 308 i PC 3912-
CNCB 152.22 144 ePKP 48 58.
e 50 20.
LPB 152.37 144 ePKP 48 59.
S. D. = 1 . 1 on 29 of 3

7. AUG 20 . 1991 13h 52m 35.
37 .937 N ±10. 0km 15. 047
DEPTH = 10.0km (geophysi
SlCl LY

MNO 0.28 269 Pd 52 42.
eSg 52 47.
ATN 0.40 56 PC 52 45 .
eSg 52 52.
SO 1 0.81 80 Pd 5252.
eSg 53 04 .
GIB 0 . 8 1 274 Pd 52 58 .
eSg 53 02.
MEU 0 . 84 1 86 P 52 50 .
eSg 53 01 .
MCT 1.16 255 P 52 59.
«Sg 53 15.
CZ 1 1 .54 33 P 53 01 .
«Sg 53 23.
TDS 1.99 30 P 53 08.
CS I 2.08 27 P 5311.
S.D. -1.5 on 9 of

7. AUG 20, 1991 I3h 59m 56.
37 . 956 N ±10. 5km 15 .001
DEPTH = 10.0km (geophysi
SICI LY

MNO 0.24 264 Pd 00 02.
eSg 00 06.
ATN 0.42 61 PC 0005.
eSg 00 13.
GIB 0.77 273 P 0011.

eSg 00 23.
SOI 0.84 82 P 00 13 .

eSg 00 25.
MEU 0 . 86 1 84 P 0012.

eSg 00 22.
CZ 1 1.54 35 P 00 22.
S.D. -1.3 on 6 of

? AUG 20. 1991 14h 29m 00.
32 . 798 S ±1 1 . 5km 178.881
DEPTH - 33.0km (normol)
4 . 9mb (3 obs .)
SOUTH OF KERMADEC ISLANDS

HBZ 5.32 205 P 30 20.
NOZ 6.32 202 P 30 35.
URZ 6.35 210 eP 30 33.
S 31 52.
DZM 16.83 306 iPc 32 58.
ASPA 42.29 270 i Pd 36 52.
0.6s 7 . 80nm
WR2 43 . 48 275 i Pd 3701.
0.4s 1 5 . 00nm
WRA 43.50 275 P 3701.
0.5s 1 2 - 5<8nm
NB2 150.99 350 PKP 48 44.
1.1s 6 . 50nm

5 . 0mb
70 1.5
4 . 6mb
00 -1.9
4 . 2mb
00 0.1
4 . 5mb
(!0 17kmX
e 0
M 8.0
5 . 4mb
J6 -0.6
4 . 9mb
2 -0.2

5 . 2mb is e .0
1 5.0mb
' 0 -0. 1
5 . 4mb
0 -0.8
4.1mb
00 -1.4
00 7 . 9X
00
00 8. 9X
2 obs.
t ------
t8± 0 . 78s
k ± 6 . 9km
iist)
(398)

:>0 0.5
50
50 1.4

fee
60 1.2
50
80 -0.7
80
70 -1.4
90
58 1.7
60
90 -1.3
00
30 -1.6
30 0.2
3 obs .

39± 0.81s
E ± 6 . 8km
cist)
(398)

70 1.0
80
80 0.9
10
20 -0.3
20
20 0.6
90
30 -0.6
30
30 -1.6
6 obs .

73± 1 .58s
W ±25 . 3km

(179)

30 0.5
40 1.3
90 -0.6
80
00 2.5
40 -0.7
4 . 6mb
30 -1.4
5 . Vmb
00 -1.9
4 . 9mb
80 -0.2

HFS 151.42 347 ePKP 48 45.90 0.4
0.5s 2 . 30nm
S.D. =1.6 on 9 of 9 obs.

? AUG 20, 1991 1 5h 05m 17.48± 1.24s
10.523 N ±12. 6 km 61.625 W ±16. 5 km
DEPTH - 33.0km (normol)
TR 1 N 1 DAD (98)
MD 3 . 2 (TRN) .

TCE 0 .21 324 eP 05 24 . 22 6.0
eS 05 29.45
TRN .0. 25 60 eP 0524.61 0.0
eS 0529.94
TPP 0.27 140 eP 65 24.82 0.0
eS w5 36.23
GRW 1.63 359 eP 05 44.31 0.6
eS 06 04.83
S.D. = 0.0 on 4 of 4 obs.

AUG 20, 1991 15h 12m 32.34± 0.44s
44.249 N ± 8.9km 149.515 E ± 7.7km DEPTH = 38.0km (6 depth phoses) 4 . 9mb (38 obs .)
KUR I L ISLANDS (221)

MAT 11.55 232 eP 15 16.00 -1.7
0.8s 8 . 2 1 nm 4 . 9mb
(S) 1650.00
YAK 21.24 334 eP 17 13.20 -3.7X
i 1721.00 28km
e 2105.00
BJ I 24.97 272 eP 17 54.00 0.4
1.3s 25 . 00nm 4 6mb
Z 18s 0 . 47um 4 . 0Msz
LZH 35.46 273 PC 19 28.00 6.8
1.0s 65 . 00nm 5 . 5mb
Z 18s 0 . 26um 4 . 0Ms z

pP 19 34.00 20kmX
sP 1939.00
i 20 15. 00
TTA 35.97 39 eP 19 31.20 0.2
1.0s 13. 00nm 4 . 8mb
e 19 45.20 54kmX
SVW 36.03 42 eP 19 35.30 3.7X
e 19 45.70 36km
IMA 37.31 34 ePc 19 42.60 0.3
0.8s 21 . 30nm 5 . 1mb
TOA 40.52 41 eP 20 07.40 -1.6
KMI 42.29 259 PC 28 24.00 -8.1
INK 45.11 31 eP 20 46.00 -0.1
CHG 49.06 256 eP 21 18.00 0.2
GUN 52.68 274 P 21 45.76 0.1
KKN 53.18 275 P 21 49.42 0.3
PKI 53.22 274 P 21 47.40 -2.2
DMN 53.41 275 P 21 49.56 -1.3
GKN 53.52 275 P 21 51.70 0.2
NDI 58.40 281 i PC 22 26.00 -0.4
FFC 64.27 38 eP 23 05.08 -0.6
0.7s 8 . 00nm 4 . 9mb
WR2 65.37 196 eP 23 14.20 1.2
0.7s 3 . 60nm 4 . 6mb
WRA 65.37 196 P 23 13.00 0.0
0.8s 2 - 40nm 4 . 3mb
TNP 66.75 59 P 23 22.30 0.2

pP 2335.18 44km
GBA 67.82 268 P 23 30.00 1.2
0.9s 5 . 1 0nm 4 . 6mb
BW06 68.27 51 (P) 23 30.90 -0.7
pP 2341.70 35km
UPP 69.01 336 IP 23 32.70 -2.8
i 23 33.80 4kmX
NB2 69.74 340 P 23 38.20 -1.8
0.7s 8 . 20nm 4 . 9mb
HFS 69.88 338 eP 23 38.50 -2.3
0.4s 5 . 80nm 5 . 0mb
ALO 75.32 55 e(P) 24 09.00 -4.7X
KRA 76.32 329 eP 24 19.80 1.1
e 24 32.80 45km
KSP 76.95 332 IP 24 22.60 0.3
CLL 77.64 334 iPc 24 25.30 -0.7
1.4s 30 . 00nm 5 . 1mb
BRG 77.71 333 eP 24 26.10 -0.3
1.1s 1 2 . 00nm 4 . 8mb
EKA 78.12 344 P 24 29.00 0.4
1.1s 9.1 0nm 4 . 7mb
PRU 78.27 332 PC 24 29.50 0.0

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MOX 78.65 334 eP 24 32.ee 0.4
2 . es 27 . 00nm 4 . 9mb

KHC 79.33 332 P 24 36.60 0.6
e 24 52.06 57kmX
WTTA 81.60 332 iPc 24 48.00 0.4
0.6s 10.50nm 5. 0mb
i 2500.10 40km
CDF 81.95 336 tP 24 50.30 1.0
6.7s 6 . 60nm 4. 8mb
SKO 82.37 324 eP 24 51.30 -0.2
VAY 82.41 323 eP 24 52.30 0.6
FLN 83.71 341 eP 24 57.66 -0.7
8.9s 9.85nm 4. 9mb
2 2y s <f - 08um 4 . IMsz
LDF 83.78 340 eP 24 58.10 -0.5
LOR 83.97 337 eP 24 59.10 -0.5
0.7s 4.40nm 4. 7mb
Z 21s 0.1 0um 4 . 2Msz
GRR 84.15 341 eP 25 00.20 -0.3

LBF 84.19 337 eP 25 00.90 0.1
0.7s 3 . 85nm 4 . 6mb
SSF 84.26 337 eP 25 01.40 0.4
0.6s 5 . 40nm 4. 9mb
BOB 84.52 333 P 25 03.20 0.7
LPF 84.53 341 eP 25 02.20 -0.2
0.9s 1 3 . 1 0nm 5 . 1mb
PGD 84.53 331 Pd 25 04.20 1.5
SMF 84.54 337 eP 25 02.90 0.4
0.6s 6 . 30nm 4 . 9mb
AVF 84.55 337 eP 25 02.80 0.3
0.5s 3 . 65nm 4 . 8mb
MME 84.61 332 PC 25 04.30 1.1
LPL 84.72 335 eP 25 04.30 0.6
0.7s 6.60nm 4. 9mb
LPG 84.73 335 eP 25 04.60 0.8
0.7s 7.70nm 5. 0mb
BD 1 84 . 76 332 P 25 05 . 20 1.5
MAF 85.28 338 eP 25 06.50 0.3
0.7s 11.60nm 5. 2mb
TCF 85.32 338 eP 25 06.60 0.2
0.8s 4.70nm 4. 7mb
LSF 85.54 338 eP 25 07.50 0.0
0.8s 1 4 . 80nm 5 . 2mb
MFF 85.64 340 eP 25 08.10 0.1
0.7s 8.80nm 5. 1mb
RJF 86.41 338 eP 25 12.10 0.2
0.7s 6.60nm 5. 0mb
Z 20s 0 . 08um 4 . 1 Msz
FRF 86.50 334 eP 25 12.00 -0.3
0.9s 8 . 20nm 5 . 0mb
CAF 86.61 337 eP 25 13.60 0.7

LRG 86.69 334 eP 25 13.00 -0.2
0.9s 16.40nm 5. 3mb
Z 20s 0 . 08um 4 . 1 Msz
LMR 86.75 334 eP 25 13.20 -0.3
0.7s 11.00nm 5. 2mb
LFF 86.96 338 eP 25 15.10 0.6
0.6s 9 . 00nm 5 . 2mb
LPO 87.08 338 eP 25 15.50 0.4
0.7s 5.50nm 4. 9mb
S.D. - 0.9 on 63 of 66 obs.

AUG 20. 1991 15h 49m 55 . 65± 0.72s 41.986 N ± 5.5km 23.257 E ± 6.6km DEPTH = 10.0km (geo phy s i c i s t)
GREECE-BULGARIA BORDER REGION (363)
ML 2. 2 (SKO) .

VTS 0.61 357 iPg 50 08.00 0.0
i Sg 5017.00
VAY 8.84 218 iPg 50 11.60 -0.3
i Sg 50 22. 60
KNT 0.87 198 iPc 50 11.57 -0.8
tS 50 22.26
SRS 0 90 164 ePd 50 13 34 0.4
eS 50 25 . 18

PLD 1.08 83 iPg 5017.00 1.0
RZN 1 . 13 105 IP 5016.00 -0.9
SOM 1.17 176 ePc 50 17.30 -0.2
eS 50 32.62
THE 1 . 37 189 i PC 50 21 .69 0.9
KDZ 1.65 101 iP 50 24.00 -0.8
OUR 1.74 161 iPd 59 26.86 0.8
eS 50 51 .30

PAIG 2.08 171 ePc 50 30.74 -0.3
S.D. =6.8 on 11 of 11 obs.

& AUG 20. 1991 16h 25m 20.49s
59 . 986 N 153. 470 W

SOUTHERN ALASKA (2)
<AE 1 C> .

OPT 0.36 160 iP 25 40.03 0.5
eS 25 55 . 64
PDB 0.42 242 eP 25 39.69 0.0
eS 25 54 . 60
RED 0.56 38 iP 25 41.57 -0.5
« S 2557.45
RDT 0.79 41 iP 25 42.68 -0.9
eS 25 59.80
HOM 0.98 109 eP 25 44.22 -0.8
eS 26 03 . 45
NNL 1.09 86 tP 25 46.23 0.2

eS 26 05.69
BRLK 1.32 99 iP 25 47.27 -1.0
S 2607.65
CKL 1.34 24 eP 25 47.59 -0.9
eS 26 89 . 34
NKA 1.34 55 eP 25 49.47 1.9
BGL 1.39 22 eP 25 48.70 -0.3
SPU 1.39 30 eP 25 48.27 -0.7
SYI 1 . 49 158 eP 25 48.85 -1.1
SVW 1.55 318 eP 25 48.95 -1.7
NCG 1.56 24 eP 25 50.69 -0.2
SUA 2.00 41 eP 25 55.06 -0.8
iS 26 23 . 01
SEW 2.02 85 eP 25 54.78 -1.2
SKT 2.21 24 eP 25 58.22 -0.2
PMS 2.30 55 eP 25 58.06 -1.5
eS 26 27 . 55
LTI 2.82 86 iP 26 04.79 -1.2
KNK 2.85 58 tP 26 04.16 -2.2
eS 26 37 . 78
CUT 2.88 31 eP 26 05.64 -1.0
KNIM 2.89 80 eP 26 04.33 -2.5
eS 26 38 .59
MTU 2.92 87 eP 26 06.09 -1.2
eS 26 41 . 43
GLI 3.29 71 iP 26 10. 10 -1.9
FID 3.56 75 eP 26 13 . 35 -2.1
VZW 3.58 70 eP 26 14.12 -1.8
KLU 4.00 65 eP 26 18.85 -2.6
GLB 4.96 69 IP 26 32.85 -1.4
BALM 5.60 74 eP 26 41.03 -1.7
30 obs. ossocioted

7. AUG 20, 1991 17h 16m 58.82± 0.79s
44.387 N ± 6.3km 7.360 E ± 1 0 . 7 km
DEPTH = 5.6km (geophy s i c i s t)
NORTHERN ITALY (545)
ML 1 . 4 (GEN) .

STV 0. 15 190 P 1701.77 -0.1
S 1703.48
ENR 0. 17 165 P 1702.42 0.1
S 1704.66
D 7 7 ft O *5 ^ ft T D 1 7 ft ^ T O A ft

S 1706.19
BHB 0.46 351 P 1708.02 0.0
IMI 0.61 141 P 1711.02 0.0
S.D. «= 0.1 on 5 o f Sobs.

% AUG 20, 1991 17n 32m 04.97± 1.45s 10.073 N ±10. 6km 70.055 W ±11. 1km DEPTH = 10.0km (geo phy s i c i s t)
VENEZUELA (101)

TOV 0.38 138 iPgd 32 12.70 -0.2
iSg 32 17 . 30
SDV 1.31 206 ePn 32 29.30 0.0
iSn 32 46 . 50
MORO 1.89 65 iP 32 37.70 0.1
eS 33 03.20
CEOS 1.99 121 eP 32 39.50 0.4
eS 33 03. 80
CAR 3.11 82 iP 32 54.80 -0.3
eS 33 41 .00
OLLA 3.20 91 eP 32 56.90 0.5
eS 33 44.80

26<J 15h

LLAV 3.22 83 eP 33 05.20 8.5X
eS 33 47.20

eS 3420.10
S.D. =0.4 on 7 of Sobs.

? AUG 20. 1991 18h 00m 06.93± 1.00s
37.957 N ±11. 5km 14.747 E ± 7.6km
DEPTH = 10.0km (geophy s i c i s t)
SIC 1 LY (398)

MNO 0.05 238 Pd 00 08.80 -0.5
eSg 00 10.70
GIB 0.57 273 P 00 18. 90 0.3
eSg 00 26.80
ATN 0.60 70 P 00 19.00 -0.1
eSg 09 30.00
MEU 0.87 170 P 00 23.80 0.1
eSg 00 38.00
S.D. -0.6 on 4of 4 obs .

» AUG 20, 1991 I8h 01m 10.81± 0.65s 46.746 N ±11. 6km 152.807 E ±10. 4km DEPTH = 33.0km (normol)
4 . 8mb (1 7 obs.)
KURI L ISLANDS (221)

MAT 14.91 232 eP 04 39.00 -1.8
1.0s 6 . 00nm 3 . 9mb
YAK 20.19 328 eP 05 45.30 0.3
i 96 95.00
BJ 1 27.27 269 (P) 06 55.00 1.2
YKA 51.05 37 eP 10 25.60 1 4 . 2X
0.8s 2 . 00nm
CHG 51.91 256 ePc 10 19.00 0.5
0.8s 1 1 . 1 9nm 4 . 9mb
GUN 54.79 275 P 10 40.98 0.8
0.5s 27 . 00nm 5 . 5mb
KKN 55.28 275 P 10 43.88 0.4
0.8s 67 . 00nm 5 . 7mb
PK 1 55.33 275 P 10 43.88 -0.1
DMN 55.51 275 P 10 45.62 0.4
GKN 55.58 276 P 10 45.58 0.0
SES 59.29 48 eP 11 12.00 0.6
TNP 63.50 62 P 1 1 40.50 0.4
UPP 67.63 337 iP 12 04.10 -1.9
NB2 68.16 341 P 12 08.10 -1.3
0.6s 9 . 1 0nm 5 . 6mb
HFS 68.39 339 eP 12 09.00 -1.7
0.4s 14. 80nm 5 . 4mb
GBA 70.21 269 Pd 12 22.30 -0.2
0.6s 5 . 80nm 4 . 8mb
KRA 75.31 331 eP 12 51.90 -0.2

0.9s 12. 00nm 4 . 9mb
BRG 76.49 335 e(P) 12 58.00 -0.7
PRU 77.10 334 eP 13 02.20 0.1
MOX 77.37 336 eP 13 04.00 0.4
1.1s 1 0 . 00nm 4 . 8mb
KHC 78.15 334 P 13 07.50 -0.5
GRF 78.34 336 iPc 13 09.10 0.2
1.0s 1 1 . 00nm 4 . 8mb
WTTA 80.40 334 i Pd 13 20.90 0.5
1.0s 12 . 50nm 4 . 9mb
CDF 80.58 338 eP 13 20.70 -0.5
BSF 81.24 338 eP 13 24.10 -0.6
LDF 82-16 342 eP 13 39.10 9.8X
LOR 82.51 339 eP 13 31.00 -0.2
0.7s 4 . 40nm 4 . 6mb

LBF 82.74 339 eP 13 32.20 -0.2
SSF 82.79 339 eP 13 32.60 0.0
LPF 82.89 343 eP 13 33.10 0.0
AVF 83.08 339 eP 13 34.20 0.1
0.9s 5 . 75nm 4 . 7mb
SMF 83.09 339 eP 13 34.20 0.0
0.9s 9.00nm 4. 9mb
MML 83.11 311 eP 13 34.60 0.1
LPL 83.39 337 eP 13 36.70 0.7
0.7s 2 . 75nm 4 . 5mb
LPG 83.41 337 eP 13 36.80 0.6
0.7s 3.30nm 4. 6mb
JVI 83.54 311 eP 13 38.70 1.9
MAF 83.80 340 eP 13 38.40 0.6
0.9s 8.20nm 4.9mb
TCF 83.82 340 eP 13 38.00 0.1
MBH 85.49 310 eP 13 47.20 0.6

20d 18h

198

S.D. = 0.8 on

AUG 20 . 1 991 1 9h
39 . 025
DEPTH. =
GREECE

N ± 4 . 5km
880+12

39 o f 41 obs .

09m 18
21 . 339
. 1 km

. 07±
E ±

0.
3.

47s
4km

(364)
MD 3. 4 (ATH) .

AGG 0
VIS 1
KZN 1
KEK 1
LIT 1

FNA 1

THE 2

OHR 2

ATH 2
KNT 2

VAY 2
VL 1 2
SRS 2

SKO 2

MMB 3

RZN 3
VTS 3

RDO 3
TDS 3

CS I 3
BA 1 4
CZ 1 4

MMN 4

SOI 4

MGR 4

SCO 4
MEU 5

SO 1 6

ASS 7

ARV 7

SF 1 8

FV 1 9
CT 1 10
S.D.

77 99 i P
03 215 ePb
32 14 ePt>
38 300 ePn
40 39 eP
eS
,7 6 1 e P
eS
04 37 eP
eS
13 349 iPn
iSg

Lg
14 119 ePn
45 29 eP
eS
48 22 Pn
63 151 ePn
71 39 eP
eS
95 1 ePn

15 35 PC
S
71 43 P
84 21 eP
iS
86 55 ePn
93 281 P
eSn
,98 282 P
02 303 P
05 274 P
eSn
23 283 P
eSn
25 259 P
eSn
61 286 PC
eSn
89 290 P
41 251 P
e S n
34 297 P
eSn
70 304 P
eSn
74 308 P
eSn
64 308 P
eSn
83 323 P
01 318 P
= 0.7 on

& AUG 20. 1991 19h
63.586
DEPTH

N
1 1 . 6 km

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10 00
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10 07
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10 14
10 17
1 1 00
10 16
10 17
10 57
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12 48
1 1 36
1 1 37
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. 2X

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. 3X
. 5X
33 obs.

. 71s
W

CENTRAL ALASKA (
<AE 1 C> . ML 3.4 (AEIC) , 3.6

1)

(PMR) .

KTH 0
TRF 0
HUR 0
BWN 0
MCK 0
RND 0
CUT 1
NEA 1

WRH 1

SKT 1,

CCB 1

MDM 1

. 04 216 i PC
. 29 117 i Pd
. 83 137 i Pd
. 85 46 i PC
. 87 79 ePc
. 92 100 i Pd
. 22 167 i Pd
. 27 38 ePc
eS
. 51 53 ePc
eS
. 64 191 eP
eS
. 71 50 iPc
eS
. 80 39 ePc

12 23
12 27
12 37
12 39
12 38
12 39
1 2 44
12 44
13 01
1 2 47
13 10
12 51
13 13
12 50
13 15
12 51

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FB A 1 .
HDA 1 .
PWA 2 .
GHO 2.

SUA 2.
PLRM 2.
PMR 2 .
NCG 2.
CGLM 2.
TTA 2.
PMS 2.

B G L 2 .
KNK 2 .
SPU 2 .
CKL 2.

PAX 2 .
TOA 2.
SDG 2.

I MA 2 .
NKA 2 .
KLU 3.
ROT 3.
VZW 3 .
GLI 3.
R DW 3 .
VLZ 3.
RSO 3.
SVW 3 .
FID 3.
KN IM 3 .
LT I 3.
GLB 3.
MTU 3 .
PDB 4.
BALM 4.
47

? AUG 20
15.227
DEPTH -

eS
88 44 e P
91 63 ePc
00 166 iPc
03 153 eP
eS
13 178 ePd
16 157 eP
16 157 eP
27 196 ePd
35 194 eP
42 257 eP
43 165 ePc
eS
44 198 eP
45 152 eP
48 193 eP
49 197 eP
eS
52 102 eP
62 123 eP
65 111 eP
eS
77 336 ePd
86 184 eP
11 130 eP
11 194 eP
24 140 eP
24 145 eP
25 197 e P
25 137 ePd
26 197 eP
33 224 eP
51 1 42 eP
57 154 ePc
83 157 ePc
91 120 eP
92 156 eP
13 204 eP
73 119 P

13 17 .22
1 1 *> £. O *t <_ "> . O ftO^

12 53.27
12 55.90
12 56.14
13 23.44
12 57.99
12 57.98
12 58. 30
12 59.34
13 01 .62
13 02.30
13 02.35
13 33.58
13 03.09
13 02. &9
13 03
13 04
13 36
13 04
13 05

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13 06.10
13 38. 99
13 06. 40
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13 12.10
13 1 2 . 15 3
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S 47 20.92
- 1.2 P77 0.74 197 P 47 Ifi R4 -R t
- 1 .2
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0 . 4
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1 . 1

- 0.4
3.4
0. 6
1 . 0
0.9
0.7
2.2
0.5
1 . 7
2. 4
0. 6
- 0.2
- 0 . 4
1 . 2
- 0. 2
0. 1
0. 4
obs. ossocioted

, 1991 20h
N ±13 . 2km
1 47 . 9 ± 37 .

1 9m 51. 42± 3 . 92s
61.216 W ±28 . 9km
4 km
LEEWARD ISLANDS

Dpi rt DDL V .
FDF 0 .

39 319 eP
50 173 iPd

20 1 2 .! 4 0

20 13.105

(92)

ft Q ~0 . y
0.3
0.1s 1 . 18nm I

CRM 0 .
MGG 0.

B I M 0 .
MVM 0 .

DOG 0.
PAG 0 .

DEC 1 .

SEG 1 .
BPA 1 .
S.D.

____

AUG 20
45.215
DEPTH -
NORTHERN
ML 2

RSP 0.

LSD 0.

BHB 0 .

RRL 0 .

BN I 0 .

LPG 0.

LPL 0.

ORX 0.

S
55 148 eP
69 352 eP
S
72 169 iPd
74 155 iPd
S
89 334 eP
91 331 eP
S
09 8 ePc
S
20 347 ePc
91 341 ePc ^~ ~-

20 29.10
20 12J91
20 13J90
20 29J70
20 14J23
20 14414
20 30J70
20 15 J67

20 15; 12
20 34J30
20 17
20 35
20 1 8
7fi ?fS
- 0.5 on 1 1 o f

, 1991 20h
N ± 3 . 5km
13. 3 ± 3.
I TALY

. 3 (GEN) .

12 238 Pd
S
30 325 PC
S
39 195 P
S
53 236 P
S
54 253 Pd
eSg
54 302 Pg
sg
56 303 Pg
sg
58 44 P

47m 01
7 . 462
8 km

47 06
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47 08
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47 10
47 1 6
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47 1 9
47 12
47 19
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1 obs.

93±
E ±

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78
51
65
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38
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60
60
47 13.10
47 20.30
47 13. 45

0 . 45s
4 . 2km

(545)

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ft "X 0 - -J

- 0.1

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S 47 26.25
STV 0.97 183 P 47 19.89 -0.3
S 4731. 07
ROB 0.98 160 P 47 20.44 0.2
S 47 33. 43
ENR 0.99 179 P 47 19.44 -1.0
S 4731. 07
PCP 1 .06 129 P 4721.74 0.2
FIN 1.161 50 P 4724.09 0.8
IMI 1 .35 165 P 47 26. 04 -0.4
S.D. «= 0.5 on 15 of 15 obs.

? AUG 20. 1991 21h 02m 43.16± 6.64s
44.966 N ±20. 5km 6.664 E ±44. 3km
DEPTH - 10.0km (geophysicist)
FRANCE (538)
ML 1 .3 (GEN) .

RRL 0 . 1 0 1 18 P 0247.21 1.2
S 0248. 82
BHB 0.44 106 P 02 52.13 -0.1
S 0258.59
RSP 0.46 66 P 02 52.16 -0.4
S 02 58.61
PZZ 0.56 146 P 02 53.88 -0.7
S 0301. 95
S.D. -1.4 on 4of 4obs.

7, AUG 20, 1991 21h 1 5m 19.43± 0.71s
44.355 N ± 6.6km 7.338 E ± 8.4km
DEPTH - 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1 . 4 (GEN) .

STV 0.11 185 P 15 22.63 0.3
S 15 24 . 43
ENR 0.14 155 P 15 23.31 0.5
S 1 5 25.48
PZZ 0.23 312 P 15 24.29 -0.1
S 1527.14
ROB 0.39 99 P 1527.76 0.4
S 15 33.61
BHB 0.49 354 P 15 29.36 0.0
IMI 0.60 138 P 15 30.53 -1.0
S.D. -0.7 on 6 of 6 obs.

* AUG 20. 1991 2lh 16m 17.82± 0.80s
13.226 N ±14. 6km 88.807 W ±11. 1km
DEPTH - 81 .4 ± 4 . 8 km
4 . 6mb (3 obs .)
EL SALVADOR (73)
Felt (III) at Son So 1 vodor .

OZA 0.35 328 iPc 16 29.70 -1.0
VSM 0.56 69 iPc 16 34.40 1.7
SJAS 0.56 321 iPc 16 32.50 -0.1
LFU 0.60 330 iPc 16 32.60 -0.3
VSS 0.66 321 iPc 16 33.00 -0.6
YPE 1.23 316 iPd 16 40.00 -0.3
CUSS 1.30 302 iPd 16 39.80 -1.2
SCX 5.08 314 (P) 17 46.70 1 3 . 6X
OXX 8.55 298 (P) 18 23.50 2.3
(S) 19 56. 50
PPM 11.08 363 (P) 18 57.00 1.2
MEO 23.22 339 iPd 21 18.90 0.5
TUL 23.45 346 e(P) 21 21.00 0.4
ALO 26.88 327 eP 21 52.90 -0.2
1.0s 2. 25nm 3 . 7mb
GOL 30.14 334 P 22 21.70 -0.8
1.1s 21 . 1 5nm 4. 8mb
LRM 38.16 333 eP 23 31.40 0.3
SIV 39.94 136 P 23 45.60 -0.3
SES 41.27 338 eP 23 57.00 0.4
YKA 52.52 345 eP 25 22.90 -1.7
1.0s 13. 40nm 4 . 9mb
WR2 138.18 255 ePKP 35 36.00 -0.1
0.7s 4 . 60nm
WRA 138.20 255 PKP 35 36.00 -0.2
1.4s 3 . 70nm
S.D. - 1.1 on 19 of 20 obs.

? AUG 20. 1991 22h 24m 02.69± 2.06s
34.177 S ±22. 1km 70.756 W ±16. 3km
DEPTH - 80.0km (geophysicist)
CHILE-ARGENTINA BORDER REGION (127)

199

28d 22h

CHCH

TACH

PCH

SAN

LCCH

PEL

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S.D.

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8 obs .

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AUG 20. 1991 23h 53m 47.07± 0.67s
37.925 N ± 5.3km 14.991 E ± 6.8km
DEPTH = 30.9 ± 7.8 km
S I C! LY (398)
MD 3.5 (ROM) .

MNO

GIO
ATN

GMB
GIB

MEU

P2 1
CZ 1
TDS
MGR

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S.D.

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7. AUG 20. 1991 23h 54m 0 1 . 42± 0.85s
37.903 N ± 8 9km 15.079 E ± 7.4km
DEPTH = 12.1 ± 5.8 km
SICILY (398)

MNO

ATN

MEU

GIB

MCT
TDS
RO 1
CS 1
MMN

MGR
SCO

BRT

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. 60 0.
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. 70 -1 .
. 80 1 .
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' AUG 20. 1991 23h 54m 36.10± 0.97s
37.820 N ± 8.4km 15.048 E ± 7.6km
DEPTH = 10.0km (geophysiciSt)
SICILY (398)

MNO

ATN

MEU

G 1 B

0. 30

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0. 72

0. 83

S.D. = (

292

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188

282

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4 obs .

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' AUG 20. 1991 23h 55m 06 . 33± 0.94s
37.891 N ± 9.4km 15.014 E ± 7.2km
DEPTH = 10.0km (ge ophy s i c i s t)
SICILY (398)

MNO i.26 279 P

eSg

55 12.10
55 16.60

. 3

ATN

Gl B

MEU

%

e.44

0. 79

0. 79

S.D. =

AUG 21 ,
4 1 . 858 N
DEPTH =

53 P
eSg
277 P
eSg
185 P

eSg
0.4 on

1 991 00h
± 8 . 7km

55 15
55 23
55 21
55 32
55 21
55 31
4 of

07m 35
13. 060

10.0km (g * o p h y s

40
10
40
70
80
90

0.0

- 0 . 3

0 .0

4 obs .

62±
E ±
C i S
SOUTHERN ITALY

RMP

RDP

AOU
SDI

MNS

0 . 27

0 .28

0. 56
0 . 58

0.60
S.D. -

AUG 21 ,
53. 579 N
DEPTH -

260 P
eSg
249 P
eSg
27 P
105 P
eSg
332 P
0.4 on

1991 0 1 h

07 41
07 45
07 41.
07 46 .
07 47 .
07 47 .
07 56
07 47 .
5 of

36m 1 9 .
±11. 3 km 163.813

30
30
70
10
30
30
20
30

0 . 83s
6.1km
0

(390)

0 .0

0 .3

0.3
- 0.2

- 0.4
5 obs .

36±
W ±

0 . 57s
7 . 9km
33.0 km (no rmo 1)
4 . 7mb (29 obs .) 4. 0MS2 (5
UNIMAK ISLAND REGION

SON
KDC
ADK
PDB
SVW
RSO
TTA
TOA
1 MA

ML 4.8

2.62
7 . 64
8.00
8.16
8 . 74
9.15
10.23
12 .66
13.50
1 . 5s
BALM 13.75
FBA
1 NX
YKA

MBC
MSU
MAT

ALQ

DAG

KEV
TRO
SOD

NB2

NUR
HFS

OBN

WTS

CLL
ENN
SNF
MEM
BRG

MOX

DOU
KRA
WLF
PRU
GRF

FLN

LDF
GRR

13.94
20. 50
26. 89
0. 8s
28. 20
37 . 99
43.07
1 .0s
43. 78
1 . 0s
48. 04
0.5s
56. 72
57 .08
59 . 12

65.66
0. 9s
66. 06
66 . 62
0. 4s
70.38
1 ft <- 1 . v 5

74.50
1 .05
75 . 45
75.67
75. 80
75.83
75 .90
1 . 4s
76. 08
1 . 4s
76.24
76. 69
76. 78
76. 80
77 .02
1.1s

77 . 06
1 . 0S
2 20S
77 .27
77 . 39

(PMR) .

46 ePc
52 eP
263 eP
37 eP
27 eP
37 P
20 eP
4 1 eP

18 e(P)
21 . 90nm
49 P
29 eP
32 eP
51 eP
4 . 40nm
21 eP
92 eP

271 (P)
24 . 00nm
91 eP
2 . 50nm
10 i PC
1 1 . 97nm
356 eP
359 eP
355 eP
e
3 P
9 . 50nm
355 eP
1 eP
3 . 30nm
348 iPd

e
6 eP
7 . 00nm
2 iPd
7 eP
8 P
7 P
1 eP
1 2 . 00nm
3 iPd
1 8 . 00nm

80r
358 eP
7 P
1 P
3 iPc
1 5 . 00nm
e
1 1 eP
8 . 00nm
0 . 1 0um
1 1 eP
12 eP

37 00 .
38 09.
38 15.
38 16 .
38 28 .
38 31 .
38 49.
39 15.
3931.

39 30 .
39 35 .
40 52.
41 58.

42 10.
43 36.
44 16.

44 32 .

44 55.

4601.
45 53.
46 17 .
46 37 .
47 00.

47 03.
47 06.

47 30.

48 23.
47 56.

48 00 .
48 02.
48 03 .
48 02 .
48 03 .

48 05 .

48 06 .
48 07 .
48 09.
48 08 .
48 10.

4821.
48 10 .

48 11.
48 12.

10
10
30
00
20
50
10
60
60
4
00
00
50
40
4
00
00
00
4
00
4
40
5
00

obs .)
(10)

- 0. 1
- 2.0
- 0.8
- 2 . 4
1 . 7
- 0.8
2 . 2
- 4 . IX
0.2
. 8mb
- 4 . 1 X
- 1.5
- 4.2X
- 0.2
. 1mb
- 0. 4
0. 1
- 1 .6
9mb
8. 4X
0mb
- 1.2
2mb
- 0.5
61 -10 . 4X
00
00
70
4
00
00
4
00

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4
80
50
10
25
60
4
00
4
10
80
00
50
40
4
80
00
4
4
20
00

- 1 .3

- 1.3
9mb
- 1.4
- 2. 0
8mb
- 1.4
1mb X

0 .2
6mb
- 0 . 4
0 . 0
- 0. 1
- 1.1
- 0.2
7mb
0.2
9mb
0 . 4
- 0. 4
0. 3
- 0.3
0.3
9mb

- 0.3
7mb
1MSZ
- 0.3
- 8. 1

SPC
KHC

LPF
CDF

LJ A | I n M u

BSF

LOR

GUN
SSF

MFF

LBF

K K N
AVF

WTTA

PK 1
GKN
BGF

SMF

DMN
KBA

LSF

TCF
RJF

LPL
LPG
LFF
CAF

LPO
BN 1
BOB
BEO
CK 1
MME
BO 1
SBF

SF 1
PGD
FRF
MA 10
LRG

LMR
PGF

SKO

SDI
OU 1
OHR
MGR
BUL

77 . 55
77.64
1 . 2s

77.71
78.10
1.0S
78.45
0 . 8s
2 20s
78 . 65
1 . 0s
78 . 98
0 . 6s
2 22s
79.01
79.16
0.9s
79.23
0.8s
79 . 28
0 . 6s
79.41
79.41
1 . 2s
79 . 46
1 .0s

79 . 53
79 . 56
79 . 59
1 -0s
79 . 60
1.1s
79 . 65
79.69
1.1s

79.77
1 .0s
79 . 80
80 . 70
2 21s
80 . 95
80. 97
80 . 97
81.13
0 . 8s
81 . 28
81.41
81 .86
81.91
82. 14
82. 49
82 .62
82.65
0 .8s
82 .81
82.85
82 .89
82 . 96
82 . 98
2 20s
p T 1i OJ.lt
84.05
1 .05
84 . 72

85. 07
85. 12
85 . 60
86. 66
145. 28

S.D. - 0

357 eP
2 iPc
7 . 00nm
e
12 eP
6 eP
6 . 00nm
7 eP

5. 35nm
0 . 08um
6 eP
8 . 00nm
9 eP
2. 25nm
0 . 05um
302 P
9 eP
9 . 00nm
1 1 eP
5 . 35nm
8 eP
1 .-80nm
I e\ -I n
J v J r

9 eP
1 0 . 40nm
3 iPc
1 4 . 80nm
i
302 P
303 P
9 eP
7 . 00nm
9 eP
12.20nm
303 P
2 iPc
35. 10nm
i
10 eP
8 . 00nm
10 eP
10 eP
0 . 08um
7 eP
7 eP
1 1 eP
10 eP
4 . 05nm
1 1 eP
7 Pd
5 PC
357 eP
6 P
4 P
4 P
6 eP
1 0. 75nm
3 P
3 P
7 eP
326 eP
7 eP
0 . 08um
7 eP
5 eP
1 2 . 60nm
356 eP
e
2 P
1 P
357 eP
0 P
339 iPKPd
i pPKP
. 9 on 81

48 13
48 1 4

48 24
48 1 4
48 16

48 18

48 1 9

48 2 1

48 21
48 22

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48 22

A Q O "X 4 o £ J
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48 43.

48 43 .
48 48 .

48 51 .
49 02.
49 03.
49 05.
48 55.
49 01 .
55 53 .
56 05.

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0 .6
0 . 4
. 6mb

0.2
0 . 2
. 6mb
0 .2
. 6mb
. 0Msz
0 . 1
. 7mb
0 . 3
. 3mb
. 8Msz
0 . 0
0.3
. 8mb
0. 4
. 6mb
0 . 0
. 2mb
- 0 . 4
0 .2
. 7mb
- 0 . 1
9mb

- 0 . 4
- 0 . 3
0 . 2
6mb
0 . 1
8mb
0.0
0 . 7
3mb

0 .2
7mb
0 . 0
0. 3
0Msz
1 . 2
1 . 3
0 . 6
0 . 3
5mb
0 .3
1 .8
0 .8
- 2 . 4
0.0
1 . 2
0.4
0 . 7
0mb
1 . 4
1 . 2
0. 7
0 . 8
1 . 1
IMsz
1 . 1
0.9
8mb
0 . 1

1 1 . 0X
12 . 0X
0. 1
0.6
- 1.5

of 88 obs .

* AUG 21 . 1991 02h 18m 19 .
53.475 N ±24 . 5km 1 63 . 739

43±
W ±1

1 . 36s
4 . 8km
DEPTH - 33.0km (normol)
4 . 1mb (3 obs.)
UN IMAK 1 SLAND REGION

SON
KDC
ADK
PDB
TTA

2.66
7.67
8.03
8.22
10.31

44 eP
52 eP
264 eP
36 eP
28 eP

1901.
20 1 1 .
20 16.
20 18.
20 49.

50
00
50
40
58

(10)

0.6
- 0.6
- 0. 1
- 0 .9
1 . 4

02h

260

KLU 12.47 43
IMA 13.58 18
INK 26.57 32

YKA 26.92 51
0 6s
MBC 28.28 21
MAT 43.12 271
NB2 65.76 3
e 7s
HFS 66.72 1
e 5s
KHC 77.75 2
BUL 145 . 39 339
SLR 158.87 337
S.D - 1 .6

AUG 21j. 1991
39 .079 JN ± 3.
DEPTH 4 78.1

eP
eP
eP
eP
1 . 1 0nm
eP

(P)
P
1 . 3Gnm
eP
2 . 90nm
eP
ePKP
ePKP
On 1

02h
8km
± 7.

21
21
22
24

24
26
29

29

30
37
38
1 0

4 1m
16 .

12
46
56
60

1 1
24
02

08

25

*; f, o u
06
f

58
157

. 56
. 60
. 00

. 20
3
. 00

. 06
. 60
4
. 50
4

. 00

Q A. yy
. 00

- 4 .
8 .
- 1 .
1 .
7mb
- 0 .

6 .
- 0 .
1 mb
- 0 .
6mb
1 6 .
0 .
2 .

8X
0X
E.

2

2
0X
1

3

8X
4
0X
16 obs .

- 92±
E ±

0.41s
4 . 1 km
9 km
SOUTHERN 1 TALY

CZ 1
ACI f

. 14 353
. 27 8
ROI 0.59 33
TDS C.60 14
CS 1 0.70 8

MMN C

ATN 1
MGR 1

SCO 1

MNO 1

GIO 1
LC I 1

BRT 1

GIB 1

. 82 351

. 07 211
. 16 336

. 62 336

,62 225

,72 209
i 87 47

. 97 24

. 99 238

BA 1 2.11 15
MEU 2.20 206

PZ 1 2.27 206
USI 2.35 262
MCT 2.45 235
RFI 2.77 324
KEK 2.89 76
CVT 2.99 243
SD 1 3.18 326
AZ 1 3.57 325
VLS 3.59 103
ULC 3.72 38

BDV 3.79 32

HCY 3.81 27

AOU 3.88 328
TTG 4.09 34

OHR 4.10 59
HVAR 4.10 3

BRY 4.22 25

MNS 4.23 322
NKY 4.31 29

KZN 4.50 72
PVY 4.55 38

1 VA 1

ASS
PIE

SKO

ARV !
CRE !
SF 1 !

. 73 36

"7 ft 1 O fl
. / O O t. C

k90 29

t.96 53

).04 332
>.54 327

).82 328
PGD 5.84 327

P
P
P
Pd
P
eSg
P

eSg
PC
P
eSn
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eSn
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eSn
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eSn
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eSn
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PC
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P

ePg
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ePb
ePn
eSn
ePn
eSn
ePn
eSn
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ePn
eSn
ePn
iPn
iSn
ePn
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(390)

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1

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2

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8

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2

5X

4
2
6
4X

VLI 5 . 86 1 1 2 ePn 43 26
VBY 6.46 354 ePn 43 34
eSn 44 44

PT J 6 . 82 359 e (P) 4336
LJU 7 . 06 351 ePn 43 41

e(Sn) 44 57
VOY 7.15 347 ePn 43 42

e(Sn) 45 00
CT 1 7.72 336 P 43 49
FVI 7 . 91 343 P 4352
KHC 10.22 350 eP 44 24
S.D. = 1.1 on 49 of

» AUG 21 . 1991 03h 00m 18
32.262 N ± 1 4 . 5 Hr. 76.649

DEPTH = 33.0km (normal)
4 . 3mb (5 obs .)
PAK I STAN

DUE 3.75 239 eP 01 15
eS 62 20
ND I 6 . 67 120 i PC 0156
0.8s 4 1 . 94nm
eS 03 58
GKN 12.81 105 P 0321
0.7s 52 . 00nm
DMN 1 3 . 35 106 P 63 28
KKN 13.42105P 0328
0.7s 77.00nm
PK I 13. 61 106 P 0330
GUN 13.87 104 P 03 35
LPG 50.26 305 eP 09 13
0.7s 2 . 20nm
LPL 50 . 27 305 eP 0913
0.5s 1 . 45 nm
SMF 52.09 307 eP 09 27
0.8s 2 . 70 nm
WRA 80 . 00 1 21 P 1227
0.8s 1.60 nm
YKA 85.54 2 eP 1 2 58
0.6s 1 . 1 0nm
S.D. =0.8 on 11 of

? AUG 21 . 1991 03h 00m 42
25.762 S ±43. 1km 178.229
DEPTH = 244. 1 ± 38.2 km
4 . 3mb (Sobs.)
SOUTH OF F I J I I SLANDS

URZ 13.07 196 eP 03 40
DZM 14.49 281 iPC 63 57
MNG 15.72 198 eP 04 06
KHZ 17.94 200 P 04 35
RMO 29.61 261 iPc 06 40
STK 35.58 251 eP 07 21
1.0s 3 . 40nm
ASPA 43.35 262 eP 08 23
1.1s 16.1 0nm
WRA 43.91 267 P 08 24
0.6s 7 . 80nm
FORR 47 . 16 251 eP 0851
0.3s 6 . 00 nm
WARS 49.23 257 eP 09 08
SPA 64.39 180 iPd 10 53
0.8s 20 . 83nm
S.D. -1.2 on 7of

? AUG 21 , 1991 04h 50m 39
45.459 N ±13. 4km 26.925
DEPTH = 33.0km (normal)
ROMAN I A

VR I 0 . 43 34 1 i PC 50 49
MLR 0.69 273 eP 50 53
CFR 0.91 107 iPc 50 56
TLB 1 . 1 7 1 38 eP 5059
S.D. =0.2 on 4af

? AUG 21 . 1991 04h 54m 42
44.229 N ±63. 3km 25.701
DEPTH = 33.0km (normal)
RDMAN I A

ISR 1 .09 33 eP 55 01
MLR 1 .27 8 iPc 55 04
TLB 1.71 77 iPd 55 1 0
VR 1 1.79 24 i PC 5511

. 56 1.5
. 40 1.2
. 70
. fe0 -1.4
. 60 0.0
. 00

. 10 -e . 8
.fee
. be -1.6

. (50 -e .6
. (50 -0.3
5(3 obs .
_ !______ _

. 1 *± e . 54 S
p ± 6 . 2trn

(716)

. pe -0.1
. 66
. 00 -0.3
5 . 3mb X
. i0
. 00 0.2
5 . 7mb X
. 30 0.3
. 60 -0.3
5 . 8mb X
. 00 -1.5

. 190 1 . 0

. '30 -0.2
4 . 3mb
. 30 -0.2
4 . 2mb
. 1 0 0.1
4 . 3mb
. 00 1.0
4.1mb
. '50 4.7X
4 . 2mb
12 obs.

____

. |01± 7.11s
W ±57 . 2km

(171)

J90 0.9
. 10 -0.5

4 40 -5 .9X
420 -1.3
4 00 13. 3X
. 20 3. 3X
3 . 8mb
,20 1.1
4 . 3mb
1 00 -2. 5X
4 . 2mb
70 -0.2
4 . 4mb
00 0.0
90 -0.1
4 . 9mb
1 1 obs .

. 51± 0.87s
E ±10. 6km

(358)

. 10 -0.1
. 00 0.1
. 00 0.1
. 50 -0.1

4 obs .

. 45±10 .60s
E ±59. 7km

(358)

. 50 0.0
. 56 0.3
. 60 -0.3
. 66 -0.6

CFR 1 . 99 60 iPc 55 1 5 .
S.D. =0.7 on 5 of

% AUG 21 , 1 991 05h 11m 54 .
60 . 760 N ± 6 . 0km 5.561
DEPTH = 10.0km (geophysi
SOUTHERN NORWAY

MD 1 . 5 (BER) .

ASK 0 . 28 220 eP 1200.
eS 1265.
SUE 6 . 53 31 3 eP 1204.
eS 1212.
HYA 0.56 33 eP 1205.
<=S 1213.
FOO 0 .94 345 <=P 1213.
eS 12 26.
ODD1 6 . 95 1 46 eP 12 12 .
eS 12 25.
S.D. -0.7 on 5of

& AUG 21, 1991 05h 12m 26.
40 . 257 N 124. 525
DEPTH = 3. 0km
NEAR COAST OF NORTHERN CALIF

<BRK> . ML 3.1 (BRK) . MD
(GM) .

FOX 0.49 57 iPc 12 36.
FHC 0 . 68 37 i PC 1240.
iS 1249.
WDC 1 . 55 77 iPc 1252.
i 1 3 22 .
e 1322.
LTCM 1.84 91 eP 1257.
Ml N 2 . 23 87 i PC 1362.
e 1331.
LBFM 2.28 61 eP 13 04.
ORV 2 . 43 1 06 i Pd 1305.
ZSP 2.91 142 iPc 13 12 .
BRK 2 . 96 1 43 eP 1312.
PCC 3.22 1 48 iPd 13 16 .
10 obs. associated

* AUG 21, 1991 05h 24m 27.
34. 394 S ±14. 6km 179.862
DEPTH - 77 . 4 ± 19.5 km
5 . 1mb (4 obs .)
SOUTH OF KERMADEC ISLANDS

HBZ 3.55 205 eP 25 22.
KUZ 4.34 236 eP 25 38.
NOZ 4.56 202 eP 25 35.
URZ 4.59 212 eP 25 36.
S 26 41 .
RUZ 6 . 1 3 218 P 2660.
MNG 7 . 25 21 0 eP 26 11.
S 27 40.
KHZ 9. 56 21 1 eP 26 44.
eS 28 33.
LTZ 10 . 42 214 eP 26 56 .
DZM 17 . 23 312 i Pd 28 24 .
RMO 28. 15 278 eP 30 27 .
CTAO 33.20 287 i PC 31 06.
OlS 38. 30 286 eP 31 43.
1.6s 1 9 . 60nm
ASPA 41 .56 272 iPc 3210.
0.7s 26 . 90nm
WB2 42.90 277 i Pd 32 20.
0.7s 31 . 50nm
WRA 42 . 91 277 P 3219.
0.8s 25.96nm
WARS 46.51 265 eP 32 49.
SPA 55.79 186 iPd 34 14.
1.0s 20 . 00nm
MSL 145.14 286 ePKP 43 53.
OBN 147.42 321 iPKPd 43 59.
NUR 149.44 336 iPKP 44 03.
6.9s 25.30nm
LIC 151 .56 169 PKP 4421.
K 1 C 151.73 170 PKP 44 21 .
UPP 152.68 341 iPKP 44 09.
NB2 152.41 348 PKP 44 69.
1.6s 8 . 86nm
HFS 152.78 345 ePKP 44 65.
6.4s 0 . 96nm
CLL 166.71 335 iPKP 44 55.

60 0.6
5 obs .

75± 0.81s
E ± 8 . 4km
cist)
(535)

68 0.0
17
98 -0.5
85
64 -0.4
59
37 0.8
26
99 6.1
55
5 obs.

60s
W

(35)
3. 4

57 0.3
27 0.0
66
47 -2.7
76
99
00 -2.3
19 -3.0
60
10 -1.8
59 -2.3
06 -2.6
80 -2.6
59 -2.5

63± 2.52s
W ±1 8 . 7km

(179)

06 0.6
30 5. 7X
50 -0.1
80 0.7
10

40 2 . 9X
40 -1.6
90
60 0.0
50
60 0.3
30 -0.4
00 1 2 . 5X
60 0.9
60 0.6
5 . 6mb
60 0.7
5.2mb
00 -0.2
5 . 3mb
60 -1.3
5 . 1mb

60 -0.1

20 15. 5X

00 -4.6X
00 -1.7
00 -0.8

20 12. 8X
50 1 2 . 9X
20 1.5
10 0.9

60 -3.7X

60 36. 2X

261

21d 05h

1.3s 14.00nm
BRG 166.73 333 ePKP 44 55.40 36.6X
S.D. =10 on 17 of 27 obs.

? AUG 21,
29 . 605 S
DEPTH =
NEAR COAST

JACH 3.28
RTLL 3 .24
PEL 3.62

LCCH
MDZ

TACH

CHCH
CYA

7.

S.D

AUG

3 .

4

4 .

4 .
5 .

21
38 . 087
DEPTH

86
06

08

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N

1991 66 h 44m 10.
±33. 9km 7 1 . 657
33.0 km (nor mo 1)
OF CENTRAL CHILE

1 64 eP 4501
1 23 *Pd 44 58 .
1 67 *P 4565.
c (S) 45 44 .
1 79
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1 72

169
79

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7 of

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5.6km

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(geophys i

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W ±4 1 . fckm

(135)

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98±
E ±

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6km

cist)
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GIB

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CZ 1
TDS
ROI
CS 1
MGR

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37 .983
DEPTH

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1991
±10.

Pd
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eSg
P

eSg
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eSg
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06h 51m
7 km
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(geophys i

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(398)

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(398)

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(398)

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7km

st)
S ICI LY

MNO 0. 27 289 Pd
eSg

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(398)

0. 4

ATN 0.47 48 P 3218.10 -0.1
eSg 32 25.20
MEU 0.74 186 P 32 23.30 0.0
eSg 32 35.40
GIB 0.80 281 P 3223.80 -0.5
eSg 32 36.30
SO 1 085 74 PC 3225.10 0.1
eSg 32 38.20
S.D =05 on 5of Sobs.

? AUG 21, 1991 07h 36m 08.80± 5.41s
7.733 S ±36. 5km 128.086 E ± 1 6 . 6 km DEPTH = 139.6 ± 42.7 km
4 . 4mb (3 obs .)
8ANDA SEA (280)

MTN 5.90 150 eP 37 46.50 1 1 . 4X
eS 38 40.00
KNA 8.00 175 iPc 38 04.50 1.0
iS 39 30.00
W82 13.57 154 eP 39 14.50 -2.4
0.2s 52 . 00nm 5 . 6mb X
i S 4138.70
MBL 15.55 210 eP 39 42.00 0.2
eS 42 33 . 00
ASPA 16.80 161 iPc 39 58.50 1.3
0.3s 44 . 30nm 5 . 2mb X
eS 42 55.20
OIS 16.93 140 iPc 39 58.50 -0.4
0.4s 19.00nm 4. 8mb
i 40 18 . 00
i S 4300.20
WARB 18.40 184 iPc 40 16.40 0.4
0.3s 6.00nm 4. 4mb
PMG 18.93 96 eP 40 22.00 0.4
NANU 19.06 218 eP 40 22.00 -1.0
STK 27.12 154 eP 41 41.10 0.4
0.4s 2.30nm 4.1 mb
S.D. -1.4 on 9of 10 obs .

% AUG 21, 1991 09h 16m 54.69± 1.45s
35.364 N ±13. 3km 3.855 W ± 7.1km
DEPTH « 10.0km (geophy s i c i s t)
STRAIT OF GIBRALTAR (385)
mbLg 3 . 4 (MDD) .

EMEL 0.74 95 iPgd 17 09.39 0.3
eSg 17 20.00
EGUA 1.49 9 ePn 17 19.24 -2.2X
eSn 17 38.00
EJIF 1.70 310 ePn 17 25.66 1.1
eSn 17 47 . 50
AFC 1.90 7 ePn 17 27 . 34 -0.3
eSn 17 52.80
ECOG 1.92 7 ePn 1727.96 0.1
eSn 17 51 . 60
EPRU 1.95 326 ePn 17 27.24 -0.9
eSn 17 50.60
ENIJ 2.09 39 ePn 17 29.07 -1.1
eSn 17 54. 20
EHUE 2.65 22 ePn 17 38.86 0.6
EHOR 2.70 336 ePn 17 39.52 0.6
EBAN 2.80 1 ePn 17 40.43 0.1
EVAL 3.22 314 ePn 17 44.79 -1.4
eSn 18 22.40
EPLA 5.01 340 ePn 18 12.56 0.8
GUD 5.28 358 ePn 18 15.51 -0.1
eSn 19 11.60
ETOR 5.63 14 ePn 18 20.62 0.1
S.D. =0.8 on 13 of Mobs.

7, AUG 21. 1991 09h 19m 32.63± 0.85s
44.386 N ± 5.6km 7.374 E ± 7.5km
DEPTH - 10.0km (geophys i c i s t)
NORTHERN ITALY (545)
ML 1 . 7 (GEN) .

STV 0 . 1 5 194 P 1936.31 0.2
S 19 38. 56
ENR 0 . 16 168 P 19 36 . 70 0.3
S 1939.08
ROB 0 .37 104 P 19 40 . 90 0.7
S 1946.56
BHB 0.46 350 P 19 41.95 -0.1
S 1948.41
IMI 0.60 142 P 19 44.20 -0.7
S 1953.02

FIN 0. 62 106 P 1944.61 -0.6
S 19 53.43
PCP 0.85 79 P 19 49.33 0.2
S 20 01 . 12
S.D. =0.6 on 7of 7obs.

? AUG 21, 1991 09h 29m 40.48± 6.65s
9.059 S ±59. 5km 120.285 E ±30. 2km DEPTH = 185.7 ± 23.7 km
4 . 8mb (3 obs .)
SUMBA ISLAND REGION (287)

KNA 10.62 130 eP 32 09.00 0.0
eS 34 15.00
MTN 11.29 110 eP 32 17.80 0.1
eS 34 25.06
MBL 12.04 182 eP 32 27.00 -0.3
eS 34 40.00
NANU 14.18 198 eP 32 54.50 0.1
eS 35 23.00
WB2 17.38 130 iPc 33 32.90 -0.4
0.3s 15. 20nm 4 . 9mb
iS 36 50.80
WARB 18.07 161 eP 33 41.00 0.3
ASPA 19.51 140 iPc 33 56.10 0.4
0.4s 14. 20nm 4 . 8mb
STK 30.11 142 iPc 35 34.50 -0.3
0.3s 6 . 40nm 4 . 8mb
S.D. =0.4 on 8of Bobs.

% AUG 21, 1991 10h 58m 54.01± 0.81s
37.997 N ± 9.2km 14.759 E ± 7.8km
DEPTH - 10.0km (geophys i c i s t)
SICILY (398)

MNO 0.08 218 Pd 58 56.20 -0.5
eSg 58 57.80
ATN 0.58 73 PC 59 06.30 0.6
eSg 59 15.70
GIB 0.58 269 P 59 06.30 0.5
eSg 59 1 4 . 60
MEU 0. 90 1 71 P 59 1 1 .50 0.1
eSg 59 25.50
CZ 1 1 . 63 41 P 59 22. 10 -0.6
S.D. - 0.8 on 5 of 5 obs.

? AUG 21, 1991 11h 32m 17.55± 8.94s
38.713 N ±68. 4km 23.512 E ±38. 3km
DEPTH - 10.0km (geophy s i c i s t)
GREECE (364)

AGG 0.97 289 ePd 32 35.96 -0.1
eS 32 50.70
PAIG 1.22 6 ePd 32 39.92 -0.3
eS 32 55.60
OUR 1.66 12 ePc 32 46.76 0.0
KNT 2.49 349 eP 32 59.20 0.4
S.D. -0.5 on 4of 4 obs .

7. AUG 21, 1991 12H 51m 14.37± 1.07s
43.123 N ± 8.2km 0.447 W ± 9.3km
DEPTH - 10.0km (geophy s i c i s t)
PYRENEES (378)
ML 1 . 0 (STR) .

OGE 0.05 337 Pg 51 16.70 0.1
Sg 51 18.46
JAU 0.10 146 Pg 51 17.12 -0.1
Sg 51 1 9. 06
ESCF 0.10 245 Pn 51 16.87 -0.3
Sg 51 18.70
ATE 0.19 259 Pg 51 18.49 -0.1
S 5121.18
LHE 0.25 21 1 P 51 20.04 0.4
Sg 51 22.35
S.D. - 0.4 on 5 of 5 obs.

7. AUG 21, 1991 !2h 59m 26.27± 3.86s
44.461 N ± 9.9km 6.640 E ±27. 9km
DEPTH - 10.0km (geophy s i c i s t)
FRANCE (538)
ML 1.8 (GEN) .

PZZ 0-33 82 P 59 33.34 0.1
S 59 37.54
STV 0.54 114 P 59 36.72 -0.4
S 59 43.39

202

21d 12h

BHB

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DEPTH -

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199

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1991
± 9-

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on

13h
4 km
± 15

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7 of

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BORDER REGION

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!3h
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10.0 km (geophys

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5km

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obs .

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c AUG 21. 1991 13h 47m 06.25s
39.364 N 111.878 W
DEPTH = 3.7km
UTAH (478)
<SLC-P>. ML 3.0 (SLC).

FLU
SGU
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SNOU
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MSU
DUG
DAU
PV09
BW06
GOL
ALO

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% AUG [21. 1991 15h 06m 23.41± 1.07s
41.27ll N ± 9.5km 29.041 E ± 6.5km DEPTH) = 10.0km (geaphysicl s t)
TURKEY (366)

ISK
CTT
HRT

0.21 176 iPg 06 27.00 -0.9
0.48 255 iPg 06 32.50 -0.6
0.65 133 ePg 06 36.50 0.0

eSq 06 46
1 Z 1 0 . 99 1 60 ePn 0642
EYL 1 . 10 129 ePn 06 44
DMK 1.11 300 i Pn 0644
EDC 1 . 29 224 ePn 06 47
DST 1 . 69 1 91 ePn 0654
S . D . - 0 . 7 on 8 of

AUG 21.1991 1 6h 03m 25
30 . 689 S±5.1km 72.101
DEPTH = 37 .8 ± 7 . 4 km
4 . 9mb (1 3 obs .) 5 . 2Msz
OFF COAST OF CENTRAL CHILE

Felt (II) ot Santiago.

1 HA 2 . 36 1 71 i Pd 0402
i (S) 04 27
JACH 2-37 147 iPc 04 04
ROCH 2.46 158 iPc 04 04
PEL 2 . 73 154 i PC 0409
LCCH 2.81 171 i PC 0408
iS 04 39
SAN 3.01 156 iPc 04 12
iS 0446
ZON 3.06 107 iPc 04 17
TACH 3.12 162 i PC 04 13
RTLL 3 . 18 103 i P 0417
PCH 3 . 22 156 i PC 0415
iS 04 52
LNV 3.31 170 i PC 04 15
iS 04 52
CHCH 3 . 46 1 60 i PC 0418
iS 0458
MDZ 3.53 129 eP 04 25
iS 05 08
CYA 5.93 69 iP 04 54
(S) 05 01
ANT 7.12 1 3 eP 0505

SLA 8.34 46 iPd 05 26
S 05 33
ARE 14.17 2 eP 0649
CCH 14.32 24 P 06 57
CNCB 1 4 . 32 1 6 P 0651
LPB 14.56 15 P 06 50
2 1 8s 2 . 06um
LR 1112
SI V 17.77 37 P 0727
NNA 19.12 346 eP 07 50
0.9s 8 . 40 nm
2 18s 1 . 03 urn
PPD 20.50 70 iPc 08 02
e 0810
VAO 23.66 77 eP 08 34
e 08 46
e 08 51
BMA 26.16 79 eP 08 58
e 09 05
BAO 26.67 61 ePd 09 03
SPA 59.48 180 iPc 13 26
1.1s 38 . 69nm
UYO 67 . 87 340 i PC 1426
ALO 72.86 331 eP 14 5
1.2s 6 . 25nm
LIC 73 . 80 72 P 145
Z 20s 0 . 56um
TIC 74 . 05 72 P 145
K 1C 74.11 73 P 15 00
0.8s 3 1 . 50nm
CER 74 . 91 120 i Pd 1504
1.0s 80 . 00nm

MAW 76.36 164 i PC 15 12
0.9s 22 . 00nm
GOL 76.55 334 eP 15 ie
1.0s 5 . 50nm
POF 77.23 117 i PC 15 1 J
0.9s 1 6 . 8 1 nm

WIN 78 . 18 1 09 i PC 152;
1.0s 25 . 00nm
RSSD 79.97 337 iP 15 3:
1.0s 1 0 . 85 nm
TNP 80.34 325 eP 15 3<
1.0s 3 . 25nm
BW06 80.80 333 eP 15 3'
1.0s 5 . 25nm
FRS 81.14 119 i Pd 15 3'
0.9s 58 . 82nm
ORV 83.61 324 eP 15 5

. 50
. 50 0.3
. 00 -0.2

. 40 0.1
. 8!0 0.6
. 30 0.8
8 obs .

. 86± 0 . 82s
W ± 7 . 8km

(2 obs.)
(134)

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. 150 0.0
. 150 0.7
. 30 -1.0

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. 50 -0.3
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. 50 0.2
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. 00 -1.4
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. 50 -0.2
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. 00 -5.2X

. |00 -1.4
. 50
. 00 2.6X
,00 8.7X
. 00 2 . 4X
. 00 -1.6

. 00
. 40 -4 . 7X
. 00 1.4
4 . 0mb
4 . 5MszX
,10 -1.3
^90
,80 -0.1
. 20
r 90
. 10 -0.5
. 30
. 20 -0.2
. 40 -1.0
5 . 4mb
. 50 4 .0X
. 00 -1.0
4 . 5mb
. 10 -0.5
4 . 9Msz
. 40 -0.6
. 00 -0.4
5 . 3mb
. 00 -0.9
5 . 7mb
. 80 0.4
5 . 2mb
. 00 0.8
4 . 5mb
. 00 1.1
5 . 1mb
. 70 0.2
5 . 2mb
. 10 0.4
4 . 8mb
. 00 1.2
4 . 3mb
. 00 -0.2
4 . 5mb
. 30 0.2
5 . 6mb
. 00 1.5

PRY 84.21 118 e(P) 15 45.00 -10. 2X
SLR 85.45 117 eP 16 01.50 0.1
Z 20s 2 . 1 3um 5 . 5Msz
WRA 123.60 210 PKP 22 20.00 -1.5
0.8s 2 . 00nm
ODE 144.83 80 ePKP 23 00.60 -0.3
YAK 145.59 342 i PKP 23 01.00 0.1
GBA 147.21 114 PKPd 23 07.00 2.1
0.9s 9 . 30nm
MAT 154.16 291 ePKP 23 19.00 4 . 2X
S.D. - 1.0 on 39 of 49 obs.

AUG 21, 1991 17h 07m 40 . 42± 0.45s
37.290 N ± 3.8km 121.654 W ± 4.3km DEPTH = 5.0km (geo phy s i c i s t)
CENTRAL CALIFORNIA (39)
MD 2.3 (GM) .

MHC 0-05 11 iPd 07 42.40 0.4
iS 07 43.90
ARN 0.11 59 i Pd 07 43.20 0.3
GCC 0-38 227 iPd 07 48.30' 0.3
iS 07 54 . 39
SAO 0.55 162 iPd 07 52.03 0.6
PCC 0.62 290 iPc 07 52.17 -0.6
iS 08 03 . 49
BKS 0.75 322 eP 07 55.40 0.1
eS 08 06.20
2SP 0.81 324 eP 07 56 .65 0.1
iS 08 09.39
LLA 0.88 140 iPc 07 57.77 0.0
i S 0811.64
PRS 0.98 167 iPc 07 59.28 -0.3
eS 08 1 1 . 55
FR 1 1.58 100 iPc 08 08.33 -0.8
iS 08 28 .92
S.D. - 0.5 on 10 of 10 obs.

AUG 21, 1991 17h 49m 23.66± 0.73s 26.268 S ± 6.5km 27.227 E ±11 5km DEPTH = 5.0km (qeophysicist)
REPUBLIC OF SOUTH AFRICA (584)
mbLq 3. 5 (BUL) .

PRY 0.69 162 eP 49 38.00 0.4
S 49 45.00
SLR 1.09 61 i Pd 49 44.00 -0.7
S 49 56.40
FRS 3.86 205 iPc 50 25.70 0.8
S 51 09. 00
J02 4.49 106 eP 50 40.50 6 . 6X
S 51 36.00
BUL 6.23 12 iPn 50 59 . 90 1.3
iSn 52 07.50
iSq 52 38.90
POF 7.15 243 eP 51 15.00 3 . 5X
S 52 1 1 .00
KRI 9.65 14 iPn 51 41.50 -4 . 9X
iSn 53 19.60
iSg 54 15.30
CER 9.87 222 eP 51 48.00 -1.3
S 53 39.00
MTD 10.27 24 iPn 51 54.20 -0.7
iSn 53 41 . 30
iSg 54 39.20
LS2 10.97 5 iP 52 04. 70 0.2
i Sn 54 04 . 20
iSg 55 02.70
S.D. -1.1 on 7of 10 obs.

* AUG 21, 1991 I8h 09m 12.84± 1.23s 6.400 S ±11. 1km 154.537 E ±10. 7km DEPTH - 63 . 8 ± 12 . 6 km

4 . 4mb (2 obs .)
SOLOMON ISLANDS (193)

RAB 3.22 313 e(P) 10 03.00 0.9
iS 10 59 00
HNR 6.15 120 eP 10 43.00 -0.2
eS 1 1 59 . 00
PMG 7.90 247 eP 11 06.00 -1.5
CTAO 15.81 210 iPc 12 53.20 0.2
OIS 20.19 224 iPd 13 41.10 -3 . 9X
RMO 20.72 195 i PC 13 56.50 6. IX
0.9s 40 . 00nm 4 . 7mb
WRA 23.79 234 P 14 32.00 11. 2X
0.6s 3 . 1 0nm

203

21 d 1 8h

ASPA 26.24 227 iPd 14 45.70 1.8
0.8s 4.70nm 4.1mb
GUN 74.42 301 P 20 46.60 -0.1
PKI 74.73 301 P 20 48.00 -0.5
KKN 74 90 301 P 20 49.12 -0.2
0.8s 54.00nm 5.5mb X
DMN 75.00 301 P 20 49.86 -0.1
0.9s 59.00nm 5.5mb X
GKN 75.51 301 P 20 52.42 -0.3
0.8s 42.00nm 5.4mb X
S.D. = 1.1 on 10of 13obs.

1991 19h 15m 01.66s
149.777 W

t AUG 21,
61.511 N
. DEPTH = 31 . 1 km
SOUTHERN ALASKA (
<AEIC>. ML 3.8 (AEIC). 3.8
(PMR). Felt (IV) ot Anchoroge,
Butte, Polmer, Wosiilo ond
Wi I I ow. Fe i t (Mi) ot Eogle
River .

2)

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PMS
PLRM

PMR
SUA

GHO
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KN 1 M

RDT

V2W
NNL
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BWN 2.67 3 ePc 15 42.87 -0.6
THY 2.67 43 eP 15 41 .65 -1.9

MID 2.70 139 e(P) 15 43.90 0.2
RAGM 2.73 112 ePc 15 41.55 -2.8
PDB 2.78 233 i Pd 15 42.86 -2.1
AUE 2.80 221 eP 15 45.13 -0.1
AUL 2.80 222 eP 15 46.57 1.3
AUP 2.81 222 eP 15 45.22 -0.3
AGU 2.82 222 eP 15 45.56 0.0
AUH 2.82 222 eP 15 46.30 0.7
AUW 2.82 222 eP 15 45.14 -0.4
AUI 2.84 221 eP 15 45.40 -0.3
SVW 2.85 264 iPd 15 44.60 -1.4
GLB 2.86 89 ePc 15 43.86 -2.4
HMT 2.94 111 ePc 15 44.15 -3.1
YVRH 3.07 14 ePc 15 47.82 -1.3
KAIM 3.08 119 eP 15 46.12 -3.1
NEA 3.09 6 ePc 15 48.04 -1.4
HDA 3.18 23 ePc 15 49.64 -1.0
SYI 3.19 205 eP 15 48.89 -1.9
CDD 3.23 218 eP 15 49.55 -1.8
eS 16 28.38
TTA 3.25 299 iPd 15 50.30 -1.4
MCNL 3.25 226 eP 15 49.89 -1.8
eS 1 6 28 . 90
CCB 3.27 1 5 eP 15 50.00 -2.0
eS 1 6 28 . 65
TGL 3.45 100 eP 15 52.26 -2.4
FBA 3.52 1 4 eP 15 54.50 -1.0
MOM 3.53 11 ePc 15 53.83 -1.9
WAX 3.54 104 iPc 15 53.03 -2.8
BALM 3.62 94 eP 15 53.96 -3.1
SNH 3.65 108 eP 15 54.33 -3.0
KDC 4.02 201 eP 16 00.60 -1.9
WRG 4.08 108 eP 16 00.07 -3.3
CTGM 4.12 94 eP 16 02.43 -1.7
1 MA 4.89 341 ePc 16 13.30 -1.7
INK 9.67 38 P 1 7 23 . 00 1.4
0.4s 1 . 70nm 4 . 6mb X
85 obs. ossocioted

AUG 21. 1991 20h 22m 07.06± 0.54s 36.334 N ±12. 3km 68.873 E ± 8.5km DEPTH - 33.0km (normal)
4 . 3mb (1 0 abs .)
HINDU KUSH REGION (718)

CUE 6.34 195 eP 23 41.50 0.7

e(S) 25 12.00
MAIO 7.57 273 ePn 23 56.00 -2.0
0.7s 5.08nm 4. 7mb
eSn 25 18.00
NDI 10.38 135 eP 24 38.00 1.3
0.5s 1 5 . 49nm 5 . 5mb X
eS 26 33.00
GKN 15.71 117 P 25 47.02 -0.6
DMN 16.27 118 P 25 54.78 -0.2
KKN 16.29 117 P 25 55.26 0.1
PKI 16.51 117 P 25 55.94 -2.2
GUN 16.66 115 P 25 59.08 -0.9
SHL 22.41 112 iP 27 06.50 2.1
G8A 23.90 159 P 27 26.00 7.3X
0.6s 2 . 50nm 3 . 9mb
HFQ n A91A^99^P 9 Q ^ 7 7 fl Ot 1 r i 41.E4 j £. £. er 4 y \j / . / v v . \
0.6s 1 . 90nm 4 . 0mb
NB2 43.48 323 P 30 08.40 -0.2
0.7s 2 . 60nm 4 . 1mb
SMF 48.52 304 eP 30 49.40 0.7
0.8s 6.70nm 4. 7mb
AVF 48.82 304 eP 30 51.80 0.9
0.6s 3 . 1 5nm 4 . 5mb
BGF 49.21 304 eP 30 50.10 -3.8X
0.6s 3.60nm 4. 6mb
LDF 50.71 307 eP 31 05.80 0.4
0.6s 3 . 60nm 4 . 5mb
YKA 81.48 2 eP 34 26.20 4.4X
0.8s 0.90nm 3. 8mb
WRA 83.37 121 P 34 32.00 -0.4
1.3s 1 . 40nm 3 . 9mb
S.D. -1.2 on 15 of 18 obs .

& AUG 21, 1991 21h 52m 14.20s
41 . 562 N 126. 238 W
DEPTH - 5 . 0km
3 . 8mb (2 abs .)
OFF COAST OF NORTHERN CALIFORNIA(34) <BRK>. ML 3.8 (BRK).

FHC
FOX

DBO
WDC
HSO
HBO

M I N
ORV
KMOR
GT2
ZSP
PGO
BRK
BKS

GMO
VBEM
NLO
VLMM
PCC
VLL
CROR
LVP
MTMW

BMW
ESD
VTHM
STD
CZM
GCC
TDL
VGB

ASR
LMW
CPW
GL2
G LK
JBO
LON
SMW
WPW
RVC
FMW

PATW
GMW
GSM
HDW
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W I W
HTW
CMW
MCW
RPW
MBW
FFC

YKA

AUG
4 1 .

1 .86 1 13 iPc 52 44.80 -2.3
1.99121 i PC 52 47 . 00 -1.9
eS 53 10.36
2.71 54 PC 52 57 . 60 -1.7
2 . 96 1 08 i PC 53 00 . 70 -2.1
3.04 49 PC 53 02. 37 -1.6
3.68 50 Pd 5311.92 -1.2
S 53 54. 31
3 . 7 1 108 eP 53 1 1 . 36 -2.2
4.13 117 i PC 53 16.34 -3.0
4.53 25 P 53 25 . 43 6.3
4.61 38 P 53 24. 73 -1.5
4 . 74 1 38 eP 53 26 . 27 -1.7
4.78 34P 5328. 49 0.0

4 . 79 139 e(P) 53 19.00 -9.8
4.80 139 e(P) 53 19.10 -9.8
e 53 26. 10
4.82 52 P 53 27. 48 -1.9
4.87 43 P 53 28 . 30 -1.7
4.95 23 P 5331.48 0.4
5.01 36 P 5331.13 -0.8

5. 03 142 e(P) 53 23. 00 -9.1
5.12 39 P 53 33. 43 0.0
5.14 47 P 5331.92 -1.8
5. 29 30 P 53 35. 14 -0.7
5 . 33 32 P 53 35 . 32 -1.1
S 54 36.25
5. 37 23 P 53 36. 50 -0.5
5.49 31 P 53 39. 87 1.0
5.50 47 P 53 37 . 36 -1.4
5. 50 30 P 53 38. 44 -0.4
5.57 28 Pd 53 40.02 0.3
5.59 143 iPc 53 36.50 -3.6
5.60 30 P 5340.00 -0.3
5 . 60 43 P 53 39 .06 -1.2
S 54 39 . 90
5. 68 35 P 53 39.90 -1.6
5.84 28 P 53 43. 86 0.2
5 . 85 21 P 5343.79 0.1
5.89 40 P 53 43 . 03 -1.3
6.01 32 P 53 45.65 -0.4
6. 07 48 P 53 45. 55 -1.2
6 . 09 30 P 53 46.50 -0.5
6.12 19P 53 47. 51 0.0
6.14 32 P 53 47 .29 -0.6
6.19 28 P 53 48. 73 0.2
6.29 30 P 53 49 . 57 -0.5
6.37 45 P 5349.69 -1.4
6.47 21 P 53 52. 24 -0.2
6.48 28 P 53 52. 48 -0.1
6.50 19 P 53 52 . 73 -0.1
6.96 48 P 53 57 . 49 -1.8
6 .99 43 P 53 57 . 47 -2.2
7.00 26 P 53 59 . 1 1 -0.9
7 . 46 22 P 54 06.24 -0.1
7.51 18 P 54 07 .03 0.0
7 . 65 24 P 54 08 . 7 1 -0.3
7.84 22 P 54 1 1 .80 0.0
20 . 73 42 eP 56 57 .00 -0.9
0.8s 1 1 . 00nm 4 . 3mb
22 . 08 14 eP 57 15. 80 4.3
0.8s 1 . 00nm 3 . 3mb
55 obs. assacioted

21, 1991 22h 00m 07.72± 0.54s
887 N ± 4.5km 23.189 E ± 4.5km
DEPTH « 10.0km (geophy s i c i s t)
GREECE-BULGARIA BORDER REGION (363)

MMB

VTS

VAY

KNT

SRS

SOH

PLD

RZN

ML 2 . 1 (SKO) .

0.50 126 i Pgc 0018.00 0.1
iSg 00 24.00
0.70 1 i Pg 0022.00 0.3
iSg 00 32.00
0. 73 220 iPg 00 22. 70 0.6
i 00 24 . 00
iSg 00 32.50
0.76 1 97 ePc 00 22 . 58 0.0
eS 00 35.70
0 .83 158 ePd 00 23.26 -0.5
eS 00 35 . 18
1.07 173 ePc 00 27.78 -0.2
eS 00 43. 18
1.15 79 iP 00 20.00 -9.2X
IS 00 45.00

1.16 99 i Pgc 00 30 . 00 0.5
i SS 00 46 . 00

204

21<J 22h

THE 1.27 188 ePd 80 31.94 0.7
eS 00 50 . 40
S K 0 1.31 274 e P n 0031.30 -0.6
OUR 1.66 159 ePd 00 36.18 -0.8
KDZ 1.68 97 IP 0037.60 -0.3
i S 0 0 5 9 . C 0
PAIG 1.99 169 eP 00 41.90 0.1
PVL 2.07 49 eP 00 46.00 3. IX
Sg 01 10.00
S . D . = 0.5 on 12 of 14obs.

* AUG 21, 1991 22h 48m 01.64± 0.93s
30.953 S ±21. 7 km 68.090 W ±26. Okm
DEPTH - 10.0km (geophysicist)
SAN JUAN PROVINCE. ARGENTINA (137)

RTLL 0.50 221 ePc 48,10.60 -1.1
20N 0.78 220 iPd 48 16.00 -0.8
eS 48 26. «0
MDZ 2.03 198 iPd 48 36.10 -0.2
i 4855. 40
IS 4905.30
JACH 2.74 230 i PC 48 49.90 3.3X
i S 4928.70
PEL 3. 10 225 i PC 4853.60 2.0X
iS 4935.00
i 49 38.50
ROCH 3.20 230 iPd 48 55.00 1.9X
CYA 3.20 39 eP 48 52.70 -0.3
S 4906. 50
SAN 3.31 220 iPd 48 56.50 1.9X
i S 49*4.70
PCM 3.36 217 iPd 48 56.30 1.0
i S 4 9 4 3 . 0.0
TACH 3.6l221ePc 4859.5'0 0.6
IS 4953.50
CHCH 3.68 215 IP 49 00.90 1.1
i S 4955.80
LCCH 3.88 229 iP 49 03.00 0.5
LNV 4.10 222 iPd 49 05.06 -0.7
iS 50 07 . 00
S . D . « 0 . 9 on 9 of 13obs.

» AUG 21, 1991 23h 5lm 40.81± 1.79s
32.100 S ± 9.4km 71.707 W ± 1 5 . 2 km
DEPTH - 10.0km (geophysicist)
NEAR COAST OF CENTRAL CHILE (135)

IHA 0.92 177 eP 52 00.00 1.5
iS 5212.70
ROCH 1.05 146 iPd 52 01. 20 0.4
iS 52 1 5 . 10
JACH 1.11 122 iP 52 01.50 -0.2
iS 52 15. 70
PEL 1.35 141 iPc 52 05.20 -0.5
iS 52 22 .00
LCCH 1.38 175 i Pd 52 06.00 0.0
iS 5223.00
TACH 1.68 158 iP 52 10.00 -0.4
iS 52 30 . 50
PCH 1.82 147 iPc 52 12.00 -0.5
iS 52 34 . 50
LNV 1.87 172 iPd 52 12.00 -1.0
CHCH 2.03 154 iPd 52 15.10 -0.4
iS 52 40 . 90
MDZ 2.54 109 eP 52 24.20 1.4
e 52 33. 10

e(S) 52 41.10
ZON 2.64 79 eP 52 24.00 -0.2
RTLL 2.86 75 i PC 52 26.70 -0.7
CYA 6.28 56 iP 53 16.20 0.4
S . D . =0.9 on 13 of 13obs.

» AUG
23. 3
OEPTh
JU JUY f

SLA

ANT

CNCB
LPB
PPD

VAO

21. 1991 23h 58m 1 7 . 1 5± 0.82s
9 S ±12. 0km 66.875 W ±12. 6km
H = 235 . 1 ± 15.9 km
'ROVINCE. ARGENTINA (128)

1 . 89 138 iP 58 57 . 80 -0.1
S 59 27.00
3.27 263 iPc 59 1 2 . 30 0.1
i S 59 52 . 00
6 . 56 351 P 5953.00 -0.3
6.85 350 eP 59 57 . 00 0.2
4. 42 88 eP 01 32 . 50 0.3
e 01 37 .00
8.31 93 eP 0215.90 -0.5

BAO 19.36 70 ePd 02 27.50 0.3
S . D . =0.4 on 7of 7obs.

* AUG 22, 1991 00h 1 7m 52.23± 2.63s 13.388 S ±13. 2km 167.507 I ±15. 9km
DEPTH = 42.4 ± 25.6 km
4.1mb (2 obs.) 4.4Msz (1 obs.)
VANUATU ISLANDS > (186)

HNR 8 . 22 298 eP 19 52 100 0.1

DZM 8.67 185 iPc 19 58|10 -0.1
RMO 21.73 230 eP 22 54J00 12. IX
i 22 59160
STK 29.91228iPc 2359(40 1.0
0.8s 3.60nm ' 4.1mb
ASPA 33.21 247 eP 24 26 50 -1.0
1.7s 6.1 0nm ' 4 . 2mb
Z 19s 0.70um 4.4MS2
MWC 85.13 53 eP 30 32^00 6.4X
SBB 85.47 53 eP 30 27^00 -0.2
RVR 85.59 54 eP 30 28.00 0.3
PLM 85.79 54 eP 30 28.00 -0.9
CLC 86.02 52 eP 30 28.00 -1.9
GSC 86.46 53 eP 30 32.00 -0.1
TPC 86.67 54 eP 30 35.00 1.9
GLA 87.31 55 eP 30 37 . 00 0.8
S.D.=1.2 on 11 of 13 obs .
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AUG 22. 1991 00h 40m 35.28± 0.46s
44.343 N ± 3.6km 7.206 E ± 4.7km
DEPTH = 10.0km (ge ophy s i c i s t)
NORTHERN ITALY (545)
ML 2 . 1 (GEN) . 1.9 (LOG) .

STV 0. 1 3 139 P 40 38 . 82 0.3
S 4040.74
PZ2 0.18 335 Pd 40 39.69 0.3
S 40 42.35

ENR 0 . 1 9 1 2 7 P 4 0 4 0| . 0 8 0.5
ROB 0.48 96 P 40 45.48 0.4
S 40 51J.91
8HB 0.50 5 P 40 45.53 0.1
S 50 52.03
SBF 0.51 161 Pg 40 46.00 0.4
Sg 40 53.00
RRL 0.65 333 P 40 48.13 -0.3
IMI 0. 66 131 P 40 47 . 62 -0.8
S 50 57.06
FIN 0.73 100 P 40 48.95 -0.7
FRF 0.88 207 Pg 40 521.00 -0.2
Sg 4103.20
LMR 1.13 207 Pg 40 56. 40 0.0
Sg 41 1 d . 60
S . D . =0.5 on 11 of 11 obs .

AUG 22, 1991 00h 58m 40 . 1 4± C.62s
45.816 S ± 8.8km 72.809 W ±16. 4km
DEPTH = 10.0km (geophysicist)
5.1mb (8 obs.) S.IMsz (3 obs.)
NEAR COAST OF SOUTHERN CHILE (144)
Felt in the Perito Morteno oreo, Argentino.

LNV 11.89 6iP 01 3i. 70 -1.0
PEL 12.76 8 iPc 01 4J.50 0.1
ZON 14.61 14 e(P) 02 13-00 4.3X
LPA 15.70 51 eP+ 02 3^.00 7.2X
eS 05 34.00

SLA 21.85 18 iPc 03 3!) . 50 0.7
ANT 22.15 6 e(P) 03 31!. 50 1.0
CNCB 29.20 10 P 04 4!) . 00 0.4
ARE 29.29 3 eP 04 4(>.00 1.0
LPB 29.46 9 P 04 4 ' . 80 1.1
Z 20s 8 . 87um 5 . 4Msz
S 09 413.00
LR 13 5!>.00
PPD 29.50 44 eP 04 4~:>.70 -0.9
ZOBO 29.72 9 P 04 4J.00 -0.2
1.0s 27.50nm 5. 0mb
Z 20s 4.50um 5. 1Msr
S 09 43.00
LR 14 3*. 00
VAO 30.94 51 eP 04 53.90 -0.6
NVL 45.89 153 ePc 07 04.00 0.1
e 07 09.00
e 07 1 2.00
ePP 08 1 1 .00

ePPP 08 54.00
e 09 34.00
eS 1 3 56 .00
eSS 17 26.00
e 1744.00
e 2014.00
' e 20 48.00
e 2322. 00
FUO 51.06 359 eP 07 44.00 -1.0
HVD 74.04 117 eP 10 13.20 -4.9X
1.2s 3 1 . 25nm 5 . 2mb
e 1019.20
FRS 74 . 52 1 1 7 eP 10 20.80 0.2
SLR 79.20 116 eP 10 50.00 2.9X
JSC 80. 09 353 eP 104800 -3.2X
BLA 82.93 354 eP 11 15.30 9.2X
1.0s 1 5 . 00nm 5 . 1 mb
BUL 83.42 112 eP 11 10.20 0.9
1.0s 6 . 00nm 4 . 8mb
TUL 83.95 341 ePd 11 12.20 0.9
1.6s 46.60nm 5. 5mb
FVM 84.91 346 eP 11 13.90 -2.2
0.8s 11.36nm 5. 2mb
ALO 85.94 333 eP 11 22.40 0.9
1.1s 10.44nm 4. 9mb
Z 22s 0 . 46um 4 . 8Ms2
ANMO 85.94 333 ePc 11 23.00 1.5
1.0s 9 . 50nm 4 . 9mb
KRI 86.47 110 eP 11 16.50 -8.1X

GOL 90.00 335 e(P) 11 38.50 -2.5
TNP 92.56 326 e(P) 11 56.50 3.7X
BW06 94.07 334 e(P) 12 00.00 0.4
WR2 110.05 207 ePKP 17 09.50 -4 . 1 X
0.8s 3 - 20nm
NB2 126.08 37 PKP 17 43.20 0.0
0.8s 1 . 50nm
CHG 152.22 163 ePKP 18 40.00 9.4X
KMI 159.04 169 ePKP 18 50.40 10. 8X
LZH 169.96 164 ePKP 18 48.00 -0.7
6.0s 0 . 64nm
Z 32s 0.60um
PP 23 48.00
S . D . - 1 . 1 on 22 o f 33 obs .

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AUG 22, 1991 01h 07m 55.09± 0.46s 51.139 N ± 9.4km 176.487 W ± 5.1km DEPTH - 33.0km (normol)
4.9mb (18 obs.) 4.5Msz (2 obs) ANDREANOF ISLANDS, ALEUTIAN IS. (7) ML 4.0 (PMR) . Fe 1 t (Ml) on
Adok .

ADK 0.76 351 i Pd 08 10.80 1.5
SMY 6.04 289 eP 09 26.00 1.7

SON 10.46 60 e(P) 10 29.30 3.6X
SVW 15.26 41 P 11 29.40 -0.1
KDC 15.39 55 eP 11 29.40 -1.8

TTA 16.14 35 e(P) 11 43.20 2.3
RSO 16.19 46 P 1 1 40 .60 -1.1
PMR 18.26 45 eP 12 08.60 1.4
TOA 19.76 45 eP 12 25.00 0.1
FBA 20.26 36 eP 12 30.00 0.0
0.8s 41. 38nm 4 . 8mb
INK 26.83 34 eP 13 32.00 -1.8
MBC 33.29 21 ePd 14 31.00 -0.1
1.0s 1 4 . 00nm 4. 8mb
YKA 34.34 47 eP 14 39.70 -0.6
0.4s 1 . 00nm 4 . 1mb
MAT 35.19 263 eP 14 48.00 0.1
0.9s 10.92nm 4. 8mb
PNT 35.66 70 eP 14 52.00 0.3
0.6s 6.00nm 4. 7mb
NEW 37.60 70 eP 15 08.60 0.5
0.8s 18.75nm 5. 0mb
SES 40.16 65 eP 15 30.00 0.6
LRM 41.58 71 eP 15 42.00 0.6
TNP 43.03 84 eP 15 54.00 0.8
FFC 43.10 55 eP 15 53.00 -0.3
0.5s 6.00nm 4. 6mb
BW06 44.99 73 eP 16 09.20 0.1
0.7s 6.34nm 4. 6mb
PLM 46.24 89 eP 16 19.50 0.5
RSSD 47.50 69 eP 16 29.00 0.1
PV09 47.80 78 eP 16 32.50 1.1
GOL 49.35 74 eP 16 43.50 0.2
1.0s 9 . 00nm 4 . 8mb
ANMO 51.72 80 eP 17 00.50 -0.8

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22d 01h

ALO 51.72 80 eP 17 02.00 0.7
1.0s 2 . 25nm 4 . 1 mb
LZH 56.84 288 PC 17 37.50 -1.3
1.5s 71. 00nm 5 . 5mb
Z 20s 0 . 30um 4 . 4Msz

pP 17 50.06 44kmX
TUL 57.58 72 eP 17 43.50 -0.2
0.8s 8 . 0 0 n m 4.8mb
Z 22s 0 . 60um 4.7MSZ
LR 4 1 13. 00
BLA 65.51 61 eP 18 36.70 -0.5
fi . 6s. 6.82 nm 4 . 9mb
LVNJ 65.89 55 eP 18 38.50 -1.0
Cx'L 66.02 5 9 e P 1840.40 0.1
JSC 67.18 63 eC 18 48.ee 0.3
N82 68.00 356 P 18 50.60 -2.0
0.9s 2 . 1 0nm 4 . 2mb
UPP 68.77 352 eP 18 55.00 -2.2
GUN 73.29 294 P 19 25.52 0.1
0.8s 1 58 . 00nm 6 . 1 mb X
KKN 73. 73 294 P 1927.86 0.1
0.8s 1 03 . 00nm 5 . 9mb
PK 1 73.82 294 P 19 28.18 -0.2
0.9s 55 . 00nm 5 . 5mb

0.8s 70 . 00nm 5 . 7mb
DMN 73.96 294 P 19 29.04 -0.1
0.9s 55.00nm 5.6mb
KHC 79.74 353 eP 20 10.50 9.7X
WRA 82.87 226 P 20 28.00 10. 6X
0.8s 1.1 0nm
SLR 148.36 314 iPKPc 27 38.00 2.1X
F R S 153.13 314 ePKP 27 43.70 1.0
SD. =1.0 on 40 of 44obs.

AUG 22. 1991 0 1 h 53m 49 . 78± 0.52s 17.166 N ± 7.1km 95.189 W ± 6.6km DEPTH = 1 1 6 . 3 ± 6 . 3 km

OAXACA . MEX 1 CO (60)

OXX 1 . 47 267 i Pd 5415.17 -2.1
i S 54 31 . 00
SCX 2.48 100 iP 54 30.50 0.7
(S) 54 55.00
IISM 2.76 311 eP 54 32.63 -0.8
LVVM 2.82 335 iPd 54 32.01 -2.3
(S) 55 05 . 00
1 1 T 3.49 302 i PC 54 44 . 48 0.9
TPX 3.60 128 eP 54 45.00 0.2

(S) 55 11.21
PPM 3.78 301 iPd 54 48.39 0.7
(S) 55 17 .50
IIA 3.84 301 iPc 54 48.99 0.9
III 4.25 287 i P 54 53 . 48 -0.3
(S) 55 33.00
UNM 4.36 300 IP 54 55.00 -0.4

(S) 55 38.00
ACX 4.48 267 iPd 54 52.59 -4 . 1 X
(S) 55 20.85
MRX 6.23 295 i Pd 55 21.74 1.0
CGX 8. 25 289 i P 55 49 .84 1.5
UYO 16.94 2 iPc 57 42.60 1.5
TUL 18.68 358 ePc 58 01.20 -0.4
0.8s 20 . 20nm 4 . 5mb
ALO 20.36 333 eP 58 19.50 0.2
0.8s 3.17 nm 3 . 7mb
e 58 52.00
ANMO 20.37 333 P 58 19.90 0.6
0.7s 1 4 . 55nm 4 . 5mb
JSC 21.12 34 P 58 25.10 -1.6
FVM 21.16 10 P 58 24.20 -2.9X
ANCC 22.52 125 eP 58 42.33 1.6
CLMC 22.54 124 eP 58 41.71 0.7
HOOC 22.73 125 eP 58 44.72 1.7
SILC 23.45 126 eP 58 53.31 3.2X
BLA 23.84 30 P 58 52.80 -0.5
6.7s 12.78nm 4. 5mb
GLD 24. 13 341 P 58 58.80 2.5X
GOL 24.14 341 P 58 56.80 0.4
0.8s I0.12nm 4. 3mb
PV09 24.51 333 P 59 01.50 1.5
TPC 25.18 316 eP 59 17.00 1 1 . 0X
PLM 25.29 314 P 59 03.50 -3.8X
PEC 25. 80 314 P 59 12.80 1.0
CLC 27.22 317 eP 59 25.00 0.3
ISA 27.71 316 eP 59 26.00 -3 . 1 X

RSSD 27.89 346 P 59 33.80 3.0X
BW06 28.31 337 P 59 41.50 6.8X
LRM 31.99 337 eP 00 08.00 0.8
SES 35.51 342 eP 00 38.00 0.9
NEW 35.82 335 P 00 39.00 -0.7
0.7s 6 . 00nm 4 . 6mb
PNT 37.68 334 «P 00 58.00 2.7X
0.6s 5 . 00nm 4 . 6mb
FFC 37.85 354 eP 00 56.00 -0.6
0.7s 5 . 00nm 4 . 5mb
ZOBO 42.61 140 P 01 36.00 -0.9
LPB 42.83 140 P 01 43.00 4.6X
CNCB 43.11 140 P 01 40.80 -0.1
CCH 44.68 139 P 01 52.30 -1.0
YKA 47.28 348 eP 02 11.80 -1.1
0.6s 5 . 30nm 4 . 5mb
INK 56.56 344 ePd 03 21.50 -0.5
PPD 57.99 131 (P) 03 31.00 -1.7
FBA 59.14 337 P 03 39.00 -1.1
MBC 60.43 354 ePc 03 49.00 0.3
1.0s 13. 00nm 4 . 9mb
SVW 60.95 331 P 03 50.00 -2.6X
0.7s !7.44nm 5. 2mb
LKO 86.85 81 PC 0624.44 1.4

WRA 133.09 259 PKP 12 53.00 -1.0
0.7s 1 . 40nm
HYB 145.09 10 ePKP 13 14.50 -1.3
GBA 148.57 14 PKPc 13 24.60 3. IX
0.9s 4 . 90nm
S.D . - 1 . 1 on 40 of 53 obs.

AUG 22, 1991 02h 02m 08.32± 1.28s
38.036 N ±13. 0km 20.235 E ± 6.7km

GREECE (364)
MD 3.4 (ATH) .

VLS 0.31 63 ePg 02 15.20 0.4
KEK 1.71 349 ePn 02 37.70 -0.6

KZN 2.56 27 ePg 02 57.70 7. IX
FNA 2.88 18 eP 03 00.50 5.3X
OHR 3.10 8 ePn 02 59.30 1.1
ROI 3.25 299 P 02 59. 10 -1.3
SOI 3 . 30 272 P 03 01 .40 0.4
CZ I 3. 42 291 P 03 03.80 1.1
TDS 3. 45 299 P 0303.80 0.7
BRT 3.68 321 P 03 06.20 -0.3
VAY 3.74 28 ePn 03 07.50 0.2
SKO 4.04 13 ePn 03 10.00 -1.5
MGR 4.20 301 P 03 13.90 0.0
MtU 4.32 259 P 03 14.60 -1.0
SCO 4.58 305 P 03 20.00 0.9
S.D . -0.9 on 13of 15 obs.

? AUG 22, 1991 02h 11m 59.96±12.14s 41.917 N ±82. 8km 125.873 W ±49. 7km DEPTH - 10.0km (geophy s i C i s t)
OFF COAST OF NORTHERN CALIFORNIA(34)

KMOR 4.10 24 P 1304.41 0.4
GT2 4.16 38 P 13 05. 1 1 0.1
PGO 4.33 34 P 13 07 .59 0.3
TDH 4.49 40 P 1309.69 0.0
NLO 4 .52 22 P 13 10.58 0.5
VLMM 4.56 36 P 13 10.89 0.2
S 13 59.50
VFP 4 . 67 42 P 1 3 1 2 . 98 0.7
RVW 4.79 27 P 1314.49 0.6
LVP 4.84 30 P 1314.47 -0.2
MTMW 4.88 32 P 13 14.70 -0.5
S 1404.94
BMW 4.94 22 P 1315.61 -0.4
FL2 4.97 29 P 1 3 16.35 -0.2
J IK 5.01 31 P 1 3 1 6 . 55 -0.4
SHW 5.01 30 P 1317. 38 0.3
HSR 5.02 31 P 13 16.92 -0.3
CDFW 5.02 32 P 13 16.76 -0.4
REMW 5.04 31 P 13 17.74 0.2
ESD 5. 05 31 P 1317.71 0.1
STD 5.06 30 P 13 17 .57 -0.1
GULW 5.06 36 P 1 3 18.25 0.5
ERK 5.07 29 P 13 1 7.85 0.0
SOSW 5.09 31 P 13 17.97 -0.2
CZM 5.12 27 P 1 3 18.72 0.1
TDL 5.15 29 P 1319.21 0.1
S 1 4 13.93

VGB 5.15 44 P 1319. 06 0.0
ASR 5 . 24 35 P 13 19. 80 -0.5
KOSW 5 . 26 29 P 13 20 . 67 0.2
LMW 5. 40 27 P 13 22 . 62 0.1
CPW 5.42 20 P 13 22. 44 -0.4
GL2 5.44 40 P 1322.92 -0.2
GLK 5 .56 32 P 13 24. 67 -0.2
JBO 5. 63 49 P 13 25. 69 -0.1
LON 5.64 30 Pd 13 25.61 -0.3
WPW 5.70 32 Pd 13 26.29 -0.5
RVC 5.75 28 P 1 3 27 . 89 0.5
FMW 5 . 85 30 P 13 28. 87 0.0
GSM 6.03 27 P 1331.70 0.2
GMW 6.04 20 P 1 3 33. 28 1.8
HDW 6.07 18 P 13 31.43 -0.5
RMW 6. 25 26 P 13 35 . 09 0.5
HTW 6.57 25 P 13 38.37 -0.6
JCW 6.87 23 P 13 42.76 -0.4
S 14 53. 92
ETW 6.92 33 P 13 43. 74 -0.2
MCW 7.09 17 P 13 46.10 -0.2
RPW 7. 22 24 P 1347.71 -0.4
MBW 7.41 21P 1350.89 C.0
S . D . - 0 . 4 on 46 o f 46 obs .

% AUG 22. 1991 03h 26m 50 . 56± 0.92s
39.274 N ± 9.8km 27.923 E ± 9.6km
DEPTH - 10.0km (geophy s i C i s t)
TURKEY (366)

DST 0.64 59 ePg 27 02.10 -1.3

IZM 1.02 211 iPn 27 09.70 -0.1
EDC 1.07 358 ePn 27 10.20 -0.5
EZN 1.35 295 ePn 27 15.50 0.1
I Z I 1.60 48 ePn 27 20 . 40 1.4
YLV 1.71 40 ePn 27 21.00 0.4
S.D. =1.2 on 6of 6obs.

» AUG 22, 1991 03h 53m 4 1 . 1 5± 0.66s
25.030 N ±10. 9km 91.330 E ± 6.9km
DEPTH « 33.0km (normol)
4 . 7mb (8 obs .)
INDIA-BANGLADESH BORDER REGION (315)
Felt at Shillong, India.

GUN 5.66 302 P 55 06.40 0.8
PK 1 5. 89 297 P 55 08. 88 0.2
KKN 6.08 298 P 55 1 1 . 40 0.0
DMN 6. 15 296 P 55 12 . 60 0.3
GKN 6.69 298 P 55 19.84 0.1
CHG 9.39 130 eP 55 57.00 -0.3
NDI 13.11 289 iPd 56 45.50 -2.2
0.6s 33 . 33nm 5 . 5mb
eS 59 02.00

HYB 14.11 240 eP 57 01.00 0.1
eS 59 37.50
LZH 15.40 41 eP 57 16.50 -1.3
1.0s 44 . 00nm 4 . 6mb
pP 57 23.50
sP 57 28.00
GBA 17.33 232 Pd 57 49.00 6.8X
1.0s 8 . 20nm 3 . 8mb
KAF 56.53 329 eP 03 22.60 0.2
NUR 57.09 327 eP 03 25.60 -0.7
WRA 61.22 133 P 03 59.00 3.6X
0.7s 5.80nm 4. 8mb
WR2 61.24 133 iPc 04 00.10 4 . 5X
0.4s 18 . 20nm 5 . 6mb
iPcP 07 27.00
ASPA 63.60 136 eP 04 15.60 4.3X
1.4s 7 . 00nm 4 . 6mb
NB2 63.68 328 P 04 10.40 -1.0
0.7s 1 . 30nm 4 . 1mb
EKA 72. 26 323 P 05 06. 00 1.1
1.9s 18. 90nm 4 . 8mb
MBC 77.19 7 eP 05 34 . 50 1.7
INK 81 . 29 15 eP 05 56 00 0.9

pP 06 06.00 32kmX
KIC 92.81 278 P 06 55.00 2.8X
S . D . - 1 . 1 on 1 5 of 20 obs .

7, AUG 22, 1991 04h 10m 01.64± 3.93s
44.388 N ± 9.0km 8.992 E ±28. 2km
DEPTH - 10.0km (geophy s i c i s t)
NORTHERN ITALY (545)
ML 2 . 1 (GEN) .

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22d 04h

GEN 0.85 304 P 10 03.70 -0.1
S 10 06.80
PCP 0.35 296 P 10 08.91 -0.1
S 1 0 1 5 . 28
FIN 059253P 1013-98 0.4
S 10 23. 85
ROB 0.81 264 P 1017.31 -0.1
S 10 29.28
IMI 0.93 239 P 1019.34 0.0
S 10 32 . 77
STV 1 . 21 264 P 1023.54 -0.6
BHB 1.32 291 P 10 26.18 0.2
PZZ 1 . 36 276 P 10 26. 93 0.2
RSP 1.45 302 P 1 0 28 . 1 6 0.1
S D . = 8.3 on 9of 9obs.

? AUG 22, 1991 04h 50m 16.46± 4.04s
24.305 S ±31. 5km 179.766 E ±44. 4km DEPTH - 586.7 ± 30.5 km
5 . 1mt> (5 obs .)
SOUTH OF FIJI ISLANDS (171)

DZM 12.45 278 iPc 53 00.90 1.1
URZ 14.10 189 eP 53 14.80 -0.9
RUZ 15.25 193 eP 53 27.70 0.7
MNG 16.66 191 P 53 40.20 -0.5
THZ 18 . 32 197 P 53 58.00 1.4
KHZ 18.79 194 eP 54 00.40 -0.3
LTZ 19.44 197 P 54 06.10 -0.8
RMO 28.07 259 iPd 55 35.50 11. 6X
STK 34.38 249 iPd 56 18.60 1.5
0.4s 3.70nm 4.4mb
PMG 34.43 290 iPd 56 16.20 -1.5
1.0s 60 . 00nm 5 . 2mb
ASPA 41.76 261 iPd 57 17.40 0 2
0.7s 32 . 80nm 5 . 0mb
WR2 42.14 267 iPc 57 19.80 -0.4
0.4s 58.40nm 5.5mb
WRA 42.17 267 P 57 19.00 -1.4
0.7s 40 . 90nm 5 . 1mb
FORK 45(93 250 iPd 57 59.50 10. IX
0.3s 26 . 00nm
KNA 48.45 270 eP 58 08.10 -0.5
MBL 55.00 260 iPd 58 55.00 -0.7
NANU 58-48 258 eP 59 20.00 0.5
CHG 89.62 291 eP 02 15.30 1.6
S.D. =1.1 on 16 of 18 obs.

7. AUG 22, 1991 05h 21m 45.72± 0.74s
37.903 N ±10. 6km 14.991 E ± 7.5km
DEPTH «= 27 . 3 ± 12 . 1 km

SICI LY (398)

MNO 0.24 277 P 21 52.30 0.0
eSg 21 57.90
ATN 0.45 55 P 21 55.30 0.0
eSg 22 03. 10
GIB 0.77 277 P 22 00 . 80 0.3
eSg 22 12.70
MEU 0.80 183 P 22 00.70 -0.4
eSg 22 12.70
SOI 0 .86 78 P 22 02.50 0.7
eSg 22 17.70
CZ ! 1 . 59 34 P 2211.60 -0.7
eSg 22 31 .00
S.D. = 0.8 on 6 of 6 obs.

? AUG 22, 1991 05h 32m 16.18± 3.94s
18.208 S ±33. 7km 173.497 W ±43. 1km DEPTH - 33.0km (normol)
5 . 1mb (3 obs .)
TONGA ISLANDS (173)

DZM 1S.22 255 iPc 36 40.80 0.3
KUZ 26.77 205 eP 36 56.20 -0.6
URZ 21.60 200 P 37 03.40 -1.8
NOZ 21.63 198 eP 37 06.60 1.0
LTZ 21 . 31 203 eP 38 00 . 90 10
WVZ 2£.16 205 eP 38 08.10 0.7
WR2 4S.15 259 iPd 41 03.10 0.0
0.4s 8 . 00nm 5 . 1mb
WRA 4JI.17 259 P 41 03.00 -0.3

0,3s 7 . 30nm 5 . 2mb
ASPA 49.21 254 iPc 41 03.60 0.0
0 | 7s 1 1 . 00nm 5 . 0mb
S.D. =1.0 on 9of 9obs.

AUG 22, 1991 06h 50m 24 . 35± 0.54s 41.070 N ± 6.6km 22.078 E ± 4.0km DEPTH - 10.0kn (geo phy s i C i s t)
YUGOSLAVIA (383)
MD 2.5 (THE) . ML 2.5 (SKO) .

GRG 0.27 115 ePc 50 29.88 -0.2

VAY 0.45 56 iPg 50 33.20 -0.3
iSg 50 39.20
FNA 0.60 242 ePd 50 36. &4 -0.5
eS 50 44 80
KNT 0.63 81 ePc 50 36.56 -0.4
eS 50 45. $2
THE 0.80 123 ePc 50 39.16 -0.7
eS 50 52.68

OHR 0.97 273 iPg 50 42.^6 C- 6
iSg 50 56. $0
Lg 50 57.^0
SOH 1.00 104 ePd 50 42.80 -0.5
SKO 1.02 332 ePg 50 44.60 0.4
iSg 50 56.70
SRS 1.15 87 ePc 50 45.80 0.0
eS 5101.96
OUR 1.62 116 ePc 50 54.68 1.6
PAIG 1.67 133 ePc 50 54.36 0.6
S.D. =0.7 on 11 of 11 obs.

AUG 22, 1991 07h 07m 43.H3± 0.17s 23.728 S ± 3.8km 179.819 JW ± 3.8km DEPTH = 521.4km (4 depth phases) 5 . 3mb (36 obs .)
SOUTH OF FIJI ISLANDS (171)
CENTROID. MOMENT TENSOR (HRV)
Data Used: GDSN
L. P. B . : 1 1S , 14C
Centroid Location:
Origin Time 07:07:53.0 1.9
Lot 22.92S 0.24 Lon 179. 94E 0.11

Dep 535.0 7.5 Ho 1 f -d u r a t i on 1.6
Moment Tensor; Scale 10*»16 Nm
Mrr=-3.62 0.54 Mtt 13.85 1.22
Mff= 7.47 1.06 Mrt= 1.12 1.09
Mrf=-0.73 0.81 Mtf= J 0.86 0.79
P r i nc i pa 1 Axes:
T Vol= 7.57 P 1 g= 3 Azm= 94
N -2.61 48 0
P -4.97 42 187

Best Double Coup 1 e : Mo = 6 . 3 * 1 0 * 1 6
NP1 : S t r i ke=222 D i p=59 Slip- -30
NP2: 328 65 -145

SVA 5.81 344 eP 09 19.50 0.1
eS 10 36. 70
DZM 12.77 275 i PC 1031.10 0.6
iS 12 55.10
ScP 18 09J50
KUZ 13.53 195 P 10 40 .20 2.1
URZ 14.72 190 eP 10 49.90 -0.2
S 1321.00
MOZ 15.43 196 eP 10 59.50 2.3
RUZ 15. 89 194 eP 1 1 02. 60 0.8
BSZ 16.63 194 eP 11 10.90 2.0
PGZ 17.16190P 1114.40 0.3
0.4s 64 . 00nm 5 . 6mb
MNG 17.30 192 eP 11 14.60 -0.9
0.4s 60.00nm 5.6mb
eS 14 06.60
KIW 17.65 193 eP 11 18.90 0.0
CAW 17.85 193 eP 11 20-80 -0.1
WDW 18.02 193 eP 11 21.20 -1.3
MRW 18.05 193 P 11 22M0 -0.3
S 1421.10
WEL 18. 09 1 93 P 1 1 24, 00 0.9
S 14 23, 00
TCW 18.12 194 eP 11 23 90 0.4
THZ 18. 98 197 P 1 1 32 60 0.7
S 1 4 35 40
K'HZ 1 9 . 44 1 95 P 1 1 35 1 0 -1.0
0.6s I3l.06nm 5.7mb
LTZ 20 . 1 0 1 97 P 1 1 41 30 -1.1
WVZ 20.82 200 P 11 48 90 0.0
EWZ 21 . 18 199 P 1 1 51 60 -0.6
BWZ 22.40 200 P 12 01 40 -1.9
MHZ 23.06 200 eP 12 07 70 -1.8
SBCZ 23.08 200 P 12 08.10 -1.5
LSCZ 23.08 200 P 12 08.10 -1.5
MS? 23.17 203 eP 12 10.90 0.6

TUZ
BCZ
BRS
COO

TBI

RMO

AFR

PAE

PPT

PPN

CNB

T VO

PMO

CMS
VAH

TPT

CTAO

RUV

OLP

T AU
PMG
STK

ADE

Ol S

ASPA

WR2

WRA

FORR
MTN

KNA
GUA

PJG
COOL

K LB

RKG
NWAO
MBL

BAL

MUN

NANU
CSY

SPA

MAT

23 . 76 1 98 P 1214.50 -1.2
24 . 37 201 P 1221.10 0.0
24 . 97 256 i PC 1228.50 1.7
26 . 04 249 i Pd 1237.30 1.2
0.7s 42 . 00nm 5 . 1mb
i 1548.40
i 18 40. 00
27.81 95 i P 1252.00 0.3
1.0s 1 85 . &0 nm 5 . 4mb
28.55 258 i Pd 1310.00 1 1 . 8X
1.0S 1 76 . 60nm
i 1324.00 57 kmX
i 14 36. 30
28 . 75 83 i P 1259.40 -0.4
0.9s l20.GOnm 5.5mb
28.89 84 i P 1300.60 -0.5
0.9s 55 . 09nm 5 . 1mt>
28.92 83 i P 1301.10 -0.3
0.9s 80 . 00nm 5 . 3mb
29.06 84 iP 13 02.20 -0.4
0.9s 35.00nm 4.9mb
29 . 08 240 i PC 1304.40 1.6
0.9s 83.00nm 5. 3mb
29 . 1 5 84 i P 1303.00 -0.5
0.9s 105.00nm 5. 4mb
31 .28 80 i P 1321.40 -0.2
0.9s 35 . 00nm 4 . 9mb
31.31 248 i Pd 13 23. 00 1.2
31.44 80 i P 13 22. 40 -0.6
0.9s 40 . 00nm 5 . 0mb
31.54 80 iP 13 23. 60 -0.2
0.9s 1 05 . 00nm 5 . 4mb
31 .64 270 i PC 13 25. 00 0.3
e(PP) 14 59. 00
e(S) 17 56.50
31.68 80 i P 1324.50 -0.5
0.9s 70.00nm 5. 2mb
32.60 257 iPd 13 33.50 0.9
0.8s 192.00nm 5. 7mb
33.17 227 i Pd 1 3 38. 80 1.5
34.60 289 ePd 13 49.00 -0.5
34.94248 iPd 1353.30 1.0
0.9s 21.50nm 4. 7mb
i PcP 16 11.30
eS 18 46.40
37 .60 243 i Pd 14 14.60 0.4
0.9s 134.45nm 5. 5mb
37.63 267 e(P) 14 14.00 -0.5
i 1619.00
42.23 260 iPd 14 51 .80 0.2
0.5s 1 40 . 40nm 5 . 7mb
ePcP 16 32.40
iScP 19 37.20
iS 20 32. 10
42.56 266 iPc 14 53.80 -0.5
0.4s 195.60nm 6.0mb
i PcP 16 35 . 40
eScP 19 38.60
eS 20 34.00
42.58 266 P 14 53.00 -1.4
0.8s 1 31 . 00nm 5 . 5mb
46.49 249 iPd 15 24.10 -0.5
47.61 274 iPc 15 32.00 -1.3
0.5s 65.00nm 5.4mb
48.83 269 i Pd 1 5 42 . 60 0.0
50.61 313 eP 15 54.60 -1.0
0.7s 169.86nm 5.6mb
50.67 313 eP 15 55.00 -1.1
52.43 248 i Pd 16 07.90 -1.0
0.5s 16.00nm 4. 6mb
55.20 247 iPd 16 27.80 -0.7
0.4s 36 . 00nm 5 . 1mb
55.44 243 iPd 16 29.60 -0.5
55.46 245 eP 16 29.00 -1.2
55. 47 260 i Pd 16 29. 40 -1.1
0.4s 17.00nm 4. 7mb
56.25 248 i Pd 16 35.00 -0.7
0.4s 39 . 00nm 5 . 1mb
56.45 246 iPd 16 36.30 -0.8
0.7s 86 . 00nm 5 . 2mb
58.98 257 i Pd 16 54. 30 -0.1
60. 34 206 eP 1711.70 8. 9X
0.6s 63 . 1 0nm 5 . 2mb
66.41 180 i Pd 1 7 42 . 50 0.7
1.2s 128 . 87nm 5. 4mt>
71 .85 325 eP 18 13.00 -1.3
0.9s 12.60nm 4.4mb

207

22d 07h

AOK

KGM
SON
PLM

SBB
1 SA

PS 1
CLC

GSC

GLA
TNP

NVL
RSO
SVW
PMR

BDT
BALM
CHG

PNT
ALO

LZH

DUE
BUL
MTD

^ n 1

KAF

UPP
NB2

LW 1
BSD

COP

HR I
JV 1
EKA

VR 1
DMU

KRA

MLR

DCN

AKSR
AMAN
SPC
KSP

AGMR
W 1 T
CLL
BRG

WTS

ELL
PRU

MOX

ZST

KHC

75.33 2 eP 18 33 .00 -0.5
0.6s 62.20nm 5.3mb

1.3s I83.00nm 5.3mb
78. 80 277 ePc 18 53.80 0.6
80.46 1 1 eP 1900.30 -0.6
82.54 49 eP 1913.00 0.7
e 21 07 . 00 520km
82.65 47 eP 1914.00 1.4
82.78 46 eP 1 9 1 4 . 00 0.7
e 21 08.00 520km
83 . 03 276 eP 1 9 1 5 . 00 -0.1
83.45 46 eP 1917.60 0.4
e 21 15.00541 kmX
83. 6 S 47 e P 1919.00 1.2
<r 21 06.00 480KmX
83 . 79 50 eP 19 20.00 1.7
85.01 45 i P 1924.80 0.4
0.9s 3 . 52nm 4 . 0mb X
e 21 20. 50 526 km
85.41 184 ePc 19 25.50 -0.1
86.74 1 3 eP 1931.80 -0.4
86 . 78 12 eP 1 9 3 1 . 80 -0.4
88.54 1 4 eP 1 9 40 . 20 -0.1
0.8s 14.70nm 4. 9mb
89.06 289 eP 1945.00 1.4
89.74 17 i P 1945.90 -0.2

1 . 1 S 4 1 . 1 4nm 5 . 3mb
90 .26 35 eP 19 49.00 0.5
90 . 72 52 eP 19 52.00 0.7
1.0s 2 . 50nm 4 . 1mb X
epP 21 48.00 520km
93 . 40 308 P 2004.50 1.0
1.0s 29 . 90nm 5. 3mb
120.88 292 ePKP 25 36.90 -8.9
128.33 215 iPKPc 25 51.30 -1.0
129.39 220 iPKPc 25 54.00 -0.3
130.49 218 ePKP 25 46.30 -10. 2X
137.73 342 ePKP 26 02.10 -6.6X

141.88 346 iPKP 26 10.50 -5.6X
141.94 351 PKP 26 10.90 -5.4X
0.7s 1 2 . 50nm
142.03 231 iPKPc 26 15.80 -2.3
146.80 345 iPKPd 26 26.00 1.5
0.7s 25 . 00nm
146.82 347 iPKPd 26 28.60 4. IX
0.7s 2 1 . 92nm
147.47 295 iPKPd 26 30.40 3.9X
147.95 293 iPKPd 26 31.60 4.4X
148.34 4 PKPc 26 30. 70 3 . 7X
0.9s 22. 70nm
148.51 289 iPKPd 26 33.10 4.9X
149.21 322 ePKP 26 33.00 4.4X
149.40 8 iPKPd 26 33.10 4.5X
0.7s 57.00nm
149.53 335 iPKPd 26 33.90 5.0X
e 26 40.90
149.88 322 iPKPc 26 34.60 4.8X
e 28 42.00
149.89 9 ePKP 26 34.40 5.0X
0.6s 47 . 00nm
149.96 277 ePKP 26 37.20 6.8X
150.07 277 ePKP 26 37.50 7.0X
150.08 333 iPKPd 26 36.30 6.2X
150.19 339 iPKP 26 35.70 5.8X
0.8s 950 . 00nm
i 28 42.30
150.39 276 ePKP 26 38.00 7.0X

150.74 343 ePKP 26 30.00 -0.7
150.87 342 ePKP 26 31.29 0.2
i 2637.40
i 2646.80
epPKP 28 43.00
151.32 351 ePKP 26 32.00 0.5
fi 8s 56 . 00nm
i 26 38 . 40
151.35 304 iPKP 26 38.30 6.0X
151.48 340 fePKP 26 38.00 6. IX
e 26 49.80
151.70 345 ePKP 26 32.40 0.2
pPKP 28 45.40
152.13 335 e(PKP)26 32.20 -0.6
i 26 52. 10
152.54 341 ePKP 26 33.00 -0.5

1.0s 7 . 00nm
i 26 41 . 00
i 2654. 50

ENN 152.64 352 ePKP 26 41.00 7 . 5X
0.8s 20 . 00nm
e 2654. 00
GRF 152.68 344 ePKP 26 41.10 7.5X
0.8s 9 . 00nm
MEM 152.79 352 PKPc 26 41.30 7.7X
SNF 153.07 354 PKPd 26 42.20 8.1X
DOU 153.45 354 PKP 26 42.80 8 . 2X
WLF 153.69 351 PKP 26 45.00 10. 1X
SKO 154.62 321 ePKP 26 45.50 9.0X
i 27 03.90
WTTA 154.79 341 iPKP 26 45.70 8.9X
0.5s 1 4 . 40nm
i 27 04 . 10
VBY 155.06 334 e(PKP)26 37.00 0.1
e 26 46.50
e 27 04.90

CEY 155.19 336 e(PKP)26 37.00 -0.2
LIC 161.89 163 PKP 26 46.00 0.4
KIC 162.10 164 PKP 26 46.20 0.4
TIC 162.29 163 PKP 26 46.50 0.5
LKO 164.86 158 PKP 26 48.70 0.3
0.8s 1 1 . 00nm
S.D. = 1.0 on 105 of 138 obs .

% AUG 22. 1991 07h 45m 49.47± 0.80s
48.241 N ± 6.2km 29.448 E ± 9.7km
DEPTH = 10.0km (geophy s i c i s t)
TURKEY (366)

1 2 1 0.10 1 1 i Pg 45 52 . 60 0.4
YLV 0.33 350 iPg 45 56.50 0.2
eSg 46 0 1 . 00
EYL 0.63 59ePg 46 01. 60 -0.6
DST 0.89225ePg 46 06. 20 -0.5
ALT 1 . 29 156 ePn 46 1 4 . 00 0.5
S.D.=0.7 on 5of 5 obs.

AUG 22, 1991 08h 16m 40.75± 0.83s
19.591 N ± 9.2km 63.341 W ± 4.9km
DEPTH - 33.0km (normol)
LEEWARD ISLANDS (92)
ML 4. 5 (FDF) .

LPR 2.71 242 P 17 23.00 0.0
CPD 2.89 238 P 1 7 26 . 00 0.5
BPA 2.90 151 ePd 17 26.22 0.6
S 17 59.30
SJG 3 . 04 242 i P 1 7 27 . 90 0.2
APR 3.40 251 P 17 32.50 -0.3

SEG 3. 62 151 eP 17 36.09 0.2
MCP 3.75 253 P 17 37.00 -0.7
PAG 3.88 156 eP 17 40.17 0.5
S 1 8 24 . 00
MGP 3.88 247 P 17 39.40 -0.2
DEC 3.92 146 eP 17 39.50 -0.7
MGG 4.13 152 eP 17 43.42 0.3
BBL 4.42 156 ePd 17 47.61 0.3
FDF 5.27 156 eP 17 58.94 -0.3
0.2s 0.70nm 3. 8mb
CRM 5.34 154 iPd 17 59.10 -1.2
B IM 5. 49 156 eP 18 02. 46 0.0
MVM 5.53 155 iPd 18 02.27 -0.7
PPD 43.01 164 eP 24 40.10 1.2
INK 64.64 337 eP 27 17.00 -0.1
S . D . =0.6 on 19 of 19 obs .

AUG 22, 1991 08h 29m 41.65± 2.45s
42.448 N ±19. 9km 23.353 E ±11. 3km
DEPTH - 10.0km (geophy s i c i s t)
BULGARIA (359)

VAY 1.27 208 ePn 30 07.00 1.8
KNT 1.33 195 ePd 30 06.77 0.6
IS 30 27 .33
SRS 1.34 172 ePc 30 06.18 -0.2
eS 30 27.58
SKO 1.50 252 ePn 30 08.00 -0.6
SOH 1.62 180 ePc 30 09.34 -1.1
eS 30 35.58
OUR 2.16 167 ePd 30 17.22 -1.0
eS 30 51 .62
PAIG 2.53 174 iPc 30 22.58 -0.8

ALN 2.54 127 ePc 30 24.90 1.3
S.D. » 1.3 on 8 of 8 obs.

AUG 22. 1991 08h 38m 51.03± 0.45s
41.216 N ± 5.8km 23.629 E ± 4.6km
DEPTH = 27 .8 ± 4 . 9 km
GREECE-BULGARIA BORDER REGION (363)
MD 3.3 (ATH) . 3.2 (THE) .

SRS 0.10 196 eP 38 56.90 0.8
SOH 0.45 208 ePc 38 59.58 -0.9
KNT 0.55 265 eP 39 02.20 0.0
eS 39 09 . 90
THE 0.77 221 ePc 39 05.34 -0.5
eS 3914.70

VAY 0.81 278 iPg 39 05.50 -0.9
i 39 1 6 . 70
i Sg 39 18 . 80
OUR 0.92 163 iPd 39 08.14 0.1
eS 39 21 .02
GRG 0.96 255 ePd 39 08.38 -0.3
eS 39 20.30
PAIG 1.29 178 ePc 39 13.66 0.4
RDO 1.44 92 ePb 39 14.60 -0.9
eSb 39 36.00
KZN 1.68 238 ePn 39 19.30 0.3
FNA 1.76 257 eP 39 21.20 1.1

SKO 1.81 295 ePn 39 24.70 3 . 9X
eSg 39 50.50
ALN 1.85 99 ePd 39 24.26 2.8X
OHR 2.14 268 ePn 39 30.20 4.6X
AGG 2.41 205 ePd 39 29.22 -0.2
MFT 2.80 98 ePn 39 36.00 1.0
DMK 3.16 78 ePn 39 39.00 -1.0
MLR 4.60 21 eP 40 02.00 1.4
VRI 5.17 25 eP 40 07.50 -1.0
S.D. -0.9 on 16of 19 obs .

? AUG 22, 1991 10h 18m 04.82±15.99s

DEPTH - 5.0km (geophy s i c i s t)
NORTHERN ITALY (545)

BOI 0.36 87 PC 18 11.90 -0.1
eSg 18 22.20
P 1 1 0.44 136 P 18 13. 20 -0.5
eSg 18 24.90
MME 0.46 70 P 18 13.30 -0.7
eSg 18 25. 10
PGD 1.18 98 P 18 28 . 20 0.8
SF 1 1 .27 95 P 18 29.30 0.5
S.D. =0.9 on 5of Sobs.

? AUG 22, 1991 10h 30m 46.71± 6.40s
35.885 N ±48. 1km 0.394 W ±: 3 . 8km
DEPTH - 10.0km (geophy s i c i s t)
ALGERIA (396)
mbLg 3.2 (MOD) .

ENIJ 1.82 307 iPn 31 18.10 -0.2
eSn 31 39.00
EALH 2.13 338 ePn 31 22.00 -0.8
eSn 31 47.40
EHUE 2.61 318 ePn 31 31.00 1.3
ACU 2.62 360 ePn 31 29.40 -0.4
eSn 31 58.60
EGUA 2.73 291 ePn 31 30.70 -0.7
eSn 32 03.00
AFC 2.88 299 ePn 31 34.50 0.8
eSn 32 05.50
EVIA 3.22 329 ePn 3'. 38.60 0.2
eSn 32 16.00
EBAN 3.54 311 ePn 31 43.20 0.3
eSn 32 23.00
EROO 4.97 7 ePn 32 04.00 0.9
eSn 32 57.80
S.D. - 0.9 on 9 of 9 obs.

AUG 22, 1991 13h 1 8m 12.61± 0.15s
23.834 S ± 3.6km 179.790 W ± 3.8km
DEPTH - 534.7km (13 depth phoses)
5. 3mb (50 obs .)
SOUTH OF FIJI ISLANDS (171)
CENTROID, MOMENT TENSOR (HRV)
Doto Used: GDSN
L.P.B. : 15S, 26C

22d I3h

208

OZM

wcz
KUZ

HBZ

URZ

NOZ
WHH
MOZ
RUZ
WAH2
TEH2
PG2
MNG

K 1 W
CAW
WDW
BLW
WEL

MOW
TCW
THZ

KHZ

LTZ
WVZ
MOZ
BWZ
MSCZ
LSCZ
TUZ
BCZ
S 1 Z
COO

TB 1

RMO

APR

PAE

PPT

PPN

TVO

PMO

CMS

VAH

Cen t r o i d Locotion:
Origin Time 13-18:18.6 1.0 Lot 23.45S 0.11 ton 179. 86W 0.07

Oep 529.0 3.9 Ha 1 f -du r a t i o n 2.1
Moment Tensor; Scale 10»»17 Mm
Mrr=-0.25 0.06 Mtt = 0.75 0.11
Mff=-0.59 0.11 Mrt= 1.15 0.09
Mrf=-1.05 9 10 Mtf=--0.03 0.08
Principal Axes:
1 Vol= 1.69 Pig-37 Azm= 22
N 0 . 90 21 129
P -1 . 69 45 242

Best double Couple: Mo=l.7»10»»l7
NPT.Stiike= 52 Dip=22 Slip=-168
NP2 ' oil 35 -69

1 2 . 80 275 i Pd 2101.70 1.6
iS 23 23.90
ScP 28 38 . 10
1 3 . 09 201 P 21 01 . 80 -1.0
13 . 44 196 P 21 08 .00 1.7
e 21 1 3 . 40
13 . 82 186 eP 21 1 1 . 20 1.0
0.6s 59 . 00nm 5 . 2mb
1 4 . 62 190 eP 21 16.50 -1.7
eS 23 50.70
14 .85 187 eP 21 22 . 10 1.6
15 . 33 191 eP 21 26 . 50 1.1
15.34 1 96 P 21 27 . 40 2.1
1 5 . 80 1 94 eP 21 29 . 90 0.0
16.15 191 eP 21 32.40 -1.0
1 6 . 36 1 89 eP 2136.60 1.2
17 .06 190 P 2142-30 0.1
17 . 20 192 eP 2142.40 -1.2
05s 68 . 00nm 5 . 5mb
eS 24 34.20
1 7 . 55 1 93 P 2146.10 -0.9
17 . 76 193 eP 21 48 .60 -0.3
1 7 . 93 1 93 P 2150.10 -0.4
1 7 93 1 92 P 2150.70 0.1
1 7 . 99 1 93 P 2 1 52 00 0.8
2.3s 938 . 1 8nm 6 . 0mb
S 24 51 .00
1 8 . 02 1 92 P 2151.60 0.1
18.03 195 eP 21 51.20 -0.3
18 .89 197 eP 22 00 . 60 0.7
S 25 03 .30
19 . 34 195 P 22 03 . 70 -0.4
0.6s 142. 00nm 5 . 8mb
S 25 1 1 .30
20 . 01 1 97 P 22 09 . 30 -1.1
20.73 200 P 2215.40 -1.5
20 . 78 196 P 22 16 . 70 -0.7
22.31 200 P 22 29.60 -1.7
22 .96 200 eP 2237.10 -0.2
22.99 200 P 22 36.20 -1.4
23 . 67 1 99 P 2243.50 -0.1
24 . 28 201 P 2249.10 0.0
24.95 200 eP 22 54.90 -0.2
26 . 02 249 i Pd 2306.10 1.3
0.4s 58.00nm 5.5mb
i 26 1 7 .00
i 29 09.00
27.78 95 i P 2320.20 0.1
0.8s 75.00nm 5.3mb
28 .56 258 i Pd 23 38 .00 1 1 . IX
0.8s 282.00nm
i 23 52.00 57kmX
i 25 05.00
i 26 33.00
i 29 26.80
28.73 83 IP 23 27 . 40 -1.1
0.8s 110. 00nm 5 . 5mb
28 87 83 IP 23 28 .60 -1.1
0.8s 55 . 00nm 5 . 2mb
2J3 . 91 83 i P 23 29 . 00 -1.0
0[ss 115. 00nm 5 . 5mb
29 . 05 83 i P 2330.20 -1.0
01 8s 45 . 00nm 5 . 1mb
2)9. 14 84 i P 2331.10 -1.0
0;. 8s 100. 00nm 5 . 5mb
31 . 27 80 i P 2348.50 -1.8
0.8s 55.00nm 5.2mb
31 . 30 248 i Pd 2351.40 1.0
0.2s 38.00nm 5.6mb
i 29 25.20
31.43 80 i P 23 50 . 60 -1.0

TPT

RUV

QLP

TAU
PMG
BFD

STK

LAT
ADE

QIS

MDG
ASPA

WR2

WRA

FQRR

MTN

WARS

KNA

GUA

PJG
COOL

KLB

RKG
NWAO

MBL
BAL

MUN

NANU
CSV

SPA

KKM

MAT

ADK'

MAW

KGM

PRS
GCC
PCC
SAO
PR 1
BRK
BKS
MHC
1 PM

PAS
MWC
BAR
FHC
PLM

0.8s 45.00nm 5.1mb RVR 82.61 48 eP 29 41.00 0.4
31.53 80 iP 23 51.80 -0.6 e 31 38.00 537km
0.8s 90.00nm 5.4mb PEC 82.69 48 P 29 41.50 0.4
31.67 80 iP 23 52.80 -0.8 SBB 82.70 47 i P+ 29 42 . 00 0.8
0.8s 80.00nm 5.4mb e 31 37.00 526km
32.60 258 iPd 24 02.10 0.7 FRI 82.82 44 ePc 29 42.30 0.7
0.6s 220.00nm 5.9mb ISA 82.84 46 i P+ 29 42.00 0.2
i 29 30.00 e 31 40.00 542km
33.12 227 iPd 24 07.30 1.8 CMB 83.02 43 i PC 29 43.30 0.6
34.66 289 eP 24 18.00 -0.7 PSi 83 12 276 ePc 29 43.50 -0.1
34.84 239 iPd 24 21. £0 1.8 ORV 83.27 41 ePc 29 44.50 0.7
0.9s 132.00nm 5.5mb WDC 83.28 40 i PC 29 44.80 0.9
i 26 40.f)0 CLC 83.51 46 i P+ 29 45.00 -0.2
34.93 248 iPd 24 21.60 0.8 e 31 43.00 541km
0 5s 36.20nm 5 2mb CWC 83.50 46 i P+ 29 46 00 0.5
iPcP 26 40.00 IPC 83.57 48 eP 29 46.00 0.5
36.17 293 eP 24 31.20 0.0 e 31 43.00 535km
37.58 243 eP 24 42.00 -0.7 MIN 83.69 41 ePc 29 47.00 0.9
0.5s 2l8.3lnm 6.0mb GSC 83.74 47 iP+ 29 47.00 0.6
37.65 267 i Pd 24 43.00 -0.3 e 31 43.00 529km
0.4s 20.00nm 5.1mb GLA 83.84 56 eP 29 48.00 1.1
i 29 48.00 e 31 46.00 540km
37.94 294 eP 24 42.20 -3.5X TNP 85.06 45 P 29 53.00 0.0
42 24 260 iPd 25 20.20 -0.1 0.6s 9.72nm 4.6mb
0.6s 234.40nm 5.9mb pP 31 50.00 533km
iScP 30 05.90 NVL 85.31 184 ePc 29 54.00 0.6
iS 30 53.90 NNT 86.51 285 eP 30 01.60 1.6
42.58 266 i PC 25 22.30 -0.7 RSO 86.84 13 P 29 59.80 -1.2
0.5s 370.10nm 6.2mb SVW 86.88 11 P 29 59.20 -1.7
iScP 30 08.10 PMR 88.63 14 P 30 08.20 -0.8
iS 31 03.60 0.5s 16.53nm 5.2mb
42.60 266 P 25 22.00 -1.2 KMI 89.40 298 Pd 30 15.00 1.3
0.8s 254.50nm 5.8mb 1 5s 80.00nm 5.4mb
46.47 249 iPd 25 52.70 -0.4 CHG 89 83 291 i Pd 30 17.80 2.3
e 27 17.40 433kmX l.is 56 . 96nm 5.4mb
47.64 274 iPd 26 00.80 -1.4 BALM 89.83 17 P 30 14.40 -0.4
i 30 28.50 PNT 90.33 35 eP 30 18.00 0.9
48.32 255 iPd 26 06.30 -0.9 0.7s 13.00nm 5.0mb
0.3s 20.00nm 5.1mb PV09 90.64 48 P 30 19 50 0.3
48.85 270 eP 26 10.60 -0.7 ALO 90.76 52 ePc 30 20.00 0.3
e 30 34.00 1.0s ll.75nm 4.8mb
50.70 313 eP 26 23.50 -1.3 e 32 19.00 536km
0.6s I28.09nm 5.6mb ANMQ 90.77 52 P 30 20.00 0.3
50.76 313 eP 26 24.00 -1.3 1.0s 12.50nm 4.9mb
52.42 249 iPd 26 36.10 -1.2 pP 32 18.80 535km
0.5s 42.00nm 5.1mb NEW 91.03 36 P 30 20.00 -0.4
55.19 247 iPd 26 56.30 -0.5 FBA 91.84 13 P 30 22.10 -1.7
0.4s 63.00nm 5.3mb 0.6s 14.29nm 5.2mb
55.41 243 iPd 26 58.00 -0.4 pP 32 20.00 529km
55.44 245 iPd 26 58.10 -0.5 LZH 93.48 308 eP 30 33.00 0.8
0.5s 28.00nm 4.8mb 1.0s 31.00nm 5.4mb
55.48 260 iPd 26 57.00 -2.0 GOL 93.78 48 P 30 33.00 -0.6
56.23 248 iPd 27 03.40 -0.7 0.8s 5 . 2 1 nm 4.7mb
0.5s 1l3.00nm 5.5mb pP 32 32.50 537km
56.43 246 iPd 27 05.10 -0.4 RSSD 96.69 45 P 30 45.00 -1.5
0.7s 124.00nm 5 . 3r.ib 0.8s 4 . 4 1 nm 4.8mb
58.98 257 i Pd 27 23.U0 0.5 INK 97.91 16 eP 30 50.00 -1.3
60.26 206 iPc 27 40.60 9.9X GKN 105.44 294 PKP 35 35.60 -1.0
0.4s 93.20nm 5.5mb HVD 120.69 205 e(PKP)36 04.20 -1.3
66.31 180 iPd 28 10.90 1.4 QUE 120.94 292 i PKPc 36 07.10 1.0
1.0s 102.00nm 5.3mb FRS 121.51 206 iPKPc 36 07.20 0.4
69.07 287 ePd 28 26J00 -0.9 PRY 123.08 209 iPKPd 36 10.90 0.7
0.8s 72.90nm 5.3mb BUL 128.26 215 iPKPc 36 19.70 -0.7
71.95 325 eP 28 41 00 -2.3 i SKP 38 53.20
1.6s 66.67nm 4.9mb MTD 129.32 220 ePKP 36 23.50 1.1
75.44 2 P 29 01 00 -1.4 iSKP 38 57.20
0.6s 104.43nm 5.5mb KRl 130.42 218 ePKP 36 15.50 -9.0X
77.88 200 i Pd 29 17 80 2.1 iSKP 38 51.60
1.1s 118.00nm 5.2mb KAF 137.84 342 ePKP 36 28.60 -8 . 4X
78.84 277 ePd 29 22 20 0.5 NUR 139.61 342 ePKP 36 34.70 -5.5X
1.0s I38.50nm 5.3mb LW 1 141.99 231 iPKPc 36 44.20 -2.0
81.36 44 eP 29 36 00 1.7 NB2 142.05 351 PKP 36 39.90 -4.7X
81.39 43 eP 29 35.30 0.9 0.8s 5.40nm
81.45 43 eP 29 35.40 0.7 BSD 146.91 345 i PKPc 36 54.50 1.7
81.58 44 eP 29 36.40 1.0 0.9s 29.00nm
81.69 45 eP 29 37.00 0.8 HR 1 147.54 295 iPKPd 36 59.00 4.3X
81.75 42 eP 29 37.30 1.1 JVI 148.02 292 iPKPd 37 00.30 4.8X
81.77 42 iPc 29 37.20 0.8 EKA 148.44 4 PKPc 36 59.20 3 . 9X
81.81 43 i PC 29 37.80 1.1 1.0s 8.10nm
81.99 279 ePd 29 38.50 0.5 PRNI 148.44 290 iPKPd 37 01.40 5.3X
0.8s 99.00nm 5.4mb VR 1 149.31 322 iPKPd 37 01.50 4 . 6X
82.15 47 eP 29 38.00 -0.4 KRA 149.63 335 iPKPc 37 02.90 5.7X
82.28 47 eP 29 39.00 -0.2 MLR 149.98 322 iPKPc 37 03.50 5.4X
82.34 49 eP 29 40.00 0.6 AKSR 150.00 276 ePKP 37 05.70 7. IX
82.58 39 eP 29 41.90 1.5 AMAN 150.11 277 ePKP 37 05.50 6.8X
82.59 49 i P4 29 41.00 0.2 SPC 150.19 333 ePKP 37 03.60 5.2X
e 31 37.00 531km KSP 150.29 339 iPKP 37 05.70 7.5X

209

22d 13h

e 39 09 .00
AGMR 150.42 276 ePKP 37 06.40 7 . 2X
CLL 150.85 343 iPKPd 37 05.50 6.5X
1.1s 58 . 00nm

BRG 150.98 342 iPKPd 37 06.00 6 8X
e 3716.10
epPKP 39 12.00
PRU 151.59 340 ePKP 37 07.20 7.0X
1 Os 1 0 . 1 0nm
e 37 18. 80
MOX 151.80 345 ePKP 37 01.50 1.0
1.4s 22 . 0Gnm
SRO 152.07 333 ePKP 37 08.30 7.4X
ZST 152.24 335 ePKP 37 01.20 0.1
e 37 08.30
i 37 21 . 40
KHC 152.64 341 PKP 37 02.00 0.3
1.0s 5 . 40nm
i 37 09.50
i 37 23.00
VAY 154.45 318 ePKP 37 10.00 5.6X
e 37 30.80
SKO 154.72 321 ePKP 37 13.80 9. IX
i 37 32.80
OHR 155.63 320 ePKP 37 16.00 9.9X
1.0s 70 00nm
i 37 36.00
TIC 162.19 163 PKP 37 14.60 0.6
LKO 164.75 158 PKP 37 17.18 0.7
S . D . = 1.0 on 136 of 162 obs .

40.791 N ± 5.5km 27.987 E ± 7.2km DEPTH = 10.0km (geophy s i c i s t)
TURKEY (366)

EDC 0 45 192 <?Pg 22 29.07 -6.1
eSg 22 37.20
CTT S.49 43 i Pg 22 29.50 -0.4
i Sg 22 36. 00
ISK 0 86 71 iPg 22 36.50 0.0
iSg 22 49.00
DMK 1.04 351 iPg 22 39.90 0.2
YLV 1.08 102 ePg 22 40.00 -0.3
IZI 1.22 111 ePn 22 43.06 0.3
HRT 1.28 88 ePg 22 44.00 0.3
S.D =0.4 on 7of 7obs.

& AUG 22, 1991 15h 03m 16.14s
59 . 931 N 1 53 . 31 9 W
DEPTH = 1 48 . 0km
SOUTHERN ALASKA (2)
<AE 1 C> .

RDT 0.79 35 eP 03 38.96 -0.4
eS 03 56. 13
HOM 0.89 107 eP 03 39.34 -0.7
eS 03 58.39
NNL 1 .02 83 iP 03 41 .53 0.3
CNPM 1.13 110 iP 03 41.15 -1.0
eS 04 00.64
BRLK 1.24 97 eP 03 42.31 -0.9
eS 04 02.97
NKA 1.32 51 eP 03 44.71 0.8
CKL 1 . 36 20 iP 03 43. 37 -1.2
SPU 1.40 26 eP 03 43.57 -1.3
SY I 1 . 41 160 eP 03 43. 21 -1.7
S 04 04.32
BGL 1.41 19 eP 03 44.17 -0.9
CRP 1.46 23 eP 03 44.48 -1.1
CGLM 1.53 25 eP 03 45.21 -1.0
NCG 1.58 21 eP 03 45.90 -1.0
SLKM 1.65 68 eP 03 47.19 -0.4
i S 04 09 . 62
SEW 1.95 83 eP 03 49.99 -0.9
SUA 1.99 38 iP 03 50.23 -1.3
i S 0417.38
SKT 2.23 22 eP 0353.01 -1.4
PMS 2.28 53 eP 03 53.43 -1.5
LT I 2.75 85 i P 03 59 .86 -0.9
eS 0434.19
KNIM 2.82 79 eP 03 59.89 -1.8
eS 04 32.94
MTU 2.85 86 iP 04 01.39 -0.7
eS 04 36.39
CUT 2.89 29 iP 04 00.77 -1.7

FID 3.50 73 eP 04 08.43 -2.0
VZW 3.53 68 eP 04 10.67 -0.3
KLU 3.96 64 eP 0414.61 -1.9
25 obs. ossocioted

AUG 22, 1991 15h 03m 33.48± 0.59s
44.245 N ± 4.3km 7.588 E ± 5.4km
DEPTH = 10.0km (ge ophy s i c i s t)
NORTHERN ITALY (545)
ML 2. 5 (LOG) .

AUTN 0.27 205 Pg 03 39.25 -0.1
TOUF 0.34 227 Pg 03 40.03 -0.5
DOI 0.36 317 Pd 03 39.80 -1.1
eSg 03 44.90
SBF 0.40 196 Pg 03 41.80 0.2
Sg 03 48.00
AURF 0.40 208 Pg 03 41.57 -0.2
Sg 03 47.94
CK I 0.53 70 P 0344.90 0.7

eSg 03 52.90
FRF 0.96 225 Pg 03 52.60 0.8
Sg 04 04.00
LRG 1.19 229 Pg 03 56.40 0.8
Sg 0412.00
LMR 1.20 221 Pg 03 56.20 0.4
Sg 0411.60
LPG 1 . 39 335 Pg 03 59. 60 0.5
PGF 1.98 148 Pn 04 06.20 -1.3
Sn 04 29.80

* AUG 22, 1991 15h 31m 50.45± 0.96s
37.471 N ±13. 0km 71.179 E ±10. 5km
DEPTH = 33.0km (normol)
4 . 8mb (5 obs .)
AFGHANISTAN-USSR BORDER REGION (717)

DUE 8.07 207 iPc 33 48.40 0.0
eS 35 08 . 10
NDI 10.12 148 i PC 34 17.00 0.5
0.5s 21.!3nm 5. 7mb
GKN 14.73 126 P 35 18.48 0.1
0.7s 37 . 00nm 4 . 9mb
KKN 15.29 125 P 35 25.38 -0.3
0.7s 26 . 00 nm 4 . 6mb
DMN 15.30 126 P 35 26.84 0.9
PKI 15.52 125 P 35 28.20 -0.6
GUN 15.61 123 P 3530.40 0.5
N82 43.70 322 P 39 54.40 0.7
0.6s 1 . 20nm 3 . 8mb
STK 95.25 126 i Pd 45 10.20 -1.8
0.7s 2.70nm 4. 8mb
S.D. = 1.0 on 9 of 9 obs.

% AUG 22, 1991 16h 37m 15.66± 0.67s
44.387 N ± 6.2km 7.313 E ± 8.0km
DEPTH = 10.0km (geophy s i c i s t)
NORTHERN ITALY (545)
ML 1 .5 (GEN) .

STV 0.14177P 3719.15 0.1
S 3721.15
ENR 0. 18 154 P 3719.70 0.0
S 37 22. 13
PZZ 0.19 308 P 37 20. 05 0.1
S 3722. 92
ROB 0. 41 103 P 37 24. 23 0.2
S 37 29.60
BHB 0.46 356 P 37 24.86 -0.1
S 37 30.84
IMI 0. 63 1 39 P 37 28 . 20 -0.2
S.D. =0.2 on 6 of 6obs.

* AUG 22. 1991 18h 26m 33.85± 2.65s 5.393 S ±19. 2km 151.677 E ±13. 9km
DEPTH = 79 .5 ± 18.2 km
4 . 7mb (4 obs .)
NEW BRITAIN REGION (192)

LAT 4.82 255 eP 27 45.40 -0.1
PMG 6.00 228 eP 28 02.00 0.0

QIS 19.10 217 iPd 30 53.40 0.2
0.3s 8 . 00nm 4 . 5mb
RMQ 21.16 187 eP 31 25.00 10. 5X
DZM 21.89 141 iPc 31 22.00 0.2

WR2 22.20 228 i PC 31 25.10 0.2
0.4s 40.30nm 5.2mb
e 31 39 . 60
eS 35 25.40
ASPA 24.97 222 iPd 31 52.00 0.4

0.5s 34 . 00nm 5 . 0mb
COO 25.05 180 eP 31 52.00 -0.4
WARB 31.62 226 eP 32 51.00 -0.5
GBA 76.05 285 PC 38 14.90 0.0
1.0s 4 . 80nm 4 . 4mb
S.D. =0.4 on 9 of 10 obs.

* AUG 22, 1991 19h 47m 35.92± 0.84s
28.050 S ±11. 0km 26.821 E ±13. 2km
DEPTH = 5.0km (geo phy s i c i s t)
4 . 5mb (1 obs .)
REPUBLIC OF SOUTH AFRICA (584)

PRY 1.26 28 eP 48 02.00 2.1
S 48 17 .00
FRS 2. 14 217 iPd 48 13.80 1.0
S 48 38.20
SLR 2.65 30 iPd 48 20.00 -0.2
0.9s 37.82nm
S 48 46. 10
HVD 2.80 204 iPd 48 22.70 0.4
S 49 03.00
JOZ 4.70 84 eP 48 48.00 -1.2
S 49 37.00

CER 8.37 229 e(P) 49 30.00 -10. 8X
S 51 37 .00
TUH 8.42 230 eP 50 36.00 54. 5X
0.9s 319.33nm
KIC 45.81 313 P 55 59.40 -1.3
0.6s 3 . 00nm 4 . 5mb
TIC 46.20 313 P 56 03.00 -0.8
0.6s 10. 00nm 5 . 0mb X
S.D. -1.5 on 7of 9obs.

AUG 22, 1991 19h 51m 43.99± 0.42s
38.943 N ± 3.3km 29.264 E ± 6.0km
DEPTH - 10.0km (geo phy s i c i s t)
TURKEY (366)

KHL 0.65 162 iPg 51 56.50 -0.6
eSg 52 05.50
DST 0.83 323 i Pg 51 59.00 -1.0
eSg 52 1 1 .00
IZI 1.40 7 ePn 52 09 . 60 0.0
YLV 1 .62 3 iPn 52 13.00 0.2
IZM 1.66 251 ePn 52 14.20 0.9
EYL 1.76 23 iPn 52 15. 10 0.3
EDC 1.77 323 iPn 52 15.30 0.5
GBZT 1.85 4 ePn 52 19.50 3.5X

iSg 52 43.00
HRT 1 .90 9 iPn 52 16.50 -0.3
YER 1.96 204 ePn 52 17.50 -0.2
ISK 2.13 356 ePn 52 20.50 0.5
ELL 2.25 167 iPn 52 22.30 0.4
CTT 2.29 344 ePn 52 22.00 -0.4
MFT 2.39 321 ePn 52 24.00 0.1
EZN 2.44 292 ePn 52 24.00 -0.5
BBTK 2.85 71 eP 53 04.00 33. 5X
eS 53 21 . 00
DMK 3.10 339 ePn 52 34.00 0.2
S.D. -0.5 on 15 of 17 obs .

? AUG 22, 1991 21h 03m 42.03± 8.70s
7.805 S ±76. 6km 128.324 E ±16. 7km DEPTH - 1 67 . 8 ± 39 . 4 km
4 . 8mb (2 obs .)
BANDA SEA (280)

MTN 5.72 151 eP 05 07.00 1.0
eS 06 10.00
KNA 7.91 177 eP 05 34.60 -0.6
IS 06 00.50
WRA 13.40 155 P 07 01.00 14. 2X
0.5s 4 . 00nm
WR2 13.42 155 eP 06 45.30 -1.7
0.3s 13. 90nm 4 . 8mb
iS 09 07.20
MBL 15.61 211 eP 07 14.50 0.1
eS 10 01 .00
ASPA 16.65 162 iPd 07 28.20 0.9
0.6s 23. 80nm 4 . 7mb
eS 10 28.00

22d 21h

210

OIS 16J73 140 eP 07 28.00 -0.1
IS 10 29.00
WARS 18.35 185 eP 07 47.30 0.8
NANU 19.15 219 eP 07 54.50 -0.4
S . D . -1.2 on 8of 9obs.

% AUG 22. 1991 2lh 10m 37.50± 0.79s
43 042 N ± 7.9km 0.473 W ± 6.1km
DEPTH = 10.0km (geo ph y s i c i S t)
PYRENEES (378)
ML 1 .0 (STR) .

JAU 6.08 93 Pg 10 40.08 0.0
Sg 1041.73
ESCF 6.68 296 Pg 10 39.68 -0.4
Sg 10 46.87
OGE 0.13 360 Pg 10 40.68 0.1
Sg 10 42.79
LHE 0J17 220 Pg 10 41.45 0.0
1 Sg 1044.12
ATE 0 j 1 7 285 Pg 10 41 . 43 0.0
Sg 10 43.86
MADF 0.27 292 Pg 10 43.51 0.2
Sg 10 47 . 65
S.D. - 0.3 on 6 of 6 obs.

AUG 22. 1991 21h 15m 04.59± 0.20S
55.771 N ± 3.8km 114.364 E + 3.4km DEPTH * 22.7km (14 depth phoses) 5.2mb (63 obs.) 4.7Msz (6 obs.)
EAST OF LAKE BAIKAL (328)

IRK 6.88 244 eP 16 46.00 -0.6
ePS 1 7 09 . 00
e 17 52 00
eS 18 05 . 00
e 18 30 . 00
eSS 18 42.00
YAK 10.10 45 IP 17 25.00 -6.2X

1 . |I s 1 4 7 60nm 6 . 2mb X
! ePg 1806.00
eS 19 1 1 . 00

i Sg 20 1 1 .00
LZH 20.96 204 PC 19 48.50 0.2
1.5s 85 . 00nm 4 . 9mb
Z 10s 3.53um 5.0MszX

pp 1952.50 15km
PP 20 07 . 00
sS 23 35.00
SS 23 56.00
Lg 25 35.00
e 26 15. 00

MAT 25.13 130 (P) 20 22.00 -7.1X
1.4s 1 8 . 60nm 4 . 5mb
Z 20S 1 . 77um 4 . 6MSZ
eS 24 51 . 00
KMI 31.78 200 eP 21 26.50 -3 . 0X
GUN 34.54 228 P 21 53.64 0.0
KKN 34^.90 229 P 21 56.74 0.2
GKN 34.99 230 P 21 57.70 0.5
0.8s 1 4 1 . 00nm 5 . 9mb
PKI 35.. 04 228 P 21 57.44 -0.4
0.9s 59 . 00nm 5 . 5mb
DMN 351.13 229 P 21 58.80 0.2
0.9s 111.00nm 5. 8mb
CHG 38.70 204 eP 22 28.50 0.2
LOE 39.49 199 eP 22 38.50 3 . 6X
SOD 39.70 323 IP 22 36.80 0.7
MAIO 41.50 266 iPc 22 53.30 1.9
0.8s 1 09 . 81 nm 5 . 6mb
eS 29 22.00
OBN 41.93 303 iPc 22 55.00 0.5

Z 15s 3.10um 5.3MSZX
N 16s 1 . 80um
E 16s 1 . 70um
i 23 02.00 24km
i PP 24 43 . 00
eS 29 20.00
eSS 32 2,2.00
OUE 41.94 253 eP 22 55.20 0.0

e(S) 30 17 . 30
KAF 42.51 316 IP 22 59.90 0.6
SVW 43.85 45 P 23 10.80 0.6
1 '. 0s 50 . 00nm 5 . 3mb
MBC 43.86 16 eP 23 10.00 -0.1

0,9s 35 . 00nm 5 . 2mb

NUR
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TAB
N82

BALM
GBA

BSD

VR 1
KRA

BMR
MLR
SPC
KOD
BBTK
CMP
KSP

GZR
BRG

CLL

SRO
PRU

ZST
YKA

MOX

KHC

Wl T
GRF

WT FT I C o

BNS

VAY
KBA

SKO
EKA

LJU

44.08
44. 56
45. 37
46 . 06
0 7s
46.62
0 . 8s

46. 93

47 . 25

47.67
48. 84
1 .03
48. 89
50. 80
0.9s
51 .55
1 .2s
52. 66
52.94
0. 9s
Z 16s
E 16s

52. 96
53. 32
53. 42
53. 81
53. 84
53.93
54 . 00
1 . 0S

54 . 94
55 . 00
1 . 3s

55. 08
1 .5s
55. 30
55. 40
1 .5s
Z 15s
N 1 7s
E 15s

55. 57
56. 05
0.8s
56 . 1 6
1 . 7s
Z 17s
N 16s
E 16s

56. 45
1.1s
2 16s
N 1 6s
E 16s

56.54
57 . 05
1 .2s
Z 20s

57 . 1 1
0.7s

57. 76
0. 5s
Z 15s
58. 04
58. 10
1 -2s

58. 12
58. 14
1 .6s
58.35

315 eP
201 eP
44 P
41 P
29 . 07nm
/ o O O t, c rO
32 . 00nm
PP
230 ePc
e
317 IP
i
278 eP
321 P
31 . 90nm
39 P
229 PC
9 . 00nm
31 4 eP
20 . 00nm
299 eP
306 iPc
38 . 00nm
3 . 68um
3 . 20um
e
eS
302 ePd
299 eP
305 iP
227 eP
289 eP
299 iP<d
309 IP
31 . 00nm
i
301 ePd
310 i P
32 . 06nm
e
e

311 i Pd
36 . 00nm
305 eP
309 eP
18. 30nm
2 40um
1 . 50um
1 . 20um
e
e
306 eP
25 eP
1 0 . 56nm
312 ePd
9 . 06nm
1 . 90um
1 . 76um
0 . 46um
S
309 P
1 5 . 00nm
2 . 03um
1 . 00um
1 . 50um
i
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316 eP
311 eP
32 . 00nm
0 . 80um
e
315 eP
40 . 00nm
e

314 iPc
1 0 . 00nm
0 . 70um
297 eP
308 iPd
35 . 60nm
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299 eP
323 P
58 . 30nm
306 eP

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. 50 0.5
. 00 1.6
. 70 1.1
. 70 0 . 0

5 . 3mb.00 -6.1
5. 4mb
. 00 579kmX
. 50 -9.6
. 50 1 7 km
. 30 0.1
. 00 26 km
. 00 2.0
. 50 -0.1
5. 3mb
. 50 0.4
. 90 -0.1
4 . 7mb
. 00 -0.3
4 . 9mb
. 10 0.2
. 90 0.0
5 . 3mb
5 . SMszX

. 90 23km
. 00
. 00 2. 9X
. 50 0.6
. 00 0.4
. 60 -0.3
. 00 1.2
. 100 2.8X
. 00 6.3
5.3mb
. 60 20km
- 00 1.2
,40 0.4
5 . 2mb
H 40 23km
<00

400 -0.6

5. 2mb
. 70 1.5
39*00 0.1
4 . 9mb
5 . 4MSZX

46 \ 40 24 km
45
39
42

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49
49
51

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57
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; 00
> 90 -0.3
. 00 -1.4
4 . 9mb
. 70 0.3
4 . 5mb
5.3MszX

L00

. 50 -0.1
4 . 9mb
5.3MszX

. 20 25km
. 00
. 00 2.0
. 00 0.2
5 . 2mb
4 . 8Msz
. 60 25km
. 50 0.4
5 . 6mb
. 50 23km
. 80 0.1
5 . 1mb
4 . 9MszX
. 30 0.5
. 90 0.5
5 . 3mb
. 20 1 kmX
. 40
. 60 -0.7
. 00 -0.3
5 . 4mb
. 00 0.1

ENN

VBY
MEM
CEY
VOY
WTTA

FV 1
TRI

UCC
OHR

WLF
SNF
OGA

VV 1
DOU
CT 1
SLE
CDF

OSS
LLS
VDL
BSF

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LBF

PCP
LPL

LPG

RSP
SSF

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CK 1
BHB
SMF

FLN

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LDF

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AVF

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CZ 1
PZZ
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STV

58 . 41
0. 7s

58. 42
58 .50
58 .63
58 .65
58. 72
1.1s

58. 72
58.95

59 . 01
59.08
1.1s
59 . 18
59.26
59.29
0.5s
59 . 35
59 . 47
59 . 64
59.69
59 . 70
1 .0s
59.81
60. 17
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1 . 2s
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1 .0s
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60.57
60 .82
61 . 02
61.15
61 . 20
61 .25
61 .29
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61.61
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62 .01
62.01
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62.01
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62. 19
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62. 32
0.8s
62. 37
62.40
62 . 51
62.52
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6? 60
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62 .60
62 . 66
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62.83
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62.96

315 eP
25 . 00nm
e
305 eP
315 i Pd
306 eP
307 eP
309 iPd
31 . 80nm
i

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308 P
306 eP
i
316 P
298 eP
60 . 00nm
314 iPd
316 iPd
309 eP
11 . 00nm
308 P
315 PC
308 P
311 ePd
312 eP
1 8 . 00nm
309 ePd
310 ePc
310 ePd
312 eP
29 . 75nm
313 eP
1 6 . 00nm
0 . 47 urn
324 eP
310 ePc
305 P
324 eP
306 P
310 ePc
306 P
31 1 ePd
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307 P
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314 eP
28 . 20nm
0 . 50um
305 P

3ie P
313 eP
24 . 00 nm
309 P
311 eP
1 6 . 80nm
311 eP
26 . 20 nm
316 P
314 eP
21 . 50nm
301 P
309 P
316 P
313 eP
1 7 . 45nm
317 eP
29 . 50nm
0 . 60um
317 eP
21 . 65 nm
310 P
314 eP
1 9 . 00 nm
309 P
316 P
309 P
300 P
316 P
309 P
310 P

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50 0.3
5 . 4mb
00 21km
00 0.6
67 -6.2
36 64
66 -0.5
86 6.1
5 3mb
26 24km
90
60
00 -0.4
90 -1.2
56 2 Sun

16 -e. 3
66 -0.1
5.6mb
96 0.4
73 -6.4
40 0.7
5 . 2mb
36 -6.6
06 -6.6
26 -6.8
46 6.2
26 -6.1
5. 2mb
50 0.2
80 0.1
90 0.5
40 -0 5
5 3mb
66 -0.5
5.1mb
4 . 6Msz
06 -6.1
56 -6.6
36 -6.1
96 -6.1
76 1 3
16 -6.1
46 6.6
76 6.6
56 6.6
39 -6.8
46 8.0
16 6.4
88 6.8
58 8.2
98 -8.7
28 8.1
86 -1.6
5. 5mb
4 . 7Msz
46 0.3
00 0.3
10 -1.1
5 . 3mb
18 -1.1
70 0.1
5.2mb
70 0.0
5. 4mb
28 -1.6
00 -1.0
5 .3mb
80 1.4
10 -0.5
00 -2.3
50 -0.8
5 . 2mb
10 -1.2
5.4mb
4 . 8Msz
20 -1.1
5 . 5mb
90 -0.1
10 -0.7
5 . 2mb
74 -1.2
28 -0.3
48 -1.0
60 0.2
97 -1.7
97 -2.2
87 -2.5

21 1

22<J 21h

GRR

I M 1
BGF

SBF

MAP

TCF

PGF

SOI
LSF

FRF

LMR

MFF

FFC

PNT
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CMS
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PLM
BAR
GLA
ANMO

ALO

DZM
MCO

2OBO
LPB
CNCB
PPD
NVU

SPA

62.97 31 7 eP 25 38. 28 -1.8
8.6s 9 . 00nm 5.1mb
62 . 98 369 P 2531.13 -0.3
62.99 314 eP 25 36.70 -0.8
0 . 7 s 13. 25nm 5 . 2mb
63.21 369 eP 25 32 .90 -61
1.0s 28.08nm 5. 4mb
63.38 314 eP 25 33.76 -6.3
1.6s 37 . 00nm 5.5mb
63.47 314 eP 25 34.00 -6.7
0.9s 14.75nm 5.1 mb
63. 56 387 cP 25 35.20 -0.2
6.8s 1 8 . 80nm 5 . 3mb
63. 76 299 P 25 36. 76 0.1
63. 78 315 eP 2535.70 -0.9
08s 1 6 . 1 Onm 5 . 2mb
63.80 309 eP 25 36.38 -0.5
8.9s 14. 75nm 5 . 1mb
64.84 389 eP 25 37.98 -8.5
0.8s 13 . 45nm 5.1mb
64.16 316 eP 25 38.70 -0.4
0.8s 21.50nm 5. 3mb
65.92 22 eP 25 49 . 00 -1.3

0.6s 10. 00nm 5 . 1 mb
66 .02 35 eP 25 51 . 00 -0.1
66 .29 31 1 P 25 52 . 93 0.0
66 . 51 31 3 P 2555.06 0.7
66 . 56 31 2 P 255500 0.3
66 .90 313 eP 2556.40 -0.5
0.6s 8 . 1 Onm 5 . 0mb
67 . 09 313 P 25 59 . 32 1.2
67.67 30 eP 2602.00 8.5
67.75 34 P 2601.30 -0.8
0.8s 9 . 58nro 5. 0mb
67 . 87 313 eP 26 02 . 00 -0.8
69. 73 314 eP 26 16. 00 1.5
69. 77 1 eP 26 14 . 00 -0.4
70. 73 315 eP 26 21 . 20 0.6
7 1 . 76 31 3 eP 2628.00 1.2
71 .99 316 eP 26 29. 00 0.9

72.57 42 eP 2631.80 0.4
72 .69 313 eP 26 33. 50 1.3
73.36 313 eP 26 36. 50 0.3
73. 37 313 eP 26 36. 80 0.5
73.58 314 eP 26 38. 50 1.2
73.85 42 eP 26 38. 90 0.0
74 . 31 31 4 eP 2643.80 2.2

74. 39 315 eP 26 43. 20 1.2
74.85 314 eP 26 46 . 00 1.3
75. 01 32 P 26 44 . 40 -1.5
1.0s 3 . 83nm 4 . 4mb
75. 32 28 iP 2647.10 -0.5
1.1s 15. 53nm 5 . 0mb
75.60 42 eP 2649.70 0.6
76 . 72 43 eP 26 56 . 30 1.0
76.72 39 P 26 56. 00 0.4
0.8s 11. 03nm 4 . 9mb
76 . 77 42 eP 26 56. 20 0.6
77 . 31 161 eP 26 56 . 80 -1.8
0.6s 33.1 0nm 5 . 6mb
78 . 60 41 eP 27 07 . 00 1.2
79 . 06 33 P 2708.70 0.2
79. 07 30 P 27 08. 40 -0.1
1.0s 6 . 25nm 4 . 6mb
79.35 40 eP 2711.00 1.1
79.52 41 eP 2711.00 0.2
80 . 76 40 eP 27 1 8 . 00 0.9
80. 85 162 eP 27 16 . 30 -1.5
0.7s I2.70nm 5.1mb
81.07 41 eP 2719.00 -0.2
81.74 41 eP 2728.00 5 . 5X
82.09 40 eP 27 25 . 00 0.7
83. 16 33 P 27 30 . 00 0.0
1.2s 1 3 . 67nm 5 . 0mb
83. 16 33 ePd 27 30 . 00 -0.1
1.4s 1 6 . 28nm 5 . 0mb
220s 0 . 35um 4 . 7Msz
89.20 133 iPd 27 59.40 -0.2
115.81 153 ePdiff29 43.70 -14. 9X
0.3s 59 . 1 0nm
140.53 4 PKP 34 25.00 -9 . 4X
140.79 4 ePKP 34 47.00 12. 3X
141.07 4 PKP 34 36 . 80 1.5
144.66 337 ePKP 34 39.10 -1.6
144.99 214 ePKPd 34 39.00 -0.8
e 3444. 00
145.59 180 iPKPc 34 40.00 -1.1

1.1s 62 . 50nm
SNA 149.57 217 iPKPc 34 52.20 5.1X
1.1s 1 01 . 27nm
S.D. - 0.8 on 174 of 185 obs.

% AUG 22, 1991 21h 17m 28.48± 0.62s
39.288 N ± 5.8km 27.836 E ± 5.5km
DEPTH = 10.0km (ge o ph y s i c i s t)
TURKEY (366)

DST 0.69 62 iPg 17 42.00 -0.2
eSg 17 52.50
I ZM .00 207 iPn 1 7 47 . 30 -0.1
EDC .06 1 ePn 17 47.80 -0.6
EZN .29295ePn 1752.40 0.1
MFT . 5 6 3 4 4 i P ri 1756.50 0.2
IZ 1 . 64 50 ePn 1 7 57.60 0.1
YLV .74 42 ePn 17 59.00 0.0
CTT .91 14 ePn 18 02.00 0.6
HRT 2-08 42ePn 1804. & 0 0.1
DMK 2.53 359 ePn 18 10.60 -0.3
S .0 . -0.4 on 10 of 10 obs .

% AUG 22. 1991 21h 36m 37.63± 0.91s
37.811 N ± 8.9km 2.019 W ± 7.0km
DEPTH - 10.0km (geophy s i c i s t)
SPA IN (377)
mbLg 2.8 (MOD) .

EHUE 9.45 271 ePg 36 44.70 -1.6
eSg 36 50.80
EALH 0.48 84 ePg 36 47.00 0.3
eSg 36 55.00
ENIJ 0.85 190 iPgd 36 51.80 -1.7
eSg 37 03.20
EVIA 0.91 335 ePg 36 54.50 0.0
eSg 37 09.00
AFC 1.33 246 ePg 37 03.00 1.2
eSg 37 2 1 . 00
ECOG 1.34 247 ePg 37 02.80 1.0
eSg 37 21 .00
EBAN 1.44 285 ePn 37 02.70 -0.5
eSn 37 22.00
EGUA 1.57 232 ePn 37 06.30 1.3
eSn 37 25.40
S.D. -1.4 on 8of Sobs.

& AUG 22, 1991 21h 39m 03.84s
61 . 382 N 150 .685 W
DEPTH - 54.4km
SOUTHERN ALASKA (2)
<AE I C> . ML 2.7 (AE I C) .

SUA 0.09 341 iPd 39 12.40 1.7
eS 39 19.52
PWA 0.47 55 iPc 39 14.60 -0.5
PMS 0.56 104 iPc 39 15.85 -0.4
CGLM 0.64 264 iPd 39 16.79 -0.5
SPU 0.69 254 iPd 39 17.21 -0.6
i S 39 28.34
NKA 0 . 70 203 i Pd 39 19. 19 1.4
NCG 0.71 272 iPd 39 17.58 -0.5
S 39 28 . 72
CRP 0.72 261 iPd 39 17.76 -0.5
eS 39 28.87
SKT 0.72 327 iPd 39 17.33 -0.9
IS 39 28. 45
PLRM 0.78 74 iPc 39 17.90 -0.9
IS 39 29.64
CKL 0.82 258 iPd 39 18.82 -0.7
BGL 0.83 263 ePd 39 19.04 -0.7
GHO 0.93 64 ePc 39 20.13 -0.8
cS 39 32.95
CUT 1.05 11 eP 39 21.47 -1.0
KNK 1.07 87 iPc 39 22.31 -0.6
ROT 1.17 227 iPd 39 23.63 -0.6
SML 1.20 68 eP 39 23. 60 -1.1
DFR 1.26 232 ePd 39 24.89 -0.6
eS 39 41 .94
REF 1.33 229 eP 39 26.15 -0.5
eS 39 43.85
RON 1.34 230 ePd 39 25.89 -0.7
eS 39 43.49
RS2 1.37 229 eP 39 26.79 -0.4
eS 39 45.21
RSO 1.37 228 ePc 39 26.81 -0.3
eS 39 44.20

RS1 1.37 228 ePd 39 26.66 -0.5
eS 39 42 . 91
ROW 1.37 230 eP 39 26.80 -0.4
eS 39 45 . 09
NNL 1.38 193 eP 39 27.65 0.6
RED 1.41 227 ePd 39 27.00 -0.5
eS 39 45 . 46
SEW 1 . 42 154 eP 39 27 .89 0.3
KNIM 1.78 124 iPc 39 29.94 -2.7
eS 39 51 . 30
GLI 1.81 105 ePc 39 30.72 -2.5
eS 39 53. 31
CNPM 1.88 189 ePd 39 32.84 -1.3
LT I 1.94 133 eP 39 32.42 -2.5
VZW 2.02 97 eP 39 34.20 -2.0
MTU 2.05 132 eP 39 34.52 -1.9
S 39 59.08
TRF 2.09 5 eP 39 37.49 0.3
VLZ 2.12 95 eP 39 35.48 -1.9
eS 40 00.27
FID 2.14 105 eP 39 34.97 -2.8
eS 4000.21
OPT 2.14 217 eP 39 38.29 0.5
eS 40 04 . 35
K'TH 2.18 357 eP 39 38.14 -0.3
RND 2.20 22 eP 39 40.00 1.3
TOA 2.27 69 ePc 39 38.89 -0.7
K'LU 2.29 85 ePd 39 37.59 -2.4
i S 40 04 . 95
PDB 2.36 229 i PC 39 39.59 -1.2
eS 40 07 . 89
SVW 2.40 266 iPc 39 39.87 -1.6
CDD 2.87 212 eP 39 47.78 -0.4
PAX 2.92 55 eP 39 48.49 -0.5
TTA 2.94 304 ePc 39 47.20 -2.1
GLB 3.31 86 eP 39 5 1 . 5 1 -2.9
TGL 3.87 96 eP 40 01 .26 -1.1
BALM 4.05 91 eP 40 02.18 -2.7
49 obs . os soc i a ted

» AUG 22, 1991 22h 02m 4 1 . 09± 1.49s 15.952 S ±13. 0km 75.210 W ±12. 3km DEPTH - 35. 5 ± 13.2 km
4 . 5mb (3 obs .)
NEAR COAST OF PERU (115)

ARE 3.61 99 eP 03 34.90 -2-3
iS 04 24 . 00
NNA 4.25 338 eP 03 45.50 0.3
0.7s 34.93nm
i 03 47 . 00
eS 04 41 . 00
ZOBO 6.82 94 PC 04 22.20 0.3
Z 16s 2 . 73um
LR 06 36.00
LPB 6.86 96 P 04 25.80 3.5X
1.0s 240.00nm 6.0mb X
LR 96 57.00
CNC8 6 .99 98 P 04 26.00 1.7
CCH 8.81 101 P 04 50.00 0.6
ANT 8.93 150 eP 04 50.70 -0.1
MDZ 17.82 162 P 06 53.10 5.0X
PPD 23.38 109 eP 07 47.00 -0.6
e 07 56.20
BAD 26.19 93 ePc 08 15.60 1.0
TUL 55.14 340 eP 12 12.10 -0.3
0.8s 12.70nm 5. 0mb
ALO 58.67 330 eP 12 37.00 -0.7
1.0s 3 . 50nm 4 . 4mb
ANMO 58.67 330 eP 12 38.20 0.5
1.0s 3 . 75nm 4 . 5mb
RSSD 65.32 338 e(P) 13 22.00 -0.1
KIC 73.17 78 P 14 09.80 -0.9
SES 73.18 337 eP 14 10.00 -0.1
WRA 134.00 220 PKP 21 58.00 6.8
1.1s 1 . 30nm
S.D. -1.1 on 15 of 17 obs.

AUG 23, 1991 00h 02m 58 . 38± 0.69s 19.528 S ± 6.1km 68.507 W ±10. 7km DEPTH - 1 47 . 1 ± 9 . 0 km
4 . 5mb (3 obs .)
CHILE-BOLIVIA BORDER REGION (124)

CNCB 2.75 11 iPc 03 44.80 0.4
LPB 3.00 8 P 03 47.40 0.7
1 . 0s 220 . 00nm

23d 00h

ZOBO 3.26 6 i PC 63 49.86 -0.4
ARE 4 17 317 eP 03 56.06 -5.8X
i S 04 41 . 56
ANT 4.52 I03 eP 03 57.06 -9 . 1 X
i 04 04 . 60
SLA 5 88 152 i Pd 04 22.86 -1.7
SIV 7.91 65 iPc 04 50.40 -1.4
PCH 14.15 187 eP 06 13.50 0.1
TACH 14.23 183 iPc 06 15 00 0.6
LNV 14. 60 190 eP 0619.50 0.5
PPD 16.27 102 eP 06 41.70 1.8
BAG 19.93 82 ePd 07 22.00 1.0
VAO 20.37 104 eP 07 25.40 0.1
e 07 42 .90
LIC 67.49 74 PC 13 40.50 -0.4
0.5s 3 . 5Cinm 4 . 5mb
TIC 67 .166 74 P 13 41 .90 -0.1
KIC 67.80 74 PC 13 42.60 -0.2
0.5s 14. 59nm 5.1mb
YKA 89.46 340 eP 15 38.50 -0.9
0.9s 2 . 90nm 4. 3mb
S.D. =» 1.0 on 15 of 17 obs .

? AUG 23;, 1991 00h 27m 22.38± 4.50s
4.403 S ±44. 4km 130.598 E ±23. 4km
DEPTH = 33.0km (normol)
4 . 6mb (3 obs .)
BANDA SEA (280)

MTN 8.41 176 eP 29 26.66 1.1
eS 36 55.66
KNA 11.42 189 eP 36 65.06 -1.3
eS 3264.00
WR2 15.88 167 eP 31 02.20 -3.0X
0.3s 6 . 60nm 4 . 3mb
IS 3348.00
OIS 18.29 152 eP 31 35.00 -0.5
i 3138.10
eS 34 43 . 00
ASPA 19.42 171 eP 31 49.30 0.3
0.5s 1 6 . 90nm 4. 6mb
eS 35 12.00
MBL 19.67 211 eP 31 52.50 6.8
NANU 23.21 218 eP 32 27.66 -6.5
0.4s 14. 80nm 4 . 8mb
S.D. =1.1 on 6of 7obs.

? AUG 23, 1991 61h 18m 26.83± 4.68s
23.286 N ±19. 2km 122.172 E ±31. 6km
DEPTH = 10.0km (geophysicist)
TAIWAN REGION (243)

TWF1 0.81 275 ePc 18 42.86 6.3
eS 1853.20
TWO 0.96 327 iPd 18 44.70 -0.3
eS 1857.20
TWG 1.11 246 iPd 18 47.50 -0.2
TWC 1.36 347 ePd 18 51.90 0.2
ANP 1.99 343 eP 19 15.50 14. 6X
S.D. = 0.5 on 4 of 5 obs.

& AUG 23. 1991 01h 50m 03.24s
63 .803 N 150. 662 W
DEPTH = 26 . 1 km
CENTRAL ALASKA (1)
<AEIC>. ML 3.6 (AEIC) . 4.2
(PMR) .

KTH 0.29 210 iPd 50 09.51 -0.3
TRF 0.38 158 iPd 50 11.02 -0.4
BWN 0.62 53 iPc 50 16.28 0.9
MCK 0.74 95 iPd 50 17.09 -0.3
RND 0.88 116 iPd 50 19.36 -0.4
HUR 0.94 152 iPd 50 20.83 0.2
eS 50 33 . 07
NEA 1.02 40 ePd 50 21.17 -1.0
eS 50 35.74
WRH 1.29 58 ePc 50 25.21 -0.9
eS 50 42.82
CUT 11.41 174 ePc 50 28.36 0.5
CC8 1.49 54 iPc 50 27.71 -1.2
eS 50 48.98

MOM ,1.55 41 iPd 50 28.75 -1.2
FBA 11.65 47 eP 50 36.62 -1.2
1 eS 50 51 . 53
HDA 1.71 68 eP 50 30.82 -1.4
GLM 1.83 48 eP 50 32.78 -1.3

212

SKT 1 . 88 1 93 i PC 5634
eS 56 59
GHO 2 . 1 8 1 59 eP 5638
eS 51 67
PWA 2 . 1 9 1 7 1 eP 5039
DJE 2.19 82 eP 5038
SML 2.26 151 ePc 50 39
PLRM 2 32 162 ePc 50 40
PMR 2 32 162 eP 50 41
SUA 2.35 182 ePc 50 41
PAX 2 . 46 108 ePd 5043
NCG 2 51 197 ePc 50 43
eS 5117
CGLM 2.59 195 eP 50 44
TTA 2.59253eP 5 O 4 6
Kt4K 2. 60 157 eP 50 40
PMS 2.61 169 ePc 50 44
IMA 2.63 331 eP 50 44
SDG 2.63 117 ePc 50 45
CRP 2.65 196 eP 50 45
TOA 2.65 128 eP 50 48
BGL 2.68 199 eP 50 46
SPU 2.72 195 eP 50 46
CK L 2.74198 ePc 50 47
KLU 3. 17 135 eP 5053
SLKM 3.31 177 eP 50 55
VLZ 3 . 33 1 42 eP 5055
VZW 3.34 144 eP 50 55
RDT 3.35 195 ePd 50 55
GL 1 3 . 36 149 eP 50 55
RDN 3 . 45 1 98 eP 5057
REF 3 . 47 1 97 eP 50 56
RDW 3 . 49 1 98 eP 5057
RS2 3.50 198 eP 50 57
RSO 3.50 198 eP 50 58
RSl 3.50 198 eP 50 57
SVW 3.57 223 eP 50 58
FID 3 . 62 1 46 eP 5058
KN IM 3. 72 157 eP 50 59
SEW 3. 75171 eP 5101
NNL 3.79 185 eP 51 03
H 1 N 3 . 92 1 49 eP 5104
GLB 3 . 93 124 eP 5105
CVA 3.98 143 eP 51 04
LT 1 3 . 99 1 66 eP 5103
CNPM 4.30 184 eP 51 09
RAGM 4 . 42 1 38 eP 51 11
BALM 4 . 74 1 22 eP 5117
CDD 5 . 1 0 1 98 eP 5122
INK 8.27 49 P 52 63
61 obi. ossocioted

% AUG 23, 1991 63h 46m 41
43 . 969 N ±13. 6km 7.778
DEPTH - 16.6km (geophys
NEAR SOUTH COAST OF FRANCE

ML 2 .6 (GEN) .

IM I 6 . 68 89 P 4644
S 46 45
ROB 6.39 10 P 46 56
S 46 5S
ENR 0 . 41 321 P 46 5C
S 46 5e
FIN 0 . 43 46 P 46 5«

S 46 5(
STV 0 . 47 31 6 P 465'
S 46 57
PZZ 0.77 321 P 46 5''
S 47 0''
PCP 0.84 41 P 46 5''
BHB 1 . 00 339 P 47 00
RSP 1 . 30 343 P 47 04
S.D. -0.7 on 9of

7. AUG 23. 1991 04h 04m 23
1 0 . 838 N ± 8 . 4km 61.02*
DEPTH - 10.0km (geophys
TR I N I DAD

MD 2 .5 (TRN) .

TBH 0.35 187 eP 04 27
eS 64 33
TRN 6 . 42 243 eP 64 29
eS 04 35
TPR 0.42 35 eP 04 29
eS 04 36

. ^6 -6.1
. Sis
. 2^7 -6.8
. 23
. 60 0.5
. 20 -0.9
. 29 -0.9
. 74 -0.2
. $0 0.3
jl 0 -0.4
. fel 0.8
. £4 -0.6
. 54
. 21 -0.7
. 10 12
. 68 0.1
. 97 -0.3
. 27 -1.2
. 185 0.4
. 56 -0.2

. [80 3 . 1
. ! 1 7 -0.1
. 98 0.3
. 19 0.2
. 43 0.3
. 87 0.8
. 37 0.1
. 79 0.4
. 55 -0.1
. 89 0.2
. 71 0.5
.:99 -0.5
. 80 0.0
. 99 0.0
^88 0.9
. 97 0.0
. 15 -0.7
. 30 -1.2
1 26 -1.6
,66 0.4
,95 2.1
; 42 0.7
. 01 1.2
. 42 -0.1
,84 -0.8
. 98 0.8
. 85 1.1
. 27 1.9
. 34 1.9
. 00 -1.8

. 85± 1 . 63s
E ± 6 . 0km
i c i s t)
(379)

. 41 0.0
. 74
. 56 0.7
. 87
. 65 0.4
. 96
. 82 0.2
. 71
. 64 0.2
. 74
. 22 0.3
. 07
. 94 -0.2
. 53 -0.3
. 67 -1.3
9 obs .

. 92± 0.91s
W ± 9 . 5km
i c i s t)
(98)

. 93 -0.3
. 94
. 16 -0.3
. 34
. 53 0.0
. 98

TPP 0.67 219 eP 04 34.77 0.6
eS 04 44.43
TCE 0.73 259 eP 04 35.18 -0.1
eS 04 44. 78
S.D. =0.5 on 5 of Sobs.

AUG 23, 1991 04h 07m 44 . 1 8± 0.54s
59.006 N ± 5.0km 5.772 E ± 6.4km
DEPTH = 10.0km (geophy s i c i s t)
SOUTHERN NORWAY (535)
ML 3.1 (NAO) . MD 2.7 (BER) .
Fel t .

KMY 0.34 308 eP 07 50.70 -0.5

iPq 07 54 . 92
ODD1 1.01 25 eP 08 63.16 -6.2

iPg 68 67.54
eSq 68 22.96
EGD 1.30 348 eP 68 08.40 0.2

iPg 08 12.38
eSg 08 33.20
BER 1.40 351 iPgc 08 14.47 4.8X
ASK 1.51 349 ePg 08 15.83 4.6X
eSg 08 39.89
KONO 2.06 70 ePg 08 24.40 5.1X
eSg 08 53.20
FOO 2.63 352 eP 08 34.49 7.2X
ePg 08 37.88
eSg 09 12.42
NRA0 3.39 57 iPc 08 38.60 6.5
EKA 6.69 237 P 69 17.66 6.6
0.6s 3 . 30nm 4 . 3mb
UPP 6.11 77 ePn 09 24.00 7.4X
iSn 10 59. 50
BSD 6.33 124 eP 09 38.20 18. 4X
i 1104.30
CLL 8. 75 1 49 IP 09 53. 76 6.1
6.6s 8 . 66nm 5 . 2mb
DOU 8.96 185 P 16 66.96 4.5X

BRG 9.40 147 (Pn) 10 02.06 -0.6
e 1 1 46 . 66
e 13 26. 66
KHC 16.90 152 P 10 23.06 -6 1
e 1306.06
BGF 12.59 189 eP 10 41.30 -4.7X
6.8s 8. 05nm 5 . 6mb
MAP 12.95 196 eP 16 45.36 -5.5X
6.8s 4 . 65nm 4 . 7mb
S.D. - 6 . 5 on 8 of 17 obs.

AUG 23, 1991 64h 56m 24.23± 6.75s 31.016 N ±10. 3km 130.469 E ±12. 7km DEPTH - 179.4 ± 7 .6 km
4 . 6mb (10 obs .)
KYUSHU, JAPAN (235)

KAGJ 0.40 65 iP+ 56 49.10 0.6
S 51 66.36
BJI 14.76 312 eP 53 47.56 2.9X
1.0s 1 3 . 06nm 4 . 3mb
LZH 22.73 296 P 55 12.66 6.4
1.2s 56 . 00nm 5 . 0mb
GUN 38.75 277 P 57 33.80 6.7
PKI 39.25 277 P 57 37.00 -0.2
KKN 39.30 277 P 57 36.80 -0.7
DMN 39.50 277 P 57 38.60 -0.5
GKN 39.79 278 P 57 41.66 6.2
WRA 50.80 175 P 59 08.66 -0.2
0.6s 3 . 00nm 4.1mb
WR2 50.81 175 iPd 59 08.90 0.6
0.7s 3 . 86nm 4.1mb
ASPA 54.47 176 eP 59 34.86 -6.5
0.4s 5.50nm 4. 6mb
KAF 69.28 331 iP 01 12.46 -1.0
0.6s 8 . 88nm 4 . 7mb
NUR 76.75 330 eP 01 21.06 -1.2
NB2 75.90 334 P 01 51.40 -6.8
6.7s 4 . 36nm 4 . 3mb
KRA 78. 5B 322 i PC 62 67.96 6.8
CLL 81.34 326 i PC 62 22.60 0.4
0.7s 1 5 . 06nm 4 . 8mb
GRF 83.25 325 iPc 62 33.20 1.6
0.9s 12 .00nm 4 . 7mb
EKA 85.28 335 P 02 42.00 0.4
1.4s 1 7 . 90nm 4 . 7mb
S.D. -0.8 on 17 of 18 obs .

213

23d 05h

5 AUG 23. 1991 05h e7m 55.38± 3.10s
33.251 S ± 8.5km 70.741 W ±13.3km
DEPTH - 67.4 ± 32.0 km
CHILE-ARGENTINA BORDER REGION (127)

PEL

ROCH

PCH

TACH

JACH

CHCH

LCCH
LNV

0.12

0 . 36

0 . 42

0 . 43

0 . 58

0 .68

0.73
0 . 90

S . D. = ^

24

321

153

202

12

174

252
218

J.4

i P
i S
i PC
i S
i Pd
i S
iPc
i S
i Pd
i S

I PC

i S
i Pd
iPc
iS
o n

08
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07 .
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21 .
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12.
26.

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00
20
. 00
60
. 70
. 10
80
60
. 10

,90
,20
00
8

0

0

- 0.

0,

0

0

0. -0
obs .

. 0

. 0

. 3

. 1

. 0

. 4

. 3
. 5

AUG 23. 1991 05h 10m 29.01± 0.84s
44.288 N ± 8.5km 7.381 E ± 7.2km
DEPTH - 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1 . 4 (GEN) .

STV

ENR

P22

ROB
IM 1
S

0

0

0

0
0
. D .

. 06

. 07

. 30

. 35
. 53

223

155

31 7

89
1 36
0 . 7

P
S
P
S
P
S

P
P
on

10
10
10
10
10
10
10
10

5 of

31
33
31
33
35
39
36
38

? AUG 23. 1991 05h 48m 42
33.975 S ±16 3t-m 1 79 . 1 35
DEPTH = 82.9 ± 24.3 km
4 . 9mb (2 obs .)
SOUTH OF KERMADEC ISLANDS

HBZ 4.17 209 eP 49 45
N02 5.17 205 eP 49 58
URZ 5 . 25 214 eP 50 00
eS 5104
RUZ 6 . 80 21 9 eP 5021
eS 51 45
DZM 17.38 309 i PC 52 41
ASPA 42 . 1 0 27 1 <?P 56 28
0.8s 1 2 . 80 nm
WRA 43.40 277 P 56 38
0.4s 11. 20nm
KAF 147.54 338 iPKP 08 15

NB2

HFS

S

? AUG
5 .

0.
152

0 . 152

0 .. D .

5s
. 10
7s
. 51
4s
-

23.
258 S
DEPTH -

4 . 7mb (
BANOA

MTN

KNA

WR2

OIS

ASPA

MBL

WARB

2
349
3
346
1
0.5

1991

. 65
. 22
. 70
. 52
. 01
. 01
. 68
. 96
5 obs

0.

0.

0 .

0.
0.

3

3

2

4
7

. 67± 3. 40s
W ±30 . 0 km

(179)

. 20 0.0
. 80 -0.3
. 30 0.1
. 26
. 90 0.2
. 00
. 30 0.0
. 80 0.6
4 . 8mb
. 00 -0.8

5 . 0mb
. 20 0.1
. 70nm
PKP 08 26.60 4 . 4X
. 20nm
ePKP 08 27. 50 4 . 8X
. 00nm
on

06h
±50 . 6km
33 . 0km
4 obs.)

8 of

3 1m 23
131 . 768

10 obs

. 52± 5
E ±24

. 04s
. 2km
(no rmo 1)

SEA

7

10
0 .

1 4
0.

1 7

18
0 .

19
0.

21
0.

. 57

. 84
3s

. 82
4 S

. 01

. 42
5s

. 59
4s
. 38
4s

185

196
122

170
62

154

174
35

215
13
193
7

iPc
eS
eP

33
34
33

25
39
59

. 50
. 00
. 30
. 00nm
eS
iPc

35
34

55
49

. 00
. 30
. 30nm
i
eS
eP
i S
i Pd

34
37
35
38
35

52
1 8
20
20
38

. 10
. 00
. 00
. 00
. 50
. 90nm
eS
iPc

38
35

53
51

. 00
. 00
. 00 nm
eP 36 1 1.80
. 00nm

(280)

1

-

1 .

0 . 6 . 6mb
- 3.

2X

2
X

3X
5 . 3mb

- 0 .

0.

6

4

4 . 8mb

- 1 . 1
4 . 6mb
1 . 3
4 . 4mb

NANU
CNCB
LPB
ZOBO
S

AUG
36.

23.29
150 .64
150. 76
150 .93
. 0. -

23,
155 N
DEPTH -

221 iPc
139 PKP
138 ePKP
138 ePKP
1.1 on

1991 07h
± 8 . 3km

36
51
51
51
6 o f

36m

29
15
13
17

25
68 .802

33 . 0 km (no rmo 1)

. 60
. 00
. 00
. 00

0.2
5. 3X
3. 3X
6 . 8X
1 1 obs .

. 85±
E ±

0 . 28s
5 . 2km

4 . 9mb (29 obs .)
H 1 NDU

ODE

MA 10

NO 1

IR4
IR1
1 R7
IR5
GKN
DMN
KKN
PK 1
GUN
HYB
LZH

2
N
E

OBN
2

CHG
VR 1
MLR
LOE
KAF

SPC
KRA

SRO

KSP

UPP
PRU
BRG

KHC

CLL

HFS

Z

MOX
1 PM

PSI
NB2

YAK
PGF

BSF

HAU

2
SBF

LPG

LPL

KUSH

6.15

7 . 52
0.9s

10.29
0.5s
14.58
14.72
14.75
14.84
15.68
16.24
16.27
16.48
16.64
20.57
28.22
2.0s
1 4s
1 Is
10S

29 . 04
10S

31 .65
32.87
33.40
34 .59
36.97
0.5s
37.37
37 .60
0. 7s

38.65

39.96

40.26
41 .08
41.44
1 .0s
41 .75

42.03
1 .3s
42.25
1 . 0S

17s

42.93
43.19
1 .0s
43.39
43.59
0 . 9s
45.29
45.85
1 . 2s
46.37
0.8s
46 . 64
1 .05
20s
46.68
1 .0s
46.82
0 . 9s
46.83

REG ION

195 eP

«(S)
274 i Pnd
44 . 76nm
eSn
134 i PC
21.1 3nm
272 eP
272 eP
274 eP
272 eP
117 P
1 1 7 P
1 1 6 P
117 P
115 P
153 eP
80 eP
28 . 00nm
0 . 80um
0 . 6 1 urn
0 . 69um
pP
ePP
eS
321 «P
0 . 80um
epP
ePP
ePPP
1 15 eP
300 eP
300 eP
114 eP
328 eP
2 . 00nm
306 eP
307 iPc
30 . 00nm
i
304 IP
e
308 ePc
e

323 i P
307 eP
308 i P
1 3 . 00nm
306 eP
e
309 eP
20 . 00nm
322 eP
31 . 1 0nm
0 . 30um
LR

308 e(P)
129 ePd
28 . 40nm
133 ePc
323 P
7 . 00nm
35 iPd
297 eP
23 . 80nm
305 eP
1 0 . 75nm
305 eP
1 2 . 00nm
0 . 1 0um
299 «P
24 . 00nm
302 eP
14 . 75nm
302 eP

38
39
38

39
38

39
40
39
40
40
40
40
40
40
4 1
42

42
43
47
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04
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1 4
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. 60
. 60
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. 00
. 1 4
. 82
. 72
. 78
. 58
. 50
. 50

4

. 00
. 50
. 00
. 00
4
. 00
. 00
. 00
. 10
. 00
. 50
. 00
. 70
4
. 60
. 80
5
80
. 40
60
20
. 40
50
. 80
. 40
4
. 50
. 00
. 00
4

. 50
5
4
00
00
20
5
90
60
4
30
40
5
40
4
50
4
3
10
5
60
5
70

(718)

9 . 1 X

- 2.5
. 5mb

1 . 7
. 6mb
0.3
7 . 4X
- 1 .0
6.8X
- 0 . 9
- 0.6
- 0. 9
- 1.7
- 0 .9
5.0X
16. 7X

. SMszX

1 9kmX

- 0. 8
. 6Ms zX
1 03kmX

4.8X
0.4
1 . 0
0.2
0.3
. 2mb
1 . 4
- 0. 1

. 3mb

0 .6

0. 6

0.6
1 .0
0.6
. 6mb
- 7 . 8X

1 . 4
. 7mb
- 0. 7
. 0mb
. 2MszX

1 .0
3.8X
. 0mb
2.9
- 1 . 7
. 4mb
- 0.5
- 0.3
. 0mb
- 0.3
. 9mb
- 0.2
. 8mb
. 8Msz
0.0
. 1mb
0. 1
. 6mb
0.2

SMF

SSF

A V F

MAF

TCP

LSF

EKA

MBC

I NK
FBA
SVW

PMR

RSO
BALM
YKA

WRA

WR2

FFC

PCH
PEL
S

& AUG
60.

0.8s
48. 57
0.8s
48.71
1 .0s
48.87
0.9s
49.52
0.8s
49. 75
1 .05

50 . 21
0.8s
51 .30
1 .05

67 . 76
1 .05
74.52
75.28
76.54
1 .05
77.84
0.6s
77 . 87
79.87
81 . 66
1 .2s
83. 33
1 .05
83. 35
1.1s
89. 14
1 . 3s
146. 70
146.70
. D. -

23 .
468 N
DEPTH -

5 . 35nm
304 eP 45
1 7 . 45nm
304 eP 45
8 . 00nm
304 eP 45

1 8 . 00nm
303 eP 45
9.40 nm
304 eP 45
24 . 00nm
304 eP 45
10. 05 nm
316 Pd 45
14.30 nm
2 ePd 47
32 . 00nm
8 P 48
15 eP 48
20 eP 48
35 . 00nm
18 eP - 48
1 2 . 32nm

20 e(P) 48
15 eP 48
2 eP 48
5 . 00nm
120 P 48
4 . 1 0nm
120 eP 48
5 . 80nm
355 eP 49
1 7 . 00nm
262 ePKP 56
263 iPKP 56

4
07 . 60
5
08'. 50
4
09. 80
5
15.50
4
17 .00
5
20 . 00
4
27 .00
4
21 .60
5
03.00
08.20
13.00
5
20 .90
5
24 . 60
32.30
42 . 00
4
51 .00
4
51.70
4
19. 00
5
07 .50
10 . 30

. 6mb
- 0.2
. 1mb
- 0 . 4
. 7mb
- 0.3
. 1mb
0. 3
. 9mb
0. 1
. 2mb
- 0.5
. 9mb
- 1 . 6
. 9mb
- 0. 1
. 4mb
0.6
1 .3
- 1.1
. 3mb
- 0. 3
. 1mb
2 . 9X
- 0. 1
0. 4
. 4mb
0.0

. 5mb
0. 6
. 6mb

0. 0

. 2mb
3. 2X
6. IX
1.0 on 50 of 61 obs.

1991 09h 32m
147.
15.5km

55 . 22s
449 W

SOUTHERN ALASKA

KN I M

GLI

LT I

H I N

MTU
FID

V2W

CVA

VL2

SEW

KNK

SGAM
M I D
KLU

PMS

SLKM
RAGM
PLRM
SML
GHO

HMT
KA I M
PWA
TOA
T2L
NKA
SUA
NNL
GLB
CNPM
SDG

<AE 1 C>

0.19

0. 45

0 . 47

0. 48

0 . 49
0.56

0. 74

0.84

0.86

1 . 06

1 .07

1.11
1.18
1 .27

1 . 29

1 .37
1 . 38
1 .39
1.41
1 . 49

1 .59
1 . 61
. 67
. 75
. 86
. 89
. 89
1 .97
2.03
2.12
2.26

(2)
- ML 2.5 (AEIC) .

230 iPd 32
eS 33
23 iPc 33
eS 33
205 iPc 33
«S 33
98 iPc 33
eS 33
192 iPc 33
59 iPc 33
«S 33
36 iPc 33
eS 33
84 i PC 33
eS 33
39 iPc 33
eS 33
251 iPc 33
eS 33
333 iPc 33
eS 33
87 iPc 33
151 eP 33
35 iPc 33
eS 33
308 iPc 33
eS 33
273 iPc 33
92 ePc 33
325 ePc 33
343 eP 33
332 ePc 33
eS 33
93 ePc 33
108 ePc 33
316 ePc 33
20 ePc 33
31 eP 33
280 eP 33
303 eP 33
259 iPc 33
60 iPd 33
245 iPc 33
23 eP 33

59.87
03.55
03.63
10. 59
04.13
1 1 .22
04 . 48
12.12
04 .66
04 .87
12.00
08.31
18. 78
10.09
23. 18
10.27
22.36
13.33
27.15
13.95
28. 27
14.19
15 .89
16.99
33.73
17.41
34 .53
18 . 29
18.27
18.80
19.89
20 .98
40. 86
21 . 63
22.38
23.07
25. 35
26. 75
27 .63
25.76
27 .01
27.86
28.36
32. 12

0.0

- 0.7

- 0 . 6

- 0.3

- 0 . 4
- 1 .3

- 1 .0

- 0.9

- 1 .0

- 1.4

- 0 .9

- 1 . 4
- 0 .9
- 1 .3

- 1 .2

- 1 .5
- 1 .6
- 1 . 2
- 0.4
- 0.5

- 1 .2
- 0.7
- 0.9
0 . 1
0.0
0.5
- 1 . 6
- 1 . 2
- 1 .3
- 2.2
- 0.4

23d 89h

214

WAX 2 .
TGL 2.
SNH 2 .
SPU 2 .
CUT 2 .
CRP 2 .
RDT 2 .
NCG 2 .
CKL 2 .
BGL 2.
BALM 2.
DFR 2.
REF 2 .
RSO 2 .
o c o >
K i £. £. .

RS1 2.
RON 2.
RED 2.
ROW 2 .
50

28 88 iPc
30 81 eP
31 95 eP
37 290 eP
37 326 ePc
44 291 eP
45 275 eP
48 294 eP
50 289 eP
55 290 eP
57 75 eP
59 275 eP
60 273 eP
63 272 eP
63 272 eP
63 272 eP
63 273 eP
64 271 eP
65 273 eP

33
33
33
33
33
33
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38.
31
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34
35
36

31
1 1
10
07
05
42
35
37
62
70
98
93
1 7
39
31
47
88
27
85

- 2.5 | SBB
- 2 . 0 RVR
- 1 .2
- 1 .0
- 1 .0
- 1 .8
- 2.0
- 1.4
- 1 . 4
- 2 . 0
- 2. 1
- 2.4
- 2.4
- 2. 6
- 2. 7
- 2.5
- 3. 1
- 2.7
- 2.3
obs. associa ted

AUG 23, 1991 09h
13. 687
DEPTH -

5 . 0mb (

58m
S ± 6. 6km 167 .

53
681

82±
E ±

0.22s
6 . 1 km
33 . 0km (no rma 1)
1 6 obs .)
VANUATU ISLANDS

BKM 4 .
DZM 8.

HNR 8 .
BRS 1 9 .
PMG 20
CTAO 21

RMO 21 .

00 172 iP
42 1 88 i PC
iS
68 298 eP
48 223 iPc
55 280 eP
46 250 iPd
i
83231 i P c
;
COO 22.24 218 i Pd
0.7s 3 1 . 00nm
OLP 25.42 236 iPd
CMS 26. 76 225 iPd

59
00
82
01
03
83
03
04
83
03
03

04
04

55
54
27
02
22
37
43
07
57
59
50

21
33
0.6s 58 . 00nm

STK 29.

i
98 228 iPd

04
85

48
02
0.5s 1 1 . 00nm
WR2 32. 45 254 iPc
0.4s 8 . 50nm

WRA 32.

e

iS
48 254 P

05

Ct w ftO
09
05

21

44
22
0.9s 7 . 90nm
ASPA 33. 43 248 iPc 05 30
0.9s 18. 60nm
FORR 40.
WARB 48
NANU 50
MAT 57

16 238 eP
36 246 eP
14 252 iPd
17 332 eP

KMI 74 iojoi er
1.5s 40 . 00nm
LZH 77 92 312 eP

06
06
07
08
1 0

10

29
30
48
39
30

51
1.5s 31 . 00nm
PP
SVW 88 o» i / r
0.8s 1 5 . 1 7nm
RSO 80
YAK 81
PMR 82

38 19 P
13 343 iPc
39 19 eP

10
1 1

1 1
1 1
1 1

57

Ct n v y

04
07
1 3
0.7s 1 5 . 70nm
GCC 83
BRK 83
BKS 83

PRS 8i3
SAO 83

SYP 8|3
PRI 813

TOA 8|3
WDC 8(4
ORV 6J4
CMB 84
Ml N 84
FRI 04
PAS ?4
MWC 85
ISA 85
FBA $5
d

-

.

05 49 eP
19 49 eP
21 49 eP
eLR
25 50 eP
36 50 eP
64 52 eP
71 51 eP
73 20 eP
06 46 ePc
39 47 P
62 49 eP
62 46 eP
74 50 ePc
90 53 eP
82 53 eP
20 52 eP

1 1
1 1
1 1
36
1 1
1 1
1 1
1 1
1 1
1 1
1
1
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1
1
1
24 1 7 eP ii
's 20 . 93nm

18
1 9
1 9
42
1 9
1 9
21
22
21
23
24
25
25
26
27
28
29
o e. f. O

50
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20
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90
00
00
00
00
40
70
4
40
00
5
40
10
4
80
5
00
70
00
4
50
5
30
60
00
00
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5
00
5
00
20
5
80
30
00
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50
50
20
00
70
80
00
20
00
20
40

70 ft a o 0
50
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ovft Ot
5

(186)

1 . 2
- 2 .6

1 . 9
1 .7
4.6X
1 . 4

1 1 . 7X

1 . 3
9mb
1 .2
0.5
3mb

0.5
9mb
- 1.7
0mb

- 1 .7
6mb
- 1 .5
0mb
0. 7
0.2
- 0.3
- 1 .0
0, 7
2mb
0.5
1mb
1 9kmX
- 1 .2
0mb
1 . 4
0 . 3
- 0.6
. 2mb
0 . 9
1 . 3
0 .8

1 . 1
0 .6
0 . 2
1 . 1
0 .4
0.6
0 . 1
0. 1
0 .2
0. 4
0.0
0.2
0.5
1 7

. 5mb

PEC
PLM
CLC
GSC
TNP

GLA
PNT
NEW

PV09
BW06
ALO

ANMO

YKA

SSF

LPL

LPG

SMF

AVF

BGF

MAF

TCF

SBF

MFF

PGF

FRF

LMR

S

? AUG
39.

85. 36
85 . 47
85.61
85 . 66
85 .92
86 . 35
86 . 97
0 . 9s
87.18
89 . 35
90.52
1 . 0s
93.17
93 . 95
94 . 38
1 .05
94 . 38
0 .8s
96 . 44
0 . 6s
144.18
0.8s
144.41
0 .8s
144.41
0 .6s
144.45
0 . 8s
144.47
0.6s
144.84
0 .6s
145.23
0 . 8s
1 45 . 27
0 . 8s
145.49
1 . 0S
145.63
0.8s
145.84
0.6s
146.07
0 . 7s
146.31
0 . 8s
. D . -

23,
621 N
DEPTH -

53 eP
54 eP
54 P
54 eP
52 eP
53 eP
50 P
5 . 86nm
55 eP
39 eP
40 P
1 3 . 50nm
51 P
47 P
55 t P

2 . OOnm
55 P
2 . 24nm
27 eP
1 . 7 0nm
341 6 P K P
5 . 35nm
337 ePKP
4 . 05nm
337 ePKP
2 . 70nm
341 ePKP
8 . 05nm
341 ePKP
4 . 50nm
342 ePKP
13.1 0nm
342 ePKP
8 . 05nm
342 e P K P
9 . 40nm
334 ePKP
32 . 00nm
T A R f, D I/ D o » ij e r r» r
8 . 05nm
331 ePKP
1 0 . 80nm
335 ePKP
11 . 08nm
335 ePKP
8 . 05nm

11 30. 00 0.7
11 38. 00 0.2
11 30.20 -0.4
11 32.00 1.0
11 32 . 00 -0.1
11 34.00 -0.3
11 37.50 0.1

4 . 8nr,b
11 40 . ft0 1.7
11 48 . 00 -0.3
11 52 . $0 -0.8
5.2nr,b
12 05 . 00 -1.5
12 10.^0 0.1
12 11.50 -0.6
4 . 5mb
12 1 1 . 60 -0.2
4 . 6mb
12 19 . J20 -1.4
4 . 7mb
1 o O e ^r Cn 1 7 i o zo.ow \.i

18 27 . 30 -1.4

18 27.30 -1.6

18 26 .50 -2.0

18 26 . 70 -1.8

18 28.20 -1.0

18 29

18 29

18 30

. 50 -0.3

. 70 -0.2

. 10 -0.3

1830.60 0.1

1831.50 0.4

18 31.90 0.6

18 32] 70 1.0

1.0 on 67 of

1991 1 8h
±31 .8km

21m 01
27 .865

10. 0km (geophys
TURKEY

DST

EDC

MFT
IZI
YLV
CTT
S

? AUG
32.

0. 59

0 . 73

1 . 25
1 . 43
1 . 49
1 .58
. D. -

23.
522 S
DEPTH =
NEAR

JACH

ROCH

PEL

LCCH

TACH

PCH

r- u r- ut L- n L- n

LNV

S

% AUG

COAST

0 . 39

0. 45

0.68

1 .06

1.13

1.17

1 . 44

1 . 47

. D. -

23,

91 ePg
eSg
360 ePg
eSg
339 iPn
59 i Pn
50 ePn
16 ePn
0.6 on

1991 10h
±39 . 6km
51.1 ± 34.
OF CENTRAL

115 iPd
iS
180 i PC
iS
156 iPc
iS
206 eP
eS
177 i Pd
iS
159 eP
iS
168 ePc
iS
l 93 eP
iS
0.4 on

1991 1 0h

21 1 3
21 21
21 1 5
21 24
21 25
21 28
21 29
21 30
6 of

26m 52
7 1 . 009
1 km
CHI LE

27 02

i9 obs.

77± 4 . 35s
E ±24 . 1 km
cist)
(366)

. 30 -0.4
. 30
. 30 -9.7
. 80
. 30 0.3
. 30 0.5
. 00 0.3
. 00 0.1
6 obs .

41± 5. 38s
W ±1 5 . 7km

(135)

70 0.0
27 1 1 . 00
27 03. 50 0.0
27 12.50
27 0S. 20 0.1
27 16.80
27 16
27 2e
27 17
27 2'
27 17
27 2£l
27 1<i
27 3f»
27 IV
27 3<>
8 of

32m 4i)

. 80 -0.4
. 50
. 00 -0.2
. 00
. 60 -0.2
. 50
. 50 0.0
. 00
. 58 0.6
. 50
8 obs .

. 63± 0. 77s

41.877 N ±13. 6km 28.678 E ± 8.2km
DEPTH » 10.0km (geophysicist)
TURKEY (366)

CTT 0 .20 291 i Pg 3251.20 0.2
iSg 32 54.20
1 SK 0 .29 92 iPg 32 52. 80 0.1
iSg 32 57 . 80
YLV 0.73 134 ePg 33 08.00 6.9X
eSg 33 1 5 . 30
HRT 0.79 108 ePg 33 02.00 -0.1
IZI 0.95 140 ePg 33 04.80 -0.1
DMK 1.02 317 iPn 33 05.70 -0.2
S.D. =0.2 on 5 of 6obs.

AUG 23, 1991 10h 43m 07.57+ 0.73s
16.908 N ± 8.6km 62.251 W ± 8.7km
DEPTH - 33.8km (normal)
LEEWARD ISLANDS (92)
ML 3. 1 (FDF) .

NEV 0.38 387 eP 43 16.50 0.1
S 43 22.80
BPA 0.40 70 iPc 43 16.53 -0.2
S 4323. 00
SEG 0.87 125 ePd 43 23.12 -0.3
S 4334.10
PAG 1.03 148 ePd 43 25.12 -0.7
S 43 38.30
DOG 1-06 145 ePd 43 25.80 -0.4
S 43 39.20
SFG 1 .20 123 eP 4328.70 8.6
DEC 1 .29 1 17 eP 43 29 . 51 0.1
S 4346. 90
MGG 1.33 138 ePd 43 30.50 0.5
S 4348. 30
BBL 1.56 152 fcPO 43 33.77 0.4
S.D = 0.5 on 9 of 9 obs.

? AUG 23, 1991 11h 42m 32.68± 3.26s
13.460 N ±34. 9km 92.867 W ±20 . 1 km
DEPTH = 33.0km (normol)
4 . 5mb (3 obs .)
OFF COAST OF CHIAPAS, MEXICO (68)

SCX 3.26 4 i P 43 22.80 0.1
iS 43 52. 50
OXX 5.18 315 (P) 43 49.80 -0.3
(S) 44 36.00
PPM 7.85 316 eP 44 28.50 0.5
YKA 51.36 347 eP 51 34.70 -1.2
0.6s 1 . 70nm 4 . 2mb
MBC 64.34 353 ePd 53 08.00 1.0
0.9s 10.00nm 4.9mb
NB2 85.02 28 P 55 12.40 6.4X
0.8s 2 . 30nm 4 . 4mb
S.D. =1.2 on 5of 6 obs .

? AUG 23, 1991 12h 03m 09.01± 3.84s
32.522 S ±28. 3km 71.354 W ±18. 7km
DEPTH = 33.0km (normal)
NEAR COAST OF CENTRAL CHILE (135)

ROCH 0.53 147 i PC 03 20.10 -0.2
iS 03 29.40
JACH 8.66 104 iPd 03 22.00 8.8
iS 03 32.60
PEL 0.84 138 iP 03 24.60 6.2
i S 0336.80
LCCH 0.97 191 iPd 03 25.80 -0.5
i S 03 40.00
TACH 1.18 163 iPc 03 29.20 -0.1
i S 03 45. 10
PCH 1.30 147 iPd 03 31.10 8.0
eS 03 48.00
LNV 1 .43 182 iP 03 33.50 0.7
iS 03 52.20
CHCH 1.53 158 ePd 03 34.30 0.0
iS 03 53.90
S.D. »0.4 on 8of 8 obs .

? AUG 23, 1991 12h 11m 27 . 80± 9.58s
51.283 N ±74. 7km 15.927 E ±34. 8km
DEPTH '= 10.0km (geophysicist)
POLAND (548)

KSP 0.50 152 iPc 11 37.90 8.8

215

23d 12h

0.4s 62 . 00nm
i S 1147.46
BRG 1 . 32 253 iPg 1 1 52 . 18 0.0
i S g 12 11.68
PRU 1 .57 215 Pn 1 1 55 . 88 0.1
6.4s 1 8 . 60nm
Pg 1157.56
e 1159.86
Sn 12 14. 50

Sg 1218.58
CLL 1.84 272 (Pg) 12 85.88 5.4X
eSg 12 25.68
KHC 2.63 216 Pn 12 11.00 -0.1
Pg 1217.00
eSn 12 45.50
Sg 12 55. 50
MOX 2.80 259 Pg 12 19.60 5.6X
Sg 12 59.08
2ST 3.18 166 eP 13 19.00 60. 2X
S . D . - 0 . 1 on 4of 7 obs .

AUG 23. 1991 I2h 21m 02.31± 0.86s
42.579 N ± 8.5km 24.150 E ± 5.6km
DEPTH « 10.0km (geophy s i c i s t)
BULGARIA (359)

PLD 0.63 139 iPg 21 14.00 -6.9
VTS 0.70271 iPg 21 15.60 -1.2
i Sg 21 24 .00
RZN 0.98 154 iPg 21 20.00 -1.1
MMB .04 198 iPgc 21 22.00 0.1
KKB .07 228 iPgc 21 23.00 0.6
PVL -08 53 iPd 21 22.00 -0.6
DIM .15117 ePg 21 25 .00 1.1
KDZ .32 134 iP 21 26.00 -0.7
VAY 1.72 224 ePn 21 33.80 1.3
JMB 1-80 93 iP 21 35 . 00 1.4
SKO 2.10 254 ePn 21 44.00 6.0X
S.D. = 1.2 on 10 of 11 obs.

? AUG 23, 1991 12h 25m 1 6 . 29± 6.05s
41.771 N ±46. 9km 15.173 E ±30. 9km
DEPTH - 5.0km (geophy s i c i s t)
SOUTHERN ITALY (390)

DUI 0.55 259 PC 25 27.30 0.1
SD I 1 . 02 267 P 25 36 . 00 -0.1
eSg 25 47 . 40
SCO 1.22 175 P 25 39.30 -0.1
eSn 25 53.90
MGR 1 . 66 170 P 25 46. 20 0.1
S.D. "0.1 on 4of 4obs.

? AUG 23, 1991 14h 49m 29.24± 6.34s
3.905 N ±25. 5km 77.077 W ±60. 5km
DEPTH = 55 . 2 ± 24 . 3 km
NEAR WEST COAST OF COLOMBIA (102)

ANCC 0.44 152 ePd 49 40.28 0.0
eS 49 48.90
CLMC 0.51 93 eP 49 41.74 0.5
HOOC 0.62 134 iPd 49 42.15 -0.5
eS 49 52.20
HOBC 1.04 64 ePc 49 47.72 -0.2
eS 50 02.00
S 1 LC 1.41 149 ePd 49 53.30 -0.1
PURC 1.73 156 eP 49 58.12 0.3
S.D. - 0-5 on 6 of 6 obs.

% AUG 23, 1991 I4h 52m 22 . 1 9± 0.79s
40.247 N ± 6.4km 23.449 E ± 7.1km
DEPTH - 10.0km (geophysicist)
GREECE (364)
MD 2.3 (THE) .

PAIG 0.37 151 iPd 52 29.94 0.2
eS 52 36.02
OUR 0 42 78 iPc 52 30.22 -0.5
SOH 0.58 353 ePc 52 33.18 -0.8
iS 52 41 .85
LIT 0.75 259 ePc 52 36.78 -0.1
SRS 0.88 7 ePc 52 40.26 1.2
KNT 1-01 336 ePc 52 41.06 -0.2
eS 52 56.02
S.D. - 0-9 on 6 of 6 obs.

AUG 23, 1991 14h 59m 44.64± 1.02s

16.562 N ± 8.8km 97.797 W ± 7.2km DEPTH = 54 . 4 ± 7 . 4 km
4.8mb (15 obs.) 4.3Msz (1 obs.)
OAXACA, MEXICO (60)

OXX 1.15 63 i P 00 06. 32 1.4
(S) 00 31 . 73
ACX 2.60 279 iP 00 11.25 -5.4X
iS 80 35 . 50
III 2 . 4 1 3 1 9 eP 00 21. 37 -1.2

(S) 00 54 . 00
1 1 SM 2.45 9 i P 0023.24 0.4
NT 2.49 349 eP 00 23.52 -0.3

(S) 01 39. 70
PPM 2.61 343 eP 06 25. Si -0.7
iS 0058.60
MA 2.70 342 eP 00 25.82 -0.7
UNM 3.05 335 eP 00 32.50 0.6
LVVM 3.41 22 eP 00 33.51 -3 . 1 X
i S 01 17.92
MRX 4.49 315 iP 00 50.94 -0.8
i S 01 39.51
SCX 4.95 87 (P) 01 05. 50 7 .2X
CGX 6.23 301 (P) 01 22.51 6. IX
(S) 02 13.53
UYO 17.79 9 iPc 03 47.50 -2.4X
TUL 19.35 5 iPc 04 06.50 -2 . 1 X
1.0s I17.50nm 5. 1mb
Z 18s 0 . 57um 3 . 9Msz
N 18s 0 . 39um
E 20s 0 . 27um
eS 67 58.66
LR 10 27 . 00
ALO 19.88 339 ePd 04 13.20 -1.2
1.0s 45.00nm 4. 7mb
ANMO 19.88 339 P 04 13.66 -0.9
1.0s 96 . 25nm 5 . 1 mb
GLA 22.50 320 P 04 41.46 0.7
TPC 23.96 320 eP 04 56.60 1.0
PLM 23.98 318 eP 04 57.06 1.7
GOL 23.98 346 P 04 55.60 6.2
0.8s 52 . 68nm 5 . 1 mb
GLD 23.99 346 P 04 56.56 1.1
1.2s 60 . 6 1 nm 5 . 6mb
PV09 24.61 338 eP 04 57.10 1.3
RVR 24.72 318 eP 05 03.06 0.8
GSC 25.22 321 eP 05 08.06 0.9
SBB 25.45 319 eP 05 11.60 1.8
ISA 26.48 320 eP 05 20.66 1.3
TNP 27.41 325 P 05 27.56 6.2
0.9s 7.16 nm 4 . 3mb
BONR 27.92 324 P 05 32.20 0.1
RSSD 27.97 350 P 05 32.60 -0.4
1.0s 10.85nm 4. 4mb
BW06 28.00 341 P 05 31.50 -1.1
1.2s 17.12nm 4. 6mb
KVN 28.58 326 P 05 38.56 6.6
CMB 29.19 322 P 05 42.06 -1.2

LVNJ 31.31 35 P 06 62 . 66 0.1
LRM 31.64 340 eP 06 05.40 0.4
TBR 31.84 35 P 06 06.00 -0.5
LBFM 32.26 325 P 06 10.00 -0.5
NEW 35.36 338 P 06 36.40 -0.5
1.0s 8 . 75nm 4 . 6mb
LON 36.09 332 P 06 43.00 -0.1
PNT 37.17 336 i PC 06 53.10 1.0
FFC 38.22 356 ePd 07 00.20 -0.6
1 2s 6 1 . 00nm 5 . 4mb
ZOBO 43.83 137 P 07 48.00 0.1
Z 24s 0 . 25um 4 . 0MszX
i 08 01 . 20
LR 23 08.00
LPB 44.03 137 eP 08 03.00 13. 6X
CNCB 44.31 137 P 07 52.00 0.1
i 09 37 . 20
CCH 45.94 136 P 08 24.00 19. 5X
YKA 47.38 349 eP 08 13.50 -1.5

SIV 48.57 130 P 08 24.00 -0.8
KLU 56.24 335 P 09 22.00 0.4

pp 09 31 . 80 29kmX
INK 56.46 345 eP 09 22.50 -0.5
PMR 57.63 334 P 09 30.90 -0.4
8.8s 16.69nm 5. 0mb
pP 09 40.26 31kmX
MBC 60.76 354 eP 89 52.50 -0.2

1.0s 29 . 00nm 5 . 4mb
TTA 61.12 334 P 09 53.90 -1.5
0.9s 9 . 38nm 4 . 9mb
pP 10 03.00 30kmX
NB2 84.53 28 P 12 24.10 11. 2X
1.1s 8 . 40nm
TCF 84.92 43 eP 12 26.10 10. 9X
1.0s 9 . 00nm
MAF 85.18 43 eP 12 27.56 11. IX
1.0s 1 6 . 00nm
BGF 85.25 43 eP 12 27.80 11. 6X
1.2s 26 . 80nm
SSF 85.51 42 eP 12 29.00 10. 9X
1.0s 1 6 . 00nm
LOR 85.67 42 eP 12 29.86 10. 9X
1.2s 38 . 70nm
Z 22s e.l3um 4.3Msz
LBF 85.84 42 eP 12 30.40 10. 6X
1.0s 10. 08nm
SMF 85.87 43 eP 12 30.40 10. 5X
1.0s 1 0 . 00nm
WRA 130.53 258 PKP 18 51.00 -0.8
2.1s 1 . 10nm
GBA 149.66 9 PKPc 19 40.30 14. 5X
6.9s 7 . 80nm
S.D. - 0.9 on 44 of 61 obs.

* AUG 23, 1991 15h 32m 1 1 . 87± 0.97s 15.372 N ±16. 8km 91.844 W ±14. 6km DEPTH - 1 82 . 1 ± 9 . 0 km
4 . 6mb (1 obs .)
MEXICO-GUATEMALA BORDER REGION (62)

TPX 0.61 221 iP 32 37.10 -0.6
iS 32 53.22
SCX 1.55 331 eP 32 45.97 1.2
iS 33 07.49
OXX 4.99 291 iP 33 26.33 -0.3
iS 34 17.00
LVVM 6.18 315 (P) 33 46.62 -1.3
(S) 34 45.00
IISM 6.39 305 iP 33 43.20 -1.7
iS 34 50.25
1 IT 7.16 301 (P) 33 55.70 0. 4
PPM 7.45 301 iP 34 00.80 1.4
I I A 7 .52 301 eP 34 01 .23 1.5
ACX 7.85 282 iP 34 63.40 -0.7
III 7.89 293 (P) 34 04.31 -6.6
UNM 8.04 360 (P) 34 43.20 36. 2X
(S) 35 51 .50
MRX 9.90 297 (P) 34 32.60 1.0
CCH 41.25 141 PC 39 59.40 18. 3X
SIV 43.52 134 PC 39 59.40 0.1
YKA 49.73 346 eP 40 46.20 -1.0
6.5s 2 . 20nm 4 . 0mb
WRA 135.86 257 PKP 51 14.00 0.7
1.6s 1 . 50nm
S.D. -1.2 on 14 of 16 obs .

? AUG 23. 1991 16h 12m 15.85± 7.03s
9.929 S ±67. 0km 123.113 E ±30. 4km DEPTH - 88 . 1 ± 54 . 7 km
4 . emb (2 obs .)
TIMOR (289)

KNA 7 .99 137 eP 1 4 1 1 . 30 0.1
eS 15 46. 00
MTN 8.38 111 iPc 14 16.70 0.2
eS 15 53. 0e
MBL 11.60 195 eP 15 00.80 -0.1
eS 17 81.80
WR2 14.73 134 eP 15 40.30 -0.8
0.2s 4 . 50nm 4 . 4mb
eS 18 22. 60
WARB 16.51 169 eP 16 03.50 0.0
ASPA 17.11 144 eP 16 11.50 0.6
1.0s 4 . 70nm 3 . 7mb
S.D. -0.7 on 6of 6 obs .

AUG 23, 1991 16h 16m 08.19± 0.23s 9.977 N ± 4.8km 126.120 E ± 6.4km DEPTH - 32.4km (3 depth phoses) 5.2mb (21 obs.) 4.1Msz (2 obs.)
MINDANAO, PHILIPPINE ISLANDS (259)

DAV 2.92 191 eP 16 58.50 5.1X
BAG 8.37 320 eP 18 12.28 1.8

23d 16h

216

KKM
JAY
SSE

2

MTN
KGM
LOE
1 PM

KNA
NST
CHG

PSI
PMG
WR2

BJ 1

LZH

Z
E

01 S

ASPA

CTAO

WARB
FORR
BAU
GUN

KLB
KKN
DMN
MUN
GKN
NWAO

STK

RKG
ADE

HYB

GBA

CNB

DZM
POO
YAK
DUE
MA 1 0

1 R4
1 R 1
I R7
SVW

CSY

RSO
PMR

BALM
SOD
I NX
KAF

MBC

NUR
MAW

10.56 249 ePc 18 45.80 5 . 3X
1 9 . 10 1 30 i Pd 2031.70 0.5
21.51 348 i Pd 2057.50 1.0
1.0s 87 . 00nm 5 . 1mb
22s 0.60um 3.9MS2

eS 24 48 . 00
sS 25 20 . 00
23.21 168 eP 21 13.50 0.1
24.00 252 ePc 21 24.00 2.9
24 .80 290 eP 2129.00 0.1
25.45 260 ePc 21 36.80 1.7
0.9s 60.80nm 5.2mb
25.69 174 eP 21 36.60 -0.6
25.95 L'85 eP 21 42.00 2.4
27 4 72 292 ePc 21 55.30 -0.6
0 . £>s 19. 33nm 4 . 8mb
e 25 12.30
27 96 257 eP 22 02.00 3.9X

28 44 132 e(P) 22 02.00 -0.4
30.82 165 iPc 22 21.60 -2.0
0 . $s 18. 50nm 5 . 1mb
eS 27 16.00
31 .22 345 eP 22 26 .50 -0.3
1.2s 20 . 00nm 4 . 8mb
32.93 326 PC 22 41 . 00 -1.1
1.5s 45 . 00nm 5 . 1mb
25s 0.69um 4.3MszX
13s 0 . 2 9 urn

pp 22 56.00 60kmX
33. 1 1 156 iPc 22 42 .20 -1.4
0.5s 23.00nm 5. 3mb
e 27 31 . 00
34.29 167 iPc 22 52.50 -1.3
0 . Bs 1 9 . 90nm 5 . 1mb
eS 28 10 . 40
35.85 146 iP 23 07.00 -0.2
i 23 17.00 34km
35. 95 179 eP 23 08 . 30 0.4
48.64 177 iPc 23 46.70 -0.2
41.35 192 eP 23 52.50 -0.3
41.79 301 P 23 56 . 76 -0.2
0.7s 67 . 00nm 5 . 5mb

42. 10 191 eP 23 58 . 80 -0.2
42.26 301 P 23 59.86 -0.8
42.36 300 P 24 00.96 -0.6
42 . 78 1 92 i PC 2405.10 0.6
42. 87 301 P 2404.72 -0.9
43 . 50 1 91 i PC 2410.70 0.4
0.5s 18.00nm 5.1mb
44.18 161 iPc 24 15.40 -0.5
0.6s 9 . 90nm 4 . 8mb
45. 14 191 iPd 2424.70 1.2
46.26 166 e(P) 24 32 .60 0.1

46.70 284 ePd 24 36.70 0.4
0.8s 35 . 70nm 5 . 4mb
47.73 279 PC 24 43.70 -0.7
0.7s 21 . 00nm 5 . 3mb
50.12 155 iPc 25 03.20 0.6
i 25 13.00 33km
50.78 129 iPc 25 08.30 0.5
51 .22 286 iPd 25 12 .80 1.6
52.01 2 iPc+ 25 16.50 0.1
58.45 299 eP 26 02.80 -1.1
65.34 305 iPc 26 49.00 -0.9
0.8s 6.59nm 4. 8mb
72.27 304 iPc 27 32.00 -0.8
72.44 304 iPc 27 33.00 -0.8
72.51 304 iPc 27 33.50 -0.7
75.65 29 eP 27 53. 00 1.2

76.92 186 iPd 28 09.30 10. 7X
0: 4s 29 . 40nm
77.01 30 eP 2800.30 0.7
78.80 29 eP 28 09.40 0.3
1.0s 30.00nm 5. 3mb
8J2. 10 29 eP 28 28 .00 1.2
8k. 50 337 iP 28 38.50 -0.4
84.61 22 ePc 28 40.20 0.8
85.82 332 iP 28 44.50 -1.0
0.5s 15.00nm 5. 5mb
86 . 03 1 3 i Pd 2848.50 2.1
0.9s 53.0enm 5.8mb
86.98 331 eP 28 49.50 -1.7
89.37 200 iPd 29 02-60 0.1

VRI 89.38 316 eP 29 03.00 -0.1
UPP 90.52 331 iP 29 06.60 -1.4
HFS 92.24 332 eP 29 14.40 -1.6
0.6s 4.1 0nm 5 . 0mb
2 19s 0 . 09um , 4 . 3Msz

KRA 92.60 322 eP 29 17/40 -0.4
NB2 92.95 334 P 29 17.60 -1.7
0.8s 4.00nm 4. 9mb
YKA 94.08 24 cP 29 25.00 0.6
0.8s 8. 10 rim ' 5.2mb
ZST 94.98 321 eP 29 28.50 -0.3
PRU 95.88 323 eP 29 32.50 -0.4
KHC 96. 79 322 eP 29 36. 50 -0.6

WLF 100.89 325 P d . f f d 2 9 56.; 08 8.6X
DOU 101.54 326 Pd i f f 29 58.30 -0.1
LKO 128.18 290 PKP 35 13.34 -0.6
KIC 128.43 286 PKP 35 1 4 J 00 -0.4
TIC 128.61 287 PKP 35 14J30 -0.5
LIC 128.75 286 PKP 35 14,60 -0.4
UPA 148.27 54 ePKP 35 53.20 3.0X
PCH 151.94 149 ePKP 36 02.00 6.6X
PEL 152.23 149 iPKPd 36 03.00 7.2X
CNCB 164.70 118 PKP 36 13.00 1.7

LPB 164.71 117 (PKP) 36 13.00 1.9
ZOBO 164.79 116 PKP 36 13.00 1.6
CCH 166.00 123 PKP 36 15,20 3.2X
SIV 170.79 131 PKP 36 15*20 0.4
S . D . = 1.1 on 70 of }9 obs .

? AUG 23, 1991 16h 26m 18 72± 2.46s
4.099 N ±21. 9km 76.147 W ±39. 3km
DEPTH - 33.0km (normol)
COLOMBIA (103)
MD 2 . 7 (UVC) .

HOBC 0.25 3 ePd 26 26t86 0.0
eS 26 34.70
CLMC 0.47 242 eP 26 29.24 0.2
eS 26 40.50
HOOC 0.79 218 eP 26 33.90 0.2
ANCC 0.92 231 eP 26 34.96 -0.4
S.D. « 0.5 on 4 of 4 obs.

AUG 23, 1991 16h 47m 25.97± 0.67s
38.408 N ± 5.9km 22.009 E ± 6.5km
DEPTH = 5.0km (g eophy s i c i s t)
GREECE (364)
MD 3. 2 (THE) . ML 2.8 (j*TH) .

AGG 0.66 22 i PC 47 38.52 -0.7
iS 47 50.32
VLS 1.14 259 ePn 47 46.00 -1.8
eSn 48 03.20
ATH 1.41 107 ePn 47 53.00 0.6
LIT 1.73 12 ePc 4757.24 0.3
eS 48 23.00
VLI 1.84 156 ePn 47 59.00 0.5
KZN 1.90 355 ePn 48 00.20 0.7
PAIG 2.00 40 ePd 47 59.80 -0.9
iS 48 27 . 69
KEK 2.16 308 ePb 48 04.50 1.4
FNA 2.42 349 ePd 48 07.76 0.8
iS 48 40.98
OUR 2.46 38 ePd 48 06.68 -0.6
eS 4B 38.01
KNT 2.83 14 ePd 48 12.84 0.1
OHR 2.86 341 ePn 48 15.50 2.4X
VAY 2.94 8 ePn 48 14.40 0.2
SRS 2.97 24 iPd 48 13.80 -0.8
SKO 3.59 353 ePn 48 26.00 2.6X
S.D. =1.0 on 13 of 15 obs.

AUG 23. 1991 16h 56m 1 .40± 0.65s
41.746 N ± 7.3km 23.796 E ± 5.2km
DEPTH = 10.0km (geophy s i c i s t)
GREECE-BULGARIA BORDER REGION (363)

MMB 0.16 197 iPgc 56 2«L00 -0.2
iSg 56 22.00
KKB 0.54 283 iPgd 56 27.00 -0.4
iSg 56 3:1.00
R2N 0.70 94 iPg 56 3(1.00 -0.3
iSg 56 351.00
PLD 0.77 62 ePg 56 So. 00 1.6
iSg 56 4:i.00
VTS 0.95 333 iPg 56 3!>.00 0.4

VAY 1.01 246 ePn 56 36.00 0.5

KDZ 1.22 94 iPg 56 39.00 -0.1
i Sg 56 53 . 00
PVL 1.86 37 eP 56 47.00 -1.6
S.D. -1.1 on 8of 8obs.

& AUG 23, 1991 17h 51m 00.85s
62.037 N 151 . 323 W
DEPTH = 85.5km
CENTRAL ALASKA (1)
<AEIC>.

SKT 0.11 240 iP 5112.59 1.1
CUT 0.62 53 iP 51 15.68 -0.6
SUA 0.64 154 IP 51 16.54 -0.2
NCG 0.75 212 eP 51 17.30 -0.5
PWA 0.79 119 eP 51 17.94 -0.1
iS 5131.23
CGLM 0.80 204 eP 51 17.72 -0.6
CRP 0.87 208 eP 51 18.49 -0.7
SPU 0.93 202 iP 51 18.95 -0.8
eS 51 33. 75
BGL 0.93 214 eP 51 19.55 -0.2
CKL 0. 97 210 i P 5119.62 -0.7
eS 51 35.02
PLRM 1.13 112 eP 51 21.06 -1.0
PMS 1.16 133 eP 51 21.63 -0.8
eS 51 38.94
GHO 1 . 17 102 eP 51 21 . 96 -0.7

eS 51 38.67
SML 1.43 98 eP 51 24.95 -1.0
KNK 1 .50 1 13 iP 51 25. 77 -1.1
eS 51 46.33
RDT 1.56 200 eP 51 26.82 -0.8
eS 51 47.81
DFR 1.59 205 eP 51 27.29 -0.8
RDN 1.68 205 IP 51 28.64 -0.6
REF 1.69 204 eP 51 28.96 -0.5
RDW 1.72 205 eP 51 29.51 -0.3
RS2 1.73 204 eP 51 29.63 -0.3
RSO 1.73 204 eP 51 29.71 -0.3
RS1 1.73 204 eP 51 29.80 -0.2

GLI 2.34 118 iP 51 35.60 -2.5
TOA 2.43 86 eP 51 38.24 -1.1
KNIM 2.43 133 eP 51 36.17 -3.1
VZW 2.49 111 eP 51 37.93 -2.2
CNPM 2.52 179 eP 51 41.73 1.2
VLZ 2.55 109 eP 51 38.45 -2.5
LTI 2.62 138 eP 51 40.58 -1.3
KLU 2.63 100 iP 51 40.15 -1.9
PDB 2.66 213 eP 51 41.74 -0.7
FID 2.66 117 eP 51 39.76 -2.8
35 obs. ossocioted

? AUG 23, 1991 17h 59m 05 . 08± 1.66s
3.631 N ±18. 1km 76.502 W ±23. 4km
DEPTH - 33.0km (normol)
COLOMBIA (103)
MD 2.3 (UVC) .

HOOC 0.21 219 iPc 59 11.39 -0.7
eS 59 15. 10
CLMC 0.26 346 ePc 59 11.54 -0.9
eS 59 15.30
ANCC 0.38 253 ePc 59 14.85 0.9
HOBC 0.81 27 eP 59 20.83 0.7
eS 59 31 .50
S.D. =1.6 on 4 of 4 obs.

? AUG 23, 1991 18h 1 8rr, 42.98± 4.42s
43.438 N ±27. 2km 6.164 E ±22. 4km
DEPTH -= 10.0km (geophy s i c i s t)

NEAR SOUTH COAST OF FRANCE (379)

STV 1.16 46 P 1904.73 -0.1
S 19 26 . 42
ENR 1 . 20 49 P 1 9 05 . 89 0.4
S 19 28.36
PZZ 1 . 26 32 P 19 06.07 -0.5
S 19 28.52
IM I 1.34 69 P 19 07 . 60 -0.1
ROB 1 .50 55 P 19 10.37 0.3
RRL 1 .55 17 P 19 10.27 -0.6
BHB 1.61 29 P 19 1 1 . 55 0.0
FIN 1 .67 62 P 19 12.22 -0.2

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23d 18h

RSP 1.88 24 P 19 16. 56 9.9
PCP 2.94 56 P 19 17.55 -9.3
S . 0 . -9.5 on 19 of I9obs.

AUG 23, 1991 18h 34m 1 1 . 29± 0.91s 21.859 S ± 7.4km 177.981 W ± 9.5km DEPTH - 399 . 7 ± 8 . 8 km
4 . 6mb (9 obs .)
FIJI ISLANDS REGION (181)

SVA 5.01 317 iPc 35 33.39 -9.5
VUN 5.09 318 ePc 35 33.69 -1.1
SGE 5.74 317 iP 35 43.20 1.5
NDF 5.93 313 eP 35 49.09 -3.6X
eS 36 1 5 . 30
DZM 14.45 266 i PC 37 21.49 1.2
URZ 16.88 193 eP 37 43.39 -1.9
NOZ 17.05 191 eP 37 45.79 -1.2
KHZ 21.70 197 eP 38 33.99 9.8
LTZ 22.40 199 eP 38 39.89 1.9
8WZ 24.73 201 eP 39 90.89 9.8
BRS 27.11 252 iPc 39 22.89 1.2
COO 28.32 246 iPc 39 33.50 1.3
0.8s 23.99nm 4.6mb
RMO 30.64 255 i Pd 49 93.70 11. 3X
0.9s 95 . 90nm
i 49 1 7 . 70
CTAO 33.49 266 i Pd 49 16.30 0.3
i 49 24 . 90
CMS 33.60 246 iPc 49 18.50 9.9
PMG 35.69 285 eP 49 35.00 -9.2
STK 37.24 246 iPd 49 48.89 0.9
0.5s 1 1 . 09nm 4 . 4mb
MDG 38.76 299 e(P) 41 09.69 9.1
ASPA 44.24 258 iPd 41 44.59 -9.2
0.7s 37 . 80nm 4 . 8mb
eS 4711.10
WR2 44.42 263 iPc 41 45-29 -1.9
9.8s 34.90nm 4. 7mb
WRA 44.44 263 P 41 45.00 -1.3
0.6s 22 . 30nm 4 . 7mb
FORR 48.75 248 iPc 42 18.99 -9.4
WARB 59.45 254 eP 42 31.99 -1.3
MBL 57.49 258 i Pd 43 21.69 -1.1
NANU 61.97 256 eP 43 46.99 -9.7
MAT 71.31 324 eP 44 49.99 -1.4
SVW 84.63 1 1 eP 46 02 . 79 1.1
1.9s 1 5 . 90nm 4 . 7mb
BALM 87.47 16 eP 46 14.99 -9.5
PNT 87.77 34 eP 46 18.99 1.1

ALO 88.23 51 e(P) 46 29.99 9.3
0.9s 1 . 89 nm 3 . 9mb
BW96 89.94 43 iP 46 27.19 -9.4
9.9s 2.5 4nm 4 . 1 mb
RSSD 94.11 44 iP 46 46.29 -9.4
1.9s 5 . 97 nm 4 . 7mb
NB2 149.33 353 PKP 52 45.80 -8.6X
0.7s 9 . 70nm
HFS 149.88 351 ePKP 52 48.29 -7.2X
0.4s 3 . 30nm
EKA 146.35 SPKPc 5395.99 1.1
0.7s 4 . 70nm
DMU 147.39 19 ePKP 53 99.99 2.7X
DCN 147.77 19 ePKP 53 19.29 3. IX
KRA 148.51 338 ePKP 53 12.59 4. IX
KSP 148.99 342 iPKP 53 13.69 4.5X
CLL 149.38 346 i PKPd 53 14.39 4.6X
9.9s 22.99nm
BRG 149.57 345 iPKP 53 15.99 5.9X
9.8s 1 3 . 99nm
WTS 149.69 354 ePKP 53 15.50 5.4X
1.0s 2 1 . 09nm
PRU 159.24 344 PKP 53 16.59 5.5X
9.5s 5 . 50nm
MOX 159.30 348 iPKP 53 16.89 5-7X
1.6s 1 6 . 99nm
ENN 159.99 355 ePKP 53 18.59 6.4X
0.8s 1 1 . 90nm
MEM 151.14 355 PKPd 53 18.69 6.3X
KHC 151.27 344 PKP 53 19.00 6 . 3X
e 53 29.99
DOU 151.75 356 PKP 53 29.29 7.9X
WLF 152.96 354 PKPc 53 21.99 7 . 3X
FLN 153.08 4 ePKP 53 22.49 7.2X
0.4s 5 . 1 5nm
COF 153.17 352 ePKP 53 23.10 7.6X

0.5s 2 . 29nm

LDF 153.27 3 ePKP 53 22.80 7 . 4X
9.5s 4 . 35nm
GRR 153.43 4 ePKP 53 23.29 7.5X
9.6s 5 . 49nm
LPF 153.77 5 ePKP 53 24.10 8.9X
9.6s 6 . 30nm
BSF 153.89 353 ePKP 53 24.10 7.7X
9.6s 2 . 70nm
LOR 154.61 357 ePKP 53 26.40 9. IX
9.6s 3 . 1 5nm
SSF 154.83 358 ePKP 53 26.89 9.2X
9.8s 3 . 35nm
S . D . - 1 . 1 on 31 o f 57 obs .

* AUG 23, 1991 I9h 09m 49.35± 1.13s
36.669 N ±28. 1km 49.482 E ±22. 8km
DEPTH - 33.9km (normal)
4 . 4mb (1 obs .)
WESTERN IRAN (347)

IR7 1.33 136 iPd 10 92.99 -0.8
I R1 1 .59 142 iPd 19 96.59 -9.1
1 R5 1 . 7 1 1 48 eP 1998.79 0.4
TEH 1.89 121 ePc 19 19.90 0.3
I R4 1 . 83 1 4 1 i Pd 1910.50 0.3
TAB 2.88 390 eP 19 25.00 9.9
WRA 97.69 199 P 23 29.09 6 . 8X
0.7s 9 . 99nm 4 . 4mb
S.D. - 9.6 on 6 of 7 obs.

AUG 23, 1991 19h 1 2m 32.63± 0.73s
44.792 N ± 6.0km 22.697 E ± 9.2km
DEPTH = 10.0km (geophy s i c i s t)
ROMAN 1 A (358)

GZR 0.69 5 i Pd 1245.00 9.1
SSR 0.68 276 ePd 12 45.90 -1.2
DEV 1.19 8 iPc 12 53. 00 -0.3
BEO 1.60 272 e(Pg) 13 92.50 1.6
CMP 1.73 73 ePc 13 34.00 31. IX
VTS 2.23 179 iP 13 19.00 -0.3
i S 1 3 46 . 99
MLR 2.49 72 eP 13 19.90 6 . 3X
PVL 2.47 129 ePg 13 25.90 11. 5X
i S 13 55.99
KKB 2.94 174 ePg 13 29.09 8.8X
iS 1 4 92 . 00
SKO 2.96 198 ePn 13 24.00 3.4X
VRI 3.94 68 eP 13 33.90 1 1 . 4X
PLD 3.96 151 eP 13 33.99 1 1 . 1 X
MMB 3.29 166 eP 13 37.99 11. 7X
RZN 3.44 154 eP 13 28.00 9.6
VAY 3.47 182 ePn 13 27.30 -9.5
S.D. =1.1 on 7of 15 obs .

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AUG 23, 1991 20h 94m 46 . 82± 9.51s
1.553 N ± 5.4km 77.489 W ± 9.6km
DEPTH - 1 4 1 . 7 ± 8 . 2 km
COLOMBIA (193)

CUMC 9.71 214 iPc 95 09.46 0.1
PURC 1.35 56 iPc 95 15.99 0.8
eS 05 37.90
COTA 1.48 215 iP+ 95 16.70 9.2
iS 05 42.29
CAYA 1.55 199 iPd 95 17.30 0.1
SILC 1.69 45 cPd 05 18.06 9.4
YANA 1.98 213 P + 95 21.80 -9.4
S 95 53.99
OUR 2.01 21 1 eP 95 22.50 9.1
S 95 52.90
ANCC 2.94 17 iPd 05 21.92 -0.5
GGP 2.95 213 P 95 22.70 -0.4
HOOC 2.98 24 iPd 05 23.19 0.1
eS 05 49.80
VC1 2.37 293 cP 95 26.99 9.9
CLMC 2.49 22 eP 95 27.52 -0.5
eS 05 57.40
HOBC 3.99 26 eP 95 34.88 -9.9
UPA 7.66 345 iPd 06 37.80 9.9
0.8s 79.15nm 5. 3mb
(S) 08 92.00
CCH 21.88 159 P 09 48.99 18. 4X
SIV 23. 81 138 P 09 48.00 9.9
S.D. -0.5 on 15 of 16 obs .

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AUG 23. 1991 29h 16m 24.58± 6.15s

9 . 299 S ± 3.3km 123.526 E ± 4.3km DEPTH - 31.2km (5 depth phases) 5 . 4mb (26 obs .)
TIMOR / o o ft "s

KNA

MTN
MBL

WR 2

NANU
KKM

WARB
ASPA

JAY
01 S

COOL

FORR

BAL

MDG
KLB

KGM

PMG
MUN

NWAO

CTAO

RKG

OLP

1 PM
STK

ADE

RMO

CMS

v i °y >
CENTROID, MOMENT TENSOR (HRV)
Doto Used: GDSN
L.P.B.: 8S, 14C
Centroid Location:
Origin Time 20:16:39.5 0.9
Lot 9.24S 9.12 Lon 123. 92E 0.22

Dep 44.911.9 Ho 1 f-dur o t i on 1.5
Moment Tensor; Scole 10»*16 Nm
Mrr= 1.21 0.97 Mtt 1.99 0.83
Mff- 0.78 1.69 Mrt= 5.92 1.11
Mrf 0.19 e.83 Mtf--0.74 6.61
P r i nc i po 1 Axes:
T Vol- 5.81 Pig-52 Azm- 11
N 0.74 8 271
P -6.55 37 175

Best Double Coup 1 e : Ma-6 . 2* 1 0* * 1 6
NP1 : St r i ke-227 Dip-11 Slip- 45
NP2: 92 82 98

8 . 27 142 i Pd 1 8 23 . 29 -2.2
9.3s 291 . 90nm 6 . 7mb X
eS 1947.00
8. 29 1 17 iPd 1824.70 -1.9
12 . 49 1 96 eP 1 9 21 . 99 -9.9
0.3s 36 . 99nm 6 . 9mb X
14 . 96 137 i PC 19 50 . 69 -5 . 0X
9.4s 76.70nm 5.4mb
eS 22 24 89
15.34 299 eP 2001.00 0.5
16.81 334 ePc 29 25 . 29 5. 7X
9.7s 145 . 80nm 5 . 2mb
1 7 . 14 170 eP 20 21 . 59 -2.0
1 7 .47 147 eP 29 24 . 69 -3 . 9X
9.4s 1 77 . 59nm 5 . 5mb
eS 23 26 . 79
18 . 33 70 ePd 2039.59 1.2
19. 18 128 i Pd 20 47 .90 -9.8
9.8s 1 45 . 00nm 5 . 3mb
iS 24 93 .09
21 .68 186 iPd 21 14.19 -9.7
9.4s 32 . 00nm 5.1mb
eS 25 95.99
21 .95 169 iPd 21 16.19 -1.3
i S 25 12. 00
22 . 22 1 96 i Pd 2129.79 0.5
9.6s 439.00nm 6.1mb
eS 2516.09
22 . 42 81 eP 21 22 . 49 9.2
22.91 1 93 i Pd 21 27.39 0.4
9.4s 7 1 . 09nm 5 . 5mb
e 21 34.09 24km
eS 25 35.09
23. 02 298 ePd 21 31.19 3.9X
1.0s 119.1 0nm 5 . 4mb
23. 32 92 eP 21 33. 99 2.0
23.65 196 iPd 21 34.79 9.6
9.8s 1 74 . 00nm 5 . 6mb
e 21 42.09 26km
eS 25 54.09
24.31 193 i Pd 21 49 . 79 9.2
9.5s 42 . 00nm 5 . 2mb
e 21 50.09 33km
eS 26 94.09
24 . 47 1 19 i Pd 2144.99 1.8
i 21 55.99 42km
e(S) 24 37.90
e(ScP)26 98 .99
25 . 94 192 eP 2156.79 0.7
eS 26 43.09
26 . 14 1 34 i Pd 2158.40 9.5
i 22 16.99 77kmX
eS 26 49.99
26.28 301 ePc 21 59.19 -0.2
28 . 1 1 146 iPd 22 15 . 59 -0.3
0.9s 18. 90nm 4 . 8mb
cpP 22 36.99 96kmX
eS 27 26.89
29. 16 154 iPc 22 25 .69 9.3
9.6s 89 . 90nm 5 . 6mb
29. 43 129 e(P) 22 29 .99 1.2
i 22 38.99 31km
e 27 17 .90
39.35 149 eP 22 36.90 9.2

23d 20h

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NNT
BFD

BRS
NST
COO
LOE
KHT
CUB

fct'l

CHG

KM 1

SSE
TSRJ
1 1 D J
CHJJ
MTMJ
MAT

KAK J
N 1 1 J
LZH

BJ 1

YAMJ
OFUJ
GBA

HYB

GUN
PK 1
KKN
DMN
GKN
ASAJ
CSV

NO 1

IRK
DUE
MAW

YAK

MA 1 O
SPA

1 R4
1 R1
1 R7
MJMA
TAB
NVL
MTO
KR 1
BUL
OBN

UPP
APO

NB2

YKA

BSF

SBF

LPG

32.ee
32 . 73
1.0s

33.ee
33.88
33. 93
34.11
34 . 34
35. 10
0 . 9s

35 . 76
0 7s
36.92
1 .0s
39J68
1 . 3s
46.14
46.03
46 . 48
47 . 32
47 . 49
47 .56
0. 8s
47.81
48 . 43
48 . 72
1 .5s
2 38s

49 . 47
1 .6s

49- 59
56 . 92
51 . 05
0.8s
51.72
1.2s
51 .85
51 .95
52 . 18
52. 18
52 . 75
55.83
57 .69
e.5s
58.45
8.5s
63.42
66.96
78.59
1 .0S

71.17

75.20
80.85
1 ..0S

81 .37
81 .59
81= .74
83.55
85. 70
88 .33
89.22
91 .07
91.43
95.72
1 . 1 s

10$. 89
10f .57
0 i 4s
10&. 74
0

1 ft o
L O S

1 1?.51
0.6s
114.63

e.5s
1 15.08
0.4S
1 15.20
0.6s

e
e
312 eP
151 i PC
1 30 . 00nm
e

127 i PC
317 eP
1 33 i PC
321 eP
314 i P c
142 i Pd
35 . 00nm
e
317 eP
120. 30nm
319 ePc
91 . 25nm
330 eP
1 20 . 00nm
357 P
14 P
16 P
1 7 P
16 P
16 iPc
41 . 04nm
1 8 P
17 P
339 P
1 59 . 00nm
0 . 65 urn
pP
353 eP
26 . 00 nm
e
1 7 P
1 8 P
296 PC
29 . 0 0 ri m
301 ePd
90 . 90nm
317 P
316 P
316 P
316 P
316 P
1 7 eP
186 iPc
29 . 50nm
312 i PC
59 . 86nm
347 eP
308 iPc
201 eP
26 . 00nm
3 i Pc +
e

311 iPc
180 iPc
25 . 00nm
i
308 i PC
308 iPc
308 iPc
297 P
309 eP
198 *Pd
253 eP
253 eP
249 iPc
325 iPc
47.00 nrn
e

330 i P K P
331 ePKP
1.10 nm
332 PKP
2 . 30nm
25 ePKP
2 . 30nm
319 ePKP
2 . 90nm
314 ePKP
2 . 30nm
316 ePKP
1 . 80nm

23 11.00
28 23 . 00
22 52.20
22 57 . 80
5
29 21 . 00
23 00 . 60
23 08.50
23 09 . 00
23 09.50
23 12 . 50
23 18.40
5
30 10 . 00
23 23.80
5
23 34 . 70
5
23 58.50
5
24 ee.00
24 48 . 10
24 51.20
24 56.70
24 58.10
24 57.70
5
25 00 . 40
25 06 . 00
25 09.00
5
4
25 32 . 50
25 13 . 00
5
26 35 . 50
25 15.10
25 25.80
25 24.60
5
25 29 . 50
5
25 32 . 54
25 32.98
25 34.82
25 34.88
25 38.98
26 00.30
26 24 . 50

26 17.40
5
26 52 . 00
27 15 . 80
27 39 . 00
5
27 40. 70
28 04.00
28 06 .00
28 36.50
5
28 57 . 80
28 40.50
28 42 . 00
28 42.00
28 52 . 10
29 03.00
29 15.00
29 21 . 80
29 20 . 40
29 30 . 90
29 47 . 80
5
30 1 5 . 00
34 56.90
34 48.90

34 50 . 00

34 57 . 50

35 02.80

35 04.00

35 04.80

1 68kmX

1 .2
1 . 1
. 8mb

1 . 4
1 . 6
1 . 7
0. 7
1 . 6
1 . 2
. 3mb

0 . 9
9mb
2 .0
. 6mb
2 .5
. 4mb
0.6
1 . 0

0.5
- 0.6
- 0 . 7
- 1.5
. 5mb
- 0.8
0 .0
0 . 6
. 8mb
. 3MszX
98kmX
- 0 .9
. 2mb
4 1 1 kmX
0. 2
0.8
- 1.8
. 3mb
- 2. 0
. 6mb
- 0.2
- 0.5
- 0. 2
- 0 . 3
- 0. 3
- 1.0

10 .3X

- 2 . 7X
. 9mb
- 1.4
- 1 . 2
0. 5
. 3mb
- 1 .3
90kmX
- 0. 3
- 0. 4
. 2mb
79kmX
0.3
0. 7
0.0

0.6
0.9
0.8
2 . 3
- 7 .7X
1 . 1
- 0. 7
. 8mb
1 02kmX
1 0 . 4X
- 0.8

- 2 . 0

- 1.4

- 0.9

- 0.6

- 0.3

LPL 115.21 316 ePKP 35 04.60
0.6s 2 . 70nm
DOU 115.42 321 PKP 35 05.10
SNF 115.49 322 PKP 35 04.90
FRF 115.70 314 ePKP 35 05.40
LMR 115.85 314 ePKP 35 05.70
LRG 115.93 314 ePKP 35 06.00
0.4s 2 . 30nm
LOR 116.69 319 ePKP 35 07.00
06s 2 . 70nm
LBF 116.69 318 ePKP 35 07
0 . 6 s 2 . 70nm
SSF 116.98 318 i PKPc 35 07
0.6s 5 . 85nm
AVF 117.16 318 e P K P 35 07

(3.6s 2.25nm
BGF 117.56 318 iPKPc 35 09
0.6s 13 . 55nm
MAF 117.84 318 ePKP 35 09
1.0s 8 . 00nm
EKA 117.87 329 PKP 35 10
0.6s 3 . 1 0nm

30

70

70

20

30

00

CAF 118.55 316 iPKPc 35 11.30
0.6s 4 . 50nm
TNP 118.58 52 PKP 35 11.80
0.8s 3 . 92nm
RJF 118.81 317 ePKP 35 12.40
0.6s 3 . 60nm
LDF 118.82 321 ePKP 35 11.50
FLN 118.99 321 ePKP 35 11.30
LPO 119.22 316 ePKP 35 1 2
0.6s 6 . 30nm
GRR 1 19 . 35 321 iPKPc 35 12
LFF 119.45 317 ePKP 35 1 3
0.6s 9 . 90nm
MFF 119.51 319 iPKPc 35 12
LPF 119.59 321 iPKPc 35 12.
PLM 119.69 57 PKP 35 14 .

60

10

00

60
70
00

LRM 120.00 42 ePKP 35 13.90
DUG 121.42 48 PKP 35 17.06
FFC 122.07 29 ePKP 35 17J00
1.0s 1 8 . 00nm
MSU 122.35 50 PKP 35 19.20
BW06 122.97 45 PKP 35 19.00
0.9s 5 . 65nm
RSSD 126.17 41 PKP 35 25.20
0.9s 17. 43nm
GOL 127.01 47 PKP 35 27 J70
1.0s 1 5 . 00nm
ALO 127.75 53 ePKP 35 30,
KIC 128.70271 PKP 35 31
LIC 128.97 271 PKP 35 32 .
0.6s 1 3 . 0enm
TIC 129.01 271 PKP 35 32
LKO 129.83 275 PKP 35 33
0.6s 12 . 50nm

00

74
12

24
62

SCH 133.78 8 ePKP 35 40 00
TBR 144.53 23 PKP 35 57J00
LVNJ 144.59 24 PKP 35 57 00
SLA 145.14 166 ePKP 36 00 50
CVL 145.17 31 PKP 35 59 00

JSC 146.24 39 PKP 36 03[00
PPD 148.54 189 (PKP) 36 03.
e 3611.
ARE 150.48 150 ePKP 36 22.
NNA 150.79 136 ePKP 36 17.
0.7s 8 . 22nm

00

40
00

80

CNCB 151.75 156 PKP 36 20|.00
i 37 57.00
CCH 151.90 160 PKP 36 191.30
i 36 39.
LPB 151 .96 156 PKP 36 24.
i 37 57.
ZOBO 152.18 155 PKP 36 15.
i 37 57.
SI V 154 .55 170 PKP 36 19.
i 36 39.
S.D. - 1.0 on 116 of 13

& AUG 23, 1991 20h 46m 34.
60.026 N 153.075
DEPTH - 114. 0km

40
00
10
00
10

30
40

- 0.5

0. 1

- 0 . 2
- 0. 3
- 0. 3
- 0. 1

- 0.5

- 0 .6

- 0 . 4

- 6 . 7

0.0

- 0. 4

0. 5

0. 1

0. 1

0.8

0.0

- 0.5
0.2

- 0. 4
0. 2

- 0. 3
- 0.3

0 1

- 0.3

0. 1

- 0. 5

0.3
- 0.9

- 0.9

- 0.2

0. 6
0. 2
0. 1

0. 1
0.0

0. 1
- 2. 9X
- 3 . 0X
- 1 . 1
- 2. 1
0.0
- 4 . 0X

1 1 . 5X
7 . 2X

7. 3X

6. 7X

1 1 . 2X

1 . 7

3. 4X

3 obs .

47s
W

SOUTHERN ALASKA
<AE 1 C>.

OPT 0. 38 192 iPc 46 50. 63
iS 47 03. 41

(2)

- 0.7

RED

RS1
RS2
RSO

RDW
REF
RDM

OFR
PDB

ROT

AUL
AUE
AUW
AUP
AUH
AGU
AU 1

HOM
NNL
CNPM

MCNL

BRLK

CDD

NKA
CKL
SPU

BGL
CRP

CGLM
NCG
SYI

SVW
SEW
SUA
SKT

PMS

PWA
KDC
PLRM
PMR
LT 1
KNK
GHO
KN 1 M
MTU
CUT
SML
GLI
TTA
H 1 N
F ID
VZW
HUR
M 1 D
VLZ
CVA
KLU
RND
SGAM
TOA
MCK
RAGM
TZL
K A 1 M
HMT
PAX
GLB
NEA
WAX
SNH
TGL
HDA

0.42 21 i P c
IS
0.46 20 i PC
0.47 20 i PC
0.47 20 iPc
eS
0 . 48 16 iPc
0.50 22 iPc
0.51 17 i PC
eS
0 .60 19 iPc
0.61 247 iPc
eS
0.64 31 i PC
eS
0.67 196 i Pd
0 . 69 1 93 i Pd
0 . 69 197 i Pd
0.69 195 iPd
0.69 196 iPd
0.69 195 iPd
0.72 195 iPd
eS
0.81 116 i PC
0.89 88 iPc
1 . 06 118 i PC
iS
1 . 06 218 iPd
eS
1.13 1 02 iPd
eS
1.14 1 95 i Pd
eS
1.16 51 iPc
1.23 17 iPc
1 . 26 23 i PC
eS
1.29 15 i PC
1.33 20 i PC
eS
1 . 39 22 eP
1.45 18 ePc
1.46 1 66 i Pd
eS
1 .66 312 iPd
1.82 86 ePc
1.84 37 i PC
2.10 20 ePd
eS
2.12 53 iPc
eS
2.26 42 eP
2.31 1 72 iPd
2.49 49 ePc
2 . 49 49 eP
2.62 87 iPc
2.66 57 eP
2.68 47 ePc
2.69 81 i PC
2.72 88 ePc
2 . 75 28 eP
2.93 50 eP
3.08 71 eP
3.24 335 iPd
3.30 81 ePc
3.35 75 ePc
3.38 69 eP
3.39 28 eP
3.46 97 eP
3.51 69 eP
3.68 79 eP
3.81 64 iPc
3.94 29 eP
3.95 80 eP
3.95 55 iPd
4.20 26 eP
4.21 81 eP
4.24 58 eP
4.35 88 eP
4.41 82 eP
4.69 48 ePd
4.76 69 ePc
4.93 20 eP
5.11 81 ePc
5.13 84 eP
5.13 77 ePc
5.24 30 ePd

46 50.87
47 03.54
46 51 .32
46 51 . 39
46 51.37
47 04.31
46 51 . 37
46 51 .58
46 51.64
47 05 . 00
46 52.07
46 51 .91
47 05.23
46 52. 34
47 05. TV
46 52.48
46 52.40
46 52.64
46 52.66
46 52.73
46 52.67
46 52.65
47 06 . 47
46 53.80
46 55 . 12
46 55.82
47 12 . 49
46 55 . 81
47 11.84
46 56.92
47 13.81
46 56.47
47 13.80
46 58.97
46 58.55
46 58.61
47 17.18
46 59.39
46 59 74
47 18.72
47 00.32
47 01.12
47 00.04
47 19.98
47 03.30
47 03 . 79
47 05.82
47 08.72
47 35. 17
47 08.77
47 33.88
47 10. 80
47 09.90
47 12.82
47 1 2 . 00
47 14.17
47 14.45
47 15.03
47 14. 25
47 15.59
47 1 7 . 68
47 18.27
47 18 .80
47 23. 70
47 22.98
47 22. 13
47 23.56
47 25.52
47 25.66
47 25. 26
47 27.92
47 29.51
47 32.31
47 30.99
47 32.90
47 36 . 87
47 34.86
47 37 . 44
47 37 . 60
47 38.81
47 42.32
47 42 . 21
47 45. 78
47 47.71
47 48.53
47 48.30
47 49.63

- 0 . 8

- 0 . 7
- 0 . 7
- 0 . 7

- 0 . 7
- 0 . 7
- 0 . 6

- 0 . 8
- 0 . 9

- 0 . 8

- 0. 8
- 0. 9
- 0. 7
- 0 . 8
- 0 . 8
- 0. 9
- 1.0

- 0 . 6
- 0. 1
- 1.1

- 1 . 1

- 0. 8

- 1 . 3

1 . 0
- 0. 3
- 0 . 6

- 0 . 1
- 0 . 3

- 0 . 4
- 0 . 4
- 1.4

- 0.6
- 2.0
- 0 . 4
- 0 . 7

- 0.9

- 0 . 6
- 2 . 1
- 1 . 6
- 2 . 5
- 2 . 0
- 2 . 3
- 2 . 1
- 2 . 9
- 2 .0
- 0.2
- 2 . 1
- 3 . 6
- 0 . 8
- 2 . 4
- 3. 9
- 2.9
- 1 . 0
- 1 . 8
- 2.8
- 2 . 6
- 2 . 7
- 1 . 8
- 3. 1
- 1 . 3
- 0 . 7
- 2 . 8
- 0. 6
- 2 . 0
- 1.6
- 2.0
- 3. 1
- 1 . 8
- 2.4
- 1 . 7
- 2. 1
- 2.2

219

23d 20h

CCB 5.25 26 ePd 47 49.55 -2.2
BALM 5.40 75 eP 47 51.55 -2.4
MDM 5.44 22 eP 47 52.49 -1.9
F8A 5.47 24 eP 47 51.68 -3.2
WRG 5.5* 85 eP 47 54.63 -1.2
GLM 5.63 25 ePd 47 54.84 -2.3
CTGM 5.88 76 eP 47 59.23 -1.5
PNL 6.90 87 eP 48 11.94 -2.6
81 obs . ossocioted

» AUG 23, 1991 21h 04m 30.43± 6.89s
19.594 N ±13. 1km 108.949 W ±15. 8km
DEPTH = 10. 0km (geophysicist)

REVILLA GIGEOO ISLANDS REGION (53)

PPM 9.76 91 i P 06 55. 70 1.3
GLA 14.40 340 eP 07 57.00 0.7
BAR 14.75 334 eP 08 01.00 0.0
PLM 15.42 334 eP 08 12.00 2.2
ALO 15. 45 8 eP 08 1 1 . 00 0.8
1.0s 12. 00nm 4 . 2mb
TPC 15.77 338 eP 08 15-00 0.7
RVR 16.18 334 eP 08 23.00 3.5X
SBB 16.97 334 eP 08 30.00 0.5
GSC 17.12 338 eP 08 29.00 -2.4
CLC 17.87 337 eP 08 41.00 0.2
ISA 18.08 334 eP 08 45.00 1.6
MSU 19.06 352 P 08 55.00 -0.6
TNP 19.78 340 P 09 02.80 -1.1

BONR 20.03 338 P 09 05.80 -0.9
GOL 20.27 8 P 09 08.00 -1.2
0.8s 2.75nm 3. 6mb
BW06 23.12 359 P 09 36.00 -1.8
YKA 43.04 356 eP 12 32.10 0.4
0.8s 1 . 80nm 3 . 9mb
PDB 51.44 333 P 13 38 .50 0.9
ZOBO 53.67 129 P 13 55.00 -0.5
TTA 53.83 335 P 13 55.00 -0.5
0.8s 3.62nm 4. 4mb
LPB 53.86 129 eP 13 58.00 1.3
CNCB 54.12 129 P 13 59.00 0.2
CCH 55.84 128 P 14 30.40 1 9 . 4X
SIV 58.87 124 P 14 30.40 -1.7
WR2 120.76 258 iPKPd 23 07.70 -17. 4X
0.6s 1 5 . 60nm
ASPA 121.84 254 iPKPc 23 39.40 12. 3X
0 . 6s 7 . 50nm
S.D. - 1.3 on 22 of 26 obs.

? AUG 23, 1991 2lh 19m 08.35±11.60s 8.668 S ±15. 7km 148.504 E ±137. km DEPTH - 109. 2 ± 26.5 km
EAST PAPUA NEW GUINEA REGION (207)

PMG 1.52 241 iPc 19 35.80 0.0
LAT 2.50 323 eP 19 48.20 -0.1
YYYY 3.48 314 i PC 20 01.70 -0.1
MDG 4.34 321 eP 20 13.50 0.2
WR2 17.69 229 eP 23 09.30 0.0
S.D. - 0.2 on 5 of 5 obs.

& AUG 23. 1991 21h 44m 26.30s
43 . 7 1 1 N 1 27 . 1 07 W

DEPTH « 10.0km (geo phy s i c i s t)
OFF COAST OF OREGON (30)
<SEA> .

HBO 3.47 86 P 4514.18 -7.4
NLO 3.52 46 P 45 15.31 -6.9
GT2 3.75 66 P 45 18 . 89 -6.7
BMW 3.90 43 P 45 19.84 -7.7
RVW 3.94 50 P 45 21 . 1 7 -7.0
VLMM 4.05 61 P 45 23.11 -6.7
LVP 4.09 53 P 45 23.49 -6.8
TDH 4.12 66 P 45 24.01 -6.7
MTMW 4.18 55 P 45 24.90 -6.7
VBEM 4.18 69 P 45 25.05 -6.6

FL2 4.19 52 P 45 25. 10 -6.7
C2M 4.25 49 P 45 25.27 -7.2
SHW 4.26 53 P 45 26.46 -6.3
VLL 4.25 64 P 45 26.28 -6.4
STD 4.29 52 Pd 45 26.43 -6.8
CDFW 4.32 54 P 45 26.92 -6.7
VFP 4.34 66 P 45 27.67 -6.4

TDL 4.36 51 P 45 27.34 -6.8
KOSW 4.44 50 P 45 28.64 -6.6
GULW 4.50 59 P 45 30.03 -6.2
LMW 4.51 47 P 45 29.35 -6.9
ASR 4.61 56 P 4531.12 -6.7
LON 4. 82 49 P 45 33 . 82 -6.9
REMR 4.85 48 P 45 34.26 -6.9
WPW 4.94 51 P 45 35.20 -7.1
GL2 5.00 61 P 4536.19 -7.1
FMW 5.01 48 P 45 36 . 37 -7.0
GSM 5.11 45 P 45 37 . 93 -6.9
RSW 5. 96 61 P 45 49 . 45 -7.3
29 obs. associated

% AUG 23. 1991 21h 46m 17.02+ 1.16s
41.935 N + 9.4km 14.801 E ±12. 2km
DEPTH - 22.9 ± 14. 6 km
SOUTHERN ITALY (390)

DUI 0. 38 223 P 46 25. 20 0.0

eSg 46 32.10
SDI 0.77 253 Pd 46 31.10 -0.6
eSg 46 44.20
SGO 1.43 164 Pd 46 42.40 0.8
eSg 47 05.00
ASS 1 . 95 306 P 46 49 . 60 0.3
ARV 2.08 319 P 46 51.20 0.1
BRT 2.09 120 P 46 50.70 -0.6
eSn 47 17.10
S.D. -0.9 on 6af 6 obs .

AUG 23, 1991 22h 14m 20.60± 0.52s
35.905 N ±10. 6km 53.250 E ± 5.3km
DEPTH - 33.0km (normol)
4 . 7mb (3 obs .)
IRAN (348)
ML 4.8 (TEH). Felt at Semnon.

TEH 1.52 264 iPd 14 46.00 0.0
IR4 2.03 252 iPc 14 54 . 00 0.7
IR1 2.14 258 iPc 14 55.50 0.6
IR7 2.16 265 i PC 1 4 56 . 00 0.9
IR5 2 .28 253 eP 14 57 . 00 0.1
MAIO 5.07 84 iPc 15 37.00 0.6
0.8s 33 . 31 nm 4 . 8mb
eSn 16 36.00
KER 5.27 255 eP 15 43.00 3.8X
TAB 5.95 293 eP 15 49.00 0.2
MJMA 12.12 216 ePd 17 06.50 -7 . 5X
OUE 12.82 113 e(P) 17 32.20 8.7X
eS 21 13.20
e 22 27 . 50
AFIF 14.63 219 ePd 17 45.70 -1.5
HRI 14.66 265 eP 17 53.90 6.3X
ATZ 15.17 263 eP 18 00.50 6 . 5X
PRNI 16.26 255 eP 18 14.20 5. IX
OBN 22.36 334 eP 19 17.00 0.1
1.3s 36 . 00nm 4 . 7mb
ePP 19 37.00
eS 23 20.00
MLR 22.72 303 eP 19 22.00 1.3
CMP 23.28 302 ePc 19 33.00 6.9X

SKO 25.38 294 eP 19 45.50 -0.8
GKN 27.68 98 PKP 20 16.04 8 . 2X
DMN 28.23 98 PKP 20 14.54 1.7
KKN 28.29 98 PKP 20 13.52 0.2
PKI 28.49 98 PKP 20 13.68 -1.6
GUN 28.72 97 PKP 20 13.72 -3 . 7X
KHC 31.71 307 eP 20 46.00 2 . 6X
e 21 08 . 50
CLL 32.49 311 eP 20 49.00 -1.1
e 21 03.00

WTTA 32.76 303 i(P) 20 50.80 -1.9
0.8s 7.80nm 4. 7mb
i 21 05 . 70
S.D. « 1.1 on 17 of 27 obs.

AUG 23, 1991 22h 47m 20.62± 0.48s
44.368 N ± 3.8km 7.307 E ± 4.2km

DEPTH - 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2 .0 (GEN) , 2.0 (LOG) .

STV 0. 12 174 P 47 23. 77 0.0
S 47 25.49
ENR 0. 16 150 P 47 24. 38 0.0

S 47 26.33
PZZ 0. 20 313 P 47 25 . 72 0.6
S 47 28 .82
ROB 0.41 100 P 4729.46 0.4
S 47 35.23
BHB 0-47 356 P 47 29.78 -0.5
S 47 35.87
SBF 0..51 1 70 Pg 4731.60 0.6
Sg 47 37.09
IMI 0 .62 137 P 4732.69 -0.5
S 4740. 48
FIN 0. 67 103 P 4733.82 -0.1
S 47 42-33

Sg 47 49 . 50
LRG 1.14 217 Pg 47 41.86 -0.1
Sg 47 56.80
LMR 1.18 209 Pg 47 42.20 -0.5
Sg 47 57.00
S.D. -0.4 on 11 of 11 obs.

? AUG- 23, 1991 23h 01m 30 . 02± 3.03s
33.327 S ±14. 6km 73.073 W ±25. 2km
DEPTH = 33.0km (normal)
OFF COAST OF CENTRAL CHILE (134)

1 HA 1.24 76 iPc 0151.30 0.2
iS 02 01 .70
LCCH 1.27 97 iPd 01 50.40 -1.1
iS 02 00.50
LNV 1.52 115 iPc 01 55.50 0.3
iS 02 10 . 00
ROCH 1.77 79 eP 01 58.70 -0.3
iS 02 16. 40
TACH 1.81 101 iP 01 59.00 -0.5
PEL 2.01 85 iPc 02 02 .50 0.2
iS 02 23.20
SAN 2.02 94 eP 02 02.50 0.0
iS 02 23 .00
CHCH 2.11 107 iP 02 04.30 0.6
iS 02 25.50
PCH 2.16 98 iPc 02 04.50 0.0
JACH 2.18 74 iPd 02 05.30 0.5
iS 02 29.50
MDZ 3.57 84 eP 02 32.70 8.2X
IS 03 07.50
i 03 15.20
20N 4.12 66 eP 02 39.00 6.7X

RTLL 4.38 64 e(P) 02 39.00 3.0X
SIV 20.39 35 P 06 06.70 -0.1

? AUG 23, 1991 23h 46m 19.09± 7.22s
33.415 S ± 9.7km 72.323 W ±56. 8km
DEPTH - 23.9 ± 7 .4 km
OFF COAST OF CENTRAL CHILE (134)

LCCH 0.63 96 iPd 46 30.90 -0.5
iS 4640.90
IHA 0.69 56 iPd 46 32.60 0.2
iS 4642.70
LNV 0.93 126 iPc 46 36.20 -0.2
iS 46 50. 40
TACH 1.18 102 iPc 46 39.50 -0.7
iS 46 56. 70
ROCH 1.19 68 iPd 46 39.80 -0.6
iS 46 56. 10
SAN 1.39 92 iPd 46 43.80 0.7
iS 47 03.20
PEL 1 . 40 79 iPc 46 43.50 0.2
i S 4703.40
CHCH 1.49 111 iP 46 44.50 -0.1
PCH 1.53 98 iPc 46 45.40 0.2
iS 47 05.60
JACH 1.63 64 eP 46 46.00 -0.6
iS 47 07 . 10
MDZ 2.96 81 eP 47 14.90 9.2X
iS 47 56.90
S.D. - 0.6 on 10 of 11 obs.

? AUG 23, 1991 23h 52m 57.78± 3.90s
33.429 S ± 9.4km 72.084 W ±27. 4km
DEPTH - 10.0km (geophysicist)
OFF COAST OF CENTRAL CHILE (134)

LCCH 0.43 96 i PC 53 07.00 0.4
iS 53 16.60

220

23d 23h

LNV

TACH

ROCH
PEL

CHCH

PCH

JACH

0.

0.

1 .
1

1

1 .

1 .
S . D.

77

98

01
21

30

33

46
=

AUG 24.
3. 778
DEPTH =
5
OFF

BSI
PSI
KHT
CHG

. 1mb (
W C0>

1 .
3.
1 1 .
15.

N

133 iPd
iS
103 iP
iS
63 eP
77 i P d
i S
113 (P)
i S
99 eP
eS
60 eP
0.6 on

1991 00h
± 6 . 8km

53 12
53 25
53 16
53 32
53 17
53 20
53 38
53 22
53 40
53 21
53 41
53 24
8 of

05m 57
95.213

50
20
00
50
00
00
60
70
50
70
70
50

- 0 .2

- 0 . 5

0 . 0
- 0 . 3

0 .9

- 0 .6

0 . 3
8 obs .

88±
E ±

0. 32s
5.7km
33 . 0km (no rmo 1)
39 obs.)
ST

71
86
43
38
1 .0s

KOD
GBA

18.
20 .

74
06
1 .0s
KKM
HYB

21 .
21 .

04
23
1 .0s
KM 1
PK 1
DMN
GUN

22.
25.
25.
25.

42
44
59
60
0.9s
KKN 25. 69
0.8s
GKN
DUE
MA 1 O
MTD
KR 1
OBN

26.
37.
46.
66.
67.
69.

1 1
46
13
06
92
37
1 .2s
VR 1
DIM
KDZ
PVL
MLR

RZN
MMB
KKB
VTS
VAY
KAF

72.
72.
72.
72.
72.

72.
73.
74 .
74 .
74 .
76.

39
44
45
81
84

97
68
20
23
50
90
0.8s
NUR
SPC
KRA

77.
77 .
77 .

22
34
67
0.8s

SOD
SRO
ROl
KEV
TDS
CS 1
CZ 1
ZST

VKA
KSP
VBY
LJU
CEY
PRU

78.
78.
78.
79 .
79.
79.
79.

38
42
85
03
03
08
16
79. 27
1 .08
79.80
60.
80.
80
80.
81 .

08
28
82
87
12

0[9s
VOY
AOU
BRG

81
81 .
81 .

26
41
57
1 .2s

KHC
ARV

81 .
81 .

68
80

OF NORTHERN SUMAT ERA(705)

3 ePc
106 i P d
17 eP
13 eP
2 1 . 00nm
e
291 eP
300 PC
42 . 00nm
83 ePc
311 i PC
1 20 . 00nm
18 eP
339 P
339 P
341 P
1 28 . 00nm
339 P
1 22 . 00nm
338 P
318 eP
319 eP
250 iPKPd
250 iPKPd
328 eP
******* nm
317 eP
313 iPd
312 iPd
314 iPd
316 eP
e

312 iPd
312 i P d
312 iPd
313 i Pd
312 eP
333 iP
9 . 70nm
331 eP
320 iP
320 iPd
24 . 00nm
e

338 iP
318 IP
309 P
341 eP
310 Pd
310 P
309 P
318 iP
28.80 nm
318 iPc
321 iPc
315 ePc
316 ePc
316 eP
320 P
7 . 50nm
316 ePc
312 P
321 iP
1 9 . 00nm
e

319 iP
313 PC

06 25
06 55
08 36
09 37

13 41
10 18
10 32

10 43
1 0 44

10 55
11 24
1 1 25
1 1 26

1 1 26

1 1 30
13 11
14 20
1 6 43
16 46
17 03

17 22
17 23
17 24
17 16
1 7 24
40 55
17 25
17 29
17 33
17 32
17 33
17 47

17 49
17 50
17 54

18 03
17 55
17 56
17 59
17 55
18 01
18 02
18 00
18 01

18 04
18 06
18 07
18 10
18 10
18 11

18 12
18 13
18 13

18 21
18 14
18 15

50
50
50
00
4
00
40
10
4
10
10
5
00
10
48
06
5
62
5
32
20
00
90
40
00
8
00
00
00
00
50
00
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00
00
00
60
20
4
20
90
90
5
00
50
30
80
00
40
20
90
80
5
50
20
20
00
20
60
4
00
40
60
5
00
50
20

- 0 .3
- 0 . 9
- 5.5X
2 . 7
3mb

1 . 7
0 .5
7mb
1 .5
0 . 7
3mb
- 0 .6
- 0.8
- 0 . 6
- 0 . 2
5mb
- 0 . 4
6mb
- 0 .6
0 . 7
- 1 .2
- 0 . 4
- 9.8X
- 1 . 3
4mb X
- 0 . 8
- 0 . 1
0 . 8
- 9 .2X
- 1 . 1

- 1 .5
- 1.4
- 0 . 4
- 1 . 7
- 1 . 5
- 1 . 1
9mb
- 0 . 9
- 0. 4
2. 1
3mb

- 0.9
- 0 .6
0 .2
- 4 .9X
0 . 9
1 . 4
- 0 . 3
0 . 2
2mb
0.0
0 . 2
0 . 1
0. 0
- 0 . 1
0 . 2
7mb
- 0. 4
0.2
- 0. 1
0mb

0. 1
0.0

FVI
CLL

HFS

2

CRE
SFI
PGD
CT I
WTTA

MOX

GRF

OGA

NB2

PGF

SBF

CDF

LPG

LPL

FRF

HAU

LMR

LRG

LBF

LOR

SMF

SSF

AVF

BGF

MAF

RJF

LPO

LDF

FLN

LPF

EKA

ALO
SI V
CCH
ZOBO

S

AUG
40 .

82.07 316 P 18
82. 19 321 iP 18
1.2s 1 8 . 00nm
82.51 330 eP 1 8
0.5s 1 . 90nm
1 7 s 0 . 06um
LR 57
82. 53 313 P 18
82 . 6 1 31 4 P 18
82 . 70 3 1 4 P 18
82 . 83 3 1 6 P 18
82. 88 31 7 iPc 18
l.ls 24 . 1 enm
i 18
83.03 320 e P 18
1.7s 1 7 . GOnm
S3 . 25 31 9 i PC 18
1.2s 30 . 00nm
83 . 28 3 1 7 eP 18
0.8s 11. 00nm
83. 80 331 P 18
0.9s 6 . 30nm
84 . 68 31 2 eP 18
0.7s 4 . 40nm
85.80 31 4 eP 18
0.6s 9 90nm
85. 83 318 eP 18
0.8s 5 . 35nm
86. 25 315 *P 18
0.8s 9 . 40nm
86. 26 315 *P 18
0.8s 1 2 . 1 0nm
86. 38 31 3 *P 18
0.8s 8 . 05nm
86 . 46 3 1 8 <;P 18
0.8s 1 0 . 75nm
86. 49 3 1 3 eP 18
0.8s 5 35nm
86 . 59 3 1 3 eP 18
0.8s 1 0 . 75nm
88. 1 1 31 7 eP 18
0.8s 8 . 05nm
88. 17 31 7 eP 18
0.8s 9 . 40nm
88. 22 31 6 eP 18
0.8s 9 . 40nm
88.43 317 eP 18
0.8s 6 . 05nm
88. 55 31 7 eP 18
0.8s 4 . 05nm
88 . 91 3 1 6 eP 18
1.2s 19 . 35nm
89. 13 316 eP 18
0.8s 5 . 35nm
89 . 94 3 1 5 eP 18
0.8s 5 . 35nm
90 . 24 3 1 5 eP 18
0.8s 9 . 40nm
90. 72 319 eP 18
0.8s 1 6 . 1 0nm
90 . 94 3 1 9 eP 19
0.6s 9 . 90nm
91 . 40 318 eP 19
0.8s 1 0 . 75nm
91.68 326 P 1 9
1.1s 1 6 . 70nm
136.43 26 ePKP 25
153.72 241 PKP 25
157.26 232 PKP 25
159.45 232 PKP 25
i 26
. D. =0.8 on 85 of

24, 1991 00h 38m

16.40
17.^0
5
1 7 .50
4
4
23.00
18.60
20.00
20 .90
20.70
20 . 10
5

T 1 T ft O I . O v
21.90
4
23-100

22

24

5
. 90
5
. 30
4
29. 90
4
35 .60
5
35. 30
4
38 J00
5
38

38

38

39

. 00
5
. 70
5
. 30
5
. 00
4
39 . 80
5
46.50
5
46.90
5
47

48

48

50

. 20
5
80
5
70
4
80
5
51 90
4
56 . 1 0
4
57 50
5
59 . 40
5
00

02

04

18
52
52
57
35

00
241 N ± 5 . 8km 25.211
DEPTH - 10.0km (geophys
AEGEAN SEA

ALN

OUR
EZN

PA 1 G

KDZ

MD 3.2 (THE) .

0.91 44 ePd 38
eS 38
0.94 276 ePd 38
0.95 1 15 i Pg 38
eSg 38
1 .22 256 ePd 38
eS 38
1 . 42 6 i P 38

18
32
18
18
32
22
39
26

, 30
5
70
5
00
5
20
70
70
00
00

0.0
0 . 0

. 0mb
- 0.9
. 4mb
. IMs zX

- 0. 4
0 . 7
0.9
0.2
- 9.8
. 2mb

0 . 5
. 9mb
0.5
. 3mb
- 0 . 1
. 0mb
- 0.8
. 8mb
- 0 . 1
. 8mb
0 . 1
. 2mb
- 0.3
. 8mb
0 . 0
. 1mb

0.0

. 2mb
0.4
. 0mb
- 0.3
. 1mb
0 .2
. 8mb
0 .5
. 1mb
- 0 .2
. 1mb
0.0
. 1mb
0 .0
. 1mb
0.7
. 0mb
0 . 0
. 8mb
0.3
. 3mb
0. 4
. 9mb
0.8
. 9mb
0 .8
. 1mb
0 .6
. 4mb
0 .5
. 3mb
0.8
. 3mb
0.9
. 4mb
- 0.8
4 . 8X
- 0.2
1 . 3

30 obs .

30±
E ±
C i S

08
20
08
60
40
00
20
00

0. 42s
2 . 9km
O

(365)

0.3

- 0.2
0.2

- 0.9

- 0. 1

RZN

SRS

SOH
MFT
MMB

THE
D I M

PLD

KNT

EDC
GRG
VAY
KKB

JMB
DMK
DST
VTS

PVL

iS
1 .49 346 i PC
iSg
1.51 306 eP
eS
1 .53 293 ePd
1.67 70
1.75 321

iPn
eP
iS
1.76 284 eP
1 .82 8 eP

iSg
1.90 349 iP

1.98 298 eP
eS
2.03 86 ePn
2.26 289 eP
2.28 299 ePn
2.29 316 eP

2.45
2.49

S .D.

24 eP
50 ePn
2.70 102 ePn
2.79 328 eP

iSg
2 iPd
iSg
- 0.5 on

2.97

38
38
38
38
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38
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38
39
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39
38
39
38
38
38
38
39
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38
38
38
39
38
39
16 of

44 . 00
27 . 00
50 . 00
27 . 60
48 . 72
27 . 28
29 . 00
31 . 00
55 . «0
31 .20
35 . 00
02 . 00
38 .00
03. 00
34 . 90
01.70
35 . 30
39.20
43.60
43 . 00
13 .00
47 .00
41.00
45.00
55 .00
31 .00
56 . 00
35.00
23 obs.

- 0. 3

0 2
3. IX

5 . 0X

0 . 6

0.3
0.9
5. IX
4. 3X

6 . 1 X
- 0.5
0.4
9 . 1X

7 . 7X

? AUG 24, 1991 00h 56m 34.20± 2.37s 27.047 N ±39.0km 68.552 E ±16.4 km DEPTH - 33.0km (normal)
4.3mb (5 obs.)
PAKISTAN (710)

DUE

ND I

GKN
DMN
KKN
PK I
GUN
KAF

HFS

NB2

YKA

3. 43

7 .84
0. 4s
14.31
14.73
14.88
15.00
15.41
44. 80
0 . 4s
49 .57
0 .5s
51 .00
1.1s
90 . 74
0. 9s
S-D. - 1

336 eP
eS
76 eP
1 0 . 17nm
82 P
84 P
83 P
84 P
83 P
333 iP
1.30nm
327 eP
1 . 50nm
328 P
4.60 nm
1 eP
1 . 60nm
. 2 on 11

57 27 .
58 05.
58 29 .

59 56 .
00 03.
00 03.
00 05.
00 10 .
04 44 .

05 24 .

05 34.

09 36 .

of 1

0.4

0.2
5 . 3mb
20
84
80
52
00
40

- 0.4
1.6
- 0.3
- 0.3
- 1.1
- 1.9
4 . 2mb
00 0.2
4 . 3mb
40 -0.3
4 . 4mb
70 1.9
4 . 4mb
1 obs .

> AUG 24, 1991 00h 57m 45.39± 9.86s 51.582 N ±54.4km 16.397 E ±63.3km DEPTH - 10.0km (geophysicist)
POLAND (548)
ML 3.1 (VKA).

KSP

BRG

PRU

CLL

KHC

MOX

VKA

ZST

SPC

0.74

).3s

1 . 70

1 .98
I.4s

2.14

3.05

3. 16

3.32

3.42

3.44

185 IP 58
61.00nm
iS
i
246 iPg
iSg
217 Pn
20 . 80nm

iSn

sg

264 iPn
eSg
217 Pn

pg
eSn

eSg
255 iPg
eSg
181 iPgc
iSg
172 eP
e
1 33 eP

58
58
58
58
58

58
58
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59
59
59
59

00.20 0.3

08.20
14.30
16.00 0.8
36 .40
19.10 -0.2

20 . 90
24 . 40
38. 00
43.40
51 .60
21 .30
53.00
34.00
40 .50
10.50
20.00
44.00
24 .00
47 .90
31.10
09.00
36.40
15.10

- 0.3

- 0.5

8.0X

9.5X

29.2X

34. 9X

221

24d 00h

GRF 3.80 242 ePn 58 45.20 0.0

e(Pg) 58 59.00
eSg 59 43.50
S . D . =0.6 on 6 of 10obs.

AUG 24. 1991 01h 63m 42.80± 0.86s
40.184 N ±12. 3km 25.285 E + 6.0km
DEPTH - 10.6km (gtophysicist)
AEGEAN SEA (365)

E Z N 0.88 114 e P g 0359.70 0.1
eSg 04 13.20
ALN 0.92 39 ePd P 4 03.06 -0.3
eS 04 13.38
OUR 1.61 279 eP 04 01.10 -0.8
eS ' 04 15.10
SRS 1.59 306 ePd 04 11.22 0.2
eS 0431.80
SOH 1.60 294 ePc 04 11.70 0.4
KNT 2.06 299 eP 04 18.30 0.4

AUG 24, 1991 02h 41m 27.90± 2.72s
41.287 N ±14 3km 22 428 E ±!6.71<m
DEPTH = 10.Cilrn (geophysicist)
YUGOSLAVIA (383)
MD 1 . 9 (THE)

VAY 0.11 72 i Pg 4131.00 0.2
i Sg 41 33. 00
GRG 0.33 184 *Pd 41 34.52 -0.2
- S 4139.40
KNT 0.38 109 ePd 41 35.76 0.1
<: S 41 40.92
THE 0.77 148 <?P 41 43.50 0.6
SOH 0.84 123 ePc 41 43.92 -0.2
SRS 0.89 101 iPd 41 44.58 -0.5
S.D =0.5 on 6 of 6obs.

? AUG 24. 1991 02h 51m 22.70± 6.63s
12.783 S ±60. 9km 118.926 E ±30. 3km
DEPTH - 33.0km (normal)

SOUTH OF SUMBAWA ISLAND (291)

MBL 8.38 174 i Pd 53 24.80 0.0
0.2s 35 . 00nm 6 . 1mb X
eS 55 06.00
NANU 10.25 198 eP 53 47.00 -3.6X
8AL 17 86 186 eP 55 29.00 -1.3
ASPA 17.86 129 eP 55 30.30 -0.1
0.4s 580nm 4.1mb
COOL 18.13 174 eP 55 34.00 0.3
0.3s 8.00nm 4. 3mb
KLB 18.75 183 eP 55 42.00 0.7
03s 8.00nm 4. 4mb
MUN 19.27 187 «P 55 48.00 0.5
RKG 21.76 184 *P 56 21.00 7.6X
S.D. =0.9 on 6 of 8obs.

AUG 24, 1991 02h 58m 34.61± 0.62s
43.655 N ± 4.2km 7.817 E ± 4.0km
DEPTH - 26 .5 ± 5 . 8 km
NEAR SOUTH COAST OF FRANCE (379)
ML 2.5 (LOG). 2.4 (GEN).

(Ml 0.26 12P 5840.93 -0.4
S 5844.72
REVF 0.34 285 Pg 58 42.09 -0.3
SBF 0.35 307 Pg 58 42.30 -0.2

SAOF 0.38 330 Pg 58 42.59 -0.4
Sg 58 47.90
AURF 9.42 303 Pg 58 43.04 -0.7
Sg 58 49 91
AUTN 0.44 321 Pg 58 43.78 -0.3
Sg 58 49 . 76
MV 1 F 0 54 297 Pg 58 45.73 0.1
Sg 58 53.25

Sg 58 53.64
FIN 0.62 27 P 5846.87 00
S 5854. 66
ENR 0. 64 334 P 5847.18 0.0
S 58 55.07
ROB 0.64 3 P 58 47 . 28 0.1

S 58 55. 17
CALN 0.68 279 Pg 58 48.50 0.6
Sg 5857.41
STV 0 . 69 329 P 5848.00 0.0
S 58 56 . 31

FRF 0.85 264 Pg 58 50.90 0.2
Sg 5901.60
PZZ 0 . 99 329 P 58 52 . 92 0.0
S 59 04 . 92
LMR 1.00 252 Pg 58 53.00 0.1
Sg 59 04 . 80
PCP 1.03 30 P 58 54 . 77 1.4
S 59 07 . 79
LRG 1.08 260 Pg 58 54.60 0.6
Sg 59 07 . 50
BHB 1.25 342 P 58 56.20 -0.2
S 59 09.94
PGF 1.40 142 Pg 58 58.04 -0.7
RSP 1.55 345 P 58 56.51 -4.3X
LPL 2.02 338 Pg 59 11.70 4.0X
S . D . - 0 . 5 on 20 of 22 obs .

38.302 N ± 6.8km 20.942 E ± 6.6km
DEPTH = 10.0km (geophysicist)
GREECE (364)
MD 3 . 2 (ATH) . 3.1 (THE) .

VLS 0.30 246 ePb 05 45.00 -0.8
eSb 05 52.50
AGG 1.30 56 iPd 06 02.12 -1.5
eS 06 20 . 40
I GT 1.32 339 iPd 06 03 . 88 0.1
eS 06 22 . 20
KEK 1.67 328 ePb 06 09.50 0.7
KZN 2.10 18 ePn 06 15.50 0.3
LIT 2.16 33 iPd 06 15 . 76 -0.2
eS 06 45 . 1 0
VLI 2.24 134 ePn 06 18.00 0.9

KNT 3.23 27 eP 0631.80 0.6
SKO 3.69 6 ePn 06 42.50 4.8X
S.D. -0.9 on. 9 of 10 obs.

* AUG 24, 1991 04h 10m 29.43± 1.64s
41.232 N ± 9.7km 22.461 E ± 1 2 . 0 km "
DEPTH " 10.0km (geophysicist)
YUGOSLAVIA ' (383)
. MD 2 . 6 (THE) .

VAY 0.12 43 iPg 10 32.40 0.0
i Sg 1034.20
GRG 0.28 189 ePd 10 35.34 0.0
eS 10 40.50
KNT 0.34 102 ePd 10 36.50 0.1
eS 1041.70
SOH 0.79 121 iPc 10 44.70 -0.1
SRS 0.86 97 ePc 10 46.06 0.0
eS 1058.18
S.D. -0.1 on 5of Sobs.

% AUG 24, 1991 04h 23m 29.81± 0.80s
37.415 N ± 8.1km 3.294 W ± 9.6km
DEPTH - 10.0km (geophysicist)
SPAIN (377)
mbLq 2.6 (MOD).

AFC 0.26 231 ePn 23 36.00 0.7
eSg 23 40.00
ECOG 0.26 238 iPn 23 35.80 0.5
eSg 23 40.30
EGUA 0.62 201 ePn 23 41.20 -1.1

eSg 23 50.30
EHUE 0.69 54 ePn 23 44.00 0.5
eSg 23 55.00
EBAN 0.84 333 ePn 23 45.50 -0.6
eSg 23 57.00
EVIA 1.37 27 ePn 23 55.00 -0.1
eSn 24 13.00
S.D. = 0.9 on 6 of 6 obs.

? AUG 24, 1991 04h 51m 01.60± 9.31s
3.558 N ±39. 4km 75.731 W ±71. 3km
DEPTH - 33.0km (normol)
COLOMBIA (103)
MD 2 .8 (UVC) .

BUGC 0.62 302 eP 51 14.94 0.9
HOBC 0.89 333 iPd 51 17 58 -0.3
eS 51 27 . 40
CLMC 0.89 291 ePc 51 16.95 -1.0

HOOC 0.91 264 iPc 51 18.32 0.1
e S 51 L 8 . 7 0
ANCC 1.13 268 eP 51 21.18 -0.1
S.D. =0.9 on 5 o f Sobs.

AUG 24, 1991 05h 20m 58.23± 0.84s 17.761 S ±14. 9km 115.901 W ±18. 4km
DEPTH = 10.0km (geophysicist)
4.7mb (10 obs.) 3.9Msz (1 obs.)
EASTER ISLAND CORDILLERA (684)

TACH 43.14 120 eP 29 00.20 -0.6
PEL 43.27 120 ePd 29 04.00 2.2
CHCH 43.43 121 eP 29 05.00 1.9
MDZ 44.75 119 eP 29 14.20 0.3
LPB 45 . 60 96 P 29 22.00 0.8

LR 4120.00
CNCB 45.67 96 P 29 23.00 1.1
SIV 52.34 97 P 39 05 50 -7.4X
ALO 53.17 10 eP 30 19.00 0.1
1.0S 9 . 25nm 4 . 7mb
PRI 53.80 355 eP 30 24.30 1.0
SAO 54.48 355 eP 30 31.50 3.3X
FRI 54.57 356 eP 30 29.00 0.1
MEO 54.78 17 iPd 30 30.60 0.0
MHC 55.07 354 eP 30 34.00 1.3
BONR 55.46 358 P 30 36.10 0.3
TNP 55.56 359 P 30 36.60 0.3
0.8s 3.92nm 4 . 5mb
CMB 55.66 356 eP 30 37.50 0.7
BRK 55.66 354 eP 30 37.30 0.5
MSU 56 . 08 4 P 30 41 . 50 1.4

TUL 56.67 20 eP 30 42.40 -1.8
0.8s 8 . 50nm 4 . 8mb
ORV 57.25 355 eP 30 55.30 7. IX
DUG 57.73 3 P 30 52. 70 1.0
1.1s 9 . 54nm 4 . 7mb
GOL 58.00 10 P 30 53.70 -0.1
0.8s 4 . 46nm 4 . 5mb
DAU 58.03 4 P 30 54.40 0.4
WDC 58.37 354 ePc 30 56.00 0.0
PPD 60.50 106 eP 31 09.10 -2.0
BW06 60.52 5 P 31 09.10 -2.0
1.0S 5 . 83nm 4 . 7mb
MCMT 62.35 2 ePc 31 23.80 0.4
VAO 64.32 107 eP 31 34.80 -1.9
NEW 65. 73 359 P 31 45.30 0.1
1.1S 9 . 26nm 4 . 9mb
YKA 79.99 1 eP 33 08. 10 -0.7
0.9s 3 . 40nm 4 . 3mb
KLU 82.54 346 P 33 22.20 -0.2
PDB 83.30 342 P 33 25.10 -1.1

0.9s 15. 70nm 5 . 2mb
SVW 84.78 342 eP 33 32.60 -1.1
FBA 85.93 347 eP 33 39.00 -0.3
0.7s 10.47nm 5. 1mb
KHC 128.80 41 ePKP 40 07.00 -0.6
CHG 146.93 277 ePKP 40 42.00 0.6
ADI 149.92 54 ePKP 40 50.00 4.3X
JVI 150.45 56 ePKP 40 51.30 4.7X
MBH 150.80 60 ePKP 40 52.40 5.2X
S . D . = 1 . 1 on 35 of 41 obs .

& AUG 24, 1991 06h 24m 59.69s
59 . 282 N 153. 985 W
DEPTH = 1 1 8 . 8km
SOUTHERN ALASKA (2)
<AEIC>.

MCNL 0.21 242 iPc 25 15.72 0.9
eS 25 28. 18
AUW 0.28 71 ePd 25 15.86 0.8
AUH 0.29 73 ePc 25 16.08 0.9
AUI 0.29 79 iPc 25 15.85 0.7
iS 25 28. 49
AGU 0.29 74 eP 25 16.21 0.9
AUL 0.30 70 ePc 25 15.87 0.7
AUP 0.30 74 eP 25 16.11 0.8

222

AUE 0.
COD 0.

PDB 0.

OPT 0.

SY 1 1 .

HOM 1 .

RED 1 .

RS 1 1 .
RS2 1 .
RSO 1 .
ROW 1 .
REF 1 .
RON 1 .
CNPM 1 .

DFR 1 .
RDT 1 .
NNL 1 .
BRLk 1 .

SVW 2 .
CK L 2 .
SPU 2 .
BGL 2.
CRP 2 .
CGLM 2.
SLKM 2.
NCG 2.
SEW 2.
SUA 2 .
PMS 2 .
SKT 2 .
PWA 3 .
LT 1 3,
MTU 3 1
KM IM 3 .
PLRM 3^
KNK 3 .
GHO 3 .
CUT 3.
SML 3.
GLI 3.
H 1 N 3 .
FID 4.
VZW 4 .
VLZ 4 .
CVA 4 .
KLU 4 .
SGAM 4.
TOA 4 .
RAGM 4 .
KA 1 M 4 .
HMT 5..
SDG 5'.
GLB 5'.
PAX 5 .
SNH 5,
WAX 5.k.
T G L 5*.
CYK 5.
BALM 6.
WRG 6 .
HDA 6 .
PN L 7 .
69

52 76 iPc
59 153 iPc
eS
52 348 i Pd
iS
54 46 i Pd
eS
07 129 iPc
eS
25 71 ePd
eS
29 28 iPd
eS
33 27 iPd
34 27 i Pd
34 27 iF'd
34 26 i P d
37 28 iPd
38 26 iPd
43 79 ePd
eS
47 26 ePd
52 31 i Pd
56 60 ePd
65 72 ePd
eS
01 337 ePd
09 22 iPd
14 26 eP
14 21 ePd
19 24 ePd
26 25 ePd
26 55 eP
31 22 ePd
44 68 ePc
72 35 iPd
96 46 iPd
97 23 ePd
13 39 ePc
20 74 ePc
29 75 eP
33 69 ePd
34 44 eP
48 50 eP
53 43 eP
62 29 eP
77 45 eP
81 62 ePd
94 70 ePc
04 65 ePd
12 61 eP
25 61 eP
34 69 ePc
57 58 iPd
59 71 eP
77 50 ePc
83 73 eP
90 78 eP
02 74 ePd
25 48 eP
49 62 ePc
54 44 eP
71 76 eP
73 73 eP
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88 77 eP
07 68 ePc
11 78 eP
12 30 eP
44 81 ePd
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> AUG 24, 1991 07h 02m 50.57± 7.28s
62.138 N ±26.4km 1.680 E ±55.8km DEPTH ,«« 33.0km (normal)
NORWEGIAN SEA (642)

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- 0.7

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SUE 1 .83

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ASK 2.37

(BER) .

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<=S 03 52.41 RAB

EGD 2.54 136 eP 03 36.46 0.1 | BRS
eS 03 56.65
MOL 2.77 78 eP 03 33 . 38 -0.1
eS 04 Pi . 74
ODD1 3.28 131 eP 03 40. J4 -0.6
eS 0414.55
K MY 3. 42 148 iP 03 42.84 0.0
eS 04 1 7 . 82
S . D . = e . 6 on 9of Cobs.
_____ _ __ .| _ __
? AUG 24, 1991 07h 1 7rr, 0 8 . (l 1 ± 5.81s
45.636 N ±37. 6km 9.916 E ±28. 3km
DEPTH = 1C. Okm (ge ophy s i p i s t)
NORTHERN ITALY (545)

TMA 0.87 303 ePc 1 7 25.140 0.5
VOL. 0.91 340 ePc 17 25.10 -0.5
OSS 1 . 06 8 ePd 17 28 .50 0.3
MMK 1.43 288 ePc 17 34.00 -0.3
SUE 2.34 336 ePd 17 52.60 5.3X
S.D. = 0.8 on 4 of 5 obs .

? AUG 24, 1991 07h 38m 19.57± 4.17s
10.762 N ±21. 4km 62.325 W ±29.7Jm
DEPTH - 5.0km (geo phy s i c i s t)
NEAR COAST OF VENEZUELA (97)
MD 3 .2 (TRN) .

TCE 0-56 90 eP 38 30
eS 38 47
TRN 0.91 93 eP 3836
eS 38 57
TPP 0 . 94 1 1 4 eP 3837
TBH 1 . 26 1 00 eP 3844
eS 39 13
TPR 1 .59 72 eP 38 49
BOT 1.64 74 eP 3852

. 58 -0.3
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. 02
. 71 -0.3
. 14 0.8
. 09
. 29 0.8
. 20 3 . 0 X
SVB 2.76 22 eP 39 05.07 -0.3
eS 39 47 . 35
S.D. =0.8 on 6of 7obs

& AUG 24, 1991 07h 48m 00.50s
32. 410 N 115. 358 W

DEPTH - 6.0km (geophysilcist) CALIFORNIA-MEXICO BORDER REGION (45) <PAS-P>. ML 3 . 0 (PAS) . [

IKP 0 .68 291 eP 48 13
eS 48 22
GLA 0.78 34 i Pd 4814
BAR 1.15 284 eP 4821
eS 48 37
PLM 1.58 307 eP 48 26

PEC 2.12 315 e(P) 48 32
5 obs. associated

AUG 24 , 1991 08h 03m 1 1
14. 607 S ± 4 .9km 166.869
DEPTH = 83 .5 ± 10.2 km
5 . 3mb (37 abs.)
VANUATU ISLANDS
CENTROID, MOMENT TENSO
Data Used: GDSN
L.P.B. : 16S, 35C
Centra id Location:
Origin T i me 08:0
La t 14. 06S 0 . 07 Lon 1 6

Dep 33.7 FIX Ha I f-dur
Moment Tensor; Scole
Mr r=-0 .22 0 . 05 M t t-
Mf f =-1 . 26 0.10 Mr t-
Mr f= 1.69 0.10 M t f -
Principal Axes:
T Vo I « 1.66 P I g =
N 0.97 5
P -2.64 3

Best Double Couple:Mo=
NP1 :S t r i ke = 246 D i p = 6 1
NP2: 145 71

BKM 3.32157 iPd 04 00
PVC 3.41 156 iPd 04 02
IS 04 46
D2M 7.44 183 iPc 04 55
iS 06 21
NDF 10.64 109 eP 05 38

60 -0.6
80
30 -1.7
80 -0.6
10
70 -2.6
50 -4.5

29± 1.18s
E ± 3 . 8km

(186)
? (HRV)

3:14.9 0.6
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3 t i on 2.1
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1.48 0.08
0.30 0.11
- 0. 70 0.06

5 Azm=197
» 296
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S I i p = -1 58
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20 -4.6X

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ADE

MTN

FORR
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AFR

PAE

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COOL
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e(P)
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24d 08h

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TPC
GMW
PGC
TNP

LON
GLA
MCW
RMW
GUN

PK 1

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DMN

62.48 341 «P 1 3 28 . 80
65.63 279 eP 1 3 48 . 00
67 .97 281 ePd 14 08.80
0.6s 15.1 0nm 5
69 . 43 279 eP 1413.00
71 .93 321 eP 1 4 27 . 0e
1.0s 7 . 00nm 4
228s 1 . 39um 5

eS 23 44 . 06)
esS 24 12 . 08
eSS 28 20 . 00
72 .48 292 eP 1 4 33 . 50
73.91 302 eP 1440.50
1.5s 50 . OGnrr, 5
74.05 293 e P 14 44.00
74 . 67 294 eP 1445.00
0.8s 19 . 59nm 5
77 .95 312 eP 15 03 .50
2.0s 56 . 00nm 5
81.15 17 eP 1522.40
0.8s 21 . 90nm 5
81.50 1 9 eP 1519.60
81.78 343 eP 1521.50

i pP 1551.00
ePPP 20 20.00
e 25 32.00
eSKS 25 37.00
iScS 25 42.00
81 .85 202 eP 1 5 23 . 60
0.9s 16. 00nm 4
82.35 20 eP 15 23.80
82.51 16 P 1526.80
1.0s 1 1 . 50nm 4
83.51 20 eP 15 31 . 00
0.9s 27 . 20nm 5
84.15 49 eP 1 5 35 . 69
84 .25 50 i PC 15 34 . 97
84 .35 45 i PC 1536. 93
84.40 49 ePc 15 36.10
eLO 37 36.00
eLR 41 32.00
84. 44 50 i PC 15 36 . 36
84.51 21 P 1 5 36 . 60
84.55 50 iPc 15 37.06
84.71 49 P 1537.70
84 .82 53 eP 1539. 00
84 .86 20 eP 1539. 20
84.90 51 eP 1540. 08
84.98 52 P 15 39 . 60
85 .47 22 eP 1540. 30
85.52 52 P 15 40 . 60
85.59 47 i PC 1541.43
85.63 15 e(P) 15 43.10
85.81 49 i PC 1542.80
85.82 47 iPc 15 43.69
85.93 50 iPc 15 43.30
86 .08 53 eP 1545. 00
86.20 53 eP 15 45 . 00
86. 35 18 eP 1 5 45 . 30
0.8s 24 . 66nm 5
86. 38 52 eP 15 45 .00
86. 48 53 P 15 46 . 30
86 .54 53 eP 1 5 36 . 00
86.65 54 eP 15 47 00
86. 76 55 eP 15 48 . 00
86.78 54 ePc 15 46 70
86.84 55 eP 15 49.00
87.10 52 eP 15 49. 00
87 . 32 50 P 15 49 . 70
87 .53 53 eP 15 56 . 00
87.72 41 P 1553.40
87 .72 54 eP 1553. 00
87 .92 40 P 15 53 . 00
87.97 38 eP 1554.00
88. 16 50 eP 15 53 80
0.6s 4.17 nm 4
88.21 41 P 1 5 54 . 00
88 .35 55 *P 15 56 00
88. 36 39 P 15 56 . 70
88. 49 40 P 15 54 . 90
89 . 00 299 P 1 5 58 . 88
0 . 9s 47 . 00nm 5
89. 30 299 P 16 00 . 28
0.8s 27 . 00nm 5
89.47 299 P 16 02.00
0.8s 56 . 00nm 5
89.57 299 P 16 01 . 92

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GKN

PNT

DPW
NEW

MSU
GBA

NVL

PV09
LCCM
SNA

BW06

ALO

SES
GOL
YKA

CCH
KEV

SOD

SI V
OBN

KAF

MTD
BUL
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PPD
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NB2

HFS

BSD

VR I

COP

MLR
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SPC

KSP

BRG

CLL

SRO

PRU

ZST
MOX

KHC

WTS

0.8s 49.00nm 5.7mb e 22 31.50
90.08 299 P 16 03.38 -0.3 SKO 139.59 319 ePKP 22 25.00 -6.2X
0.8s 30.00nm 5.6mb i 22 32.50
90.56 39 eP 16 65.00 -0.2 GRF 139.76 336 ePKP 22 26.00 -5.3X
0.8s 18.00nm 5.4mb 1.5s 4.00nm
90.90 41 P 16 07.10 0.2 e 22 32.80
91.72 40 ePd 16 10.10 -0.6 PTJ 140.37 328 ePKP 22 28.40 -4 . 2X
0.8s 20.83nm 5.6mb OHR 140.45 319 ePKP 22 29.20 -3.6X
92.06 51 P 16 12.40 -0.3 DMU 140.49 354 ePKP 22 30.00 -2.4X
92.82 283 P 16 22.00 5 7X ENN 140.77 341 ePKP 22 29.50 -3.5X
0.8s 5.80nm 5.0mb 0.8s 23.00nm
93.12 188 ePc 16 17.00 0.3 c 22 34.50
e 16 32.00 KBA 140.8? 331 iPKPc 22 29.00 -4 . 5X
e 1 6 54 00 1.0s 30 . 60nm
94.35 52 eP 16 2C.50 -0.8 i 22 34.60
94.37 44 eP 16 23 2 >? 0-1 MEM 140.89 341 PKP 22 30.40 -2.8X

94.96 184 i.Pc 16 25.00 -0.2 LJU 140.99 329 e(PKP)22 29.00 -4.6X
1.0s 64.00nm 6.0mb VBY 141.00 328 ePKP 22 29.50 -4 . 1 X
95.15 47 P 16 27.50 0.7 e 22 34.50
0.6s 1.12nm 4.5mb DCN 141.08 354 ePKP 22 29.50 -4.0X
95.55 55 eP 16 29.00 0.2 1.0s 81.00nm
1.0s 3.50nm 4.8mb CEY 141.26 329 ePKP 22 31.00 -3. IX
Z 20s 0.27um 4.7Msz VOY 141.31 330 ePKP 22 28.90 -5.4X
96.16 40 eP 16 31.00 0.0 WTTA 141.46 333 iPKPd 22 32.60 -2.0
97.48 51 e(P) 16 37.50 0.0 1.0s 42.30nm
97.62 27 eP 16 35.20 -2.0 i 22 35.20
0.7s 4. 80nm 5. 1mb i 22 51 .90
118.80 119 PKP 22 01.00 8.3X e 24 21.00
119.51 345 ePKP 21 52.00 -0.1 k 26 13.00
0.7s 18. 70nm i 26 1 4 . 20
121.27 343 iPKP 21 36.30 -19. 2X RIY 141.55 328 ePKP 22 35.20 0.6
i 21 56.80 ETA 141.61 353 ePKP 22 37.70 3.3X
123.72 121 PKP 22 01.00 -0.8 TRI 141.61 329 PKP 22 35.80 1.1
124.38 328 iPKPc 22 02.50 0.6 WLF 141.65 340 iPKPd 22 29.87 -4.7X
1.1s »»»*»»» nm i 22 39.70
Z 22s 0.60um 5.2Msz GWF 141.72 338 PKP 22 31.86 -3.0
e 22 13.00 DOU 141.78 342 PKP 22 32.40 -2.4X
LR 1248.00 e 2614.80
124.94 339 iPKP 22 01.80 -1.0 Wl 142.06 331 PKP 22 35.60 0.1
0.5s 21.50nm ECP 142.13 353 ePKP 22 32.30 -3.0X
125.95 236 ePKP 22 05.70 -0.6 0.5s 40 . 00nm
126.36 231 ePKP 22 04.90 -2.2 CDF 142.32 338 PKP 22 32.79 -3.2X
126.61 338 iPKP 22 05.60 -0.5 CTI 142.37 331 PKP 22 34.10 -2.1
0.9s 87.90nm FEL 142.48 337 PKP 22 34.18 -2.2

127.78 133 (PKP) 21 58.00 -11. 5X ECH 142.52 338 PKP 22 32.68 -3.6X
129.51 340 iPKP 22 13.00 1.4 VITF 142.95 339 PKP 22 33.47 -3.5X
130.41 345 PKP 22 13.80 0.4 BSF 142.98 338 «PKP 22 34.70 -2.4X
0.9s 20.70nm 1.1s 29 . 30nm
130.49 343 ePKP 22 13.60 0.1 HAD 143.00 338 ePKP 22 34.90 -2.2
1.0s 20.10nm 1.0s 28.00nm
Z 22s 0.34um 5.0Msz 2 22s 0 . 30um 5.0Msz
LR 07 53.00 BBS 143.01 337 PKP 22 34.61 -2.5X
134.11 338 iPKP 22 20.50 0.0 LOMF 143.37 337 PKP 22 35.97 -1.8
0.8s 15.00nm ARV 143.58 327 PKP 22 37.50 -0.7
134.31 321 ePKP 22 22.00 0.8 SOBl 143.70 129 ePKP 22 35.60 -3.6X
e 30 46 . 00 e 22 40 . 1 0
134.52 340 iPKPc 22 24.50 3.3X e 23 35.30
0.8s 26.87nm SF I 143.84 329 PKP 22 37.40 -1.1
134.97 321 ePKP 22 23.00 0.3 PGD 143.93 329 PKP 22 37.40 -1.6
135.60 330 ePKPd 22 24.50 1.0 DU 1 143.99 324 PKP 22 38.30 -0.7
136.02 329 iPKP 22 25.60 1.0 ROI 144.00 319 PKP 22 37.20 -1.8
c 25 53.10 CRE 144.00 328 PKP 22 37.10 -1.9
136.75 333 ePKP 22 17.20 -8.5X ASS 144.02 327 PKP 22 37.10 -1.9
1.1s 33.00nm CS I 144.05 320 PKP 22 37.40 -1.7
i 22 27.60 IDS 144.09 320 PKP 22 37.80 -1.3
e 25 54.60 MMN 144.17 320 PKP 22 39.60 0.4
137.73 335 ePKP 22 20.50 -7 . 0X SCO 144.18 322 PKP 22 37.20 -2.0
e 22 28.40 MME 144.20 330 PKP 22 38.20 -1.3
iSKP 26 03.40 MGR 144.29 321 PKP 22 37.00 -2.5X
137.78 336 iPKP 22 28.30 0.7 ORX 144.31 334 PKP 22 37.33 -2.2
1.1s 41.00pm SDI 144.32 324 PKP 22 37.80 -1.7
iPKS 26 02.90 BDI 144.35 330 PKP 22 37.60 -1.9
137.89 328 ePKP 22 28.60 0.7 AC! 144.35 319 PKP 22 38.80 -0.8
e 25 56.00 BOB 144.35 332 PKP 22 38.10 -1.4
138.14 333 ePKP 22 28.00 -0.3 FLN 144.38 346 ePKP 22 38.30 -1.0
0.7s 9.60nm 0.6s 27.05nm
e 22 31.50 Z 20s 0.17um 4.8Msz
ePP 25 59.00 LDF 144.45 345 ePKP 22 38.60 -0.9
138.23 330 ePKP 22 29.40 0.9 0.6s 39.70nm
138.85 336 ePKP 22 30.00 0.4 CZ 1 144.47 319 PKP 22 37.80 -2.0
1.3s 22.00nm RFI 144.49 324 PKP 22 40.65 0.9
139.20 333 PKP 22 29.50 -0.8 0.8s 18.50nm
1.0s 14.30nm LOR 144.49 340 ePKP 22 39.10 -0.5
i 22 34 . 00 1.0s 62 . 50nm
PP 26 05.50 Z 22s 0.25um 4.9Msz
139.43 341 «PKP 22 26.00 -4.5X GR 1 144.52 318 PKP 22 38.97 -1.0
1.0s 33.00nm 0.9s 238.00nm

24d 08h

224

PI 1
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334 ePKP 22
278 . 95nm
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333 ePKP 22
335 ePKPc 22
i 22
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341 ePKP 22
341 ePKP 22
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341 i PKPc 22
344 e(PKP)22
351 i PKPc 22
334 iPKPc 22
338 ePKP 22
e 22
338 iPKPc 22
353 ePKP 22
351 iPKPc 22
342 iPKPc 22
345 iPKPc 22
344 ePKP 22
348 ePKP 22
341 iPKPc 22
338 e(PKP)22

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- 0. 2
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- 10 . 3X

- 0 . 2
- 1.0
- 1 . 2
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- 1.0
- 1.4
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. 1 Msz
1 . 9
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. 8MSZ
2 . 4
2 . 7X
2 . 4
4 . 3X
5.5X
5 . 4X

7 .0X
6 . 3X
6 .0X
6 .5X
6 . IX
6 . 2X
6 . 8X
6 . 8X
2 . 6
6 . 3X
- 3 . IX
1 . 4
2 . 4

2 1
- 3 . IX
1 . 2
1 . 6
1 . 6
1 . 1
1 . 9
1 . 6
1 . 3

EHUE 155.06 340 e(PKP)23 06.65 10. 6X
EBAN 155.12 342 i(PKP)23 06.73 10. 7X
EHOR 155.84 345 e(PKP)23 09.18 12. 2X
ECOG 155.87 341 e(PKP)23 07.77 10. 5X
EGUA 156.28 341 i(PKP)23 09.35 11. 7X
EVAL 156.42 347 ePKP 22 59.58 1.8

EJIF 157.19 344 e(PKP)23 08.31 9.5X
KIC 168.38 226 PKP 23 11.40 1.4
LIC 168.48 225 PKP 23 11.150 1.4
LKO 171.07 237 PKP 23 1 2 .'30 0.8
1.3s 40.50nm
S.D. = 1 1 on 244 of 314 obS .

1 * AUG 24. 1991 68h 35m 06.84± 1.25s
6.332 S + 9. Mm 61.050 W ± 2 0 . 5 V m

DEPTH - 33.8km (normal)
4 . 7mb (4 abs .)
NEAR COAST OF NORTHERN PERU (109)

GGP 6.59 22 P 36 43.70 -0.8
OUR 6 . 62 22 eP 36 47. 30 2.5
eS 38 02.00
YANA 6.65 22 P 36 44.10 -1.2

PT10 6.98 145 e(P) 36 50.00 0.5
eS 38 24. 00
NNA 6.99 144 eP 36 51.100 1.4
0.8s 1 5 . 67 nm
e 36 54
eS 38 22
ZOBO 16.06 129 iPd 38 52
1.0s 1 3 . 00nm
i 4348
LR 59 04
LPB 16. 23 130 P 38 54
1.0s 40 . 00nm
CNCB 16. 49 130 P 38 57
S 1 V 21 . 80 1 18 P 39 52
ALO 47.53 331 eP 43 40
FFC 63.30 347 iPd 45 35

5 . 0mb
00
00

00 -e.s
4 . 0mb
00
00
00 -0.6
4 . 5mb
00 -1.0
40 -5.8X
50 -0.8
20 0.6
0.6s 6 . 00nm 4. 9mb
WRA 136.48 232 PKP 54 27.00 -1.1X
0.8s 0 . 80nm
S.D. =1.4 on 10 of 12 obs .

_ ______ _ - _________

? AUG 24, 1991 08h 41m 31.|82± 6.01s
32.591 S ±37. 4km 71.737 W ±36. 3km
DEPTH = 33.0km (normal)
NEAR COAST OF CENTRAL CHILE (135)

ROCH 0.72 122 iPd 41 44.170 -1.0
iS 41 54. 00
LCCH 0.89 171 eP 41 48.00 0.0

iS 41 58,70
JACH 0.97 96 eP 41 49.50 0.3
iS 42 02.50
PEL 1.04 122 eP 41 50.10 -0.1
i S 42 03J60
TACH 1.25 148 iPc 41 52.70 -0.4
LNV 1.39 169 eP 41 54.80 -0.2
PCH 1 . 45 135 i P 41 56. 90 0.8
iS 42 14 J40
CHCH 1.62 146 iP 41 59J20 0.7
S.D. =0.7 on 8af

& AUG 24, 1991 08h 52m 02.
60 . 374 N 1 52 . 861
DEPTH = 126.7km
SOUTHERN ALASKA
<AE 1 C> .

RED 0.06 44 ePc 52 18
eS 52 31
RS1 0.10 31 ePc 52 19,
RS2 0.10 30 ePc 52 19
RSO 0.10 31 eP 5219
eS 52 33
ROW 0.11 13 ePc 52 19 .

8 abs .

38s
W

(2)

81 0.5
88
52 1.0
48 1.0
39 0.9
41
46 0.9
REF 6 14 34 ePc 52 19J26 0.7
iS 52 33
RDN 0.15 1 9 ePc 5219
DFR 0.24 22 eP 5219
eS 52 32
RDT 0.30 48 iPc 52 19
eS 52 33
OPT 0. 75 195 iPc 52 22
S 52 37
NNL 0.85112 ePc 52 23

01
14 0.6
17 0.5
45
46 0.6
50
29 -0.8
89
39 -0.5

CKL 0.86 1 7 i Pd
eS
NKA 0.88 65 ePc
PDB 0.89 229 «Pc
eS
SPU 0.90 26 i Pd
BGL 0.92 14iPd
HOM 0.94 1 39 i PC
CRP 0.96 21 ePd
CGLM 1.03 24 i Pd
AUL 1 . 04 1 96 eP
AUW 1.05 197 ePd
AUP 1.05 196 eP
NCG 1.09 1 8 eP
CNPM 1.18 135 i PC
SLkM 1.32 83 eP
MCNL 1.41 213 ePd
CDD 1 . 50 196 eP
SUA 1.51 42 i Pd
SVW 1.54 300 i Pd
SEW 1.72 98 eP
SKT 1.74 2liPd
SY I 1.79172 ePd
PMS 1.84 60 ePc
PWA 1.94 47 eP
PLRM 2.19 54 eP
GHO 2.37 52 ePc
CUT 2.39 30 eP
LT 1 2.52 95 ePc
KNIM 2.55 88 eP
SML 2.63 55 eP
MTU 2.63 96 eP
GLI 2.89 77 eP
FID 3.17 80 eP
V2W 3.17 75 eP
KLU 3.57 69 ePc

52 23 . 45
52 40.18
52 24.84
52 23 . 09
52 39 . 27
52 23 . 47
52 24.17
52 23 . 93
52 24 . 29
52 24.61
52 24 . 79
52 24 . 96
52 25.73
52 25 . 36
52 25 . 79
52 26 . 92
52 28 . 26
52 29 . 26
52 29 . 72
52 29 . 88
52 31.40
52 32 . 20
52 32 . 20
52 32 .83
52 34 . 08
52 36.11
52 38 . 95
52 40.22
52 40.41
52 39 . 92
52 41.96
52 42.57
52 45.16
52 49 . 34
52 48 . 43
52 54 . 09

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0 . 7
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- 1 0

- 0.5
- 0 8
- 0 8
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- 0 . 9
- 1.3
- 1.7
- 1 . 3
- 1 . 4
- 1.1
- 1 . 3
- 1 .8
- 1.2
- 1 .8
- 1 . 8
- 1 7
- 2. 9
- 2.5
- 1 . 3
- 2 8
- 37
- 2. 7
- 2 . 1
- 2 . 9
- 2 5
- 3. 5
- 3 1
45 obs. associated

AUG 24, 1991 09h 32m 41 . 99±
8 . 075 S ± 8 . 0km 122 . 440 E ±
DEPTH -= 203.5 ±11.

5 . 3mb (1 0 obs .)
FLORES ISLAND REGION

KUPT 2.36 151 ePd
eS
TRT 9 . 72 271 i Pd
MTN 9.77 120 iPd
KNA 9.82 142 iPd
0.3s 96.00nm
eS
MBL 1 3 . 25 191 eP
e
eS
KKM 15.34 336 ePd
NANU 15.86 204 eP
WR2 16.51 137 i Pd
0.5s 56 . 00nm
eS
WARB 18.45 168 i Pd
eS
OIS 20. 72 129 i Pd
e
f1 f\C^\ 99 79 1 H "^ A D
*UVt_ £. £. , 1 t. lOO r
0.4S 23 . 00nm
BAL 23.05 193 eP
0.3s 54.00nm
KLB 23 . 80 190 eP
0.4s 43 . 00nm
MUN 24.48 193 eP
NWAO 25.20 190 eP
0.5s 24.00nm
RKG 26.84 190 iPc
0.4s 32 . 00nm
OLP 27.69 134 eP
e

STK 29.64 146 i Pd
0.6s 1 0 . 20nm
iPcP
ADE 30.65 153 e(P)
RMO 30.98 129 eP
e
CMS 31.90 1 40 eP
eS

BFD 34.24 151 e(P)
e
COO 35.48 133 eP

0 km

33 27 . 50
33 55 . 00
34 54 .20
34 56.80
34 57.10
5
36 4 1 .00
35 42 . 00
35 48 . 00
38 07.00
36 12.70
36 14.70
36 21.10
5
39 16 . 30
36 44 . 70
40 07 . 00
37 07 . 80
40 56.00
37 27 . 20
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37 31 . 00
5
37 37 .50
5
37 44 . 00
37 50 . 60
5
38 06 . 70
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38 13.70
43 50.00
38 30.20
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41 29 .00
38 39.80
38 52.00
39 44.00
38 49 . 00
39 36.00
39 1 1 . 00
40 29.00
39 22.50

1.12s
8.9km

(286)

2. 6

- 4. 3X
- 2. 4
- 2 . 7X
. 7mb X

- 1 . 6

3. 1X
- 1 .2
- 2 . 7X
. 2mb

- 0.2

- 0.2

- 0.2
1mb
0.5
6mb
- 0.2
*mb
0. 0
0.0
1mb
1 .2
4mb
0.4

- 0.3
7mb

0. 4
9 . 7X

- 1 .3

0.7

1 .5

225

24<J 09h

DZM 44.54 113 iPc 40 34.20 -1.3
GBA 49.60 295 Pd 41 13.70 -1.1
0.7s 6 . 60nm 4 . 2mb X
HYB 50.22 301 ePc 41 18.90 -0.7
GUN 56.29 317 P 41 26.66 0.3
0.6s 11600 nm 55mb
PK 1 50 . 40 3 1 6 P 412106 -0.1
0.5s 58 00nm 5. 3mb
KKN 5 0 . 6 2 3 1 6 P 4122.80 0.1

0.7s 82''ijnm 54mb
DMN 50.63 316 P 41 22.76 -0.1
GKN 51 . 2« 316 P 4127.04 0.1
OBN 94.18 325 *P 45 39.00 0.5
Y K A 111.94 25 ePKP 50 52.50 -1.4
0.6s V i W n m
PPD 149.46 191 e f K P 52 03.50 5. IX
CNCB 153.21 157 PKP 52 13.00 2.3
i 52 30.00
CCH 153.32 161 PKP 52 14.60 4. IX
ZOBO 153.65 157 PKP 52 12.00 0.7
SIV 155.84 172 PKP 52 14.60 1.0
S . D . -1.1 on 31 of 38 obs .

AUG 24. 1991 I0h 25m 49.40± 0.52s
6.032 S ± 7.6km 101.700 E ±10. 3km DEPTH = 33.0km (normol)
4 . 8mb (4 obs .)
SOUTHWEST OF SUMATERA (273)

KGM 8.16 11 ePc 2747.10 -1.4
PSI 9.10 342 ePd 27 57.80 -3.7X
IPM 10.56 356 eP 28 19.30 -2.3
KKM 18.81 51 eP 30 08.80 -0.1
NST 21.62 356 eP 30 39.00 0.2
BDT 23.28 353 eP 30 55.50 0.3
LOE 23.29 0 eP 30 56. 50 1.2
CHG 24.84 354 eP 31 10.70 0.4
1.3s 1 9 . 23nm 4 . 5mb
KM 1 30.98 2 eP 3208.00 1.7
WR2 34.61 117 iPc 32 37.10 -0.7
0.8s 15 30nm 5 . 0mb
PK 1 36.93 336 P 32 58 . 14 0.5
GUN 37.04 336 P 32 59.56 0.9
DMN 37.09 335 P 32 59.30 0.4
KKN 37.18 336 P 32 59.62 0.0
GKN 37.63 335 P 33 03.88 0.5
LZH 41.94 3 eP 33 39.00 0.0
1.8s 32 . 00nm 4 . 7mb
sP 33 49.00
STK 45.25 130 i Pd 34 05.70 0.0
0.9s 11. 40nm 4 . 8mb
iPcP 35 45.00
CTAO 45.43 112 iPd 34 08.00 0.7
CMS 48.39 127 iPc 34 30.80 0.4
YAK 71.21 14 iPc 37 06.50 -0.4
BUL 72.09 251 i Pd 37 11.40 -1.7
OBN 81.07 328 IP 38 02.50 0.0

e 38 13. 00
PNJ 145.08 355 iPKP 45 25.20 -0.1
GMTN 145.11 355 iPKP 45 24.90 -0.5
SIV 152.26 218 PKP 45 43.20 5.9X
CCH 153.82 207 PKP 45 43.20 3.4X
S D . =0.9 on 23 of 26 obs.

AUG 24. 1991 llh 13m 19.75± 0.12s 6.065 S ± 2.9km 130.368 E ± 3.7km DEPTH = 148.6km (4 depth phases) 5 . 6mb (32 obs .)
BANDA SEA (280)
CENTROID, MOMENT TENSOR (HRV)
Doto Used: GDSN
L.P.B.: 20S. 48C
Centra id location.
Origin Time 11:13:20.804
Lot 5.82S 0.03 Lon 130. 60E 0.03

Dep 111.5 1 1 Ho 1 f-du ra t i on 2.7
Moment Tensoi ; Scole 10»*17 Nm
Mrr- 2.77 0.10 Mtt=-5.12 0.14
Mff = 2.35 0.18 Mrt=-0.47 0.10
Mr f- 1.74 0.10 Mt f = 0.25 0.13
Principal Axes:
T Val= 4.31 Plg=49 Azm=268
N 0.85 41 96
P -5.17 4 3

Best Double Coup 1 e : Mo = 4 . 7 * 1 0 * » 1 7 NP1:Strike- 58 Dip=55 S I i p= 36

AA I

MTN
KUPT

KNA

JAY

DAV
WR2

B I P
MDG
TSM
LAT
PMG

OIS

TRT

M8L

KKM

WARS
CTAO

NANU
RAB
GUA

PJG
OLP

BAG

FORR

CVP
COOL

RMO

BAL

STK

K LB

KGM
MUN

CMS

NWAO

Z

HNR
ADE

RKG
I PM

NP2: 305 61 139

3.20 317 ePd 14 07.50 -2.7
eS 14 38 . 90
6.78 174 i Pd 14 51.10 -6 . 9X
7 .83 238 ePc 15 10.60 -1.5

e (S) 16 40.50
9.75 189 iPd 15 30.70 -6 . 9X
eS 1711.00
10.89 72 i PC 1544.20 -8 . 5X
iS 1746.60
13.91 340 eP+ 16 27.20 -4.6X
14.34 165 iPc 16 28.30 -8.8X
0.8s 644 . 1 0nm 6. 0mb
eS 1857.10
14.78 344 fcPd 16 39.00 -3.7X
15.36 88 eP 16 48 . 20 -1.7
16.17 309 eP 16 55.00 -5.0X
16 .54 93 iPc 1704.50 0.0
16.96 102 eP 17 06 . 00 -3 . 7X
0.9s 285.71nm 5. 6mb
16.97 149 eP 17 02.50 -7.2X
iS 20 04 . 00
17.68 264 ePd 17 11.10 -7.2X
0.9s 585.60nm 5. 9mb
18.15 213 eP 17 20.00 -3.5X
eS 20 26 . 00
18.55 310 ePc 17 26 . 20 -1.8
0.4s 1l2.40nm 5. 5mb
i 1737.50
20.32 190 iPd 1745.19 -1.0
20.80 134 iPd 17 50.20 -0.7
i 18 05.00 67krr,X
i 1817.00
eS 21 30 . 09
21.77 220 eP 18 00.00 -0.5
21.79 86 iP 1800.00 -0.8
24.25 36 eP 1823.80 -0.6
0.8s 382.09nm 6.0mb
24.26 36 eP 18 23. 50 -1.0
24.31 149 iPd 18 24.70 -0.3
i 18 37.70 53kmX
i 20 47 . 00
i 2254. 00
24.34 337 eP 18 25.00 -0.5
eS 22 32 .00
24.75 185 iPd 18 28.00 -1.0
eS 23 06.00
25.08 340 ePd 18 32.00 -0.2
26 . 1 6 1 98 eP 18 40 . 50 -1.6
0.3s 35 . 00nm 5 . 5mb
eS 23 32 . 00
26.83 141 iPd 18 57 . 00 8.8X
i 1 9 28 . 00 1 49km
i 24 1 1 . 00
i 27 03.00
27 .58 206 eP 18 53 . 60 -1.3
0.4s 72 . 00nm 5 . 7mb

e 1 9 26 . 00 1 56km
eS 24 05 . 00
27 .75 159 iPd 18 55 . 10 -1.3
0.3s 32.70nm 5. 5mb
e 1919.4011 2kmX
eS 24 06 . 50
28.01 203 iPc 1857.60 -1.1
0.5s 1 3 1 . 00nm 5 . 9mb
eS 2412.00
28. 18 286 eP 18 58. 50 -1.9
28.98 205 eP 19 06 . 00 -1.5
0.8s 1 26 . 00nm 5 . 7mb
e 19 43.00 180kmX
eS 2419.00
29.14 152 eP 19 08.00 -0.9
i 19 45.00 180kmX
i 24 47 . 20
29. 39 203 i PC 1910.00 -1.1
0.4s 41.00nm 5. 5mb
20S 2 . 40um 4 . 8Msz
e 19 37.00 125kmX
eS 24 00.00
29 . 49 98 eP 1910.00 -2.2
29.77 166 iPc 19 13.90 -0.6
0.5s 380.28nm 6. 4mb
30.94 202 eP 19 24.70 0.0
31.15 289 ePd 19 25. 40 -1.4
0.7s 32.80nm 5. 2mb
e 2220.10

COO

PS 1
BFD

CNB

LOE
NST
KAGJ
KHT
SSE

DZM
KUMJ
BDT

CHG

TAU
SHNJ
SHNJ
TKSJ
WKYJ
YONJ
TSRJ
1 1 DJ
CHJ J
MTMJ
KAK J
N 1 1 J
YAMJ
OFUJ
AOMJ
BJ 1

LZH

MRRJ
HOOJ
MSZ
KUSJ
ASAJ
KUZ
EWZ
LTZ
KHZ
URZ
MCO

HBZ
NOZ
GUN
PK 1
KKN

31 . 68 1 43 i PC 1931.70 0.4
1.1s 82 . 00nm 5 . 4mb
e 2530. 00
e 2623. 00
32.58 285 iP 19 37.60 -2.2
32.90 162 iPd 19 42.00 0.3
i 2044.0031 8kmX
i 26 1 5 . 00
33. 96 152 eP 1950.00 -1.0
i 195190 7 kmX
e 2648. 00
i 3326.00
36. 66, 310 i PC 20 13.00 -0.9
36. 92 306 eP 20 15 . 50 -0.5
37 . 04 1 eP 2010.90 0.0
37.70 304 iPd 20 2 4 . f 0 1.3
37.98 347 Pd 20 24.50 -0.2
0.8s 20 . 00nm 4 . 9mb
2 20s 1 . 00um 4 . 6Msz
N 14s 1.1 0um
E 14s 1 . 10um

pP 20 34.50 34kmX
esP 20 46.00
S 2546. 00
sS 26 00.00
38. 30 1 18 iPc 20 26 . 90 -0.8
38 . 39 IP 2027.70 -0.4
38. 69 307 iPc 20 30 . 80 0 . O
0.8s 233.60nm 6. 0mb
39.63 309 iPc 20 39.00 0.4
0.9s 85.92nm 5. 5mb
eS 26 28.00
39 . 64 1 60 i Pd 2039.70 1.3
39 . 98 1 eP 2040.10 -1.1
39.98 1 eP 20 40 . 80 -0.4
39.98 5 P 2041.30 0.0
40. 37 7 eP 20 44.80 0 . 3
41.13 4 P 20 50 . 80 0.1
41.71 7 P 2055.30 -0.2
41 . 93 9 P 20 56 . 60 -0.7
42.67 1 0 P 2101.60 -1.6
42.99 9 eP 2104.70 -1.3
43.04 1 2 P 21 04 . 90 -1.3
43 . 83 10 P 21 1 1 . 50 -1.1
44.92 IIP 21 21 . 30 0.0
46. 12 12 P 21 30. 50 -0.3
47.30 1 0 P 21 40 . 60 0.6
47.71 345 eP 21 43.00 -0.2
0.8s 24.00nm 5. 0mb
Z 20S 0 . 60um 4 . 6MS2
e 21 54.00 38kmX
eScP 26 54.50
eS 28 26.00
eScS 31 24.00
eSS 31 52.00
48.76331 i PC 21 52 . 00 0.4
2.0s 183. 00nm 5 . 5mb
Z 28s 1 . 20um 4 . 7MszX
N 12s 0 . 57um
E 12s 0 . 4 6 urn

pP 2216.001 00kmX
sP 2227.00
PcP 23 17.00
ePP 23 44.00
ScP 26 59.00
iS 28 41 . 00
sS 29 24.00
eScS 31 32.00
eSS 32 07.00
49.23 10 eP 21 54.40 -0.4
49.63 1 3 eP 2158.40 0.5
50. 50 1 46 eP 22 04.60 0.1
50.63 14 eP 22 04.70 -0.8
51.16 1 1 eP 22 08.80 -0.7
51 . 40 1 33 P 22 10 . 60 -0.9
51.51 1 43 P 22 1 2 . 80 0.6
51 . 98 1 4 1 P 2214.60 -1.2
52 . 58 1 40 P 2218.60 -1.6
53. 04 134 P 22 22 . 20 -1.4
53 . 51 160 eP 22 27 .80 1.0
0.6s 56.80nm 5.6mb
53. 63 133 P 22 27 .50 -0.4
53. 85 134 eP 22 29. 10 -0.5
54. 62 310 P 22 35.02 -0.8
54. 80 310 P 22 35.96 -1.1
55.01 310 P 22 37 .58 -0.9
0.7s 40 1 . 00nm 6 . 3mb

226

24 a

DMN

KOD
C-K'N
GBA

HYB
POO
DRV

CSV

NO !

! RK

YAK

DUE

ADK

MAW

MA 1 0

1 R4
1 R1
IR7
SVW

TAB
NPA
BHD

PMR

MSL

FBA
NVL

BALM
I NK

SLR
KR 1

BUL
SOD
KAF

NUR
YK A

YKA

SPC
NFS

LJ C C

n r ^

1 l n

55. 1,6
e.sb
55. 12
55 .61
56 . 06
1 .2s
56 . 24
60 . 83
60 . 87

61 .69
0. 5s
61.71
1 . 0s

62 . 21

67 .88

70.56

73.20
0.6s
75.95
0.6s
78.38
1 . 0s

84 .92
85t. 13
851.24
871.63
0.7s
89.02
89.52
89 . 94

90.78
0. 7s
91 . 32

91 . 99
93. 35

93 94
97 . 86

98. 19
98 . 48

98 .88
100.85
10t .90
0 , 5s
10:>.97

1 0'j . 76
fl 6s
105.76
0.5s
107 .68
103. 32
0.5s
10B.32
0.5s
2 18s

310 P 22
154. 00nm
287 eP 22
31 0 P 22
291 Pd 22
77 . 1 0nm
295 ePc 22
295 iPd 23
1 76 eP 23
S 30
189 iPd 23
53 . 70nm
367 i P c 23
1 7 0 . 00nm
eS 31
342 iPc 23
e 23
epP 23
esP 24
e 24
epPcP 25
e 26
iS 31
e 31
ePS 32
c 32
eSS 34
360 iPc 24
epP 24
ePPP 28
iS 32
305 iPc 24
eS 33
31 eP 24
33 . 50nm
201 i P c 24
41 . 09nm
309 iPc 25
54 . 50nm
eS 34
306 iPc 25
306 iPc 25
307 iPc 25
28 eP 25
49 . 42nm
308 eP 26
255 iP 26
303 ePd 26
eSKS 36
eSKKS 36
28 ePc 26
1 4 . 53nm
306 eP 26
eSKS 36
eSKKS 36
25 eP 26
197 ePd 26
e 26
e 26
e 27
e 27
e 27
e 38
e 39
e 50
29 eP 26
22 ePc 26
pP 27
243 iPd 26
252 iPd 26
i pP 26
249 eP 26
337 i Pdi f f 26
332 iPd i f f26
5 . 80nm
331 ePd i f f 26
26 ePdi f (27
1 50 nm
26 ePKP 31
1 . 70nm
320 ePKP 31
332 ePd i f f27
1.70 nm

1.30 nm
0 . 22um
LR 13

38 . 02
6
33 . 20
41 . 86
44 . 30
5
45 . 00
20.80
1 8 . 00
30 . 00
34 .80

23 .00
5
31.00
28 . 00
38 .00
51 .00
04 .00
26 . 00
20 . 00
20.00
42 . 00
56 . 00
24.00
42 00
52 .00
03 . 90
39. 00
24 . 00
51.00
21 10
22 . SO
35 90
5
52. 00
5
06 . 40
5
42 . 00
41.20
42 . 20
42 . 50
53.50
5
01.00
03 . 60
04 . 50
26. 00
45.00
06 . 30
5
09 . 50
31 .50
57 . 50
10.50
19.00
24 . 00
59 . 00
07 .00
29.00
41 .00
22 . 00
10.00
54 . 00
21 . 20
38. 70
16 . 00
41.50
33 . 90
48 . 40
40 . 40
52 . 00
56.20
5
58 . 00
19.00
5
27 . 70

45 . 80
24 . 70
5
31 . 20

4
36. 00

- 0.8
. 1mb
- 6. 3X
- 0 .8
- 1.6
. 5mb
- 2 . 2
1 .8
- 0 . 3

10 ,9X

- 1 . 7
. 9mb

0.4

9 1 kmX

0. 2
1 45km

0.0

0 . 0
. 2mb
0 . 6
. 3mb
0 .8
. 2mb

1 .6
1 .5
1 . 3
1 .3
. 6mb
1 .5
1 .6
0. 9

- 0.5
. 2mb
- 0. 4

- 1 .9
0. 4

1 6kmX

- 0 . 4

- 0. 4
1 46km
- 0.2
- 9.2X
49kmX
- 4 . 5X
- 0 .6
- 1.2
. 6mb
- 4 . 1 X
0 . 1
. 3mb
- 0 . 8

1 4 . 8X
- 1 .2
. 5mb
- 0. 4

. 8Msz

NB2

PRU
BRG

CLL
VBY
LJU
VOY
KBA

SOI
GRB2

WTTA

ARV
OGA
SF I
MME
BO I
BOB
BW06

MEM
BSF

HAU

ucc
PGF

DOU
SNF
PV09
LPG

LPL

SBF

BNI
FRF

LMR

LRG

EKA

LOR

LBF

SMF

SSF

AVF

BGF

GOL
MAF

TCF

ALO
LDF

LSF

FLN

P A F v M r

RJF

109.12
0. 6s
111.09
111.20

111.63
111 .80
112.16
1 12 59
112.67
0 . 6s

112.81
113.09

113.73
0. 4s

113.91
114.25
114.56
115 28
115.39
115.96
115.97
0.7s,

116.01
116.62
9.6s
116.83
06s
Z 20s
116.88
116.95
0.9?
117.05
117.05
117.46
117.51
0. 6s
117.51
0. 5s
1 1 7 .62
0 .6s
117.72
118.26
0 . 6s
118.43
0 . 6s
118.49
0.4s
Z 20s
118.52
0.8s
118.67
0 . 5s
Z 20s
118.72
0.6s
118.94
0 .5s
1 18.98
0. 6s
119.19
0 . 6s
119.60
0 . 5s
119.91
1 19 .92
0. 6s
120.11
0.4s
120.46
120 . 48
0 . 6s
120 . 55
0.4s
120.60
0 . 6s
Z 20s

i *> ft *7 n 1 / W . / o
0.7s
120.97
0 . 6s

333 Pdi f f
1 . 30nm
321 PKP
373 ePKP
e

323 iPKP
317 ePKP
3 1 7 ePKP
3 1 8 ePKP

27 28

31 37
31 38
32 1 2
31 38
31 39
31 39
31 40
319 i (PKP) 3 1 40
6 . 00nm
i
309 PKP

31 43
31 40

. 80

. 50
. 00
. 60
. 78
. 40
. 50
. 20
. n 0

1.
. 50
321 e(PKP)31 35.J50
e

319 i PKPc
32 . 50nm
id
i
i
315 PKP
319 i PKPc
3 1 6 PKP
316 PKP
316 PKP
317 PKP
45 ePKP
2 . 53nm
e
324 PKP
321 ePKP
1 0 . 80nm
321 ePKP
3 . 60nm
0 . 28um
325 PKP
315 ePKP
13. 1 0nm
324 PKP
325 PKP
50 ePKP
319 ePKP
1 5 . 35nm
319 ePKP
1 8 . 20nm
317 ePKP
1 9 . 85nm
318 PKP
317 ePKP
9 . 00nm
316 ePKP
5 . 48nm
317 ePKP
5 . 75nm
0 . 30um
332 PKP
4 . 60nm
321 ePKP
5 . 85nm
0 . 30um
321 ePKP
8.10 nm
321 ePKP
5 . 45nm
321 ePKP
1 2 . 65nm

321 ePKP
8 . 1 0nm
321 ePKP
20 . 40 nm
47 ePKPc
321 ePKP
4 . 95 nm
321 ePKP
6 . 30nm
53 ePKP
324 ePKP
5.40 nm
321 ePKP
4.60 nm
324 ePKP
7 . 20 nm
0 . 38um
320 ePK P
7 . 70nm
320 ePKP
3 . 60nm

31 41
31 42

31 43
31 48
35 07
31 43
31 44
31 44
31 45
31 44
3 1 46
31 46

35 1 1
31 47
31 48

31 48

31 50
31 48

31 49
3 1 49
31 51
31 50

31 50

31 49

31 50
31 51

31 51

31 52

31 51

31 52

31 52

31 52

31 52

31 52

31 54

31 54
31 54

31 55

31 56
31 56

31 5^

31 55

31 57

31 si

. po
. p0

. 60
. 1 0

. 70
. 40
. i00
. 60
. 20
. 30
. 60
. 30

. 50
. 40

. 00

. 40

4
. 03
. 80

. 70
. 30
. 30
,40

J30

. 90

40
,30

. 60

. 00

4
. 00

. 50

4
. 20

. 50

. 70

. 90

. 40

. 70
. 80

. 10

. 30
. 50

. 60

. 80

5
. 00

. 10

- 0 . 7

0.4
0 . 7

0.6
0 .8
0 . 2

0 . 0

- 0 . 4

- 0.2
- 5 . 5X

0.2

0.6
0 . 4
0. 6
- 0. 5
- 1.4
- 0.2
- 0.8

0.9
0 .0

0. 1

9Msz
1 . 8
0.0

1 .2
0 .8
1 . 2
0. 4

0. 4

0. 0

0 . 2
0.2

0.2

0.5

9Msz
- 0.2

0.7

9Msz
0 . 3

0 . 2

0 . 4

0 .2

0.9

0.0
0 .6

0.5

0.5
1 . 4

0.2

0.5

0Msz
1 . 1

0 . 9

Z 20s 0.22um 4.8Msz
GRR 121.01 324 ePKP 3l 56.50 0.4
0.6s 3 . 60nm
DMU 121.13 332 ePKP 31 56.80 0.6
0.6s 40.00nm
LPF 121.29 324 ePkP 31 57.30 0.7
0.6s 1 0 . 80nm
MFF 121.43 322 ePKP 31 57.60 0.6
0.5s 24 . 80nm
LPO 121.45 320 ePKP 31 58.20 1.1
0.6s 7 . 20nm
LFF 121.63 320 ePKP 31 58.40 1.0
0.6s 1 0 . 80nm
DCN 121.64 332 ePKP 31 57.50 0.4
EPF 122.71 318 ePKP 32 01.00 1.4
0.6s 6 . 30nm
ECR! 124.78 319 ePKP 32 05.80 2.1
ETOR 125.28 317 ePKP 32 05.80 1.1
EVIA 126.52 314 ePKP 32 08.40 1.1
GUD 126.78 317 ePKP 32 09.20 1.5
ENIJ 126.99 312 ePKP 32 09.00 0.9
EMON 127.42 322 ePKP 32 10.00 1.3
AFC 127.85 313 ePKP 32 10.00 0.1
ECOG 127.86 313 ePKP 32 10.00 0.1
EGUA 128.04 313 ePKP 32 10.70 0.6
TUL 128.35 48 ePKPc 32 11.20 0.5
0.6s 5 . 1 0nm
STS 128.47 322 ePKP 32 12.00 1.3
SCH 129.46 13 ePKP 32 13.00 0.8
EJ 1 F 129.59 313 ePKP 32 14.00 1.0
LNV 135.18 154 ePKP 32 18.00 -5.7X
KIC 135.38 273 PKP 32 10.50 -14. 2X
TACH 135.64 154 ePKP 32 17.00 -7.6X
LIC 135.66 273 PKP 32 11.42 -13. 8X
TIC 135.67 273 PKP 32 11.12 -14. IX
LKO 136.25 277 PKP 32 12.96 -13. 4X
ANT 144.12 146 iPKPc 32 39.50 -0.6X
ITB7 148.69 172 PKPd 32 53.70 6.1X
ARE 148.88 136 iPKPc 32 55.00 6.5X
UPA 150.22 83 iPKPc 32 55.80 5.6X
0.5s 171. 83nm
CNCB 150.92 142 PKP 32 54.00 2.1
i 33 00.20
BMA 150.92 1 &0 ePKPc 32 58.90 7.8X
VAO 151.00 185 ePKP 32 58.20 7.0X
i 32 58.90
e 33 06 .60
e 33 14.00
e 33 21 .80
LPB 151.05 141 iPKPc 33 00.00 8.1X
ZOBO 151.24 141 iPKPc 32 54.00 1.6
LR 25 42.00
CCH 151.56 145 PKP 32 59.20 6.7X
PPD 152.03 177 ePKP 32 53.90 1.2
e 32 59.90
e 33 1 0. 30
HOOC 152.97 94 ePKPc 32 55.24 0.6
CLMC 153.08 93 ePKP 32 55.33 0.7
SILC 153.16 96 ePKP 32 55.59 0.6
BUGC 153.39 93 ePKPc 32 55.48 0.5
HOBC 153.55 92 ePKPc 32 55.12 -0.1
SIV 155.33 153 PKP 32 59.20 1.8
BAO 158.38 184 ePKPc 33 03.00 1.7
SOB1 162.51 210 ePKP 33 06.80 1.3
S.D. = 1.0 on 186 of 219 obs.

% AUG 24, 1991 llh 15m 55.55± 2.48s 41.905 N ±25. 3km 24.500 E ± 8.9km DEPTH * 10.0km (geophy s i c i s t)
GREECE-BULGARIA BORDER REGION (363)
MD 2. 9 (THE) .

SRS 1.04 221 ePc 16 14.36 -0.9
iS 1 6 31 . 40
SOH 1.38 219 ePd 16 21.16 0.2
KNT 1.41 239 ePc 16 20.68 -0.6
i S 16 40.92
ALN 1.54 130 ePc 16 22.76 -0.3
eS 1644.48
OUR 1.62 194 ePd 16 24.84 0.7
GRG 1.84 240 eP 16 28.10 0.6
FNA 2.61 246 iPc 1 6 38 . 62 0.1
S.D. -0.7 on 7of 7obs.

* AUG 24, 1991 llh 24m 51.52± 3.37s 24.838 N ± 9.6km 122.104 E ±26. 4km DEPTH - 10.0km (geophy s i c i s t)

227

24d 1 1 h

TAIWAN REGION (243)

TWC 0.33 226 iPc 24 57.90 -0.4
T W 7. 9.54 298 «Pc 2502.10 -0.4
eS 251170
A N P 0.63 303 <iP 250450 0.2
TWO 0802i2ePc 25 08. 30 -0.2
TWO 1.28 244 <rP 25 16.00 0.6
TWF1 1 6 ' 2 W 7 * P 252080 0.1
SSt t. . 2^ 353 Pg 26 14. 90 -11. 6X
Sg 27 54 .00
'--> D = 0.5 on 6 o f 7 o b s .

» AUG 24. 1991 I2h 4lm 33 43± 1.23s
1 4 . £i ' 0 N ± b . 7 r rt. ! 1 9 669 E ± 1 7 . 6) k m
DEPTH -- 49.7 i 16 9 km
4 . 4mb (2 obs .)
LUZON, PHILIPPINE ISLANDS (249)

TGY 1.27 108 e P d 4156.00 0.9
eS 42 05 . 00

eS 42 24 . 00
SZP 311 1 4 eP 4222.50 1.2
e S 43 05.00
CVP 3."'8 33 eP 42 29.80 -0.9
eS 4315.00
PIP 3.90 13 ePd 42 31.50 -0.8
PPR 4.80 191 ePc 42 45.00 0.0
TRT 23.15 198 ePd 46 42.10 5.7X
LZH 25.75 329 eP 47 06.00 4.6X
1.0s 1 8 . 06 nm 4. 6mb
Z 16s O . ?5um 3. SMszX
WARB 41.01 170 iPc 49 13.30 -0.2
NB2 86.09 332 P 54 10.40 0.3
0.7s 1 4 0nm 4 . 3mb
S D . =1.0 on 8of 10obs.

? AUG 24 1991 14h 10m 24.57± 1.88s
4Q.178 N ±19.8lTTi 28.791 E ± 6.9km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

1 Z I 0. 55 73 ePg 10 35. 60 0.0
eSg 10 44.60
YLV 0.59 49 iPg 10 36.60 0.0
eSg 10 45.00
EDC 0.73 284 ePn 10 38.90 0.0
CTT 1.01 344 iPn 10 43.60 0.0
S.D. = 0.0 on 4 of 4 obs.

* AUG 24, 1991 I5h 23m 56.10± 0.72s 48.983 S ±14. 5km 121.608 E ±18. 0km
DEPTH = 10.0km (g e o p hy s i c i S t)
4 . 4mb (4 obs .)
SOUTH OF AUSTRALIA (437)

NWAO 16.37 347 c P 27 48.00 0.6
CSY 18.28 194 eP 28 22.90 11. 8X
0.3s 8.00 nm
BFD 19.24 60 eP 28 23.00 -0.1
STK 22.76 49 eP 29 00.90 1.4
0.9s 2 . 90nm 3. 8mb
ASPA 27.07 25 iPc 29 39.70 -0.9
1.2s 13.30nm 4. 5mb
WRA 30.73 24 P 30 25.00 11. 6X
1.1s 2 . 00nm
WR2 30.73 24 i PC 30 12.30 -1.1
1.1s 3 . 90nm 4 . 2mb
MAW 34.32 216 eP 30 44.00 -0.3
1.0s 1 6 00nm 4 . 9mb
BW06 144.42 80 ePKP 43 31 60 -2.2
1.1s 5 . 36nm
C-OL 145.63 88 ePKP 43 36. 30 0.3
1.0s 1 2 . 50nm
GLD 145.76 8 8 « P K P 4337.50 1.4
1.2s 34 34nm
E K A 146.31 302 PKP 43 37.00 0.7
1.1s 9 . 80nm
SES 146.50 67 ePKPc 43 38.40 1.6
YKA 146.76 45 e P K P 43 35.50 -1.3
0.9s 5 . 1 0nm
MEO 147.29 101 iPKPc 43 41.50 3.0X
TUL 149.79 102 ePKP 43 46.80 4.4X
1.0s 20 . 20nm
S.D. - 1.3 on 12 of 16 obs.

% AUG 24. 1991 16h 91m 59.51± 1.72s
16.496 N ±10. 3km 61.065 W ± 1 5 . 8 km
DEPTH = 33.0km (normol)
LEEWARD ISLANDS (92)
ML 2.6 (PDF) .

DEC 0.18 178 iPd 02 05.80 -0.2
S 0209. 70
SFG 0.27 208 eP 02 07.33 0.4
SEG 0.43 258 eP 02 09.42 0.3
S 0216.60
MGG 0.62 203 ePc 02 11.91 0.1
S 02 20 . 60
DOG 0.70 229 eP 02 13.03 0.0
PAG 0.75 232 eP 02 13.00 -0.7
S 02 23.50
BPA 0.93 306 eP 02 16.31 0.0
S 02 28.70
BBL 1 .05 202 eP 0218.04 0.1
S 02 31 .90
S.D. =0.4 on 8of Sobs.

? AUG 24. 1991 17h 08m 07.99± 2.60s
4.400 N ±26. 1km 76.323 W ± 1 8 . 5 km
DEPTH = 33.0km (normal)
COLOMBIA (103)
MD 2.6 (UVC) .

HOBC 0.19 103 iPd 08 14.67 0.0
eS 08 19.50
BUGC 0.51 173 eP 08 18.89 0.1
eS 08 26.70
CLMC 0.57 205 eP 08 19.91 0.2
eS 08 28.70
HOOC 0.98 199 eP 08 25.42 -0.2
ANCC 1.03 212 eP 08 26.24 0.0
S.D. -0.2 an 5of 5 obs.

? AUG 24. 1991 17h 10m 08.24± 1.65s
36.779 N ±15. 8km 3.266 W ± 7.9km
DEPTH - 10.0km (geophys i c i s t)
STRAIT OF GIBRALTAR (385)
mbLg 2 . 5 (MOD) .

EGUA 0.25 283 iPgc 10 13.50 0.0
eSg 10 16.00
AFC 0.52 335 iPgd 10 19.00 0.1
eSg 10 25.60
ECOG 0.55 334 iPgc 10 19.40 -0.1
eSg 1 0 26 . 40
ENIJ 0.87 77 ePg 10 25.00 0.0
eSg 10 37 .00
S.D. -0.2 on 4of 4 obs.

AUG 24, 1991 17h 45m 23.35± 0.36s
38.441 N ± 7.6km 75.213 E ± 8.5km
DEPTH - 33.0km (normol)
4 . 7mb (1 9 obs .)
SOUTHERN XINJIANG, CHINA (321)

NDI 9.87 170 iPc 47 47.00 0.9
0.5s 52 . 82nm 6 . 0mb X
IS 49 32. 50
OUE 10.69 222 iPd 47 55.10 -2.4X
eS 49 57.30
MAIO 12.69 265 eP 48 18.00 -6.3X
0.9s 8.53nm 4. 8mb
eS 50 41 .00
GKN 13.05 140 P 48 28.10 -1.1
0.8s 145.00nm 6.1mbX
KKN 13.55 139 P 48 34.10 -1.8
0.6s 90.00nm 5. 8mb X
DMN 13.61 140 P 48 35.16 -1.5
GUN 13.77 137 P 48 38.12 -0.8
PK 1 13.80 139 P 48 37 . 34 -1.9
HYB 21.15 171 eP 50 10.60 2.7
1.0s 50 . 00nm 4 . 9mb
TAB 22.65 278 eP 50 25.00 2.1
LZH 22. 87 87 eP 50 26 . 70 1.6
1.5s 57.00nm 4. 8mb
pP 5037.50 42kmX
PP 51 04.00
eS 54 42.00
IRK 24.48 46 eP 50 41.80 1.4
e 5047. 00
e 5111.00

APPP 51 5 * *,R

eS 55 12.00
GBA 24.82 175 Pd 50 45.70 1.9
0.8s 9.00nm 4. 4mb
CHG 28.43 127 eP 51 21.00 3.9X
1.1s 12.66nm 4. 5mb
OBN 30.76 315 eP 51 40.00 2.5X
e 52 55.00
e 53 09.00
LR 04 20.00

BJ 1 31.57 74 (P) 51 46 . 00 1.2
Z 16s 0 . 58um 4 . 3MszX
KAF 37.90 325 eP 52 40.10 1.4
NUR 38.29 322 eP 52 40.20 -1.8
SOD 39.47 333 eP 52 52.00 0.2
SPC 40.27 304 eP 52 58.30 -0.6
KSP 42.62 307 eP 53 17.00 -0.9
PRU 43.85 306 eP 53 32.50 4.6X
KHC 44.61 305 P 53 33.00 -1.1
e 53 38.00

CLL 44.62 308 e(P) 53 35.00 0.9
1.2s 10.00nm 4. 6mb
NB2 44.89 322 P 53 34.60 -1.7
0.5s 2.40nm 4. 3mb
MOX 45.59 307 e(P) 53 48.00 6.1X
GRF 46.02 306 eP 53 44.60 -0.6
1.0s 7 . 00nm 4 . 5mb
BSF 49.30 304 eP 54 09.90 -1.1
0.8s 5 . 35nm 4 . 6mb
LPG 49.99 301 eP 54 19.70 3. IX
1.0s 8 . 00nm 4 . 7mb
LPL 50.00 301 eP 54 19.20 2.6X
1.0s 6 . 00nm 4 . 6mb
AVF 51.84 304 eP 54 31.70 1.4
0.8s 6.70nm 4. 7mb
EKA 53.23 316 P 54 39.00 -1.5
0.8s 3.70nm 4. 4mb
DMU 55.75 315 eP 55 02.00 3. IX
DCN 56.15 314 eP 55 02.00 0.2
MBC 65.21 4 ePc 56 02.40 -0.7
0.8s 21 . 00nm 5 . 3mb
1 NK 71.41 1 1 eP 5641.00 -0.7
PMR 74.03 20 eP 56 59.00 1.9
1.0s 10. 00nm 4 . 8mb
BALM 76.24 18 eP 57 01.20 -8.8X
K 1 C 78.21 269 P 57 21.20 -0.3
YKA 79.10 5 eP 57 24.90 -0.6
1.0S 6 . 30nm 4 . 6mb
WRA 80.26 125 P 57 33.00 0.6
0.9s 2 . 30nm 4 . 2mb
FFC 87.17 358 eP 58 07.00 0.0
0.8s 8 . 00nm 5 . 0mb
SES 91 . 37 4 eP 58 27.00 0.0
PNT 91.64 10 eP 58 29.00 0.8
NEW 92.98 8 eP 58 34.30 -0.2
0.8s 9 . 1 7nm 5 . 3mb
S . D . - 1 . 3 on 35 o f 45 obs .

% AUG 24, 1991 17h 51m 17.54± 1.02s
61.766 N ± 8.9km 5.337 E ± 7.0km
DEPTH - 10.0km (gea phy s i c i s t)
SOUTHERN NORWAY (535)
MD 2. 7 (BER) .

FRO 0.22 268 IP 51 21.94 -0.3
FOO 0. 22 220 iP 51 24. 02 1.8
HYA 0. 73 146 iP 51 33.68 1.9
iS 51 47 .66
SUE 0.76 202 iP 51 32.06 -0.4
i S 51 44 . 46
ASK 1.29 183 eP 51 40.91 -0.5
eS 52 00.22
BER 1.39 180 iP 51 43.26 0.4
iS 52 02.62
EGD 1.50 182 IP 51 43.70 -0.8
IS 52 05 . 27
ODD1 1.97 161 iPc 51 51.16 -0.1
eS 52 17.68
KMY 2.56 181 eP 51 58.18 -1.6
eS 52 29.48
RGS 2.69 60 cPg 52 02.00 0.4
eSg 52 39.00
HFS 4.39 108 eP 52 24.90 -0.8
0.1s 0 . 70nm
S.D. -1.2 on 11 of 11 obs .

& AUG 24, 1991 18h 00m 33.30s
40 snft KI loc c,oa w

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24d 18h

DEPTH - 6.0km
4.0mb (2 obs .)
OFF COAST OF NORTHERN CALIFORNIA(34) <BRK>. ML 4.1 (6RK).

FOX

FHC

WDC

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BKS

PCC
GCC
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CMS
KMOR

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GMO
VBEM
TDH
PRS
LLA
NLO
VLMM
CROR
VFP
VLL
RVW
LVP
MTMW
BMW
VTHM
FL2
J LK
SHW
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KOSW
GL2
LMW
CPW
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REMR
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MEW
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0.5s 7.08nm 5. 4mb X
MCMT 10.96 63 eP 83 13.08 -0.9
SES 14.64 43 eP 64 03.00 0.2
ALO 16.87 1 83 eP 8433.
8.9s 3.78nm
FFC 21.64 41 iPd 0527.
1.1s 1 9 . 80nm

81 obs. (associated

% AUG 24 , 1991 1 8h 15m 30 .
44 . 605 N ± 5 . 2km 8 . 076
DEPTH = 10.0km (geophysi
NORTHERN ITALY

ML 2 . 0 (GEN) .

6 1.3
3 . 5mb
£0 0.9
4 . 4mb

£'7± 0.66s
E ± 4.7km
cist)
(545)

PCP 0.34 101 P 1538.12 8.1
S 15 42 . is
ROB 0.34 205 P 15 38. d2 -0.1
S 15 41 .$1
FIN 0 . 41 166 P 15 39 . 15 -0.2
S 1544.^7
ENR 0.60 231 P 15 43. $2 0.4
S 1550.81
BHB 0 . 63 292 P 1543.74 0.2
S 1551.43
STV 0.65 236 P 15 43.86 -0.2
S 1551.94
PZZ 0.70 262 P 15 44.79 -0.2
S 15 53.79
IMI 0.71191P 1545.67 0.1
RSP 0 .80 31 3 P 15 46 . 43 -0.1
S 1557.19
S.D.=0.2 on 9of 9 obs .

? AUG 24, 1991 18h 19m 52 . 55± 0.82s
32.549 S ±20. 5km 57.760 E ±15. 5km
DEPTH - 10.0km (geophysicist)
4 .8mb (3 obs .)
ATLANT I C- I ND I AN RISE (428)

SLR 26.57 277 eP 25 33.50 0.7
SNA 49.72 203 iPc 28 45.60 -0.6
1.0S 44 . 00nm 5 . 4mb X
HY6 53.52 25 eP 29 18.00 2.4X
DUE 63.00 9 eP 30 21.20 -0.8
ASPA 66.47 104 eP 30 45.10 0.5

1.1s 6.20nm ; 4. 7mb
WRA 68.53 100 P 38 58.
0.7s 4 . 60nm
WR2 68.55 101 i PC 31 04 .
0.7s 6 . 00nm
SPC 87.97 336 eP 32 39.
e 32 47 .
ZST 88.24 334 eP 32 50.
YKA 149.64 353 ePKP 39 56.

00 0.4
4 . 8mb
00 6.2X
4 . 9mb
00 -4 . 8X
70
30 5.5X
50 1 8 . 2X
0.9s 2 . 70nm
S . D . = 1.0 on 5 of 1 10 obs.

? AUG 24, 1991 18h 44m 10.29± 5.26s
16.091 N ±10. 9km 60.733 Iw ±44. 4km
DEPTH = 42.2 ± 28.9 km
LEEWARD ISLANDS (92)
ML 2. 5 (FDF) .

DEC 0.38 305 ePd 44 19.
S 44 25.
SFG 0.47 290 eP 44 20 .
MGG 0.59 253 ePd 44 22.
S 44 28.
SEG 0.80 293 ePd 44 25.
S 4434.
DOG 0.85 266 eP 44 26.
S 44 36.
68L 0.91 232 eP 44 26.
S 4437.
PAG 0.91 266 ePd 44 26.
S 4437.
BPA 1 . 44 3 12 eP 4434.
S.D. -0.2 on Sol

? AUG 24, 1991 18h 56m 39.
33.471 S ±1 5 . 2km 72.087
DEPTH = 33.0km (normol)
OFF COAST OF CENTRAL CHILE

LCCH 0.43 91 iP 56 48.
iS 56 58

82 0.1
90
70 -0.1
27 0.0
50
14 -0.1
10
28 0.3
80
80 0.0
90
77 -0.1
80
30 0.0
8 obs .

96± 7. 79s
W ±64 . 9km

(134)

40 -1.2
30

LNV 0.74 131 iPd 56 53.40 -0.5
iS 57 07 . 70
TACH 8.98 101 iPc 56 57.06 -6.4
i S 57 1 4 . 00
PEL 1.22 75 eP 57 61 . 20 8.4
. 5 57 20 40
CHCH 1.28111 i P 570328 1.5
PCH 1.32 97 eP 57 82 . 50 02
iS 57 23 50
J ACH 1.48 58 i P 5704.70 d 0
iS 57 25 .60
S.D. =1.8 an 7of 7abs.

% AUG 24, 1991 I9h 22m 47.22± 2.05s
43 941 N ± 1 7 . 2 ! m 12 459 E ±10. 9 km
DEPTH = 10.0km (. .j'iophy s i c i S t)
CENTRAL 1 TALY (381)

SFI 0.44 268 PC 22 57.00 0.8
eSg 23 04.10
CRE 0.48 230 PC 22 57.20 0.2
eSg 23 04.10
PGD 6. 54 263 P 22 58 . 40 6.3
eSg 23 85.80
- ARV 0 . 56 1 41 PC 22 59 60 0.9
eSg 23 09 80
ASS 0.88 170 P 23 83.10 -1.1
eSg 23 15.66
MME 1 .29 282 P 23 10 . 30 -1.8
S.D. -1.1 on 6 of 6abs.

? AUG 24. 1991 20h 01m 44.66± 1.00s
48.047 N ± 9.5km 6.687 E ± 7.5km
DEPTH « 18.0km (geophysicist)
FRANCE (538)
ML 2.0 (LDG) .

BSF 0.23 162 Pg 01 49.20 -6 4
Sg 01 52 00
HAU 0.23 260 Pg 01 49.80 6 2
Sg 01 53.00
CDF 0.54 47 Pg 01 55.20 -0.3
Sg 02 02.40
FEL 0.91 100 ePn 02 02.70 8.6
LOR 2.06 249 Pg 02 23.60 3.8X
Sg 02 50.00
L6F 2.12 241 Pg 02 24.70 4.0X
Sg 02 51 . 80
SMF 2.39 235 Pg 02 29.20 4.7X
S.D. -0.8 on 4of 7obs.

? AUG 24, 1991 20h 07m 04.88±10.18s
44.538 N ±39. 4km 129.955 W ±71. 7km
DEPTH - 10.0km (geophysicist)
OFF COAST OF OREGON (30)

KMOR 4.71 74 P 08 16.96 -0.8
ONR 4 . 92 59 P 08 20. 76 0.1

06H 5 . 08 55 P 08 23. 08 8.2
OOW 5.13 49 P 08 23.57 0.0
OFK 5.17 47 P 08 24. 10 0.0
OTR 5.26 46 P 08 25.60 0.1
CPW 5.36 61 P 08 26.32 -0.5
08C 5. 37 47 P 08 27 . 38 0.4
SMW 5. 39 57 P 08 27 . 51 0.2
OSD 5.44 51 Pd 08 27.93 -0.3
CZM 5.57 67 P 08 29.51 -0.3
FL2 5.61 70 P 08 30. 19 -0.3
STW 5. 65 48 P 08 31 . 00 0.0
MTMW 5.66 72 P 08 30.73 -0.5
VLMM 5.70 77 P 08 31.75 0.0
HDW 5.72 55 P 08 32. 00 0.0
MEW 5.76 60 P 08 32. 86 0.5
LMW 5.78 66 Pd 08 32.85 0.0
TDH 5.85 80 P 08 33. 81 0.0
BLN 5.95 52 P 08 34.82 -0.4
GULW 6.06 74 P 08 37.17 0.3
VFP 6.08 80 PC 08 37 . 78 0.6
PGC 6.08 45 ePd 08 36.60 -0.3
0.5s 87.00nm 5.8mb
RVC 6.08 64 P 08 37.60 0.5
ASR 6.11 72 P 0837.47 0.0
LON 6.12 66 P 08 38.03 0.4
REMR 6.13 65 P 08 38.30 0.5
GLK 6.20 68 Pd 08 39.01 0.2
FMW 6.27 65 P 08 39.60 -0.3
WPW 6.28 67 P 08 39.68 -0.2

229

24d 26h

GSM 6.29 62 P 08 40.25 0.2
RMW 6 . 38 60 P 0841.43 0.1
MCW 6.42 47 P 08 41.63 -0.2
JCW 6.65 54 P 08 44.79 -0.2
MBW 6.98 50 P 08 49.97 02
WAH2 7.61 69 P 6858. 12 -0.4
S.D. = 0.3 on 36 of 36 obs.

AUG 24, 1991 20h 1 0m 40.77± 0.22s 41.086 N ± 2.9tm 22.079 E ± 2.0km DEPTH = 10.0km (geo phy s i c i s t)
3 . 2mb (lobs)
JUGOSLAVIA (383)
MD 3 .5 (ATH) . 3.3 (THE) . ML 3.3
(SKO)

GRG 0.28 118 ePc 16 46.60 8.0

VAY 0.44 58 i Pg 1050.40 0.7
i 10 55. 70
i Sg 1 0 56 . 30
FNA 0.61 241 cPc 10 53.20 0.0
KNT 0.62 83 ePd 10 53.16' -0.2
eS 1102.40

THE 0.81 1 I' 4 ,P< 10 56.04 -0.4
i C 11 10.04
KZN 0.81 197 -Pg 18 55.50 -1.1
OHR 0.97 272 iPgc 10 59 90 0.7
i Sg 11 1 3. 20
Lg 1114.50
SOH 1.00 100 ePc 10 59.72 -0.1

SKO 1.01 331: iPgc 11 00.50 0.7
i Sg 11 14 . 00
L g 11 15.60
LIT 1.03 162 ePd 11 00.80 0.5
eS 11 16.12
SRS 1.14 88 i Pd 1102.52 0.3
^S 11 17.92
OUR 1 63 117 ePd 11 10.16 0.6
PAIG 1.68 133 ePc 11 10.60 0.3
AGG 2.07 175 ePc 11 16.24 0.2
KEK 2.22 233 ePb 11 21.00 2.9X
RDO 2.61 88 ePn 11 23.09 -0.7
eSn 12 00.50
ALN 3.01 92 ePc 11 29.08 -0.2
LCI 3.22 258 P 1131.40 -1.0
BRT 3. 70 268 P 1 1 39. 60 0.4
BED 3.92 343 ePn 11 45.50 3.3X
MFT 3.95 93 ePn 11 41.70 -1.1
DMK 4.33 78 ePn 11 51.00 2.8X
ROI 4.47252P 1155.10 4.9X
MMN 4 . 79 258 P 1 1 56 . 20 1.5
CZ 1 4 . 92 25d P 1 1 57 . 20 0.7
eSn 12 55 . 50
MGR 5 .05 261 P 1 1 58 . 40 0.0

SCO 5.16 266 P 11 59.90 0.0
1 SR 5.20 37 eP 1 2 01 . 00 0.5
MLR 5 .23 31 eP 1 2 02 . 58 1.5
VR 1 5.85 34 eP 1210.00 0.4

UZD 6.06 337 e(P) 12 12.00 -0.4
ARV 7.19 293 P 12 27.58 -1.0
SRO 7.24 339 IP 12 29.30 0.1
ASS 7 . 28 289 P 12 30 . 20 0.4
LJU 7.39 315 eP 12 30.50 -0.7
VOY 7.73 312 ePd 12 35.70 -0.4
CRE 7.92 292 P 1 2 39 . 60 0.8
ZST 7.94 335 eP 12 38.40 -0.5

SF) 8.07 294 P 12 41 . 00 0.2
FVI 8.68 312 P 12 48.30 -1.0
NB2 21.06 345 P 15 25.40 -1.7
0.6s 0 . 7 O n m 3.2mb
S.D. =0.7 on 37 of 41 obs.

? AUG 24, 1991 21h 14m 55.40± 3.45s 5.289 S ±34. 3km 146.098 E ±22. 2km DEPTH = 44.3 ± 25.4 km
3 . 7mb (1 obs .)
EAST PAPUA NEW GUINEA REGION (207)

MDG 0.32 277 i PC 15 04.10 -0.1
YYYY 0.96 188 eP 15 13.10 0.4
LAT 1.63 147 eP 15 22.60 0.6
eS 1547.30
PMG 4.23 166 eP 15 58.00 -1.0
WR2 18.51 217 eP 19 10.68 0.2
8.6s 3 . 20rim 3. 7mb
S.D. - 1.3 on 5 of 5 obs.

% AUG 24, 1991 21h 18m 01.04± 0.75s
46.280 N ± 8.7km 2.838 E ± 6.2km
DEPTH = 10.0km (ge o phy s i c i s t)
FRANCE (538)
ML 2.5 (LOG) .

MAF 0.20 253 Pg 18 06.20 0.8

BGF 0 . 28 1 Pg 180720 0.3
Sg 1811.20
TCF 0.44 271 Pg 18 09.30 -0.6
Sg 1814.00
AVF 0.62 35 Pg 18 13.30 -0.2
Sq 1821.40
S M F 0.78 (.. .' P q 1816.50 0.2
C g 1827.00
SSF 0.91 30 Pg 1818.10 -0.3
Sg 1829.40
LSF 0.91 269 Pg 18 17.10 -1.3
Sg 1 8 28 . 00
LBF 1.05 48 Pg 1821.10 0.1
Sg 1835.20
LOR 1.21 35 Pg 18 23.40 -0.2
Sg 18 39 20
RJF 1.34 224 Pg 18 25.60 -0.2
MFF 2 . 09 280 Pg 1 8 38. 00 1.5
S.D. -0.8 on 11 of 11 obs .

r, AUG 24. 1991 2lh 18m 08.04+ 0.78s

DEPTH - 10.0km (geo phy s i c i s t)
FRANCE (538)
ML 2.6 (LOG) .

MAF 0.21 256 Pg 1813.20 0.6
Sg 1816.50
BGF 0. 29 359 Pg 1 8 1 4 . 20 0.2
Sg 1818.20
AVF 0.62 33 Pg 18 20.30 -0.2
Sg 18 28 . 40
SMF 0.78 61 Pg 18 23.50 0.3
Sn 18 34 . 00
SSF 0.91 29 Pg 1825.10 -0.3
Sg 18 36.40
LSF 0.92 269 Pg 18 24.10 -1.5
Sg 18 35 . 00
LBF 1.05 47 Pg 18 28. 10 0.2
Sg 18 42.20
LOR 1.21 34 Pg 18 30 . 40 -0.2
Sg 18 46.20
RJF 1.35 225 Pg 18 32.60 -0.2
MFF 2.18 280 Pg 18 45 . 00 1.3
S.D. =8.8 on 10 of 10 obs.

AUG 24. 1991 2lh 30m 1 5 . 1 3± 0.99s
4.063 S ± 7.6km 129.168 E ±11. 2km DEPTH - 1 39 . 4 ± 8 . 8 km
5 . 4mb (8 obs .)
BANDA SEA (280)

AAI 1 . 04 291 iPc 30 39 . 60 0.1
iS 30 51 . 90
MTN 8.94 168 iPd 32 21.20 -1.2
eS 33 58.00
KNA 11.62 182 eP 32 57.00 -0.8
0.3s 52 . 80nm 5 . 6mb X
KKM 16.37 308 «P 34 00.10 1.7
WR2 16.58 163 i Pd 33 57.80 -3 . 1 X
0.4s 410.10nm 6.1mbX
eS 36 56.28
MBL 19.26 207 eP 34 30.80 -0.6
OIS 19.29 149 iPc 34 30.90 -0.8
eS 37 54.00
ASPA 20.02 167 iPc 34 39.40 0.2
0.3s 382.20nm 6.3mb X
iS 38 1 4 . 10
WARB 22.13 186 eP 35 01.50 1.3
NANU 22.64 214 eP 35 07.00 1.9
CTAO 23.04 135 iPc 35 10.00 1.0
i 35 19.00
OLP 26.64 149 iPd 35 42.70 0.1
FORR 26.66 182 i Pd 35 43.00 0.2
COOL 27.73 195 eP 35 52.00 -0.5
1 PM 29.40 287 ePd 36 08.40 0.8
0.8s 145.90nm 5.7mb
KLB 29.41 208 eP 36 06.00 -1.5

<;TI<- taa3i<iQ;p<- 3 A 1 ? R a - a ?

0.2s 18. 40nm 5 . 5mb
PS I 30.96 282 iPc 36 21.40 0.1
CMS 31.46 152 eP 36 25.60 0.1
ADE 32.00 165 eP 36 31.10 0.9
0.5s 87 . 32nm 5 . 8mb
BFD 35.17 161 i Pd 36 58 . 70 1.3
« 3754. 00

0.6s 35 . 70nm 5 . 3mb
LZH 46 . 44 331 P 38 30.00 0.1
1.5s 54.00nm 5. 0mb
pP 38 49.00 77 kmX
SP 38 59 . 50
GUN 52.42 310 P 39 15.60 -0.4
0.4s 99 . 06nm 6. 0mb
PK I 52.62 309 P 39 16.68 -0.7
0.5s 21 . 00nm 5 . 2mb
DMN 52.87 309 P 39 18.74 -0.4
GKN 53.42 309 P 39 22.66 -0.4
GBA 54.25 290 PC 39 26.60 -2.5
0.7s 6 . 90nm 4 . 6mb
HYB 54.31 295 eP 39 28.50 -1.2
YAK 65.89 0 eP 40 46.60 -1.0
DUE 68.45 305 eP 41 04.70 0.1
MA 1 0 76.21 309 eP 41 51.00 1.0
CNCB 153.22 141 PKP 50 02.00 10. 3X

LPB 153.35 141 (PKP) 50 06.00 14. 3X
ZOBO 153.53 140 PKP 50 04.00 11. 8X
S . D . - 1 . 1 on 31 o f 35 obs .

AUG 24. 1991 2lh 54m 15.551 0.45s 41.092 N ± 4.9km 22.070 E ± 3.2km DEPTH - 5.0km (geophy s i c i s t)
YUGOSLAVIA (3B3)
MD 2 . 3 (THE) .

GRG 0.29 118 ePc 54 21.12 -0.2
eS 54 25.80

VAY 0.44 59 iPg 54 24.70 0.3
iSg 54 30. 70
FNA 0.61 240 i Pd 54 27.88 0.1
eS 54 36.92
KNT 0.63 83 ePc 54 28.32 0.2
iS 54 36.52
THE 0.82 124 eP 54 31.50 -0.4
eS 5443.60
OHR 0.96 272 ePg 54 34.00 -0.3
eSg 54 4B.20
SKO 1.00 332 ePg 54 35.00 0.1
iSg 54 48 . 50
SOH 1.01 105 ePd 54 34.84 -0.3
LIT 1.04 162 ePc 54 36.12 0.4
eS 5452.16

eS 54 53.24
OUR 1.64 117 eP 54 45.50 0.4
iS 55 07 .97
S.D. -0.3 on 11 of 11 obs .

tc AUG 24. 1991 22h 10m 04.62s
6 1 . 645 N 1 49 . 524 W
DEPTH - 30 . 1 km
SOUTHERN ALASKA (2)
<AEIC>. ML 2.6 (AE 1C) .

PWA 6.17 272 iPd 10 10.74 0.2
PLRM 0.20 106 iPd 10 10.62 -0.2
GHO 6.31 66 ePd 10 11.92 -0.5
eS 1018.30
PMS 0.40 183 iPd 10 13.14 -0.5
eS 1019.88

eS 1023.60
SML 0.59 73 iPc 1015.15 -1.4
SUA 0.61 253 ePc 10 15.73 -1.2
eS 1025.26
CUT 0.B4 336 ePd 10 19.17 -1.1
S 10 30 . 54
SKT 1.01 290 iPc 1021.57 -1.2
iS 10 35.30
SLKM 1.19 197 eP 10 24.88 -0.4
S 1041.05
NKA 1.23 223 eP 10 25.78 0.0
CGLM 1.24 255 i PC 10 25.55 -0.5
NCG 1.28 260 i PC 10 26.17 -0.5
eS 10 43.29
^Pll 1 Tft 9Sft »P^ 1ft 7fi 17 ft ft

24d 22h

230

CRP 1.32 254 ePc 10 26.82
eS 1644.57
GLI 1 . 40 1 22 ePc 1027.19
eS 10 45 . 83
CKL 1.43 253 ePc 10 78.19
eS 1946.74
BGL 1 . 43 256 eP 16 28 . 52
SEW 1 . 55 1 79 eP 1029.91
V 2 W 1.55 111 ePc 162974
eS 1050.61
KNIM 1.57 145 iPd 10 28.80
*S 1049.06
VLZ 1 . 6 2 1 d 7 * f «. 163045
r. r> 1051.33
TOA 1 . C-5 7^ i f i fc 32 . 03
FID 1 . 7 3 1 2 0 e ! 1631.66
S 1653.17
KLU 1.73 93iPc 1632.61
ROT 1,76 234 e P d 16 32.75
RND 1 .. 86 1 0 eP 1633.78
LT 1 1.81152 ePd 10 32.14
S 1657.17
TRF 1 . 85 349 eP 1635.12
DFR 1.86237 ePd 16 34.57
MTU 1 . 90 1 50 eP 1633.57
H 1 N 1 . 93 1 29 eP 1035.12
REF 1 . 93 235 ePd 10 35. 30
RON 1.94 236 ePd 16 34.93
RSO 1 . 97 234 eP 1636.03
RS2 1 . 97 234 eP 1035.22
RS 1 1 . 97 234 t-P 1035.71
TZ L 1.99 77 eP 1836.75
RED 2.60234 ePc 10 36.15
KTH 2. 02 342 eP 1036.81
eS 1 1 60 . 69
CVA 2.14 119 ePc 10 39.46
PAX 2.31 53 eP 10 41 . 26
SGAM 2.39 117 «Pc 10 43.18
RAGM 2.68 116 eP 10 48.51
GL8 2.74 92 eP 1047.11
TGL 3. 36 102 eP 1056.70
BALM 3.51 97 eP 10 58.09
47 obs . associated

* AUG 24, 1991 22h 26m 09 . 93± 30.026 N ±16. 4km 69.840 E ±
DEPTH = 33.0km (normal)
4 . 6mb (22 obs .) 3. 8Msz (1
PAK 1 STAN

DUE 2 . 5 1 275 i PC 2648.20
eS 27 1 8 . 20
ND 1 6 . 57 1 00 i PC 27 48 . 00
0.5s 21 . 1 3nm 5
eS 29 44 . 00
MAIO 10.69 309 eP 28 48.00
POO 12.00 161 «P 29 12.50
IS 32 40 . 50
GKN 13.11 95P 2914.16
0.5s 48 . 00nm 5
DMN 13.60 96 P 2921.34
KKN 13.71 96 P 2922.48
0.6s 102.00nm 5
PK I 13.87 96 P 29 23 .60
GUN 14.20 95 P 29 28 . 76
HYB 14.86 146 «P 29 39.50
CHG 28.67 106 eP 32 10.00
08N 34.49 326 iPd 32 57.00
1.2s »***»** nm 8
e 33 09.00
e 33 31 .00
PS2 4 1 . 95 3 1 0 eP 3353.60
KAF 42.70331 iP 3405.60
0.5s 5.30nm 4
SRO 43.00 309 eP 33 55.60
e 34 27 .00
ZST 43 . 84 310 eP 3354. 40
e 3414.40
UPP 45.74 326 iP 34 29.50
MOX 47.57 313 e(P) 34 45.00
HFS 47.72 326 eP 34 45.00
0.6s 13.70nm 5
Z 18s 0.09um 3
LR 55 13.66
N82 4$. 1 1 327 P 3455.30
0.7s 6.20nm 4
SBF 50.63 304 eP 35 07.66

- 0. 4

- 1.1

- 0 . 6

- 0. 3
- 0. 5
- 0 . 7

- 1.9

- 1.0

0 . 0
- 1.4

- 1.1
- 0.9
- 0. 3
- 2.0

0. 2
- 8.5
- 2 .0
- 0 .9
- 0.9
- 1 . 3
- 0. 7
- 1 .5
- 1.1
0. 0
- 1 .0
- 0.6

0.5
- 0.3
0. 6
1 . 9
- 0. 4
0.3
- 0.5

0.55s
8 . 9km

Obs .)
(710)

- 1 .3

1 . 2
. 2mb

4 . 1 X
10. 8X

- 2.3
. 8mb X
- 1.8
- 2 .0
. 8mb X
- 3. 1 X
- 2. 3
0. 1

4 . 0X
0. 4
. 1mb X

- 5 . 6X
0. 6
. 5mb
- 1 2 . 1 X

- 20 . 1 X

0 . 0
0. 8
- 0. 2
. 1mb
. 8MSZ

- 0. 7
. 7mb
- 0.9

0.8s 5 . 35nm 4 . 6mb
BSF 50.75 309 eP 35 07. $0 -0.9
0.6s 3.60nm 4. 5mb
LPG 50.95'306 eP 35 09.60 -1.0
0.8s 2.76nm 4. 3mb
LPL 50.97 306 eP 35 09 . 80 -0.8
6.8s 3.35nm 4.4mb
WLF 51.08312P 3512.00 6.9
DOU 52 . 07 31 2 P 35 19 . 60 1.0

1.0s 19. 40nm | 5 0mb
SNF 52.25 31 3 P 3521.^0 1.1
LBF 52.73 308 eP 35 22.J70 -0.9

0.6s 2.70nm | 4.4mb
LOR 52.78 309 eP 35 23.60 -1.0
1.0s 6 . 0 0 n m 4 . 5 rr. b
SMF 52.85 308 eP 35 23.86 -8 . 8
1.6s 10.00nm ! 4. 7mb
SSF 53.04 308 eP 35 25.10 -0.8
0.8s 4 . 05nm 4 . 4mb
AVF 53.17 308 eP 35 26.10 -0.7
0.6s 1 . 80nm 4 . 2mb
CAF 54.31 306 eP 35 34.90 -0.4
1.0S 14.00nm 4. 9mb
LSF 54.49 308 eP 35 35.60 -0.9
0.8s 2.70nm 4. 3mb
MFF 55.58 308 eP 35 43.76 -0.8
EKA 56.46 319 P d 35 49.66 -6.6
6.7s 2 . 90nm 4 . 4mb
M8C 73.84 2 eP 37 45. «6 2.5
1.6s 16. 60nm 5 . 0mb
WRA 79.49 120 P 38 17.00 1.9
0.9s 5 . 80nm 4 . 6mb
WR2 79. 51 1 20 i P 38 1 8 . 00 2.8
0.8s 8 . 30nm 4 . 8mb
INK 80.44 9 eP 38 22.00 2.7
ASPA 81.42 124 eP 38 27.60 2.3
0.7s 8 . 40nm 4 . 9mb
YKA 87.74 2 eP 38 59.00 2.7
1.0s 7 . 60nm 4 . 9mb
S . D . =1.5 on 35 of 4 2 obs.
_ -___-. _ ..

* AUG 24, 1991 23h 32m 46 . 99± 1.10s 8.031 N ±18. 9km 72.033 W ±15. 2km DEPTH «= 33.0km (normal)
4 . 4mb (1 obs .)
VENEZUELA (101)

8MG 1.41 227 iPc 33 10.00 -0.6
SDV 1.62 58 iPnd 33 15.10 1.3
iSn 33 36.60
TOV 2.82 52 iPn 33 34.60 3.8X
i Sn 3411.70
CEOS 3.79 75 iP 33 44.10 -0.5
BOG 3.94 211 «P 33 49.00 2.0
«S 34 57.00
MORO 4.63 52 «P 33 58.30 1.8
H08C 5.47 228 eP 34 07.78 -0.8
OLLA 5.53 69 «P 34 08.60 -0.7
eS 35 10J90
ANCC 6.58 227 eP 34 22,86 -1.1
GUAN 6.59 73 eP 34 22|00 -2.3
eS 35 39J80
UPA 7.48 278 eP 34 46 00 9.4X

ZOBO 24.45 171 PC 38 06)70 1.9
0.9s 1 0 . 81 nm 4. 4mb
i 45 37 60
LP8 24 . 71 171 P 38 09 70 2.5X
e 45 55 00
CNC8 25.00 171 P 38 10100 -0.1

i 46 05i00
CCH 25.91 167 (P) 38 25 i. 00 6 . 6X
SIV 26.22 156 P 38 20M0 -0.8
WRA 151.85 242 PKP 52 38L00 3 . 8X
0.7s 1 . 96nm

S . D . = 1.5 on 12 of [17 obs.

AUG 25. 1991 00h 06m 4 1 j. 4 1 ± 0.31s
47.655 N ± 2.7km 7.318 E ± 2.9km
DEPTH = 5.0km (geophy s i c i s t)
SWITZERLAND (544)
ML 3 . 0 (LOG) , 2.7 (STR) .

BBS 0.23 146 Pg 06 46.17 6.0
Sg 06 49 . 1 1
BSF 0.40 297 Pg 06 49.40 0.0
LOMF 0.45 228 Pg 06 50.11 -0.4
Sg 06 55.89

FEL 0.52 65 ePg 06 52.39 0.6
LI 80 8.53 21 Pg 06 52 . 31 0.3
Sg 07 00 . 42
ECH 0.57 349 Pg 06 52.90 0.1
Sg 07 01 . 08
HAU 0.74 299 Pg 06 55.96 -0.3
Sg 07 06 . 06
ZLA 0.75 103 ePc 06 56.00 -0.3
CDF 0.76 358 Pg 06 56.44 -0.2
S 0707. 29
SLE 0.80 82 iPc 06 56.70 -0.8
VITF 1.06 303 Pg 07 01.81 0.0
Sg 0715.82
GWF 1.34 9Pn 07*6.89 0.3
LLS 1.39 124 e PC 07 ' 8. 50 0.9
DIX 1.58 178 ePc 67 39.40 -1.6
MMK 1.66 164 ePc 07 10.90 -0.7
TMA 1.88 145 ePc 07 14.70 0.0
RUP 2.06 355 ePg 07 20.40 3.3X
WLF 2.15 339 eP 07 22.20 3.8X
OSS 2.16 116 ePd 07 22.00 3.3X
LPL 2.18 191 Pg 07 20.00 1.0
Sg 67 48 . 66
TOD 2.19 26 ePg 07 51 18 32. 2X
LPG 2.19190Pg 07? 0.40 1.1
Sg 07 49 60
ABH 2.23 4 e P g 07.3.67 4.0X
LBF 2.37 255 Pg 67 26.60 4.4X
Sg 67 55 . 60
LOR 2.38 262 Pg 07 26.20 4.5X
Sg 0755.60
SMF 2.58 248 Pn 07 21.20 -3.3X
Pg 07 29 . 00
Sg 08 GO . 40
SSF 2.66 258 Pg 07 31.40 5.7X
Sg 08 63 . 20
AVF 2.84 254 Pg 07 34.00 5.8X
Sg 0808.70
WTTA 2.96 96 ePg 07 29.50 -0.6
id 0730.10
e(Sg) 08 15 . 00
DOU 3.03 325 eP 07 37.30 6.4X
8GF 3.25 252 Pn 07 32.00 -2.0X
Pg 07 40.60
Sg 08 22.00
MAP 3.56 248 Pg 07 47.60 9.2X
Sg 08 32.60
S . D . =0.6 on 19 of 32 obs .

? AUG 25, 1991 00h 67m 17.37± 1.48s 8.128 S ±19. 6km 79.212 W ±30. 2km DEPTH = 33.0km (normal)
NEAR COAST OF NORTHERN PERU (109)

PT10 4.50 151 «(P) 68 25.60 -0.1
«S 09 1 7 .00
ARE 11.20 138 eP 10 69.00 10. 4X
ZOBO 13. 52 128 P 1 0 3 1 . 00 1.1
i 1 4 50 . 00
LP8 13.69 129 P 10 41.20 9.2X
CNC8 13.95 129 P 10 44.60 9. IX
CCH 15.71 127 P 11 02.00 3.7X
SIV 19. 37 1 15 P 1 1 42 .20 -1.3
PPD 30.20 120 eP 13 26.80 -0.5

TUL 46.50 341 e(P) 15 43.30 -0.1
TIC 75.42 81 P 1 9 00.80 0.4
KIC 75.64 81 P 1902.10 0.5
S.D. = 1.0 on 7 of 11 obs .

& AUG 25, 1991 00h 31m 27.14s
62 . 849 N 1 49 . 450 W
DEPTH - 81 . 4km
CENTRAL ALASKA (1)
<AEIC>.

HUR 0.15 327 eP 3138.91 1.5

eS 31 48 . 08
CUT 0. 59 221 i P 31 41.81 -0 1
S 31 53.04
RND 0.62 26 eP 31 42.03 -0.4
TRF 0.71 328 eP 31 43.33 -0.1
MCK 0.92 14 eP 31 45.14 -8.4
eS 31 59. 14
KTH 0.97 317 iP 31 46.19 -0.1
GHO 1.11 167 eP 31 48.96 0.0
eS 32 03.56
SML 1.17 153 eP 31 48.42 -0.2

231

25d 00h

eS 32 05.54
PWA 1.22 190 eP 31 49.34 0.1
°LRM 1.27 173 eP 31 49.66 -0.2
SKT 1.30 229 iP 31 49.95 -0.4
eS 32 07 55
KNK 1.52 162 eP 31 53.19 0.0

PMS 1 . 61 182 eP 31 54 . 35 -0.1
TOA 1 70 115 *P 31 55.75 0.2
WRH 1.74 20 eP 31 55.14 -0.9
NEA 1.74 5iP 3155.03 -1.1
PAX 1.83 84 eP 3157.73 0.4
SOU 1.83 98 eP 3157.51 0.2
HDA 1.92 34 i P 3157.64 -0.9
eS 32 20 63
NCG 1.93 222 eP 31 58.44 -0.3
CGLM 1.96 219 eP 31 59.52 0.4
SPU 2.08 217 eP 32 01.05 0.3
Dl?L £..\\£.t.t.~* Oi<9l./i v.o

KLU 2.14 128 eP 32 00.40 -1.3
FBA 2.19 19 iP 32 01.20 -0.9
MOM 2.19 14 eP 32 01.21 -1.0
GLI 2.27 149 eP 32 01.76 -1.6
GLM 2.33 22 i P 32 03 . 1 2 -1.1
FID 2.54 145 eP 32 05.44 -1.5
GLB 3.00 116 eP 32 11.94 -1.5
31 obs. ossocioted

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% AUG 25. 1991 00h 37m 23.43± 0.60s
46.238 N ± 6.5km 2.849 E ± 5.5km
DEPTH - 10.0km (geophys i c i s t)
FRANCE (538)
ML 2 . 5 (LOG)

MAF 0.20 265 Pg 37 29.00 1.2
Sg 37 32.20
BGF 0.32 360 Pg 37 29.80 -0.3
Sg 37 34 . 00
TCF 0.45 277 Pg 37 32.30 -0.2
Sg 37 37 .20
AVF 0.65 32 Pg 37 36.20 -0.2
Sg 3744.40
SMF 0.80 59 Pg 37 39.50 0.6
Sg 37 50.00
LSF 0.92 271 Pg 37 40.20 -0.7
Sg 37 51 .00
SSF 0.94 29 Pg 37 41.10 -0.2
Sg 37 52.50
LBF 1 .08 46 Pg 37 44 . 00 0.3
Sg 37 5B.40
LOR 1.24 34 Pg 37 46.60 0.1
Sg 38 02.40
RJF 1.32 225 Pg 37 48.60 0.8
Sg 38 05 . 60
CAF 1.42 203 Pn 37 48.20 -1.2
Pg 3751.80
Sg 38 09.80
MFF 2.10 281 Pg 38 01.00 1 . 9X
S . D . =0.8 on 11 of 12 obs.

13.834 S ±12. 3 km 16B.070 E ±20. 6 km DEPTH = 33.0km (normal)
4.7mb (5 obs.) 4.3Msz (1 obs.)
VANUATU ISLANDS (186)

PVC 3.B9 177 iPc 21 42.50 40. 0X
DZM 8.34 190 i PC 22 04.60 -0.6
HNR 9.0B 298 eP 22 07.00 -8.4X
RMO 22.04 232 eP 25 08.00 10. 9X
i 25 16 . 00
STK 30.17 229 i Pd 26 13.70 0.7
0.7s 4.50nm 4. 4mb
WRA 32.80 255 P 26 43.00 6.8X

ASPA 33.72 248 eP 26 43.80 -0.5
0.6s 5.00nm 4. 6mb
MAT 57.48 332 eP 29 50.00 -1.9
KMI 74.50 301 eP 31 41.50 0.2
1.5s 50.00nm 5. 3mb
sP 3150.00
CHG 75.42 294 ePc 31 46.70 0.2
LZH 78.30 312 eP 32 04.00 1.6
1.8s 32.00nm 5. 0mb
pP 32 08.50 14kmX
sP 32 1 1 .50
YAK 81. 3B 343 eP 32 17.60 -0.5

PGD 143.86 331 PKP 39 35.30 -2.2
CRE 143.93 330 PKP 39 36.90 -0.7
ROI 144.15 321 PKP 39 36.50 -1.5
BOB 144.20 334 PKP 39 36.40 -1.6
TDS 144.24 321 PKP 39 37.10 -1.0
LBF 144.37 341 ePKP 39 38.00 -0.1

SSF 144.44 342 ePKP 39 37.30 -0.9
1.0s 8 . 00nm
CZI 144.64 321 PKP 39 39.90 1.2
LPL 144.69 337 ePKP 39 38.60 -0.4
0.6s 2 . 70nm
LPG 144.70 337 ePKP 39 38.80 -0.3
0.6s 2 . 70nm
SMF 144.71 341 ePKP 39 37.90 -0.8
0.8s 4 . 70nm
AVF 144.73342ePKP 39 38. 00 -0.7
0.8s 4 . 05nm

0.8s 8 . 05nm
BNI 145.10 337 PKP 39 39.80 0.2
SOI 145.38 319 PKP 39 39.60 -0.4
MAF 145.48 342 ePKP 39 39.90 -0,1
0.8s 5 . 35nm
TCF 145.53 343 ePKP 39 40.80 0.7
0.8s 5 . 35nm
SBF 145.78 335 ePKP 39 41.30 0.6

MFF 145.87 345 ePKP 39 42.10 1.5
1.0s 8 . 00nm
PGF 146.15 332 ePKP 39 42.60 1.2
0.8s 1 6 . 1 0 nm
FRF 146.36 335 ePKP 39 43.30 1.8
0.6s 5 . 40nm
LRG 146.56 335 ePKP 39 43.90 2.1
0.8s 8 . 05nm
Z 22s 0.05um 4.3Msz
LMR 146 60 335 ePKP 39 44.20 2.3
0.8s 1 2 . 1 0nm

7. AUG 25. 1991 01h 25m 04.15± 0.80s
38.557 N ± 8.1km 14.313 E ± 6.0km
DEPTH - 10.0km (g«o phy s i c i s t)
SICILY (398)

GIB 0.61 202 Pd 25 16 . 60 0.1
eSg 25 23.40
MND 0 . 69 1 54 P 2518.10 0.1
eSg 25 29. 10
USI 0 . 90 280 P 25 21 . 50 0.1
eSg 25 34.50
ATN 0 .99 1 13 P 25 23 . 70 0.8

eSg 25 38.70
SOI 1.45 109 P 25 29.70 -0.7
eSg 25 52 . 10
MEU 1 . 53 161 P 25 31 . 30 -0.4

eSg 25 49 . 40
CZI 1 . 57 64 P 25 32 . 00 0.0
S .0. - 0.6 on 7of 7 obs.

? AUG 25, 1991 02h 00m 09.87± 6.58s
4.475 N ±46. 6km 76.798 W ±38. 5km
DEPTH - 33.0km (normol)
COLOMBIA (103)

CLMC 0.63 158 ePc 00 23.47 0.9
HOBC 0.67 100 iPc 00 23.06 0.0
BUGC 0.79 137 eP 00 24.32 -0.4
eS 00 33.70
ANCC 0.96 184 ePc 00 27.18 0.2
eS 00 38.70
HOOC 1.01 171 ePc 00 27.22 -0.8
S . D . =0.9 on 5of Sobs.

AUG 25, 1991 02h 08m 21.76± 0.68s
44.821 N ± 9.1km 22.369 E ± 6.8km
DEPTH - 33.0km (normol)
ROMANIA (358)

SSR 0.45 276 ePd 08 31 00 -0.6
DEV 1.13 19 iPc 08 41.00 -0.3
BED 1.36 271 ePg 08 45.40 0.8
0.5s 0 . 1 4 nm
eSg 09 05.00
TNR 1.58 58 ePc 08 48.00 0.2
MLR 2.62 74 eP 09 08.00 5.3X

SKO 2.93 194 ePn 09 15.50 8.5X
BMR 2.96 15 i PC 09 17.00 9.5X
ISR 2.98 82 eP 09 08.00 0.1
VR 1 3.25 70 eP 09 19 . 00 7 . 5X
VAY 3.50 178 ePn 09 15.00 -0.2
S . D . =0.6 on 6 of 10 obs.

? AUG 25, 1991 03h 1 3m 26.34± 1.99s
40.013 N ±19. 2km 15.998 E ±16. 3km
DEPTH = 10.0km (geophy s i c i s t)
SOUTHERN ITALY (390)

MMN 0.12 183 P 13 29.20 -0.1
CSI 0 . 33 136 P 1 3 33 . 10 0.0
MGR 0.36 290 P 13 33.80 00
eSg 13 37 . 20
CZ I 0.80 172 P 13 42 . 00 0.1
S . D . - 0 . 2 on 4of 4 obs .

% AUG 25, 1991 >33h 32m 27.52± 1.83s
16.730 N ±17. 6km 98.307 W ±10. 9km
DEPTH = 33.0km (normol)
NEAR COAST OF GUERRERO. MEXICO (58)

ACX 1.49 276 (P) 32 51 44 -0.9
(S) 33 11.49
OXX 1 . 56 77 i P 3253.93 0.5
i S 3310.35
III 1 . 9B 326 eP 3302.04 2.5
IIT 2.28 360 IP 33 03.61 -0.2
PPM 2.34 353 iP 33 04.85 -0.2
(S) 33 37 . 50
1 1 SM 2.41 21 i P 3305.06 -05
(S) 33 35 .03
I I A 2.43 352 (P) 33 &4 .40 -l 3
LVVM 3.47 30 (P) 33 22.73 2.2X
MRX 4.03 318 (P) 33 50.00 21 5X
(S) 34 29 58
S.D.-1.5 on 7of 9 obs .

7. AUG 25. 1991 03h 42m 51.73± 1.79s
43.B59 N ±16. 6 km 12.400 E ± 9.4km
DEPTH - 10.0km (geo phy s i c i s t)
CENTRAL ITALY (381)

CRE 0.40 235 Pd 43 00.20 0.3
eSg 43 07.90
SF I 0. 40 279 P 43 00 . 20 0.3
eSg 43 08.00
PGD 0.49 272 P 43 01.30 -0.4
eSg 43 09.60
ARV 0.53 132 Pd 43 02.70 0.2
eSg 43 12.50
ASS 0.81 166 P 43 07.20 -0.3
eSg 43 19.40
S.D. - 0.5 on 5 of 5 obs.

& AUG 25, 1991 03h 54m 12.60s
6 1 . 7 1 9 N 150. 859 W

<AE I C>.

SUA 0.26 168 iPc 54 22.87 0.2
S 54 31 . 25
SKT 0.41 310 iPd 54 23. 04 -0.8
eS 5431.78
PWA 0.47 98 iPc 54 24.23 -0.1
CGLM 0.69 234 iPd 54 26.42 -0.5
NCG 0.70 244 iPd 54 26.24 -0.8
S 54 37 .81
CUT 0.74 22 iPc 54 26.86 -0.6
CRP 0.77 234 iPd 54 27.57 -0.4
PMS 0.78 127 iPc 54 27.47 -0.6
SPU 0.79 227 iPd 54 27.56 -0.5

IS 54 39 . 38
PLRM 0.83 98 iPc 54 27.79 -0.8
eS 5440.81
PMR 0.83 98 Pn 54 27.30 -1.3
0 . 5s 537 . 1 9nm
BGL 0.87 239 iPd 54 28.57 -0.6
CKL 0.88 234 iPd 54 28.70 -0.7
GHO 0.92 86 iPd 54 29.26 -0.6
eS 5443.14
NKA 1.00 191 iPc 54 32.09 1.4
KNK 1.19 104 iPd 54 32.71 -0.7
S 54 48.39

232

25d 03h

SML

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C AUG 25. 1991 04h 32m 13.66s
60.075 N 1 52.074 W
DEPTH - 64.8km
SOUTHERN ALASKA (
<AEIC>.

2)

NHL 0.39
HOM 0.47
RED 0. 49
RS1 0.52
RSO 0.52
RS2 0, . 52
REF 0. 52
RDT 0 . 53

RDW 0.55
RDN 8.56
DFR & . 60
CNPM 9.70

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CGLM
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PLRM
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GHO
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4 . 50
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77 obs

224 iPc
224 iPc
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226 iPc
223 iPc
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64 eP
256 iPc
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0 eP
354 iPd
358 iPd
353 iPd
2 i Pd
88 ePc
358 i P d
216 iPc
233 iPc
eS
186 iPd
25 i PC
45 ePc
33 iPc
8 i Pd
eS
302 iPd
eS
42 i PC
42 iPc
549 . 59nm
89 i PC
eS
81 i PC
eS
90 eP
51 iPc
eS
41 i PC
185 i P
20 ePc
45 ePc
70 iPc
S
74 iPc
68 iPc
100 eP
67 eP
21 eP
62 iPc
328 iPd
1 3 eP
52 iPc
8 eP
23 ePd
56 eP
21 eP
49 eP
68 iPc
45 iPc
39 eP
78 eP
16 eP
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74 eP
27 ePd
22 ePc
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» AUG 25, 1991 04h
33.403 S ± 7 . 6km

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33 06
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33 20
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ted

47m 15
72 . 194
DEPTH - 10.0km (geophys
OFF

LCCH

! HA

LNV

TACH

COAST OF

0 . 53

0 . 60

0 . 85

1 . 08

CENTRAL

98 iP
iS
51 eP

e(S)
130 iPd
IS
104 i P

CHI LE

47 26
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47 35

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. 159
. 68
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. 77
. 83
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. 21
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. 86
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04
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29±

- 0.8
- 0 . 9 ROCH

- 0 . 8
- 0.8

- 1.0

- 1.0
- 1.3

- 0 . 6
- 0. 3
- 0 . 1
- 0 . 3
- 0 .2
- 1.3
- 0.2
- 1 . 4
- 1 .8

- 1 .0
- 0 .2
- 0 . 8
- 0. 3
- 0 . 7

- 1 .9

- 1.2
- 1 . 1

- 2 .2

- 2 .9

- 2 . 2
- 1.5

- 1.2
- 2 . 1
- 0 . 6
- 1.4
- 3. 3

- 3.8
- 3.0
- 1.3
- 2 . 7
0 .4
- 2.5
- 1 . 4
- 1 .6
- 1 .5
- 0. 7
- 1.4
- 2 . 1
- 0.5
- 2.0
- 3.5
- 1.9
- 0 . 6
- 2 . 0
- 1.8
- 1.8
- 2.8
- 1.9
- 2 .2
- 1 .9
- 2 .0
- 2 . 1
- 2 .2
- 2 . 1
4mb X

3.07s
W ±22 . 3km
cist)

20
80

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(134)

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- 0.3

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PCH

J ACH

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1 . 28

1 . 29

1 . 39
1 . 42

1 . 52
S . D . =

AUG 25.
5. 649 N
DEPTH =
5

iS
67 eP
eS
93 eP
i S
79 eP
i S
113 eP
99 *P
i S
62 eP

47 52
47 35
47 52
47 39
47 58
47 39
47 59
47 49
47 41
48 01
47 43
04 on 1 0 o f

1991 0 5 h
± 4 . 1 l.m
44.1km (
. 2mb (66 obs .) 4

OGir, 59
94.116

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00

80
. 10

- 0. 3

0 . 4

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0 . 1
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1 0 obs .

. 87±
E ±

0.19s
3 . 21-m

7 depth phases)
. 5MS2 (13
NORTHERN SUMATERA

PSI
1 PM

NNT
KGM
KHT
NST
BDT

LOE
CHG

KOD
GBA

SHL

KM 1

KKM
TRT
PK 1
DMN

GUN
POO

KKN

GKN
ND 1

LZH

SSE

BJ I

MTN
MUN
MA 10

1 RK
ASPA

5. 62
6. 96
0. 4s

8 . 85
9. 87
10. 09
11.58
12. 48
0. 5s
13.86
13.91
0.9s
17.10
18.23
0. 8s
19.92

21 .06
1 . 5s
2 20s

21.99
22. 74
23. 32
23.46
1 .0s
23. 48
23. 56
0 . 9s
23.57
1 .0s
23. 99
27 . 95
0.7s
31 .58
1 .2s
2 25s
N 11s
E 1 1 s

35.86
1 -0s
Z 20s
N 1 2s
E 13s

39. 58
0.8s
2 20s
N 21s

41.11
42.93
44 . 01

47.23
48.53
0.4s

121 ePd
98 ePd
1 8 . 60nm
e
38 eP
1 1 1 ePd
26 eP
30 eP
22 eP
32 . 90nm
32 eP
19 eP
23 . 1 1 nm
286 eP
297 Pd
83 . 60nm
354 eP
eS
22 eP
1 30 . 00nm
0 . 90um
S
sS
88 eP
125 iPc
340 P
340 P
431 . 00nm
34 1 P
305 iPc
60 . 50nm
340 P
874 . 00nm
339 P
327 iPc
47 . 95nm
1 5 PC
1 20 . 00nm
2 . 1 Sum
0 . 92um
1 . 02um
pp
sP
ePP
eS
esS
42 PC
24 . 00nm
1 . 50um
1 . 1 0um
1 . 1 0um
eS
sS
eSS
27 eP
1 0 . 00nm
0 . 66um
2 . 59um
e
eS
1 1 7 eP
152 eP
319 eP
eS
9 eP
128 iPc
1 0 . 20nm
eS

02 23
02 40

03 55
03 07
03 21
03 25
03 45
03 57

04 17
04 1 7

04 58
05 10

05 22
09 03
05 43

09 40
09 54
05 53
05 56
06 04
06 06

06 06
06 08

06 06

06 1 1
06 47

07 19

07 29
07 33
08 26
12 27
12 43

08 01

1 3 40
13 58
16 14
08 29

10 12
14 28
08 40
08 57
09 05
16 10
09 29.
09 40

16 42.

. 60
. 30
5

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. 70
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12
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96
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obs .)
(706)

0. 4
- 1 . 7
. 2mb

- 1 .2
- 1.0
0 . 1
- 0.5
0.2
. 6mb
1 .3
1 . 4
. 9mb
0.3
- 1 .2
. 9mb
- 8 . 6X

0. 7
1mb
. 1MSZ

1 . 4
- 3.0X
- 0.8
- 0.5
9mb
- 0.5
0.9
1mb
- 0 . 7
2mb
0.0
- 0.8
3mb
- 1 .3
6mb
7MszX

36km

3.5X
1mb
8MSZ

0.4
7mb
5Msz

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2mb

233

250 85h

IR4
IR5
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MAT

0 F U J
ADE

STK

US I
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BHL.
AD I
YAK
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OBN

CFR
BUL
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MLR
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PA 1 G
SRS
SOH
THE
KNT
LI T
VAY
GRG
DEV
SKO
K A F

NUR

SPC
KRA

SOD
SRO

MAW
KEv

TDS
CSI
CZ 1
ZST

MMN
VKA

KSP
VBY
UPP
LJU
CEY
PRU

VOY
US 1
BRG

KHC

KBA

ARV
BHG

FV 1
WET

49.47
49 .69
49 70
49 .89
50 . 68
Z 26s

54 . 25
58. 25
1 1 s
58 . 61
0.6s
6 f> . 5 4
h 0 . 7 0
6 * 84
61.60
62 . 10
65.69
66.04
67 . 22
1.0s
Z 22s
N 24s

69 . 16
69.25
69. 79
70.29

?e . 74
71.24
71.41
71.65
71.79
72 . 05
72.18
72. 34
72 . 45
72 . 52
72.91
73. 37
74.75
0.5s
75.07
0.8s
75. 22
75.54
0.8s

76 .25
76 . 30
1 . 2s
76.36
76.91
0. 7s
77.01
77 . 05
77.14
77.16
0.8s
77 . 29
77 .68
1 .8s

77.95
78.19
78. 36
78.73
78 . 78
78.99
0. 9s

79.17
79. 42
79.44
1 .3s
79. 56
0 . 9s

79. 60
1 . 4s
79.74
79 . 95
0 . 9s
79 . 97
80.02

312 iPc
312 eP
313 i PC
313 : PC

46 (P)
0.71 urn
eS
45 eP

137 e(P)
9 1 . 1 4nm
133 i PC
1 . 90nm
303 e P
304 e P
306 P
305 eP
18 i PC
249 ePKP
308 iP
328 iPd

0 . 40um
0 . 60um
i PcP
eS
316 eP
246 ePKP
311 i PC
317 i PC
316 i Pd
311 eP
310 i PC
311 i Pd
311 i Pd
311 eP
311 i PC
310 i Pd
311 i P
311 eP
316 ePc
312 ftP
333 eP
32 . 70nm
331 i P
29 . 30nm
319 i P
320 ePd
33 . 00nm
e

338 i P
318 i P
38 . 40nm
192 eP
341 i P
34 . 70nm
309 PC
309 P
309 P
318 i P
36 . 0 0nm
309 P
318 i PC
121 . 00nm
i
321 iP
315 ePc
330 iPc
316 ePc
315 eP
320 <=P
1 0 . 7 0 nm
e
316 i PC
308 P
321 i PC
34 00 nm
319 i PC
6.06 nm
e
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317 i Pd
23 . 90nm
313 PC
317 i PC
30 . 00nm
316 P
319 i PC

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48. 00
49.80
58. 00
51.00
59 . 00
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10.00
24 . 20
51.30
5
54. 50
4
08 . 50
09 . 80
* 8 . 0 0
11.80
16.90
43.00
43. 20
58. 20

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19.00
48. 00
00 . 00
02. 40
06. 70
10.00
13.00
15.60
16.60
17.60
18. 90
23 . 90
20. 90
21.70
22 . 70
19.90
27 . 00
27 . 00
36.00
5
37 .60
5
40. 30
41.60
5
55. 60
45.20
46 . 30
5
48. 00
49. 00
5
50. 70
50. 80
50. 60
50 . 10
5
51 .50
53 . 80
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07. 70
55. 20
56 . 50
56 . 40
59.50
59. 00
01.30
4
1 4. 50
01 . 90
03. 20
03.40
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04 . 00
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15.00
02 .00
04.00
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05.00
05 .80
5
06.00
06.50

- 0. 1
0.0
0. 1
- 0. 3
1 . 8
. 7Msz

0 . 4
- 1 . 2
8mb
- 0.5
4mb
6. 2
6. 3
- 2 . 5
O. 3
- 1 .5
0.4
- 1 .5
- 1.4
5mb X
6MSZ

- 3. 9X
- 2. 7
- 1.1
- 0.8
- 0. 8
- 1 . 1
- 1 . 1
- 1 .6
- 1 . 1
2 . 4
- 1.4
- 1 . 6
- 1 . 1
- 4 5X
0 5
- 2. 3
- 0. 8
5mb
- 1 . 0
3mb
0.3
0. 0
3mb
49km
- 0. 1
0. 4
3mb
2.2
0. 1
5mb
0 6
0.5
- 0 .2
- 0 . 6
5mb
- 0. 1
0.2
6mb
48 km
0.2
0. 1
- 0.6
0. 1
- 0. 7
0.6
8mb
45km
0 . 0
- 0 . 1

e . 3
1mb
0. 1
5mb
36km

- 0.3
0mb
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- 0. 2
2mb
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0.2

CLL

HFS

CRE
SF I
PGD
CT I
WTTA

MOX

GRF

OGA

NB2

OSS
VDL
BOB
LLS
PGF

TMA
ZLA
CK I
FEL
MMK
GWF
L IBD
BBS
D 1 X
CDF
SBF

ECH
WTS

LOMF
BSF
LPG

LPL

BN 1
FRF

HAU

WLF
LMR

MEM
ENN

LRG

V 1 TF
DOU

SNF

LBF

LOR

SMF

SSF

AVF

BGF

MAF

1 . 0s

se. 06
1 . 2s
80 . 35
0 . 5s
Z 18s

80 . 46

80 . e.4
80 . 63
80.73
80 . 78
0.7s

88. 96
1.4s
81.12
1 .8s
Z 19s
C 1 1O 01.10
0.8s
81 .65
0 .8s
81.79
82. 25
82. 27
82.57
82. 62
0 . 8s
82. 67
82 . 98
83.11
83 . 23
83. 30
83 . 47
83. 50
83 . 58
83 . 68
83 . 72
83.73
0 . Bs
83 . 80
83. 93
0.8s

84. 05
84.06
84.16
0. 8s
84.18
0 . 9s
84. 23
84.31
0 .8s
84. 35
0.7s
Z 21s
84 . 42
84. 42
0 . 9s
84.47
84. 52
1 . 2s
84.53
0. 8s
Z 22s
84. 58
85. 40
0.9s

85. 58

86 . 01
0 .8s
86 . 07
0 . 8s
Z 21 s
86.12
0 .8s
86. 32
0 . 8s
86 . 45
0 . 8s
86.82
0 . 9s
87. 04

31 . 00nm
321 iPc
1 9 . 00nm
330 eP
9 . 1 0nm
6 . 3 3 u m
LR
313 PC
313 P
313 PC
316 P
317 i PC
18. 1 0 nm
i c
i
320 IPc
27 . 00nm
319 iPc
40 . 00nm
0 . 20um
316 iPc
30 . 00nm
331 P
1 2 . 20nm
316 ePd
316 ePd
314 PC
316 ePd
312 eP
1 2 . 1 0nm
316 ePd
317 ePd
314 P
317 P
316 ePd
319 P
318 P
317 P
316 ePd
318 P
313 iPc
30 . 90nm
318 P
322 eP
1 9 . 80nm
e
317 P
317 P
315 iPc
21 . 50nm
315 iPc
35 . 20nm
315 P
313 iPc
22.85nm
318 iPc
22.05nm
0 . 1 7um
319 i Pd
313 i P c
1 4 . 75nm
320 PC
320 eP
1 9 . 00nm
313 iPc
24 . 20nm
0 . 1 5um
318 P
320 PC
20 . 00nm
S
320 PC
e

317 iPc
1 7 . 45nm
317 iPc
20 . 80nm
0 . 2 2 urn
316 iPc
20 . 80nm
317 iPc
8 . 05nm
316 iPc
1 0 . 05nm
316 i P c
21 . 30nm
316 eP

5
13 06.20
4
13 07.10
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4
50 05.00
13 08.60
13 10.40
13 10.60
13 10.70
13 09.60
5
13 1 0 . 00
13 26.60
13 11.20
5
13 12. 38
5
4
13 12. 60
5
13 13.98
5
13 16.90
13 18.90
13 1 8.80
13 20. 70
13 20.40
5
13 20.80
13 22 . 40
13 22. 30
13 22.86
13 24. 90
13 24.64
13 24.69
13 24.36
13 27.20
13 25.30
13 26.10
5
13 25.68
13 27.00
5
13 41.00
13 26.81
13 26.81
13 28.60
5
13 28.60
5
13 28.20
13 29.30
5
13 28.90
5
4
13 30.05
13 29. 80
5
13 29. 80
13 30.00
5
13 30. 68
5
4 .
13 29.75
13 34. 30
5.
24 04. 00
13 35. 20
13 49. 30
13 37.38
5 .
13 37.60
5 .
4 .
13 37 .80
5.
13 39.00
5.
13 39.50
5.
13 41.70
5.
13 42.80

. 2mb
- 0 . 2
. 9mb
- 0 . 7
. 0mb
. 7Msz

- O . 3
1 . 3
0 . 7
0 . 4
- 1.0
1 mb
1 kmX

0.2
. 8mb
0. 2
. 3mb
5Msz
- 0 . 2
3mb
- 0 . 7
0mb
1 . 0
e.e
0. 5
0 . 7
0. 2
Omb
0. 3
0 . 5
- 0.2
- 0. 4
1 . 1
0. 3
0. 2
- 0. 6
1 . 4
- 0 . 4
0. 3
4mb
- 0. 3
0 . 5
2mb
48km
- 0 . 5
- 0. 6
0.3
3mb
0. 4
5mb
- 0.2
0. 6
3mb

e . i
4mb
4Msz
1 . 1
0. 6
1mb
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0. 5
1mb
0. 9
4mb
3Msz
- 0.2
0. 4
3mb

0 . 4
48km
0. 2
3mb
0. 2
4mb
5Msz
0 . 1
4mb
0. 4
0mb
0.3
1mb
0.7
4mb
0.7

0.7s 8 . 25nm 5.1mb
TCF 87.28 316 eP 13 43.90 0.6
0.7s 2.20nm 4. 5mb
CAF 87.51 315 eP 1345.30 0.9
1.0s 1 2 . 00nm 5 . 1mb
LSF 87.75 316 eP 13 45.90 0.4
0.9s 8.20nm 5. 0mb
RJF 87 . 86 315 eP 1347.10 1.0
0.9s 13.10nm 5. 2mb
Z 22s 0.10um 4.2MS2
LPO 88 . 15 315 eP 1348.60 1.1
0.7s 12.15nm 5. 3mb
LFF 88 . 44 315 eP 1 3 50.00 1.2
0.9s 11.45nm 5. 2mb
LDF 88 . 61 319 iPc 1 3 50. 10 0.5
0.8s 13.45nm 5. 3rr,b
FLN 88.82 319 iPc 13 51.10 8.5
0.8s 1 4 . 80nm 5 . 4mb
Z 22s 0.20um 4.5Msz
MFF 88.86 317 i PC 13 51.40 0.6
0.7s 6.60nm 5.1mb
GRR 89.12 318 eP 13 52.60 0.6
1.1s 1 7 . 1 0nm 5 . 3mb
LPF 89 . 29 318 eP 1353.60 0.8
1.0s 20.00nm 5. 4mb
EKA 89. 53 325 PC 1354.60 0.2
0.7s 1 7 . 26nm 5 . 5mb
DMU 91.94 324 eP 14 04.70 -0.2
DCN 92.27 324 eP 14 07.40 0.9
MBC 95.95 8 eP 14 23. 00 0.0
0.7s 4.00nm 5. 0mb
ALO 135.21 24 ePKP 20 18.00 0.8
PPD 142.83 241 ePKP 20 33.60 2.4X
SIV 153.59 245 PKP 20 55.50 7.3X
CNCB 159.25 236 PKP 21 01.00 4.9X
i 21 35.80
LPB 159.49 237 ePKP 21 14.00 17. 9X
ZOBO 159.64 237 PKP 21 00.20 3.7X
Z 20s 0.23um 5.0Msz
LR 16 24.00
S.D. - 0.8 on 153 of 163 obs.

& AUG 25. 1991 05h 27m 59.17s
62 . 567 N 1 48 . 1 43 W
DEPTH - 51 . 8km
CENTRAL ALASKA (i)
<AE IC>. ML 2.5 (AEIC) .

SML 0.77 187 iP 28 13.78 -0.3
eS 28 25.81
HUR 0.88 302 iP 28 14.34 -0.1
eS 28 26.48
SCM 0.83 152 eP 28 14.38 -0.5
GHO 0.88 205 iP 28 15.35 -0.2
eS 28 28.77
RND 0.90 339 iP 28 15.65 -0.2
eS 28 28.58
CUT 1 . 00 262 eP 28 17 .08 0.0
eS 28 30.72
TOA 1 . 03 1 16 eP 28 17 .50 -0.1
PLRM 1.08 206 eP 28 17.95 -0.3
KNK 1 . 1 7 1 87 i P 2819.57 0.1
eS 28 35.82
SDG 1.21 91 eP 28 19.51 -0.5
MCK 1.22 343 iP 28 20.36 0.1
eS 28 36.65
PWA 1.23 222 eP 28 28.90 0.6
eS 28 38.65
PAX 1.30 71 eP 28 28.41 -0.9
eS 28 37.27
TRF 1.32 313 eP 28 21.43 -0.3
TZL 1 . 37 1 1 1 eP 28 22.20 -0.1
THY 1.39 51 eP 28 22.74 0.2
PMS 1.49 207 eP 28 24.27 0.3
KLU 1.50 135 eP 28 23.35 -0.9
KTH 1.61 309 eP 28 25.41 -0.2
SUA 1 . 65 229 eP 2827.31 1.0
VLZ 1 . 68 148 eP 28 25. 18 -1.4
SKT 1.69 251 eP 28 27.48 0.7
VZW 1.69 153 eP 28 25.77 -1.1
GLI 1 . 77 163 eP 28 26.70 -1.1
DJE 1.84 36 eP 28 28.95 0.1
WRH 1.91 1 eP 28 29.11 -0.8
HDA 1.92 16 eP 28 29.61 -0.4
FID 1.99 156 eP 28 29.94 -1.8
CCB 2.89 4 eP 28 31 . 15 -1.3
GLB 2.33 117 eP 28 34.79 -1.1

25d 05h

234

FBA 2.35 4 eP 28 34 . 77 -1.3
MOM 2 40 359 eP 28 35.62 -1.2
GLM 2.45 8 eP 28 36 . 32 -1.3
33 obs.. ossocioted

? AUG 25, 1991 05h 54m 06.12± 1.83s
5.751 N ±26. 9 km 94 199 E ±17. 0km DEPTH -- 52 . 9 ± 28 . 6 km
4 . 1mb (3 obs .)
NORTHERN SUMATERA (706)

BS 1 1 12 103 eP 54 25 . 00 -0.7
e 58 60.00

PSI 5.G1 123 e (P) 5529.00 0.0
IPM 6.90 9 9 e P d 5548.00 W 9
e 5702.10

CHG 13(78 19 eP 57 28.90 8.3X
GBA 18126 297 Pd 58 17.80 0.3
0.6s 2.70nm 3.6mb
PK 1 23[25 340 P 59 10.20 0.1
DMN 23i39 339 P 59 12.80 1.4
KKN 23L50 340 P 59 11.00 -1.4
GKN 23.92 339 P 59 12.60 -3.8X
ASPA 48.53 129 iPc 02 37.50 -8.7X
0.8s 4.70nm 4. 6mb
HFS 80.31 330 eP 06 12.30 -0.5
0.5s 1.40nm 4.1mb
S . D . = 1.2 on 8of 11 obs.

AUG 25, 1991 06h 40m 05.96± 0.17s 21.354 S ± 5.5km 174.174 W ± 4.3km DEPTH = 33.0km (normal)
5.5mb (34 obs.) 5.5Msz (17 obs)
TONGA 1 SLANDS (173)
Ms 5.5 (BRK). Mo=4 . 0« 1 0» » 1 7 Nm
(PPT) .
CEN'TROID, MOMENT TENSOR (HRV)
Doto Used: GDSN
L . P . B . : 1 8S , 38C
Centroid Location:
Origin Time 06:40: 7.1 0.4 Lot 21.63S 0.04 Lon 173. 41W 0.04

Dep 15. 0 FIX Ho If -duration 2.0
Moment Tensor; Scale 10»«17 Nm
Mrr- 1.50 0.05 Mtt 0.12 0.07
Mff -1.38 0.06 Mrt- 0.54 0.15
Mrf- 1.15 0.18 Mtf 0.70 0.84
Principal Axes:
T Vol- 1.94 Pig-71 Azm=296
N 0.20 1 204
P -2.14 19 114

Best Double Co up 1 e : Mo = 2 . 8 1 0 * * 1 7
NPl : S t r i ke=203 Dip=26 S 1 i p= 89
NP2: 25 64 91

NDF 8.67 293 eP 42 13.00 0.9
RAR 13.43 92 P 43 07.00 -9.7X
PVC 16.89 279 i PC 44 04.00 2.5
DZM 18.03 264 i PC 44 17.90 2.1
URZ 18.45 202 eP 44 21.60 0.8
RUZ 19.87 205 eP 44 36.70 -0.6
WEL 21.96 203 eP 44 59.00 0.4
S 4904. 00
TBI 22.94 100 eP 45 05.00 -3.3X
1.2s 205 . 00nm 5 . 5mb
KHZ 23. 40 203 P 4513.70 1.0
0.7s 73 . 00nm 5 . 3mb
PPT 23.49 85 iP 45 11.20 -2.6
1.2s 1 25 . 00nm 5 . 3mb
PPN 23.63 85 iP 45 12.70 -2.4
1.2s 60 . 00nm 5 . 0mb
TVO 23.74 B6 iP 45 13.80 -2.5
1.2s 260.00nm 5.6mb
LTZ 24.20 205 P 45 19.60 -0.9
WVZ 25.06 207 eP 45 27.40 -1 4

PMO 2|5.73 B0 iP 45 33.10 -2.1
1 ;. 2s 1 1 5 . 00nm 5 . 3mb
TPT 2fe.99 80 IP 45 34.40 -3.2X
1.2s 1 25 . 00nm 5 . 4mb
RUV 216.15 81 iP 45 35.40 -3.7X
1.2s 90 . 00nm 5 . 2mb
BRS 30.64 252 eP 46 20.00 0.4
COO 3 S 1.76 246 eP 46 28.60 -0.9
RMO 34.19 254 iPc 47 00.30 9.7X
CNB 34.77 238 eP 46 55.00 -0.6
CTAO 36.97 265 i PC 47 12.20 -2.8
CMS 37.04 246 eP 47 13.00 -1.7

TAU
PMG
BFD
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ADE

ASPA

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MBL

BAL
MUN
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CSY

DAY
CGP
KAK J
CHJ J
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MAT

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YAMJ
MTMJ
KKM
TSRJ
BAG
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PRS
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ARN
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MWC
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PLM
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PEC

SBB
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ORV
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SSE

BMW
MAW

SHW
HKC
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53. 99
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62.18
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64.74
0.7s
65 .50
66 . 90
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72 . 26
72. 58
72 .95
73.06
1 . 3s

73 . 09
73.17
73. 32
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73. 69
74.16
75 . 76
76 . 02
76. 09
76.10
76.17
76 . 26
76.34
76. 45
76 . 50
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Z 20s
N 20s
E 20s

76.58
76 . 70
76 .82
76. 83
77.10
77.14
77 . 22
1 .5s
77 . 26
77 . 43
77.44
77 . 47
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78 . 03
78 . 09
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78 . 77
78 . 95
78. 9B
79 . 78
79.75
81 . 80
1 . 0S
Z 20s
E 18s

81.70
81 . 95
0. 9s
82.02
82.23
82 .61
82.66

227 eP
282 eP
237 eP
246 i PC
8 . 6 0nm
241 i PC
52 . 1 Onrr.
257 i PC
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253 eP
257 eP
246 eP
244 eP
254 eP
206 eP
24 . 20nm
289 eP
298 eP
322 P
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325 eP
322 iPc+
82 . 69nm
eS
323 P
324 eP
321 P
283 ePc
319 P
295 eP
44 eP
42 iPc
41 eP
43 P
40 i PC
4 1 eP
42 i PC
44 P
40 i PC
1 38 . 00nm
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1 . 30um
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1 8 . 75nm
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37 iPc
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41 i PC
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39 iPc
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38 i PC
156 e(P)
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37 . 00nm
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297 eP
33 P
32 P

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- 2. 3
- 2 . 3
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- 0.9
3. 3X
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- 1.6
- 2.5
- 0.5
- 0.5
- 0. 7
- 1 . 0
- 8.9
6mb

- 0. 4
- 0. 7
- 0. 3
- 1.1
- 0.3
- 1.7
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0 . 3
- 1.1
0 . 6
- 0 . 1
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0 . 3
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0.2
8mb
4Msz

0 .6
0 .3
0. 4
0. 6
- 0. 1
- 1 . 1
- 0. 6
9mb
- 0.8
1 .3
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- 0. 4
- 0. 1

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- 0.5
- 0 . 4
2. 5X
- 0.3
- 0 . 1
- 0 . 1
0 .3
0.0
3mb
9Ms z

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RMW
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KLU
NEW

IPM

BW86

NVL

PSI

LNV
GOL

FBA

SNA

GLD

TACH
BJ 1

PCH
PEL
SES

LOE
NNT
NST
BDT

TUL

CHG
INK
YKA

LZH

LPB

ZOBO

MA 10
BUL

83.09
83.17
83. 40
83 . 75
85.07
1.2s
85 1 8
1 .2s
Z 18s
85 . 22
1 .0s
85.41
1 . 0s
85. 62
86 . 02
1 .2s
Z 20s
86 . 82
1 .0s
87.18
1 . 2s
B8 . 03

88 . 09
0 .9s
B8 . 28
88 . 30
1.4s
88 . 35
1 .2s
88. 40
1 . 0S
88 . 42
1 . 4s
Z 20S
88. 76
89. 03
3 .0s
Z 18s

89.09
89. 17
90 . 49
1 .2s
90.92
90.94
91 . 70
93. 28
1 .0s
93. 38
1.4s
Z 18s
N 20s
E 18s

93. 90
94.19
95. B2
1 .0s
96.14
2.0s
Z 30s
E 15s

98. 35
Z IBs

98 . 44
Z 20s

131 .26
133. 12

33 P
44 P
31 P
275 ePd
12 eP
53 . 03nm
50 ePc
46 . 88 nm
1 . 55um
8 P
38. 25nm
32 ePc
7 7 . 00 nm
13 P
34 P
22. 73nm
4.40 urn
276 ePc
8 1 . 00nm
42 P
9.70 nm
182 ePc
e
e
e
ePP
eS
e
e

274 ePd
36.20 nm
126 eP
46 P
1 9 . 58nm
1 1 P
105. 30nm
177 i PC
48 . 00 nm
46 P
20. 27nm
0.50 urn
126 eP
314 eP
0.54 nm
0 . 89um
eSKS
eS
126 eP
125 eP
35 eP
102. 80nm
288 eP
283 eP
286 eP
287 eP
59 . 30nm
53 ePd
25. 20nm
1 . 97um
1.06 urn
1 . 23um
e
LR
289 ePc
14 ePc
24 eP
4 . 30nm
306 P
81 . 00nm
0 . 53um
0 . 40um
PP
ePP
SKS
eS
PS
eSS
111 P
2 . 6 1 urn
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111 eP
1.64 um
e
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LR
300 ePKP
210 ePKP

52 30.00
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8MSZX

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4.3X
8MSZ

1 7 .3X
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235

25d 06h

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COP

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WTS

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BNS

BBTK
UCC
PRU

ENN

ISR
MEM
MLR
SNF
BHL
KOE

HR 1
PSZ
DOU
CMP
GRF

TNR
MML
BUC

134.46
138.69

139.16
2 20s
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E 20s

140.17
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145.41
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149 41
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149 44
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149.58
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1 50 . 59
150.60
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150 . 65
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150 .80
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150 . 88
1 50 . 88
150.95

150.99
151.17
151.30
151 .39
151 .40

151.43
151 .49
151.54

216 ePKP
346 ePKP
e
333 ePKP
0.40 urn
0.40 unr>

e

f-PP
i SP
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356 PYP
10. 1 Cnm
354 *PKP
1 . 1 0nm
353 ePKPd
67 . 23nm
9 P K P d
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351 iPKPc
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14 ePKP
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351 e P K P
359 e P K P
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67 OOnm

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1 vPKP

fe) 0 ': i m
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341 ePKP
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328 ePKP
336 ePKPd
330 ePKP
353 e P K P
0 . 80um
358 ePKPc
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315 e P K P
2 P K' P +
349 e P V. P
75 . 1 0nm
0.80 um
0 . 40UW

0 . 40urn
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360 ePKP
40 . 00nm
329 e P K P
360 PKPc
330 ePKP
2 PKP
302 PKP
357 ePKPc
i d
i c
300 ePKP
340 ePKP
2 PKP-f
331 ePKPc
353 ePKP
e
e
332 ePKPc
299 ePKP
329 ePKP

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41.50

43.10
43 . 70
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45.90
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49 . 20

53.40
58.40
48.00

53 .60
50 . 00
54 .50
13.00
49 . 80
55.20
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55 . 40
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47 . 50
56 . 00

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56. 50
57 . 40
49. 00
56. 70
04 . 40
15.00
02. 50
52 . 50
57 . 60
55 . 00
50 . 60
58.30
06. 80
00.00
03. 50
50.00

1 . 4
- 5. 9X

- 6 . 9X
. 2Msz

- 9 . 3X

- 7 .0X

0.5

- 1 .5

- 0.6

0 . 1
0.0
2 . 2
- 0 . 3
2.2
7 . 0X
- 0. 1

1 2 . 9X
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4 . 2X

0 . 8

- 0 . 6

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6. 5X
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6. 9X
6. 9X
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5Ms2

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6 . 3X

5 Q V. y A
5. 7X
6. 8X
- 2 . 3
6. IX

1 1 . 0X
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6. 4X
3. 4X
- 0.8

8 . 4X
1 1 . 4X
- 1.7

KHC 151.60 349 i PKP 59 52.50 0.7
1.1s 35 . 60nm
Z 18s 0.60um 5.4MS2
N 18s 0 . 20um
E 18s 0 . 50um
e 59 58 .60
i 00 07 .50
1ST 151.73 344 ePKP 59 52.20 0.3
SRO 151.75 342 ePKP 59 52.40 0.4
i 0008. 40
WLF 151.75 360 iPKPc 59 59.31 7.4X
DEV 151.82 334 ePKPc 00 00.00 7.9X

BUD 151.83 341 e(PKP)59 52.00 -0.1
EYL 151.83 318 ePKP 59 59.30 6.8X
VKA 151.86 345 ePKP 59 53.00 0.9
3.0s 291 . 00nm
i 00 02.30
i 00 08.70
FLN 152.19 9 ePKP 59 59.30 6.7X
1.1s 31. 75nm
Z 20s 0 . 75um 5 . 5MS2
GWF 152.40 357 PKP 00 00.27 7.3X
LDF 152.41 9 ePKP 59 59.90 7.0X
1.1s 1 9 . 55nm
GRR 152.50 10 ePKP 00 00.20 7.2X
1.0s 1 4 . 00nm
KMR 152.53 348 iPKP-f 59 53.20 0.1
i 0010.90
i 0027.10
MBH 152.54 294 ePKP 00 05.50 11. 7X
LPF 152.82 10 ePKP 00 00.90 7 . 4X
1.0S 30 . 00nm
FUR 152.89 352 iPKPc 00 03.40 9 . 8X
CDF 152.98 358 PKP 00 01.23 7.4X
ECH 153.18 358 PKP 00 03.12 9. IX
VITF 153.20 360 PKP 00 02.00 8.0X
HAU 153.41 359 ePKP 00 02.30 7 . 9X
Z 20s 0 . 88um 5 . 6Msz
FEL 153.48 357 PKP 00 02.31 7.7X
BSF 153-57 359 ePKP 00 02.40 7.7X
BED 153.66 336 ePKP 00 14.50 19. 7X

WTTA 153.73 351 e(PKP)59 53.00 -2.1
2.0S 102 . 00nm
i 0004. 70
i 00 17.40
LOMF 154.05 358 PKP 00 03.78 8 . 4X
LOR 154.10 3 ePKP 00 03.90 8.6X
1.1s 1 4 . 65nm
Z 1 9s 0 . 82um 5 . 6Msz
SSF 154.29 4 ePKP 00 04.60 9.0X
1.4s 1 9 . 60nm
LJU 154.36 346 ePKP 59 56.00 0.3
LBF 154.39 3 ePKP 00 04.50 8.7X
VOY 154.51 347 ePKP 59 56.30 0.3
CEY 154.68 346 ePKP 59 56.50 0.4
VBY 154.70 344 ePKP 59 57.40 1.3
8GF 154.74 5 ePKP 00 05.20 9.0X
MAF 155.05 5 ePKP 00 06.00 9.4X
1.2s 1 1 . 90nm
SKO 155.60 331 ePKP 59 57.70 0.2
e 00 25. 10
e 0412.00
e 04 24.00
8NI 156.35 358 PKP 00 00.40 1.8
SFI 156.94 349 PKP 00 00.00 0.8
ARV 157.13 347 PKP 59 59.70 0.2
KIC 161.92 144 PKP 00 06.00 0.5
TIC 162.00 143 PKP 00 06.50 0.9
LKO 163.92 135 PKP 00 08.06 0.6
S.D. - 1.1 on 153 of 208 obs.

» AUG 25, 1991 06h 49m 11.72± 1.97s
6.527 S ±10. 5km 154.484 E ± 1 4 . 5 km DEPTH - 55 . 6 ± 1 9 . 3 km
5 . 0mb (2 obs .)
SOLOMON ISLANDS (193)

RAB 3 . 27 315 eP 5002.00 0.3
iS 50 49.00
LAT 7 . 44 269 eP 51 00 . 10 0.0
PMG 7.80 248 eP 51 05.00 -0.2
eS 52 37 . 00
DZM 19.29 144 iPd 53 35.20 0.0
RMO 20.59 195 i PC 54 00.90 12. 3X
STK 27.95 204 eP 54 59.00 0.0
0.7s 0 . 80nm 3 . 5mb X
i 55 17.90

LZH

TNP

BMA
S

AUG
57 .

63.63
1 .5s
92.64
0. 7s
145.71
. D. =

25,
591 N
DEPTH =

31 6 P
28 . 00nm
52 eP
4 . 22nm
148 ePKP
0.6 on

1991 06h

59 39.50
5
02 18.50
5
08 47 . 30

- 0. 1
. 1mb
- 0. 7
. 0mb
0.8
8 o f 9 obs .

58m 29.98±
± 7 . 0km 154.523 W ±
76. 1 ± 4 . 5 km

0.84s
6 . 0km

4 . 4mb (17 obs .)
KODIAK ISLAND REGION

KDC
COD
SYI
MCNL
AUI

AGU
AUH
AUP
AUW
AUE
AUL
OPT
PDB

HOM

CNPM
NNL
RED

RSO
RS2
ROW
REF
RON
NCT
DFR
ROT
SVW
NKA
SEW
SLKM
CKL
SPU
BGL
CRP
CGLM
SON
NCG
LT 1
SUA
PMS
KN IM
SKT
M 1 D
PWA
PLRM
PMR

Z
KNK
GLI
GHO
FID
SML
CUT
VZW
TTA
VLZ
KLU
HUR
TOA
KTH
TRF
TZL
RND
GLB
SDG
MCK
TGL
PAX
BALM
THY

1 . 10
1 .42
1 .53
1 . 60
1 .84

1 .87
1 .87
1 .87
1 .87
1 .87
1 . 89
2.18
2.21

2.56

2.60
2 . 98
2.98

3.02
3.02
3.03
3 .06
3.07
3.09
3. 16
3.19
3.57
3.59
3.65
3.67
3.79
3.82
3 . 84
3 . 88
3.94
4.01
4.01
4.25
4.34
4.46
4 47
4.66
4.67
4.71
4.86
4 . 86
1 .2s
18s
4.92
5.04
5.06
5.21
5.26
5.28
5. 36
5.41
5. 49
5.87
5.92
6.18
6.24
6.24
6. 40
6.47
6. 68
6.68
6.74
6.79
7.02
7. 12
7.27

81 i P
19 i Pd
47 i Pd
3 iPd
18 iPd
eS
17 i Pd
17 i Pd
18 i Pd
17 i Pd
18 i Pd
1 7 ePd
18 i Pd
4 iPd
eS
35 iPd
S
40 iPd
33 iPd
1 7 ePd
eS
1 7 eP
1 7 eP
1 6 eP
1 7 ePd
16 i Pd
1 5 eP
17 i Pd
19 i Pd
351 iPd
27 eP
44 i Pd
35 eP
16 i Pd
18 i Pd
1 6 ePd
17 iPd
18 i Pd
238 iPc
1 7 ePd
52 eP
25 iPd
33 iPd
49 eP
18 i Pd
63 eP
28 i Pd
32 ePd
32 iP
53 . 03nm
1 .52um
36 ePd
46 ePd
32 ePd
49 ePd
34 eP
22 eP
46 ePc
353 iPc
46 iPc
45 ePd
22 ePc
39 ePc
1 5 eP
18 eP
42 eP
23 ePd
50 eP
38 eP
22 eP
57 eP
36 eP
56 eP
33 eP

58 50.00
58 54 . 43
58 56.00
58 56.61
59 00.36
59 23.06
59 00.90
59 00 . 92
59 00.92
59 00.92
59 01.06
59 01.12
59 04 . 99
59 04.91
59 30 . 32
59 10.27
59 39.91
59 10.27
59 16.23
59 15.70
59 50 . 87
59 16.69
59 17.03
59 17 . 05
59 17.18
59 17 .22
59 17 . 20
59 18.30
59 18.20
59 23.40
59 25.35
59 23.23
59 23.98
59 26.93
59 26.99
59 27.85
59 28.22
59 28.91
59 29 .00
59 29 . 97
59 32.01
59 33.96
59 35 . 19
59 33 . 72
59 37 . 97
59 37 .89
59 38 . 99
59 39.69
59 39.90

59 40.83
59 41 .89
59 42.94
59 44.06
59 45.66
59 46 . 14
59 46.78
59 49.00
59 48.79
59 54.11
59 55 . 24
59 58.85
59 59.27
59 58 . 99
00 01 . 59
00 01 .90
00 05.03
00 05.26
00 05 .62
00 06.34
00 09.58
00 11.44
00 1 4 . 49

(13)

- 0. 3
- 0. 1
0. 1
- 0.3
0.2

0.3
0.3
0. 3
0 . 4
0.5
0 . 4
0.2
- 0. 3

0.2

- 0. 3
0. 4
- 0.2

0. 0
0. 4
0.2
0. 1
0.0
- 0. 3
- 0. 1
- 0.6
- 0.8X
1 . 1
- 1 . 9X
- 1 .6X
- 0.3
- 0.6
- 0. 1
- 0.4
- 0.5
- 1 . 2X
- 0.4
- 1 .6X
- 1 .0X
- 1 . 4X
- 3.0X
- 1 . 4X
- 1 . 6X
- 1 .0X
- 2. 4X
- 2.2X

- 2. 2X
- 2 . 8X
- 2 . 1 X
- 3.0X
- 2. 2X
- 1 . 9X
2 . 4 X
- 0.9X
- 2. IX
- 2.2X
- 1 . 8X
- 1 . 7X
- 2.2X
- 2.5X
- 2. 0X
- 2. 7X
- 2.4X
- 2.3X
- 2.7X
- 2.8X
- 2. 7X
- 2.2X
- 1 . IX

25d 07h

236

NEA
CTGM
WRH
HDA
DJE
CCB
MDM
FBA
PN L
GLM
t NK

YKA

MBC

NEW

BONR
MSU

NB2

HFS

EKA

CLL
BRG
MOX

KSP
LPF

KHC
CDF
HAU

BSF
LOR

MFF
SSF

LBF

AVF

BGF

LSF
TCF
LFF

CAF

LPO

GUN
KKN
GKN
PK 1
DMN
S

* AUG
22.

7 .49 18 eP 00 1 4. 98 -3 .6X
7.55 58 ePd 00 17 . 82 -1 . 8X
7.57 22 ePc 00 16.24 -3.5X
7.76 25 eP 6619.05 -3 . 3X
7.76 30 eP 001911 -3 . 3X
7.79 22 eP 0018.75 -3 . 9X
7.99 20 ePc 6021.72 -3 . 8X
8.01 21 eP 00 22.00 -3.8X
8.16 69 e P 0025.50 -24X
8.17 22 e P 6023.97 -4. IX
14.28 33 P 0147.00 -2.4X
0.3s 3.00nm 4.1 mb
20 .27 59 eP 6300.30 -1.0
0.7s 2 . 70nm 3 . 7mb
22.56 21 e P 032450 0.5
0.3s 2 . 00nm 3 . 8mb
24(11 97 eP 03 57 .80 18 .4X
0 . | s 10. 00nm
30 74 114 eP 04 59 66 1 9 . 0X
33 41 106 eP 05 05. 60 2.3X
e 05 22.00
61.18 8 P 08 37 . 30 -1.0
0.7s 3 . 00nm 4 . 5mb
62.25 7 eP 08 43.70 -1.7
0.4s 4 . 1 6nm 4 . 9mb
65.08 18 PC 09 03.40 -0.5
0.5s 2.00nm 4. 3mb
70.98 8 e(P) 09 40.00 -6.6
71 .48 8 eP 09 43 . 40 -0.3
71.53 9 eP 09 44. 00 0.0
1.1s 6 . 00nm 4 . 4mb
71.67 6 eP 0944.80 0.0
72.47 1 8 *P 0949.80 0.2
0.7s 4.40nm 4. 5mb
73.19 8 P 09 54 . 50 0.7
73 . 29 1 3 eP 0954.60 6.1
73.58 13 eP 09 56. 30 0.2
0.5s 2.90nm 4. 5mb
73.81 13 eP 09 57 . 60 0.1
7 3,. 98 15 e P 0958.70 0.3
0 .'7s 3.30 nm 4 . 4mb
74:.01 18 e P 0959.00 0.5
74.13 15 eP 09 59 . 70 0.5
0.5s 2.90nm 4. 5mb
74.27 1 5 eP 1000.20 0.1
0.5s 1 . 45nm 4 . 2mb
74.37 1 6 eP 1000.90 0.3
0.5s 3.30nm 4. 5mb
74.53 1 6 eP 1001.80 0.3
0.5s 2.90nm 4. 5mb
74.62 17 eP 10 02 . 20 0.1
74.69 1 6 eP 1002.70 0.2
75.77 18 eP 10 09 . 20 0.5
0.5s 4 . 35nm 4 . 6mb
76.00 1 7 eP 1010.30 0.3
0.6s 2.25nm 4. 3mb
76.10 1 8 eP 1010.80 0.3
0.6s 4 . 50 nm 4 . 6mb
88 . 97 309 P 1037.80 0.1
81.33 309 P 1039.40 0.0
81 . 41 310 P 10 39 . 80 0.1
81 . 47 309 P 1039.60 -0.7
81.56 309 P 1041.60 0.3
. 0. = 0.5 on 62 of 112 obs.

25, 1991 07h 14m 22.00± 2.24s
952 N ±12. 8km 121.234 E ±18. 9km
DEPTH = 10.0km (geophysicist)
TAIWAN REGION (243)

TWG

TWF1

TWK

TWM1
TWO
ANP
S

* AUG
4 .

0 .20 229 i PC 1 4 26 . 20 -0.2
eS 1429.20
0.40 8 i Pd 1429.70 -0.5
eS 1 4 36 . 20
9 . 75 295 i Pd 14 36 . 30 -0.5
eS 1447.20
0 . 76 261 i Pd 1437.10 0.3
1 .37 345 ePc 14 48. 00 0.9
2.24 7 eP 15 04 . 60 4 .8X
. D . «= 0 . 9 on 5 of 6obs.

25, 1991 07h 15m 1 0 . 22± 0.80s
636 N ± 9.1km 118.256 E ±14. 6km
DEPTH - 33.0km (normol)
4 . 5mb (4 obs .)
KALIMANTAN (261)

TSM 0.51 228 iPc 15 19.90 -1.1
0.5s 1 986 . 90nm
KKM 2.47 305 i Pd 15 51.20 2 IX
0.8s 343.90nm
PPR 5.13 5 i PC 1626.00 -08
CC-P 7 . 44 59 eP 1703
CHG 23.54 308 eP 20 20
1.2s 23 . 44 nm
KMI 25.24 325 eP 20 36
ASPA 32.00 152 iPd 21 35
0.9s 5 . 00nm
BJ 1 35 . 29 357 tP 22 03
1.4s 1 5 . 00nm
STK 42 . 57 1 50 i Pd 2305
0.6s 3 . 5 0 n m
S.D. =1.3 on 7 of

7. AUG 25, 1991 07h 31m 45
44. 506 N ± 5 . 4km 7 . 263
DEPTH = 10.0km (geophys
NORTHERN ITALY

ML 1.7 (GEN) .

. 00 3 . 8X
. 00 1.4
4 . 6mb
. 00 0.8
. 98 0.0
4 . 4mb
. 00 -1.1
4 . 7mb
. 60 0.8
4 . 3mb
9 obs .

. 49± 0 . 59s
E ± 7 .0km
i c i s t)
(545)

PZZ 0.12 270 P 3148.79 0.2
S 3 1 5 0 .: 2 4
STV 0.27170P 31 51.: 24 0.1
S 31 54. 45
ENR 0. 30 158 P 3151.93 0.1
S 31 55 .82
BHB 0 . 34 360 P 3152.83 0.4
S 3157.32
ROB 0 . 48 1 16 P 3155,27 -0.1
S 32 02
RRL 0.54 321 P 31 55
S 32 03
IMI 0 . 75 1 43 P 3159
S.D. =0.4 on 7 of

18
92 -0.5
27
88 -0.3
7 obs .
_ _ _ _ i

% AUG 25. 1991 07h 43m 60;07± 2.47s
32.853 S ±14. 2 km 71.460 W ±13. 8 km
DEPTH = 1 4 . 1 ± 5 . 7 km
NEAR COAST OF CENTRAL CHILE (135)

ROCH 0.40 108 iPc 43 08^60 0.1
i S 43 1 4u 00
LCCH 0.63 188 IP 43 12
PEL 0.711141 PC 4314
i S 4323
JACH 0.75 77 iPd 43 14
IS 43 24
SAN 0 . 98 1 32 i PC 4316
IS 43 29
TACH 0.91 151 i PC 43 17
IS 43 29
LNV 1 . 10 1 78 i P 4320
IS 43 35
PCH 1 . 1 0 1 34 i P 4320
IS 43 34
CHCH 1 .27 148 iPc 43 23
iS 43 39
S.D. =0.3 on 9 of

AUG 25. 1991 09h 02m 1 1
47 . 129 N ± 8. 2km 153.716
DEPTH = 33.0km (normol)
4.6mb (24 obs.) 4.0Msz
KUR I L I SLANDS

. 50 0.2
. 00 0.2
. 70
. 30 -0.2
. 40
. 90 0.0
. 00
. 10 0.0
. 40
. 00 -0.3
. 00
. 20 -0.3
. 70
. 50 0.2
. 50
9 obs .

. 18± 0. 30s
E ± 6 .3km

(1 obs.)
(221)

KUSJ 7.54 241 eP 04 01.20 -0.3
eS 05 20.60
ASAJ 8.33 253 eP 04 17.00 4.5X
HOOJ 8.81 241 eP 04 191.50 0.4
MRRJ 10.14 247 eP 04 38;. 00 0.5
H F 1 I I 11 Q*> *> "^ *> P Pt A S ft Q <* *> "7V UrUU \ \ , y £ £ J £. r O ** -JO
eS 07 02
YAMJ 13.45 233 eP 05 17
N 1 IJ 14.69 233 P 65 37
CHJJ 15.59 230 P 05 49
MAT 15.64 233 i Pd 05 4S
0.8s 36.57nm
MTMJ 15.83 234 P 05 52
1 IDJ 16 .59 231 P 66 0:

TSRJ 17.60 235 P 06 1 (>
YAK 20.21 326 eP 07 01
PMR 35.04 44 P 09 &'.<
0.7s 1 4 . 53nm
FBA 35.61 39 P 09 07

. 40
. 80 -4.3X
. 40 -0.9
. 20 -e 8
. 20 -1.4
4 . 6mb
. 60 0.4
. 80 1.0
. 90 1.5
. 20 15 .6X
. 00 6.6
5 . 0mb
. 40 0.2

0.9s 13. 75nm 4 . 9mb
L2H 38.29 272 PC 09 30.00 -0.3
1.5s 34.00nm 5. 0mb
220s 0 . 25um 4 . 0Ms 2
I NK 41.11 33 eP 0954.00 1.0

pP 10 12.00 73kmX
MBC 44.10 20 eP 10 18.00 0.7
KMI 45.72 260 eP 10 31.50 6.4
1.0s 40 . 00nm 5 . 3mb
YKA 50.37 37eP 11 06. 90 0.3
0.9s 6.70nm 4. 6mb
CHG 52.61 257 eP 1 1 25 . 30 1.2
1.0s 14.50nm 4. 9mb
PNT 54.66 53 eP 11 38. W0 -0.9
0.6s 4 . OCnm 4 6mb
GUN 55.38 275 P 11 44.12 -0.6
KKN 55.86 275 P 11 47.74 -0.3

0.7s 86. 00nm 5 , 9mb X
PK 1 55.92 275 Pd 11 48.06 -0.5
0.6s 23.00nm 5. 4mb
DMN 56.10 275 P 11 49.60 -0.2
0.8s 87 . 06nm 5 . 8mb X
GKN 56.16 276 P 11 49.60 -6.6
6.6s 79 . 06nm 5. 9mb X
NEW 56.62 53 P 1152.80 -0.3
0.8s 7.50nm 4. 8mb
ORV 59.24 64 P 12 11.00 -0.5
FFC 60.18 40 eP 12 17.50 -0.2
0.6s 8.00nm 5. 0mb
TNP 62 . 77 63 P 12 35 . 60 -0.1
0.7s 3.00nm 4. 5mb
BW06 64.18 54 P 12 44.80 -0.1
0.8s 3 . 69nm 4 . 5mb
PV09 67 . 28 58 P 1305.10 0.2
NB2 68.00 341 P 13 07.20 -1.6
0.7s 3 . 00nm 4 . 5mb
HFS 68.25 340 eP 13 08.50 -1.7
0.4s 3 . 40nm 4 . 8mb

GOL 68. 59 54 P 1312.70 -03
0.7s 1 . 21 nm 4.1mb
ALO 71.29 59 ePc 13 29.90 0.4
0.8s 1 . 68nm 4 . 1mb
EKA 76.07 347 P 13 57.06 0.4
0.5s 0 . 80nm 4 . 0mb
TUL 76.55 51 eP 13 59.10 -0.6
0.6s 3 . 1 0nm 4 . 5mb
WTTA 80.32 335 eP 14 20.50 0.2
6.6s 5 . 40nm 4 . 7mb
i 1421.40
e 14 38 .00
CDF 80.46 338 eP 14 21.40 0.5
LOR 82.37 340 eP 14 30.70 -0.1
0.5s 1 . 45nm 4 . 3mb
LPL 83.28 337 eP 14 36.60 0.8
0.7s 2.20nm 4. 4mb
LPG 83.30 337 eP 14 36.70 0.7
0.7s 2.20nm 4. 4mb
MAF 83.65 340 eP 14 38.20 0.8
0.8s 4 . 05nm 4 . 6mb
S.D. -0.8 on 41 of 45 obs.

55 AUG 25. 1991 09h 30m 46.B5± 1.45s
47.338 N ±15. 4km 25.150 E ±11. 5km DEPTH - 33.0km (normol)
ROMANIA (358)

PTT 0 . 94 1 15 eP 31 04 . 00 0.3
BMR 1.17 287 iPd 31 07 . 00 0.1
TNR 1.79 200 ePd 31 15.00 -1.0
VRl 1 .83 1 43 iPc 3115.00 -1.5
MLR 1.93 163 i Pd 31 19.10 1.0
CMP 2.07 182 ePc 31 21.00 1.0
S.D. -1.3 on 6of 6 obs.

AUG 25, 1991 09h 46m 36.72± 0.28s
43.749 N ± 3.5km 9.343 E ± 2.1km
DEPTH - 10.0km (geophy s i c i s t)
CORSICA (380)
ML 3 . 1 (LOG) .

PI I 0.86 91 P 46 53 . 70 0.5
eSg 47 05.00
FIN 0.94 300 P 46 54 . 89 0.2
S 4707. 86
BDI 0.96 71 PC 46 55. 00 0.0

eSg 47 08.40
PCP 0.98 324 P 46 55.46 0.1

237

25d 09h

BOB 1 .

CK 1 1 .

1 M 1 1 .

ROB 1 .

PGF 1 .

SAOF 1 .

SBF 1 .

AUTN 1 .
AURF 1 .
ENR 1 .

TOUF 1 .
STV 1 .

MV 1 F 1 .
DO 1 1 .
PGD 1 .
CALN 1 .

PZZ 1 .
SFI 1 .
BHB 1 .
CRE 1 .
FRF 1 .

RSP 2 .

LMR 2 .

ORX 2 .
RRL 2 .
LRG 2 .

BNI 2 .
LSD 2 .
LPL 2 .

CDR 2.

CT 1 2 .

WTTA 3.

LBF 4 .
BGF 5 .
S. D.

7. AUG 25
42.572
DEPTH -
CENTRAL 1

AOU 0 .

MNS 0 .

ASS 0 .

RDP 6 .
SD 1 0 .

ARV 0 .

S.D .

7. AUG 25
17 . 985
DEPTH =

S 47 07.
02 4 PC 46 56.

i Sg 4710.
02 3 1 2 Pd 4656.
eSg 47 09 .
06 279 P 46 56.
S 4710.
19 298 P 46 58.
S 4713.
23 192 Pg 47 00.
Sg 4716.
31 28 1 Pg 4700.
Sg 4718.
39275Pn 4701.
Sn 4719.

4l281Pg 4702.
47 276 Pg 47 02.
47 290 P 47 03.
S 47 20.
54 281 Pn 47 03.
54 289 P 47 04.
S 47 23.
59 276 Pn 47 03.
69 297 P 47 06.
73 85 P 4706.
78271 Pg 4708.
S 47 30.
78 296 P 47 07.
82 84 P 47 08.
85 307 P 47 08.
90 93 P 47 09.
97 265 Pn 4710.
Sn 47 33.
05 31 4 P 4711.
S 47 34.

10260Pn 4711.
Sn 47 36.
1 2 333 P 4712.
1 8 303 P 4714.
1 9 2 6 3 P n 4713.
Sn 4738.
31 305 P 47 15.
31 318 P 4717.
57 31 4 Pn 4721.
Sn 4751.

59 270 e (Pn) 47 20 . e(Sn) 47 49.
e 47 58.
82 35 P 4721.
eSn 47 55.
87 24 ePn 47 41 .

«r 48 23.

i 48 37.
98 31 2 Pn 4753.
38 304 Pn 47 58.

90
40 0.3
20

10 0.1

80
90 0.1
95
97 -0.1
39
13 0.5
84
83 -0.2
06
80 -0.3
70
23 -0.4
93 -0.3
76 0.5
70
84 -0.6
79 0.5
32
91 -1.2
50 0.0
60 -0.5
97 1.1
43
59 -0.3
20 -0.1
78 0.0
80 0.3
00 -0.4
60
56 -0.2
65
70 -0.7
70
64 -0.1
32 0.6
40 -0.2
40
40 -0.2
39 1.7
60 2 .3X
70
40 1.0
30
80
80 -1.0
30
50 3.8X
00
40
00 -0.2
60 -0.4

=0.6 on 36 of 38 obs.
____ _

, 1991 1 0h 04m 23 .
N ± 6 . 5km 13.321
10.0km (geophysi
TALY

23 164 P 04 28.

eSg 04 32.
51 249 PC 04 33.

«Sg 04 40 .
70316P 0437.
«Sg 04 48 .
93 209 P 04 42.
94157P 0441.
«Sg 04 58.
97 343 PC 04 42.
eSg 04 58.
= 09 on 6 o f

. 1991 1 0h 05m 0 1 .
N ±1 5 . 4km 66 . 955
10.0km (g <? o p h y s i
PUERTO R 1 CO REG 1 ON

MGP 0.
LRS 8 .
SJG 0 .
CPD 0 .
LPR 1 .
S.D.

13 280 P 05 04.
32 19 P 05 08.
78 81 i P 05 1 7.
99 87 P 05 20.
08 73 P 05 20.
- 1.3 on 5 o f

74± 0.96s
E ±1 O . 0km
cist)
(381)

00 -0.6
90
30 -0.8
40
50 0.0
20
80 1.3
76 6.6
70
30 0.2
00
6 obs .

65± 1 . 35s
W ± 7 . 9km
cist)
(90)

10 -0.1
00 0.2
30 1.1
00 0.1
00 -1.4
5 obs.

AUG
36 .

25 , 1991 1 0h
446 N ± 5. 2 km
DEPTH - 2 1 0 . 6 ± 8 .

09m 04 . 85±
70 . 773 E ±
4 km

0 . 73s
3 . 3km

4. 6mb (41 obs.)
H I NDU

MA 1 0

ND 1

GKN
DMN
KKN
PK 1
GUN
1 R4
1 R1
I R7
I R5
POO

KER
HYB

SHL

GBA

LZH

KOD
OBN

CHG
ELL
VR 1
ISR
MLR
AGMR

KAF

NUR

SKO
SPC
KRA

SOD
SRO

ZST
KEV

UPP
KSP

KTK1
SSE

I PM
PRU

TDS
BRG

LJU
CEY
if tj r< K n L

MGR
HFS

SCO
VOY
CLL
MOR7
FVI
MOX

ARV

KUSH REGION

9.10 272 ePn
0.7s 1 4 . 93nnr
eSn
9.46 143 i Pd
0.4s 1 86 . 44 nm
14.43 122 P
15.00 122 P
15.01 1 2 1 P
15.23 121 P
15.35 119 P
1.6 . 1 6 272 i PC
1 6 . 30 272 ePc
16.32 273 iPc
16.42 272 eP
18.05 171 i P d
0.9s 75.63nm
19.40 271 «P
20.17 158 «Pc
eS
21.05 115 eP
i S
23.52 164 Pd
0.5s 24 . 60nm
26.60 81 eP
1.5s 28 . 00nm
PP
26.79 165 eP
29.84 320 iPc

e
e

i
30.36 118 eP
32 .63 283 eP
34.10 300 eP
34.23 299 eP
34.65 299 iPc
35.30 259 eP
1.0s 1 504 . 00nm
37.57 327 i P
0.5s 9 . 80nm
37.76 324 i P
0.9s 55.80nm
38.19 294 eP
38.49 306 iP
38.70307 i PC
0.6s 29.00nm
39. 71 335 i P
39.82 303 iP
e
40.61 304 eP
40. 78 338 i P
0.5s 22.50nm
41.00 322 i P
41 . 03 308 ePc
e

41.59 336 i PC
4 1 . 86 82 P
1.0s 1 2 . 00nm
42.16 1 32 ePd
42.18 307 PC
e
42.44 291 P
42.51 308 iPc
1.0s 1 6 . 00nm
e
42.57 301 eP
42 .68 301 eP
42 . 87 306 P
e
42.91 292 P
43.00 322 «P
0.5s 1 8 . 50nm
43.00 293 PC
43.01 301 eP
43.08 309 iP
43.69 331 eP
43.69 302 P
44.00 308 iPc
1.9s 36 00nm
44 . 1 fl 7Qfl P

11 12.00
A
12 44.00
11 16.80
5
12 20.00
12 27 . 52
12 27 . 30
12 30.18
12 31 .50
12 43.80
12 44.00
12 45.50
12 45. 00
13 04 . 30
5
13 18. 50
13 24 . 50
17 08. 30
13 35. 00
17 15 . 00
13 57.60
5
14 26.50
4
14 32.50
14 28.20
14 54.00

15 1 1 . 80
15 37.00
16 07 00
15 01 . 00
15 18 70
15 31.00
15 20.00 -
15 37 .00
15 43.00
6
16 00. 70
4
16 62.10
5
16 05.50
16 10.10
16 09.90
5
16 18.40
16 20.00
18 03.40
16 26.00
16 27.00
4

16 28.00
16 29.00
18 08.80
16 33. 72
16 37.00
4
16 39. 90
16 38. 70
18 12.50
16 40.90
16 41.40
4 .
17 06 . 00
16 42.00
16 42.50
16 44.00
18 27.00
16 44.40
16 44.20
4 .
16 45.40
16 45.20
16 45. 30
16 50.59
16 50.10
16 53.50
4 .
1 fi =, A 1 fl

(718)

- 1.3
. 4mb

- 1.0

. 7mb X
- 0 . 9
- 0 . 5
- O . 8
- O 8
- 0 . 9
1 . 7
0 . 2
1 . 5
- 0 . 3
1 . 3
. 1mb
1 . 5
- O. 1

1 . 5

0 . 4
1mb
0 . 9
7mb
2 1 kmX
0 . 6

0 . 0

4mb X

2 . 0
- 0 . 1
- 0 . 1
- 1 2 . 3X
1 . 1
1 . 6
6mb X
0 . 6
7mb
0 . 4

2mb
0 . 0
1 . 9
0. 3
1mb
0 . 8
1 . 2

O. 7
0 .6
9mb
- 0 . 3
O. 3

0 . 6
1 .3
4mb
1 . 6
0 . 6

0 . 6
0 . 6
5mb

0 . 7
0. 3
0 . 3

0 . 3
- 0 4
8mb
0 . 6
0 . 2
- 0 . 1
0. 5
- 0 . 2
0. 7
5mb
a A

YAK
NB2

GRF

WTTA

CT I
LOF
CRE
SF I
OGA

PGD
OSS
MME
VDL
LLS
BOB
TMA
MMK
CDF
PGF

Dl X
BSF

MEM
WLF
HAU

SBF

LPG

LPL

DOU
FRF

SNF
LMR
LRG

LBF
LOR
SMF

SSF
AVF

BGF
MAF

T C F

CAF

LSF
RJF
LDF
LPO
FLN
EKA

LFF

GRR
MFF
LPF
EPF

MAT
DMU
DAG

DCN
TOL
MTD

KR I
MBC

BUL

<; i R

44.13
44.31
0.6s
44 . 35
1 .0s
44.37
0 . 8s

44 . 55
44.61
44.78
44.79
44 . 85

y . 5s
44.90
45 . 47
45.55
45. 97
46 .22
46.31
46.44
47 .07
47. 09
47.13
0 .5s
47.44
47 .52
0.6s
47 .55
47.61
47.78
0 . 6s
47 .92
0.5s
48. 02
0. 7s
48.03
0. 5s
48 . 53
48 .55
0 .5s
48.65
48.71
48. 78
0. 6s
49.56
49. 58
49. 73
0.5s
49 . 86
50. 02
0. 5s
50. 42
50.69
1.1s
50.91
0.7s
51 .37
0.7s
51 .38
51 .64
51 .86
52. 04
52.05
52.20
1 . 0s
52.27
0. 7s
52.39
52.40
52. 60
53.12
0. 6s
53. 14
54 . 65
54 . 76
1.1s
55 . 01
57 . 30
64 . 60

65 .72
67 . 40
0.5s
68. 95
7 3 fi Q

35 i PC
323 P
15. 1 Onm
307 iPc
1 5 . 00nm
303 iPc
7 . 70nm
e
e
302 P
333 eP
298 P
299 P
303 i P c
1 0 . 00nm
299 P
303 ePd
299 P
303 ePd
303 ePd
300 P
302 ePd
302 ePd
306 eP
297 eP
5.85 nm
302 ePd
305 eP
7 . 20nm
309 PC
307 iPd
305 eP
3 . 60nm
299 eP
8 . 00nm

302 eP
8.25 nm
302 eP
4 . 75nm
308 P
299 eP
3 . 65nm
309 P
299 eP
299 eP
3 . 68nm
304 eP
305 eP
304 eP
5 . 45nm
304 eP
304 eP
4 . 35nm
304 eP
304 eP
1 9 . 55nm
304 eP
6 . 68nm
302 eP
5 . 50nm
304 eP
303 eP
307 eP
302 eP
307 eP
316 PC
1 2 . 30nm
302 eP
8 . 80nm
307 eP
305 eP
307 eP
300 eP
2 . 70nm
68 e P
315 eP
344 i Pd
56.96 nm
314 eP
298 eP
222 iPc
ipP
224 eP
3 i PC
40 . 08nm
223 eP
710 ~P

16 54
16 54

16 56

16 55

17 42
18 35
16 57
16 56
1 7 00
1 7 00
16 59

17 01
17 04
17 06
17 08
17 10
17 12
17 11
17 16
17 17
17 16

17 20
17 20

1 7 20
17 22
17 22

1 7 23

1 7 24

1 7 24

1 7 29
17 27

17 29
17 29
17 29

17 35
17 35
17 36

17 37
17 39

17 42
1 7 44

1 7 45

1 7 49

17 48
17 51
17 52
17 54
17 53
1 7 54

17 56

1 7 56
1 7 56
17 57
18 01 .

1 fl A 1 1 O \y 1
18 13
18 14

18 16.
18 31 .
1 9 20.
20 10.
19 19.
19 39.

1945.
7fl 17

. 10 0.5
. 70 -0.5
4 . 6mb
. 80 1.3
4 . 4mb
. 30 -0.7
4 . 2mb
. 00
. 00
. 20 -0.1
. 94 -0.4
. 30 1.1
. 20 1.1
. 10 -0.7
4 . 5mb
. 30 1.2
. 60 -0.1
. 40 1.0
. 20 -0.4
. 00 -0.6
. 10 0.9
. 60 -0.7
. 70 -0.6
. 10 -0.2
. 80 -0.9
4 . 2mb
. 20 0.0
. 00 -0.6
4 . 3mb
. 60 0.0
04 1.0
00 -0.5
4 . 0mb
30 -0.4
4 . 4mb
60 -0.1
4 . 3mb
60 -0.1
4 . 2mb
10 0.9
90 -0.5
4 . 1mb
40 0.3
30 -0.3
48 -0.8
4 . 0mb
30 -0.9
50 -0.7
80 -0.6
4 . 3mb
90 -0.4
00 -0.6
4 . 2mb
00 -0.6
50 -0.2
4 . 5mb
90 -0.5
4 . 3mb
60 -0.3
4.2mb
90 -1.0
80 0.0
30 -1.1
30 -0.5
60 -1.2
80 -1.0
4. 4mb
20 -0.2
4 . 5mb
00 -1.3
50 -0.9
70 -1.1
50 -1.3
4 . 0mb
00 -2.0
00 -0.7
20 0.0
5 . 2mb
00 -0.3
00 -1.7
80 -1.1
60 214kmX
00 -10 . 1 X
40 0.6
5. 4mb
40 -3.8X
an _s w

238

25d 10h

1 NK

FBA

K- 1 C
T 1 C
L I C
RSO
PMR

BALM
YKA

A SPA

FFC

NEW

PCH
PEL
TACH.
LNV

73
0.
74
0 .
74
74
74
77
77

0 . 79
81
0 .
84

0 . 86
1 .
95
0.
148
1 48
1 48
1 49
S D .

. 99
4s
. 57
9s
6fi
. 66
91
. 05
. es
7s.
. 17
. 31
6s
. 37
6 s
. v n
3s
. 37
8s
. 32
. 32
. 66
. 1 3
= 0

9
18
16
70
267
267
267
20
18
23
1 6
3
15
125
1 1
356
31
5
6
264
264
264
263
9

iPc
. 00nm
P
. 83nm
P
P
P
P
P
. 26nm
P
eP
. 20nm
iPc
. 4 6 n m
fcP
. 00nm
P
. 25nm
ePKP
i P K P c
ePKP
ePKP
on 1 25

20

20

20
20
20
20
20

20
20

21

21

22

28
28
28
28
of

1 9

21

21
21
23
35
35

47
58

1 3

35

07

24
27
27
28
1

- 00

. 80

. 20
. 60
. 00
. 70
. 50

. 80
. 80

. 90

. e*

. 10

. 80
. 20
. 50
. 80
32

0.
5 . 2mb
0 .
5 . 4mb
- 1 .
- 1 .
- 1
- 0.
- 0 .
5 . 6mb

0 . e
4 . 9mb
- 0
4 . Smb
- 1
5 . 1mb
0 .
4 . 9mb
1 .
3 .
3 .
3 .
obs .

7

1

5
4
4
o

2

5
5

7

b

9

0
4X
2X
9X

? AUG 25. 1991 10 h 49m 43 25± 1.26s
7.082 N ±27.8lm 73.3CU W i37.Ckm DEPTH - 149.1 ± 18.4 km
4.2mb (1 obs.)
NORTHERN COLOMBIA (99)

BMG
BOG

BUGC
CLMC

HOOC
ANCC
V K A

0 .
2 .

4
4 .

4 .
5.
62 .

23
56

32
54

89
01
96

93
197

223
226

223
225
340
0. 6s
S.D. =

? AUG 25,
31. 823 S
DEPTH *
OFF

ROCH
JACH

LCCH

PEL

SAN
TACH

LNV
PCH

CHCH

COAST

1 .
1 .

1 .

1 .

1 .
2.

2.
2.

2.

S.D.

0 .9

1 991
±1 15

iPc
eP
eS
eP
eP
eS
eP
eP
eP
2 . 00nm
on

1 1h
. km

50
50
50
50
50
51
50
50
59

05
26
56
48
52
35
55
57
55

. 00
. 00
. 00
. 42
. 89
. 20
. 76
. 02
. 80

- 0
0

- 0
1

- 0
- 0
0

. i
. i

. 2
. 3

. 5
. 7
. 0
4 . 2mb
7 of

06m
72-

20
031

7 obs .

. 72±16 .
W ±72.

95s
8km
33 . 0km (no rmo 1)
OF CENTRAL

43
49

69

74

99
04

1 9
20

40

*

143
125

1 67

1 40

145
153

1 66
145

152

0. 4

iPc
i PC
iS
iPc
iS
iPc
i S
iPc

iPc
i S
iP
IP
iS
iPd
IS
o n

CH 1

06
06
06
06
07
06
07
06
06
07
06
06
07
06
07

LE

45
45
59
48
04
48
05
52
53
1 3
55
55
1 7
58
22
9 o f

(134)

. 50
. 50
. 60
. 90
. 50
. 90
. 50
. 90
. 30
. 50
. 00
. 50
. 50
. 50
. 50
9

0
0

0

- 0

0
- 0

- 0
- 0

- 0

obs .

. 6

. 0

. 5

. 2

. 1
. 2

. 5
. 3

. 1

AUG 25. 1991 11h 21m 48.98± 0.41s
43.763 N ± 4.9km 9.319 E ± 3.2km DEPTH - 13.6 ± 3 . 0 km
CORSICA (380)
ML 2.7 (LOG).

. 5

0. 5

- 0 . 4

P 1 1 0.87 92

FIN 0.92 299

PCP 0".96 325

BDI 4 97 72

CK 1

BOB

1 M 1

MME

. 00 312

. 01 5

. 05 279

. 09 66

P

eSg
P
S
P
S
P

eSg
P

eSg
P

eSg
P
S
P

eSg

22
22
22
22
22
22
22
22
2 2
22
L. 2
22
22
22
22
22

05
1 6
06
1 9
07
20
06
20
08
23
08
22
08
22
09
24

90
50
7 1
07
28
27
80
70
00
00
90
00
51
94
30
00

ROB

PGF

SBF

ENR

STV

DOI

PZZ
BHB
FRF

RSP
LMR

ORX

RRL
LRG

LPL
S.D

* AUG

1.17 297

1.24 191

1 . 37 275

1 . 45 289

1 . 52 289

1 . 67 297

1 . 76 296
1.83 307
1 . 95 265

2.03 314
2 .09 259

2.10 333

2.16 303
2.17 263

2 .55 314
. =0.6

25 . 1991
24 . 953 N ±1 1 .
DEPTH
TA 1 WAN

TWC

TWZ
ANP
TWO
SSE

S . D

AUG

P
S
Pn
Sn
Pn
Sn
P
S
P
S
P

eSg
P
P
Pn
Sn
P
Pn
Sn
P
S
P
Pn
Sn
Pn
o n

1 1 h
4 km

22 18
22 24

. 82
. 78
22 12 . 80
22 28 . 40
22 1 3 .! 80
22 31 .120
22 14.78
22 33 . 37
22 1 6 . 66
22 33.162
22 18.98
22 40 . 90
22 19.35
22 19.05
22 2 2 . 0 M
22 45
22 20
22 23
22 48
22 23
22 50
22 28

. 60
. 17
. 60
. 40
. 30
. 36
. 47
22 25.20
22 58.88
22 33.58

0 . 2

0. 3

0 . 1

- 0. 1

0. 8

0 . 9

- e. i
- 1.2

(s . e

- 3. IX
- 0. 4

- 1.0

3. 2X
0. 0

2. 7X
20 of 23 obs.

31m 51. 96± 2 . 44s
122.517 E ±20 . 2km
= 10.0km (geophysiicis
REG 1 ON

0.70 241

0.86 280
0 . 93 285
1.21 224
6 .23 349

. = 1.2

25 . 1991
36 . 812 N ± 5.
DEPTH
STRA 1 T

MAL
EPRU

EGUA

ECOG

A FC

EJ 1 F

ALJ
MOM 1
EHOR

G! BL
PLAT
CN 1 L
EBAN

EHUE

EN 1 J

EMEL

EVAL

EV 1 A

EALH

EPLA

ACU

GUD

ETOR

PTO

88.1

iPc
eS
i PC
eP
ePd
ePg
Sg
on

13h
4km
± 7

32 84 . 50
32 08.,50
32 88.48
32 10^50
32 15.30
33 26 .00
35 04 . 00

t)
(243)

- 1 . 2

- 0. 2
0. 7
0. 9
- 0. 1

5 o f Sobs.

_, ._

03m 58 . 45±
4.418 W ±
. 3 km
OF GIBRALTAR

0 . 08 176
0 . 67 284

0.68 88

0.82 55

8.83 57

0 .92 247

0.96 262
1.16 245
1.21 327

1.23 271
1 .28 238
1 . 39 252
1.44 20

1.77 55

1.78 84

1.92 141

2. 01 293

2 . 37 39

2.61 65

3.50 339

3.60 61

3.83 3

4.41 24

5.41 324

iPc
i°d
eS
iPc
eS
iPd
eS
iPc
eS
iPc
eS
eP
eP
i Pd
eS
eP
eP
eP
iPc
eS
iPc
eS
eP
eS
iPc
eS
i Pd
eS
iPc
eS
eP
eS
i P
eS
eP
eS
eP
eS
iPc
eS
i Pnd

04 09
04 1 4
04 22
04 1 4
04 24
04 1 6

00
31
50
18
90
77
04 27 L 60
04 16 I 87

04 28. 90
04 17l 21
04 29^90
04 20 . 00
04 20L50
04 20.27
04 34 60
04 21.00
04 22.50
04 22
04 23
04 40
04 28
04 50
04 28
0449
04 29
04 53
04 30
04 52
04 36
05 02
04 40
05 09
04 51
05 29
04 52
05 34
04 57
05 36
05 04
05 51
05 1 8

50
91
20
. 92
20
94
50
84
20
67
50
22
80
1 4
70
62

00

96
00
00
70
61
60
20

0. 49s
3 . 2km

(385)

- 1.9
- 0. 5

- 0.7

0 . 3

0.3

- 0.2

2.0
0.3
- 0 . 5

- 0. 1
0. 7
- 0.5

0. 1

0.8

0.7

- 0 . 2

- 0.7

- 0. 1

0.7

- 0 . 1

- 0.2

0.6

0.3

0.0

EROO 5

ECR 1 5

LHE 6
1 SSF 6
STS 6

ELYF 6
ATE 6
MADF 6
ESCF 6.
JAU 6
ENSF 7
EPF 7 .

SALF 7.
GRBF 7.
VDCF 7.
LSPF 7.
LPO 8.
LFF 9 .
CAF 9.

RJF 9.
MFF 10.
LSF 10 .
MAF 10.
BGF 1 1 .
GRR 1 1 .
FLN 12.
S.D.

50 42

97 14

76 24
80 23
85 334

87 21
89 23
90 22
92 24
95 25
01 3 y
21 29

34 34
56 35
79 40
82 36
94 27
01 24
47 29

59 26
29 17

43 23
76 27
14 27
86 12
29 12
- 0.8

« AUG 25, 1991
22. 260

iSn
eP
eS
eP
eS
P
P
iPc
eS
P
P
P
P
P
P
Pn
Sn
P
P
P
P
Pn
Pn
Pn
Sn
Pn
Pn
Pn
Pn
Pn
Pn
Pn
on

1 4h
S ± 9 . 6km
DEPTH - 108.8

4.7mb (
NORTHERN

f* f* U *^ w w n o .
CNCB 5.
LPB 5.
ZOBO 5.
ARE 6.

RTLL 9.
SI V 9.
PPD 16.
SPA 67.

± 19

06 13
05 19
06 20
05 26
06 29
05 38
05 37
05 38
06 49
05 39
05 39
05 39
05 39
05 40
05 39
65 43
06 59
05 44
05 48
05 51
05 52
06 06
06 07
06 13
07 51
06 14
06 25
06 25
06 30
06 35
06 46
06 51
50 of

38m 46
68 . 606
. 3 km

. 50
. 25
. 20
. 73
80
12
. 41
57
. 89
. 57
. 00
. 08
. 50
. 83
. 96
. 00
. 60
. 54
. 22
. 36
. 18
. 20
. 40
. 00
. 60
. 40
. 00
. 00
. 00
. 00
. 00
. 60

- 0. 2

0. 7

1 . 2
- 0. 1
0 . 5

1 . 1
0 . 4
0 . 3
0 . 4
1 . 2
- 0.5
0.0

- 0 . 4
0.2
0 . 4
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- 0 . 5
- 0. 2
- 1.0

- 1 . 2
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- 1 . 8
- 1 . 2
- 1.4
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50 obs .

51± 1 . 23s
W ±1 5 . 7 km

1 obs.)
CHI LE

TO O fi JO £ O
45 6
72 5
98 4
38 334

03 179
46 50
03 92
88 1 80
0.8s 5
K 1C 68.
S.D.
-

& AUG 25
59. 823
DEPTH **
SOUTHERN

65 73
- 1.3

, 1991
N

P
P
P
P
eP
IS
ePc
PC
eP
iPd

40 06
40 08
40 1 4
40 15
40 19
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40 55
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49 36
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15h

49 38
8 of

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(123)

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- 0. 8

- 0. 6
- 6. 2X
0. 3
1 . 6
7mb
- 1 . 6
1 0 obs .

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W
133.7km

ALASKA (2)
<AE 1 C>.

OPT 0 .

PDB 0.

AUL 0 .
AUW 0 .
AUH 0.
AUP 0.
AGU 0 .
AUE 0 .
All 1 0 .

RED 0.

RS1 0.

RS2 0.
RSO 0.
ROW 0 .
REF 0.
MCNL 0.

RDN 0 .
DFR 0.
COD 0.
RDT 0.
HOM 0 .

21 144

37 265

44 177
45 180
46 178
46 1 77
47 177
47 1 74
49 177

69 30

73 29

74 29
74 29
74 26
77 30
78 215

78 27
87 27
90 186
92 35
94 99

iPd
eS
i Pd
eS
iPd
iPd
eP
eP
eP
iPd
ePd
eS
iPc
S
ePc
eS
ePc
ePc
iPc
iPc
iPd
eS
iPc
eP
iPd
iPc
ePc

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- 0 . 8
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- 0 . 8

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- 0 . 9
- 0 . 9
- 0 . 9
- 1 . 0

- 0. 8
- 0 . 9
- 1 . 1
- 0. 9
- 0 . 8

239

NNL
CNPM

SY 1

NKA
CK L

SPU
8GL
CRP

CGLM
NOG
SLKM
SEW
SUA
SKT
PMS
PLRM
LT 1
KN 1 M
KNK
GHO
CUT
GUI
TTA
F 1 D
VZW
VLZ

& AUG
62 .

1.12
1.17

1 . 34

1 . 45
1 . 49

1 .53
1 . 54
1 59

1 . 66
1.71
1 7?
2 . 64
2.13
2.36
2. 40
2 . 78
2 .84
2 . 92
2. 94
2 97
3 . 02
3 . 34
3.35

3 . 60
3.65
3 . 77
47 ob

25.
139 N
DEPTH =

eS
78 i PC
104 i PC
eS
1 55 i Pd
eS
49 i PC
22 i PC
eS
27 i PC
20 i PC
24 i PC
*S
25 i PC
22 t-P
66 eP
80 iPc
38 i PC
23 eP
52 i PC
48 eP
83 i PC
77 eP
55 ePc
47 eP
30 eP
69 eP
340 eP
72 eP
67 eP
67 eP
s . os soc i

1991 1 5h

88.6km

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65s
W

CENTRAL ALASKA
j- A C" 1 1- -s.

SKT

CUT
SUA

PWA

NCG

CGLM
CRP

PLRM
GHO

HUR
SPU

BGL
PMS

CKL
SML
TRF
NKA
KNK

KTH
RND
SLKM
RDT
DFR
RON
REF
MCK
ROW
RS2
RSO
RS1
RED
NNL
BWN
SEW
GLI
TOA
VZW
KN I M
SVW

^ M t- 1 U S

e . 29

e . 44
0 .69

e.73

0 .92

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1 .05

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1 . 84
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1 . 86
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1 88
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1 .92
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2 . 28
2.39
2 .40
2.43

237 iPc
IS
52 iPc
169 i PC
eS
132 iPc
eS
217 iPd
S
210 ePd
212 iPd
eS
121 iPc

1 1 e i PC
s
37 ePd
208 iPd
eS
217 i Pd
1 42 ePc
eS
214 i Pd
103 i PC
14 i Pd
184 ePd
1 20 i PC
S
2 iPd
37 i Pd
166 eP
204 iPd
208 eP
208 iPd
207 iPd
30 ePd
208 *Pd
207 ePd
207 eP
207 ePd
207 ePd
1 84 eP
1 8 ePd
1 59 eP
1 22 i PC
89 eP
115 eP
137 i PC
247 Pn

34 06
34 16
34 07
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34 1 1
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- 1.4

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- 0. 6

- 6.9
- 0.5
- 0 . 6

- 0.8
- 0 . 5
- 1.6
- 1 . 6
- 1 .0
- 1 . 1
- 1 . 6
- 2 .5
- 1.6
- 2. 5
- 2 . 7
- 2. 0
- 1 .0

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- 1 . 7
- 3.5
- 2.5
- 2. 7

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- 0. 7

- 0.6
- 0. 3

- 0.3

- 0. 8

- 0. 8
- 0. 7

- 1 . 2
- 0. 6

- 1 . 0
- 0 . 9

- 0 . 6
- 1 . 0

- 0. 9
- 0. 9
- 1 . 1
1 . 4
- 1 . 0

- 1.1
- 1 . 2
- 0 . 5
- 1 . 1
- 1 . 0
- 1 .0
- 0.9
- 1 .0
- 0. 8
- 0. 9
- 1 . 0
- 0.8
- 1 . 0
- 0. 4
- 1 . 2
- 0 . 1
- 2. 2
- 0.9
- 3. 0
- 3. 1
- 1 . 7

TTA
VLZ
KLU
SDG
Fl D
NEA
LT I
CNPM
TZL
WRH
PAX
OPT
PDB
CCB

HDA
AUL
AUP
AUW
MDM
FBA

GLM
MCNL
GLB
SY I

2 .45
2. 45
2. 50
2 . 58

o e. Q £. . *j y
2 . 60
2.61
2 . 62
2. 63
2. 69
2. 70
2 . 72
2 . 82
2 . 90
2 .92
3.01
3.03
3.03
3.09
3.13
0.7s
3.29
3 . 38
3. 49
3.61

291 *Pc
112 ePc
103 i PC
79 eP
121 i PC
1 9 eP
1 42 eP
182 eP
90 eP
28 i Pd
70 ePd
204 eP
215 eP
28 ePd
37 ePd
204 eP
204 eP
205 eP
23 ePd
26 Pn

34 30. 67
34 30 25
34 31 . 29
34 33 . 59
34 31 76
34 32. 35
34 31.88
34 33 . 57
34 33.60
34 33 . 72
34 34 .73
34 35.68
34 35.86
34 36.44
34 37.11
34 37.82
34 39.55
34 37 .58
34 39.24
34 39.40

25d 15h

- 1.8
- 2 . 2
- 2 . 0
- 0. 7
2

fi. D
- 2 . 1
- 2 . 7
- 1.3
- 1.3
- 2 . 0
- 1.2
- 0 .5
- 1.7
- 2 . 2
- 1.8
- 2 . 3
- 0 .9
- 2 .8
- 2. 1
- 2.3
31 . 98nm
28 eP
210 eP
98 eP
192 eP
63 obs. ossoc

AUG
45.

25.
374 N
DEPTH -

34 41.75
34 44 . 33
34 44.47
34 47.40
ioted

1991 1 5h 54m 1 9 . 08±
± 5 . 5km
10.0km

5. 474 E ±

(geophy s i c i s
FRANCE

RSL

LPL

LPG
COLF

PLDF

LBL

SMF

PYM

AGO
LBF

FRF

LRG

AVF

SBF

LMR

SSF

BGF

LOR

MAF

CAF

TCP

BSF

HAU

ML 2 . 8

0 .87

0 . 90

0.91
1 . 26

1 . 43

1 .58

1.71

1 . 77

1 . 78
1 . 92

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2 . 05

2.06

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2.18

2 . 20

2.20

2. 45

2.46

2.62

2. 70

(LOG) .

68 Pg
sg
80 Pg
Sg
82 Pg
277 Pn

pg
Sg
295 Pn

pg
Sg
266 Pn

pg
Sg
319 Pn

pg
Sg
283 Pn

Sg
293 Pn
328 Pn

pg
Sg
155 Pg
Sg
161 Pn

Pg
Sg
315 Pg
Sg
136 Pg
Sg
1 60 Pg
sg
322 Pg
sg
304 Pn

pg
sg
330 Pn

pg
sg
294 Pn

Sg
261 Pn

sg
293 Pn

sg
20 Pn

Pg
sg
13 Pn

Pg
Sg

54 37 .71
54 50.87
54 35.20
54 46 . 60
54 35 . 40
54 42 . 69
54 44.40
55 01 .83
54 45.63
54 47 . 62
55 08.60
54 46 . 87
54 49 . 66
55 11.16
54 50 . 20
54 53 . 00
55 16.60
54 48. 23
55 18.23
54 56.11
54 53 . 00
54 58 . 00
55 23 .20
54 53 . 20
55 17.00
54 50. 40
54 54 . 40
55 18.50
54 59.60
55 26.60
54 55.20
55 19 . 60
54 56 . 40
55 22. 40
55 02. 40
55 31.20
54 56 . 00
55 02 . 20
55 31.70
54 56.50
55 02.50
55 32. 00
54 57 . 20
55 32. 20
54 58. 60
55 37.00
54 59.80
55 40 . 00
55 01 . 40
55 08.80
55 43.80
55 02. 80
55 1 1 .00
55 47.00

- 2.2
- 1.0
- 2 . 4
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0. 43s
3 . 8km
O

(538)

1 . 8

- 1 . 2

- 1.3
0 . 2

0 . 5

- 0 . 4

1 . 2

- 1.8

0.0
0 .9

0 . 0

- 3 . 2X

5. 7X

1 . 0

0 . 7

6 . 6X

0 . 1

0 . 3

0.9

- 1.2

- 0 . 1

- 0.9

- 0.5

LSF 2.89 289 Pg 55 14.80 8.7X
Sg 55 52.50
CDF 3. 28 21 Pg 5521.50 9 . 9X
S . D . - 1 . 0 on 20 o f 25 obs .

AUG 25, 1991 16h 14m 33.05± 1.54s
5 939 N ±19. 5km 94.224 E ±15. 6km
DEPTH = 47.7 ± 17.7 km
4 3mb (6 obs .)
NORTHERN SUMATERA (766)

BS I 1 . 1 5 1 1 2 *P 1452.00 -1.0
e 1 9 00 . 00
PS 1 5.69 124 ePc 15 56.50 -0.7
IPM 6 . 91 101 e P 1616.30 2.u
CHG 13.60 19 eP 17 56.00 10. 6X
GBA 18.20 296 Pd 18 44.70 0.7
0.7s 7 . 20nm 3 . 9mb
PKI 23.09 340 P 19 35.26 -0.7
OWN 23.23 339 P 19 38.08 0.8
GUN 23.24 341 P 19 35.56 -1.9
KKN 23.33 340 P 19 38.14 -0.1
GKN 23 . 76 339 P 19 43 . 26 1.9
KAF 74.54 333 iP 26 08.20 -0.2
0.5s 4.40nm 4. 7mb
SOD 76.03 338 *P 26 17.00 0.2
e 26 31 . 00
KEV 76.68 341 eP 26 20.00 -0.4
HFS 80.16 330 eP 26 39.20 -0.3
0.5s 1 . 90nm 4 . 3mb
GRA4 80.83 319 e(P) 26 44.30 0.9
0.7s 3.00nm 4. 3mb
NB2 81.45 331 P 26 45.70 -0.7

0.7s 1 . 1 0nm 3 . 9mb
EKA 89.35 325 P 27 26.00 0.3
0.6s 1 . 70nm 4 . 5mb
S . D . -1.1 on 16 of 17 obs .

tt. AUG 25, 1991 16h 31m 08.78s
56 . 028 N 149. 922 W

DEPTH - 10.0km (geo phy s i c i s t)
4 . 1mb (3 obs .)
GULF OF ALASKA (15)
<AE IC>. ML 4.4 (AE I C) .

KDC 2.23 322 iP 31 44.40 -1.8
SYI 2.91 334 eP 31 53.98 -2.0
eS 32 27.39
CDD 3.54 327 eP 32 03.03 -1.8
eS 32 43.04
CNPM 3.58 349 eP 32 02.55 -2.9
eS 32 43.22
HOM 3.76 347 eP 32 05.56 -2.4
eS 32 48 . 92
BRLK 3.78 353 eP 32 04.98 -3.4
AUI 3.81 332 eP 32 06.78 -2.0
eS 32 49.84
AUE 3.82 332 eP 32 07.16 -1.7
eS 32 49.94
AUP 3.83 332 eP 32 07.43 -1.8
AGU 3.83 332 eP 32 06.40 -2.8
AUH 3.84 332 eP 32 07.45 -1.8
AUW 3.85 332 eP 32 07.16 -2.2
AUL 3.86 332 eP 32 07.51 -1.9
MID 3.91 28 eP 32 07 .71 -2.4
MCNL 3.96 325 eP 32 08.59 -2.2
OPT 4.04 335 eP 32 09.70 -2.3
eS 32 56.20
NNL 4.09 350 eP 32 10.20 -2.5
SEW 4.10 3 eP 32 09. 45 -3.2
eS 32 53.24
LT 1 4.17 1 4 eP 32 10.66 -3.2
PDB 4.40 331 eP 32 14.04 -3.1
eS 33 02.68
KNIM 4.48 14 iP 32 15.32 -3.0
eS 33 03.29
SLKM 4.50 358 eP 32 15.11 -3.4
RED 4.65 342 eP 32 16.88 -3.9
eS 33 09.53
HIN 4 . 74 21 eP 32 19.37 -2.6
RON 4.74 343 eP 32 18.26 -3.9
RDT 4.74 345 eP 32 17.93 -4.2
NKA 4.78 352 eP 32 20.64 -1.8
DFR 4.80 343 eP 32 18.65 -4.3
KAIM 4.88 35 eP 32 21.19 -2.8
CVA 5.04 24 eP 32 23.64 -2.4
FID 5.97 19 eP 32 23.59 -3.0

240

250 16h

GLI
SGAM
RAGM
PMS
HMT
SPU
CKL
V ? W
CRP
CGLM
BGL
VLZ
KNK
SUA
NC&

PLRM
PMR
SNH
CYK
GHO
WAX
WRG
SML
KLU
SVW
SDN
SKT
TGL
GLB
TOA
BALM
TZL
SDG
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FBA
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YKA

PNT
MBC

SOD
NB2

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0
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2
0

5
0

' AUG 25, 1991 16h 33m 54.46±12.99s 4.007 N ±36.7km 77.270 W ±108.km
DEPTH = 33.0km (normo I)
NEAR WEST COAST OF COLOMBIA (102)
MD 2 .5 (UVC) .

ANCC 0

CLMC 0

HOOC 0
HOBC 1
S . D .

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. 83
. 18
= 1

1 40

100

130
73
. 5

iPc
eS
ePc
eS
ePc
eP
o n

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. 61 0
. 70
. 01 0

. 80
. 84 -1
. 62 -0
4 obs .

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> AUG 25, 1991 18h 02m 28.21± 3.48s
6.241 S ±23.6km 148.120 E ±30.5km
DEPTH = 33.0km (normal)
4.1mb (1 obs.)
NEW BRITAIN REGION (192)

LAT
Y YY Y

MDG

PMG

RMO
STK

7

1.19
2.14

2.53

3 .29

20
26
0

S.D

AUG 2
33 .509
DEPTH
4 . 3mb
PAK 1 STAK

NDI
GKN
DMN

1
1

6
2
2

. 1 4
. 23
6s
-

5 ,
N

250
270

293

197

178
193

1 . 3

1 99 1
±29 .

iPd
eP
eS
iPd
eS
eP
eS
i PC
i PC
3.00 nm
on

1 8h
0km

02
03
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03
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47 .
03.
28 .
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90
20
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20
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. 7X
. 6
4 . 1mb
5 of

43m 35.
71 . 959

» 10.0km (geophysi

6 obs

31± 1 .
E
c i

±23

st)

30s
2km

(1 obs .)
(710)

. 59
. 20
. 76

135
113
1 14

eP
P,
P

45
46
46

14 .
31 .
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70
84
32

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KKN 1 2 . 80 1 13 P 4640
0.6s 1 4 . 00 nm
PK 1 1 3 . 01 1 1 3 P 4642
GUN 13.21 111 P 46 46
N82 47 . 25 325 P 5210
1.1s 2 . 90nm
S . D . =0.6 on 7 of

» AUG 25, 1991 19h &4m 00
38 . 047 S ± 8 . 3km 78 . 597
DEPTH - 131.6 ± 10.7 Irn

4 . 7mb (3 obs .)
ARGENT I NA

1MU 1 . 72 246 i PC 0431
iS 6453
CHCH 4.11 359 i P 05 03

(S) 05 51
LNV 4 . 1 4 351 i PC 0502
iS 05 48
TACH 4.39 356 iPc 05 06
(S) 05 53
PCH 4.42 1 i PC 0507
iS 05 57
SAN 4.58 359 i PC 05 08
iS 0600
LCCH 4.63 350 iP 05 08
iS 0559
PEL 4.89 359 iPc 05 13
i 06 05
iS 06 08
IHA 5.08 350 eP 05 14

e(S) 06 13
JACH 5.35 0 i Pd 0518
iS 0618
ZON 6.67 1 4 eP 0537
eS 06 50
RTLL 6.93 1 5 i Pd 0540
(S) 06 56
CYA 10.38 24 eP 0623
CCH 20.96 12P 0835

ARE 21 . 52 358 eP 08 42
LPB 21.54 7 P 0842
ZOBO 21 . 80 6 P 0845
PPD 23.02 52 eP 08 53
e 08 55
SI V 23 . 52 24 P 08 57

SOB1 39.23 51 (P) 1117
SPA 52 . 1 4 1 80 i PC 1258
1.8s 17. 50nm
TIC 75. 30 69 P 1531
K 1C 75. 32 70 P 1530
0.4s 4 . 50nm
LKO 76.83 67 Pd 15 39
TNP 87.08 325 iP 16 31
1.0s 7 . 00nm
S . D . - 0 . 8 on 22 o f

? AUG 25, 1991 19h 37m 21
51.776 N ±53 . 1 km 16.332
DEPTH - 10.0km (geophys
POLAND

ML 3 .8 (GRF) , 3.3 (VIE

KSP 0 . 93 182 i P 3739
8.5s 70 . 00r>m
iS 3748
i 3756
BRG 1 . 75 240 i Pn 3752
i Pg 3754
i S g 38 13
PRU 2 . 1 2 213 Pn 3757
0.4s 67.90nm
Pg 37 59
Sn 3816

Sg 38 22
i 38 30
CLL 2.13 259 i Pn 3758
i Pg 3801
iSg 38 27
MOX 3 . 1 7 251 Pn 3811

D Kg ^ "* £1 *> 1 j o £. i
Sg 39 01
KHC 3 . 1 8 215 Pn 38 13
Pg 38 18
e 38 38
Sg 38 56

. 44 0.1
5 . 3mb X
. 44 -08
. 36 0.5
. 26 0.0
4 . 3mt>
7 obs.

1 6± 0.94s
iW ±14 7 I'm

(146)

. 40 02
. 50
. 50 1.3
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. 60 0.1
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. 00 -<j . 1
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. 30 0.8
. 50
. 80 0.1
. 50
. 50 -0.7
. 80
. 00 01

. 50
. 00

. 00 - 1 3
. 00
. 150 -0.6

. 00
. 00 -0.1
. 00
. 40 -0.1

. 00
. 00 - 3 . 8 X
. 30 0.8

. 00 2 . 0X
. 00 1.5

. 00 1 . 8X
. 90 -0.5
. 10
J 4 0 -1.9
. 30 0.1
,50 -0.3
4 . 9mb
;22 0.6

!SQ 0.1
4 . 6mb
. 28 0.1
. 80 -0.2
4 . 6mb
J5 obs .
4._ _ _

i56± 9.19s
E ±55. 5km
ic i st)
(548)
)-

J 40 0.0

(70
« 50
,60 0.5
00

50
20 -0.3

30
60
80
70
30 0.7
90
20
00 -1.5
00

00
. 00 0.4
t50
50
00

WET 3.43 221 iPnc 38 16.30 0.1
VKA 3.51 180 iPgd 38 27.20 9.9X
i Sg 39 1 1 . 00
SPC 3.60 134 eP 38 34.40 15. 7X
e 39 26.60
ZS1 3.62 172 eP 38 57.00 38. 2X
e 3909. 30
GRF 3.86 239 iPnc 38 22.70 0.5
ePg 38 35.80
eSg 39 21 .00
SRO 4.17 161 eP 38 48.60 22. 0X
e 39 26 . 60
WTTA 5.45 216 ePn 38 44.50 -0.5
e 3931.00

i Sg 4010.20
S . D . =0.8 on 9 of 13 obs.

% AUG 25, 1991 19h 41m 50.74± 1.00s
61.801 N ± 8.5km 5.393 E ± 7.6km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 2 . 4 (BER) .

FRO 0.25 260 iPc 41 56.01 0.0
i S 41 59 . 03
FOO 0.26219 iPc 41 57 . 56 1.3
iS 4201.73
HY A 0 . 74 1 49 i P 4206.36 1.1
i S 4218.42
SUE 0.81 202 eP 42 05.12 -1.2
iS 4216.34
MOL 127 52 eP 4214.31 0.0
eS 42 32.09
ASK 1 . 33 184 eP 42 15.53 0.3
eS 42 31 . 41
EGO 1 . 54 183 eP 4217.12 -1.1
eS 42 36.73
ODD1 1.99 162 eP 42 24.36 -0.5
eS 4249.18
S . D . = 1.1 on 8of Sobs.

» AUG 25. 1991 20h 51m 57.57± 0.58s 52.100 N ±14. 1km 171.368 W ± 7.1km
DEPTH = 33.0km (normal)
4.4mb (7 obs.) 4.1Msz (1 obs.)
FOX ISLANDS. ALEUTIAN ISLANDS (9)

ADK 3.29 268 eP 52 49.40 1.4
TTA 13.59 31 eP 55 15.50 5.3X
INK 24.25 34 eP 57 13 .00 0.9
MBC 31 . 23 21 eP 58 16 .00 0.4
0.5s 4.00nm 4. 5mb
MAT 38.46 266 eP 59 17.00 -0.8
1.3s 1 1 . 54nm 4 . 5mb
BONR 39.19 90 eP 59 23.50 -0.8
TNP 39.78 89 eP 59 29.80 0.7
LZH 59 54 291 eP 01 59.50 -0.6
1.5s 28 . 00r>m 5 . 2mb
NB2 67.19 359 P 02 49.00 -0.9
0.5s 0 . 60nm 3. 9mb
HFS 68.05 357 eP 02 53.50 -1.7
0.5s 1 . 30nm 4 . 3mb
CHG 75.20 282 eP 03 38.30 -0.3
GUN 75.76 297 P 03 42.20 0.1
KKN 76.18 297 P 03 44.20 -0.1
PKI 76.28 297 P 03 44.80 -0.2
GKN 76.37 298 P 03 45.20 -0.1
DMN 76.42 297 P 03 45.20 -0.5
KHC 79.06 357 eP 03 56.00 -3.6X
e 0401.00
LOR 80.93 3 eP 04 09.90 0.3
Z 22s 0 . 1 0um 4 . 1Msz
SSF 81.12 4 eP 0411.00 0.4
LBF 81.21 3 eP 0411.20 0.1
AVF 81.39 4 eP 04 12.20 0.3
SMF 81 .55 3 eP 0413.10 0.3
0.8s 3 . 35nm 4 . 4mb
LSF 81.84 5 eP 04 14.60 0.3
0.5s 1 . 80r>m 4 . 4mb
PSI 87.71 271 ePc 04 44.80 0.6
S.D. = 0. 7 on 22 of 24 obs .

? AUG 25. 1991 20h 52m 57.69± 4.88s
47.730 N ±11. 5km 2.018 W ±45. 0km
DEPTH - 10.0km (geophysicist)
FRANCE (538)
ML 2.2 (LDG) .

241

25d 20h

LPF 0.72 65 Pg
sg
GRR 1.02 49Pg
sg
FLN 146 4 4 Pg
Sg
LDF 1.54 55 Pg
Sg
MFF 1 70 1 3 1 Pg
Sg
S . D . = 0.6 on

? AUG 25 , 1991 2 1 h
4.342 N ±25. 3km
DEPTH = 33 CU m (
COLOMB 1 A.

MD 2 .8 (UVC) .

HOBC 0.06 78 iPc
eS
BUGC 0.45 188 ePc
CLMC - 0 . 59 2 1 9 i PC
ANCC 1.66 219 <?Pc
<?S
S . D . - 0 . C on

53 11.90 0.0
53 26 . 80
53 16.60 -0.4
53 35 . 00
53 23.80 -0.2
53 47 . 60
532580 0.7
53 50 . 40
53 27.50 -0.1
53 52.00
5 of Sobs.

58m 57 . 89± 1.74s
76.195 W ±24 . 8km
no rmo 1)
(103)

59 03 . 67 0.0
59 10.40
59 07.88 0.0
59 10.34 0.5
59 16.&6 -0.4
59 32.20

4 o (4 ob s .

& AUG 25. 1991 2 3 h 11 m 53.103
62 . 1 87 N 1 51 . 372 W
DEPTH = 89 4km
CENTRAL ALASKA (1)
<AE 10.

S K T 0 . 2 2 2 0 0 i P 1205.58 1.6
eS 1215.46
CUT 0.56 67 .P 12 07.79 -0.7
SUA 8 . 78 157 i P 1210.57 -0.2
tS 1224.19
NCG 0.87 206 IP 12 10.96 -0.7
S 1225.66
PWA 0.89 127 eP 12 11.59 -0.2
pS 1225.80
CGLM 0.93 199 *P 12 11.64 -0.7
CRP 1.00 202 eP 12 12.71 -0.5
eS 1227.94
BGL 1.05 208 eP 12 13.38 -0.3
SPU 1.06 198 IP 12 12.96 -0.9
eS 1228.32
CKl 1.10 205 *P 1213.57 -0.7
eS 1230.01
HUR 1.13 45 eP 1 2 1 3 . 62 -1.0
eS 1229.49
PLRM 1.22 118 eP 12 14.99 -0.6
GHO 1 . 23 109 *P 1215.45 -0.4
PMS 1 . 28 137 eP 1215.81 -0.7
TRF 1.36 21 i P 1216.56 -1.1
eS 12 34 . 38
KTH 1.39 8 i P 1216.63 -1.2
eS 123417
SML 1.48 104 eP 12 18.13 -6.9
KNK 1.59 118 eP 12 19.37 -1.0
RND 1.68 42 eP 12 20.47 -1.2
ROT 1.69 198 *P 12 21.44 -0.4
SLKM 1 . 77 161 eP 1223.12 0.3
RON 1.81 202 eP 12 22.38 -1.0
S 1244.44
REF 1.82 201 eP 12 23.14 -0.5
S 1244.75
ROW 1.85 203 eP 12 23.11 -0.8
S 12 47 . 35
RSO 1.85 202 eP 12 23.61 -0.5
RS1 1.86 202 eP 12 23.71 -0.4
TTA 2.27 291 eP 12 27.79 -1.8
SVW 2.30 244 eP 12 28.57 -1.3
GL1 2.43 121 eP 12 29.48 -2.2
BRLK 2 . 44 174 e P 1232.46 0.6
TOA 2.44 90 eP 12 30.82 -1.1
NEA 2.61 22 P 1231.91 -2.2
KLLI 2.68 103 eP 12 32.98 -2.1
SDG 2.74 80 eP 1234.57 -1.3
PDB 2.77 211 eP 12 35.67 -0.6
CCB 2.94 31 eP 12 36.67 -2.0
HDA 2.99 40 eP 12 36.94 -2.4
MOM 3.12 25 eP 12 38.98 -2.1
38 obs. ossocioted

AUG 26, 1991 00h
1 ft CIO M -L. 1 A QL-rr,

26m 59 . 10± 2. 36s
e.Di 7Ofi W 4. 1 O QLm

DEPTH = 27 . 2 ± 1 1 . 7 km

TRIM DAD (98)
MD 3.3 (TRN) .

TBH 0.31 240 eP 27 06.22 -0.2
«S 2714.69
PIG 0.52 355 eP 27 09.79 0.1
*S 2719.73
BOT 0.53 8 eP 2709.86 0. e
*S 2719.79
TPR 0.54 2 eP 2709.87 -0.2
eS 2719.85
TRN 0.66 271 eP 27 10.86 -0.1
eS 2720.81
TPP 0.72 244 c-P 27 13. 39 0.4
eS 27 25.06
TCE 0.94 274 eP 27 16.16 -0.3
eS 27 29.65
GRW 1.73 331 eP 27 28.16 0.3
eS 27 52.20
S . D . =0.3 on 8of Sobs.

. AUG 26. 1991 00h 43m 58 . 03± 0.73s
37 378 N ±23. 1km 71.181 E ±22. 4 km
DEPTH = 33.0km (normol)
3 . 9mb (2 obs .)
AFGHANISTAN-USSR BORDER REGION (717)

NDI 10.04 148 eP 46 23.00 0.0
0.5s I4.08nm 5. 5mb X
GKN 14.67126P 4725. 26 0.1
0.4s 36 . 00nm 5 . 2mb X
K K- N 15. 24 125 P 4732.74 0.2
0.6s 36 . 00nm 4 . 8mb X
DMN 15.25 126 P 47 32.78 0.0
PK 1 15 . 47 125 P 47 35 . 44 -0.3
0.6s 62 . 00nm 5 . 0mb X
nilN 15.55 123 P 47 36.82 0.0
0.4s 1 8 . 00nm 4 . 6mb X
HFS 42.47 321 *P 51 51.30 0.1
0.5s 1.1 0nm 3 . 8mb
NB2 43.77 322 P 52 01.80 -0.1
0.7s 2 . 10nm 4 . 0mb
S . D . =0.2 on 8of Sobs.

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AUG 26, 1991 00h 5lm 52.47± 0.41s
43.721 N ± 5.1km 9.344 E ± 3.1km
DEPTH = 10.0km (geophy s i c i s t)
CORSICA (380)
ML 2 . 8 (LDG) .

PI 1 0. 86 90 P 52 09 .60 0.7
FIN 0 . 95 30 1 P 5210.73 0.1
S 52 22.30
BDI 0.97 69 PC 52 10.50 -0.4
eSg 52 24.40
PCP 1 . 00 325 P 5211.81 0.3
S 52 23.92
CKl 1.04 313 P 52 11.70 -0.4
eSg 52 26.40
BOB 1.05 4 P 52 12.60 0.3
eSg 52 26.10
1 Ml 1 . 07 28 1 P 5213.92 1.3
S 52 26.62
PGF 1 . 20 192 Pn 52 15.80 0.9
Sn 52 32.00
ROB 1.21 299 P 52 14.51 -0.5
S 52 27.88
SBF 1.39 277 Pn 52 17.40 -0.5
Sn 52 34.80
ENR 1 . 48 29 1 P 52 1 9 . 65 0.4
S 52 37.99
STV 1.55 290 P 52 20.00 -0.2
S 52 39.03
PGD 1.73 84 P 52 22. 10 -0.8
PZZ 1.80 297 P 52 23.34 -0.5
BHB 1.87 308 P 52 24.27 -0.5
CRE 1.89 92 P 5225.10 -0.1
FRF 1.96 266 Pn 52 25.60 -0.6
Sn 52 49.60
RSP 2.07 314 P 52 29 .57 1.8
LMR 2.10 260 Pn 52 27.20 -0.9
Sn 52 52.00
LRG 2.18 264 Pn 52 29.00 -0.3
Sn 52 54.20
S . D . =0.8 on 20 of 20 obs .

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| ? AUG 26, 1991 0lh 23m 1 1 . 1 0± 1.86s
41.265 N ±17. 8km 22.480 E ±16. 7km
| DEPTH » 33.0km (normol)
YUGOSLAVIA (383)
MD 1.8 (THE) .

VAY 0.09 50 iPg 23 16.40 -0.4
i Sg 23 18.40
GRG 0.31 191 ePc 23 19.54 0.5
eS 23 26.30
KNT 0.33i08eP 2321.90 2.6X
eS 23 30.40
SOH 0.80 124 eP 23 26.40 0.5
SRS 0. 85 100 eP 2327.70 1.0
OUR 1.47 129 eP 23 34.00 -1.5
S . D . =1.4 on 5of 6 obs.

AUG 26, 1991 02h 28m 35 . 90± 0.97s
20.773 S ± 9.1km 68.756 W ±12. 6km
DEPTH = 33.0km (normal)
CHILE-BOLIVIA BORDER REGION (124)

ANT 3.30 207 eP 29 27.00 0.6
CCH 4.18 37 P 29 40 . 00 0.7
LPB 4.26 9 P 29 42 . 00 1.4
20BO 4.52 8 P 2943.70 -0.7
ARE 5.01 328 eP 29 50.00 -1.1
eS 30 3B.00
S 1 V 8.71 58 P 30 37 . 70 -4.9X

PPD 16.30 98 (P) 32 23.00 -1.0
S.D.-1.4 on 6of 7 obs .

* AUG 26, 1991 03h 02m 57.34± 3.40s
15.375 N ± 9.4km 61.150 W ±25. 0km
DEPTH = 142.9 ± 33. 3 km
LEEWARD ISLANDS (92)

BBL 0.35 295 iPc 03 17.78 -0.7
S 03 32.20
MGG 0.56 343 i PC 03 18.44 0.0
S 03 33 . 10
FDF 0.64 180 iPd 03 19.21 0.2
0.1s 3 . 6 1 nm
S 03 34.30
DOG 0.79 325 i PC 03 20.19 0.2
PAG 0.83 322 eP 03 20.61 0.3
S 03 38.00
MVM 0.85 163 eP 03 20.26 -0.2
S 03 36.60
BIM 0.86 175 iPd 03 20.69 0.2
S 03 37 .90
SFG 0.87 357 eP 03 21.02 0.4
DEC 0.94 5 iPc 03 20.86 -0.4
S 03 37.90
SEG 1.08 342 ePc 03 22.63 0.2
S 03 40.40
BPA 1 79 338 ePc 03 29.74 -0.3
S . D . -0.4 on 11 of 11 obs .

AUG 26, 1991 03h 19m 59.30± 0.33s
11.060 N ± 9.1km 85.461 W ± 9.7km
DEPTH = 23.6km (6 depth phases) 4.8mb (17 obs.) 4.1Msz (2 obs.)
NICARAGUA (75)

UPA 6.19 109 ePd 21 39.00 7.4X
0.6s 33 . 33nm 5 . 3mb
MRX 17.42 301 (P) 24 03.00 0.5
JSC 23.43 9 ePc 25 13.60 6.0X
PcP 28 54.80
BLA 26.43 9 P 25 40.40 4.2X
0.7s 1 0 . 00nm 4 . 6mb
TUL 26.45 341 iPd 25 35.50 -0.9
0.8s 38 . 20nm 5 . 1mb
2 22s 0.48um 4.0Msz
N 22s 0.35um
E 20s 0 . 1 1 urn
e 25 42.60 25km
e 29 00.50
e 30 53.00
LR 36 49.00

FVM 27.18 351 e(P) 25 4-3.00 0.0
1.0s 1 7 . 00nm 4 . 7mb
pP 26 45.70 342kmX
CBN 27.98 14 eP 25 55.00 4.7X
ALO 30.50 325 eP 26 12.80 -0.4
ft C) c 1ft Q9nm A 7mK

26d 03h

242

2080 32.12 147 P 26 28
Z 20s 0 . 6 1 urn
LR 37
LPB 32 .35 1 48 P 26
GLD 33.52 332 P 26

pP 26
GOL 33.55 332 ePd 26
0 .

CCH 34
PV69 34
GLA 34
S 1 V 36
TPC 36

7s 7 . 8 9nm
pP 26
PcP 29
. 10 1 46 P 26
. 553 2 6 P 26
. 72 314 eP 26
. 1 3 1 38 P 27
. 1 4 3 1 4 eP 27

PLM 36.|33 313 eP 27
RSSD 36
0.

o er o "X ft r c L. 00
GSC 37

MWC 37
PAS 37
S88 37
CLC 38
ISA 38
TNP 39
0.

. 64 337 eP 27
7s 9 . 86nm

pP 27
PcP 29
ft *> "X 1 ^ ^P/~ ^7
, o t O I O e r C £. /
. 30 315 eP 27
e 29
. 63 313 eP 27
. 67 313 eP 27
. 70 314 eP 27
. 12 316 eP 27
. 65 315 eP 27
. 1 3 319 P 27
8s 7 . 35nm
F R 1 40.19316eP 27
PR 1 40
CMS 4 1
LRM 41
MHC 41
ORV 42
M 1 N 43
SES 44
FFC 45
0 .
NEW 45
0 .

BAO 45
SCH 46
0.
PPD 46
PNT 47
YKA 55
1 .
1 NK 65
MBC 67
0 .
FBA 68
0 .
RSO 69
EKA 76
1 .
K 1 C 79
ADK 82
0 .

. 43 314 eP 27
. 19 317 eP 27
. 59 331 eP 27
. 70 315 eP 27
. 73 318 eP 27
. 21 3 19 eP 28
. 51 337 eP 28
. 48 347 ePd 28
8s 8 . 00nm
. 56 331 ePc 28
8s 9 . 58nm
pP 28
e 29
e 31
. 60 125 ePd 28
. 08 15 ePd 28
7s 26 . 00nm
. 94 135 eP 28
. 49 330 ePd 28
. 47 344 eP 29
6s 5 . 50nm
. 1 1 342 eP 30
. 66 352 ePc 30
8s 1 2 . 00nm
. 48 336 ePc 30
7s 11. 05nm
. 31 331 eP 31
. 61 36 P 31
fes 3 . 00nm
. 73 85 P 32
. 15 321 P 32
8s 68 . 97nm
pP 32
NB2 83.63 29 P 32
0. 9s 1 . 40nm
BUL 116.20 107 i PKPc 38
KR I 116.96 103 iPKPd 38
MTD 118.83 103 i PKPd 38
GKN 140
K K N ,1 4 0
GUN 140

. 00 14PKP 39
. 35 13 PKP 39
. 36 12 PKP 39
DMN 140.49 13PKP 39
0.
PK 1 140
0 .
CHG 150
GBA 150
0 .
LOE 150
S. D.

AUG I
38.60S
DEPTH
4 . 0mb
SOUTHER^

7s 1 2 . 00nm
. 59 13 PKP 39
7s 18. 00nm
. 00 352 ePKP 39
. 20 35 PKPd 39
8s 5 . 30nm
. 84 346 ePKP 39
- 1.0 on 49 o f

6 , 1991 03h 41m

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52

20
N ± 5. 8 km 75.839

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0 . 1
3Msz

- 0.8
- 0 .5
23km
- 0 . 7
8mb
23km

- 0 . 9
- 0 . 6
0 . 3
- 0 . 4
0 .2
0 . 4
0 . 9
8mb
23km

0. 1
0 . 4

0 .5
0 . 4
0 . 1
0 . 5
0. 1
0.0
5mb
- 0.3
0. 3
0.9
0.6
0.8
2 . 0

0.e
- 0.7
0. 4
7mb
- 1 .8
8mb
25km

2 . 0
1 . 7
3mb
- 1 . 1
- 0 .3
- 2. 0
5mb
- 1 .0
- 0.7
imb
- 1 . 9
1mb
- 1.7
- 0.6
3mb
0. 7
- 0. 2
8mb
24km
2 .2
2mb
- 4 . 4X
- 9. 1 X
0 . 9
- 4 . 4X
- 4 .2X
- 5 .2X
- 5 -8X

- 5 . 9X

- 0 .2
0 . 7

5.5X
61 obs -

- 04±
E ±

0.41s
8.1km
- 33. 0km (no rma I)
(4 obs .)
X I NJ I ANG. CH I NA

NDI 9.97 173 eP 43 44.00 0.0
0.5s 1 4 . 08nm 5 . 5mb X
eS 45 21 00
QUE 11. 15 224 e P 4406.40 6.0
eS 45 55 . $0
GKN 12.88 143 P 44 2 3 . $ f) 6.0
KKN 13.36 141 P 44 36.40 -0.1
DMN 13. 43 1 42 P 4431
GUN 1 3 . 57 1 39 P 4433
PK 1 1 3 . 61 1 4 1 P 4433
HFS 43.84 320 eP 49 24

00 0.0
40 0.5

oe -0 4
00 0.2

0.4s 0.80nm ;3. 9mb
NB2 45.07 322 P 49 34. £0 -0.1
0.7s l.lOnm I 3 ' 9mb
MBC 65.01 4 ePd 51 58. ?0 0.4
0.6s 9.00nm 5. Omb
I NK 71.16 1 1 eP 5237.60 0.2
YKA 78.89 5 eP 53 20. M -0.8
0.7s 2 . 00nm 4 . 2mb
S . D . =0.4 on 12 of 12 obs .

AUG 26, 1991 04h 10m 20.69± 1.58s
2.890 S ±11. 2km 79.718 W ±25. 3km DEPTH = 149.3 ± 17.4 km
NEAR COAST OF ECUADOR (105)

GGP 2.92 23 P 1107.70 0.1
OUR 2 . 95 24 P 1 1 08 . 10 0-3
eS 12 09 . 50
YANA 2.98 23 P 11 07.70 -0.6

PT10 9.52 164 e(P) 12 35.00 0.0
eS 14 40 . 00
2080 1 7 .52 140 P 14 18 . 00 0.7
LR 21 24. 00
CCH 19.62 138 eP 14 38.00 -1.6
SI V 22. 50 127 P 15 08. b0 0.9
ALO 45.23 329 eP 18 24.50 0.1
S . D . =1.0 on 8 of Bobs.

? AUG 26, 1991 04h 22m 50.68± 2.66s 21.089 S ±17. 7km 169.406 E ±24. 5km DEPTH = 100.1 ± 17.9 km
4 . 9mb (7 obs .)
LOYALTY ISLANDS REGION (189)

DZM 2.92 250 i Pd 23 34.70 -1.6
i S 2411.00
PVC 3.49 343 iPd 23 43.50 -0.4
IS 24 35 . 00
BKM 3.58 342 iPd 23 46.90 1.8
i S 2444.
BRS 16.41 244 iPc 26 40

00
00 3 . 6X
RMO 19.64 250 eP 27 25.70 11. 7X
1.0s 76 . 00nm
e 27 39
CNB 22.59 227 i PC 27 44.
CMS 23.49 239 eP 27 53
i 28 1 0 .
OLP 23.65 252 iPd 27 55.
1.1s 1 1 0 . 09nm
i 28 08.
STK 27 .04241 iPc 28 25 .
1.0s 2 . 40nm
e 28 38.
iPcP 31 42.
ASPA 32.88 259 iPc 29 16.
0.6s 27 . 50nm
SPA 69.04 180 iPc 34 00.
1.2s 28 . 1 7nm

20
20 0.7
00 0.7
70
30 1.5
5 . 2mb
70
20 -0.3
3 . 7mb X
70
50
60 -0.7
5 . 2mb
50 1 3 . 1 X

BJ 1 78.47 321 eP 34 41.50 -0.6
0.8s 6 . 06nm 4 . 5mb
CHG 79.56 295 ePd 34 50J00 1.5
1.0s 1 1 . 2 5 nm
LZH 84.08 312 eP 35 1 2 .
1.4s 28 . 00nm
2 15s 0 . 24um
sP 35 37.
NVL 87.05 187 ePc 35 42

ORV 88. 24 46 e(P) 35 37
PLM 88. 67 53 e(P) 35 3 1
TNP 90.51 49 e(P) 35 33
0.9s 3 . 91 nm
GUN 94.21 298 P 35 58
PKI 94.47 298 P 36 00
KKN 94.66 298 P 36 01
0.8s 1 7 . 00nm

(321) DMN 94.74 298 P 36 02

4 . 7mb
50 0.7
5 .0mb
4 . 7Ms zX
00
00 16 . 3X
30 5 . 4X
00 -3.3X
50 -9.3X
4 . 6mb
20 -2.1
98 -0.5
64 -0.5
5 .5mb

GKN
1 NK
KEV
OBN

KAF

NUR

NB2

HFS

KSP
BRG

SRO

CLL

PRU

ZST
EKA

VAY
MOX

SKO
KHC

WTS

GRF

f\ W P u n r\

PTJ
DMU
KBA

ENN

DCN
VBY
LJU
MEM
CEY
VOY
FV 1
WTTA

WLF
GWF
DOU
ECP
CDF
SLE
PEL
OSS
ECH
ZLA
LLS
V 1 TF
VDL
BSF

HAU

BBS
LOMF
ARV
ROI
TMA
CSI
IDS
SFI
PGD
52 -0.1 1 ASS

95. 27
98 . 24
126 . 36
131.10

131 .82
0. 5s
133.49
0. 3s
137.26
0. 8s
137.37
0 . 5s
143.58
144 .58
1 . 0s

144.61

144 . 65
1 . 2s
144.98
0. 7s

144.99
1 45 . 35
0. 6s
145.50
145.72
2. 0S
145.96
146 . 03
0.8s

146.31
0.8s
146.62

146.79
0. 8s
1 47 . 07
147.12
147.61
0. 7s

147.66
0. 8s
147.70
1 47 . 71
147.73
147.77
147.99
148.07
1 48. 23
148.28
1 . 0s

1 48 . 54
148 . 60
148. 66
148. 79
149.19
149 . 25
149. 35
149 . 39
149.40
149 . 52
149.75
149 . 83
149 .85
149 .86
0. 7s
149.88
0. 7s
Z 22s
149.89
150. 24
150.27
150. 36
150. 40
150. 44
150. 47
150.57
150 .67
150 . 71

298 P
18 eP
345 ePKP
326 ePKP
e
338 ePKP
7 . 50nm
337 ePKP
1 0 . 50nm
345 PKP
2 . 90nm
342 ePKP
1 . 30nm
331 ePKP
333 iPKP
25 . 00nm
e

326 iPKP
e

334 iPKP
26 . 00nm
331 PKP
6 . 40nm
e

327 iPKP
353 PKPc
14 . 90nm
313 ePKP
335 ePKPc
36 . 00nm
315 iPKP
331 iPKPc
1 0 . 80nm
e
341 ePKP
6 . OOnm

36 04 . 02
36 13.00
41 4@ . 00
41 50. 00
45 10.00
41 49.70

41 52 . 70

42 00.70

41 58 . 30

42 10. 30
42 10.30

42 33.00
42 14.10
42 39 . 20
42 13.30

42 15.30

42 34 . 50
42 14.70
42 1 4 . 90

42 16.50
42 17.40

42 18 .80
42 18.70

42 42 . 50
42 19.00

334 e(PKP) 42 1 6 . 80
e

314 g p K P
49 0 (j n m
325 ePKP
356 iPKPc
329 iPKPc
16.1 0nm
i
340 ePKP
9 . OOnm
356 iPKPc
325 ePKPd
326 ePKP
340 PKP
326 ePKP
327 iPKPd
329 PKP
331 iPKPd
42 . 60nm
i c
i
e

339 iPKPd
337 PKP
341 PKP
355 ePKP
336 PKP
334 ePKPc
335 PKP
331 ePKPc
336 PKP
334 ePKPc
333 ePKPc
338 PKP
332 ePKPc
336 iPKPd
17 . 65nm
337 ePKP
22 . 05nm
0 . 1 0um
335 PKP
336 PKP
324 PKP
314 PKP
332 ePKPc
315 PKP
315 PKP
326 PKP
326 PKP
324 PKP

42 19.90
42 20 00

42 15.60
42 20.30
42 22.20

42 26.40
42 23.00

42 21.90
42 23.00
42 22.80
42 21.00
42 23.50
42 23.10
42 23.30
42 24. 10

42 24 . 60
42 25.80
43 11.00
42 25.29
42 25.09
42 25.00
42 24 . 70
42 26 . 1 7
42 26.60
42 26 .51
42 27.90
42 26.30
42 27 . 30
42 28.30
42 27.66
42 28 .50
42 27 .90

42 27.90

4
42 27.70
42 28 . 83
42 29.40
42 30.80
42 29.60
42 30.60
42 30 . 10
42 30.60
42 30.70
42 30 . 10

- 0. 9
- 4 . 2
- 2 . 5X
- 2 . e

- 3 . 4X

- 3 . 6X

- 2 . 9X

- 5 . 4X

- 4 . 8X
- 3 . 5X

- 2. 8X

- 3 . 6X

- 2. 2

- 2 . 9X
- 3 . OX

- 2 . 1
- 1.4

- 0. 6
- 0 . 7

- 0 . 6

- 3 . 5X

- 0 . 9

- 5 . 6X
- 0 . 6
0 . 0

1 . 2

0 . 1
0 . 9
0. 7
- 1 . 0
0 . 9
0 . 3
0 . 4
0 . 9

2 . 0
1 . 6
1 . 5
1 . 1
1 . 7
2 . 1 X
1 . 7
2 . 9X
1 . 6
2 . 3X
2 . 8X
2 . 3X
2 . 8X
2 . 4X

2 . 5X

6Ms z
2 . 2X
2 . 7X
3 . 2X
4 . 3X
3 . 1 X
4 . 0X
3 .5X
4 . 1 X
3. 7X
3 .2X

243

26d 04h

CRE 150.72 325 PKP 42 36.20 3.3X
AOU 158.75 322 PKP 42 31.58 4.5X
CZ 1 150.83 314 PKP 42 30.50 3.4X
MMK 150.84 333 ePKPc 42 31.40 4.2X
SOI 158.91 320 PKP 42 30.48 3.2X
DIX 151.05 334 ePKPc 42 31.88 4.2X
MNS 151.14 323 PKP 42 30.70 3.2X
ORX 151.16 332 PKP 42 30. 41 2 . 8X
BOB 151.16 330 PKP 42 31.30 3.8X
FLN 151.22 346 iPKPd 42 36.50 3.1X
0.6s 3 1 . 55nm
LDF 151 38 345 ePKP 42 30.60 3. IX
0.7s 22 OSntr,
LOR 151.38 339 iPKPd 42 31 30 3.6X
0 7s 20 . 4 0 rim
Z 2?s 0 . 1 3um 4 . 7Msz
SOI 151.45 312 PKP 42 32.70 4.7X
LBF 151.58 339 ePKP 42 31.60 3 . 5X
1.0s 1 6 . 00nm
LSD 151.65 333 PKP 42 32.87 4.4X
GRR 151.66 346 ePKP 42 31.70 3.7X
8.5s 1 6 . 05nm
SSF 151.67 339 ePKP 42 32.10 4.0X
8.7s 1 6 . 00 nm
PCP 151.75 330 PKP 42 31.53 3.1X
LPL 151.78 334 ePKP 42 32.90 4 . 2X
0.6s 1 3 . 1 0 nm
LPG 151.79 334 iPKPd 42 33.00 4.2X
9.7s 20 . 95nm
RSP 151.85 333 PKP 42 32.35 3.7X
SMF 151.92 339 ePKP 41' 32.30 3 . 8X
0.9s 1 0 . 65 nm
AVF 151.96 339 ePKP 42 32 40 3.9X
0.8s 6 . 7 0 n m
CK 1 151.97 330 PKP 42 32.10 3.5X
LPF 152.04 346 ePKP 42 32.60 4.0X
0. 7s 35. 30nrr,
BHB 152.10 332 PKP 42 31 64 2.8X
FIN 152.16 330 PKP 42 32.56 3 . 6X
BNI 152.18 333 PKP 42 34 20 5.1X
RRL 152.24 333 PKP 42 34.10 4.8X
ROB 152.25 331 PKP 42 32.87 3.7X
BGF 152.33 340 ePKP 42 33.40 4 . 3X
0.6s 1 1 . 70nm
PZZ 152.43 332 PKP 42 32.76 3 . 3X
ENR 152.51 331 PKP 42 32.76 3 . 2X
STV 152.54 331 PKP 42 32.76 3 . 2X
IMI 152.54 330 PKP 42 33.58 4 . 0X
MAF 152.72 340 ePKP 42 34.30 4.6X
0.9s 5.7 5nm
TCF 152.77 340 iPKPd 42 34.20 4.4X
0.7s 1 e 45nm
SBF 152.79 331 ePKP 42 34.30 4.4X
0.8s 1 B . 80nm
PGF 153.01 327 ePKP 42 35.20 4.9X
0.7s 22 . 05nm
LSF 153.02 341 iPKPd 42 34.50 4.4X
0.6s 8 . 1 0nm
MFF 153.16 344 ePKP 42 35.20 5.0X
0.7s 6 . 60 nm
FRF 153.38 331 ePKP 42 35.80 5 . 2X
0.8s 8 . 05nm
LRG 153.59 331 ePKP 42 36.40 5.5X
0.9s 9 . 85nm
LMR 153.62 331 ePKP 42 36.40 5.4X
0.6s 5.40 nm
RJF 153.87 340 ePKP 42 36.80 5.5X
0.7s 6 . 60nm
CAF 154.03 339 ePKP 42 37.50 5 . 9X
0.7s 2 . 75nm
LFF 154.44 341 ePKP 42 38.20 6.2X
0.7s 5 . 50nm
LPO 154.53 340 ePKP 42 3B.40 6.2X
S.D. - 1.4 on 43 of 129 obs.

AUG 26. 1991 06h 02m 25.39±
35.970 N ± 4.8km 118.425 W ±
DEPTH = 5.0km (geophysicis
CENTRAL CALIFORNIA

ML 2 . 9 (BRK) . MD 3.0 (GM) .

ABL 1.29 210 eP 02 50. 00
PKEM 1 . 37 274 eP 0251.10
FR 1 1 . 45 31 5 eP 0250.51
eS 03 07 . 90
BCH 1.56 240 eP 02 53.80
PHAM 1.61 266 eP 02 54 . 50

0.54s
5 . 7km
t)
(39)

0. 1
0.0
- 1 .8

- 0.2
0.0

PR I 1.82 276 i PC 02 57.68 -0 1
i S 8322.80
SSK 1 . 86 161 eP 0258.70 0.4
BONR 1.98 3 feP 03 00.60 0.3
LLA 2.13 288 eP 03 02 40 0.2
PEC 2.32153eP 030480 -81
PRS 2. 41 279 eP O 3 06. 80 8.7
SAO 2.56 289 eP 03 08.20 -0.1
CMB 2.59 323 i PC 03 09.42 O 7
eS 0341.70
ARN 2.85 300 eP 03 12.70 0.2
PLM 2.91 153eP 03 13. 00 -0.4
S.D. = 0.6 on 15 of 15 obs.

AUG 26, 1991 06h 30m 39.90+ C-i 65s
1.775 N ± 6.2km 1 24.d.3 5 E ± 9.4km DEPTH - 326. 8 ± 8 . 2 km
4 . 9mb (1 4 obs .)
MINAHASSA PENINSULA (265)

CGP 6.67 6 iPd 41 1 9 . 50 1.8
1.0s 230 . 00nm 5 . 1mb
BIP 6.78 l9iPc 4118.00 -1.8
0.8s 377.80ntri 5.4mb
AAI 6.84 143 ePd 41 21.50 1.0
KKM 8.88 299 ePc 41 44.80 -0.5
PLP 9.38 6 ePd 41 54.70 3 . 5X
PGP 12.04 345 ePc 42 25.00 1 3
1.0s 248 . 00nm 5 . 5mb
CVP 15.98 352 i PC 43 08.50 -0.3
0.8s 37 . 00nm 4 . Bmb
KNA 18.03 165 eP 43 29.30 -0.8
WR2 23.85 155 i Pd 44 25. 70 -O . 6
0.3s 64 . 30nm 5 . 5mb
i S 48 15 . 20
OIS 26.93 146 iPd 44 54.00 -0.3
0.6s 20.00nm 4.7mb
e 48 55 80
ASPA 27.05 160 iPc 44 54.80 -0.5
0.3s 15.40nm 4 9mb
IS 4908.40
CHG 29.85 306 eP 45 20.00 -0.1
FORR 32.67 174 i Pd 45 43.50 -0.8
0.2s 1 9 . 00nm 5 . 2mb
MAT 36.99 19 eP 46 19.00 -1.6
STK 37.39 155 i PC 46 24.80 0.9
0.2s 12. 00nm 4 . 9mb
iPcP 4B 35.60
eS 5148.20
BJ I 38.75 350 eP 46 36.00 1.0
1.0s 20 . 00nm 4 . 4mb
LZH 38.93 334 eP 46 3B.00 1.2
1.5s 34 . 00nm 4 . 4mb
BFD 42.39 158 eP 47 05.00 0.2
GUN 44.77 309 P 47 24.08 -0.2
PKI 44.98 308 P 47 25.76 -3.1
KKN 45.18 309 P 47 26.68 -0.7
0.5s 1 2 . 00nm 4 . 4mb
DMN 45.24 308 P 47 28.06 0.2
GKN 45.79 308 P 47 32.52 0.5
THZ 61.87 140 P 49 28.00 0.4
LTZ 62.01 142 eP 49 29.70 1.3
KHZ 62 . 62 141 P 4932.40 0.1
0.4s 23 . 00nm 5 . 1mb
MNG 62.98 138 P 49 34.50 -0.3
KAF 92.07 332 eP 52 12.10 -1.1
0.5s 2 . 70nm 4 . 5mb
ALO 120.32 47 ePKP 57 55.50 0.8
S.D. =0.9 on 28 of 29 obs.

AUG 26, 1991 07h 07m 54.13± 0.71s 19.235 S ± 7.0km 169.096 E ± 8.5km DEPTH = 169 . 9 ± 7 . 0 km
4 . 9mb (1 1 obs .)
VANUATU 1 SLANDS (1 86)

PVC 1.66 333 iP 08 27.00 -0.2
IS 0852.50
BKM 1 . 76 332 iP 0828.70 0.5
i S 0855.00
DZM 3.76 221 iPd 08 52.10 -0.4
iS 09 35 . 30
RMO 20.07 245 eP 12 28.20 12.0X
0.8s 32 . 00nm
e 1240.70
MNG 22.01 167 P 12 34.90 -0.3
0.4s 1 6 . 00nm 4 . 8mb

PGZ 22-18 165 P 12 36.20 -0.7
0.4s 1 5 . 00nm 4 . 8mb
KHZ 23.42 172 eP 12 48.50 -0.3
CNB 23.68 223 i PC 12 53.10 1.5
0.7s 64 . 00nm 5 . 3mb
OLP 24 01 24B eP 1256.00 1.3
0.7s 79 . 00nm 5 . 4mb
CMS 24.25 235 i PC 12 57.80 0.9
STK 27.74 238 i Pd 13 29.40 0.7
0.6s 9 . 60nm 4 . 7mb
WR? 32.70 263 i Pd 14 11.50 -1.0
0.6s I3.10nm 4. 8mb
WRA 32.72 263 P 14 11.00 -1.7
0.7s 1 1 . 20nm 4 . 7mb
ASPA 33 00 256 i Pd 14 14.50 -0.7
0.6s 68 . 60nm 5 . 5mb
SVW 84.93 16 P 20 11.00 0.2
0.8s 20 . 69nm 5 . 0mb
RSO 85 . 20 18 P 20 13.30 1.0
PAS 87.16 52 eP 20 23.00 0.8
ORV 87.18 46 P 20 22.00 -0.2
CMB 87.25 48 eP 20 23.00 0.4
FRI 87.27 49 eP 20 23.20 0.6
MWC 87.27 52 eP 20 23.00 0.0
ISA 87.58 51 eP 20 25.00 0.7
SB8 87.64 52 eP 20 25.00 0.4
RVR 87.69 53 eP 20 25.00 0.3
PEC 87.81 53 P 20 25.00 -0.4
PLM 87.81 54 eP 20 26.00 0.4
CLC 88.29 51 eP 20 28.00 0.3
TNP 89.52 49 P 20 33.50 -0.1
0.7s 3 . 89nm 4 . 5mb
FBA 90.11 17 P 20 32 . 90 -2.6
0.7s 7.27nm 4. 8mb
ALO 96.41 55 eP 21 04.00 -1.3
S . D . = 0 . 9 on 29 o f 30 obs .

* AUG 26. 1991 07h 38m 46.31± 3.19s 38.445 N ±17. 9km 20.041 E ±25. 6km DEPTH » 10.0km (geophy s i c i s t)
GREECE (364)
MD 3.0 (ATH) , 2.9 (THE) .

VLS 0.51 122 ePb 38 57.00 0.4
I GT 1.11 12 eP 3907.50 0.4
eS 39 20.94
KEK 1.28 352 ePb 39 10.00 0.0
AGG 1.88 71 eP 39 17.60 -1.2
eS 39 38.78
KZN 2.29 35 ePn 39 21.10 -3.7X
LIT 2 . 52 48 ePc 39 28. 18 0.2
FNA 2 . 55 23 eP 39 30 . 00 1.5
OHR 2.73 12 eP 39 29.50 -1.5
KNT 3.49 38 eP 39 42.00 0.2
S.D. -1.1 on 8of 9 obs .

& AUG 26, 1991 07h 41m 30.90s
61 . 833 N 151 . 084 W
DEPTH = 80.4km
SOUTHERN ALASKA (2)
<AE I C> .

SKT 0.26 305 iPc 41 42.54 -0.7
iS 4151.72
SUA 0.40 156 iPc 41 44.26 0.0
eS 41 54.80
PWA 0.60 107 iPc 41 45.58 -0.2
eS 41 58 . 1 5
NCG 0.67 230 i Pd 41 45.91 -0.7
CGLM 0.69 220 iPd 41 46.12 -0.7
CUT 0.69 33 iPc 41 46.10 -0.6
eS 4157.49
CRP 0.77 223 iPd 41 47.10 -0.6
eS 42 00. 12

eS 42 00.25
BGL 0.85 228 ePd 41 47.92 -0.6
CKL 0.88 224 iPd 41 48.01 -0.9
eS 4201.69
PMS 0.94 128 ePc 41 48.96 -0.6
eS 42 03.61
PLRM 0.96 104 ePc 41 48.69 -1.0
GHO 1.03 92 eP 41 50.25 -0.4
eS 42 05.22
NKA 1.10 184 iPc 41 53.10 1.7
SML 1.31 90 ePc 41 53.05 -1.1
KNK 1.32 107 iPc 41 53.49 -0.9

24-4

260 07h

HUR 1

SU M 1
RDT 1

DFR 1
RON 1

RLF 1

ROW 1

Hi 2 1

R j 0 1
RS 1 1

RED 1
TRF 1

K T H 1

NNL 1
RND 1
SEW 1

. 33 30 eP 41 53.
tS 4210.
. 39 1 62 eP 4154.
. 42 207 i Pd 41 54 .
eS 4214
. 4 7 2 1 o e P 4155.
. 55 212 iPd 41 56.
eS 4217.
?ii 211 * P d 41 57.
5 4217.
59 21 2 eP 4157.
eS 4218.

. 6y 211 ePd 41 57 .
S 4219.
60 211 e P d 41 57.
. 00 211 ePd 41 57 .
S 4219.
. 64 211 ePd 41 57.
. 67 1 2 i Pd 4157.
eS 4218.
. 73 2 i Pd 4158.
eS 4219.
. 80 1 83 <=P 4201.
. 89 32 eP 4201.
. 91 1 55 eP 4203.
eS 42 24.
GLI 2. 15 115 i PC 4203.
eS 42 29.
KNIM 2. 21 131 eP 4203.
SVW 2.30 254 eP 42 04.
VZW 2.31 168 eP 42 65.
CNPM 2. 32 1 82 ePc 42 06 .
TOA 2.34 81eP 4267.
VLZ 2. 39 105 eP 4206.

FID 2
K LU 2
CCB 3
MDM 3
FBA 3
GLB 3
GLM 3
47

? AUG 2
27 . 787
DEPTH
4 . 7mb

. O» 1 J / e r t { tfo
47 1 1 4 eP 4207.
. 49 96 e P c 42 08.
. 19 26 *Pd 42 17
. 39 2 1 ePd 4228.
. 42 24 e P 4220.
. 49 93 eP 42 21 .
. 58 26 eP 42 23.
obs. ossociated

6 , 1991 07h 55m 06 .
S ±74 . 3km 113. 364
= 10. 0km (geophysi
(4 obs .)

25
49
92
94
69
8 4

79
31
Ob
4 1
28
69
59
01
50
60
08
96
65
15
61
56
05
4 1
53
09
09
29
36
96
92
81
29
20
4(3
23
10
49
27
81
93
1 0

49±

- 1 .2

- 0 . 4

- 0 . 7

- 0 . 4
- 0 . 7

- 0 . 6

- 0 . 8

- 0 . 5

- 0.6
- 0 . 5

- 0.6
- 1.4

- 1.1

0 . 4
- 0 . 5
1 . 4

- 2 . 3

- 2. 8
- 2 . 5
- 1.7
- 0 . 9
- 0 7
2.4
- 2 . 3
- 2 . 6
- 2 . 0
- 2 . 2
- 2 . 3
- 2 . 1
- 2 . 1
- 2 . 1

4 . 06s
W ±5 1 . 6km
c i s

EASTER ISLAND REGION

ZOBO 43.26 84 P 0310.
Z 24s 0.43um
S 09 52.
LR 1540.
CCH 44.58 87 P 03 22.
PEC 61.45 356 P 05 25.
ALQ 62.73 6 eP 05 33.
0.9s 1.47 nm
TNP 65 . 62 357 P 05 53 .
0.6s 5 . 1 9nm
PV09 66.06 4 P 05 56.
ORV 67 42 353 P 06 06.
GOL 67.55 7 P 06 04.
BW86 70.30 3 P 0621.
1 0s 4 . 50 nm
RSSD 72.06 7 P 06 32.
NEW 75.77 357 P 06 56.
0 . 9s 1 0 . 96nm

00

4
00
00
00
30
80
4
00
4
30
00
70
00
4
00
00
4
FBA 96 . 1 8 346 P 0834.00
CHG 149.09 260 ePKP 15 06.00
S . D

O

(685)

- 0 . 7
. 3MszX

0 . 9
- 0 . 1
- 0. 4
. 2mb
0 r>. V
. 9mb
0 . 4
1 . 8
- 0 . 6
- 1 . 2
. 6mb
- 0 . 8
2. 0
. 9mb
- 1.3
1 3 . 1 X
= 1.2 on 12 Of 13 obs.

AUG 26, 1991 08h 1 6m 19.
1 7 . 832 S ±1 0 . 1 km 115. 923
DEPTH
5 . 0mb
EASTER

ZOBO 4i
1
z :

CCH 4
PLM 5i
PEC 5
ALO 5
0

= 10.0km (geophysi
(12 obs)
SLAND CORD 1 LLERA

. 63 96 i PC 2444.
1s 20 . 30nm
4s 0 . 35um
LR 3816.
. 33 97 P 24 56.
. 90 359 P 25 20.
. 45 359 P 25 27.
. 25 10 eP 25 40.
9s 1 0 . 08nm

31±
W ±
C i S

10
5
4

00
50
00
60
1 0
4

0. 53s
1 5 . 8 km
t)

(684)

1 . 4
. 0mb
. 2MszX

0 . 6
- 2 . 9X
0 . 8
- 0 . 5
. 8mb

PR 1
SAO
FR 1
TNP

C M B
PV09
TUL

Z
N
E

ORV
GOL

GLD

WDC
PPD
8W06

JSC
MCMT
RSSD
NEW

PNT
SES
SPA

S081
FFC

D t jl P

r M n

RSO
NVL
FBA

1 NK
M8C
CLL

O D K p L>r*

KHC
ZST
SPC
LZH

CHG

JVI
DSI
MBH
SHL
OUE
S

AUG
42 .

53.86
54.55
54 . 64
55.63
0. 7s
55 72
56 .39
56 . 75
0. 8s
18s
18s
20s

57 32
5S. 07
0 .8s
58. 15
1 .3s
58.43
60.50
60.59
0.8s
61.44
62.42
62 .60
65 . 80
0. 8s
66.93
68 .06
72.28
1.1s
73 .06
73.24
0 . 9s
83.46
0. 8s
83 .49
84.61
86.00
1 . 0s
86.84
93 . 89
127.78

1 i / f) o Q . 4 A yQ
1 .2s
128.86
131.38
132 .88
140.49
1 .5s
146.92
1 . 6s
150.51
150.66
150.85
153.08
167.42
. D. =

26,
032 N
DEPTH =

355
355
356
359
5
356
6
20
1 3

0

0
0

355
1 y
5
10
39
354
106
5
4
32
2
10

359
12
357
3
1 80
55
94
8
1 0
345
18
343
165
347
27
354
359
38
T ft J 0
12
4 1
4 1
38
305
23
277
50
56
57
61
291
349
1 . 1

1991
±8.1

eP 25
eP 25
eP 25
P 25
. 00nm
eP 25

P 26
eP 26
. 20 nm
. 1 2um
. 66 um
. 03um
LR 28
eP 26
P 26
. 95 nm
P 26
. 08 nm
eP 26
eP 26
P 26
. 76nm
P 26
eP 26
P 26
P 27
. 50nm
eP 27
eP 27
i Pd 27
. 95nm

(P) 27
eP 27
. 00 nm
P

O ft £. O
. 62 nm
P 28
ePd 28
P 29
. 56 nm
eP 29
eP 29
ePKP 35

e(PKP)35
. 00nm
ePKP 35
ePKP 35

e(PKP)35
ePKP 35
. 00nm
ePKP 36
. 00nm
ePKP 36
ePKP 36
ePKP 36
ePKP 36
ePKP 36

53
51
50
57

59
02
03

4 1
10
1 4

15

18
30
32

40
42
42
06

15
21
46

51
54

47

39
54
00

04

. 40
. 30
. 50
. 50
4
. 40
. 80
. 70
5
4

, 00

. 50
. 60
4

420

5
,00
. 80
,30
4
. 1 0
. 60
. 20
. 00
5
1 00
100
I 00
5
100
. 00
4

, 20
5
> 50
, 00
. 00

5

L00

38^00
27
2 7

. 00
sa

29
33
37
49

04

12
1 3
1 4
18
29

. 00

. 00
. 60
. 50

. 00

. 00

. 40
. 70
. 50

. 00

8. 5X
1 . 5
0. 0
- 0. 4
7mb
1 . 0
- 0 . 7
- 2. 1
Orr.b
OMsr

0 . 7
- 0 8
7mb
- 0.6
3mb
0.5
- 1.4
- 0. 4
7mb
1 . 9
- 2. 4
- 4. 0X
- 0.7
2mb
1 . 1
- 0. 1
- 0.8
6mb
- 1.1
1 . 8
9mb
Ct Q W . o
3mb
- 9.0X
0. 1
- 0. 7
4mb
- 0.7
0. 4
0. 4
- 0.2

0.2
- 0.5
1 . 0
- 1 . 7

1 .5

4 .2X
5.5X
6. 3X
6. 6X
1 . 7
on 37 of I45 obs .

09h 07m
km 21.

19
354

10.0 km (geophy s
YUGOSLAV 1 A

SKO

0 H R

VAY
1 VA

ULC

TTG

8DV

NKY

PLE

ML 2. 5

0.09
0. 4s

1.01

1.16
1 .37

1 .57

1 . 60

1 .89

1 .91

1 .94

(TTG) , 2.5 (SKO

133
21 15

?R =1
£. V *J

128
308

268

285

278

295

313

iPgc 07
. 06 nm
i 07
iSg 07
i 07
i 07
iPg 07
iSg 07
Lg 07
ePg 07
iPgd 07
i Sg 08
ePg 07
i Sg 08
iPgd 07
i Sg 08
i Pgd 07
i Sg 08
iPgd 07
i Sg 08
iPnd 07
i Sn 08

22

25
25
261
27
39
54
58
4 1
43
00
47
07
47
07
52
16

53id
53
18

. 75±
E ±

0. 63s
6 . 8km
i c i s t)

).

. 30

. 50
. 80
. 20
. 80
. 00
. 80
. 80
. 30
. 88
. 81
. 18
. 33
. 61
. 56
. 86
. 00
. 08
. 70
. 93
. 30

(383)

8 . 0

0. 1

0.0
- 1 . 0

- 0.5

- 0.6

0. 4

0.3

0. 7

HCY 2.16 282 iPnd 07 56.70 0.4
i Sn 08 21 . 80
BRY 2.25 294 iPnd 07 57.91 0.1
iSn 08 24 . 65
S . D . =0.6 on 11 of 11 obs.

% AUG 26, 1991 09h 49m 27.49± 1.00s 15.320 N ± 7.6km 60.874 W ±10. 7km DEPTH = 21.5 ± 17.1 km
LEEWARD ISLANDS (92)
ML 2.9 (FDF) .

MGG 0.44 283 iPc 4936.69 0.2
S 4942.80
DEC 0.52 34y ePc 49 37.77 -0.2
S 4946.00
SFG 0.53 324 eP 49 37.70 -0.3
BBL 0.65 243 i PC 49 39.86 -0.3
S 4948.70
DOG 0.75 286 i PC 49 41.83 0.1
S 4951.40
PAG 0.80 285 ePc 49 42.66 0.0
S 49 53 . 00
SEG 0.84 314 ePc 49 43.54 0.3
S 49 54 . 70
CRM 1.06 182 i Pd 49 46.95 -0.1
FDF 1.11 194 eP 49 47.37 -0.5
0.1s 1 . 22nm
S 50 01 . 60
MVM 1.26 181 iPd 49 50.20 0.3
S 50 06.60
BlM 1.31 188 eP 49 50.86 0.3
BPA 1.54 322 eP 49 54.00 0.1
S . D . =0.3 on I2of 12 obs .

& AUG 26. 1991 09h 58m 17.90s
40. 453 N 127 . 350 W
DEPTH = 5.0km
3. 7mb (2 obs.)
OFF COAST OF NORTHERN CALIFORNIA(34) <8RK> . ML 4.1 (8RK) .

FOX 2.56 87 eP 58 58.49 -2.3
FHC 2.58 81 eP 58 58.68 -2.5
WDC 3.67 86 iP 59 13.98 -2.5
eS 59 55.28
NWRM 3.99 119 eP 59 17.00 -4.0
LTCM 4.00 92 <rP 59 18.20 -3.0
LBFM 4.23 76 eP 59 23.00 -1.7
MIN 4.39 90 eP 59 23.74 -3.1
eS 00 1 1 . 30
ORV 4.58 99 eP 59 27.67 -1.8
eS 59 59. 31
ZSP 4.68 121 ePc 59 27.11 -3.8
8RK 4.72 121 eP 59 27.20 -4.2
BKS 4.73 121 iPc 59 27.80 -3.9
eS 00 1 9 . 30
PCC 4.87 126 ePc 59 29.10 -4.4
GCC 5 . 40 1 28 eP 59 35 . 80 -5 . 3
MHC 5.43 123 eP 59 37.20 -4.4
ARN 5.49 122 eP 59 37.50 -5.0
SAO 5.91 127 ePd 59 43.36 -4.9
CMB 5.92 112 ePc 59 47.22 -1.2
PRS 6.24 129 eP 59 48.45 -4.5
LLA 6.32 125 eP 59 49.16 -4.8
BMW 6.72 25 eP 59 58.70 -1.1
PRI 6.79 127 eP 59 56.92 -3.9
FRI 6.90 118 eP 59 58.56 -3.6
80NR 7.46 107 eP 00 08.50 -1.8
LON 7.47 31 eP 00 09.00 -1 . 1
TNP 8.21 104 eP 00 20.00 -0.7
SYP 8.32 133 eP 00 18.00 -4.3
ISA 8.48 122 eP 00 20.00 -4.3
CLC 8.97 118 eP 00 28.00 -3.1
GSC 9.79 118 eP 00 38.00 -4.5
PNT 10.42 29 eP 00 51.00 0.1
MSU 11.89 94 eP 01 10.00 -1.3
ALO 17.41 102 eP 02 22.00 -1.3
1.0s 1 . 75nm 3.1mb
FFC 22.12 41 eP 03 20.00 4.3
1.2s 1 6 . 00nm 4 . 3mb
33 obs . ossoc i o t ed

AUG 26, 1991 10h 01m 59.74± 0.14s
18.959 N ± 2.7km 80.877 W ± 2.6km

DEPTH = 18. 0km (geophy s i c i s t) 5.3mb (67 obs.) 5.4Msz (20 obs.)

245

26d 10h

CARIBBEAN SEA (94)

GCM
SPJ

BBJ
STH

GWJ
HOJ

UPA

sex
IPX
BMG
TOV

SDV
MORO
LVVM
OXX
HOBC
JSC

CLMC
8UGC
CEOS
BOG

ANCC
HOOC
LLAV
OLLA
I I T
S I LC
TKL
GBTN
PURC
PWLA
GUAN
PSO
CUMC
CPB
BLA

BPA
PAG
B8L
MGG
DEC
CVL
YANA
GGP
OUR
MRX
OTO
UYO
CBN
ANGL
ELC
SVB
TCE
TRN

Ms 5.4 (BRK). Felt (V) on Grand Cayman. Felt at Stony Hill,
Jama i c o .
CENTROID, MOMENT TENSOR (HRV)
Dota Used: GDSN
L. P . B . : 20S, 50C
Centroid Locotion:
Origin Time 10:02: 4.8 0.4 Lot 19.05N 0.03 Lon 80.96W 0.03

Dep 15.0 FIX Half-duration 3.6
Moment Tensor; Scale 1 0 » * 1 7 Mm
Mrr=-0.34 0.12 Mtt=-1.89 0.13
Mf<= 2.23 0 15 Mr t=- 0.8 6 0 33
Mrf=-1.55 0.45 Mtf= 4.02 f> 12
Principal Axes:
T Vol- 5.25 Pig-18 Azm-121
N -0.90 72 306
P -4.35 1 212

Best Double Coup t e : Ma-4 . 8 » 1 0 * * 1 7 NP1 : S t r i ke = 258 Dip = 77 Slip- 12
NP2: 165 79 166

0 . 58 305 i P 0210.60 -0.9
3 . 29 106 iPc 0249. 52 -2. 9X
S 63 30 02
3.47 99 i P 6251.40 -3 . 6X
3. 95 102 iP 6258.40 -3. 4X
eS 03 42. 20
4.02 102 iP 02 59.40 -3.5X
4 . 03 103 iP 02 59 . 90 -3.6X
eS 63 45.30
16.00 172 iPc 04 22.40 -4.2X
0.8s 1 3* . 33nm 6. 4mb X
Z 20s 1 3 . 1 2um 4 . 4Msz

11.41 261 (P) 0447.70 1.8
11.61 251 (P) 04 50 . 80 2.2
14.04 146 iPc 05 18.50 -2.7X
14.08 129 iP 05 13.00 -8.6X
i S 0850.40
1 4 . 10 134 eP 65 1 6 . 80 -5 . 2X
1 4. 55 122 iP 05 23 . 50 -4. 3X
14.72 276 (P) 05 23.43 -6.4X
15.19 265 i P 0536.80 0.6
15. 24 162 eP 0535.34 -1.5
15.26 359 eP 05 31.20 -5.7X
S 0808. 50
15.57 164 ePc 0539.33 -1.9
15. 64 163 eP 6540.37 -1.7
15.66 127 iP 05 38.10 -4.2X
1 5 . 72 154 eP 0544.00 0.6
eS 0848.00
1 5 . 84 1 65 eP 0545.32 0.7
15.95 164 i P 05 45.46 -0.7
16.60 120 iP 05 49.30 2.6X
16 . 26 121 iP 0547.60 -2.4
16.49 273 eP 0555.30 2.2
16. 77 164 eP 0557.50 0.7
16.83 352 P 0553.80 -3. 2X
16.90 351 P 05 55 .60 -2. 9X
17.12 164 ePc 0602.02 0.7
. 17.18 340 P 0559. 00 -2. 5X
17.24 119 i P 06 01.70 -0.7
18.00 168 eP 06 08.50 -3.7X
18.13 170 ePc 06 15.16 1.2
18.14 91 eP 06 09 . 33 -4. 1X
18.19 1 ePc 06 10.40 -3 . 6X
0.7s I22.22nm 5.2mb
S 0921.00
18.19 93 eP 0610.00 -4 . 2X
18.54 96 eP 0616.00 -2.5
18.84 97 eP 0619.00 -3 . 1 X
18.90 96 eP 06 20.00 -2.9X
19.07 95 eP 06 20. 00 -5. 0X
19.07 6 P 0621.40 -3 . 4X
19.09 173 eP 06 27 . 50 1.8
19 . 15 173 P 0628.30 1.8
19 . 15 173 eP 0628.30 1.9
19.19 276 i P 0627.30 1.0
19.19 173eP 06 26.50 -0.3
19 . 38 324 i PC 06 26.50 -2.2
19.42 8 eP 06 27 . 00 -2.1
19.51 170 eP 0621.00 -9. 7X
19.67 340 P 06 29.20 -2.7X
19 . 68 1 04 eP 0630.24 -1.9
20 . 2 1 1 1 1 eP 0635.94 -1.8
20. 54 1 1 1 eP 06 38. 78 -2.4

TPP
FVM

TBH
TUL

LVNJ
CLE
GMTN

PNJ

TBR

DLA
LDN
ELF
ALO

GLD

GOL

PV09
RSSD

MSU
GLA
DAU
8W06

DUG
PLM
PEC
GSC
RVR
SBB
MWC
ARE
PAS

CLC

TNP

1 SA
2080

LRM
SCH

LPB

80NR
KVN
BCH
FR 1
PR 1
CCH

20.65
20.71

20.91
21.41
1 . 6s
Z 22s
N 22s
E 22s

22 . 40
22 . 46
22. 59

22 . 62

22 . 83

23 . 83
24.01
24.16
27 . 76
1 -5s
Z 22s
29 . 49
1 . 2s

29 . 55
1 . 0s
31.31
31.71
1 . 0s

33 . 42
33 . 42
33 . 70
33.91
1 . 3s

34 . 63
35 . 1 4
35 . 53
35. 65
35. 72
36 . 27
36 33
36 . 39
36 . 40

36 . 42

36 . 87
0. 7s

37 . 05
37.19
1 .8s
Z 24s

37 . 37
37 . 38
0. 8s
37.44
1 . 0s
Z 22s

37 . 63
37 . 87
38. 19
38. 39
38. 90
38.91

1 12 eP
338 eP

(S)
111 eP
325 iPd
271 . 1 0nm
2 . 69um
2 . 36 urn
0 . 99um
eS
LR
1 2 P
359 iP
13 i P
i
13 i P
S
1 3 eP
e
S
359 P
359 P
359 P
310 eP
1 00 . 69nm
2 . 4 1 urn
320 ePc
60.61 nm
PP
320 ePc
1 8 . 75nm
314 eP
327 eP
55.59nm
i
PP
PPP
PcP
312 P
302 P
316 P
321 iPc
66 . 94nm
PP
PcP
315 P
301 P
302 ePc
305 eP
302 eP
303 eP
302 eP
165 iPc
302 eP
ePP
ePcP
ePcS
eS
eLg
eScS
eLR
305 eP
e
309 ePc
25.56nm
i
PP
PPP
304 eP
159 iPc
143.1 0nm
3 . 83um
S
LR
323 eP
1 3 ePd
96 . 00nm
160 P
1 00 . 00nm
6 . 30um
LR
308 P
310 P
303 P
306 ePc
304 eP
157 PC

06 40. 61
06 40.50
10 17.50
06 42.31
06 47 . 80
5
4

10 51.00
12 41.60
06 59 . 20
07 00 . 60
07 01.80
11 84.80
07 02. 90
11 64.96
07 03 . 46
07 21.16
11 10.60
07 14.45
07 16.00
07 17.25
07 49.00
5
4
08 06 . 60
5
09 12 . 00
08 05 . 80
4
08 22 . 90
68 24 . 00
5
08 38 . 20
09 38 . 50
09 40.70
11 17.80
08 41.00
08 41.00
08 43.00
08 43 . 70
5
09 40 . 00
10 57.10
08 51.00
08 56.60
08 59. 00
09 00 . 00
09 01 . 00
09 05 . 00
09 06 . 00
09 07 . 0C
09 06 . 00
10 32.00
11 18.00
14 37 . 00
14 51 . 00
17 35 . 00
19 12 . 00
19 26.00
09 07 . 00
10 29. 00
09 10. 30
5
09 21 . 90
10 44.00
11 10.80
09 12 . 06
09 12.06
5
5
15 00 . 00
20 00 . 00
09 14.60
09 14.20
5
09 15.60
5
5
19 30.00
09 18 . 00
09 20.00
09 22 . 00
09 22.30
09 27 . 70
09 25. 86

- 1.7
- 2 . 2

- 2. 7
- 2.1

. Anr,b
. 6Msz

- 0. 6
0 . 2
f) . 1

1 . B

- 0. 6

0 . 7
0 . 6
0 . 3
- 1.3
tm t>
. 7Msz

- e . 5
3mb

- 1.3
9mb
0 . 1
- 2 . 0
4mb

0. 0

0. 1
- 0. 6
- 1.6
4mb

- 0 . 4
0. 7
0. 0
- 0 . 1
0. 4
- 0. 3

0. 0

0. 3
- 0. 4

0. 5

- 0.2
1mb

0. 1
- 1.7
4mb
IMszX

- 0 . 1
- 0. 1
6mb
0. 0
5mb
4Msz

1 . 0
1 . 2
0.5
- 0. 7
0. 3
- 2. 1

FFC

CMS
LLA
SES

SAO
S I V
MHC
GCC
ORV
BKS

M I N
NEW

LBFM
WDC
PNT

LON
ANT
PGC
FR8
BAD
S081

CYA
YKA

PPD

CAl
PEL
GDH

I NK

MBC

KLU
TOA
PMR

FBA

VAL

SLKM
RSO
DCN
DMU

ECP
ETA
EVAL
TTA
EPLA
CN I L
PLAT
MOM I
ALJ
EJ I F
EHOR
EKA

r-UD
TOL

E8AN
ECOG
AFC
EGUA
ECRI
LPF

39. 17
0. 6s
39 . 22
39 . 24
39. 48
0.9s

39. 67
39. 83
39. 97
40.16
40 . 52
40 . 57
0. 7s
Z 20s
N 20s
E 20s

40. 85
41 . 38
0.9s
41 . 39
41.60
43.34
0.6s
43.44
43.62
45 . 26
45.54
47 .22
48.35

49.33
49 . 35
0 . 9s
49 . 96

49.99
52. 72
53.03
1 . 2s

59. 12
1 . 2s
60.60
1 . 0s
61 . 65
61 .90
63.17
0. 9s
63 . 23
0 . 8s
63. 39

63.52
64.76
65.25
65 . 48
0 . 6s
65. 79
65.89
66.31
66 .53
66 .58
67 . 01
67 . 27
67 . 28
67.33
67 . 46
67 . 47
67.66
0 . 7s
67 . 98
68 . 15

68.57
68.86
68.88
68.93
68.98
69.42
0.6s

341 eP
7 . 00nm
307 eP
305 eP
330 ePc
42 . 00nm
PP
305 eP
1 49 PC
306 eP
305 iPc
309 eP
306 iPc
1 06 . 00nm
2 . 30 urn
3 . 4 0 u nri
4 . 20um
ePP
eS
e
eLR
316 ePc
323 ePc
39 . 47nm
312 P
310 eP
323 eP
1 2 . 00nm
319 P
166 eP
321 eP
8 eP
135 ePc
122 eP
e
e

162 i P
340 eP
5 . 30nm
143 eP
e

116 i PC
1 69 eP
12 i PC
1 66 . 00nm
e
i
340 ePd
76 . 00nm
350 eP
59 . 00nm
330 P
331 eP
330 eP
1 7 . 60nm
334 eP
15 . 52nm
41 i P
S
329 eP
329 eP
39 eP
39 eP
95 . 00nm
41 iPd
40 eP
57 eP
331 eP
54 eP
58 eP
58 eP
58 eP
57 eP
58 eP
56 eP
37 Pd
39. 80nm
53 eP
54 eP
iS
56 eP
57 eP
57 eP
57 eP
51 eP
45 iPc
19 . 85nm

09 27

09 29
09 29
09 30

0944
09 31
09 31
09 37
09 38
09 41
09 42

11 24
1 5 34
19 05
21 34
09 43
09 46

0947
0947
10 03

1 0 04
1 0 06
10 29
10 20
10 34
10 43
1 0 46
10 55
10 49
10 49

1 0 54
1 1 07
10 53
11 19
11 18

18 55
23 12
12 01

12 11

12 18
12 21
1 2 29

12 29

12 31
21 10
1231
1 2 39
12 43
12 44

12 46
12 47
12 51
1251
12 52
12 57
12 57
12 58
12 56.
12 58
12 57
1 2 58.

13 02.
13 04.
22 38.
1 3 05.
1307.
13 07 .
13 09.
1 3 07.
13 09.

. 50 -1.8
4 . 5mb
. 70 -0.3
. 70 -0.5
. 50 -1.5
5.1mb
. 00 51 kmX
. 80 -1.9
. 60 -3 . 6X
. 20 0.8
. 28 0.5
. 20 0.5
. 70 1.6
5 . 6mb
5 0 M s z

. 00
. 00
. 00
. 00
. 00 -0.6
. 10 -1.6
5 . 1mb
. 20 -0.8
. 80 -1.7
. 00 -0.7
4 . 8mb
00 -0.5
50 0.5
00 9 . 9X
. 00 -1.0
40 -0.7
10 -0.8
10
80
80 -1.4
00 -1.9
4 . 5mb
90 -1.2
10
00 -3.5X
50 2. 6X
20 -0.6
5 . 6mb
00
00
70 -0.7
5 . 7mb
00 -1.5
5 . 7mb
00 -1.9
90 0.3
30 -0.6
5 . 3mb
40 -0.9
5 . 2mb
00 -0.5
60
40 -0.9
00 -1.7
10 -0.5
60 -0.5
6 . 2mb
60 -0.5
00 -0.7
00 0.2
00 -0.8
20 -0.3
00 1.8
00 0.0
00 1.0
50 -0.9
60 0.5
60 -0.5
30 -0.7
5 . 7mb
00 0.5
00 1.6
00
00 0.0
80 6.8
80 6.6
00 1.7
66 6.1
50 -0.5
5.5mb

26d 10h

246

EV 1

A
GRR

ETOR
EHUE
FLN

LDT

EN 1

J
MFF

EALH
BTH

EGRA
EPF
LFF

LPO
LSF
EROO
EBR

RJF

TCF

CAF

KBS
MAF
BGF

AVF

SNF
ucc
SSF

LOR

DOU

OBN

SMF

LBF

LKO

ENN

MEM
Wl

T

WTS

WLF
HAU

T 1C
NB2

LI

C

BSF

CDR
CDF

K 1

C

LPL

LPG

69.50
69 51
0.6s
69. 54
69.55
69 . 72
0 . 7s
Z 19s
69 . 97
U.6s
69 . 98
76 IS
@. 6s
76.46
7d.59

70.64
71 . 00
7101
0.Vs
7137
71 38
71 39
71 45

71.51
0.7s
Z 18s
71.84
0.6s
71.95
0.6s
72.07
72 . 09
72.23
0.6s
72.54
0.6s
72.57
72. 57
72. 60

0.|6s
72.81
0.6s
Z 18s
721.83
0.7s
Z 18s

72. 88
Z 20s

72. 90
0.6s
72.93
0.6s
73.13
1 . 3s
73. 56
1 .0s

73. 64
73 . 67

73. 89
0 -9s

73 .90
74. 33
0.6s
Z 20s
74.52
7>i . 62
1 2s
7'i . 64
1 1

s
74.66
0 7s
74 . 79
74.86
0 . 7s
74.87
1 .05

7:j.08
0 . 6s
75.10

55 eP
44 i PC
25 . 25nm
53 eP
56 eP
44 i PC
1 8 . 75nm
3 25um
44 i PC
43 . 30nm
57 eP
46 i PC
12.65 nm
56 eP
5 u * P

d

sPHcF'
51 eP
50 iPc
48 i PC
33 . 05nm
48 i PC
47 «P
52 <rP

52 tPe
48 i PC
1 3 . 25 nm
3 . 25um
46 i PC
8 . 1 0nm
48 i PC
1 2 . 65nm
12 i PC
46 eP
46 i PC
1 4 . 45nm
46 i PC
1 0 . 80nm
42

P
42 P

+

45 i PC
1 5 . 80nm
45 eP
9 . 85nm
3 . 50um
42

P
24 40nm

1 . 1 0um S
40 eP
1 20um
eS
46 i PC
11 . 25nm
46 eP
5 . 40nm
86 PC
146 50nm
41 ePc

41 . 00nm e
42 PC

39 ePe
40 ePc

64 . 00nm e
42 i PC
44 i PC
9 . 00nm
1 . 80 urn
88

P
30

P
39 . 40nm
89

P
37 . 00nm
44 i PC
6.60 nm
49 ePc
44 i PC
7 . 70nm
88 PC
45 . 50nm
47 eP
4 . 95nm
47 eP

13 1 1 . 00
13 10. 30
5
13 11 00
13 11 00
13 11.70

55
13 13.30
5
13 13 50
13 14.50
ti
13 16 80
17 17 0

0
< :. 3 C- . 0

0
13 51.50
13 20.80
13 19 . 90
13 19.70
5
13 21.70
13 21.40
13 22.00
13 23.50
39 04 00
13 22 . 40

55
13 24.20
5
13 25 . 20
5
13 25.90
13 25 . 90
13 26 . 60
5
13 28 40
5
13 3 C-i . 2

0
13 30.00
13 28 . 60
5
13 29. 80

55
13 30.40

55
22 58.00
13 32. 00
5
23 09 . 00
13 30. 30
5
13 30 . 30
4
13 31 . 80
5
13 35 00
5
13 45 . 50
13 35.70
13 37.50
13 49. 00
13 37 . 50
5
13 49 . 00
13 37 . 34
13 39 . 50

55
13 38.84

13 40 . 10

5
13 39 . 62
5
13 41 . 26
4
13 42 . 40
13 42. 20
4

13 40.94
5
13 44.30
4
13 44 . 50

0.

1

- 0.

2
6mb
6 . 0
- 0 . 2
- 0 . 1
3mb
6Ms

z
- O . 1
Srr.b
- 0.2
- 0

?
2 mb
0.

2
- 0

3

3.2X

0.

0
- 0 . 1

6mb
- 0 . 2
- 0 . 6

- e . 2
1

M

- 0.

4
2mt>
6MS2
- 0 . 6
0mb
- 0.

3
2mb
0.

3
- 0 . 4
- 0 . 5
2mb
- 0 . 5
1mb
1

2

1

0

- 0.

7
3mb
- 0 . 7
2mb
7MS2
- 0 . 1
4mb
2MsZ

1 . 3
2MS2

- 0 . 7
1mb
- 1 . 0
. 8mb
- 1.1
. 9mb
0.

3
. 4mb

0 . 5
2.2

0 . 9
. 7mb

0.

7
0.

2
. 0mb
. 4MSZ
- 2.2
- 0.

6
. 3mb
- 2.

1
. 3mb
- 0 . 1
8mb
0.

4
- 0 . 3
. 8mb
- 2 . 1
. 4mb
0.

3
. 7mb
0 . 3

BN 1
RRL
LRG

LMR

LSD
D 1 X
FRF

RSP
PZZ
BHB
STV
2LA
SLE
MMK
ENR
ORX
SBF

NFS

ROB
1 M 1
LLS
CK 1
F 1

N
TMA
PCP
VDL
GRF

BOB
MOX

oss
PGF

CLL

BSD

WT T

A

UPP

BD

1
P 1 1
MME
WET
CT 1
KEV

BRG

KHC

ADK

FV 1
PGD
SF 1
PRU

KBA

0.6s
75.14
75 . 24
75 . 25
0.6s
Z 18s
75 . 39
0 .8s
75 . 39
75. 43
75 . 43
0.7s
75 . 52
75 . 55
75 59
70.77
75 . 79
75. 79
75.81
75 . 84
75 . 92
75 . 93
0.8s
76.01
1 . 0S
76.14
76 . 24
76 . 33
76. 39
76. 39
76. 42
76 . 55
76.73
77.11
1.1s
Z 22s

77.12
77.12
Z 19s
N 19s

77.14
77 . 34
0 . 7s
77 .81
1 .2s
Z 17s
77.91
0 .6s
77 . 98

77 .98

78.10
78.13
78.14
78 . 30
78.31
78 . 37

78 . 50
1.1s
78.74
1 . 4s
Z 20s
N 20s
E 20s

78 . 81
1 .0s

78. 92
78 . 93
79.01
79.11
1 . 2s
Z 18s
N 16s
E 18s

79.16

4 . 50nm
47

P
47

P
49 eP
8 . 1 6nm
2 00um
49 eP
9 . 40nm
47

P
46 ePd
49 eP
8 . 80nm
47

P
48

P
<!7

P
48

P
44 ePd
44 ePd
46 ePd
48

P
46

P

48 eP
1 3 . 45nm
31 eP
1 6 . 90nm
48

P
48

P
45 ePd
47

P
48

P
46 ePd
47

P
45 ePd
42 i PC
24 . 06nm

2 . 00um e
eSKS
47

P
41 i Pd
1 . 1 0um

1 . 30um S
45 ePd
49 eP
1 6 . 55nm
40 i Pd
35 . 00nm
1 . 00um
36 iPc
2 . 70nm

44 i PC ii

31 i P
iS
47

P
48

P
47

P
42 eP
45

P

20 ePe
40 eP
90 . 08nm
42

P
36 . 70nm
1 . 90um
0 . 50um

1 . 80um iS

321 eP

80 . 00nm e
45

P
47

P
47

P
41 eP
31 . 00nm
1 . 80 urn
1 . 30 urn

1 . 30um eeS

44 i PC

13 45
1 3 45
1 3 44

1 3 45

1 3 46
13 47
1 3 45

13 46
1 3 46
13 47
13 47
13 48
13 48
13 49
13 48
13 48
13 48

13 48

13 49
13 51
1351
13 51
13 50
13 52
13 51
13 54
13 55

1 4 06
23 46
1 3 55
13 56

23 50
13 56
13 56

14 00

14 09

14 00
14 03
14 13
14 00
23 50
14 02
1 4 02
14 01
14 02
14 02
14 02
14 15
1 4 04

14 05

14 19
24 06
1 4 02

14 14
14 07
14 03
14 05
1 4 06

14 IS
15 3<
24 06
14 0«

4 . 7mb

. 00 0.8

. 68 0.7
. 70 0.0

4 . 9mb
5 . 5MS2
. 40 -0.1
4 . 9mb
. 60 0.8
. 60 1.6
. 70 0.0
4 . 9mb
. 60 0.2

. 70 0.1

. 22 06
. 63 -0.1
. 40 0.7
. 50 0.7
. 80 1.6
. 24 0.1
. 96 0.4
. 60 0.0
5 . imb
. 50 -0.1
5 . 1mb
. 88 0.1
. 93 1.6
. 60 0.6
. 40 0.2
. 50 -0.7
,60 1.1
. 63 -0.5
. 10 0.8
,30 0.2
5 . 2mb
5 . 4MS2
10
00
50 0.2
. 50 14
5 . 2Msz

. 00
80 1.3
50 -0.1
5 . 2mb
>00 1.2
5 . 3mb
5 . 2MszX
. 80 1 0 . 6X

. 30 0.2

. 00

. 00
. 00 0-5
. 00
. 10 1.4
. 20 1.5
. 70 0.6
. 70 1.1

. 00 0.2

. 00 0.4

. 00

. 20 1.6
5 . 7mb
. 50 1.4
5 . 2mb
5 . 4MSZ

. 60

. 00

. 40 -1.9
5 . 7mb
. 40
. 40 2 . 4X
. 90 -1.5

. 60 0.1

. 50 0.5
5 . 2mb
5 . 5Msz

. 20
. 20
. 00
. 80 0.2

CRE
SOD

VOY
TR 1

ARV
KSP
MNS
L JU
CEY
VK

A

VBY
SOI
NUR

PTS
KAF

ZST
RF

1

US 1
SRO
KRA

HVAR
SCO
MGR
SPC
PSZ
PZ

1
CS

1
CZ

1
IDS
BRT
GR

1
BEO
KEK
OHR

SKO

K2N
VAY
CMP
MLR
OBN

CFR
ROD
YAK
BJ

1

LZH

GKN
KKN
GUN
DMN

i 1411.70
i 1417.80
i 1 4 22 .50
79.16 48 P 1 4 06 . 86 0.3
79.19 22 i P 1404.50 -1.6
i 1417.90
79.81 45 eP 1 4 10 . 70 0.7
79 . 82 45 ePc 14 12.10 2.2
e 2416.00
79.88 48 P 1 4 1 2 . 90 2 . 5X
79.93 40 ePc 14 11.60 1.2
80.01 49 P 1411.40 0.3

80.24 45 e(P) 1412.00 -0.2
80.26 45 eP 1412.50 0.2

80.73 42 e(P) 14 15.00 0.3
2.5s 224. 0finm 5 . 7mb
Z 16s 0.60um 5.0MszX
LR 55 40.00
80. 88 45 eP 1 4 17 .50 1.9
81.02 49 P 1 4 16 . 60 0.1
81.07 29 i P 14 17. 00 0.8
1.0s 36 . 00nm 5 . 4mb
2 22s 1 . 90um 5 . 4Msz
i 1427.16
LR 44 20.00
81.11 54 P 1 4 1 8 . 30 1.4
81.17 27 IP 1416.70 0.0
0.7s 11. 40nm 5 . 0mb
81.25 42 eP 1418.20 0.8
81 .26 49 P 1 4 19 .60 2.0
1.6s 5830. 20nm 7 . 4mb

X
81.44 52 P 1 4 20.50 1.9
82.14 42 eP 1 4 22 . 20 0.1
82 . 39 40 ePd 1 4 24 .20 0.9
e 1 4 36 . 70
82.42 47 eP 1 4 24 . 20 6.6
82.45 50 P 1 4 23 . 50 -0.3
82 . 76 50 P 1 4 25 .60 6.1
82.88 40 i P 1427.60 1.4
83.11 42 eP 1 4 29 .20 2.0
83.27 53 P 1 4 28 .90 0.7
83.41 50 P 1 4 28 . 50 -0.4
83 . 48 51 P 1427.80 -1.3
83. 48 50 P 1 4 29. 10 -0.1
83 . 70 49 P 1 4 30.50 0.2
83.82 51 P 14 30.40 -0.6
84 . 58 45 «P 1 4 37 .00 2.4
85. 97 49 eP 1 4 43 .00 1.3
86.17 48 eP 1 4 44 . 50 1.8
1.6s 1 44. 00nm 5 . 9mb
86. 29 47 iP 1 4 43.90 0.6
Z 19s 1.28um 5.3Msz
N 18s 0.88um
E 20s 0 . 61 urn
iPcP 14 48.30
i 1 4 54 . 90
eSKS 25 08.00
iSKS 25 16.00
iScS 25 29.00
iPS 26 1 8 . 00
i 31 08.00
LR 55 16.00
87.16 48 eP 1 4 49.00 1.4
87 . 33 47 eP 14 49.00 0.7
87.40 43 ePd 14 43.00 -5.6X
87 .89 42 iPd 1 4 52 .00 0.9
89 .24 31 «P 1 4 57 .00 -0.1
Z 20s 0. 70um 5 . 1 Msz
i 15 08.00
« 25 30.00
e 2644. 00
89.42 42 eP 15 03.00 4.8X
89 . 44 46 eP 15 02.40 4. 0X
95. 71 346 eP 15 28.20 1.3

119.19 345 (PKP) 21 05.50 14. 7X
Z 20s 1 . 75um 5 . 7Ms

z
125.07 355 ePKP 21 13.50 11. 0X
1.0s 18. 00nm
Z 22s 1.37um 5.6Msz
E 17s 1 . 47um
pP 21 20.50
sP 21 26.00
PP 23 12.00
131.26 17 PKP 21 13.40 -1.2X
131.63 16 PKP 21 13.40 -2.0X
131.68 16 PKP 21 13.00 -2.6X
1 31 . 76 17 PKP 21 12.60 -3 . 1

X

247

26d 10h

PK I 131.88 16 PKP 21 12.00 -4.0X
STK 139.79 243 ePKP 21 32.00 1.7
1.6s 1 . 40 nm

OIS 41.93 261 e(PKP)21 31.00 -3.4X
CHG 42.46 6 ePKP 21 41.00 5.6X
CGP 42.88 315 ePKP 21 38.00 1.8
LOE 43.77 356 ePKP 21 46.00 8.4X
KOD 43.98 38 ePKP 21 31.90 -6.6X
NS7 145.57 358 ePK'P 21 41.60 0.3

0.9s l3.40nnr>
WRA 146.81 262 PKP 21 42.00 -0.7
1 Os 1 3 . 50 nm
ASPA 147.31 2 f / 6 iPKPc 21 46.20 2.8X
1 4s I f ' 6 C n m
e 21 55. 70
NNT 148.65 359 ePKP 21 55.60 9.9X
MTN 148.66 276 ePKP 21 49.66 3.3X
KKM 149.98 324 ePKP 22 02.50 14. 6X
S.D. - 1.1 on 262 of 315 obs.

* AUG 26, 1991 10h 1 8m 43.32± 6.73s 24.087 N ± 7.8km 121.597 E ±13. 0km
DEPTH- 41 3* 8.2 km
4 . 5mb (2 obs .)
T A t WAN (244)

eS 1851.60
TWC 0.57 24 iPc 18 56.30 1.3
eS 19 05.20
TWO e.72285iPd 18 57. 90 0.7
eS 19 08. 10
TWF1 0.78 201 ePc 18 58.80 0.8
TWZ 1 . 0 1 3 5 9 e P c 1903.70 2.5X
eS 1917.90
ANP 1.10 356 eP 19 05.50 3.0X
TWK 1.30 231 *Pc 19 07.80 2.4X
eS 19 25. 20
SSF 6.99 357 Pn 20 24.50 -1.3
68s 31.00nm 5. 2mb X
2 1 2s 0 . 50um 3 . SMszX
Pg 20 54 .50
Sg 21 55.10
LZH 19.43 312 eP 23 09.00 -0.4
1.5s 28 - 00nm 4 . 3mb
2 17s 0.44um 4. SMszX
E 11s 0 . 23um

pp 23 12.30 12kmX
WR2 45.50 163 iPc 27 00.20 -0.4
0.5s 4.30nm 4. 6mb
WARB 50.21 174 eP 27 37.00 -0.3
1 NK 73.17 22 eP 30 12.00 0.7
S.D. = 1.2 on 9 of 12 obs .

? AUG 26, 1991 10h 31m 31.93± 2.01s 0.912 N ± 8.9km 124.080 E ±71. 4km
DEPTH = 33.0km (normal)
4 . 9mb (4 obs .)
MINAHASSA PENINSULA (265)

CGP 7.52 5 eP 33 23.00 0.9
1.0s 230 . 00nm 6 . 2mb X
BIP 7.58 17 iPd 33 22.00 -0.9
MTN 15.36 153 eP 35 24.00 16. 0X
WR2 23.05 155 iPc 36 37.10 1.5
0.3s 14. 70nm 5 . 0mb
i 36 42.50
ASPA 26.23 159 iPd 37 06.20 0.3
1.9s 8 . 80nm 4 . 0mb
WARB 27.05 175 eP 37 15.00 1.6X
FORR 31.82 173 iPc 37 55.10 -0.7
0.2s 6.00 nm 5 . 1mb
STK 36.59 155 iPd 38 35.80 -1.1
0.3s 3.76 nm 4 . 8mb
S.D. =1.4 on 6 of Sobs.

AUG 26. 1991 10h 41m 38.08± 0.89s
38.005 N ± 7.9km 21.504 E ± 7 1km
DEPTH = 5.0km (g e ophy s I c i s t)
GREECE (364)
MD 3.0 (ATH) .

VLS 0.74 284 eP 41 52.20 -0.7
eS 42 13 .00
AGG 1.21 32 eP 42 00.90 -0.1
eS 42 27 . 00

VLI 1.72 138 ePn 42 09.00 0.2
KEK 2.16 323 eP 42 16.20 0.9
LIT 2.23 20 eP 4215.80 -0.4
KZN 2.31 5 eP 4217.90 0.5
PAIG 2.56 41 ePd 42 16.98 -3.9X
FNA 2.78 358 eP 42 24.70 6.6

OKR 3.15 350 e(Pn) 42 35.00 5.7X
KNT 3.33 18 eP 42 30.90 -1.6
S.D. =0.8 on 8 of 10 obs.

? AUG 26. 1991 10h 44m 28.38± 3.40s
3.794 N ±15. 1km 76.941 W ±32. 4km
DEPTH = 33.0km (normal)
COLOMB 1 A (1 03)
MD 2.6 (UVC) .

ANCC 0.29 165 iPd 44 35.67 -0.4
eS 4446.60
CLMC 0.39 77 iPc 44 37.38 -0.1
HOOC 0.45 137 iPd 44 37.96 -0.5
eS 4444.60
BUGC 0.69 82 ePc 44 41.83 0.0
eS 4451.30
HOBC 0.98 55 eP 44 46.01 0.1
eS 44 58.80
SILC 1.25 151 eP 44 50.83 0.8
S.D. -0.6 on 6of 6obs.

? AUG 26, 1991 10h 55m 09.32± 2.23s
40.924 N ±16. 2km 28.354 E ± 1 6 . 3 km
DEPTH = 10.0km (geop hy s i c i s t)
TURKEY (366)

CTT 0.23 14 iPg 55 13.50 -0.8
1 SK 0 .55 75 iPg 55 21 . 00 0.5
eSg 55 28.00
YLV 0.85 114 ePg 55 25.50 -0.3
eSg 55 38.50
DMK 1.00 334 iPg 55 28.80 0.5
eSg 55 41.80
S.D. -1.1 on 4of 4 obs .

tc. AUG 26, 1991 11h 33m 59.68s
60. 261 N 152.365 W
DEPTH - 91 . 2km
SOUTHERN ALASKA (2)
<AE 1 C>.

RED 0.26 308 i PC 34 12.46 -0.9
eS 34 22.50
RS1 0.28 316 iPc 34 12.87 -0.7
iS 34 23 .52
RSO 0.28 316 iPc 34 12.83 -0.8
eS 34 23 . 12
RS2 0.28 316 iPc 34 12.86 -0.8
S 34 23 . 76
REF 0.28 324 iPc 34 12.90 -0.7
eS 34 23.46
ROW 0.31 315 ePc 34 12.93 -0.8
eS 34 24.06
RDT 6.31 356 iPc 34 12.78 -0.8
eS 34 23.23
RON 0.32 322 ePd 34 12.92 -0.8
eS 3423.14
DFR 0.37 335 eP 34 13.01 -1.0
eS 34 23.67
NNL 0.58 112 iPc 34 15.72 0.3
HOM 0.71 149 ePc 34 16.43 -0.1
eS 34 29.48
NKA 0.74 49 iPc 34 18.20 1.3
OPT 0.75 216 ePd 34 16.47 -0.6
eS 34 29.84
CNPM 0.93 142 ePc 34 18.33 -0.7
eS 34 32.81
SPU 0.94 9 iPd 34 18.26 -0.8
eS 34 32 . 73
CKL 0.94 1 iPd 34 18.36 -0.8
i S 3433.13
BGL 1.01 359 iPd 34 19.22 -0.7
CRP 1.01 6 iPd 34 19.46 -0.6
PDB 1.03 243 iPd 34 19.01 -1.1
IS 34 34 . 06
AUL 1.03 212 eP 34 19.53 -0.6
AUE 1.04 210 ePd 34 19.35 -0.8
AUP 1.05 211 ePc 34 19.79 -0.6
AGU 1.05 211 eP 34 19.77 -0.7
AUH 1.05 212 eP 34 19.66 -0.8

AUW 1.05 212 i Pd 34 19.68 -0.7
CGLM 1.06 9 ePd 34 19.89 -0.7
AU 1 1.07 210 ePc 34 19.78 -0.8
SLKM 1.09 76 eP 34 20.07 -0.8
NCG 1.15 5 iPd 34 20.81 -0.8
SUA 1.44 33 iPd 34 24.82 -0.5
SEW 1.47 95 eP 34 24. 1 1 -1.3
MCNL 1.47 224 ePd 34 24.35 -1.2
CDD 1.49 207 eP 34 24.55 -1.2
SY 1 1.66 180 ePd 34 27.27 -0.6
PMS 1.69 53 ePc 34 28 02 -0.4
IS 3449.19
SKT 1.77 13 iPd 34 28. 23 -1.2
SVW 1.81 299 ePc 34 28.20 -1.8
PWA 1.85 40, eP 34 29.44 -1.0
LT 1 2.27 94 eP 34 33.97 -2.1
KNIM 2.31 86 iPc 34 33.82 -2.8
MTU 2.37 95 i PC 34 35.78 -1.7
CUT 2.38 24 eP 34 36.62 -0.9
SML 2.50 50 ePc 34 37.88 -1.4
GLI 2.68 74 eP 34 38.44 -3.2
FID 2.95 78 ePc 34 41.77 -3.6
VZW 2.97 72 eP 34 43.95 -1.7
VL2 3.09 7 1 P 3445.11 -2.2
KLU 3.38 66 eP 34 49.10 -2.3
48 obs. ossocioted

» AUG 26, 1991 11h 49m 15.43± 1.23s 42.162 N ±12. 0km 100.533 W ± 9.5km DEPTH - 5.0km (geophy s i c i s t)
NEBRASKA (463)
mbLg 3.4 (GS), 3.4 (TUL). Felt
(IV) ot Purdum ond Thedford.
Felt in ports of Bloine, Brown, Cherry, Rock ond Thomos
Count i es .

RSSD 3.23 309 ePn 50 08.00 0.1

GLD 4.29 237 e(P) 50 24.00 1.0
GOL 4.41 238 eP 50 24.70 -0.2

ACO 5.56 168 e(P) 50 49.30 8.4X
BW06 6.70 278 eP 50 55.00 -2.2X
TUL 7.25 148 ePn 51 05.30 0.7
ePg 51 10.30
eSn 52 23.60

ALO 8.57 215 e(P) 51 23.00 -0.3
UYO 9.30 147 e(P) 51 32.50 -0.7
MSU 9.61 252 eP 51 37.00 -0.6
FFC 12.61 356 eP 52 12.00 -6 . 2X
0.5s 4 . 00nm 4 . 9mb X
S.D. -0.8 on 7 of 10 obs.

% AUG 26, 1991 12h 40m 03.65± 1.03s
40.185 N ± 8.4km 29.372 E ± 9.3km
DEPTH - 10.0km (geophy s i c i s t)
TURKEY (366)

121 0.17 27 i Pg 4007.50 -0.1
eSg 40 11.00
YLV 0.38 0 iPg 40 11.00 -0.5
i Sg 40 1 9 . 00
EYL 0.71 57 ePg 40 18.00 0.3
DST 0.81 225 ePn 40 19.30 -0.2
CTT 1.20 324 iPn 40 26.50 0.5
S.D. -0.5 on 5of Sobs.

? AUG 26. 1991 I2h 41m 09 . 42± 4.94s
4.272 N ±29. 9km 76.918 W ±35. 0km
DEPTH - 33.0km (normal)
COLOMBIA (103)
MD 2.9 (UVC) .

CLMC 0.52 138 eP 41 21.79 1.2
eS 41 30 . 60
ANCC 0.75 176 eP 41 23.95 0.3
eS 41 34 . 40
BUGC 0.76 120 ePd 41 23.05 -0.7
eS 41 32.80
HOBC 0.78 84 eP 41 24.23 0.1
eS 4134.90
HOOC 0.85 160 eP 41 24.26 -0.9
eS 41 34.90
S.D. -1.2 on 5of Sobs.

? AUG 26, 1991 12h 51m 16.03± 2.69s 30.439 N ±35. 0km 132-116 E ±27. 2km
DEPTH - 33.0km (normal)

248

26d 12h

4.0mb (1 obs.)
SOUTHEAST OF SHIKOKU, JAPAN (237)

SSE 9.43 277 eP 5331.50
1 6s 0 . 40um
BJ 1
GUN
KKN
NB2

?

16.15
40 . 24
40 . 78
77 . 63
0
S .D

AUG

. 6s
. =

26 ,
62.750 N
DEPTH

31 1
278
278
335

1 .3

1 991
±86 .

eP
P
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P
1 . 00nm
on

I2h
4km
=i 1 0 . 0km (g
SOUTHERN

FRO

FOO

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ASK

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ODD1

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73

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2.91
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26 ,
40 . 786 N
DEPTH

obs .

±1 1 -
±38.

st)

47s
9km

(535)
(BER) ,

194

189

167

190

183

1 68
0. 9

1 99 1
±1 1

i P
iSg
i P
i S g
eP
eSg
i P

eSg
eP

eSg
eP
on

1 3h
7 km

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6 o f

1 8m

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49
30 . 206

«= 10. 0km (geophy s

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obs.

64± 2 .
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c i
TURKEY

EYL

HRT
Y LV

ISK
CTT
DMK
S.D

0j. 22

0.41
0.67

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39
12
-

190

275
251

288
286
300
0 .3

iPg
eSg
iPg
iPg
iSg
ePn
i Pn
ePn
on

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+ 19.

st)

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. 5

51 s
5km

(366)

0

0
0

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0
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obs .

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. 4
. 2

c AUG 26, 1991 I3h 21m 37.60s
40 .580 N 122.272 W
DEPTH - 1 8 -0km
NORTHERN CALIFORNIA (36)
<BRK>. ML 2.9 (BRK). Felt in the Redd ing o r ea.

WDC

LTCM
M 1 N
LBFM
ORV

FHC

CMS
ARM

0.20

0.39
8.56
4 . 82
1.18

1 .32

2 .93
3.28

270

163
1 15
21
150

280

149
1 70

i PC
iS
eP
iPd
eP
i PC
eS
iPc
eS
i PC
eP
8 obs. assacia

» AUG 26 .
32 .038 S
DEPTH
MENDOZA

J ACH
ZON

PEL

RTLL
ROCH

PCH

TACH

1991
±10.
- 135. 4

13h
3 km
± 13.

21
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ted

35m
69.

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81 1

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49±
W ± 1

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68s
2km
2 km
PROVINCE. ARGENT

0 . 92
1 . 08

1 .33

1 .34
1 . 38

1 .69

1 .87

CHCH J2.02

LCCH
LNV

2 .06
2.34

226
63

214

59
227

200

210

200

225
215

eP
iPd
eS
iPc
i S
iPc
iPd
iS
iPd
iS
iP
iS
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ANT

S IV

7

EA

LAT
PMG

MDG
OIS
WR2

RMO

8 . 32 356 eP 37 37 .^0 -0.3
i S 37 57 . 30
17.84 28 P 3940.90 0.2
S.D. =0.4 on 11 of 1 $ obs .

AUG 26. 1991 13h 39m 29.J7± 3.01s 6.926 S ±15. 1km 147.760 t ±36. 3km DEPTH = 64. 3 ±14. 9 km
4.2mb (4 obs.) 3.8Msz (| 1 obs.)
ST PAPUA NEW GUINEA REGIONi (267)

0 . 80 290 eP 3944.90 -0.4
2 . 54 194 eP 40 09 . £>0 0.0
eS 4^ 49. 6i0
2 . 58 3 1 y eP 4n 1 0 . f)0 0.4
15.69 209 eP 4 j, ' = 3.70 0.8
18.35 224 iPd 43 41.00 -0.1
0.5s 5.80nm 4.0mb
19 . 48 177 eP 4400.80 6 . 8X
0.7s 1600nm 4. 4mb
ASPA 21.31 217 iPd 44 12.40 -0 5

STK

0.5s 11.30nm 4. 5mb
Z 20s 0 . 40um 3 . 8Msz
25.49 192 eP 44 53.20 -0.1
1.3s 2 . 1 6nm 3 . 5mb
S.D. =0.6 on 7 of Sobs.

AUG 26, 1991 14h 59m 44.,91± 0.10s 42.100 N ± 2.3km 144.635 E ± 2.2km DEPTH = 28.6km (geophy s i c i s t) 5.8mb (96 obs.) 5.7MSZ (28 obs.)
HOKKAIDO, JAPAN REGION (224)

SAP

Mo=3 0«10«*17 Nm (PPT). Depth
from broadband displacement
se i smog r oms .
FAULT PLANE SOLUTION: FJ-Woves

NP1 : Str i ke = 260 D i p=7 5 S 1 i p = - 1 1 7
NP2 : 143 31 -31

Principal Axes'
T P 1 g = 2^ Azm= 1 1
P 52| 138
Comment: The focol mechanism is
poorly controlled and
corresponds to normaj faulting
with o moderate strike slip component. The preferred fault
plane is not determined.
RADIATED ENERGY
No. of sto: 12 Focal mech. C
Energy 7 . 0± 1 . 7 » 1 0* * 1 2 Nm
CENTROID, MOMENT TENSOR (HRV)
Dato Used: GDSN
L.P.B.: 17S, 41C
Centroid Location:
Origin Time 14:59:46.7 0.2
Lot 42.14N 0.02 Lon 144. 68E 0.04

Dep 26.2 1.9 Half-duration 2.8
Moment Tensor; Scole 10«»17 Nm
Mrr=-3.72 0.08 Mtt= 3.43 0.10
Mff= 0.29 0.12 Mrt= 1.59 0.26
Mrf= 0.34 0.22 Mtf=| 0.67 0.10
P r i nc i po 1 Axes:
T Vol= 3.91 Pig-12 Azm=348
N 0.16 0 258
P -4.07 7-8 168

Best Double Couple:Mo»i4.0*10»*l7 NP1:Strike= 79 Dip=33j S 1 i p= -90
NP2: 258 57l -90

2 .62 293 eP 00 29. 00 2.8
iS 01 00. 30
YSS 5.10 345 P 01 00.00 -1.4X
MAJO 7.46 224 ePc 01 33J.11 -1.4
MAT 7.46 224 i PC 01 33.30 -1.2

MDJ
SHK
H 1 A
BJ 1

0.6s 255 . 33nm 6 . 5mb
eS 02 5: . 00
11.24 288 ePd 02 2^.42 -0.2
12.04 235 eP 02 3^.50 -1 . 1

18.76 361 ePc 04 6(i.49 -3.3X
21.52 274 ePd 04 30.60 -2.9
2.0s 267.00nm 5. 3mb
Z 18s 1 30 . 00um 6 . 4Msz
N 1 4s 6 . 80um

pP 04 3(> .50 21 kmX
e 04 4''. 00
e 06 1 :5 . 00
eS 08 3i5.77

YAK

SMY

ANP

ADK

PJG
GUA

1 RK

CVP
P 1 P
L2H

HKC

BAG

OCP
TGY
PGP

ANM
MAP
Bl P

CGP

KM 1

DAV
TTA
SVW
BRW
WMO

RSO
KDC

2

2
E

Z
N
E

21 .85

22 . 44

25. 47

27 .84
1 .es

28.41
28. 46
18s
28.88

31.15
31 . 30
32 . 00
1 .5s
18s
16s

32. 21

32.88

34.10
34 62
35. 12
0. 8s
36. 00
36.47
37 . 44
0.8s
37.85
1.0s
38. 35
2 .0s
18s
15s
15s

38 . 74
39.87
40. 00
40. 78
41 .00

41.43
41.78
6 . 9s

341

52

236

56

esS
eScS
i Pc +
i PP
i PPP
i S
i PcP
i SS
iScP
i PCS
iScS
i PSP
eP
i
eP
i S
eP

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- 5. IX

0.8
54kmX
3 . 8X

- 0.9
. 5mb
48kmX
4 . 7X
4.5X
. 2Msz
- 1 .0
57kmX

0.6
8.5X
0.0
. 3mb
. 4Msz

65kmX

1 .5

- 1 .0

- 1 . 1
2.4
3. IX

, 6mb
0.6
- 1 -3
- 0.4
2mb
- 0.4
. 6mb
0.6
2mb
2Msz

32ktnX

- 0.4
0.4
1 .3
- 0.3
0.3

- 0.4
- 0.3
8mb

249

26d 15h

PMR

COL

FBA
KKM
LOE
TOA

TSM K'LU
CHG

8DT

SHL

PCT
NST
BALM
KHT
I NK

NNT
GUN
KKN
PK I

DMN

GKN
MBC

PMG
HNR
I PM

KGM
NO I

MTN

YKA

KNA
KEV

HYB
DAG

PGC
KTK 1
SOD

TRO
ODE

CTAO

GMW
BMW
WRA

WR2

Ol S

PNT

SHW
COR

43. 1 1
0.8s

43.51

43.51
43.88
44 02
44.46
44 .58
44.63
45 . 05
1 . 2s

45.04
6 . 8s,
46. 09

46 . 13
46.32
46. 43
48.06
48.75
0.7s

48.75
49 . 26
49.77
49 . 79
0.6s
50 .00
0.7s
50.13
50.96
0.8s

51.31
53.17
53 . 83
1 . 0s
54.41
55 . 25
0. 4s

56. 07
0. 7s
58. 1 9
0. 7s
59.39
59. 60
0.6s
Z 16s

60.87
60. 94
0 . 6s
61 .09
61 .09
61 .27

61.73
61 .86
1.1s

61 . 89

62 . 05
62.38
62. 46
0. 8s
62. 46
0. 7s
62.51
0. 8s
62.85
0.8s

63.11
63.38

40 i PC
67 50nm
e

35 i PC
*pPc
eS
35 eP
223 fcPd
249 i Pd
39 i PC
220 *Pd
40 P
253 i Pd
1 36 . 72nrr.
*S
252 eP
42 . 60nrti
266 i P
i S
247 t
249 IPd
40 i P
250 -;P
29 i PC
253 . L'.Cinm
P P
246 *P
273 P
273 P
273 P
87 . 00nm
273 P
111 00 nm
274 P
18 ePc
80 0 0 n m
pP
177 *P
161 eP
238 cPd
42 20 nm
234 ePd
279 i Pd
1 27 . 1 2nm
eS
196 eP
85 . 00nm
32 eP
33 . 00nm
1 98 eP
339 iPc
46 9 0 n m
4 . O 0 u m

*pPc
esPc
i S
<=ScS
LR
268 ePd
356 i PC
83 . 33nm
49 eP
339 eP
337 iPc
i
341 eP
286 eP
53 . 1 6nm
ePP
eS
178 ePd
*S
eScS
eSS
50 P
51 P
191 P
56. 1 0 n m
191 i PC
44 . 70nm
185 i Pd
29 . 00nm
47 ePc
262 . 00nm
pP
51 P
53 ePc

07 43.60
5
07 57.00
07 47 . 02
07 54 . 63
14 15.09
07 47.70
07 52 .00
07 52.00
07 55 . 90
07 57.00
07 56 . 20
68 01.00
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14 59 . 00
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08 30 . 30
08 33.10
08 36.78
08 36 . 84
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08 38.46
6
08 39 . 26
08 43.90
5
08 57.00
08 48.80
09 0 2 . 0 0
09 07.80
5
09 12.10
09 16.80
6
16 51 . 00
09 22 . 30
5
09 37 . 00
5
09 45 80
09 46 05
5
5
09 53 . 83
09 59 . 79
17 50 73
19 32.54
41 40.00
09 56 00
09 55.40
6
09 58.00
09 56 .63
09 57.80
10 10 . 80

10 00.70

10 03.00
5
10 14.20
18 25.00
10 04.42
18 50 . 67
19 44.20
22 32.13
10 05.20
10 07.20
10 05.00
5
10 05.60
5
10 05.90
5
10 10.00
6
10 22. 00
10 12.60
10 20.76

- 0 . 2
4mb
50kmX

- 0 . 1

25k mX

0 . 6
1 . 3
0 . 3
1 . 0
0 8
- 0 . 3

1 . 0

7mb

0 . 2
4mb
- 0.5

0 . 3
1 . 0
- 0 . 1
1 . 5
- 0 . 6
4mb
46kmX
1 . 2
- 0 . 3
- 0 . 4
- 0.6
0mb
- 0 .5
0mb
- 0 .6
- 1.4
7mb
481 mX
- 0 5
- 0 .5
0 .3
4mb
0 . 4
- 1 .0
3mb

- 1 . 3
9mb
- 1 .2
5mb
- 1.2
- 1 .9
8mb
6MszX
25kmX

- 1 . 3
- 1 .6
0mb
- 0 4
- 1 . 5
- 1 .6
46kmX
- 1 .8
- 1.1
6mb

0 4

0 .2
0 . 0
- 2 . 8
7mb
- 2. 2
7mb
- 2.2
. 5mb
- 0. 2
. 4mb
41 kmX
0.5
7. IX

MA 1 0

POO
GBA

LOF
DPW

NEW

KAF

FHC

FOX

MOR7
OBN

Z
N
E

LBFM
WDC

ASPA

Z

KOO

LTCM
NUR

Z

SES

OZM
ORV

ZSP

BKS

PCC

FFC

GOH

OLP

RMO

GCC

ARN

LRM

CMB

RGS
PRS

UPP

LLA

63 . 60

63 . 68
64.12
0.8s
64.15
64.44

64.81
0 . 9s

64 . 95
0.5s
65.09

65.25

65.31
65.53
0. 9s
16s
16s
16s

66 . 07
66.12

66.18
0. 7s
21s

66 . 29
0.7s
66 . 59
66 . 65
0. 6s
18s

66.71
0. 9s

66 . 96
67 . 36

67 .85

67 . 90
0. 8s

68. 03

68.12
0. 9s
68.16
0. 8s

68. 34
0 . 8s

68. 35
0. 7s

68. 56

68. 66

68.83

68. 97

69 . 04
69. 38

69. 48

69. 48

eS
eScS
296 eP
eS
272 iPd
265 Pd
43 . 70nm
342 eP
48 P
pP
47 ePd
250 . 00nm
e
PP
333 iP
44 . 80nm
57 iPc
i pPc
57 i PC
i pPc
340 eP
323 iPc

1 4 . 00um
6 . 30um
8 . 1 0um
i PcP
ePPP
eS
eSS
55 P
56 eP

i pPc
191 i Pd
51 . 80nm
1 . 80um
ePKKP
262 iPd
55.4 8nm
56 P
332 iPc
1 03 . 00nm
1 0 . 30um
i
e
e
LR
42 eP
1 70 . 00nm
pP
158 i PC
57 i Pd
ipPc
58 iP
i pPc
59 iPc
1 58 . 00nm

i (pP)
59 eP

i pPc
35 iPc
1 26 . 00nm
7 i PC
59 . 70nm
i
180 iPd
1 20 . 00nm
e

176 i Pd
66 . 00nm
e

59 iPc
i pPc
59 P
pP
47 iPd
i
57 ePd
esPc
340 eP
59 iPc
ipPc
335 iP
i
i
59 iPc
i pPc

18 45
20 06
10 15
18 50
10 19
10 17

10 16
10 19
10 33
1 0 22

11 17
1 2 40
10 21

10 26
10 38
10 27
10 39
1 0 24
10 26

10 39
1 4 42
19 07
23 12
10 31
10 31
1 0 44
10 30

39 02
10 32

1 0 34
10 33

10 45
19 22
20 28
42 24
10 35

10 44
10 37
10 38
10 51
10 43
10 55
10 42

10 55
1 0 42
10 55
10 43

1 0 44

19 37
1 0 44

10 59
10 55

1 1 66
1 0 46
10 59
1 0 47
1 1 00
10 48
11 01
10 48
11 01
10 48
10 52
1 1 04
10 51
1 1 03
19 54
10 53
1 1 05

57
13
00 -0.4
00
30 3.2X
50 -1.4
5 . 6mb
21 -2.2
80 -1.0
20 47kmX
00 -1.1
6 . 3mb
60 241 kmX
00
90 -1.8
5 . 8mb

04 1.0

63 43kmX
22 1.3
65 43kmX
27 -1.7
00 -1.5
8 . 7mb X

6 . 3MSZX

00
00
00
00
80 0.3
74 6.2
44 44kmX
60 -1.4
5 . 8mb
5 . 2Msz
80
60 -0.7
5. 8mb
70 0.1
00 -1.5
6.1mb
6 . IMsz
20 41 kmX
00
00
00
00 -0.2

6 . 2mb
00 29kmX
26 6.2
71 -0.8
46 44kmX
44 0.9
17 39kmX
30 -0.6
6 . 2mb
40 45kmX
94 -0.7
84 45kmX
50 -0.4
6 . 0mb
00 0.1
5 . 8mb
00
50 -1.0
6 . 1mb
50 54kmX
20 9. 6X
5 . 9mb
50 37kmX
78 -0.2
51 44kmX
20 -0.5
10 44kmX
50 -0.3
80 46kmX
66 -0.9
41
50 -1.0
21 0.1
77 43kmX
30 -0.9
40 41 kmX
00
02 0.3
64 43kmX

NANU

KVN
IR7
1 R4
1 R1
WARB

FR 1

IR5
BONR
NB2
HFS

PT 1
BCH

TAB
FRB

SYP

FRO
FOO
SBC

1 SA

HYA
AKU

CLC
SUE
DUG
BW06

ASK
BER
COO
SBB

SBB
EGO
PAS

MWC

GSC

OAU

SLY
C IS
CMS
RVR
RVR
PEC

KMY
STK

MSU
MSL

P LM

BSD

TPC

TPC
RSSD

69.74 209 eP 10 53.50 -0.7
0.7s 96.00nm 6.0mb
69 . 77 55 P 10 54. 70 0.1
69 . 79 300 eP 1055.00 0.3
69 . 88 300 eP 1056.00 0.7
69 . 9 1 300 eP 1056.00 0.5
69 . 95 1 97 eP 1055.10 -0.3
0.6s 36.00nm 5. 6mb
70.04 58 i P 10 55. 67 -0.3
i pPc 11 08.70 45kmX
70.10 300 eP 10 58. 00 1.4
70.32 56 P 10 57 . 70 -0.4
70. 46 338 P 10 56 .80 -1.4
70. 48 336 eP 10 56 . 90 -1.4
0.7s 1 05 . 60nm 6 . 0mb
Z 17s 3 . 54um 5 . 7Msz X
LR 46 33.00
70.75 49 P 1101.30 0.8
70.91 60 P 1 1 01 . 50 0.0

pP 11 14.30 44kmX
71 . 02 304 e(P) 11 03. 00 0.8
71.26 15 eP 1101.00 -2.0
0.9s 1 1 8 . 00nm 6 . 0mb
71.39 60 eP 1105.00 0.6
e 1117.00 40kmX
71 . 50 341 eP 1 1 05 . 44 1.0
71.60341 eP 11 05 . 22 0.2
71.61 60 ePd 11 05.81 0.2
esPc 11 18.72
71.64 58 eP 1 1 05.00 -0.9
e 11 17.00 40kmX
71 .69 340 eP 1 1 05.08 -0.5
71.72 353 i P 1 1 07 . 70 2.1
0.9s 87 . 39nm 5 . 8mb
i 1 1 22. 10 51 kmX
72.10 58 eP 1 1 08 . 00 -0.6
72 . 1 4 341 eP 1 1 07 . 94 -0.3
72.21 52 eP 1 1 07 . 40 -1.9
72.38 48 i Pd 1 1 08 . 90 -1.5
0.8s 113.10nm 5. 9mb
72.52 340 eP 11 10.00 -0.5
72 . 58 346 eP 1110.34 -0.5
72 . 63 1 73 eP 11 11.00 -0.5
72.67 59 eP 1 1 1 2 . 00 6.6
e 1125.00 45kmX
72.67 59 eP 1113.40 1.4
72 . 70 340 eP 1111.31 -0.2
72 . 79 59 ePd 11 11.94 -0.6
epPc 11 19.96 26kmX
esPc 11 24.76
72.81 59 eP 1 1 12 . 00 -1.0
e 11 26.00 49kmX
72.92 58 ePd 11 13.27 -0.2
esPc 11 26.01
eS 20 38.48
e 20 47.86
ePS 21 20.14
e 21 39. 45
72.97 51 P 114.00 0.0

pP 1 27.00 45kmX
73.09 303 eP 1 15.00 0.7
73.11 60 eP 115.40 0.9
73 . 23 1 79 i PC 1 1 5 . 00 0.1
73.40 59 eP 1 1 6 . 00 -0.1
73 . 46 59 eP 116.70 0.6
73.60 59 eP 1 16.36 -1.1

i pP 1129.60 46kmX
73. 61 340 eP 1 1 16 .82 -0.1
73.67 183 eP 1 1 16.70 -0.7
6.7s 8 . 60nm 4 . 9mb
73 . 68 53 P 1118.70 0.7
74 . 05 305 eP 1 1 20 . 00 0.2
ePcP 11 32 . 00
eS 20 48.00
esS ' 21 01 .00
ePS 21 18.00
ePPS 21 37.00
74.13 59 eP 1 1 20 . 00 -0.6
e 1 1 33 . 00 45kmX
74.14 333 iPc 1 1 1 8 . 30 -1.7
0.7s 4 . 30nm 4 . 6mb X
i 1 32.30 49kmX
74.17 58 eP 1 20.00 -6.7
e 1 33.00 45kmX
74.17 58 eP 1 21 .50 6.8
74.43 44 ePd 1 21.36 -0.9
0.8s 120 . 1 9nm 6 . 0mb

250

26d

COP

BAR

8AR
1 K'P
BHD

GLA

COOL

PTT
CFR
VR 1
8MR
TL8
GOL

BAL

SPC

GLD

KSP

1 SR
MLR
KLB
CMP
8UC1
CLL

BRG

PSZ
MUN
PRU

EYL
BUD
SRO

Wl T
NWAO

ZST
DMK
MOX

VKA

EKA

15h

Z 26s 2.03um 5.4Msz

pp 1134.70 46kmX
sP 1143.00
74.49 334 i PC 11 1 1 . 90 -1 8 . 1 X
1 0s 60 . 00 rim
i 1135.00 88kmX
74.69 60 eP 1123.00 -0.7
e 11 36.00 45kmX
74.69 68 <-P 112480 1.1
75.07 60 eP 1127.80 1.8
75 . 30 302 eP 1127.00 -0.1
i PcP 11 40.00
eS 21 02 . 00
75.63 58 eP 1129.00 -0.1
e 1142.00 45kmX
75 . 78 201 eP 1129.40 -0.3
0.7s 12. 00nm 5 . 0mb
75 . 82 321 «P 1131.00 1.2
76.26 319 «P 11 32.00 -0.3

76;. 44 321 i Pd 1 1 33 .50 0.1
76 . 57 324 i PC 1136.00 2.0
76 . 75 31 9 eP 1135.00 -0.1
76.78 48 iPd 11 35.70 0.0
0.7s 34 . 59nm 5 . 5mb
Z 1 9s 1 . 1 Sum 5 . 2Msz

pp 1149.30 47 kmX
76.79 205 iPc 11 35.00 -0.3
0.8s 39 . 00nm 5 . 5mb
7 6: . 80 326 iP 11 36.50 0.9
i 1 1 48 . 00 38kmX
« 1420.70
76.83 48 ePd 1136.10 0.2
0 ,;8s 1 50 . 59nm 6 . 1mb
Z 20s 2 20um 5.5Msz

pp 1149.50 46kmX
77 . 07 329 i PC 11 36.70 0.0
0.8s 85 . 00nm 5 . 8mb
i 1149.60 44kmX
«S 21 23 . 00
77 .07 320 eP 1 1 37 . 00 0.1
77.09321 IPd 11 37.00 -0.2
77 .39 203 eP 1 1 38 . 00 -0.6
77 .68 321 «Pd 11 41.00 0.7
77 . 90 320 «P 1144.00 2.6
77.90331 iPc 1141.00 -0.3
0.8s 1 05 . 00nm 5 . 9mb
Z 18s 6 . 50um 6 . 0Msz

i pP 1154.70 47 kmX
eS 21 29 . 00
77.92331 i P 11 40 . 90 -0.5
1.0s 36.00nm 5. 4mb
Z 1 7s 5 . 00um 5 . 9Msz X
N 17s 6 . 00um
E 17s 2 . 50um
i 1145.70 1 5kmX
iS 21 32 . 00
77 .94 326 eP 1 1 42 . 80 1.1
78.22 204 eP 1 1 44 . 80 1.6
78.42 330 i PC 1144.60 0.4
0,8s 5 1 . 00nm 5 . 6mb
Z 20s 7 . 00um 6 . 0Ms z
N 18s 1 . 20 urn
E 20s 3 . 80um
« 1 1 57 . 40 43kmX
e 12 39.50
«PP 14 30.20
S 21 35 . 00
78.59 315 «P 11 46 .50 1.0

78.65 326 e (P) 11 46 . 00 0.5
78 . 68 326 i P 1146.90 1.3
i 1159.10 41 kmX
7£ . 74 336 eP 1 1 47 . 00 1.2
7i3 . 79 203 eP 1 1 46 . 50 0.2
e 2140.00
73.87 327 i P 1 1 47 . 30 0.6
7 3 . 92 31 7 i P 1147.70 0.6
73.94 332 i PC 1 1 47 . 00 -0.1
1.9s 300.00nm 6.0mb
Z 20s 5 . 80um 5 . 9Msz
N 22s 4.70um
S 21 42 . 00
73.13 328 i Pd 1 1 49 . 30 1.2
2.7s 463.00nm 6. 0mb
Z 20s 2 . 20um 5 . 5Msz
i 1152.80 11 kmX
LR 56 40.00
79.14 342 PC 1 1 47 . 96 -0.2

TOO
WTS

AN MO

Z

ALO

Z

KHC
Z
N
E

UZD
WET

SCH

DBN
Z

GRF

Z

MFT
EDC
DST
BEO
KMR

BNS

Z

8HL
TNS
KOE
ALN
LFK
RDO
KHL
HR I
ENN

MEM
ess
BHG
EZN
FUR
Z
PT J
UCC
ZAG
KBA

DMU

PPCY
SNF
ELL
SRS

PRK
WLF
LJU
RBL
I ZM
GWF
DOU

Z

WTTA

0.7s
79 . 30
79.40
0.7s
79.47
1.0s
20s

79.47
0 . 9s
20s

79 48
20s
20s
18s

79. 53
79. 73
0.8s
79.80
0. 8s
79.81
20s

79 . 88
0 .8s
1 9s

79 . 92
79 . 95
80.10
80.11
80.15

80.17
0 . 8s
1 7s

80. 24
80. 39
80. 45
80.47
80.51
80.53
80 .56
80. 63
80. 74
0.8s
80 . 85
80 . 86
80. 91
81.13
81.14
18s
81.18
81 . 20
81 . 24
81 .26
0 . 7s

81 . 30
0 . 8s
81 . 48
81 . 48
81 . 50
81.51

81 .59
81 .63
81 . 64
81 . 70
81.70
81 . 73
81 . 75
0.8s
16s

81 .76
0.7s

20 . 90nm
179 i PC
335 eP
66 . 00nm
52 ePd
97 t)0nm
1 . 60 urn
esPc
i S
eScS
52 i Pd
84 . 03nm
0 . 7 1 urn

i pP
330 iPc
9 . 40um
4 . 20um
4 . 00um
e
e
S
325 eP
330 iPc
81 . 00nm
18 ePc
97 . 00nm
336 eP
2 . 40um
eS
331 iPc
74 . 00nm
5 . 80um
epP
317 i P
316 eP
315 eP
323 eP
329 eP

ipP
334 iPc
59 . 00nm
5 . 70um
i c
307 P
333 eP
334 ePc
318 eP
309 eP
318 eP
314 eP
307 iPc
335 «Pc
1 00 . 00nm
335 P
309 «P
329 iPc
317 eP
330 eP
11 . 00um
327 eP
336 P
326 «P
329 iPc
1 37 . 00nm
i
343 eP
63 . 00nm
310 eP
336 P
312 i P
319 eP
i
316 «P
334 iPd
327 eP
328 P
315 «P
333 P
335 P
25 . 00nm
2 . 80um
e
S
330 iPc
69 . 80nm
i
i

5 . 3mb
11 4 9 J 8 0 0.9
1 1 49

1 1 50

12 03
21 50
22 1 3
11 51

12 03
1 1 50

1 1 57
12 03
21 48
1 1 50
11 51

11 51

1 1 53

21 52
1 1 52

12 05
1 1 53
1 1 53
1 1 53
1 1 52
1 1 54
12 06
1 1 53

12 01
1 1 52
1 1 54
1 1 55
1 1 56
12 02
1 1 56
1 1 56
1 1 57
1 1 56

1 1 56
1 1 58
1 1 58
1 1 59
1 1 59

1 1 58
1 1 59
12 03
12 00

12 15
1 1 59

12 00
12 01
12 02
1 1 59
12 16
1 1 59
12 02
12 01
12 03

. '00 -0.5
5 . 8mb
. 92 0.5
5 8mb
5 . 4Msz
- i83
. J58
.,09
,00 6.5
5 . 8mb
5 . 0Msz
. 00 40kmX
. 50 0.4
6 . 1Msz

. 50 22kmX
. 00
. 00
,20 -0.1
. 90 0.5
5 . 8mb
. 40 -0.2
5 .9mb
. 00 1.3
5.5Msz
. 00
. 60 0.5
5 . 8mb
5.9Msz
. 60 44kmX
. 50 0.9
. 50 0.8
,20 -0.3
. 40 -1.0
. 00 0.4
. 30 41 kmX
. 10 -0.5
5 . 7mb
6 . 0Ms:X
. 70 27 kmX
. 00 -2.5
. 00 -0.9
. 20 0.1
. 14 0.8
. 00 6. 2X
. 40 0.7
. 50 0.4
. 50 0.9
. 50 -0.2
5 . 9mb
. 70 -0.5
:. 0 0 0.4
I 40 0.8
. 00 0.1
. 50 0.7
6 . 3Msz
. 50 -0.7
. 00 -0.1
. 00 3. 6X
. 40 0.7
6.1mb
. 10 51 kmX
. 80 0.2
5 . 7mb
. 00 -0.8
. 30 0.8
. 00 0.9
. 00 -1.9
. 70 64kmX
. 70 -1.6
. 90 1.6
. 60 0.1
. 00 1.1
1 2 081. 00 6 . 0X
12 01
12 01

12 14
22 13
12 02

12 14
12 36

. 88 -0.1
. 70 -0.2
5 .3mb
5 . 7MszX
. 00 41 kmX
. 00
. 60 0.3
5 . 8mb
. 60 48kmX
. 40

DLF
VBY

J V 1
KNT
VAY

SOH

FV 1
SKO

DCN

VOY

OUR
CEY
YER
TR 1

R 1 Y
OGA
CDF
PA 1 G

SLE
VV 1
FEL
ECH
ZLA
CT 1
ECP
OSS
LI T

FNA

OHR

V 1 TF
HAU

BSF

KZN
LLS
BBS
HVAR
VDL
LOMF
SAL
MBH
AGG
TMA
VAL
MMK
D 1 X
ARV
KEK
FLN

LOR

81 79
81 79

81.80
81.82
81.85
1 Os

8 1 . S6

81.88
81 . 88
0.7s
Z 19s
N 19s
E 17s

81 .90
0.6s
81.91

81.92
81.93
82. 10
82 . 22

82 . 27
82 . 32
82. 34
82 . 38

82 . 47
82 . 52
82. 55
82. 55
82 . 75
82.77
82 . 79
82. 80
82 . 83

82 . 84

82 . 86
0 . 8s

82 . 94
83.00
0 .8s
Z 20s
83 . 00
0.6s
83.02
83 . 06
83. 07
83 . 18
83 . 21
83 . 41
83.56
83.61
83.74
83 . 75
83.83
84.13
84 . 30
84. 38
84 . 43
84 . 44
0.7s
Z 20s
84 . 46
0 . 8s

i
343 eP
327 iPd

i 306 iPc
320 eP
320 i P
7 7 . 00nm

.

i PcP
319 eP

i 329 P
321 i P
96 . 00 rim
8 . 84um
6 . 66um
3 . 62um
i
i
i PcP
i
i S
i SSS
!
LR
343 eP
32 . 00nm
328 iPd
i
318 eP
327 ePd
314 eP
328 iPc
i pP
eS
i SP
*

. LR
327 eP
330 iPc
333 P
318 eP

i 332 ePd
329 Pd
332 P
333 P
332 ePd
329 Pd
342 eP
330 ePd
319 eP

i 320 eP
e

321 iPc
86 . 00nm
i
i PcP
eS
334 P
333 eP
32 . 25nm
5 . 50um
333 eP
1 2 . 65nm
320 iPd
331 ePd
332 P
325 .P
331 ePd
333 P
330 P
305 iPc
319 eP
331 ePd
345 i P
331 ePd
332 «Pd
327 P
320 eP
338 eP
28 . 65nm
4 . 00um
334 iPc
62 . 95nm

12 52 .80
12 02 . 40
12 02 .90
12 14.70
12 03.80
12 04.10
12 03.70
5
12 11.00
12 1 6 . 50
12 03.14
12 22 . 50
12 01.80
12 03.70
5
6

12 04.20
12 11.40
12 16.70
22 13 .00
22 16.50
28 55.00
31 52.00
52 21.00
12 03.10
5
12 02 . 60
12 16 . 50
12 02 . 40
12 02.80
12 05 . 60
12 04.00
12 16.00
22 13.20
23 00.00
33 18 . 00
40 36 . 00
12 04 .00
12 05.80
12 04 . 92
12 07.70
12 33 .42
12 05.80
12 05.90
12 06.03
12 05 .87
12 07 . 60
12 06.70
12 07 .70
12 08.00
12 14.30
12 44.05
12 19.40
12 54.10
12 08. 10
5
12 15.70
12 20.80
22 25.00
12 07 .95
12 08 .40
5
5
12 08 .20
5
12 08.90
12 09 .40
12 08. 87
12 08.80
12 10. 30
12 10 . 25
12 1 1 . 60
12 13. 00
12 25.20
12 12.70
12 13.50
12 15.50
12 16 .50
12 16.00
12 16.00
12 16 .20
5
5
12 15.90
5

0.3
0 . 7
39kmX
1 2
1 .6
1 . 1
. 7mb
23t-mX

0 . 4
7 1 kmX
- C-.6
C 9
. 9mb
. 1 M s z

2kmX

0 . 4
. 5mb
- 0 . 4
48 kmX
- 0 .6
- 0 .2
1 . 5
- 0 . 5
40kmX

- 0 . 7
0.5
- 0 . 3
2.3
98kmX
0.0
- 0.2
- 0. 3
- 0 .3
0.3
- 0.8
0 . 4
0 . 3
6.5X
1 1 5kmX
1 1 . 5X
1 37 kmX
0 . 1
. 9mb
24kmX

- 0. 3
- 0.2
. 5mb
. 9Msz
- 0.5
. 2mb
0.0
0. 3
- 0. 1
- 0. 7
0 . 4
- 0.5
0.2
0 . 9
12. 7X
0. 1
0 . 9
0. 9
1 . 0
0.4
0. 1
0. 4

. 6mb
. 8Msz
- 0. 1
. 9mb

251

26d 15h

SF 1
EMS
ORX
LDF

PGD
CRE
LBF
BOB
GRC
BRT
TUL

SSF
LCI
BD 1
ASS
GRR

RSL
LSD
NPS
SMF
LPL
LPG

AVF
AQU
RSP
P 1 1
PCP
VL 1
VIS
LPF

DU 1
CCM

CK 1
MNS
8GF

AZ 1
BN 1
SDI
RRL
ELF
F 1 N
ROB
HLW

PLDF
DOI
DLA
PZZ
AGO
MAF
FVM

TCF

RMP
ENR
STV
ROP
1 M 1
CS 1
MAO
MGR
MMN
SAOF
COLF
PYM
AUTN
LSF
TOUF

Z 18s 6 . 50um 6.1Msz
84.47 328 PC 1217.00 1.0
84.48 332 ePd 12 16.90 0.6
84. 48 331 P 1216.51 0.3
84 . 49 337 eP 1216.30 6.2
6.8s 24.20nm 5 . 5mb
84 . 56 328 PC 1217.80 1.1
84.67 328 PC 1217.60 0.4
84.68 334 i PC 12 17.60 -O . 1
84 . 68 330 PC 1217.40 0.2
84 . 69 335 P 1217.32 0.3
84.76 323 P 1217.50 0.3
84.73 45 iPc 12 1 7 . 60 -0.5
0.8s 66 . 60nm 5. 9mb
? 18s 1.13um 5 . 3Ms z
N 20s 1 . 6 6 u m
E 20s 1 . 1 3um
e 12 29.90 43kmX
eS 22 47.00
LR 47 45.00
84. 76 334 iPc 12 17 . 50 0.1
84 . 79 322 PC 12 17 .00 -0.7
84 . 84 329 P 1217.50 -9.5
84 . 85 327 P 1218.40 6.4
84 . 89 338 eP 1218.20 6.2
0.8s 6 4 . 50nm 5. 9mb
84 . 92 332 P 1218.24 -6.2
84 . 93 331 P 12 19. 38 0.7
84 . 93 31 4 eP 1218.50 0.0
85 . 02 334 i PC 1219.00 6.2
85 . 03 332 eP 1219.60 6.5
85 . 04 332 eP 1219.80 6.6
08s 5245nm 5. 8mb
85 . 05 334 i PC 1219.10 0.2
85 . 1 4 326 P 1220.40 0.9
85 . 16 331 P 1218.76 -6.8
85 1 6 329 P 1218.50 -0.9
85 . 21 330 P 1219.58 -0.2
85 . 22 3 1 7 eP 1226.26 0.3
85.25 319 * P 12 26.50 0.4
85 . 26 338 eP 122030 0.4
1.0s 72.60nm 5. 8mb
85 . 26 325 P 12 20. 40 0.2
85 . 39 41 ePd 1221.06 0.4
epPc 12 29.34 26kmX
esPc 12 33.89
eSKS 22 41.12
eS 22 46.42
85 . 4 1 330 PC 1220.10 -0.6
85.41 326 P 1 2 20 . 30 -0.5
85 . 42 335 eP 12 21 . 30 0.6
0.6s 23.45nm 5. 6mb
85 . 43 326 P 1221.80 1.0
85.45 332 Pd 1221.90 0.8
85 . 50 325 PC 12 20 . 70 -0.6
85. 52 331 P 1221.94 0.3
85 . 58 32 P 1222.60 0.4
85 . 62 330 P 1220.81 -1.0
85. 67 330 P 1221.43 -0.7
85 . 69 307 eP 1224.00 1.7
e 2246. 00
85 . 69 334 P 1222.62 0.4
85 . 72 331 P 1221.26 -1.2
85 . 76 32 P 1 2 23 . 30 6.8
85. 77 331 P 1221.12 -1.6
85 . 77 334 P 1223.62 1.1
85 . 81 335 eP 1223.20 0.5
85.84 41 ePd 12 22.26 -0.8
0.7s 102.04nm 6. 2mb
i pP 1235.70 46 kmX
85. 86 335 eP 12 23. 40 0.4
0.8s 22.85nm 5. 5mb
85.88 326 P 12 23. 00 -0.1
85 . 89 331 P 1 2 2 1 . 33 -1.9
85 . 9 1 331 P 1221.02 -2.3
85.92 326 P 12 22. 70 -0.7
85 . 99 330 P 12 23. 38 -0.4
86.00323P 1224.20 0.4
86 . 0 1 327 P 1 2 22 . 90 -0.8
86.03 323 P 12 22.80 -1.1
86. 04 323 P 12 27 . 40 3. 5X
86. 05 330 P 12 23.80 -0.2
86 . 06 334 P 1224.71 0.7
86 . 08 334 P 1 2 25 . 00 0.8
86. 09 331 P 1224.34 -0.1
86. 1 1 335 eP 12 24.50 0.3
86. 14 331 P 12 24. 12 -0.5

SBF
AURF
MV I F
MFF

REVF
LBL
CALM
CZ I
PGF
FRF

UYO
OLE
LRG

MNG

RJF

CDR

LMR

CAF
OLY

THZ
WDW

MTW
SOI
IFF

LPO

MOW
BLW
BNH
M I M
LTZ
MEU
MSZ
SCP

AMAN
MOZ
LESF
BWZ

ETER
EPF

PWLA

BTH

AGMR
SB.CZ
MSCZ

CMCZ
HRV

ODZ

TBR

LVNJ
GMTN
EGRA
TUZ
ECR I
GBTN

TKL

86.20 330 iPc 12 24.60 -0.2 pP 12 59.80 41kmX
86.22 331 P 12 24.62 -0.3 B LA 91.00 34 eP 12 46.90 -0.8
86.28 331 P 12 25.08 -0.2 0.8s 40.27nm 5.8mb
86.30 337 eP 12 25.70 0.6 EBR 91.31 334 eP 12 50.00 1.1
0 8s 83.30nm 6.0mb eS 23 46.00
86.33 330 P 12 25.10 -0.3 EROO 91.33 334 i PC 12 49.07 0.0
86.46 334 P 12 27.31 1.3 ESEL 91.42 331 i PC 12 47.11 -2.4
86.56 331 P 12 26.20 -0 1 ETOR 92.13 335 eP 12 53.59 0.7
86.52 322 P 12 25 50 -O 8 CUD 92.92 337 eP 12 56.66 0.1
86.74 329 P 12 27.20 -6 3 TOL 93.59 336 i PC 13 00.00 0.5
86.75 331 iPc 12 27.40 0 0 0.7s I3.70nm 5.5mb
1.0s 48.<30nm 5.7mb iS 23 48.00
86.77 45 iPd 12 26.50 -1.1 EPLA 94.01 338 i PC 13 01.29 -0.2
86.93 33 IP 12 29.20 6 9 EVIA 94.26 335 i PC 13 03.28 0.6
86.95 331 iPc 12 28. CO 0.3 EALH 94.62 334 e(P) 13 10.35 6. IX
6.7s 86.15nm 6.1mb EBAN 95.09 336 e(P) 13 18.06 11.6X
Z 18s 8.06um 6.2Msz ENIJ 95.68 334 e(P) 13 20.43 11. 2X
86.95 157 P 12 28.40 0.3 EHOR 95.85 336 e(P) 13 22.06 12. IX
e 12 37.00 27kmX EGUA 96.24 335 e(P) 13 23.18 11. 4X
e 12 40.60 MTD 118.09 272 iPKPd 18 30.80 -0.3
86.96 335 iPc 12 29.00 0.6 TOY 119.49 40 ePKP 18 47.00 13. 2X
0.8s 56.40nm 5.8mb SDV 119.86 41 iPKPd 18 34.30 -0.4
Z 20s 6.25um 6.0Msz CLMC 120.92 50 ePKP 18 35.99 -0.7
86.97 331 ePc 12 28.30 -0.1 BUGC 121.08 50 ePKP 18 36.29 -0.7
e 12 36.30 25kmX HOOC 121.21 50 ePKP 18 35.91 -1.5
i 12 41.40 LKO 121.81 325 PKPd 18 36.90 -1.2
87.00 331 iPc 12 28.80 0.2 0.7s 22.00nm
0.8s 88.65nm 6.0mb S 1 LC 122.02 51 ePKP 18 38.79 -0.3
87.12 334 iPc 12 30.20 1.6 PURC 122.30 51 ePKP 18 39.67 -0.1
87.28 43 P 12 29.80 -0.2 BUL 122.37 271 i PKPd 18 38.60 -0.6
pP 12 42.50 42kmX 0.6s 6.67nm
87.36 159 eP 12 30.20 6.4 i pP 18 49.80
87.41 158 eP 12 30.80 0.6 JOZ 124.05 262 e(PKP)l8 22.00 -20. IX
e 12 45.00 48kmX TIC 124.14 323 PKP 18 42.06 -0.6
87.45 157 P 12 31.10 0.6 KIC 124.27 322 PKPc 18 42.26 -0.6
87.49 322 P 12 30.66 -0.4 LIC 124.52 322 PKP 18 42.64 -0.7
87.53 335 iPc 12 32.00 0.9 0.7s 18.00nm
0.8s 69 85nm 6.0mb MAW 125.18 208 ePKP 18 43.00 0.0
87 62 335 iPc 12 32.40 0.9 0.9s 17.00nm
0.8s 59.10nm 5.9mb SLR 125.90 266 iPKPd 18 44.00 -2.0
87.62 157 P 12 32.00 0.7 Z 20s 2.l3um 5.8Msz
87.64 157 P 12 32.30 0.9 i 18 58.20
87.91 25 P 12 33.70 0.7 PRY 127.17 265 ePKP 18 47.00 -1.4
87.98 23 P 12 33.20 -0.1 0.5s 2.70nm
88.09 160 eP 12 35.40 1.9 FRS 130.29 264 ePKP 18 53.40 -0.6
88.79 322 P 12 37.60 0.2 0.7s 41.10nm
88.87 164 P 12 39.10 2.0 i 19 08.00
88.96 31 eP 12 37.92 -0.1 WIN 132.37 277 e(PKP)!8 51.50 -6 . 9X
epPc 12 45.37 23kmX 1.0s 15.00nm
esPc 12 50.17 TUH 136.62 263 i PKPc 19 20.00 14. IX
88.99 302 eP 12 37.80 -0.6 ARE 139.90 61 ePKP 19 14.00 1.2
89.05 160 eP 12 39.50 1.5 ZOBO 141.91 57 PKP 19 11.00 -5.8X
89.07 334 P 12 39.54 1.0 Z 24s 0.78um 5.4MszX
89.16 162 P 12 40.00 1.5 LR 08 28.00
e 12 53.60 46kmX LPB 142.13 58 PKP 19 12.00 -4.9X
89.19 333 iPc 12 39.49 0.4 Z 20s 1.42um 5.7Msz
89.37 335 eP 12 40.00 0.0 LR 09 10.00
0.8s 17.45nm 5.4mb NVL 142.92 204 ePKPd 19 12.00 -4 . 1 X
89.38 41 P 12 39.70 -0.4 e 19 18.00

pP 12 52.60 43kmX e 19 23.00
89.46 335 PC 12 41.00 0.6 e 19 32.00
PcP 12 43.50 e 20 16.50

epP 12 52.00 35kmX CCH 143.99 56 PKP 19 17.50 -2.4
i sP 1 2 56 . 50 i 19 30.80
i 13 10.50 CAI 144.54 3 ePKP 19 18.90 -1.7
PP 16 11.00 ANT 145.64 69 iPKPd 19 23.00 0.8
89.52 302 eP 12 42.00 1.1 SIV 145.87 48 iPKPc 19 22.60 -0.2
89.57 163 P 12 42.10 1.5 SOBl 146.88 10 ePKP 19 24.80 0.3
89.59 163 P 12 42.40 1.7 e 19 26.50
e 12 54.90 4lkmX e 19 38.10
89.61 163 P 12 42.60 1.8 LCCH 150.30 85 ePKP 19 34.60 5.3X
89.68 26 ePc 12 44.73 3.3X ROCH 150.48 84 ePKP 19 31.00 1.1
eSKS 23 08.46 LNV 150.63 86 ePKP 19 31.00 1.3
eS 23 31.75 JACH 150.65 83 ePKPd 19 35.50 5.5X
ePS 24 29.30 PEL 150.80 84 i PKPd 19 35.50 5 . 4X
89.82 162 P 12 42.90 1.2 0.6s 166.67nm
e 12 52.50 30kmX SAN 150.96 64 iPKPc 19 36.00 5.7X
90.00 28 eP 12 42.30 -0.6 BAD 151.47 26 ePKPd 19 32.00 0.3
pP 12 55.50 44kmX RTLL 151.53 79 ePKPc 19 30.30 -1.0
90.10 29 P 12 42.90 -0.5 AIA 151.66 155 ePKP 19 38.30 8.0X
90.24 28 iP 12 44.20 0.2 PPD 155.93 39 ePKP 19 38.30 0.7
90.33 335 eP 12 45.03 0.6 e 20 17.60
90.46 163 P 12 46.80 2.3 8MA 159.30 24 ePKP 19 43.30 1.7
90.63 336 iPc 12 46.37 0.5 S.D. - 0.9 on 440 of 477 obs.

pP 12 59.70 46kmX ? AUG 26. 1991 I5h 22m 06.06± 9.73s
90.84 38 P 12 47.20 0.3 3.312 N ±28. 6km 79.821 W ±80. 0km

26d I5h

252

Utrln = iw.WKm igeopnysicisij
SOUTH OF PANAMA (83)

ANCC 2.96 86 iPc 22 53.76 -0.2
eS 2322.60
CUMC 3.04 140 eP 22 55.54 0.0
HOOC 3.19 87 ePc 22 56.94 -0.5
CLMC 3.30 30 eP 22 59.59 0.6
PURC 3 . 5 9 1 0 6 e P 2303.68 d 2
BUGC 3.60 81 eP 23 03.26 0.0
HOBC 3.82 74 eP 23 06.27 -0.1
SD. =0.4 on 7 o f 7obs.

AUG 26, 1991 I6h 05m 46.64± £.993
14 '.i 6 9 | N 1 4.1km 60 755 W ±18 6 t< m
DEPTH = 93.7 ± 10 7 km
WINDWARD ISLANDS (95)
MD : . 8 (TRN) . Felt (II) on
Mart i n i que .

MVM 6.43 198 iPd 06 01.42 -0.1
PDF 0.45 239 iPc 06 01.42 -0.2
0 . s 1 . 35nm
S 0611.60
BIM 0.54 214 iPc 06 02.31 0.0
BBL 0.89 308 i PC 06 05.64 0.0
S 0619.90
SLW 0.96 191 eP 06 06.96 0.5
S 06 24 . 70
WGG 1.09 330 iPc 06 07.84 0.0
S 06 22.90
SLB 1.17 194 eP 06 08.87 -0.1
DOG 1.34 322 i PC 06 11.10 0.1
SFG 1.35 342 ePc 06 11.05 0.1
S 0628. 50
DEG 1 . 37 348 iPc 0611.11 -0.2
S 0628.80
PAG 1.383201 PC 0611.61 0.1
S 0629. 40
TAG 1 . 38 32 1 eP 0611.65 0.1
SEG 1 . 60 333 iPc 0614.64 0.4
S 0634. 50
SVB 1.75 196 eP 06 16.13 -0.1
eS 06 38.40
BPA 2.32 333 i PC 06 23.52 -0.3
S 06 50.00
TRN 4.34 188 eP 06 51.50 -0.1
eS 07 40.00
S-D. - 0.2 on 16 of 16 obs.

AUG 26. 1991 I6h 14m 05.07± 0.65s
1.950 S ±13. 6km 78.073 W ±22. 9km
DEPTH = 162.1 ± 7.5 km
ECUADOR (107)

TUNG 0.65 325 P 14 29.70 0.5
VC1 1.34 346 P+ 14 35.50 0.6
OTO 1.79 345 eP 14 38.00 -1.4
OUR 1.82 346 Pd 14 39.80 0.0
GGP 1.84 343 P+ 14 40.30 0.1
YANA 1.89 345 P+ 14 40.60 0.0
CAYA 2.02 3 Pd 14 42 . 10 0.0
COTA 2.29 353 eP 14 45.40 0.2
20BO 17.28 146 P 17 58.00 -0.7
CCH 19 . 30 143 P 1821.00 0.7
SIV 21 . 88 1 31 P 1845.10 0.1
INK 79.67 342 eP 25 56.00 0.4
WRA 141.47 234 PKP 33 19.00 -0.4
0.6s 1 . 40nm
GBA 153.15 63 PKPc 33 44.60 6.5X
0.5s 1 . 60nm
S . D . -0.7 on 13 of 14 obs.

? AUG 2'6. 1991 !8h 09m 23.72± 6.19s
45.53' N ±38. 9km 6.912 E ±21. 8km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 1 .9 (GEN) .

LSD 6 . 19 1 1 3 P 09 28 . 03 0.0
S 0930.69
RSP 0.45 147 P 09 32.75 -0.2
S 0937. 26
RRL 0.62 188 P 09 36.03 -0.3
S 0944. 02
PZ2 1 .03 172 P 0943.82 0.5
S.D. - 0.6 on 4 of 4 obs.

AUG 26, 1991 I8h llm 36 . &5± 1.44s
45.423 N ± 8.5km 3.626 E ±10. 8km
DEPTH = 10.0km (geophy s i p i s t)
FRANCE

ML 2.5 (LOG) .

LBL 0 . 33 235 Pq 1 1 43
Sg 1148
PYM 0.54 307 Pg 1147

(538)

54 -W . 2
53
74 -0.2
Sg 1 1 55 .167
PLDF 0.55 360 Pg 11 46.96 -1.1
AGO 0.72 331 Pg 11 50.56 -0.6
MAF 1.09 318 Pg 11 57.60 0.2
Sg 1 2 1 1 . 60
CAF 1.21 246 Pg 11 58.20 -1.3
Sg 12 15.20
SMF 1 .23 7 Pg 1 1 58 . 00 -1.9
Sg 12 13. 60
BGF 1.26 335 Pg 12 00.140 0.1
Sg 1216.00
TCF 1 . 31 312 Pg 12 01 .20 -0.1
Sg 12 18.100
AVF 1.38 352 Pg 12 01.60 -0.6
Sg 12 19. 20
RJF 1.49 266 Pg 12 04.60 0.8
Sg 12 25. 20
LBF 1 . 58 9 Pg 1205.80 0.7
Sg 12 24 . 80
SSF 1 . 64 357 Pg 12 07 . 00 1.1
Sg 12 27 . 20
LSF 1 . 68 300 Pg 12 08.20 1.6
Sg 12 29.60
LOR 1 . 85 5 Pg 12 10 . 60 1.6
Sg 12 32.;80
S D . =1.1 on I5of 15 obs.

AUG 26. 1991 18h 23m 42
45.069 N ±1 1 . 7 km 21 . 1 65

_____

97± 0 .88s
E ± 7.8km
DEPTH = 33 . 0km (no rma 1)
ROMANIA (358)
MG 2.9 (BEO) .

SSR 0.46 116 ePc 23 53.00 0.0

BEO 0.56 244 i Pg 23 54.40 0.0
eSg 24 08.00
TNR 2.27 74 ePc 24 18.00 -0.9
PSZ 2.98 343 eP 24 29.:20 0.1
MLR 3. 40 81 eP 24 36.00 0.9
S.D. -0.9 on 5of Sobs.
- |. _________
AUG 26, 1991 IBh 57m 03 \ 45± 3.88s
45.367 N ±14. 6km 3.789 E ±27. 8km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 1.9 (LOG) .

LBL 0 . 41 251 Pg 5712.20 0.4
PLDF 0.61 349 Pg 57 15.92 0.0
Sg 57 23. 19
PYM 0.67 305 Pg 57 16,41 -0.4
Sg 57 24 . 33
AGO 0.83 326 Pg 57 19121 -0.2
Sg 57 29
MAF 1 . 21 31 5 Pg 5726
Sg 57 40
CAF 1 . 30 251 Pg 5727
Sg 57 43
TCF 1 . 44 310 Pg 57 30
Sg 57 47
LSF 1 . 81 300 Pg 57 37
S.D. -0.5 on 7of

AUG 26 , 1991 20h 42m 31
6.937 N ± 3 . 1 km 94.531
DEPTH = 25 . 9km (10 dep
5 . 4mb (70 obs .) 5 . 6Msz
NICOBAR ISLANDS REGION
CENTROID. MOMENT TENSO
Data Used: GDSN

31
20 0.2
00
00 -0.5
80
00 0.4
70
00 2 . 1 X
8 obs .

83± 0.12s
E ± 3 . 0km
h phose s)
3 obs .)
(704)
? (HRV)

L . P . B . : 1 8S , 40C
Centroid Location:
Origin Time 20:4[2:40.5 0.5
Lot 7.14N 0.04 Lon 9B.29E 0.06

Dep 32 . 4 4.5 *Ho 1 f-dur
Moment Tensor; Scale
Mr r 0 .20 8.14 Mt t-

3 t i on 2.9
1 0. * 1 7 Nm
- 4.50 0.19

BS 1
1 PM

NNT

KHT
KGM

PCT

NST
BDT

LOE

CHG

KOD

GBA

SHL

HYB

KM !

KKM

PK 1
GUN
DMN
KKN

GKN
POO
TSM
BOM

HKC

ND 1

OCP

BAG

MKS
CGP
LZH

PLP
DAV
BIP

OUE

NANU
BJ 1

MTN
MA 10

MII t./o g.^t M r t o.zo U.OO
Mrf = 1.98 0.38 Mtf- 1.5* 0.15
P r i nc i pa 1 Axes:
T Vol= 5.59 Plg=18 Azm-278
N -0.78 70 120
P -4.81 7 11

Best Double Co up 1 e : Mo = 5 . 2 » 1 0 * » 1 7 NP1:Strike= 56 Dip=72 Slip- 8
NPC: 323 82 162

1 62 1 52 eP 42 58 . 00 -1.0
6 87 110 ePc 44 09.90 -3.7X
e 45 25 50
760 42 eP 442330 -0.5
e 44 29 80
8.76 27 i PC 44 39 . 60 -0.3
10 .03 1 19 eP 44 52 . 50 -4. 9X
e 4566. 90
10.24 41 eP 45 00 . 00 -0.3
e 48 08.20
10.27 32 eP 45 00 . 00 -0.7
11.14 23 eP 4512.80 0.3
0.7s 84.20nm 6. 1mb
12.56 33 eP 4533.50 1.8
e 5725. 00
12.56 20 eP 4533.00 1.2
<?.~s 19.52nm 5. 4mb
eS 48 1 0 . 00
17 19 282 eP 46 36. 40 4. 2X
eS 49 50 . 00
18.07 293 Pd 46 42.60 -0.3
0.9s 48 . 90nm 4 . 6mb
18.70 353 IP 46 48.00 -2.8X
eS 50 12.00
18 76 305 i PC 4651.40 00
1.0s 1 30 . 00nm 5 . 1mb
e 4701.00
«S 50 16.80
19.72 23 Pd- 47 05 . 00 2.2
2 18s 2 . 90um

pP 4710.50 21 km
eS 50 51 . 00
iS 50 52 . 00
21 .56 91 ePc 47 24 . 20 2.5X
1.0s 83 . 10nm 5 . 1mb
22 . 27 338 P 4727.64 -1.4
22 . 41 348 P 47 29 . 40 -1.0
22.42 338 P 47 29.52 -0.9
22 . 52 338 P 47 30. 20 -1.1
22.95 337 P 47 34.82 -0.7
23.20 302 iPc 47 47.50 9.6X
23 - 37 95 ePc 4741.00 1.5
24 . 24 301 iP 47 52 . 90 5 . 1 X
iS 52 10 . 90
24 .33 49 eP 4752.00 3 . 3X
eS 52 15.00
27.12 325 iPd 48 14.60 -0.2
eS 52 50.00
27.15 71 eP 48 20 . 00 4. 8X
27.16 67 eP 4816.00 0.5
«S 52 55. 00
27 . 66 1 15 i PC 48 20 . 50 0.6
29 . 93 85 eP 4842.00 1.7
30 . 24 1 5 eP 48 43 . 50 0.5
1.8s 1l7.00nm 5. 4mb
2 15s 6 . 54um 5 . 4MszX
N 12s 5.93um
E 12s 6 . 82um

pP 48 52.50 31km
sP 48 57 .50
PP 49 46 . 00
eS 53 38.00
30 .35 80 eP 4848.00 4 . 0X
30 . 81 88 eP 48 48.00 -0.1
31.46 86 ePd 48 54 . 50 0.7
1.0s 222 . 00nm 6 . 0mb
34 . 72 315 eP 49 23 .50 1.3
0.9s 33.19nm 5 . 3mb
eS 54 56.00
35. 81 146 eP 49 31 . 00 -0.2
38.25 27 eP 49 54.00 2.4
1.5s 88 . 00nm 5 . 3mb
216s 8 . 47um 5 . 7MszX
eS 55 52.00
41 .34 1 18 eP 50 15.00 -2.4
43.33 317 eP 50 34. 00 0.3
eS 57 00.00

253

26d 20h

MUN
KLB
NWAO

WARB

COOL
1 RK

RKG
WKA
WR2

1 R4
ASPA

1 R5
1 R 1
1 R7
FORR
MAT

QIS
PMG
NA 1

OLP

ADE

NPA
HR 1
MML
BHL
RMN
YAK

CMS
RMO

BFD
HLW
TOO

ELL
BRS

LWI
OBN

COO
CNB
MTD
Y LV
1 ZM
KR 1
CFR

EZN
ALN
JOZ
1 SR
VR 1

43.88
44.28
45 1 4

45 34
0 5s
45 43
45.91

40 43
47.41

47 . 43
0.7s

48. 92
49. 02
1 . 0s

49.15
49.15
49.33
49.44
49.51
0.8s

52 .04
54 . 89
58. 18

58.56
0 . 8s

58. 91
0 . 7s
58.99
60.23
60.33
60 . 44
60.64
60. 76

62.10
62. 16
0.7s
62. 72
63. 36
64.91

65-59
65.82

66. 23
66. 35
1 .0s
2 20s

66. 35
66.51
66. 54
66.71
67 . 94
68. 37
68. 52

68 . 88
69.25
69.33
69.63
69 .64

153 eP
151 eP
153 eP
eS
1 38 eP
23 . 00nm
147 eP
8 eP
e
e
£
eS
e
e

154 *P
125 P
125 iPc
39 . 60nm
epP
eS
311 i Pd
130 i PC
3 4 . 00nm
i
eS
311 eP
312 eP
312 eP
141 eP
47 eP
12 69nm
eS

123 e(P)
107 eP
264 iP
PPP
PS
LQ
127 eP
144 00nm
e

138 e(P)
3 1 5 . 07nm
248 iP
304 eP
303 eP
305 P
301 eP
1 8 i Pd-
ipP
ePcP
ePP
ePP
e
eS
ePS
esS

131 e(P)
125 eP
20 . 00nm

138 e(P)
300 eP
137 eP
i
307 i P
124 i PC
i (PP)
264 i PC
328 eP

3 yOum
i
eS
eSS
128 eP
133 eP
248 i P K P d
311 eP
309 eP
249 iPKPd
316 eP
e
310 eP
311 eP
237 eP
316 eP
316 i PC

50 39.00
50 41.00
50 48 . 00
58 32 . 00
50 49.00
5
50 51.00
50 57.00
51 09.00
51 20.00
51 32.80
57 40 .00
00 43 . 00

02 10.00

50 59 . 00
51 04.00
51 04.60
5
51 13.70
58 23.70
51 18 .00
51 17.50
5
52 43 .90
58 16.30
51 19.50
51 20.00
51 21.00
51 21.00
51 25.00
5
58 31 00
51 37 . 00
52 62 . 50
52 36 . 00
56 20 . 00
06 44.00
04 22.00
52 27 70
6
52 36 . 20
52 26.80
6
52 34 .80
52 39.70
52 41.10
52 42.00
52 46.60
52 43.20
53 06.00
53 33.00
53 56.00
56 06.00
56 07.00
00 57.00
01 25.00
01 32 .00
52 52.00
53 03.70

52 56.00
53 00.00
53 1 1 .00
53 13.40
53 15. 30
53 18.00
53 24.00
53 22.50
53 19.30
8
5
53 43.00
02 04 00
09 30.00
53 21 .00
53 21.00
53 22 . 60
53 21.80
53 30.00
53 24 . 70
53 33.30
05 25.00
53 33.00
53 38.50
53 35.00
53 41 .50
53 40.00

1 .0
- 0 . 2
- 0 . 2

- 0 . 8
. 4mb
0.5
3 . 0X
43kmX

0 .7
- 2 .3
- 1 .9
. 6mb
30km

0.0
- 1 .3
. 3mb
437 kmX

- 0. 3
0. 2
- 0.2
- 0 . 8
2 . 6X
0mb

- 4 . 9X
- 0 . 5
9 . 3X

- 1.3
1 mb
28km
- 4 . 5X
. 5mb X
2.7
- 0.9
- 0. 1
0 . 1
3.2X
- 0 . 3
90kmX

- 1.1
1 0 . 1 X

- 1 . 1
- 1 . 5
- 0. 5
8kmX
- 0 . 8
0. 5
1 9km
1 . 9
- 1.0
. 4mb X
. 5Ms 2
93kmX

0 . 1
- 0. 8
0.3
- 1.3
- 0 . 8
- 9 . 3X
- 0. 9

- 3. 5X
- 0.3
- 4. 5X
0 .4
- 1 .2

MLR
BUL

SRS
KNT
L 1 T
AGG
VAY
SLR

SKO
PRY

OHR
KAF

NUR

SPC
PS2
KRA

SOD
SRO
FRS

KEV

GR 1
ZST
70S
CS I
CZ 1
SOI
MMN
KTK 1
VKA

MGR
KSP

UPP
VBY
MAW

LJU
CEY
PRU

BSD

KMR
SO 1
TRO
VOY
TRI
BRG

RBL
KHC

K8A

ARV-
BHG
CLL

WET

70.11
70.15
1.1s
71.12
71.65
71.83
71.84
71.91
72 . 01
1.2s
72 . 83
73 . 05
1 . 0s
73 .22
73 . 80
0.8s
74.14
0.8s

74 .52
74 . 59
74 . 83
0 . 9s
E 20s

75 .22
75.64
75 . 69
0.9s
75 .84
0. 7s

76 . 43
76.48
76. 52
76 . 56
76 . 66
76 . 69
76.80
76 . 90
77.01
2 . 4s

77.14
77 . 23
0 . 8s
77 . 46
77 .57
77 . 70
0. 8s
78.10
78.16
78 . 29
1 . 2s

78.41
0. 7s
78 . 46
78.50
78 .53
78 .55
78 . 63
78.71
1 . 3s

78 . 78
78.87
0. 9s

78.96
1 . 0s

79.17
79 . 29
79.33
1 -2s

79.33
0 -8s

316 i PC
246 iPc
1 7 . 72nm
311 eP
311 eP
310 eP
309 eP
311 i P
240 iPc
65 . 6 3 n m
312 eP
239 eP
40 . 00nm
311 eP
333 iP
29 . 60nm
331 iP
27.90nm
e
319 eP
318 eP
320 iP'd
32 . 00nm
2 . 40um
e
e
eS
338 iP
31 7 eP
237 iPc
33 . 61 nm
341 i P
36 . 00nm
e
308 P
318 iP
309 Pd
309 P
309 P
307 P
309 P
339 iP
318 i Pd
322 .00nm
i

i 309 P
320 IP
25 . 00nm
330 iP
315 eP
192 eP
22 . 00nm
315 eP
315 eP
320 P
25 . 30nm
PP
S
325 iPd
2 . 30nm
318 iP-
311 P
340 eP
315 ePc
315 ePc
320 iP
26 . 00nm
e
eS
316 P
319 i P
1 0 . 80nm

ie
S
317 i PC
27 . 50nm
i
313 P
317 eP
321 iP
21 . 00nm
i
eS
319 iPc
24 . 00nm

53 43.50
53 44 . 80
5
53 48 . 50
53 51.50
53 53.00
53 53 . 50
53 53 . 60
53 54.00
5
53 58 . 00
53 45 . 00

54 00 . 20
54 05 00
5
54 06 . 70
5
03 44.00
54 10.70
54 10.00
54 1 T .20
5

54 13.20
54 18.70
03 47 . 00
54 13.30
54 16.20
54 17.70
5
54 17.00
5
04 04.00
54 21 . 50
54 21.10
54 22 . 00
54 21.80
54 22 . 50
54 22.10
54 23 . 20
54 23 . 08
54 24.40
5
54 32 . 30
54 40 . 00
54 25.30
54 25 . 40
5
54 25.80
54 27.10
54 29 .00
5
54 30 . 50
54 30 . 40
54 31 . 30
5
57 38.50
04 24 . 00
54 30 . 70
4
54 32. 40
54 34 . 70
54 31.86
54 32.30
54 32 . 00
54 33 . 80
5
54 40.00
04 32.00
54 37 .90
54 34 .00
4
54 36.00
54 43.50
04 32. 00
54 34 . 40
5
54 45.00
54 36 . 10
54 36.30
54 36. 90
5
54 43.00
04 24.00
54 37.00
5

- 0. 7
0.0
. 1 mb
- 1.8
- 1.9
- 1.6
- 1 . 2
- 1.4
- 2.0
. 5mb
- 2 . 4
- 1 7 . 2X

- 2. 6X
- 0.6
. 4mb
- 0.9
. 3mb

0. 4
- 0. 6
- 0.6
. 3mb

6kmX

- 0. 4
- 0. 3
0. 6
. 4mb
- 0 . 2
. 5mb

0 . 3
- 0 . 1
0.3
- 0 . 1
0. 1
- 0.5
0 . 1
- 0. 2
0. 2
. 9mb
25km

0. 2
0 . 1
. 3mb
- 0. 6
- 0. 2
1 . 5
. 2mb
0. 2
- 0. 2
0. 1
. 1mb

- 1 .0
. 3mb X
0. 2
2. 1
- 0.3
- 0.5
- 1 . 1
0.3
. 1mb
20km

3 . 8X
- 0. 5
. 9mb
6kmX

- 0. 8
. 2mb
34km
- 0. 1
- 0.5
0. 1
. 0mb
1 9km

0.0
. 3mb

FVI
ASS
HFS

VV 1
COP

CRE
3F 1
PGD
CT 1
WTT A

MOX

LOF
FUR
GRF

MAO
OGA
NB?

MME
BD 1
SAL
P 1 I
W 1 N

OSS
CER

VDL
BOB
TUH
LLS
TMA
PGF

SLE
PCP
2LA
MOL
CK 1
FEL
F 1 N
MMK
ORX
GWF
ROB
1 M 1
LIBD
BBS
BNS
COF
D 1 X
ECH
ENR
AUTN
SBF

WTS

STV
RSP
W 1 T
DOI
LSD
P22
EMS
BSF

LOMF
LPG

RRL
LPL
BN 1
HAU

WLF
FRF

79 . 33 31 6 P 5436.40 -0.5
79. 37 312 P 5437.70 0.4
79 . 46 330 eP 54 36.70 -0.6
0.8s 37 . 00nm 5 . 5mb
2 18s 2 . 91 urn 5 . 7Msz
LR 31 27 . 00
79 . 57 315 P 54 37 . 80 -0.5
79.85 325 i Pd 54 40.00 0.5
0.8s 53.73nm 5. 6mb
79 . 89 313 Pd 54 39 . 90 -0.3
79 . 96 31 3 Pd 5441.20 0.8
80 . 05 31 3 Pd 5441.90 0.8
80 . 1 1 3 1 5 Pd 5441.40 0.1
80.13 317 i PC 54 40.60 -0.9
1.6s 67 . 1 i?nm 5.6mb
i 5452.16 38kmX
80. 18 320 iPd 5441.90 0.4
2.0s 1 1 0 . 00nm 5 . 5mb
S 04 50.00
80 .24 338 eP 5441.12 -0.3
80.38 318 eP 54 42.30 -0.3
80 . 42 3 1 9 i PC 5443.30 0.5
0.8s 36.00nm 5. 4mb
80.48 312 Pd 54 42.70 -0.5
80 . 54 316 eP 54 43 . 30 -0.4
80 . 73 33 1 P 5443.40 -0.8
0.8s 24 . 20nm 5 . 3mb
80 . 79 314 P 5446.30 1.2
80 . B6 3 1 3 Pd 5444.10 -1.2
80 . 90 31 5 P 5446.10 0.8
80 . 92 3 1 3 P 5444.90 -0.6
81 . 1 5 246 i Pd 5448.50 1.2
1.0s 45 . 00nm 5 . 5mb
81.15 316 ePd 54 47 . 40 0.5
81 . 60 235 eP 54 51 . 00 1.7
0.5s 1 0 . 8 1 nm 5.1mb
81.62 316 ePd 54 49.80 0.4
81 . 67 314 Pd 54 49 . 90 0.4
8 1 . 70 235 eP 54 52 . 00 2.2
81.93 316 ePd 5451.20 0.2
82.04 316 ePd 54 51 . 20 -0.3
82. 07 312 eP 54 51 . 80 0.1
0.9s 19. 65nm 5.1mb
82. 25 317 ePd 54 52. 40 0.0
82. 32 314 P 54 51 .82 -1.1
82.33 317 ePd 54 52.70 -0.2
82. 50 332 i Pd 54 53 .87 0.6
82.52 314 P 54 53 .90 0.1
82. 57 31 7 P 54 53. 96 -0.2
82 . 58 31 4 P 5453.77 -0.4
82.67 316 ePd 54 55.90 1.0
82. 68 315 P 54 50 .69 -4 . 1 X
82. 79 318 P 54 55. 42 0.2
82.82 314 P 54 55.00 -0.5
82.82 313 P 54 54.90 -0.6
82 . 84 31 8 P 5454.87 -0.5
82 93 31 7 P 54 55. 55 -0.4
83.00 320 ePd 54 55.80 -0.3
83.04 318 P 54 56 . 17 -0.4
83.06 316 ePd 54 57.80 0.9
83 . 1 3 31 8 P 5456.54 -0.4
83 . 14 31 4 P 54 56. 13 -1.1
83. 15 313 P 54 57 .90 0.5
83 . 1 5 31 3 eP 54 57 . 30 0.1
0.7s 74 . 95nm 5 . 9mb
83 . 18 322 ePd 54 58 .00 1.0
0.9s 48 . 00nm 5 . 6mb
83 . 21 314 P 54 56.23 -1.3
83 . 21 315 P 5455.61 -1.9
83. 23 322 eP 54 59.00 1.7
83 . 26 31 4 P 54 57 . 90 0.2
83 . 27 315 P 5457.97 0.0
83.36 314 P 54 55.72 -2.6X
83.39 316 ePd 54 59.00 0.4
83.39 317 eP 54 57.80 -0.6
0.8s 9 . 40nm 5 . 0mb
83 . 40 317 P 54 58. 19 -0.2
83 . 55 31 5 i PC 54 59 . 70 0.2
0.8s 62.95nm 5.8mb
83 .56 314 P 54 58 . 79 -0.7
83.56 315 iPc 54 59 . 80 0.3
83.63 315 Pd 54 59.30 -0.4
83.68 318 eP 54 59.50 -0.3
0 . Bs 64 . 50nm 5 . 9mb
83. 72 319 iPd 55 00.59 0.8
83. 74 313 eP 55 90.49 0.3
0.8s 38 . 95nm 5 . 7mb

26d 20h

254

MEM
ENN

LMR

V 1 T F
IRC

COR
UOM

SNF
LBF

: OP

Sfof

SSF

PLDF
AVF

GRC
AGO
LBL
P Y M
BGF

MAF

TCF

CAF

LSF

R J F

LPO

MNG
LFF

LDF

FLN

MFF

GRR

EBR
LPF

EROO
EKA

ETOR
ETA
DMU
EV 1 A
ECP
EHUE
DCN
GUO
TOL

EGUA
1 MA
TTA

NVL

MBC

1 NK
FFC

BW06
DUG
CLC
MSU
SBB
GSC
GOL

83.76 320 iPd 55 00.38 0.4
83.80 320 eP 5502.00 1.8
1.0s 2 2 0 0 n m 5.3mb
83 . 86 3 1 3 *P 5501.00 O . 3
0 . 3 s 1 8 . 88nm 5 3n.b
83 . 9 1 3 1 8 P 555079 -0.1
83.96 313 <?P 55 01.80 0.6
0.8s 5 1 05 nnr> 5 8mb
84.37313.rP-! 55 03 80 05
84.69 3 1" 0 PC 55 0 b . 2 0 0.5
S 053l.0Ci
84.S6 320 iPc 55 05.80 0.3
85.36317 iPc 5508.10 -0.1
0 . 7 s 23 1 5nm 5 . 5mb
85.42317 i ! > <: 55 y K . > d -0.1
0 . $ s 3 7 . 6 u n m 5.7mb
85 49 316 iPc 55 08.60 -0.2
0 . '' s 3 1 . 40nm 5 . 6mb
8568317 i PC 55 09 . 80 0.1
0 . !Ss 1 6 . 1 0nm 5 . 3mb
85,70 316 P 55 09.99 0.0
85.81 316 iPc 55 10.20 -0.2
0 . i3s 1 8 . 1 5nm 5 . 4mb
85 . 95 3 1 7 P 5511.28 0.2
86 . 03 3 1 6 P 55 1 1 . 68 0.1
86 .03 315 P 55 12 . 18 0.5
86 1 5 3 1 5 P 55 1 2 . 40 0.2
86.18 316 i PC 55 12.60 0.4
0.8s 22.85r>m 5.5mb
86.40 316 iPc 55 13.60 0.2
6.7s I3.25nm 5. 3mb
86.64 316 iPc 55 14.80 0.2
0.8s 9.40nm 5. 1mb
86.90 315 iPc 55 16.40 0.5
0.8s I680nm 5. 3mb
87 . 1 2 31 6 i PC 55 1 7 . 00 0.2
0.7s S.90nm 5. 2mb
87 24 315 iPc 55 18.20 0.7
0.6s I7.45nm 5. 4mb
87. 55 315 eP 5519.50 0.6
0.8s 37.60nm 5. 7mb
87 . 65 1 3 1 P 5519.60 0.1
87 . 83 31 5 eP 5521.10 0.8
0.8s I3.45nm 5. 3mb
87 . 92 31 9 eP 55 20 . 80 0.2
0.8s 1 3 . 45nm 5 . 3mb
88.13319 i PC 5521.90 0.3
0.8s I8.80nm 5. 5mb
88 . 22 3 1 7 eP 5522.40 0.3
0.8s 16.10nm 5. 4mb
88.44 318 eP 55 23.50 0.4
0.8s 9.40nm 5. 2mb
88 . 56 31 1 eP 55 25 .00 1.1
88 . 6 1 3 1 8 eP 55 24 . 30 0.4
0.8s 21 . 50nm 5 . 5mb
88.63 311 eP 55 23.50 -0.7
88.71 326 Pd 55 24.90 0.6
0,8s i8.70nm 5.5mb
9$. 48 31 1 eP 55 33 . 70 0.7
9} .00 323 eP 55 35 . 40 0.4
9* . 1 4 325 eP 55 37 . 20 1.6
91.18 309 eP 55 36 . 80 0.5
91.21 323 eP 55 37 . 30 1.4
91.39 308 eP 55 37.80 0.5
9 1 . 48 324 eP 5537.70 0.5
92 .08 31 1 eP 55 41 . 80 1.4
92 - 1 4 Si 0 i Pd 55 4 1 . 50 0.9
1.0s 20.00nm 5.5mb
92-33 307 eP 55 42.20 0.7
92.34 22 P 55 44 . 1 0 3 . 0X
92 . 56 26 P 55 42 . 10 0.0
1.6s 49 . 1 8nm 5 . 7mb
94 . 09 1 99 eP 55 51 . 00 2.2
e 56 01 . 00 31 km
e 56 35.00
94.63 8 eP 55 52 . 00 0.7
1.0s 14.00nm 5. 3mb
97.78 1 6 eP 56 05 . 00 -0.8
117.03 11 dPKP 01 15.00 -1.0
0.7s 6 . 00nm
125.88 22 PKP 01 31.80 -1.9
126.75 26 PKP 01 35.80 0.5
127.84 33 ePKP 01 47.00 9.6X
128.42 27 PKP 01 39.10 0.4
128.54 34 ePKP 01 39.00 0.2
128.65 33 ePKP 01 40.00 1.0
130.08 20 PKP 01 42.00 0.2

TBR 131.06 349 PKP 01 45. 00 1.7
GLA 131.42 33 ePKP 01 46.00 1.7
ANMO 133.87 24 PKP 01 48.80 -0.3
A 10 133.87 24 ePKP 01 48.00 -1.1
Z 20s 1 . 60um 5 . 7Msz

SOBl 135.83 264 (PKP) 01 55.00 1.8
JSC 138.82 355 PKP 01 56.40 -1.7

BAD 142.30 253 e(PKP)02 04.00 -1.0
PPD 143 80 242 (PKP) 01 52.00 -15. 3X
LNV 150.13 204 ePKP 02 22.50 5.4X
PEL 150.53 206 i PKPd 02 23.50 5.6X
ROCH 150.82 205 ePKP 02 24.;50 5.9X
JACH 150.89 206 e P K P 02 25.00 6.5X
RTLL 150.99 211 ePKPc 02 24.20 5.6X
PPM 151.09 26 ePKP 02 20.80 1.1
SIV 154.48 247 PKP 02 24.20 0.3
CCH 158.47 239 PKP 02 22.60 -6.7X
CNCB 160.29 239 PKP 02 35.00 3.4X
i 63 21 .00
LPB 160.52 239 PKP 02 45.|00 13. 3X
e 03 20.100
2080 160.66 240 PKP 02 33.00 1.0
1.0S 8 . 50nm
S.O. - 0.9 on 247 of 2£ 3 obs.
~~~~ i ~~

AUG 26, 1991 20h 54m 23.02± 0.14s 6.882 N ± 4.0km 94.609 E ± 3.4km DEPTH = 21. 7 km (16 dep^h phases) 5.8mb (84 obs.) 5.8Msz <| 17 obs.)
NICOBAR ISLANDS REGION (704)
CENTROID. MOMENT TENSOff (HRV)
Do to Used : GDSN
L . P . B . : 1 65 . 29C
Centre id Location:
Or i g i n T i me 20:5^:25.41.1
Lot 7.30N 0.09 Lon 94.54E 0.11

Dep 49.6 8.8 Ha I f -du r <> t i on 3.4
Moment Tensor: Scole 10»*17 Nm
Mrr=-1.68 0.41 Mtt=--5.90 0.64
Mff- 7.58 0.81 Mrt= 2.38 0.82
Mrf= 0.46 0.73 Mtf = 2.54 0.51
Principal Axes:
T Vol= 8.12 Pig- £ Azm-281
N -0.84 67 24
P -7.28 22 189

Best Double Coup I e : Mo = 7 - 7 * 1 0* » 1 7
NP1 : S t r i ke-327 Dip=7l Slip--l68
NP2: 233 78 -20

IPM 6.78 109 ePc 56 01.00 -2.9X
0.6s 232 . 70nm 6 . 3mb
e 57 18.00
NNT 7 . 59 41 eP 5613.80 -1.4
KHT 8.77 26 eP 56 30.60 -1.0
KGM 9.94 119 eP 56 45.00 -2.7
e 57 21 . 60

PCT 10.23 40 eP 56 51|.90 0.2
e 00 05.00
NST 10.28 31 eP 56 52.00 -0.4
e 00 34 . 00
CHG 12. 59 19 eP 57 25!. 30 1.5
1.5s 28 1 . 94nm 6 . 2mb
e 57 36 . 80
KOD 17.27 282 eP 58 25.40 0.4

G8A 18.16 293 P 58 37[. 00 1.3
1.1s 215. 00nm 5 . 2mb
SHL 18.76 352 eP 58 40.50 -2.7X
eS 02 12.00
HYB 18.85 305 i PC 58 43.00 -1.2
1.2s 31 8 . 20nm 5 . 4mb
eS 02 1 6 . 00
KMI 19.74 22 PC 58 57.50 2 . 8X
2.0s 1 . 30nm 2 . 9mb X
2 16s 17. 80um 4 . 0Msz
eS 02 38 . 00
KKM 21.48 91 ePd 59 14.00 1.4
1.6s 413. 50nm 5 . 6mb
PK I 22 . 35 338 P 59 2C . 36 -1.1
GUN 22.49 339 P 59 21.86 -1.1
DMN 22.50 337 P 59 2^.94 -0.9
KKN 22.60 338 P 59 2^-60 -1.2
GKN 23.03 337 P 59 27,. 36 -0.7
TSM 23.29 95 ePc 59 21 . 1 0 1.7
POO 23.29 302 iPd 59 37.50 7.0X
HKC 24.31 49 eP 59 41:. 80 2.6X

BOM 24.33 301 IP 59 4(i . 90 6 . 4X
iS 04 0:i.30

PGP
BAG
ND I

MKS
CVP

MAP
CGP

L2H

PLP
DAV
B IP

SSE

DUE

NANU
BJ I

MTN
MA I 0

MUN

KLB
NWAO
WARS
COOL
I RK

RKG
WRA
WR2

ASPA

IR5
I R1
IR7
MAT

PJG
GUA
ARO
CIS
TAB
PMG
AAE
OLP

ADE

26. 73 74 eP 00 03 . 50 0.4
27.11 67 eP 00 08 . 50 1.7
27.21 325 i Pd 00 07 . 50 0.2
eS 0445.00
27.57 115 i PC 00 14.50 3 . 8X
28.64 65 i Pd 00 26.00 5.6X
1.0s 1 32 . 00nm 5 . 6mb
29 . 23 81 eP 0026.00 0.2
29 . 85 85 eP 00 33. 00 1.6
1.5s 1 1 2 . 00nm. 5 . 5mb
30 . 27 1 5 eP 00 36 . 00 0.9
2.0s 222 . 00nm 5 . 6mb
Z 12s 2 1 . 02um 6 . 0Ms zX

pP 00 45.50 33kmX
sP 0049.00
PP 01 37.50
PcP 03 33.00
eS 05 31 . 50
PcS 07 1 7 . 50
30.28 80 eP 00 39.20 4. IX
30.73 88 eP 00 32.00 -7 . 1 X
31.39 86 ePc 00 48.00 3. IX
0.8s 292 . 00nm 6 . 2mb
34.62 42 Pd 0113.50 07
1.5s 43.00nm 5.1mb
2 18s 23.1 0um 6 . 0Msz
N 12s 23 . 30um
E 13s 30 . 40um
SS 09 10.00
34.81 31 5 eP 01 1 4 . 80 0.0
1.4s 1 744 . 1 9nm 6 . 8mb X
Z 20s 1 7 . 73um 5 . 8Msz
eS 0647.60
35 . 72 1 46 eP 0121.00 -1.2
38 . 26 27 eP 0145.00 16
1.5s 31 5 . 00nm 5 . 9mb
Z 20s 1 9 . 60um 5 . 9Ms z
N 13s 29 . 80um
4 1 . 24 1 1 8 eP 0207.50 -0.9
43. 43 317 iPc 02 26 . 00 -0.2
i 04 13.00 614k m X
43 . 80 1 53 eP 02 29 . 30 0.2
Z 20s 8 . 80um 5 . 7Ms z
e 12 25.00
44. 19 151 eP 02 32. 50 0.2
45.06 153 eP 02 37.00 -2.3
45 .24 138 eP 02 40.20 -0.7
45.34 147 eP 02 41.00 -0.6
45 . 95 8 ePc 02 46.50 0.4
e 02 52.50 20km
e 0311.50
e 0317.50
e 03 24.00
ePP 03 47.00
e 04 48 . 00
eS 07 47.00
eSS 09 28.00
e 09 48.00
e 1 1 00 .00
e 13 23 .00
e 21 1 4 . 00
46.35 154 eP 02 49.00 -0.4
47 . 31 125 P 02 55. 10 -2.2
47.33 125 iPd 02 55.30 -2.2
0.5s 33 . 70nm 5 . 6mb
iScP 08 19.30
48 .93 130 eP 03 08.00 -1.8
1.0s 36 . 20nm 5 . 4mb
eS 10 07 .30
49.24 311 eP 03 12.00 -0.3
49.24 312 i Pd 03 13.00 0.7
49.42 312 ePd 03 13.00 -0.7
49. 49 47 iPc 03 15.20 1.2
1 .6s 103.33nm 5. 6mb
Z 20s 11. 35um 5 . 9Msz
eS 10 31 .00
49.83 78 eP 03 1 9 . 50 2 . 6X
49 . 87 78 eP 03 18 .80 1.6
51.25 279 eP+ 03 29.50 1.7
51 .95 123 eP 03 30.00 -2.9
53. 52 313 eP 03 43.00 -1.5
54.80 107 eP 03 50.00 -4 . 1 X
55 . 31 276 eP 04 02.00 3.8X
58.47 127 eP 04 19.00 -1.1
0.7s 61 . 00nm 5 . 8mb
58. 82 138 eP 04 21 .30 -1.2
1.0s 140. 00nm 6 . 8mb

255

26d 21h

NPA
STK

HR I
MML
BHL
RMN
YAK

AKSR

AGMR

CMS
KVT
RMO

BFD

HLW

TOO

BRS

EYL
COO

LW I
CNB

OBN

YLV
DST
I ZM
TAU

NPS
PRK
EZN
ALN
JOZ
ISR
VR I

RDO
BUC
8UC1
BUL

ATH
CMP
SRS
VLI
TNR
KNT
LI T
AGG
VAY

SLR

BMR
KZN
FNA
SKO

59 . 04
59 . 89
0.7s
60. 33
60 . 43
60 . 53
60 . 74
60 . 78

61.27
1 . 5s
61 . 70
1.5s
62.09
62. 00
62. 07
1 . 3s
62 . 63

63 . 45

64 . 82
0.9s
65. 72

66 . 21
66 . 26

66 . 30
66 . 42

66 . 44
Z 20s

66 . 80
67.18
68 . 03
68 . 83

68 . 92
68 . 92
68 . 97
69 . 35
69 . 36
69 . 72
69 . 74

69 . 77
69 . 90
69 . 94
70 . 20
1.1s
70.74
70 . 79
71 . 22
71 . 23
71 . 39
71.74
71.93
71.94
72.01
1 . 3s

72. 05
1.2s
Z 18s
72 . 24
72. 50
72. 85
72. 92
Z 20s
N 21s
E 21 s

248 iPKP 04
1 34 i PC 04
10.9 0nm
304 eP 04
303 eP 04
305 P 04
301 eP 04
18 i Pd- 04
i PcP 05
ePP 06
iPPP 08
eScP 09
ePcS 09
ePcP 11
i S 12

; PS 13
eScS 14
eSS 16
eSSS 19
293 iPd 04
2924 . 00nm
293 eP 04
390 . 0 0 nm

131 e(P) 64
313 eP 04
1 25 eP 04
1 4 3 . 00nm
138 eP 04
i 04
300 eP 04
e 08
e 13
137 i PC 05
88 . 00nm
124 iPd 05
i(pP) 05
31 1 eP 05
128 eP 05
i 06
265 ePd 05
1 33 eP 05
i 05
328 iPd 05
4 . 00um
i 05
eS 13
eScS 15
3 1 1 eP 05
310 eP 05
309 eP 05
1 4 1 eP 05
e 08
305 eP 05
309 eP 05
310 eP 05
3 1 1 eP 05

237 e(P) 05
316 eP 05
3 1 6 eP 05
e 14
31 1 eP 05
315 i PC 05
315 eP 05
246 i PC 05
38 . 6 1 nm
308 eP 05
31 6 ePd 05
311 i P d 05
306 eP 05
316 ePc 05
311 i Pd 05
31 0 eP 05
309 eP 05
31 1 iP 05
1 1 2 . 00nm
i 05
240 i PC 05
78 . 1 3nm
6 . 53um
318 i Pd 05
310 eP 05
31 0 eP 05
312 eP 05
5 . 94um
2 . 21 urn
3 . 76um
eS 1 1

27 . 70
23.00
5
32.90
33. 80
32 . 60
37 . 50
34 . 20
04.60
54 . 60
07 . 00
22 . 00
26 . 08
27 . 06
51 . U0
02 .00
21 .00
21 .00
35.00
42. 80
7
43.00
6
40 . 80
40 . 00
54 . 20
6
47.00
54. 50
54.00
50. 00
22 . 00
03. 00
5
08 . 00
23.00
10 . 50
12.00
14.00
13.70
12. 60
17.00
1 1 . 30
5
19.00
56. 00
00 . 00
1 4. 50
15.60
21.80
33 . 00
38 . 00
29. 00
28 . 40
25. 00
30 . 00
20 . 00
33.00
32. 00
52. 00
32 . 60
42 . 00
44.00
37 . 50
5
39.10
38. 00
40 . 80
45. 60
44 . 00
43. 50
45 . 00
44 . 80
45. 70
5
52. 70
47 . 00
5
5
51.00
39 . 00
47 . 50
50 . 70
5

40. 00

3 . 5X
- 1 . 3
. 1mb
- 0. 1
0 .2
- 2 . 4
1 . 7
- 1.3

3 . 4X
. 2mb X
0 . 7
. 3mb
- 3 . 4X
- 4 .2X
9 . 4X
. 0mb
- 1 .3
24 km
0 . 1

0. 3
. 9mb
- 0 . 7
54kmX
- 1 .2
- 0 . 1
270kmX
0 . 8
- 1 . 0
1 6 km
- 1.4
. 6Msz
25km

- 0 . 9
- 2. 3
- 1.4
5 . 1X

0 .2
- 0. 2
- 3 .9X
- 1 . 2
- 1 1 . 5X
- 0 . 5
- 1 .5

- 1.1
7 . 5X
9 . 3X
0 . 6
. 4mb
- 0 . 7
- 2. 0
- 1.8
2. 8X
0 . 4
- 2.3
- 1 .9
- 2.2
- 1.6
. 7mb
22km
- 1.1
. 6mb
. 9MSZ
2. 4
- 1 1 . 4X
- 4 . 9X
- 2.0
. 9Msz

PRY

VLS
T I M
KAF

CSY

BEO
NUR

SPC
PSZ
KRA

BUD
SOD

LCI
UZD
FRS

SRO
KEV

DZM
BRT
ROI
GR I
ZST
IDS
CS 1
CZ 1
SOI
WMN
GMB

KTK 1
VKA

MGR
ATM
KSP

SCO
UPP

MED
VBY
MAW

PZ 1

DUI
LJU
CEY
PRU

Gl B
KMR
SDI
TRO
VOY
MCT
TR 1
8RG

eSSS 15 11.00
LR 41 03.50
73 . 09 239 iPd 0556.00 1.8
1.0s 50 . 06nm 5 . 5mb
73.22 308 eP 05 54.20 -0.4
73.51 316 iPd 65 58 .00 1.9
73.88 333 i P 05 57 . 20 -0.7
1.2s 1 43 . 20nm 5 . 9mb
73 . 98 1 73 eP 0601.00 3 . 2X
0.4s 9.20nm 5. 2mb
73 .94 315 eP 05 56. 40 -2.2
74 . 23 331 i P 05 58 . 80 -1.1
0.8s 63.10nm 5. 7mb
Z 20s 4.60um 5.8Msz
i 86 06.36 24km
LR 46 30 . 60
74.61 319 i Pd 06 03.00 0.4
74. 68 318 eP 06 03. 10 0.2
74.92 320 ePd 06 03.50 -0.6
1.3s 1 25 . 06nm 5 . 8mb
e 06 10.20 22km
i 6614.96
75.22 317 e(P) 06 05.00 -0.9
75.30338 i P 0605.76 -0.3
i 06 12.70 22km
75.41 310 P 06 64.20 -2 . 9X
75.43 316 eP 06 07.00 -0.1
75.72237iPd 0610.26 1.1
1.1s 82.28nm 5. 7mb
75. 73 317 eP 06 08.70 -0.1
75.92 341 eP 06 69.00 -0.5
Z 20s 9 . 6Cum 6 . 1Msz
i 06 15.80 1'2 km
e 15 50.00
LR 42 40.00
75.96 1 15 i PC 0616.00 5. 3X
76. 01 310 P 0609.70 -0.9
76.43 309 P 0610.60 -2.4
76 . 52 308 P 0613.20 -0.3
76 .57 318 eP 0612.70 -0.9
76.62 309 P 06 13. 60 -0.4
76 . 66 309 P 0614.60 0.3
76 . 76 309 P 0614.80 0.6
76 . 79 307 P 0614.70 -0.2
76.89 309 P 06 17 . 20 1.7
76 . 94 307 P 0617.04 1.0
0. 2s 21 . 50nm 5 . 8mb
76.98 339 eP 06 15.30 -0.2
77 . 1 0 318 i Pd 06 1 6 . 90 0.4
1.8s 269.00nm 6.0mb
Z 17s 2 . 50um 5 . 6MszX
i 0623.10 20km
LR 48 30.00
77 .23 309 P 0616.10 -1.3
77 .25 307 P 06 17 . 60 0.0
77.32 320 i Pd 06 18. 00 0.3
1.5s I62.00nm 5. 8mb
77 . 44 31 0 P 0618.20 -0.3
77 . 55 330 i P 0618.40 -0.3
i 06 25.30 22km
i S 16 04.00
77 . 66 306 P 06 20 . 30 0.4
77.66 315 eP 06 19.00 -0.7
77 .66 192 eP 06 21 .00 1.9
0.9s 1 6 . 00nm 5 . 1mb
77 . 67 306 P 0619.89 -0.1
1.0s 47 . 30nm 5 . 5mb
78. 1 1 31 1 P 06 21 .90 -0.4
78.19 315 ePc 06 22.00 -0.6
78.26 315 ePc 06 22.20 -0.8
78.38 320 Pd 06 23.80 0.3
1.8s 1 43 . 70nm 5. 7mb
e 06 30.70 22km
ePP 09 18.00
ePPP 11 08.00
S 16 12.00
78.39 307 P 06 23.00 -0.9
78.55 318 i P + 06 24.20 -0.3
78.59 311 P 06 23. 60 -1.3
78 . 61 340 eP 06 24.60 0.2
78.64 315 iPc 06 24. 10 -1.0
78 . 70 307 P 0627.60 1.9
78.72 315 iPd 06 24.90 -0.5
78.80 320 iP 06 25.90 0.1
1.6s 1 60 . 00nm 5 . 8mb
Z 17s 2.00um 5.5MszX
N 17s 2.00um

AZ I
RBL
AOU
KHC

KBA

US 1
ARV
BRN
CVT

BH&
RDP
CLL

RMP
WET

FV 1
MNS
ASS
HFS

VV 1
COP
CRE
PTS
SF 1
PGD
CT 1
WTTA

MOX

DRV
LOF
FUR
GRF

MAO
OGA
NB2

MME
BD 1
SAL
P I I
W! N

OSS
CER

VOL
TUH

BOB
LLS
CGL

TMA
PGF

TNS
SLE
PCP
ZLA
MOL
CK 1

E 17s

78. 88
78. 88
78 . 91
78 . 96
1 . 3s

79 . 05
1.4s

79. 05
79. 26
79. 34
79. 36
0.1s
79. 38
79.41
79 . 42
1 . 7s

79. 42
79. 42
1.4s
79. 42
79 . 44
79. 46
79.54
0.5s
Z 18s

79. 66
79.94
79 . 98
80. 01
80. 05
80. 15
80. 20
80.22
1 .3s

80 . 28
Z 18s
N 19s
E 17s

80. 30
80. 32
80.47
80. 52
1 .5s

80. 57
80. 64
80.82
1 . 3s
80. 88
80.96
80. 99
81 .02
81.19
1 .0s
81 . 24
81 . 63
1 .0s
81.71
81.74
1 .0s
81 . 77
82.03
82. 06
1 . 2s
82. 13
82. 16
1 .6s
82. 30
82. 34
82.42
82.42
82.58
82.61

2 . 50um
i
eS
311 P
316 P
312 P
319 i Pd
41 . 00nm
e
S
317 i PC
70 . 90nm
i d
i
308 P
313 Pd
322 eP
307 P
0 . 80nm
317 iPd
311 P
321 iPd
1 30 . 00nm
i
eS
311 P
319 eP
1 74 . 00nm
316 Pd
312 P
312 P
330 eP
1 1 . 40nm
6 . 56um
LR
315 Pd
325 eP
313 Pd
306 P
313 Pd
313 Pd
315 Pd
317 eP
1 46 . 00nm
i d
i
i
320 iPd
3 . 1 0um
2 . 60um
1 . 50um
S
163 eP
338 eP
318 eP
319 iPc
1 90 . 00nm
e

312 Pd
316 *P
331 P
1 02 . 1 0nm
314 P
313 Pd
315 P
313 P
246 eP
50 . 00nm
316 ePd
235 eP
60 . 00nm
316 ePd
235 iPc
40 . 00nm
314 Pd
316 ePd
309 P
1 4 . 50nm
316 ePd
312 eP
161 . 70nm
320 eP
317 ePd
314 P
317 ePd
332 iP
314 Pd

06 33 . 00
16 18 . 00
06 26 . 30
06 27 . 90
06 26 . 80
06 27 . 00
5
06 33 . 56
16 22.00
06 26 . 40
5
66 27 . 60
06 36 . 50
06 27.40
06 2 8 . t-, 0
06 29 . ee
06 36. 47
4
06 29.00
06 28.40
06 28 . 90
5
06 35 . 66
16 24.00
06 28 . 80
06 29 . 40
5
06 29. 00
06 28 . 70
06 29. 10
06 29 . 50
5
6
43 17.00
06 30.60
06 32. 00
06 32 . 00
06 32.80
06 33 . 70
06 34.00
06 33 . 70
06 32.00
5
66 33. 30
06 39.90
07 25.30
06 34 . 20
5

16 37.00
06 43 . 70
06 33 . 06
06 35.00
06 35.30
5
06 42. 00
06 35.00
06 35.50
06 35 . 70
5
06 38.50
06 36. 56
06 38.90
06 36.50
06 41.00
5.
06 39.80
06 42 . 50
5.
06 42.20
06 44.00
5.
06 42.30
06 43 . 60
06 43.41
4 .
06 43 . 80
06 43.50
5.
06 45.00
06 44.80
06 44.75
06 45.40
06 46. 18
06 44 . 70

23km

- 0 . 1
1 . 5
8.2
0 .2
. 3mb
2 1 km

- 1 . 1
. 5mb
2knr,X

0 . f}
0 . 1
0. 3
1 . 4
. 7mb X
- 0. 1
- 1.0
- 0.2
. 7mb
21 km

- 0 . 6
0 . 1
. 9mb
- 0. 2
- 6 . 8
- 0 . 5
- 0 . 1
. 2mb
0Msz

0 . 0
0 . 2
- 0 . 5
0 . 2
1 . 0
0.5
0 . 1
- 1 .8
8mb
4kmX

0. 4
7MSZ

1 0 . 2X
- 0 .6
0 . 1
0 . 2
9mb
21 km
- 0.5
- 0 . 5
- 0 . 8
7mb
1 . 1
- 1.1
1 . 3
- 1 . 3
1 .6
5mb
0 . 6
1 . 2
6mb
0 . 5
2. 3
4mb
0 . 5
0 . 3
- 0 . 1
9mb
0 . 0
- 0 . 5
8mb
0. 5
0 . 1
- 0.4

e. 3
0.6
- 1.4

26d

PEL
F IN
TOE
MMK
ORX
GWF
ROB
1 M 1
L 1 BD
BbS
BNS

CDF
0 I X
ECH
ENR
AUTN
SBF

WTS

RSP
STV
W 1 T
DOI
LSD
PZZ
BSF
EMS
LOMF
LPG

RR L
LPL
BER
RSL
BN 1
H AU

WLF
FRF

MEM
ENN

LMR

V 1 TF
LRG

D8N

CDR
DOU

UCC

SNF
DOMF
LBF

LOR

SMF

SSF

PLDF
AVF

GRC
AGO
LBL
PYM
BGF

MAF

TCF

ESEL
CAP

ABA
LSF

21h

82-! 66 317 P 06 45.65 -0.8
82 . 67 314 P 06 45 . 57 -0.9
82.76 320 ePd 06 47.60 0 9
82.77 316 ePd 0648.00 0.8
82 . 77 315 P 06 45 . 67 -1.4
82 . 88 318 P 0646.92 -0.5
82. 91 314 P 6647.21 -0.6
82. 92 313 P 9647.83 0 . O
82. 93 318 P "1647.86 02
83 . 02 3 1 7 P 0647.39 -(5.8
83.09 320 e P d 06 48.50 8.1
1.5s 6 0 . 0 0 n m 55mb
Z 22s 2 . 1 Cum t> . 5M«z
83. 13 318 P 86 47 . 69 -1.2

83,15 316 ..- r 1 00 fi y . 3 0 1 1
83. 22 318 H 0048.80 -U.4
83 . 24 31 4 P 06 47 . 83 -1.7
83 .24 313 P 06 49 . 90 0.2
83.25 313 eP 06 48 . 70 -0.8
1 . ?s 1 73 . tOnm 6.1mb
83.27 322 e P d 06 50.00 0.7
1.3s 1 55 . 00nm 6 . 0mb
83. 31 315 P 0648.65 -1.2
83. 31 314 P 0647.72 -2.1
83. 32 322 eP 06 51 . <?0 1.4
83 . 35 31 4 P 0648.50 -1.5
83 . 36 315 P 06 49 . 98 -0.3
83. 45 314 P 0648.44 -2.2
83. 49 317 P 8649.86 -0.8
83.49 316 ePd 0651.40 0.6
83 . 49 31 7 P 06 50 . 6 1 -0.1
83 . 64 3 1 5 <rP 0651.40 -0.4
1.4s 1 70 . 20nm 6.1mb
83 . 65 3 1 4 P 0651.11 -0.7
83. 66 315 eP 0651.30 -0.5
83.71 330 eP 0652.50 1.1
83. 72 315 P 0652.26 0.3
83. 72 315 Pd 06 51 . 50 -05
83. 78 318 eP 0651.10 -1.0
1.2s 1 30 . 90nm 6 Omb
83.81 319 iPd 06 52 . 05 0.0
83. 83 313 eP 0652.20 -0.2
1.4s 222 . 20nm 6 . 2mb
83.85 320 iPd 06 52.67 0.4
83.89 320 ePd 06 53.00 0.5
1.2s 54 . 00nm 5 . 6mb
83 .95 313 eP 06 52 . 50 -6.5
1.4s 1l3.25nm 5. 9mb
84 . 0 1 31 8 P 06 52 . 37 -6.8
84.05 313 eP 06 53.50 0.0
1.3s 162.45nm 61mb
84 . 27 322 eP 07 01 .00 6 . 6X
Z 20s 3.00um 5 7Msz
eS 1717.00
84.46 313 ePd 06 56.30 0.7
84.79 320 PC 0657.80 0.8
S 1 7 22 . 80
84 . 88 320 P 06 58 .60 1.2
S 1711.00
84 .95 320 iPd 06 58 . 32 0.5
85.25 320 P 0659.91 0.6
85 . 45 31 7 eP 0659.80 -0.7
1.6s 161.70nm 6. 0mb
85 . 51 31 7 eP 07 00. 20 -0.6
1.4s 136.15nm 6. 0mb
85.58 316 eP 07 00.50 -0.6
15s 146.25nm 6. 0mb
85 . 77 31 7 eP 0701.60 -0.4
1.4s 1l3.25nm 5. 9mb
85. 79 316 P 0702.78 0.5
85. 90 31 6 eP 0701.80 -0.9
1.5s 1l4.90nm 5. 9mb
86 . 04 31 7 P 0703.91 0.6
86 . 12 316 P 07 04 . 1 4 0.3
86. 13 315 P 0704.44 05
86 . 24 31 5 P 0704.80 0.3
86.27 316 eP 07 04.20 -0 3
1.4s 135.05nm 6. 0mb
86.50 316 eP 07 05.30 -0.4
1.4s 65 . 35nm 5 . 7mb
86.74 316 eP 07 06.60 -0.2
1.4s 61.00nm 5. 6mb
86 . 97 31 0 eP 0709.80 1.8
86 . 99 31 5 eP 0708.10 0.0
1.6s 93.30nm 5. 8mb
£7.19 307 i PC 0710.00 0.8
£7 .21 316 eP 07 08 . 60 -0.5

RJF

LPO

IFF

LDF

FLN

MFF

EPF

GRR

EBR

LPF

EROO
EKA

EGRA
ETOR
ECR 1
ETA
OLF
DMU

EV 1 A
ECP
EHUE
OCN

GUD
TOL

AFC
ECOG
EBAN
1 MA

EGUA
TTA

EHOR
VAL
EPLA
EJ 1 F
NVL

MBC

1 NK
K 1 C
PNT
FFC

SES
LRM
ORV
K VN
BW06

TNP

RSSD

DUG
ISA
CLC
MSU
SBB

256

1.4s 61.89nm 5 7mb GSC 128.65 33 ePKP 13 33.00 2.1
87.33 315 eP 07 09.80 0.1 PAS 128.74 35 ePKP 13 32.00 1.1
1.6s l36.80nm 6.0mb MWC 128.75 35 ePKP 13 33.00 1.8
87.64 315 eP 07 11.30 0.1 RVR 129.31 35 ePKP 13 33 00 1.0
1.4s 104.55nm 5.9mb PV09 129.74 24 ePKPd 13 33.90 6.8
87.92 315 eP 07 12.90 0.4 e 13 43.50
1.4s 78.40nm 5.8mb TPC 129.96 34 ePKP 13 36.00 2.7X
88.01 319 eP 07 12.80 -0.1 GOL 130.10 20 tPKPd 13 33.70 0.0
1 4s 9l.50nm 5.9mb Z 20s 2.50um 5.9Msz
88.23 319 eP 07 13.60 -0.3 e 13 44.20
1.4s 104.55nm 6.0mb PP 15 50.00
88.31 317 eP 07 14.10 -0.3 BAR 130.67 35 ePKP 13 36.00 1.3
1.5s 83.53nm 5.8mb TBR 131.12 349 PKP 13 37.40 2.2
88.47 313 eP 07 15.80 0.5 GLA 131.42 33 ePKP 13 38.00 1.9
1.7s 40.45nm 5.5mb ANMO 133.89 24 e P K P 13 38.50 -2.5
88. 53 318 eP 0715. 30 -0.1 SKP 1711. 90

1.3s 65.00nm 5.8mb ALQ 133.89 24 ePKP 13 40.06 -1.0
88.66 311 eP 07 17.50 1.4 Z 20s 3.90um 6.1Msz

eS 18 00.00 SOB1 135.90 264 (PKP) 13 47.00 1.9
88.70 318 eP 07 16.40 0.2 TUL 136.33 12 ePKP 13 45.80 0.5
1.4s 122.00nm 6.0mb 0.6s 6.20nm
88.72 311 eP 07 17.80 1.3 Z 20s 1.64um 5.8Msz
88.80 326 Pd 07 17.40 0.9 LR 58 16.00
1.1s 46.46nm 5.7mb OLY 137.46 7 PKP 13 46.00 -1.5
89.07 312 eP 07 1 6 J 80 -1.2 TKL 137.66 358 PKP 13 47.40 -0.5
90.57 311 eP 07 26.00 0.8 JSC 138.88 355 ePKPd 13 50.60 0.5
90.60 313 eP 07 27.00 1.7 PP 16 40.80
91.09 323 eP 07 28,60 1.4 PPD 143.85 242 ePKP 13 53.10 -6 . 1 X
91.14 324 eP 07 29,08 1.6 MRX 149.34 30 ePKP 14 11.80 3 . 6X
91.23 325 eP 07 29.60 1.8 LNV 150.12 204 ePKP 14 14.50 5.5X
1.4s 1l9.00nm 6.0mb SAN 150.24 205 ePKP 14 16.50 7.2X
91.27 309 eP 07 30,00 1.4 PEL 150.52 206 iPKPc 14 15.50 5.8X
91.30 323 eP 07 29 80 1.6 LCCH 150.60 204 ePKP 14 15.00 5.3X
91.48 308 eP 07 30 40 0.9 ROCH 150.80 205 ePKP 14 16.00 5.6X
91.57 324 eP 07 31 30 1.9 JACH 150.87 206 ePKP 14 17.00 6.7X
1.3s 103.08nm 6.0mb RTLL 150.98 211 ePKPd 14 16.40 5.9X
92.17 311 eP 07 34 40 1.7 PPM 151.10 27 ePKP 14 13.50 2.0
92.23 310 iPd 07 34 00 1.2 CYA 151.66 218 iPKP 14 18.40 6 . 9X
1.0s 50.00nm 5.9mb SIV 154.53 247 PKP 14 16.56 0.7
iS 18 50^00 CCH 158.51 239 PKP 14 22.50 1.3
92.33 308 eP 07 34.00 0.5 i 14 58.80
92.34 308 eP 07 34.40 0.9 SDV 158.51 317 ePKP 14 18.00 -3 . 2X
92.35 309 eP 07 34.70 1.3 CNCB 160.33 238 PKP 14 27.00 3 . 5X
92.36 22 P 07 34.40 1.3 LPB 160.56 239 PKP 14 26.00 2.4X
1.5s 37.16nm 5.6mb Z 19s 4.86um
92.42 367 «P 07 34.50 0.8 LR 04 23.00
92.57 26 P 07 32.20 -1.8 ZOBO 160.70 240 PKP 14 26.00 2.1
1.6s 81.97nm 5.9mb 1.2s 20.95nm
93.55 309 eP 07 40.00 1.1 Z 22s 1.50um
93.67 323 iP 07 40.50 1.4 LR 04 16.00
93.73 311 «P 07 41!.60 1.9 BOG 163.93 315 e(PKP)14 44.00 17. 0X
94.00 307 eP 07 42.00 1.0 S.D. - 1.1 on 319 of 368 obs.
94.07 199 ePc 07 44^50 4.0X
e 08 03.00 66kmX & AUG 26. 1991 2lh 15m 58.45s
e 08 16.80 59.971 N 153.836 W
e 10 07.00 DEPTH = 170.5km
e 11 31.00 SOUTHERN ALASKA (2)
eS 1808.00 <AE I C> .
eScS 18 16.80
e 18 57.00 PDB 0.26 225 i PC 16 20.17 0.2
ePS 1915.00 S 16 36 . 62
e 19 36.00 OPT 0.44 136 i PC 16 21.33 0.7
e 20 28. 00 eS 16 38.91
e 20 51.00 AUL 0.62 161 i PC 16 22.18 -0.8
e 22 03.00 AUW 0.63 163 iPc 16 22.20 -0.8
94.68 8 eP 07 49.80 1.7 AUH 0.64 162 i Pd 16 22.51 -0.7
1.0s 18.90nm 5.5mb AUP 0.65 161 eP 16 22.91 -0.3
97.81 16 eP 07 58). 80 0.3 AGU 0.65 161 eP 16 22.11 -1.2
98.47 277 P 08 03;. 30 1.6 AUE 0.66 159 ePc 16 22.26 -0.9
116.57 24 ePKP 13 09.00 1.8 AU 1 0.67 162 ePc 16 22.18 -1.1
117.07 11 ePKP 13 07.00 -0.9 eS 16 39.70
0.9s 10.00nm RED 0.70 49 iPc 16 22.43 -1.1
118.78 18 ePKP 13 12.00 0.6 eS 16 40.69
122.22 22 ePKP 13 18.30 0.0 ROW 0.73 44 iPc 16 22.82 -1.0
123.00 33 ePKP 13 26.20 0.5 RS1 0.73 47 i PC 16 22.94 -0.9
125.16 31 PKP 13 2 . 40 2 . 2X RS2 0.73 47 iPc 16 22.91 -1.0
125.90 22 ePKPc 13 2f.00 -0.6 S 16 42.59
PP 15 22. 50 RSO 0.73 47 iPc 16 22.83 -1.1
126.34 31 ePKPd 13 2>.70 1.1 RON 6.76 44 i PC 16 23.14 -0.8
e 13 3£ . 60 eS 16 41 . 73
126.51 17 ePKPc 13 2<>.20 -0.5 REF 0.77 47 iPc 16 23.89 -1.0
PP 15 27 . 00 eS 1642.17
126.77 26 PKP 13 2Ji . 00 0.8 DFR 0.85 42 eP 16 23.53 -1.0
127.47 34 ePKP 13 3d. 80 1.4 eS 16 43.24
127.84 33 ePKP 13 3'. 80 1.7 RDT 0.93 49 iPd 16 24.18 -6.9
128.43 27 PKP 13 3 . 00 0.5 eS 16 43.97
128.54 34 ePKP 13 3:!. 00 1.3 CDD 1.85 175 i PC 16 24.67 -1.2

257

26d 21h

eS 1645.41
HOM 1.15 105 ePc 16 26.02 -0.7
eS 16 47 . 22
NNL 1.28 86ePc 1627.85 0.0
CNPM 1.39 108 iPc 16 27.91 -1.0
*S 1 6 49 . 68
CKL 1.43 30 i Pd 16 29 . 03 -0.4
S 16 52 . 57
SVW 1.44 323 iPd 16 28.73 -0.7
BGL 1.48 28 iPd 16 29.69 0.2
SPU 1.50 35 iPd 16 29.40 -0.6
BRLK 1 50 97 <Pc 16 29 23 -0.8
eS 1652.03
NKA 1.51 58 ePc 16 30 . 95 1.0
CRP 1.54 3? . Pd 1630.31 -6 . 2
SY I 1.55151 i P^ 1629.07 -1.4
eS 16 51 . 88
CGLM 1.62 33 ePd 16 30.76 -0.5
NCG 1.66 29 iPd 16 31.52 -0.2
SUA 2.13 44 iPd 16 35.94 -0.9
SEW 2.21 85 ePc 16 36.77 -0.8
SKT 2.31 28 ePd 16 38.32 -0.5
KDC 2.34 162 eP 16 37.39 -1.7
PMS 2.47 57 ePd 16 39.20 -1.5
PWA 2.57 47 eP 16 40.15 -1.7
PLRM 2.82 53 eP 16 42.52 -2.4
CUT 2.99 34 eP 16 46.20 -0.8
eS 1722.34
LT 1 3.01 86 i PC 1646.39 -0.8
GHO 3.01 51 eP 16 44.94 -2.4
KNK 3.02 59 eP 16 45.40 -2.0
KNIM 3.07 80 iPc 16 46.67 -1.4
TTA 3.15 342 ePd 16 48.16 -0.9
SML 3.26 53 eP 16 48.26 -2.2
GLI 3.46 72 iPd 16 51.58 -1.4
HUR 3.63 32 eP 16 54.12 -1.0
FID 3.74 75 i PC 16 54. 90 -1.6
eS 1736.43
VZW 3.76 70 ePd 16 56.22 -0.6
KTH 3.85 20 eP 16 57.15 -0.9
TRF 3.88 24 eP 16 57 . 20 -1.3
VLZ 3.88 69 eP 16 56.88 -1.4
KLU 4.18 65 ePc 17 00.43 -1.8
RND 4.18 32 eP 17 01.71 -0.6
TOA 4 . 30 57 eP 17 02 . 18 -1.6
MCK 4.43 29 eP 17 04.35 -1.1
PAX 5.01 50 eP 1711.97 -1.2
NEA 5.13 24 ePd 17 12.99 -1.6
GLB 5.14 69 ePc 17 14.05 -0.8
THY 5.17 45 eP 17 13.29 -1.9
WRH 5.25 28 ePd 17 14.50 -1.7
CCB 5.47 28 ePd 17 17.18 -1.9
HDA 5.49 33 ePd 17 17.75 -1.7
TGL 5.52 77 eP 17 19 . 23 -0.6
MDM 5.64 25 iPd 17 19.93 -1.4
FBA 5.69 27 ePd 17 20.28 -1.7
BALM 5.78 74 iPc 17 22.62 -0.7
GLM 5.85 28 ePd 17 22.63 -1.6
YAH 6.05 81 iPc 17 26.83 -0.2
INK '12.12 38 eP 18 46.00 -0.4
71 obs. associoted

* AUG 26, 1991 21h 23m 54.13± 0.81s 6.446 S ±15. 7km 103.617 E ±20. 3km DEPTH - 33.0km (normol)
4 . 8mb (8 obs .)
SOUTHWEST OF SUMATERA (273)

KGM 8.41 358 eP 25 58.50 1.8
KHT 21.67 347 eP 28 41.00 -3 . 1 X
BDT 23.98 349 cP 29 05.20 -1.5
CHG 25.52 350 eP 29 20.90 -0.6
WR2 32.72 117 iPc 30 24.30 -1.9
0.4s 7.80nm 5. 0mb
ASPA 33.76 124 eP 30 39.60 4.4X
1.0s 7 . 50nm 4 . 6mb
OIS 37.59 115 e(P) 31 09.00 1.4
PKI 38.13 333 PC 31 12.28 -0.2
0.6s 23.00nm 5. 2mb
GUN 38 . 21 334 PC 31 13 . 40 0.2
0.6s 1 1 8 . 00nm 5 . 9mb X
DMN 38.29 333 PC 31 13.80 0.0
KKN 38.37 333 PC 31 14.36 0.0
GKN 38.84 333 PC 31 18.40 0.1
0.4s 56 . 00nm 5 . 7mb
MOG 41.95 91 eP 31 50.10 6.2X
STK 43.53 131 eP 31 57.40 0.9

0.5s 2 . 00nm 4 . 1mb
BJ 1 47.68 13 eP 32 28.50 -0.9
KAF 89.76333 iP 3650.70 0.4
0.6s 4.40nm 4.9mb
NUR 90.16 331 eP 36 52.70 0.6
0.5s 3 . 90nm 4 . 9mb
HFS 95.50 330 eP 37 16.50 -0.2
0.6s 0.90nm 4. 4mb
S.D. = 1.1 on 15 of 18 obs.

* AUG 26, 1991 21h 52m 45.07± 2.60s
29.856 S ±20. 7km 70.643 W ±19. 4km
DEPTH = 10.0km (geophy s i c i s t)
CENTRAL CHILE (136)

RTLL 2.38 129 iPd 53 24.20 -0.6
ZON 2.39 135 eP 53 25.00 0.1
JACH 2.82 179 iPd 53 32.00 0.9
iS 54 03 . 00
ROCH 3.12 186 eP 53 36.50 1.0
i S 5411.50
PEL 3 . 28 181 eP 53 38 . 00 0.4
iS 5414.50
LCCH 3.69 192 eP 53 43.00 -0.4
LNV 4.14 189 eP 53 48.00 -1.7
i S 5434.00
CYA 4.47 73 eP 53 54 . 60 0.2
S 54 45 . 00
S.D. -1.0 on 8of Sobs.

» AUG 26, 1991 21h 55m 10.99± 0.68s
6.704 N ±13. 0km 94.806 E ± 1 2 . 2 km
DEPTH - 33.0km (normal)
4 . 3mb (8 obs .)
NICOBAR ISLANDS REGION (704)

BSI 1.29 158 eP 55 25.00 -7.9X
e 03 00. 00
IPM 6.54 109 ePd 56 47.70 0.3
e 5749. 90
e 5903. 30
BDT 11.25 21 eP 57 52 . 70 0.1
CHG 12.69 18 eP 58 21.00 8.9X
GBA 18.41 293 PC 59 32.30 6.8X
0.9s 8.70nm 3. 9mb
HYB 19.11 305 eP 59 40.00 5 . 9X

KMI 19.83 22 Pgc 59 49.50 7.3X
Sg 00 49.00
LZH 30.39 15 eP 01 28.50 5.9X
1.8s 22 . 00nm 4 . 7mb
BJ 1 38 . 33 27 eP 02 32 . 00 1.5
WRA 47.05 125 P 03 42.00 0.3
2.1s 1 . 40nm 3 . 6mb
WR2 47.07 125 eP 03 40.20 -1.6
0.5s 2 . 1 0nm 4 . 4mb
ASPA 48.66 130 eP 04 11.30 17. IX
1.4s 4 . 1 0nm
VR 1 70.00 316 eP 06 20.00 -1.5
SLR 72.13 240 iPc 06 37.00 2.1
e 07 36.50
ZST 76.84 318 eP 07 07.40 6 . 0X
HFS 79.79 330 eP 07 17.40 0.1
0.4s 0.90nm 4.1mb
Z 1 7s 0 . 62um 5 . 0MszX
LR 4513.00
NB2 81.07 331 P 07 23.30 -0.8
0.9s 1 . 50nm 4 . 0mb
LPG 83.91 315 eP 07 39.20 -0.2
0.8s 4 . 05nm 4 . 6mb
LPL 83.92 315 eP 07 39.10 -0.3
0.7s 4 . 40nm 4 . 7mb
S.D. =1.3 on 11 of 19 obs .

AUG 26, 1991 2 1 h 56m 13.61± 0.27s
6.669 N ± 6.1km 94.661 E ± 4.5km
DEPTH = 33.0km (normal)
5.0mb (31 obs.) 4.7Msz (1 obs.)
NICOBAR ISLANDS REGION (704)
CENTROID. MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 10S, 21C
Cen t r o i d Loca t i on :
Origin Time 21:56:15.42.3
Lot 6.97N 0.13 Lon 95.03E 0.23

Dep 35.612.1 Ha I f -d u r a t i on 1.8
Moment Tensor; Scale 10**16 Nm
Mrr=-0.17 0.66 Mtt--8.l9 1.00

NNT
KHT
KGM
PCT
LOE
KOD
GBA

KKM
LZH

OUE
BJ I

MA 1 0
W A R B
WR2

ASPA

MAT
OIS

LAT
STK

YAK
TOO
MTD
OBN
KR 1
VR 1
BUL
OHR
KAF

NUR

SPC
KRA
SOD
SRO
KEV

ZST
TDS

n i 1* L I
KTK 1
VKA
KSP
UPP
VBY
LJU
CEY
PRU

VOY

KHC

KBA
ARV
BHG
FV I
CLL
MNS
HFS

CRE
SF I

Mff- 8.36 1.30 Mrt- 2.37 1.95
Mrf- 6.12 2.25 Mtf= 1.78 0.78
P r i n c i pa 1 Axes:
T Val= 11.92 Plg=28 Azm=279
N -3.08 58 66
P -8.84 15 181

Best Double Cou p I e : Mo= 1 . 0 « 1 0 « * 1 7
NP 1 : S t r i ke=3l 7 Dip=59 Slip- 170
NP2: 52 81 31

7.72 40 eP 58 06 . 00 -0.6
8.94 25 eP 58 22. 30 -1.2
9 . 79 1 1 8 eP 58 33. 70 -1.6
10. 36 39 eP 5844.00 0.9
12.71 32 eP 59 15. 50 0.6
17.37 283 eP 00 18 . 10 2.5
18.29 293 PC 00 28. 30 1.6
0.8s 1 3 . 50nm 4 . 2mb
21.43 90 ePd 01 03 .00 1.7
30.47 15 eP 02 26. 00 0.2
2.0s 35 . 00nm 4 . 8mb
Z 18s 1 . 53um 4. 7Msz
E 11s 1 . 38um

pP 02 33.00 24kmX
PP 03 29 . 00
35 . 00 3 1 5 eP 0305.40 0.0
38 . 43 27 eP 03 36 . 00 2.1
N 16s 3.50um
43.62 318 eP 04 09.00 -7.8X
45.05 1 38 eP 04 29 . 00 0.6
47.17 125 i PC 04 44.50 -0.7
0.5s 1 3 . 30nm 5 . 2mb
e 05 45 . 30
48. 75 1 30 eP 04 54 .70 -2. 8X
1.1s 6 . 80nm 4 . 6mb
49.59 47 eP 05 06 . 00 2.1

51.79 123 e(P) 05 20. 00 -0.7
e 05 30.00
53.87 103 iPd 05 16.80 -19. 5X
58 . 91 1 33 eP 0612.80 0.8
0.4s 2 . 00nm 4 . 6mb
60. 97 18 i PC 06 25 .20 -0.5
64 . 63 1 37 eP 0651.00 0.6
66.56 249 ePKP 07 13.40 10. 2X
66. 65 328 eP 07 02.00 -1.0
68.40 249 ePKP 07 09.30 -5 . 6X
69. 93 316 eP 07 22 . 50 -1.1
70.16 246 i PC 07 28.30 2.7X
73 . 49 31 1 eP 07 40.00 -5. IX
74. 09 333 i P 07 47. 10 -0.9
0.8s 14. 90nm 5 . 0mb
74.44 331 eP 07 49.60 -0.5
0.6s 7.50nm 4. 9mb
74.80 319 e(P) 07 52.00 -0.7
75.11 320 eP 07 53.70 -0.5
75.51 338 i P 07 55.30 -0.9
75 92 3 1 8 eP 08 01 . 00 2.2
76. 14 341 eP 07 59 . 00 -0.7
i 08 04.80
76. 77 318 eP 08 03 . 00 -0.6
76. 79 309 P 08 04.20 0.3
76. 93 309 P 08 04 .40 -0.3
77 . 20 339 eP 08 05.67 0.1
77 . 29 318 eP 08 07 . 00 0.5
77.51 321 eP 08 07.20 -0.5
77 . 76 330 i P 08 08. 10 -0.6
77.85 315 eP 08 09.40 -0.2

78.38 316 e(P) 08 12.00 -0.6
78. 44 315 e(P) 08 1 1 . 50 -1.4
78. 57 320 eP 08 13 .50 0.0
e 08 21 .70
78 . 83 315 eP 08 14.70 -0.4
79. 00 320 eP 08 16.20 0.4
1.2s 14. 00nm 4 . 8mb
e 08 25.00
79 . 1 6 31 9 eP 08 16 . 50 -0.3
e 08 28.50
79.24 317 i Pd 08 16.70 -0.8
79. 44 313 P 08 18.50 0.1
79 . 57 31 7 eP 08 19. 10 0.1
79. 61 316 P 08 19.00 -0.2

79.61 321 e(P) 08 18.00 -1 . 1
79. 62 312 P 08 18.50 -0.9
79.75 330 eP 08 19.20 -0.5
0.5s 4 . 60nm 4 . 7mb
80. 16 31 3 P 08 22.30 -0.1
80. 24 313 P 08 25.30 2. 7X

260 22h

PGD 86
CT 1 80
WTTA 88
0 .

MOX 80
2 .
LOF 80
GPF 80
0.
MAO 80
N82 8 1
6 -
0GB 81
PGF 82
0 .
MOL 82
CK 1 82
CDF 83
0 .
SBF 83
0 .
W T S 83

0 . IPG 83
0 .
LPL 83
0 .
BN 1 83
HAU 83

0 . WLF 84
FRF 84
0.

LMR 84
0.
LRG 84
0.
DOU 84
LBF 85
0.
LOR 85
e.
SMF 85
0.
SSF 85
0.
MAF 86
0 .
CAF 87
0 .
LPO 87
0 .
EKA 89
1 .
ALO 134
S 1 V 154
20BO 160
S.D.

. 33 313 P 0823.70 0.3
. 39 315 P 0823.50 00
. 4 1 317 i PC 0821.66 -2.1
9s 27.20nm 5. 2mb
i 0823.36
i 68 3 1 . &0
. 47 320 i Pd 0824.96 1.1
0s 37.06nm 5.0mb
. 54338eP 6823.88 6.2
. 71 319 iPc 08 25 . 56 0.5
9s 1 4 . 00nm 5 0mb
. 75312P 6824.36 -1.1
. 03 331 P 6825.80 -0.7
9s 1 3 . 80 nm 5 . ftrnb
. 95314P 6831.70 6.0

, 343l2eP 6833.90 0.1
(is 9 . 40nm 4 . 9mb
80 332 eP 08 35.79 0.2
80 31 4 P 0836.56 0.5
33 318 eP 08 38 . 20 -0.6

(is 3 . 60nm 4 . 7mb
43313eP 0839.20 -0.2
Us 34 96nm 5 . 5mb
47 322 ePd 0846.56 1.2
7s 1 3 00nm 5 . 2mb
^ 83 31 5 eP 0841.50 -0.2
7s 19.30 nm 5 . 4mb
. 84 3 1 5 eP 6841.76 0.1
8s 27.55nm 5.5mb
. 91 315P 0842.26 6.3
. 97 31 8 eP 0841.60 -0.3
8s 1 4 . 80nm 5 . 2mb
. 00319P 6844. 0 6 20
. 02 313 eP 08 42 . 56 0.2
8s 1 3 . 45nm 5 . 2mb
. 13 313 eP 6842.60 -0.2
8s 9 . 40nm 5 . 0mb
. 233l3eP 0843.70 0.4
8s 17.45 nm 5 . 3mb
. 98 320 P 0848.20 1.3
. 64 317 eP 08 50 . 10 -0.3
8s 8 . 05nm 5 . 0mb
. 70 317 eP 08 50. 40 -0.2
8s 10. 05 nm 5 . 1 mb
. 77 316 eP 08 50 . 60 -0.4
7s 7 . 70nm 5 . 0mb
. 96 317 eP 08 51 . 90 00
6s 3 . 60nm 4 . 8mb
. 69 316 eP 08 55 . 40 -0.1
8s 5 . 35nm 4 . 8mb
. 18 315 eP 08 58 . 30 0.4
6s 3 . 1 5nm 4 . 7mb
. 83 315 eP 69 01 . 60 0.6
8s 1 0 . 75nm 5 . 2mb
. 00 326 Pd 09 05 . 06 -1.4
0s 8 . 60nm 5 . 0mb
. 06 24 ePKP 1531.06 0.8
. 49 247 PKP 16 13.00 8 . 4X
. 63 239 PKP 16 18.00 5 . 3X
= 0.9 on 82 o f 92 obs .

AUG 26, 1991 22h 52m 36 . 85± 1.48s
14.601
DEPTH
5 . 0mb
VANUATU

DZM 7

HNR 8

RMO 20
0.
COO 2 I
OLP 21

0 . CNB 25
CIS 27
STK 29
0.

BWZ 29
TOO 29
0 .
TUZ 31
WR2 31

S ± 7.2km 167.274 E ± 9.4km
- 232 .0 ± 12.5 km
(15 obs .)
1 SLANDS (186)

. 47 186 i PC 54 22 90 -1.2
i S 55 47 . 90
. 82 305 eP 54 43 . 60 1.5
eS 56 22 . 00
. 96 233 i Pd 57 15.66 12 . IX
5s 34 . 06 nm
. 28 219 eP 57 6*7 . 00 1.0
. 59 237 iPc 57 38. 26 0.6
8s 1 1 8 . 00nm 5 . 5mb
. 16 215 ePd 57 53. 00 1.1
. 01 253 eP 57 59 00 -0.6
. 08 229 i PC 5818.70 0.7
5s 23 . 00nm 5 . 1mb

iPP 01 20 . 40

eS 06 10. 40
. 91 1 76 P 5825.40 0.3
. 96216iPd 5826.60 1.0
8s 28.00nm 5. 0mb
. 32 177 P 58 37 . 10 -0.2
. 84 256 iPc 58 40. 56 -1.7

ASPA

MTN
KNA
WARB

KLB
MAT

CHG

SPA

MAW

SHL
GUN
PK I

KKN

DMN

GKN

GBA

KEV
SOD
OBN
KAF

MTD
BUL

NUR

NB2

HFS

SPC
BRG

CLL

PRU
ZST
MOX
KHC

SKO

GRF

OHR

MEM
VBY
WTTA

WLF
DOU
CDF

BSF

HAU

SOB!
ARV
SFI
PGD
CRE
DU I
ROI
CSI
AOU
IDS
SCO
FLN

ORX

0.4s

32 . 73
0 . 3s

35. 13
37.15
39 . 64
0.3s
48.17
57 . 79
0.4s
75 .03
1.0s
75.49
1 .2s
82.06
0 . 9s
83 .51
89 .34
89. 64
6.9s
89. 81
0.9s
89 .91
1.0S

96 . 42
1 . 1 s
93.20
1.0S

119.60
121 .38
124 . 59
125. 08
6.6s
126 . 28
126 . 67
6. 8s
126 75
6 .5s
136.50
6.8s
130. 66
1 .08

136 .21
137 .96
0 . 9s
137 .94

138.31
138. 43
139.66
139 . 37

139.84

139.92

140. 71
141 .61
141.26
141.64
0.6s

141.78
141 . 89
142.46
0 . 8s
143.12
0.6s
143.14
0.8s
143.40
143.78
144.03
144.13
1 44 . 20
144.21
1 44 . 25
1 44 . 36
144 . 33
144.34
144.42
144.47
6.8s
144.48

258

9 . 60nm
eS
e

249 i P d
27 . 6 3 n m
i S
268 ef
263 eP
247 i Pd
8 . 00 nm
241 eP
332 eP

If). 1 7 nm
294 ePc
1 1 . 5 0 n m
1 80 eP
1 9 . 6 1 nm
262 iPd
1 7 . e0nm
298 i P
299 PKP
299 PKP
33 . 60nm
299 PKP
46 . 66nm
298 PKP
66 . 60 nm
299 PKP
47 . 66nm
283 Pd
9 . 66nm
345 ePKP
343 ePKP
328 ePKP
339 iPKP
8 . 40 nm
236 iPKPc
231 i PKPc
7 . &9 nm
338 i PKP
1 5 . 0i3nm
345 PKP
4.26 nm
343 ePKP
7 . 66nm
329 ePKP
335 ePKP
1 6 . 66nm
336 e P K P
i
334 ePKP
336 ePKP
336 ePKP
333 ePKP
e
326 ePKP
i
336 ePKP
e
319 ePKP
341 PKP

4
63 35 . 60
03 41 . 60
58 48.06
5
03 49.16
59 16.66
59 26.i 2 6
59 48.10
4
00 55.30
02 64.60
4
03 5 6 .1 0 0
4

63 57,00
4
04 33,66
4
64 41 t 56
05 09, 14
65 10i 22
5
05 1696
5
65 11 56
5
05 1 3; 26
5
65 27 h 16
4
11 66 L 66
11 03.66
11 1 0 . 00
11 69 . 96

11 1 4 . 66
11 14.26

11 13.66

11 26.80

11 20;. 66

11 33 . 46
11 36. 66

11 36 . 66
11 37. 70
11 38. 36
11 37 . 06
11 37.06
11 38. 66
14 58. 56
11 31 . 56
11 39. 56
11 3 91 . 2 6
11 42.36
11 331.50
1 1 *«! AO

328 e(PKP)l1 36i.56
333 e(PKP) 11 39. 06
5 . 86nm
i
346 iPKPd
342 PKP
338 ePKP
5 . 35nm
338 ePKP
5 . 46nm
339 ePKP
8 . 05nm
129 ePKP
328 PKPc
329 PKPc
329 PKPc
329 PKPc
324 PKP
326 PKP
326 PKP
326 PKP
326 PKPc
322 PKPc
346 ePKP
1 8 . 80nm
335 PKP

11 49. 26
11 42 . 51
11 44.26
11 3S . 56

11 41 . 56

11 41J . 86

11 4-4 . 66
11 4^.46
11 4ii . 96
11 4<i . 1 0
11 4!> . 70
11 4!i . 76
11 4<i . 46
11 4<i . 66
11 4(i . 1 6
11 4<i . 40
11 4!i. 76
11 4ii. 86

11 4!). 74

. 8mb

- 1 . 9
. 4mb

- 6 . 4
- 1.1
6 . 3
7mb
- 6 . 5
- 2 . 2
8mb
1 .6
6mb
6.0
7mb
1 .8
8mb
1 .0
0.2
- 6. 1
3mb
6 . 0
4mb
0. 1
5mb
- 0 . 4
3mb
6.7
8mb
6.2
- 6. 2
6.2
- 6. 6

6.2
- 6.9

- 6.2

- 6.2

- 1 . 1

1 .6
6.7

0. 7

2.2
6. 7
- 6 . 3
- 6. 1

- 7.6X

6.2

- 7.3X
4 4 X
- 4.9X
- 3.4X

6.3
1 .7
- 4 .2X

- 3.3X

- 2 . 9X

- 2. 1
- 1 .6
- 6.4
- 6.6
- 1.1
- 1.1
- 6.5
- 6. 4
- 6.9
- 6.6
- 1.4
- 1 . 1

- 1 .5

BOB
MGR
BD 1
SDI
LDF

ACI
LOR

MNS
CZ 1
GR 1

LBF

P 1 1
GRR
SSF
LSD
LPL
RMP
LPG
PCP
RDP
RSP
SMF
AVF

LPF

CK 1
SOI
MAO
BN 1
GMB

F 1 N
RRL
BGF
ROB
DOI
PZZ
PLDF
ENR
STV
1 M 1
AGO
MAF

TCF

S8F

PYM
LSF

MFF

PGF

LBL
FRF

PZ 1

USI
LRG

LMR

CDR
RJF

CAF

LFF

LPO

CGL

LESF
VDCF
ETER
GRBF
EPF

144.53
144.53
144.54
144.54
1 44 . 55
6. 8s
144.60
144.62
0.8s
144.70
144.73
1 44 . 78
0 . 3s
144.83

e . 9s
144.83
144.91
1 44 . 92
1 44 . 96
145.08
145 .09
1 45 . 69
145. 1 1
145 . 1 1
145.17
145 . 1 7
145 . 26
0 . 8s
145.29
6 . 6s
145 . 32
145.44
145.48
145 . 48
145.51
6 . 5s
145.52
145 . 55
145.57
145.66
145.76
145.76
145.84
145 . 85
145 . 87
145.96
145 . 93
145.96
6 . 7s
146.61
1 .6s
146.13
6 . 8s
146 . 23
146 . 25
6.9s
146.46
0 . 8s
146 . 45
6 . 8s
146.61
146.71
6. 8s
146.78
6. 7s
146.86
146 .92
6 .9s
146 .96
6 . 9s
1 46 . 99
147.11
1 .0s
147 .27
1 .0s
147.68
6 .8s
147.77
6 . 8s
1 48 . 65
6 . 8s
1 49.22
1 49.22
149 . 29
1 49 . 36
149 .52
6 .8s

332 PKPc
321 PKPc
331 PKPc
325 PKPc
346 iPKPc
1 8 . 86nm
326 PKP
346 i P K P c
22 . 1 5nm
327 PKPc
326 PKP
31 9 PKP
7 . 1 0nm
346 i PKPc
37 . 65nm
336 PKPc
346 iPKPc
341 iPKPc
335 PKP
336 iPKPc
326 PKPc
336 iPKPc
333 PKP
326 PKPc
335 PKP
346 iPKPc
341 i PKPc
43 . 65nm
346 iPKPc
54 . 1 0nm
333 PKPc
318 PKPc
328 PKPc
335 PKPc
318 PKP
25 . 90nm
333 PKP
335 PKP
341 iPKPc
333 PKP
334 PKP
334 PKP
346 PKP
334 PKP
334 PKP
333 PKP
340 PKP
341 iPKPc
18.75nm
341 iPKPc
38 . 00nm
333 iPKPc
95.35nm
346 PKP
342 iPKPc
46 . 95nm
344 iPKPc
45 . 65nm
336 iPKPc
83 . 36nm
J 7 Jy "X ft r PI/ l\ rP
334 iPKPc
69 . 85nm
317 PKP
19.26nm
321 PKP
334 iPKPc
58.95nm
334 iPKPc
58.95nm
335 ePKPc
341 iPKPc
46 . 66nm
346 iPKPc
34 . 60 nm
342 iPKPc
61 . 80nm
341 iPKPc
48. 35nm
326 PKP
7 . 60nm
346 PKP
338 PKP
337 iPKPc
339 PKP
341 iPKPc
1 8 . 15nm

11 46 . 86
11 45.60
11 45.76
11 46.16
11 46.26

11 47.76
11 47.20

11 46.60
11 47.66
11 48 . 36

11 47 . 66

11 46.30
11 47.76
11 48 . 20
11 48.92
11 49.26
11 48.36
11 49 . 36
11 47 . 99
11 48.46
11 47 .89
11 48 . 86
11 48.86

11 49.26

11 48.26
11 49.56
11 49.46
11 56. 16
11 56.11

11 48.51
11 50. 64
11 56. 26
11 48.81
11 48.46
11 49.43
11 51.13
11 48.81
11 48 . 90
11 56.56
11 51 .69
11 51.46

11 51 . 40

11 51 . 70

11 52.28
11 52.96

11 52 . 60

11 52 .76

11 53 . 96
11 53 . 46

11 53 .95

11 53.26
11 54.26

11 54 .26

11 54.16
11 54 . 86

11 55.56

11 56.46

11 56.86

11 58.93

12 66 . 44
11 59.83
12 06.27
12 00.02
12 60.96

- 6.5
- 1 .7
- 1.6
- 1 . 3
- 6 . 9

6.2
- 6 . 1

- 1 . 0
- 6 . 6
6.5

- 6 . 1

- 1.4
6.6
6.5
6.7
6. 8
6 . 1
6. 8
- 6. 2
6 . 1
- 6.5
6. 6
6.6

6.9

- 6.3
6.6
6 .6
1 . 1
6.9

- 6. 4
6. 8
1 .3
- 6.3
- 6.9
0.6
1 . 7
- 0. 7
- 6.7
1 .0
1 .6
1 .9

1 . 8

1 . 7

2.2X
2.0X

2 . 4X

2. IX

3 . 3X
2. 6X

2. 8X

2. 6X
3. 1X

3. 6X

2.8X
3. 4X

3. 8X

4 . 1 X

4.3X

4.8X

5. 6X
5. 6X
5.3X
5.0X
5.6X

259

26d 23h

ENSF 149.73 341 PKP 12 62.62 6.9X
JAU 149 74 342 PKP 12 02.35 6.6X
MADF 149.77 343 PKP 12 01.30 5.6X
ATE 149.79 342 PKP 12 01.64 6.0X
ISSF 149.87 342 PKP 12 02.55 6.6X
LHt 149. 93 34 2 PKP 1202.73 6.7X
EGRA 159.49 341 ,PKPc 12 03.47 6.8X
ECRI 150.73 344 iPKPc 12 04.37 7.2X
EMON 150.89 352 iPKPc 12 03.97 6.6X
ESEL 151.43 334 iPKPc 12 05.63 7 4X
EROO 151.48 339 iPKPc 12 05.27 7.0X
STS, 151.59 354 iPKPc 12 05.50 7.2X
ERUA 151.89 351 «r P K P 12 66.53 7.7X
ETOR 152.27 342 iPKPc 1? 07.88 S.3X
C- U D 153.dO 346 i P K P c 12 09.50 8 . 9 X
EVIA 154.41 341 iPKPc 12 12.61 10. 1 X
S.D. = 1.0 on 102 of 148 obs.

AUG 26, 1991 23h 14m 56.89± 0.52s
38.402 N + 5.6km 21.004 E ± 3.6km DEPTH - 9 . 4 ± 3.4 km
3 . 6mb (2 obs .)
GREECE (364)
ML 3.4 (ATM) .

VLS 0.40 236 ePg 15 65.60 0.0
eSg 15 14.20
AGG 1.21 59 eP 15 1 B . 20 -1.3
KEK 1.61 325 iPbc 15 26.90 1.4
eSn 15 55 . 50
LIT 2.05 34 eP 1532.30 0.4
eS 16 01 . 90
ATH 2.18 161 <=Pn 15 34.00 0.2
VLI 2.28 137 ePb 15 36.00 0.8
FNA 2.40 7 eP 1537.90 1.0
THE 2.69 34 eP 1541.80 0.7
OHR 2.71 357 iPn 15 42.80 1.4
LCI 3 0 5 3 1 fl P 1544.80 -1.3
eSn 16 20.60
KNT 3.12 27 e P 1547.10 00
VAY 3.15 22 ePn 15 48.00 0.4
SRS 3.37 36 eP 15 50.40 -0.2
RO 1 3.65 290 P 1556.50 1.8
BRT 3 . 84 31 1 P 15 57 .60 0.3
eSn 16 42.30
TDS 3.84 291 P 15 57.70 0.2
eSn 1640.20
CZ 1 3 . 89 284 P 1558.80 0.7
eSn 1646.00
SO I 3.91 267 P 1557.20 -1.1
eSn 16 39.20
CSI 3.92 292 P 15 59.40 0.9
eSn 16 47.00
MMN 4.17 292 P 16 04.60 2.6X
BA I 4 . 19 312 P 16 01 . 50 -0.7
RDO 4.44 50 ePn 16 05.70 -0.1
MGR 4.57 294 P 16 07.70 0.0
eSn 16 58.30
SCO 4.90 298 P 16 13.00 0.5
MEU 4.99 257 P 16 10.20 -3.5X
eSn 1708.80
HVAR 5.89 326 iPnd 16 23.90 -2 4X
i Sn 17 31.40
DU 1 5.99 305 P 1628.20 0.4
SD 1 6.43 303 P 16 33.40 -0.6
ASS 7.86 309 P 16 54.20 0.0
ARV 7.94 312 P 16 53.40 -1.8
VR 1 8 . 59 28 <=P 1704.00 -0.1
CRE 8.60 310 P 17 03.30 -1.2
TRI 9.87 326 P 17 08.00 -2.8X
FVI 10.19 326 P 17 23.70 -2 . 4X
CT I 10.31 321 P 17 25.20 -2 . 9X
NFS 22.24 350 eP 19 52.40 -2.8X
0.4s 4 . 1 0nm 4 . 2mb X
NUR 22.25 5 eP 20 06.00 10. 8X
EKA 23.47 324 P 20 06.00 -1.2
1.2s 9 40nm 4 . 2mb X
NB2 23.48 348 P 20 04.80 -2.5X
0.7s 1 . 1 0nm 3 . 5mb
KAF 23.96 6 eP 20 09.30 -2.6X
0.4s 0.90nm 3.7mb
S.D. = 1.0 on 30 of 40 obs.

7. AUG 26, 1991 23h 47m 56.58± 0.62s
38.884 N ± 5.0km 15.941 E ± 1 2 . 0 km DEPTH - 5.0km (geo phy s i c i s t)
S 1 C 1 LY (398)

CZ 1 0.37 24 P 48 04. 00 0.1
ACI 0.51 24 P 48 07 . 40 0.6
ATN 0.81 208 P 48 13 . 10 0.3
eSn 48 24 . 60
SO I 0 . 82 1 74 P 4812.70 -01
eSg 48 22.80
TDS 0.83 22 P 48 12. 90 -0.3
eSn 48 24 . 30
RO I 0.84 35 P 48 12.50 -0.9
CSI 0.93 1 7 P 48 15. 60 0.8
MMN 1.01 2 P 4816.20 0.2
eSg 48 29.00
MGR 1.29 347 P 48 20.20 -0.7
eSn 48 37.50
S.D. =0.6 on 9 of 9 obs .

? AUG 26, 1991 23h 57m 22.21± 1.24s
6.052 N ±32. 6km 94.356 E ±15. 7km
DEPTH = 33.0km (normol)
4 . 4mb (5 obs .)
NICOBAR ISLANDS REGION (704)

I PM 6.80 102 ePd 59 02.00 -0.3
GBA 18.27 296 P 01 46.00 1 1 . 0X
0.7s 4 . 90nm
OUE 35.23 316 eP 04 15.20 -0.8
BJ I 39.11 27 eP 04 49. 00 0.8
VR I 70.16 317 eP 08 22.00 -11. 7X
KAF 74.50 333 eP 08 57.90 -1.1
SOD 75.97 338 iP 09 06.20 -1.2
KEV 76 . 62 341 eP 09 12.00 1.1

ZST 77.02 318 e(P) 09 13.20 -0.4
HFS 80.13 330 eP 09 29.70 -0.6
0.5s 1.10nm 4.1 mb
GRB5 80.66 319 e(P) 09 34.00 0.6
0.7s 4 . 00nm 4 . 5mb
NB2 B1.41 331 P 09 36.60 -0.5
1.0s 1 . 90nm 4 . 1 mb
LPG 84.05 315 iPd 09 52.40 1.0
0.8s 4.70nm 4. 7mb
LPL 84.06 315 iPd 09 52.80 1.5
0.6s 2.70nm 4. 6mb
MBC 95.53 8 eP 11 01.00 16. 2X
INK 9B.67 16 eP 11 05.00 5.9X
S.D. =1.0 on 12 of 16 obs .

» AUG 27, 1991 01h 05m 1 2 . 1 8± 0.75s
45.221 N ± 5.4km 7.008 E ± 8.0km
DEPTH = 10.0km (geophy s i c i s t)
NORTHERN ITALY (545)
ML 1.8 (GEN) .

RSP 0 . 1 9 1 1 1 P 05 16 . 62 0.2
S 05 20. 10
LSD 0.26 24 P 05 17 .75 0.0
S 05 21 . 95
LPG 0.33 327 Pg 05 19.10 0.0
Sg 05 23.50
RRL 0.34 208 P 05 19.59 0.3
S 0524.41
PZZ 0.72 175 P 05 26.05 -0.4
S 05 34 . 87
S.D. =0.4 on 5of Sobs.

? AUG 27, 1991 01h 10m 35.13± 5.83s
3.830 N ±21. 0km 76.190 W ±25 . 1 km
DEPTH = 96.5 ± 57.2 km
COLOMBIA (103)
MD 2.6 (UVC) .

BUGC 0.09 313 eP 10 49.97 -0.3
eS 1 1 02.60
CLMC 0.38 278 eP 10 50.80 0.7
eS 1 1 04.00
HOBC 0.52 6 eP 1051.03 -0.1
HOOC 0.57 231 eP 10 51.50 -0.1
eS 1105.40
ANCC 0.74 245 eP 10 52.57 -0.4
eS 1107.10
SILC 1.14 188 eP 10 57.81 0.2
S.D. = 0.6 on 6 of 6 obs.

7. AUG 27, 1991 03h 20m 00.56± 0.79s
43.143 N ± 5.6km 10.996 E ± 7.6km
DEPTH = 10.0km (geophy s i c i s t)
CENTRAL ITALY (381)

P I 1 0.67 329 P 20 13 .70 -0.2

eSg 20 22.00
MAO 0.73 171 PC 20 15.00 0.0
eSg 20 25.80
CRE 0.85 55 PC 20 17.00 0.0

eSg 20 28.90
PGD 0.90 36 P 2018.00 0.0

eSg 20 31.20
BD I 0.96 343 P 2018.90 0.0
eSg 20 31.10
SF 1 1.00 38 P 20 19 . 30 -0.1
eSg 20 32.60
MME 1.07 349 P 20 21 . 20 0.3
eSg 20 36.70
S.D. =0.2 on 7of 7obs.

& AUG 27, 1991 04h 14m 30.40s
37 . 298 N 1 22 . 41 7 W
DEPTH = 12.0km
CENTRAL CALIFORNIA (39)
<BRK> . ML 2.5 (BRK) .

PCC 0.20 8 iPd 14 34.58 -0.4
IS 1437.77
GCC 0.43 128 eP 14 38.37 -0.9
BKS 0.60 14 eP 14 41.90 -0.4
eS 1 4 49 . 85
MHC 0.62 86 ePd 14 42.65 -0.1
eS 14 51 . 30
ZSP 0.66 11 iPc 14 43.47 0.2
iS 14 54 .59
ARN 0.71 86 eP 14 43.66 -0.5
SAO 0.94 124 iPc 14 47.17 -1.0
eS 1 5 00 . 47
PRS 1.28 139 eP 14 53.91 0 0
iS 1 5 1 0 . 99
LLA 1.36 120 ePc 14 54.35 -0.8
PRI 1.82 129 iPc 15 06.36 4.5
FRI 2.19 97 eP 15 05.98 -1.1
11 obs. associated

* AUG 27, 1991 04h 16m 16.87± 0.78s
20.855 S ± 7.9km 68.775 W ±11. 9km
DEPTH - 123.3 ± 10.7 km
5 . 0mb (1 obs .)
CHILE-BOLIVIA BORDER REGION (124)

ANT 3.22 20B eP 17 06.50 -0.3
eS 1 7 36 . 00
CNCB 4.09 1 1 P 1 7 19 . 50 0.3
LPB 4.35 9 P 1 7 23 .00 0.5
ZOBO 4.60 8 P 17 25.40 -0.7
ARE 5.07 329 i PC 17 26.50 -5.7X
iS 18 19 .00
SIV 8.77 58 iPc 18 18.80 -3 . 4X
NNA 11.73 318 eP 19 25.50 24. 0X
0.7s 4 . 1 1 nm
eS 21 07.00

ITB1 13.80 109 e(P) 19 35.60 7.2X
I TB 13.99 109 Pd 19 37.50 6.6X
PPD 16.30 97 eP 20 00.50 0.5
e 20 02.30
« 20 03.60
VAO 20.34 100 eP 20 44.60 -0.9
e 20 45.60
BAD 20.40 79 ePd 20 46.00 -0.3
BMA 22.93 99 eP 21 12.40 1.3
LIC 68.09 74 P 27 05.10 -0.6
TIC 68.27 74 P 27 06.30 -0.6
KIC 68.40 74 P 27 07.40 -0.3
0.7s 18.00nm 5. 0mb
WRA 133.57 211 PKP 35 22.00 0.9
2.1s 1 . 30nm
S.D. -0.8 on 12 of 17 obs.

? AUG 27, 1991 05h 14m 32 . 36± 2.36s
34.249 N ±68. 6km 92.161 E ±44. 3km
DEPTH = 33.0km (normol)
3 . 4mb (1 obs .)
OINGHAI PROVINCE, CHINA (325)

GUN 8.30 222 P 16 34.80 1.1
KKN 8.73 224 P 16 39.20 -0.4
PKI 8.83 223 P 16 41 .00 0.0
0.8s 23 . 00nm 5 . 4mb X
GKN 8.96 228 P 16 42.00 -0.6
1.0s 48 . 00nm 5. 6mb X

27<J 05h

DMN 8.97 224 P 16 42.76 -6.2

LZH 9.74 76 e(P) 16 53.60 -6.4
1.2s 1 5 . 00nm 5 . 1mb X
Z 12s 0 . 82um 4.4MS2
E 10s 6 . 74um

BJ 1 19.97 66 (P) 1905.06 0.4
e 23 06 . 00
e 2514.C0
WRA 67.26 137 P 25 32.00 6.5X
2.5s 0.80nm 3.4mb
S.D. =0.7 on 7 of 8obs.

? AUG 27, 1991 05h 25m 13.67± 5.90s

OFF COAST OF CENTRAL CHILE (134)

JACH 4.06 153 eP 26 15.00 6.7
ROCH 4.11 160 eP 26 16.00 0-0
RTLL 4.29 122 ePc 26 17.90 -0.4
PEL 4.38 157 iPd 26 19.60 0.0
i (S) 27 16 . 00
LCCH 4.46 168 eP 26 21.00 0.3
LNV 4.95 167 eP 26 27.00 -0.7
CYA & . 1 1 85 i P 26 44. 20 0.1
S.D. = 6.6 on 7 of 7 obs.

* AUG 27, 1991 05h 59m 36 . 1 3± 0.88s
8.603 S ±18. 5km 119.853 E ±14. 5km DEPTH = 33.0km (normal)
4 . 5mb (2 obs .)
FLORES ISLAND REGION (286)

MKS 3.38 354 i P d 06 83.70 -24. 2X
i S 6129.20
TRT 7.20 277 iPc 61 22.50 0.7
iS 02 08.60
KNA 11.24 130 eP 02 17.60 6.0
eS 04 18 . 00
MTN 11.85 112 eP 02 29.60 3. IX
eS 04 38. 60
M8L 12.48 180 eP 02 21.00 -13. 4X
0.2s 2 1 . 00nm
eS 04 17 . 00
NANU 14.49 196 eP 02 46.00 -14. 8X
eS 05 02.00
WR2 18.01 130 eP 03 31.70 -14. 0X
0.7s 3 . 00nm
i 03 45.50
iS 06 52.00

Q.3s 9.00 nm 4 . 4mb
ASPA 20.13 140 iPd 04 08.80 -1.6
0.7s 1 7 . 40nm 4 . 5mb
eS 07 42.20
8AL 22.09 187 eP 04 30.00 -0.2
OIS 22.48 124 eP 04 36.00 1.9
i 04 43 .50
e 08 40.00
KLB 22.96 185 eP 04 41.00 2.3X
eS 08 31 . 60
MUN 23.50 188 eP 04 49.00 5.0X
eS 08 40 . 60
GUN 48.96 319 P 08 26.00 4.0X
PKI 49.04 318 P 08 22.10 -0.5
GKN 49.84 318 P 08 28.10 -0.4
S.D. =1.3 on 7 of 16obs.

? AUG 27, 1991 06h 05m 58.57± 0.98s

DEPTH = 5.0km (geo phy s i c i s t)
SPAIN (377)
mbLg 2 .9 (MOD) .

STS 0.38 356 iPgd 06 06.20 0.6
eSg 0611.40
EZAM 0.39 201 iPgc 06 06.30 0.0
eSg 06 1 1 . 30
ERUA 1.02 96 ePg 06 18.40 0.1
eSg 06 32.40
EMON 1.27 43 ePn 06 22.50 -0.1
eSn 06 38.60
S. 11. -0.1 on 4of 4obs.

? AUG 27, 1991 07h 56m 54.54± 4.84s
10.3 F 6 N ±30- 6km 61.838 W ±35. 4km
DEPTH - 33.0km (normal)

266

TR 1 N 1 DAD

MD 3.3 (TRN) .

TCE 0.33 1 5 iPd 5702.
eS 5713.
TPP 0.39 99 feP 57^3.
eS 57 1 4 j
TRN 0.51 58 eP 5704.
feS 5717.
TBH 0.77 82 eP 57 09.
eS 57 25

eS 5818,
S.D. =0.9 on 5of

? AUG 27 , 1991 08h 31m 37 ,
1 . 943 S ±32. 5km 79.859
DEPTH - 100.8 ± 42.9 km
4 . 1mb (1 obs .)
ECUADOR

TUNG 1.51 70 P 32 65.
GGP 2.16 36 Pd 3213.
OTO 2.17 38 P 3213.
S 32 38.
OUR 2.21 37 P+ 32 13.
S 32 41 .
YANA 2.23 35 Pd 32 13.
COTA 2.73 34 i Pd 32 20.
i S 32 55.
CAYA 2.75 43 eP 3221.
Si V 23 . 1 8 128 P 36 36.
ALO 44.36 328 eP 39 40.
0.9s 2 . 73nm
S.D. =0.5 on 9of

? AUG 27, 1991 08h 32m 53;.
44.992 N ±10. 3km 9.706
DEPTH = 5.0km (geophysli
NORTHERN ITALY

BOB 0.29 219 Pd 32 58.
eSg 33 03.
SAL 0.85 43 P 33 09.
eSg 33 24.
BD I 1 . 13 1 45 P 3314.
eSg 33 31 .
CK 1 1 . 1 6 241 P 3315.
e S g 33 30.
S.D. =6. 6 on 4 of

? AUG 27, 1991 08h 35m 52.
32 . 560 S ±30. 8km 71 .718
DEPTH = 10.0km (geophysi
NEAR COAST OF CENTRAL CHILE

ROCH 0.72 125 i Pd 36 07.
iS 36 17.
LCCH 0.92 172 eP 36 10.

iS 36 22;.
JACH 0.96 98 iPd 36 10.
iS 36 24 .
PEL 1 . 05 1 24 i Pd 3612.
iS 36 26|.
SAN 1 .26 135 eP 36 1 3 .
iS 3631.
LNV 1 . 42 1 70 i P 36 1 8 .
iS 36 39 .
S.D. =0.2 on 6of

» AUG 27 , 1 99 1 08h 39m 31 .
55 . 767 S ±1 1 .0km 27.013
DEPTH = 33.0km (normal)
5 . 2mb (3 obs .)
SOUTH SANDWICH ISLANDS REGJO

A 1 A 20 . 33 227 eP 44 0!! .

NVL 22 . 45 1 47 (P) 44 30 .
e 44 3!?.
e 44 3''.
PPD 38 . 22 322 eP 4651.
MAW 40.32 144 eP 47 0i3.
S 1 V 47 . 45 313 Pd 48 0 5 .
SOB1 47.71 341 eP 4B 03.
CNCB 49.77 305 eP 48 2:5.

LP8 50.07 305 P 48 2j.
20BO 56.31 305 P 48 27.

(98)

15 -6.5
37
05 -0.4
80
78 -0.5
31
72 0.8
07
54 0.6
1 4

52± 4.99s
W ±47 . 3km

(107)

00 0.4
20 -0.2
40 0.0
50
40 -0.4

60 -0.5
80 -0.1
30
90 0.7
00 -0.2
00 0.2
4 . 1mb
9 obs .

12± 1 .62s
E ± 9 . 4km
cist)
(545)

60 -0.4
70
80 -0.1
00
90 0.1
90
70 0.4
80
4 obs .

32± 5.13s
W ±24 . 5km
cist)
(135)

00 0.3
00
00 0.1
60
60 0.0
00
00 -0.1
00
50 -0.2
80
00 -0.1
20
6 abs .

73± 0 .55s
W ±1 4 . e km

N (153)

50 1.2
00 1.4
00
00
10 1.0
00 1.0
60 -1.5
40 1.3
00 1.4
10 -0.6
00 -0.7

1

CSY 54.13 160 eP 48 53.66 -1.5
6.7s 24 . 76nm 5 . 3mb
LIC 64. 40 24 P 50 06. 86 0.3
0.7s 24 . 00nm 5 . 4mb
KIC 64.59 25 P 50 08.02 0.1
TIC 64.80 24 P 50 09.18 -0.1
WRA 102.95 162 Pdiff 53 26.00 -1.8
0.9s 1 . 1 6nm 4 . 6mb
MBC 143.76 336 ePKP 58 59.00 -4.1X
INK 145.64 321 ePKP 59 05.60 -1.5
F8A 150.40 312 ePKP 59 1 6 . &0 2.6X

S.D. =1.3 on 15 of 17 obs.

18.037 S ± 3.2km 178.485 W ± 3.3km DEPTH - 599.4km (5 depth phases) 5 . 2mb (49 obs .)
FIJI ISLANDS REGION (181)
CENTROID, MOMENT TENSOR (HRv)
Data Used: GDSN
L. P .8 . : 18S, 31C
Centroid Location:
Origin Time 08:51: 2.9 0.5
Lot 17.74S 0.05 Lon 178. 36W 0.04

Dep 618.1 3.0 Half-duration 2.1

Mrr= 1.30 0.65 Mtt=-0.34 0.09
Mff=-0.96 0.09 Mrt= 0.79 0.08
Mrf=-0.24 6.09 Mtf= 0.19 0.08
Principal Axes:
T Vol= 1.63 Plg=68 Azm= 9
N -0.51 17 148
P -1.12 14 242

Best Double Co u p 1 e : Mo= 1 . 4 * 1 0 * * 1 7

NP2 : 1 38 61 70

MBU 2.87 291 eP 52 18.60 2.3
VUN 2.90 270 ePc 52 18.40 2.0
SVA 2.91 268 ePc 52 18.10 1.7
SGE 3.45 277 eP 52 22.50 2.7X
NDF 3.88 273 eP 52 19.10 -3.4X
eS 53 32.00
PVC 12.57 269 iPc 53 45.00 3.2X
BKM 12.64 270 iP 53 45.70 3.2X
DZM 14.72 252 iPd 54 04.30 1.5
IS 56 42.00
WCZ 18.93 198 P 54 46.90 4.2X
KUZ 19.33 194 P 54 49.10 2.7X

e 55 65.00 37kmX
NOZ 20.73 188 eP 54 59.80 0.6
RUZ 21.69 193 eP 55 07.20 -0.7
PGZ 22.95 190 eP 55 19.00 -0.2
0.3s 19. 00nm 5 . 2mb
MNG 23.10 192 eP 55 19.40 -1.2
0.3s 19. 00nm 5 . 2mb
CAW 23.65 192 P 55 24.20 -1.3
WDW 23.82 192 P 55 26.00 -1.0
MRW 23.85 193 P 55 26.00 -1.2
WEL 23.88 193 P 55 27.00 -0.5
TCW 23.92 194 eP 55 27.30 -0.6
THZ 24.77 196 P 55 34.80 -0.6
KHZ 25.23 194 P 55 38.40 -1.0
LTZ 25.89 196 P 55 44.10 -1.1
e 56 00 . 1 0 69kmX
MOZ 26.66 194 eP 55 50.60 -1.3
EWZ 26.95 197 P 55 53.90 -0.4
e 57 30. 10
AFR 27.33 93 iP 55 58.00 0.1
0.8s 95.00nm 5.5mb
PPT 27.52 94 iP 55 59.60 0.0
0.8s 75.00nm 5.4mb
PPN 27.66 93 iP 56 00. B0 0.0
0.8s 25 . 06nm 4 . 9mb
TVO 27.81 94 iP 56 02.20 0.0
0.8s 75 . 60nm 5 . 4mb
BRS 28.04 245 iPc 56 05.50 1.4
i (pP) 57 36.50
BWZ 28.16 198 P 56 03.80 -1.1
e 56 21 .50 76kmX
e 57 37 . 30
ODZ 28.42 196 P 56 06.60 -0.5
LRCZ 28.81 198 P 56 10.00 -0.6
MHZ 28.82 198 P 56 10.00 -0.7
SBC2 28.84 198 P 56 10.20 -0.6

261

27d 08h

LSCZ
PMO

TUZ
COO

VAH

TPT

RUV

SI Z
RMO

CNB

CTAO

PMG

CMS

OLP

LAT
TOO

TAU
STK

BFD

01 S

WR2

WRA

ASPA

GUA

PJG
MTN
FORK

KNA
WARB

AA 1

COOL

MBL

KLB

NWAO
RKG
BAL
MUN
B IP
NANU
PLP
CSY

CHJJ
1 IOJ
OFUJ

28.85
29 . 46
0.8s
29 . 54
29 . 65
0.8s

29.68
0.8s
29 . 73
0 . 8s
29 .92
8.8s
30.86
31.39
0.8s

33 .29
0. 2s
33 . 35

34 . 41
0 . 9s
34 . 90
1 . 0s
35. 42
0 . 6s

35 . 49
37 . 03
0 . 9s
38.10
38.51

e . 8s

39.10
0. 7s

39.56

44.51
0.5s

44.54
0. 6s
44 . 69
0.6s

47 . 83
0 . 6s
47 . 90
48. 72
49 . 85

50 . 39
51.17
0. 3s
54 .07

55 .83
0 . 4s
57 .88
0 . 4s
58 . 70
0 . 7s
59. 09
59.22
59.66
60 . 00
60 . 47
61.62
62.89
66 . 00
0.7s
67.17
67 .39
67.95

198 P
89 i P
30 . 00nm
197 P
240 i Pd
120. 00nm

j
j
89 i P
35 . 00nm
89 i P
50 . 06nm
89 i P
70 . 00nm
1 98 eP
249 i Pd
1 99 . 00nm

ipP
ePP
ePcP
eS
232 iPc
70 . 00nm
261 i Pd
i
eS
286 i P d
327 . 73nm
241 i Pd
281. OOnm
249 i Pd
366 . 0 0 n m
ePcP
eS
284 eP
731 i Pd
191 0 tfnm
222 i Pd
241 i Pd
71 . 4 0 rim
i
eS
233 i P c
78 . 00nm
e

259 iPd
i
266 i P c
1 88 . 60nm
i PcP
eS
260 P
133. 80nm
254 iPd
562 . 60nm
i
i S
eScS
309 eP
309 . 33nm
309 eP
269 eP
245 i Pd
e

264 iPd
251 iPd
31 . 00nm
279 ePd
eS
245 i Pd
33 . 00nm
256 i Pd
35 . 00nm
244 i Pd
76 . 60nm
242 eP
240 eP
245 iPd
243 iPc
291 ePc
254 i P d
293 eP
205 i P c
1 5 . 00nm
324 P
322 P
327 eP

56 10
56 16

56 17
56 1 9

59 05
01 53
56 18

56 18

56 20

56 28
56 43

56 58
58 1 0
59 1 8
82 05
56 50

56 49
57 12
64 36
56 58

57 03

57 07

58 47
02 12
57 07
57 21

57 29
57 33

59 29
02 46
57 38

58 36
57 39
57 42
58 18

59 49
04 08
58 18

58 20

59 49
04 12
07 12
58 43

58 44
58 50
58 58
00 08
59 02
59 08

59 28
59 30
59 40

59 54

00 60

0003
00 04

66 06
00 09
00 1 0
00 20
00 24
00 48

00 54
00 54
00 58

50 -0.4
50 0.2
5 . 0mb
40 0.8
56 1.6
5 . 6mb
00
00
00 -0.1
5 . 0mb
90 0.3
5 . 2mb
20 0.0
5 . 3mb
90 1.6
80 1 1 . 2X

00 57kmX
80
70
80
50 2.'0
5 . 9mb
50 0.4
00 98kmX
00
90 1.0
6 . 0mb
20 1.4
5 . 8mb
00 0.9
6 . 2mb
70
20
60 0.8
30 2.0
5 . 7mb
60 1.8
10 1.8
5 . 3mb
50
90
10 2.0
5 .3mb
00 284kmX
70 -0.3
70 1 0kmX
30 -0.6
5.9mb
00
10
00 -1.1
5 . 6mb
40 0.1
6 . 3mb X
60 468kmX
70
90
60 -0.6
6 . 0mb
10 -0.6
00 -0.9
40 -0.6
00 334kmX
40 -0.7
40 -0.4
5 .2mb
00 -1.5
00
50 -1.1
5 . 0mb
90 -0.7
4 . 9mb
46 -0.6
5 . 0mb
50 0.0
00 -0.4
70 -P> 7
60 0.0
00 -2.8
30 0.1
00 -4.4X
30 1.2
4 . 5mb
00 -0.7
90 -1.2
40 -0.9

MAT

N 1 IJ
YAMJ
MTMJ
CVP
KKM
KUSJ
ADK

P 1 P
SMY
ASAJ
SON
SSE

SYP
GCC
PRS
PCC
SAO
BKS
PR 1
LLA
FOX
FHC
PAS
MWC
RVR
FRI
PLM
SBB
PEC
1 SA
CMB
woe
ORV
M 1 N
KDC
CLC
TPC
GSC
GLA
TNP

RSO
SVW

SLKM
PGC
TTA
PWA
PMR

SNG

MAW
BJ 1

TOA
BALM
PNT

NEW
PV09
FBA
ALO

ANMO

LRM
BW06

KM 1

BDT

CHG

GOL

67.97 323 i Pd 00 58.10 -1.4
0.6s 36.67nm 5.1mb
68 . 02 324 P 00 57 90 -1.9
68.13 326 eP 60 59.90 -0.6
68 . 23 323 P 0100.20 -1.0
68.61 298 eP 01 03.50 -0.2
68.70 284 ePd 01 04.10 -6.4
69.60 332 P 0167.80 -1.3
69.64 1eP 0107.60 -1.5
0.7s 71.90nm 5. 3mb
69.91 298 iPd 01 10.50 -0.9
70.76 355 eP 0114.20 -1.4
7 1 . 33 332 P 0119.70 0.5
74.67 1 1 eP 01 36 . 50 -1.3
75. 77 310 Pd 0144.50 6.2
1.0s 1 7 . 6 0 n m 4.5mb
2 16s 0.30um 4.7MszX
eS 05 32.00
76 . 30 46 eP 0148.00 0.6
76.36 43 i PC 0148.03 0.6
76 .37 44 i PC 0148.51 0.9
76.38 43 i PC 0147.90 0.3
76.57 44 i PC 0149.05 0.4
76.69 43 i PC 0149.80 0.5
76.73 45 i PC 01 50.67 1.0
76.82 44 iPc 01 50.74 0.7
77.17 40 i PC 01 52. 81 1.1
77 . 34 39 eP 0154.10 1.3
77 . 36 48 eP 01 53.00 0.0
77.48 48 eP 0154.00 0.2
77.84 48 eP 0156.60 0.5
77 . 85 44 iPc 01 55. 74 0.3
77.87 49 eP 0157.00 1.1
77 . 89 47 eP 01 56 .00 0.2
77 . 94 48 P 01 56 . 00 -0.1
77.96 46 eP 0156.06 -0.2
77.98 43 i PC 01 56 . 69 6.4
78. 09 40 eP 0157.53 6.9
78.14 41 iPc 0157.15 P. 2
78.53 41 iPc 01 58. 93 -0.3
78.53 1 4 eP 01 58 . 30 -0.3
78.64 46 eP 02 00 . 60 0.2
78. 84 49 eP 02 02 .00 1.2
78. 92 47 eP 02 02 . 00 0.7
79.19 50 eP 02 04 . 00 1.3
80. 10 45 P 02 07 .50 0.0
1.0s 45 . 00nm 4. 9mb
pP 04 12.90 592km
80.94 1 3 P 0209.70 -1.6
80 . 98 1 1 P 0210.10 -1.2
0.8s 4 1 . 38nm 5.0mb
81 .53 1 4 P 0212.70 -1.4
82 . 46 33 eP 0219.00 0.2
82.61 1 0 eP 0219.70 0.2
82. 63 13 eP 02 18. 70 -0.8
82.74 14 ePc 62 19.60 -3.4
0.7s 32 . 90nm 5 . 0mb
83 . 62 280 eP 0227.20 1.8
0.9s 70.59nm 5. 3mb
83. 72 200 eP 02 27 . 00 2.1
83. 82 315 eP 02 26 . 06 0.1
2.0s 1 53 . 00nm 5 . 3mb
eS 1148.00
83.88 15 ePc 0226.20 0.4
83.96 1 7 P 02 25 . 40 -0.9
84.88 34 ePc . 02 31 . 00 6.1
0.8s 64.00nm 5. 3mb
85 .66 36 P 02 34.00 -0.7
85. 84 47 P 02 36 30 0.2
85.95 13 i PC 02 34 . 80 -0.9
86 .23 52 eP 02 38 . 00 0.1
1.0s 2l.75nm 4. 8mb
epP 04 47.00 601 km
86 . 23 52 P 02 37 . 90 0.0
0.9s 18.49nm 4. 8mb
pP 04 47.80 606km
87 . 12 40 eP 02 42. 50 0.5
87 . 50 43 P 02 43. 1 0 -0.7
0.8s 25.00nm 5.0mb
pP 04 53.40 606km
87 .82 297 PC 02 47 .50 1.9
1.5s 80.00nm 5. 3mb
88.41 289 eP 02 49.50 1.4
0.6s 1 7 . 90nm 5.1mb
88.98 290 ePd 02 52. 10 1.3
0.9s 24 . 37nm 5 . 1mb
89.00 48 P 02 50 .80 0.0

GLD

SES

LZH

RSSO

1 NIK

ACO
r« A

MBC

KEV
MA 1 0
SOD
SOB1
KAF

BUL
NUR

MTD
NB2

HFS

KVT
DMU

DON

OLF
ETA
VAL
CFR

Wl T
KSP

VR I

BRD
BBTK
ECP

BMR
SPC
TLB
CLL

BRG

HR I
I SR
WTS

MLR
MML
LWI
PRU
MOX
EYL
LFK
BNS

MKT
UCC
SRO
KOE
MEM

BUD
ZST

0.9s
89 . 13
1.1s
90 . 1 6
0.8s
90 .91
1 . 0S
Z 18s

91.71
0.9s
92 . 03
0.8s
92 . 39
94.48
0 . 8s
100. 48
1 . 0s
125.98
126.08
128.11
130 . 14
132 . 67
0. 6s
133.67
134.46
0 . 8s
134.47
136. 49
0. 7s
137 . 05
0 . 5s
142.56
143.62
0.8s
144. 10
0. 8s
144. 26
144.89
144 . 92
144.99

145.06
145.21
0 . 9s

145. 25

145. 33
145. 35
145 . 37
0. 7s
145. 40
145. 43
145. 45
145 57

145. 77

145. 80
145.85
145.86
0 . 9s

145.90
146. 31
146.41
146.45
146. 48
146.67
1 46. 82
146.84
0. 7s
146.94
147 . 24
147 .28
147.31
147.31

147.31
147 . 34

15.1 5nm
48 P
57 . 86nm
36 eP
96 . 00r»m
308 eP
55 . 00 nm
0 . 25um
i
44 P
32 . 53nm
1 5 eP
35 . 00nm
52 iPc
25 eP
7 . 56nm
12 ePdi f
7 . 00nm
349 iPKP
302 iPKPc
348 ePKP

1 1 9 (PKP)
344 iPKP
1 2 . 76nm
216 ePKP
344 iPKP
30 . 80nm
222 ePKP
353 PKP
4 . 80nm
351 ePKP
4 . 80nm
315 ePKP
8 iPKPc
205 . 00nm
9 iPKPc
154.00 nm
8 ePKP
8 iPKPc
13 i PKP
326 ePKP
e
355 ePKP
344 ePKPc
1 49 . 00nm
i c
e

329 iPKPc
e
328 ePKP
315 iPKP
9 iPKPc
170. 00nm
334 iPKPc
338 ePKP
326 ePKP
347 iPKP
i
pPKP
346 iPKP
i
i
epPKP
303 iPKPd
328 ePKP
354 ePKP
110. 00nm
i
329 iPKPc
302 iPKPd
236 i P K P d
345 PKP
348 iPKP
318 i PKP
308 iPKP
353 iPKPc
83 . 00nm
299 iPKPd
357 PKP+
339 iPKP
353 iPKPc
355 iPKPd
i
338 iPKPd
341 ePKP
i
e

02 51 .80

02 55 .70

02 59.50

05 08 .50
03 02.60

03 02.50

03 07.50
03 1 3.86

f 03 41 .50

08 52.80
08 54 . 00
08 55.00
09 02 . 00
09 03.90

09 08 . 50
09 08 . 50

09 09 . 60
09 00.00

09 03.30

09 22.00
09 24.10

09 25.80

09 26.50
09 28.50
09 28.90
09 29.00
24 53.00
09 30.00
09 28.70

09 30.30
11 50.80
09 29.50
25 02.00
09 30.50
09 31 .00
09 29.70

09 42.00
09 30.40
09 30.50
09 29 . 90
09 30.90
11 51.00
09 29 . 70
09 31 .40
09 33.20
11 52.00
09 37 . 70
09 31 .50
09 29 . 00

09 31 .80
09 31 .00
09 39 . 20
09 35.50
09 31.10
09 31 ,00
09 34.50
09 33,00
09 34.30

09 40.90
09 35.80
09 36 . 20
09 35,70
09 32.49
09 35.56
09 35.20
09 32.40
09 36.00
11 54.70

4 . 9mb
0.5
5 . 4mb
0. 1
5 . 8mb
0.0
5 . 5mb
4 . 7Msz
593km
- 0.5
5 . 4mb
- 1 .2
5 . 4mb
1 . 4
- 1.2
5 . 0mb
- 0.3X
5. 1mb
- 0.2
- 0.4
- 2. 1
- 0 .6
- 2.0

- 0. 8
- 0.8

- 1 .2
- 13. 3X

- 1 1 . 0X

- 2.8X
- 2. 0

- 1 . 1

- 0. 6
0 . 3
0.6
0.4

1 .5
- 6.2

0. 4

1 .2
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12. 7X
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7.2X
1 .3
- 0.8

0.6
7.9X
3. 3X
0.2
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2.8X
1 .0
2.8X

8 . 6X
3.7X
3.9X
3.5X
0.3

2.9X

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27d

TNS
GRF

L' LJ f r. n u A'ET
DOU
WL F
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r LN

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EZN
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ECH
L 1 BD
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1 ZM
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BSF

BSF
LPF

FV 1
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LOR

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158. 78
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TMA
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MMK
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352 iPKPc
348 iPKPc
345 P K P
346 P K P
356 iPKPc
354 iPKPc
344 iPKP +
352 PKP
312 i PKP
347 i P K P c
1 0 0 . 0 0 n m
3 ePKP
1 6 . 00nm
352 ePKP
6 . 55nm
352 PKP
344 iPKPd
i
i
320 iPKP
2 ePKP
5 . 35nm
353 PKP
352 PKP
3 ePKP
1 6 . 0 0 n m
354 PKP
346 i P K P c
99 . 50nm
i
e
317 ePKP
351 PKP
351 ePKPc
353 ePKP
6 . 70nm
353 PKP
3 <?PKP
1 6 . 00 nm
344 PKP
342 ePKP
i
286 iPKPd
1 35 . 00nm
351 ePKPc
347 ePKP
i
352 PKP
342 ePKP
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340 ePKP
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299 ePKPc
353 PKP
286 iPKP
1 62 . 00nm
348 ePKPc
342 iPKPc
327 iPKP
61 . 00nm
344 PKP
329 ePKP
85 . 00nm
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357 ePKP
4 . 05nm
0 . 1 0um
358 PKP
345 PKP
349 ePKPc
357 ePKP
1 0 . 00nm
357 ePKP
8 . 95nm
357 ePKP
6 . 00nm
349 ePKPc
357 ePKP
6 . 00nm
2 ePKP
8 . 1 0nm
358 ePKP
6 . 30nm
351 ePKPc
328 ePKP

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9X
7X
0X
4X
9X

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1 X
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1 X
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1 X
4X
1

6X
3

0X
3X
2
1

6X
1

0X
6

7X

3
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8X
3

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4X
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4X

5X
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0.6s 110. 09nm
i 09 46 . 00
i 09 57 . 50

TCF 151.82 359 ePKP 09 39.50 0.2
1.0s 1 8 . 00nm
MAF 151.88 358 ePKP 09 38.90 -0.4
0.8s 2 . 70nm
AGO 152.03 358 PKP 09 46.80 7 . 3X

PLDF 152.09 357 PKP 09 47.11 7.4X
RSL 152.10 352 PKP 09 47/45 7.6X
LPL 152.26 352 ePKP 09 41.10 0.9
0.7s 4 . 95nm
LPG 152.27 352 ePKP 09 41.;00 0.7
0.8s 7 . 49nm (
P'CM 152.34 358 PKP 09 47 85 7 .8X
BOB 152.53 348 PKP 09 40 .|00 -0.4
eS 1001.30
BNI 152.72 352 PKP 09 41. '90 1.2
SFI 152.76 344 PKP 09 41.|00 0.4
eS 10 93.00
RJF 152.81 360 ePKP 09 40.80 0.1
0.8s 1 6 . 1 0nm
PGD 152.84 344 PKP 09 40.80 -0.2
eSg 10 03.58
LBL 152.85 357 PKP 09 49.21 8 . 4X
LPO 153.43 1 ePKP 09 41.80 0.3
0.8s 8 . 05nm
MNS 153.93 341 PKP 09 41.70 -0.6
PGF 154.75 347 ePKP 89 43.40 -0.1
1.1s 24 . 40nm
LIC 166.64 151 PKP 09 56.! 60 0.1
KIC 166.89 151 PKP 09 56.80 0.1
TIC 167.01 150 PKP 0956., 90 0.1
LKO 169.10 140 PKP 09 57.12 -1.0
S.D. = 0.9 on 220 of 275 obs.

____ ______ ____________ . ___ _ _

% AUG 27, 1991 09h 42m 11.17± 1.11s
41.101 N ±11. 9 km 28.437
DEPTH = 10.0km (geophys
TURKEY

CTT 0.05 353 i Pg 42 13
I SK 0.47 94 i Pg 4229
eSg 42 28
DMK 0.88 325 iPg 42 28
i S g 4241
YLV 0.89 127 ePg 42 28
eSg 42 43
HRT 0.97 106 ePg 42 30
1 Z 1 1 . 10 1 34 ePn 4232
S.D. =0.3 on 6of

» AUG 27 . 1991 1 6h 31m 14
16. 337 S ±19 .5km 73.235
DEPTH - 86 . 8 ± 1 2 . 0 km
4 . 6mb (4 obs .)
NEAR COAST OF PERU

Felt (M) at Arequipo.

ARE 1 .68 94 i PC 3141
iS 32 02
ZOBO 4.91 90 iPc 32 29
S 33 28
LPB 4.93 93 i PC 32 28
CNCB 5.06 96 P 32 31
NNA 5.56 321 eP 32 36
0.7s 24.66nm
i 3248
eS 33 45

PT10 5 .57 319 e(P) 32 37
eS 33 53
S I V 11.69 90 P 3354
TUL 56.18 338 eP 40 47
0.6s 4 . 60>nm
ALO 59.97 329 eP 41 14
1.0s 1 . 25nm
KIC 71 . 39 77 P 42 26
ORV 71 .53 323 ePc 42 29
SPA 73.77 180 i Pd 42 41
1.2s 22 . 54nm
YKA 85.01 342 eP 44 08
1.0s 2 . 40nm
WR2 134.88 218 ePKP 50 25
0.6s 5 . 30nm
WRA 134.98 218 PKP 50 25
2.1s 3 . 00nm
MAT 145.63 312 ePKP 50 45

E ±12 . 0km
cist)
(366)

50 0.2
50 -0.2
00
00 -8.1
88
00 -0.3
00
00 0.3
80 0.2
6 obs .

68± 1.35s
W ±1 3 . 0km

(115)

50 -1.8
00
08 0.9
00
90 0.6
00 0.8
50 -0.2
4 . 6mb
20
00
00 0.2
00
30 -5.9X
70 -0.1
4 . 7mb
00 -0.5
4 . 0mb
80 -1.0
70 1.5
80 0.7
4 . 9mb
10 1 8 . 8X

90 -0.1

00 -1.0

00 0.2

0.9s 11. 76nm
S.D. = 1.0 on 14 of 16 obs.

» AUG 27, 1991 11h 39m 02.26± 1.05s 9.224 N ± 9.9km 125.423 E ±15. 0km DEPTH = 33 . 0km (no rmo 1)
MINDANAO. PHILIPPINE ISLANDS (259)

CGP 1 . 05 223 i Pd 39 21 . 50 08
iS 39 39 . 00
BIP 1.29 140 ePc 39 23.50 -0.5
eS 39 34.50
MAP 1.79 308 ePd 39 30.00 -1.4
PLP 1.98 347 eP 39 35.30 1.2
eS 39 50.00
PGP 6.11 315 iPc 41 06.00 33. 4X
1.0s 38 . 00nm

TGY 6.54 318 eP<) 40 59.00 20. 2X
eS 4117.00
SZP 9.58 330 eP 41 53.20 32. 2X
PIP 10.18 333 iPd 41 29.00 -0.2
S.D. =1.5 on 5 of Sobs.

AUG 27, 1991 11h 46m 22.36± 0.19s 16.278 S ± 3.7km 73.278 W ± 4.5km DEPTH = 74.0km (21 depth phases)
5 . 3mb (43 obs .)
NEAR COAST OF PERU (115)
Felt (111) ot Arequipa.
CENTROID, MOMENT TENSOR (HRV)
Dota Used: GDSN
L. P . B . : 1 9S , 40C
Centroid Location:
Origin Time 11:46:23.3 0.4
Lot 16.57S 0.04 Lon 73.04W 0.06

Dep 105.3 3.0 Ho I f-d u r o t i on 1.9
Moment Tensor; Scale 10**16 Nm
Mrr=-9.13 0.66 Mtt= 7.61 0.98
Mff= 1.51 1.35 Mrt= 6.82 0.46
Mrf--7.07 0.51 Mtf=-4.24 0.79
Principal Axes:
T Vol= 13.69 Plg=23 Azm= 32
N -0.09 10 127
P -13.60 65 239

Best Double Coup I e : Mo- 1 . 4* 1 0* * 1 7
NP1 : S t r i ke=103 Dip=24 Slip=-1l5
NP2 : 311 69 -79

ARE 1.73 96 i PC 46 52.00 0.8
iS 47 12 .50
ZOBO 4.95 91 i PC 47 39.00 2.6
LPB 4.98 94 P 47 40.00 3.3X
1.0s 840 . 00nm
S 48 35.00
CNCB 5.11 97 i PC 47 41.20 2.6
NNA 5.49 321 iPd 47 43.70 0.2
0.5s 352 . 1 1 nm 5 . 9mb
eS 48 05.50
SI V 11.73 90 P 49 04 . 80 -4 . 1 X
ZON 15.77 165 eP 50 05.00 3.6X
ROCH 16.75 173 eP 50 14.00 0.1
PEL 16.96 173 i PC 50 16.00 -0.3
LCCH 17.19 175 eP 50 19.80 -0.2
SAN 17.26 173 eP 50 28.08 -0.1
LNV 17.68 175 eP 50 21.00 -4.2X
CUMC 17.72 345 i PC 50 28.32 2.0
PSO 17.81 347 eP 50 29.50 2.2
PURC 18.73 350 i PC 50 40.82 1.4
SILC 19.09 351 ePc 50 42.85 0.3

ITB1 19.54 118 e(P) 50 45.00 -1.8
ITB 19.75 118 e(P) 50 48.20 -0.8
HOOC 19.90 350 i PC 50 49.94 -1.0
ITB7 19.90 119 e(P) 50 56.50 5.9X
ANCC 19.98 349 ePc 50 51.39 -0.2
BUGC 20.26 351 ePc 50 53.87 -0.6
CLMC 20.29 351 ePc 50 52.61 -2.3
HOBC 20.69 352 i PC 50 58.41 -0.5
BOG 20.78 358 i PC 51 02.00 1.9
iS 54 55.00
PPD 21.51 109 eP 51 05.70 -1.3
e 5108.10 9kmX
e 5111.20
FUO 21.61 359 eP 51 08.00 -0.4
BMG 23.20 1 eP 51 23.00 -0.7
BAD 24.32 92 ePc 51 33.30 -1.3
SDV 25.14 6 eP 51 41.50 -0.9
CEOS 25.62 11 eP 51 45.80 -1.0

263

27d 11h

VAO

UPA
TOV
CAR
BMA

SOB1
CA 1
MRX
A 1

A
JSC

BLA
UYO
CBN

TUL

FVM

TBR

ACO
ALO

ANMO

BNH

GLD

GOL

PV09
PLM

PEC

RVR
GSC
SBB
RSSO

CLC
BW06

TNP

RUV

SCH

LI

C
VAH

TPT

LRM
Kl

C

ORV

PMO

LKO
NVL

SPA

SES

25. 64

25. 85
26.13
27 . 34
28.16

* 32 . 33
36 . 67
45.07
49 . 31
50. 85

53 6C
54 .07
54.33

56. 1

1
0.8s

56.33
1 .0s

57.13

58.08
59.90
0.9s

59.90
1 .0s

60 .60

63 . 20
1 -0s

63 . 22

"64.02
64 . 54

65.09

65.29
65.84
66. 03
66. 35
1 . 2s

66 .66
67 . 57
0.9s

68.00
0 . 8s

70 .94
1 .3s
71.03
1.1s

71.11
71.17
1 -3s
71.21
1 -3s
71.24
71.42
0.5s
71.46

71.47
1 .3s
71.72
73.15

73.83
1 .0s

74 . 22

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336

(P) ee

ePc
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eP

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ePe
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PPP
pP
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eP
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. 50nm

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pPP
. 00 nm

pPP

pPPP
pPP
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eP
*P

ePP
. 38nm
pP

ePP
. 73 nm

PPP
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IP
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74
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5kmX

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- 0.

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- 0.6
1 . 9
1 0kmX
- 13 . 0X
- 1 . 5
2.

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1 . 1
- 1.5
78km
- 1 . C-i
2.

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- 0.

4
75km
- 1 .3
. 6mb
72km
- 2.

4
. 6mb
75km
- 1 .2
72km
- 0.2
- 0 . 9
. 1mb
72km
- 0.

7
. 1mb
70km
0.0
73km
- 0.6
. 4mb
73km
- 0.

9
73km
- 0.

7
- 0.

2
75km
- 0.

4
76km
19. 3X
- 0.

3
0.

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- 1 . 1
. 3mb
74km
- 0.5
- 1 . 5
. 8mb
77km
- 0.

1
. 2mb
75km
1 . 5
. 6mb
- 0.

7
. 6mb
74km
- 2.

6
1 . 3
. 5mb
1 . 6
. 6mb
0.0
- 1 . 4
. 2mb
0 . 5
73km
1 . 4
. 6mb
- 1.8
- 0.

4
75km

0.

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44kmX
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FFC

NEW

PNT

PGC
EVAL
CER

EHOR
EPLA
ERUA
WIN

ECOG
AFC
EMON
EBAN
YKA

TOL

ENIJ
EHUE
GUD
EV I A
ETOR
FRS

EPF
MAW
LFF

MFF

LPF

LPO

GRR

RJF
FLN

Z
LDF
LSF
SEK

TCF

PRY
MAF

EKA

BGF

AVF
SSF

SMF

LBF

LOR

Z
LPL

LPG

I NK
HAU
Z
BUL
BSF
JOZ
CDF
MBC
FBA

1 . 0S

74 . 82
0.7s
75.19
1 . 0s

77.10
0. 7s
78.50
82.26
83. 32
1.2s
83 . 43
S3 . 85
84.22
84.24
1 . 5s
84 . 40
84 . 40
84 .59
84 . 62
84 . 94
0.7s
85 . 1

7
1 . 0s
85 . 26
85. 32
85. 43
85. 73
86. 95
89. 28
0.8s
89. 47
90 . 46
90 . 48
0 . 9s
90 . 55
0. 8s
90 . 56
0. 9s
90 . 67
0. 8s
90 . 82
0.8s
91.12
91.20
1 .0s
20s
91.35
91.49
91.64
0 . 8s
91 .94
1 . 0s
91 . 98
92 . 14
0. 8s
92 . 41
1 . 8s
92 . 45
0. 8s
92 . 85
93 . 05
1 . 0s
93 . 1

2
1 . 0s
93 . 32
0. 8s
93 . 35
0. 8s
20s
94 . 64
0. 6s
94. 65
0.8s
94 . 67
95 . 18
20s
95 .20
95 . 41
95 .64
95.90
96. 37
98 . 20
1 .05

85 . 00nm
pP
343 iPc
11 . 00nm
331

P
22 . 50nm
PP
331 ePd
21 . 00nm
329 ePc
47 eP
123 iPd
1 32 . 00nm
48 eP
45 eP
43 eP
112 i Pd
1 25 . 00nm
49 eP
49 eP
42 eP
48 eP
342 eP
1 6 . 70nm
46 i PC
45 . 00nm
49 eP
49 eP
46 eP
48 eP
46 eP
121 iPc
1 8 . 66nm
45 eP
165 eP
43 eP
13. 1 0nm
41 eP
5 . 35nm
40 eP
6 . 55nm
43 eP
5.35 nm
39 eP
8 . 05nm
43 eP
39 eP
1 2 . 00 nm
0 . 1 3 urn
39 eP
42 eP
120 iPc
7 . 46 nm
42 eP
8 . 00nm
119 i Pd
42 eP
6 . 05nm
33 Pd
52 . 30nm
42 eP
8 . 05nm
42 eP
42 eP
4 . 00nm
42 eP
8 . 00nm
42 eP
2 . 70 nm
42 eP
2 . 70nm
0 . 20um
44 <P
2. 25nm
44 eP
3.35 nm
341 eP
42 eP
0 . 08um
113 IPd
42 eP

121 e(P)
4 1 eP
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- 1 .
. 1mb

72
78km

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4X6m

WTTA

KSP
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CTAO
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S

YAK

ASPA

MA 1

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WRA

KUSJ
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SSE

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98.39 43 e(P)

1.3s 34 . 50nm i

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1 02 . 1 7 40 ePd i f f 00
121 .05 224 ePKP
0.5s 9 . 00nm
123 . 93 22 1 ePKP
1.0s 8 1 . 00nm
126.95 228 i PKPc 131.19 223 ePKP
1.0s 30 . 00nm

131 .50 346 i PKPc i e

132.23214 i PKPd
1.1s 23 . 5wnm
i PKS
133.71 55 ePKP
1 34 . 90 218 i PKPd
0.8s 24.40nm
1 34 . 92 218 PKP
0.9s 25 . 1 0nm
138.08 318 ePKP
138.89 320 ePKP
141.12 62 ePKP
142.32 221 ePKP
0.7s 2 1 . 00nm
143.03 271 ePKP
1.1s 1 0 1 . 27nm

144.04 3 ePKP ee

1 44 . 29 310 PKP
144.67 313 PKP
1 45 . 21 311 PKP
1 45 . 56 312 i PKPd
1.0s 118. 00nm
146.25 310 ePKP
148.58 81 iPKPc
150.92 98 ePKP
1 51 . 59 91 PKPc
0.9s 28 . 20nm
153.02 84 ePKPc
154.93 343 ePKP
1.5s 1 8 . 00nm
156.50 56 PKP
0.9s 23 . 00nm
157.04 57 PKP
157.10 56 PKP
1 57 . 30 57 PKP
1.0s 24 . 00nm
157.52 55 PKP
1 60 . 1 1 7 ePKP
1.6s 32 . 00nm
25s 0 . 27um

pPi
1 60 . 21 321 PKP

1.0s 27 . 00nm i
170.44 22 ePKP
172.16 70 ePKP
. D . - 1 . 1 on 1 43

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5.5X
. 7mb
52kmX
7 ,8X
1 0 . 4X

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- 0.2
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0.3
- 0.7

- 1.4

- 0.6
0.7
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1
- 5. 0X

- 3 . 6X

- 2 . 9X

- 2 . 7X
- 2 . 4X
- 0.

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- 1 .0

0.5
4 . 8X
5.9X
5. 0X

7.5X
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6
0.9
1 66 obs .

23
033 N ±1 1 . 5km 60. 478
DEPTH - 29. 5 ± 7.7

60± 6.71s
W ±53 . 6km
km
LEEWARD ISLANDS

DEC
SFG

MGG

SEG

BBL

DOG
PAG

BTG
BPA

S

ML 3.6 (FDF) .

0.63 297 iPd

0.72 288 iPd S
0.82 262 i Pd S
1 .05 291 iPd S
1 . 09 242 i Pd S
1.10 270 iPd

1 . 16 270 iPd S
1 . 19 268 eP

1 .66 307 i Pd S
. D . - 0 . 1 on

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9 obs.

27d 1 1h

264

AUG 27, 1991 11h 57m 04.99± 8.68s 45.482IN ± 7.3km 21.112 E ± 6.5km DEPTH «= 33.0km (normal)
ROMANIA (358)

TIM 6.27 17 iPc 57 1 1 . 00 -1.3
SSR e.76 144 iPc 57 17.6)6 -2.3
BEO 0.81 215 ePg 57 19.60 -0.9
iSg 57 32 40
UZD 2.08 303 iPn 57 38 90 0.6
MDB 2.38 73 eP 57 48.50 6. OX
BUD 2. 47 325 IP 5744.00 0.3
PSZ 2.58 3.41 iPn 57 45. 10 -0.3
BMR 2.74 36 i PC 57 58. 0P 10.4X
CMP 2 ;. 78 93ePc 5 7 5 d :. > 0 1.0
MLR 3.48 88 e(P) 57 58. bu 0.9
SKO 3.52 176 eP . 58 05.00 6.3X
i 5812.16
SPC 3.76 351 iPn 58 17.80 15. 7X
e(Sn) 59 12.00
ISR 3l. 85 93 eP 58 04 .00 06
ZST - 3i.87 316 iPn 58 03.50 0.0
i 5809.10
j i 5819.70
i Sn 58 49.50
e ©416.10
VR 1 3.95 82 «P 58 03.50 -1 4
VBY 4.12 272 ePn 58 18.00 10. 8X
eSn 59 20.50
VAY 4.29 165 eP 58 16.60 7.0X
OHR 4 . 37 183 eP 58 1 2. 50 1.6
KHC 6.29 308 ePn 58 26.50 -11. 4X

P g 58 36.50
Sg 59 47.50
PRU 6.32 318 ePg 58 53.20 14 9X
eSg 59 46.50
e 00 03.00
DOU 12.03 298 P 59 57.20 0.3
S.D. = 1-3 on 13 of 21 obs .

AUG 27, 1991 11h 58m 22.17± 0.18s 21.657 S ± 3.6km 68.506 W ± 4.6km DEPTH - 115.6km (14 depth phases) 5 . 1mb (34 obs .)
CHILE-BOLIVIA BORDER REGION (124)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B. : 15S, 23C
Ce n t r o i d Loco t i on :
Origin Time 11:58:30.2 0.8
Lot 21.24S 0.09 Lon 68.67W 0.12

Dep 119.5 5.5 Ha 1 f -d u r o t i on 1.9
Moment Tensor, Scale 10**17 Nm
Mrr 1.04 0.11 MM 0.08 0.20
Mff- 1.12 0.19 Mrt= 0.12 0.10
Mrf 1.63 0.10 Mtf- 0.21 0.15
Principal Axes:
T Val= 1.54 Plg=21 Azm- 96
N -0.07 9 2
P -1 . 48 67 251

Best Double Cou p 1 e : Mo<= 1 . 5 » 1 0 » * 1 7
NP1 : S t r i ke-202 Dip=25 Slip- -68
NP2: 358 67 -100

ANT 2.69 220 iPc-f 59 02.50 -2.4
iS 59 26 . 00
CNCB 4.85 6 iPc 59 36.20 1.5
LPB 5.11 4 P 59 40. 00 1.8
1.0s 620.00nm 5.8mb
S 00 39.00
ZOBO 5.37 4 P 59 43.00 1.2
S 00 36 . 00
ARE 5.89 331 iPc 59 44.00 -4.7X
iS 00 47 . 00
CYA 7.19 161 IP 00 04.90 -1.3
SIV 3.02 53 iPc 00 28.20 -2.8X
RTLL 3.63 180 ePd 60 35.00 -4.2X
ROCH 11.49 191 eP 01 04.00 0.0
PEL 11.60 189 iPd 01 05.50 0.1
SAN 11.90 189 eP 01 14.00 4.7X
LCCH 12.08 192 eP 01 10.00 -1.6
NNA 12.49 319 eP 01 13.00 -4 . 1 X
0.8s 23 . 88nm 4 . 9mb
eS 03 22.00
LNV 12.52 191 eP 01 15.50 -1.7
ITB 13.51 106 iPc 01 32.00 1.7
ITB7 13.60 107 e(P) 01 38.00 6.5X

PPD

VAO
BAO
BMA

CUMC
PURC
S 1 LC
HOOC
ANCC
BLIGC
CLMC
HOBC
SOB1

SDV
TOV
CA 1
A 1 A
PPM
MRX
JSC

BLA

UYO
TBR
FVM

TUL

NVL

ALO

ANMO

LI C
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K i C

SPA

LKO

GLD

GOL

GLA
PV09
BAR
PLM
TPC
PEC

RVR

MSU
SSK
GSC
MWC
PAS
SBB

RSSD

DAU
CLC
ABL

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24 . 27
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26. 32
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30 . 42
31.27
33.84
43 .67
50 . 07
52 . 07
56.93

59 . 62
0 . 8s

60. 76
62. 70
62 . 80
0 . 8s

62.81
0 . 8s
66 . 55

66.83
1 .0s

66 . 83
0 . 9s

68 . 07
68. 26
68 . 39
0.5s
68 . 47
1 .05

69 .07
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70.05
1 . 4s

70. 08
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70.10
70 . 94
70 . 97
71.54
71 . 56
72.09
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72-29

72. 52
72 . 63
72 . 84
72. 86
72 .88
73 .03

73.10
0 . 8s

73. 46
73.66
73. 99

95 iPc
i
98 i PC
76 ePc
97 eP
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337 eP
341 eP
341 ePc
341 eP
341 eP
342 eP
342 c-P
343 eP
69 eP
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356 eP
358 eP
68 eP
1 77 eP
322 eP
320 eP
347 P
pP
349 P
40 . 27nm
PP
335 iPd
355 P
341 P
181 . 82nm
pP
335 ePc
51 . 30nm
159 iP
epP
e
e

(S)
i
i
327 eP
39 . 50nm
epP
327 P
33 . 61 nm
pP
74 PC
73 P
74 PC
45 . 00nm
180 iPd
95 . 00nm
i
79 P
21 . 00nm
331 P
7 8 . 38nm
pP
331 P
1 4 . 20nm
pP
320 «P
327 P
318 eP
319 eP
320 eP
319 P
1 3 . 89nm
pP
319 eP
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325 P
319 P
320 eP
319 eP
319 eP
319 eP
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334 P
3 1 . 45nm
pP
327 P
320 eP
319 P

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. 30 -0.3
. 80
. 50 -1.2
. 80 -1.7
. 60 0.1
. 1 0 5kmX
. 90
,71 1.1
73 0.9
09 0.3
54 -2.7
54 -1.5
56 -0.3
82 -0.7
16 -2.4
40 -2.5
50 7kmX
. 30
,00 -2.0
. 60 -9.7X
. 10 -1.5
. 40 2 . 8X
. 00 1.1
. 00 0.6
. 60 -1.9
. 20 1 1 4km
. 50 -1.7
5 . 5mb
. 00 1 1 3km
. 80 -1.1
. 20 -1.5
. 80 -2 . 7X
6 . 1mb
. 50 1 1 7km
. 30 -2.3
5 . 5mb
. 00 0.6

. 00 186kmX
. 00
. 00
. 00
. 00
. 00
. 00 -0.8

5 . 3mb
. 00 1 1 2km
. 90 -0.9
5 . 2mb
. 00 1 1 3km
. 46 -1 1 . 3X
. 92 -1 1 . 0X
. 68 -1 1 . 0X

. 80 0.1
5 . 6mb
. 90 1 2 1 km
. 16 -0.7
5. 3mb
. 00 -0.6
5 . 3mb
. 30 1 1 7km
. 90 -1.0
4 . 9mb
. 50 1 1 4km
. 00 0.1
. 50 -0.7
. 00 -0.1
. 00 0.3
. 00 0.3
. 60 -0.2
4 . 8mb
. 00 1 1 7km
. 00 0.1
. 00 1 1 9km
. 90 0.4
. 50 0.3
. 00 -0.2
. 00 0.5
. 00 0.6
. 00 -0.3

. 00 1 1 9km
. 00 -0.7
5 . 2mb
. 90 1 1 9km
. 30 0.3
. 00 -0.9
. 60 -0.5

ISA
DUG

SYP
CWC
RUV

VAH

TPT

BCH
PMO

TNP

BONR
FRI
PRI
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KVN
SCH

LLA
PRS
CMB
ARN
GCC
BKS
LRM
ORV
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WDC
LBFM
FOX
FHC
SES

FFC

NEW

FRS

EJ 1 F
PNT

MAW
EPLA
EBAN
SEK

PGC
TOL
BUL
KR 1
LFF

YKA

MFF

LSF

TCF

MAF
BGF

AVF

SSF

SMF

LOR

1 NK
RMO

QLP

CTAO

74. 08
74. 09
1 .0s
74 . 25
74. 37
74.41
1 . 9s
74 . 62
1 .0s
74. 69
1 . 9s
74. 75
74 . 94
1 .0s
74 . 99
0 .9s
75. 52
75.71
75. 73
75. 86
76. 15
76.17
0.6s

76.21
76. 29
76. 80
77. 04
77.12
77.81
78. 1 1
78. 45
79 03
79 . 72
79. 85
80. 54
80. 71
80. 98
0 .9s

81 . 30
1 . 1 s
82. 07
1.0S

82 . 70

82. 93
83 . 99
0.7s
84 . 07
84 . 53
84 . 99
85. 09

85. 43
85. 74
89. 01
91.16
91 . 39
0. 8s
91.46
0.8s
91 . 67
0. 8s
92. 51
1 .0s
92 . 94
0.8s
93. 13
93. 46
0 . 8s
93 . 87
0. 8s
94 . 09
1 .05
94.10
1 .0s
94.40
1 .05
Z 20s
101 .22
120. 05
1.0s
122.50
0.8s
126.37

320 eP
326 P
30 . 00nm
318 eP
320 eP
260 iP
55 . 00nm
259 i P
50 . 00nm
260 i P
60 . 00nm
318 P
260 i P
50 . 00nm
322 P
30.27nm
321 P
320 eP
319 iPd
328 P
322 P
1 ePd
27 . 00nm
pP
319 i Pd
318 i Pd
320 i Pd
319 P
319 iPd
319 ePd
330 eP
321 i Pd
321 eP
321 eP
322 P
320 eP
321 iPd
334 ePd
49 . 00nm
pP
341 iPd
29 . 00nm
330 P
22 . 50nm
pP
119 i PC
i
46 eP
329 ePd
1 4 . 00nm
163 iPd
43 eP
46 eP
1 18 eP
i
327 eP
44 ePc
111 i PC
109 eP
42 eP
9 . 40nm
340 eP
24 . 70nm
40 eP
6 . 70nm
41 eP
8 . 00nm
41 eP
2 . 70 nm
41 eP
41 eP
5.35nm
41 eP
2 . 00nm
41 eP
4 . 00nm
41 eP
6 . 00nm
41 eP
5 . 00nm
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1 0 57
1 0 48
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1 1 24
1 1 25

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1 1 29.

340 ePd i f f 12 00.
219 ePKP
21 . 00nm
215 ePKP
36 . 00nm
222 iPKPc

1712.

17 07.

17 14.

. 00 0.6
. 70 0.2
5 . 0mb
. 00 0.5
. 00 5 .8X
. 90 1.3
5 . 3mb
. 00 1.2
5 . 3mb
. 80 1.6
5 . 3mb
. 80 0.5
. 20 1.6
5 . 3mb
. 60 -0.2
5 . 1mb
. 80 -3 . 1X
. 69 -0.9
. 37 0.5
. 50 0.0
. 50 0.2
80 -1.0
5 . 2mb
. 90 53kmX
89 0.4
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68 -0.1
80 0.7
79 0.4
10 0.9
70 -0.3
52 0.8
48 -0.6
40 -1.2
80 -0.7
45 1.6
94 1.1
80 -0.3
5 . 3mb
00 109km
80 -0.8
5 . 0mb
80 -0.9
4 . 9mb
50 1 15km
20 0.7
70 17kmX
60 2.2
00 -0.5

5 . 0mb
80 1.1
40 0.9
80 1.0
20 -1.6
20 39kmX
00 0.4
50 2.0
20 1.3
60 -5.2X
20 0.2
5.1mb
60 -0.4
5 . 5mb
70 0.4
4 . 9mb
00 -0.2
5 . 0mb
90 -0.3
4 . 6mb
10 0.0
70 0.2
4 . 9mb
30 -0.1
4 . 5mb
10 -0.4

4 . 7mb
80 0.3
4 . 9mb
30 -0.6
4 . 8mb
4 . 3Msz
00 -0.3
20 10 . 9X

10 1.2

00 0.4

265

27d 12h

0.9s 24 00nm
ASPA 129.95 207 iPK'Pd 17 20.10 -0.3
£1 . 9 s 35.00nm
i PKS 2042. 50
i 2112.90
MA 10 132.76 60 ePKP 17 26.00 0.6
e 1952.00
w R ? 132.99 210 iPK'Pd 17 26.50 0.3
0.9s 20 . 20nm
WRA 133.01 210 PfP 17 36.00 9.8X
1.1s 2 . 60nm
MJSJ 145.07 316 PKP 17 45.90 -1.5
K 0 D 145.45 104 e P K P 17 50.50 1.2
A C ' J 1*5. S 9 318 e P K P 17 49.30 0.5
HOOJ 146.33 315 e P K P 17 50.70 1.2
GBA 146.63 98 PKP 18 05.00 14. 3X
0.6s 2 . 50rtm
GUA 147.19 261 «PKP 17 52.20 0.5
0 . 9s 255 . 46nm
PJG 147.25 261 ePKP 17 52.50 0.7
pP 1825.60
MRRJ 147.74 317 <= P K P 17 54.50 2.8X
HYB 148.71 92 ePKP 17 54.50 0.4
e 18 1 3 . 50
OFUJ 148.90 311 ePKP 17 57.30 3.6X
IRK 148.94 9 ePKP 17 55.00 1.6
e 18 32 . 00
VAMJ 150.45 310 ePKP 18 01.70 5.6X
TRT 150.80 182 iPKPd 18 05.50 8.2X
0.6s 46.60 nm
KAKJ 151.15 306 PKP 18 02.50 5.3X
NIIJ 151.59 309 PKP 18 04.30 6.5X
CHJJ 152.09 307 PKP 18 05.70 7.1X
MAT 152 46 308 iPKPd 18 06.00 6.8X
0.9s 39 . 50nm
IIDJ 153.12 307 PKP 18 08.00 7.9X
GKN 154.85 70 PKP 18 03.60 0.8
K K N 155.45 70 PKP 1804.00 0.3
BJI 161.20 349 e P K P 18 11.00 1.3
1.0s 9 . 00 nm
LZH 164.15 23 ePKP 18 14.50 1.5
1.8s 32 . 00nm
Z 18s 0 . 24 urn
i 19 36.50
CHG 167.88 101 ePKPd 18 17.10 0.8
1.3s 23 . 08nm
S D . = 1.1 on 127 of 154 obs.

? AUG 27. 1991 13h 07m 45.22± 3.15s
4.098 N ±23. 2km 76.772 W ±27. 5km
DEPTH = 33.0km (normal)
COLOMBIA (103)
MD 2.3 (UVC) .

BUGC 0.55 112 eP 07 56.95 0.2
eS 08 05. 80
ANCC 0.59 189 eP 07 57.41 0.3
HOOC 0.64 168 eP 07 57.66 -0.4
HOBC 0.68 68 «P 07 58.45 -0.1
eS 08 08 . 50
S . D . =0.6 on 4of 4obs.

? AUG 27, 1991 13h 09m 20.58± 1.98s 23.777 N ±11. 1km 121.741 E ±18. 4km
DEPTH = 10.0km (geophy s i c i s t)
TAIWAN (244)

TWF1 0.59 224 ePd 09 32.40 -0.1
TWC 0.83 7 ePc 09 36.70 0.0
eS 09 48 . 30
TWO 0.96 301 iPc 09 38.90 -0 1
eS 09 52 . 40
TWK 1.26 246 ePc 09 44.10 0.1
eS 10 01 50

? AUG 27. 1991 14h 51m 47.90± 2.84s
3.639 S ±15. 0km 144.902 E ±19. 8km
DEPTH = 58 . 5 ± 3 1 . 0 km
4 . 6mb (3 obs .)
NEAR N COAST OF PAPUA NEW GUINEA(200)

LAT 3.65 145 eP 52 43.50 0.3
eS 53 32 . 10
PMG 6 15 159 eP 53 12.00 -6.3X
OIS 17.59 197 eP 55 50.00 -0.6

1.0s 3l.40nm 4. 5mb
ASPA 22.57 207 i Pd 56 45.60 1.2
1.2s 1 8 . 30nm 4 . 4mb
RMO 23.02 171 eP 56 59.00 10. 3X
KMI 49.91 307 eP 00 40.00 1.8
LZH 55.07 320 eP 01 14.50 -1.9
1.6s 23 . 00nm 5. 0mb
Z 15s 0 . 24um 4 . 4MszX

pP 01 32 . 50 70kmX
sP 01 38.50
GUN 64.83 303 P 02 24.16 0.4
PKI 65.12 303 P 02 25.32 -0.2
KKN 65.30 303 P 02 26.66 0.1
DMN 65.39 362 P 02 27.36 0.2
GKN 65.91 303 P 02 30.04 -0.3
SIV 147.74 128 PKP 11 25.40 -0.3
S . D . -1.1 on 12 Of 14 obs .

% AUG 27, 1991 16h 42m 01.92± 0.56s
44.296 N ± 5.8km 8.025 E ± 4.1km
DEPTH = 10.0km (geophy s i c i s t)
NORTHERN ITALY (545)
ML 2 .0 (GEN) .

ROB 0.11 269 P 42 04.89 0.0
S 42 06. 53
FIN 0.16 123 P 42 05.50 -0.1
S 42 07.96
IMI 0.40194P 4210.12 0.0
S 42 15.69
ENR 0.44 261 P 42 10.95 0.0
S 4217.22
PCP 0.45 56 P 4211.12 0.1
S 4217.81
STV 0.51 264 P 4212.47 0.3
S 4219.52
PZZ 0.69 288 P 42 15.24 -0.5
S 42 24 . 98
BHB 0.77315P 4217.13 0.2
S 4228. 73
S . D . =0.3 on 8of 8 obs .

% AUG 27, 1991 16h 55m 1 3 . 83± 2.46s
34.112 S ±24. 3km 71.145 W ± 9.5km
DEPTH = 33.0km (normal)
NEAR COAST OF CENTRAL CHILE (135)

LNV 0.27 305 iPd 55 21.50 0.3
IS 55 30.50
CHCH 0.45 67 iP 55 23.50 -0.2
IS 55 33. 50
TACH 0.49 21 iPd 55 24.40 0.1
IS 55 34.80
LCCH 0.73 331 «P 55 27.10 -0.5
i S 55 40 .00
PEL 1.04 22 eP 55 32.50 0.3
IS 55 48.00
S . D . - 0 . 5 on 5of 5obs.

& AUG 27. 1991 17h 20m 36.41s
64. 797 N 147.483W
DEPTH = 13 . 3km
CENTRAL ALASKA (1)
<AE 1 C> . ML 2.6 (AE 1 C) .

FBA 0.17 308 eP 20 40.41 -0.2
iS 20 43 .24
GLM 0.20 12 iP 20 41.04 0.0
i S 20 44 . 15
CCB 0.20 223 iP 20 41.20 0.0
S 20 44 . 59
MDM 0.36 297 iP 20 43.32 -0.7
WRH 0.42 219 iP 20 44.80 -0.3
S 20 50.82
HDA 0.45 150 iP 20 45.68 -0.1
eS 20 51 .86
NEA 0.72 253 eP 20 49.73 -0.5
eS 20 59.48
BWN 1.06 235 eP 20 55.34 -0.8
eS 21 08. 71
DJE 1 . 10 134 eP 20 57 .50 0.7
S 2111.82
MCK 1.24 211 eP 20 58.90 -0.3
RND 1 .52 204 eP 2104.72 1.4
TRF 1 . 83 224 eP 21 09.04 1.2
12 obs. associated

AUG 27, 1991 17h 50m 04 . 65± 0.22s
44.417 N ± 1.8km 7.280 E ± 2.7km
DEPTH = 1 6 . 8 ± 5 . 4 km
NORTHERN ITALY (545)
ML 2.9 (LDG) , 2.7 (GEN) .

DOI 0.09 344 Pd 50 08.30 0.0
«Sg 50 10.70
PZZ 0.16 304 P 50 08 . 75 -0.3
S 5011.11
STV 0.18 170 P 50 09.16 -0.2
S 50 1 1 .93
ENR 0.22 152 P 50 09.77 -0.1
S 50 13 .23
TOUT 0.40 183 Pg 50 12.95 -0.2
BHB 0.42 358 P 50 12.77 -0.6

| S 50 19. 1 1
| AUTN 0.43 166 Pg 50 13.73 0.1
Sg 50 19.64
ROB 0.44 106 P 50 14.09 0.4
S 50 21 .06
SAOF 0.47 155 Pg 50 13.90 -0.3
Sg 50 20.66
MV 1 F 0.53 190 Pg 50 15.18 0.0
Sg 50 22.33
AURF 0. 53 176 Pg 5015.16 0.0
Sg 50 22.85
SBF 0.57 169 Pg 50 15.60 -0.2
Sg 50 23.30
RRL 0.61 325 P 50 16.75 0.0
S 50 24.75
IMI 0. 67 139 P 50 17 .57 0.0
S 50 26.29
REVF 0.68 175 Pg 50 17.95 0.2
FIN 0.701 07 P 5018.29 0.3
S 5027. 72
CK 1 0.72 89 P 50 18 . 80 0.5

«Sg 50 27.90
CALN 0.72 203 Pg 50 18.54 0.0
RSP 0. 73 359 P 50 17 . 47 -1.2
S 50 26.08
BNI 0.77 326 P 50 19 . 40 0.1
«Sn 50 30.50
PCP 0.91 82 P 50 22 .29 0.6
FRF 0.97 208 Pg 50 22.50 -0.1
Sg 50 34.80
LSD 1.04 355 P 50 23.84 -0.2
S 50 38.96
LPG 1 . 14 341 Pg 50 26 . 60 0.8
Sg 50 42.40
LPL 1.17 341 Pg 50 26.80 0.6
LRG 1 . 1 7 215 Pg 50 26. 60 0.6
Sg 50 42.20
LMR 1.22 208 Pg 50 27.30 0.5
Sg 50 42.80
CDR 1.32 236 e(Pg) 50 28.50 0.2
i 50 29. 10
e(Sg) 50 43.20
e 50 43.50
« 50 44.90
e 50 45 . 10
PGF 2.25 146 Pn 50 40.25 -1.5
BGF 3.78 306 Pn 51 03.40 -0.1
S . D . - 0 . 5 on 30 o f 30 obs .

? AUG 27, 1991 19h 07m 49 . 32± 2.75s 48.169 S ±39. 3km 164.968 E ±10. 6km DEPTH - 33.0km (normol)
4.1mb (2 obs .)
OFF W. COAST OF S. ISLAND, N.Z. (161)

SIZ 2.51 60 P 08 30 .20 1.6
eS 08 58 . 10
BCZ 2.92 43 P 08 35 . 20 0.7
S 0907. 70
TUZ 3.88 57 P 08 49 . 10 1.0
S 09 33.30
MSZ 4.05 31 P 0851.70 1.2
TLC 4.10 45 P 08 51 . 60 0.2
CMCZ 4.23 46 P 08 52.80 -0.4
eS 09 40.40
MHZ 4.30 45 P 08 55.00 0.8
LSCZ 4.30 46 eP 08 55.30 1.2
LRCZ 4.33 46 P 08 54.10 -0.5
BWZ 4.98 45 P 09 02.30 -1.4
ODZ 5.01 53 P 09 02.50 -1.6

27d 19h

266

EWZ 6.21 44 eP
THZ 8.52 44 eP
TOO 17.73 300 i PC
RMQ 25.09 324 eP

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- 1.4
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0.8s 1 3 . 00nm
WR2 37.44 308 eP 1500.
0.5s 3 . 40nm
WRA 37.46 308 P
1
S.D

15 01.
1s 1 . 20nm
= 1.2 on

& AUG 27. 1991 19h
64 . 398 N
DEPTH
CENTRAL

9 . 0knr,
ALASKA
<AE 1 C> . ML 3.1

WRH 0.07 360 iPd
CCB 0J.28 26 iPd
NEA 01.46 293 iPc
eS
HDA 01.49 89 i PC
FBA (
MDM (
B WN
GLM
MCK

RND

DJE

TRF

THY

KTH

HUR

PAX

31.52 14 iPd
3. 57 354 iPd
3J.64 250 iPc
3.66 27 iPd
3.76 209 iPd
«S
. 05 199 iPd
iS
1.12 108 ePd
S
. 36 227 ePd
S
1.43 133 eP
eS
?.51 237 eP
eS
^ .58 207 eP
eS
1.85 140 eP
! eS
SDG 5.20 148 eP
CUT 2-23 207 eP
TOA 2-46 159 eP
FYU 2.48 27 eP
TMW 2.56 113 eP
SML 2.60 183 eP
T2L 2 .65 152 eP
GHO 2.66 189 eP
PLRM 2.86 190 eP

PMR 2.86 190 (Pn)
ePg
eSg
PWA 2.88 197 eP
i
SKT 2 . 88 21 4 eP

IMA 2.89 308 e(P)
KNK 3.00 183 eP
KLU 3 . 08 160 eP
SUA 3.19 204 eP
PMS 3.24 193 eP
VL2 3 . 38 1 65 eP
NCG 3.53 214 eP
GLB 3.55 145 eP
GL 1 3.56 172 eP
FID 3 . 74 168 eP
TTA 3.83251 ePn
ePg
eSg
KN 1 M 4.07 1 78 eP
BALM 4.29 139 eP
LT 1
1 NK
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% AUG
40. 83
DEPTH
TURKEY

MFT
KGT
CTT
DMK
E2N
DST

* .38 178 eP
7 .04 50 P

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- 0 . 4
7mb
16 of 17 obs .

13m 23 .
148.089

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- 1 . 5
3 obs. associated

27 , 1 991 1 9h
2 N ± 6 . 5km
1 0 . 0km (

0.13 250 iPg
0.39 196 iPg
0.81 67 iPg
1.02 13 ePn
1 . 32 221 ePn
1 .52 143 ePn

19m 3d.
27.444

ge o ph y s i

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0.67s
7 . 5km
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S.D. -0.1

& AUG 27, 1991
60 . 163
DEPTH
SOUTHERN

N

on 6 o f

19h 38m 51
153. 357

6 obs .

48s
w
= 147.2km

ALASKA (2)
<AE I C> .

RED 0

R DW 0

RS1 0
RS2 0
RSO 0
NCT 0
RON 0
REF 0
OPT 0

DFR 0
PDB 0

ROT 0
AUL 0
AUW 0
AUP 0
AGU 0
AUE 0
HOM 1

NNL 1
CKL 1

NKA 1
BGL 1
SPU 1
COD 1
CNPM 1

CRP 1
BRLK 1
CGLM 1
NCG 1
SLKM 1
SUA 1

SEW 1
SKT 2
PMS 2
PWA 2
CUT 2
GHO 2
KNK 2
LT 1 2
KN 1 M 2
GLI 3
FID 3
KLU 3
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- 8.8
- W . 9
- 0.9
- 0.8
- 0.8
- 0.8

- 1.1
- 1.3

- 0 .9
- 0 . 9

- 0 . 8
- 0. 7
- 1.2
- 1.0
- 0.5

0. 1
- 0 . 6

0. 8
- 0 . 3
- 0. 8
- 1.4

- e . 9

- 0.5
- 1.8
- 0. 7
- 0 . 5
- 1 . 3
- 1.0

- 1.3
- 0.7
- 1.7
- 0 . 7
- 1.0
- 2 . 1
- 0 . 7
- 1.7
- 2.5
- 1 .6
- 1.9
- 2.5
obs. associated

? AUG 27. 1991
29. 366
DEPTH
4 . 5mb
KERMADEC

UR2 9

MNG 1 2

KHZ 1 4

DZM 15
STK 34
1 .

ASPA 42

0.

WR2 43
0.

WRA 43
- 0.1 0.
- 0.1 FORR 46

19h 49m 27
S ±20 .0km 178. 262
= 201 .0

(4 obs
1 SLANDS

. 67 202

. 34 203

. 61 205

. 57 294
. 50 256
3s 1

. 95 266
5s 6
. 82 271
3s 7

. 84 271
3s 3
. 05 254

± 30.9 km
.)

eP 51
eS 53
eP 52
eS 54
eP 52
«S 55
iPc 52
eP 56
. 1 0nm
i 56
iPd 57
. 1 0nm
eP 57
. 90nm

epP 58
iPcP 58
eS 02
P 57
. 90nm
eP 57

44
34
16
31
45
21
59
00

54
09

1 4

06
58
02
1 4

33

79± 3 .64s
W ±22 . 8km

60
20
40
00
80
90

1 0

50
3
00
10
4
70
4
50
60
00
00
4
80

(178)

1 . 0

- 1.5

- 0 . 4

0 .9
1 . 9
. 3mb X

0.5
. 4mb
- 0.9
. 7mb
246kmX

- 1.8
. 4mb
0. 7

WARB 48.48 260 eP 57 41.50 -10. 6X
NANU 59.23 260 eP 59 10.00 -0.2
MAT 77.26 325 eP 00 59.00 -2.2
1.0s !2.00nm 4. 6mb
BJ I 92.03 316 eP 02 14.50 -0.2
SOD 139.14 346 ePKP 08 30.00 -1.3
KAF 143.50 341 iPKP 08 34.40 -4.7X
0.4s 1 . 80nm
NUR 145 27 340 iPKP 08 40.70 -1.4
0.8s 57.20nm
UPP 147.66 345 iPKP 08 47 50 1.5
NB2 147.70 351 PKP 08 48.00 1.8
0.6s 1 3 . 90nm
HFS 148.19 349 ePKP 08 48.50 1.6
Ci.7s 2 4 . 6 0 n m
HR I 150.77 286 iPKPd 08 58.80 6.9X
MML 151.01 285 iPKPd 08 59.70 7.5X
PRNI 151.19 280 iPKPd 08 59.90 7.4X
EKA 153.81 6 PKPd 09 16.10 20. 7X
0.6s 5 . 20 nm

CLL 156.51 342 e(PKP)09 10.00 10. 9X
CDR 165.36 348 ePKP 08 56.70 -11. 9X
e 0901.00
S. D . = 1 . 5 on 17 of 25 obs .

% AUG 27. 1991 20h 07m 23.57± 1.97s
44.463 N ± 9.1km 6.878 E ±15. 0km
DEPTH = 10.0km (geophy s i c i s t)
FRANCE (538)
ML 2.0 (GEN) .

PZZ 0.17 75 P 07 27 .63 0.2
S 0730.00
STV 0.39 124 P 07 31.47 -0.1
S 07 36. 37
ENR 0 . 46 121 P 07 32. 78 -0.1
S 07 38.46
RRL 0.46 352 P 07 33.09 0.1
BHB 0.47 36 P 07 32.88 -0.2
S 07 38 . 97
ROB 0.73103P 0738.11 0.1
S 07 47.65
S.D. = 0.2 on 6 of 6 obs.

? AUG 27, 1991 2!h 06m 19.01± 3.43s
10.460 N ±16. 3km 61.769 W ±22. 7km
DEPTH = 10.0km (geophy s i c i s t)
TR 1 N 1 DAD (98)
MD 3 . 3 (TRN) .

TCE 0.24 4 i PC 06 24 .06 0.0
eS 06 32.85
TPP 0.34 114 eP 06 26.05 -0.1
eS 06 38.45
TRN 0.41 63 i Pd 06 27.26 -0.1
eS 06 39.80
TBH 0.69 88 eP 06 32.78 0.1
eS 06 48. 77
S.D. = 0.1 on 4 of 4 obs.

AUG 27, 1991 21h 11m 51.56± 0.48s
47.538 N ± 5.8km 6.182 E ± 4.5km
DEPTH - 10.0km (geophys i c i s t)
FRANCE (538)
ML 2.8 (LDG) .

LOMF 0.48 113 Pg 12 62.59 1.3
S 12 08.35
HAU 0.48 13 Pg 12 01.80 0.5
Sg 1267.70
BSF 0.51 54 Pg 1201.93 0.1
Sg 12 07 .62
VITF 0.69 349 Pg 12 06.19 0.9
Sg 1214.81
BBS 0. 90 94 Pg 12 09. 39 0.5
Sg 12 20 .91
ECH 0.94 44 Pg 12 09.39 -0.2
CDF 1.14 40 Pn 1211.69 -1.3
Pg 1212.92
FEL 1.28 74 ePg 12 13.63 -1.8
SLE 1 .58 81 ePd 12 17 .90 -1.8
LBF 1 .60 251 Pn 12 20.00 0.0
Pg 1224.80
Sg 12 45.20
LOR 1.60 261 Pn 12 20.40 0.4
Pg 1224.60
Sg 12 45.00

267

27d 21h

GWF 1 . 73
SMF 1 . 83

~ C C 1 Q ft
C> b r 1 . O O

LPL 2.06

AVF 2 .07

L P G 2.08

B G F 2.48

MAF 2.81

TCP 3.00

S.D. -

AUG 27,
38 . 652 N

33 Pg
242 Pn

pg
sg
256 Pg

Sg
169 Pg
sg
256 Pn

Pg
sg
169 Pn

Sg
248 Pn

Pg
Sg
243 Pn

Pg
sg
247 Pg
Sg
1.2" on 1

1991 2 2 h
± 5.2t.nr,
DEPTH = 306 . 9 ± 5 .

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6 . 4 X

7 .8X

- 0 . 4

1 . 2

- 0 . 3

- 1.3

1 0 . 0X

20 obs.

. 36±
E ±

6 . 44s
5.5km

3 . 7mb (20 obs .)
S 1 Cl LY

MNO 0 . 72
GIB 0.81
ATM 0.82
US 1 1.13
SOI 1.27
MCT 1 .28
CZ 1 1.31
MEU 1.57
MGR 1.65
IDS 1.67
CS 1 1.71
CVT 1.74
RO 1 1.77
SCO 1 .98
BRT 2.98
LC 1 3.08
SD 1 3.11
VAY 6 . 66
BOB 7.23
SBF 7 .51
0.7s
FRF 7 . 76
0.8s
LRG 7.87
1 .0s
LPG 9.00
0 . 6s
LPL 9.02
0.6s
SMF 1 1 .25
0. 6s
CAF 11.27
0.8s
LBF 11.41
0.7s
AVF 11.60
0 . 6s
LOR 11.67
0. 6s
MAF 1 1 . 68
0.6s
SSF 11.70
0 . 6s
LPO 11.71
0. 8s
BGF 1 1 . 72
0 . 6s
TCP 1 1 .92
i? 6^
LSF 12.28
0.8s
MFF 13.45
0. 4s
LPF 14.73
0.4s
GRR 14.83
0. 4s

u re 9 i =; i

1 75 P '
215 P
126 P
273 PC
117 Pd
218 P
64 P
171 PC
26 Pd
52 Pd
49 P
237 P
58 P
15 P
41 P
56 P
349 PC
64 eP
329 P
316 eP
1 3 . 25nm
312 eP
5 . 35nm
310 eP
8.90 nm
322 eP
4 . 05nm
322 eP
3 . 60nm
319 eP
4 . 05nm
308 eP
2 . 70nm
320 eP
2 . 75nm
318 eP
1 . 80 nm
321 eP
2 . 7 0 nm
314 eP
3 . 1 5 nm
319 eP
2 25nm
305 eP
6 . 7 0 nm
316 eP
4 . 95nm
314 eP
? 7 Pi n m
312 eP
5 . 35nm
311 eP
2.30 nm
315 eP
2 . 30 nm
316 eP
2 . 30 nm
T;C,Q a. P

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(398)

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- 0.4
0. 6
- 0. 6
0. 1
0.2
0. 2

e. 6
- 0. 3
0. 5
0.6
- 1 . 1
0. 3
0. 7
1 . 1
1 .5
- 0.6
0mb
- 0.8
6mb
- 0. 6
7mb
1 .0
7mb
0. 4
6mb
- 0. 8
9mb
3.3X
6mb
- 1.4
6mb
- 0.3
5mb
- 0. 8
7mb
0. 7
7mb
- 0. 6
6mb
1 . 4
0mb
0.3
9mb
0. 8
7mb
0. 7
9mb
0. 1
9mb
- 3. 4X
9mb
- 3.9X
9mb
- 7 9

0.4s 1 . 30nm 3 . 6mb
KIC 36.61 214 P 10 05.90 0.4
LIC 36.86 214 P 10 08.00 0.5
S . D . = 0 . 8 on 38 o f 4 1 obs .

? AUG 27, 1991 22h 05m 48.25± 3.71s
3.755 N ±16. 1km 76.942 W ±37. 0km
DEPTH = 33.0km (nor mo I)
COLOMB I A (103)
MD 2 .5 (UVC) .

ANCC 0.25 162 eP 05 55.48 0.0
eS 0600.70
HOOC 0.42 133 eP 05 57.87 -0.1
BUGC 0.70 79 <=P 0601.83 0.1
H08C 1.00 53 ePc 06 06.08 0.0
eS 06 19.30
S.D. 0.1 on 4 of 4 obs.

% AUG 27, 1991 22h 36m 12.78± 0.61s
40.470 N ± 5.1km 23.621 E ± 5.7km
DEPTH = 10.0km (geophy s i c i s t)
GREECE (364)
MD 2 . 1 (THE) .

OUR 0.31 116 ePc 36 19.60 0.4
SOH 0.41 330 ePd 36 20.96 -0.1
eS 36 27.92
THE 0.53 288 ePd 36 23.12 -0.3
eS 36 30.52
PAIG 0.54 175 ePd 36 23.20 -0.6
eS 36 30.60
SRS 0.65 358 iPc 36 25.40 -0.3
eS 3636.00
KNT 0.88 322 ePc 36 29.80 0.1
eS 36 43.92
LIT 0.94 247 ePd 36 31.12 0.4
GRG 1 05 298 eP 36 33 . 00 0.4
eS 36 48.40
S.D. =0.5 on 8of Bobs.

? AUG 27, 1991 23h 39m 16.37± 2.15s
51.451 N ±41. 6km 172.542 W ±20. 6km
DEPTH = 33.0km (normol)
4 . 4mb (11 obs .)
ANDREANOF ISLANDS. ALEUTIAN IS. (7)

ADK 2 . 62 281 eP 39 58 . 40 1.2
eS 40 33.00

TTA 14.52 31 e(P) 42 39.00 -2.2
INK 25.20 33 eP 44 40.00 0.1
0.6s 14.00nm 4. 7mb
LZH 59.08 290 eP 49 15.00 -0.8
1.5s 28.00nm 5. 2mb
NUR 67.54 351 eP 50 11.00 0.1
NB2 67.82 358 P 50 12.80 0.1
0.7s 3.00nm 4. 5mb
HFS 68.66 357 eP 50 17.70 -0.1
0.4s 2 . 60nm 4 . 7mb
GUN 75.40 296 P 50 57.40 -1.5
KKN 75.83 297 P 51 00.20 -0.9
PK I 75.93 296 P 51 01.20 -0.6
GKN 76.02 297 P 51 01.40 -0.7
0.6s 1 3 . 00nm 5.1mb
DMN 76.07 297 P 51 01.20 -1.3

BRG 77.90 356 i(P) 51 12.70 0.7
LOR 81.61 2eP 5134.10 2.1
0.6s 1.80 nm 4 . 3mb
SSF 81.81 3 eP 5134.00 1.1
0.6s 1 . 80nm 4 . 3mb
LBF 81.90 2 eP 51 34.20 0.7
0.6s 1 . 35nm 4 . 1 mb
AVF 82.08 3 eP 51 34.70 0.4
0.6s 1 . 80nm 4 . 3mb
TCF 82.54 4 eP 51 37.50 0.7
0.6s 1 . 80nm 4 . 3mb
LSF 82.55 4 eP 51 37.60 0.8
0.6s 2.25nm 4. 4mb
S.D. -l.l on 19 of 19 obs .

% AUG 27, 1991 23h 48m 50.49± 0.85s
39.424 N ± 8.1km 22.776 E ± 9.5km
DEPTH - 10.0km (g e ophy s i c i s t)
GREECE (364)
MD 2. 1 (THE) .

&r.r. PiFttlJIe-Pr 4 9 R 1 . 7 fl R R

LIT

PAI

THE
OUR

SOH

0.71

G 0.86

1 . 22
1 . 30

1 . 46

S.D. =

AUG 28,
44 . 396 N
DEPTH =

eS
342 iPd
eS
54 i Pd
i S
7 ePd
45 iPc
eS
17 *Pd
eS
0.4 on

1991 00h
± 3 . 6km
10 . 3 ± 2 .

49 10.28
49 04 . 44
49 15.76
49 07.17
49 19.21
49 12.88
49 14.14
49 31.32
49 17.52
49 36 . 48
6 of 6

- 0. 1

0. 1

- 0.2
- 0. 4

0. 5

obs.

03m 35 . 36± 0.51s
15 .366 E
5 km
JUGOSLAV 1 A

V8Y
V8Y

ZAG

CEY

TR 1

LJU

VOY

ARV

SF 1

CRE

VV 1

D <~ r\ r L> U

MNS

DU 1

FV 1

SDI

KBA

CTI

BDI

P 1 1

ML 3. 5

(TRI).

1.11
1.11

1 . 49

1 . 50

1 . 74

1 . 75

1 . 94

1 . 97

2 . 57

2 .58

2 . 62

2. e b7 /

2. 81

2.81

2. 85

2. 92

3 . 03

3.10

3.44

3.55

WTTA 3 . 88

OGA
VKA

SRO

ZST

BUD
BOB

TDS
KHC

CK 1

PRU

3.92
3.93

3.99

3. 99

4.01
4 . 24

4 . 79
4 . 89

5 ft O

. v O

5.62

(VKA), 3.

356 ePg
356 iPn
iSg
17 i P n

iSg
334 ePn

iSg
320 iPgc
iSg
341 i Pgd
iSg
328 iPn
eSn
244 P
eSn
261 P
eSn
254 P
eSn
308 P
eSn

o /by c ft Dr
eSn
225 P
eSn
194 P
eSn
321 P
eSn
203 P
eSn

333 i P g c
i
iSg
i
303 P
eSn
266 P
eSn
261 P
eSn

319 i (Pn)
iPg
iSg
311 ePn

9 i Pgc
iSg
30 eP
i
17 iPn

i e
e

38 e(P)
277 P
eSn
171 P
346 Pn

Pg
Sg
273 P
eSn
355 ePn
e
e

Sg

2 (KBA).

03 56. 10
03 57.60
04 1 1 . 50
04 03.70
04 23.60
04 02. 40
04 23.00
04 06. 30
04 29.20
04 07 . 00
04 29 . 50
04 08 . 60
04 35.60
04 09 . 00
04 34.40
04 1 8 . 00
04 49.80
04 18.80
04 50.90
04 17.70
04 48.50
04 19 90
04 51 . 00
04 20.80
04 55.40
04 22. 40
04 54.20
04 21 .30
04 56.90
04 21 .50
04 56.60
04 28.50
04 35. 06
05 04.80
05 15.30
04 25.50
05 00.90
04 31.10
05 10.00
04 31 . 16
05 09.80
04 36.40
04 46.58
85 37.90
04 41 .78
04 37.28
05 20.90
04 36.90
04 49.30
04 36.30
04 41 .20
05 23.70
05 52.90
04 49.00
04 41 . 30
05 28.20
84 49.60
04 50.00
04 54.50
05 44.50
04 51 .80
05 47.60
05 00.00
05 20.50
05 24.20
86 02.00

± 5 . 7km

(383)
MD 3. 3

- 0. 1
1 . 4

1 £ 1 . O

e. i

0. 6

1 . 1

- 0. 1

- 0. 1

0. 3

e.9

- 8. 7

0.5

- 0.3

1 . 1

- 0.3

- 1 .2

4 . 1 X

0.2

8. 9

- 0. 5

0. 0

4. 6X
0.3

- 0.8

- 1 . 4

1 1 . 0X
- 0. 2

0. 4
- 0. 7

- 1 . 5

- 1 . 0

S.D. - 0-9 on 28 of 31 obs.

268

28d 00h

AUG 28, 1991 00r» 41m 42.12± 0.68s
20.596 S ± 7.3km 68.081 W ±13. 9km
DEPTH = 163.2 ± 19.5 km
CHILE-BOLIVIA BORDER REGION (124)

CCH 3. 68 30 P 4238.20 -1.4
CNCB 3.76 1 i Pd 4242.16 1.2
i 43 26.00
ANT 378214 i P 4240.70 0.2
eS 43 22.50
LPB 4.04 360 P 42 45.00 0.7
6.9s 50.42nm
ZOBO 4 30 359 P 42 48.00 0.1
i 4337. 00
SLA 4 . 7 6 1 5 0 i P C 4253.50 "3.0
ARE 5 23 321 IP 42 58.80 -1.1
iS 43 55.00
WRA 134.12 210 PKP 00 42.00 -0.5
0.8s 0 . 70nm
GBA 146.37 96 PKP 01 05.00 0.6
0.3s 1 . 20nm
S . D . l = 1 . 1 on 9of 9obs.
__________ 1
AUG 28, 1991 00h 51m 53.28± C.43s
24.671 |N ± 8.9km 62.708 E ± 7.0km
DEPTH =J 33.0km (normol)
4 . 5mb (20 obs .)
NEAR COAST OF PAKISTAN (356)

OUE 6.66 33 iPd 53 31.30 -0.3
0.7s !3.70nm 4. 9mb
eS 54 44.50
ND I 13.57 70 iPd 55 1 3. 00 7 . 1 X
GBA 17.72 126 Pd 55 58.70 -0.5
0.8s 1 5 . 1 0nm 4. 2mb
KHC 45.25 316 eP 00 10.00 0.7
e 0030. 00
CLL 46.18 318 iPd 00 18.30 1.8
1.1s 20.00nm 5. 0mb
OGA 46.45 312 iPc 00 19.40 0.4
0 . f s 4 . 00nm 4 . 6mb
MOX 46,85 317 eP 00 23.30 1.4
GRF 46 88 316 i PC 00 23.30 1.2
1.1s 1 2 . 00nm 4 . 8mb
SBF 48.59 308 eP 00 35-50 -0.1
0.7s 6.60nm 4. 8mb
CDF 49.20 314 eP 00 39.70 -0.6
0.8s 6.60nm 4.7mb
LPG 49.21 310 eP 00 40.40 -0.3
0.9s 4 . 1 0nm 4 . 5mb
LPL 49.23 310 eP 00 40.40 -0.3
0.9s 3.30nm 4. 4mb
BSF 49.44 313 eP 00 41.70 -0.5
NB2 50.34 330 P 00 48.20 -0.6
0.6s 1 . 50nm 4 . 2mb
LBF 51.26 311 eP 00 55.60 -0.4
1.0s 6 . 00nm 4 . 5mb
SMF 51.32 311 eP 00 56.20 -0.3
1.0s 11.00nm 4. 8mb
SSF 51.58 311 eP 00 58.20 -0.2
0.9s 4.1 0nm 4 . 4mb
AVF 51.67 311 eP 00 58.60 -0.4
BGF 52.00 311 eP 01 01.40 -0.2
0.6s 3.15nm 4.5mb
MAF 52.18 310 eP 01 02.90 0.0
0.7s 2 . 20nm 4 . 2mb
TCF 52.43 310 eP 01 04.60 -0.2
0.5s 1 . 45nm 4 . 2mb
RJF 52.88 309 eP 01 08.30 0.1
LPO 53.10 308 eP 01 10.00 0.2
LFF 53.42 309 eP 01 12.40 0.3
0.6s 3.60nm 4. 5mb
LDF 54.11 313 eP 01 16.60 -0.5

0 .;5s 3 . 65nm 4 . 7mb
FLN 54.36 313 eP 01 18.40 -0.5
0 .17 s 5 . 50nm 4 . 7mb
LPF 54i. 71 312 eP 01 20.80 -0.7
KIC 66). 89 266 P 02 44.70 -0.2
TIC 67.03 267 P 02 45.70 -0.1
WRA 82.59 116 P 04 16.00 1.2
0.6s 0 . 50nm 3 . 8mb
S . 0 . = 0 . 7 on 29 o f 30 obs .

% AUG 28, 1991 01r» 21m 29 . 83± 0.66s
41.477 N ± 8.4km 14.354 E ± 9.0km
DEPTH - 10.0km (geophy s i c i s t)
SOUTHERr* ITALY (390)

DU 1 0.20 23 P 2134.20 -0.1
eSg 21 39.90
SDI 0. 46 300 P 21 40 . 00 0.7
eSg 21 47.70
SCO 1.17 141 P 21 51. 30 -0.3
eSn 22 12.70
MNS 1.54 307 P 21 58.00 0.6
MGR 1 . 62 1 45 P 2158.70 0.2
eSn 22 1 7 . 60
BAI 1 . 93 100 P 21 58
ASS 2.03 322 P 22 02

(Sn) 22 31
ARV 2.27 333 P 22 08

00 -4 . 9X;>0 -2.3
00
90 0.9
eSn 22 36 . S0
TDS 2.36 140 P 22 08.60 -0.7
ORE 2.79 321 P 22 11.70 -3.7X
LC 1 2 . 96 1 1 2 P 22 1 8 . 60 0.9
S . D . =1.2 on 9 of 11 obs.

AUG 28, 1991 01h 29m 02.05± 0.21s 35.338 N ± 4.1km 133.208 E ± 3.3km DEPTH = 12.7km (15 depth phoses) 5.2mb (32 obs.) 5.3Msz (3 obs.)
SOUTHERN HONSHU. JAPAN (232)
Felt (IV JMA) at Motsu and
Yonogo; (Ml JMA) at Kofchi ond Okayomo. Also felt (III JMA) ot Tokomatsu, Shikoku. Also felt at Iwokuni , Honshu.
CENTROID, MOMENT TENSOR (HRV)
Data Used : GDSN
L. P.B. : 15S , 27C
Centroid Location:
Origin Time 01:29: 5.6 0.4
Lot 35.04N 0.04 Lon 132. 63E 0.05

Dep 15.0 FIX Ho I f-dur o t i on 2.0
Moment Tensor; Scole 10»«17 Nm
Mr r- 0.32 0.06 Mt t =
Mf f = -1 .28 0.08 Mr t =
M r f = -0 .44 0.15 M t f --
Principal Axes:
T Val= 2.30 Plg-3e

0.96 0.06
1 . 35 0.14
- 0.91 0.06

> Azm= 19
N -0.70 54 203
P -1.60 2 110

Best Double Co up 1 e : Mo = 2 . 0 1 0 1 7
NP1 : S t r i ke-1 61 Dip-64 S I i p= 26
NP2: 59 67 152

YONJ 0.26 126 iPd 29 07. 50 -0.2
SHK 0.91 209 iPc 29 18.30 -1.0
0.3s 5194. 81 nm
TKSJ 1.52 153 i P-f 29 29.00 0.1
S 29 48
SHNJ 2 . 11 236 i P 2938
WKYJ 2 . 26 1 1 9 i Pd 2940
S 30 07
TSRJ 2.27 84 P 29 40
S 3010
KUMJ 3.42 216 i P+ 29 56
S 3041
IIDJ 3.84 87iPd 3001
MTMJ 3.93 70 P 30 04
MAT 4.23 72 iPd 30 08
eS 30 57
KAGJ 4.57 206 P 30 13.
eS 31 08.
CHJ J 4.76 80 P 3016.
N 1 1 J 5 . 05 66 i Pd 3019.
eS 3119.
KAKJ 5.73 79 P 30 28,
YAMJ 6.17 61 eP 30 35,
AOMJ 7.69 45 eP 30 57,
eS 32 25,
OFUJ 7.71 59 eP 30 58,
MRRJ 9.36 39 eP 31 20
HOOJ 10.54 45 eP 31 37
SSE 10 . 92 251 P 3144
1.5s 1 22 . 00nm
I 20s 10. 30um
N 14s 27 . 1 0um
E 14s 13. 50um
i 32 32
eS 33 41
ASAJ 1 1 .38 37 eP 3148
KUSJ 11.81 46 eP 3151
BJ 1 14.28 294 eP 32 26
1.2s 201 . 00nm

40
20 0.7
10 0.4
60
10 0.2
40
50 0.3
40
90 -0.3
40 0.9
10 0.4
00
30 0.8
20
00 0.8
80 0.6
70
60 -0.2
60 0.6
50 1.1
90
20 1.5
80 1.3
10 1.3
00 3 . 0X
6 . 0mb
3 . 9MszX

50
00
90 1.7
60 -1.4
00 0.1
5.7mb

CVP

BAG

LZH

TGY

P t r- r O <K>
GUA

PGP
1 P fe" 1 T\ r\

YAK

KM 1

DAV
CHG

SHL

KHT
GUN
PK 1
KKN

DMN
GKN

PSI
ND 1
HYB
RSO
PMR

FBA

WRA

OUE
OIS
KOD
CTAO

BALM

MA 1 0

ASPA

1 NK
MBC

KEV

RMO

SOD
DZM

I 12s 12.1 0um 4 . 7MS2X
N 12s 9.29um
E 12s 12.20um
epP 32 30.50
eS 35 16 . 00
20. 27 213 ePc 33 41 . 00 0.9
0.5s 25 . 00nm 4 . 8mb
21. 97 214 eP 3355.80 -1.8
eS 37 57.00
23 . 82 280 eP 34 1 7 . 00 1.3
2.0s 264 . 00nm 5 . 5mb
2 1 5s 7 . 46um 5 . 3MszX
E 12s 6 . 49um

pP 3428.00 42kmX
sP 34 30.00
i 35 22 .50
eS 38 30.00
23.86 21 1 eP 34 18. 00 2.1
24 . 07 1 51 eP 34 1 8 . 80 0.7
24. 1 4 151 eP 3419.20 0.5
1.2s 437.50nm 5.9mb
24 . 39 210 i PC 34 22 . 00 0.9
26 . 61 3 1 8 eP 3443.80 2.1
e 35 00.00 69kmX
ePP 35 20 . 00
eS 3920.00
e 39 42.00
eSS 40 24.00
26.79 356 eP 34 38.50 -4.8X

epP 34 53.00 60kmX
ePP 35 35.50
ePP 35 39.00
ePPP 35 52.00
ePSP 37 47.00
eS 3914.00
esS 40 00 . 00
eSS 40 37.00
eSSS 41 04.00
28 . 1 3 257 eP 3455.00 -1.1
2.0s 320 . 00nm 5 . 8mb
I 14s 4 . 70um 5 . 2MszX

pP 35 03.00 28kmX
S 39 54 . 00
28. 98 196 eP 3512.20 8 . 7X
34.45 251 ePc 35 50.60 -1.0
0.6s 6.67nm 4. 7mb
36. 71 266 eP 36 12. 50 1.6
eS 41 50.50
37 . 1 7 245 eP 36 1 4 . 70 0.1
40 . 67 273 P 3646.92 2.8
41 . 1 8 273 P 3647.30 -1.0
41.20 273 P 36 48. 00 -0.4
1.1s 79 . 00nm 5 . 3mb
41.41 273 P 3651.06 0.9
41.64 274 P 36 50 . 30 -1.6
1.1s 99.00nm 5. 5mb
45 44 232 ePd 3721.20 -1.3
47.41 278 eP 3739.00 0.9
51 . 47 265 eP 38 12. 00 2.5
52 . 30 37 P 38 15. 00 -0.4
53.90 35 P 38 24 . 90 -1.9
1.2s 98 . 48nm 5 . 7mb
pP 3829.40 1 5km
54.03 31 P 3827.20 -0.6
1.1s 68 . 75nm 5 . 6mb
54.99 179 P 38 31 . 00 -4 . 3X
0.6s 29.70nm 5.5mb
55 . 03 285 eP 38 37 . 00 1.1
55. 92 1 73 iPc 3837.90 -4 . 1 X
56 . 31 258 eP 38 41 . 70 -3. 7X
56. 49 165 iPc 38 43.80 -2.4
i 38 50.00 20km
57 . 21 35 P 38 50. 20 -0.9

pP 3854.40 1 4km
58.36 294 iPc 39 03.00 3.6X
eS 47 1 1 . 00
58.68 179 iPc 38 58.70 -2.9X
0.6s 25 . 30nm 5 . 5mb
58 . 86 26 eP 39 0 1 . 00 -1.3
59. 97 15 eP 39 09 . 50 -0.4
0.6s 7 . 00nm 5 . 0mb
62.59 338 eP 39 29.00 1.3
e 39 43.00 50kmX
63. 23 164 iPd 39 40. 40 8. 1X
0.3s 4 . 00nm 5 . 1mb
63.85 336 eP 39 40.00 3.9X
65.21 146 iPc 39 44.90 -0.6

269

284 01h

OBN

KAF
NUR

YKA

HFS

NB2

PNT

VR I
NEW

MLR
KRA

SES

KSP
ORV

FFC

SRO
BRG

CLL

ZST
PRU

LRM

MOX

CMB

KHC

VAY
SKO

GRF

TNP

MEM
I SA
CLC
BW06

SBB
MWC
GSC
PEC

Z
N
E

2

E

N
E

Z
N
E

Z
N
E

Z
N
E

N
E

Z

65.35
1.0s
13s
1 4s
13s

66 . 65
68 . 1 8

68 . 49
1 . 0s
72 . 73
0.5?
15s

73.01
1 .3s
73. 89
0.9s
75 . 53
75.85
1 . 1 s

76 . 20
76.58
19s

77 . 58
1.1s

77 . 84
78.55

78.57
0 . 7s
70 o *\ / O . O D
78.91
1 7 s
17s

79 . 04
1.1s

79.21
79 . 24
15s
16s
1 7s

79 .87

80 . 13
18s
18s
18s
80 . 16
1.1s
80 . 29
1.0s
20s
18s
18s

80 . 70
80 . 94
17s
17s
80 . 99
1 .2s
19s

82. 10
0. 5s
82. 60
82. 82
83. 28
83 . 45
0. 9s

83 .84
83.99
84.11
84. 77

321 *P
31 . 00nm
2 . 20um
1 . 40um
1 . 60um
ePcP
<r
LO
331 eP
330 i P
e
28 eP
9 50 nm
3 Jl 3 e P

i . r e i ! m
0 . 79um
LR
334 P
1 0 . 60nm
4 1 tP
1 4 . 00nm
316 eP
46 P
36 . 86nm
pP
316 i Pd
322 eP
6 00um
a
e
36 eP
50 . 00nm
pP
325 *P
58 P
pP
29 eP
18 00nm

321 <?(P)
326 <-P
3 . 00um
1 50um
e
326 tP
20 . 00nm

<r

322 eP
325 eP
1 . 40um
3 . 00um
2 . 30um

£

e
46 eP
d
327 eP
1 . 30um
3 . 30um
1 . 70um
50 P
22. 35nm
325 P
5 . 00nm
1 . 00um
2 . 30um
3 . 40um

<r

314 tP
315 eP
2 . 1 Sum
2 . 69um
326 eP
3 . 00nm
1 . 30um
e
49 P
8 . 23nm
329 P
51 eP
51 eP
41 P
6.36 nm
PP
52 eP
52 eP
51 eP
52 P

39

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- 0.9
. 4mb
. SMszX

257kmX

- 0 .8
- 2.0
1 4km
2 .8X
. 9mb
- 1 .8
. 2mb
. IMszX

- 0.3
. 8mb
- 0. 4
. 0mb
8

1 V
. 1 A

- 0.2
. 3mb
1 2km
1 2 . 2X
- 0 . 4

1 0km

- 0. 3
. 5mb
16km
3 .OX
- 0 .8

1 4km
4 . 5X

. 2mb
2 . 4
4 . 3X

1 85kmX
- 1 .2
. 1mb
70kmX
3. 7X
0. 7
. 4MszX

6 km

0.2
1 5km
3. 1X
. 3MS2

- 0.8
. 1mb
3.0X
. 5mb
. 2MS2

6 km
- 1 .8
3 . 5X

- 0. 1

. 2mb
. 3Msz
1 0km
0 . 1
. 1 mb
- 1 7
- 1 .6
4 . 1 X
- 0 .5
. 8mb
1 3km
0.2
5.3X
- 0.2
- 0.9

PLM 85.31
RSSD 85.36
0 . 8s

BAR 85.86
PV09 86'. 61
GLD 87.90
ANMO 90.62
1.0S
ALO 90.63
1.1s
ZOBO 153.10
Z 23s

LPB 153.31
SOB1 153.44
CNCB 153.59

S .D . =

? AUG 28,
4 . 756 N
DEPTH -

pP 4141.
52 *P 41 44
37 P 41 40
1 2 . 02nm
pP 41 44
53 eP 41 42
44 P 41 47
41 P 41 56 .
45 P 42 06.
7 . 00nm
45 eP 42 06.
7 . 9 1 nm
5 1 PKP 4858.
0 . 33um
i 1814.

LR 43 42.
51 PKP 49 02.
347 ePKP 48 58.
51 ePKP 4B 56.
i 4904.

10 1 5km
00 3 . 7X
50 0.0
5 . 2mb
50 13km

00 -0.9
30 0.5
00 3 . IX
00 0.2
4 . 9mb
00 0.1
4 . 9mb
00 3 . 6X
5 . 1 Ms?X
00

00
00 7 .5X
70 4 4X
00 0.9

CQ
1.2 on 82 of 109 obs.

1991 02h 03m 00.
±87 . 2km 77.147
33.0 km (no rmo I)
NEAR WEST COAST OF COLOMBIA
MD 3 . 1

CLMC 1 . 05

HOBC 1 . 0B
BUGC 1 . 23

ANCC 1.26
HOOC 1 . 38
SI LC 2.21

S . D. =

% AUG 28,
37.140 N
DEPTH -
SPA I N

mbLg 2

AFC 0.16

ECOG 0.17

EGUA 0.32

EBAN 1 . 03

EHUE 1.10
EN IJ 1.19
EHOR 1 . 42

EVI A 1.76

S.D. =

* AUG 28,
30. 182 S
DEPTH -

(UVC) .

146 i Pd 0319.
eS 03 30.
1 12 iPc 03 19 .
134 i PC 0321.
tS 03 33.
167 iPd 03 22.
158 iPd 03 23.
159 ePd 03 36.
eS 03 59.
0.6 on 6 o f

1991 02h 38m 39.
± 6 . 4km 3 . 683
10.0 km (gtophy s i

. 9 (MOD) .

44 iPgd 38 42.
tSg 38 45.
34 iPgc 38 42.
eSg 38 45.
163 i Pgd 38 45 .
eSg 38 50.
355 ePg 38 58.
eSg 39 13.
52 tPg 39 01 .
98 ePg 39 02.
299 tPn 39 05.
tSn 39 22.
32 ePn 39 09.
eSn 39 32.
1.0 on 8 o f

1991 04h 28m 55.
± 8 . 4km 69 . 233
10.0 km (geophy s i

37±1 3 . 85s
W ± 7 6 . 1 k m

(102)

B8 1.0
40
71 0.3
64 0.1
60
32 0.5
48 -0.3
51 0.7
70
6 obs .
_ _ _

1 7± 0.89s
W ± 7 . 9km
cist)
(377)

60 -0.3
00
10 -0.9
00
00 -0.8
70
30 -0.3
50
00 1.1
40 1.0
80 0.8
80
40 -0.6
00
8 obs .

68± 1 . 26s
W ±1 6 . 1 km
cist)
CHILE-ARGENTINA BORDER REGION (127)

RTLL 1 . 32
ZON 1 . 44

PEL 3 . 20

CYA 3.47
SLA 6.37
S.D. -

* AUG 28,
10 . 859 N
DEPTH -

4 . 1mb (
TR I N 1 DAD
MD 4.1

TBH 0.63

TRN 0.86

TPP 1 . 03

150 iPc 29 19.
161 iPd 29 22.
tS 29 42.
202 iPc 29 47.
iS 30 34.
61 iP 29 50.
32 ePd 30 32.
0.4 on 5 o f

1991 04h 50m 05.
±19. 5km 60.556
33. 0km (normol)
1 obs.)

(TRN) .

234 IP 56 17.
eS 50 29.
256 eP 50 20.
eS 50 34.
239 eP 50 23.

80 -0.3
30 0.4
30
00 -0.1
50
90 0.1
00 0.8
5 obs .

64± 3.24s
W ±36 . 2km

(98)

53 -0.5
39
87 -0.4
22
73 -0.1

eS 50 37.60
TCE 1.19 262 eP 50 26.29 0.3
eS 5041.81
SVB 2.49 344 tP 50 44.84 0.0
tS 51 16.01
SLB 2. 99 351 eP 50 52. 77 0.9
tS 51 26. 10
BIM 3.67 352 eP 51 00.55 -1.0
FDF 3.89 351 e P 51 03.78 -0.9
0.2s 0 . 52nm
ALO 48.06 308 *P 58 46.00 1.6
1.0s 2 . OOnm 4.1mb
MBC 72.33 348 c P 01 39.00 9.4X
S . 0 . =1.0 on 9 o f 10 obs .

AUG 28. 1991 65h 10m 29.79± 0.33s
40.341 N ± 3.6km 25.877 E ± 3.4km
DEPTH = 10.0km (geophy s i c i s t)
AEGEAN SEA (365)
MD 3.2 (THE) .

ALN 0.57 13 iPc 10 41.25 -0.1
eS 10 50. 10

E2N 0.62 146 iPg 10 42.00 -0.2
*Sg 10 50 . 00
RDO 0.84 342 tP 10 45.90 -0.2
eS 10 58.00
PRK 1 . 13 1 64 tP 10 51 .20 0.2
tS 1 1 07 . 00
KDZ 1 . 35 345 i PC 10 55.00 0.3
OUR 1.45 270 iPc 10 54.69 -1.3
eS 1117.34
EDC 1 .52 89 i Pn 10 57 .80 0.8
RZN 1.61 327 iP 10 58.00 -0.5
DIM 1 . 73 351 eP 1 1 00 . 00 0.0
PAIG 1.73 257 iPd 10 59.82 -0.3
eS 11 24.50
SRS 1.90 295 ePc 11 02.74 0.2
t S 11 2954

PLD 1.97 334 i Pg 11 07.00 3.4X
SOH 1.98 285 i PC 11 04.74 1.0
eS 1 1 33. 10
DMK 2.85 43 iPn 1 03.80 -0.9
MMB 2.05 308 i PC 1 05.00 0.2
CTT 2.10 67 iPn 05.50 0.1
IZM 2.22 151 ePn 07.80 -0.2
KNT 2.41 291 ePd 10. 70 0.8
i S 43 . 06
KKB 2.60 307 iP 22.00 9.3X
VAY 2.69 292 ePn 25.00 11. 1X
I Z I 2.75 89 ePn 1 5 . 00 0.2
S.D. = 0.6 on 18 of 21 obs.

? AUG 28. 1991 05h 37m 39.74± 4.27s
31.671 S ±36. 2km 70.054 W ±28. 3km
DEPTH - 150.1 ± 42.1 km
CHILE-ARGENTINA BORDER REGION (127)

JACH 1.11 204 iPd 38 86.00 0.2
iS 38 23.00
ZON 1.18 84 eP 38 06.00 -0.5
eS 38 23.00
RTLL 1.40 76 i PC 38 09.00 0.4
ROCH 1.53 212 iP 38 10.80 -0.2
iS 38 30.50
PEL 1.56 200 iPc 38 18.30 -0.1
iS 38 30.00
PCH 1 . 98 191 iP 38 15.50 0.4
iS 38 40.20
TACH 2.11 200 i Pd 38 16.50 -0.1
iS 38 42.00
LCCH 2.21 215 eP 38 18.00 0.3
LNV 2.55 206 iP 38 21.50 -0.4
IS 38 50.50
S.D. =0.4 on 9of 9 obs.

% AUG 28, 1991 85h 49m 31.39± 1.36s
41.121 N ±15. 8km 24.525 E ± 7.4km
DEPTH - 10.0km (geophy s i c i s t)
GREECE-BULGARIA BORDER REGION (363)
MD 2. 7 (THE) .

SRS 0.78 270 ePc 49 44.52 -0.8
eS 49 55.48
OUR 0.89 208 iPd 49 48.08 -0.3
eS 50 80.44
SOH 0.94 252 ePc 49 50.40 1.1

28d

A LN

05h

eS 50 02.00
1.17 100 ePd 49 53/36 0.1
iS 5009.68
PAIG 1.36 269 eP 49 56.14 -0.1

?

S.D. =1.6 on 5 of 5 obs .

AUG 28, 1991 06h 68rr, 25.12± 2.45s 36.173 N ±21 8km 21.905 E ± 8.9km DEPTH = 3 3 . M !< m (normal)
SOUTHERN GREECE (368)

VL 1

V L-.
AT H
AGG

NPS
L 1 T

ML 3 . 3 (ATH) .

0.99 07 ePg OS 43.16 0.3
*Sg 08 57.20
2 . 26 3.33 «Pb 0962.W6 1.1
2.31 3 8 * P g 6968.10 6.5X
2.86 7 ePc 09 11.60 2.1
eS 0917.30
3i 15 1C6 ePb 09 25 .50 1 1 . 9X
3 95 7 eP 09 23.60 -1.3
eS 09 38 . 00
PAIG 4 00 20 ePc 09 26.33 0.7
KZN
OUR
THE
FNA

SOH
OHR
1- NT
CZ 1

AT N
CSI

MGR
SCO

4 i 1 3 359 ePn 0928.20 0.7
4 i 46 21 ePd 09 32.48 0.3
4^53 10 eP 0932.10 -1.0
4 . 62 355 eP 09 36 . Otf 1.5
eS 1001.22
4.78 13 ePc 09 35.04 -1.6
5.01 350 ePn 09 39.20 -0.8
5.04 9 eP 0939.20 -1.2
5 . 49 305 P 0946.60 -0.1
eSn 10 37.20
5.51 293 P 094720 0.1
5 . 7 1 3 1 1 P 0953.20 3 . 3X
eSn 10 49.50
6 . 38 31 0 P 69 58 50 -0.8
6.78312P 1004.90 0.0
S . D . i - 1 . 1 on 16 of 19 obs.
_ L -

AUG 2p , 1991 66h 47m 44 08± 0.26s
21.191S ± 6. 5 km 170.365 E ± 5. 4 km

DEPTH N 20.6km (7 depth phases) 5.3mb (13 abs.) 4.7Msz (4 obs.)
LOYALTY ISLANDS REGION (189)

DZM

PVC
BKM
SVA

VUN
BRS

COO
WEL
RMO

LTZ
EWZ
CNB
CMS

OLP

PMG
TOO

STK

CENTROID. MOMENT TENSOR (HRV)
Data Used: GDSN
L. P .B . : 13S , 23C
Centroid Location:
Origin Time 06:47:47.9 3.5 Lot 21.2CS 0.31 Lon 170. 35E 0.18

Dep 21.6 8.5 Ho 1 f -du r a t i on 1.6
Moment Tensor; Scole 10*«16 Nm
Mrr=-3.24 0.52 Mtt 3.13 1.03
M< f = 6.38 1.13 Mr t= 3.44 2.10
Mr<=-0.67 1.57 Mtf 4.46 0.59
Principal Axes:
T Vol= 8.46 Plg=10 Azm= 66
N -1.24 50 324
P -7.22 38 164

Best Double Ca u p 1 e : Ma = 7 . 8 » 1 0 « 1 6
NP1 : S t r i ke=1 98 Dip=56 S 1 i p= -22
NP2: 301 72 -144

3.75 256 i PC 48 40 90 -1.3
i S 49 29 10
3 . 94 330 i P 48 47 30 2.5
4 . 04 330 i P 48 47 . 00 0.8
8.22 70 eP 49 45 . 00 -0.1
eS 5057.10
8.26 69eP 4946.00 0.2
17.17 245 i PC 51 49.50 5 . 0X
e(S) 56 12. 00
19.05 237 eP 5211.00 3 . 3X
20.38 170 eP 52 19.00 -3.2X
20.45 251 iPc 52 34.40 11. 4 X
07s 1 1 6 . 00nm
2 1 . 59 1 76 P 5234.70 0.1
2:> . 26 1 79 P 5242.70 1.5
25.18 228 i Pd 52 52. 70 2.3
21.21 240 iPc 53 02.10 1.7
0.9s 92 . 00nm 5 . 3mb
21.47 252 eP 53 04.20 1.3
1.0s 385 . 00nm 5 . 9mb
25.22 294 eP 53 10.00 -0.2

27.01 227 e(P) 53 27 . 00 0.3
i 53 28.70 6kmX
27.78241 P 5334.80 1.1

Ol S
WRA

ASPA

MTN
WARE
RUV

SPA

ADK

MAW

BJ 1
KM 1
CHG

LZH

SYP
SVW
RSO
NVL

SLKM
ORV

CMB

1 SA
SBB
RVR
PLM

CLC
GSC
GLA
TNP

BALM

PDA PDA

PNT
PV09
ANMO
1 NK
KAF
NUR
KRA
KSP
BRG

CLL

SRO
PRU

ZST

E K A

MOX

KHC

SKO

GRF

28
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142
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1 .

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145
145

145

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146
1 .
146
1 .

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. 71
8s
. 74
0S
. 34
. 21
. 49
8s
. 94
0s
. 64
0s
. 03
0S
. 1 1
. 20
. 42
0S
. 81
5s

. 27
. 47
. 69
. 06

. 45
. 66

. 67
0s

. 89
. 91
. 92
. 01

. 59
. 93
. 4 1
. 90
0s

. 33

. 63
0S
. 62
. 85
. 54
. 06
. 25
. 93
. 93
. 10
. 08
2s

. 12
3s
. 20
. 49

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. 56
8s
. 19
2s
. 54
0s

. 66

. 10
Z 2ls

DMU
OHR
DCN
MEM
VBY
WT T A

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147
147
148
148
1 4 E
1 .

. 28
. 50
. 85
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3s

266
266
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259
71
276
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202
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321
302
294
1 1
312
28

51
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187

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48
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21

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338
337
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332
334
1 1

335
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332

328

353
12
336
31
332
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316

335
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357
315
357
341
326
332
29

276

eP
P
. 4 0nm
i PC
. 00nm
eP
eP
eP
. 00nm
iPd
. 50nm
P
. eenm
eP
. 00 nm
eP
eP
ePd
. 00nm
eP
. 00nm
pP
sP
eP
P
P
ePc
e
P
P
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P
. 00nm
PP
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PP
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. 06nm
pP
P

pP
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. 50nm
eP
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ePKP
ePKP
ePKP
i PKP
. 00nm
i
ePKP
. 80nm
ePKP
PKP
e
ePKP
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1 8km

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8 . 1 X
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2 1 km
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- 0 . 7
- 6 .3X
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i 07 45.80
ECP 148.96 356 ePKP 07 37.00 9.4X
DOU 149.04 342 PKP 07 31.00 3.2X
GWF 149. 04 338 PKP 07 31. 17 3.2X
CDF 149.64 337 PKP 07 32.50 3.5X
FEL 149.82 336 PKP 07 32.74 3.5X
ECH 149.85 337 PKP 07 32.81 3.6X
VITF 150.26 339 PKP 07 34.00 4.2X
BSF 150.30 337 iPKPc 07 34.40 4.4X
0.9s 1 3 . 1 0nm
HAU 150.31 338 iPKPc 07 34.40 4.5X
0.9s 1 3 . 1 0nm
Z 21s 0.13um 4.7Msz
BBS 100.35 336 PKP 07 34.33 4.3X
LOMF 150.70 337 PKP 07 35.37 4.8X
FLN 151.53 347 iPKPc 07 36.90 5.3X
1.0s 26 . 00nm
Z 21s 0 . 20um 4 . 9Msz
LDF 151.62 347 iPKPc 07 37.00 5.2X
LOR 151.78 340 iPKPc 07 37.80 5.7X
0.9s 9 . 85nm
Z 22s 0 . 1 5um 4 . BMsz
GRR 151.96 348 iPKPc 07 37. 9C 5.6X
LBF 151.99 340 ePKP 07 38.40 5.9X
0.7s 3 . 30nm
SSF 152.07 341 iPKPc 07 38.60 6. IX
1.0s 18. 00nm
LPL 152.26 335 iPKPc 07 39.40 6.3X
0.8s 5 . 35nm
LPG 152.27 335 iPKPc 07 39.60 6.4X
0.8s 8 . 05nm
SMF 152.34 340 iPKPc 07 38.70 5.8X
1.2s 14. 90nm
LPF 152.34 348 iPKPc 07 39.00 6.2X
0.9s 1 6 . 40nm
AVF 152.36 341 ePKP 07 38.80 5.9X
BGF 152.73 341 i PKPc 07 39.80 6.3X
0.8s 1 0 . 75nm
MAF 153.11 341 «PKP 07 40.70 6.7X
TCF 153.16 342 ePKP 07 40.70 6.6X
SBF 153.31 332 ePKP 07 40.90 6.5X
LSF 153.39 343 iPKPc 07 40.80 6.4X
MFF 153.56 345 ePKP 07 41.60 7. IX
PGF 153.58 32B iPKPc 07 41.60 6.7X
0 . Bs 1 0 . 75nm
S . D . - 1 . 1 on 54 of 1 00 Obs .

* AUG 28, 1991 08r> 33m 54.70± 0.89s
21.220 S ± 7.9km 67.439 W ±16. 7km
DEPTH - 198.0km (geophysicist)
CHILE-BOLIVIA BORDER REGION (124)

ANT 3.70 228 eP 34 53.50 0.6
i S 3537.50
SLA 3.92 153 iPd 34 55.50 -0.4
S 35 42.50
CCH 4.01 18 PC 34 55.10 -2 . 1 X
CNCB 4.42 353 iPc 35 03.20 0.6
S 35 56 .00
LPB 4 . 70 352 P 35 07 . 00 0. B
S 36 06.00
ZOBO 4.97 352 P 35 09.20 -0.5
S 36 07.00
ARE 6.09 320 eP 35 23.00 -1.1
eS 36 28.00
S.D. - 1 . 0 on 6 of 7 abs.

7. AUG 28, 1991 09h 16m 06.73± 0.68s
40.638 N ± 5.7km 29.269 E ± 4.7km
DEPTH - 1 2 . 7 ± 7 . 9 km
TURKEY (366)

YLV 0.11 132 iPg 16 10.20 0.2
IZI 0.34 153 iPg 16 13.70 -0.2
HRT 0 . 35 59 iPg 16 14 .50 0.3
ISK 0.46 340 iPg 16 16.00 -0.1
eSg 16 23.00
EYL 0.68 96 i Pg 16 19.80 -0.3
CTT 0.81 309 iPg 16 22.50 0.2
i Sg 1634.00
EDC 1.11 255 ePn 16 27 . 40 0.1
DST 1.14 206 ePn 16 28. 0C 0.1
DMK 1.64 317 ePn 16 35.00 -0.4
S.D. - C . 3 on 9of 9 obs.

» AUG 28. 1991 ieh 21m 48.97± 0.91s

271

28d

38.945 N ± 7.2km 23.559 E ±11. 1km
DEPTH » 10.0km (geophy s i c i s t)
GREECE (364)
ML 2 . 8 (ATH) , MD 2.7 (THE) .

AGG 0.96 275 ePd 22 07.36 0.1
eS 22 25. 10
ATH 6.98173ePg 2207.50 0.0
eSg 22 21.80
PAJG 0.99 5 ePd 22 10.88 3.2X
eS 22 30.20
LIT 1.42 325 eP 2214.90 0.1
eS 22 37 . 50
OUR 143 1 3 *P 2215.50 0.6
K 2 N 1.94 315 f P n 2228.70 6.4X
SRS 2.17 1 eP 22 24 . 90 -0.7
VLI 2.28 193 ePb 22 31.50 4.3X
S.D. = 0.7 on 5 of 8 obs.

& AUG 28, 1991 10h 34m 09.55s
57 .834 N 142. 993 W

DEPTH = 10.0km (geophy s i c i s t)
GULF OF ALASKA (15)
<AE 1 C>. ML 2 8 (AE 1 C) .

KAIM 2.23 341 <rP 34 41.85 -5.2
S 3506. 31
WRG 2.27 12 eP 34 42.40 -5.2
CYK 2.27 6 eP 3441.72 -5.9
SNH 2.35 2 eP 34 43.98 -4.9
eS 35 10. 97
HMT 2.59 346 IP 34 46.91 -5.4
YAH 2.62 14 IP 34 47.79 -5.0
eS 35 1 7 . 25
WAX 2.63 2 i P 3447.36 -5.4
S 35 17 . 58
PNL 2 63 44 eP 34 46.98 -5.8
S 3515.69

RS1
RSO
RS2
ROW

REF

RON
NCT

DFR

RDT

PD8

AUL

AUE
AUP
AUH
AUW
AGU
HOM

AU 1

NNL
CNPM

BRLK

NKA
MCNL
CDD
CKL

HON 2.69 51 eP 34 47.69 -6.0 SPU
S 3517.98 I
RAGM 2.70 342 eP 34 48.31 -5.6 BGL
BCPM 2.75 38 eP 34 48.91 -5.6
S 35 18.83
SGAM 2.91 338 eP 34 51.41 -5.3
S 3525. 35
CVA 3.07 334 eP 34 52.58 -6.3
HIN 3.14 326 eP 34 54.11 -5.9
BALM 3.23 6 eP 34 56.00 -5.4
15 obs. associated

AUG 28, 1991 10h 35m 38.82± 0.49s
38.837 N ± 3.7km 23.442 E ± 7.1km
DEPTH = 10.0km (geophy s i c i 3 t)
GREECE (364)
ML 3 .2 (ATH) . MD 3.1 (THE) .

AGG 0.89 282 i PC 35 55.98 0.1
eS 36 09 . 54
ATH 0.89 166 iPbc 35 56.10 0.2
eSn 36 08.80
PA IG 1.10 10 i Pd 35 59 . 74 0.2
eS 3616.14
LIT 1 . 46 330 ePc 36 05 . 22 0.0
<rS 36 27 . 00
OUR 1.55 15 ePd 36 06.34 -0.1
THE 1.83 349 ePd 36 10.74 0.2
i S 36 35 .69
KZN 1.96 319 ePn 36 15.50 3.1X
VLI 2.15 191 ePn 36 15.00 -0.2
GRG 2.26 340 ePd 36 16.82 0.0
SRS 2.28 3 ePd 36 16.62 -0.5
KNT 2.36 350 eP 36 18.10 -0.1
i S 36 47 . 85
FNA 2.51 321 eP 36 20.10 -0.3
VAY 2.57 345 ePn 36 21.70 0.6
OHR 3.05 319 ePn 36 34.00 6.0X
S.D. =0.3 on 12 of 14 obs.

& AUG 28, 1991 1lh 07m 54.10s
60 . 025 N 152. 905 W
DEPTH = 1 1 8 . 1 km
SOUTHERN ALASKA (2)
<AE 1 C> .

RED 0.40 9 iPd 08 10.79 -0.8
eS 08 23.42
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CRP

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SLKM
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PLRM
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200 iPd
202 iPd
203 ePd
204 ePc
202 eP
119 i PC
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201 eP
eS
88 i PC
120 i PC
eS
1 04 eP
eS
48 i Pd
221 ePd
199 ePd
13 iPd
eS
20 ePd
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11 i Pd
16 i Pd
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19 i Pd
69 i PC
15 i Pd
169 eP
310 ePd
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86 ePc
eS
35 iPd
52 iPd
eS
18 i Pd
41 ePc
eS
48 ePd
87 ePc
eS
56 ePd
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- 1 .0
- 2 .9
- 0.6
- 2.2
- 1 .6
- 1 . 7
- 1 . 8
- 2 .5
- 1 .6
- 1 .5
- 1 .5
- 2.0
- 2.0
- 2 .6
- 2 . 3
- 2.3
- 2 .5
- 1 .8
- 2. 3
- 2.6

? AUG 28, 1991 11h
41.251 N ±29 . 4km

52m 27.30± 1.18s
28. 549 E ±23 . 3km
DEPTH - 10.0km (geophysicis
TURKEY

1 SK 0 . 43 1 1 6 i Pg
DMK 0.82 314 i Pg
iSg
YLV 0 . 93 1 37 ePg
eSg
HRT 0.95 117 ePn
S . D . = 0.8 on

& AUG 28 . 1991 1 2h
60 . 207 N
DEPTH - 1 38.0km
SOUTHERN ALASKA
<AE 1 O .

RED 0.27 38 i PC
eS
RS 1 0.31 34 i PC
RS2 0.31 34 iPc
eS
RSO 0.31 34 i PC
eS
ROW 0.31 28 iPc
REF 0.35 35 iPc
RON 0.35 29iPc
NCT 0.37 13 i PC
eS
DFR 0.44 28 i PC
S
RDT 0.50 43 i PC
eS
OPT 0.56 187 iPc
i S
PDB 0.69 233 i PC
eS
AUL 0.84192 ePd
AUW 0.86 193 i Pd
S
AUE 0.86 189 ePd
S
AUH 0.86 192 eP
AUP 0.86 191 i Pd
AGU 0.87 191 eP
AU 1 0 . 89 1 91 eP
HOM 0.92 126 ePc
S
NNL 0 . 92 1 00 i PC
CKL 1.06 20 i PC
eS
NKA 1.07 59 ePc
SPU 1.11 27 eP
BGL 1.12 18 ePd
CRP 1.16 23 eP
CNPM 1.16 125 i PC
eS
BRLK 1 .20 111 eP
S
MCNL 1 . 20 212 i Pd
S
CGLM 1 . 23 25 ePd
NCG 1.29 21 ePd
CDD 1.31 192 ePd
eS
SLKM 1.46 77 ePc
S
SVW 1 . 54 307 ePd
SY I 1.64167 ePd
eS
SUA 1.71 41 i Pd
eS
SEW 1.83 92 eP
S
SKT 1.94 23 ePd
PMS 2.03 58 eP
eS
PWA 2.14 46 eP
PLRM 2.39 53 eP
KDC 2.49 172 ePd
eS
GHO 2.57 51 eP
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KNK 2.58 68 eP
mi ? 10 * i ^PH

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08m 47.50s
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09 07 . 02
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09 07 . 20
09 22.80
09 07 . 48
09 22 . 76
09 09 . 24
09 09.40
09 25 . 85
09 09 . 1 9
09 25 . 21
09 09.28
09 09.47
09 09.51
09 08 . 91
09 10.18
09 27.21
09 10.71
09 1 1 . 60
09 30.49
09 12.89
09 11.85
09 12-41
09 12.68
09 12.28
09 31 . 04
09 13.13
09 32. 1 1
09 11.73
09 30.30
09 13.16
09 13.98
09 13.03
09 33. 21
09 15.08
09 36.28
09 15.14
09 1 6 . 82
09 38.90
09 18. 35
09 42.58
09 19.03
09 43.04
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09 27 .90
09 58.69
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- 0. 4
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- 1 . 8
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28d 12h

LT 1 2
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MTU 2
SML 2
GL 1 3
HUR 3
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FID 3
VZW 3
VLZ 3
MID 3
V T Ul "? r. \ n o
TRF 3
CVA 3

KLU 3
RND 3
TOA 3
SGAM 3
MCK 4
RAGM 4

SDG 4
BWN 4
KA 1 M 4

HMT 4

PAX 4
GLB 4
NEA 4
WRH 4
CCB 5
HDA 5
WAX 5
MDM 5
FBA 5
BALM 5
GLM 5
YAH 5
CTGM 5
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. 68 85 ePc 09
. 74 92 eP 09
. 82 53 <=P 09
. 04 75 eP 09
. 24 29 eP 09
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. 32 78 eP 09
. 34 72 eP 09
. 46 72 eP 09
. 50 1 00 eP 09
. 51 1 6 eP 69

. 52 21 eP 69
. 67 81 ePc 09
eS 1C
. 74 67 eP 09
. 79 30 eP 09
J86 57 eP 09
. 93 82 iPc 09
. 05 27 eP 69
. 20 84 eP 09
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. 32 54 eP 09
. 33 22 eP 09
. 36 90 eP 09
S 10
. 41 84 eP 09
S 10
. 58 49 eP 09
. 71 7 1 eP 09
. 77 21 eP 09
. 87 26 ePd 09
. 09 27 ePd 10
. 10 32 ePd 10
. 10 83 eP 10
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. 36 76 ePc 1 0
47 26 eP 10
65 83 i P c 16
85 77 eP 10
obs. ossocioted

AUG 28 , 1991 1 2h 1 8m
14 .789
DEPTH
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65 .
09 .
12 .

05.
N ± 6. 6km 120.382
* 68 . 9 ± 1 1 . 3 km

(2 obs .)

13
26
22
66
97
68
21
28
35
31
72
64
39
43
83
26
99
86
86
03
35
45
97
72
88
69
7 1
02
50
28
90
99
61
97
52
13
17
43
46
82
12

08±

- 2 . 1
- 2 .5
- 1.4
- 2 . 1
- 1.6
- 1.4
1.6
- 1.9
- 1.1
- 1.6
- 2 . 8
- 2. 2
- 1.6
- 1.3

- 2. C
- 2 . 5
- 1 .5
- 1.4
- 0. 8
- 1.5

- 2 . 5
- 1.8
- 1.1

_ 1 Q t . 57

- 1.6
- 2. 5
- 1 . 6
- 1.9
- 2 . 2
- 1.9
- 1.5
- 2. 2
2.6
- 1.2
- 2. 6
- 0 . 8
- 1 . 1

0.71s
E ±16 . 1 km

LUZON, PHILIPPINE ISLANDS
Fel
ond

TGY 0

PGP 1

SZP 2

CVP 3
6 .
PIP 3
CHG 20
ASPA 40
1 .
NB2 86
0.
S.D.

t (V) in Zombo 1 e s
(1) in Pompongo

. 87 1 42 iPc 18
eS 18
. 39 157 i PC 18
eS 18
. 75 1 ePd 1 8
eS 19
. 21 25 iPc 18
8s 99 . 00nm
. 52 4 i PC 18
. 91 284 eP 22
. 44 161 i Pd 25
6s 5 . 70nm
. 1 6 333 P 30
9s 2 . 30nm
»0.2 on 8 o f

? AUG 28, 1991 I3h 37m
82 .680
DEPTH
4 . 4mb
NORTH OF

MBC 17
INK 26
CDF 34
HAU 35
BSF 35
SSF 35

0.

LBF 36
AVF 3
BGF 3e

TCF se
0.
MAF 3e
LPL 37

Pr

(249)
o v i nee
Province.

22 .
39 .
29 .
50.
48.
27 .
54 .

58 .
44 .
38 .

39 .

53 . N ±32. 4 km 8.788
= 10.0km (geophysi
(3 obs.)
SVALBARD

. 80 31 3 eP 42
. 69 3 1 7 eP 43
. 75 1 6 1 eP 44
. 1 2 1 62 eP 44
. 31 162 eP 44
. 96 166 eP 44
8s 4.05 nm
. 05 165 eP 44
. 22 166 eP 44
. 44 166 eP 45
. 69 167 eP 45
9s 4 . 1 0nm
. 77 167 eP 45
. 62 162 eP 45

04 .
33 .
45.
48 .
50 .
55.

56 .
58.
00 .
02.

02.
1 1 .

00
06
00
00
00
06
00

50
00
60
4
80
4

- 0 . 1

0. 0

0. 3

- 0.2

- 0 . 1
- 0 . 1
0 . 1
2mb
0 . 0
3mb
8 obs .

96± 1.50s
W ±46 . 7km
cist)

06
66
90
90
60
86
4
46
10
10
00
4
80
20

(641)

1 . 3
- 1 . 2
0. 0
6 . 0
- 0 . 1
- 0 . 2
3mb
- 0. 5
- 0 . 2

0. 0

- 0 . 3
2mb
- 0. 1
0.9

LPG 37
RJF 37
0 .
EPF 39
SES 41
S.D .

. 64
. 66
7s
. 90
. 88
-

% AUG 28,
40. 502
DEPTH
TURKEY

YLV 0

IZI 6
HRT 0
CTT 0
EDC 0
DST 0
DMK 1
S.D.

N
=

. 24

. 35
. 55
. 81
. 94
. 96
. 65
=

% AUG 28,
41 . 268
DEPTH
TURKEY

1 SK 0

HRT 0
YLV 0

DMK 0
IZI 1
MFT 1
S.D.

N
=

. 31

. 82
. 84

. 93
. 08
. 21
=

? AUG 28,
21 . 735
DEPTH
3 . 9mb
MAR 1 ANA

PJG 8
GUA 8
0.
KAKJ 14
CHJJ 14
MAT 1 5
WRA 42
0.
HFS 88
0.
S.D.

N

272

162 eP 45 1 1 . 40 0.9
168 eP 4510.20 -0.1
6 . 60nm 4 . 5mb
1 70 eP 4528.90 -0.2
290 eP 45 45.00 -6 . 3
6.6 on 16 of 16 obs.

1991 14h 22m 46.46+ 6.58s
± 6. 6 km 29.672 fc ± 4 . 7tm
10.6km (geo phy s i c i s t)
(366)

74 i Pg 22 51 .60 -0.1
eSg 2255C-10
118 ePg 22 53.60 -6.1'
55 i Pg 2258.06 6.2
323 iPg 23 02.50 0.4
261 ePg 23 04 . 10 -0.2
201 iPg 23 05 .60 0.3
323 ePn 2315.20 -0.4
0.4 on 7 of 7 obs.

1 99 1 1 5h 63m 38 .|38± 1.01s
±1 2 . 8km 28.754 E ± 8 . 6km
16.0km (geophysicist)
(366)

131 iPg 0345.00 0.2
i Sg 03 51 .00
123 ePg 03 54.00 -0.3
146 ePg 03 55.50 0.8
eSg 04 08.30
307 ePn 6356.20 0.1
149 ePn 03 58.00 -0.7
247 i Pn 04 01 .00 6. 0
0.7 on 6of 6obs.
_ _ _ _____ __i
1991 1 5h 1 7m 24
±17. 3km 143.144

25± 1 .25s
E +1 25 . km
= 339 .6 ± 36.2 km
(2 obs.)
ISLANDS REGION (215)

. 27
. 32
8s
. 65
. 71
. 37
. 31
3s
. 68
4s
s

& AUG 28,
58. 471
DEPTH

N

168 eP 19 22.50 0.3
168 eP 19 22. 80 -0.1
59 . 70nm 4 . 8mb X
350 P 20 37.30 -0.8
347 P 20 38.; 20 -0.6
345 (P) 20 47. 00 1.2
192 P 24 47 .00 -6.4
1 . 30nm
337 eP 29 40.
1 . 20nm
1.0 on 7 o f

1991 1 6h 1 9m 5 1 .
142. 752
= 10.0km (geophysi
GULF OF r,,.^ A 1 A C I/ A
<AE 1 C>. ML 2.7 (AE 1 C) .

WRG 1

CYK 1

KA IM 1
SNH 1

YKU 1

WAX 1
HMT 2
MID 2
RAGM 2
SGAM 2
BALM 2

CTGM 2
H 1 N 2
MTU 2
FID 2
GLB 3

LT 1 3
KN 1 M 3

VLZ 3

. 61

. 62

. 69
. 72

. 90

. 99
. 02
. 09
. 1 6
. 39
. 58

60
. 72
. 94
. 97
. 03

. 06
. 17

. 22

13 iP 20 16 .
S 20 35.
5 eP 20 16.
S 2034.
330 eP 20 17.
359 eP 20 17.
eS 20 37.
54 eP 20 19.
S 20 40.
359 iP 20 20.
338 eP 20 20.
299 eP 20 21 .
334 eP 20 23.
329 eP 20 26.
4 eP 20 29.
S 20 57 .
15 eP 20 29
31 7 eP 2031
303 eP 20 33
322 eP 20 34
350 eP 20 34
eS 21 09
303 eP 20 34
309 eP 20 36
eS 2111
327 eP 20 37

3 . 6mb
90 0.4
4 . 2mb
7 obs .

81 s
W

cist)
(15)

04 -4.4
1 9
05 -4.4
80
00 -4.5
21 -4.7
72
71 -4.9
88
57 -5.3
51 -5.9
90 -5.4
26 -5.1
21 -5.4
03 -5.4
66
63 -5.2
07 -5.3
70 -5.7
66 -5.2
90 -5.8
34
88 -6.1
79 -5.9
63
12 -6.3

GLI 3 .27 319 eP 20 37
KLU 3.42 334 eP 20 40
TOA 4 . 02 336 eP 20 49
KNK 4.11318eP 2050
SLKM 4.32 301 eP 20 52
PMS 4 . 42 31 2 eP 2053
CNPM 4.51 287 eP 20 55
PAX 4.71 345 eP 20 58
SUA 5.01 31 6 eP 21 02
RDT 5.35 297 eP 2106.
29 obs. ossocioted

? AUG 28 , 1991 1 7h 39m 45 .
36. 109 N ±26. 7km 22. 327
DEPTH = 33.Cikm (normol)
SOUTHERN GREECE

VLI 0.78 39 eP 40 00.
eS 40 17.
NPS 2.80 107 eP 40 28 .
AGG 2.91 0 Pd 4031.
PAI G 3.96 15 PC 4043.

LIT 3.99 2 Pd 4045.
SOH 4.77 9 Pd 4056.
KNT 5.67 5 Pd 4059.
S.D. =1.1 on 7 of

? AUG 28, 1991 I7h 56m 58.
51 . 899 N ±1 23 . km 174.284
DEPTH = 33.6km (normol)
ANDREANOF ISLANDS, ALEUTIAN

ADK 1 . 49 276 eP 57 23 .
1 NK 25 . 43 34 eP 02 24 .
GUN 74.23 295 P 08 33.
KKN 74 . 66 295 P 0837.
PK 1 74.75 295 P 0836.
GKN 74.85 296 P 0836.
DMN 74.96 295 P 08 38.
OUE 82 . 27 31 0 eP 0918.
S.D. =0.7 on 8 of

& AUG 28, 1991 18h 30m 03.
40 . 2 1 3 N 124. 480
DEPTH = 1 .0km
NEAR COAST OF NORTHERN CALIF

<BRK>. ML 3. 4 (BRK) .

FOX 0.48 50 i Pd 3013.
eS 30 21 .
FHC 0.70 33 i PC 3017.
iS 3027.
WDC 1 .53 75 iPc 30 30 .
eS 30 55.

LTCM 1.80 89 e(P) 30 40 .
LBFM 2.27 59 eP 3041.
ORV 2.39 105 eP 30 43.
6 obs. ossocioted

AUG 28, 1991 I9h 05m 09.
1 9 . 408 N ± 7 . 8km 102.717
DEPTH = 48.3 ± 6 . 9 km
4 . 3mb (3 obs .)
MICHOACAN, MEXICO

CGX 0.76 293 iP 05 22.
iS 05 35.
COLM 0.95 256 iP 05 26.
iS 0540.
MRX 1.47 78 i P 0529.
iS 05 48.
AGX 2.49 9 i P 0548.
(S) 06 20.
Ill 3. 24 108 eP 05 59.
i S 0640.
UNM 3.34 91 (P) 0605.
ACX 3.71 132 iP 06 06.
(S) 06 52.
1 1 A 3.84 93 (P) 06 07 .
PPM 3.88 94 eP 06 07.

(S) 06 51 .
1 IT 4.18 95 (P) 06 12.
1 ISM 5.06 94 (P) 06 24.
(S) 07 23.
TUL 17.54 19 ePc 09 11.
0.8s 1 8 . 00nm
Z 18s 0.1 2um

79
77
34
62
03
44
36
26
22
15

06±

- 6. 3
- 5.6
- 5.5
- 5. 5
- 7.0
- 7. 0
- 6. 4
- 6. 4
- 6. 7
- 7. 5

3.99s
E ±35. 3km

30
60
50
30
p ft O U
60
86
60

(368)

0.7

- 0. 1
1 . 2
- 1 .2
0. 2
0. 3
- 1.1
7 obs .

40± 5. 44s
W ±50. 6km

1 S.

06
06
60
00
60
80
60
60

(7)

- 0. 1
- 0. 1
- 0.5
0.6
- 0.6
- 0. 7
0. 7
0. 7
8 obs .

60s
W

98
03
82
58
16
51
00
60
71

13±
W ±

90
O ft _. o
75
50
86
50
30
50
50
00
50
50
83
18
46
00
02
74
30
70
4 .
4 .

(35)

0. 7

0.3

- 1 . 9

3.9
- 1.4
- 0.8

0.55s
5 . 3km

(57)

- 1 . 0

0. 4

- 3. 7X

0. 3

0.5

5. 1 X
1 . 1

- 0. 1
- 0. 8

- 0.3
0.2

0.0
3mb
0M S Z

273

28d 19h

eS 12 47 .00
LR 1425.06
HOOC 39.00 119 eP 11 25.48 9.5X
INK 52. 55 346 eP 1420.90 0.4
SIV 53.99 128 P 14 29.00 -1.8
MBC 57.51 355 eP 14 55.50 0.1
1.0s 9 . 00nm 4 . 8mb
NB2 84.13 27P 1737.00 0.8
09s 2 . 1 0nm 4. 2mb
SOD 85.81 17 eP 17 44.00 -0.4
WRA 126.50 259 PKP 24 16.00 0.7
0.9s 1 . 00 nm
PSI 149.42 314 ePKPc 24 56.40 5.6X
S.D. =0.8 on 16 of 20 obs .

? AUG 28. 1991 26h 21m 21.54± 2 5 ~] -
46.461 N ±32. 5km 155.207 E ±34. 4km DEPTH - 33.0km (normal)
4 . 1mb (2 obs .)
KURIL ISLANDS REGION (222)

KUSJ 8.19 250 eP 23 19.20 -1.7
S 2438.10
ASAJ 9.16 260 P 23 35.30 0.9
HOOJ 9.45 249 P 23 38.70 Q.A
eS 25 09 . 60
MRRJ 10.88 253 eP 23 57.90 0.0
eS 25 42 . 60
OFUJ 12.37 238 eP 24 17.70 -0.4
eS 26 22.20

MAT 16.10 238 (P) 25 08.00 1.0
0.8s 3.73nm 3. 6mb X
YAK 21.33 326 « P 26 14.50 7. OX
N B 2 68. 96 342 P 3225.30 6.3
08s 1 . 40nm 4.1mb
HFS 69.22 341 eP 32 26.20 -0.4
0.4s o . 90nm 4 . 2mb
S.D. =10 on 8 of 9obs.

AUG 28. 19Q1 I' 0 h 36m 46.17+ 0.48s
26.374 S ± 5.4km 27.365 E ± 7 . 2 1- m DEPTH - 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
mbLg 3.6 (BUL) .

PRY 0.56 170 eP 36 52.00 0.6
1.0s 950 . 60nm
S 36 56 . 50
SLR 1.04 53 i Pd 37 01 . 20 0.8
S 3713.40
SEK 1 .96 173 i PC 37 1 5 . 20 0.7
S 37 39.00
FRS 3.82 208 i PC 37 40.60 -0.3
S 38 21 . 40
JOZ 4.34 105 eP 37 47.00 -1.3
0.6s 200 . 00nm
S 38 33.50
BUL 6.31 11 iPn 38 15.30 -1.0
i Sn 39 25 . 20
i S. 39 39 . 80
iSg 39 55.50
CIR 6.59 37 iPn 38 20.00 -O.I
iSn 39 30.00
IS 4006.80
KR 1 9.73 13 iPn 39 02.60 -1.3
i Sn 40 43.30
i Sg 41 39.30
CER 9.88 223 eP 39 04.00 -1.9
0.5s 1 00 . OOnm 6 . 5mb X
S 40 46.50
WIN 10.09 290 eP 39 09.00 0.0
0.5s 88 . 03nm 6 . 5mb X
S 40 52.00
MTD 10.32 23 iPn 39 08.60 -3.5X
i Sn 40 58.96
i S 41 56.00
KIC 45. 04 312 P 4458.50 -6.4
LIC 45.13 311 P 44 59.90 0.3
TIC 45.43 312 P 45 02.40 0.4
GBA 62.83 57 Pd 47 09.20 -0.3
0.7s 3 . 20nm 4 . 6mb X
EKA 85.47 343 PC 49 22.00 2.2
0.8s 1 . 60nm 4 . 3mb
NB2 88.08 352 P 49 34.30 1.8
0.7s 1 . 00nm 4 . 2mb
S.D. -1.2 on 16 of 17 obs .

AUG 28, 1991 20h 50m 05 . 1 3± 0.69s
40.520 N ± 5.8km 21.587 E ± 5 5km
DEPTH = 10.0km (geophysicist)
GREECE (364)
MD 2.8 (THE) .

FNA 0. 31 329 iPd 50 1 1 . 82 0.2
eS 50 16 . 40
GRG 0.76 55 ePc 50 20.14 0.2
LIT 0.81121 ePc 50 19.86 -0 . 9
eS 50 32. 54

OHR 0.84 315 iPg 50 21.00 -0.4
i Sg 50 34 . 30
Lg 56 36 . 10

eS 50 40 . 1 0
VAY 1.09 43 ePn '50 26.00 0.3
KNT 1.18 57 ePc 50 26.86 -0.4
eS 5045.14
SOH 1.38 77 ePd 50 29.98 -0.4
eS 50 50.78
SKO 1.46 356 ePn 50 27.00 -4.4X
i 50 48 . 50
i 5052. 60
AGG 1.60 159 ePc 50 33.86 0.3
eS 50 55 . 70
PAI G 1 . 71 1 10 eP 56 35 . 70 0.6
OUR 1 . 84 95 eP 50 37 . 80 0.9
S.D. = 0.6 an 11 of 12 obs.

% AUG 28, 1991 21h 11m 39.56± 1.13s
43.946 N ±18. 0km 11.570 E ± 6.9km
DEPTH = 10.0km (geophysicist)
CENTRAL 1 TALY (381)

PGD 0.13123P 1143.70 0.8

eSg 11 48.50
SF I 0.21 97 P 1143.40 -0.6

CRE 0.42 139 P 1 48.10 -0.1
eSg 1 55.70
BD I 0.71 280 P 1 54.10 0.5
PI 1 0.79 254 P 1 54 . 30 -0.6
S.D. - 0.9 on 5 of 5 obs.

? AUG 28. 1991 2lh 27m 19.14±10.87s
3.274 S ±132. km 152.628 E ± 1 9 . 4 km DEPTH - 100.7 ± 21.3 km
4 . 0mb (2 obs .)
NEW IRELAND REGION (190)

RA8 1.02 207 iPd 27 40.00 -0.1
0.5s 2535 . 21 nm
PMG 8.17 221 eP 29 17 . 00 0.3
eS 30 45 . 00
OIS 21.36 215 eP 31 59.30 -0.6
0.9s 14.00nm 4. 3mb
DZM 23.00 145 iPc 32 16.20 0.1
RMO 23.38 189 iPc 32 25.10 5.4X
ASPA 27.18 220 eP 32 55.60 0.4
1.6s 4 . 60nm 3 . 8mb
S.D. =0.8 on 5 of 6 obs.

AUG 28, 1991 21h 32m 35.04± 0.26s 22.230 S ± 2.6km 179.639 E ± 3.1km DEPTH - 599 . 3 ± 3 . 3 km
5. 5mb (43 obs.)
SOUTH OF FIJI ISLANDS (171)
CENTROID, MOMENT TENSOR (HRV)
Do to Used : GDSN
L. P . 8. : 19S , 46C
Centroid Location:
Origin Time 21:32:42.2 0.3
Lot 22.08S 0.04 Lon 179. 62E 0.03

Dep 618.4 2.4 Ho If -duration 2.9
Moment Tensor; Scale 10**17 Nm
Mrr 1.29 0.13 Mtt 3.23 0.19
Mff>= 4.52 0.18 Mrt=-5.60 0.19
Mrf=-2.06 0.20 Mtf--9.96 0.19
Principal Axes:
T Vol= 5.32 Plg=25 Azm=102
N 2.95 39 214
P -8.27 40 348

Best Double Coup 1 e : Mo = 6 . 8 * 1 0 * * 1 7
NP1 : S t r i ke-1 42 Dip-41 Slip--166
NP2: 42 81 -50

SVA

VUN
SGE
KRO
NDF
TVI
MBU
NOE
UOU
DZM

WC 2
KUZ
WLZ
URZ

NOZ
PAHZ
MOZ

WHH
MOH
RUZ
NGZ
WAHZ

M D 7

TEHZ
8SZ
PGZ
MNG

K 1 W
D 1 W

M T W

CAW
WDW
MRW
BLW
WEL

TCW
MOW
THZ

LTZ
MOZ
EWZ
BWZ
LRCZ
MMCZ
MSCZ
MHZ
S8CZ
LSCZ
CMCZ
T i r
BRS

TUZ
8CZ
COO

S IZ
RMO

TB 1

APR

PAE

PPT

PPN

CNB

4.24 345 iPc 34 03.50 0.9
eS 35 35.80
4.34 345 iPc 34 03.20 -0.1
4. 89 340 eP 34 09 . 10 1.5
4. 90 357 eP 34 06 . 66 -1.6
4.90 335 eP 34 02.00 -5.6X
5.28 3 eP 3410.60 -0.1
5 . 30 350 P 3411.60 0.8
5. 62 357 eP 3418.66 5 . 0X
6.06 3 ePc 3418.60 1.5
12.23 268 i PC 35 1 7 . 00 0.9
iS 37 38 . 90
ScP 42 46 . 30
ScS 46 26.20

1 4. 86 192 eP 35 44 . 40 2 . 8X
15.95 192 eP 35 55.90 3. 8X
16. 12 187 eP 35 52.60 -1.2
eS 38 33.30
16 . 39 1 84 eP 35 56 . 80 0.4
16 . 72 1 87 eP 36 00 . 60 1.0
16. 75 193 P 36 03. 40 3.6X
e 37 42.60
eS 38 53.00
16.82 189 eP 36 00.50 -0.1
16.98 187 eP 36 02 .80 0.7
17 .24 191 P 36 05.50 1.0
1 7 . 24 1 91 eP 36 05 . 30 0.6
17 . 64 188 eP 36 08. 10 -0.2
17. 74 195 eP 36 12.90 3. 7X
17. 87 187 eP 36 10.50 0.1
1 7 . 97 1 92 eP 36 1 1 . 80 0.5
18. 55 188 eP 36 15 . 40 -1.4
1 8 . 67 1 90 P 36 1 6 . 30 -1.6
eS 39 12.70
e 4255. 40
19.00 191 eP 36 20.10 -0.9
19. 14 193 eP 36 22. 10 -0.1
19. 1 9 190 eP 36 21 .00 -1.7
19.21 191 eP 36 21 .90 -1.0
1 9 . 38 1 91 P 36 23 . 70 -0.7
19.40 191 eP 36 24.00 -0.5
19. 40 189 P 36 24.50 -0.1
19. 44 191 P 36 25. 00 0.1
S 39 38.00

ScP 42 58.00
ScS 46 38.00
19.46 192 eP 36 24.60 -0.5
19.49 190 eP 36 25.00 -0.5
20. 28 195 P 36 32.20 -0.6
eS 39 40.00
21 . 40 1 95 P 36 4 1 . 30 -1.6
22. 1 9 1 94 P 36 49 . 1 0 -0.8
22. 44 197 eP 36 51 .60 -0.6
23.65 198 P 37 03.30 0.3
24 . 29 1 98 P 3707.90 -1.0
24.30 198 P 37 08.20 -0.7
24. 30 198 P 37 08.00 -0.8
24. 31 198 P 37 08 . 10 -0.9
24.33 198 P 37 08.20 -0.9
24.33 198 P 37 08.50 -0.6
24.39 1 98 P 37 08 . 60 -1.1
94.4.Q1Q&D T 7 1 Gt Gt C» Ct A

24.90 253 iPd 37 1 5 . 50 1.3
i (PP) 38 05.00
eS 41 00.00
25.03 197 P 37 15.30 0.1
25. 59 199 P 37 21 .30 1.2
26 . 1 6 246 i PC 37 27 . 00 1.7
0.2s 35.00nm 5.6mb
i 43 19 .00
26 .29 198 P 37 28 .00 1.8
28.42 255 iPc 37 56.10 11. 2X
eS 42 06.00
28.48 98 iP 37 46 . 50 1.1
0.8s 115. 00nm 5 . 6mb
29. 1 1 86 iP 37 50.40 -0.4
1.3s 20. 50nm 4 . 6mb
29.26 87 iP 37 51 .60 -0.5
1.3s 158.00nm 5.5mb
29.29 86 iP 37 52.20 -0.2
1 . 3s 3l5.00nm 5. 8mb
29.43 86 iP 37 53.20 -0.4
1.3s 95.00nm 5.3mb
29.44 237 iPd 37 55.50 1.8
0.8s 268.00nm 5.9mb
i 4329.00

28d 21h

274

TVO

CTAO

CMS

PMO

VAH

TPT

RUV

OLP

TOO

PMG

T AU

LAT
BFD
MDG
Ol S

ASPA

WRA

FDRR

MTN

WARB
KNA

GUA

PJG
COOL
MBL

K LB
NWAO

BAL
MUN
NANU
B I P

CGP

TRT
SPA

K AK J
CVP
CHJJ
I I DJ
MAT

N I I J
MTMJ
OFUJ
YAMJ
TSRJ
AOMJ
KUSJ
HOOJ
MRRJ

29.54 87 i P 3754.10 -0.5
1.3s 220 . 00nm 5 . 6mb
31.17 268 iPc 38 08.00 -0.4
eS 42 33.00
iScP 43 34.60
eScS 47 32.60
31.44 246 i PC 3811.80 1.3
C 5s 90 . 00nm 5 . 7mb
31.55 82 i P 38 11.26 -0.3
1.3s 275.00nm 5. 7mb
31.72 83 i P 3812.66 -0.3
1.3s 2 1 5 . 00nm 5 . 6mb
31^81 83 i P 3813.70 0.1
1 . ;i s 290 . 00 nm 57mb
3196 83 i P 3814.70 -6.2
1 . ;>s 295 . 00nm 5 . 8mb
32 47 255 i PC 38 20.00 0.9
0.' s 245.00nm 5.9mb
eS 42 47.50
iScP 43 39.50
33 1 1 235 i PC 3826.20 17
0 . (i s 1 1 0 . 00nm 5 . 7mb
T i 3857.50
i 4041.60
e 4340.00
33.66 287 i PC 38 28.60 -0.7
1.1s 653 . 1 6nm 6 . 2mb
33.85 225 i PC 38 32. 30 1.7
i 4343.30
35.08 291 eP 3843.60 2.0
35. 25 237 eP 38 43. 60 6.8
36. 83 292 eP 38 55 . 70 0.4
37 .24 265 i PC 38 58 . 36 -0.4
0.3s 15.00nm 5.1mb
eS 4355.00
eScS 48 04.00
42.01 259 i PC 3937.00 6.0
1.3s 200 . 1 0nm 5. 5mb
Z 18s 1.20um 4 . 8Msz
i ScP 44 14.76
i S 4513.50
iScS 48 34.00
42.21 264 P 39 37 .00 -1.6
6.7s 113. 20nm 5 . 5mb
46.56 248 i PC 40 11.70 -0.3
0.3s 50 . 00nm 5 . 5mb
47 .62 273 eP 40 1 4. 50 -1.1
0.4s 90 . 00nm 5 . 7mb
48.23 254 i PC 40 24.00 -0.7
48.36 268 i PC 40 25.06 -0.7
0.3s 51 . 00nm 5 . 6mb
49.22 313 eP 40 31.50 -0.5
0.6s 213. 33nm 5 . 9mb
49 . 29 31 3 eP 4031.50 -1.0
52.53 247 eP 40 55.10 -0.9
55.25 259 i PC 41 14.16 -1.1
0.3s 26 . 00nm 5 . 0mb
55.34 246 eP 41 15 . 00 -0.7
55 .64 245 eP 4 1 1 7 . 50 -0.2
eS 48 35 . 00
56.35 247 i PC 41 21.80 -0.9
56.60 246 eP 41 24.20 -0.2
58.84 256 eP 41 39.60 -0.5
60.43 294 eP 41 47.50 -2.6X
0.8s 250 . 00nm 5 . 5mb
61 . 87 293 eP 41 59.50 0.1
1.6s 169.00nm 5. 3mb
65.87271 iPc 42 26 . 40 1.7
67 .91 1 80 i PC 42 38 . 80 2.2
1.6s 146. 50nm 5 . 5mb
i 44 39.20
69.66 327 P 42 43.06 -6.6
69.10 300 iPc 42 41 30 -2.9X
69.55 326 P 42 45 . 40 -1.1
69 .69 325 P 42 46 . 20 -1.2
76.34 326 i Pd- 42 49.86 -1.3
0,9s 50 . 42nm 5 . 0mb
eS 51 1 9 . &&
7^.46 327 eP 4251.50 -0.2
7^.58 325 iPd 42 51.70 -6.9
7^.59 329 eP 4251.50 -16
76.66 328 eP 42 52 .90 0.6
7i3.79 323 P 42 53. 10 -0.6
7 :> .37 330 eP 43 03 . 90 1.2
72.52 334 P 43 03.00 -0.5
7 2 . 53 333 eP 4304.10 0.5
73.53 331 P 43 09. 10 -0.1

ADK

ASAJ
SMY
SSE

SON
MAW
A 1 A
SYP
PRS
GCC
PCC
BCH
SAO
PRI
BKS

ZSP
LLA
ARN
ABL
I PM

PAS
FOX
MWC
FHC
BAR
RVR
P LM
S6B
PEC
FR 1
1 SA
CMS
WDC
ORV
PSI
LTCM
CLC
M 1 N
TPC
KDC
GSC
GLA
BONR
TNP
PDB
svw
BJ 1

BMW
LOE
LON
NVL

PGC
TT A

PMR

MSU
KLU
KM 1
TOA
CHG

PNT

73.86
1 .2s
74.21
74 . 80
77.14
2.0s
Z 20s
E 18s

79.10
79.19
80 . 23
80. 45
80.59
80. 60
80. 63
80. 76
80 . 79
80. 93
80. 95
1 . 0s

80. 98
81.03
81 . 08
81.15
81 .23
0. 9s
81 . 47
81 .50
81.59
81 . 68
81.71
81.93
81.94
82.61
82 . 03
82 . 05
82. 1 1
82.22
82. 41
82. 42
82 . 43
82.43
82.79
82 .83
82 .92
83.01
83. 04
83 .22
83.52
84. 30
84 . 49
85 . 42
85 .60
1 . 5s

85. 66
85 . 79
86 . 63
86. 86

86.91
87 . 03
1 . 2s
87.22
1 .2s
87 . 89
87 .90
88. 19
88 .36
88. 78
1 .5s
89.32

2 eP
399 . e0nrr>
333 P
357 eP
311 P +
1 53 . 00nm
0 . 90um
0 . 7 0um
S
1 1 eP
200 eP
157 eP
47 eP
45 i Pd
44 ePd
43 iPd
46 P
44 eP
45 ePd
43 eP
83 . 00nm
i
e
e

i S
i
43 eP
45 iPd
44 P
47 P
279 ePd
66 . 80nm
48 eP
40 eP
48 eP
46 eP
56 eP
48 eP
49 eP
48 tP
49 P
45 ePd
46 eP
44 i Pd
41 iPd
42 iPd
276 ePc
41 P
47 eP
41 eP
49 eP
1 5 ePc
48 eP
50 eP
45 P
45 P
13 P
12 eP
316 eP
88 . 00nm
eSKS
eS
36 P
291 eP
36 P
184 ePd-
e

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e
«S
ePS
eScS
e
e
eSS
34 eP
1 1 ePd
67 . 50nm
14 ePd
1 47 . 50nm
47 P
1 6 P
298 eP
15 ePc
291 ePd
1 63 . 89nm
35 i P

43 09.20
5
43 12 . 70
43 15 . 00
43 29 . 00
5
5

52 30.00
43 36 . B0
43 42.90
43 47 . 50
43 47 . 00
43 47.94
43 47 . 72
43 47.8l
43 48 . 70
43 49 . 49
43 4 9 . !9 4
43 49J10
5
43 50 . 60
45 31 20
46 24 . 50
53 13J60
57 45 . 00
43 50 . 56
43 50.06
43 50.:20

43 50.|50
43 51 .90
5
43 52 . 00
43 53 . 43
43 53. 00
43 53.99
43 54 . 00
43 53 . 00
43 54 . 00
43 54.00
43 54 . 40
43 54 . 87
43 55. 00
43 55.94
43 56.;87
43 56.69
43 57 . 50
43 5 7 \ 0 0
43 58J00

43 59 |01
44 00J00
43 59.00
43 59. 00
44 01,00
44 02 20
44 05. 50
44 04 00
44 09 80

44 12(50
5
53 40 i 00
53 58100
44 12 50
44 25 70
44 1670
44 18 00
44 27 . 00
46 28 .00
48 01 . 00
53 45 . 00
54 02.00
54 07 . 00
54 17 . 00
54 30.00
57 50.00
44 18 . 00
44 18.00
5
44 18.40
5
44 23.30

44 21|.00
44 26. 00
44 25.40
44 29.00
5
44 29.00

- 1.7
8mb
- 0. 4
- 1 . 0
- 6 . 3
. 1mb
1 MSZ

- 2 3
2 . 4
2.5
6 . 2
0 . 6
6 . 4
0 .3
0. 3
1 . 1
6 . 7
0. 0
2mb

1 . 3
0.5
0. 3
0. 6
0. 9
2mb
0. 2
1 .6
6 . 3
1 . 2
0 . 9
- 1 . 2
- 0 . 5
- 0.6
- 0. 3
0.2
- 6 . 1
0. 3
0.5
0.2
0.5
0 . 5
- 0.5
0.3
0.8
0.0
- 0 . 8
0.3
- 0. 2
- 0.6
- 2.2

- 1 . 0

0. 5
2mb

0.2
12. 3X
0.0
0.4

0.0
- 0.5
3mb
- 0.8
6mb
0. 1
- 1 .6
1 . 1
0.7
1 .6
7mb
- 0.2

ANMO

1 MA

FBA

BW06
LZH

LNV
TACH
YAK

GOL

PCH
PEL

RSSD
7.0BO

DUE

PRY
MA 1 0

BUL

KEV

MTD

KR 1

SOD

KAF
OBN

NUR

MJMA
AF 1 F
UPP

NB2

HFS

LW 1

BSD

BHL
HR 1
BBTK
EKA

JVI
PPE
PRN 1
VRI

0.8s
90 . 20
0 . 9s

90 . 33
1.2s
90 . 41
1.1s
91.73
92 . 69
1 . 4s
2 25s

92 . 35
92 .84
92 . 88

93.11
0.8s
93.16
93.27
6 . 8s
95 92
103.42
Z 22s

1 19.84

124.20
126. 70

129.26

129.72

1 30 . 19

131 .33

131.79

1 36 . 16
137.17
1.5s

137.93

1 38 . 31
140.04
140.31

1 40 . 39
0 . 7s
140.85
0 .3s
142 .55

145.23
0 . 6s
1 46 . 32
1 46 . 36
146. 88
146.88
0 . 9s
146.90
1 47 . 02
147. 39
147.72

45 . 00nm
52 P
57 . 77nm
pP
1 1 ePd
42 . 2 0 n m
1 3 eP
1 04 . 60 nm
44 P
368 eP
80 0 0 n m
0 . 4 3um
i
f>P
- .P
i
eS
sS
128 eP
128 e P
339 eP
ePSP
ePP
i S
i SKS
eSSSS
epP
ePS
48 P
1 0 . 04 nm
128 eP
1 28 i PC
37 . 31 nm
45 P
114 Pd i M
0 . 1 Sum
LR
293 ePKP
e
eS
2 1 0 ePKP
299 ePKP
e

216 i PKPc
i SKP
348 ePKP
i
222 iPKPd
i SKP
220 iPKPd
i SKP
346 iPKP
i
342 ePKP
329 ePKP
69 . 00nm
e

ie
e
e
e

342 iPKPd
e
i
284 ePKP
281 ePKP
346 iPKP
i
i
351 PKP
8 . 46nm
349 ePKP
1 1 . 60nm
233 iPKPc
i
345 iPKP
3 . 7 0nm
298 PKP
297 ePKP
310 i PKP
3 PKP
54 . 30nm
295 ePKP
323 ePKP
292 ePKP
323 ePKPc

44 33.50

46 44 . 60
44 33. 20

44 32 . 40

44 40.00
44 43 . 50

45 01.66
45 07 . 50
45 17.50
48 18.50
54 14.00
54 59.00
44 44 . 50
44 47 . 00
44 43 . 20
44 50 . 00
47 40.00
54 18 . 00
54 38. 00
54 42. 00
54 57 . 00
55 16. 00
44 47 . 00

44 48 . 60
44 49.16

45 60.60
45 39 .00

58 24 . 66
50 19.09
52 56. 26
56 25.36

se 29 . 00
56 33.00
52 55. 00
56 38.00
53 05.50
50 36. 00
53 04.20
56 40 . 80
53 10. 00
50 34. 10
53 05.70
56 40.40
53 12. 00
50 36.30
50 52.00

52 12.00
53 29.00
54 37. 00
56 44.00
57 48.00
05 10.00
50 41 .70
50 52.00
53 31 .20
50 46.70
50 54. 70
50 49.70
52 04. 10
53 37.20
50 56.40

50 51 .20

51 01.60
53 47.10
51 65.60

51 10.00
51 1 1 .60
51 08.50
51 08 . 00

51 13.10
51 12.00
51 14.40
51 12.50

5 . 5mb
- 0. 3
5 . 5mb
6 6 3 k m X
- 0 . 5
5 . 3mb
- 1 . 5
5 7mb
- 0. 8
1 .6
5 . 6mb
4 . 8MS2X

SSI'mX

0. 9
1 .0
- 2. 1

- 0.2
4 . 9mb
0. 4
1 . 1
5 . 5mb
0.2
4 . 6X
4 . 6Msz

- 1.1

0. 4
0 .6

- 0. 4

- 1 .6

0. 6

- 8. 3X

- 1 . 2

- 13. 7X
- 0. 1

- 1 1 . 7X

- 8. 5X
- 3. 7X
- 7.9X

- 7 .5X

- 7 .5X

- 1.7

- 0. 6

1 . 1
2 . 6X
- 1 . 1
- 0.9

3. 3X
2.6X
3.8X
1 .9

275

28<J 21h

LFK
TLB
KRA

ess
DMU

I SR
MLR
DCN

SPC

KSP

DLF
W 1 T

CMP
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TNR
ETA
BRG

VAL
PSZ
ECP
WTS
JMB
PRU
PVL
MOX
MFT
BUD
SRO

ZST

BNS

VKA

KHC

KDZ
ALN
ENN
GRF

PLD
KOE

WET

MEM

ucc

UZD
RZN
SNF

KMR

147.73
147.73
147.96
1 . 6s

147.97
147 . 99
0. 8s
148.27
148. 39
148. 49
0. 8s
148.53

148.61
0.9s

148. 63
148.99

149.83
149.17

149.19
149.25
149.38

149.37
149.66
149.74
149.77
149.79
149.91
150 . 1 2
150. 13
150.23
150. 37
150. 40

150.57

150. 72
0.6s

150. 80
3.0s

150. 96

150. 97
150. 98
151.10
151.11

151.15
151.15

151.16

151.24

151 . 25

151 . 25
151 . 38
151 .54

151 .74

301 ePKP 51
320 ePKP 51
335 ePKP 51
1 79 . 80nm
i 51
i 51
301 ePKP 51
7 i PKPd 51
158. 00nm
322 ePKP 51
324 iPKPc 51
8 i PKPd 51
171 88nm
334 ePKP 51
i 51
340 ePKP 51
1 1 5 . 00nm
i d 51
i 51
e 53
7 i PKPd 51
352 ePKP 51
ePKPobSI
3?4 cPKPc 51
344 ~ P > P 51
. 51
p P K P 53
,SKP 53
325 ePK'Pd 51
7 ePKP 51
342 i PKP 51
i 51
i 51
epPKP 53
iSKP 53
12 i P K P 51
333 ePKP 51
7 ePKP 51
351 e P K P 51
318 ePKP 51
341 ePKP 51
328 i PKP 51
345 ePKP 51
315 i PKP 51
333 e(PKP)5l
334 i PKP 51
i 51
336 ePKP 51
i 51
i 51
e 53
350 iPKPd 51
4 4 . 00nm
ec 5 1

337 e(PKP)51
3 1 3 . 08nm
i 51
i 51
e 53
341 PKP 51
i 51
e 51
318 i PKPd 5 1
316 i PKPd 51
352 ePKP 51
344 ePKP 51
e 51
e 51
319 i P K P d 51
349 e P K P d 51
ic 51
342 ePKP 51
i 51
i 51
352 PKPc 51
i 51
i 51
* 53
354 PKPd 51
e 51
332 ePKP 51
318 i PKPd 51
354 iPKPd 51
i 51

TTQ A P k* P S 1 J J y e r F\ r <J i i 51
epPKP 53

13. 60
13. 50
10.40

14. 90
19.48
15. 50
13.80

15 . 50
15.58
14.80

1 1 . 80
16.60
1 1 .50

16.20
49.50
39. 30
1 3. 80
18 .00
24 . 00
16.88
12 . 80
16.98
43 . 80
59 . 40
19 . 00
16 . 80
12.60
17 . 50
25. 80
44. 00
59. 60
12.88
18.60
1 7 . 80
1 4 . 00
20. 88
13.60
21 .00
14.10
29. 50
20. 00
20. 70
30. 50
13.30
20 . 60
30.50
50. 70
20. 80

40. 50
19 . 50

22. 30
32. 00
52. 80
15.00
21 . 60
32 . 50
21 . 00
20. 60
16 . 00
1 4 . 60
22. 10
33. 30
22. 00
20 . 50
22 . 88
15. 60
22. 80
33. 60
15.70
21 . 85
32. 98
46 . 76
21 .90
33. 20
23.00
22.00
22. 45
34.22
22. 00
36. 00
42.00

2. 6
2 . 9X
- 0 . 4

4 . 1 X
3 . 0X

3 . 9X
3 . 7X
3. 3X

- 0 .2

- 0 . 3

2 . 1
5. 7X

3 . 3X
- 0 . 6

6 . 1 X
4 . 1 X
- 0. 2

- 0 . 1
5.0X
4 . 4X
0. 5
6 . 2X
- 8.2
6 . 7X
0.0
1 4 . 8X
5 . 5X
6 . 1 X

- 1 . 5

5 . 8X

4 . 3X

- 8. 5

5 . 3X
4 . 9X
0. 5
- 1 . 0

6 . 1 X
4 . 9X

- 0 . 1

d 8

6 . 2X

7 . IX
5.5X
6. 3X

5 *^y. J A

VTS
DOU
MMB
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KKB
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OUR
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VAY

STR
PAIG
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CDF
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LJU
LIBD
VBY

FLN

VOY

VI TF
CEY

LDF

OGA
BSF
TRI

GRR

BBS
OHR

LPF
AGG
LOR

SSF

AVF
BGF

MFF
TCF

LSF

LPL
LPG
RJF
CAF

LFF

LRG
LMR
PGF
EPF

LIC
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T 1C
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S

AUG
40 .

151.74
151.92
152 . 04
152 . 1 4

152. 26
152. 50

152.60
152.85

152.89
1 . 3s

152 .91
153.02
153. 14
153. 17
153.21
1 .6s

153.33
153.36
153 . 50

153 . 52
8 . 8s
153.57

153. 58
153.63

153.69
0.7s
153 . 75
153 . 82
153 . 89

1 53 . 90
8 . 7s
154.84
154.87
1.8s

154.25
154.39
154.79
0. 8s
155 . 83
0.7s
155.31
155. 59
0. 8s
155 . 69
155. 91
0. 7s
155.99
0.8s
156 .06
156 .07
156.93
157 .27
0.9s
157.33
0. 7s
158. 1 1
158. 19
158 .28
159.25
0. 9s
163.46
163.67
163.87
166.42
. D. - 0

321 iPKP 51
353 PKP 51
319 i PKPd 51
351 PKPc 51
i 51
i 53
320 iPKPd 51
343 ePKPc 51
i 51
31 7 ePKP 5 1
339 iPKPc 51
i 51
i 51
320 ePKP 51
1 6 8 . 0 0 n m
i 51
048 PKP 51
316 ePKP 51
322 ePKP 51
349 PKP 51
342 iPKPc 51
33 . 1 0nm
i 51
i 51
i 51
e 53

336 e(PKP)51
348 PKP 51
335 ePKPc 51
i 51
i 51
0 iPKPc 51
1 3 . 45nm
337 ePKP 51
e 51
e 51
350 PKP 51
336 ePKP 51
e 51
360 iPKPc 51
5 . 58nm
342 ePKP 51
349 PKP 51
337 ePKP 51
e 51
e 55
1 i PKPc 51
4 . 48nm
348 PKP 51
321 ePKP 51
117. 80nm
i 51
i 51
1 ePKP 51
31 6 ePKP 51
353 iPKPc 51
5 . 35nm
354 iPKPc 51
4 . 40nm
354 ePKP 51
355 iPKPc 51
6 . 70nm
360 ePKP 51
356 iPKPc 51
4 . 40nm
357 iPKPc 51
5.35nm
348 ePKP 51
348 ePKP 51
357 ePKP 51
356 ePKP 51
4 . 90nm
358 ePKP 51
4 . 40nm
347 ePKP 51
346 ePKP 51
341 ePKP 51
359 ePKP 51
6 . 55nm
163 PKP 51
1 64 PKP 51
1 63 PKP 51
157 PKP 51
. 9 on 24 1 o f

28 . 1991 21 h 53m
282 N ±

23.00
23.60
23 . 00
1 7 . 80
24 . 54
46 . 91
24 . 00
25.10
38. 76
24 . 80
17.10
24 . 78
41.10
25. 08

41.48
18.79
25.30
17 . 00
18.62
18. 60

26 . 30
41.70
49 . 40
51 . 00
18.50
20.57
19 . 50
28 . 00
43.10
19.10

19.80
26 . 60
42 . 68
18.03
27 50
43 . 00
19 . 58

19.78
18.14
21.00
44 . 00
24 . 00
19 . 90

20. 06
27 .20

45 . 50
52 . 00
20 . 30
28 . 70
21 . 30

21 . 60

21 . 90
22 . 50

22 . 40
22 . 80

22.50

23 . 70
23 .80
24 . 20
25 . 00

24 . 70

25. 70
25. 70
26.10
27 . 40

31.18
31.36
31 .54
33. 48

6 . 1X
6.9X
5.8X
0. 8

6 .5X
7 . 4X

6. 8X
- 1 . 3

6 . 6X

0.6
6. 7X
- 1 .7
- 0. 1
- 0. 3

- 0.3
1 .8
0. 4

0. 1

- 8. 3

- 1.1
8 . 2X

8 . 3

8 . 1
- 1.4
1 . 5

0. 4

8. 3
7 . 2X

0. 3
8. 2X
8 . 5

0.5

8 . 4
0. 6

0. 4
0. 4

0. 1

0. 9
0.9
0.6
0.9

0. 6

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- 0.2
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304 abs.

14 . 00±
5 . 5km 142. 870 E ±

0. 73s
9.2km

DEPTH - 40 . 7 ± 5 . 3 km

4 . 8mb (26 obs .)
NEAR

OFUJ

AOMJ
HOOJ

MRR J

Y AMJ
KUS J

ASAJ
N 1 1 J
KAK J
CHJJ
MAT

MTMJ
1 1 DJ
TSRJ
SSE

BJ 1

YAK

LZH

TTA
1 MA
GUN
KKN
PK 1
DMN
GKN
NO 1

WRA

KEV
DUE
SOD
GBA

KAF
NUR
HFS

Z

NB2

KRA
CLL

PRU

KHC

EKA

GRF

ALO

CDF
BSF
HAU
LOR

LBF

SSF

LPL

LPG

GRR

SMF

EAST COAST OF HONSHU. JAPAN(228)

1 . 52 218 eP 53 39 . 00 -0.1
eS 53 58.00
1 .93 279 P 53 46. 40 1.5
2.12 8 eP 5347.70 -0.1
eS 5413.18
2.53 328 eP 53 53.90 0.4
eS 54 26.40
3 . 05 227 eP 5401.68 0.7
3.13 25 eP 5400.38 -1.8
eS 54 33.38
3 . 84 358 eP 54 1 1 . 98 -0.2
4 . 29 226 i P+ 54 1 9 . 26 0.8
4.59 208 P 54 20.50 -2.3
5.21 217 P 54 31 .00 -0.6
5. 23 226 iPc 54 32.60 0.8
0.7s 92 . 47nm 5. 3mb
eS 55 31 . 00
5. 43 229 i P+ 54 35 . 60 0.9
6.19 221 P 54 45.90 0.5
7 . 22 231 P 55 00 . 80 1.2
19. 82 249 eP 57 43.50 -0.4
1.0s 1 2 . 00nm 4 . 2mb
i 57 53.50
20.38 278 eP 57 46.00 -3.8X
1.2s 13. 00nm 4 . 1mb
23.18 344 i P 58 15.20 -2.4
eS 02 22.00
30.79 275 eP 59 26.50 -1.6
1.5s 17. 00nm 4 . 6mb
42.12 37 eP 01 09 . 30 5 . 7X
43. 32 32 eP 01 1 5 . 50 2.1
48. 03 274 P 0151.16 -0.5
48.55 274 P 01 55.08 -0.4
48 . 56 273 P 0154.84 -0.9
48. 78 274 P 01 57 . 04 -0.2
48. 94 274 P 01 57 . 60 -0.7
54.22 279 iPc 02 36.00 -1.9
0.5s 17.6lnm 5. 3mb
60. 44 189 P 03 20. 00 -1.8
0.7s 1 . 90nm 4 . 3mb
60. 82 339 eP 03 32.00 8. IX
61.10 286 eP 03 26.30 -0.3
62. 42 337 iP 03 33.50 -1.2
62. 63 265 PC 03 35. 70 -1.0
0.8s 5 . 90nm 4 . 8mb
65.95 333 eP 03 56.30 -1.4
67 . 63 332 eP 04 06.50 -1.8
71.60 336 eP 04 31.90 -0.8
0.4s 3 . 30nm 4 . 7mb
17s 0.10um 4-IMszX
LR 35 20.00
71.63 337 P 04 32.00 -0.9
0.8s 7.1 0nm 4 . 7mb
77. 04 326 eP 05 04. 40 0.2
78 . 84 331 eP 05 1 4 . 00 0.0
0.9s 9.00nm 4. 7mb
79.30 329 eP 05 17.00 0.4
e 05 31 . 30
80. 36 329 P 05 23.00 0.7
e 05 38.00
80 . 44 341 PC 05 22 . 70 0.1
1.0s 3 . 60nm 4 . 3mb
80. 82 331 i PC 05 25.50 0.8
0.9s 8 . 00nm 4 . 7mb
81.64 51 eP 05 16.00 -13. 5X
1.0s 2 . 50nm
83. 33 332 eP 05 38. 00 0.1
84.00 332 eP 05 41.00 -0.3
84.01 332 eP 05 41.00 -0.2
85.51 333 iPc 05 49.00 0.2
0.7s 7.70nm 5. 0mb
85.71 333 iPc 05 50.00 0.2
0.8s 5.35nm 4. 8mb
85. 81 333 iPc 05 50. 60 0.4
0.8s 5.35nm 4. 8mb
85. 98 331 iPc 05 51 .80 0.4
0.7s 3 . 85nm 4 . 7mb
85.99 331 i PC 05 51 .90 0.4
0.7s 4 . 40nm 4 . 8mb
86.05 337 iPc 05 52.70 1.3
0.8s 9.40nm 5. 1mb
86.05 333 eP 05 51.80 0.3
0.9s 8 . 20nm 5 . 0mb

276

28d

AVF

22h

86. 10 333
0.8$ 15
LPF 86. 42 337
0.9s 13
9GF 86. 47 334
0 . 7 s 3
MAT 86. 86 334
08s 8
1CF S6 92 334

iPc
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CAF
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S . D.

AUG 28
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ATN

CS I
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. 1991 22h
N ± 5.7km

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4 . 9mb
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abs .

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36± 0 94s
E
c i

± 1 1 . 2 km
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(390)

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eSg
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obs .

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AUG 28, 1991 22h 24m 45.63± 0.79s
37.177 N ±13.0km 70.875 E ± 9.1km
DEPTH » 33.0km (normal)
4 .3mb (4 obs .)
AFGHANISTAN-USSR BORDER REGION (717)

CUE 7 . 70
0 . 8s

MA I O 9.18

ND 1 10.00
0. 4s

GKN
KKN
DMN
PK 1
GUN
HFS

NB2

WRA

%

14.76
15.33
15.33
1 5 . 56
15.65
42. 47
0 . 4s
43. 78
0 . 5s
82. 43
0 . 6s
S. D . =

AUG 28.
39 . 602 N
DEPTH =

206 eP
466 . 42nm
eS
268 eP
eS
146 i P d
1 5 . 25nm

124
124
124
124
122
321

323

122

1 . 3

1 99 1
± 5.

eS
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eP
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22h 33m
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51
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31
661

10.0km (geophys

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. 20

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5 . 6mb

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3 . 9mb
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4 . 2mb
abs .

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. 51± 0.94s
E
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SOUTHERN 1 T ALY

CZ 1

TDS

ATN

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SOI

MGR

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. 90
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±11 . 7 km
st)
(390)

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- 0 .

- 0 .

abs .

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7

6

AUG 28. 1991 23h 10m 16.40± 1.08s
40.251 N ± 8.2km 143.068 E ±15. 8km DEPTH = 33.0km (normal)
4 . 0mb (1 abs .)
OFF EAST COAST OF HONSHU, JAPAN (229)

OFUJ 1.59 223 eP 10 43.20 0.6
eS 1103.10
AOMJ 2.08 279 eP 10 50.20 0.6
HOOJ 2.14 4 eP 1051
eS 1117

MRRJ 2.64 326 eP 10 57
S 1128
KUSJ 3.10 23 eP 1104
*S 1138
YAMJ 3 . 1 4 230 eP 11 06
ASAJ 3.88 355 eP 11 15

>0 1.3
U0
!)0 0.3
'J0

70 0.6
30
'20 1.5
30 0.8
N 1 1 J 4.38 228 P 1 1 23 . H0 1.1

KAKJ 4.64 210 P 11 25 . (30 -0.9
S 12 18. (50
CHJJ 5.28 219 P 11 34. 90 -0.2
MAT 5.32 227 iPc 11 36.30 0.7
0.8s 29 . 1 0nm 4 . 8mb X
(S) 12 36. 00
MTMJ 5. 52 230 P 1139.40 0.9
KKN 48.71 274 P 18 59.00 -0.9
PK I 48 . 72 274 P 18 59 .00 -1.1
DMN 48.93 274 P 19 00.00 -1.7
GKN 49.09 275 P 19 00.40 -2.3
WRA 60.43 189 P 20 36.00 11. OX
0.5s 0 . 7 0nm
NB2 71.72 338 P 21 35.40 -1.3
0.9s 1 . 60nm 4 . 0mb
S . D . -1.2 an 17 of 1

» AUG 28 . 1991 23h 22m 26
1 5 . 585 S ±15. 4km 173.747
DEPTH = 33.0km (normal)
5 . 4mb (5 abs .)
TONGA ISLANDS

DZM 19.82 248 iPc 26 58.
URZ 23.98 198 eP 27 39.

8 abs.

. ___

41± 0.61S
W ±18 . 2km

(173)

70 1.3
90 1.0
NOZ 24.06 196 eP 27 41.90 2.3
MNG 26 . 64 1 98 eP 2801.
LTZ 29.64 201 eP 28 28.
TOO 42.09231 i Pd 3017.
WRA 49 . 47 257 P 31 14.

0.5s 1 3 . 80nm
ASPA 49 . 74 252 i PC 31 17 .
0.6s 87.90nm
KIB 63.85 242 eP 32 57.
0.4s 8 . 09nm
MUN 65.15 242 i PC 33 06.
0.6s 43.09nm
TNP 75.20 43 eP 34 07.
1.1s 9 . 42nm

80 -2.2
80 -2.3
70 0.6
00 -1.9

5 . 2mb
40 -0.5
6 . 0mb
70 -0.6
5.2mb
50 -0.2
5 . 7mb
10 -9.8
4 . 7mb
ALO 81.17 50 eP 34 39.00 -1.7
MAW 87.51 199 iPd 35 12.60 0.8
GRF 145.74 354 ePKP 42 03.60 0.4
1.3s 1 1 . 00nm
KHC 146.01 351 PKP 42 04.00 0.3
ZST 146.27 347 ePKP 42 04.40 0.3
FLN 146.46 8 ePKP 42 05.00 0.7

LDF 146.67 8 ePKP 42 05j80 1.1
LPF 147.09 9 ePKP 42 06^50 1.2
0.7s 5 . 50nm

f"*n F 1 A 7 *? *^ "^ ^ cj Apk'p ^ o fl 7 ^ A 1 ^ v OUT I'r/.ivJ OU9 <rrl\r °* £. V i
0.8s 5 . 35nm
HAU 147.67 360 ePKP 42 08
0.7s 4 . 40nm
WTTA 148.10 353 iPKP 42 09
0.8s 7 . 70nm

f.^J \ . T A

40 2. 1X

60 2 .3X

LOR 148.35 3 ePKP 42 10130 2.9X
0.7s 3 . 85nm

SSF 148.53 4 ePKP 42 11(00 3.3X
LBF 148.64 3 ePKP 42 11J10 3. IX
0.5s 1 . 80nm
AVF 148.79 4 ePKP 42 1 1
SMF 148.97 3 ePKP 42 11
BGF 148. 99 5 ePKP 42 12
0.7s 3 . 30nm
MAF 149.30 5 ePKP 42 12.
0.9s 6 . 55 nm
LPL 150.16 359 ePKP 42 16.
1.0s 6.00 nm
LPG 150.18 359 ePKP 42 16.

20 3. 1X
80 3 - 4X
00 3.5X

90 3.9X

00 5.4X

20 5.5X

0.7s 4 . 40nm
CAF 150.54 6 ePKP 42 15.90 5.0X
0.9s 3 . 30nm
LPO 150.68 7 ePKP 42 16.00 4.9X
0.7s 4 . 40nm
FRF 152.12 359 ePKP 42 19.50 6.3X
LRG 152.22 360 ePKP 42 19.80 6.5X
LMR 152.34 360 ePKP 42 19.80 6 3X
PGF 153.03 356 ePKP 42 21.20 6.5X
S . D . =1.4 an 19 of 37 abs.

% AUG 29. 1991 00h 42m 47.57± 0.69s
38.936 N ± 5.9km 15.799 E ±11. 2km
DEPTH = 33.0km (normal)
S 1 C 1 L i (398)

CZ 1 0. 38 43 P 42 55. 30 -1.1
ATN 0.82 199 P 43 02.40 -0.3
eSg 43 16.60
TDS 0.83 30 P 43 02 . 50 -0.4
eSg 4314.00
ROI 0.87 43 P 43 04. 00 0.5
SOI 0.89 167 P 43 03 . 90 0.3
eSg 43 19.50
CS I 0.92 24 P 43 05. 50 1.3
eSg 43 17.00
MGR 1.22 351 P 43 07.20 -1.1
SCO 1 .66 347 P 43 15. 10 0.3
eSg 43 36.30
DUI 2.91 340 Pd 43 33. 10 0.5
S . D . =0.9 on 9af 9obs.

% AUG 29. 1991 00h 48m 44.16± 1.37s
38.994 N ± 7.0km 15.635 E ±13. 4km
DEPTH = 10.0km (geaphysicist)
S ICl LY (398)

CZ I 0. 45 60 P 48 53. 70 0.4
eSg 48 58.60
ACI 0.57 51 P 48 55. 30 -0.4
TDS 0.86 39 P 49 00.50 -0.2
eSg 49 13.50
SOI 0.98 160 P 49 02. 70 0.0
eSg 49 13.30
MGR 1.14 357 P 49 05. 70 0.1
eSg 49 21 .80
S . D . =0.4 an 5of Sabs.

% AUG 29. 1991 00h 49m 47.11± 1.24s
39.153 N ± 6.9km 15.724 E ±10. 4km
DEPTH «= 10.0km (geaphysicist)
SOUTHERN ITALY (390)

CZ 1 0.32 78 P 49 53-80 0.0
«Sg 49 58.30
ACI 0.42 62 P 49 56.50 0.8
TDS 0.69 43 PC 50 00.60 -0.2
«Sg 50 13.60
CS I 0.76 35 P 50 02.80 0.8

eSg 50 15.20
RO 1 0.78 57 P 50 01 . 00 -1.3
eSg 50 14.00
MGR 0.99 352 P 50 05.80 -0.1
eSg 50 21.10
SO I 1 . 1 1 1 66 P 50 08 . 00 0.1

eSg 50 20.10
S . 0 . - 0 - 9 on 7af 7abs.

AUG 29, 1991 00h 58m 37 . 70± 0.31s
44.263 N ± 4.3km 10.137 E ± 2.7km
DEPTH - 10.0km (geaphysicist)
NORTHERN ITALY (545)
ML 2. 7 (LOG) .

BD I 0. 39 121 PC 58 45. 10 -0.6

eSg 58 50.50
MME 0.41 100 PC 58 45.40 -0.8

eSg 58 51 .80
P 1 1 0.61 153 PC 58 50.00 0.0

eSg 58 58.00
BOB 0. 71 316 P 58 52.60 0.9

eSg 59 04.00
PCP 1.17 284 P 59 00. 31 0.6
S 59 15.91
PGD 1 .21 108 P 59 01 .70 1.4

eSg 59 17.60
SFI 1 .28 105 P 59 02.90 1.5

277

29d 00h

eSg 59 20.20
CK 1 1.34 278 PC 59 62.60 -6.4
eSg 59 26.96
SAL 1.37 1 1 P 59 62 .66 -0.2
eSn 59 24.16
FIN 1 . 39 268 P 59 62 .87 -0.2
S 59 20.68
CRE 1.46 115 P 59 63.80 -0.3
eSn 5923.70
ROB 1.63272P 5966.67 0.1
S 59 26.08
IM 1 1.66 259 P 59 06 . 77 -6.2
S 5926. 40
PGF 1 . 9 0 2 0 6 P n 5910.60 0.6
S n 09 33. 6 D
E N R 1.95270P 5911.62 0.3
SBF 1.99 259 Pn 59 11.80 0.0
Sn 59 35.90
STV 2.02 270 P 59 12.51 0.2
ORX 2.05 313 P 59 16.07 3.3X
CTI 2.08 36P 5911.80 -1.4
eSn 59 37.60
DOI 2.09 278 P 59 16.90 -2.4
eSn 5938.70
BHB 2. 13287 P 5915.59 1.7
ARV 2.17 116 P 59 13.90 -0.5
PZZ 2.19 277 P 59 14.56 -0.2
FRF 2.62 256 Pn 59 20.60 -0.2
Sn 59 51 .30
LPL 2.73 299 Pn 59 24.00 1.5
LMR 2.79 252 Pn 59 22.60 -0.5
Sn 5954.80
LRG 2.85 255 Pn 59 24.20 0.2
Sn 59 57.20
FV 1 2.98 38 P 59 25.30 -0.5
eSn 06 61.70

WTTA 3.18 19 iPgc 59 30.40 1.5
e(Sg) 00 10.50
HAU 4.58 326 Pn 59 48.00 -0.6
Sn 0041.20
CDF 4.60 335 Pn 59 47 .80 -1.1
S . D . =0.9 on 30 o < 31 obs .

AUG 29, 1991 01h 00m 36.36± 0.29s 17.823 S ± 5.9km 115.975 W ± 7.7km DEPTH - 10.0km (geophys i c i s t) 5.3mb (14 obs.) 4.8Msz (4 obs.)
EASTER ISLAND CORDILLERA (684)
Mo-1 . 0» 1 0» * 1 8 Nm (PPT).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 18S, 34C
Centroid Location:
Origin Time 01:60:43.5 0.4 Lot 17.78S 0.66 Lon 116. 54W 6.05

Dep 15.0 FIX Ho 1 f-dur o t i on 2.0
Moment Tensor; Scole 10*«17 Nm
Mrr--1.l2 6.65 Mtt--0.16 0.06
Mff- 1.29 0.06 Mrt 0.01 0.16
Mrf 1.11 0.20 Mtf--0.30 0.05
Principal Axes:
T Vol- 1.76 Plg=21 Azm= 81
N -0.19 7 174
P -1.57 68 283

Best Double Co u p 1 e : Mo- 1 . 7 * 1 0 * 1 7
NP1 : S t r i ke-1 58 Dip-25 Slip--168
NP2: 357 66 -82

PSO 42.48 68 eP 08 36.50 2.4
LCCH 42.62 120 eP 68 35.60 6.4
LNV 42.84 121 eP 68 36.50 6.2
TACH 43.17 126 eP 08 39.00 -0.1
PEL 43.30 126 iPc 08 40.50 6.3
SAN 43.37 120 eP 08 41.60 0.3
PCH 43.52 120 eP 08 42.00 0.0
MDZ 44.78 119 eP 08 53.20 0.9
LPB 45.66 96 P 09 01.00 1.2
2 22s 3 . 56um 5 . 3Msz
LR 22 12.00
ZOBO 45.68 96 P 09 01.00 0.8
1.3s 35 . 49nm 5 . 2mb
Z 24s 2. 47 urn S.IMszX
LR 22 28.00
CNCB 45.73 96 P 09 02.00 1.4
BOG 46.98 66 eP 09 14.00 3.9X
eS 1 6 1 0 . 00
CYA 47.05 112 iP 09 09.40 -0.8

CCH 47.38 97 P 09 14.20 0.9
BMG 49.65 63 i PC 69 26.60 0.0
BAR 56.22 359 eP 69 35.60 0.4
GLA 56.60 1 eP 69 39. 00 1.5
PLM 50.89 359 eP 69 42.60 2.1
PEC 51 . 44 359 P 09 43 . 80 0.6
RVR 51.54 359 eP 09 45.60 0.4
TPC 51.64 366 eP 69 46.66 0.7
PAS 51.72 358 eP 09 45.60 -0.9
MWC 51.79 358 eP 69 47.60 0.3
SYP 52.20 356 eP 09 53.00 3.3X
SBB 52.25 358 eP 09 50.00 0.0
SIV 52.41 97 Pd 89 50.30 -1.2
GSC 52.84 359 eP 69 55.00 0.6
ISA 53.24 357 eP 09 58.00 0.6
ALO 53.25 10 eP 09 57.60 0.0
1.3s 56. 25nm 5 . 4mb
Z 18s 0.27um 4.3Msz
ANMO 53.25 10 P 09 57.50 -0.1
1.2s 50 . 78nm 5 . 4mb
CLC 53.37 358 eP 09 59.00 0.7
TNP 55.62 359 P 10 14.80 -0.1
1.0s 23 . 75nm 5 . 2mb
CMB 55.71 356 P 10 14.80 -8.6
1.0s 22 . 50nm 5 . 2mb
PV09 56 . 39 6 P 1020.80 0.2
ACO 56.51 16 i Pd 1021.70 0.6
TUL 56.76 20 ePc 10 21.40 -1.5
0.8s 16.30nm 5.1mb
N 22s 0 . 1 7um
E 24s 0.32um
LO" 24 44.00
ORV 57.31 355 P 10 26.90 0.2
GOL 58.07 10 P 10 31.50 -0.9
0.8s 1 4 . 1 4nm 5.1mb
GLD 58.15 10 P 1032.70 -0.1
1.0s 54.00nm 5. 5mb
FVM 60. 48 23 P 10 47 . 30 -1.5
0.8s 1 5 . 1 5nm 5. 2mb
PPD 60.55 166 eP 10 48.00 -1.6
JSC 61.46 32 P 1053.50 -1.9
LRM 63.42 3 eP 11 07.50 -1.1
BLA 64.18 3 1 P 1111.30 -2.2
PGC 66.51 355 eP 11 29.00 0.8
PNT 66.91 357 eP 11 32.00 1.1
SES 68.06 3 eP 1 1 38 . 00 -0.1
SPA 72.29 180 iPd 12 03.90 0.0
1.1s 62 . 50nm 5 . 6mb
FFC 73.24 8 eP 12 08.00 -1.3
1.7s 98 . 00nm 5 . 6mb
BNH 74.29 31 P 1215.70 0.1
S i T 76. 33 349 eP 12 28. 30 1.3
KDC 81.16 341 eP 12 54.10 0.9
BALM 81.39 347 P 12 52.40 -2.2
SLKM 82.80 344 P 13 01.30 -0.5
TOA 83.18 346 eP 13 04.90 1.1
PMR 83.44 345 eP 13 05.30 0.3
1.6s 1 08 . 60nm 5 . 8mb
RSO 83.46 343 P 13 04.70 -0.7

NVL 84.64 165 (P) 13 10.00 -1.0
FBA 85 .98 347 eP 1318.10 0.4
1.4s 86 . 20nm 5 . 7mb
TTA 86.38 343 eP 13 19.70 -0.1
1.4s 20 . 60nm 5.1mb
IMA 88.30 346 eP 13 29.00 -0.1
LSF 121.62 46 iPKPc 19 31.00 -0.9
1.1s 9 . 75nm
MAF 122.34 46 iPKPc 19 32.70 -0.6
BGF 122.48 46 iPKPc 19 32.90 -0.7
1.0s 8 . 00nm
SSF 122.86 45 iPKPc 19 33.40 -0.8
1.3s 10.85 nm
LOR 123.06 45 iPKPc 19 34.00 -0.7
Z 2 1 s 0 . 25um 4 . 8Msz
LBF 123.19 45 iPKPc 19 34.10 -0.9
APO 124.51 27 ePKP 19 36.00 -1.0
0.6s 0 . 50nm
LPL 125.33 46 iPKPc 19 39.80 0.4
1.1s 4 . 90nm
LPG 125.34 47 iPKPc 19 40.00 0.5
1.1s 7 . 35nm
LRG 125.42 49 iPKPc 19 39.10 -0.2
1.1s 12. 20nm
Z 21 s 0 . 1 7um 4 . 7Msz
FRF 125.61 49 iPKPc 19 39.40 -0.4
1.1s 9. 75nm
MOX 127.20 39 iPKPc 19 42.40 -0.2

1.7s 1 2 . 00nm
GRF 127.25 41 ePKP 19 43.00 0.3
CLL 127.80 38 iPKP 19 43.70 0.0
1.8s 20 . 00nm
WTTA 128.22 43 iPKPc 19 45.00 0.1
1.1s 1 1 . 60nm
BRG 128.51 38 iPKPc 19 45.20 0.1
1.3s 1 5 . 60nm
KHC 128.89 41 iPKP 19 46.00 0.1
1.2s 7 . 00nm
PRU 129.19 39 ePKP 19 46.20 -0.2
KSP 129.90 38 ePKP 19 48.06 0.3
ZST 131.41 41 ePKP 19 50.20 -0.4
SPC 132.91 38 ePKP 19 53.60 -0.1
OBN 137.30 23 iPKPc 20 01.50 -0.1

e 20 22.00
VRI 138.34 40 ePKP 20 02.00 -1.9
LZH 140.45 305 ePKP 20 06.50 -1.7
1.8s 35 . 00nm
Z 25s 0 . 43um 5 . 1MszX
pP 20 14.00
KMI 143.34 288 PKPc 20 15.80 1.3
NNT 145.19 267 ePKP 20 17.00 0.3
NST 145.39 272 ePKP 20 17.00 0.0
BDT 146.67 274 ePKP 20 20.00 0.9
CHG 146.87 277 ePKP 20 21.00 1.6
1.3s 39 . 42nm
AD I 150.01 54 ePKP 20 33.90 9.9X
DSI 150.70 57 ePKP 20 35.90 18. 9X
PRNI 150.81 59 ePKP 20 36.40 11. 1X
MAIO 161.16 11 ePKP 20 40.00 1.6
QUE 167.40 348 ePKP 20 45.30 1.0
S.D. = 0.9 on 90 of 95 obs.

? AUG 29. 1991 01h 17m 01.05± 1.36s
40.715 N ± 8.0km 29.178 E ± 1 3 . 3 km
DEPTH - 10.0km (ge ophy s i c i s t)
TURKEY (366)

YLV 0. 21 135 iPg 1705.70 0.0
eSg 17 08.70
ISK 0.36 346 iPg 17 08.50 0.0
iSg 17 1 4 .50
HRT 0.39 74 iPg 17 09.00 0.0
iSg 17 1 4 .00
1 Z 1 0 . 44 1 49 i Pg 1718.00 0.0
S.D. -0.1 on 4of 4obs.

AUG 29. 1991 01h 33m 16.98± 0.58s
42.848 N ± 5.3km 18.837 E ± 4.6km
DEPTH - 10.0km (geophys i c i s t)
YUGOSLAVIA (383)
ML 2. 3 (TTG) .

NKY 0.12 107 i Pgc 33 21 . 40 1.3
iSg 33 25.50
BRY 0.22 284 iPgc 33 22.20 0.3
iSg 33 27.00
HCY 0.47 212 ePg 33 26.40 -0.2
i Sg 3334.80
TTG 0.52 143 ePg 33 27.00 -0.6
eSg 33 35.20
BDV 0.56 181 ePg 33 28.30 -0.1
eSg 33 38.00
PLE 0.63 40 iPgd 33 29.20 -0.5
i Sg 33 40 . 00
IVA 0.78 88 ePg 33 32,00 -0.2
eSg 33 43.50
ULC 0.94 161 ePg 33 35.00 0.2
eSg 33 50.00
HVAR 1.78 281 iPn 33 47.90 -0.1
iSn 34 1 1 .90
S.D. -0.6 on 9of 9obs.

AUG 29, 1991 01h 33m 50.16± 0.32s
42.795 N ± 3.7km 18.759 E ± 2.8km
DEPTH - 10.0km (ge o ph y s i c i s t)
YUGOSLAVIA (383)
MD 3.2 (TTG) .

NKY 0.18 84 ePg 33 55.30 1.1
iSg 33 58.50
BRY 0.19 304 iPgc 33 56.00 1.5
iSg 34 00.80
HCY 0.40 209 iPgc 34 00.00 1.7
iSg 34 08.70

278

29d 01h

BDV 0

T TG 0

PLE 0

1 VA 0

ULC 0

PVY 0

H V A R 1

S K 0 2

BRT 2

OHR 2

BED 2
LCI 2

FNA 2
VAY 3
VTS 3
KKB 3
DU 1 3
SCO 3

1 GT 3
KNT 3
CS 1 3
MGR 3
ROI 3
VBY 3

SD 1 3

MMB 3
LIT 3
SOH 3
SRS 3
CZ 1 4
CEY 4

ARV 4
ASS 4
MNS 4
R2N 4
TR 1 4

OUR 4
AGG 4
PAIG 4
VOY 4

CRE 5
SOI 5
FV 1 5

A L N 5
CT 1 6
KHC 7

S.D.

. 51 174 ePg
iSg
. 52 134 ePg
iSg
. 71 41 i Pgd
iSg
. 84 84 i Pgd
eSg
. 91 156 ePg
eSg
. 92 102 ePg
iSg
. 74 284 i (Pn)
i Sn
. 15 112 ePn

iPg
iSg
. 24 212 P
eSn
.; 2 7 137 e P n
iSg
. 37 31 ePn
. 53 194 P
eSn
. 80 135 i Pd
. 20 116 ePn
. 29 92 i P
. 34 105 iP
. 39 252 P
. 42 230 P
eSn
. 47 159 ePc
. 49 116 eP
. 54 212 P
. 58 223 P
. 62 208 P

. 70 318 e(Pn)
eSn
. 83 255 PC
eSn
. 88 106 eP
. 89 133 ePc
. 96 118 ePc
. 98 113 ePd
. 09 210 P
. 28 315 eP
eSn

e(Sg)
. 31 281 P
. 49 276 P
. 51 267 P
. 56 102 eP

. 62 311 eP',
. 63 120 ePc
. 64 143 ePc
. 68 126 ePd
. 76 315 e(Pn)
eSg
. 04 282 P
. 1 5 205 P
. 71 3 1 4 P
eSn
. 76 107 i Pd
. 04 305 P
. 29 332 eP
e

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01
02
03
25
08
06
16
22
1 7

1 9
46
52
= 1.1 on 38 o f

» AUG 29 . 1 99 1 0 1 h
38 . 379
DEPTH
4 . 7mb
WEST CH 1

SAN 1 9
PCH 1 9
PEL 1 9
MD2 20
CYA 25
NNA 30
1 .
2 2
CNCB 31
LPB 31
ZOBO 31
SI V 36

S ±1 6 . 9km

45rr>
93.

21
640

= 10. 0km (geophys
(3 obs .) 4
LE RISE

. 23 82 eP
. 29 83 eP
. 33 81 eP
. 86 82 eP
. 18 75 iP
. 25 34 i (P)
0s 9 . 00nm
2s 1 . 1 1 urn
. 10 53 P
. 23 53 eP
. 42 53 P
. 26 61 P

. 50
. 40
. 30
. 00
. 80
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. 00
. 40
. 20
. 80
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. 20
. 50
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. 30
. 20
. 50
. 50
. 90
. 50
. 29
. 40
. 00
. 00
. 70
. 50
. 60
. 85
. 50
. 20
. 00
. 20
. 40
. 50
. 30
. 20
. 00
. 40

. 32
. 92
. 20
. 00
. 00

. 50
. 60
. 90
. 30
. 00

. 90
. 00
. 36
. 48
. 84
. 60
. 90
. 30
. 10
. 80
. 30
. 04

. 40

. 00

. 50
49

0 . 9

- 0 . 4

- 1.4

- 1.0

0.5

- 0.6

0 . 6

- 3 .3X

- 0. 9

- 1.1

1 .9
- 5.0X

36 . 3X
- 8 . 0X
- 2 . 9X
0 . 5
1 .5
0 .0

55. 6X
- 0 . 1
0. 8
0. 1

0 . 7
0.8

- 0 .2

0.8
45 2 X

0.0
0.5
- 0.8
1 6 . 1 X

- 0. 7
- 0.9
- 0. 7
- 10 . 9X

55. 3X

0 .7
- 0.5
0 . 3
- 0 . 1

0 . 6
- 3 .0
- 0.2

- 0 .7
- 2 . 4
6 . 7X

obs .

. 00± 1.15s
W

i c i . 5Ms Z (

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42
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. 00

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&Q
. 80
. 20
. 00

. 70
. 00
. 00
. 00

±1 5 . 8km
st)
1 obs.)
(686)

1 .0
- 1 . 3
- 1.3
1 . 3
1 . 1

4 . 6mb
4.5MSZ
0.3
6.6X
0 .8
- 1.4

NVL 59.08 158 (P) 55 22.50 -0.7
e 55 30.00
e 57 38 .00
MAW 72.85 171 eP 56 52.00 6.7
1.0s 2 3 . 0i?nm 5 . 2mb
TUL 73.94 358 e(P) 56 57.50 -0.4
0.8s 4.1 0nm 4 . 5mb
MOX 127.48 51 iPK'Pc 04 30
1.9s 24 6i 0 n m
CLL 128.51 50 e(PKP)04 36.
KOD 150.86 162 ePKP 05 17.
MAIO 158.56 87 fePKP 05 23.
S.D. =1.2 on 11 of 1

% AUG 29. 1991 0 1 h 54m 36.
40.467 N ± 5. 4 km 23.547
DEPTH - 10.0km (geophysi
GREECE

10 2 . 9X

30 6 . 9X
30 6 . 8X
30 3. 3X
7 obs .

1 1± 6.65s
E ± 6 . 2km
cist)
(364)
MD 2. 2 (THE) .

OUR 0.36 112 <=Pd 54 44.18 0.7
eS 54 49.20
SOH 0.38 338 «-Pc 54 43.86 -0.1
*S 54 49 90
THE 0.47 291 ePc 54 46 14 0.4
PAIG 0.55 169 ePc 54 46.34 -0.9
*S 54 55 . 18
SRS 0.65 3 ePd 54 48.98 -0.1
eS 54 58. 70
KNT 0.85 325 iPd 54 52.14 -0.4
<=S 55 04.82
LIT 0.89 246 ePc 54 53.58 0.4
* S 5506.42
S.D. =0.7 on 7 of 7 obs.

7, AUG 29. 1991 02h 07m 15.'88± 0.66s
40.776 N ± 5.4km 23.414 E ± 6.4km
DEPTH - 10.0km (geophysi
GREECE

MD 1 . 7 (THE) .

SOH 0.06 315 ePc 07 18.
SRS 0.37 22 ePc 07 23.
IS 07 29.
THE 0.37 247 ePc 07 23.
eS 07 28.
KNT 0.55 315 ePd 07 26.
eS 07 35.

cist)
(364)

30 0.1
50 0.1
34
74 0.3
58
74 -0.2
62
OUR 0.62 135 ePc 07 28.54 0.2
PAIG 0.87 166 ePc 07 32. '26 -0.4
S.D. = 0.3 on 6 of 6 obs.

St. AUG 29. 1991 02h 23m 12
60 . 1 09 N 152. 860
DEPTH - 97 . 8km
SOUTHERN ALASKA
<AE 1 O .

1 VS 0.15 228 eP 23 26.
RED 0.31 8 i PC 2326.
eS 23 37.
RS1 0. 36 8 i PC 23 27
eS 23 38.
RSO 0.36 8 i PC 2327.
eS 23 38.
RS2 0 . 36 8 iPc 2327.
eS 23 38.
ROW 0.38 4 iPc 23 27.
eS 23 38.
REF 0.39 1 2 i PC 2327.
eS 23 38.
RDN 0.41 7 i PC 23 27 .
eS 23 38.
NCT 0.46 356 iPc 23 27.
eS 23 39.
DFR 0.49 1 0 i PC 23 27 .
eS 23 39.
OPT 0.49 202 ePc 23 27.
eS 23 39.
RDT 0.52 26 i PC 23 27.
* C O \ T. Q e j £. O O y .
PDB 0.74 245 iPd 23 29.
eS 23 42.
HOM 0.76 126 eP 23 30,
eS 23 43.
AUL 0.79 202 eP 23 30.
eS 23 43,

58s
W

(2)

52 1.2
60 -0.7
50
09 -0.6
56
08 -0.6
40
04 -0.7
85
15 -0.6
67
23 -0.6
46
30 -0.6
34
51 -0.7
09
75 -0.7
64
49 -0.9
44
83 -0.8
65
62 -0.8
66
13 -0.5
81
39 -0.5
74

NNL 0
AUE 0
AUP 0 .
AUW 0 .

CNPM 1 .

NKA
CKL
SPU
BGL
CRP
CDD
CGLM
NCG
SLKM
SYI
SVW 1 .
SEW 1 .

SUA 1 .
PMS 1 .
SKT 1 .
PWA 2 .
PLRM 2.
LT 1 2.
KNK 2 .
GHO 2.
KN 1 M 2 .
MTU 2.
CUT 2.
SML 2 .
GL 1 2 .
TTA 3 .
HUR 3 .

VL2 3.
TRF 3.
KTH 3.
KLU 3 .
TOA 3 .
52

% AUG 29
44.253
DEPTH -
NORTHERN

MME 0.

PGD 0.

SF 1 0 .

BD 1 0.

CRE 0.

P 1 1 0 .

BOB 1 .
ASS 1 .
FV 1 2 .
S.D.

? AUG 29
3 . 989
DEPTH -
COLOMB 1 A

CLMC 0.

ANCC 0.
HOOC 0.

BUGC 0.

HOBC 0.

SI LC 1 .
S.D.

& AUG 29
60 .576
DEPTH -
SOUTHERN

79 94 eP
80 199 eP
80 201 eP
80 203 eP
S
01 125 ePc
eS
03 51 ePc
12 13 iPc
15 20 ePc
18 11 i PC
21 16 ePc
25 199 eP
27 19 ePc
34 15 ePc
37 72 i P c
52 171 ePd
69 308 ePd
71 89 ePc
eS
71 36 ePc
98 54 ePc
99 18 ePc
13 42 eP
36 49 eP
51 89 eP
53 57 ePc
54 47 eP
57 82 ePc
62 90 ePc
62 27 eP
79 50 eP
96 72 eP
21 333 eP
27 27 eP

38 69 eP
57 1 9 eP
58 14 eP
67 65 ePc
81 55 eP

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24 07

. 84 0.0
. 15 -0.8
. 24 -0.9
. 18 -0.8
. 42
. 01 -1.2
. 42
. 30 0.9
. 23 -0.4
. 29 -0.6
. 14 -0.2
. 49 -0.3
. 87 -1.2
. 04 -0.4
. 89 -0.4
. 67 -0.9
. 94 -1.4
. 62 -1.0
. 93 -1.8
. 88
. 55 -0.4
57 -0.8
71 -0.7
58 -0.6
47 -1.8
86 -2.5
76 -1.9
71 -1.2
90 -3.3
68 -2.2
16 -0.7
76 -2.5
98 -2.5
72 -3.3
27 -4.4
53 -3.6
72 -7.3
97 -7.1
56 -2.8
34 -2.9
obs. ossocioted

, 1991 03h
N ± 8.7km
1 1 .6 ± 8
I TALY

46 263 P

eSg
47 144 P

eSg
50 132 PC
eSg
57 251 PC
eSg
77 144 P

eSg
79 228 P
eSg
45 291 P
52 140 P
55 23 P
= 0.7 on

, 1991 04h
N ±21 . 1 km

21m 03
1 1 . 339
. 3 km

21 13
21 17
21 12
21 19
21 12
21 21
21 14
21 25
21 19
21 29
21 19
21 31
2 1 29
21 30
21 45
9 o<

34m 52
76 . 987

49± 0.94S
E ± 5. 0km

(545)

20 0.1
30
60 -0.5
70
90 -0.7

20
70 -0.2
60
40 1.0
50
10 0.4
10
10 -0.5
80 0.2
60 0.3
9 obs .

91± 4 . 55s
W ±37 . 8km

33.0 km (no rmo 1)

44 104 iPc
eS
49 166 iPd
63 146 iPd
eS
73 97 i P c
eS
92 67 iPc
eS
44 153 eP
- 0.6 on

, 1991 04h
N
1 4 . 4km
ALASKA
<AEI O. ML 2.5

35 02.
35 09
35 03.
35 05 .
35 13.
35 07 .
35 17.
35 09.
35 21 .
35 18.
6 o <

36m 23.
1 47 . 876

(AEIC) .

(103)

68 0.0
60
04 -0.3
04 -0.5
80
01 0.1
20
63 0.0
80
20 0.8
6 obs .

97s
W

(2)

279

29d 04h

KN 1 M

GL 1

LT 1

MTU

H 1 N

V2W
KNK

SEW

VLZ

CVA

PMS

SLKM

PLRM
SML
GHO
SGAM

KLU

M 1 D
PWA
RAGM
SUA
NKA
TOA
NN L
HMT
k A ! M

T2L
CNPM
SPU
CGLM
GLB
CUT
CRP
RDT
NCG
CKL
BGL
DFR
REF
RSO
RON
RS1
RS2
RED
ROW
WAX
NCT
SNH
BALM
YAH

AUG
20 .

0 .24 163 i PC 36 29 . 19 -0.2
S 36 33.65
0.49 51 fePd 36 33.03 -0.8
eS 36 40 . 59
6.54 179 i PC 36 33.64 -1.0
S 36 42 . 05
0 60 16S iPc 36 35.38 -0.3
eS 36 44 63
0 .70 1 v'14 iPc 36 37 03 -0.5
*S 36 47 . 75
fl . 8 1 5 3 « P c 3638.34 -1.0
0.89 .142 iPc 36 39.62 -1.0
eS 3651.62
6.91 739 iPc 36 39.75 -1.3
eS 36 52 . 15
0.94 : -3 P 36 39 .97 -1.5
eS 36 52.90
1.05 91 i PC 3642.43 -0.9
S 36 56 . 40
1 . 0C 31 6 i PC 36 42 . 57 -1.0
eS 36 56 . 95
1.16 268 i PC 3644.02 -1.3
eS 36 59 . 30
1.19 330 iPc 36 44.15 -1.5
1 . 26 350 *Pc 3645.19 -1.7
1 . 30 338 *rP 3646.55 -1.1
1.32 92 *Pd 3646.36 -1.5
eS 37 03 89
1.32 45 eP 3646.51 -1.5
eS 37 05 20
1 . 39 1 45 eP 3643.01 -0.7
1.45 319 ePc 36 48.62 -1.0
1.60 95 *Pc 3656.10 -1.7
1.66 3 U 4 e P c 36 51.21 -1.5
1.66 277 i P c 36 53.24 0.5
1.74 27 eP 3653.41 -0.5
1.78 254 e P <: 365333 -1.2
1.81 96 tP 7.65386 -1.0
1.84 109 *-P 3 fa 03.48 -1.9
*b 371770
1 . 89 38 «=P 36 56 02 0.0
1 . 99 239 eP 3655.43 -2.0
2.13 288 ePc 36 57.57 -2.0
2.15 292 eP 3657.73 -2.1
2.16 65 eP 36 58 . 62 -1.4
2.16 329 ePc 36 58.71 -1.3
2 . 20 290 ePc 36 58.87 -1.8
2 . 24 272 eP 36 58.64 -2.5
2.25 294 eP 36 59.05 -2.2
2.27 288 eP 36 59.39 -2.2
2.31 289 eP 36 59.94 -2.3
2 . 37 272 *P 37 00 . 35 -2.7
2. 39 270 ePc 37 00. 72 -2.6
2.41 269 ePc 3701.07 -2.7
2.42 271 ePc 37 00.78 -2.9
2. 42 269 ePc 3701.26 -2.5
2. 42 269 ePc 3701.18 -2.6
2. 43 268 eP 37 00.97 -2.9
2 . 44 270 eP 3701.34 -2.8
2 . 49 91 eP 3701.95 -2.7
2 . 50 272 ePc 37 02 . 14 -2.7
2.53 97 eP 37 03 . 58 -1.7
2.75 78 eP 37 06 . 35 -2.1
3.04 91 eP 37 1 0 . 62 -2.1
50 obs. ossocioted

29, 1991 05h 21m 11.66± 0.11s
710 S ± 3.9km 177.749 W ± 2.9km DEPTH » 376.3km (17 depth phoses) 5 . 4mb (45 obs .)
FIJI ISLANDS REGION (181)
mb 5 . 5 (BRK) .
CENTROID, MOMENT TENSOR (HRV)
Do t o Used : GDSN
L.P.B.: 21S. 51C
Cen t r o i d Location:
Origin Time 05:21:19.4 0.7 Lot 20.30S 0.06 Lon 177. 54W 0.05

Dep 406.9 2.4 Ho 1 f-du r o t i on 2.9
Moment Tensor; Scole 10»»17 Nm
Mrr= 2.43 0.12 Mtt 3.66 0.19
Mff- 1.22 0.20 MM--0.73 0.19
Mrf- 1.79 0.19 Mtf--1.l9 0.17
Principal Axes:
T Vol- 3.94 Plg=52 Azm-254
N 0.01 38 81
P -3.95 3 348

Best Double Coup

KRO
TV I
SVA

VUN
NDE
MBU
UDU
SGE
NDF

PVC
BKM
DZM

KUZ
HBZ
WLZ
UR2

NOZ
M02
MNG

AFR

PPT

BRS
PMO

COO

VAH

TPT

RUV

RMO

CNB

CTAO

CMS

OLP

TOO

STK

BFD

JAY

ASPA

WR2

WRA

FORR

MTN

GUA

NP 1 : S t
NP2 :

4 . 33
4 . 34
4.41

4.47
4. 96
5 .00
5.01
5.13
5 . 40

13 . 49
13.57
14.79

16 .97
17.18
18.02
18. 05

18.21
18.87
20.67

26. 60
0.8s
26 . 78
0. 8s
27 . 68
28 . 95
0.8s
29 . 00

29. 13
0 . 8s
29. 21
0.8s
29. 38
0 . 8s
31.17
1 .0s

32. 30
1 .0s

33.70

34 . 28
0.5s
35.22
0. 3s
35. 96
0 . 8s
37.91
0 .5s
38.11

44. 33
0.6s
44 . 70
1.1S
Z 21s

44 . 78
0 . 4s

44.80
0.5s
49. 39
0 . 4s
49. 40
0.3s
50.05

e :Mo = 3 . 9* 10» » 1 7
r i ke= 45 D i p=54 S 1 i p= 40
289

321 iPc
330 iPc
305 iPd
eS
306 ePc
325 ePc
317 ePd
335 iPc
306 eP
302 eP
eS
280 iPc
281 iPd
262 iPc
iS
198 eP
191 eP
197 eP
193 eP
eS
191 eP
198 eP
195 eP
eS
88 IP
35 . 00nm
88 iP
50 . 00nm
250 iPd
34 iP
1 0 . 00nm
244 iPc
i
i
84 i P
1 5 . 08nm
84 i P
25 . 00nm
84 i P
35 . 00nm
253 iPc
436 . 00nm
e

236 iPc
208 . 00nm
i
265 iPc
i
i
e
e

i PcP
eS
iScP
244 iPd
49 . 00nm
253 iPc
1 66 . 00 nm
234 iPd
1 1 7 . 00nm
244 iPc
23 . 30nm
236 eP
i
289 ePc
1 1 8 . 36nm
257 iPc
433. 40nm
0 . 80um
i PcP
IS
iScS
262 iPd
1 39 . 70nm
i
e
262 P
87 . 1 0nm
247 iPc
38 . 00nm
271 eP
93 . 00nm
310 eP

59

22 26.50
22 26 . 70
22 28.20
23 28 . 20
22 28 . 10
22 33.10
22 34.10
22 33 . 40
22 37 . 20
22 32 . 50
23 40.50
24 1 2 . 00
24 13.50
24 26.20
27 09.80
24 43 . 30
24 50 . 10
25 03.20
24 58.20
28 02.60
24 59.60
25 09. 80
25 23.70
28 50.70
26 19 . 30
4
26 21.10
4
26 29.50
26 39.90
4
26 41.70
29 39.50
32 47 . 70
26 41.10
4
26 42.10
4
26 43.20
4
27 10.80

33 03 .00
27 10 . 20
5
29 48 . 40
27 21 .00
27 28.50
27 42.00
28 13 . 00
28 47 . 00
29 51 . 00
32 15.50
37 05.00
27 26.50
5
27 34 . 40
5
27 40.90
5
27 56.70
4
27 57.00
30 05 . 40
28 46 . 60
5
28 50.30
5
4
30 26.20
34 56.60
38 08 . 60
28 50 . 00
5
29 14 .00
30 24 . 10
28 50.00
5
29 26.00
5
29 25.50
5
29 31 .20

136

0 . 5
0 .5
1 . 4

0 . 6
0 . 5
1 . 1
0.3
2.6
- 4 . 8X

0 . 7
1 .3
0. 9

- 4 . 5X
0 .2
4 . 8X
- 0. 4

- 0.7
3 .0X
- 0 . 6

0.2
. 8mb
0 . 3
. 9mb
0 . 8
0. 1
. 2mb X
1 . 4

- 0.4
. 4mb
0 .0
. 6mb
- 0. 4
. 7mb
1 1 . 6X

1 . 3
. 4mb

0.2
26kmX

1 .0
. 1mb
0. 9
. 8mb
1 .2
. 3mb
0.9
. 8mb
- 0 . 4

- 1 . 3
. 3mb
- 0. 4
. 6mb
. 6Msz

- 1.4

. 6mb
1 02kmX

- 1 .5
. 3mb
- 0.6
. 1mb
- 1.4
. 6mb
- 0.6

PJG
KNA

WARB

COOL
MBL

KLB
NWAO

BAL
MUN
NANU
DAV
CSY

TSM
KAKJ
CHJ J
1 1 DJ
KKM

MAT

OFUJ
N 1 1 J
YAMJ
MTMJ
BAG
TSRJ
KUSJ
ADK

SMY
ASAJ
SDN
SYP

PRS
GCC
PCC
SSE

Z

SAO
PR 1
BKS

2SP
LLA
PAS

MWC

FOX
BAR
FHC
HKC
P LM

RVR

SBB

PEC

FR 1
ISA

CMB

ORV
WDC
CLC

0.8s
58. 12
50.86
0 . 4s
50 . 99
0. 3s
55 . 36
57 . 94
0. 4s
58 . 18
58 . 49

59.19
59 . 45
61.57
62 . 14
63.88
0.8s

67.82
69. 19
69.72
69. 92
70.04
0 .8s
70.52
0. 9s

70.57
70.59
70.72
70 . 77
70.87
71.07
72.28
72.28
0. 8s
73.47
74 . 00
77.16
77 . 65

77 .81
77.83
77 .88
78.00
1 . 3s
20s

78.02
78. 15
78.20
0. 9s

78. 23
78 . 25
78 . 65

78. 78

78.79
78.88
78. 97
78.99
79.11

79. 1 1

79.20

79.20

79.27
79.31

79.46

79.68
79.69
79.99

638 . 81 nm
310 eP
266 iPc
82 . 00nm
253 eP
18 . 00nm
246 eP
257 iPc
63 . 00nm
245 eP
243 eP
eS
246 eP
244 eP
255 eP
290 eP
205 iPd
58 . 1 0nm
e
284 ePc
325 eP
324 P
323 P
285 ePc
109 . 40nm
324 iPc
84 . 03nm
eS
328 eP
325 P
326 eP
323 P
297 eP
321 P
332 eP
1 eP
1 30 . 60nm
355 eP
331 eP
10 eP
46 i P +
e
43 i PC
43 ePc
42 iPc
310 Pd
65 . 00nm
0 . 50um
PP
sP
S
sS
SS
43 eP
44 i PC
42 ePc
72 . 00nm
ed
eS
esS
42 eP
43 eP
47 eP
e
47 eP
e
39 eP
49 eP
39 iP
299 eP
48 iP +
e

47 i P +
e

47 iP +
e
48 P
PP
44 iPc
45 eP
e

43 iPc
e

41 iPc
39 iPc
46 i P +
e

29 31
29 36

29 38

30 08
30 27

30 28
30 31
38 12
30 25
30 38
30 51
30 55
31 07

31 46
31 33
31 39
31 42
31 44
3 1 46

31 47

40 29
31 47
31 48
31 49
31 49
31 49
31 51
31 57
31 57

32 04
32 08
32 24
32 30
34 58
32 30
32 30
32 30
32 30

33 15
34 40
41 52
42 40
46 30
32 31
32 32
32 32

33 56
42 08
44 29
32 32
32 32
32 34
34 03
32 35
34 04
32 36
32 35
32 35
32 37.
32 37.
34 05.
32 37.
34 02 .
32 37.
3401.
32 37 .
34 03.
32 38.
32 38.
34 04.
32 38.
34 04.
32 40.
32 40.
32 41 .
34 07.

6 . 0mb
. 60 -0.6
. 80 -1.0
5 . 4mb
. 00 -0.7
4 . 9mb
. 50 -1.8
. 10 -1.2
5 . 4mb
. 90 -0.9
. 00 -0.9
. 00
. 50 -1 1 . 2X
. 00 -0.5
. 60 -1.1
. 40 -1.1
. 90 1.0
5 . 3mb
. 70 164kmX
. 80 1.3
. 40 -1.0
. 90 -0.7
. 30 -0.6
. 20 0.1
5 . 6mb
. 30 -1.1
5 . 4mb
. 00
. 70 -0.9
. 10 -0.6
. 40 -0.2
. 30 -0.7
00 -2.1
10 -0.5
30 -1.2
50 -0.8
5 . 7mb
40 -0.8
70 0.3
80 -0.9
00 0.9
00 745kmX
69 1.0
46 0.7
62 0.6
00 -0.8
5 . 2mb
4. 8Msz
50 187kmX
00
00
00
00
56 0.7
81 1.1
40 0.6
5 . 5mb
90 371km
00
00
54 0.6
69 0.5
00 -0.3
00 393kmX
00 -0.2
00 393kmX
30 1.4
00 -0.6
74 -0.2
40 1.1
00 0.0
00 388kmX
00 0.2
00 373km
00 -0.3
00 368km
40 0.1
00 376km
02 0.5
00 0.1
00 378km
93 0.4
00 373km
08 0.4
22 0.6
00 -0.4
00 377km

286

29<J

CWC
TPC

M 1 N
GSC

KGM

GLA

A 1 A
KDC
TNP

RSO
IPM

SVW
SLKM
PGC
PS 1

SNG

PMS
PWA
TTA

PMR

8J 1

TOA
BALM

PNT

PV09

ALO

ANMO

NNT
LOE
NST
FBA

IMA

NV L

LRM
BS 1

KHT
KM 1

BDT

GOL

GLD

CHG

SES

05h

80 0-2
80 . 09

80.10
80. 23

86 .37
1.0S

8W. 38

80 . 69
80 . S5
81.52
1 . 3s

83. 39
83.43
0. 9s
83.46
83 .96
84.31
84.71

84. 75
1 . 2s

84 . 76
85. 06
85. 1 1
0 .9s
85. 17
1.4s
86. 20
2.0s

86. 28
86.31

86. 70
0 . 9s
87.14

87.35
1 . 0S

87 .35
1 .0s

87.54
87 . 55
88.32
88.39
0 . 8s
88 . 41
1 .0s
88.52

68. 72
89 .08
0.9s
89 . 38
89. 65
1.1s

8<> . 91
1 . 0s

9(i. 29
0 8s

90.41

9<l.54
1 1 s
9 .90
1 2s

45 eP 32 41
48 eP 32 42
e 3407
40 i PC 32 41
47 eP 32 43
e 34 69
276 fePc 32 44
3 1 3 . 06nm
49 eP 32 44
e 3410
157 eP 32 46
13 eP 32 45
44 P 32 49
5 1 . 25nm
pP 34 16
12 P 32 56
277 ePc 33 00
238.20nm
1 1 eP 32 58
13 P 33 00
33 eP 33 03
275 ePc 33 06
e 37 00
280 eP 33 07
318 75nm
e 35 39
1 3 eP 3304
13 eP 33 05
10 ePc 33 06
45 . 66nm
13 ePc 33 05
121 . 66 nm
3 1 5 eP 3313
344 . 0 6 n m
e 3447
esP 35 18
ePPP 38 38
eS 43 16
e 4420
ePS 45 08
1 4 eP 3312
1 6 P 3311
pP 34 39
34 ePc 33 15
33 . 00nm
47 P 33 17
pP 34 45
51 «Pc 33 18
25 . 00nm
epP 34 47
5 1 P 3318
26 . 25nm

pP 34 46
284 iPd 33 22
290 eP 33 20
287 eP 33 25
12 ePc 33 21
136. 1 6nm
10 ePc 33 22
28 . 50nm
183 eP 33 23
ePSP 33 30
e 34 55
eS 4314
eSSS 43 35
« 45 28
e 4716
e 48 45
e 5004
39 eP 33 25
276 ePc 33 06
81 50nm
286 iPc 33 29
297 PC 33 31
250 60nm
pP 34 08
288 eP 33 31
189. 1 Onm
47 P 33 31
9 67 nm
pP 34 59
47 P 33 33
pP 35 01
290 ePc 33 35
1 1 5 . 51 nm
36 iPc 33 38
79 . 00nm

00 -0.7
00 0.0

00 372km
95 -0.1
00 0.3
00 377km

00 0.3

6 . 0mb
00 0.5
00 376km
70 2.3
50 -0.3
50 0.0

5 . 3mb
50 380tm
20 -2.3
00 8.6
6 . 0mb
10 -0.5
00 -1.1
00 0.0

10 0.3
00

50 1 6
6 . 0mb
70 748k m X
30 -0.8
30 -1.1
60 -0.2
5 . 3mb
90 -1.1
5 . 5mb

00 0.6
5 . 9mb
00 410kmX
00
00
00
00
00
90 0.4
60 -1.1
50 380km
00 0.3

5 . 2mb
20 -0.2
70 382km
70 0.3
5 . 0mb
00 381km
70 0.3
5 . 1mb
60 379km
00 2. 6X
00 0.6
00 2.0
40 -1.0'
5 . 9mb
30 -0.3
5.1mb

00 -0.1

00 397kmX

00

60
00
00
00
00
00

60 0.3
1 0 -26 . 5X

70 1.8
00 1.6
6 . 0mb
00 1 45 kmX
66 0.7
5 . 9mb
60 -0.4
4 . 7mb
60 377km
20 0.7
70 379km

00 1.8

5 . 7mb
50 -6.4
5 . 6mb

YAK

BRW
LZH

TUL

SHL

PK 1

KKN

DMN

GKN

CUE
MA 1 0

KEV

SOD
BUL

MTD

KR 1
1 R4
1 R1
1 R7
KAF
NUR

TAB
NB2

HFS

COP

BSD

EKA

LWI
DMU

1 AS
DCN

CLI
PTT
VAL
ETA
KRA

BHL
W 1 T
HR 1
VR 1
ECP
BRD
KSP

TLB

BMR
SPC

MML
CLL

ISR
BRG

92. 37

92 . 92
93. 08
1.4s
Z 26s

95 . 68
1 . 4s
98 . 99

105 . 12
1 .2s
105 .29
1.1s
105. 39
1 05 . 89
1.1s
121 .49
128 . 05

128 . 72
0.8s

130. 85
131.90

132 . 92

134.04
135 .09
135.24
1 35. 28
135 . 42
137 . 20
1.1s

138 . 31
139 . 22
0 .9s
139. 78
1 .0s
144.25
1 . 3s
144.35
1 .0s
145.19
1.4s
145.40
146.13
0. 8s
146.54
146.61
0.8s
1 47 . 12
147 . 30
147.34
147.41
147.53
1.0s

147.69
147 . 77
147.79
147.87
147 . 88
147.94
147 . 96
1 .0s

148 . 02
1 48 . 08
148.16

148 . 25
148. 32
1 . 7s

148. 46
148. 52

338 i P
eS
7 eP
307 PC
80.00 nm
0 . 25 urn
PP
sP
eS
sS
54 eP
1 4 . 20nm
294 eP
e
294 PKP
44 . 00 nm
294 PKP
49 . 00nm
294 PKP
294 PKP
29 . 00nm
29-3 ePKP
300 iPKPc
e

349 i PKP
33 . 70nm
e

348 iPKP
21 4 ePKP
i
220 iPKPd
i SKP
218 i PKPd
299 ePKPc
300 ePKPc
300 ePKPc
344 ePKP
344 i PKP
76 . 80nm
i
304 ePKP
353 PKP
7 . 30nm
351 ePKP
33 . 70nm
350 iPKPc
730 . 77nm
348 iPKPd
1 5 . 00nm
5 PKPc
1 37 . 80nm
232 iPKPc
10 ePKP
79 . 00nm
328 ePKP
10 ePKP
1 82 . 00nm
327 iPKPc
329 ePKP
1 4 i PKP
10 ePKP
339 ePKPd
2 1 7 . 00nm
e

i
301 PKP
355 ePKP
300 ePKP
327 ePKP
10 ePKP
326 ePKP
343 ePKP
389 . 00nm
i c
e

324 iPKPc
332 iPKPd
337 ePKP
i
298 iPKPd
347 ePKP
1 05 . 00nm

ipPKP

326 ePKP
346 iPKP

33 40 .00
44 07.00
33 43 . 70
33 46 . 00

34 12.50
34 22 . 50
43 40.|00
44 23 00
33 56 . 40

34 11 50
38 0 7 . 5 0
38 50.48

38 50. 42

38 50.22
38 51.08

39 23.00
39 35.00
41 37 . 00
39 35 . 00

39 43.00
39 35 . 40
39 42 . 70
42 34 . 40
39 45 . 40
42 38. 20
39 37 . 60
39 49 . 00
39 48.70
39 48 . 30
39 42.:90
39 44 . 20

39 51.10
39 54.00
39 44 80

39 47.10

40 02 . 90

40 04 . 00

40 05 . 00

40 08 . 80
40 08 . 50

40 08.00
40 08 . 1 0

40 11.20
40 10.00
40 12.90
40 12.70
40 09 . 80

40 1 2 j 4 0
40 1 6 . 90
40 08.I00
40 15.00
40 11,40
40 09 J 00

40 1 3 j 1 0
40 14 . 50
40 10 . 80

40 14.40
41 50 30

40 1 4 j 60
40 11,00

40 1 i jee
40 15 10
40 1210
40 11 00

40 14 90
41 50 00
40 10 00
40 11 30
40 15 40

- 0 . 7

0 . 7
1 . 2
5 . 6mb
4 . 7MSZ
99kmX

- e . 1
4 9mb
- 6 . 4

- 1.5

- 1.8

- 2. 2
- 2 . 2

0 . 1
- 6 . 3

- 6 . 3

- 4 . 1 X
- 0 . 4

0 . 4

- 9 . 6X
0 . 3
- 0 . 3
- e . s
- 5 . 4X
- 7 .5X

- 0 . 7
- 1 0 . 6X

- 9 . 3X

- 1 . 4

- 0 . 5

- 0. 9

1 . 0
1 . 0

- 0 . 4
- 0. 2

1 . 8
0 . 4
3 . 4X
3 . 1 X
- 0 . 1

- 2 . 8
4 . 9X
0 . 4
- 1.6
2 . 8X
3 . 8X
0 . 2

3.2X
0 . 2
0 . 4

0 . 4
- 0 . 1

- 1.6
- 0 . 1

MLR
WTS
LFK
EYL
PRU
MBH
MOX

HRT
PSZ
BNS

! Z I
DLV
ENN

CTT
ALT

DMK

UCC
DRA
SRO

MEM

BUD
KOE

ZST

TNS
GRF

SNF
KHC
VKA

WET

DST
DOU

EDC
MFT

WLF

UZD
KMR

ELL
BED

FUR

BHG

F LN

CDF
YER
LDF

I ZM
KBA

HLW

GRR

ECH
LIBD
V 1 TF
WTTA

i 40 1 9 . 90
epPKP 41 52.00
148.53 327 ePKP 40 09.90
148.57 355 ePKP 40 1 2 . 00
148 95 305 ePKP 40 1 2 . 00
149.09 316 ePKP 40 13.00
1 49 . 20 344 PKP 40 12.30
149.22 294 ePKP 40 13.36
149.22 348 i PKP 40 13.20
epPKP 41 54 . 26
149 27 317 i PKP 40 18.00
149.34 336 i PKPc 40 12.90
149.50 354 i PKPd 40 13.50
1.5s 769 . 00nm
. c 401720
149.60 317 ePKP 40 13.56
149.66 316 ePKP 40 1 3 . 00
149.71 331 ePKPc 40 1 4 . 00
149.86 355 iPKPd 40 14.30
0.9s 24 . 00nm
149.87 318 i PKP 40 12.00
149 . 89 31 4 i PKP 40 1 8 . 50
149.89 320 i PKP 40 1 8 . 60
149.93 357 i PKP+ 40 1 9 . 00
149.95 328 ePKPd 40 21 .00
150.60338 i PKP 40 1 4 . 00
i 4049. 36
156. 02 355 i PKPc 40 1 3 . 30
i 40 1 9 . 80
156 63 337 e(PKP)40 1 3 . 00
150.03 353 ePKPd 40 14.30
id 40 1 9 . 90
156 . 08 340 ePKP 40 1 3 . 60
i 4119.40
i 4 1 27 . 80
e 4155.10
150.14 352 ePKP 40 20 . 20
150.21 348 iPKPc 40 14. 30
e 40 20.00
e 4027. 40
150.22 357 iPKP 40 20.20
1 56 . 23 345 i PKP 40 14.30
1 56 . 26 341 i PKPd 40 1 5 . 00
1.5s 1 23 . 00nm
i 40 20. 10
150.38 346 iPKPd 40 14.80
i 40 20.80
15659316 i PKP 40 1 9 . 60
150. 62 357 PKPc 40 1 5 . 50
i 40 20.80
150. 68 318 i PKP 40 21 . 20
156 . 79 31 9 i PKP 40 20.00
150.94 355 iPKPc 40 16.85
i 40 22.27
150 94 336 e(PKP)40 15.00
151 .08 343 i PKP+ 40 1 5 . 20
i 4022. 00
i 40 3 1 . 60
i pPKP 41 54 . 80
151.10 310 iPKP 40 21.10
151.63 332 ePKP 40 1 4 . 40
i 40 21 . 30
151.66 347 ePKPc 40 16.10
i 40 23.20
i 40 33.40
151.71 345 i PKPd 40 1 6 . 60
i 40 23.50
151.93 4 i PKPd 40 17.10
1.3s 97 . 50nm
152.07 353 PKP 40 16.95
152 . 08 31 1 i PKP 40 25. 66
152. 12 3 i PKPd 40 17 .50
1.0s 30 . 00 nm
152. 1 4 315 ePKP 40 23. 20
152.19 344 i PKPc 40 15.70
i 4024.10
i 4036.10
152.23 295 ePKP 40 1 7 . 50
e 40 25.00
152.27 4 i PKPd 40 1 7 . 80
1.1s 31. 75nm
152.27 353 PKP 40 16.73
152. 29 352 PKP 40 16.91
152. 39 355 PKP 40 17.61
152.43 346 iPKPc 40 16.70
1.3s 77 . 60nm
i 4025.10

- 1 .9
0 .6
- 0 . 7
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0 . 7

5 . 0X
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6 . 0
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- 1 . 8
4 .5X
4 . 8X
5 .5X
7 .2X
0 . 2

- 0 . 4

- 0.8
0 .6

- 0 . 3

6 . 2X
0 . 2

6 .2X
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4.6X
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6.2X
4 .7X
1 .8

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- 0.2

5 . 1X
- 1 .9

- 0.2

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7 .7X
0.6

5.9X
- 1 .6

- 0. 1

0.7

- 0.4
- 0.2
0.3
- 0.9

281

29d 05h

FEL
SLE
HAU

LPF

BSF
LJU

ZLA
OGA
BBS
VOY

VBY

CEY

LOMF
VAY
OSS
SKO

TR 1
LLS
LOR

CT 1
VDL
SSF

LBF

AVF

TMA
SMF

MFF

BGF

OHR

MMK
D 1 X
TCF

LSF

MAF

ORX
LPL

LSD
LPG

RSP
BOB
BN 1
RJF
RRL
BHB
ARV
PGD
PCP
LFF

CK 1
CAF

PZZ
ROB
F 1 N
LPO

STV
ENR
1 M 1
SBF

MNS
FRF

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. 83
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. 30
. 32
2s
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. 47
4s
. 58
. 62
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3s
. 75
4s
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. 09
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1 s
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. 98
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5s
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6s
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3s
. 15
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. 51
2s
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. 92

352
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59
340
352

i
e
PKP
ePKPd
i P K P d
. 90 nm
i PKPd
. 4 0 nm
PKP
e P K P c
e

ePKPd
ePKP
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e P K P c
i
ePKPc
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i
PKP
i PKP
ePKPd
i PKP
. 00 nm
i PKPd
ePKPd
i PKPd
. 80nm
PKP
e P K P d
i PKPd
. 80 nm
i P K P d
. 30 nm
i PKPd
. 90nm
tPKPd
i PKPd
. 55 nm
i PKPd
. 40nm
i PKPd
. 1 0 nm
i PKPc
. 00 nm
ePKPd
ePKPd
i PKPd
. 6 0 nm
i PKPd
. 70 nm
i PKPd
. 6 0 nm
PKP
i P K P d
. 55 nm
PKP
i PKPd
. 9 0 nm
PKP
PKP
PKP
e P K P
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PKP
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PKP
PKP
i PKPd
. 00nm
PKP
i P K P d
. 95 nm
PKP
PKP
PKP
i PKPd
. 90nm
PKP
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i P K P d
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1.1s 29 . 30nm
LRG 157.06 352 iPKPd 40 24.
1.2s 41 . 65nm
LMR 157.16 352 iPKPd 40 24.
1.3s 43 . 30nm
PGF 157.50 347 iPKPd 40 24.
1.3s 97 . 50nm
CS 1 1 57 . 5 1 33 1 PKP 4023.
MGR 157.54 332 PKP 40 22 .
IDS 157.58 330 PKP 4024.
EPF 157.69 4 ePKP 40 25 .
CZ I 158.63 330 PKP 40 23 .
SOI 158.97 328 PKP 4025.
TOL 160.14 1 4 i PKPd 40 29 .
1.2s 62.50nm
LIC 1 63 . 96 1 53 PKP 4021.
K 1 C 164.21 154 PKP 40 22 .
TIC 164.34 152 PKP 40 23.
S .0. - 0.9 on 279 of 31

% AUG 29, 1991 85h 27m 28.
39 . 018 N ± 5.0km 15 .523
DEPTH = 16.0km (geophysi
SOUTHERN ITALY

CZ 1 0. 52 67 P 2738.
ACI 0 . 62 58 P 2742.
ATN 0 . 86 183 P 2745.
eSg 27 59.
TDS 0.90 44 PC 27 45.
eSg 27 56.
CS I 0 . 96 38 P 2747.
RO I 0.98 55 P 2747.
SOI 1 . 03 156 P 27 47 .

eSg 28 02.
MGR 1.12 IP 2749.

eSg 28 05.
SC-0 1 . 55 354 P 27 56 .
eSn 2814.
S . D . =0.7 on 9 o f

? AUG 29. 1991 05h 36m 17.
3.976 N ±21 . 3km 77 . 004
DEPTH - 33.0km (normol)
NEAR WEST COAST OF COLOMBIA

CLMC 0 . 45 102 i PC 3627.
ANCC 0 . 48 163 i Pd 3628.
HOOC 0.63 144 iPd 36 30.
eS 36 39.
BUGC 0.75 96 eP 3631.
HOBC 0.94 66 iPc 36 34.
eS 36 46.
S . D . -0.2 on 5of

* AUG 29 , 1 991 06h 0 1m 28 .
33. 585 S ± 7.0km 7 1 . 683
DEPTH = 33.0km (normol)
NEAR COAST OF CENTRAL CHILE

LCCH 0.14 41 i PC 01 35 .
LNV 0 . 43 1 49 i Pd 0138.
I HA 0. 56 4 eP 01 39 .
IS 0147.
TACH 0.63 96 i Pd 0140.
IS 0149.
ROCH 0.83 43 i Pd 0143.
i S 0154.
SAN 0.86 82 i Pd 0144.
IS 01 55.
PEL 0.94 62 iPd 01 45 .
PCH 0.98 92 i Pd 0145.
iS 0158.
J ACH 1.28 46 i Pd 0150.
i S 0206.
MDZ 2.48 74 eP 0223.

i (S) 02 51 .
RTLL 3 . 53 51 ePd 02 22 .
S . D . =0.4 on 10 of 1

? AUG 29, 1991 07h 40m 39.
24 . 036 N ± 8.7km 1 21 .574
DEPTH - 21 . 0 ± 13.9 km
TA I WAN

TWD 0.05 24 iPc 40 43.
eS 40 45 .

60 0.9

50 0.7

80 0.4

40 -1.0
90 -1.5
40 0.0
80 1.3
50 -1.4
90 -0.1
00 1.7

46 -10 . 3X
12 -9.9X
88 -9 . 0X
5 obs .

75± 0.82s
E ± 8 . 7km
cist)
(390)

30 -0.9
40 1.1
60 0.3
20
60 -0.4
20
90 0.8
30 -0.1
90 -0.3
60
40 -0.3
90
10 -0.2
60
9 obs .

58± 4.85s
W ±40 . 5km

(102)

61 0.0
03 0.1
02 -0.2
00
95 0.1
58 -0.1
90
5 obs .

39± 1 .23s
W ±1 1 . 8km

(135)

00 0.5
00 0.0
30 -0.5
50
50 -0.3
00
50 -0.4
50
00 -0.2
50
50 0.1
70 -0.2
00
50 0.3
50
00 15. 6X
40
90 0.6
1 obs .

62± 0. 92s
E ±1 2 . 1 km

(244)

50 0.1
50

TWC 0.62 24 ePc 40 51.60 -0.1
eS 41 00.80
TWO 0.71 290 iPd 40 53.30 0.0
TWF1 0.73 201 ePc 40 53.30 -0.2
eS 41 03.50
ANP 1.15 358 eP 41 02.00 1.5X
TWG 1.29 201 ePc 41 02.70 0.2
SSE 7.04 357 eP 42 20.00 -4.1X
0.5s 1 0 . 00nm 5 . 1mb X
Z 10s 0.50um 3.8Msz
eS 4341.50
i 4425. 00
S . D . =0.3 on 5 of 7 obs.

AUG 29. 1991 67h 58m 03.93± 0.61s
45.316 N ± 6.5km 20.927 E ± 6.6km
DEPTH - 10.0km (geophy s i c i s t)
YUGOSLAVIA (383)
MG 3.4 (BEO).

BEO 0.60 214 iPg 58 16.00 0.0
iSg 58 28.20
SSR 0.73 128 iP 58 18.00 -0.4
GZR 1.31 86 iPc 58 27.00 -1.2
UZD 2.07 309 e(Pn) 58 44.00 4.8X
DRA 2.45 104 ePd 59 02.00 17. 5X
BUD 2.54 329 ePn 58 46.20 0.4
PSZ 2.70 345 iPn 58 47.00 -1.2
MTUR 2.92 90 eP 58 58.00 6.6X
BMR 2.95 36 ePd 59 02.00 10. 3X
SRO 3.08 325 eP 59 08.70 15. 2X
i 59 34.50
SKO 3.36 173 iPn 59 06.40 8.8X
MLR 3.54 85 eP 59 04.50 4.4X

ZST 3.90 319 i(Pn) 59 05.60 0.5
i 59 13.60
i 59 21 .70
i 5951.40
e 00 12.60
e 09 32.60
e 09 35.40
SPC 3.90 353 ePn 59 01.00 -4.4X
i 59 1 1 .70
e 59 27.00
ISR 3.97 91 ePd 59 03.00 -3.2X
VBY 4.00 275 ePn 59 26.10 19. 6X

e(Sn) 00 15.70
VR I 4.11 80 eP 59 10 . 00 1.9
VAY 4.17 163 ePn 59 22.60 13. 6X
OHR 4.20 181 ePn 59 09.50 0.0
CLI 4.60 72 eP 59 17 .50 2.3X
KHC 6.29 310 ePn 59 39.00 -0.1
e 0151.00
S . D . -1.1 on 9of 21 obs .

? AUG 29, 1991 08h 16m 58.96± 1.17s
38.372 N ±13. 1km 28.742 E ± 7.0km
DEPTH - 10.0km (geophy s i c i s t)
TURKEY (366)

KHL 0.62 94 ePg 17 11.50 0.1
I ZM 1.16 272 iPn 17 20.70 0.0
DST 1.23 356 iPn 17 22.00 0.1
ALT 1.27 57 iPn 17 22.50 -0.1
S.D. - 0.1 on 4 of 4 obs.

AUG 29, 1991 08h 21m 15.28± 0.23s
20.704 S ± 3.8km 177.747 W ± 5.3km DEPTH = 378.6km (3 depth phoses) 5 . 2mb (25 obs.)
FIJI IS LANDS REG ION (181)

KRO 4.32 321 iPc 22 29.60 -0.2
TVI 4.34 330 ePc 22 30.00 0.0
SVA 4.41 305 iPd 22 31.10 0.5
eS 23 38.20
NDE 4.95 325 iPc 22 36.30 -0.1
MBU 5.00 317 eP 22 37.10 0.3
UDU 5.00 334 iPc 22 36.20 -0.6
SGE 5.13 306 eP 22 39 .70 1.4
NDF 5.40 302 eP 22 35.70 -5.4X
PVC 13.49 280 iPc 24 15.50 0.7
BKM 13.58 280 iPc 24 17.00 1.3
DZM 14.79 262 i PC 24 29.80 0.9
iS 2716.10
KUZ 16.97 198 eP 24 51.70 0.3
URZ 18.05 193 eP 25 01.60 -0.6

29d

NOZ
WHH
MOZ
RUZ
PGZ
MNG

K 1 W
MTW
CAW
0 1 W
B LW
MRW

TCW
THZ
UTZ

EWZ
BRS
COO

RMO

CNB

CTAO

08h

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19.30
20 . 50
20 . 67

21 .05
21.18
21.24
21 . 25
21.39
21.44

21.54
22 . 44
23. 56

24 .66
27 . 69
29.61
0.S S
31.18
0. 2 s
32. 31
0 . 6! s
33.71

eS
191 eP
194 eP
198 eP
196 eP
193 eP
195 eP
eS
196 eP
1 94 P
195 eP
198 eP
1 94 P
196 eP
eS
197 eP
199 «P
199 «P
eS
200 «P
250 iPd
244 i PC
56 . 00nm
253 i PC
54 . 00nm
236 iPc
70 . 00nm
265 iPc
i

28 05.
25 03.
25 09.
25 13
25 15 .
25 24.
25 26.
28 50.
25 31
25 31
25 33
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25 35
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29 07
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26 03
26 33
26 45

27 13

27 13

27 24
27 35

e(PcP)29 54
CMS

OLP

TOO

STK

OIS

ASPA

WR2

WRA

FORR

MTN
GUA

PJG
WARB

MBL

KLB
NWAO
BAL
NANU
SPA

KKM

MAT

PLM
PEC
KGM

A I A
MAW
TNP

SLKM
PS 1

SNG

BALM
ALO

34 .29
0.4s
35.22
0. 3s
35 .97
0. 7s
37 . 92
0 . 6s
39.83
0 . 5s

44.71
0 . 7 S

44 . 78
0.:5s
44.81
0 .5s
49 . 39
0. 3s
49.40
50.05
0 . 8s
50 . 1 1
51 .00
0.4s
57 .95
0. 5s
58 . 1 8
58,. 49
59 . 1 9
61.57
69 .42
0.8s

70 .04
0 . 5s
70.51
0 . 8s
79.11
79 . 20
80- 37
1 . 0s
80.69
81.45
81.51
0 . 8s

83.95
84.71

84.75
1 J0S

8< .31
81 .34

244 iPc
67 . 00nm
253 iPc
202 . 00nm
234 iPd
69 . 00nm
244 i PC
32 . 40nm
262 iPc
4 . 00nm

ipP
257 iPc
380 . 40nm
iS
iScS
262 iPd
86 . 00nm
262 P
99 . 40nm
247 «P
24 . 00nm
271 i PC
310 eP
1 07 . 46nm
310 eP
253 iPc
33 . 06nm
257 i P c
80 . 00nm
245 eP
243 eP
246 eP
255 eP
180 iPc
1 6 . 67 nm
i
285 ePc
36 . 00nm
324 eP
1 3 . 43nm
48 P
48 P
276 ePc
1 1 6 . 30nm
157 eP
200 iPd
44 P
5.88 nm
pP
13 P
275 eP
e
280 «P
88 . 00nm
e
16 P
51 «P

27 29

27 37

27 44

28 00

28 1 4

28 46
28 53

35 00
38 12
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80 -0.1
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90 1.3
80 -1.3
60 -1.3
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20 -0.3
96 -0.9
40 0.0
10 -0.4
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66 -0.7
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36 0.1
60 0. 9
20 -1.8
50
10 -1.8
40 1.1
00 1.1
4 . 9mb
30 1 0 . 6X

60 1.2
5 . 2mb
50 0.2
00 37kmX
60
30 0.2
5 . 3mb
00 0.0
5 . 9mb
10 0.9
5.1mb
60 0.7
4 . 8mb
30 -0.8
4 . 2mb
20 144kmX
60 -0.6
5 . 8mb
60
20
70 -1.2
5 . 3mb
00 -2.0
5 . 4mb
30 -0.8
5 . 0mb
00 -1.4
50 -0. 7
5 . 2mb
10 -0.6
20 -1.0
5 . 0mb
50 -1.3
5 . 4mb
40 -0.9
80 -0.6
80 -1.4
30 -0.8
80 1.7
4 . 8mb
1 0 428kmX
40 -0.1
5 . 3mb
00 -0.8
4 . 7mb
50 0.1
. 60 -0.7
30 0.1
5 . 6mb
. 50 2.6
. 60 1.8
. 80 -0.1
4 . 4mb
. 40 378km
. 20 -1.3
. 00 -0.2
. 00 348kmX
. 10 1.7
5 . 5mb
. 50
. 60 -1.5
. 00 0.2

ANMO

FBA
NVL
KM 1

BDT

CHG

DUE
MTD
KAF

NUR
NB2

HFS

EKA

LWI
DMU
DCN
KRA

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VR 1
KSP

SPC

ADI
CLL

DSI
BRG

MLR
WTS

PRU

MOX
RMN
ENN

SRO
MEM
BUD
ZST

GRF
SNF
KHC

DOU
WLF
FLN

CDF

LDF

GRR

WTTA

HAU

LPF

BSF

0. 9s

87 . 35
0 . 8s

88. 39
88. 53
89 . 65
i . 2s
2 26s
89.91
1 . 0s
90.54
0. 9s
121.49
1 32.92
135 . 41
0.6s
137 . 20
139. 21
0 . 9s
1 39 . 78
0 . 4s
145.18
0. 7s
145.41
146.13
1 46 . 60
147.53

147.77
147.87
1 47 . 95
0 .9s

148.15

148.25
148 . 31

148.47
148.51

1 48 .52
148.57
0 . 8s
149.19
0 .8s

1 49. 22
149.31
149 .86
0 . 8s

150 . 00
150.01
150.03
1 50 . 07

150. 21
150 . 21
150 . 22
1 . 0s

150.61
150 . 94
151 .92
0.7s
152. 06
0 . 7s
152. 1 1
0.5s
152.27
0.6s
152 . 43
0.7s

152.56
0.6s
152.61
0.6s
152.69

282

3 . 36nm
epP 34
51 P 33
3 . 7 3 rim
pP 34
12 P 33

183 (P) 33
297 Pd 33
60 . 00 nm
70 . 00um
288 «P 33
57 . 30nm
290 ePc 33
25 . 42nm
293 ePKP 39
220 iPKPc 39
344 «PKP 39
8 . 46nm
344 «PKP 39
353 PKP 39
5 . 70nm
351 ePKP 39
2 . 20mm
5 PKPd 40
4 . 08nm
232 iPKPc 40
10 ePKP 40
10 ePKP 40
339 ePKP 40
i 40
e 40
355 ePKP 40
327 ePKP 46
343 ePKPd 40
55 . 00nm
i c 40
41
337 ePKP 40
i 40
300 ePKP 40
347 ePKP 40
i 40
297 «PKP 40
346 iPKP 40
i 40
327 «PKP 40
355 «PKP 40
40 . 00nm
344 PKP 40
32 . 80nm
40

e 40
e 41
348 iPKP 40
295 ePKP 40
355 «PKP 40
2 7 . 00nm
e 40
338 iPKP 40
355 PKP 40

337 «(PKP)40
340 e(PKP)40
e 40
348 iPKPc 40
357 PKPd 40
345 PKP 40
28 . 60 nm
i 46
e 42
357 PKPd 40
355 iPKPd 40
4 iPKPc 40
1 9 . 85nm
353 «PKP 40
1 3 . 25nm
3 iPKPc 40
8 . 06nm
4 iPKPc 40
1 7 . 1 5nm

346 e(PKP)40
29 . 46nm
i 40
354 «PKP 40
7 . 20nm
5 iPKPc 40
23 . 45nm
353 «PKP 40

4
50 .60
22 .60
4
49 . 80
23 . 70
27 . 00
34 . 50
5
7
34. 90
5
38. 20
5
26. 90
48. 90
50. 80

53.60
51 .20

53. 70

09. 20

13.00
12.10
12 . 50
13. 80
16.00
23 40
18 . 00
1 7 .00
14.00

17 . 60
50 . 60
14.90
18.70
14.00
1 4 400
18. 40
1 5 .I 9 0
15.00
18.60
19.50
19. 50

16.50

20.50
26. 40
56 .00
16.40
17 90
22. 50

28 50
23 10
23,20
22(00
16, 70
21 , 70
23. 30
23, 70
1 7 i 40

23170
00 50
24 L 40
25 74

27[.0e

27L50

27L30

28 . 00

20.00

27 . 90
28 . 60

28 . 80

28.80

. 2mb
379km
0.2
. 3mb
378km
- 2. 1
0 . 5
1 . 7
. 3mb
. 6MszX
1 .2
. 4mb
1 .5
. 1mb
0 . 6
0.5
- 0.9

- 1 .5
- 7 .7X

- 6 . 1 X

- 6. 1

1 . 7
1 .2
0.8
0.5

4.5X
3 . 0X
0 .0

0 . 3

- 1 .0
- 0.5

0.5
0.2

4.3X
4 . 7X

0.6

0.4
1 . 0
5.7X

5.9X
6 . 1 X
4 .8X
- 0.6

5.8X
6.3X
- 0 .2

6 . 4X
7 .3X
7 .0X

7 . 1X

7 . 0X

7 .5X

- 1.1

7 .6X

7.8X

7 . 5X

LOR

SSF

LBF

SMF

MFF
TCF
LSF

LIC
K 1 C
T 1 C
LKO

S

AUG
3.

0.6s 5 . 40nm
153.47 358 ePKP 40 30.80 8.5X
0.8s 10. 05nm
153.69 358 ePKP 40 31.30 8 . 8X
0.8s 7 . 40nm
153.75 357 ePKP 46 31.40 8.7X
0.8s 5 . 35nm
154.09 357 iPKPc 40 31.70 8.6X
0.7s 3 . 30nm
154.09 4 ePKP 40 31.90 8.8X
154.48 0 e P K P 40 32.80 9. IX
154.51 1 ePKP 40 32.60 8.9X
0.7s 4 . 95nm
163.97 153 PKP 40 35 80 0.6
164.21 154 PKP 4 M 36.0 i.i 0.6
164.35 152 PKP 40 36.00 0.5
166.57 145 PKP 40 37.62 0.3
0.8s 10. 50nm
. D. - 1.0 on 94 of 125 obs.

29. 1991 08h 44m 40.97± 0.27s
161 S ± 4.5km 139.709 E ± 6.1km
DEPTH = 33.0km (normal)
5 . 1
WEST

JAY
MND 1
RAB

MTN

KNA

OIS

GUA
DAV
WR2

CTAO

ASPA

2

TSM
OLP

RMO

WARB
MBL

BAG
BRS

STK

CMS

COO

mb (17 obs.) 4.7MS2 (1 obs.)
1 R 1 AN (201)
CENTROID. MOMENT TENSOR (HRV)
Do t o Used : GDSN
L . P . B . : 2 1 S , 46C
C < n t r o i d Location:
Origin Time 08:4446.1 0.4
Lot 3.20S 0.04 Lan 140. 2lE 0.04
Dep 33.0 FIX H o 1 f - d u r o t i on 2.0
Moment Tensor; Scale 16»»17 Nm
Mrr= 1.38 0.06 MM--1.26 0.08
Mff=-0.11 0.10 Mrt=-0.86 0.16
Mrf= 1.37 0.11 Mtf= 0.80 0.06
Principal Axes:
T Vol= 2.22 Plg=61 Azm=257
N 0.02 18 132
P -2.25 22 35

Best Double Couple:Mo=2 2»10»»17 NPl:Strike= 95 Dip=28 S 1 i p= 49
NP2 : 319 70 109

1.18 57 i PC 4500.60 -0.7
4 . 93 1 27 eP 4602.00 7 . 0X

12 . 48 95 e(P) 47 40 . 00 0.9
iS 5000.00
12 .83 221 eP 4744.20 0.4
0.4s 350.00nm 6.8mb X
eS 50 04.00
16.51 220 eP 48 33 .00 1.3
0 . 4s 117. 00nm 5 . 4mb
eS 51 26.00
17.29 180 eP 48 39.20 -2.4
0.7s 127. 00nm 5 . 2mb
eS 51 43.00
17.38 17 eP 48 36.40 -6.3X
17.40 306 eP 4841.90 -1.0
17.48 197 i Pd 48 43.10 -0.9
0.4s 91. 30nm 5 . 3mb
iS 51 50 . 50
18. 00 160 eP 48 52 .00 1.6
i 4901.00
i 4911.00
e(S) 52 00.80
21.14 195 i PC 49 24.60 -1.1
0.9s 55 . 00nm 5 . 0mb
23s 8 . 80um 5 . IMszX
eS 53 1 4 . 50
23.64 289 eP 49 57.00 12.5X
23 .69 176 eP 49 55 . 00 4. 3X
«S 57 21 .00
24 . 76 160 «P 50 12. 00 10. 8X
« 56 35 00
e 5814.00
26. 1 0 207 eP 50 1 3 . 50 -0.2
26. 35 226 eP 50 1 7 . 00 1.0
e . 4s 11. 00nm 4 . 8mb
27 . 12 316 eP 50 22 .00 -1.3
27 . 14 154 eP 50 22 .00 -1.2
i 5039.50
28.62 177 «P 50 35. 50 -1.1
0.7s 1 . 50nm 3 . 8mb X
28. 76 169 «P 50 39 .00 1.2
eS 56 45.00
29.60 158 «P 50 41.00 -4.5X

283

29d 08h

FORK
NANU
DZM
CNB
BFD
TOO

BAL
K L B
SSE

1 PM
MAT

YAMJ
PS 1

LOE
NST
CHG

BJ 1

LZH

SHL
GUN
PK 1

KKN
GKN
1 RK

GBA

YAK

SON
DUE
SVW
KOC
TTA

MAW
SLKM

1 MA

PMR

MA t 0
BRW
TOA
FBA

CRZF

SPA

BALM
TNP
K 1 C
T 1C
LI C
LKO

29 .64
30 . 36
32 . 04
33. 22
33 .95
34 . 65

34.90
35. 03
38 . 37
1 .0s
Z 28s
N 14S

39.41
39.52
1.0s

41.13
41.18

42 . 68
43 . 39
45. 67
1.1s
48.11
2 . 0s
Z 28s

51.44
1 . 8s
Z 25s
N 12s

54.41
60 . 26
60.53
0.9s
68.71
61.32
62.81

63.97
8.5s
65. 45

75. 99
76 . 77
80 .82
81.02
81.40
1.1s
82 . 08
83.06

83 .59
1.4s
83.91
1.2s
83 . 98
84 . 74
85 . 46
85. 49
1 . 0s
86.24

86 . 86
1 . 0s

86 . 92
102.23
144.44
144.78
144.73
144.96

288 eP
229 eP
128 i PC
166 eP
1 76 eP

172 e(P)
e
216 eP
214 eP
334 PC
25 . 0@nm
1 . 28um
0 . 76um
pP
sP
PPP
eS
SS
281 ePd
358 (P)
8.00 nm
eS
0 eP
278 ePc
e
300 eP
297 eP
300 eP
15.51 nm
336 eP
76 . 6 O n m
0 7 0 u rr,
esP
eS
esS
323 eP
4 7 . 60 nm
1 54 urn
0 . 28um
P P
sP
PcP
PP
eS
sS
305 i P
305 P
304 P
31 . 00nm
304 P
304 P
336 eP
e
e
287 PC
2 . 50nm
355 i P
eS
31 eP

302 e(P)
26 eP
30 eP
25 eP
1 5 . 26nm

202 e(P)
28 P
pP
22 eP
21 . 00nm
27 eP
28 76nm
307 eP
17 eP
27 eP
24 *P
20 . wGnm

224 t(P)
e(S)
180 eP
22 . 50nm

28 P
52 Pdi I I
276 PKP
277 PKP
276 PKP
282 PKP

50 46.00
50 53. 30
51 1 5 . 00
51 17 . 86
51 23 . 00
51 19.70
51 32.70
51 32 . 00
51 33 . 50
52 02 . 00
5
4

52 1 9 . 50
51' 32.00
53 56.00
57 52 . 00

00 40.ee
52 1 1 . 90

52 10 . ee
4

58 07 . 00
52 25 . 30
52 26.80
56 00 60
02 37 . 00
52 48 70
53 e 1 . 90
4
53 20 . 00
5
4
53 44 00

ee i 6 . 00
00 42 . 00
53 46.00
5
4

54 06.50
54 1 2 . 50
54 58 . 50
55 45 . 00

01 ee.ee
01 35 . 00
54 07.50
54 48.12
54 49 . 22
5
54 50.24
54 53 . 82
55 06 . 20
55 25.70
55 34 . 00
55 1 3 . 30
4
55 23 . 90
04 05 . 60
56 26 . 40
56 32 . 40
56 53 . 80
56 53 . 80
56 56 40
4
57 10.00
57 02.90
57 21 . 40
57 07 . 50
5
57 08 . 00
5
57 09 . 00
57 13.90
57 16.40
57 16 40
5
57 29 60
rt 9 PI fi PI ft
57 23 . 86
5
57 34 . 90
57 22.90
58 38 . 40
04 14.12
04 15 . 52
04 15.60
04 15 . 56

6.3
1 . 1
7 .9X
6.6
- 6. 4
- 9 . 8X

6 . 4
0 . 7
1 . 1
0mb
7Msz

7 1 kmX

2 .0
- 0 . 5
4mb

1 . 7
2 . 4

0 . 3
6 . 3X
1 . 1
8mb
0 . 4
4mb
SMszX

0 . 6
1mb
9MszX

83 kmX

- 0 . 2
- 1 .2
- 1 . 8
5mb
- 1 . 9
- 2.4
0 .6

- 0 .5
6mb
1 . 4

0 . 0
0 .8
1 .0
0 . 1
0 .6
9mb
10 .8X
- 1 .5
67 kmX
0 . 3
1mb
- 0 . 6
3mb
- 0 . 7
1 .2
0 .2
- 0 .2
3mb
8 . 4X

- 0 .5
4mb

- 0 . 9
3 . 6X
- 2.5X
- 1 .6
- 1 .6
- 2 .0

CNCB 146.21 127 PKP
LPB 146.27 126 ePKP
ZOBO 146.39 126 PKP
LR
CCH 147.33 130 PKP
S I V 151.99 133 PKP

04 21 .00
04 22.00
64 21.06
53 44.66
84 25.56
84 34.38

VAO 153.19 166 (PKP) 04 49.00
S . D . = 1 . 2 on

& AUG 29, 1991 09h
59.671 N
DEPTH - 72 . 0km
SOUTHERN ALASKA
<AE I 0.

HOM 0.39 92 eP
eS
OPT 0.42 268 i P
eS
AUE 0.58 238 eP
eS
AUL 0 . 60 24 1 eP
AUP 0.60 240 eP
eS
AGU 0.61 240 eP
eS
AUH 0.61 240 eP
CNPM 0.61 103 i P
eS
AUI 0 62 238 eP
eS
AUW 0.62 241 eP
NNL 6 . 67 56 eP
RED 0 . 77 346 i P
eS
BRLK 0.78 82 eP
S
RS1 0.81 348 IP
eS
RSO 0.81 348 eP
eS
RS2 0.81 348 i P
eS
REF 0.83 350 eP
eS
ROW 0 . 84 346 i P
eS
RON 0.86 348 i P
eS
RDT 0.91 0 i P
i S
PDB 0.91 278 iP
eS
NCT 0.93 344 i P
eS
DFR 0 . 93 352 eP
eS
CDD 0.98 221 eP
eS
SY 1 1 . 06 1 80 eP
MCNL 1.10 245 eP
NKA 1.22 28 eP
SLKM 1.38 52 eP
BGM 1.47 260 eP
SPU 1.53 6 eP
eS
CKL 1.53 1 eP
eS
SEW 1.55 72 eP
BGL 1.60 0 eP
CRP 1.61 4 eP
NCG 1.74 4 eP
SUA 1.98 24 eP
PMS 2.12 41 eP
SVW 2.15 313 eP
LT I 2.33 79 eP
KN I M 2.44 72 eP
PLRM 2.51 39 eP
KNK 2.62 46 eP
42 obs. ossoci

& AUG 29, 1991 09h
60.330 N
DEPTH - 148.9km
SOUTHERN ALASKA
<AE I O.

0 . 7
1 . 8

e . 4

3 . 8X
5 . 8X
18 . 9X
58 of 74 obs .

87m 35.81s
152.467 W

67 46.95
07 55.74
67 46.97
87 55.63
67 48.31
87 58 . 16
07 48.68
87 48 . 77
87 59 . 32
87 48.86
87 59.38
87 48.97
87 48.61
87 59 . 16
87 48 .63
87 59 . 33
87 48.90
67 56 .21
87 50.48
88 82.59
67 58 . 23
88 02.41
67 51 17
68 63 . 92

)7 51.11
88 83 . 79
87 51 . 22
68 84 .67
07 51 . 44
08 84 . 42
87 51 . 48
88 84. 36
87 51.71
08 84 . 77
87 52.85
88 65.56
87 51 . 58
88 64.92
87 52. 36
68 85.63
87 52. 34
08 66.13
67 52.69
88 86 . 85
87 54.11
87 53. 82
87 58. 21
87 58. 72
87 58.25
88 88 . 29
88 19.99
88 88. 42
88 28.87
08 88.52
08 61.48
08 81 .23
88 83 . 36
68 06 . 82
88 88.26
88 87 . 85
88 18.18
88 11.11
08 13.52
88 14 . 35
o ted

1 8m 87.46s
152.989 W

(2)

- 0.2

- 0.5

- 8 . 7

- 6 . 5
- 0 . 5

- 6 fi

- 0 4
- 6 . 7

- 0 . 7

- e s
e . 2
- 8 . 7

- i . e

- 6 . 6

- 6 7

- 8 . 6

- 8 . 6

- 0 . 7

- 8 . 6

- 8 . 7

- 1 . 2

- 8 . 8

- 8 . 8

- 8 . 9

- 8 . 5
- 1 . 3
1 . 5
- 6 . 1
- 1 . 8
- 0. 6

- 8 . 6

- 8 . 6
- 8 . 4
- 0 . 8
- 8 . 5
- 8 . 3
- 8 . 7
- 1.6
- 1.7
- 2 . 3
- 6 . 8
- 1 . 5

(2)

RED

RS1
RS2
RDW
RSO
REF
RDN
NCT

DFR
RDT

OPT

PDB

NNL
CKL
HOM

NKA
SPU
AUL
BGL
AUE
AUW
AUP
AUH
AGU
AU 1

CRP
CGLM
NCG
CNPM

BRLK

MCNL
SLKM
SVW
SUA

SYI
SEW
SKT

PMS

PWA
PLRM

CUT
KNK

LT 1
KDC
KN 1 M
MTU
SML
GLI
VZW
VLZ
TRF
KLU
RND
TOA
MCK
TZL
SDG
PAX
GLB
WRH
HDA
MDM
BALM
YAH
CTGM

0.14 50 i PC
S
0.17 41 i PC
0.18 41 i PC
0.18 30 i PC
0.18 41 i PC
0.21 42 ePc
0.22 31 i PC
0.23 7 i PC
eS
0.30 30 i PC
0.38 49 i PC
S
0 . 69 1 90 i Pd
S
0.81 229 iPc
eS
0.89 108 ePc
0.93 20 i PC
0.95 134 eP
S
0.96 64 i PC
0.97 28 i PC
0.98 193 ePd
0. 98 17 i PC
0.99 191 ePd
0.99 194 ePd
1 . 00 193 ePd
1 . 00 194 eP
1 . 00 193 eP
1 .02 193 ePd
eS
1 . 03 23 ePc
1 .09 26 i PC
1.15 20 ePc
1 . 20 132 ePc
iS
1 .20 117 eP
S
1 . 34 211 ePd
1 . 38 81 ePc
1 .51 302 ePd
1 .58 43 iPc
eS
1.75 170 eP
1 .78 96 ePc
1 . 80 22 ePc
S
1 .92 60 ePc
eS
2.01 47 ePc
2.27 54 eP
eS
2.46 31 eP
2.47 62 ePc
S
2.58 94 ePc
2.60 174 eP
2.61 87 i PC
2.69 95 eP
2.71 55 eP
2.96 77 eP
3 . 25 74 eP
3.37 73 ePc
3.38 21 eP
3 . 64 68 i PC
3.66 31 eP
3.75 59 eP
3.91 27 eP
4.85 62 eP
4.20 55 eP
4.46 50 eP
4.62 72 ePc
4.74 27 ePd
4.96 32 ePc
5.14 23 ePd
5.28 78 ePc
5.58 85 eP
5.77 79 eP

18 26 . 89
18 42.41
18 27 . 24
18 27.24
18 27 . 21
18 27.19
18 27 . 10
18 27 . 03
18 27.24
18 42.79
18 27.24
18 27 . 69
18 44 . 09
18 29 . 34
18 46.61
18 29 . 46
18 46.66
18 31.79
18 31 . 28
18 31.94
18 50. 22
18 32.83
18 31.26
18 31.39
18 31 . 97
18 31.34
18 31.47
18 31.51
18 31.71
18 31 . 28
18 31.54
18 50.30
18 32.11
18 32 . 40
18 33 . 20
18 33 . 84
18 53 . 99
18 33 . 85
18 53 . 86
18 34.01
18 34.84
18 35. 17
18 37 . 23
19 01.77
18 38. 40
18 39.34
18 39 . 87
19 04.73
18 40.48
19 07 .22
18 41 . 38
18 43.51
19 13 . 34
18 46. 97
18 46.49
19 17.70
18 48 . 58
18 47 . 30
18 48 .05
18 50 . 39
18 49.41
18 52 . 42
18 57 . 60
18 57 . 72
18 58.94
19 01 . 65
19 02.42
19 03. 59
19 06 . 06
19 07.68
19 09.44
19 12.76
19 1 4 . 96
19 15.89
19 18.94
19 21.33
19 24.10
19 29 .50
19 31.17

0.7

0.8
0. 8
0. 8
0. 7
0.6
0 .6
e

ft. O

0. 6
0. 8

- 0. 7

- 1.4

0.3
- 0.6
0.0

0.8
- 1 .0
- 0. 8
- 0. 4
- 1 . 0
- 0 .9
- 1 .0
- 0 . 7
- 1 .2
- 1 .0

- 0.7
- 0.9
- 0.7
- 0. 4

- 0. 4

- 1 . 6
- 1 . 3
- 2.3
- 1 .0

- 1 .6
- 1 .0
- 0. 7

- 1 .5

- 1 .6
- 2.6

- 1 .5
- 2 . 1

- 1 . 4
- 2.9
- 2. 3
- 1 .0
- 2. 2
- 2. 4
- 1 .0
- 2.3
- 1 .5
- 2. 1
- 1 . 5
- 1 . 5
- 1 .2
- 1 . 3
- 1 .6
- 1 . 8
- 1 . 7
- 2.3
- 2.2
- 2. 2
- 1.4
- 0.2
- 0. 9
65 obs. ossocioted

? AUG
39 .

29, 1991 09h
1 03 N ± 8. 4km

24m 21 . 97± 0.99s
27.631 E ±10. 0km
DEPTH = 10.0km (geophysicis
TURKEY

1 ZM 0. 76 202 ePg 24 36.70

t)
(366)

- 0.2

284

29d 09h

eSg 24 48.00
OST 0.92 57 iPn 24 40.00 0.4
EZN 1.24 386 ePn 2445.40 8.4
EDC 1.26 8 ePn 24 44.70 -0.6
S . D . = 0 8 on 4of 4obs.

AUG 29, 1991 09h 46m 21.07+ 0.69s
46.967 N ± 5.7km 22.374 E ± 5.4km
DEPTH = 1£i.OHr> (g* o phy s i c i S t)
GREECE (364)
MD 2.2 (THE). ML 1.9 (SKO) .

URG 8.02 116 iPc 46 23.56 0.4
V A Y 0.38 23iP<3 4628.70 -0.2
iSq 46 33.80
K;;T 0.44 64ePc 4630.10 0.0
eS 46 36.30
THE 0.56 126 ePc 46 31.86 -0.5
SOU 0.76 101 ePc 46 36.42 0.5
i S 4647.42
F N A 0.78 257 ePd 4636.46 0.2
i S 4646.10
LIT 0.87 174 ePd 46 37.54 -0.3
SRS 0.93 80 fcPc 46 38.74 -0.2
S . D . =0.4 on 8 of Sobs.
I

% AUG 29. 1991 10h 33m 1 4 . 30± 0.61s
39.547 N ± 5.2km 27.348 E ± 5.7km
DEPTH - 10.0km (geo ph y s i c i s t)

TURKEY (366)

EZN 0.84 290 ePg 33 29.90 -0.5
*Sg 33 42.90
EDC 0.89 26 iPn 33 31.20 -0.2
DST 0.99 86 iPn 33 32.30 -0.8
IZM 1.15 183 iPn 33 36.20 0.4
MFT 1 . 2 4 3 5 8 i P n 3338.00 0.6
CTT 1.80 27 ePn 33 45.50 -0.1
1 2 1 U 81 64 fcPn 3346.00 0.1
iLV 1.86 56 ePn 33 47. 00 0.5
KHL 2.09l25fcPn 3350.00 0.1
S.D. - 0.5 on 9 of 9 obs.

» AUG 2'J . 1991 11h 06m 47.36± 1.04s
42.995 N ±13. 2km 17.827 E ± 7.7km
DEPTH <* 10.0km (geoph y s i c i s t)
ADR 1 AT 1 C SEA (382)
ML 2.7 (TTG) .

BRY 0.53 108 ePg 06 56.50 -1.7
eSg 07 05.00
HCY 0.74 138 ePg 07 01.10 -0.7
eSg 07 1 3 . 20
NKY 0.88 102 ePg 07 03.20 -1.1
eSg 07 17.00
BDV 1.02 134 iPgd 07 06.50 -0.2
eSg 07 21.00
HVAR 1.03 281 ePg 07 06.30 -0.5
iSg 07 21.90
PLE 1.19 73 ePg 07 09.50 -0.2
eSg 07 26 . 50
TTG 1.20 118 ePg 07 09.70 0.0
eSg 07 27 . 40
ULC 1.47 134 ePg 07 14.98 0.9
*Sg 07 36 . 08
IVA 1.53 94 ePg 07 16.00 1.2
eSg 07 37.28
PVY 1.63 103 ePn 87 18.58 2.2
eSn 87 42.58
S.D. =1.3 on 18 of 10 obs.

? AUG 29. 1991 11h 18m 47.66± 7.06s
33.098 S ±16. 6km 70.445 W ±32. 6km
DEPTH = 92 . 1 ± 57 . 8 km
CHILE-ARGENTINA BORDER REGION (127)

PEL 8.21 257 Pd 19 01.00 -8.3
S 1912.88
JACH el. 43 343 PC 19 02.58 8.8
S 19 1 4 . 28
ROCH 0.49 285 P 19 83.00 -0.1
S 1915.00
PCH 0. 52 186 Pd 19 03.50 0.4
S 19 16. 00
TACH 0.69 217 P 19 04.60 0.1
S 1919.00
tCCH 1.01 248 eP 19 08.50 0.6

i S 1924
LNV 1.18 223 i P 1909
IS 1926
S.D. =0.6 on 7of

____

AUG 29, 1991 I2h 53m 31
41.456 N ±31 . 9km 25.343
DEPTH = 10.0km (geophys
GREECE-BULGARIA BORDER REGK

MD 2 .5 (THE) .

ALN 0 . 77 136 ePc 53 45
SRS 1 . 36 256 eP 53 55
eS 5414
MFT 1.61 114ePn 5400
SOH 1.63 248 eP 54 00
KNT 1 . 86 262 ePd 54 03
iS 54 29
THE 1 . 98 246 ePc 54 05
S.D .= 0.5 on 6 of

? AUG 29, 1991 13h 36m 15
58 . 408 N ±61 . 3km 10. 488
DEPTH = 10.0km (geophys
SWEDEN

»jr* f) /: f D c D ^ MU i.O (, D tK J .

HFS 2. 39 42 eP 36 54
0.2s 4 . 40nm
ODD1 2.50 309 eP 36 56
eSg 37 32
KMY 2.84 289 eP 37 01

eSg 37 41
EGD 3.28 307 eP 37 07
S.D. =0.1 on 4of

AUG. 29, 1991 13h54m25
44.431 N ± 3.0km 7.432
DEPTH = 5.0km (geophys
NORTHERN ITALY

. 60
. 20 -0.6
. 30
7 obs .

19± 2 . 05s
E ± 8 . 4km
ic i s t)
DN (363)

98 -0.2
60 -0.6
82
00 0.2
20 0.1
. 42 0.0
58
57 0.5
6 obs .

1 1± 5.21s
E ±1 4 . 4km
ic i s t)
(536)

90 0.0

48 0.1
59
33 0.0
48
46 0.0
4 obs .

57± 0 . 39s
E ± 3 . 5km
cist)
(545)
ML 2.5 (LOG) , 2.1 (GEN) .

STV 0.20 202 P 54 29
S 5431
ENR 0.20 182 P 54 29
S 5431
PZZ 0.25 287 P 54 30
S 54 34
ROB 0 . 34 1 13 P 54 33
S 54 38
BHB 0 . 43 344 P 5434
S 54 41
SBF 0.57 180 Pg 54 37
Sg 54 43
FIN 0 . 60 1 1 1 P 5437
S 54 45
IMI 0 . 62 1 48 P 54 37
S 54 45
RRL 0 . 67 317 P 5438
RSP 0. 73 350 P 54 39
PCP 0.80 82 P 5441
FRF 1 . 04 213 Pg 5446
Sg 54 58
LRG 1 . 25 21 9 Pg 5449
Sg 55 06
LMR 1 . 28 21 2 Pg 5450
Sg 55 06

21 -0.5
32
18 -0.6
53
82 0.2
19
17 0.7
39
89 0.7
06
00 0.0
50
57 0.0
90
16 -0.7
10
60 -0.4
31 -0.9
88 0.2
40 0.8
40
60 0.4
00
00 0.2
80
S.D. =0.6 on 14 of J 4 obs .

AUG 29. 1991 14h 08m 46
1 7 . 488 N ± 3 . 7km 145.926
DEPTH « 1 92 . 6 ± 8 . 7 km

4 . 8mb (26 obs.)
MARIANA ISLANDS

PJG 4 . 01 1 95 eP 09 49
GUA 4.05 194 eP 09 49
0.4s 203 . 39nm
eS 10 35
CHJJ 19.48 343 P 1259
MAT 20. 17 342 eP 1306
0.7s 6 . 85nm
eS 16 40
MTMJ 20.33 341 P 13 0B
N 1 1 J 20 . 60 344 P 1311
YAMJ 21.24 347 eP 1316
OFUJ 21 . 83 351 P 1323

33± 0.89s
E ± 6 . 0km

(216)

00 0.4
20 0.2

30
30 -1.3
00 -1.5
4 . 3mb
00
60 -0.6
90 0.1
90 -1.2
80 0.0

KKM

CTAO
01 S

WR 2

ASPA

RMO

OLP

NST
DZM
CHG
BDT

YAK
MBL

w A P n M r\ D

coo
PSI

CMS

STK

NANU
SHL
BSI
FORR
COOL

BAL
KLB
GUN
PK 1

KKN

DMN

MUN
GKN
NWAO

SVW
TTA
IMA

PMR

8RW
D 1 W
K 1 W
MNG
TCW
MRW
CAW
FBA

PGZ

WDW
TOA
MOW
LTZ
BALM
MBC

YKA

ORV
NEW

TNP

SES
LRM
FFC

RSSD

31.18 252 ePd 14 50. 40 0.8
0.7s 43.1 0nm 5 . 3mb
37 . 34 1 79 i P 15 42.00 0.1
38.31 1 90 eP 15 49 . 80 -0.2
0.4s 5.00nm 4. 5mb
38.90 197 IP 15 54.50 -0.3

0.8s 36 . 60nm 5 . 1 mb
42.56 196 i Pd 1625.60 0.8
0.4s 1 2 00nm 4 . 8mb
43.80 176 i PC 16 44 .90 10 . 2X
0.3s 24 . 00nm
43.84 182 i PC 16 34.00 -1.0
0.4s 46.00nm 5.4mb
43 . 85 275 eP 1637.70 2.4
4415152iPc 16 38. 9 & 1.2
44.56 279 *P 16 42.00 1.0
44 . 69 277 eP 1642.80 0.8
1.0s 40 . 70nm 4 . 9mb
45.92 349 IP 16 49.20 -1.9
46. 15 215 i PC 16 53.90 0.5
47 . 28 204 i PC 1703.30 1.0
0.3s 21 . 00nm 5 . 1 mb
48 . 1 3 1 73 i Pd 1709.60 0.9
48. 39 258 eP 17 1 3 .00 2.0
e 18 34 . 80
e 1900.00
48.69 180 i PC 17 13.00 0.0
0.5s 7.00nm 4. 4mb
49. 26 185 iPc 1717.10 -0.2
0.8s 8 . 80nm 4 . 3mb
49.69 218 eP 1721.30 0.6
50.63 289 eP 17 27.50 -0.7
50.87 263 eP 17 13.00 -16. 9X
51 . 03 200 eP 17 30.00 -0.7
53.67 207 iPd 17 59.80 9.4X
0.6s 1 2 . 00nm 4 . 7mb
55 . 47 21 1 eP 1 8 03 . 00 -0.3
55.79 209 eP 18 05.10 -0.5
55 . 89 292 P 1 8 08 . 06 1.1
56. 33 292 P 1 8 08 . 96 -1.1
0.7s 13. 00nm 4 . 8mb
56.43 292 P 1809.00 -1.6
0.7s 18.00nm 4. 9mb
56.59 292 P 18 10.92 -0.9
0.4s 11. 00nm 4 . 9mb
56.84 210 eP 18 12.80 -0.2
56 . 98 292 P 1813.70 -0.7
57.15 209 eP 18 15.00 -0.1
0.9s 26 . 00nm 5 . 0mb
59 . 76 29 eP 1834.80 1.8
60.23 27 eP 18 36.30 0.2
62 . 29 24 eP 18 50. 30 0.3
0.8s 5 . 20nm 4 . 4mb
62.90 29 eP 18 53.90 0.1
1.1s 20 . 40nm 4 . 9mb
epP 19 30 . 1 0 1 52kmX
63.33 1 8 eP 1 8 56 . 80 0.3
63. 56 157 eP 18 58.20 -0.2
63 . 99 1 56 P 1 9 00 . 40 -0.8
64 . 0 1 1 55 P 1 9 00 . 40 -0.9
64 . 05 157 P 19 01 .00 -0.5
64 . 23 1 56 P 1901.80 -0.8
64 .26 156 eP 19 02.00 -0.9
64. 29 26 eP 19 02.50 -0.3
0.8s 43 . 79nm 5 . 4mb
64.33 155 eP 19 02.60 -0.7
0.5s 29.00nm 5.4mb
64 . 37 156 eP 19 02.90 -0.7
64.38 29 eP 1904.40 0.9

64.60 156 eP 19 04.40 -0.7
64 . 69 1 59 P 1904.80 -0.9
66.01 30 eP 1914.00 -0.1
74 .26 1 4 eP 20 03.00 -0.4
1.0s 63 . 00nm 5 . 3mb
78.95 28 eP 20 29.60 0.0
0.8s 9 . 30nm 4 . 6mb
81.01 5 1 eP 2041.80 0.8
81 . 66 42 eP 20 45. 00 6.7
1.0s 3 . 75nm 4 . 1mb
84 . 63 52 i P 2101.20 1.4
0.9s 6.84nm 4. 4mb
84.74 39 eP 2101.00 1.2
85.47 43 eP 21 05.00 1.1
87.99 33 iPc 2116.80 1.3
1.1s 49 .00nm 5 . 3mb
91 .62 43 eP 2134.10 1.1
1.1s 1 8 . 63nm 5 . 0mb

285

29d 14h

ALO 93.84 52e(P) 21 43. 00 -0.3
1.0s 2 . 50nm 4 . 3mb
LNV 142.82 123 ePKP 27 56.00 -2.7X
ROCH 143.42 122 ePKP 27 58.50 -1.6
SAN 143.56 123 ePKP 27 59.00 -1.1
PEL 143.63 122 iPKPc 27 59.00 -1.2
0.9s 1 00 . 84nm
PCH 143.63 123 ePKP 27 59.00 -1.3
ZOBO 147.42 93 PKPc 28 08.69 1.0
1.0s 4 4 . 00nm
LPB 147.47 9 3 e P K P 2816.60 8.5X
CNCB 147.62 94 PKP 28 09.70 1.8
i 28 13.00
CCH 149.42 95 PKP 28 17.00 6.6X
SIV 154.11 91 PKP 2817.00 0.2
i 28 25.00
S.D. «= 1.0 on 72 of 78 obs.

? AUG 29, 1991 14h 44m 03.40± 1.33s
21.836 S ±15. 1km 178.962 W ±29 . 1 km DEPTH » 610.2 ± 14.9 km
4 . 4mb (4 obs .)
FIJI ISLANDS REGION (181)

VUN 4.51 327 iPc 45 32.20 -1.5
SGE 5.14 325 eP 4540.10 1.5
DZM 13.54 266 IP 47 01.40 4.2X
URZ 16.71 191 eP 47 27.10 -0.5
NOZ 1 6 . 92 1 88 eP 4731.10 1.5
MNG 19.31 193 eP 47 50.70 -1.1
0.2s 5 . 00 nm 4. 7mb
ASPA 43.36 258 i Pd 51 15.80 0.5
0.7s 1 0 . 50nm 4 . 5mb
WR2 43.52 264 iPc 51 16.89 0.2
0.7s 6.80nm 4. 3mb
WRA 43.54 264 P 51 16.00 -0.7
0.6s 6.30nm 4. 3mb
CHG 89.86 290 eP 56 06.50 6.7X
HFS 140.70 350 ePKP 02 25.70 0.0
0.4s 2 . 00nm
CLL 149.14 345 iPKP 02 52.30 12. 4 X
i 02 58.60
S.D. -1.3 on 9 of 12 obs.

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? AUG 29. 1991 14h 47m 05.27± 5.80s
16.608 N ±24. 2km 62.020 W ±35. 3km
DEPTH - 213.9 ± 46.3 km
LEEWARD ISLANDS (92)

BPA 0.46 20 eP 47 35.22 0.1
S 47 53.20
SEG 0.53 112 ePd 47 34.59 -0.7
S 4751. 60
PAG 0.66 150 ePd 47 34.96 0.0
S 47 53.50
DOG 0.69 146 eP 47 35.20 0.1
S 47 54 . 00
SFG 0.87 114 ePc 47 36.16 0.3
MGG 0.96 135 iPc 47 36.64 0.2
S 4754.90
DEC 6.97 108 iPc 47 36.63 0.0
S 47 54.90
BBL 1 . 20 1 54 eP 47 38. 29 0.1
FDF 2.64 156 eP 47 45.61 0.0
0.2s 0 . 52nm
S 48 1 3. 80
CRM 2.13 150 eP 47 46.28 -0.2
B 1 M 2 . 27 1 56 eP 4748.12 0.1
S 4818.60
MVM 2.31 152 eP 47 48. 37 0.0
S.D. -0.3 on 12 of 12 obs.

AUG 29, 1991 16h 33m 50 . 25± 0.88s
6.432 S ±19. 3 km 12.970 W ±19. 7 km
DEPTH - 10.0km (geophysicist) 4.7mb (10 obs.) 4.6Msz (2 obs.)
ASCENSION ISLAND REGION (408)

LIC 14.86 32 P 37 21.42 -0.9
K 1 C 15.13 33 P 37 24.50 -1.3
TIC 15. 22 32 P 37 26.58 -0.4
MBO 21.06 349 eP 38 44.00 7.0X
SOB1 27.80 262 eP 39 39.60 -2.2
e 39 43. 10
SIV 48.03 254 P 42 30.40 -1.6
BTH 50.66 12 eP 42 52.00 0.2

ipp 43 04.50 45kmX

LSF 54.02 12 eP 43 17. 10 0.3
TCF 54.20 1 3 eP 43 18.60 0.4
1.0s 8 . 00nm 4 . 7mb
LPG 54.63 17 eP 43 22.10 0.4
0.7s 7 . 1 5nm 4 . 8mb
LPL 54.64 17 e P 43 22.20 0.5
0.8s 8.05nm 4. 8mb
CNCB 54.70 254 P 43 25.00 2.0
LPB 54.80 254 eP 43 29.00 5 4X
ZOBO 54.81 255 eP 43 25.00 1.2
Z 20s 0 . 35um 4 . 4Ms z
i 4334.90
L R 59 18.ee
SMF 54.92 14 eP 43 23.30 -0.2
AVF 54.94 14 eP 43 23.60 0.0
SSF 55.23 14 eP 43 25.70 0.0
0.9s 9.85nm 4. 8mb
LBF 55.27 14 eP 43 25.80 -0.3
LOR 55.51 14 eP 43 27.40 -0.3
Z 20s 0 . 60um 4 . 7Msz
BSF 56.77 16 eP 43 35.80 -1.2
0.9s 6.55nm 4. 7mb
CDF 57.44 16 eP 43 40.30 -1.3
0.7s 4.40nm 4 6mb
SKO 57.50 30 iP 43 48.70 6.6X
Z 1 5s 0 . 46um 4 . 7Ms zX
E 16s 0 . 4 1 urn
LR 1 1 32.00

WTTA 57.73 20 e(P) 43 41.00 -2.8X
1.0s 15.20nm 5. 0mb
i 4349.10
i 43 53.00
KHC 60.00 20 eP 44 06.00 6.6X
e 56 08.00

ZST 60.48 23 e(P) 44 03.00 0.4
e 4407.60
SRO 60.64 24 eP 44 11.10 7.4X
PRU 61.06 20 eP 44 13.50 7.0X

BRG 61.62 19 e(P) 44 10.60 0.3
CLL 61.70 18 e(P) 44 17.00 6.2X
MLR 62. 30 30 eP 4416.00 0.9
ISR 62.35 31 eP 44 24.00 8.6X
SPC 62.52 24 eP 44 12.30 -4.3X
e 4421.40
VRI 62.96 30 eP 44 23.00 3.7X
e 1020.00
HFS 69.63 14 eP 44 59.70 -1.9X
0.5s 1 . 90nm 4 . 5mb
NB2 69.88 1 2 P 4504.20 1.1
0.9s 3.90nm 4. 5mb
UPP 70.39 16 iP 45 09.20 3.0X
KAF 74.72 1 8 eP 45 34 . 00 2.2
SOD 78. 83 1 5 i P 45 55. 80 1.1
MA 1 0 79.85 51 eP 46 07.00 6. IX
SPA 83.61 180 eP 46 19.00 -1.1
1.0s 15.00nm 5. 2mb
WRA 138.51 130 PKP 53 23.00 4.0X
0.9s 1 . 30nm
S.D. =1.1 on 26 of 41 obs .

? AUG 29, 1991 16h 35m 48.18± 1.46s
33.159 S ±17. 5km 70.628 W ±26. 4km DEPTH = 70.0km (geophysicist)
CHILE-ARGENTINA BORDER REG'ION (127)

PEL 0.05 288 iPd 35 59.00 0.3
i S 36 09. 20
ROCH 0.37 300 iPc 36 00.50 0.2
iS 36 1 1 . 90
JACH 0.48 4 iPc 36 00.80 -0.3
iS 36 12.00
LCCH 0.85 248 eP 36 05.00 0.0
iS 36 20. 00
LNV 1.03 219 iPd 36 07.10 -0.2
iS 36 22. 30
S.D. =0.3 on 5of 5 obs .

* AUG 29, 1991 16h 59m 09.61± 1.09s 3.274 S ±11. 6km 139.860 E ± 1 5 . 3 km DEPTH - 27 . 8 ± 1 0 . 8 km
4 . 5mb (3 obs .)
WEST 1 R 1 AN (201)

JAY 1.13 48 iPd 59 29.40 -0.3
i S 5939.30
MTN 12.85 222 «P 02 13.00 -0.2

0.3s 61 . 00nm 6 . 2mb X j

eS 04 30.00
KNA 16.52 221 eP 03 02.00 0.9
eS 05 55.00
CIS 1 7 . 18 181 iPd 03 10 . 00 0.6
0.6s 4.00nm 3. 7mb
eS 06 14 . 30
WR2 17.42 198 eP 03 12.50 0.1
0.3s 2l.40nm 4. 8mb
eS 06 1 8 . 30
CTAO 17.84 160 eP 03 23.00 5.4X
ASPA 21.08 195 iPd 03 53.80 -0.4
0.6s 17.00nm 4. 6mb
eS 0741.70
WARS 26.07 208 eP 04 41.00 -1.8
PS 1 41.34 278 ePd 06 55.20 0.1
e 0 8 0 0 . 0 w
CNCB 146.02 127 PKP 18 50.00 0.6
ZOBO 146.20 126 PKP 18 50.00 0.3
S.D. - 0.9 on 10 of 11 obs.

AUG 29. 1991 I6h 59m 49.02± 0.34s
6:988 S ± 6.2km 12.677 W ± 6.4km
DEPTH = 10.0km (geophy s i c i s t) 5.0mb (37 obs.) 4.8Msz (9 obs.)
ASCENSION ISLAND REGION (408)
CENTROID, MOMENT TENSOR (HRv)
Do to Used : GDSN
L. P . B . : 15S, 34C
Cen t r o i d Loco t i on :
Origin Time 16:59:54.9 0.8
Lot 6.70S 0.08 Lon 1 2 . 90W 0.06

Dep 15.0 FIX Ho 1 f-duro t i on 2.1
Moment Tensor; Scole 10»*17 Nm
Mrr- 0.11 0.08 Mtt--0.88 0.12
Mf f- 0.77 0.11 Mr t = 0 . 00 0.00
Mr f = 0.00 0.00 Mtf= 1.23 0.08
Principol Axes:
T Vo 1 = 1.42 Pig- 0 Azm-118
N 0.11 90 1 80
P -1.53 0 28

Best Double Coup 1 e : Mo= 1 . 5 » 1 0 1 7
NP1 : S t r i ke=1 63 Dip-90 Slip 180
NP2: 253 90 0

LIC 15.18 30 P 03 24.46 -0.8
0.8s 1 1 . 00nm 4 . 3mb
K 1C 15.44 31 P 0326.34 -2.3
0.8s 28 . 00nm 4 . 6mb
TT 17 00 .00
TIC 15.55 30 P 0328.08 -2.0
0.9s 1 8 . 50nm 4 . 4mb
MBO 21.66 349 eP 04 45.60 3.7X
CA I 24.30 270 iPc 05 06.90 -0.9
WIN 32.59 122 eP 06 20.00 -3.3X
1.0s 20.00nm 5. 0mb
BAD 35.63 253 ePc 06 48.50 -1.0
LWI 41.59 86 iPd 07 39.60 0.2
BUL 42.08 112 iPd 07 42.10 -1.1
1.0s 1 2 . 50nm 4 . 6mb
FRS 42.27 127 iPd 07 45.40 1.0
0.8s 29 . 85nm 5 . 1mb
SLR 43.25 120 iPd 07 53.40 0.7
0.9s 29 . 4 1 nm 5 . 0mb
Z 20s 2 . 87um 5 . 2Msz
SEK 43.57 124 i PC 07 54.60 -0.7
0.8s 1 1 . 1 9nm 4. 7mb
TOL 47.31 9 eP 08 26.50 1.8
SIV 48.16 255 P 08 31.00 -0.8
BTH 51.14 12 iPd 0855.90 1.7
ipP 09 04.30 28kmX
sP 09 06.00

e(PP) 10 43 .00
e 1 7 22. 00
EPF 51.17 12 eP 08 55 . 20 0.8
1.1s 9 . 75nm 4 . 6mb
LPO 52.93 12 eP 09 07.60 0.0
1.0s 16.00nm 4. 9mb
LMR 53.03 17 eP 09 08.80 0.4
0.9s 13.10nm 4. 9mb
LFF 53.68 12 eP 09 08.90 0.2
LRG 53.09 17 eP 09 09.30 0.5
Z 22s 1 . 15um 4 . 9Msz
CCH 53.12 254 P 09 17.50 7.6X
FRF 53.27 17 eP 09 10.40 0.2
0.9s 9 . 85nm 4 . 8mb
CAF 53.35 13 eP 09 10.50 -0.3
1.0s 1 2 . 60nm 4 . 8mb

286

29d

SLA
R J F

IDS
SBF

SD 1
LSF

8N 1
TCP

MAF
CNCE!
LPB
ZOBO

LPG

LPL

Q A C DUD
SMF

AVF

SSF

LBF

D 1 X
MMK
LOR

TMA
VDL
OHR
OSS
BSF

HAU

ZLA
SLE
SKO

CDF

FV 1
MDZ
WTTA

WLF
DOU
BHG

Q c A. D L U
MEM
ENN

KHC

ZST
SRO
WTS

MOX

PRU

BRG

CLL

1 7h

53 . 43
53.59
1 . 8s
Z 22s
53 61
53 . 79
0 8s
54.19
54 . 49
0 . 9s
54.64
54 .68
0 .9s
54 . 69
54 ,;83
54 .93
54.94
Z 18s

55. 97
0 .{iS
55. 09
0 -9s
55 23
55 38
1 Os
55.41
0.9s
55 . 70
1 .0s
55. 73
1 .0s
55 . 79
55 . 93
55. 97
0 . 9s
Z 20s
56 .25
56.77
56 .87
57.16
57 .23
1 -0s
57 .27
1 .0s
Z 20s
57 . 35
57 .64
57 . 84
Z 18s
E 17s

57 .89
0 -8s
57 . 96
57 .98
58 . 15
1 0s

58 . 76
58.80
58 . 97
59.56
59 . 60
59. 73
1 .0s

60 . 42
Z 20s
E 20s

69 .88
6' .03
6 .'08

e 9s

6 i . 13
1 t 3s
61 .48

6£.05

62. 13

244 iPc
1 2 eP
20 . 00nm
1 . 1 0um
28 P
18 eP
1 8 . 80nm
24 P
12 eP
1 7 . 20nm
17 P
1 3 eP
1 5 . 55nm
13 e?
254 P
255 P
255 P
0 . 83um
LR
1 7 eP
1 8 . 80nm
1 7 eP
20 . 45nm
1 9 P
14 eP
12 00nm
1 3 eP
8 . 20nm
13 eP
1 9 . 00nm
14 eP
1 9 . 00nm
1 7 «Pd
1 7 ePd
1 4 eP
1 4 . 75nm
1 . 08utn
18 ePd
1 8 ePd
36) IP
1 9 ePd
15 eP
1 2 . 00nm
1 5 eP
20 . 00nm
0 . 63um
17 ePd
1 7 ePd
30 i P
0 . 60um
0 . 59um
LR
1 6 eP
1 4 . 80nm
20 P
236 eP
19 i PC
28 . 60nm
i
i
e

1 4 Pd
13 P
20 eP
27 eP
1 4 P
1 4 eP
29 . 00nm
e
20 P
0 . 80 urn
0 . 60um
e
e
22 eP
23 eP
1 4 eP
28 . 00 nm
e

17 i P
29 . 00nm
20 eP
e
e

19 i P
e
18 eP

09
09

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69
09
69
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25
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36
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1 1
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10
09

10
10

10
12
10
1 0
10

10
10

10
10
1 1
10
10
10

28
1 2

1 3
1 4

1 9
19

21
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22
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21

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31
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37
t o
J O

37

38

39
4 1
43

1 8
42

44
43
43

45
53
58
57
49
50
53
03
57

05
01

05
1 2
04
05
07

1 3
05

07
30
06
1 1
1 7
12

00
30
5
4
60
20
5
00
10
5
30
60
5
80
60
06
00
4

00
30
5
20
5
06
30
4
50
4
80
5
80
5
70
40
50
5
4
70
70
60
50
70
4
50
5
4
70
60
80
4

00
40
5
50
90
60
5
30
40
00
00
30
50
00
90
50
5
00
00
4

50
00
00
80
00
5
50
80
5
50
00
50
60
70
00

1 6 . 1 X
- 0.2
1mb
9Msz
6.9
0. 2
1mb
2 . 1
0. 0
1mb
0.9
0 . 1
0mb
0.2
- 0. 8
1 . 7
- 2 . 6X
9Msz

0 .5
2mb
0.4
2mb
1 . 3
- 0. 3
9mb
- 0.2
8mb
0.0
1mb
- 0 . 4
1mb
0

Q
. O

0.6
- 0 4
6mb
9Msz
- 0. 4
- 0.2
6. 5
- 0. 1
- 1 . 3
9mb
- 0. 6
1mb
7MS2
0.0
- 0. 1
0.6
7MSZ

- 1 . 1
1mb
0.6
- 0.5
- 1.9
3mb

7 . 6X
- 0. 4
- 0.5
- 2. 1
8. 6X
1 .3
4mb

0.0
9Msz

- 0. 1
0. 7
1 . 7
4mb

0 . 0
3mb
- 0.6

- 0. 4

- 0.5

ix C D
l\ 3 r

SPC
KRA
NVL

HFS

Z

N82

UPP
NUR
KAF
JSC
8LA

MAW
SOD
MA I 0
SPA

F VM

TUL

Z

WRA

S

_

AUG
22 .

e 10 35
62.80 20 eP 1017
62.90 24 eP 1019
63.48 23eP 1030

65.58 171 (P) 16 41
e 1166
70.09 14 eP 11 01
0.5s 3 . 90nm
17s 0 . 40 urn
LR 38 41
70.36 1 2 P 1105
0.9s 3 . 60nm
70.84 1 6 i P 1111
73.41 1 8 e P 11 2 G
75.16 18 i P 1133
76.56 308 eP 1141
76 . 86 31 1 eP 1144
1.0s 8 . 00nm
78 . 08 1 58 eP 1155
79.29 14 i P 1156
79.96 51 eP 1203
83 . 06 1 80 eP 1222
1.1s 1 7 . 86nm
84 . 70 309 eP 1223
1.0s 1 2 . 60nm
88.51 306 eP 1244
1.6s 2 1 . 40 nm
22s 0 . 3 1 urn
LR 15 45
137.93 136 PKP 19 17
0.8s 1 . 20nm

. 00
. 00
. 60
. 60
. 60
. 09
. 00
4

Kt e 4

. 60

. 59
. 36
. 5u
. 60
4
. 00
. 50
. 00
. 00
5
. 60
5
. 99
5
4
. 00
00

0 . 1
1 . 1
9 . 2X
6 2X

- 2 . 2
. 8mb
. 7MszX

0 . 2
. 5mb
3 . 3X
3 . 6X
0 . 2
- 0 . 1
0 .8
. 8mb
5 . 7X
0.6
2 . 7X
6 . 0X
2mb
- 1.7
1mb
1 . 5
2mb
7Msz

0 . 3X

. D . = 1 . 0 on 75 of 90 obs .

29. 1991 18h 38m 43
941 S ± 5 5Vm 66.672

69±
W ±

0.51s
9 . 3km
DEPTH = 261.7 ± 11.2 km
JUJUY

SLA

ANT

CYA
CCH
CNCB

LPB

ZOBO

ARE

S 1 V
PEL
SAN
LCCH
LNV
PPD

K 1 C
WRA

S

? AUG
10 .

PROV 1 NCE . ARGENT 1 NA

1.86 164 iPd 39 43
S 39 53
4 . 06 258 i P 39 48
iS 40 35
5.49 177 iP 4007
5. 53 359 iPd 40 08
6 . 36 343 P 4018
S 41 33
6 . 65 343 P 4029
S 41 38
6 . 9 1 343 P 4024
S 4141
8 . 22 32 1 eP 4040
iS 42 06
8.37 35 i Pd 4041
10.95201 i Pd 41 15
11.22 200 i P 4118
11.56 204 iP 41 27
11.93 202 i P 4126
13.68 89 eP 4148
e 4151
e 41 55
6661 72 P 49 08
1 32 . 95 207 PKP 5731
0.5s 1 . 50nm

50

OS

i60
70
40
30
70
^00
00
00
70
00
00

00
20
00
20
00
50
60
90
1 0
1 0
00

(128)

1 7 . 1 X

- 0 6

1 . 1
1 . 1
1 . 0

7 . 7X

0 . 0

- 0.8

- 1 .2
0 . 0
- 0.2
4 . 5X
- 0 .6
- 0.2

- 0 . 4

1 .0

. D. =0.9 on 13 of 1J6obs.

29 , 1991 1 9h 31m 21 . 1 2±
771 N ±16. 0km 62.312

3.67s
W ±3 1 . 5km
DEPTH = 33.0km (normol)
NEAR

TCE

T P U
1 J\ N

TPP

TBH

P 1 G

GRW

BOT

SVB

COAST OF VENEZUELA

MD 3.6 (TRN) .

0.55 98 iPd 31 33
eS 31 43
0.90 98 i PC 3137
eS 31 51
0 . 96 1 1 8 eP 3138
eS 31 52
1.26 103 eP 3141
eS 32 00
1 . 50 75 eP 31 45
eS 32 08
1 .52 25 eP 31 46
eS 32 06
1.61 76 eP 3147
eS 32 09
2.69 23 eP 32 02
eS 32 34

24
91
62
4 1
07
84
83
85
92
07
4 1
07
22
41
99
00

(97)

0 . 7

0 . 2

- 0 . 2

- 0 . 6

0 . 0

0 .0

- 0 . 4

- 0 . 1

S.D.=0.5 on 8of 8 obs .

* AUG 29. 1991 19h 34m 59.71± 1.18s
17.117 S ±15. 7km 66.652 W ±11. 8km
DEPTH = 284 .9 ± 15.0 (m
4 . Omb (1 obs .)
BOLIVIA (120)

CCH 0.55 119 iPd 35 37.00 -1.4
CNCB 1.31 283 iPc 35 41.00 -0.2
LPB 1. 50 293 i PC 3543.00 0.8
1.0s 540 . 00nm
ZOBO 1.64 301 iPc 35 44.20 0.8
ARE 4.68 277 iPc 36 10.00 -3.8X
iS 37 08. 00
S ! V 5.47 79 i Pd 36 23. 20 0.4
ANT 7.44 208 e(P) 37 35.00 48. 1X
iS 3815.70
SLA 7.65 172 iPc 36 50.00 0.3
NNA 11.10 296 eP 37 32.00 -0.7
0.6s 6.00nm 4. 0mb
i 39 34.00
S.D. = 1.1 on 7of 9 obs .

» AUG 29. 1991 20h 07m 39.99± 2.57s
39.967 N ±11. 4km 20.708 E ±22. 2km
DEPTH = 10.0km (geophys i c i s t)
GREECE-ALBANIA BORDER REGION (392)
MD 2 . 7 (THE) .

FNA 0.96 32 ePc 07 58.40 0.1
OHR 1.14 3 ePn 08 01 . 50 0.1
LIT 1.37 84 eP 08 05. 80 0.6
eS 0829.88
AC-G 1.57 126 e PC 08 07. 88 -0.1
KNT 2.05 54 ePd 08 14.84 -0.1
SKO 2.08 15 ePn 08 18.00 2.7X
SOH 2.19 66 ePc 08 16.52 -0.5
eS 08 50.60
S . D . - 0 - 5 on 6of 7 obs .

& AUG 29. 1991 20h 33m 00.52s
40 . 640 N 1 21 . 481 W
DEPTH = 16 . 1 km
NORTHERN CALIFORNIA (36)
<GM-P>. MD 3.1 (GM).

LTCM 0.65 229 * (P) 33 13.00 -0.1
LBFM 0.77 336 e(P) 33 12.00 -3.3
ORV 1.08 181 eP 33 20.00 -0.4

FHC 1.91 276 e(P) 33 35.00 2.2
ARN 3.29 181 eP 33 56.00 3.6
5 obs. oss delated

% AUG 29, 1991 20h 44m 20 . 00± 2.24s
44.594 N ± 8.3km 6.737 E ± 1 7 . 9 km
DEPTH - 10.0km (geophys i cist)
FRANCE (538)
ML 2.0 (GEN) .

PZZ 0 . 28 109 P 44 26 .03 0.2
S 44 29.93
RRL 0.33 6P 44 26. 95 0.1
S 44 31 .88
BHB 0.45 56 P 44 29.01 -0.2
S 44 35. 16
STV 0 .55 129 P 44 30.95 -0.1
S 44 38.54
ENR 0.61 127 P 44 32.29 -0.1
S 44 40 . 49
ROB 0.87 110 P 44 36.90 0.2
S 4447. 97
S . D . =0.2 on 6 of 6obs.

? AUG 29, 1991 21h 05m 02 . 96± 6.07s
47.372 N ±48. 2km 7.251 E ±10. 2km
DEPTH = 10.0km (geophys i c i s t)
SWITZERLAND (544)
ML 3.2 (LOG) .

BSF 0.55 326 Pg 05 14.40 0.1
Sg 05 22.20
FEL 0.72 45 ePg 05 17.26 0.0
HAU 0.88 316 Pg 05 19.80 -0.1
Sg 05 31 .60
CDF 1.04 1 Pg 05 22.60 -0.1
Sg 05 37 .20

287

29d 21h

S . D . -0.1 on

AUG 29, 1991 23h
42.612 N ± 4. 0km
DEPTH= 10 0 ± 2
PYHENEES

mbLg 3.2 (MOD)

ENSF 0.21 24 Pg
EPF 043 12Pn
Sn

EGRA 0.57 224 iPg
eSg
JAU 0.61 315 Pg
Sg
LHE 0.69 296 Pg
SALF 0.73 78 Pg
ESCF 0 . 75 309 Pg
Sg
ATE 0.82305Pg

Sg
I SSF 0.85 300 Pg
LESF 0.89 62 Pg
MADF 0.93 305 Pg
GRBF 1.00 76 Pg
BOH 1 . 03 299 Pg

Sg
LSPF 1 . 29 74 Pg
TRGS 1.30 94 Pn
VDCF 1.59 90 Pg
EROO 1.79 175 i Pnc
eSn
EBR 1.80 173 vPg
? Sg
PERF 1.97 93 Pg
ETER 1 . 98 98 i Pnc
eSn
ECR I 2.01 271 i Pnc
eSn
LPO 2.19 18 Pn
Sn
LFF 2.36 9 Pn
Sn
ETOR 2.47 224 ePn
eSn
CAF 2.67 29 Pn
Sn
RJF 2.85 19Pn
Sn
ECHE 3.15 197 ePg
eSg
LSF 3.76 1 4 Pn
Sn
GUD 3.82 240 ePn
eSn
TCF 3.94 21 Pn
Sn
MAF 3.98 24 Pn
Sn
MFF 4.00 356 Pn
BGF 4.37 25 Pn
Sn
LRG 4.58 77 Pn
AVF 4.74 27Pn
Sn
SMF 4.79 31 Pn
Sn
FRF 4.80 76 Pn
SSF 5.03 27 Pn
SBF 5.42 74 Pn
LPL 5.52 56 Pn
PGF 6.48 88 Pn
DOU 8.07 20 PC

4 0 f 4

55m 55.71
0.217 E
8 I m

55 59 . 95
56 04.20
56 11 20
56 02 . 00
56 07 60
56 07.15
56 16.2?

t> (i 09.79
56 08.60
50 99. 39
56 19.89
56" 10.68
56 22 . 73
56 11.57
56 11.81
56 12.95
56 13.56
56 1 6 . 23
56 30 . 44
56 19 31
56 18.45
56 26 . 40
56 27 . 08
56 49 . 50
56 27.50
56 52.00
56 32.21
56 30.41
56 56.60
56 30.94
56 57.10
56 35 . 00
57 05 . 70
56 38 . 00
57 13.00
56 36. 42
57 05.10
56 41.50
57 15.60
56 43 . 60
57 20 . 20
56 54 . 75
57 31.80
56 55 . 20
57 39 . 00
56 55 . 91
57 38 . 50
56 57 . 80
57 46 . 00
56 57 . 80
57 46.80
56 58 . 40
57 04 . 20
57 57 . 00
57 06 . 40
57 09 . 20
58 05 . 80
57 10.00
58 07 00
57 09 . 40
57 1 3 . 20
57 21 . 00
57 21 . 60
57 32 . 00
57 55 . 00
0.4S 5 70nm
S . D . = 1 0 on

AUG 30 , 1991 00h
4. 349 S ± 3. 5 km
DEPTH = 23.2km (
5 . 2mb (47 obs .)

36 of 42

obs .

± 0. 38s
± 3 . 0km

(378)

- 0. 4
- 0. 3

- 5 . 3X

- 0.9

0.4
- 1.5
- 1 .0

- 1 .0

- 0. 7
- 1 . 0
- 0. 5
- 1.1
1 .0

- 0. 3
- 1.4
2. 5X
0.2

0.5

2. 7
0.8

0. 8

2 . 4X

3.0X

- 0 .3

1 .9

1 .5

8.5X

0. 2

- 0. 1

0.2

- 0. 3

0. 1
0. 6

- 0 . 2
0. 3

0 . 4

- 0 . 4
0 . 3
2 . 4X
1 . 5
- 1 . 6
- 0. 7
5.2mb X
obs .

1 6m 21 . 29± 0.21s
81.541 W

11 depth
4.6Msz (
NEAR COAST OF NORTHERN PERU

PSO 6.93 38 eP
PURC 8.41 38 eP
S 1 LC 8.71 37 ePc
ANCC 9.10 31 eP
eS

18 05.50
IS 23 . 32
18 27.53
18 30.34
20 13.70

+ 4.0km
phases)
3 obs .)
(109)

1 . 1
- 1 .9
- 1 . 8
- 4. 0X

HOOC
PIMP k, L M U
HOBC
BOG

UPA

2
BMG
ARE
SDV
20BO

2

LPB

2

CNCB
TOV
CCH
CAR
ANT
S IV
TPP
TRN
TPR
BOT
MDZ
PPD
BAO
HBF
SGS
VAO
PRM
JSC

LHS
TKL
GBTN
SOB1

OLY
BLA

LST
NAV
ELC
MEO
CVL
TUL

2

NA2
CBN
FVM

ACO
CA I
ALO

ANMO

TBR
GLA

p I? i L nL>

BNH
PLM
M IM

PEC
RVR
MSU

SSK

9.18
9 57
10.19
11.63

13.39
1.3s
20s
14.15
15.56
17.06
17.72
1.1s
1 8s

17.91
1 . 9s
18s

18.17
18.28
19.89
20.73
22 . 04
23 . 20
24 . 75
24 . 98
25 . 79
25 . 83
30 . 77
34.16
34 . 83
37 . 09
37 . 35
38 . 20
38 . 23
38 . 42

38 . 63
39 . 85
39 . 88
40 . 63

40 . 72
41.36
0.8s
41.37
41.46
42 . 03
42.10
42.21
42 . 22
1.0s
20s

42.41
42.51
42 . 92
9. 8s
44 . 02
44 . 25
45 . 57
0. 9s

45 . 58
0 . 9s

45.76
48 . 76

49 . 00
1 . 5s
49 . 58
50 . 23
50 .62

50 . 77
50 .97
51.22

51.31

32 ePc
31 eP
32 eP
40 eP
eS
9 i Pd
1 00 . 00nm
2 . 23um
37 eP
141 eP
40 eP
1 33 PC
69.61 nm
0 . 59um
S
LR
1 34 P
244 . 00nm
1 1 . 68um
S
LR
134 PC
40 eP
132 P
45 i P
152 e(P)
121 i PC
54 eP
53 eP
53 eP
53 eP
159 eP
1 24 eP
1 1 1 ePd
2 P
1 P
122 eP
359 P
0 P
pP
1 P
357 P
357 P
99 «P
e
«

348 P
1 eP
1 6 . 78 nm
350 P
1 P
351 P
339 iPd
4 P
343 iPd
35 . 80nm
0 . 48 urn
eS
e
LR
4 P
5 eP
350 ePc
39 . 39nm
340 iPc
95 i Pd
331 eP
22. 27nm
e
331 ePc
23 . 1 1 nm
PP
8 P
322 P
pP
336 ePc
56 . 25nm
1 0 P
321 eP
1 1 P
PP
321 P
321 eP
329 P
PP
321 P
pP

18 32. 14
18 36. 44
18 44.66
19 20.00
21 35 . 00
19 34 . 30
5
4
19 41 50
20 02 .00
20 21.10
20 27 . 40
4
4
24 08 .00
26 54 .00
20 31 . 00
5
4
24 10.90
26 42.00
. 20 34.00
20 35.80
20 55.00
21 02.00
21 17.00
21 27 .00
21 45.35
21 46.21
21 53.63
21 54 . 15
22 38 . 40
23 05.60
23 12.50
23 31 . 70
23 33.20
23 39.90
23 40 . 30
23 42. 40
23 52. 70
23 43. 70
23 54.10
23 54 . 40
24 01 .30
24 08. 40
24 18.60
24 01 . 50
24 06.60
4
24 07.60
24 07 . 40
24 11.80
24 14.00
24 13. 20
24 14.40
5
4
30 51 . 00
34 18.00
38 58 . 00
24 15.70
24 16.00
24 19.00
5
24 30 . 1 0
24 29. 00
24 42.00
5
24 49 . 30
24 42. 00
5
24 49 . 40
24 37 .60
25 07.10
25 13.50
25 08 .90
5
25 11.30
25 20 . 00
25 20 . 40
25 26.30
25 22. 10
25 23. 00
25 25.30
25 32. 30
25 26. 80
25 33.80

- 3.6X
A. *t . GI J yA
- 4 . 8X
1 0 . 7X

1 . 8
. 6mb
. 7Msz
- 1.1
0 . 7
0 . 8
- 1.5
. 7mb
. 1 Ms 2

- 0. 1
. 3mt>
. 7MSZX

- 0.5
0.5
0 .5
- 1 . 0
0.9
- 0.7
2 . 7X
1 . 4
1 . 1
1 . 4
1 .0
- 1 . 5
- 0. 5
0 . 0
- 0. 7
- 1 . 5
- 1 . 0
- 0 . 5
36kmX
- 0.9
- 0 . 7
- 0 . 7
- 0.3
24km

- 0 . 5
- 0 .6
8mb
0 . 3
- 0 .6
- 0 .9
0 . 7
- 0 .9
0 . 2
1mb
4Msz

0 . 0
- 0 . 6
- 0 . 9
2mb
1 . 1
- 2. 1
0 . 4
1mb
24km
0 . 4
1mb
25km
- 5 . 2X
0 . 6
21 km
0 .5
4mb
- 1.3
2 . 1
- 0 . 1
20km
0.2
- 0.3
- 0. 1
23km
0.6
23km

GSC
COB 5 O O
DAU
CLC
ABL
TNP

TM 1
ARN

LRM
ORV
LBFM

SES

NEW

PNT

RUV

YKA

LKO

LIC

T 1C

K 1 C

AVE
PTO
TOL

MBC

S L K M
DCN
DMU
RSO
SPA

LPF

EKA

EPF

NVL

GRR
FLN

LDF
LFF

LPO

RJF

LSF

CAF

TCF

MAF

BGF

AVF

SSF

SMF

LOR

Z
LBF

LRG

51 . 49
51.71
52.22
52 .31
52 .68
53.63
0. 7s

54 . 79
55 . 71

57.01
57.10
58 . 49

60. 16
1 .05
60.93
1 . 0S
62.82
0.9s
65.57
1 . 2s
71 .26
1 . 0s
76.92
1.1s
77. 1 1
1.1s
77 . 16
1.1s
77.41
0 .9s
79.21
80.12
83.22
1 .2s
83. 37
1 . 0s
83 . 46
84.15
84 . 51
84.62
85. 68
1 .0s
86.87
1 .05
86 . 97
1.1s
87 . 02
1.0s
87 . 04

87 . 05
87 . 36
1 .0s
87.57
87 .59
1 .0s
87 . 86
1 .0s
88.18
1.1s
88 . 32
1 .05
88 .52
1 . 1 S
88 .80
1.1s
89.03
1 -0s
89. 27
1 .0s
89.64
0. O y C s
89. 78
1.1s
89.96
0.9s
90.94
1.1s
20s
90.09
1 .0s
91 . 43
1 .0s

323 «P
322 eP
331 P
323 eP
321 P
325 P
7 . 78nm
PP
333 P
322 P
PP
335 ePc
324 P
325 P
PP
339 «Pc
40 . 00nm
334 «Pc
1 9 . 00nm
333 «P
21 . 00nm
255 «P
35 . 00nm
344 eP
4 . 60nm
79 PC
31 . 90nm
83 PC
49 . 00nm
82 P
69 . 50nm
83 PC
50 . 50nm
55 i P
47 eP
49 i PC
78 . 1 3nm
352 «P
22 . 00nm
332 «P
35 eP
35 eP
332 eP
180 i Pd
50 . 90nm
42 iPc
22 . 00nm
34 Pd
2 1 . 50nm
47 «P
5 . 00nm
161 «Pd

«
«

4 1 eP
41 i PC
28 . 00nm
41 i PC
45 i PC
1 4 . 00nm
45 «P
1 6 . 00nm
45 eP
1 4 . 65nm
44 i PC
8 . 00nm
45 iPc
1 2 . 20nm
44 «P
7.35 nm
44 «P
1 2 . 00nm
43 iPc
20 . 00nm
43 i PC
4 . 90nm
43 «P
9 . 75nm
43 eP
8 . 20nm
43 «P
11 . 00nm
0 . 25um
43 «P
5 . 90nm
47 «P
1 0 . 90nm

25 28.00 0.6
O £3 C O £ Q y . ft vv ft ft 0.0ft
25 33 . 10 0.0
25 34 . 00 0.4
25 36. 10 -0.5
25 43.20 -0.3
4 . 8mb
25 50.70 25km
25 44.80 -7.2X
25 58.20 -0.3
26 05.50 24km
26 07 . 30 -0.7
26 08 .60 0.2
26 16.80 -1.5
26 24.20 24km
26 29. W0 -0.5
5 . 5mb
26 33 . 80 -1.0
5 . 2mb
26 48. 00 0.6
5 . 3mb
27 12. 00 6.2X
5 . 4mb
27 38.50 -2.0
4 . 5mb
28 14.34 0.1
5 . 3mb
28 15.34 0.1
5 . 5mb
28 15 . 58 0.0
5 . 6mb
28 17 . 08 0.2
5 . 5mb
28 28. 00 1.6
28 30 . 20 -0.9
28 48. 80 1.4
5 . 7mb
28 47 .50 0.1
5 . 3mb
28 48.00 -0.2
28 52. 20 0.4
28 54. 00 0.4
28 53.70 -0.6
29 00.00 0.6
5 . 7mb
29 05.90 0.5
5 . 3mb
29 06.30 0.6
5.3mb
29 06.90 0.6
4 . 7mb
29 95.00 -0.8
29 26.00 77kmX
39 44 . 00
29 06 .80 0.5
29 08 .60 0.9
5 . 5mb
29 99. 40 0.7
29 99. 30 0.4
5. 2mb
29 10.50 0.2
5.3mb
29 1 1 .80 0.0
5 . 2mb
29 12.40 -0.1
5 . 0mb
29 13.60 0.1
5 . 1mb
29 14.60 -0.2
4 . 9mb
29 16.20 0.3
5 . 2mb
29 17 . 30 0.4
5 . 4mb
29 18 . 70 0.0
4 . 8mb
29 19.10 -0.2
5 . 0mb
29 20.20 0.0
5 . 0mb
29 20.30 -0.3
5 . 0mb
4 . 6Msz
29 20.80 0.0
4 . 7mb
29 27.60 0.6
5 . 1mb

30d 00h

2 2
LMR 91
1 .
FRF 91
1 .
WLF 91
LPL 91
1 .
LPG 91
1 .
BSF 92
SBF 92
1 .
CDF 92
MOX 95
C L L 95
1 .
BRG 96
1 .

WRA 137
1 .
DUE 140
SSE 145
1 .

LZH 148
2

ND 1 148
GKN 153
K K N 153
OMN 153
GUN 153
GBA 157
1 .
S.D.

Is . 0 . 30um
. 53 47 eP 29 27.
0s 8 . 00nm
. 65 47 eP 29 28.
0s 1 4 . 00 nm
. 79 41 P 2930.
. 86 45 eP 29 30.
Is 8 . 55nm
. 87 45 i PC 29 30
Is 8 . 55nm
. 07 42 *P 29 30.
. 24 46 *P 2931.
6s 12. 00nm
. 43 42 rP 29 32.
. 34 4 O <: P 2946.
. 21 39 *P 2949.

I

s 8 . 00nm
82 39 eP 29 53.
s 11. 00nm
C 30 00.

. 27 234 PKP 35 44 . 3s 5.7 0nm
. 69 46 ePKP 35 56.
. 86 324 PKPc 36 00.
3s 4 1 . 00nm
pP 36 12.
*sP 36 22.
. 03 352 ePKP 36 08.
0s 53 . 00nm
pP 3617.
sP 36 22.
. 49 38 ePKP 36 05.
. 05 28 PKP 36 10.
. 52 27 PKP 36 17.
. 60 27 PKP 36 17.
. 68 26 PKP 36 19.
. 31 65 PKP 36 30.
Is 5 . 80nm

4. 7Msz
90 0.4
5.1mb
30 0.3
5 . 3mb
00 1.5
30 1.1
5.1mb
40 1.0
5 . 1mb
20 0.2
00 0.2
5 . 3mb
10 0.5
00 1.1
00 0.2
5 . 1mb
20 1.7
5.3mb
40 22km
00 -1.6

30 4. 5X
00 -0.4

50
00
00 4 .0X

50
50
00 0.3
62 -1.1
74 5.2X
56 4 .9X
74 6 .8X
00 12. 5X

- 0.9 on 1 1 7 o f 1 32 obs .

? AUG 30 . 1991 00h 47m 42.
42.614
DEPTH
PYRENEES

ENSF 0
EPF 0

SALF 0
LSPF 1
VDCF 1
LPO 2

LFF 2

CAF 2

RJF 2

BGF 4

S.D.

N ±98 .9km 0.319
« 1 0 . 0km (geophy s i

. 19 4 P 4745.
. 42 2 Pn 4749.
Sn 47 56.
. 66 77 P 47 54.
. 21 74 P 4804.
. 51 90 P 4811.
. 16 1 7 Pn 4B 20 .
Sn 48 50.
. 34 7 Pn 48 23.
Sn 48 58.
. 63 28 Pn 48 26.
Sn 4901.
. 82 1 7 Pn 48 29 .
Sn 49 06.
. 34 24 Pn 4850.
Sn 4944.

66±1 6.76s
E ±89. 4km
cist)
(378)

61 -1.4
80 -1.4
80
27 -1.6
89 -0.4
96 2.2X
50 1 .3X
40
40 1 . 6X
00
80 0.8
20
20 0-5
00
40 0.3
00
=1.2 on 7 of 10obs.

? AUG 30, 1991 01h 15m 43.
44 . 335
DEPTH
NORTHERN
ML

STV 0

ENR 9

PZZ 9

ROB (i

S.D

* AUG :i
5 .96:(
DEPTH
4.9mt>; .

N ± 9 . 4km 7 . 384
= 10.0 km (geophy s i
I TALY

1 .5 (GEN) .

. 1 0 205 P 1 5 46 .
S 15 47 .
. 1 1 1 66 P 1546.
S 1548.
. 26 3 1 0 P 1 5 48 .
S 15 53.
. 35 96 P 15 50 .
S 15 55 .
- 0.1 on 4 O f

0 . 1991 0 1 h 1 6m 34 .
S ±10. 5km 151.115
- 33.0km (normol)
(3 obs .)
NEW BR 1 TA 1 N REG 1 ON

RAB 2
0.

. 05 31 iPc 1708.
5s 1 352 . 1 1 nm

19± 0 94s
E ± 8 . 0km
cist)
(545)

05 0.1
87
09 -0.1
00
83 0.0
53
48 0.0
88
4 obs

67± 0.77s
E ±15. 0km

(192)

20 0.7

Ol S
GUA

RMO

WR2

D2M
ASPA

iS 1733
18.31 217 i PC 20 48
20 . 33 342 eP 21 10
0.9s 1 34 . 45nm
20. 54 186 eP 21 23
1.0S 49 . 00nm
21-41 228 iPd 2121
0.6s 1 7 . 90nm
21.82 139 iPc 21 25
24.17 222 iPd 2150
0.7s 24.00nm
S.D. =1.1 on 6 of

AUG 30 . 1991 01 h 29m 27
3.351 S ± 4.31-m 134.441
DEPTH = 33.0km (normal)
5.
WEST

AA 1
MTN

KNA

DAV
WRA
WR2

RAB
OIS

TSM
GUA

ASPA

CTAO

KKM

OCP
MBL

WARB

BAG

OLP

HNR
NANU
FORR
STK

BRS

CMS
COOL
COO
BAL
MUN
NWAO

BFD

SNG
TOO

DZM
SSE

NST
KHT

4mb (23 obs .) 4 . 3Msz
1 R 1 AN REG 1 ON

6.24 267 ePc 30 59
9 . 99 1 99 eP 3150
0 . 4s 356 . 00nm
*S 33 39
13.53 204 *P 3236
0.4s 95 . 09nm
*S 35 03
13.63 320 eP 32 42
16 . 49 180 P 3312
16.50 180 i Pd 33 13
0.7s 36.70 nm
i 3320
iS 3609
17.71 93 eP 33 28
1 7 . 83 164 *P 3330
0.6s 75 . 09nm
*S 36 40
18.21 295 *P 33 40
19.74 32 eP 3353

. 00
. 00
. 20
5
. 20

. 40
4
. 60
. 40
4

0.0
- 0.8
. 3mb
1 0 . 1 X

- 0 .6
. 7mb
- 0 .6
1 . 2
. 8mb
7 obs

. 82±
E ±

< 5

j00
. 00
7
s 00
\ 20
6
00

4 00

< 90
20
4
90
80
00
10
5
00
50
00
0.7s 1 04 . 1 1 nm 5
20.20181 i Pd 34 02 na
0 7s 558 . 1 0nm
iS 3740
20-24 146 iPc 34 01
i 34 07
eS 3711
* 37 48
20-45 297 ePc 34 06
1.1s 1 67 . 90nm
22 . 24 324 *P 3418
22 . 70 218 *P 3428
0.6s 23 . 00nm
23 .90 198 eP 34 40
0.3s 1 5 . 00nm
23.94 325 *P 34 40
*S 39 03
24.93 159 *P 34 50
e 42 40
26.05 105 eP 35 02
26.47 222 *P 35 04
28.00 192 *P 35 16
29 . 17 167 eP 35 27
0.9s 7 . 60nm
*S 40 59
29.64 146 iPc 35 32
i (P P) 36 21
*(S) 40 30
29.97 160 cP 35 36
30.13 203 *P 35 37
31 . 71 151 eP 35 52
31 . 87 21 0 eP 3553
33.24 209 *P 36 04
33. 55 207 *P 36 09
Z 20s 0 . 60um
34 . 48 169 i Pd 3615
0.9s 62 . 00nm
35.34 287 eP 36 24
35.53 165 eP 36 22
e 37 27
36.20 124 iPc 36 29
36 . 51 341 Pd 3631
1.5s 7 3 . 00nm
Z 20s 0. 0um
PP 37 58
eS 42 26
SS 45 04
38 .85 300 eP 36 52
39.82 298 eP 37 01

« V

6
70
50
00
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4
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o Q O V

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80
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20
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80
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5
30
00

00

10
50
5
4
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00
00
50
00

0. 23s
5.5km

obs .)
(196)

- 1 . 1
- 2.2
. 0mb X

- 3 . 7X
0mb X

0. 7
- 5.5X
- 5.3X
6m b

- 5. 7X
- 5. 0X
0mb

0.6
- 5 . 0X
2mb
- 0 . 8
0mb X

- 1 . 7

0.6
3mb
- 5.5X
0.5
8mb
0 .8
0mb
- 0.3

0. 4

1 . 9
0. 0
- 1 .3
- 0.9
4mb

- 0 . 7

0.5
0.2
1 . 1
0. 7
0. 7
2. 2
3Msz
0. 7
5mb
1 . 8
- 1 . 9

- 0. 7
- 0 . 6
4mb
4Msz

0.5

MAT

BDT
CHG

KM I

BJ I

LZH

SHL
GUN
PK I

KKN
DMN

GKN
KOD
HYB

GBA

I RK
YAK
OUE
MA 10
MAW
S V W

TTA

RSO
SLKM
1 MA

PMR

1 R4
SPA

1 R 1
IR7
FBA

TOA
BALM
MBC

RSSD
ALO
ANMO
LPG

LPL

TUL

T 1C
LKO
NNA

UPA

ARE
CNCB
LPB

ZOBO

CCH
S IV

0.9 |

39.84
Z 20s
40. 52
41.30
1 . 2s
41.80
2. 0S
Z 22s
46. 32
1.5s
Z 18s

48.55
1 . 6s
Z 24s
E 16s

50.26
56.11
56 . 34
0 . 9s
56 . 53
56.60
1 .0S
57.14
58. 31
58.85

59 . 00
1.4s
61 . 00
65. 29
72. 43
79.91
79 . 95
83.36
1 . 0s
83 . 80
1 .2s
84.50
85. 72
85. 78
1 . 4s
86. 50
1 .5s
86 . 64
86.67
1.2s
86. 83
86. 93
87 .84
1.2s
87 . 98
89 . 62
97 . 07
0.5s
1 1 4. 60
1 15. 59
1 15.59
118.07
0 . 5S
118.07
0.5s
123.53
0.6s
139.49
139 . 84
1 45 . 37
1 .2s
145. 78
1.1s
147 . 68
150.14
150.23
1 . 0s

150. 37
1 .8s

151 .07
155 . 41

S.D. - 1

5 (P)
0 . 7 1 um
301 eP
304 ePd
48 . 83nm
314 PC
1 56 . 00nm
0 . 50um
34 1 *P
70 . Pi0nm
0 . 30um
eS
327 eP
1 54 . fl0nm
Ci . 52um
1 . :' -i um
PP
SP
PcP
PP
eS
307 i P
307 P
306 P
34 . 0@nm
307 P
306 P
86 . 00nm
306 P
284 *P
293 eP
*

288 Pd
70 . 40nm
339 eP
358 eP
303 eP
308 iPd
202 P
27 eP
36 . 00nm
26 eP
37 . 00nm
28 P
29 P
23 eP
54 . 20nm
28 *Pd
90 . 70nm
305 *Pd
180 i PC
26 . 06nm
306 *Pd
306 *Pd
25 *Pc
34 . 40nm
28 *P
29 P
13 «P
6 . 00nm
42 PKP
53 ePKP

C.T. p i/ p

J J r T\ r

321 ePKP
1 . 80nm
321 *PKP
2 . 20nm
48 ePKP
1 . 90nm
276 PKP
281 PKP
117 i PKPc
37.50nm
79 iPKPc
53 - 16nm
128 iPKPc
133 PKP
132 ePKP
1 00 . 00nm
i
132 PKP
202.02nm
eLR
136 PKP
142 PKP
i
. 1 on 74

37 02.00
4
37 05.20
37 12.00
5
37 17 .50
5
4
37 51 . 00
5
4
44 42 00
38 10.00
5
4

38 37.00
38 45.50
39 37.50
40 03.00
45 00.00
38 22.50
39 05 . 46
39 07.02
5
39 09 . 04
39 09.76
5
39 13. 32
39 22.70
39 23.60
39 26.00
39 26 . 30
5
39 40.00
40 06.00
40 53.90
41 36.10
41 36.40
41 54 30

5
41 55.40
5
41 57 .50
42 03.70
42 05.60
5
42 07.80
5
42 10.80
42 09.90
5
42 1 1 . 80
42 12-20
42 14.30
5
42 16.90
42 23.60
42 56 . 00
5
48 05.00
48 09.00
48 09.50
48 13.40

48 13. 40

48 24.10

48 50.20
48 56 . 66
49 05.50

49 07 . 90

49 1 3.50
49 15. 70
49 12. 00

49 20 . 00
49 15.20

40 36.00
49 22.50
49 19.50
49 45.80

2.6
. 5Msz
- 0.6
- 0 . 2
. 1mb
1 . 0
. 4mb
. 3MS2
- 1.4
. 4mb
. 3Ms 2

- f) . 1
. 8mb
. A MS7 X

1 1 5kmx

- 1 .0
- 1 . 6
- 1.7
. 4mb
- 0 . 9
- 0 . 7
7mb
- 0 . 9
0.0
- 2 . 5X

- 0 . 8
. 6mb
- 0. 3
- 2. 3
0 . 4
0 . 7
1 . 6
1 . 5
. 4mb
0 . 3
. 4mb
- 1 . 3
- 1 . 0
0.6
. 6mb
- 0 . 6
. 8mb
0.9
0- 5
. 3mb
1 . 0
0. 9
- 0. 5
. 5mb
1 . 3
0. 1
- 1 . 3
4mb
- 1 . 9
- 0 . 1
0 . 4
- 0.2

- 0. 1

0. 2

- 4 . 7X
1 . 2
0. 4

2. 1

4 . 4X
2 . 4 X
- 1 - 2

1 . 5

8. 2X
- 0.6

of 86 obs .

289

7. AUG 30. 1991 02h 07m 22.93± 1 39s
4.102 N ± 8.1km 76.050 W ±16. 8km
DEPTH = 33 6km (normol)
COLOMB 1 A (103)

HOBC 0.27 341 , Pd 07 30.34 -0.1
eS 07 38.20
BUGC 0.29 225 i Pd 07 30.48 -0.3
eS 07 38 . 40
CLMC 0.56 247 iPd 07 34.97 0.5
eS 67 46.40
HOOC 0.86 223 i Pd 07 38.29 -0.6
ANCC 1 Oe 234 «P 0740. 87 0.1

SILC 1.43 19^ *P 07 46.58 -f).6
PURC 1.86 190 eP 07 53.47 0.9
S.D. = 0.7 on 7 of 7 obs.

AUG 30, 1991 02h 36m 16.73± 0.60s
40.127 N ± 8.0km 20.834 E ± 5.5km
DEPTH = 33.0km (normol)
GREECE-ALBANIA BORDER REGION (392)
MD 3 . 2 (ATM) . 2.9 (THE) .

1 GT 0 . ? 1 213 -- P 36 31 . 00 0.7
KZN 0.74 76 TP 36 29.70 -1.1
eS 3643.10
FNA 0 78 5J eP 3632.40 1.1
«S 36 49.60
KEK 090 243 * P 3629.00 - 4 . 0 X
eS 36 49.00

OUR PI 98 358 i Pg 36 34.20 -0.1
i Sq 36 52 . 00
Lg 36 56.20
LIT 1.27 9 1 *P 36 39 . 60 1.3
tS, 3701.70
AGG 1.60 133 t-P 36 43.40 0.3
<rS 37 08 . 30
VAY 1.78 47 * Pr. 3646.70 1.1
SKO 1.90 14 iPn 36 50.50 3. IX
SOH 2.04 69 -rP 36 48.70 -0.8
PAIG 2.19 94 ePd 36 51.02 -0.5
eS 37 22.86
LCI 2.21 276 P 36 52.50 0.7
eSn 37 17.90
OUR 2.42 84 eP 36 53.70 -1.1
SCO 4 . 24 278 P 3719.10 -16
S.D. 1.1 on 12 of 14 obs.

AUG 30. 1991 03h 19m 00.82± 0.82s
51.548 N ± 6.2km 6.747 E ±12. 2km
DEPTH = 10.0km (g* o phy s i C i S t)
GERMANY (543)

WTS 0.45 5 ePg 19 10.00 0.0
0.5s 32 . 00nm
ENN 0.94 214 ePg 19 19.00 0.3
0.4s 1 6 . 00nm
<rSg 19 33 00
MEM 1.05 207 iPd 19 20.71 0.1
i S 1936.37
ABH 1.74 163 ePn 19 31.84 0.5
RUP 1.86 174 *Pn 19 32.31 -0 7
SNF 1.87 237 iPd 19 32.85 -0.2
WLF 1.92 192 IP 19 37.00 3. IX
DOU 1.99 224 IP 19 38.90 4.0X
S.D. =0.6 on 6 of Sobs.

? AUG 30, 1991 04h 03m 48.83± 3.44s
13.480 N ±21. 8km 9 3 . 3 2 O E ±38. 7km
DEPTH = 33.0km (normol)
4 . 7mb (1 obs .)
ANDAMAN ISLANDS REGION (703)

KHT 5.28 75 iPn 05 06.80 -0.7
ePg 05 12.00
e S g 05 38.50
KBR 6.06 8 4 * P Ci 6 1 8 a 0 59. 4 v
NNT 6.31 97 ePg 05 48.50 26. 4X
eSg 06 38.80
BDT 6.64 55 ePn 05 26.00 -0.6

ePg 05 37.00
eSg 06 17.00
NST 6.95 71 ePn 05 32.00 1.0
ePg 05 44.00
eSg 06 29.20
CHG 7.57 45 eP 05 40.00 0.3

eSg 07 02.50
LOE 9.00 63 eP 06 31.00 31. 4X
WR2 52.29 129 eP 12 59.70 0.0
0.7s 6.90nm 4.7mb
ANMO 128.31 21 ePKP 23 07.60 13. 2X
1.5s 26 . 39nm
ALO 128.32 21 ePKP 23 07.00 12 6X
1.1s 9 . 49nm
S.D. =1.0 on 5 of 11 obs.

* AUG 30, 1991 04h 38m 30.444 1.20s
37.903 N ±10. 2 km 21.025 E ± 8.0km
DEPTH = 10.0km (geophy 3 i c i s t)
SOUTHERN GREECE (368)
ML 3. 4 (ATH) .

VLS 0.44 309 ePn 38 39.50 0.1
eSn 38 47 . 50
VLI 1.93 127 ePn 39 03.00 -0.6
KEK 2.05 332 ePn 39 05.00 -0.3
ATH 2.13 87 ePn 39 08 . 00 1.5
KZN 2.47 13 ePn 39 13.50 2.1
LIT 2.47 27 eP 3911.20 -0.2
FNA 2.89 5 eP 3917.30 -0.1
PAIG 2.89 45 eP 39 26.22 8.8X
THE 3.11 28 eP 39 59.60 39. 2X
OUR 3.34 43 eP 39 22.70 -1.1
SOH 3.43 31 eP 39 24.70 -0.3
KNT 3.56 23 eP 39 26.50 -0.4
SRS 3.77 31 eP 39 29 . 20 -0.7
S.D. =1.1 on 11 of 13 obs.

% AUG 30. 1991 06h 45m 29.25+ 0.90s
60.369 N ± 7.3km 5.275 E ± 1 0 . 7 km
DEPTH = 10.0km (geophys i c i s t)
SOUTHERN NORWAY (535)
MD 1 . 2 (BER) .

BER 0.03 64 i PC 45 30 . 71 -0.5
EGD 0. 1 0 194 i P 45 32 . 01 0.1
eS 45 33.93
ASK 0.12 341 eP 45 31.97 -0.3
SUE 0.74 340 «P 45 43.60 -0.1
HYA 0.92 29 i P 4547.17 0.4
eS 4600.31
S.D. =0.5 on 5 of Sobs.

AUG 30. 1991 07h 13m 32.15± 0.62s
39.919 N ± 5.9km 20.754 E ± 5.1km
DEPTH «= 10.0km (geophys i c i st)
3 . 6mb (1 obs .)
GREECE-ALBANIA BORDER REGION (392)
ML 3.8 (ATH). MD 3.6 (THE).

KEK 0.76 255 ePn 13 45.00 -2.1
' KZN 0.87 63 ePn 13 44.00 -4.9X
FNA 0.99 29 eP 13 49.80 -1.1

OHR 1.19 2iPg 1351.90 -2.5
i Sg 1408.90
LIT 1 . 35 82 i Pd 1356.86 -0.1
eS 14 1 7 . 60
AGG 1.51 126 iPc 14 80.02 0.7
eS 1421.90
GRG 1.63 50 eP 14 00.80 -0.2
VLS 1.74 184 ePb 14 85.70 3. IX
eSn 14 29.50
THE 1.84 66 eP 14 84.10 0.2
VAY 1.97 44 iPn 13 03-70 -62. 2X
KNT 2.05 52 eP 14 07 . 00 -0.1
SKO 2.12 14 iPn 13 51.08 -16. 9X
SOH 2.18 65 eP 14 09.00 0.0
PA I G 2.25 89 eP 1410.10 0.1
eS 14 40 .00
ULC 2.34 331 ePn 14 13.00 1.7
eSn 1447.50
SRS 2. 47 60 eP 1412.60 -0.5
OUR 2.51 79 eP 1413.60 0.0
PVY 2.74 348 ePn 14 17.50 0.5
eSn 14 54.00
TTG 2.75 336 ePn 14 18.00 0.9
eSn 14 56.00
BDV 2.77 329 ePn 14 18.00 0.6
eSn 14 56.00
ATH 3.02 129 ePb 14 26.00 5.2X
IVA 3.02 348 ePn 14 22.00 1.1
eSn 15 02.00

eSn 15 06.00
PLE 3.56 344 ePn 14 29.00 0.4
eSn 15 11.00
VLI 3.63 151 ePn 14 30.00 0.5
MLR 6.75 33 eP 1 5 15 .00 1 .2X
VR 1 7.39 34 eP 15 15.00 -7.6X
NB2 21.95 348 P 18 23.30 -4.2X
0.8s 1 . 90nm 3 . 6mb
S . D . - 1 . 1 on 1 9 o f 28 obs .

AUG 30, 1991 07h 20m 26.23± 2.37s
31.587 S ±28. 7km 69.534 W ±15. 8km
DEPTH = 1 2 . 5 ± 9 . 0 km
SAN JUAN PROVINCE. ARGENTINA (137)

ZON 0.73 87 iPd 20 39.00 -1.4
eS 28 52.00
RTLL 0.95 75 i PC 20 44.50 0.5
JACH 1.41 219 iP 20 52. 10 0.3
i S 21 13.00
MDZ 1 . 42 156 iP 20 52. 10 0.3
i 21 13.30
PEL 1.83 212 iPd 20 56.80 -0.9
iS 21 21 .00
ROCH 1.86 222 eP 20 57.00 -1.4
iS 21 21 .50
LNV 2.84 213 IP 21 08.00 -4 . 1 X
IS 21 41 .50
S.D. -1-4 on 6 of 7 obs.

AUG 30, 1991 07h 52m 31.73± 0.58s
41.296 N ± 5.7km 22.447 E ± 4.0km
DEPTH - 10.0km (geophy s i c i s t)
YUGOSLAVIA (383)
MD 2.6 (THE) . ML 2.5 (SKO) .

VAY 0.10 75 i Pg 52 34.70 0.3
iSg 52 36.60
GRG 0.34 186 iPc 52 37.98 -0.8
IS 5243.61
KNT 0.37 111 ePc 52 39.16 -0.1
eS 52 44.32
THE 0.77 149 eP 52 46.30 -0.4
iS 52 56. 41
SOH 0.83 124 iPc 52 47.20 -0.7
SRS 0.88 101 ePc 52 48.72 0.0
eS 53 00.72
FNA 0.96 238 ePd 52 50.00 0.0
eS 53 03.00
SKO 1.01 312 ePg 52 50.00 -0.9
iSg 52 52.00
LIT 1.19 178 ePd 52 53.40 -0.6
OHR 1.26 262 ePg 52 56.00 0.9
eSg 53 11.70
OUR 1.51 129 eP 52 59 .20 0.4
PAIG 1.66 145 ePd 53 01.92 1.0
eS 53 23. 16
AGG 2. 27 182 eP 53 10.90 1.0
S.D. =0.7 on 13 of 13 obs.

? AUG 30, 1991 09h 01m 30.09± 0.95s
39.112 N ± 8.1km 27.600 E ± 9.6km
DEPTH - 10.0km (geophy s i c i s t)
TURKEY (366)

IZM 0.76 200 ePg 81 44.90 -0.1
eSg 81 56.40
DST 0.94 58 iPn 01 48.20 0.2
EZN 1.22 306 ePn 81 52.90 0.2
EDC 1.25 9 ePn 81 53.00 -0.3
S.D. = 0.4 on 4 of 4 obs.

AUG 30, 1991 09h 59m 21.25± 0.31s 0.148 S ± 4.7km 124.267 E ± 5.8km
DEPTH - 90.3km (3 depth phoses)
4 . 9mb (1 2 obs .)
MOLUCCA SEA (269)

MNI 1 .68 20 ePc 59 51 . 50 1.7
iS 00 16 .00
AAI 5.27 132 ePd 80 37.60 -1.5
eS 81 36.00
MKS 6.95 223 iPc 81 02.50 0.2
1 . 0s 232 . 90nm 5.7mb
DAV 7.31 10 eP 81 05.90 -1.3
TSM 7.76 305 ePc 81 13.10 -0.4

30d 10h

290

6.5s . 380 . 50nm
KKM 1 0 . 1 2 308 ePd
0.4s 55.76 nm
I PM 23.69 282 ePd
0 . S s 35.90 nm
SNG 24.69 288 eP
ASPA 25.18 159 i Pd
0.4s 1 2 . 4 0 n m

eS
CIS 25.23 144 iPd
0 4s 1 6 . 00nm
epP
WAR 8 25 1. ?9 175 <rP
LOE 28.1-3 309 e f '
N 3 1 23.55 3 * 5 e P
BDT 36.29 3uO eP
FORR 30.75 174 eP
CHG 31 . 28 309 ePd
1.6s 30 . 00nm
e
e

KM I 32.63 322 Pd
1 . fes 40 . 00nm
STK 35.56 154 iPc
0.3s 2 . 9)nm
TSR J 37.14 16 eP
II DJ 37.66 1 8 eP
CH J J 38.53 19 eP
MTMJ 38.65 18 eP
MAT 38.73 18 eP
1.3s 44 . 23nm
K A K J 3968 21 e P
N 1 1 J 39.62 1 9 eP
BJ 1 40 . 67 350 eP
1.2s 22 . 00nm
LZH 40.75 334 eP
1.5s 7 1 . O&nm
pP
sP
VAMJ 40.81 19 P
OFUJ 42.17 20 P
MRRJ 45.00 18 eP
HOOJ 45.67 20 eP
GUN 46.17 310 P
PK I 46 . 36 31 0 P
KKN 46.57 310 P
DMN 46.62 310 P
KUSJ 46.80 21 eP
ASAJ 47.02 18 eP
GKN 47. 17 310 P
HYB 48.25 294 eP
GBA 48.35 288 P
0.5s 2 . 50nm
YAK 62.14 3 iP
BUL 95.26 250 eP
ALO 121.44 48 ePKP
ZOBO 159.61 144 PKP
S I V 163.12 162 ePKP
S . D . = 1 . 0 on 4

6 . 3mb X
01 49.60 3 . 9X
5 . 9mb
04 25.00 -0.8
4 . 8mb
04 54.10 1 8 . 7X
04 40.10 0.1
4 . 7mb
64 57.10 741- mX
09 27 . 50
04 40.80 0.4
4 . 8mb
05 00.70 90km
04 47.00 -0.4
05 08.00 0.2
05 12.00 1.3
05 26.0B -0.2
0529.00 -1.1
0534.70 0.5
5 . 0mb
05 56.00 93km
10 21.00
05 48.00 1.1
5 . 0mb
06 12.40 0.7
4 . 7mb
0624.80 -0.2
0630.60 1.2
06 35 . 30 -1.3
06 37.10 -0.6
06 37.00 -1.3
5 . 2mb
0639.60 -1.5
06 45.90 0.3
06 53.00 -1.2
4 . 9mb
0656.50 1.4
5 . 3mb
07 17.50 88km
07 25.06
0656.20 0.8
07 07.50 1.0
0730.20 0.9
07 35 . 50 0.9
07 38.98 -0.3
07 40.10 -0.7
07 41.42 -0.9
07 41.22 -1.5
07 43 . 30 -0.2
07 45.00 -0.3
07 46.50 -0.5
0755.50 0.2
07 56 .00 0.0
4 . 4mb
09 33.30 -1.5
1237.80 0.9
1808.00 1.6
19 38 . 00 26. 0X
19 17.00 2.1
2 of 45 obs .

AUG 30, 1991 10h 24m 33.57± 1.11s
44.290 N ± 5.9km 8.427 E ± 7.2km
DEPTH - 5.0km (geophysicist)
NORTHERN ITALY (545)
ML 2 . 6 (GEN) .

CK 1 0.17 322 PC 24 37.30 0.2
eSg 24 40.10
PCP 0.27 19 P 24 38.64 -0.3
S 2442.64
ROB 0.40 271 P 24 41.92 0.3
S 2447.66
1 M I 0.54 226 P 2444.59 0.1
S 2450. 95
ENR 0.73 265 P 24 47.82 -0.3
S 2457.74
STV 0.79 267 P 24 49.30 -0.2
S 2500. 48
DO I £.87 285 P 24 50.90 0.0

eSg 24 54 . 60
PZZ 6.97 283 P 24 52.59 -0.1
S 25 04 . 94
BHB 1 .00 304 P 2452.98 0.0
S 2506. 57
RSP 1.20 316 P 24 56.48 0.0
RRL 1.33 299 P 24 58.53 -0.3

ORX 1.38 347 P 25 00.07 0.5
LSD 1 . 48 323 P 2501.10 0.0
S . D . =0.3 on 13 of 13 obs.

AUG 30, 1991 11h 66m 05.36± 1.33s
12.212 N ±16. 5km 142.167 E ±14. 0km DEPTH - 94 . 8 ± 1 4 . 6 km
5 . imb (8 obs .)
SOUTH OF MARIANA ISLANDS (210)

PJG 2.97 62 eP 06 51 . 50 0.2
GUA 2.98 63 eP 06 51,40 -0.2
eS 07 28.20
OIS 32.66 184 iPd 12 36.40 -0.1
0.7s 23 . 00nm 5 . 1mb
WR2 32.87 194 iPc 12 32J10 -0.3
0.4s 77 . 90nm 5 . 9mb
ASPA 36.56 193 iPc 13 03.80 -0.1
0.6s 32 . 30nm 5 . 4mb
WARB 41.04 201 iPd 13 42.10 1.0
STK 43.84 181 iPd 14 03.70 -0.1
0.5s 5 . 60 nm 4. 6mb
FORR 44.90 197 eP 14 12.00 -0.2
COOL 47.37 205 i PC 14 31.40 -0.5
0.3s 2 . 00nm 4 . 4mb
BAL 49.11 209 iPd 14 45.00 -0.3
0.3s 8 . 00nm 5 . 2mb
BFD 49.12 180 iPd 14 46^00 0.8
0.5s 20 . 00nm 5 . 3mb
KLB 49.44 208 eP 14 47.40 -0.4
TOO 49. 62 177 i PC 14 51. 70 2.7
MUN 50.49 209 eP 14 55.40 -0.3
NWAO 50.81 207 eP 14 57,70 -0.5
TCW 60 . B7 153 P 1610.10 0.0
KIW 60.88 152 P 16 10.10 -0.1
MNG 60.95 151 P 16 10.20 -0.5
MRW 61 . 08 152 eP 1611,90 0.4
CAW 61 . 14 152 P 1611.40 -0.6
WDW 61.24 152 P 16 11.70 -0.9
MTW 61.38 152 P 16 12.90 -0.7
TNP 90.75 51 eP 19 00.00 0.5
1.0s 2 . 75nm 4 . 4mb
ZOBO 150.38 101 PKP 25 50,00 6.7X
LPB 150.39 102 ePKP 25 50,00 6.9X
CNCB 150.48 103 PKP 25 51.00 7 . 6X
S.D . - 0.8 on 23 of 26 obs .
*

» AUG 30. 1991 I2h 16m 36.19± 0.87s
42.562 N ± 8.4km 23.927 E ±12. 0km DEPTH = 10.0km (geophysicist)
BULGARIA (359)
MD 2.9 (THE) .

SRS 1.46 190 ePd 17 02.00 -0.7
eS 1724,84
KNT 1.60 209 ePc 17 04.24 -0.3
eS 17 27 .92
VAY 1.60 220 ePn 17 05.30 0.7

SOH 1.79 194 ePd 17 07 ,52 0.1
eS 17 34,00
ALN 2.30 136 ePd 17 15(08 0.4
eS 17 46(12
PAIG 2.64 184 eP 17 19140 -0.1
MLR 3.27 26 eP 17 28 I 50 -0.1
S.D. =0.6 on 7of 7obs.
1

AUG 30. 1991 13h 00m 21I21± 3.15s 5.784 S ± 8.1km 147.349'E ±32. 5km DEPTH - 1 38 . 0 ± 43.8 km
4 . 8mb (4 obs .)
EAST PAPUA NEW GUINEA REGIOlfj (207)

RAB 5.06 72 iPc 01 3e[20 0.1
CTAO 14.26 184 iP 03 38(00 -0.1
OIS 16.50 206 i PC 04 15160 9.6X
0.9s 1 9 . 00nm 4 . 4mb
MTN 17.47 245 eP 04 43^00 25. 1X
WR2 18.91 221 iPc 04 49 r 30 15. 4X
0.9s 12. ienm
i 04 57L60
GUA 19.35 353 eP 04 38.50 0.0
1.0s 160.00nm 5.3mb
PJG 19.40 353 eP 04 39t00 -0.1
RMO 20.63 176 iPd 04 5K20 -0.3
1.1s 95 . 00nm 5 . 1mb
OLP 20.90 188 eP 04 51,00 -3.2X
ASPA 21.99 215 iPc 05 18t00 12. 9X

0.8s 1 7 . 20nm
eS 09 4 1 . 30
STK 26.52 191 iPd 05 48.10 0.4
0.4s 2.70nm 4. 2mb
S.D. =0.4 on 6of 11 obs.

& AUG 30, 1991 13h 08m 37.50s
32 . 850 N 118. 320 W

DEPTH - 6.0km (geophysicist)
OFF COAST OF CALIFORNIA (38)
<PAS-P>. ML 3.2 (PAS).

SCI 0.23 304 iPc 08 42.00 -0.2
CIS 0.56 353 iPd 08 47.90 -0.8
PLM 1.32 67 eP 09 00.58 -2.0
BAR 1.40 97 eP 09 01.80 -1.8
PEC 1.42 43 eP 09 02.20 -1.7
SSK 1.45 21 eP 09 02.50 -2.0
IKP 1.87 96 eP 09 09.50 -1.0
S88 1.88 13 eP 09 09.50 -1.0
GSC 2.75 27 eP 09 22.00 -1.0
9 obs. associated

AUG 30, 1991 13h 20m 56.46± 0.70s
5.465 N ±11. 3km 94.048 E ± 8.1km
DEPTH - 33.0km (normal)
4 . 5mb (7 obs .)
NORTHERN SUMATERA (706)

SNG 6.75 75 eP 22 34.90 -0.9
I PM 7.01 97 ePd 22 39.30 -0.2
e 23 54 .80
CHG 14.10 19 eP 24 17.00 0.9
GBA 18.26 297 Pd 25 10.70 1.6
0.7s 7 . 20nm 3 . 9mb
HYB 19.26 309 eP 25 20.80 -0.5
KMI 21.25 22 eP 25 45.00 2.6
PK 1 23.47 340 P 26 03.90 -0.6
DMN 23.61 340 P 26 05.64 -0.1
GUN 23.63 342 P 26 04.28 -1.8
KKN 23.72 340 P 26 06.20 -0 5
GKN 24.13 339 P 26 10.66 0.0
BJI 39.77 27 eP 28 27.50 -0.4
WR2 47.00 124 iPd 29 27.30 0.6
0.6s 1 1 . 20nm 5 . 0mb
ASPA 48.47 128 iPd 29 38.40 0.1
1.4s 5 . 70nm 4 . 4mb
KAF 74.88 333 iP 32 35.00 -0.5
0.3s 5 . 20nm 5 . 0mb
HFS 80.48 330 eP 33 06.00 -0.4
0.4s 2 . 30nm 4 . 5mb
NB2 81.77 331 P 33 12.60 -0.6
0.7s 1 . 1 0nm 4 . 0mb
EKA 89.64 325 P 33 53.00 0.8
1.3s 6 . 20nm 4 . 7mb
S.D. =1.1 on 18of 18 obs .

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* AUG 30, 1991 14h 04m 15-98± 1.6Bs 20.137 S ±17. 5km 119.777 E ±10. 3km
DEPTH - 10.0km (geophysicist)
4 . 3mb (2 obs .)
WESTERN AUSTRALIA (590)

MBL 1.02 177 iPc 04 35.50 0.2
NANU 4.64 238 eP 05 27.70 0.0
WARB 8.72 135 eP 06 24.40 -0.8
0.2s 2 . 00nm 5 . 1mb X
eS 07 55.00
FORR 13.04 147 eP 07 20.00 -3 . 9X
eS 09 34.00
ASPA 13.57 108 eP 07 32.10 1.0
1.2s 4 . 90nm 4 . 3mb
eS 09 55.20
WR2 13.71 92 eP 07 32.50 -0.4
0.3s 1 . 40nm 4 . 3mb
eS 09 59.40
S.D. -1.0 on 5of 6obs.

* AUG 30, 1991 14h 32m 12.82± 0.83s
34.449 N ±13. 5km 97.309 E ± 9.6km
DEPTH - 33.0km (normal)
4 . 3mb (1 obs .)
QINGHAI PROVINCE, CHINA (325)

LZH 5.59 71 ePn 33 35.50 -0.5

Pg 33 52.00
Sn 34 37.50

291

30d 14h

GUN
KKN
PK 1
DMN
GKN
CHG
NB2

S

? AUG
32 .

11.75
12.25
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12.48
12.60
15.64
58.72
0.8s
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sg
239 P
240 P
239 P
240 P
243 P

174 «rP

325 P
2 . 30nm
1.0 on

1991 15h
± 1 6 . 8km 1

DEPTH = 373 . 0 ± 15 . 4 5nr,b (

SOUTH

HBZ
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WCZ
URZ

WLZ

TAZ
NOZ
UTU
PATZ
MOH
MOZ
NGZ
CNZ
RUZ
WAHZ
PGZ

MNG

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MRW

MOW
WEL
TCW
THZ

LTZ

MOZ

EWZ
ODZ
OZM
COO
RMO

CTAO
STK

ASPA

WR2

WRA

FORR
WARB
SPA

OBN

KAF

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HFS

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4 . 3mb
obs .

. 1 7± 2.01s
E

OF KERMADEC ISLANDS

5. 66
5.68
5. 84
6.54

6.66

6. 68
6 . 69
6. 73
6.89
7.36
7 .55
7. 83
7 . 87
7 . 88
8. 69
8. 98

9.19

9. 58
9 .98

9. 99

10.01
10.10

1 1 . 08

12. 20

12.87

13.37
14.74
15.32
23.68
27. 40
0. 7s

32 . 08
32. 12
0.7s
40.99
0.6s

42 . 1 1
0.3s
42. 13
0.4s
43 .59
46. 24
58. 14
0.5s
145.25
0.9s
145.34
0. 4s
147.07
1 49.65
149.70
149. 77
150. 36
0.5s
153. 97
154. 15
. D. -

190 P
213 P
227 P
197 eP
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208 P
eS
20 1 eP

1 90 «rP

203 P
202 eP
195 eP
210 eP
203 eP
204 eP
205 eP
198 <=P
196 P
S
200 P
S
202 eP
202 P
eS
1 99 P
20 1 P
203 P
207 P
eS
206 eP
eS
203 eP
S
209 P
206 eP
307 i PC
266 eP
274 eP
1 0 . 00nm
e

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e

284 iPd
260 iPc
5.60 ntn
270 i PC
1 1 . 20nm
eScP
IS
275 i P c
39 . 40nm
275 P
20 . 40nm
257 eP
263 eP
1 80 eP
6 . 9 4 ntn
323 i P K P d

338 ePKP
62.50 nrr
337 i P K' P
279 i PKPd
275 ePKP
280 ePKP
346 ePKP
20 . 30nm
170 PKP
170 PKP
1.3 on 3

39 35
39 41
39 43
39 44
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39 50
39 46
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39 56
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47

± 1 9 . 4km

(179)

0.8
6.5X
6 .8X
0 . 4

5 .0X

4 4X
0 . 3
6 .3X
4 . 7X
2.5
4 . 2X
1 . 3
2 . 1
3.2X
- 1.1
- 0. 7

- 2 . 3

- 0.5
- 1.8

- 1.2
1 . 6
- 1 .5
- 0 . 2

- 1 .2

- 1.1

0.0

1 .5
- 0.5
3 .6X
12. 3X

0. 7
2 .5
4 . 0mb
- 0. 1
4 . 3mb

- 0.6
5 . 2mb
- 1.0
4 . 8mb
0.5
- 0. 4
1 . 4
4 . 3mb
- 2 .5X

- 3. IX

- 0. 1
3 .9X
4 . 1 X
4.5X
2 . 1 X

- 0.5
- 0.6
obs .

& AUG 30, 1991 15h
62.433 N
DEPTH «= 1 2 . 2km
CENTRAL ALASKA
<AE 1 C> . ML 2.5

SML 0.63 175 i P
GHO 0.70 199 eP
HUR 0.77 315 eP
IS
CUT 0 . 85 269 IP
eS
PLRM 0.90 201 eP
RND 0.99 349 eP
S
KNK 1 . 02 180 eP
iS
PWA 1.04 221 eP
TOA 1.11 106 i P
eS
PMS 1 . 30 204 eP
MCK 1.32 351 eP
eS
TRF 1.32 321 eP
SDG 1.35 85 eP
SUA 1.46 229 eP
eS
TZL 1 . 47 1 04 eP
PAX 1.48 67 eP
eS
SKT 1.51 254 eP
eS
KLU 1 . 52 127 IP
KTH 1.59 316 eP
S
VZW 1.65 146 eP
VLZ 1.65 141 eP
GL 1 1 . 69 1 57 i P
eS
FID 1 . 93 1 50 eP
eS
CGLM 2.03 238 eP
eS
DJE 2.03 37 eP
NCG 2.04 241 eP
WRH 2.05 4 eP
KN IM 2 . 1 2 1 70 eP
BGL 2.21 240 eP
CKL 2.22 238 eP
CCB 2.24 7 eP
HIM 2 . 25 1 55 eP
CVA 2.29 144 i P
SEW 2.39 192 eP
GLB 2.41 1 1 2 eP
LT 1 2 . 42 1 73 eP
SC-AM 2.49 140 eP
MDM 2.54 2 eP
G LM 2.61 10 e P
RDT 2.66 227 eP
RAGM 2.74 137 eP
REF 2.82 228 eP
RDM 2.83 229 eP
43 obs. associ

AUG 30 , 1991 1 5h
43 . 982 N ± 6 . 3km

38m 07
148.447

(AEIC) .

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39 04 .
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DEPTH = 10.0km (geophysi
NEAR SOUTH COAST OF

ML 2 . 7 (GEN) .

STV 0.30 27 P
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ENR 0.32 40 P
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PZZ 0.52 357 P
S
IM 1 0.55 97 P
S
ROB 0.61 59 P
S
FIN 0.81 73 P
S
BHB 0.86 6 P
S
CDR 1 .04 253 eP
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FRANCE

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e 3 1 £ 3 . 3*3

PCP 1.16 61 P 5712.71 0.6
S 57 27 . 40
S . D . =0.3 on 9of 9 obs.

AUG 30, 1991 16h 01m 29.13± 0.79s
44.876 N ± 7.4km 12.670 E ±10. 0km
DEPTH * 10.0km (geophy s i c i s t)
^40RTHERN ITALY (545)
MD 3.0 (TR 1) .

VVI 1.12351P 0151.00 0.9
eSn 02 04.40

TRI 1.14 42 iPgc 01 50.20 -0.2
i Sg 0212.40
CRE 1 . 35 203 P 01 54 . 50 04
eSn 02 1 0 . 20
CT 1 1.37 329 P 01 53.70 -0.7
eSn 02 10.10
VOY 1.44 36 ePn 01 55.00 -0.4
eSn 02 18.60
CEY 1.51 55 eP 02 07.00 10. 7X

eSg 02 20.50
BDI 1.69 242 P 01 58.60 -0.3
eSn 0220.10
FV 1 1.72 3 P 0159.50 0.3
eSn 02 20.00
LJU 1.76 48 eP 02 05 . 40 5 .6X

i Sg 02 28 . 10
VBY 1.93 70 eP 02 21.10 18. 7X

e(Sn) 02 38.70
WTTA 2.49 344 iPgc 02 19.60 9.0X
e 0249. 00
i 02 52.00
S . D . =0.7 on 7of 11 obs.

AUG 30, 1991 16h 18m 47.17± 1.09s
39.959 N ± 8.0km 23.868 E ± 7.9km
DEPTH = 5.0km (geophy s i c i s t)
AEGEAN SEA (365)
MD 2 . 8 (THE) .

PAIG 0.15 258 iPd 18 50.48 0.3
iS 18 53 . 92
OUR 0.39 13 ePc 18 54.20 -0.7
eS 19 00.24
SOH 0.95 336 ePc 19 04.96 -0.7
eS 19 1 9 . 90
THE 0.96 315 eP 19 05.90 0.0
LIT 1.07 278 iPc 19 07.56 -0.2
eS 19 23. 30
SRS .18 350 ePd 19 09.36 -0.2
KNT . 41 329 iPd 1913.28 -0.3
eS 19 33.60
AGG .51 232 eP 19 14.30 -0.7
VAY .68 324 ePn 19 19.50 2.2
ALN 91 60 ePd 1921.12 0.5
S . D . =1.0 on 10 of 10 obs.

AUG 30. 1991 17h 00m 32.95± 0.69s
39.931 N ± 6.2km 23.907 E ± 4.9km
DEPTH - 10.0km (geophy s i c i s t)
AEGEAN SEA (365)
MD 3 . 0 (THE) .

PAIG 0.17 269 ePc 00 36.84 -0.1
eS 00 40.36
OUR 0.41 8 ePc 00 40.60 -0.7
eS 00 46.48
SOH 0.98 335 ePc 00 51.04 -0.6
THE 1 . 00 314 eP 00 52 . 20 0.2
eS 0107.80
LIT 1.10 279 ePc 00 53.78 0.1
eS 0110.28
SRS 1.21 349 ePc 00 55.04 -0.4
eS 01 13 .00
KNT 1.45 328 ePd 00 59.28 0.1
eS 0119.76
AGG 1.52 234 ePc 00 59.72 -0.5
VAY 1.72 324 iPn 01 04.40 1.3
EZN 1.86 92 ePn 01 04.90 -0.3
ALN 1.90 59 eP 01 06.40 0.8
S . D . =0.7 on 11 of 11 obs .

? AUG 30. 1991 17h 01m 01.13± 5.42s
31.389 S ±29. 1km 69.514 W ±17. 7km
DEPTH - 171.0 ± 52.6 km

390 17h

292

iAN JUAN

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RT LL 0
JACH 1

MDZ 1

PEL ;

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PCH 2

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CHCH 2

LNV 3
S .0

AUG 3
39 . 969
DEPTH
4 . 0mb

rnuviNi^c, Arnjc.ni int\

. 73 103
. 90 86
. 58 215

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. 01 209

. 03 218

. 38 201

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. 71 219
. 7 1 200

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02 17.
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1 of 11 obs .

1 7m 01.
20 . 668
5 km

06±
E ±

6. 34s
2 . 7km

(2 obs .)
GREECE-ALBAN 1 A
ML

BORDER

3.7 (TTG) . MD

REG I ON

4 . 6 (ATH)

(392)
3 .6

(IGT) .

1 GT 0.51211
KEK 0.72 249
KZN 0.91 68
FNA 0
OHR 1

LIT 1

AGG 1

GRG 1
VLS 1

THE 1
VAY 1

KNT J

. 98 33
. 15 5

. 41 84

. 60 126

. 65 53
. 79 182

. 88 69
. 98 46

. 08 54
SKO 2 .09 16

SOH 2.22 67

U L C ft

PA i G 2

. 26 332

. 32 90

SRS 2.51 62
OUR 2.57 81
PVY 2.68 349

TTG 2 .68 337

BDV 2.70 330

BRT 2.80 296
1 VA 2 . 96 349

HCY 2.97 327

ATH 3.10129
NKY 3. 1 1 337

i *% O ft T B A I j.i*: £. y ~j
RO 1 3.18 264
BRY 3

TDS b
CS I b
PLE 5

AC 1 p
CZ 1 3

VL 1 3
MGR 3

. 34 332

. 35 266
. 37 268
. 49 345

. 50 261
. 58 259

. 70 150
. 93 274

i Pd
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3. 5X

2. 1

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- 0 . 5
2.5X

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- 0.2
- 0 . 9

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SCO 4.14

ALN 4.21
ATN 4.44
HVAR 4.51
BEO 4.85
MEU 5.33
SDI 5.48
MNS 6.49
ASS 6.76
ARV 6.77
VBY 6 . 82

CEY 7.37

CRE 7 . 47
LJU 7.55

TRI 7 .66

SF 1 7.67
VOY 7.83

Z3T 8 . 62
CT 1 8.97
SPC 9.22
WTTA 9.80

KHC 16.46

TOL 18 . 95
HFS 20 . 66
0 . 4s
NAO 21.75
0 . 7s
S.D. =

AUG 36,
40.607 N
DEPTH =

3.3mb (

£. ** ** r
280 P
eSn
76 ePc
248 P
317 i Pn
358 ePn
239 P
291 P
294 P
306 P
364 P
326 ePn
eSn
324 ePn

e(Sn)
302 P
326 eP
eSn

321 e(Pn)
i (Sn)
304 P

323 e(Pn)
eSn
344 eP
316 P
358 eP
321 eP
iS
333 eP
e
278 eP
350 eP
3 . 69nm
347 P
4 . 98nm

1 O V J . £ V V . £

1 8 06 . 20 6.0
18 57.20
18 06.54 -6.6
180860 -1.8
18 16.50 -6.8
18 28 .50 12 .2X
1821.26 -2.6
18 24 60 - O 7
18 46
18 42
18 41
18 43
26 OO

. 40 0.9
. 50 -0.8
. 96 -1.5
. 76 -6.3
40
18 00.100 -1 7

20 10.:06

18 52. 16 -1.1
18 48.60 -5.7.X
26 18.60
18 52 . 66 -3 . 7X

18 56.56 6.6
1855.60 -2 . 7X
26 22.46
19 08.60 -6.5
19 10.56 -3.7X
1920.46 2 . 7X
1 9 24.66 -1.6
21 12 40
19 35.60 0.5
26 61 .56
21 37 ,60 1 1 .9X
21 40,26 -3 . 6X
4 . 6n,b
21 52j 30 -2 . 7X
4 . 0mb
1.1 on 56 of 42 obs.
_±
1991 1 7h
± 5.1km
5.6km (g
1 obs .)
GREECE-ALBANIA BORDER
MD 3.4

1 GT 0.52

KEK 0.69
KZN 0.94
FNA 0.97
OHR 1.11

LIT 1.44

AGG 1 . 65

VLS 1.83

VAY 1 . 99
SKO 2 . 06

LCI 2. 06

KNT 2 . 09
SOH 2.25
PAIG 2.36
OUR 2.60
BRT 2.74

VLI 3.76
MGR 3.88
NAO 21.71
0. 7s
S.D. -

____

7, AUG 36,
39.785 N
DEPTH =
TURKEY

GPA 0.51
I Z I 6.81
YLV 1.62
HRT 1.12
DST 1.25
KHL 1 . 56
1.0 S . D . «

(ATH) , 3 .

265 ePd
iS
245 e»n
7 1 ePn
37 ePd
7 i Pg
iSg
86 i PC
eS
126 ePd
eS
181 ePb
eSn
48 ePn
17 i Pn
i
280 P
eSn
56 eP
68 ePc
91 eP
82 ePc
290 P
eSn
150 ePn
274 P
347 P
1 . 00nm

T 23m 06 36+ 0.45s
20 . 61 2 E ± 4 . 3Hn

eophyslclst)

REGION (392)
2 (THE) .

23 16,46 -0.3
23 26,02
23 20>60 -0.2
2323,26 -1.6
23 25L 38 6.1
23 29 t 60 1.3
23 43.86
23 32. 86 -6.4
23 56.54
23 3 6 ° ° r» o

24 62
2346
24 63
23 42
23 43
23 45
23 40
24 13
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23 44
23 46
23 49
23 56
24 40
24 06
24 09
27 57

. e. _. <j . v
. 42
. 50 1.8
. 56
. 56 1.6
. 06 6.9
. 26
. 76 -1.4
. 46
. 76 -6.8
. 42 -6.4
. 26 -6.2
. 26 -6.5
. 30 -1.6
. 60
. 56 0.3
. 30 1.3
. 10 -2 .9X
3 . 3mb
1.1 on 1 8 of |1 9 obs .

1991 17h
± 6 . 6km

- U - -
39m 65.98± 1.31s
36. 237 E ±12. 5km
10.0km (geophy s|i c i S t)

6 iPg
31 3 ePn
320 ePn
337 ePn
262 iPn
201 ePn
0.4 an

39 16
39 22
39 25
39 27
39 29
39 34
6 o f

(366)

. 66 -6.3
. 00 6.3
. 00 -0.4
. 50 6.4
. 10 -0.2
. 00 6.1
6 obs .

AUG 30. 1991 19h 24m 36
36.843 N ± 6.7km 121.656
DEPTH = 5.6km (geophys
CENTRAL CALIFORNIA

MD 2.5 (GM) .

SAO 0.19 115 i Pd 2434
GCC 6.33304iPc 2437
MHC 0.56 1 i Pd 2440
e 24 47
eS 24 48
ARN 6.51 11 iPc 2446
PRS 6 . 56 1 56 i Pd 2442
LLA 6.62111 i PC 2443
eS 24 53
PCC 6.88319 iPc 2446
eS 24 59
PR I 1 . 06 1 31 eP 24 48
e 24 50
BKS 1.13 336 eP 2452
eS 25 07
ZSP 1 . 20 337 eP 24 51
eS 25 16
CMB 1.56 46 eP 25 1 6
FR 1 1.57 84 i Pd 2457
iS 25 17
S.D. = 1.1 on 11 of

? AUG 30, 1991 26h 45m 63
4 . 287 N ±1 2 . 2km 1 26 . 1 74
DEPTH = 153.6 ± 16.2 km

4 . 2mb (3 obs .)
TALAUD ISLANDS

MN 1 3.12 265 ePd 45 53
eS 46 31
MTN 1 7 . 72 1 64 eP 4961
KNA 26. 67 173 eP 4927
WR2 25 . 39 1 62 eP 56 16
0.6s 3 . 66r>m
i 50 18
ASPA 28.79 165 i PC 50 49
0.5s 9 . 60nm
i 51 04
WARB 30.29 179 eP 51 03
BAL 35.86 194 eP 51 49
KLB 36.57 192 eP 51 56
MUN 37.29 194 eP 52 02
NWAO 37.97 192 eP 52 08
STK 38.85 159 i PC 52 16
1.2s 2 . 86nm
YAK 57.66 2 eP 54 39
S.D. =0.8 on 11 of
..

? AUG 36, 1991 22h 36m 23
39.845 N ±96. 0km 24.020
DEPTH = 5.0km (geophys
AEGEAN SEA

PAIG 0.27 287 i PC 36 29
OUR 0.49 357 ePd 36 33
eS 36 39
SRS 1.31 346 ePd 36 48
eS 37 05
KNT 1 . 57 327 ePd 36 51
eS 37 14
S.D. =0.5 on 4of

? AUG 30, 1991 22h 47m 29
3 . 941 N ±22 . 5km 76.986
DEPTH = 33.0km (normal)
COLOMB 1 A

MD 2.4 (UVC) .

CLMC 0.43 98 eP 47 39
ANCC 0.44 164 eP 47 39
eS 47 46
HOOC 0.59 143 eP 47 46
eS 47 48
HOBC 0.94 64 eP 47 45
S.D. =6.7 on 4 of

& AUG 31, 1991 60h 57m 43
40 . 277 N 124. 390
DEPTH = 1 0 . 9km

. 01± 6. 72s
W ± 7 . 5km
i c i s t)
(39)

. 76 6.9
. 25 6.6
. 56 6.5
. 65
. 06
. 56 6.2
. 16 0.9
. 07 6.7
. 01
. 65 -0.6
. 62
. 33 -2.2
. 06
. 30 0,7
. 20
. 78 -1.0
. 58
. 78 18 . 3X
. 87 -0.7
. 94
1 2 obs .

. 59± 1 . 96s
E ±24 . 7km

(263)

. 56 0.3
. 66
. 60 -1.3
. 20 6.2
. 46 -8 . 1 X
4.1mb
. 66
. 30 0.1
4 . 8mb
. 26
. 00 0.5
. 80 -0.5
. 06 -0.3
. 20 -6.1
. 20 0.2
. 60 1.2
3 . 9mb
. 50 -0.2
1 2 obs .

. 60±15 . 99s
E ±70 . 4km
i c i s t)
(365)

. 06 -0.1
. 10 -0.3
. 26
. 66 6.3
. 10
. 94 -0.2
. 10
4 obs .

. 01± 4.96s
W ±44 . 4km

(103)

03 0.3
05 0.3
06
63 -0.5
80
89 -0.1
4 obs .

00s
W

NEAR COAST OF NORTHERN CALIF. (35)

293

<BRK>. ML 3.4 (BRK). MD 2.8
(GM) .

FOX 0.39 51 iPc 5751.13 0.2
i S 5756.60
FHC 0 61 30 i PC 57 55.21 -0.1
i S 58 85 . 01
WIN 2.13 87 *P 58 1 6 . 88 -2.4
L8FM 2.18 60 eP 58 18.50 -1.5
PCC 3.19 150 *Pc 58 32.89 -1.?
5 obs. associated

AUG 31, 1991 01h 18m 22.39± 1.05s 7.456 S ± 8.71-TTi 128.838 E ±12 3km DEPTH = 148.5 ± 13.5 km
4 . 6mb (4 obs .)
BANDA SEA (280)

AA 1 3.80 350 ePc 19 21.10 0 4
MTN 5.81 157 eP 19 46.30 -1.2
KUPT 5.82 242 eP 19 49.00 1.3
eS 20 05.00
KNA 8 . 2 4 1 8 0 e P 2017.00 -3.2X

03s 1 00 . y 0nm 6 0mb X
e S 21 43.00
WR2 13.53 157 iPc 21 26.10 -3.4X
0.4s 56 20nm 5 3mb
IS 2348.60
MBL 16.17 212 eP 22 00.30 -2.3
0.3s 11.00nm 4. 7mb
eS 24 52.00
CMS 16.68 142 eP 22 09.30 0.4
0.2s 4.00nm 4.4rrib
eS 2503.50
NANU 19.74 219 eP 22 43.00 0.2
*S 2616.00
FORR 23.28 182 eP 23 18.70 1.0
SAL 25.68 205 <?P 23 41.00 0.7
KL8 26.15 202 «= P 23 45.00 0.5
«? 24 1 0 . i? 0
STK 27 05 156 iPc 23 53.30 0.5
0.4s 1 . 90nm 4 . 1mb
BDT 38.37 310 eP 25 29.50 -1.3
CHG 39.37 312 eP 25 39.00 -0.2
S . D . = 1.2 on 12 of 14 obs.

AUG 31, 1991 0 1 h 31m 16.21± 0.44s
10.242 S i 8.0 km 75.362 W ± 8.7km DEPTH - 3 3.0 km (normal)
4 . 7mb (3 abs .)
PERU (116)

NNA 2.26 220 i PC 31 57.20 5.1X
iS 3213.50
PT10 2.41 221 iP 31 54.00 -0.2
IS 3218.00
ARE 7.24 149 eP 33 02.00 -0.7
2080 9 .25 131 P 33 31 . 00 0.1
2 24s 0 . C8um
LR 00 04.00
LPB 9.43 132 P 33 34.00 0.6
CNCB 9.70 133 P 33 38.00 0.8
SIV 15.04 114 P 34 48.40 0.2
SDV 19.58 1 4 iPc 35 51 . 90 7 . 1 X
TUL 49.79 338 ePc 40 08.90 1.1
0.8s 10.70nm 4. 9mb
ALO 53.72 328 eP 40 38.00 0.3
0.9s 4.20nm 4. 5mb
SES 67.91 336 ePd 42 14.00 0.2
PNT 70.87 331 eP 42 32.00 0.2
K 1 C 72.23 80 P 4238.80 -1.9
YKA 78.61 343 eP 43 15.10 -0.9
0.7s 5.20nm 4. 7mb
INK 88.33 342 ePd 44 05.00 -0.4
WRA 138.11 224 PKP 50 35.00 -5.6X
0.6s 2 . 1 0nm
BJ I 148.60 343 ePKP 50 58.50 0.6
fl 6s 5.00 nm
S . D . =0.8 on 14 of 17 obs.

% AUG 31, 1991 02h 32m 26.11± 1.99s
36.450 N ±16. 6km 5.475 W ± 9.5km
DEPTH - 5.0km (ge op h y s i c i s t)
STRAIT OF GIBRALTAR (385)
mbLg 3 . 0 (MDD) .

EJIF 0.01 80 ePg 32 26.40 -0.7

eSg 32 29.00
EPRU 0.55 21 ePg 32 37.20 0.1
eSg 32 46.50
EHOR 1.38 7 *Pn 32 52 . 00 0.0
eSn 33 13.00
EVAL 1.52 318 ePn 32 54.10 0.1
eSn 33 13.70
EGUA 1.58 75 *Pn 32 50.00 -4 . 9X
eSn 3311.00
ECOG 1.74 61 ePn 32 57.80 0.5
eSn 33 21.00
AFC 1.74 62 ePn 32 57.50 0.1
eSn 33 21.90
S . D . =0.5 on 6 of 7 obs.

AUG 31, 1991 03h 38m 21.97± 1.08s
32.309 S ± 5.1km 71.964 W ±14. 0km
DEPTH - 33.0km (normal)
4 . 5mb (2 abs .)
NEAR COAST OF CENTRAL CHILE (135)

IHA 0.77 159 iPd 38 36.00 -0.3
i S 38 45. 30
ROCH 1.04 130 iPd 38 39.70 -0.8
iS 38 52 . 10
LCCH 1.21 164 iPc 38 42.70 0.1
JACH 1.22 108 iPd 38 42.30 -0.5
iS 38 56 . 30
PEL 1.36 128 iPd 38 44.80 -0.1
iS 38 59 . 30
SAN 1.58 137 iPd 38 48.40 0.3
iS 39 07 . 30
TACH 1.59 148 iPc 38 48.70 0.5
LNV 1.71 164 iP 38 49.50 -0.3
PCH 1 . 79 1 37 i Pd 3851.20 0.1
iS 3912.90
CHCH 1.96 146 iPd 38 54.50 0.9
iS 39 18. 40
MDZ 2.69 103 iPc 39 08.20 4.3X
i S 39 42 . 80
ZON 2.90 76 eP 39 12.00 5.2X
RTLL 3.13 73 i Pd 3912.40 2.2
CYA 6.58 56 eP 39 59.00 0.1
ANT 8.68 9 eP 40 44.00 15. 8X
eS 42 34.50
i 42 40.80
CNCB 15.85 14 P 42 06.00 1.2
i 4212.00
LPB 16.09 13 P 42 14.00 6.2X
1.0s 60 . 00nm 4 . 7mb
20BO 16.34 1 3 P 42 12 . 00 0.8
0.9s 19.46nm 4. 2mb
2 16s 0 . 29um 5 . 4Msz
LR 47 00.00
SIV 19.02 34 P 42 41.60 -2.3
PPD 21.00 66 eP 43 03.10 -1.9
KIC 74.50 72 P 49 59.20 -0.1
LKO 75.69 69 P 50 06.18 0.0
GBA 146.41 117 PKPd 58 02.00 1.7X
0.6s 1 . 30nm
S . D . =1.1 on 18 of 23 abs.

* AUG 31, 1991 03h 54m 04 . 1 2± 0.71s
37.501 N ±11. 1km 69.350 E ±10. 0km
DEPTH = 33.0km (normal)
4 . 1mb (5 abs .)
AFGHANISTAN-USSR BORDER REGION (717)

DUE 7.56 196 eP 55 55.00 0.0
GKN 15.95 122 P 57 50.66 2.8X
0.4s 15.00nm 4. 5mb
DMN 16.52 122 P 57 55.70 0.5
KKN 16.53 121 P 57 55.72 0.5
0.5s 15 . 00nm 4 . 4mb
PKI 16.75 122 P 57 57.36 -0.8
0.7s 1 8 . 00nm 4 . 3mb
GUN 16.86 120 P 57 59.30 -0.2
HFS 41.46 321 eP 01 49.30 0.2
0.5s 0.60nm 3. 6mb
NAO 42.95 322 P 02 01.00 -0.2
0.6s 0 . 40nm 3 . 3mb
S . D . -0.6 on 7 of Sobs.

AUG 31, 1991 04h 03m 13.43± 0.48s
39.692 N ± 7.8km 77.754 E ±10. 2km
DEPTH - 33.0km (normal)
4 . 7mb (Sabs.)

31d 00h

SOUTHERN XINJIANG, CHINA (321)

NDI 10.99 182 eP 05 50.50 -0.9
eS 07 52.00
CUE 12.97 226 eP 06 19.40 1.2
GKN 12 .98 152 P 06 1 8 . 50 0.2
KKN 13.41 150 P 06 23.84 -0.3
0.5s 25 . 00nm 5 . 4mb
DMN 13.51 151 P 06 25.14 -0.3
GUN 13.55 148 P 06 25.66 -0.3
0.4s 39.00nm 5. 7mb
PKI 13.66 150 P 06 27.10 -0.4
0.6s 23 . 00nm 5 . 2mb
GBA 25.99 181 P 08 52 00 7. IX
NAO 4535321P 11 29. 60 -0.3
1.0S 3 . 40nm 4 . 2mb
CDF 49.75 305 eP 12 64.60 -0.5
BSF 50.24 304 eP 12 08.70 0.4
1.0S 8 . 00nm 4 . 7mb
HAU 50.46 304 eP 12 08.50 -1.4
SMF 52-53 303 eP 12 25.40 -0.1
AVF 52.79 304 eP 12 27.40 0.0
1.0s 8 . 00nm 4 . 6mb
MAF 53.50 303 eP 12 33.20 0.5
1.0s 5 . 00nm 4 . 5mb
INK 69.80 12 eP 14 22.00 0.1
WRA 79.40 127 P 15 20.00 2.2
0.7s 1 . 80nm 4 . 2mb
S . D . -0.9 on 16 of 17 abs.

? AUG 31, 1991 04h 39m 41.43±16.52s 43.726 N ±83. 6km 126.997 W ±101. km DEPTH «= 10.0km (geophy s i c i s t)
OFF COAST OF OREGON (30)

NLO 3.45 46 P 40 36. 59 0.2
PGO 3 .68 60 P 40 40. 10 0.5
BMW 3.83 43 P 40 41.31 -0.5
RVW 3.87 50 P 40 42.25 0.0
VLMM 3.98 61 P 40 43.72 -0.1
LVP 4.01 53 P 40 44 . 69 0.3
TDH 4.04 65 P 40 44.52 -0.3
MTMW 4.10 54 P 40 45.46 -0.2
FL2 4.12 52 P 46 45.33 -0.6
VLL 4.18 64 P 40 47.23 0.5
C2M 4.18 48 P 46 45.93 -0.7
SHW 4.18 52 P 40 47 . 53 0.7
CPW 4.24 39 P 40 46.95 -0.5
CDFW 4.25 54 Pd 40 47.59 -0.1
SOSW 4.26 52 P 40 48.43 0.5
TDL 4.29 51 P 40 48. 1 1 -0.2
KOSW 4.37 50 P 40 49. 47 0.1
GULW 4.43 58 P 40 50.29 0.0
LMW 4.44 47 P 40 50.61 0.2
ASR 4 .54 56 P 40 51 .81 0.0
MEW 4.63 40 P 40 53.75 0.7
LON 4.75 49 P 40 54 . 90 0.1
GLK 4.75 51 P 4054.94 0.0
REMR 4.78 48 P 40 55.32 0.0
HDW 4.80 34 P 40 55 . 62 0.1
WPW 4 .86 50 P 40 56. 31 -0.2
GL2 4 . 93 61 P 40 56. 53 -0.8
FMW 4.94 48 P 40 57.58 0.0
GSM 5 .05 45 P 40 59.26 0.2
RMW 5.22 42 P 41 01 . 22 -0.2
S . D. - 0 . 4 an 30 a f 30 obs .

? AUG 31, 1991 05h 12m 47.24± 5.07s
3.898 N ±22. 3km 76.261 W ±24. 2km
DEPTH = 98 . 7 ± 48 . 3 km
COLOMBIA (103)
MD 3 .9 (UVC) .

BUGC 0.01 142 iPd 13 02.27 -0.3
eS 13 1 4. 70
CLMC 0.30 267 iPd 13 02.72 0.6
eS 1 3 15.50
HOBC 0.47 15 iPd 13 02.99 -0.1
HOOC 0.57 221 iPc 13 03.91 0.0
ANCC 0.71 238 ePc 13 04.55 -0.4
eS 1 3 18.70
SILC 1.20 184 iPc 13 10.65 0.0
PURC 1.57184! PC 1315.30 0.1
eS 13 37.40
S.D. - 0.5 on 7 of 7 obs.

? AUG 31, 1991 07h 22m 27.59± 6.21s

31d 07h

294

4 . 160
DEPTH

N i30 . 9km 77 . 105 W ±47 . 3km
33.0km (no rmo 1)
NEAR WEST COAST OF COLOMBIA (1&2)
MD 3. 7 (UVC) .

C LMC 0

ANCC 0

HOOC 0

BUGC ('
HOBC. 0
S ! LC 1

PURC 1
S.D.

7. AUG 3
44 . 359
DEPTH
FRAt4CE

. 61 117 i Pd
eS
. 68 160 fePd
eS
. 33 146 i Pd
eS
89 107 ePc
. 99 79 ePc
. 65 152 *P

97 IDS o P
=0.9 on

1 . 1991 07h
N ± 1 0 . 8km

22 39 .
2251.
22 39.
2251.
22 42 .
22 55 .
22 43 .
22 45 .
22 55 .
23 18 .
23 00 .
7 of

42m 03.
2 . 259

5.0 km (geophysi

94 0 1
30
85 -1.0

10

42 -0.7
60
97 0.2
17 -0.1
41 04
30
96 1.2
7 obs.

84± 1 . 79s
E ±1 4 . 6km
cist)
(538)
ML 2. 6 (LOG) .

CAF 0
LPO 0

RJF 1

LFF 1

MAF 1

EPF 1j

TCF 1

LSF

BGF 4

AVF 2

SSF 2

S.D.

. 58 346 Pg
. 83 293 Pg
sg
. 08 331 Pg
Sg
. 23 299 Pg
Sg
. 88 7 Pn
Pg

sg
. 92 227 Pn
Pg
sg
. 93 359 Pg
sg
. 96 345 Pg
sg
. 24 i 0 Pg
sg
. 55 17 Pg
sg
. 84 1 7 Pg
sg
= 1.3 on

? AUG 31, 1991 07h
3. 874
DEPTH
COLOMB 1 A
MD

BUGC 0
CLMC 0

HOBC 0
HOOC 0

ANCC 0

S 1 LC 1
PURC 1

S.D.

N ±24 . 9km
= 114.4 ± 59

3 .8 (UVC) .

. 04 297 eP
. 34 271 i Pd
eS
. 48 10 i PC
. 58 226 eP
eS
. 74 241 ePc
eS
. 18 186 i P d
. 55 185 eP
eS
= 05 on

? AUG 31 , 1991 08h
45 .532
DEPTH
ROMAN 1 A

SSR 0
DEV 1

N ±38 . 7km

42 13.
42 20.
42 34 .
42 23.
42 38.
42 28.
42 46.
42 33 .
42 36 .
42 59 .
42 36.
42 42 .
43 08.
42 38.
43 02 .
42 38 .
43 04.
42 43.
43 10.
42 48 .
43 19.
42 54.
43 28.
8 of 1

59m 47.
76.219
8 km

00 04.
00 05.
0021.
00 05.
00 05 .
00 22 .
00 06.
00 23 .
0011.
00 16.
00 40 .
7 of

57m 28.
21 483

60 -1.9
80 0.4
80
80 -0.9
00
40 1.2
40
60 -3.3X
80
80
70 -0.9
40
40
00 0.3
00
90 0.8

00

00 0.9
70
20 1 .7X
00
40 3 . 7X
20
1 Obs .

67± 6.36s
W ±27 . 1 km

(103)

76 -0.2
27 0.7
10
19 -0.1
95 -0.2
30
74 -0.4
60
91 0.0
39 0.1
50
7 obs .

61± 7.31s
E ±65. 9km
= 33.0km (normol)

. 69 165 eP
06 70 iPc
MDB 2.12 72 ePc
MLR 3.14 89iPc
1 SR , 3. 59 94 eP
VR 1 ; 3 . 69 83 eP
S t = 1.4 on

AUG 31, 1991 09h
41.133 N ± 8 . 9km
DEPTH

57 42 .
57 46 .
58 03 .
58 12
58 22
58 26
5 of

45m 1 2
22 . 029

= 1 0 . 0 km (geophy s
YUGOSLAV l A
MD 2.5 (THE) .

(358)

00 0.0

00 -11

00 0.6
50 -4.5X
50 -0.9
00 1.3
6 obs .

09± 0.84s
E ± 6 . 0km
cist)
(383)

GRG 0.33 122 i PC
eS

VA Y 0.45 65 i Pg
iSg
FNA 0 . 60 235 i PC
eS
KNT 0.66 8 7 e P
eS
THE 0.87125 ePc
i S
SKO 0.95 332 ePg
iSg
SOH 1.05 107 «rP
SRS 1.18 90 ePc
S.D. = 1.1 on

% AUG 31 , 1991 10h
44. 914 N ±18. 8 km ~.,~. _ j. . . . ~ .....

45 18.66 -0.3
45 22 . 69
4521.70 0.5
45 27 . 70
4524.92 0.6
45 34.04
45 26 06 0.8
45 35.50
45 24 ,:37 -4 . 4X
45 3
45 2

* . 21
3.50 -0.6
45 45 . 00
45 30.40 -1.5
45 34.80 0.7

7 of 8 obs .

_

29m 2
\ 1 ft

3. 02± 2 . 36s

7 F -1- 1 d ft km

DEPTH - 5.0km (geophy s j c i s t)
FRANCE

ML 2.3 (LOG) .

CAF 0.74 271 Pg
sg
RJF 1.19 290 Pg
sg
MAF 1 . 36 344 Pg
sg
LPO 1.39 261 Pg
Sg
TCF 1.51 336 Pg
Sg
BGF 1 . 65 354 Pg
sg
SMF 1.81 16 Pg
sg
LBF 2.16 1 6 Pg
SSF 2.17 7 Pg
S.D. = 0.6 on

? AUG 31 . 1991 10h
3 . 846 N ±1 6 . 3km

(538)

29 34 , 20 -0.6
29 46 , 00
29 43. 30 0.6
30 00,30
29 45.20 -0.4
30 05. 10
29 46.20 0.2
30 07.00
29 48,10 0.3
30 08.50
29 49. 80 0.0
30 13.00
29 51.40 -0.6
30 15 . 00
29 571.80 0.6
2959.00 1 . BX
8 of 9 obs.

57m 43 . 55± 3 . 65s
76.975 W ±32 .8km
DEPTH = 33.0km (normal)
COLOMB 1 A

MD 2.5 (UVC) .

ANCC 0.35 162 i Pd
eS
CLMC 0.41 85 ePd
eS
HOOC 0.51 138 iPd
eS
BUGC 0.72 86 ePd
eS
HOBC 0.98 59 eP
eS
S.D. =0.5 on

7, AUG 31 , 1991 1 1 h
15.480 N ± 4 . 1 km
DEPTH - 1 8 . 8 ± 1 1 .
LEEWARD I SLANDS

ML 2 .8 (FDF) .

MGG 0.74 306 iPd
CRM 0.75 197 eP
S
BBL 0.76 273 eP
S
FDF 0 . 86 211 eP
0.1s 0 . 63nm
S
DEC 0.90 337 eP
MVM 0.94 192 eP
B 1 M 1 . 03 201 eP
S
DOG 1 . 05 302 ePd
S
PAG 1.10 300 eP
S
SEG 1.21 320 eP
S
BPA 1 . 92 324 eP
S . D . - 0 . 3 on 1

? AUG 31 , 1991 1 2h
4.145 N ±15. 4km

(103)

5752.17 0.2
57 58.80
57 5 ^ 4ft S 4
58 01.00
57 54.05 -0.5
58 02.20
57 57 . 40 0.1
58 08.00
58 0 3.77 -0.3
58 13;.90
5 of

27m 3

5 obs .

? . 4 1 ± 1.14s
60.691 W ±1 2 . 2km
1 km

27 5
27 5
28 0
27 5
28 0
27 5

28 0
27 5
27 5
27 5
28 1
27 5
28 1
27 5
28 1
f\ o rt i O <0
28 1
28 1
1 of

45m 3
76 1 6

(92)

>. 84 0.3
> . 66 -0.1
I . 60
>.80 0.0
J.80
t .87 0.2

5 . 00
4 . 90 -0.3
5.84 -0.1
7.25 -0.1
3.40
7.53 -0.2
3 . 90
B . 30 -0.3
2. 70
3 . 40 0.1
5 . 40
9 . 90 0.4
1 1 obs .

7 . 09± 1 . 39s
1 W ±25 . 8km

DEPTH
COLOMB I A
MO

HOBC 0
BUGC 0

CLMC 0

HOOC 0

ANCC 0
S.D .

33 . 0km (no rmo 1)
(103)
3 .0 (UVC) .

. 21 7
. 27 201

. 48 237

. 82 215

. 94 228
= 0.8

_ ___________ -

& AUG 31. 1991
63.092 "
DEPTH
CENTRAL
<AE

TRF 0

KTH 0

HUR 0

CUT 0

RND 0
MCK 1
SKT 1

BWN 1
PWA 1
GHO 1

SUA 1
NEA 1

D 1 D (u(1 r L n M I
SML 1
NCG 1
CGLM 1
WRH 1
CRP 1
PMS 1
BGL 1
SPU 1
CKL 2
KNK 2
CCB 2
HDA 2
MDM 2
FBA 2
NKA 2
TOA 2
GLM 2
PAX 2

DJE 2
SDG 2
SLK'M 2
ROT 2
DFR 2
NCT 2
REF 2
TZL 2
ROW 2
RS2 2
RSO 2
RS1 2
RED 2
KLU 2
GLI 2
VZW 2
VLZ 2
SVW 2
NNL 3
SEW 3
KN 1 M 3
FID 3
LT 1 3
HOM 3
CNPM 3
PDB 3

GLB 3
AUP 3

i PC
iPc
eS
ePc
eS
i Pd
eS
iPd
on

45 43 . 91
45 45.17
45 52 . 10
45 47 .88
45 56 . 90
45 51.63
46 03 . 40
45 54.03
5 of 5

1 2h 48m 16,41
i <=. ft o n Q uu
- 1 23 . 5km
ALASKA
10.

. 46 38

. 46 359

. 59 101

. 75 157

. 98 70
. 10 53
. 15 1 95

. 26 30
. 52 161
. 61 144

. 64 177
. 70 28

. 72 150
. 76 1 36
. 79 200
. 86 197
. 87 41
. 92 198
. 96 161
. 96 201
. 99 196
. 02 200
. 04 145
. 08 40
. 20 51
. 21 31
. 28 36
. 36 184
. 40 112
. 45 38
. 48 90

. 52 66
. 53 101
. 61 173
. 63 196
. 65 199
. 71 202
. 75 199
. 75 110
. 77 200
. 78 199
. 78 199
. 78 199
. 83 1 99
. 83 122
. 86 139
. 89 133
. 91 130
. 98 230
. 07 184
. 08 166
. 14 150
. 15 136
. 39 153
. 46 186
. 58 183
. 67 207
. 71 113
. 93 199

i PC
eS
i PC
eS
ePc
eS
i PC
eS
i PC
eP
iPd
i S
ePd
ePc
ePc
eS
«rPc
ePd
eS
ePc
ePc
ePd
ePd
iPd
ePd
eP
ePc
eP
ePd
ePc
i Pd
eP
i Pd
i Pd
eP
ePc
i Pd
ePc
eS
eP
eP
eP
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eP
eP
eP
iPd
ePc
eP
eP
iPd
ePc
ePc
eP
eP
eP
eP
eP
eP
ePc
eP

48 34.65
48 48.88
48 34 . 52
48 47.97
48 35. 10
48 51 . 25
43 36 . 57
48 51.61
48 38.30
48 39 . 43
48 40.12
48 58.54
48 41 . 48
48 44.71
48 45 . 54
49 08 .51
48 46 . 50
48 45.27
49 07 . 59
48 46.27
48 46 . 82
48 47 . 34
48 48.09
48 47 .56
48 49.09
48 49.52
48 50.01
48 49 . 51
48 50.23
48 50.09
48 50.06
48 51 . 49
48 51.70
48 52 . 52
48 56 . 54
48 55. 15
48 54 .91
48 56. 10
49 25.92
48 56.12
48 56 . 70
48 57 . 73
48 58. 10
48 58.47
48 59.60
48 59.28
49 00.23
49 00 . 04
49 00. 21
49 00 .01
49 00.12
49 01 . 02
48 59 . 57
48 59.88
49 00.13
49 00.09
49 01.72
49 04 . 67
49 03.34
49 03.11
49 03.86
49 06 . 61
49 09.02
49 10.03
49 1 1 .05
49 11.45
49 16.45

0.0
0 . 6

0 . 3

- 0 . 9

0.0
obs .

s

(D

- 0. 3

- 0 . 4

- 0 . 5

- 0.2

- 0 . 7
- 0 . 6
- 0 .5

- 0 . 3

0.0

- 0. 3

0. 3
- 1.5

- 0 . 7
- 0 . 7
- 0 . 7
- 0.8
- 1 . 3
- 0.6
- 0.5
- 0 . 1
- 0.9
- 0 . 6
- 0.9
- 1.4
- 1 . 5
- 1.5
- 1 .5
1 . 5
- 0 . 6
- 1.4
- 0.7

- 1 .0
- 0 . 6
- 0.7
- 0.5
- 0 . 4
- 0 . 2
- 1 .0
0. 1
- 0 .6
- 0 . 6
- 0 . 8
- 0. 7
- 0.2
- 1 . 7
- 1.7
- 1.9
- 2.2
- 1.5
0 . 3
- 1.1
- 2.2
- 1 .6
- 2 . 1
- 0 .6
- 1 .2
- 1.4
- 1 .5
0.4

295

31d 12h

AUW 3.93 199 eP 49 15.30 -0.7
COD 4.38 199 eP 49 20.87 -1.2
BALM 4.53 113 ePc 49 22.08 -2.0
62 obs. ossociated

% AUG 31, 1991 I2h 51m 37.68± 0.55s
45.954 N ± 4.8km 2.748 E ± 5.3km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.5 (LOG).

MAF

TCF

BGF

LSF

AVF

SMF

RJF

CAF

SSF

LBF

LOR

LPO

LFF

0 .

0 .

(}

0.

0 .

1 .

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1

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1

S.D.

30

. 50

. 6 1

90

. 94

. 03

,08

. 1 4

. 23

34

. 52

. 68

. 74

335

312

6

290

26

47

233

205

25

39

30

221

235

't . 7

Pg
sg
Pq
SG

pg
sg
pg
sg
pg
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Pg
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sg
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sg
pg
Sg
pg
sg
on

51
5 1
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5 1
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5 1
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52
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52
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06
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07
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12
58
12
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02
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08
30
09
33
f

. 80 -0.
. 20
. 50 -0
. 60
. 40 -0

. 20
. 60 0
. 80
. 20 -0
. 60
. 80 -0
. 60
. 20 -0
. 00
. 40 -0
. 70
. 60 0
. 80
. 40 0
. 50
. 80 0
. 20
. 40 1
. 80
. 80 1
. 00
13 obs .

. 1

. 4

. 5

. 7

. 3

. 3

. 8

. 6

. 1

. 1

. 8

. 1

. 7X

GCC

ARN
SAO
CMB

0 .

0 .
1 .
1 .
BONR 3.
TNP 4 .
10

AUG 31
37.531
DEPTH =

90

95
38
76
40
26

148

1 18
138
82
86
85

i PC
i S
eP
eP
eP

e(Pj
«(P)
obs. ossoci

N

1 991
± 5.

1 4h
9km

45
45
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ALT
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MFT
YLV
KDZ
RZN
MMB

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6. 9

iPg
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eP

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0km

(366)

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. 3
. 1 X

AUG 31, ,1991 12h 52m 00 . 52± 0.92s
1.269 N ± 6 1km 126.795 E ±12.Okm
DEPTH - 72.8 ± 10.7 km
4.7mb (6 obs.)
MOLUCCA PASSAGE (266)

AA 1 B 1 P
CGP
WR2

OIS

ASPA

CHG
STK

MAT

BJ 1

GUN
PK 1
KKN
DMN
GKNI
GBA

MA 1 O

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S.D.

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. 99
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3s

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3s
. 67
5s

. 43
. 77
5s
. 71
6s
. 84
6s
. 28
. 50
. 70
. 76
. 31
. 35
8s
. 09

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164
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304
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12
368
307
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308
1 .5

eP
ePd
eP
i PC
. 70nm
eS
i PC
. 00nm
eP
. 00 nm
eS
eP
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. 9 0 n m
eP
00 nm
eP
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P
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. 80 nm
eP
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obs .

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5X

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6

't AUG 31, 1991 13h 45m 16.20s
37 . 797 N 122.593 W
DEPTH - 3.0km
CENTRAL CALIFORNIA (39)
<8RK>. ML 2.6 (BRK).
Mo-1.5*16«»13 Nm (BRK).

BKS

ZSP

PCC

NWRM

0.29 74 i PC
i S
0 . 30 61 i PC
eS
0.34 150 iPc
i S
0.70 341 eP

45 22.00
45 26.50
45 22.61
45 28 . 12
45 22.90
45 28.10
45 30.00

- 0 . 1

- 0.2

AUG 31, 1991 14h 25m 23.86± 1.28s
38.587 N ± 8.8km 15.685 E ±20. 8km
DEPTH - 10.0km (geophysicist)
S ICI LY (398)

SO 1

CZ 1
TDS

0 . 46 202 P
0. 59 150 P
eSg
0.72 29 P
1.18 25 P
eSg

25 33 . 30
2535.70
25 49.50
2539.20
25 44 . 80
26 05 . 40

1

1.2
- 1.2

S.D. =1.7 on 4of 4obs.

7, AUG 31, 1991 14h 42m 47.85± 0.79s
37.725 N ± 7.4km 14.992 E ± 6.3km
DEPTH - 10.0km (geophysicist)
SICI LY (398)

MNO 0.31 311 P 4254.50 0.1

eSg 43 00.30
ATN 0.57 40 P 4259.20

eSg 43 07.90
MEU 0.62 185 P 4300.40

eSg 43 10.00
GIB 0.81 289 P 43 03.60 0.0

eSg 43 16.90
SO I 0.91 67 P 4305.50 0.3
eSg 43 19.20
CZI 1.74 31 P 43 16.00 -2.2X
S.D. - 0.3 on 5 of 6 obs.

* AUG 31. 1991 14h 46m 14.50± 1.80s
38.788 N ±13.8km 25.589 E ±12.3km
DEPTH = 10.0km (geaphysicist)
AEGEAN SEA (365)
ML 3.1 (ATH) .

PRK

EZN
IZM
ATH
KDZ
MMB

0.70 49 ePb
eSb
1.18 29 iPn
1.37 106 ePn
1.68 242 ePn
2.86 357 iPd
3.14 334 eP

46 28.50
46 38.50
46 36.40
46 39.60
46 50.00
47 01.00
47 05 . 00

0.2

- 6.2
0.0
5 . 9X
0.0
0.1
S.D. =0.2 on 5of 6obs.

AUG 31, 1991 16h 43m 46.72± 0.22s
22.425 S ± 3.8km 68.311 W ± 5.5km
DEPTH = 117.2km (8 depth phases)
5.0mb (24 obs.)
NORTHERN CH 1 LE (123)
Felt in El Loa Department.

ANT 2.32 236 i Pc+ 44 22.20 -2.4

SLA

CCH
CNCB
LPB

ZOBO
CYA
ARE

RTLL
ZON
S IV
J ACH
MDZ

PEL

I HA
LCCH
LNV
NNA

PPD

VAO

BAO
BMA

CUMC
S I LC
HOOC
ANCC
BUGC
CLMC
HOBC
SOB1
UPA
B I M
MVM
FDF

CRM
A I A
JSC
FVM

NVL

ALO

SPA

LI C
T 1C

K I C

LKO

GLD

PV09
PEC
RSSD

BW06

TNP

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Is

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1 s

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132

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IS
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i PC
iPc
iPc

i PC
i P
eP
iS
iPd
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i PC
eP
eP
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e(S)
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76
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3 . 6X

1 . 7
1 . 6
ft . 9
7 . 0mb X
0 . 2
- 0 . 7
- 4 . 7 X

- 4 . 5X
- 4 . 5X
- 3 0X
0 . 8
- 3. 3X

- 6 . 3X

0 . 7
- 8 . 8X
- 7 . 9X
- 9 . 9X
t . 6mb

0. 4

- 0 . 9

- 1.4

- y .8

3 . 5X
0 . 8
0 . 3
1 . 7
0 . 8
0 . 5
- 1 . 1
- 2.0
- 0 . 2
- 1 . 5
- 1 . 8
0 . 6
. 0mb
- 1.5
1 . 3
- 1.3
- 1.7
. 0mb
1 1 7 km
- 0 . 3

- 0. 2
. 1mb
114km
0 . 0
. 5mb

0 . 4
- 0 . 2
. 9mb
- 0 . 4
. 0mb
- 0 . 4
. 2mb
0. 1
. 8mb
117km
- 0.8
0 . 0
- 0 . 1
. 1mb
1 1 7km
- 1 . 1
. 5mb
1 1 8km
0.0
. 7mb

31 d 1 6h

SCH 76

WIN 77
e .
LRM 78

ORV 79

SES 81

HVD 82
6.
FFC 82
1 .
FRS 82
1 .
N EW 82
1 .
MAW 83

0.
PUT 84
0.
kSR 84
1 .
PRY 84
TOL 86
1 .
BUL 88
0.

KR 1 90

CSV 91
e.
YKA 92

0.
01 S 129

0.
WR2 132

0.

WRA 132
1 .
YAK 138
CUE 139
KOD 145

0 .
GBA 146
1 .
GUA 147

0 .
P J G 147
HYB 148
IRK 149

MAT 153
1 .
GKN 154
DMN 155
KKN 155
PK 1 155
BJ 1 162
LZH 164
1 .
CHG 167

SSE 167
1 .

S .D.

. 94

. 69
9s
. 86

. 16

. 74

. 00
9s
. ee
2s
. 1 7
0s

1 & r> L? s
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1 s
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8s
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. 49
. 67

. 08
1 s
. 93
. 39
. 52
. 66
. 03
. 77
4S
. 54

. 90
2s

s

% AUG 31 .
16 .454
DEPTH
LEEWARD
ML

DEC t

SEG <

i

DOG <

PAG (

N

epP 55
1 eP 55
pP 55
109 i Pd 55
1 6 . 8 1 nm
330 eP 55
e 56
321 i P 55
epP 56
334 eP 55
pP 56
120 i P c 55
50 . 42nm
341 eP 55
1 9 . OOnm
1 1 9 i Pd 55
1 60 . 60nm
330 eP 55
2 . 75nm
163 eP 56
1 8 . 00nm
329 eP 56
8 . 60nm
116 i Pd 56
23 . 66nm
1 1 7 eP 56
44 i PC 56
31 . 25nm
111 i P c 56
1 7 . 23nm
i 57
108 iPc 56
i pP 57
180 iPc 56
40 . 00nm
340 eP 56
1 0 . 80nm
215 i PKPd 92
11 . 00nm
209 e P K P 02
2 . 50nm
i 02
209 PKP 02
2 . 00nm
347 iPKP 02
69 ePKP 03
105 iPKPd 03
56 . 72nm
99 PKPd 03
1 6 . 40nm
260 ePKP 03
1 43 . 28nm
260 ePKP 03
93 ePKP 03
9 ePKP 03
e 03
307 ePKP 03
27 . 85nm
72 PKP 03
72 PKP 03
72 PKP 03
72 PKP 03
349 ePKP 03
25 ePKP 03
25 . 00nm
104 ePKP 03
e 08
31 8 PKP 03
1 7 . 00 nm
i 04
1.0 on 700

1991 1 9h 1 8m
±1 1 . 4km 60 .

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4 1

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f

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955

296

. 50 120 km
. 00 -0.4
. 00 57kmX
. 40 0.8
4 . 8mb
. 20 0.7
. 40
. 30 0.3
. 50 118km
. 00 -0.4
. 00 1 1 7 km
. 30 -5 . 2X
5 . 3mb
. 00 -2.0
4 ft m D

. 6 0 '.'< e>
5 , 6rrit>
. 00 -1.0
4.1mb
. 0 6 0.9
5 . Omb
. 00 0.4
4 . 7mb
. 50 0.2
5 . 0mb
. 56 -0.1
. 7P 1.8
5 2mt>
. 00 -1.1
5 . 1mb
. 40
. 70 -7 . 6X
. 40 130 kmX
. 16 2 . 2X
5 . 7mb
. 70 -0.2
5 . 2mb
. 20 -0.4

. 80 -1 6 . 7X

. 20
. 00 5 . 5X

. 10 -0.6
. 00 0.5
. 30 0.3

. 30 0.7

. 20 2 . 1 X

. 00 1 . 8X
. 50 0.4
. 90 1.1
. 70
. 00 6 . 6X

. 90 -0.4
. 20 1.1
. 00 0.8
. 00 0.4

. 00 1.1

. 00 1.1

. 10 0.7
. 60
. 00 0.8

. 50
89 obs .

. 68± 2 . 64s
W ±23 . 7 km
= 33.0km (normol)
1 SLANDS
2.6

. 17

. 53

. 64

. 76
. 81

(PDF) .

2 1 6 ePc 1 8
S 18
265 eP 18
S 18
21 3 eP 18
S 18
237 iPd 18
239 ePd 18
S 18

24
28
28
36
30
38
32
32
43

(92)

. 12 0.0
. 80
. 60 -0.1
. 40
. 30 0.1
. 50
. 21 0.2
. 77 0.0

BPA 1 .05 304 eP 1836.10 0.0
BBL 1.05 209 eP 18 36.00 -0.2
S.D.=0.2 on 7of 7 obs.

7, AUG 31, 1991 19h 37m 07.46+ 2.91s
39.750 N ±25. 7km 24.171 E ± 8.8km
DEPTH - 10.0km (ge o phy s » c i s t)
AEGEAN SEA (365)

PAIG 0.42 295 iPd 37 15
eS 37 21
OUR 0.60 346 ePd 37 19
SOH 1 . 24 330 ePc 37 30
KNT 1.71 326 eP 37 38
eS 38 00
ALN 1.83 51 ePc 37 39
S.D. -0.4 on 5 of

* AUG 31 . 1991 19h 38m 29
29 .960 S ± 6. 3km 72.233
DEPTH = 43 . 0 ± 1 1 . 7 km

. 80 -0.2
. 80
. 48 -0.1
. 46 -0.1
. 00 0.5
. <4 4
16 -0.1
5 obs.

64± 1 .33s
W ±1 4 . 9km

4 . 9mb (1 obs .)
OFF COAST OF CENTRAL CHILE (134)

JACH 3.05 153 e P 39 17J50 0.8

IHA 3.10 171 eP 39 16)70 -0.5
e(S) 40 09J00
ROCH 3.18 161 ePc 39 18)60 0.0
IS 39 55190
PEL 3. 44 158 i PC 39 22 » 50 0.3
i 40 01 80
i 40 07
ZON 3 . 44 1 1 8 eP 3926
RT LL 3 . 52 1 1 4 i Pd 39 25
LCCH 3.55 171 eP 39 22
IS 40 02
TACH 3 . 84 1 64 i P 3928

10
00 3.7X
20 1.9
50 -1.2
50
00 0.2
IS 4011.60
PCH 3.93 159 iPd 39 29>50 0.4
LNV 4.04 170 eP 39 29^50 -1.1
MDZ 4.11 136 iPd 39 35.50 3 . 9X
i 3944.10
i 39 57.50
CHCH 4.18 162 eP 39 33.00 0.3
CYA 5.83 77 iP 39 55.00 -0.9
ANT 6.44 15 e(P) 40 11.00 6.7X
SLA 7.94 51 i PC 40 26u 00 0.5
CNCB 13.66 18 P 41 45.00 1.6
LP8 13.89 17 eP 42 05.00 18. 6X
ZOBO 14.14 16P 41 50. 00 0.3
Z 20s 0 . 09um
LR 46 20L 00
S I V 17.27 39 P 42 27 . 00 -2.3
PPD 20.37 72 eP 43 03.90 -1.5
NVL 60.10 158 ePc 48 34.00 -0.4
SPA 60.21 180 eP 48 36.00 0.5
0.9s 9 . 55nm 4 . 9mb
WRA 124.17 211 PKP 57 25.00 -0.7
0.5s 1.70 nm
OUE 144.81 79 ePKP 58 04 70 0.7
YAK 144.86 342 iPKP 58 02.60 -0.2
GBA 147.61 114 PKPd 58 101.20 1.5
0.6s 7 . 40nm
S . D . = 1 . 1 on 22 o f 126 obs .

« AUG 31 . 1991 20h 21m 48
22.191 S ±10 . 7km 170.178
DEPTH = 33.0km (normol)
4 . 9mb (Sobs.) 4 . 9Msz
LOYALTY ISLANDS REGION
CENTROID, MOMENT TENSO
Doto Used: GDSN
L. P.B. : 21S , 39C
Centroid Locotion:
0 r i g i n T i m e 20:2
Lo t 22 . 46S 0.06 Lon 17

Dep 15.0 FIX Ho 1 f-du r
Moment Tensor; Scole
Mrr«= 1.27 0.05 M t t =
Mf f=-0 .17 0.06 Mr t =
Mr f= 0.24 0.15 Ml f =
Principol Axes:
T Vo 1 - 1.73 PI g-6(
N -0.19 1
P -1.55 1

Best Double Couple:Mo=
. 30 NP 1 : S t r i ke=304 Dip-29

. 78± 0.54S
E ± 9 . 0km

(4 obs.)
(189)
* (HRV)

1:51.3 0.5
3 . 1 6E 0 . 05
3 t i on 1.7
1 0* * 1 7 Nm
- 1.10 0 . 06
1.04 0.19
0.37 0.05

5 Azm-333
4 97
9 192
1 .6* 10»*17

Slip- 120

DZM

PVC
BKM
SVA
VUN
HNR
BRS

COO
RMO
CNB
CTAO

CMS

OLP
TOO
STK

01 S
ASPA

WR2

WRA

BAG
1 1 DJ
CHJ J
MAT

TSR J
MTMJ
N 1 1 J
YAMJ
OFUJ
SPA

BJ 1

KM 1

CHG

LZH

GUN
KKN
DMN
GKN
SPC
I/ C p rs O r

PSZ
BUD
MMB
BRG

SRO
CLL

KKB
PRU

ZST
EKA

MOX

SKO

NP2 :

3. 46

4 . 76
4.85
8 . 77
8 . 83
16.04
16 . 63

18.37
19.98
22 . 39
22. 41

23. 57

24.01
26.22
27 . 16
0 . 7s

28. 50
33. 39
1 .0s
Z 22s
33 . 45
0 .5s
33. 47
1 .0s
61.89
65 .00
65 .00
65 . 76
0 .9s

65 . 92
65.97
66 . 01
66 . 38
66.54
67 . 94
1 . 0s
79 . 77

80.57
2.0s
80. 67
1 . 0s
85 . 35
2 . 0s
Z 20s

95 . 36
95 . 80
95 . 88
96.41
144.06
1 44 . 89
0 . 9s
145. 02
145 . 75
145.87
145 .89
0 . 9s

145 . 92
145 . 95
1 . 7s

146.19
146. 28
0 . 8s

1 46 . 30
146.53
0.8s
147 .02
1 .8s
147.24

90

271 iP 22
iS 23
338 iP 23
338 iP 23
64 eP 23
63 eP 23
321 eP 25
248 eP 25

e(S) 29
239 eP 26
253 eP 26

230 e(P) 26
271 i P 26
e(PP) 26
e 27
iS 30

«(SS) 33
242 eP 26
e 35
254 eP 27
229 eP 27
243 eP 27
2 . 50nm
eS 32
268 eP 27
260 iPc 28
1 7 . 80nm
1 . 70um
267 eP 28
3 . 20nm
267 P 28
7 . 30nm
304 eP 32
331 P 32
332 P 32
332 iPd 32
21 . 85nm
eS 4 1
330 P 32
332 P 32
333 eP 32
334 P 32
336 P 32
180 eP 32
1 5 . 50nm
321 eP 33
eS 44
302 eP 34
80 . 00nm
295 eP 34
1 2 . 25nm
312 eP 34
35 . 00nm
0 . 25um
pP 34
sP 34
eS 45
298 P 35
298 P 35
297 P 35
297 P 35

326 e(PKP)41
331 iPKPd 41
27 . 00nm
324 ePKP 41

324 e(PKP)41
312 ePKP 41
333 ePKP 41
29 . 00nm
e 4 1
325 ePKP 41
334 iPKPd 41
49 . 00nm
i 4 1
313 iPKP 41
331 PKP 41
7 . 30nm
e 4 1
327 ePKP 41
353 PKPd 41
20 . 80nm

335 e(PKP)41
39 . 00nm
31 4 iPKP 41
iSg 45

65

41.00
24 . 70
02 . 30
02 . 70
56.10
56.10
40. 00
45.00
30 .00

04.00

31.50
45.00
47.50
55 .06
13.08
58.00

00.00

57.00
42. 00
03.00
24 .00
28 .20
4
28 . 40
4 1 . 40
24.50
4
4
23.20
4
25.00
4
04 . 00
26 . 70
26. 50
30 . 80
5
26 .00
33 .00
32 . 90
34 . 90
36 .20
36. 60
42. 00
5
54.00
00.00
00 .00
5
02.00
4
24.50
5
4
39 . 50
50 .56
00 .00
15.80
14.02
1 4 .68
16.02
29 . 50
21 .50

24 .40
26 .06
25 .00
24.50

30 .76
25 .60
24.30

30.10
27 . 00
26 . 70

27.50
27.10
25 .20

30.00

28.50
45. 00

75

- 0 . 8

2.2
1 . 3
- 0.2
- 1.0
6. 3X
4 . 0X

1 . 2
10 . 2X
- 0. 8
1 . 5

- 0. 3

1 . 4
1 .5
- 2.9X
. 0mb

- 1.9
- 2.0
. 9mb
. 7MszX
- 3.8X
. 5mb
- 2.2
. 5mb
- 3 . 9X
- 1.1
- 1 .3
- 1 .8
. 3mb

- 0.7
- 1 .2
0.7
- 0.4
- 1 -0
- 4 . 4X
1mb
- 1.1

- 0. 1
4mb
1 . 6
9mb
0.3
2mb
6MSZ
52kmX

4 . 1 X
0 . 4
0. 7
- 0.2
6. 7X
2 . 4 X

0. 1
0.6
- 0.9
- 1 . 1

- 0. 1
- 1 . 3

0.6
0. 4

0.8
- 1 .3

2. 6X

0.4

297

310 20h

KHC

WTS

DBN
OHR
DMU

BNS

DON

LNN

v e >
LJU
MEM
CEY
VOY
WTTA

SNF
WLF

DOU
ECP
VA L
CDF

BSF

HAU

147

1 47
0 .
1 47
148
148
%
1 48
0 .
1 48
0
1 A 8

Ct . 1 4 9
1 49
1 49
149
149
1 49
1 .
1 49
149

1 49
149
150
150
0 .
151
0 .
151
0 .

. 34

. 59
8s
. 97
. 06
. 26
8s
36
7s
. 84
8s
. 93

S 3

02
. 04
. 04
. 30
. 38
. 59
0s
. 65
. 82

. 93
. 95
. 30
. 49
8s
. 1 5
7s
. 1 7
7s

331

341
16
342
313
357
47
339
1
357

5

40
340
1
3:5
326
340
326
327
331
1
342
339

341
356
1
337

336

337

Z 21 s
FLN 152
0.

. 46
8s

347

Z 20s
LOR 152
0 .

. 66
7s

339

Z 21s
LPL
LPG

153
153
S.D.

. 08
. 09
=

334
334
1 .5

4

PKP
i
ePKP
. 00nm
frPK'P
ePKP
fe P K P
. 00 nm
*PK PC
. 00 nm
ePK P
. ftf nm
ePKP
. l?0 nm
e H K P
e- P K P
PKP
ePKP
ePKP

4 1
4 1
4 1

4 1
4 1
4 1

4 1

4 1

4 1

4 1
4 1
4 1
4 1
4 1

e(PKP) 4 1
2

8

8

8
0

6
0

3
0

. 50 nm
PKPc
i PKPc
i
iPKPc
ePKP
i PKP
ePKP
. 05nm
ePKP
. 80nm
ePKP
. 80nm
. 20um
*PKP
. 70nm
. 20um
ePKP
30 nm
22um
ePKP
fePKP
on 43

4 1
4 1
4 1
4 1
4 1
4 1
4 1

4 1

4 1

30
34
30

32
1 9
30

33

32

35

34
33
34
31
34
35

36
37
4 1
37
35
35
36

38

38

. 50
. 50
. 00

. 00

. 00
. 80

40

. 40

. 00

. 40
. 50
. 70
. 50
. 50
. 00

. 80
. 32
. 92
. 60
. 10
. 80
. 70

. 30

. 40

2,

1

3
- 10
1

3

2

4 . 3 .

2 .
4 ,
0
3 ,
3.

5,
5.

5 ,
3.
3.
3 ,

4 ,

4 .

. 5X

. 8X

. 2X
. 5X
. 5

. 9X

. 2X

, 6X

. 6X
, 7X
. 1 X
. 3
. 1 X
. 2X

. 3X
. 5X

. 6
. 2X
. 4X
, 7X

. 3X

. 4X

4 . 9MS2
4 1 40. 80 5. 0X

4. 9MS2
4 1 4 1. 70 5..6X

5 . 0MS2
4 1
4 1
0 f

44
44

. 00
. 20
77

6 .

7 . obs .

, 9X
. 0X

7. AUG 31, 1991 20h 42m 20.03± 1.04s 16.101 N ± 6.9km 61.187 W± 9.7km DEPTH = 10 0km (geophysicist)
LEEWARD ISLANDS (92)

MGG
DEC

DOG

SEG

BBL

0 . 22
0 . 24

0 . 42

0 . 43

0.64

S.D = <

21 4
30

261

31 4

206

-4 . 7

i PC
iPc
S
eP
S
eP
S
eP
S
o n

42
42
42
42
42
42
42
42
42
5 of

25 .
25 .
28
28
34 .
28 .
33.
32
40

. 46 0
. 35 0
. 40
. 70 0
. 00

. 60 -0
. 70
. 18 -0
. 70
5 obs .

. 7
. 1

. 1

. 2

. 7

> AUG 31, 1991 26h 46m 25.23± 4.59s 46.333 N ±43.8 km 152.130 E ±54.5 km DEPTH = 150.5 ± 21 8 km
4.2mb (4 obs.)
KUR I L I SLANDS (221)

KUSJ

ASAJ
HOOJ

AOMJ

CHG
KKN

PK 1
DMN
GKN
HFS

NAO

GBA

6

7
7

10

51
54
0 .
54
55
55
68
0 .
68
0 .
69
0 .
S.D.

. 20

. 06
. 47

. 31

. 36
. 85
6s
. 90
. 08
. 16
. 61
4S
. 68
9s
. 73
7s
-

241

255
241

240

256
275
1 4
275
275
276
339
1
341
1
269
2
0.9

*P
eS
feP
eP
eS
feP
feS
eP
P
. 00 nm
P
P
P
eP
. 70 nm
P
. 20nm
PC
. 60 nm
on 1 1

47
48
48
48
49
48
50
55
55

55
55
55
57

57

57

o

54
53
07
1 2
25
46
29
1 8
42

42
43
43
1 3

1 4

20

f

. 60
. 20
. 80
. 70

. 10

. 50
. 70
. 00
40

. 00
. 80
. 40
. 00

. 20

. 10

12

- 0 .

0 .
0.

- 3.

1 .
0.
5 . 0mb
- 0 .
- 0
- 0 .
- 0 .
4 . 2mb
0.
3. 7mb
- 0 .
4 . 2mb
obs .

8

7

L

7X

7
2

7
1
9
2

5

6

«Uij J i , i»»i iin i orn j / .
47 . 269 N±5.1km 11.717

DEPTH = 10.0km (geophysi
AUSTR 1 A

ML 2 . 1 (KBA) .

WTTA 0 . 06 265 i Pgd 1 6 39 .
i Sg 1641.
WAT A 0.12 305 i Pgc 16 39 .
i Sg 1641.
SCE 0 . 23 181 i Pgd 16 42.
i Sg 1647.
SOTA 0 . 35 262 i Pgd 16 44 .
i Sg 16 50.
OGA C . 62 230 iPgc 16 40.
FV 1 0 . 99 1 32 P 1 6 56 .

eSg 17 09.
KBA 1.13 99 i Pgd 1657.
i Sg 1712.
CT 1 1 . 22 182 P 1701.

eSg 17 19.
OSS 1 . 22 242 ePd 17 00 .
VDL 1 . 73 244 ePd 17 10.
WET 2.03 22 eP 1712.

KHC 2.24 33 Pg 1716.
eSg 1746.
SLE 2.24 284 ePd 1 7 16 .
ZLA 2.27277 ePd 17 22 .
TMA 2.28 240 ePd 17 18.
FEL 2 . 58 285 ePn 1 7 20.
HOF 3.05 2 eP 17 32.
S.D. =0.9 on 13 of 1

? AUG 31, 1991 21 h 1 9m 56 .
2.271 S ±41 .0km 128. 147
DEPTH - 33.0km (normol)
5 . 1mb (3 obs .)
CERAM SEA

MTN 10.91 164 i PC 22 33.
0.3s 200 . 00 nm
eS 23 52.
KNA 1 3 . 41 1 77 eP 2307.
WR2 18.59161 i Pd 2409.
0.2s 35.80nm
eS 26 52.
CIS 21 . 34 149 i Pd 24 43.
0.2s 3 . 00nm
eS 27 53.
ASPA 2 1 . 99 166 i Pd 2450.
0.6s 82.30nm
NANU 23.60 210 eP 25 05.
WARS 23.82 183 eP 25 13.
S.D. =0.6 on 5 of

AUG 31 , 1991 21 h 27m 59 .
6 . 590 S ± 8 .0km 154 . 977
DEPTH - 95.5 ± 10. 9 km
4 . 3mb (5 obs .)
SOLOMON ISLANDS

RAB 3.67 310 e(P) 28 55.
iS 29 45.
HNR 5.67 1 20 eP 29 23 .
eS 30 31 .
CTAO 15.87211 i PC 3139.
i 31 42.
DZM 18.96 145 iPc 32 15.
01 S 20.37 226 i Pd 3230.
0.7s 8 . 00 nm
i 33 33.
RMO 20.66 196 i Pd 32 43.
0.5s 1 4 . 00nm
OLP 22 . 36 206 eP 32 51 .
WR2 24 . 02 234 i Pd 3307.
0.6s 23 . 50nm
CMS 26.21 198 eP 33 27.
ASPA 26.43 228 iPd 33 28.
0.7s 1 1 . 50nm
STK 28 . 10 205 i PC 33 43.
0.7s 1 . 80nm
WARB 33.30 231 eP 34 30.
LOE 57 . 74 295 i PC 37 42.
CHG 60.71 296 eP 38 03.
GBA 79.53 285 Pd 39 58.
0.5s 2 . 00nm
S.D. -0.5 on 14of 1

j »I o . a i s
E ± 4.4km
Cist)
(546)

50 -0.5
50
30 -1.4
30
90 0.3
40
10 -0.8
20
90 -0 3
10 -& . 3
40
60 -1.2
40
40 1.0
50
60 0.1
80 2. 8X
40 0.1
50 1.2
00
40 1.1
60 6.8X
60 2. 6X
97 0.7
70 6 . 0X
7 obs .

87± 3.91s
E ±25 . 2km

(270)

40 -0.5
6 . 9mb X
00
70 0.3
80 -3.8X
5. 2mb
10
30 -0.2
4 . 4mb
20
60 0.6
5 . 3mb
50 -0.2
00 5 . 1 X
7 obs .

45± 6.90s
E ± 8.2km

(193)

00 -0.2

00

00 0.1
00
00 0.4
00
90 -0.2
00 -0.7
4 . 2mb
60
80 10 . 2X

00 0.5
70 1.0
4 . 8mb
00 0.0
70 -0.5
4 . 5mb
70 -0.5
3 . 8mb
00 -0.2
80 -0.3
60 0.1
30 0.5
4 . 2mb
5 obs .

% AUG 31, 1991 22h 02m 28 . 66± 2.90s
40.494 N ±19. 2km 26.386 E ±24. 9km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

. EZN 0.67 184 iPg 02 41.90 0.0
eSg 02 49.90
MFT 0.74 66 iPg 02 43.00 -0.3
i Sg 02 52.00
EDC 1.14 97 ePn 02 50 .00 0.0
CTT 1.68 67 i Pn 02 58 . 50 0.2
YLV 2.28 87 ePn 03 07.00 0.6
1 Z 1 2. 36 93 ePn 03 1 3 . 00 4 . 8X
S.D. -0.2 on 5of 6obs.

* AUG 31. 1991 22h 25m 50.42± 0.73s 22.267 S ±13. 8km 170.226 E ±12. 5km DEPTH = 33.0km (normol)
4 . 2mb (Sobs.)
LOYALTY ISLANDS REGION (189)

DZM 3.51 272 iPd 26 44.00 -0.1
iS 27 25.00
PVC 4.85 338 IP 27 14.20 11. 2X
BKM 4.94 337 IP 27 05.00 0.7
RMO 20.00 254 eP 30 34.00 10. 8X
CMS 23.58 242 eP 31 00.00 1.0
STK 27 . 17 243 eP 3133.10 0.3
0.8s 1 . 30nm 3 . 6mb
ASPA 33.42 260 eP 32 27.60 -0.8
1.5s 6 . 60nm 4 . 3mb
WR2 33.49 267 eP 32 29.70 0.7
0.5s 2 . 1 0nm 4 . 3mb
WRA 33.51 267 P 32 28.00 -1.2
1.7s 3 . 1 0nm 3 . 9mb
MAT 65.85 332 eP 36 34.00 -0.8
0.8s 7.46nm 4. 8mb
CHG 80.75 295 eP 38 05.00 2.6X
SPC 144.15 326 ePKP 45 23.60 -1.0
KSP 144.97 331 iPKPd 45 25.10 -0.6
BRG 145.98 333 ePKP 45 28.80 1.4
0.8s 1 2 . 00nm
e 4544. 50

SRO 146.01 325 e(PKP)45 28.10 0.6
CLL 146.03 334 ePKP 45 28.00 0.6
PRU 146.37 331 PKP 45 29.00 1.0
e 45 30.50

2ST 146.39 327 e(PKP)45 36.30 8.2X
EKA 146.61 353 PKPc 45 25.90 -2.3
0.8s B . 50nm

MOX 147.10 335 e(PKP)45 32.00 2.8X
SKO 147.33 314 iPKP 45 30.50 0.7
i 4540. 00
i 45 57 .50
KHC 147.42 331 PKP 45 33.00 3.2X
i 4543.00
DMU 148.34 357 ePKP 45 33.80 2.8X
DCN 148.91 357 ePKP 45 35.20 3.2X
MEM 149.13 340 PKP 45 38.70 6.3X
SNF 149.73 342 PKP 45 43.60 10. 3X
WLF 149.90 339 PKP 45 45.00 11. 5X
e 46 08 .00
DOU 150.01 341 PKP 45 38.50 4.8X
CDF 150.57 337 ePKP 45 39.70 4.9X
BSF 151.24 336 ePKP 45 41.20 5.4X
HAU 151.25 337 ePKP 45 41.30 5.6X
FLN 152.54 347 ePKP 45 44.20 6.7X
LOR 152.74 339 ePKP 45 45.10 7.2X
S . D . - 1 . 1 on 1 6 of 33 obs .

% AUG 31, 1991 22h 39m 52.31± 1.75s 3.616 N ± 7.3km 75.823 W ± 1 7 . 6 km DEPTH - 33.0km (normol)
COLOMBIA (103)
MD 3.3 (UVC) .

BUGC 0.51 302 eP 40 03.18 -0.1
CLMC 0.78 290 iPd 40 07.14 0.1
eS 40 1 9 . 40
HOBC 0.80 337 eP 40 07.17 0.0
HOOC 0.82 260 iPd 40 07.54 -0.2
eS 40 20.20
ANCC 1.05 265 i Pd 40 10.98 0.2
eS 40 26.20
SILC 1.06 209 ePd 40 10.49 -0.7
PURC 1.39 203 ePc 40 16.75 0.6

31 d 22h

298

S .D. =

AUG 31 .
45.471
DEPTH

2 . 7rr,b
ROMAN I A

BRD 6

N

0. 5

1 991

eS
on

22h
± 6.3km

40
7 o

43m
26 .

36 .
f

1 8.
761

30
7 obs .

49± 0 . 72s
E ± 8.6km
= 33.0km (normal)
(

. 21
I SR 0.37
VR I 6
MLR 6
M T U ft 1
PIT 1
MC'B 1
PSN 2
PVL 2
JMB 3
MMB 4

. 40
. 58
. 22
49
, 79
. 06
48
01
. 46
KKB 4.48
VAY 5.15
PSZ 5.32
NAO 18.02
0.

S .D.

9s
=

AUG 31 ,
1 4 . 848 S
DEPTH -

4 . 5mb
VANUATU

(

1 obs

77
205
356
272
259
350
293
150
205
183
21 1
218
218
300
334
0
1 . 2

1991

.)

iPC

iPd iPd
iPd
iPC

eP
ePc
iPd
iP
iP
iPd
iPc
ePn
«P
P
. 60nm
o n 1

23h

43
43
43
43
43
43
43
43
44
44
44
44
44
44
47

1 0

0 1rr
±1 0 . 61-m 167.
84.9 J ' " ° '

4 obs

i it.

25 .
28 .
25 .
30 .
43 .
45 .
49 .
51 .
00 .
12 .
25 .
26 .
35 .
36 .
1 8 .

f 1

1 7 .
0 1 8
m

60
20
80
00
60

00
00

00
00
00
00
00
00
50
00

5

(358)

0 . 4
1 . 0
- 1.8
- 0 . 3
4 . 2X
1 . 8
1 4
- 0 . 4
2.6X
7 . 1 X
- 0.6
0 . 1
- 0.3
- 1 . 3
- 9 . 7X
2 7mb
obs .

32± 1 . 78s
E

5 SLANDS

B K M 3.04

PVC 3.13

DZM 7

HNR 8

RMO 26
0.

. 20

. 76

. 61
4s
URZ 24.97
CMS 25.49
NOZ 25.60
01 S 26
MNG 26
PGZ 26

. 70
. 72
. 91
LTZ 28.20
STK 28
0.

. 74
9s

BW 7 29.69
TUZ 31.09
ASPA 32
1 .
MAT 57
1 .
SPA 75
1 .
SF 1 144
PGD 144
BD 1 144
FLN 144
0.
LDF 144
0.

. 4 1
0S
. 90
0s
. 25
0S

. 12
. 21
. 63
. 65
6s
. 72
7s
LOR 144.77
0.
LBF 144
0.

8s
. 97
9s
SSF 143.06
0. 9s
GRR 143.09

0 j6s
LPL 14!
0
LPG 14!
0

SMF 14!
0
AVF 14!
0
LPF 14!
0
BN 1 14!

. 20
6s
. 21
6s
. 32
9s
. 35
8s
. 47
5s
. 60

157

157

184

307

233
5
161
226
1 60
254
1 66
1 64
172
229
4

176
176
249
3
333
10
1 80
20
329
329
330
346
9
345
5
340
3
340
7
340
18
346
1 1
335
4
335
6
339
8
340
6
346
10
335

iP
i S
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BGF

M A F

TCF

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EPF

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145.72 340 ePKP 20 47.90 0.3
0.6s 7 . 20nm
146.11 341 ePK'P 20 48.50 0.3
0.6s 2 . 70nm
146.16 341 ePKP 20 49.20 0.9
0.5s 2 . 20nm
146.24 333 ePKP 20 49.90 1.3
0.7s 1 6 . 55nm
146.41 342 ePKP 20 49.70 1 0
0.6s 5 . 40nm
146.54 330 ePKP 20 50
0.9s 1 3 . 1 0nm
146.57 344 ePKP 20 50
0.7s 9 . 90nm
146.83 333 ePKP 26 51
0.8s 1 0 . 75nm
147.03 334 ePKP 20 51
147 .07 333 ePKP 20 51
147.26 341 ePKP 20 52

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0.6s 4 . 50nm
147.42 340 ePKP 20 53.20 2.BX
0.6s 2 . 25nm
147.83 342 ePKP 20 54.00 3.0X
0.6s 7 . 26nm
147.92 341 ePKP 20 54.20 3. IX
0.6s 6.30 nm

149.67 340 ePKP 20 59 .[00 5.0X
0.9s 4 . 90nm
S.D.=14 on 41 of 48 obs.

AUG 31. 1991 23h 03m 47.2l± 2.52s
5.267 N ±26. 3km 95.465 E ±17. 2km
DEPTH = 109.5 ± 26.0 1- m

4 . 3mb (4 obs .)

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NORTHERN SUMATERA (706)

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5.46 69 eP 05 07 .90 0.3
1.0s 104. 09nm 5 . 0mb X
5.58 97 ePc 05 08.90 -0.4
0.5s 18.30nm 4. 6mb X
e 0533. 60
c 0610.70
19.61 296 PC 08 09 .60 0.2
1.0s 6.60nm 3. 9mb
20 . 49 307 eP 0818.50 0.0
45 . 72 1 24 i Pd 1159.40 0.1
0.5s 12.80nm 5. 0mb
i 1219 30
ASPA 47.25 129 iPd 12 11.60 0.2

HFS

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0.5s 6.70nm ' 4. 7mb
81.36 330 eP 15 52<40 -0.3
0.4s 0.50nm 3. 7mb
S . D . =0.4 on 7 of 7 obs.

AUG 31. 1991 23h 17m 02.51± 0.90s
26.999 S ±10. 5km 26.417 E ± 8.3km
DEPTH = 5.0km (geophy s c i s t)
REPUBLIC OF SOUTH AFRICA (584)

PRY

SLR

FRS

BFT

HVD

JOZ

GRM

BUL

W 1 N

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mbLg 3.5 (BUL) .

0.95 86 i Pd 1721
1 . 0s 965 . 00nm
S 1728
2.09 53 i PC 1702
S 1725
2.91 199 i Pd 17 57

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S 1827170
3.51 69 eP 18 00
S 1838
3 . 68 1 92 eP 1801
S 1844
5.06 96 eP 1819
0.8s 52.24nm
S 1912
6 .29 179 eP 1 8 50

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1.0s 35 . 00nm
7.12 17 iPn 18 49L 30 -0.7
iSn 20 04
iSg 20 39
9.55 296 eP 19 24
1.0s 30 . 00nm
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iSn 21 18.
iSg 2217.
S.D.-1.3 on 6of 1

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AUG 31, 1991 23h 33m 22.72± 3.11s 45.566 N ±30.0km 27.650 E ±28.0km DEPTH = 33.8km (normal)
kNIA (358)

0.42264 i PC 3333.00 0.8
0.72 296 i Pd 33 36 .50 0.1
1.01 164 iPc 33 46.60 0.0
1 .20 267 i PC 33 42 50 -0.9
S.D. =1.2 on 4 of 4 obs.

299

STATION DATA REPORT FOR AUGUST, 1991

1361 stations reported 64212 reading arrival groups

X = data received for this 6-haur time period

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