UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

EARTHQUAKE DATA REPORT

MARCH 1989

by

U.S. Geological Survey

NATIONAL EARTHQUAKE INFORMATION CENTER[1]

Open-File Report 89-603

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[1]USGS, Denver, Colorado

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The following description is for New Publications of the U.S. Geological Survey:

Earthquake Data Report for March **, 19** 89

The Earthquake Data Report (EDR) is a bulletin produced by the National Earthquake Information Center (NEIC) containing all information used to calculate the locations and magnitudes of events published in the Preliminary Determination of Epicenters (PDE) Monthly Listing for the corresponding month. The EDR is a technical data file intended for users who are familiar with basic seismological practice. Potential users who are unfamiliar with such practice or who desire simply a bulletin of earthquake locations are advised to obtain the PDE Monthly Listing (available from the U.S. Government Printing Office) instead of the EDR. A machine-readable summary of the PDE Monthly Listing is available from the NEIC.

The EDR data are written on 1.2 megabyte, high density, 5 1/4 inch diskettes and are readable by IBM PC or compatible computers running DOS version 2.0 or higher. All files are ASCII and the documentation is given in file AAREADME.DAT on the first disk. Succeeding disks are a continuation of the data file which starts on the first disk. Each disk contains a title page file, named AATPAGEn.DAT, and a data file, OFEDRmmn.DAT, where n is the disk number and mm is a two-character code for the month (JA, FE, MR, etc.).

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U. S. DEPARTMENT OF THE INTERIOR

Geological Survey

EARTHQUAKE DATA REPORT

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

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

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

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

Two types of magnitude are computed: body-wave magnitude (m_b) and surface-wave magnitude (M_{SZ}). Each is a 25% trimmed mean of individual station values. Station magnitudes not used in the trimmed mean are marked with an X. This includes station magnitudes of either type which deviate significantly from the mean and surface-wave magnitudes determined from horizontal amplitudes. Body-wave magnitudes are computed according to the formula $\log(A/T) + Q$, derived by Gutenberg and Richter (1956), where A is the P-wave amplitude in micrometers, T is the period in seconds, and Q is the depth-distance factor. Surface-wave magnitudes are computed from the formula $\log(A/T) + 1.66\log(\Delta) + 3.3$, where A is the maximum vertical surface-wave amplitude in micrometers, T is the period in seconds, and Δ is the epicentral distance in degrees. Surface-wave magnitudes are determined only for earthquakes whose focal depths (taking into account the computed standard deviations) are potentially less than 50 km, for stations having

$20° \leq \Delta \leq 160°$, and for reported periods of $18 \leq T \leq 22$ s. No correction for focal depth is used in the M_S calculation. Body-wave magnitudes are not determined from PKP arrivals or for stations having $\Delta \leq 5°$. Amplitude values stated in this report are in nanometers (nm) for body-waves and micrometers (μm) for surface-waves.

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

Hypocenter Symbols

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

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

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

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

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

Note: On printers available to the NEIS for this publication, the symbol for degrees (°) appears as "`".

References

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

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

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

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

* MAR 01, 1989 00h 08m 45.79± 0.76s
2.172 N ±16.0km 127.902 E ±23.6km
DEPTH = 33.0km (normal)
4.9mb (1 obs.)
MOLUCCA PASSAGE (266)

WB5	22.81	164	eP	13 47.30	0.2
OIS	25.33	154	iPc	14 11.20	-0.2
CHTO	32.83	302	eP	15 18.50	-0.3
BJI	39.17	346	eP	16 12.00	-0.3
LZH	40.43	329	eP	16 24.00	1.0
	1.5s	39.00nm		4.9mb	
PKI	47.82	306	P	17 22.20	-0.7
KKN	48.02	306	P	17 24.10	-0.2
GKN	48.62	306	P	17 28.40	-0.5
HYB	50.75	291	eP	17 46.00	0.9

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

? MAR 01, 1989 00h 17m 30.14± 1.05s
37.774 N ± 8.7km 29.170 E ± 9.4km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

KHL	0.62	27	iPg	17 42.50	-0.1
			iSg	17 52.50	
YER	0.95	228	iPn	17 48.40	0.1
BCK	1.17	105	ePn	17 52.30	0.3
ELL	1.18	150	ePn	17 52.00	-0.3

S.D. = 0.4 on 4 of 4 obs.

? MAR 01, 1989 01h 32m 46.98± 7.65s
10.116 S ±53.6km 41.313 E ±53.1km
DEPTH = 10.0km (geophysicist)
3.9mb (1 obs.)
NORTHWEST OF MADAGASCAR (574)

NPA	5.33	202	iPn	34 09.00	0.3
	0.2s	160.00nm		6.3mb X	
			iPg	34 19.00	
			iSn	35 01.00	
			iSg	35 13.00	
NAI	9.86	333	iPd	35 25.50	13.4X
	1.0s	6.00nm			
PTZ	10.58	246	iPn	35 21.50	-0.4
			iSn	37 16.50	
			iSg	38 08.00	
LSZ	13.79	247	iPn	36 04.60	-0.5
			iSn	38 31.00	
KMZ	15.51	256	iPn	36 28.60	0.9
			iSn	39 12.00	
SLR	19.85	217	eP	37 22.00	0.7
KSR	20.78	219	eP	37 30.00	-1.1
PRY	21.22	216	eP	37 23.50	-12.0X
	0.7s	7.50nm			
CER	30.74	218	eP	39 13.00	8.3X
GBA	42.90	57	Pc	40 55.00	7.3X
	0.4s	0.90nm		3.9mb	
GKN	56.50	47	P	42 39.00	6.9X

S.D. = 1.0 on 6 of 11 obs.

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* MAR 01, 1989 01h 41m 59.03± 1.80s
9.799 S ±10.2km 112.553 E ±19.8km
DEPTH = 49.7 ± 20.2 km
4.6mb (2 obs.)
SOUTH OF JAVA (282)

TRT	2.08	2	ePd	42 32.50	0.3
			iS	42 58.50	
NANU	13.01	168	iPd	45 01.90	-1.5
	0.4s	18.00nm		5.4mb X	
			eS	47 21.00	
MBL	13.29	149	eP	45 03.00	-4.2X
			eS	47 20.00	
MEKA	17.66	162	eP	46 04.00	0.9
			eS	49 10.00	
WB5	23.32	118	eP	47 04.90	1.2
FORR	25.46	148	eP	47 27.00	2.9X
SSE	41.49	11	Pd	49 42.60	-0.4
	0.8s	20.00nm		4.9mb	
GBA	41.90	303	Pd	49 46.50	0.0
	0.4s	2.60nm		4.3mb	
HYB	43.13	309	eP	49 57.00	0.4
KKN	45.76	325	P	50 19.00	1.2
BJI	49.70	4	eP	50 46.00	-2.0

S.D. = 1.4 on 9 of 11 obs.

? MAR 01, 1989 02h 02m 26.58± 1.06s
10.002 N ±17.7km 121.807 E ±28.7km
DEPTH = 33.0km (normal)
4.5mb (4 obs.)
PANAY, PHILIPPINE ISLANDS (254)

PPR	3.04	266	iPc	04 07.50	54.0X
PGP	3.58	347	iPc	03 20.00	-1.1
			iS	03 33.00	
CHTO	23.79	294	eP	07 38.00	0.6
WB5	32.17	157	iPd	08 52.80	-0.9
WRA	32.21	157	Pc	08 57.40	3.3X
			PP	22 34.30	
PKI	38.44	302	P	09 46.00	-1.6
	0.4s	5.00nm		4.7mb	
GBA	43.54	279	Pc	10 38.40	9.2X
	0.6s	1.70nm		4.0mb	
QUE	54.74	300	iPc	12 16.30	20.6X
SUF	83.78	333	iP	14 54.50	0.9
INK	86.13	21	eP	15 10.00	4.7X
MBC	86.91	12	eP	15 12.00	3.0X
HFS	90.22	332	ePKP	15 26.40	1.4
	0.4s	0.90nm		4.4mb	
NB2	91.02	333	P	15 29.40	0.7
	0.8s	2.00nm		4.5mb	
YKA	95.75	23	eP	15 57.60	7.2X

S.D. = 1.4 on 7 of 14 obs.

MAR 01, 1989 02h 42m 03.52± 0.17s
43.972 N ± 3.8km 148.968 E ± 2.8km
DEPTH = 46.8km (13 depth phases)
5.7mb (60 obs.) 5.8Msz (22 obs.)
KURIL ISLANDS REGION (222)
Mo=6*10**17 Nm (PPT). Felt (III) at Kurilsk. Felt (I JMA) at Nemuro, Hokkoido.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 14S, 32C
Centroid Location:
Origin Time 02:42: 3.9 0.3
Lat 44.08N 0.03 Lon 149.54E 0.05
Dep 28.5 2.1 Half-duration 3.2
Moment Tensor; Scale 10**17 Nm
Mrr= 5.11 0.12 Mtt=-1.96 0.15
Mff=-3.15 0.17 Mrt= 2.93 0.41
Mrf= 3.42 0.45 Mtf=-3.41 0.16
Principal Axes:

	Val=	Plg=	Azm=
T	6.70	71	311
N	0.90	0	220
P	-7.61	19	130

Best Double Couple:Mo=7.1*10**17
NP1:Strike=220 Dip=26 Slip= 89
NP2: 40 64 90

NEM	2.54	256	eP	42 42.00	-1.1
			eS	43 10.00	
KUSJ	3.22	256	P	42 50.10	-2.6
			eS	43 27.40	
HOOJ	4.45	251	eP	43 10.80	0.7
			eS	44 01.00	
ASAJ	4.56	274	P	43 12.10	0.3
SAP	5.63	263	eP	43 25.00	-1.8
			eS	44 34.00	
MRRJ	5.98	258	P	43 30.00	-1.6
			eS	44 38.30	
AOMJ	7.23	245	eP	43 46.90	-2.3
OFUJ	7.34	231	P	43 46.20	-4.6X
			eS	45 03.90	
YAMJ	8.89	232	P	44 08.20	-4.0X
			eS	45 44.30	
NIIJ	10.13	232	P	44 25.80	-3.3X
			S	46 13.70	
KAKJ	10.27	224	P	44 26.20	-4.9X
			S	46 14.60	
CHJJ	11.00	227	P	44 36.30	-4.8X
			S	46 32.80	
MAT	11.07	232	P	44 38.00	-4.0X
MTMJ	11.27	233	P	44 41.70	-3.1X
IIDJ	12.01	229	P	44 52.00	-2.7
MDJ	13.90	279	Pc	45 17.00	-2.5
	Z 20s	61.90um			
	E 15s	34.60um			
			epP	45 25.00	
			esP	45 30.00	
			S	47 50.00	
YONJ	14.81	239	P	45 26.80	-4.7X
TKSJ	15.28	234	eP	45 35.00	-2.6
SHK	15.73	239	eP	45 51.50	8.1X
CN2	16.95	278	Pc	45 54.00	-4.7X
	Z 15s	30.00um			
	E 15s	30.00um			
			pP	46 00.00	
			S	48 56.00	
SHNJ	16.97	241	eP	45 57.90	-1.1
KUMJ	18.21	237	eP	46 15.60	1.2
			S	49 44.60	
SNY	18.71	272	iPd	46 18.00	-2.4
	Z 17s	35.30um			
	N 14s	9.10um			
	E 14s	16.30um			
SMY	18.78	53	P	46 29.00	7.7X
KAGJ	19.14	234	eP	46 28.00	2.4
DL2	21.06	266	iPc	46 44.00	-1.7
	Z 18s	9.50um		5.2Msz	
	N 15s	10.30um			
	E 15s	12.80um			
			S	50 38.00	
ADK	24.16	59	P	47 16.10	0.1
BJI	24.59	272	Pc	47 20.00	-0.3
	4.0s	4.10nm		3.3mb X	
	Z 18s	24.90um		5.7Msz	
	N 15s	11.10um			
	E 16s	18.30um			
			epP	47 32.00	48km
			eS	51 41.00	
SSE	25.37	249	P+	47 28.00	0.2
	1.3s	172.00nm		5.4mb	
	Z 18s	16.90um		5.6Msz	
	N 16s	6.90um			
	E 17s	21.40um			
			sP	47 50.00	
			S	51 55.00	
			sS	52 20.00	
			SS	53 12.00	
			PcS	54 28.00	
TIA	25.45	263	P	47 28.40	-0.1
	Z 18s	12.10um		5.5Msz	
	N 14s	4.10um			
	E 17s	9.90um			
			S	51 53.00	
			sS	52 01.00	
NJ2	26.39	253	Pd	47 38.10	0.8
	6.0s	3.10nm		3.1mb X	
	N 15s	13.30um			
	E 15s	16.40um			
			S	52 05.50	
HHC	27.64	277	Pc	47 48.60	-0.1
	5.0s	2.90nm		3.2mb X	
	Z 20s	32.80um		5.9Msz	
	N 12s	7.90um			
	E 13s	13.40um			
			S	52 30.00	
TIY	28.17	270	Pc	47 53.30	-0.2
	1.0s	0.30nm		2.9mb X	
	N 17s	12.70um			
BTO	28.83	277	iPc	47 59.00	-0.4
	N 15s	13.00um			
	E 17s	35.30um			
			sP	48 15.00	
			PP	48 54.00	
			S	52 43.00	
			SS	54 15.00	
ANP	29.16	239	eP	48 03.00	0.5
WHN	30.40	256	Pc	48 13.00	-0.4
	Z 18s	36.80um		6.1Msz	
	N 16s	16.80um			
	E 17s	18.80um			
			S	53 07.00	
GUMO	30.48	188	eP	48 15.50	1.3
QZH	31.17	242	Pc	48 20.00	-0.2
	4.0s	2.10nm		3.2mb X	
	Z 20s	5.00um		5.2Msz	
	N 18s	9.60um			
	E 18s	8.90um			
			pP	48 34.00	56km
			S	53 28.00	
XAN	32.38	266	P	48 30.10	-0.7
	N 13s	2.70um			
	E 16s	8.70um			
			S	53 42.10	
LZH	35.08	273	eP	48 53.50	-0.7
	5.0s	2433.00nm		6.4mb X	
	Z 18s	13.30um		5.7Msz	

01d 02h

N 15s 13.20um
E 14s 2.00um
pP 49 07.00 51km
eS 54 15.00
GZH 35.88 246 Pc 49 01.50 0.6
Z 18s 16.50um 5.8Msz
N 17s 15.40um
E 16s 9.80um
S 54 30.00
HKC 35.89 244 iPd 49 02.50 1.5
TTA 36.43 39 eP 49 04.90 -0.3
BAG 36.50 230 eP 49 04.00 -2.3
eS 54 46.00
SVW 36.50 42 eP 49 06.10 0.3
GTA 36.55 280 iPc 49 06.40 -0.2
4.5s 2.40nm 3.4mb X
Z 15s 11.40um 5.8MszX
E 13s 10.40um
sP 49 18.20
PP 50 30.50
S 54 47.00
sS 55 03.00
ScS 59 20.00
QCP 37.68 228 eP 49 08.00 -8.0X
CD2 37.74 265 iPd 49 17.00 0.5
Z 16s 8.30um 5.6MszX
E 17s 9.90um
sP 49 30.00
BRW 37.74 25 P 49 15.40 -0.5
IMA 37.76 34 eP 49 15.70 -0.7
0.9s 70.80nm 5.6mb
KDC 38.18 48 eP 49 18.30 -1.5
GYA 38.25 257 P 49 20.40 -0.5
Z 16s 11.50um 5.8MszX
N 18s 13.90um
E 18s 13.60um
PP 50 51.00
S 55 12.00
ScP 55 20.00
PcS 55 26.00
PMR 39.62 41 eP 49 31.40 -0.4
1.0s 37.50nm 5.2mb
Z 20s 8.50um 5.6Msz
FBA 40.14 36 eP 49 35.90 -0.2
TOA 40.99 40 eP 49 43.30 0.2
QIZ 41.05 245 Pc 49 45.00 1.0
N 20s 9.50um
E 21s 14.30um
ePP 51 25.00
S 56 00.00
sS 56 14.00
SS 59 00.00
KMI 41.85 259 Pc+ 49 51.50 0.7
5.0s 2.20nm 3.1mb X
Z 18s 20.00um 6.0Msz
E 16s 12.00um
pP 50 04.00 46km
PP 51 33.00
eS 56 04.00
S 56 08.00
sS 56 22.00
DAV 42.06 216 eP 49 52.00 -0.2
WMQ 43.23 292 P 50 01.50 -0.2
4.0s 3.23nm 3.4mb X
N 14s 17.10um
E 14s 23.70um
sP 50 16.00
S 56 27.20
DWY 43.81 37 P 50 05.70 -0.4
INK 45.55 31 ePc 50 19.40 -0.4
0.5s 51.00nm 5.7mb
pP 50 35.00 61kmX
SIT 47.40 46 eP 50 35.80 1.2
LSA 47.50 273 P 50 37.50 1.2
N 15s 3.30um
E 17s 4.50um
PP 52 27.50
S 57 33.50
LOE 47.64 252 eP 50 38.00 1.0
MBC 48.18 19 eP 50 39.00 -1.5
0.5s 15.00nm 5.3mb
pP 52 23.00 563kmX
CHG 48.61 255 iPc 50 45.00 0.5
1.1s 79.11nm 5.7mb
CHTO 48.61 255 iP 50 44.20 -0.3
SHL 49.36 268 iP 50 50.00 -0.4
iS 58 04.00

KHT 51.62 252 eP 51 09.00 1.5
ALE 52.78 5 eP 51 12.00 -3.5X
0.9s 20.00nm 5.1mb
KKN 52.81 275 P 51 16.00 -0.7
PKI 52.85 274 P 51 16.20 -0.9
KSH 53.03 292 iPc 51 18.00 0.0
Z 20s 67.40um 6.7Msz
E 14s 10.60um
S 58 48.00
DMN 53.04 274 P 51 17.70 -0.7
GKN 53.15 275 P 51 18.30 -0.8
YKA 54.88 34 eP 51 30.50 -0.6
YKC 54.94 34 eP 51 30.50 -1.1
1.0s 40.00nm 5.4mb
SNG 55.81 244 eP 51 39.50 1.2
1.1s 139.24nm 5.9mb
eS 59 29.00
IPM 57.52 241 ePd 51 52.00 1.5
1.3s 93.50nm 5.7mb
NDI 58.06 280 iPc 51 54.00 -0.2
1.4s 1000.00nm 6.7mb X
eS 59 23.00
KGM 58.09 237 ePd 51 56.20 1.7
MTN 58.84 200 eP 51 59.00 -0.6
KEV 58.96 340 eP 51 58.00 -2.0
Z 20s 3.60um 5.5Msz
S 00 24.00
eSS 04 20.00
LR 17 20.00
RMW 59.01 52 P 52 02.80 2.0
PNT 59.24 50 eP 52 01.00 -1.2
0.9s 29.00nm 5.4mb
DAG 59.28 357 iPc 51 59.00 -3.1X
1.0s 45.00nm 5.6mb
LON 59.40 53 P 52 02.40 -1.0
EDM 60.34 43 eP 52 08.50 -1.2
SOD 60.76 338 iP 52 08.70 -3.6X
TRO 60.96 342 eP 52 11.30 -2.3
TRT 61.03 222 ePc 52 15.50 0.8
LBFM 62.39 58 P 52 24.10 0.2
pP 52 36.80 44km
WDC 62.43 59 iPc 52 23.80 -0.1
i 52 40.00
KJF 62.73 335 iP 52 23.00 -2.5
1.3s 167.00nm 6.0mb
Z 18s 14.40um 6.2Msz
eS 01 04.00
eScS 02 20.00
SS 05 16.00
LR 22 40.00
MIN 63.15 59 iPc 52 28.10 -0.8
i 52 44.30
SES 63.16 45 eP 52 27.00 -1.7
ORV 63.68 60 iPc 52 31.40 -0.8
i 52 47.60
HYB 64.09 270 eP 52 34.00 -1.2
1.0s 150.00nm 6.0mb
e 52 47.00
eS 01 20.00
SUF 64.29 335 iP 52 33.20 -2.6
0.5s 63.60nm 5.9mb
OUE 64.34 288 eP 52 35.20 -1.7
eS 01 12.20
OIS 64.78 190 iPc 52 38.90 -0.5
WB5 64.93 195 eP 52 40.00 -0.4
ARN 64.98 62 P 52 41.00 0.3
WRA 65.00 195 Pc 52 40.60 -0.2
1.4s 24.00nm 5.0mb
LRM 65.21 50 eP 52 41.40 -1.0
CMB 65.29 60 iPc 52 42.50 -0.2
i 52 55.30
MAIO 65.60 297 iPc+ 52 45.00 0.3
1.2s 46.53nm 5.4mb
eSn 01 30.00
PRS 65.70 62 iPc 52 45.00 -0.3
i 52 57.80
LLA 65.80 62 ePc 52 45.80 -0.1
BGMT 65.81 50 ePc 52 45.40 -0.7
GDH 65.88 9 iPd 52 44.80 -1.1
0.8s 61.19nm 5.7mb
i 52 57.00
e 01 35.00
HPI 66.16 52 P 52 48.40 -0.1
FRI 66.35 61 iPc 52 49.00 -0.4
NUR 66.43 334 iP 52 47.10 -2.4
0.5s 58.90nm 5.9mb
Z 24s 8.70um 5.9MszX

eS 01 44.00
eSS 06 16.00
LR 25 50.00
POO 66.76 274 iPc 52 52.00 -0.3
1.1s 32.91nm 5.3mb
iS 01 50.00
EUR 67.12 57 iP 52 53.80 -0.8
0.2s 69.22nm 6.4mb
TNP 67.23 59 P 52 55.00 -0.3
BOM 67.27 275 eP 52 53.50 -2.0
eS 01 18.50
GBA 67.41 267 Pd 52 54.40 -2.0
1.1s 67.30nm 5.6mb
KHI 67.47 296 ePd 52 53.30 -3.5X
ISA 67.95 61 eP 52 58.00 -1.7
RGS 68.35 341 eP 53 01.50 -0.1
CLC 68.41 61 eP 53 02.00 -0.5
FRB 68.59 17 ePc 53 01.20 -1.9
0.9s 139.00nm 5.9mb
BW06 68.75 51 P 53 05.20 0.5
0.9s 19.60nm 5.1mb
SBB 68.98 62 eP 53 05.00 -1.1
UPP 69.11 336 iP 53 04.30 -2.0
i 53 17.20
MWC 69.13 62 eP 53 13.00 5.9X
KOD 69.66 265 eP 53 10.00 -0.7
eS 02 20.00
RVR 69.71 62 eP 53 05.00 -5.4X
NB2 69.86 340 P 53 08.80 -2.2
0.8s 11.20nm 4.9mb
HFS 69.99 338 eP 53 09.40 -2.2
1.6s 459.30nm 6.2mb
Z 17s 5.31um 5.9MszX
LR 20 07.00
MSU 70.01 56 P 53 12.70 0.2
pP 53 25.50 44km
NRA0 70.04 339 P 53 09.50 -2.5
pP 53 23.40 49km
AKU 70.22 354 iP 53 13.40 0.5
1.4s 120.93nm 5.7mb
i 53 26.20
PLM 70.45 62 eP 53 15.00 -0.2
TPC 70.48 61 eP 53 13.00 -2.2
HYA 70.95 342 iP 53 16.50 -0.9
BAR 71.00 63 eP 53 17.00 -1.3
RSON 71.03 37 P 53 16.50 -1.6
1.0s 20.50nm 5.0mb
IR2 71.39 302 iPc 53 20.78 0.0
IR7 71.55 302 iPc 53 21.56 -0.1
IR4 71.67 301 iPc 53 22.60 0.1
IR1 71.69 302 iPc 53 23.31 0.8
ASK 71.78 342 eP 53 21.70 -0.7
IR5 71.88 302 iP 53 24.49 0.8
GLA 71.94 61 eP 53 23.00 -1.0
ODD1 71.96 341 eP 53 23.30 -0.3
REY 71.99 356 iP 53 24.30 0.7
TAB 72.54 306 iP+ 53 29.00 1.5
i 53 41.00
KMY 72.91 341 iP 53 28.80 -0.3
GLD 73.20 51 P 53 31.80 0.3
pP 53 43.60 40km
COP 74.13 336 iPc 53 36.00 -0.3
1.0s 152.00nm 5.9mb
Z 18s 3.78um 5.7Msz
ipP 53 49.00 45km
WAR 74.18 330 e(P) 53 36.00 -0.6
Z 18s 11.00um 6.2Msz
e 03 41.00
MUD 74.37 338 iPd 53 37.50 -0.1
1.0s 40.00nm 5.3mb
i 53 50.40
SLY 74.70 305 iPd 53 40.50 0.6
ipP 53 53.00 42km
i 54 04.50
eS 03 14.50
eSKS 03 30.50
eLR 29 40.50
IAS 75.56 323 eP 53 49.00 4.4X
ALQ 75.81 55 ePc 53 46.00 -0.6
1.0s 14.00nm 4.9mb
Z 22s 2.50um 5.5Msz
CLI 76.18 323 eP 53 48.00 -0.2
BIR 76.24 322 eP 53 50.00 1.5
PTT 76.26 324 iP 53 53.00 4.3X
PPE 76.29 322 eP 53 48.00 -0.8
KRA 76.35 329 iPc 53 49.40 0.3
0.8s 132.00nm 6.0mb

Z	18s		8.10um		6.1Msz
N	20s		9.00um		
			i	53 53.40	
			i	54 02.40	
			eS	03 39.00	
CFR	76.84	321	eP	53 51.70	-0.2
FORR	76.87	198	eP	53 52.30	0.3
VRI	76.95	323	ePc	53 52.50	0.0
SPC	76.95	328	eP	53 52.90	0.2
			i	54 04.70	
BHD	76.97	304	iPd	53 53.50	0.7
			epP	54 07.50	49km
			eS	03 40.00	
			eSKS	03 53.00	
SCH	76.99	20	eP	53 52.00	-0.6
KSP	77.01	331	iPc	53 52.80	0.1
	1.2s		277.00nm		6.2mb
			i	54 06.20	
			eS	03 42.00	
BRD	77.08	322	eP	53 55.00	1.8
CEI	77.30	326	eP	54 07.00	12.6X
TLB	77.36	321	ePc	53 54.50	-0.2
MLR	77.58	323	iPd	53 57.00	0.8
CJR1	77.59	325	eP	53 56.40	0.4
ISR	77.60	322	eP	53 56.50	0.4
EAB	77.70	345	eP	53 56.40	0.0
	1.3s		270.00nm		6.1mb
CLL	77.71	333	iPc	53 55.70	-0.9
	1.9s		300.00nm		6.0mb
			ipP	54 09.30	47km
			eS	03 44.00	
BRG	77.78	333	iPc	53 56.60	-0.3
	2.0s		20.00nm		4.8mb
			i	54 09.80	
EAU	77.86	345	eP	53 57.40	0.1
	1.3s		260.00nm		6.1mb
PSN	77.99	320	eP	54 00.00	1.8
BWA	78.03	180	eP	54 02.60	4.2X
			e	54 12.50	
BEE	78.09	295	iP	54 01.00	2.0
	0.6s		74.00nm		5.9mb
PSZ	78.12	328	eP	53 59.70	0.7
DHR	78.14	295	iPc	53 59.70	0.4
EKA	78.28	344	Pc	53 59.50	-0.1
	1.1s		32.90nm		5.3mb
WIT	78.28	338	ePc	54 00.00	0.4
			i	54 13.90	
PRU	78.33	332	Pc	54 00.00	0.0
Z	17s		12.30um		6.3MszX
N	18s		9.00um		
E	16s		5.10um		
			e	54 13.50	
BUC	78.36	322	eP	54 00.00	-0.2
BBTK	78.70	315	iPc	54 03.00	0.7
MOX	78.73	334	iPc	54 02.00	-0.2
	2.3s		426.00nm		6.0mb
Z	16s		7.90um		6.1MszX
N	16s		6.00um		
E	16s		6.40um		
			i	54 16.00	
			eS	04 00.00	
			eSS	09 40.00	
			LQ	30 15.00	
			LR	33 30.00	
SRO	78.81	329	iP	54 03.40	0.8
			i	54 16.20	
			e	04 18.60	
BUD	78.81	328	iP	54 03.00	0.3
CAN	78.92	180	eP	54 06.00	2.8
			e	54 17.00	
ZST	78.94	329	iP	54 03.80	0.4
			i	54 16.30	
			e	55 18.10	
DRA	78.96	323	eP	54 06.00	2.5
WTS	78.97	337	iPc	54 03.80	0.4
	1.1s		225.00nm		6.0mb
			i	54 16.40	
VIE	79.17	330	eP+	54 05.00	0.4
	3.5s		1182.00nm		6.2mb X
			LR	33 04.00	
VKA	79.17	330	iPc	54 05.20	0.6
	3.5s		993.00nm		6.2mb X
Z	18s		6.90um		6.0Msz
			i	54 18.50	
			LR	33 03.00	
BZS	79.32	325	eP	54 05.00	-0.4
KHC	79.39	332	iP	54 05.90	0.0

			i	54 08.90	
			i	54 19.50	
HRT	79.49	318	eP	54 07.00	0.4
SOP	79.57	330	eP	54 06.90	0.1
GPA	79.59	317	eP	54 07.80	0.7
ISK	79.60	318	eP	54 07.00	0.0
WET	79.62	332	iPc	54 07.70	0.7
			i	54 20.50	
GBZT	79.62	318	iPc	54 07.00	-0.2
DMK	79.63	319	eP	54 07.00	-0.2
PVL	79.65	322	eP	54 09.00	1.8
UZD	79.72	328	eP	54 10.00	2.4
CTT	79.84	319	eP	54 08.00	-0.3
KMR	80.12	331	iP+	54 10.00	0.3
			ipP	54 24.10	49km
ENN	80.32	337	iPc	54 10.90	0.2
	1.0s		157.00nm		5.9mb
			i	54 24.10	
			e	54 37.50	
DMU	80.34	346	P	54 11.40	0.6
MEM	80.44	337	Pc	54 11.30	0.0
			e	54 25.20	
PGB	80.70	322	iPc	54 14.00	1.0
UCC	80.72	338	eP	54 15.80	3.0X
EDC	80.73	318	eP	54 13.00	-0.1
PLD	80.81	321	eP	54 14.00	0.5
KDZ	80.85	321	iPc	54 15.00	1.3
DLE	80.86	345	P	54 13.60	0.1
	1.2s		211.00nm		6.0mb
IKL	80.91	312	iP	54 14.80	0.7
DST	80.94	318	eP	54 13.00	-1.3
DCN	80.94	346	P	54 16.30	2.4
	1.3s		217.00nm		5.9mb
SNF	81.00	338	Pc	54 14.40	0.1
VTS	81.09	323	iPc	54 16.00	0.9
RZN	81.14	321	iPc	54 16.00	0.5
RDO	81.19	320	eP	54 16.10	0.6
WLF	81.25	337	P	54 16.40	0.8
			e	54 31.00	
DOU	81.30	338	P	54 15.50	-0.4
			e	54 28.80	
PTJ	81.30	329	eP	54 15.80	-0.3
ZAG	81.36	329	iPc	54 15.50	-0.7
ETA	81.37	345	eP	54 18.60	2.4
GWF	81.43	335	P	54 16.74	0.1
KHL	81.48	316	iP	54 16.50	-0.7
RYD	81.54	296	iPc	54 17.80	0.2
MMB	81.66	322	iPd	54 18.00	0.0
LJU	81.70	330	eP	54 17.40	-0.7
RBL	81.70	331	Pc	54 17.20	-1.0
KKB	81.72	322	iP	54 18.00	-0.3
STR	81.74	335	P	54 18.84	0.7
ECB	81.79	345	eP	54 19.40	1.0
FVI	81.85	331	Pc	54 18.70	-0.1
EZN	81.87	319	eP	54 19.00	0.0
ECP	81.89	345	eP	54 19.80	0.9
VBY	81.89	329	iPd	54 19.90	0.9
VOY	81.94	330	eP	54 19.70	0.3
HRI	82.00	309	e(P)	54 21.00	1.0
CEY	82.00	330	eP	54 19.80	0.2
CDF	82.04	335	P	54 19.93	0.0
TRI	82.26	330	eP	54 18.50	-2.5
			i	54 21.00	
FEL	82.29	335	P	54 21.20	-0.1
FVM	82.33	43	P	54 21.30	-0.2
PRK	82.35	319	eP	54 22.00	0.5
SKO	82.36	323	iPc	54 22.20	0.6
	1.2s		120.00nm		5.8mb
Z	17s		9.69um		6.2MszX
N	16s		6.38um		
E	18s		11.63um		
			i	54 35.20	
			iS	04 36.00	
			ScS	04 50.00	
			i	13 56.00	
			LR	34 08.00	
VAY	82.39	322	iP	54 22.30	0.6
	1.2s		0.05nm		2.4mb X
GAC	82.39	30	eP	54 21.50	-0.1
ELL	82.50	315	iP	54 22.60	0.0
IZM	82.54	318	eP	54 22.00	-0.6
MOF	82.58	335	P	54 22.56	-0.2
VITF	82.60	336	P	54 22.70	0.1
BCI	82.62	324	eP	54 24.80	2.0
JARJ	82.65	308	P	54 24.30	1.0
HAU	82.68	336	eP	54 22.90	-0.3
	0.8s		33.30nm		5.4mb

BSF	82.71	335	P	54 23.08	-0.3
CTI	82.71	332	P	54 22.80	-0.7
PLG	82.77	321	iPc	54 24.00	0.3
BURJ	82.77	308	P	54 24.20	0.3
BBS	82.82	335	P	54 23.97	0.1
PHP	83.02	324	eP	54 14.60	-10.3X
YER	83.03	316	eP	54 25.80	0.6
KFNJ	83.08	308	P	54 26.20	0.8
LOMF	83.13	335	P	54 24.44	-1.1
MASJ	83.15	308	P	54 26.70	0.8
KSL	83.15	315	eP	54 35.00	9.3X
MKRJ	83.33	308	P	54 27.90	1.1
OHR	83.34	323	eP	54 26.00	-0.7
	1.4s		0.19nm		2.9mb X
ELC	83.46	43	P	54 27.00	-0.3
SAL	83.48	332	P	54 27.50	0.3
TIR	83.54	324	eP	54 27.00	-0.6
KZN	83.57	322	eP	54 27.00	-0.9
MDI	83.61	333	P	54 29.60	1.7
OLY	83.72	46	P	54 28.30	-0.4
NEO	83.73	321	eP	54 29.00	0.3
KBN	83.73	323	eP	54 29.00	0.4
VAI	83.84	333	P	54 29.00	0.0
FLN	83.84	340	eP	54 28.80	-0.2
	1.2s		160.60nm		5.9mb
LDF	83.91	340	eP	54 29.00	-0.4
	1.3s		101.00nm		5.7mb
BERA	84.04	324	eP	54 39.00	8.9X
LOR	84.07	337	eP	54 30.10	-0.2
LSK	84.21	323	eP	54 32.40	1.2
RSM	84.27	330	P	54 32.60	1.4
GRR	84.28	340	eP	54 31.50	0.3
LBF	84.29	337	eP	54 31.40	0.0
	1.2s		71.40nm		5.6mb
ORX	84.30	334	P	54 32.46	0.9
ORO	84.31	334	P	54 33.20	1.6
SSF	84.36	337	eP	54 31.90	0.2
	0.8s		30.80nm		5.4mb
ARV	84.47	329	P	54 32.40	0.1
SFI	84.49	330	P	54 31.50	-0.8
ATH	84.57	320	eP	54 34.00	1.1
BOB	84.58	332	Pc	54 33.40	0.4
PRNI	84.59	307	eP	54 34.00	0.8
SMF	84.64	337	eP	54 33.40	0.3
AVF	84.65	337	eP	54 33.50	0.4
	1.2s		80.30nm		5.7mb
CIO	84.65	329	eP	54 33.08	-0.2
LPF	84.66	340	eP	54 33.50	0.4
MME	84.66	331	P	54 32.00	-1.6
LSD	84.72	334	P	54 34.51	0.7
LPG	84.81	334	eP	54 34.80	0.5
8DI	84.81	331	P	54 34.30	0.2
FIR	84.83	331	eP	54 34.50	0.5
ASS	84.94	329	P	54 36.50	1.8
RSP	84.96	334	P	54 35.33	0.5
MIM	84.97	26	P	54 34.80	0.1
BGF	85.00	337	eP	54 35.20	0.3
	1.2s		56.50nm		5.6mb
MBH	85.09	307	eP	54 37.00	1.4
AYN	85.11	306	iPc	54 36.80	1.1
BNI	85.23	334	P	54 36.70	0.4
CKI	85.28	333	P	54 37.50	1.2
RRL	85.32	334	P	54 37.59	0.8
PLDF	85.32	337	P	54 37.53	0.9
AGO	85.39	337	P	54 37.76	0.9
MAF	85.39	337	eP	54 37.60	0.7
TCF	85.43	338	eP	54 37.70	0.6
	0.8s		33.50nm		5.6mb
DUI	85.47	328	P	54 37.60	0.1
FIN	85.49	333	P	54 38.31	0.9
MNS	85.53	329	P	54 37.30	-0.3
ROB	85.53	333	P	54 36.98	-0.7
DOI	85.54	334	P	54 37.60	-0.2
AZI	85.58	328	P	54 37.20	-0.6
PZZ	85.59	334	P	54 38.11	0.0
LSF	85.65	338	eP	54 38.90	0.7
SDI	85.68	328	P	54 39.60	1.1
PYM	85.70	337	P	54 39.21	0.7
STV	85.75	333	P	54 38.82	0.0
MFF	85.76	339	eP	54 38.50	-0.2
	1.3s		223.80nm		6.2mb
NPS	85.83	317	eP	54 40.00	0.8
PWLA	85.86	44	P	54 39.60	0.2
IMI	85.86	333	P	54 39.13	-0.2
KMSA	85.98	294	iPc	54 40.30	0.0
ITM	86.05	320	eP	54 41.00	0.7
SBF	86.05	333	eP	54 41.00	0.7

01d 02h

LBL 86.10 336 P 54 41.50 1.1
TAU 86.51 181 P 54 45.00 3.0
eS 05 24.00
RJF 86.52 338 eP 54 42.80 0.3
1.2s 107.10nm 6.0mb
FRF 86.58 334 eP 54 43.00 0.2
1.2s 121.30nm 6.0mb
CAF 86.72 337 eP 54 44.60 1.1
LRG 86.76 334 eP 54 44.00 0.3
LMR 86.83 334 eP 54 44.30 0.3
1.2s 190.40nm 6.2mb
STJ 86.85 15 eP 54 44.50 0.5
HLW 87.03 310 eP 54 44.00 -1.2
eS 05 10.00
LFF 87.07 338 eP 54 45.50 0.4
LPO 87.19 338 eP 54 46.80 1.1
1.0s 97.60nm 6.0mb
PRIN 87.28 32 P 54 46.50 0.3
NAV 87.38 38 P 55 03.40 16.6X
BLA 87.63 37 P 54 48.20 0.2
1.0s 15.00nm 5.2mb
SOI 87.89 325 P 54 48.80 -0.3
CBN 88.08 35 eP 54 51.00 0.9
EPF 88.95 338 eP 54 54.90 0.6
1.0s 30.00nm 5.6mb
PRM 89.34 40 P 54 56.60 0.4
JSC 89.69 40 P 54 57.60 -0.2
TOL 93.05 340 eP 55 14.00 0.7
BNG 114.43 304 ePKPd 00 50.20 9.9X
0.9s 36.00nm
ic 01 35.00
id 01 45.00
TIC 124.41 328 PKP 00 58.72 -0.6
KIC 124.56 328 PKP 00 59.12 -0.4
LIC 124.79 328 PKP 00 59.46 -0.5
SLR 129.13 270 iPKPc 01 08.80 0.6
1.5s 63.89nm
Z 20s 6.03um 6.3Msz
KSR 130.21 271 ePKP 01 10.50 0.2
1.0s 15.00nm
PRY 130.42 270 ePKP 01 09.50 -1.2
1.2s 60.00nm
BFS 130.90 270 e(PKP)01 26.00 14.4X
ZOBO 138.23 60 ePKP 01 15.00 -11.2X
Z 22s 1.42um 5.7Msz
LR 48 55.00
LPB 138.44 61 ePKP 01 22.00 -4.4X
1.0s 20.00nm
Z 18s 0.69um 5.4Msz
PKS 05 04.00
LR 51 39.00
CNCB 138.72 61 PKP 01 19.80 -7.3X
ITR 144.34 13 ePKPd 01 34.20 -2.2
PEL 147.45 84 ePKP 01 43.50 2.5
TACH 147.52 85 ePKP 01 44.20 3.1X
SAN 147.62 85 ePKP 01 44.50 3.2X
BAO 148.29 32 ePKP 01 42.50 -0.4
BMA 156.17 31 e(PKP)01 57.00 3.0X
e 02 17.20
e 02 36.70
S.D. = 1.0 on 344 of 379 obs.

% MAR 01, 1989 02h 42m 07.79± 0.66s
37.705 N ± 6.4km 29.186 E ± 6.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

KHL 0.67 23 iPg 42 19.50 -1.7
iSg 42 30.00
YER 0.92 232 iPn 42 25.30 -0.1
ELL 1.12 149 iPn 42 28.60 -0.2
BCK 1.14 102 iPn 42 28.80 -0.4
IZM 1.67 295 ePn 42 38.00 0.8
DST 1.95 347 ePn 42 40.40 -0.9
GPA 2.73 18 ePn 42 54.00 1.6
EDC 2.83 339 ePn 42 54.00 0.1
EZN 3.08 314 ePn 42 56.80 -0.5
BBTK 3.52 52 eP 43 05.00 1.3
S.D. = 1.1 on 10 of 10 obs.

? MAR 01, 1989 02h 52m 39.63± 3.15s
44.471 N ±55.4km 148.557 E ±51.2km
DEPTH = 33.0km (normal)
4.4mb (2 obs.)
KURIL ISLANDS (221)

KUSJ 3.11 245 P 53 26.30 -1.1
S 54 02.30
HOOJ 4.37 243 P 53 46.30 0.9
eS 54 37.00
INK 45.27 31 eP 00 55.00 -0.2
GBA 67.14 267 Pd 03 44.10 11.7X
0.7s 1.60nm
NB2 69.29 339 P 03 45.00 -0.2
0.8s 4.00nm 4.5mb
HFS 69.41 338 eP 03 44.90 -1.0
0.4s 1.10nm 4.3mb
CLL 77.13 333 eP 04 44.00 12.9X
KHC 78.81 332 eP 04 42.00 1.5
S.D. = 1.4 on 6 of 8 obs.

MAR 01, 1989 03h 25m 05.36± 0.16s
21.754 N ± 3.1km 97.941 E ± 2.9km
DEPTH = 15.8km (9 depth phases)
5.2mb (39 obs.) 5.4Msz (5 obs.)
BURMA (296)
Felt at Chiang Mai, Muong Phayao
and Chiang Rai, Thailand.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 12S, 22C
Centroid Location:
Origin Time 03:25:10.6 0.4
Lat 21.61N 0.05 Lon 98.30E 0.04
Dep 58.1 3.5 Half-duration 2.8
Moment Tensor; Scale 10**17 Nm
Mrr= 0.26 0.14 Mtt=-3.05 0.22
Mff= 2.79 0.24 Mrt= 0.40 0.24
Mrf= 1.12 0.23 Mtf= 4.00 0.19
Principal Axes:
T Val= 5.11 Plg=14 Azm=297
N -0.02 76 124
P -5.09 2 27
Best Double Couple:Mo=5.1*10**17
NP1:Strike= 73 Dip=79 Slip= 9
NP2: 341 82 169
CHG 3.07 162 iPg 25 53.90 -0.3
iSg 25 58.20
CHTO 3.07 162 iP 25 53.30 -0.9
BDT 4.60 167 iP 26 13.80 -2.0
KMI 5.54 52 Pnc 26 31.00 1.6
Pg 26 49.00
Sn 27 34.00
Sg 27 58.00
SHL 6.73 306 iP 26 45.50 -0.6
eS 28 04.00
KHT 6.96 175 iPn 26 48.80 -0.4
iPg 27 16.00
eSg 28 43.30
GYA 9.24 58 P 27 21.00 -0.1
NNT 9.27 169 iPn 27 20.30 -1.1
iPg 27 58.60
iSg 29 55.00
LSA 10.00 324 P 27 33.80 2.0
S 29 29.00
CD2 10.50 29 eP 27 38.80 0.5
eS 29 35.00
QIZ 11.49 102 P 27 48.70 -3.1X
N 12s 30.30um
E 11s 20.00um
S 30 06.30
PKI 12.78 299 P 28 08.50 -1.0
KKN 12.97 300 P 28 11.00 -1.0
DMN 13.04 299 P 28 11.80 -1.1
GKN 13.58 300 P 28 17.70 -2.2
GZH 14.31 82 eP 28 28.70 -0.6
Z 14s 25.30um
S 31 13.00
MCO 14.50 86 eP 28 30.20 -1.6
SNG 14.72 169 eP 28 35.70 0.9
eS 31 03.00
eS 35 27.90
HKC 15.06 85 iPd 28 39.60 0.4
LZH 15.18 19 iPd 28 43.50 2.6
4.0s 3630.00nm 6.1mb X
SS 31 46.00
Lg 33 03.00
e 33 34.00
XAN 15.61 36 P 28 43.60 -2.7
N 12s 56.50um
E 10s 32.20um
WHN 17.12 56 Pd 29 03.50 -2.1
Z 16s 30.00um
N 12s 38.30um
E 10s 30.70um
IPM 17.33 170 ePc 29 09.90 1.6
1.3s 146.90nm 5.0mb
e 34 22.10
GTA 17.67 5 Pd 29 12.30 -0.2
Z 11s 19.90um
E 11s 41.70um
sS 32 41.00
HYB 18.77 260 eP 29 26.00 -0.1
1.0s 300.00nm 5.5mb
eS 33 00.00
PSI 18.97 177 ePd 29 29.40 0.9
1.1s 149.80nm 5.1mb
QZH 19.22 76 P 29 32.00 0.5
NDI 19.96 294 iPc 29 39.00 -0.8
1.0s 690.00nm 5.9mb
TIY 20.24 35 Pd 29 41.60 -1.1
1.3s 0.40nm 2.6mb X
Z 16s 24.10um 5.6MszX
N 10s 31.50um
S 33 28.00
sS 33 37.50
KGM 20.31 164 eP 29 44.00 0.5
GBA 21.13 251 Pc 29 50.90 -1.1
0.8s 33.70nm 4.8mb
NJ2 21.25 57 Pc 29 53.00 -0.1
S 33 50.00
BTO 21.40 26 iPd 29 54.60 0.0
PIP 21.57 95 ePd 29 59.00 2.6
BAG 22.04 100 eP 30 02.50 1.2
eS 34 06.00
TIA 22.06 45 P 30 01.00 -0.2
Z 10s 17.40um 5.8MszX
N 16s 34.60um
E 16s 40.20um
S 34 06.00
HHC 22.26 28 Pd 30 03.90 0.6
Z 12s 12.80um 5.6MszX
N 11s 18.00um
E 11s 20.90um
PP 30 31.00
SSE 22.76 61 eP 30 08.50 0.3
1.0s 49.00nm 5.0mb
Z 10s 19.30um 5.8MszX
N 14s 77.80um
E 12s 54.50um
pP 30 17.80 34kmX
S 34 18.00
sS 34 36.00
SS 35 10.00
ScP 37 28.50
POO 22.84 266 iPd 30 10.00 1.0
1.0s 70.00nm 5.1mb
iS 34 28.00
QCP 23.07 104 eP 30 06.00 -5.3X
PPR 23.25 118 iPd 30 16.00 3.0X
KKM 23.59 129 ePd 30 18.60 2.2
WMQ 23.59 341 P 30 19.00 2.7
4.0s 2.80nm 3.2mb X
Z 14s 9.30um 5.4MszX
N 12s 8.90um
E 12s 9.40um
pP 30 23.00 14km
BOM 23.72 268 eP 30 19.00 1.4
iS 34 41.00
BJI 23.94 36 eP 30 20.50 1.0
4.0s 1.60nm 2.9mb X
Z 12s 14.40um 5.7MszX
N 11s 11.80um
E 11s 5.40um
eS 34 40.00
KSH 25.75 318 eP 30 42.00 5.0X
Z 14s 12.10um 5.6MszX
E 14s 22.30um
DL2 26.53 45 eP 30 44.00 -0.1
Z 14s 6.20um 5.3MszX
N 15s 18.40um
E 15s 30.80um
QUE 29.03 293 iPc 31 06.80 -0.3
eS 36 41.50
SNY 29.40 41 eP 31 07.60 -2.5
DAV 30.40 115 eP 31 20.00 0.8
TRT 32.63 152 ePc 31 40.20 1.5
0.9s 58.30nm 5.5mb
MDJ 34.60 41 eP 32 02.50 6.9X
Z 18s 7.90um 5.5Msz

N 18s 26.30um
KHI 36.63 298 ePc 32 11.00 -2.1
IIDJ 37.40 60 P 32 18.20 -1.3
MTMJ 37.53 58 P 32 20.10 -0.5
CHJJ 38.37 59 P 32 26.60 -1.0
DHR 43.70 286 iPc 33 12.60 1.1
TAB 47.01 302 eP 33 39.00 1.0
RYD 47.04 284 iPc 33 38.60 0.4
NANU 47.27 158 eP 33 40.00 0.2
SLY 47.52 299 ePc 33 34.00 -7.8X
MBL 47.71 152 eP 33 43.00 -0.4
KNA 47.99 138 eP 33 44.20 -1.4
BHD 48.41 296 eP 33 48.00 -0.7
eS 40 49.00
KMSA 49.69 279 iPc 33 58.30 -0.6
WB5 54.59 137 eP 34 34.40 -1.1
WRA 54.62 137 Pc 34 34.70 -1.0
1.1s 21.90nm 5.1mb
MUN 56.22 161 eP 34 47.00 -0.1
ZNT 56.33 295 e(P) 34 49.00 0.9
KLB 56.34 160 eP 34 47.50 -0.5
PRNI 56.58 293 eP 34 50.00 0.1
MBH 56.76 292 eP 34 51.00 -0.1
COOL 56.88 156 eP 34 51.00 -0.9
PMG 57.36 117 eP 34 55.50 0.0
NWAO 57.41 161 eP 34 57.00 1.5
Z 20s 2.50um 5.3Msz
N 20s 2.10um
E 20s 1.60um
BBTK 57.62 304 iPc 34 56.00 -1.2
QIS 58.52 133 iPc 35 02.80 -0.7
AKSR 59.45 285 iPd 35 10.50 0.5
FORR 59.78 150 eP 35 12.00 0.0
AGMR 59.90 285 iPd 35 13.70 0.6
1.0s 375.00nm 6.5mb X
HRT 59.93 305 eP 35 09.00 -4.2X
ELL 60.08 301 iP 35 15.10 0.7
KHL 60.23 303 eP 35 13.00 -2.3
ISK 60.37 306 eP 35 15.00 -1.1
CFR 60.81 311 ePd 35 19.00 0.0
TLB 60.92 310 ePd 35 19.00 -0.8
PPE 61.15 312 eP 35 24.00 2.6
CLI 61.37 312 eP 35 20.50 -2.4
BRD 61.58 311 eP 35 26.00 1.7
VRI 61.79 311 ePd 35 26.00 0.3
ISR 61.95 311 eP 35 26.00 -0.9
KJF 62.03 332 iP 35 26.80 -0.2
0.9s 45.60nm 5.6mb
i 35 32.20 18km
MLR 62.35 311 iPd 35 30.00 0.3
SUF 62.56 330 iP 35 30.20 -0.3
0.5s 10.50nm 5.3mb
CTA 62.92 128 iPd 35 32.80 -0.7
0.6s 6.67nm 5.0mb
e 36 31.00 255kmX
SOD 62.93 336 iP 35 32.90 0.0
RDO 63.01 306 eP 35 31.70 -2.2
NUR 63.10 328 iP 35 33.60 -0.5
0.8s 26.40nm 5.5mb
i 35 39.20 18km
KEV 63.18 338 eP 35 34.00 -0.5
AVY 63.61 234 iPd 35 41.68 3.4X
PLG 64.68 305 eP 35 44.20 -0.7
VAY 65.21 307 eP 35 46.60 -1.7
BZS 65.37 311 ePc 35 53.00 3.8X
KZN 65.96 306 eP 35 51.00 -2.2
SKO 65.96 307 eP 35 53.00 -0.1
KRA 66.03 316 eP 35 53.70 0.4
Z 22s 2.70um 5.4Msz
N 22s 8.10um
e 35 57.90 13km
PSZ 66.29 314 eP 35 59.20 4.1X
UPP 66.61 327 iP 35 56.70 -0.1
i 36 00.70 13km
SRO 67.36 314 eP 36 04.40 2.6
e 36 07.90 11km
STK 67.75 141 eP 36 04.00 -0.5
ZST 68.11 315 eP 36 10.30 3.8X
KSP 68.25 318 iP 36 08.00 0.6
ADE 68.41 145 e(P) 36 09.00 0.5
SOP 68.55 314 eP 36 09.30 0.0
HFS 68.55 328 eP 36 08.70 -0.4
1.2s 48.00nm 5.5mb
VKA 68.61 315 e(P) 36 15.00 5.3X
3.5s 431.00nm 6.0mb X
RMQ 68.72 132 iPc 36 18.60 8.0X
PTJ 69.25 312 eP 36 17.10 3.3X

PRU 69.49 317 eP 36 14.50 -0.5
Z 13s 2.30um 5.6MszX
N 12s 1.30um
E 12s 1.50um
e 36 25.60 37kmX
NRA0 69.54 328 P 36 15.40 0.3
NB2 69.65 329 P 36 14.60 -1.3
0.9s 21.10nm 5.3mb
BRG 69.71 318 iP 36 17.00 0.6
1.0s 44.00nm 5.6mb
Z 16s 3.00um 5.6MszX
N 20s 10.00um
E 20s 1.00um
i 36 24.20 23km
CLL 70.22 318 eP 36 20.00 0.5
2.2s 68.00nm 5.4mb
Z 20s 0.50um 4.8Msz
e 36 25.00 16km
KHC 70.26 316 P 36 21.10 1.3
e 38 41.70 725kmX
RBL 70.78 313 P 36 27.00 3.9X
TRI 70.79 312 eP 36 16.50 -6.6X
MOX 71.21 318 eP 36 26.50 1.0
2.4s 176.00nm 5.8mb
Z 16s 2.30um 5.5MszX
N 22s 4.10um
E 18s 1.40um
LQ 05 30.00
LR 09 30.00
FVI 71.28 313 P 36 33.20 7.2X
MUD 71.48 324 eP 36 33.00 6.0X
0.8s 16.00nm 5.2mb
e 37 07.00 138kmX
LWI 71.55 260 iPc 36 28.20 -0.2
SDI 71.61 308 P 36 33.00 4.8X
CTI 72.16 313 P 36 33.60 2.2
MNS 72.28 309 P 36 32.50 0.4
SAL 73.03 313 P 36 39.20 2.8
MDI 73.54 313 P 36 39.80 0.5
BWA 73.64 138 eP 36 41.80 1.7
TOO 74.05 142 eP 36 43.00 0.7
VAI 74.16 313 P 36 43.10 0.2
CDF 74.48 316 eP 36 45.00 0.1
0.9s 9.80nm 4.8mb
CAN 74.59 139 eP 36 46.00 0.4
DAG 74.79 348 iPd 36 44.60 -1.5
1.2s 26.56nm 5.1mb
CNB 74.81 139 eP 36 47.00 0.1
WLF 74.86 318 P 36 48.50 1.6
HAU 75.19 316 eP 36 49.20 0.3
0.8s 13.40nm 5.0mb
ALE 75.50 357 eP 36 50.00 -0.1
0.7s 7.00nm 4.8mb
BNI 75.80 313 P 36 51.50 -1.1
LOR 77.01 316 eP 36 59.70 0.5
0.8s 7.20nm 4.8mb
LBF 77.02 315 eP 36 59.70 0.4
1.0s 14.00nm 5.0mb
SMF 77.22 315 eP 37 00.60 0.3
0.8s 6.70nm 4.8mb
SSF 77.30 316 eP 37 01.50 0.7
IMA 77.48 23 ePd 37 01.30 -0.2
0.9s 7.90nm 4.8mb
AVF 77.49 315 eP 37 02.00 0.2
1.0s 16.00nm 5.0mb
TTA 77.87 27 ePd 37 03.60 -0.1
TCF 78.40 315 eP 37 07.70 0.9
EKA 78.46 325 P 37 09.00 2.1
0.8s 14.90nm 5.1mb
BNG 78.53 270 iPc 37 07.40 -0.7
0.8s 35.00nm 5.5mb
id 37 12.40 16km
SVW 78.79 28 ePd 37 09.20 0.5
CAF 78.95 314 eP 37 11.10 1.2
RJF 79.18 314 eP 37 12.40 1.3
0.6s 9.70nm 5.0mb
BUL 79.50 243 iPd 37 13.10 -0.3
MBC 79.59 8 eP 37 12.00 -0.7
0.8s 10.00nm 4.9mb
LPO 79.62 314 eP 37 14.60 1.1
0.6s 7.20nm 4.9mb
FBA 80.19 23 P 37 15.50 -0.7
1.2s 20.45nm 5.0mb
PMR 81.35 26 eP 37 21.50 -0.8
1.2s 35.20nm 5.3mb
TOA 82.28 25 eP 37 27.60 0.3
INK 82.72 17 iPd 37 29.80 0.5

0.9s 45.00nm 5.6mb
KSR 83.56 239 iPd 37 34.50 -0.1
0.8s 18.75nm 5.3mb
PRY 83.60 238 eP 37 35.00 0.3
0.8s 18.75nm 5.3mb
BFS 84.13 238 eP 37 38.00 0.6
GDH 86.95 350 eP 37 50.00 -0.5
YKA 92.15 14 eP 38 15.50 0.4
YKC 92.19 14 eP 38 15.00 -0.3
1.0s 13.00nm 5.3mb
FRB 94.13 354 eP 38 24.00 -0.1
ALQ 119.04 23 ePKP 43 54.00 -1.6
BMA 144.96 261 ePKP 44 43.80 -0.3
e 44 48.10
ATB 145.70 298 e(PKP) 44 45.50 -0.1
VAO 147.57 261 e(PKP) 44 46.00 -2.5
UPA 149.36 355 e(PKP) 44 54.50 3.1X
Z 19s 1.39um 5.8Msz
CCH 164.38 283 ePKP 45 15.50 5.3X
ZOBO 165.74 290 ePKP 45 16.00 4.3X
LPB 165.83 289 PKP 45 16.00 4.4X
Z 22s 2.22um
LR 00 48.00
CNCB 165.83 288 PKP 45 17.00 5.2X
S.D. = 1.1 on 158 of 182 obs.

% MAR 01, 1989 03h 39m 23.75± 2.69s
35.847 N ±19.9km 140.395 E ±18.4km
DEPTH = 33.0km (normal)
NEAR EAST COAST OF HONSHU, JAPAN(228)

KAKJ 0.40 333 iPd 39 32.70 -0.1
S 39 38.60
CHJJ 1.15 280 P 39 42.90 -0.7
NIIJ 1.79 322 P 39 52.60 -0.2
S 40 16.40
IIDJ 2.05 260 P 39 57.10 0.4
MTMJ 2.22 290 P 39 59.40 0.3
YAMJ 2.34 353 P 40 01.40 0.7
eS 40 36.70
OFUJ 3.38 17 P 40 15.10 -0.4
S.D. = 0.6 on 7 of 7 obs.

? MAR 01, 1989 04h 07m 51.86± 4.87s
17.919 N ±35.4km 61.190 W ±21.9km
DEPTH = 22.4 ± 9.9 km
LEEWARD ISLANDS (92)
ML 3.5 (FDF).

CPB 0.67 246 eP 08 04.96 0.2
eS 08 15.01
ANG 0.97 219 eP 08 09.69 -0.3
eS 08 28.00
MGH 1.54 220 eP 08 18.20 0.0
S 08 42.00
SKI 1.59 249 eP 08 18.90 0.0
eS 08 42.75
DEG 1.60 176 eP 08 18.00 -1.1
S 08 41.00
SKDB 1.63 252 eP 08 19.32 -0.1
eS 08 42.37
PAG 1.94 194 eP 08 23.00 -1.0
S 08 48.00
MGG 1.99 184 eP 08 25.60 0.9
BBL 2.40 187 eP 08 32.00 1.4
S.D. = 1.0 on 9 of 9 obs.

MAR 01, 1989 04h 26m 27.05± 0.31s
5.012 S ± 5.4km 149.799 E ± 5.8km
DEPTH = 10.0km (geaphysicist)
5.2mb (12 abs.) 5.5Msz (1 abs.)
NEW BRITAIN REGION (192)
ML 5.5 (PMG).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 10S, 18C
Centraid Locatian:
Origin Time 04:26:30.3 1.2
Lat 4.67S 0.12 Lan 149.77E 0.13
Dep 15.0 FIX Holf-duration 1.6
Moment Tensar; Scale 10**16 Nm
Mrr=-8.40 0.81 Mtt= 6.87 0.93
Mff= 1.53 0.96 Mrt=-8.48 3.73
Mrf=-3.80 2.34 Mtf=-3.40 0.85
Principal Axes:
T Val= 10.93 Plg=21 Azm=191
N 2.80 20 93

01d 04h

P -13.73 60 323
Best Double Couple:Mo=1.2*10**17
NP1:Strike=314 Dip=30 Slip= -45
NP2: 85 69 -112

RAB 2.50 71 iPc 27 06.50 -1.9
0.4s 813.56nm
LAT 3.23 240 iPc 27 22.50 3.7X
PMG 5.10 211 iPc 27 48.00 2.7
0.8s 716.42nm 6.3mb X
eS 28 47.00
MNDI 6.22 259 eP 28 06.00 4.7X
JAY 9.41 285 ePc 28 48.00 2.3
CTA 15.38 193 iPc 30 10.00 4.1X
2.0s 61.76nm 4.6mb
i 30 14.20
i(PP) 30 29.20
e(PPP) 30 31.00
i 31 23.00
eS 33 10.00
i 36 08.00
QIS 18.36 212 iPd 30 44.60 1.1
e 30 50.00
MTN 20.01 246 iPc 31 01.60 -1.3
0.7s 117.00nm 5.3mb
WB5 21.07 224 iPd 31 13.20 -0.8
eS 35 36.10
WRA 21.14 224 ePd 31 13.70 -0.9
0.9s 68.90nm 5.0mb
RMQ 21.38 183 eP 31 26.00 8.9X
KNA 23.25 241 eP 31 35.00 -0.7
DZM 23.39 138 iPc 31 39.00 1.9
STK 27.82 195 eP 32 01.00 -17.5X
WARB 30.56 224 eP 32 32.80 -10.4X
FORR 32.82 216 eP 33 02.00 -0.9
MBL 33.21 238 eP 33 05.30 -1.1
BAG 35.89 307 eP 33 29.00 -0.8
MEKA 36.77 231 eP 33 36.30 -0.6
0.6s 41.00nm 5.4mb
NANU 37.43 239 iPc 33 41.70 -0.7
QIZ 46.03 302 P 34 53.60 0.7
WHN 48.98 318 Pd 35 16.60 0.7
TIA 51.16 326 P 35 32.00 -0.5
PSI 51.40 277 ePc 35 33.00 -1.6
0.6s 10.70nm 5.0mb
GYA 52.17 309 P 35 41.20 0.7
BJI 54.46 329 eP 35 57.00 0.1
e 37 00.50
XAN 54.75 318 P 35 59.10 -0.2
TIY 54.89 324 Pc 36 00.40 0.1
CHTO 55.40 297 eP 36 04.00 -0.2
1.2s 47.92nm 5.4mb
CD2 56.63 312 eP 36 13.20 0.2
HHC 57.51 326 eP 36 19.80 0.7
BTO 58.22 325 eP 36 24.00 0.0
LZH 59.33 317 eP 36 32.50 0.6
1.5s 132.00nm 5.8mb
GTA 63.81 319 Pd 37 02.40 0.4
SHL 63.85 302 iP 37 02.20 -0.4
LSA 65.91 306 P 37 16.70 0.5
PKI 69.98 302 P 37 41.60 0.0
KKN 70.16 302 P 37 42.50 0.0
DMN 70.25 302 P 37 43.60 0.4
GKN 70.76 302 P 37 46.20 0.1
KOD 73.60 282 iP 38 03.00 -0.4
HYB 73.74 290 eP 38 02.50 -1.3
1.4s 100.00nm 5.7mb
WMO 73.89 318 P 38 04.80 0.6
GBA 74.15 286 Pc 38 05.00 -1.1
0.9s 17.70nm 5.1mb
SVW 78.20 24 eP 38 29.50 1.3
TTA 79.08 22 eP 38 33.60 0.6
PMR 81.13 25 eP 38 43.50 -0.3
IMA 81.67 20 eP 38 47.40 0.6
FBA 83.20 22 eP 38 53.70 -0.9
1.0s 10.60nm 5.0mb
SPA 85.02 180 iPc 39 04.50 0.5
1.3s 50.00nm 5.6mb
INK 89.73 21 eP 39 26.00 -0.5
MAIO 93.18 306 eP 39 43.00 -0.2
1.0s 8.00nm 5.1mb
PNT 94.14 41 eP 39 48.00 0.7
YKA 97.01 28 eP 40 01.20 1.2
KHC 122.54 327 ePKP 45 24.10 -0.4
ZOBO 136.94 120 PKP 45 53.00 -0.7
Z 22s 1.08um 5.5Msz
LR 48 40.00

BMA 149.27 154 ePKPd 46 23.20 9.1X
BAO 152.96 140 e(PKP) 46 02.00 -17.8X
S.D. = 1.0 on 50 of 58 obs.

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* MAR 01, 1989 04h 45m 50.33± 0.73s
32.278 S ± 9.4km 69.116 W ± 9.6km
DEPTH = 23.7 ± 9.4 km
MENDOZA PROVINCE, ARGENTINA (139)

MDZ 0.64 160 iPd 46 02.40 -0.5
iS 46 15.50
ZON 0.82 27 eP 46 05.00 -0.9
CFA 1.00 48 ePd 46 10.00 1.1
JACH 1.31 252 iPd 46 12.70 -0.6
eS 46 30.00
FCH 1.44 223 eP 46 14.50 -0.9
iS 46 32.70
PEL 1.58 236 iPc 46 17.30 0.1
iS 46 37.20
SAN 1.75 228 iPd 46 20.50 0.9
iS 46 39.70
TACH 2.06 228 iPd 46 25.00 1.0
iS 46 52.00
S.D. = 1.1 on 8 of 8 obs.

? MAR 01, 1989 04h 58m 56.86± 4.14s
37.615 N ±14.4km 142.583 E ±38.7km
DEPTH = 33.0km (normol)
OFF EAST COAST OF HONSHU, JAPAN (229)

OFUJ 1.63 334 P 59 23.60 0.0
eS 59 43.80
YAMJ 2.09 286 eP 59 30.30 0.0
eS 59 52.50
KAKJ 2.39 235 eP 59 34.10 -0.4
NIIJ 2.88 264 P 59 41.10 -0.3
S 00 14.90
CHJJ 3.28 243 eP 59 47.70 0.6
S.D. = 0.6 on 5 of 5 obs.

? MAR 01, 1989 04h 59m 55.92± 3.14s
37.718 N ±12.5km 142.302 E ±30.8km
DEPTH = 33.0km (normol)
OFF EAST COAST OF HONSHU, JAPAN (229)

DFUJ 1.45 340 eP 00 20.00 0.0
eS 00 36.40
YAMJ 1.85 285 eP 00 25.90 0.1
eS 00 47.00
KAKJ 2.28 229 P 00 32.10 0.2
S 00 54.70
NIIJ 2.67 261 P 00 37.50 0.0
IIDJ 4.18 239 eP 00 58.80 -0.2
S.D. = 0.2 on 5 of 5 obs.

? MAR 01, 1989 05h 04m 49.77± 1.61s
46.458 N ±14.6km 3.463 E ± 8.6km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 1.4 (LDG).

SMF 0.32 54 Pg 04 56.50 0.1
Sg 05 01.20
AVF 0.34 347 Pg 04 56.70 -0.1
Sg 05 01.70
BGF 0.44 283 Pg 04 58.90 0.2
Sg 05 05.40
TCF 0.88 259 Pg 05 06.60 -0.2
Sg 05 18.50
S.D. = 0.3 on 4 of 4 obs.

MAR 01, 1989 05h 18m 23.73± 1.53s
35.580 N ±10.7km 11.707 E ± 5.4km
DEPTH = 17.2 ± 7.3 km
4.4mb (4 obs.)
TUNISIA (397)

PTS 1.25 11 Pd 18 45.40 -0.9
CVT 2.27 22 Pd 19 00.80 -0.2
LVI 2.45 12 Pd 19 03.20 -0.4
MCT 2.57 37 Pd 19 06.50 1.1
PZI 2.97 60 P 19 10.90 -0.1
MEU 3.01 59 P 19 10.70 -0.9
eSn 19 50.20
GIB 3.04 37 P 19 12.50 0.5
eSn 19 48.60
USI 3.34 20 P 19 31.40 15.3X

USI 3.34 20 P 19 14.10 -2.0
MNO 3.36 45 P 19 18.00 1.4
eSn 19 55.40
ATN 3.96 48 P 19 24.40 -0.6
eSn 20 11.70
MSI 4.05 49 P 19 26.30 0.1
eSn 20 13.30
GMB 4.22 51 P 19 29.60 0.8
CGL 4.23 334 P 19 27.70 -1.3
SOI 4.28 53 P 19 29.50 -0.1
eSn 20 18.40
GRI 4.96 48 P 19 40.60 1.4
MGR 5.47 33 P 19 45.70 -0.8
TDS 5.48 41 P 19 46.50 -0.1
SDI 6.33 14 P 19 58.80 0.2
CVF 7.32 343 Pn 20 12.00 -0.4
Sn 21 32.60
LMR 8.72 334 Pn 20 30.60 -1.3
IMI 8.82 342 P 20 35.42 2.0
FRF 8.87 335 Pn 20 32.50 -1.5
LRG 8.88 334 Pn 20 33.00 -1.1
SBF 8.90 340 Pn 20 33.60 -0.9
ROB 9.19 342 P 20 38.70 0.3
STV 9.28 340 P 20 39.22 -0.6
PZZ 9.59 340 P 20 43.12 -0.9
RRL 10.06 340 P 20 51.73 1.2
VAY 10.26 53 eP 20 52.00 -1.2
EPF 11.52 314 Pn 21 11.40 1.0
CAF 11.88 325 Pn 21 16.20 0.9
LPO 12.13 322 Pn 21 19.40 0.8
KHC 13.61 5 Pc 21 41.90 3.6X
PSZ 13.75 24 eP 21 49.00 8.9X
PRU 14.55 7 eP 21 54.50 4.0X
BRG 15.37 5 iP 22 09.50 8.2X
1.0s 30.00nm 4.5mb
DOU 15.40 343 P 22 14.10 12.4X
KSP 15.61 11 eP 22 07.20 2.8
CLL 15.75 3 e(P) 22 12.00 5.8X
1.4s 31.00nm 4.3mb
RMN 19.86 98 iPd 22 56.20 -0.6
DSI 20.11 95 eP 22 58.40 -1.0
HFS 24.60 2 eP 23 43.80 -0.1
1.4s 26.60nm 4.7mb
NB2 25.48 359 P 23 53.00 0.7
1.0s 6.50nm 4.2mb
NUR 26.30 14 eP 24 00.00 0.2
SUF 28.62 14 eP 24 20.00 -0.9
KJF 30.26 14 eP 24 35.00 -0.6
DMN 61.73 75 P 28 44.00 0.2
BGMT 84.84 324 eP 31 00.20 1.4
S.D. = 1.1 on 42 of 49 obs.

% MAR 01, 1989 05h 48m 17.76± 2.02s
37.635 N ±11.3km 141.776 E ±21.4km
DEPTH = 33.0km (normol)
NEAR EAST COAST OF HONSHU, JAPAN(228)

OFUJ 1.45 357 P 48 41.80 0.0
S 48 58.70
YAMJ 1.48 292 P 48 42.40 0.1
S 49 00.10
KAKJ 1.92 222 P 48 48.80 0.1
S 49 11.00
NIIJ 2.24 261 P 48 53.20 -0.1
CHJJ 2.74 235 P 49 00.20 -0.1
S 49 30.30
S.D. = 0.1 on 5 of 5 obs.

? MAR 01, 1989 07h 15m 35.27± 7.48s
18.350 N ±58.7km 61.359 W ±25.7km
DEPTH = 33.0km (normol)
LEEWARD ISLANDS (92)
ML 3.8 (FDF).

CPB 0.83 212 eP 15 50.08 -0.5
eS 16 02.85
ANG 1.27 201 eP 15 56.53 -0.3
eS 16 17.12
SKI 1.66 233 eP 16 02.55 0.1
eS 16 28.12
SKDB 1.67 236 eP 16 02.87 0.2
eS 16 29.22
MGH 1.82 207 eP 16 04.56 -0.2
SEG 1.94 184 ePd 16 07.66 1.1
S 16 33.00
DEG 2.05 172 eP 16 08.80 0.7
S 16 35.20

PAG	2.33	188	ePd	16	12.99	0.9
			S	16	41.90	
MGG	2.42	179	ePd	16	14.45	1.1
BBL	2.81	182	eP	16	19.10	0.2
FDF	3.60	177	eP	16	29.68	-0.5
			S	17	11.50	
MVM	3.80	173	eP	16	32.50	-0.4
BIM	3.82	176	eP	16	33.43	0.2
SVV	5.00	178	eP	16	49.67	-0.4
			eS	17	32.09	
SVB	5.05	179	eP	16	48.74	-2.0
			eS	17	35.09	

S.D. = 0.9 on 15 of 15 obs.

MAR 01, 1989 08h 56m 20.55± 0.53s
41.326 N ± 7.1km 141.809 E ±11.7km
DEPTH = 114.9 ± 7.1 km
4.0mb (3 obs.)
HOKKAIDO, JAPAN REGION (224)

MRRJ	1.23	334	iPd	56	43.60	-1.2
			S	57	00.20	
AOMJ	1.33	235	P	56	45.90	-0.1
			S	57	04.50	
HOOJ	1.53	46	eP	56	49.60	1.3
			S	57	10.30	
OFUJ	2.25	183	P	56	58.00	0.6
			eS	57	25.90	
KUSJ	2.79	50	iP+	57	04.30	-0.2
			S	57	36.20	
ASAJ	2.86	12	P	57	05.00	-0.5
			S	57	37.70	
YAMJ	3.43	204	P	57	14.00	0.8
			S	57	53.20	
KAKJ	5.27	195	P	57	35.70	-2.5
			S	58	33.70	
MTMJ	5.67	215	P	57	45.10	1.3
CHJJ	5.71	204	eP	57	44.30	0.0
IIDJ	6.59	209	eP	57	56.90	0.5
CHTO	42.80	252	eP	04	10.00	1.6
	1.0s		2.75nm			4.0mb
PKI	47.71	272	P	04	48.00	0.2
INK	50.46	29	eP	05	09.00	1.2
WB5	61.28	188	eP	06	25.00	-0.8
WRA	61.35	188	Pd	06	25.10	-1.2
	0.5s		1.10nm			4.1mb
HFS	70.32	335	eP	07	22.20	-0.8
	0.3s		0.50nm			3.8mb

S.D. = 1.2 on 17 of 17 obs.

? MAR 01, 1989 09h 12m 53.74± 0.84s
23.072 S ±35.0km 171.258 E ±15.2km
DEPTH = 33.0km (normal)
3.9mb (2 obs.)
LOYALTY ISLANDS REGION (189)

DZM	4.56	282	iPc	14	02.40	0.1
			iS	14	56.20	
RMQ	20.71	256	eP	17	41.00	7.2X
CMS	24.06	244	eP	18	06.00	-1.0
WRA	34.43	268	P	19	40.00	-0.5
	0.7s		0.60nm			3.6mb
FORR	39.05	249	eP	20	18.00	-1.3
CHTO	81.95	294	eP	25	11.30	-0.7
	1.0s		2.75nm			4.2mb
WDC	88.25	44	ePc	25	41.10	-1.8
FRI	88.26	48	ePc	25	42.00	-1.1
CMB	88.33	47	ePc	25	42.40	-1.1
ORV	88.38	45	ePc	25	42.30	-1.3
KSP	146.14	331	ePKP	32	31.30	0.4
BRG	147.12	333	iPKP	32	34.10	1.6
	1.0s		20.00nm			
CLL	147.17	335	iPKP	32	33.90	1.4
PRU	147.53	332	ePKPc	32	34.80	1.6
BNG	147.78	239	ePKPc	32	35.60	0.9
	0.8s		4.00nm			
KHC	148.59	331	iPKPc	32	38.50	3.5X
KBA	150.19	329	ePKP	32	40.50	2.8
	1.2s		4.20nm			
			e	04	01.00	

S.D. = 1.5 on 15 of 17 obs.

MAR 01, 1989 09h 28m 52.95± 0.62s
21.620 N ± 6.2km 97.787 E ±10.9km
DEPTH = 10.0km (geophysicist)
4.6mb (1 obs.)
BURMA (296)

CHG	3.00	159	iPn	29	41.00	-0.4
			iPg	29	43.00	
			iSg	30	03.20	
CHTO	3.00	159	iPnc	29	40.90	-0.5
BDT	4.50	165	ePn	30	02.00	-0.7
			ePg	30	19.00	
			eSg	30	52.00	
KMI	5.73	52	Pgc	30	37.50	17.1X
			Sg	31	47.50	
SHL	6.69	307	iP	30	33.00	-0.9
			eS	32	08.00	
KHT	6.84	173	ePn	30	38.00	2.2
			ePg	31	02.00	
			eSg	32	34.50	
NNT	9.17	168	eP	31	13.10	4.8X
			e	33	33.00	
GYA	9.43	58	P	31	08.60	-3.5X
CD2	10.69	29	eP	31	30.60	1.4
PKI	12.72	300	P	31	58.00	0.9
LZH	15.35	19	eP	32	32.50	1.0
	2.5s		78.00nm			4.6mb
GTA	17.82	5	eP	33	07.00	4.3X
PSI	18.84	176	eP	33	20.60	5.2X
TIY	20.43	35	eP	33	33.60	0.4
BTO	21.58	26	eP	33	44.00	-0.9
	N 10s		0.30um			
	E 10s		0.50um			
BJI	24.13	36	P	34	09.00	-0.8
INK	82.89	17	eP	41	17.00	-1.8

S.D. = 1.3 on 12 of 17 obs.

MAR 01, 1989 09h 59m 21.16± 0.79s
37.080 N ± 7.6km 20.453 E ± 4.0km
DEPTH = 48.9 ± 10.9 km
4.0mb (2 obs.)
IONIAN SEA (399)
MD 3.7 (ATH).

VLS	1.10	6	ePn	59	40.70	0.2
ITM	1.18	85	ePn	59	41.70	0.1
ATH	2.74	70	ePn	00	03.00	-0.7
LSK	3.07	2	ePn	00	09.50	1.1
KZN	3.38	17	ePn	00	13.70	0.8
LIT	3.41	27	ePn	00	15.30	2.1
			eSn	00	51.00	
SOI	3.63	287	P	00	16.80	0.5
			eSn	00	51.50	
BERA	3.64	354	ePn	00	16.40	0.0
LCI	3.79	330	P	00	18.50	0.0
			eSn	00	56.30	
PAIG	3.81	41	ePn	00	17.20	-1.5
OHR	4.03	4	iPnd	00	22.90	0.9
	0.5s		0.14nm			
PLG	4.04	35	ePn	00	22.00	0.0
THE	4.05	28	ePn	00	22.40	0.2
ATN	4.11	287	P	00	22.30	-0.7
TDS	4.13	310	P	00	22.80	-0.6
GRG	4.16	21	ePn	00	23.20	-0.5
TIR	4.29	354	iPnc	00	25.00	-0.5
SOH	4.37	30	ePn	00	26.90	0.2
MEU	4.42	272	P	00	27.30	-0.1
KNT	4.50	24	ePn	00	28.40	-0.1
			eSn	01	17.40	
VAY	4.54	21	ePn	00	29.00	-0.1
BRT	4.56	327	Pd	00	29.30	0.0
			eSn	01	16.30	
PHP	4.60	360	iPn	00	29.70	-0.2
SRS	4.71	30	ePn	00	30.80	-0.7
MGR	4.90	310	P	00	34.50	0.3
SKO	4.94	9	iPn	00	34.00	-0.8
SDA	4.98	352	ePn	00	35.00	-0.3
KKS	4.99	360	ePn	00	35.80	0.4
GIB	5.19	282	P	00	39.30	0.9
BCI	5.29	357	ePn	00	39.30	-0.3
HVAR	6.82	335	iPn	00	58.30	-2.8
			iSn	02	11.10	
PTJ	9.43	340	eP	01	33.40	-3.9X
KHC	13.04	340	eP	02	26.40	0.5
HFS	23.48	351	eP	04	27.40	0.5
	0.4s		3.70nm			4.2mb
NB2	24.68	349	P	04	39.00	0.4
	0.7s		2.00nm			3.8mb

S.D. = 0.9 on 34 of 35 obs.

% MAR 01, 1989 10h 50m 50.23± 0.64s
60.656 N ± 5.1km 6.269 E ± 8.5km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.9 (BER).

HYA	0.51	356	iPd	51	00.70	0.1
			eS	51	08.20	
ODD1	0.77	166	iP	51	04.40	-0.8
			eS	51	12.50	
SUE	0.84	299	eP	51	06.40	0.0
			iSg	51	18.40	
BLS1	1.30	167	iP	51	14.10	-0.3
			iS	51	30.10	
KMY	1.54	200	iP	51	18.60	0.9
			iS	51	38.00	
MOL	2.02	17	eP	51	24.00	-0.6
			eS	51	51.80	
NRA0	2.59	86	eP	51	33.70	0.8
			iPg	51	36.10	
			iS	52	09.60	

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

MAR 01, 1989 12h 41m 47.72± 0.63s
44.385 N ± 6.9km 7.317 E ± 7.1km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.2 (GEN).

STV	0.14	178	P	41	51.44	0.3
			S	41	53.48	
PZZ	0.20	308	P	41	52.47	0.4
			S	41	55.32	
ROB	0.41	103	P	41	56.52	0.4
IMI	0.63	139	P	41	59.75	-0.7
			S	42	08.17	
RRL	0.66	325	P	42	00.55	-0.4
			S	42	09.18	
FIN	0.66	105	P	42	00.96	0.0
			S	42	09.51	
RSP	0.77	357	P	42	02.78	0.0
TRI	4.76	72	eP	43	12.60	11.5X
KSP	8.86	40	eP	44	17.50	18.9X

S.D. = 0.5 on 7 of 9 obs.

% MAR 01, 1989 12h 45m 33.86± 3.28s
60.272 N ±11.1km 5.260 E ±31.6km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.3 (BER).

BER	0.12	18	eP	45	36.70	-0.1
			eSg	45	39.20	
ODD1	0.77	117	iPc	45	48.70	-0.3
			eS	45	59.50	
			iSg	46	04.10	
HYA	1.01	27	iP	45	52.90	0.0
			eS	46	06.50	
			iSg	46	09.50	
BLS1	1.19	137	eP	45	56.20	0.1
			eS	46	12.40	
NRA0	3.14	79	eP	46	24.50	0.2
			iS	47	09.10	

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

MAR 01, 1989 13h 00m 35.56± 0.28s
31.489 N ± 4.3km 102.463 E ± 4.3km
DEPTH = 33.0km (normal)
5.0mb (14 obs.) 4.9Msz (1 obs.)
SICHUAN PROVINCE, CHINA (307)

CD2	1.25	117	iPgd	00	57.00	0.1
			Sg	01	18.00	
LZH	4.73	14	Pn	01	47.00	0.5
	2.0s		110.00nm			
	Z 10s		9.20um			
			Lg	03	14.00	
XAN	6.00	63	Pn	02	03.80	-0.7
			Pg	02	21.50	
			Sn	03	15.30	
			Sg	03	43.50	
GYA	6.22	143	Pn	02	08.20	0.6
			Pg	02	30.00	
			Sn	03	26.00	
			Sg	03	50.00	
KMI	6.35	178	Pc+	02	10.00	0.5
	3.0s		1.30nm			3.1mb X
	Z 10s		11.90um			
			sP	02	25.00	
			S	03	27.00	

01d 13h

			sS	03 36.00		
GTA		8.19	345 eP	02 36.10	0.9	
	Z	10s	3.20um			
	E	11s	10.30um			
LSA		9.91	263 P	03 01.10	1.9	
	N	10s	3.80um			
			S	04 52.50		
WHN		10.24	92 Pc	03 02.50	-0.8	
	Z	16s	4.79um			
	E	11s	7.24um			
			S	04 54.00		
TIY		10.30	50 eP	03 03.00	-1.1	
	N	10s	5.00um			
BTO		10.95	32 P	03 12.00	-1.1	
HHC		11.88	36 eP	03 24.00	-1.7	
	Z	10s	7.20um			
	N	10s	5.40um			
			S	05 45.00		
GZH		12.79	128 eP	03 36.00	-1.7	
	Z	15s	4.30um			
	N	10s	4.90um			
	E	10s	5.60um			
			eS	06 02.60		
CHG		13.02	195 eP	03 40.20	-0.6	
CHTO		13.02	195 eP	03 40.00	-0.8	
TIA		13.06	65 P	03 43.00	1.6	
	N	13s	3.10um			
	E	19s	1.50um			
NJ2		13.96	83 Pc	03 53.20	0.0	
	N	12s	3.40um			
	E	10s	1.70um			
BJI		14.01	49 eP	03 49.00	-4.8X	
	Z	12s	2.70um			
			Lg	07 53.50		
LOE		14.04	183 eP	04 02.00	7.7X	
QIZ		14.08	150 eP	03 53.30	-1.5	
	N	11s	3.60um			
	E	10s	5.60um			
			eS	06 26.00		
PKI		15.35	260 P	04 09.10	-2.6	
KKN		15.39	261 P	04 09.20	-2.9	
QZH		15.63	111 Pd	04 17.00	2.0	
	Z	12s	4.20um			
	N	10s	3.10um			
GKN		15.87	262 P	04 14.80	-3.4X	
SSE		16.01	87 P+	04 20.00	0.1	
		5.0s	0.80nm		2.1mb X	
	Z	16s	3.40um			
	E	14s	3.20um			
			eS	07 40.00		
WMQ		16.95	321 eP	04 35.00	3.3X	
	Z	12s	2.90um			
	N	10s	1.70um			
	E	12s	3.60um			
			S	07 46.00		
DL2		17.31	59 eP	04 40.00	3.9X	
	Z	14s	1.30um			
	N	15s	3.30um			
			S	07 54.00		
NNT		18.98	188 eP	04 57.50	0.6	
SNY		19.79	53 eP	05 05.80	0.0	
	Z	16s	4.10um			
	N	13s	6.30um			
	E	12s	3.90um			
			S	08 50.00		
CN2		21.88	49 iPc	05 28.00	0.7	
	Z	16s	6.20um		5.1MszX	
	N	13s	2.40um			
			pP	05 35.00	25kmX	
			eS	09 26.00		
NDI		22.01	269 iPd	05 29.00	0.3	
		0.8s	35.82nm		4.9mb	
			eS	09 35.00		
SNG		24.25	184 eP	05 52.40	1.7	
MDJ		24.93	51 eP	05 57.50	0.5	
	Z	20s	3.90um		4.9Msz	
			S	10 25.00		
HYB		25.81	243 eP	06 07.00	1.5	
		1.0s	50.00nm		5.1mb	
			eS	10 46.00		
IPM		26.80	183 ePd	06 15.30	0.6	
GBA		29.06	238 Pc	06 33.70	-1.3	
		0.7s	9.60nm		4.6mb	
KJF		55.55	329 eP	10 10.00	0.4	
		0.7s	17.40nm		5.2mb	
BBTK		55.95	299 iPc	10 14.00	1.0	
SUF		56.33	327 iP	10 14.00	-1.2	
		0.5s	3 60nm		4.7mb	
VRI		58.74	308 ePd	10 34.50	2.1	
WB5		59.55	145 iPc	10 38.10	-0.2	
WRA		59.59	145 Pc	10 38.40	-0.2	
		0.8s	9.40nm		5.0mb	
KRA		62.03	314 eP	10 56.30	1.5	
NB2		63.58	327 P	11 03.00	-2.0	
		0.9s	5.80nm		4.7mb	
BRG		65.41	316 eP	11 17.80	0.8	
		1.0s	14.00nm		5.0mb	
			e	11 47.50		
CLL		65.81	317 eP	11 19.00	-0.5	
		1.9s	29.00nm		5.1mb	
DAG		66.19	348 iPc	11 21.00	-0.6	
		1.3s	19.23nm		5.0mb	
IMA		66.98	25 eP	11 26.70	-0.3	
TTA		67.41	29 eP	11 29.60	-0.1	
MBC		69.37	10 eP	11 42.00	0.5	
FBA		69.69	25 eP	11 43.50	-0.1	
PMR		70.88	29 eP	11 49.80	-1.1	
		0.8s	12.00nm		5.0mb	
KDC		71.35	33 P	11 52.30	-1.4	
		0.8s	20.69nm		5.2mb	
TOA		71.80	27 eP	11 57.20	0.7	
INK		72.25	19 eP	11 58.00	-1.0	
YKA		81.73	16 eP	12 52.70	0.9	
YKC		81.77	16 eP	12 52.50	0.5	
		0.7s	13.00nm		5.1mb	
BNG		82.52	271 iPd	12 57.40	0.6	
		1.0s	20.00nm		5.1mb	
			ic	12 58.90		
PNT		91.26	26 eP	13 41.00	2.2	

S.D. = 1.2 on 53 of 58 obs.

MAR 01, 1989 13h 08m 19.72± 0.31s
43.820 N ± 6.5km 149.162 E ± 4.7km
DEPTH = 43.2km (20 depth phases)
5.4mb (55 obs.) 5.2Msz (4 obs.)
KURIL ISLANDS REGION (222)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 9S, 17C
Centroid Location:
Origin Time 13:08:19.4 1.8
Lat 43.69N 0.14 Lon 149.85E 0.22
Dep 33.710.5 Half-duration 1.5
Moment Tensor; Scale 10**16 Nm
Mrr= 3.73 0.45 Mtt=-1.87 0.60
Mff=-1.86 0.51 Mrt= 3.32 1.33
Mrf= 4.43 1.64 Mtf=-3.07 0.68
Principal Axes:
T Val= 6.47 Plg=63 Azm=298
N 1.13 6 40
P -7.60 26 133
Best Double Couple:Mo=7.0**16
NP1:Strike=236 Dip=20 Slip= 108
NP2: 38 71 84

KUSJ		3.32	259 P	09 08.30	-2.2	
			eS	09 46.10		
HOOJ		4.54	254 eP	09 28.40	0.8	
ASAJ		4.72	276 eP	09 30.70	0.5	
MRRJ		6.08	260 P	09 48.70	-0.7	
			eS	10 57.70		
AOMJ		7.29	246 eP	10 04.60	-1.8	
OFUJ		7.35	232 P	10 03.70	-3.5X	
			eS	11 22.50		
YAMJ		8.91	234 P	10 25.20	-3.6X	
			eS	12 02.50		
NIIJ		10.14	233 eP	10 42.60	-3.1X	
			eS	12 30.80		
KAKJ		10.26	225 eP	10 42.60	-4.7X	
			eS	12 28.70		
CHJJ		11.00	229 eP	10 54.00	-3.4X	
			eS	12 50.30		
MTMJ		11.29	234 eP	10 59.30	-2.1	
IIDJ		12.01	230 eP	11 09.00	-2.1	
			eS	13 22.50		
SHK		15.77	240 eP	11 58.40	-1.9	
CN2		17.11	278 Pc	12 13.80	-3.3X	
SNY		18.85	273 eP	12 37.40	-1.2	
DL2		21.19	266 P	13 03.50	-0.1	
BJI		24.74	273 Pc	13 38.00	-0.3	
	Z	16s	3.40um		4.9MszX	
	N	14s	1.40um			
	E	15s	1.50um			
			eS	18 01.00		

SSE		25.45	249 Pc	13 47.00	1.9	
		1.2s	66.00nm		5.1mb	
	Z	17s	1.80um		4.7MszX	
	N	14s	1.30um			
	E	15s	1.50um			
			S	18 32.00		
TIA		25.57	264 P	13 46.50	0.3	
	N	15s	1.20um			
	E	15s	1.70um			
			sP	13 58.80		
NJ2		26.49	254 Pc	13 55.00	0.3	
	N	13s	1.20um			
	E	15s	1.40um			
			sP	14 10.60		
HHC		27.80	277 Pc	14 05.00	-1.7	
	Z	18s	3.70um		5.0Msz	
	N	12s	1.60um			
	E	12s	1.10um			
TIY		28.31	270 eP	14 11.50	0.2	
	N	13s	1.20um			
BTO		28.99	277 eP	14 16.50	-0.9	
	Z	14s	2.40um		5.0MszX	
	E	14s	2.20um			
GUA		30.40	188 eP	14 41.30	11.3X	
WHN		30.50	256 eP	14 30.50	-0.3	
XAN		32.51	266 Pd	14 48.30	-0.2	
LZH		35.23	273 iPc	15 12.50	0.5	
		1.0s	0.37nm		3.3mb X	
	Z	16s	2.00um		5.0MszX	
			sP	15 24.50		
TTA		36.46	39 eP	15 21.40	-0.6	
SVW		36.52	42 eP	15 22.70	0.2	
GTA		36.72	281 iPc	15 25.00	0.5	
	Z	14s	1.60um		5.0MszX	
	N	12s	1.40um			
			sS	21 22.00		
IMA		37.81	34 ePc	15 32.60	-0.8	
		1.1s	23.60nm		5.0mb	
CD2		37.86	266 P	15 35.00	0.9	
PMR		39.64	41 ePd	15 47.90	-0.6	
FBA		40.18	36 ePc	15 52.60	-0.4	
KMI		41.96	259 Pc	16 09.00	0.7	
			pP	16 20.00	39km	
WMQ		43.42	292 iPc	16 20.30	0.5	
	Z	18s	3.10um		5.3Msz	
	N	14s	1.70um			
	E	14s	2.50um			
			S	22 48.00		
INK		45.61	31 ePc	16 36.60	-0.3	
		0.9s	45.00nm		5.4mb	
			pP	16 49.00	45km	
LSA		47.64	273 Pc	16 55.00	0.9	
LOE		47.73	252 eP	16 55.00	0.7	
MBC		48.28	19 eP	16 56.00	-1.9	
CHG		48.71	256 iPc	17 03.20	1.3	
		1.1s	37.66nm		5.3mb	
KHT		51.71	252 eP	17 27.00	2.3	
NNT		52.48	249 eP	17 32.00	1.4	
ALE		52.92	5 eP	17 31.00	-2.1	
		0.8s	7.00nm		4.7mb	
KKN		52.97	275 P	17 34.60	0.2	
PKI		53.00	274 P	17 34.60	-0.2	
DMN		53.20	275 P	17 36.40	0.3	
GKN		53.31	275 P	17 36.80	0.0	
YKA		54.93	34 eP	17 47.60	-0.4	
YKC		54.99	34 ePc	17 47.50	-1.0	
		0.7s	10.00nm		5.0mb	
NDI		58.23	281 iPc	18 11.50	-0.5	
		1.4s	372.09nm		6.3mb	
			iS	26 12.00		
KEV		59.16	340 eP	18 21.00	3.1X	
PNT		59.23	50 eP	18 18.00	-0.7	
		1.1s	32.00nm		5.4mb	
			pP	18 34.00	60kmX	
DAG		59.44	357 iPc	18 17.60	-2.2	
		0.8s	21.64nm		5.3mb	
SOD		60.95	338 iP	18 28.80	-1.4	
WDC		62.39	59 eP	18 51.80	11.5X	
			i	18 57.80	20kmX	
KJF		62.93	335 iP	18 41.80	-1.6	
		0.9s	60.80nm		5.7mb	
MIN		63.11	59 eP	18 56.00	10.8X	
			i	19 02.00	19kmX	
SES		63.17	45 eP	18 54.00	8.6X	
ORV		63.64	60 eP	18 59.20	10.7X	
			i	19 05.40	20kmX	
HYB		64.23	270 ePc	18 52.00	-0.7	

1.2s 71.40nm 5.6mb
SUF 64.49 335 iP 18 51.60 -2.1
0.6s 42.50nm 5.7mb
QUE 64.52 288 iPc 18 53.20 -1.5
WB5 64.82 195 eP 18 56.80 0.5
i 19 09.50 44km
WRA 64.89 195 Pd 18 57.00 0.3
1.1s 6.10nm 4.6mb
LRM 65.21 50 eP 18 58.20 -0.7
e 19 15.60 65kmX
CMB 65.24 60 eP 19 10.60 11.6X
i 19 16.50 19kmX
BGMT 65.80 50 eP 19 02.30 -0.4
e 19 19.50 64kmX
GDH 66.00 9 iPc 19 02.00 -1.3
1.2s 37.50nm 5.3mb
i 19 13.00 36km
KVN 66.05 58 P 19 04.20 -0.1
HPI 66.15 52 P 19 04.80 -0.2
FRI 66.30 61 eP 19 17.00 11.3X
e 19 22.80 19kmX
NUR 66.63 334 iP 19 05.20 -2.2
Z 19s 1.20um 5.1Msz
LR 52 30.00
EUR 67.08 57 iP 19 11.00 0.0
1.0s 5.38nm 4.6mb
GBA 67.55 267 Pc 19 12.30 -1.5
0.8s 11.50nm 5.0mb
ISA 67.90 61 eP 19 26.00 10.0X
CLC 68.36 61 eP 19 19.00 0.2
e 19 35.00 58kmX
FRB 68.70 17 ePc 19 10.70 -9.6X
0.7s 75.00nm 5.8mb
pP 19 31.00 77kmX
BW06 68.74 51 P 19 20.00 -1.3
1.0s 11.25nm 4.8mb
SBB 68.93 62 eP 19 23.00 0.7
e 19 40.00 62kmX
UPP 69.30 336 iP 19 22.60 -1.5
i 19 34.30 39km
RVR 69.66 62 eP 19 43.00 16.3X
KOD 69.78 265 eP 19 27.80 -0.3
1.2s 31.25nm 5.2mb
NB2 70.05 340 P 19 25.60 -3.1X
0.9s 70.10nm 5.6mb
PLM 70.39 62 eP 19 26.00 -5.5X
TPC 70.43 61 eP 19 48.00 16.5X
GLA 71.89 61 eP 19 44.00 3.7X
e 19 58.00 49km
SLY 74.90 305 iPd 19 58.50 0.8
i 20 12.00 47km
MSL 75.74 307 ePd 20 03.00 0.5
e 20 15.00 40km
ALQ 75.78 55 eP 20 03.00 0.0
1.0s 14.25nm 4.9mb
e 20 21.00 66kmX
KVT 76.30 314 eP 20 06.60 1.0
KRA 76.56 329 eP 20 06.80 0.0
0.8s 47.00nm 5.5mb
e 20 19.80 44km
CFR 77.05 322 eP 20 10.00 0.4
SPC 77.15 328 eP 20 10.60 0.2
i 20 23.70 45km
VRI 77.15 323 eP 20 10.00 -0.3
KSP 77.21 332 iPc 20 10.20 -0.3
1.2s 51.00nm 5.4mb
id 20 26.10 57kmX
MLR 77.79 323 iPd 20 15.00 1.1
CLL 77.91 334 iPc 20 13.60 -0.7
1.2s 50.00nm 5.4mb
i 20 25.20 38km
BRG 77.98 333 iPc 20 14.50 -0.2
1.0s 20.00nm 5.1mb
i 20 18.10 12kmX
EKA 78.47 344 P 20 17.00 -0.3
1.3s 24.80nm 5.0mb
PRU 78.53 332 ePc 20 17.50 -0.2
Z 18s 1.10um 5.2Msz
N 20s 0.90um
E 20s 1.00um
e 20 30.00 42km
BBTK 78.90 315 iPc 20 21.00 0.9
MOX 78.93 334 iPc 20 19.50 -0.4
1.4s 39.00nm 5.2mb
Z 17s 1.10um 5.3MszX
LR 00 00.00
SRO 79.01 329 iP 20 21.20 0.8

i 20 36.30 53km
BUD 79.02 328 eP 20 20.80 0.4
ZST 79.14 330 iP 20 21.90 0.8
e 20 36.10 49km
LR 14 04.00
WTS 79.17 337 eP 20 21.00 -0.1
1.1s 52.00nm 5.4mb
e 20 32.00 36km
KHC 79.59 332 iPc 20 24.20 0.6
1.0s 42.50nm 5.4mb
i 20 35.00 35km
SOP 79.77 330 eP 20 25.40 0.9
ENN 80.52 337 ePc 20 28.50 0.1
1.0s 51.00nm 5.4mb
e 20 40.50 40km
DMU 80.53 346 eP 20 27.30 -1.1
MEM 80.64 337 P 20 29.60 0.6
e 20 44.10 50km
DLE 81.05 346 eP 20 30.70 -0.4
DCN 81.12 346 eP 20 31.60 0.1
SNF 81.20 338 P 20 32.80 0.8
e 20 46.30 46km
KBA 81.44 331 ePc 20 33.50 0.0
1.2s 59.40nm 5.5mb
i 20 37.50 13kmX
i 20 47.00
WLF 81.45 337 Pc 20 29.60 -3.6X
DOU 81.49 338 P 20 34.70 1.2
e 20 48.60 48km
PTJ 81.50 329 eP 20 33.60 -0.2
KHL 81.69 316 eP 20 35.00 0.1
RBL 81.91 331 P 20 35.10 -0.7
FVI 82.05 331 P 20 36.90 0.5
VBY 82.10 329 e(PKP) 20 35.80 -0.9
VOY 82.14 330 ePKP 20 36.30 -0.8
CEY 82.20 330 ePKP 20 36.20 -1.1
CDF 82.24 335 eP 20 37.30 -0.3
1.1s 39.00nm 5.4mb
TRI 82.47 330 ePd 20 37.80 -0.8
SKO 82.56 323 iPc 20 39.80 0.5
1.5s 90.00nm 5.6mb
Z 17s 1.04um 5.3MszX
E 17s 1.03um
LR 00 50.00
VAY 82.60 322 iP 20 40.00 0.6
ELL 82.71 315 eP 20 47.00 6.7X
HAU 82.88 336 eP 20 40.80 0.0
1.1s 29.30nm 5.2mb
BSF 82.90 336 eP 20 40.80 -0.3
1.0s 16.00nm 5.0mb
CTI 82.92 332 P 20 40.60 -0.5
MML 83.01 309 iP 20 43.30 1.6
ELC 83.48 43 P 20 43.80 -0.2
OHR 83.54 323 eP 20 39.50 -4.9X
1.1s 0.05nm 2.5mb X
DSI 83.67 308 iPc 20 46.30 1.2
FLN 84.03 340 eP 20 47.00 0.4
1.2s 47.60nm 5.5mb
VAI 84.04 333 Pc 21 01.40 14.7X
LOR 84.27 337 eP 20 47.80 -0.1
1.0s 20.00nm 5.2mb
GRR 84.47 340 eP 20 49.40 0.6
1.2s 65.40nm 5.6mb
LBF 84.49 337 eP 20 49.20 0.2
1.2s 26.70nm 5.2mb
SSF 84.55 337 eP 20 50.30 1.0
0.9s 8.10nm 4.8mb
ARV 84.67 330 P 20 46.60 -3.3X
PGD 84.78 331 P 20 52.20 1.5
SMF 84.84 337 eP 20 51.20 0.5
1.2s 57.70nm 5.6mb
AVF 84.84 337 eP 20 51.40 0.7
1.2s 56.50nm 5.6mb
LPF 84.85 340 eP 20 51.50 0.8
1.2s 73.70nm 5.7mb
MME 84.86 331 P 20 52.30 1.1
CRE 84.91 330 P 20 52.00 0.7
LPG 85.01 334 eP 20 52.80 0.8
1.0s 34.80nm 5.5mb
BDI 85.01 331 P 20 54.50 2.8
FIR 85.03 331 eP 20 47.00 -4.7X
ASS 85.14 330 P 20 50.50 -1.9
BGF 85.20 337 eP 20 53.10 0.6
MBH 85.30 307 iPc 20 54.50 1.2
BNI 85.43 334 P 21 06.80 12.9X
MAF 85.58 337 eP 20 55.40 0.9
1.3s 97.40nm 5.8mb

TCF 85.62 338 eP 20 55.30 0.6
1.2s 29.70nm 5.4mb
MNS 85.73 329 P 20 54.60 -0.7
LSF 85.84 338 eP 20 56.10 0.3
1.0s 30.00nm 5.5mb
MFF 85.96 339 eP 20 57.20 0.9
1.0s 24.00nm 5.4mb
RJF 86.72 338 eP 21 01.20 1.1
1.2s 26.10nm 5.3mb
FRF 86.78 334 eP 21 00.60 0.2
1.0s 32.00nm 5.5mb
CAF 86.91 337 eP 21 02.70 1.6
1.0s 30.00nm 5.5mb
LRG 86.96 334 eP 21 01.80 0.5
1.0s 57.60nm 5.8mb
LMR 87.02 334 eP 21 02.10 0.5
0.9s 40.60nm 5.7mb
LFF 87.26 338 eP 21 04.20 1.5
1.2s 65.40nm 5.7mb
LPO 87.38 338 eP 21 04.70 1.4
1.1s 39.00nm 5.6mb
BNG 114.63 304 ePKPd 27 14.20 16.9X
1.0s 14.00nm
id 27 50.90
TIC 124.61 328 PKP 27 33.00 16.7X
KIC 124.76 328 PKP 27 32.70 16.1X
LIC 125.00 328 PKP 27 33.60 16.6X
SLR 129.27 271 ePKP 27 25.50 0.3
KSR 130.35 271 ePKP 27 35.00 7.7X
PRY 130.56 270 ePKP 27 31.00 3.4X
ZOBO 138.18 61 (PKP) 27 52.00 9.2X
LPB 138.39 61 ePKP 27 50.00 7.0X
CNCB 138.67 61 ePKP 27 45.00 1.3
SOB1 144.43 17 ePKP 27 51.90 -1.3
e 28 03.90
ITR 144.45 13 ePKP 27 54.80 1.6
S.D. = 1.0 on 145 of 181 obs.

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* MAR 01, 1989 13h 31m 22.16± 0.59s
4.372 S ± 7.1km 80.564 W ±12.9km
DEPTH = 33.0km (normal)
4.8mb (1 obs.)
PERU-ECUADOR BORDER REGION (110)

CHP8 2.48 164 P 32 01.00 -0.1
S 32 36.50
SALC 8.26 28 eP 33 26.60 3.8X
NNA 8.41 154 P 33 23.70 -1.2
S 34 58.80
ANCC 8.66 25 eP 33 30.00 1.7
HOOC 8.72 27 eP 33 28.50 -0.8
CLMC 9.12 26 eP 33 34.30 -0.4
HUA 9.21 146 P 33 39.00 2.7
S 35 18.00
ZOBO 17.00 135 eP 35 20.00 0.3
Z 20s 0.20um
LR 21 50.00
LPB 17.20 136 eP 35 28.00 5.9X
CNCB 17.47 136 P 35 24.00 -1.6
ALQ 46.07 330 eP 39 46.20 1.1
0.8s 9.33nm 4.8mb
BW06 53.78 334 P 40 42.60 -1.4
TNP 54.21 324 P 40 48.10 0.8
KVN 55.38 325 P 40 56.50 0.8
BGMT 56.82 334 ePc 41 06.30 0.3
YKA 71.54 344 eP 42 40.90 -0.7
INK 81.20 343 eP 43 35.00 -0.7
pP 43 51.00 57kmX
MBC 83.54 351 eP 43 47.00 -0.7
S.D. = 1.3 on 16 of 18 obs.

& MAR 01, 1989 14h 13m 02.11s
60.037 N 153.423 W
DEPTH = 140.7km
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM 0.24 79 iP 13 21.07 1.0
iS 13 36.27
RDT 0.74 43 eP 13 23.53 -0.7
NNL 1.07 89 eP 13 27.15 0.3
eS 13 45.58
CNPM 1.22 114 iP 13 27.42 -1.0
iS 13 46.79
NKA 1.30 56 eP 13 29.75 0.7
SPU 1.33 30 iP 13 28.68 -0.9
CRP 1.38 26 eP 13 29.60 -0.6

01d 14h

SVW	1.53	316	eP	13 30.42	-1.3
SLKM	1.66	72	eP	13 32.04	-1.1
SEW	1.99	86	eP	13 35.33	-1.6
SKT	2.16	24	eP	13 37.76	-1.3
PMS	2.26	56	eP	13 38.35	-1.9
			iS	14 07.05	
PTE	2.33	67	eP	13 38.83	-2.3
PWA	2.37	45	eP	13 39.60	-2.0
PWL	2.65	70	eP	13 43.32	-1.9
GHO	2.80	50	eP	13 44.41	-2.8
KNK	2.80	58	eP	13 44.36	-2.8
KNIM	2.86	81	eP	13 44.92	-2.9
MTU	2.90	88	eP	13 46.86	-1.5
SML	3.06	52	eP	13 47.33	-3.1
GLI	3.25	72	eP	13 50.28	-2.6
HIN	3.47	81	eP	13 53.63	-2.3
FID	3.52	75	eP	13 53.92	-2.6
VZW	3.54	70	eP	13 55.06	-1.8
KLU	3.96	65	eP	13 59.47	-2.9
TOA	4.09	56	eP	14 01.08	-3.0

26 obs. assocloted

MAR 01, 1989 17h 21m 11.07± 0.43s
43.845 N ± 8.8km 149.120 E ± 6.2km
DEPTH = 56.6km (10 depth phases)
5.0mb (34 obs.)
KURIL ISLANDS REGION (222)

KUSJ	3.30	258	eP	21 58.20	-3.2X
			S	22 36.10	
HOOJ	4.51	253	eP	22 17.80	-0.6
			eS	23 09.80	
ASAJ	4.68	276	P	22 20.80	-0.1
MRRJ	6.06	259	P	22 38.40	-1.7
			S	23 47.10	
AOMJ	7.28	246	eP	22 54.90	-2.2
			eS	24 13.00	
OFUJ	7.35	232	P	22 54.00	-4.1X
			S	24 11.90	
YAMJ	8.90	234	eP	23 15.40	-4.2X
			eS	24 51.60	
NIIJ	10.13	233	eP	23 33.10	-3.3X
KAKJ	10.26	225	eP	23 32.70	-5.4X
			eS	25 21.70	
CHJJ	10.99	228	eP	23 42.90	-5.2X
			eS	25 37.60	
MTMJ	11.28	234	eP	23 49.10	-3.0X
IIDJ	12.01	230	eP	23 59.20	-2.6
			eS	26 11.50	
MDJ	14.03	280	eP	24 27.00	-1.3
CN2	17.08	278	eP	25 04.00	-3.2X
SNY	18.82	273	Pd	25 27.40	-1.3
DL2	21.16	266	eP	25 53.00	-0.4
BJI	24.70	273	eP	26 28.00	0.0
Z	16s		0.90um		4.4MszX
			eS	31 00.00	
SSE	25.43	249	eP	26 36.80	1.9
	1.0s		15.00nm		4.5mb
Z	16s		0.40um		4.0MszX
			sP	26 52.00	
			eS	31 26.00	
TIA	25.54	264	P	26 36.80	0.8
NJ2	26.46	254	Pc	26 48.50	4.0X
Z	15s		0.80um		4.4MszX
HHC	27.76	277	Pd	26 57.20	0.8
TIY	28.28	270	eP	27 04.80	3.8X
Z	16s		0.50um		4.2MszX
BTO	28.95	277	eP	27 07.00	-0.1
XAN	32.49	266	eP	27 37.80	-0.4
LZH	35.19	273	eP	28 02.50	0.8
	1.5s	132.00nm			5.6mb
			pP	28 12.50	34kmX
TTA	36.46	39	P	28 11.00	-1.0
	0.9s	10.42nm			4.8mb
GTA	36.68	280	iPc	28 14.80	0.6
IMA	37.80	34	P	28 12.90	-10.4X
	0.8s	6.03nm			
CD2	37.84	266	eP	28 24.60	0.8
KDC	38.19	48	P	28 26.00	-0.4
	0.8s	17.24nm			5.0mb
GYA	38.33	257	P	28 28.20	0.1
PMR	39.65	41	P	28 29.00	-9.5X
	1.0s	8.75nm			4.6mb
FBA	40.18	36	P	28 41.00	-1.9
	0.9s	10.42nm			4.7mb
KMI	41.93	259	Pc	28 59.00	1.0
WMQ	43.38	292	P	29 10.00	0.6
Z	18s		0.80um		4.7Msz
INK	45.60	31	eP	29 26.00	-0.7
MBC	48.27	19	eP	29 46.00	-1.7
CHTO	48.69	256	iPc	29 52.80	1.2
	1.1s	10.01nm			4.8mb
SHL	49.46	268	iP	29 57.20	-0.5
KHT	51.69	252	eP	30 16.70	2.2
KKN	52.93	275	P	30 24.40	0.4
	0.9s	52.00nm			5.6mb
PKI	52.97	274	P	30 24.60	0.2
DMN	53.16	275	P	30 26.20	0.5
GKN	53.27	275	P	30 26.80	0.4
YKA	54.93	34	eP	30 37.60	-0.3
YKC	54.99	34	eP	30 37.50	-0.8
	0.7s	5.00nm			4.7mb
NDI	58.19	281	iPc	31 01.50	-0.1
	0.9s	50.42nm			5.6mb
PNT	59.24	50	eP	31 24.00	15.4X
	0.6s	5.00nm			
DAG	59.42	357	iPc	31 07.30	-2.2
	1.0s	10.00nm			4.9mb
PSI	60.34	242	eP	31 17.40	1.0
SOD	60.92	338	iP	31 18.60	-1.2
KJF	62.89	335	iP	31 32.00	-1.0
	0.8s	17.60nm			5.2mb
CTA	63.67	183	iPc	31 36.00	-2.5
	1.3s	13.46nm			4.8mb
HYB	64.20	270	eP	31 42.00	-0.3
SUF	64.46	335	iP	31 41.40	-1.9
	0.5s	22.60nm			5.4mb
QUE	64.49	288	iPc	31 44.20	0.0
FFC	64.77	37	eP	31 45.00	-0.4
	0.7s	7.00nm			4.8mb
WB5	64.84	195	eP	31 47.00	0.8
MAIO	65.75	298	eP	31 53.00	0.9
KVN	66.06	58	P	31 54.40	0.2
			pP	32 12.00	66km
NUR	66.59	334	iP	31 55.70	-1.3
Z	17s		0.40um		4.7MszX
			LR	05 10.00	
EUR	67.09	57	iP	32 03.30	2.4
	0.5s	2.66nm			4.5mb
TNP	67.20	59	P	32 03.00	1.5
	0.8s	4.90nm			4.6mb
			pP	32 19.00	58km
GBA	67.52	267	Pd	32 02.50	-0.9
	0.4s	1.30nm			4.3mb
FRB	68.68	17	eP	32 08.00	-2.0
BW06	68.75	51	P	32 12.00	0.9
	1.0s	8.75nm			4.7mb
			pP	32 27.50	56km
UPP	69.27	336	iP	32 12.20	-1.4
NB2	70.02	340	P	32 16.60	-1.7
	0.6s	15.00nm			5.1mb
KRA	76.52	329	eP	32 56.80	0.4
			e	33 12.30	55km
SPC	77.11	328	eP	33 01.70	1.8
KSP	77.17	332	eP	33 00.00	0.0
			e	33 16.30	58km
MLR	77.75	323	eP	33 03.00	-0.5
CLL	77.88	334	iPc	33 03.70	-0.1
	0.9s	16.00nm			5.0mb
			i	33 19.00	54km
BRG	77.94	333	iP	33 05.70	1.5
	1.0s	20.00nm			5.1mb
			e	33 20.40	52km
EKA	78.43	344	Pd	33 07.10	0.3
	1.4s	36.20nm			5.2mb
PRU	78.50	332	P	33 07.50	0.2
			e	33 23.00	55km
BBTK	78.86	315	iPc	33 10.00	0.4
MOX	78.89	334	eP	33 09.00	-0.5
SRO	78.98	329	eP	33 11.50	1.6
ZST	79.11	330	eP	33 11.60	1.0
KHC	79.56	332	iPc	33 14.00	0.9
	1.0s	13.50nm			4.8mb
			i	33 30.30	58km
KBA	81.40	331	eP	33 24.00	0.9
	1.0s	12.00nm			4.8mb
			e	33 39.50	55km
			e	45 03.00	
			i(Sg)	45 11.80	
SKO	82.52	323	iP	33 29.50	0.7
VAY	82.56	322	eP	33 29.60	0.6
OHR	83.50	323	eP	33 23.00	-10.9X
GRR	84.44	340	eP	33 39.10	0.7
	1.0s	16.00nm			5.0mb
NOH	84.52	308	eP	33 40.50	1.3
SMF	84.80	337	eP	33 41.00	0.7
	1.2s	24.90nm			5.2mb
AVF	84.81	337	eP	33 41.00	0.7
	1.0s	12.00nm			4.9mb
LPG	84.97	334	eP	33 42.40	0.9
	1.0s	14.00nm			5.0mb
MBH	85.26	307	iP	33 44.50	1.7
MAF	85.55	337	eP	33 43.90	-0.1
	0.9s	13.10nm			5.1mb
TCF	85.59	338	eP	33 41.20	-3.0X
	1.2s	23.80nm			5.2mb
LSF	85.81	338	eP	33 42.30	-3.0X
	1.0s	28.00nm			5.4mb
LRG	86.93	334	eP	33 51.50	0.7
	1.0s	37.60nm			5.5mb
LMR	86.99	334	eP	33 51.70	0.6
	0.9s	19.60nm			5.3mb
SOB1	144.41	17	ePKP	40 41.50	-1.3

S.D. = 1.2 on 81 of 97 obs.

MAR 01, 1989 18h 04m 17.88± 0.63s
23.014 S ± 5.4km 66.141 W ±10.6km
DEPTH = 245.2 ± 10.0 km
3.9mb (1 obs.)
JUJUY PROVINCE, ARGENTINA (128)

ANT	3.99	259	iPc	05 20.50	-1.3
CYA	5.42	177	ePd	05 40.70	1.4
CCH	5.60	360	iPd	05 43.00	1.1
			S	06 56.00	
CNCB	6.41	344	iPd	05 53.00	0.7
			S	07 08.00	
LPB	6.71	344	P	05 57.00	1.1
	0.9s	100.84nm			4.8mb X
			S	07 10.00	
ZOBO	6.96	344	iPd	05 59.00	-0.3
	0.5s	79.22nm			5.0mb X
			S	07 18.00	
ARE	8.24	321	iPd	06 12.60	-2.7
			iS	07 39.00	
JACH	10.40	201	iPd	06 42.90	0.3
PEL	10.86	201	iPd	06 47.60	-0.7
ITB1	10.88	101	Pd	06 55.90	7.3X
FCH	10.91	199	iPc	06 50.30	1.1
SAN	11.14	200	eP	06 51.60	-0.2
LNV	11.84	202	eP	06 59.50	-1.1
VAO	17.65	94	eP	08 09.70	0.1
SOB1	27.80	65	iP	09 46.10	-0.6
ITR	30.11	66	eP	10 05.30	-1.7
LIC	66.38	72	Pc	14 42.90	0.0
KIC	66.70	72	Pc	14 44.00	-0.9
ALQ	69.18	325	eP	15 01.40	1.3
	1.0s	2.25nm			3.9mb
SCH	77.51	360	eP	15 47.00	-0.5
KVN	78.57	321	eP	15 55.00	1.1
YKA	93.48	340	eP	17 07.30	1.2
GBA	144.26	99	PKPd	23 23.50	-3.3X
	0.8s	14.20nm			
HYB	146.46	93	ePKP	23 33.50	3.0X
	1.0s	38.00nm			
GKN	153.20	73	PKP	23 49.40	8.8X
DMN	153.64	74	PKP	23 50.60	9.3X
KKN	153.78	74	PKP	23 50.70	9.2X

S.D. = 1.2 on 21 of 27 obs.

MAR 01, 1989 18h 05m 08.22± 0.32s
44.795 N ± 2.1km 7.847 E ± 3.1km
DEPTH = 13.5 ± 2.5 km
NORTHERN ITALY (545)
ML 2.9 (LDG), 2.8 (GEN).

CKI	0.48	140	P	05 19.20	1.2
			eSg	05 25.60	
ROB	0.50	178	Pc	05 19.69	1.3
DOI	0.52	236	Pd	05 19.60	0.9
			eSg	05 27.10	
RSP	0.55	311	Pd	05 20.50	1.2
			S	05 28.35	
PZZ	0.61	242	Pd	05 20.71	0.5
			S	05 28.81	
FIN	0.64	156	Pc	05 21.01	0.3
			S	05 29.00	
STV	0.67	214	Pd	05 21.42	0.2
			S	05 29.74	
RRL	0.77	280	Pd	05 24.27	1.3
			S	05 33.71	

LSD	0.82	324	P	05 24.96	0.9
			S	05 35.46	
ORO	0.84	6	P	05 24.30	0.2
ORX	0.84	6	Pc	05 24.27	0.0
			S	05 34.07	
AUTN	0.85	201	Pg	05 24.85	0.3
			Sg	05 35.76	
GEN	0.86	116	P	05 24.80	0.4
			S	05 35.09	
BNI	0.87	288	Pd	05 26.00	1.2
			eSg	05 38.00	
IMI	0.88	178	P	05 24.72	-0.2
			S	05 34.72	
TOUF	0.89	209	Pg	05 24.82	-0.3
SBF	0.98	198	Pn	05 26.50	0.0
			Sn	05 38.10	
AURF	0.98	203	Pg	05 26.47	-0.1
			Sg	05 38.39	
MVIF	1.03	209	Pg	05 27.22	-0.2
			Sg	05 39.87	
LPG	1.05	313	Pn	05 29.10	1.3
			Sg	05 42.50	
LPL	1.07	313	Pn	05 29.40	1.2
			Sg	05 43.00	
REVF	1.11	198	Pg	05 28.68	-0.1
			Sg	05 43.31	
BOB	1.14	91	P	05 29.80	0.5
			eSg	05 44.20	
CALN	1.25	214	Pg	05 31.22	0.0
VAI	1.25	31	P	05 30.40	-0.8
FRF	1.51	215	Pn	05 33.90	-0.9
			Sn	05 51.80	
LRG	1.71	219	Pn	05 36.90	-0.9
			Pg	05 38.10	
			Sn	05 56.70	
LMR	1.75	214	Pn	05 37.10	-1.2
			Sn	05 57.10	
			Sg	06 00.20	
CVF	2.35	161	Pn	05 43.80	-3.2X
BSF	3.12	347	Pn	05 56.80	-1.3
SMF	3.36	305	Pn	06 00.70	-0.7
			Sn	06 38.00	
HAU	3.38	343	Pn	06 00.90	-0.7
			Sn	06 39.20	
LBF	3.48	310	Pn	06 03.00	-0.1
			Sn	06 41.80	
LOR	3.72	313	Pn	06 06.00	-0.5
			Sn	06 47.10	
SSF	3.78	308	Pn	06 07.30	-0.1
BGF	3.92	298	Pn	06 09.00	-0.3
MAF	3.98	293	Pn	06 09.60	-0.5
CAF	4.11	274	Pn	06 11.30	-0.8
TCF	4.23	293	Pn	06 13.40	-0.4

S.D. = 0.8 on 38 of 39 obs.

MAR 01, 1989 18h 10m 52.60± 0.52s
44.419 N ± 3.4km 6.739 E ± 5.3km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.2 (LDG), 2.2 (GEN).

PZZ	0.27	71	P	10 58.83	0.4
			S	11 03.28	
STV	0.45	112	P	11 01.76	-0.1
			S	11 08.24	
RRL	0.50	4	P	11 02.02	-0.8
			S	11 09.04	
BNI	0.64	356	P	11 06.30	0.8
			iSg	11 12.70	
SBF	0.75	138	Pg	11 07.00	-0.3
			Sg	11 14.90	
ROB	0.82	98	P	11 08.60	0.1
			S	11 20.04	
FRF	0.86	184	Pg	11 08.70	-0.5
			Sg	11 19.60	
IMI	0.97	121	P	11 11.11	0.0
			S	11 24.23	
LRG	1.00	196	Pg	11 12.00	0.4
			Sg	11 24.20	
LMR	1.10	189	Pg	11 13.30	0.1
			Sg	11 27.30	
LPL	1.10	360	Pg	11 13.10	-0.3
			Sg	11 27.20	

S.D. = 0.5 on 11 of 11 obs.

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* MAR 01, 1989 19h 01m 28.66± 0.53s
27.655 S ±11.8km 66.081 E ± 8.6km
DEPTH = 10.0km (geophysicist)
4.8mb (8 obs.)
SOUTH INDIAN OCEAN (425)

AVY	18.95	293	iPd	05 54.78	2.3
PRY	34.23	262	iPc	08 15.50	-1.4
	0.7s		10.00nm		4.8mb
KSR	34.94	264	eP	08 16.00	-7.1X
GBA	42.47	16	Pc	09 25.70	0.1
	0.8s		11.30nm		4.6mb
HYB	46.41	17	eP	09 58.00	0.7
	1.4s		62.50nm		5.5mb
BNG	55.83	297	iPc	11 08.10	-0.7
	0.9s		9.00nm		4.8mb
BCAO	55.84	297	eP	11 08.00	-0.8
	1.0s		4.75nm		4.5mb
CHTO	56.10	38	eP	11 10.50	-0.1
	1.0s		2.75nm		4.2mb
DMN	57.90	20	P	11 23.30	-0.3
KKN	58.13	20	P	11 24.60	-0.5
GKN	58.13	19	P	11 24.60	-0.4
	1.1s		43.00nm		5.4mb
SHL	58.46	27	iP	11 27.00	-0.4
WB5	62.30	99	eP	11 53.50	-0.1
SPA	62.50	180	iPc	11 55.80	1.2
	1.0s		10.00nm		5.0mb
GYA	66.46	40	P	12 21.00	0.3
CD2	68.44	34	eP	12 32.60	-0.4
XAN	73.57	36	P	13 03.70	-0.1
GTA	73.77	27	eP	13 05.10	0.1
WMQ	73.84	16	eP	13 04.00	-1.2
WHN	73.98	42	eP	13 06.00	-0.2
BTO	79.22	33	eP	13 36.40	0.9
HHC	80.15	33	eP	13 42.00	1.4
BJI	81.89	37	eP	13 50.50	1.0
YKA	145.16	1	ePKP	21 06.80	-0.5
YKC	145.17	0	ePKPd	21 06.50	-0.9
	0.7s		23.00nm		
FFC	151.58	345	ePKP	21 23.00	5.3X
	0.9s		15.00nm		

S.D. = 0.9 on 24 of 26 obs.

MAR 01, 1989 19h 11m 58.85± 0.88s
31.575 N ± 6.4km 49.457 E ± 4.9km
DEPTH = 46.9 ± 9.7 km
4.5mb (8 obs.)
WESTERN IRAN (347)

SHI	3.27	125	eP	12 51.00	2.0
KER	3.40	325	eP	12 53.00	2.1
TEH	4.45	21	eP	13 01.00	-4.7X
BHD	4.61	293	ePnd	13 29.00	21.2X
			eSn	14 29.00	
			iS*	14 44.00	
SLY	5.20	322	ePn	13 16.00	-0.1
			iP*	13 26.00	
			iSn	14 10.50	
			iS*	14 20.50	
			iSg	14 36.00	
TAB	6.97	339	e(P)	13 47.00	5.9X
MSL	7.10	314	ePnd	13 43.00	0.2
			eSn	14 50.00	
RYD	7.28	201	ePd	13 45.40	0.1
			iS	16 03.50	
QASM	7.54	225	ePd	13 47.00	-2.0
KHI	8.14	69	ePc	13 52.00	-5.4X
MAIO	9.58	58	eP	14 15.00	-2.1
			eS	17 08.00	
KMSA	12.01	203	ePd	14 49.00	-1.2
PRNI	12.47	268	e(P)	14 52.00	-4.3X
MBH	12.68	266	eP	14 57.00	-1.9
QUE	15.09	91	eP	15 36.00	5.3X
			eS	18 32.50	
BBTK	15.86	306	eP	15 43.00	2.5
			e	17 48.00	
KHL	17.66	298	eP	16 01.00	-2.1
VAY	23.63	302	eP	17 07.60	1.1
NDI	24.16	90	eP	17 13.00	1.3
SKO	24.63	303	eP	17 16.00	-0.1
OHR	24.87	301	eP	17 18.50	-0.1
GKN	30.66	88	P	18 11.10	-0.2
DMN	31.17	88	P	18 15.80	-0.1
KKN	31.26	88	P	18 16.60	-0.1
GBA	31.28	119	P	18 18.00	1.4
	0.5s		1.60nm		4.0mb
PKI	31.43	88	P	18 17.90	-0.5
KBA	31.61	310	eP	18 20.00	0.5
	1.0s		10.60nm		4.6mb
KHC	32.10	314	P	18 25.00	1.4
WMQ	32.35	57	eP	18 25.20	-0.7
SUF	34.55	341	eP	18 42.00	-2.6
KJF	35.37	344	eP	18 39.00	-12.6X
	0.6s		7.80nm		
SHL	37.56	88	iP	19 09.50	-1.2
SMF	37.91	307	eP	19 13.50	0.3
	0.8s		7.20nm		4.6mb
SSF	38.19	307	eP	19 15.70	0.2
	0.8s		4.00nm		4.4mb
NB2	38.61	331	P	19 17.80	-1.1
	0.7s		5.20nm		4.5mb
BNG	39.63	233	iPc	19 29.90	2.0
	0.9s		9.00nm		4.6mb
			id	19 41.00	
BCAO	39.64	233	eP	19 29.00	1.0
	1.1s		3.24nm		4.1mb
GTA	41.29	65	eP	19 41.40	-0.1
CHG	46.19	94	eP	20 21.50	0.4
CHTO	46.19	94	eP	20 21.00	-0.1
	0.9s		6.18nm		4.5mb
XAN	49.43	70	eP	20 45.30	-0.9
NNT	49.81	101	eP	20 49.00	-0.2
GYA	49.81	81	P	20 50.80	1.5
IPM	55.24	108	ePc	21 29.50	-0.3
KIC	56.38	255	P	21 38.00	0.0
LIC	56.70	256	P	21 40.20	-0.1
MBC	72.21	357	eP	23 20.00	-0.3
FRB	73.24	336	eP	23 25.00	-1.4
INK	80.40	1	eP	24 08.00	1.7
YKA	85.39	353	eP	24 37.90	5.8X

S.D. = 1.3 on 42 of 50 obs.

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* MAR 01, 1989 19h 25m 40.05± 1.44s
25.414 N ± 9.1km 124.956 E ±12.4km
DEPTH = 120.0 ± 13.1 km
4.3mb (3 obs.)
NORTHEAST OF TAIWAN (245)

TWC	2.93	255	ePc	26 26.70	0.6
			eS	27 02.50	
TWD	3.33	247	ePc	26 31.00	-0.4
TWQ	3.91	254	ePd	26 40.60	1.3
TWF1	3.92	239	ePc	26 37.70	-1.7
			eS	27 22.60	
TWK	4.60	243	eP	26 48.60	-0.1
BJI	16.33	335	eP	29 24.00	0.5
PKI	35.36	282	P	32 26.20	-0.1
KKN	35.45	283	P	32 27.00	0.1
DMN	35.62	283	P	32 28.50	0.1
GKN	36.00	283	P	32 31.50	0.1
WB5	45.94	168	eP	33 53.00	0.4
WRA	46.00	168	Pc	33 53.50	0.4
	0.6s		2.60nm		4.2mb
INK	70.79	23	eP	36 45.00	0.2
MBC	71.30	13	eP	36 46.00	-1.8
NB2	78.72	333	P	37 29.90	-0.4
	0.8s		2.10nm		4.0mb
YKA	80.49	24	eP	37 40.40	0.8
FFC	90.61	25	eP	38 30.00	0.2
	1.0s		16.00nm		5.1mb

S.D. = 0.9 on 17 of 17 obs.

MAR 01, 1989 22h 48m 18.41± 0.76s
36.368 N ± 6.6km 70.697 E ± 5.9km
DEPTH = 193.1 ± 9.3 km
4.2mb (7 obs.)
HINDU KUSH REGION (718)

KSH	5.19	52	eP	49 37.00	1.1
			S	50 34.00	
QUE	6.91	208	iPd	49 59.50	1.1
			eS	51 16.70	
MAIO	9.04	273	eP	50 25.00	-1.2
			eS	52 03.00	
NDI	9.43	142	iPc	50 31.40	0.2
	0.3s		90.91nm		5.6mb X
			iS	52 09.00	
GKN	14.44	121	P	51 34.60	-0.7
WMQ	14.97	55	P	51 40.70	-1.0
			eS	54 26.00	
DMN	15.01	122	P	51 42.00	-0.5
KKN	15.02	121	P	51 41.70	-0.8
PKI	15.24	121	P	51 44.60	-0.8
HYB	20.12	158	ePd	52 43.00	3.9X
	1.0s		20.00nm		4.6mb

01d 22h

```
SHL      21.07 115 iP     52 48.90    0.3
GTA      23.14  74 iPc    53 09.60    1.0
GBA      23.46 163 Pd     53 12.60    1.0
         0.4s      2.20nm          4.1mb
CHTO     30.37 118 eP     54 15.00    0.7
         0.6s      1.26nm          3.8mb
GYA      32.09  98 P      54 29.40    0.1
KHT      32.89 124 eP     54 37.50    1.4
NUR      37.79 324 iP     55 17.30    0.2
SUF      37.91 328 iP     55 18.30    0.3
         0.6s      5.10nm          4.3mb
SOD      39.75 335 eP     55 34.00    0.8
NB2      44.34 323 P      56 10.00   -0.6
         0.7s      5.30nm          4.2mb
MBC      67.48   3 eP     58 54.00   -0.7
         0.8s     13.00nm          4.7mb
YKA      81.39   2 eP     00 15.10    0.9
WB5      82.11 122 eP     00 17.30   -1.3
WRA      82.13 122 Pc     00 17.60   -1.2
         0.6s      2.60nm          4.1mb
       S.D. = 0.9  on  23 of  24 obs.
-------------------------------------
*  MAR  01, 1989  22h 52m 49.57± 0.80s
   28.191 N ±11.3km   83.954 E ±11.6km
   DEPTH =  33.0km  (normal)
   4.2mb (  3 obs.)
 NEPAL                              (310)

SHL      7.55 108 eP     54 41.00    0.7
                 eS     55 59.50
HYB     11.82 206 eP     55 37.80   -1.1
         0.6s     13.30nm          5.3mb X
                 eS     57 43.00
POO     13.35 226 eP     56 00.00    0.7
                 iS     59 54.50
CHTO    16.60 121 eP     56 47.90    6.4X
         0.8s      2.93nm          3.5mb
MAIO    22.17 298 eP     57 46.00    1.6
SUF     50.67 330 iP     01 47.50    0.1
         0.5s      1.80nm          4.3mb
NB2     57.45 327 P      02 36.10   -1.3
         0.7s      2.10nm          4.3mb
MBC     74.80   6 eP     04 27.00   -0.7
       S.D. = 1.3  on   7 of   8 obs.
-------------------------------------
%  MAR  02, 1989  00h 05m 09.18± 1.55s
   45.681 N ± 9.8km    3.718 E ±11.7km
   DEPTH =  10.0km  (geophysicist)
 FRANCE                             (538)
       ML 2.6 (LDG).

MAF      0.97 304 Pn     05 27.10   -0.5
                 Pg     05 27.80
                 Sg     05 40.50
SMF      0.97   5 Pn     05 26.90   -0.7
                 Pg     05 27.50
                 Sg     05 39.70
BGF      1.07 326 Pg     05 29.10   -0.2
                 Sg     05 43.80
AVF      1.14 347 Pg     05 30.50    0.0
                 Sg     05 46.00
TCF      1.21 301 Pn     05 31.10   -0.7
                 Pg     05 32.00
                 Sg     05 46.90
LBF      1.32   8 Pg     05 33.40   -0.1
                 Sg     05 50.80
SSF      1.39 354 Pg     05 34.80    0.2
                 Sg     05 53.40
CAF      1.39 238 Pn     05 33.40   -1.2
                 Pg     05 34.20
                 Sg     05 53.40
LOR      1.59   3 Pg     05 38.20    0.8
                 Sg     05 58.90
RJF      1.59 257 Pg     05 38.60    1.1
                 Sg     06 00.10
LSF      1.63 291 Pg     05 39.30    1.3
                 Sg     06 00.20
       S.D. = 0.9  on  11 of  11 obs.
-------------------------------------
&  MAR  02, 1989  00h 26m 17.22s
   60.171 N          152.948 W
   DEPTH = 118.4km
 SOUTHERN ALASKA                    (  2)
       <AGS-P>.

ILIM     0.09 184 iP     26 33.10    1.0
                 iS     26 45.79

RDT      0.49  33 iP     26 34.54   -0.7
NNL      0.84  98 eP     26 37.90    0.0
                 eS     26 52.90
NKA      1.02  55 eP     26 40.58    1.0
CNPM     1.08 126 iP     26 39.71   -0.5
SPU      1.11  23 eP     26 39.79   -0.8
CRP      1.17  19 eP     26 40.59   -0.7
                 eS     26 59.66
SLKM     1.40  75 iP     26 42.65   -1.1
                 iS     27 01.81
SVW      1.62 307 eP     26 44.98   -1.4
SEW      1.75  91 eP     26 46.36   -1.6
PMS      1.98  56 eP     26 50.39   -0.5
                 eS     27 14.12
PTE      2.06  69 iP     26 50.88   -0.9
KNK      2.53  59 eP     26 57.11   -0.8
                 eS     27 24.91
GHO      2.54  49 eP     26 55.77   -2.3
KNIM     2.60  84 eP     26 56.59   -2.3
                 eS     27 26.36
MTU      2.66  92 eP     26 58.41   -1.2
SML      2.78  52 eP     26 59.12   -2.2
KLU      3.69  66 eP     27 12.06   -1.4
       18 obs. associated
-------------------------------------
&  MAR  02, 1989  01h 19m 24.47s
   62.309 N          151.896 W
   DEPTH = 103.5km
 CENTRAL ALASKA                     (  1)
       <AGS-P>.

CRP      1.05 187 eP     19 45.82   -0.4
                 eS     20 01.59
SPU      1.13 184 eP     19 45.80   -1.2
                 eS     20 03.22
PWA      1.16 124 eP     19 46.53   -0.6
                 eS     20 03.31
PLRM     1.49 118 eP     19 49.87   -1.3
GHO      1.50 110 eP     19 50.51   -0.9
                 eS     20 10.99
PME      1.52 116 eP     19 50.59   -0.9
PMS      1.54 133 eP     19 50.62   -1.2
                 eS     20 12.22
SML      1.75 105 iP     19 53.27   -1.2
RDT      1.76 188 eP     19 53.96   -0.7
KNK      1.86 117 iP     19 54.36   -1.6
SLKM     1.98 155 eP     19 57.26   -0.2
                 eS     20 20.50
TTA      2.00 290 eP     19 57.52   -0.3
SEW      2.51 151 eP     20 03.28   -1.1
TOA      2.69  92 eP     20 05.69   -1.2
GLI      2.71 120 eP     20 04.07   -3.0
KNIM     2.81 133 iP     20 04.87   -3.6
KLU      2.94 104 eP     20 07.63   -2.7
FID      3.03 119 eP     20 08.72   -2.7
       18 obs. associated
-------------------------------------
?  MAR  02, 1989  01h 21m 45.02± 0.92s
   35.502 N ±14.7km   24.391 E ± 7.0km
   DEPTH =  10.0km  (geophysicist)
 CRETE                              (370)
       MD 3.6 (ATH).

VAM      0.18 239 ePg    21 49.00   -0.1
NPS      1.03 103 ePg    22 05.00    0.6
KAP      2.27  88 ePn    22 22.50   -0.7
ITM      2.60 311 ePn    22 28.00    0.2
       S.D. = 0.9  on   4 of   4 obs.
-------------------------------------
   MAR  02, 1989  02h 17m 00.56± 0.61s
   37.240 N ± 5.8km   21.368 E ± 4.4km
   DEPTH =  10.0km  (geophysicist)
   4.3mb (  3 obs.)
 SOUTHERN GREECE                    (368)
       ML 3.7 (ATH). Felt in the
       Kiparissia area.

ITM      0.45  97 ePg    17 10.00    0.3
VLS      1.12 327 iPbd   17 23.00    1.4
ATH      2.00  68 ePn    17 35.50    0.7
                 eSn    18 02.50
NEO      2.53  35 ePn    17 42.80    0.5
VAM      2.93 128 ePn    17 49.20    1.2
LSK      2.97 349 iPnd   17 50.30    1.7
KZN      3.08   6 ePn    17 51.50    1.3
KBN      3.41 353 iPnd   17 57.70    3.0X
PLG      3.53  27 ePn    17 56.30   -0.2

BERA     3.63 343 iPnd   17 59.30    1.4
OHR      3.89 354 iPn    18 02.30    0.6
NPS      3.96 119 ePb    18 07.60    5.0X
LCI      4.08 320 Pd     18 04.30    0.0
                 eSn    18 49.60
VAY      4.18  13 iPn    18 06.00    0.3
TIR      4.26 345 ePn    18 09.00    2.1
SOI      4.30 283 Pc     18 08.50    1.1
                 eSn    18 54.30
PRK      4.35  61 ePb    18 12.30    4.1X
PHP      4.50 351 ePn    18 11.40    1.2
LACI     4.57 344 iPnd   18 11.10   -0.2
TDS      4.63 303 P      18 11.50   -0.7
EZN      4.67  55 eP     18 12.00   -0.7
MMB      4.71  22 eP     18 12.00   -1.4
SKO      4.73   1 iPnc    18 12.80   -0.8
                 i      18 28.40
                 iSn    19 03.30
KKB      4.81  15 iP     18 14.00   -0.7
IZM      4.81  74 eP     18 08.00   -6.8X
BRT      4.87 320 Pd     18 15.80    0.2
                 eSn    19 09.20
KKS      4.89 352 ePn    18 19.00    3.3X
KAP      4.98 108 ePn    18 16.50   -0.6
RDO      5.07  38 ePn    18 17.50   -0.9
BCI      5.22 349 iPnd   18 20.60    0.2
MGR      5.39 304 P      18 22.60   -0.4
KDZ      5.40  34 iP     18 22.00   -1.2
TTG      5.43 343 ePn    18 22.00   -1.5
                 eSn    19 25.00
PVY      5.46 349 ePn    18 23.50   -0.5
                 eSn    19 30.00
PLD      5.50  27 eP     18 26.00    1.6
VTS      5.53  14 iP     18 26.00    1.0
IVA      5.74 349 ePn    18 28.00    0.1
                 eSn    19 37.00
DIM      5.78  32 eP     18 29.00    0.6
PVL      6.70  26 eP     18 39.00   -2.3
SDI      7.35 310 P      18 49.60   -0.9
BZS      8.37   1 eP     19 02.00   -2.7
MLR      8.93  21 eP     19 14.00    1.4
VBY      9.45 333 e(P)   19 17.80   -1.8
                 eS     21 00.20
VRI      9.51  23 ePd    19 22.50    2.0
PTJ      9.55 337 eP     19 17.20   -3.9X
CEY      9.96 331 e(P)   19 26.50   -0.2
                 e(S)   21 13.00
TRI     10.20 328 eP     19 38.10    8.1X
                 e      22 15.70
VOY     10.41 330 eP     19 32.60   -0.3
                 eS     21 22.90
KHC     13.16 337 eP     20 06.70   -3.4X
CLL     15.27 340 eP     20 42.00    4.3X
NUR     23.38   4 eP     22 09.00   -0.9
EKA     24.58 325 Pd     22 22.00    0.4
         1.0s     17.40nm          4.7mb
NB2     24.67 348 P      22 14.80   -7.7X
         1.2s      6.80nm          4.2mb
SUF     25.68   5 eP     22 30.00   -1.9
KJF     27.26   6 eP     22 33.00  -13.5X
BNG     32.75 185 ePc    23 35.40   -0.4
         0.8s      3.00nm          4.3mb
       S.D. = 1.2  on  45 of  56 obs.
-------------------------------------
?  MAR  02, 1989  02h 52m 12.15±11.23s
   35.560 N ±79.4km    0.741 E ±49.1km
   DEPTH =  10.0km  (geophysicist)
 ALGERIA                            (396)
       MG 3.3 (MDD).

TAF      2.69 255 eP     53 04.00    7.7X
                 i      53 08.00
                 i      53 54.00
                 i      55 00.00
ENIJ     2.77 301 eP     52 56.80   -0.7
                 eS     53 27.00
EALH     2.88 323 eP     52 59.00    0.1
                 eS     53 31.70
ACU      3.09 343 eP     53 01.40   -0.4
                 eS     53 36.00
EVIA     4.02 321 eP     53 15.50    0.3
                 eS     53 57.50
ECHE     4.25 342 eP     53 18.00   -0.3
                 eS     54 05.00
EBAN     4.46 307 eP     53 22.00    0.6
                 eS     54 09.70
IFR      5.25 249 iP     52 37.00  -55.8X
```

EROQ	5.26	357	eP	53 33.00	0.3
GUD	6.37	324	eP	53 48.60	0.0
			eS	54 56.60	

S.D. = 0.5 on 8 of 10 obs.

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* MAR 02, 1989 03h 08m 28.40± 0.75s
12.063 N ±17.2km 141.839 E ±17.5km
DEPTH = 33.0km (normal)
4.9mb (3 obs.)
SOUTH OF MARIANA ISLANDS (210)

PJG	3.32	62	eP	09 18.90	-0.4	
			eS	09 43.00		
CTA	32.24	172	iPc	14 56.00	-0.1	
	0.5s		12.68nm		5.1mb	
WB5	32.58	193	iPd	14 59.80	0.7	
WRA	32.65	193	Pc	15 00.40	0.7	
	0.6s		5.20nm		4.6mb	
WARB	40.79	201	eP	16 00.20	-8.2X	
FORR	44.66	197	iPd	16 39.40	-0.5	
COOL	47.10	205	eP	16 59.00	-0.3	
MRWA	48.03	211	iPd	17 06.60	0.0	
	0.3s		9.00nm		5.3mb X	
BAL	48.83	209	eP	17 12.50	-0.2	
	0.4s		7.00nm		5.0mb X	
KLB	49.17	207	iPd	17 14.90	-0.4	
	0.4s		5.00nm		4.9mb	
MUN	50.20	209	iPd	17 22.90	-0.3	
NWAO	50.53	207	eP	17 25.50	-0.2	
ZOBO	150.66	102	iPKPd	28 14.70	0.1	
	0.5s		8.44nm			
LPB	150.67	102	ePKP	28 15.00	0.6	
CNCB	150.76	103	PKP	28 15.00	0.3	

S.D. = 0.4 on 14 of 15 obs.

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* MAR 02, 1989 04h 06m 27.49± 1.81s
13.735 N ± 6.0km 61.474 W ±23.7km
DEPTH = 33.0km (normal)
WINDWARD ISLANDS (95)

SLB	0.43	78	eP	06 37.26	0.1	
			eS	07 02.98		
SVV	0.48	149	eP	06 37.54	-0.4	
			eS	07 03.06		
SSV	0.49	146	eP	06 37.93	-0.1	
			eS	07 04.07		
SVB	0.51	155	eP	06 38.62	0.4	
			eS	07 04.47		
FCV	0.62	159	eP	06 34.69	-5.1X	
BIM	0.87	27	eP	06 43.07	-0.3	
FDF	1.04	18	eP	06 46.05	0.2	

S.D. = 0.4 on 6 of 7 obs.

MAR 02, 1989 05h 15m 04.51± 0.26s
50.946 N ± 6.7km 176.044 E ± 3.1km
DEPTH = 33.0km (normal)
5.0mb (49 obs.)
RAT ISLANDS, ALEUTIAN ISLANDS (6)

SMY	2.16	327	eP	15 38.90	0.1	
ADK	4.65	76	ePc	16 13.50	-0.6	
SVW	18.66	46	eP	19 21.40	-0.2	
TTA	19.21	41	eP	19 27.70	-0.5	
KDC	19.43	57	eP	19 27.80	-2.8	
IMA	21.57	34	eP	19 52.30	-0.7	
PMR	21.80	47	eP	19 54.00	-1.0	
FBA	23.32	39	eP	20 10.20	0.2	
	0.6s		15.20nm		4.7mb	
INK	29.69	35	eP	21 08.00	-1.0	
CN2	34.42	278	Pd	21 49.40	-1.2	
MBC	35.22	22	eP	21 57.00	-0.1	
	0.5s		8.00nm		4.9mb	
SNY	36.62	277	Pc	22 09.90	0.6	
YKA	37.86	45	eP	22 20.10	0.7	
YKC	37.92	45	eP	22 20.50	0.5	
	0.5s		8.00nm		4.8mb	
PNT	40.10	66	eP	22 39.00	0.7	
BJI	42.26	279	eP	22 55.50	-0.6	
			eS	28 38.00		
LBFM	42.88	78	eP	23 02.30	0.9	
WDC	42.91	79	ePc	23 03.90	2.5	
ALE	43.60	9	ePd	23 07.60	1.1	
	0.5s		8.00nm		4.7mb	
TIA	43.98	274	Pd	23 09.70	-0.4	
ORV	44.16	80	eP	23 11.60	0.0	
HHC	44.65	283	iPc	23 17.80	2.1	
BRK	44.70	82	eP	23 15.20	-0.7	
SSE	44.73	265	Pd	23 17.00	0.8	
	1.0s		37.00nm		5.2mb	
NJ2	45.57	268	Pc	23 22.00	-0.8	
BTO	45.75	284	eP	23 25.20	0.8	
CMB	45.77	81	eP	23 25.80	1.3	
TIY	45.99	279	iPc	23 27.60	1.3	
Z	32s		1.30um		4.7MszX	
LRM	46.06	67	eP	23 26.40	-0.5	
PRS	46.21	83	eP	23 30.50	2.6	
LLA	46.30	83	eP	23 30.50	1.9	
KVN	46.57	78	eP	23 30.80	-0.2	
BGMT	46.62	68	eP	23 30.90	-0.5	
FRI	46.84	81	eP	23 33.90	1.1	
HPI	46.87	70	eP	23 34.00	0.6	
FFC	47.00	52	eP	23 33.50	-0.4	
	0.8s		8.00nm		4.8mb	
EUR	47.62	76	iP	23 39.80	0.4	
	0.2s		13.40nm		5.6mb	
TNP	47.71	79	eP	23 40.00	0.0	
ISA	48.45	82	eP	23 40.00	-5.6X	
CLC	48.90	81	eP	23 50.00	1.0	
DUG	49.12	73	eP	23 51.30	0.5	
	0.6s		5.02nm		4.7mb	
WHN	49.43	270	Pc	23 52.50	-0.6	
SBB	49.48	82	eP	23 54.00	0.5	
BW06	49.51	69	eP	23 53.50	-0.4	
	0.7s		14.62nm		5.1mb	
GSC	49.72	81	eP	23 57.00	1.6	
RVR	50.22	83	eP	24 01.00	1.9	
XAN	50.53	278	P	24 01.20	-0.3	
PLM	50.96	83	eP	24 04.00	-1.0	
TPC	50.97	82	eP	24 04.00	-0.9	
BAR	51.52	84	eP	24 12.00	2.9X	
DAG	52.21	4	iPd	24 12.90	-0.7	
	0.7s		10.27nm		4.9mb	
LZH	52.35	283	eP	24 15.00	-0.5	
	1.5s		66.00nm		5.4mb	
GLA	52.43	82	eP	24 18.00	2.0	
GTA	52.67	289	P	24 17.20	-0.6	
RSON	53.32	52	eP	24 21.00	-1.3	
	0.6s		7.39nm		4.8mb	
GOL	53.89	69	iPd	24 26.90	0.0	
	0.8s		20.90nm		5.2mb	
			epP	24 32.30	18kmX	
GLD	53.95	69	eP	24 28.00	0.8	
	0.9s		34.74nm		5.4mb	
GDH	54.73	19	iPd	24 31.80	-0.5	
	0.9s		18.49nm		5.1mb	
FRB	55.05	29	eP	24 34.00	-0.7	
CD2	55.85	278	eP	24 40.30	-0.7	
ALQ	56.35	74	eP	24 44.00	-0.8	
	1.0s		5.00nm		4.5mb	
WMQ	56.80	300	Pd	24 47.00	-0.7	
GYA	57.12	272	P	24 49.00	-1.2	
SCH	62.33	36	ePd	25 25.00	-0.6	
			pP	25 40.00	55kmX	
KJF	62.56	345	eP	25 25.00	-1.9	
	0.7s		10.70nm		5.1mb	
FVM	63.65	62	eP	25 33.30	-1.1	
SUF	64.20	345	iP	25 37.20	-0.5	
	0.5s		4.30nm		4.8mb	
OLY	64.83	64	eP	25 40.50	-1.6	
GAC	65.67	47	ePd	25 45.50	-1.9	
PTN	66.76	47	eP	25 52.50	-1.8	
RSNY	66.98	47	eP	25 54.50	-1.3	
CHG	67.54	272	iPd	25 59.00	-0.7	
	0.8s		10.45nm		5.0mb	
NB2	67.70	352	P	25 55.80	-4.3X	
	0.8s		9.80nm		5.0mb	
CBM	67.97	42	eP	26 00.70	-1.3	
RSCP	68.05	60	eP	26 01.50	-1.2	
	0.6s		9.54nm		5.1mb	
UPP	68.18	348	iP	26 02.20	-0.8	
GBTN	68.75	59	eP	26 06.30	-0.7	
MIM	68.91	43	eP	26 06.50	-1.3	
TKL	69.00	59	eP	26 07.70	-0.8	
NAV	69.35	56	eP	26 10.30	-0.4	
KKN	69.41	289	Pd	26 11.40	0.0	
	1.2s		101.00nm		5.8mb	
PKI	69.49	289	Pd	26 11.60	-0.4	
	1.1s		74.00nm		5.7mb	
GKN	69.64	289	Pd	26 12.60	-0.1	
DMN	69.65	289	Pd	26 13.00	0.1	
	1.2s		84.00nm		5.7mb	
EMM	69.98	43	eP	26 13.50	-0.8	
CVL	70.06	54	eP	26 14.80	-0.1	
CBN	70.44	53	eP	26 17.00	-0.2	
PRM	70.94	59	eP	26 19.50	-0.9	
JSC	71.40	58	eP	26 22.60	-0.5	
LHS	71.49	58	eP	26 23.00	-0.6	
EKA	74.09	360	P	26 39.00	0.5	
	0.8s		10.90nm		4.9mb	
CTA	75.43	209	iPc	26 46.00	-0.6	
	0.6s		4.00nm		4.6mb	
MAIO	76.82	312	eP	26 55.00	0.5	
CLL	77.11	349	eP	26 56.00	0.3	
KSP	77.14	347	iPc	26 56.30	0.4	
KRA	77.33	344	eP	26 57.70	0.7	
			e	27 03.20		
BRG	77.42	348	iP	26 56.80	-0.7	
	1.0s		16.00nm		5.0mb	
PRU	78.21	348	P	27 02.00	0.2	
KHC	79.18	348	iPd	27 08.00	0.8	
	1.0s		7.00nm		4.6mb	
WB5	79.46	220	eP	27 07.20	-1.8	
WRA	79.53	220	Pd	27 02.80	-6.5X	
	0.8s		2.80nm		4.3mb	
ZST	79.60	346	eP	27 10.40	1.0	
SRO	79.78	345	eP	27 12.60	2.2	
MLR	80.52	339	eP	27 15.00	0.4	
CDF	80.55	352	eP	27 15.00	0.4	
	0.8s		6.40nm		4.7mb	
FLN	80.63	358	eP	27 15.30	0.4	
	1.2s		41.60nm		5.3mb	
GRR	81.01	358	eP	27 17.30	0.4	
	0.8s		13.40nm		5.0mb	
HAU	81.03	353	eP	27 17.70	0.6	
	0.8s		5.30nm		4.6mb	
BSF	81.17	353	eP	27 18.20	0.3	
	0.7s		6.60nm		4.7mb	
KBA	81.23	348	iPd	27 19.70	1.4	
	0.8s		33.30nm		5.4mb	
HYB	81.28	287	eP	27 18.50	-0.3	
	1.2s		71.40nm		5.6mb	
LOR	81.94	355	eP	27 22.20	0.4	
	0.8s		5.90nm		4.7mb	
PTJ	82.01	346	eP	27 23.40	1.1	
SSF	82.16	355	eP	27 23.60	0.7	
	0.8s		4.00nm		4.5mb	
AVF	82.44	355	eP	27 25.10	0.7	
	0.9s		10.40nm		4.9mb	
SMF	82.56	355	eP	27 25.70	0.7	
	1.0s		18.80nm		5.1mb	
BGF	82.70	355	eP	27 26.50	0.7	
	1.0s		14.00nm		5.0mb	
MAF	83.05	355	eP	27 28.30	0.7	
	1.0s		10.00nm		4.9mb	
LPG	83.49	352	eP	27 31.80	1.6	
	0.8s		6.70nm		4.8mb	
CAF	84.37	356	eP	27 35.20	0.9	
	1.0s		14.00nm		5.1mb	
LFF	84.41	357	eP	27 35.70	1.2	
	1.0s		20.00nm		5.3mb	
LPO	84.65	356	eP	27 36.80	1.1	
	0.8s		16.10nm		5.3mb	
GBA	84.90	285	Pd	27 35.20	-2.1	
	1.1s		19.10nm		5.2mb	
FRF	85.42	352	eP	27 40.40	0.8	
	0.8s		13.40nm		5.2mb	
LMR	85.66	352	eP	27 41.80	1.0	
	0.9s		16.30nm		5.2mb	
SLR	144.79	303	iPKPd	34 39.00	-0.5	
	0.3s		51.95nm			
KSR	145.62	305	iPKPc	34 40.50	-0.5	
	0.7s		10.00nm			
PRY	146.18	303	iPKPc	34 41.70	-0.2	
BFS	146.52	304	ePKP	34 43.00	0.6	

S.D. = 1.0 on 125 of 129 obs.

MAR 02, 1989 05h 54m 18.17± 0.70s
41.138 N ± 5.0km 19.883 E ± 8.2km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
ML 2.8 (SKO). MD 2.5 (TTG).

TIR	0.21	357	iPgc	54 23.20	0.5	
BERA	0.44	173	ePg	54 28.20	1.1	
LACI	0.51	345	ePg	54 27.10	-1.5	
OHR	0.69	92	ePg	54 31.00	-0.9	
			eSg	54 45.20		
PHP	0.69	37	ePg	54 31.40	-0.4	
KBN	0.87	126	ePg	54 30.50	-4.4X	
PUK	0.90	0	ePn	54 35.80	0.4	
SDA	0.92	342	ePn	54 37.30	1.5	

02d 05h

KKS	1.02 23	ePn	54 38.00	0.6		S	17 00.00		NAV	21.66 333	P	18 27.00	0.1
LSK	1.13 151	ePn	54 38.40	-1.0	SFG	7.44 105	eP	15 33.50	0.2	TKL	21.80 325	P	18 27.90	-0.4
BCI	1.24 6	ePn	54 41.40	0.3	BBL	7.44 111	eP	15 32.46	-0.9	PRIN	22.52 348	P	18 36.20	1.0
TTG	1.37 340	ePg	54 41.50	-1.8	MORO	7.47 177	iPc	15 35.00	1.0	RSCP	22.78 322	P	18 38.40	0.6
		eSg	55 00.50		DEG	7.54 105	eP	15 34.03	-0.8	PNJ	22.94 349	iP	18 41.10	1.8
SKO	1.44 54	iPn	54 46.00	1.8X	MDN	7.59 113	eP	15 34.30	-1.1			pP	19 07.10	127kmX
		iSn	55 07.20		DPMT	7.63 113	iP	15 37.42	1.5			i	19 26.10	
PVY	1.46 3	ePg	54 45.00	0.4			eS	16 58.55				iPcP	22 47.70	
		eSg	55 07.00		DSVT	7.65 113	iP	15 37.17	0.9	TBR	23.18 349	P	18 42.50	0.9
IVA	1.73 0	ePn	54 49.50	0.9			eS	16 54.51		PWLA	23.88 318	P	18 49.20	0.7
		eSn	55 15.50		DSC	7.67 113	eP	15 37.73	1.3	INY	24.89 346	P	18 55.00	-2.9
BRY	2.02 331	ePn	54 52.10	-0.7			eS	17 03.12				Sn	23 35.00	
		eSn	55 21.40		DTMT	7.67 113	iP	15 37.39	0.9	CLE	25.53 337	iP	19 04.20	0.4
VAY	2.03 84	ePn	54 53.40	0.5			eS	16 58.38		ELC	26.08 320	P	19 08.60	-0.3
BBTK	9.90 93	eP	56 32.00	-11.6X	CAR	8.01 168	iP	15 42.00	0.8			pP	19 36.40	132kmX
S.D. = 1.1 on 15 of 18 obs.					FDF	8.06 116	eP	15 41.21	-0.6	EMM	26.30 2	P	19 11.00	0.2
							S	17 12.50				pP	19 39.10	133kmX
? MAR 02, 1989 06h 39m 28.32± 2.63s					LLAV	8.06 167	eP	15 42.00	0.1	OLY	26.44 315	P	19 11.50	-0.7
35.240 N ±27.7km 45.540 E ±21.0km							iS	17 05.00		RSNY	26.55 351	P	19 13.80	0.7
DEPTH = 33.0km (normal)					BIM	8.23 117	eP	15 43.75	-0.4		0.7s	44.73nm		5.2mb
IRAN-IRAQ BORDER REGION (346)					GUAC	8.25 170	iPc	15 46.00	1.5	PTN	26.64 350	P	19 14.30	0.3
							iS	17 11.00		DLA	26.74 339	P	19 14.05	-0.9
SLY	0.36 355	iPn	39 26.00	-10.9X	MVM	8.36 116	eP	15 46.09	0.2	LDN	26.77 339	P	19 14.85	-0.3
		iSg	39 32.00		OLLA	8.51 168	iPc	15 49.50	1.6	MIM	26.78 359	P	19 15.40	0.2
		iS*	39 35.00				iS	17 14.00		ATB	26.94 141	Pc	19 15.10	-1.8
		iSn	39 38.00		SLB	8.61 121	eP	15 48.05	-1.1	ELF	26.95 339	P	19 16.45	-0.4
KER	1.56 124	eP	39 54.00	-0.3			eS	17 24.61		FVM	27.26 320	P	19 19.00	-0.6
BHDI	2.18 206	ePn	40 03.00	0.0	TOV	8.62 187	iPnd	15 51.20	1.9			pP	19 46.80	131kmX
		eSn	40 52.00			0.7s	862.00nm		6.5mb	GAC	27.83 350	ePc	19 24.70	0.1
MSL	2.25 301	iPnd	39 44.00	-20.0X			iSn	17 18.90		CBM	28.48 1	P	19 31.00	0.5
		iSn	40 09.00		SVB	8.75 124	eP	15 49.58	-1.5	STJ	31.90 21	eP	20 03.00	2.4
		iSg	40 13.00				eS	17 26.61		ZOBO	34.44 179	Pc	20 22.30	-1.2
TAB	2.89 12	eP	39 47.00	-26.2X	SVV	8.75 124	eP	15 49.66	-1.4		0.7s	106.98nm		5.7mb
IR5	4.13 89	eP	40 30.84	0.1			eS	17 24.37				S	25 36.00	
IR7	4.16 82	eP	40 30.26	-1.0			eTT	22 00.00				LR	30 42.00	
IR1	4.21 86	eP	40 33.44	1.5	FCV	8.83 125	eP	15 51.58	-0.5	LPB	34.70 179	Pc	20 26.00	0.5
IR4	4.39 88	eP	40 34.93	0.4			eS	17 29.50			1.2s	515.63nm		6.2mb
IR2	4.39 83	eP	40 33.89	-0.7	CUM	8.99 150	eP	15 55.00	0.8		Z 18s	1.37um		4.7Msz
S.D. = 1.0 on 7 of 10 obs.							i	15 58.00				S	25 45.00	
							iS	17 30.00				eLR	28 28.00	
MAR 02, 1989 07h 13m 46.15± 0.26s					CEOS	9.30 178	eP	15 59.00	0.5	ARE	34.74 185	eP	20 23.00	-2.7
18.383 N ± 2.0km 68.659 W ± 1.6km							eS	17 13.00		CNCB	34.98 179	P	20 24.00	-4.1X
DEPTH = 134.1 ± 2.7 km					SDV	9.63 192	iPd	16 04.80	1.8			i	20 28.00	
5.6mb (75 obs.)						0.4s	1036.00nm		6.9mb X			S	25 50.50	
MONA PASSAGE (89)					TCE	10.15 138	eP	16 11.13	1.5	CCH	35.63 176	iP	20 34.00	0.8
Felt (V) in western Puerto Rico.							eS	17 55.23		SCH	36.40 2	ePc	20 39.30	0.3
Also felt (IV) in central and					TRN	10.41 137	eP	16 17.08	4.0X		0.7s	196.00nm		6.0mb
(III) in eastern Puerto Rico.							eS	18 02.70		ALQ	37.33 304	iPc	20 47.50	0.1
Felt in southeastern Dominican					PIG	10.42 132	eP	16 19.11	5.9X		1.0s	65.00nm		5.4mb
Republic.							eS	18 05.50				ipP	21 15.90	125kmX
CENTROID, MOMENT TENSOR (HRV)					TPP	10.63 138	eP	16 20.00	4.0X	RSON	38.03 334	P	20 51.80	-0.9
Data Used: GDSN							eS	18 12.69			0.8s	148.77nm		5.8mb
L.P.B.: 12S, 26C					TBH	10.75 136	eP	16 20.78	3.1X			pP	21 21.10	131kmX
Centroid Location:							eS	18 10.43		GLD	38.03 312	P	20 53.80	0.6
Origin Time 07:13:48.4 0.4					BMG	12.04 201	iPc	16 32.00	-2.6		1.5s	250.00nm		5.8mb
Lat 18.60N 0.05 Lon 68.77W 0.07					GCM	12.08 276	eP	16 33.60	-1.4			pP	21 22.20	126kmX
Dep 116.1 1.9 Half-duration 2.1					UPA	14.10 230	iPd	17 01.50	0.4	GOL	38.12 312	iPc	20 53.80	-0.2
Moment Tensor; Scole 10**17 Nm						1.0s	2000.00nm		6.4mb		0.8s	36.01nm		5.2mb
Mrr= 1.51 0.08 Mtt=-0.94 0.12							i	17 02.90				epP	21 22.20	126kmX
Mff=-0.57 0.14 Mrt= 0.15 0.07							i	19 31.10		SOB1	38.76 133	iPc	20 59.10	-0.2
Mrf=-0.39 0.08 Mtf= 1.24 0.13					BOG	14.66 202	iPd	17 10.50	1.9			e	21 28.20	
Principal Axes:							iS	19 54.00		RSSD	39.19 319	P	21 02.00	-0.8
T Val= 1.58 Plg=78 Azm=101					HOBC	15.74 209	iPd	17 20.90	-1.1	RW1	39.36 308	iP	21 04.90	0.6
N 0.46 10 312					CLMC	16.36 209	iPd	17 30.10	0.5			ipP	21 33.20	125kmX
P -2.05 6 221					DIAC	16.72 207	iPd	17 33.65	-0.4			iPcP	23 10.00	
Best Double Couple:Mo=1.8*10**17					HOQC	16.75 209	iPd	17 34.10	-0.5	ITR	40.22 130	iPc	21 11.30	0.0
NP1:Strike=300 Dip=40 Slip= 74					ANCC	16.82 210	iPd	17 35.15	0.0			e	21 28.80	
NP2: 141 52 103					ICR	16.90 242	iP	17 38.40	1.8			e	21 44.20	
					SJS	17.11 243	iPd	17 40.90	2.0			e	22 48.10	
MCP	1.47 88	iP	14 15.60	1.0	SALC	17.22 208	iPd	17 39.95	-0.2	ANT	41.87 182	iPc	21 23.50	-1.1
MGP	1.54 104	iP	14 15.90	0.6	SRA	17.38 244	iPc	17 42.90	0.8			i	21 56.10	
APR	1.83 87	iP	14 19.00	0.3	QCR	17.46 241	iPd	17 44.00	1.0	BW06	42.22 314	iPc	21 27.20	-0.5
CSB	2.38 92	iP	14 24.60	-0.9	PURC	17.66 206	iPd	17 46.90	1.1		1.2s	66.44nm		5.2mb
SJG	2.40 96	iP	14 25.10	-0.7	HBF	17.91 326	P	17 46.80	-1.4			ipP	21 55.60	125kmX
LPR	2.65 91	iP	14 28.20	-0.8	SGS	18.18 326	P	17 50.20	-1.0			iPcP	23 18.50	
SKDB	5.66 99	eP	15 09.05	-0.1	PSO	19.08 207	iPc	18 01.50	0.1	DAU	42.59 310	P	21 31.30	0.4
SKI	5.73 100	iP	15 10.44	0.2	LHS	19.35 328	P	18 02.70	-0.8	MSU	42.72 307	P	21 32.70	0.9
MGH	6.36 104	ePc	15 19.16	0.3	JSC	19.42 327	iPd	18 03.50	-0.8	DUG	43.67 309	P	21 39.60	0.3
CPB	6.54 95	eP	15 18.97	-2.3			iS	21 25.30				pP	22 09.00	129kmX
BPA	6.62 101	eP	15 20.60	-1.7	PRM	19.86 325	P	18 08.10	-0.7	GLA	43.74 299	eP	21 40.00	0.1
ANG	6.62 100	eP	15 20.68	-1.6	CBN	21.17 341	eP	18 22.50	0.6	FFC	44.30 333	iPc	21 42.40	-1.7
BTG	7.05 109	eP	15 27.60	-0.5			e	18 49.00			0.7s	93.00nm		5.6mb
PAG	7.07 108	ePc	15 27.96	-0.5			e	22 07.00		BGMT	44.81 316	iPc	21 48.80	0.3
		S	16 47.00		NA2	21.21 340	P	18 23.10	0.7			i	22 18.40	
SEG	7.11 105	ePc	15 28.88	0.0	CVL	21.32 338	P	18 23.30	-0.2	TPC	44.90 300	eP	21 50.00	0.9
		S	16 50.00		BLA	21.41 334	P	18 24.80	0.3	LCCM	44.93 317	iPc	21 49.80	0.4
MGG	7.43 108	ePc	15 33.33	0.0		0.9s	85.85nm		5.1mb			i	22 19.00	

02d 07h

ITB1	44.97	161	Pd	21	47.50	-2.1				epP	23	02.30	130kmX	LDF	62.28	44	iPc	23	56.00	-0.1
ITB	45.17	161	eP	21	49.00	-2.2	PCC	50.44	304	ePc	22	32.70	0.7	EPF	62.44	51	iPc	23	57.90	0.6
BAR	45.24	298	eP	21	52.00	0.2				epP	23	02.80	129kmX		0.7s	103.30nm			5.9mb	
CCMT	45.24	316	ePc	21	52.20	0.3	LTCM	50.62	307	P	22	32.30	-1.1	EROQ	62.51	53	eP	23	58.10	0.4
			e	22	21.80		LBFM	50.63	309	P	22	32.40	-1.4	EBR	62.57	53	iPd	23	59.00	0.9
HRY	45.25	318	iPc	21	52.00	0.2	CFTV	50.71	68	iPc	22	34.80	0.5	LFF	62.74	48	iPc	23	59.30	0.1
			i	22	21.60		VGB	50.74	314	P	22	34.30	0.0		0.6s	54.80nm			5.7mb	
LRM	45.30	317	iPc	21	52.70	0.3	JACH	50.81	182	ePd	22	35.00	0.1	TIC	62.94	92	Pc	24	00.06	-0.9
			i	22	22.40		NWRM	50.95	305	P	22	36.40	0.5		1.0s	109.50nm			5.7mb	
FRB	45.33	0	iPc	21	51.90	0.0				pP	23	06.00	127kmX	LIC	63.06	92	Pc	24	00.88	-0.8
	0.8s	210.00nm			5.9mb		WDC	50.99	308	ePc	22	33.50	-2.7	LPO	63.06	49	iPc	24	01.40	0.1
			pP	22	21.00	127kmX				ipP	23	03.70	130kmX		0.7s	62.60nm			5.7mb	
BUT	45.44	317	ePc	21	54.20	0.8	PNT	51.06	319	ePc	22	31.00	-5.7X	KIC	63.29	92	Pc	24	02.60	-0.7
			e	22	23.30		FCH	51.44	182	iPd	22	39.50	-0.5		0.8s	122.00nm			5.9mb	
PLM	45.47	299	eP	21	55.00	1.2	SAN	51.58	182	iPd	22	40.20	-0.4	RJF	63.30	48	iPc	24	02.70	-0.1
ITB7	45.48	161	e(P)	21	47.70	-6.0X	GDH	51.71	7	iPd	22	40.60	-0.6		0.6s	47.60nm			5.6mb	
GSC	45.69	302	eP	21	56.00	0.6		1.0s	76.00nm				5.5mb	LSF	63.32	47	iPc	24	02.70	-0.3
			e	22	27.00					i	23	10.00		MBC	63.37	348	ePc	24	02.10	-0.7
PEC	45.78	300	P	21	57.30	1.2	PCH	51.74	182	iPd	22	41.50	-0.4		1.0s	143.00nm			5.9mb	
EUR	45.83	308	iP	21	56.50	-0.2	LON	51.74	316	P	22	41.10	-0.8				pP	24	33.00	127kmX
	0.5s	23.67nm			5.1mb					pP	23	11.30	129kmX	DAG	63.52	11	iPc	24	02.70	-1.1
RVR	45.97	300	eP	21	58.00	0.4	TACH	51.79	182	iPd	22	41.10	-1.1		0.5s	83.10nm			5.9mb	
			e	22	28.00		SHW	51.89	315	P	22	42.50	-0.6				i	24	33.80	
VAO	46.27	152	eP	21	59.00	-1.0	RMW	51.92	316	P	22	41.00	-2.2	CAF	63.68	48	iPc	24	05.50	0.1
SES	46.39	323	iPc	22	01.30	0.6	FHC	52.11	308	ePc	22	45.00	0.3	TCF	63.79	47	iPc	24	05.70	-0.4
	0.6s	183.00nm			5.9mb		LNV	52.11	183	iPd	22	43.20	-1.3	INK	63.83	338	iPc	24	04.40	-1.5
			pP	22	31.00	130kmX	GMW	52.59	316	P	22	45.70	-2.4		0.9s	101.00nm			5.8mb	
CLC	46.40	302	eP	22	01.00	0.0	MCW	52.91	318	P	22	48.00	-2.4				pP	24	36.00	130kmX
			e	22	31.00		YKC	54.19	336	iPc	22	58.00	-1.6	MAF	64.04	47	iPc	24	07.20	-0.5
SBB	46.43	301	eP	22	02.00	0.7		0.9s	73.00nm				5.6mb		1.0s	60.80nm			5.5mb	
			e	22	30.00					pP	23	27.50	125kmX	BGF	64.23	47	iPc	24	08.60	-0.3
TNP	46.49	305	P	22	02.70	0.8	YKA	54.25	336	eP	22	58.80	-1.2	ALE	64.23	1	eP	24	07.00	-1.3
MWC	46.56	300	eP	22	03.00	0.5	VAL	56.35	39	eP	23	15.00	-0.3		0.6s	129.00nm			6.0mb	
			e	22	33.00		AVE	56.37	62	iPc	23	16.80	1.0				pP	24	38.00	127kmX
PAS	46.65	300	eP	22	04.00	1.1				i	24	04.50		ETER	64.31	51	eP	24	09.70	0.2
ISA	47.09	302	eP	22	07.00	0.6	EVAL	56.94	57	eP	23	20.20	0.5	PYM	64.35	48	P	24	09.40	-0.4
			e	22	37.00		CNIL	57.47	58	iP	23	25.00	1.6	AGO	64.43	47	P	24	09.35	-0.9
MNA	47.28	306	ePc	22	09.00	1.0	EPLA	57.55	54	iPc	23	24.00	0.0	ESEL	64.45	54	eP	24	10.40	0.0
			epP	22	38.80	130kmX	PLAT	57.71	58	iP	23	27.00	1.8	LBL	64.52	48	P	24	10.90	0.2
CVVD	47.31	69	iPc	22	10.60	2.3	MOMI	57.74	58	iP	23	27.00	1.6	AVF	64.58	46	iPc	24	10.70	-0.4
BMA	47.34	149	eP	22	06.70	-1.7	OJEN	57.89	59	iP	23	28.00	1.5	SSF	64.68	46	iPc	24	11.30	-0.5
			e	22	37.60		EJIF	57.94	58	iPc	23	28.30	1.5	PLDF	64.77	47	P	24	12.00	-0.5
			e	22	55.40		LIJA	57.99	58	iP	23	27.50	0.3	SMF	64.92	47	iPc	24	12.90	-0.4
TBT	47.34	68	iP	22	09.70	1.3	EHOR	58.13	57	eP	23	28.20	0.2	LOR	64.92	46	iPc	24	13.00	-0.4
KVN	47.35	306	iP	22	08.50	-0.1	IFR	58.27	62	iPc	23	30.00	0.7		0.6s	70.40nm			5.8mb	
			ipP	22	37.90	128kmX	DCN	58.43	38	eP	23	29.50	-0.3	LBF	65.01	46	iPc	24	13.20	-0.7
			iScP	27	20.00			0.8s	229.00nm				6.2mb		0.8s	37.60nm			5.4mb	
			eS	2B	20.00		ECB	58.53	39	eP	23	29.00	-1.5	SNF	65.22	42	iPc	24	14.30	-0.8
SYP	48.18	300	eP	22	15.00	0.0	ECP	58.74	40	eP	23	32.00	0.0	UCC	65.28	42	P	24	15.50	0.0
			e	22	45.00		DMU	58.76	38	iPc	23	31.60	-0.5	DOU	65.42	43	iPc	24	15.90	-0.5
FRI	48.26	303	ePc	22	14.70	-0.7		0.6s	185.00nm				6.2mb		0.8s	83.30nm			5.7mb	
			epP	22	35.00	83kmX	MAL	58.79	58	iPc	23	34.00	1.4				e	24	46.80	
BCH	48.33	301	P	22	17.00	0.9	DLE	58.85	38	iPc	23	32.30	-0.4	ENN	66.27	42	iPc	24	21.70	-0.1
			pP	22	47.30	131kmX		0.6s	40.00nm				5.6mb		1.0s	129.00nm			5.8mb	
PKEM	48.45	302	P	22	17.10	0.2	ETA	58.93	39	eP	23	32.00	-1.3				i	24	51.40	
			pP	22	47.20	130kmX	AAPN	59.02	57	iPc	23	34.70	0.3				i	55	06.40	
PHAM	48.66	302	P	22	18.90	0.4	ALOJ	59.04	57	iPc	23	35.60	1.1	MEM	66.32	42	iPc	24	22.20	0.0
CTFE	48.79	68	iPc	22	20.40	0.8	GUD	59.04	53	iPc	23	34.60	0.1	VITF	66.34	45	P	24	21.92	-0.4
PRI	48.91	302	ePc	22	20.50	-0.1	TOL	59.10	54	iPc	23	35.50	0.7	WLF	66.43	43	iPc	24	22.50	-0.3
CMB	48.94	305	ePc	22	20.90	0.2		1.1s	278.48nm				6.2mb	HAU	66.59	45	iPc	24	23.60	-0.4
			ipP	22	51.00	130kmX	ATEJ	59.11	58	iPc	23	35.70	0.6		1.0s	61.60nm			5.4mb	
			eScP	27	26.90		ACHM	59.26	57	iPd	23	37.00	1.0	WIT	66.73	40	eP	24	26.00	1.3
			e	28	26.50		EBAN	59.29	56	iPc	23	36.00	-0.1	WTS	66.82	41	iPc	24	25.10	-0.2
EDM	48.97	326	iPc	22	19.50	-1.2	ASMO	59.32	57	iPc	23	37.10	0.6		0.8s	171.00nm			6.0mb	
			pP	22	49.50	130kmX	APHE	59.37	58	iPc	23	37.90	1.1				i	24	56.70	
LNOR	49.15	315	P	22	21.70	-0.5	CRT	59.44	57	iPd	23	38.80	1.6	LRG	66.82	50	iPc	24	25.70	0.2
			pP	22	51.40	128kmX	AFC	59.48	57	iPc	23	38.40	0.8		1.0s	76.00nm			5.5mb	
LLA	49.19	303	iPc	22	22.40	-0.2	YRH	59.90	39	eP	23	39.00	-1.0	STB	66.85	42	Pc	24	29.40	3.8X
			epP	22	52.50	130kmX	EVIA	60.29	56	iPc	23	43.30	0.3	BSF	66.90	45	P	24	25.13	-0.9
PRS	49.50	302	ePc	22	24.90	0.0	ECRI	60.34	51	eP	23	43.60	0.4	LMR	66.94	50	iPc	24	26.20	0.0
			epP	22	54.90	129kmX	TAF	60.47	60	iPd	23	45.00	0.7		1.0s	52.00nm			5.4mb	
SAO	49.61	303	ePc	22	25.90	0.1	ENIJ	60.55	57	iPc	23	44.90	0.2	LOMF	66.94	46	P	24	25.65	-0.7
			epP	22	56.00	130kmX	ETOR	60.64	53	iPc	23	45.80	0.5	BNI	66.95	48	Pc	24	27.00	0.5
ZON	49.64	180	iPc	22	23.50	-2.5	ESK	61.14	36	ePd	23	47.80	-0.5	LPG	66.98	48	iPc	24	27.30	0.4
CFA	49.70	180	ePc	22	25.00	-1.4		1.0s	40.00nm				5.3mb	FRF	67.02	50	iPc	24	26.70	-0.1
DPW	49.71	318	P	22	25.70	-0.8	EALH	61.16	56	iPc	23	49.40	0.6		1.0s	64.00nm			5.4mb	
			pP	22	55.20	127kmX	EKA	61.17	36	Pd	23	47.90	-0.6	RRL	67.04	48	Pc	24	27.55	0.4
ARN	49.75	304	P	22	27.60	0.7		0.9s	71.90nm				5.6mb	MOF	67.13	45	P	24	26.44	-1.1
MHC	49.84	304	iPc	22	28.80	1.2	ECHE	61.48	54	eP	23	51.30	0.3	CDF	67.20	45	P	24	27.12	-0.8
			ipP	22	58.90	130kmX	LPF	61.64	45	iPc	23	51.70	-0.1	LSD	67.27	48	Pc	24	28.78	0.2
ORV	50.04	307	ePc	22	28.80	-0.2		1.0s	92.00nm				5.7mb	PZZ	67.29	49	Pc	24	28.99	0.4
			epP	22	58.70	129kmX	GRR	61.78	44	iPc	23	52.70	-0.1	RSP	67.36	48	Pc	24	29.50	0.5
GCC	50.08	303	ePc	22	29.60	0.3	ACU	61.94	56	iPc	23	54.70	0.7	MVIF	67.37	49	P	24	29.08	-0.1
			epP	23	00.00	131kmX	FLN	62.06	44	iPc	23	54.60	0.0	DOI	67.39	49	Pc	24	29.60	0.4
BKS	50.37	304	eP	22	32.50	1.0		0.5s	45.50nm				5.7mb	BBS	67.40	46	P	24	27.96	-1.2
	1.0s	74.00nm			5.5mb		SIT	62.09	325	eP	23	53.70	-0.9	GWF	67.41	44	P	24	28.81	-0.3
BRK	50.39	304	ePc	22	32.00	0.4	MFF	62.17	47	iPc	23	55.60	0.2	TOUF	67.43	49	P	24	28.80	-0.8

02d 07h

KUK	67.49	91	eP	24	28.50	-1.7	SPC	75.61	43	iPc	25	19.50	1.4	GTA	121.51	10	ePKP	32	24.60	-1.0
AURF	67.49	49	P	24	29.58	-0.3	NUR	75.80	31	iP	25	19.50	0.8	BJI	121.71	356	ePKP	32	25.50	-0.2
AUTN	67.56	49	P	24	30.01	-0.4		1.0s		76.00nm			5.4mb				e	32	59.00	
SBF	67.57	49	iPc	24	30.20	-0.1	Z	19s		0.70um			5.0Msz	NDI	122.75	36	iPKPc	32	27.50	-0.6
	0.8s		83.20nm			5.6mb				i	25	55.80		TIY	124.20	359	iPKPd	32	30.70	-0.1
FEL	67.72	45	P	24	30.41	-0.8				LR	55	50.00		LZH	125.37	7	ePKP	32	33.00	-0.2
ORO	67.83	47	P	24	31.80	-0.2	SUF	76.02	28	iP	25	20.30	0.4		1.5s		132.00nm			
ORX	67.83	47	Pc	24	31.55	-0.4		0.7s		46.60nm			5.4mb	TIA	125.43	354	PKPc	32	32.20	-0.9
ROB	67.85	49	Pc	24	31.55	-0.5	SDN	76.12	324	ePc	25	21.00	0.5	GKN	127.14	30	PKPc	32	36.60	-0.2
IMI	67.90	49	Pc	24	31.66	-0.7	KJF	76.37	27	iP	25	22.20	0.4	KKN	127.62	29	PKPc	32	37.20	-0.6
FIN	68.10	49	Pc	24	32.79	-0.8		1.0s		114.00nm			5.6mb	DMN	127.69	30	PKPc	32	37.50	-0.5
CKI	68.14	49	Pc	24	33.30	-0.4				i	25	54.20		XAN	127.82	3	PKPc	32	37.60	-0.2
MUD	68.17	36	iPc	24	33.70	0.1	RKT	76.77	240	iP	25	25.00	0.3	PKI	127.86	29	PKPc	32	37.50	-1.0
	1.1s		90.00nm			5.5mb		1.0s		130.00nm			5.6mb	DZM	128.39	256	iPKPc	32	39.00	-0.3
			i	25	08.00		BZS	77.29	46	eP	25	28.00	0.8	NJ2	129.34	352	PKPc	32	40.00	-0.7
VAI	68.37	47	Pc	24	34.80	-0.3	OHR	77.75	51	eP	25	25.40	-4.6X	SSE	129.91	349	PKP	32	41.50	-0.3
CVF	68.73	51	P	24	36.94	-0.5		0.6s		0.20nm			3.1mb X		1.2s		52.00nm			
FBA	68.91	333	ePc	24	37.10	-1.0				i	25	31.50					i	35	51.00	
BOB	68.94	48	Pc	24	38.80	0.1	DEV	78.10	46	ePc	25	32.00	0.3	CD2	130.45	9	ePKP	32	43.20	0.3
MDI	69.03	47	Pc	24	38.20	-0.9	KZN	78.67	51	iPc	25	36.00	0.9	HYB	131.98	44	ePKPc	32	45.00	-1.1
NB2	69.20	31	P	24	40.00	0.0	VAY	79.00	50	eP	25	37.80	1.1		1.2s		64.30nm			
	0.9s		54.00nm			5.4mb	VTS	79.13	49	iPc	25	39.00	1.4				e	33	20.00	
CGL	69.41	54	P	24	42.60	0.8	KKB	79.23	49	iPc	25	40.00	2.0	GBA	133.87	49	PKP	32	49.00	-0.7
PMR	69.48	330	ePc	24	41.10	-0.5	ITM	79.58	54	iPc	25	41.20	1.2	GYA	135.20	6	PKP	32	51.40	-0.7
	1.0s		70.00nm			5.4mb	MMB	79.77	50	iPc	25	42.00	1.1	KQD	136.11	52	ePKP	32	43.00	-11.4X
SAL	69.62	47	Pc	24	42.40	-0.3	PGB	79.83	49	iPc	25	42.00	0.8	BRS	140.94	249	PKPc	32	54.50	-8.1X
PII	69.81	49	Pc	24	43.20	-0.7	PLG	79.89	51	eP	25	43.00	1.4				e	33	00.70	
BDI	69.83	49	P	24	43.20	-1.0	NEO	80.01	52	eP	25	43.00	0.8	COQ	141.35	244	ePKP	32	56.00	-7.3X
MME	69.89	49	Pc	24	44.10	-0.6	MLR	80.26	45	ePc	25	45.00	1.5	CNB	142.39	236	ePKP	32	59.00	-6.0X
MOX	69.89	42	ePc	24	44.00	-0.3	PVL	80.47	48	iPc	25	45.00	0.5		1.1s		118.00nm			
	1.8s		62.00nm			5.1mb	VRI	80.68	45	ePc	25	45.50	-0.1				e	36	31.00	
COP	70.02	37	iPc	24	45.30	0.3	ATH	80.74	53	eP	25	47.50	1.5	BDT	142.57	20	ePKP	32	59.00	-6.6X
	0.7s		73.97nm			5.6mb	ISR	80.77	46	ePd	25	47.50	1.4		0.8s		51.90nm			
FIR	70.33	49	eP	24	47.00	-0.1	KDZ	80.97	49	iPd	25	48.00	0.8	CAN	142.67	235	ePKP	32	59.90	-5.5X
CTI	70.35	47	Pc	24	46.70	-0.7	RDO	81.20	50	iPc	25	49.50	1.1				eSKP	36	31.20	
PGD	70.66	49	Pc	24	48.20	-1.1	JMB	81.57	48	eP	25	52.00	1.8				e	37	33.00	
CLL	70.70	41	iPc	24	49.10	-0.1	VAM	81.83	56	eP	25	53.50	1.7	QIZ	142.79	2	ePKP	33	02.40	-3.6X
	1.4s		69.00nm			5.3mb	CFR	81.84	45	ePc	25	51.50	-0.1	LOE	143.20	15	ePKP	33	02.50	-4.2X
SFI	70.74	49	Pc	24	48.80	-0.8	TLB	81.94	46	ePc	25	52.50	0.4	BWA	143.39	237	ePKP	33	01.10	-5.6X
WET	70.84	43	iPc	24	50.30	0.1	PSN	82.32	47	iPc	25	56.00	1.9				eSKP	36	33.20	
	0.8s		38.00nm			5.3mb	DMK	82.59	49	eP	25	56.60	1.0				e	38	18.00	
FVI	71.07	46	Pc	24	51.10	-0.4	NPS	82.98	55	eP	25	59.00	1.3	PMG	144.17	279	iPKPc	33	06.00	-2.5
KHC	71.30	43	iPc	24	53.00	0.1	EDC	83.13	50	eP	25	57.00	-1.4		1.0s		460.00nm			
	1.0s		60.50nm			5.4mb	IZM	83.29	52	eP	25	59.00	-0.3	TOO	144.56	230	iPKPc	33	07.20	-1.4
			e	25	22.90		AIA	83.44	178	eP	26	00.10	0.9				e	36	36.00	
BRG	71.34	42	iPc	24	53.00	-0.1	DST	83.92	50	iP	26	02.70	0.3	RMQ	144.59	250	iPKPc	33	06.60	-2.3
	1.3s		85.00nm			5.4mb	KAP	84.10	55	eP	26	04.00	0.6		0.8s		353.00nm			
			i	25	19.00		RUV	84.40	252	iP	26	06.30	1.3				e	33	40.00	
			e	25	38.00			1.1s		180.00nm			5.8mb				e	36	36.00	
IMA	71.35	335	ePc	24	52.50	-0.5	TPT	84.54	252	iP	26	07.10	1.4	KHT	144.73	22	iPKPc	33	08.50	-0.9
	1.0s		145.00nm			5.7mb		1.1s		155.00nm			5.8mb	CMS	146.26	241	iPKPc	33	12.70	1.2
KDC	71.38	326	ePc	24	53.20	0.1	VAH	84.64	252	iP	26	07.50	1.3		1.0s		291.00nm			
KBA	71.39	46	iPc	24	53.10	-0.6		1.1s		165.00nm			5.8mb				e	33	45.00	
	1.3s		132.50nm			5.6mb	PMO	84.80	252	iP	26	08.40	1.4				e	36	40.00	
			ipP	25	24.80	128kmX		1.1s		130.00nm			5.7mb	NNT	147.16	21	iPKPc	33	13.70	0.3
			i(sP)	25	39.80		KHL	84.99	51	iP	26	08.50	0.6	STK	149.61	238	iPKPd	33	17.40	0.6
MNS	71.55	51	P	24	54.10	-0.4	ALT	85.18	51	iP	26	09.50	0.6				i	33	21.20	
ARV	71.58	49	Pc	24	53.70	-1.0	KSL	85.77	53	eP	26	12.50	0.8	ADE	150.63	230	e(PKP)	33	18.80	0.5
RBL	71.63	46	Pc	24	54.70	-0.3	ELL	85.81	53	iP	26	03.80	-8.2X		1.0s		240.00nm			
RDP	71.67	51	Pc	24	55.20	-0.1	BNG	85.97	87	iPc	26	13.70	0.6	SNG	152.49	24	ePKP	33	19.50	-2.0
CIO	71.77	50	eP	24	54.80	-1.1		0.4s		158.00nm			6.3mb		0.1s		1333.33nm			
TRI	71.86	47	Pc	24	56.30	0.1				ic	26	46.10		QIS	153.28	261	ePKP	33	22.00	-0.5
VOY	71.90	47	iPc	24	56.60	0.0				id	27	02.60					e	33	29.00	
BRW	72.13	340	ePc	24	56.40	-0.9	BCK	86.08	52	iP	26	14.20	0.9				e	33	42.00	
CEY	72.31	47	iPc	24	39.50	-19.5X	ADK	86.34	324	eP	26	14.50	0.4	IPM	155.02	25	ePKPd	33	25.60	0.6
LJU	72.34	47	ePc	24	59.20	0.1	BBTK	86.83	49	iPc	26	18.00	1.0		1.0s		47.10nm			
UPP	72.44	32	iP	24	58.60	-0.7	PPT	87.19	251	iP	26	20.20	1.4	KKM	155.26	348	ePKPd	33	26.70	1.3
SDI	72.49	51	Pc	24	59.40	-0.7		1.1s		195.00nm			6.0mb	PSI	155.75	32	ePKPd	33	26.40	0.4
TTA	72.61	331	ePc	24	59.00	-1.4	PAE	87.23	250	iP	26	20.30	1.4		1.2s		36.30nm			
SVW	72.64	329	ePc	24	59.60	-1.0		1.1s		220.00nm			6.0mb	WB5	158.20	262	ePKP	33	27.90	-1.0
RFI	72.68	52	P	24	59.20	-1.9	AFR	87.36	251	eP	26	21.00	1.4				e	33	40.00	
KSP	72.82	41	iPc	25	02.00	0.2		1.1s		110.00nm			5.8mb				e	33	43.80	
	1.0s		47.00nm			5.2mb	KVT	88.68	47	iP	26	27.00	1.3				i	34	03.80	
VBY	72.92	47	iP	25	02.70	0.2	TBI	89.08	245	iP	26	29.30	1.6	WRA	158.22	262	PKPc	33	26.30	-2.6
VKA	73.22	44	i(P)	25	04.80	0.7		1.0s		175.00nm			6.1mb		1.3s		54.00nm			
SOP	73.47	45	eP	25	06.00	0.4	DSI	91.91	56	ePc	26	42.00	1.3	ASPA	158.30	252	iPKPc	33	28.20	-0.8
ZST	73.74	44	iPc	25	07.40	0.2	PRNI	92.08	57	eP	26	44.00	2.4		1.5s		65.00nm			
			e	25	39.20		MBH	92.20	58	iPc	26	44.00	1.9	PPI	159.19	32	ePKP	33	29.80	-0.3
MGR	74.06	52	Pc	25	09.50	0.3	AGMR	92.57	64	iPd	26	47.00	3.1X	MTN	160.17	283	iPKPd	33	31.50	0.4
SRO	74.61	44	eP	25	12.60	0.4	AKSR	92.94	64	iPd	26	47.20	1.6				e	34	11.00	
KEV	74.86	21	iP	25	12.80	-0.4	LWI	97.78	90	iPd	27	09.40	1.3	FORR	160.38	228	ePKP	33	28.00	-2.9
	0.8s		39.60nm			5.2mb	MAIO	106.81	42	ePKP	32	09.00	11.4X	WARB	163.86	239	ePKP	33	24.00	-10.6X
SOD	75.22	23	iP	25	15.40	0.1	SPA	108.27	180	e(PKP)	32	06.10	6.6X				i	34	17.00	
			i	25	49.00			1.0s		6.00nm				NWAO	164.58	199	ePKP	33	35.20	0.2
KRA	75.25	42	ePc	25	16.30	0.5	AVY	120.04	102	iPKPd	32	23.61	0.2	KLB	165.62	203	ePKP	33	35.60	-0.3
	1.1s		93.00nm			5.5mb	HHC	121.07	360	PKP	32	24.80	0.1	MBL	171.54	250	ePKP	33	39.30	-0.6
			i	25	20.70		BTO	121.31	1	ePKP	32	25.20	0.1	NANU	174.28	223	ePKP	33	41.00	0.1

S.D. = 1.0 on 449 of 473 obs.

MAR 02, 1989 07h 18m 15.80± 0.54s
9.677 N ± 6.8km 84.150 W ± 5.8km
DEPTH = 33.0km (normal)
COSTA RICA (78)
MD 4.3 (HDC). Felt (V) at San Marcos de Torrozu; (IV) at Corrolillas; (III) at San Jose.

QCR	0.23	183	iP	18 21.10	-1.6
OPS	0.27	176	iPc	18 22.40	-0.8
SJS	0.28	20	iPc	18 22.80	-0.6
PTCR	0.29	292	iP	18 22.50	-1.2
HDC2	0.34	3	iPd	18 24.70	0.4
CDM	0.40	108	iPc	18 25.40	0.1
ICR	0.44	46	iP	18 24.00	-1.8
SRA	0.50	324	iP	18 25.70	-0.8
POA2	0.51	349	iPc	18 27.20	0.4
EPA	0.54	305	iPc	18 26.50	-0.5
			S	18 34.20	
CAO	0.94	272	iPc	18 33.00	0.3
JTS	1.00	308	iPc	18 34.50	1.0
JCR	1.03	80	iP	18 33.00	-1.0
LIO	1.15	73	iPd	18 38.00	2.4
ACR	1.41	137	eP	18 41.00	1.7
JUD	1.46	289	iP	18 42.10	1.9
BAO	43.76	125	eP	26 20.50	0.1
FFC	47.12	346	eP	27 05.00	18.5X
	1.6s		115.00nm		

S.D. = 1.3 on 17 of 18 obs.

• MAR 02, 1989 09h 24m 33.19± 0.79s
35.084 N ±14.8km 46.315 E ±10.7km
DEPTH = 31.6 ± 7.1 km
4.3mb (4 obs.)
IRAN-IRAQ BORDER REGION (346)

SLY	0.84	308	iPgd	24 47.00	-1.7
KER	0.98	138	ePc	24 51.00	0.1
BHD	2.41	222	ePnd	25 18.00	6.7X
			eP•	25 22.00	
			iPg	25 27.00	
			iSn	25 52.00	
			iS•	25 57.00	
			iSg	26 02.00	
MSL	2.88	298	ePnd	25 19.00	1.1
			iPg	25 26.00	
			iSn	25 56.50	
			iSg	26 08.50	
TAB	2.98	0	iP	25 19.00	-0.4
MAIO	10.79	80	eP	27 10.00	1.4
MLR	18.65	310	eP	28 50.00	-0.6
SPC	23.77	314	e(P)	29 46.00	2.2
ZST	25.29	310	iP	29 59.00	0.9
KBA	27.39	306	eP	30 17.00	-0.7
	1.1s		4.40nm		4.0mb
			e	30 28.00	
SUF	30.39	342	iP	30 42.70	-1.6
KJF	31.28	344	eP	30 47.00	-5.1X
GKN	33.26	91	P	31 09.60	-0.4
	0.7s		13.00nm		4.9mb
GUN	34.31	91	P	31 18.90	-0.5
GBA	35.28	120	Pd	31 25.70	-1.5
	0.8s		2.70nm		4.2mb
CHTO	49.08	95	eP	33 19.90	0.2
	1.0s		3.00nm		4.3mb
YKA	81.55	351	eP	36 49.50	0.9

S.D. = 1.3 on 15 of 17 obs.

MAR 02, 1989 11h 32m 54.83± 0.42s
4.246 S ± 6.7km 78.121 W ± 9.6km
DEPTH = 40.7km (5 depth phases)
4.9mb (12 obs.)
PERU-ECUADOR BORDER REGION (110)

SALC	7.31	11	eP	34 43.75	1.7
DIAC	7.73	14	eP	34 49.90	2.0
HOOC	7.80	11	eP	34 49.00	-0.1
ANCC	7.81	9	eP	34 49.50	0.6
HOBC	8.77	13	eP	35 02.00	-0.3
UPA	13.21	354	e(P)	36 03.10	0.7
ZOBO	15.47	141	eP	36 29.00	-3.5X
			LR	42 26.00	
LPB	15.68	142	P	36 40.50	5.4X
	1.0s		64.00nm		4.7mb
CNCB	15.97	142	P	36 38.00	-0.8
			i	36 44.00	
CCH	17.56	139	eP	37 01.00	2.4
ATB	25.86	89	e(P)	38 22.30	-2.3
SOB1	37.28	100	eP	40 14.50	9.4X
JSC	38.43	356	P	40 14.20	-0.2
ITR	39.68	99	eP	40 25.80	0.6
GBTN	40.11	352	P	40 27.20	-1.2
RSCP	40.25	351	P	40 28.60	-1.0
	0.9s		16.81nm		4.8mb
			pP	40 40.40	43km
OLY	41.48	343	P	40 38.20	-1.4
CVL	42.01	360	P	40 44.20	0.3
FVM	43.54	346	P	40 55.00	-1.4
ALQ	47.22	328	iPc	41 27.00	1.0
	0.9s		9.03nm		4.8mb
			e	41 38.20	39km
GOL	50.41	333	P	41 50.80	0.1
GLA	50.83	320	P	41 55.40	1.7
RSSD	53.49	337	P	42 14.20	0.5
BW06	54.78	332	P	42 21.20	-2.0
	1.2s		13.70nm		4.9mb
EUR	55.74	325	iP	42 30.00	-0.3
	0.7s		2.49nm		4.4mb
BGMT	57.81	332	ePc	42 45.10	0.3
ORV	59.09	322	P	42 54.00	0.5
			pP	43 06.20	43km
SES	61.36	337	ePc	43 09.00	0.0
			pP	43 20.00	37km
FFC	62.02	345	iPc	43 12.00	-1.3
	0.9s		16.00nm		5.1mb
PNT	64.33	331	eP	43 29.00	0.4
	0.9s		16.00nm		5.1mb
EDM	64.46	337	eP	43 28.50	-0.9
FRB	68.19	5	eP	43 51.00	-1.9
YKC	72.06	343	eP	44 15.50	-1.0
	0.5s		5.00nm		4.7mb
YKA	72.11	343	eP	44 16.40	-0.4
TIC	73.77	82	P	44 26.40	-1.0
KIC	74.01	82	Pc	44 27.90	-0.9
INK	81.82	342	ePc	45 11.10	0.4
			pP	45 28.00	60kmX
MBC	83.79	351	eP	45 21.00	0.2
	1.0s		20.00nm		5.2mb
FBA	85.34	336	P	45 29.70	1.0
	0.7s		7.27nm		5.0mb
			pP	45 42.30	42km
ALE	86.95	2	eP	45 33.00	-3.4X
	0.9s		9.00nm		5.0mb
IMA	88.03	337	P	45 42.40	0.4
	0.9s		6.77nm		4.9mb
RAB	129.06	261	e(PKP)	51 55.00	-6.2X
GTA	144.95	3	PKPc	52 28.60	-1.3
TIY	145.32	345	PKPd	52 30.60	0.1
SSE	147.69	328	PKP	52 37.20	2.8X
	1.0s		23.00nm		
LZH	148.26	357	ePKP	52 39.00	3.6X
	1.5s		44.00nm		
XAN	149.64	348	PKP	52 42.20	4.7X
GKN	151.23	33	PKP	52 41.10	0.9
KKN	151.74	32	PKP	52 42.10	1.1
DMN	151.79	33	PKP	52 42.80	1.6
GUN	151.96	31	PKP	52 42.50	1.0
PKI	151.99	32	PKP	52 42.00	0.4
GBA	154.15	67	PKPd	52 44.10	-0.3
	1.0s		3.90nm		

S.D. = 1.1 on 45 of 53 obs.

• MAR 02, 1989 11h 56m 49.40± 0.69s
26.648 S ± 6.9km 66.468 W ±12.2km
DEPTH = 204.1 ± 14.8 km
CATAMARCA PROVINCE, ARGENTINA (130)

CYA	1.89	162	ePc	57 28.30	0.8
ANT	4.62	308	iP	58 00.10	0.4
			iS	58 50.70	
ZON	5.25	201	eP	58 06.00	-1.8
			eS	59 06.00	
JACH	7.00	210	eP	58 32.00	1.5
FCH	7.44	206	ePd	58 38.00	1.5
TACH	7.98	208	eP	58 43.30	-0.2
CHCH	8.11	205	iPc	58 44.80	-0.4
LNV	8.44	209	eP	58 47.50	-1.7
CNCB	9.89	352	P	59 09.00	0.4
ZOBO	10.44	351	P	59 15.00	-0.8
			(S)	01 08.00	
VAO	18.07	83	eP	00 47.50	-0.8
			e	00 50.10	
BAO	20.39	61	e(P)	00 52.00	-20.1X
BMA	20.65	84	eP	01 14.40	-0.1
BUL	85.51	110	iPc	09 07.20	1.2

S.D. = 1.3 on 13 of 14 obs.

• MAR 02, 1989 12h 10m 54.93± 0.81s
24.066 S ± 9.3km 66.815 W ±14.7km
DEPTH = 203.2 ± 15.8 km
SALTA PROVINCE, ARGENTINA (129)

ANT	3.31	276	iPc	11 47.50	-1.4
			iS	12 26.00	
CYA	4.46	168	ePd	12 04.20	1.1
CCH	6.68	6	eP	12 33.00	0.9
CNCB	7.30	351	iPd	12 41.00	0.5
			S	14 05.00	
LPB	7.59	351	P	12 45.00	0.8
	0.8s		59.70nm		4.9mb X
ZOBO	7.85	351	iP	12 46.90	-1.0
	0.5s		42.86nm		4.9mb X
			(S)	14 16.00	
VAO	18.23	91	eP	14 55.00	-0.6
BAO	19.58	68	eP	15 03.20	-6.3X
BMA	20.85	91	eP	15 21.90	-0.2
SOB1	28.82	64	eP	16 35.10	-1.3
YKA	94.24	340	eP	23 52.70	1.3

S.D. = 1.3 on 10 of 11 obs.

• MAR 02, 1989 12h 35m 46.77± 0.77s
12.842 N ±11.4km 141.492 E ±17.7km
DEPTH = 33.0km (normal)
4.5mb (5 obs.)
SOUTH OF MARIANA ISLANDS (210)

WB5	33.26	192	eP	42 23.60	0.2
WRA	33.33	192	Pc	42 24.20	0.2
	0.6s		2.90nm		4.4mb
ASPA	37.04	192	iPc	42 55.20	-0.4
CHG	41.29	284	eP	43 31.00	0.0
CHTO	41.29	284	eP	43 30.80	-0.2
	0.6s		1.82nm		4.0mb
FORR	45.31	196	eP	43 49.30	-14.1X
GBA	62.19	279	P	46 03.00	-4.8X
	0.8s		2.20nm		4.3mb
SUF	89.79	335	iP	48 43.60	0.5
NUR	91.49	334	iP	48 56.80	5.8X
BGMT	92.24	43	eP	48 54.80	-0.3
			e	49 08.00	
HFS	96.20	337	eP	49 19.30	6.6X
	0.4s		1.50nm		4.8mb
NAO	96.83	338	P	49 20.60	5.1X
	0.8s		5.00nm		5.1mb

S.D. = 0.4 on 7 of 12 obs.

? MAR 02, 1989 12h 38m 14.41± 1.62s
44.684 N ±39.4km 148.386 E ±29.1km
DEPTH = 33.0km (normal)
3.8mb (3 obs.)
KURIL ISLANDS (221)

KUSJ	3.09	240	P	39 00.60	-1.4
			eS	39 38.90	
ASAJ	4.16	264	eP	39 23.10	6.0X
HOOJ	4.36	240	eP	39 20.00	0.0
			eS	40 12.20	
MRRJ	5.77	250	P	39 40.50	0.5
			eS	40 50.80	
BJI	24.16	270	eP	43 30.00	1.7
			e	43 44.00	
			e	44 29.50	
GTA	36.02	279	eP	45 12.50	-1.9
CD2	37.39	264	eP	45 26.20	0.3
FBA	39.82	37	eP	45 47.00	1.3
	0.9s		0.30nm		3.1mb
INK	45.15	31	eP	46 29.00	-0.1
			pP	46 42.00	48kmX
CHTO	48.39	254	eP	46 56.60	1.4
	0.8s		0.92nm		3.9mb
YKA	54.53	34	eP	47 40.30	-0.6
GBA	67.03	267	Pd	49 02.50	-4.0X
	0.7s		1.80nm		4.3mb
FRB	68.03	17	eP	49 11.00	-1.1

S.D. = 1.3 on 11 of 13 obs.

? MAR 02, 1989 12h 58m 55.70± 1.86s
44.522 N ±35.8km 148.811 E ±23.1km
DEPTH = 33.0km (normal)

02d 12h

4.7mb (5 obs.)
KURIL ISLANDS (221)

FBA	39.77	37	eP	06 40.20	13.6X
	0.9s	0.70nm			
INK	45.13	31	eP	07 11.00	0.8
GUN	52.16	274	P	08 05.40	-0.2
	0.6s	5.00nm		4.7mb	
KKN	52.66	274	P	08 09.00	-0.2
PKI	52.70	274	P	08 10.60	1.0
DMN	52.89	274	P	08 10.90	-0.1
	0.5s	5.00nm		4.7mb	
GKN	52.99	275	P	08 11.30	-0.3
YKA	54.49	35	eP	08 21.30	-0.6
SUF	63.75	334	iP	09 26.00	0.0
	0.5s	3.80nm		4.8mb	
NUR	65.89	333	eP	09 40.00	0.2
HFS	69.43	338	eP	10 01.90	-0.2
	0.7s	5.30nm		4.7mb	
NAO	69.59	340	P	10 02.80	-0.2
	0.6s	1.80nm		4.3mb	

S.D. = 0.5 on 11 of 12 obs.

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* MAR 02, 1989 13h 02m 07.15± 0.73s
44.316 N ±13.7km 148.980 E ±10.4km
DEPTH = 33.0km (normal)
4.6mb (7 obs.)
KURIL ISLANDS (221)

KUSJ	3.33	250	eP	02 56.40	-1.7
			eS	03 34.80	
MRRJ	6.07	255	eP	03 35.60	-1.2
BJI	24.59	271	eP	07 25.50	0.3
GTA	36.50	280	eP	09 12.40	1.2
FBA	39.86	36	eP	09 54.20	15.4X
	1.0s	0.70nm			
WMO	43.11	292	eP	10 07.20	1.4
INK	45.25	31	eP	10 23.00	0.4
CHTO	48.71	255	eP	10 50.50	0.1
	0.8s	0.55nm		3.6mb	
GUN	52.30	274	P	11 18.00	-0.1
	0.6s	6.00nm		4.7mb	
KKN	52.80	274	P	11 22.20	0.5
PKI	52.83	274	P	11 23.60	1.5
DMN	53.03	274	P	11 23.40	0.0
	0.6s	6.00nm		4.7mb	
GKN	53.13	275	P	11 24.00	-0.1
YKA	54.59	34	eP	11 33.90	-0.2
SOD	60.44	338	eP	12 15.00	-0.3
SUF	63.99	334	iP	12 38.50	-0.5
	0.5s	4.30nm		4.8mb	
WRA	65.33	195	P	12 49.00	0.9
	0.7s	0.80nm		3.9mb	
BGMT	65.58	50	eP	12 48.80	-1.1
NUR	66.13	333	iP	12 52.90	0.1
HFS	69.67	338	eP	13 14.30	-0.7
	0.8s	7.10nm		4.8mb	
NAO	69.83	340	P	13 15.50	-0.4
	0.8s	3.70nm		4.5mb	

S.D. = 0.9 on 20 of 21 obs.

& MAR 02, 1989 13h 21m 28.36s
60.000 N 153.519 W
DEPTH = 137.2km
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM	0.29	74	iP	21 46.88	0.8
			iS	22 02.58	
RDT	0.80	43	iP	21 49.63	-1.0
NNL	1.12	87	eP	21 53.52	0.2
			eS	22 12.39	
CNPM	1.25	111	iP	21 53.82	-0.8
NKA	1.36	56	eP	21 56.42	0.7
SPU	1.39	31	iP	21 55.26	-0.9
CRP	1.44	27	iP	21 56.20	-0.6
SVW	1.52	318	eP	21 55.84	-1.8
SLKM	1.72	71	iP	21 58.53	-1.3
SEW	2.04	85	eP	22 02.14	-1.5
PMS	2.32	56	iP	22 05.04	-2.1
KDC	2.32	166	eP	22 03.50	-3.6
			eS	22 31.83	
PTE	2.39	67	eP	22 05.51	-2.4
PWA	2.43	46	eP	22 07.38	-1.1
PLRM	2.68	52	eP	22 08.50	-3.1
PME	2.74	51	eP	22 09.59	-2.8
KNK	2.86	58	eP	22 11.01	-3.1
			eS	22 45.39	
GHO	2.86	50	eP	22 11.08	-3.1
KNIM	2.91	81	iP	22 11.64	-3.0
MTU	2.95	88	eP	22 13.72	-1.4
SML	3.12	52	iP	22 14.13	-3.2
TTA	3.17	339	eP	22 15.62	-2.6
GLI	3.30	72	eP	22 16.13	-3.7
HIN	3.53	80	eP	22 20.44	-2.3
FID	3.58	75	eP	22 20.25	-3.1
VZW	3.60	70	eP	22 20.64	-3.2
VLZ	3.72	69	eP	22 23.68	-1.6
CVA	3.91	79	eP	22 25.39	-2.4
KLU	4.02	65	iP	22 26.28	-3.1
TOA	4.15	56	eP	22 28.52	-2.6
SGAM	4.17	79	eP	22 28.95	-2.4
GLB	4.98	69	eP	22 39.64	-2.6
FBA	5.59	26	eP	22 47.09	-3.3

33 obs. associated

% MAR 02, 1989 13h 26m 50.13± 0.76s
31.705 S ± 6.7km 117.050 E ± 7.7km
DEPTH = 10.0km (geophysicist)
WESTERN AUSTRALIA (590)

KLB	0.62	80	iPd	27 02.50	0.0
			iS	27 10.00	
MUN	0.77	249	iPd	27 05.00	-0.1
			iS	27 14.90	
BAL	1.13	345	eP	27 11.00	-0.4
			iS	27 15.70	
NWAO	1.23	173	eP	27 13.00	0.0
			iS	27 29.40	
MRWA	2.64	340	eP	27 34.00	0.5

S.D. = 0.4 on 5 of 5 obs.

MAR 02, 1989 13h 42m 17.77± 1.15s
41.003 N ± 9.0km 20.200 E ± 9.0km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
ML 2.8 (SKO).

TIR	0.43	324	iPgc	42 26.50	0.1
OHR	0.47	76	iPgc	42 26.60	-0.7
			iSg	42 33.20	
PHP	0.71	15	ePg	42 29.40	-2.3
LACI	0.73	330	ePg	42 31.50	-0.6
LSK	0.91	160	ePg	42 34.40	-0.8
PUK	1.06	348	ePg	42 38.10	0.3
KKS	1.08	8	ePg	42 37.50	-0.6
SDA	1.14	333	ePg	42 39.00	-0.1
SKO	1.34	43	ePg	42 42.40	-0.1
			i	42 45.50	
			iSg	42 59.30	
BCI	1.37	356	ePg	42 45.50	2.7
VAY	1.82	79	ePn	42 51.30	2.0

S.D. = 1.5 on 11 of 11 obs.

MAR 02, 1989 14h 03m 11.40± 0.47s
40.985 N ± 4.2km 20.150 E ± 4.9km
DEPTH = 10.0km (geophysicist)
GREECE-ALBANIA BORDER REGION (392)
ML 3.3 (SKO), 3.1 (TTG). MD 3.5 (ATH).

BERA	0.32	208	iPg	03 16.40	-1.6
TIR	0.42	329	iPg	03 19.00	-1.0
OHR	0.51	75	iPgc	03 19.65	-2.0
			iSg	03 26.20	
KBN	0.62	125	iPgc	03 23.00	-0.9
VLO	0.72	224	ePg	03 26.30	0.8
LACI	0.73	333	iPgd	03 24.40	-1.3
PHP	0.74	17	iPgc	03 22.40	-3.4X
LSK	0.90	158	ePg	03 27.50	-1.2
PUK	1.07	350	ePg	03 30.70	-0.9
KKS	1.11	10	ePg	03 30.50	-1.6
SDA	1.14	335	ePg	03 32.80	0.1
ULC	1.19	326	ePg	03 33.00	-0.6
			eSg	03 54.00	
BCI	1.38	357	ePg	03 36.00	-0.6
SKO	1.38	44	iPg	03 35.50	-1.2
			i	03 38.60	
			iSg	03 52.20	
			Lg	03 59.00	
KZN	1.41	118	ePg	03 36.80	-0.3
TTG	1.59	336	ePn	03 39.00	-0.6
			eSn	04 03.20	
PVY	1.61	355	ePn	03 39.10	-1.0
			eSn	04 04.00	
BDV	1.63	323	ePn	03 41.50	1.2
			eSn	04 05.50	
VAY	1.86	79	iPn	03 43.60	0.1
IVA	1.89	354	ePn	03 46.50	2.4
			eSn	04 13.50	
NKY	2.02	335	ePn	03 47.50	1.5
			eSn	04 14.00	
BRY	2.26	328	ePn	03 50.00	0.5
			eSn	04 21.00	
KKB	2.38	67	eP	03 52.00	1.0
PLE	2.41	347	ePn	03 53.00	1.4
			eSn	04 26.00	
PLG	2.58	103	ePn	03 56.30	2.4
VTS	2.79	54	iP	03 57.00	-0.1
VLS	2.82	173	ePn	03 58.50	1.1
NEO	2.89	124	ePg	04 04.00	5.6X
RZN	3.51	77	eP	04 09.00	1.7
BZS	4.75	13	eP	04 25.50	0.8

S.D. = 1.3 on 28 of 30 obs.

MAR 02, 1989 14h 10m 28.57± 1.07s
0.593 S ± 6.2km 77.514 W ± 7.8km
DEPTH = 41.5 ± 8.4 km
5.0mb (15 obs.)
ECUADOR (107)
Felt (V) at Loreto and (III) at Quito. Felt in much of northeastern Ecuador. Felt in Narino and Putumayo Departments, Colombia.

PSO	1.78	6	iPd	10 58.00	0.2
PURC	3.12	22	iPc	11 17.65	0.7
SALC	3.64	13	eP	11 24.25	0.2
HOQC	4.13	12	eP	11 30.85	-0.2
ANCC	4.13	9	eP	11 31.90	1.0
CLMC	4.54	12	eP	11 36.30	-0.6
HOBC	5.10	16	eP	11 46.60	1.9
BOG	6.22	34	iP	12 25.00	24.3X
			iS	13 42.50	
BMG	8.81	30	eP	12 34.00	-2.5
UPA	9.72	348	iP	12 49.80	0.8
	0.9s	500.84nm		6.7mb	X
TOV	12.86	37	eP	13 30.10	-1.4
ARE	16.85	160	e(P)	14 22.00	-1.5
ZOBO	18.12	150	eP	14 37.00	-2.6X
	0.7s	23.04nm		4.4mb	
	Z 19s	0.73um			
			LR	20 10.00	
LPB	18.36	150	P	14 47.00	4.7X
	1.0s	64.00nm		4.7mb	
CNCB	18.65	150	P	14 46.00	-0.1
ATB	25.41	96	e(P)	15 57.00	2.8
PRM	34.79	353	P	17 17.50	0.1
JSC	34.87	355	P	17 18.00	0.0
TKL	36.53	351	P	17 31.70	-0.5
GBTN	36.61	351	P	17 32.70	-0.1
PWLA	36.74	345	P	17 31.80	-2.1
CVL	38.39	359	P	17 48.50	0.8
ITA	38.58	126	eP	17 54.00	4.1X
ELC	39.22	345	P	17 53.20	-1.4
ITR	39.76	103	eP	17 58.20	-1.3
FVM	40.19	344	P	18 01.40	-1.3
TBR	41.65	4	P	18 15.50	1.0
ALQ	44.52	325	iPc	18 39.00	0.7
	0.9s	48.11nm		5.3mb	
RSNY	45.02	3	P	18 42.70	0.8
	1.2s	40.46nm		5.2mb	
PTN	45.02	3	P	18 42.60	0.7
GAC	46.13	2	eP	18 51.50	0.9
MIM	46.25	8	P	18 52.10	0.5
GLD	47.47	331	P	19 01.50	-0.1
	1.2s	42.93nm		5.3mb	
GOL	47.50	331	eP	19 01.70	-0.3
	1.0s	10.00nm		4.8mb	
CBM	48.04	9	P	19 06.90	1.2
GLA	48.52	317	eP	19 10.00	0.3
BAR	49.58	316	eP	19 18.00	0.1
TPC	49.96	318	eP	19 25.00	4.2X
PLM	50.09	316	eP	19 22.00	0.1
RSSD	50.41	335	P	19 24.50	0.2
RVR	50.80	317	eP	19 27.00	-0.1
GSC	51.16	318	eP	19 31.00	1.0
BW06	51.89	330	P	19 34.80	-0.7
	0.9s	7.15nm		4.7mb	
CLC	51.99	318	eP	19 40.00	3.8X

ISA	52.49	318	eP	19	41.00	1.1
TNP	53.07	321	P	19	44.40	0.0
	0.9s		11.72nm		4.9mb	
KVN	54.21	321	P	19	51.70	-1.0
HPI	54.36	329	P	19	54.00	0.1
BGMT	54.91	331	ePc	19	57.90	0.1
LRM	55.54	331	eP	20	01.80	-0.5
ORV	56.65	320	P	20	10.60	0.4
LBFM	57.90	322	P	20	19.20	0.0
SES	58.29	335	ePc	20	21.20	-0.3
FFC	58.69	344	eP	20	22.00	-2.2
	0.8s		25.00nm		5.4mb	
VGB	59.69	326	P	20	32.00	0.7
LON	61.01	327	P	20	39.40	-0.9
RMW	61.44	327	P	20	42.90	-0.3
PNT	61.46	330	eP	20	43.00	-0.3
FRB	64.53	4	eP	21	02.00	-1.2
YKA	68.82	343	eP	21	29.40	-1.1
KIC	72.95	83	P	21	55.00	-1.3
KOGH	77.41	84	eP	22	21.00	-0.8
INK	78.56	342	eP	22	22.00	-5.0X
MBC	80.31	351	eP	22	37.00	0.7
FBA	82.26	336	P	22	46.10	-0.7
	1.1s		14.06nm		4.9mb	
ALE	83.31	2	eP	22	52.00	0.1
	0.6s		6.00nm		4.8mb	
DAG	83.71	11	iPd	22	54.60	0.6
	0.8s		14.18nm		5.1mb	
IMA	84.94	337	P	23	00.40	-0.2
	1.4s		14.20nm		4.9mb	
BRW	87.10	342	P	23	11.40	0.5
SPA	89.41	180	ePc	23	23.90	1.7
	1.0s		19.00nm		5.4mb	
BNG	96.09	86	ePc	23	54.10	0.2
	0.8s		4.00nm		5.0mb	
HHC	139.09	349	ePKP	29	53.40	0.2
ASPA	141.11	230	iPKPc	29	50.10	-7.1X
GTA	141.29	3	ePKP	29	53.40	-3.8X
TIY	141.94	347	ePKP	29	51.00	-7.4X
WRA	142.71	235	PKPc	30	00.50	0.4
	0.8s		6.70nm			
WB5	142.72	235	ePKP	29	55.50	-4.6X
LZH	144.66	358	ePKP	30	02.00	-1.2
	2.0s		82.00nm			
			pP	30	06.50	
SSE	144.86	331	PKP	30	01.30	-2.1
	1.0s		24.00nm			
NJ2	145.10	335	PKP	30	02.00	-1.8
XAN	146.19	350	PKP	30	06.50	0.8
GKN	147.82	31	PKP	30	09.60	1.0
WHN	148.15	340	ePKP	30	11.00	2.2X
KKN	148.32	30	PKP	30	10.30	0.8
DMN	148.38	30	PKP	30	10.40	0.8
GUN	148.52	29	PKP	30	10.80	0.8
PKI	148.57	30	PKP	30	10.40	0.4
MTN	148.61	244	ePKP	30	10.00	0.1
			e	30	14.00	
KNA	149.38	237	iPKPd	30	15.60	4.5X
CD2	149.82	358	ePKP	30	13.20	1.7
GBA	152.03	61	PKPd	30	29.80	14.7X
	0.4s		1.50nm			
MBL	152.52	217	ePKP	30	22.80	7.2X
GYA	153.97	351	PKP	30	18.80	1.1
	S.D. = 1.0		on 78 of 93 obs.			

MAR 02, 1989 14h 25m 40.28± 1.09s
30.913 N ± 8.4km 132.497 E ± 7.3km
DEPTH = 23.9 ± 7.7 km
4.2mb (2 obs.)
SOUTHEAST OF SHIKOKU, JAPAN (237)

KAGJ	1.41	282	P	26	03.90	-0.6
			S	26	20.00	
KUMJ	2.15	319	P	26	15.40	0.1
			eS	26	40.70	
TKSJ	3.33	23	eP	26	31.60	-0.4
			eS	27	07.60	
SHNJ	3.41	340	P	26	32.60	-0.6
			eS	27	09.70	
WKYJ	4.21	38	eP	26	44.00	-0.6
			eS	27	28.90	
YONJ	4.34	11	P	26	45.70	-0.7
			S	27	30.80	
IIDJ	6.43	43	eP	27	16.40	0.4
MTMJ	7.18	37	eP	27	26.60	0.1
CHJJ	7.46	45	P	27	31.20	0.8
BJI	16.10	309	eP	29	29.00	2.5
WB5	50.53	178	eP	34	38.80	0.0
WRA	50.59	178	Pd	34	39.00	-0.3
	0.9s		2.30nm		4.1mb	
ASPA	54.28	178	iPc	35	06.90	0.1
SUF	69.99	332	iP	36	50.60	-0.9
YKA	72.69	27	eP	37	09.10	1.4
HFS	76.39	333	eP	37	27.60	-1.4
	0.4s		0.90nm		4.2mb	
	S.D. = 1.1		on 16 of 16 obs.			

MAR 02, 1989 14h 51m 44.79± 0.62s
36.566 N ± 6.5km 28.835 E ± 5.5km
DEPTH = 10.0km (geophysicist)
DODECANESE ISLANDS (369)
MD 3.7 (ATH).

YER	0.72	322	iPg	51	57.60	-1.4
			eSg	52	09.60	
KSL	0.75	126	ePb	51	58.30	-1.2
ELL	0.88	78	iPn	52	01.50	-0.3
BCK	1.66	57	ePn	52	13.00	-1.2
KAP	1.68	234	ePb	52	15.00	0.6
KHL	1.84	17	iPn	52	17.00	0.3
IZM	2.22	326	iPn	52	22.60	0.4
ALT	2.68	22	ePn	52	28.50	-0.4
NPS	2.92	245	ePn	52	32.30	0.1
DST	3.04	357	ePn	52	33.80	0.0
IKL	3.93	93	ePn	52	47.50	1.1
BBTK	4.50	42	eP	52	56.50	1.9
	S.D. = 1.1		on 12 of 12 obs.			

% MAR 02, 1989 14h 57m 45.55± 0.76s
43.423 N ± 5.4km 5.432 E ± 5.5km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
MD 2.6 (STR).

GELF	0.04	185	Pg	57	47.33	-0.3
TREF	0.20	350	Pg	57	49.53	-0.5
PUYF	0.22	61	Pg	57	49.38	-1.0
PRAF	0.43	333	Pg	57	54.67	0.4
VILF	0.48	25	Pg	57	54.80	-0.4
TAVF	0.49	67	Pg	57	54.99	-0.6
GANF	0.67	31	Pg	57	59.44	0.5
CALN	1.11	72	Pg	58	07.24	0.8
			Sg	58	21.30	
MVIF	1.33	69	Pn	58	10.40	0.1
			Sg	58	28.67	
TOUF	1.44	65	Pn	58	12.28	0.4
			Sg	58	31.06	
AURF	1.45	71	Pn	58	11.93	0.0
			Sg	58	31.46	
AUTN	1.56	68	Pn	58	14.08	0.6
			Sg	58	35.87	
	S.D. = 0.6		on 12 of 12 obs.			

MAR 02, 1989 16h 33m 12.04± 0.27s
44.524 N ± 2.1km 7.070 E ± 3.6km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 3.0 (LDG), 2.7 (GEN).

PZZ	0.03	131	P	33	14.32	0.1
DOI	0.13	99	Pc	33	15.50	0.3
			iSg	33	17.80	
STV	0.33	147	P	33	18.81	-0.2
			S	33	23.11	
RRL	0.44	333	P	33	21.24	0.1
			S	33	27.50	
TOUF	0.53	166	Pg	33	22.20	-0.6
AUTN	0.59	154	Pg	33	23.97	-0.1
BNI	0.60	332	P	33	23.40	-0.8
			eSg	33	32.00	
ROB	0.62	112	P	33	24.55	0.0
			S	33	32.54	
RSP	0.64	12	P	33	25.22	0.2
			S	33	33.70	
AURF	0.66	164	Pg	33	24.79	-0.5
SBF	0.71	158	Pg	33	26.60	0.5
			Sg	33	35.40	
CALN	0.78	190	Pg	33	27.17	-0.2
			Sg	33	37.19	
IMI	0.85	136	P	33	28.26	-0.2
			S	33	39.27	
FIN	0.88	111	P	33	29.02	0.1
			S	33	40.45	
LSD	0.94	4	P	33	30.27	0.2
			S	33	42.42	
LPG	1.00	347	Pg	33	31.30	0.1
			Sg	33	44.60	
FRF	1.01	198	Pg	33	30.90	-0.3
			Sg	33	43.20	
LPL	1.02	347	Pg	33	31.40	-0.1
			Sg	33	45.10	
LRG	1.19	206	Pg	33	35.00	0.9
			Sg	33	50.30	
LMR	1.26	199	Pg	33	35.90	0.5
			Sg	33	51.50	
	S.D. = 0.4		on 20 of 20 obs.			

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* MAR 02, 1989 16h 55m 24.00± 0.79s
21.610 N ± 8.9km 97.760 E ±13.4km
DEPTH = 33.0km (normal)
BURMA (296)

CHG	3.00	158	iPn	56	10.80	0.5
			iPg	56	56.70	
CHTO	3.00	158	iPnc	56	10.60	0.3
			ePg	56	17.70	
BDT	4.50	165	ePn	56	30.50	-1.1
			ePg	57	43.00	
LOE	5.61	137	ePn	56	47.00	-0.4
			eSg	08	48.00	
KMI	5.76	52	Pg	57	07.00	17.3X
			Sg	58	20.00	
NST	6.32	159	ePn	56	58.50	1.2
			eSg	09	41.00	
KHT	6.83	173	ePg	57	33.00	28.4X
			eSg	58	58.00	
NNT	9.17	168	ePn	57	36.50	-0.5
			e	10	47.00	
GKN	13.51	301	P	58	36.00	0.1
BJI	24.15	36	eP	00	38.00	-0.1
	S.D. = 0.8		on 8 of 10 obs.			

? MAR 02, 1989 17h 41m 22.93± 1.14s
13.473 N ±16.7km 119.973 E ±15.8km
DEPTH = 33.0km (normal)
4.6mb (3 obs.)
PHILIPPINE ISLANDS REGION (248)

PGP	0.95	88	ePc	41	40.00	0.0
			eS	41	54.00	
WB5	36.04	157	eP	48	23.00	-0.4
WRA	36.09	157	Pc	48	23.40	-0.4
	0.6s		4.70nm		4.6mb	
ASPA	39.34	160	iPc	48	51.90	0.8
	0.6s		7.00nm		4.6mb	
NB2	87.14	333	P	54	06.70	0.0
	0.8s		1.90nm		4.4mb	
	S.D. = 0.7		on 5 of 5 obs.			

& MAR 02, 1989 17h 41m 59.26s
59.437 N 152.746 W
DEPTH = 75.5km
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM	0.65	351	iP	42	13.66	-0.7
			iS	42	25.31	
CNPM	0.78	83	iP	42	14.98	-0.7
			iS	42	27.72	
NNL	0.95	50	iP	42	18.13	0.4
			eS	42	32.25	
RDT	1.15	8	iP	42	19.63	-0.7
NKA	1.51	29	eP	42	26.02	1.1
SLKM	1.66	49	eP	42	25.85	-1.2
			iS	42	47.16	
KDC	1.70	175	iPd	42	26.00	-1.5
SPU	1.78	11	iP	42	28.14	-0.6
			iS	42	51.09	
SEW	1.80	67	eP	42	27.23	-1.6
CRP	1.86	9	iP	42	29.34	-0.5
SVW	2.21	321	iPd	42	33.30	-1.2
PTE	2.35	51	eP	42	34.99	-1.4
PMS	2.41	40	iPc	42	36.20	-1.1
PWA	2.63	31	iPc	42	39.60	-0.7
MTU	2.64	76	eP	42	39.15	-1.3
PLRM	2.81	38	eP	42	40.79	-1.9
PMR	2.81	38	eP	42	40.80	-1.9
PME	2.86	38	eP	42	41.83	-1.7
KNK	2.91	45	eP	42	42.12	-2.1
GHO	3.01	37	eP	42	43.69	-1.9
GLI	3.17	60	eP	42	44.36	-3.5

02d 17h

SML	3.22	41	eP	42 45.02	-3.6
HIN	3.29	70	eP	42 47.29	-2.2
CVA	3.69	69	eP	42 52.90	-2.1
TTA	3.85	337	eP	42 55.90	-1.4
SGAM	3.94	71	eP	42 55.99	-2.5
KLU	3.96	56	iP	42 56.30	-2.6
RAGM	4.17	73	eP	42 59.42	-2.5
TOA	4.19	47	eP	42 59.97	-2.2
GLB	4.86	62	eP	43 08.39	-3.1
WAX	5.08	74	eP	43 11.23	-3.3
FBA	5.95	21	eP	43 24.10	-2.6
BCPM	6.66	80	eP	43 33.79	-2.6
IMA	6.67	357	eP	43 35.00	-1.7

34 obs. associated

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* MAR 02, 1989 17h 44m 52.45± 1.21s
35.505 N ±15.6km 31.484 E ±13.6km
DEPTH = 33.0km (normal)
CYPRUS (372)

PPCY	0.94	131	eP	45 10.00	0.7
CSS	1.61	109	eP	45 18.00	-0.9
ELL	1.78	315	ePn	45 21.00	-0.5
IKL	1.93	67	iPn	45 23.70	0.1
BCK	2.08	340	ePn	45 26.30	0.5

S.D. = 1.0 on 5 of 5 obs.

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* MAR 02, 1989 17h 55m 11.50± 1.64s
34.283 N ±11.8km 30.459 E ±20.4km
DEPTH = 10.0km (geophysicist)
EASTERN MEDITERRANEAN SEA (371)

PPCY	1.67	68	eP	55 40.50	-0.4
CSS	2.46	73	eP	55 49.00	-3.3X
ELL	2.50	350	ePn	55 53.00	0.0
IKL	3.28	53	iPn	55 55.20	-8.8X
DSI	4.94	122	iPd	56 28.50	1.0
PRNI	5.49	134	eP	56 35.00	-0.4
MBH	5.86	139	eP	56 40.00	-0.4

S.D. = 0.8 on 5 of 7 obs.

? MAR 02, 1989 18h 31m 12.21± 3.23s
4.932 S ±27.6km 133.590 E ±28.0km
DEPTH = 33.0km (normal)
4.1mb (2 obs.)
WEST IRIAN REGION (196)

AAI	5.52	283	ePc	32 34.20	-0.1
MTN	8.23	197	eP	33 13.00	0.7
			eS	34 47.00	
KNA	11.75	203	iPd	34 00.70	0.1
	0.4s		56.00nm	6.1mb	X
			eS	36 12.00	
WB5	14.88	177	eP	34 39.70	-2.3
			eS	37 18.50	
WRA	14.94	177	Pd	34 40.30	-2.5X
	0.5s		3.00nm	3.9mb	
QIS	16.60	160	eP	35 05.00	0.9
			eS	38 04.00	
ASPA	18.63	179	iPd	35 30.10	0.7
	0.7s		13.00nm	4.2mb	

S.D. = 1.5 on 6 of 7 obs.

MAR 02, 1989 18h 36m 49.25± 0.48s
37.072 N ± 4.5km 27.966 E ± 4.9km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 3.8 (ATH).

YER	0.26	76	iPg	36 53.90	-0.9
IZM	1.44	337	iPn	37 16.20	0.8
ELL	1.59	101	iPn	37 18.50	0.9
KSL	1.61	126	ePb	37 18.70	0.9
KAP	1.65	203	iPbc	37 18.20	-0.1
			eSb	37 40.00	
KHL	1.76	44	iPn	37 20.50	0.5
BCK	2.13	79	ePn	37 26.50	1.1
PRK	2.55	329	ePn	37 32.00	0.7
DST	2.58	11	iPn	37 31.90	0.1
ALT	2.61	40	ePn	37 31.50	-0.7
NPS	2.62	227	ePn	37 32.50	0.1
EZN	3.04	335	ePn	37 38.60	0.4
KCT	3.19	5	iPn	37 39.80	-0.6
EDC	3.27	359	iPn	37 41.20	-0.4
BNT	3.28	359	ePn	37 39.00	-2.7
YLV	3.66	17	ePn	37 53.00	5.8X
GPA	3.70	29	ePn	37 53.00	5.3X
GBZT	3.89	17	eP	38 03.80	13.5X
BBTK	4.67	52	iPc	38 02.50	0.9
IKL	4.67	99	ePn	38 02.50	1.0
KDZ	4.98	337	iPc	38 06.00	0.2
KKB	6.10	323	eP	38 22.00	0.4
DSI	8.23	130	eP	38 50.00	-1.5
PRNI	8.90	137	e(P)	38 52.00	-8.9X
MBH	9.29	140	eP	39 05.00	-1.2

S.D. = 1.0 on 21 of 25 obs.

& MAR 02, 1989 19h 49m 05.02s
60.281 N 152.300 W
DEPTH = 78.9km
SOUTHERN ALASKA (2)
<AGS-P>.

RDT	0.30	350	iP	49 17.14	-0.3
			iS	49 26.93	
ILIM	0.39	239	iP	49 17.68	-0.3
			iS	49 28.49	
NNL	0.56	115	iP	49 20.09	0.7
NKA	0.70	48	eP	49 21.95	1.2
SPU	0.91	8	iP	49 22.49	-0.8
CNPM	0.93	144	eP	49 23.17	-0.3
CRP	0.99	4	iP	49 23.73	-0.6
			iS	49 37.93	
SLKM	1.06	77	iP	49 24.25	-0.8
SEW	1.44	96	iP	49 28.45	-1.3
PMS	1.66	53	iP	49 32.08	-0.7
			iS	49 52.13	
PTE	1.72	69	eP	49 31.97	-1.6
PWA	1.81	40	eP	49 33.97	-0.9
PLRM	2.03	48	eP	49 35.87	-2.0
PWL	2.04	72	eP	49 35.57	-2.5
			iS	49 59.92	
PME	2.09	48	eP	49 36.89	-1.8
KNK	2.20	57	eP	49 38.00	-2.2
GHO	2.22	46	eP	49 38.51	-2.1
KNIM	2.27	86	iP	49 37.87	-3.3
MTU	2.34	95	eP	49 38.71	-3.5
SML	2.46	50	iP	49 41.67	-2.2
GLI	2.64	75	eP	49 43.44	-2.8
FID	2.92	78	eP	49 46.60	-3.5
VZW	2.93	72	eP	49 50.16	-0.2
			eS	50 20.49	
KLU	3.35	66	eP	49 52.72	-3.4
			iS	50 29.83	
TOA	3.48	56	eP	49 55.84	-2.2

25 obs. associated

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* MAR 02, 1989 20h 04m 39.86± 0.66s
36.760 N ±11.1km 71.100 E ± 8.9km
DEPTH = 33.0km (normal)
3.7mb (4 obs.)
AFGHANISTAN-USSR BORDER REGION (717)

QUE	7.41	209	eP	06 27.70	-1.0
			eS	07 47.30	
MAIO	9.35	271	iPd	06 56.80	1.3
			eS	08 35.00	
NDI	9.56	146	eP	07 00.30	2.1
			iS	08 37.00	
GKN	14.38	124	P	08 03.20	0.1
DMN	14.95	124	P	08 11.60	0.9
KKN	14.95	123	P	08 10.60	0.0
PKI	15.18	123	P	08 14.20	0.5
GUN	15.28	121	P	08 15.00	-0.1
HYB	20.36	159	eP	09 15.00	-1.4
GBA	23.75	165	Pd	09 46.50	-3.5X
	0.5s		1.10nm	3.6mb	
HFS	42.91	322	eP	12 37.20	0.5
	0.4s		1.40nm	4.0mb	
NB2	44.22	323	P	12 47.40	0.0
	0.4s		0.50nm	3.7mb	
MBC	67.07	3	eP	15 31.00	-0.5
WRA	82.06	122	P	16 56.00	-2.4
	0.5s		0.30nm	3.6mb	

S.D. = 1.3 on 13 of 14 obs.

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* MAR 02, 1989 21h 31m 12.02± 0.86s
19.397 S ±20.3km 176.086 E ±15.2km
DEPTH = 33.0km (normal)
4.3mb (1 obs.)
SOUTH OF FIJI ISLANDS (171)

SGE	2.50	44	eP	31 52.60	1.1
			eS	32 24.20	
SVA	2.58	61	eP	31 50.70	-1.7
			eS	32 22.00	
DZM	9.41	252	iPd	33 28.20	-0.3
WEL	21.85	183	eP	36 04.00	0.5
ASPA	39.37	256	eP	38 39.50	-0.9
CHG	84.65	292	eP	43 48.90	4.7X
CHTO	84.65	292	eP	43 48.20	4.1X
	1.0s		2.00nm	4.3mb	
KSP	144.78	338	ePKP	50 48.30	1.3
			e	50 53.60	
CLL	145.47	341	iPKPd	50 55.40	7.3X
BRG	145.55	340	ePKP	50 52.10	3.8X
	1.4s		22.00nm		
SKO	148.88	322	ePKP	51 03.50	9.5X
OHR	149.79	321	ePKP	51 07.50	12.1X
BNG	153.52	239	ePKPd	51 11.20	9.5X
	0.7s		3.00nm		
			id	51 26.00	

S.D. = 1.5 on 6 of 13 obs.

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* MAR 02, 1989 21h 43m 48.08± 0.90s
35.679 N ±12.8km 26.706 E ± 7.6km
DEPTH = 10.0km (geophysicist)
CRETE (370)
MD 3.5 (ATH).

KAP	0.40	108	ePg	43 56.00	-0.3
NPS	0.99	245	ePg	44 06.80	0.0
YER	1.93	41	ePn	44 20.80	-0.5
VAM	2.06	263	ePb	44 27.70	4.5X
KSL	2.38	79	ePn	44 28.20	0.5
ELL	2.80	67	iPn	44 38.10	4.2X
BCK	3.60	59	ePn	44 45.40	0.3

S.D. = 0.6 on 5 of 7 obs.

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* MAR 02, 1989 22h 05m 41.70± 0.99s
47.526 N ±15.7km 115.804 W ± 6.4km
DEPTH = 0.0km (geophysicist)
MONTANA (456)
CL 3.2 (BUT). Rockburst neor
Mullan, Idaho.

DPW	1.66	283	eP	06 12.00	-0.2
			e(S)	06 35.00	
LNOR	2.38	227	eP	06 23.00	0.3
HRY	2.83	105	ePn	06 29.40	0.2
LRM	2.87	125	iPnc	06 29.00	-0.8
LCCM	3.19	121	ePn	06 34.50	0.3
CCMT	3.31	141	ePn	06 35.70	-0.3
BGMT	3.47	130	ePn	06 38.30	0.0
MEMT	3.85	118	ePn	06 44.30	0.6

S.D. = 0.5 on 8 of 8 obs.

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* MAR 02, 1989 22h 18m 03.05± 0.66s
44.014 N ±11.4km 149.021 E ± 8.9km
DEPTH = 33.0km (normal)
5.0mb (14 obs.) 3.8Msz (1 obs.)
KURIL ISLANDS (221)

KUSJ	3.26	255	P	18 51.60	-1.5
			S	19 27.80	
HOOJ	4.50	251	eP	19 11.30	0.7
ASAJ	4.60	274	eP	19 14.00	2.0
MRRJ	6.02	257	eP	19 32.00	-0.1
AOMJ	7.28	245	eP	19 49.20	-0.6
OFUJ	7.39	231	eP	19 47.20	-4.2X
			eS	21 07.90	
YAMJ	8.94	232	eP	20 08.30	-4.6X
NIIJ	10.18	232	P	20 26.40	-3.5X
KAKJ	10.33	224	P	20 27.40	-4.5X
			eS	22 15.40	
CHJJ	11.05	227	P	20 37.70	-4.2X
			S	22 36.80	
MTMJ	11.32	233	P	20 42.50	-3.1X
MDJ	13.93	279	eP	21 20.50	0.3
			epP	21 26.00	
SNY	18.74	272	iPd	22 21.40	0.1
BJI	24.63	272	eP	23 21.50	0.0
Z	18s		0.30um	3.8Msz	
			eS	27 46.00	
TIA	25.49	263	eP	23 27.70	-2.1
NJ2	26.44	253	Pd	23 42.00	3.4X
HHC	27.67	277	eP	23 50.00	0.1
TIY	28.21	270	eP	23 56.40	1.7
Z	16s		0.50um	4.2MszX	
BTO	28.86	277	eP	24 01.70	1.1
LZH	35.11	273	eP	24 50.50	-5.0X

1.5s 66.00nm 5.3mb
pP 25 08.00 71kmX
GTA 36.58 280 Pc 25 08.20 0.4
CD2 37.78 265 eP 25 18.20 0.4
GYA 38.30 257 P 25 21.60 -0.7
WMQ 43.25 292 eP 26 03.60 0.7
Z 16s 0.70um 4.7MszX
INK 45.49 31 eP 26 25.00 4.6X
MBC 48.13 19 eP 26 41.00 -0.2
CHG 48.66 255 eP 26 47.00 1.1
CHTO 48.66 255 eP 26 46.70 0.8
0.9s 3.20nm 4.4mb
pP 27 00.10 50kmX
KHT 51.67 252 eP 27 10.50 1.6
GUN 52.35 274 P 27 14.40 0.0
KKN 52.85 275 P 27 18.10 0.1
0.8s 26.00nm 5.2mb
PKI 52.88 274 P 27 18.00 -0.4
1.0s 24.00nm 5.1mb
DMN 53.08 274 P 27 19.90 0.2
0.8s 36.00nm 5.4mb
GKN 53.19 275 P 27 20.40 0.0
YKA 54.83 34 eP 27 34.30 2.5
ND1 58.09 280 eP 27 55.50 0.0
0.8s 37.31nm 5.5mb
SOD 60.73 338 iP 28 12.00 -1.2
KJF 62.71 335 eP 28 25.00 -1.5
0.7s 16.00nm 5.3mb
HYB 64.13 270 ePd 28 36.20 -0.4
SUF 64.27 335 iP 28 35.70 -1.1
0.5s 5.50nm 4.9mb
QUE 64.37 288 eP 28 37.60 -0.5
FFC 64.68 37 eP 28 42.00 2.4
1.0s 13.00nm 5.0mb
WB5 64.98 195 eP 28 40.00 -1.8
WRA 65.05 195 Pd 28 42.60 0.4
0.8s 1.80nm 4.2mb
NUR 66.41 334 iP 28 49.40 -1.1
GBA 67.45 267 Pd 28 56.40 -1.4
0.5s 1.90nm 4.4mb
FRB 68.54 17 eP 29 03.00 -0.9
UPP 69.08 336 iP 29 06.40 -0.8
NB2 69.84 340 P 29 10.80 -1.1
0.7s 5.00nm 4.7mb
HFS 69.96 338 eP 29 11.50 -1.1
0.5s 7.50nm 5.0mb
Z 17s 0.07um 4.0MszX
LR 57 08.00
CLL 77.69 334 e(P) 30 07.00 9.4X
BRG 77.76 333 e(P) 30 15.00 17.0X
EKA 78.25 344 P 30 15.00 14.4X
0.8s 6.70nm
MOX 78.71 334 e(P) 30 17.00 13.7X
KBA 81.22 331 e(P) 30 19.00 2.1
0.5s 1.30nm 4.2mb
S.D. = 1.2 on 42 of 55 obs.

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* MAR 02, 1989 23h 07m 01.04± 1.52s
21.590 N ±20.4km 97.609 E ±22.7km
DEPTH = 33.0km (normal)
BURMA (296)

CHG 3.03 155 iPn 07 47.60 -0.3
iPg 07 55.70
iSg 08 32.20
CHTO 3.03 155 iPn 07 47.90 0.0
iPg 07 55.10
BDT 4.52 163 ePn 08 07.50 -1.5
ePg 08 23.70
eSg 09 22.00
LOE 5.69 136 ePn 08 26.00 0.4
KMI 5.88 52 Pg 08 42.50 14.1X
Sg 09 55.50
NST 6.35 157 eP 08 34.50 -0.3
KHT 6.83 172 ePn 08 42.00 0.4
ePg 09 08.70
eSg 10 39.00
NNT 9.18 167 ePn 09 15.50 1.3
PKI 12.59 301 P 10 01.00 -0.1
HYB 18.44 260 eP 11 22.00 6.2X
S.D. = 0.9 on 8 of 10 obs.

% MAR 02, 1989 23h 25m 58.92± 0.72s
47.066 N ± 5.6km 9.214 E ± 7.2km
DEPTH = 10.0km (geophysicist)
GERMANY (543)

SAX 0.21 26 iPd 26 04.10 0.5
LLS 0.25 217 iPc 26 03.30 -1.0
VDL 0.61 163 iPd 26 10.80 -0.5
ZLA 0.70 307 iPd 26 11.80 -1.0
OSS 0.74 120 iPd 26 13.70 0.1
SLE 0.85 325 iPd 26 14.80 -0.6
TMA 0.99 194 iPd 26 17.40 -0.4
MMK 1.33 221 ePc 26 22.90 -0.7
DIX 1.59 232 ePd 26 28.60 1.2
EMS 1.86 239 ePc 26 33.70 2.4
S.D. = 1.2 on 10 of 10 obs.

MAR 03, 1989 00h 14m 57.92± 0.43s
42.284 N ± 3.2km 19.971 E ± 3.6km
DEPTH = 12.7 ± 4.3 km
YUGOSLAVIA (383)
MD 2.5 (TTG).

BCI 0.11 41 iPg 15 01.00 -0.1
PUK 0.25 194 iPg 15 02.50 -0.9
PVY 0.31 0 iPgc 15 04.20 -0.4
iSg 15 10.50
KKS 0.39 122 ePg 15 06.00 0.0
SOA 0.44 233 ePg 15 07.50 0.5
TTG 0.55 286 iPgd 15 07.40 -1.5
eSg 15 17.20
IVA 0.59 355 ePg 15 10.30 0.6
eSg 15 20.50
ULC 0.63 239 ePg 15 11.20 1.0
eSg 15 20.50
LACI 0.68 197 ePg 15 11.60 0.5
PHP 0.69 149 ePg 15 11.00 -0.3
BDV 0.85 270 ePg 15 14.00 0.0
eSg 15 27.60
NKY 0.89 307 ePg 15 14.50 -0.4
eSg 15 29.00
TIR 0.94 185 ePg 15 16.50 0.9
HCY 1.10 279 ePg 15 18.00 -0.4
eSg 15 35.00
PLE 1.13 338 ePg 15 20.00 1.1
eSg 15 39.00
SKO 1.14 105 ePg 15 19.00 0.1
iSg 15 36.00
BRY 1.22 301 ePg 15 20.40 -0.1
eSg 15 40.50
OHR 1.33 152 ePn 15 21.30 -0.9
S.D. = 0.8 on 18 of 18 obs.

? MAR 03, 1989 01h 06m 56.35± 0.93s
34.633 N ±10.7km 83.884 E ±30.0km
DEPTH = 10.0km (geophysicist)
4.0mb (3 obs.)
TIBET (306)

GKN 6.64 174 P 08 39.20 2.7
GUN 6.91 165 P 08 39.80 -0.8
KKN 6.93 170 P 08 40.40 -0.2
DMN 7.08 171 P 08 42.00 -0.8
PKI 7.16 169 P 08 43.70 -0.3
0.5s 12.00nm 5.3mb X
GBA 21.73 197 P 11 49.00 -0.8
0.4s 1.30nm 3.7mb
NB2 52.14 324 P 16 08.70 0.0
0.7s 1.60nm 4.1mb
WRA 72.42 130 Pd 18 24.60 -0.3
0.7s 1.60nm 4.2mb
YKA 82.07 9 eP 19 18.20 0.4
S.D. = 1.2 on 9 of 9 obs.

MAR 03, 1989 01h 31m 07.00± 0.51s
45.005 N ± 3.7km 7.378 E ± 5.9km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.8 (LDG), 2.7 (GEN).

RSP 0.17 330 P 31 11.89 1.0
S 31 13.99
RRL 0.43 259 P 31 21.50 5.7X
S 31 31.00
LSD 0.48 341 P 31 17.13 0.3
S 31 23.00
BNI 0.50 276 Pc 31 16.50 -0.7
DOI 0.51 191 Pc 31 16.70 -0.7
PZZ 0.54 202 P 31 17.30 -0.6
S 31 24.30
LPG 0.66 318 Pg 31 19.90 -0.5
Sg 31 27.70
ORO 0.75 34 P 31 21.30 -0.5
eSg 31 31.20
STV 0.76 183 P 31 20.80 -1.1
S 31 30.10
ROB 0.79 153 P 31 22.90 0.4
S 31 33.10
FIN 0.99 143 P 31 25.40 -0.4
SBF 1.14 178 Pn 31 29.40 1.0
Sg 31 44.80
IMI 1.15 161 P 31 28.18 -0.5
FRF 1.54 200 Pn 31 35.10 0.6
Sg 31 56.80
LRG 1.71 206 Pg 31 39.40 2.4
Sg 32 02.90
BGF 3.53 298 Pn 32 02.80 -0.2
CAF 3.77 271 Pn 32 06.00 -0.5
S.D. = 1.0 on 16 of 17 obs.

? MAR 03, 1989 01h 37m 22.96± 5.79s
33.135 S ±16.0km 72.024 W ±41.3km
DEPTH = 10.0km (geophysicist)
OFF COAST OF CENTRAL CHILE (134)

ROCH 0.87 79 iPd 37 40.00 0.2
LNV 0.97 148 iPd 37 41.20 -0.1
iS 37 53.70
TACH 1.05 120 iPd 37 42.50 -0.2
iS 38 56.30
SAN 1.18 106 eP 37 45.00 -0.1
JACH 1.29 70 ePd 37 46.50 -0.4
iS 38 05.00
PCH 1.35 111 iPc 37 48.20 0.3
iS 38 07.00
FCH 1.47 98 iPd 37 50.00 0.3
iS 38 12.00
S.D. = 0.3 on 7 of 7 obs.

MAR 03, 1989 01h 47m 12.40± 0.48s
45.962 N ± 4.2km 3.030 E ± 5.1km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.6 (LDG). MD 2.3 (STR).

AGO 0.12 38 Pg 47 14.88 -0.5
Sg 47 16.95
PYM 0.21 184 Pg 47 15.93 -1.1
Sg 47 18.93
PLDF 0.41 89 Pg 47 20.56 -0.3
Sg 47 26.58
MAF 0.41 309 Pg 47 19.90 -1.0
Sg 47 25.30
BGF 0.61 348 Pg 47 24.20 -0.5
Sg 47 32.70
LBL 0.75 168 Pg 47 26.11 -0.9
AVF 0.86 15 Pg 47 28.20 -0.7
Sg 47 41.00
SMF 0.89 39 Pg 47 29.40 0.0
Sg 47 41.50
LSF 1.08 286 Pg 47 31.90 -0.9
Sg 47 45.90
SSF 1.15 16 Pg 47 35.00 1.1
Sg 47 49.40
LBF 1.21 32 Pg 47 35.70 0.7
Sg 47 51.90
CAF 1.24 214 Pg 47 36.00 0.5
Sg 47 51.40
RJF 1.25 239 Pg 47 35.80 0.2
Sg 47 51.00
LOR 1.43 23 Pg 47 39.30 0.9
Sg 47 58.30
LPO 1.82 226 Pg 47 46.40 2.4
Sg 48 09.30
S.D. = 1.1 on 15 of 15 obs.

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* MAR 03, 1989 04h 10m 39.41± 0.95s
36.031 N ±12.9km 27.700 E ± 9.8km
DEPTH = 10.0km (geophysicist)
DODECANESE ISLANDS (369)

KAP 0.64 222 ePn 11 01.50 9.2X
YER 1.20 23 iPn 11 01.10 -0.7
KSL 1.53 86 ePn 11 07.00 0.3
NPS 1.86 246 ePn 11 11.60 -0.1
ELL 1.92 67 ePn 11 12.00 -0.6
IZM 2.39 352 ePn 11 30.00 10.8X
KHL 2.71 32 ePn 11 25.00 1.1
BCK 2.72 58 ePn 11 24.00 -0.1

03d 04h

S.D. = 0.8 on 6 of 8 obs.

% MAR 03, 1989 04h 26m 21.96± 0.76s
37.494 N ± 7.1km 2.480 W ± 6.7km
DEPTH = 10.0km (geophysicist)
SPAIN (377)
MG 2.7 (MDD).

ENIJ	0.56	158	iPgc	26 33.20	-0.2
			eSg	26 40.30	
AFC	0.88	255	ePg	26 39.20	0.2
EALH	0.92	66	ePg	26 39.70	0.2
EVIA	1.14	359	ePg	26 43.20	-0.2
			eSg	26 58.40	
EBAN	1.23	303	ePn	26 44.80	-0.1
			eSn	27 01.00	

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

% MAR 03, 1989 04h 50m 15.93± 0.78s
40.168 N ± 7.0km 28.871 E ± 6.1km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

KCT	0.40	282	iPg	50 24.10	-0.1
			iSg	50 28.60	
YLV	0.55	44	iPg	50 27.10	-0.1
DST	0.59	198	iPg	50 28.00	0.1
			eSg	50 38.00	
BNT	0.75	285	iPg	50 30.60	0.0
HRT	0.89	43	ePn	50 33.10	0.0
CTT	1.03	341	ePn	50 35.60	0.1

S.D. = 0.1 on 6 of 6 obs.

? MAR 03, 1989 05h 16m 54.31± 3.87s
34.093 S ±27.9km 72.334 W ±21.2km
DEPTH = 10.0km (geophysicist)
3.6mb (1 obs.)
NEAR COAST OF CENTRAL CHILE (135)

LNV	0.78	80	iPd	17 10.00	0.5
TACH	1.24	70	iPd	17 16.50	-0.9
CHCH	1.41	84	iPd	17 20.00	0.0
SAN	1.53	66	iPc	17 21.50	-0.3
			iS	17 40.20	
ROCH	1.57	45	iPd	17 22.50	0.0
PCH	1.59	73	iPd	17 22.50	-0.1
FCH	1.87	66	iPc	17 26.70	-0.2
			iS	17 49.70	
JACH	2.03	46	iPd	17 28.70	-0.3
			iS	17 52.50	
MDZ	3.15	68	eP	17 49.70	4.7X
			i	17 53.70	
ZON	3.99	51	eP	17 58.00	1.1
CFA	4.25	55	e(P)	18 00.60	0.1
CYA	7.94	47	e(P)	18 47.10	-5.4X
CCH	17.54	20	eP	21 02.00	1.1
CNCB	17.65	14	eP	21 02.00	-0.5
			e	21 05.00	
LPB	17.90	13	eP	21 09.00	3.6X
ZOBO	18.15	13	P	21 08.00	-0.7
	0.8s		3.76nm		3.6mb

S.D. = 0.7 on 13 of 16 obs.

? MAR 03, 1989 06h 44m 47.65± 3.65s
35.073 S ±29.4km 179.590 E ±22.0km
DEPTH = 105.1 ± 26.1 km
5.0mb (4 obs.)
OFF E. COAST OF N. ISLAND, N.Z. (160)

HBZ	2.73	202	P	45 29.00	-1.5
			S	46 04.00	
GBZ	3.54	250	P	45 43.00	1.5
GNZ	3.78	199	P	45 43.00	-1.8
			S	46 28.00	
KRP	4.33	228	eP	45 55.00	2.6
CTA	32.92	288	iPc	50 58.50	-15.5X
ASPA	41.09	273	iPc	52 21.00	-1.6
			e	52 24.10	
WRA	42.51	279	Pc	52 33.70	-0.5
	0.5s		10.80nm		4.9mb
WB5	42.52	279	eP	52 32.90	-1.4
			i	52 35.90	
FORR	43.02	261	eP	52 39.00	0.8
	0.4s		22.00nm		5.3mb
WARB	45.96	266	iPd	52 51.40	-10.5X
	0.4s		3.00nm		
COOL	48.61	258	eP	53 22.30	-0.2
NWAO	50.98	254	eP	53 40.40	-0.2
KLB	51.05	255	eP	53 41.00	-0.1
	0.5s		11.00nm		5.1mb
MUN	52.14	254	eP	53 48.60	-0.7
SPA	55.11	180	ePd	54 12.60	1.7
	1.0s		9.00nm		4.7mb
			e	54 38.60	
MBC	117.41	14	ePKP	03 20.00	-1.1
BNG	144.82	214	ePKPc	04 12.10	-2.2X
	0.5s		13.00nm		
			id	04 13.40	
KJF	146.19	338	ePKP	04 10.00	-5.0X
	0.8s		20.50nm		
			i	04 15.20	
SUF	147.75	337	iPKP	04 19.10	1.5
NUR	149.85	335	iPKP	04 24.50	3.6X
LIC	150.98	171	PKP	04 30.12	6.1X
KIC	151.15	171	PKP	04 30.50	6.2X
TIC	151.39	170	PKP	04 30.94	6.3X
NAO	153.23	348	PKP	04 27.00	1.1
HFS	153.30	344	ePKP	04 32.00	6.1X
	0.9s		8.40nm		

S.D. = 1.5 on 16 of 25 obs.

• MAR 03, 1989 07h 03m 11.17± 2.32s
34.485 N ±13.8km 128.111 W ±16.2km
DEPTH = 10.0km (geophysicist)
3.8mb (1 obs.)
NORTH PACIFIC OCEAN (611)
ML 4.9 (BRK).

PCC	5.53	55	ePd	04 35.10	-0.5
			eS	05 30.00	
			e	05 38.00	
GCC	5.58	61	eP	04 36.40	0.1
			eS	05 36.30	
NWRM	5.78	45	eP	04 38.00	-1.0
PRS	5.81	70	ePd	04 38.70	-0.7
			eS	05 41.80	
			e	05 45.20	
BRK	5.82	53	iPc	04 39.50	0.0
			eS	05 42.60	
BKS	5.83	53	iPc	04 39.73	0.0
			i	04 40.80	
			eS	05 44.30	
			e	05 48.30	
SAO	5.89	65	iPc	04 40.20	-0.3
			i	04 41.50	
			eS	05 46.80	
			e	05 48.35	
			eTT	10 10.00	
MHC	5.97	60	eP	04 42.20	0.3
			eS	05 48.60	
			e	05 50.45	
			e	05 54.30	
ARN	6.05	60	eP	04 43.00	0.1
LLA	6.22	68	eP	04 45.80	0.6
			e	05 57.50	
PRI	6.31	73	ePd	04 46.90	0.3
			e	05 59.40	
BLP	6.37	87	eP	04 46.30	-1.0
PHAM	6.46	76	eP	04 46.00	-2.7
FHC	7.10	26	iPc	04 57.60	-0.1
CMB	7.18	58	ePc	04 59.20	0.5
			eS	05 19.20	
ORV	7.32	44	ePc	05 00.70	0.0
ABL	7.33	85	eP	05 01.30	0.2
LTCM	7.44	38	eP	05 02.00	-0.4
WDC	7.52	34	iPc	05 03.50	0.0
			eS	05 26.20	
MIN	7.81	40	iPc	05 08.00	0.3
LBFM	8.43	34	eP	05 16.70	0.3
PEC	9.09	91	eP	05 24.50	-0.9
KVN	9.23	58	eP	05 28.00	0.5
PLM	9.42	94	eP	05 32.10	2.0
GLA	11.15	94	eP	05 55.50	1.8
SHW	12.52	19	eP	06 13.00	0.8
BMW	12.54	16	eP	06 08.00	-4.4X
LON	13.15	19	eP	06 21.80	1.3
GMW	13.65	15	eP	06 27.50	0.4
RMW	13.80	18	eP	06 29.30	0.1
BGMT	16.32	44	eP	07 05.50	3.3X
LRM	16.45	42	eP	07 12.90	9.2X
BW06	16.67	55	eP	07 13.00	6.4X
ALQ	17.81	82	eP	07 25.80	4.9X
	1.1s		9.49nm		3.8mb
			e	07 44.00	
YKA	29.30	13	eP	09 13.50	-2.0

S.D. = 1.0 on 30 of 35 obs.

% MAR 03, 1989 07h 59m 18.61± 0.91s
39.561 N ± 7.8km 27.817 E ± 8.6km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.63	86	ePg	59 32.00	0.7
			eSg	59 40.00	
EDC	0.79	3	ePg	59 34.00	0.1
BNT	0.80	6	iPg	59 33.10	-1.0
EZN	1.18	283	ePn	59 41.50	0.9
IZM	1.24	201	ePn	59 41.00	-0.7

S.D. = 1.2 on 5 of 5 obs.

? MAR 03, 1989 09h 07m 31.53± 4.69s
30.110 S ±27.8km 121.083 E ±32.6km
DEPTH = 10.0km (geophysicist)
WESTERN AUSTRALIA (590)

COOL	0.77	176	iPd	07 46.60	0.0
			e	07 51.20	
KLB	3.22	242	eP	08 24.00	0.9
			eS	09 25.00	
BAL	3.81	261	eP	08 32.00	0.4
			eS	09 39.00	
NWAO	4.32	229	eP	08 37.00	-1.8
			eS	09 48.50	
MRWA	4.52	280	iPd	08 41.30	-0.2
			eS	09 53.50	
MUN	4.58	245	eP	08 42.00	-0.4
			eS	09 56.00	
RKG	5.25	220	eP	08 53.00	1.1
	0.3s		6.00nm		4.8mb
			eS	10 15.00	

S.D. = 1.2 on 7 of 7 obs.

? MAR 03, 1989 09h 08m 07.54± 4.24s
2.091 N ±36.2km 126.327 E ±40.9km
DEPTH = 121.2 ± 29.2 km
4.2mb (3 obs.)
MOLUCCA PASSAGE (266)

MNI	1.62	247	iPc	08 37.30	0.5
KNA	17.89	172	eP	12 09.00	-1.3
WB5	23.22	160	eP	13 04.80	0.1
WRA	23.27	161	Pd	13 04.60	-0.6
	0.8s		8.40nm		4.2mb
QIS	26.00	151	eP	13 30.00	-1.0
ASPA	26.64	164	eP	13 36.80	0.0
CHTO	31.55	304	eP	14 19.90	-0.7
	0.5s		1.91nm		4.1mb
FORR	32.80	177	eP	14 32.10	0.8
BJI	38.88	348	eP	15 32.00	9.3X
BWA	41.84	152	eP	15 49.00	1.9
CAN	42.84	152	eP	15 55.50	0.2
GBA	49.66	286	Pd	16 49.20	0.1
	0.5s		1.90nm		4.2mb

S.D. = 1.1 on 11 of 12 obs.

• MAR 03, 1989 09h 22m 01.94± 0.91s
28.549 S ±16.4km 124.306 E ± 9.6km
DEPTH = 10.0km (geophysicist)
WESTERN AUSTRALIA (590)

WARB	3.14	42	eP	22 59.30	6.9X
FORR	4.02	126	iPc	23 05.70	0.9
MEKA	5.47	289	eP	23 25.00	-0.5
			i	23 43.30	
			eS	24 14.00	
MBL	8.40	330	eP	24 10.00	3.4X
	0.2s		13.00nm		6.0mb X
			eS	25 45.00	
ASPA	9.90	63	eP	24 36.80	9.5X
	0.6s		77.00nm		6.3mb X
			eS	26 30.10	
NANU	9.91	305	eP	24 28.00	0.5
	0.3s		8.00nm		5.7mb X
			eS	26 13.00	
PNA	12.46	109	Pc	25 01.20	-1.0
WRA	12.53	49	Pd	25 13.90	10.8X
	0.2s		1.90nm		
WB5	12.59	49	eP	25 04.10	0.1
			eS	27 38.50	
KNA	13.39	19	eP	25 25.00	10.5X
	0.3s		5.00nm		

			iS	27 56.40		
STK	15.31	107	e(P)	25 45.00	5.3X	
WKA	15.61	124	P	25 48.20	4.6X	
OIS	16.02	64	eP	25 56.00	7.0X	
			e	26 08.00		
			eS	28 54.00		
MTN	16.87	24	eP	26 11.00	11.2X	
			e	29 18.00		

S.D. = 1.1 on 5 of 14 obs.

% MAR 03, 1989 10h 49m 01.83± 0.96s
60.653 N ± 6.8km 6.340 E ±14.9km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 3.2 (BER).

HYA	0.52	352	iPc	49 12.50	0.1	
			eS	49 20.40		
ODD1	0.76	169	iP	49 16.20	-0.5	
			eS	49 24.60		
SUE	0.87	298	eP	49 18.30	-0.3	
			eS	49 30.20		
BLS1	1.29	169	iP	49 25.90	0.1	
			iS	49 42.20		
KMY	1.55	201	iP	49 29.90	0.5	
			eS	49 49.90		

S.D. = 0.5 on 5 of 5 obs.

% MAR 03, 1989 12h 09m 00.98± 0.80s
39.276 N ± 6.7km 27.744 E ± 7.9km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.76	64	iPg	09 16.10	0.2	
			eSg	09 29.10		
IZM	0.95	203	ePn	09 19.00	-0.2	
EDC	1.07	5	ePn	09 21.00	-0.2	
KCT	1.08	26	iPn	09 21.50	0.2	
BNT	1.09	7	iPn	09 21.00	-0.4	
EZN	1.23	297	ePn	09 24.10	0.3	

S.D. = 0.4 on 6 of 6 obs.

MAR 03, 1989 13h 26m 34.42± 0.53s
29.308 S ± 8.7km 123.653 E ± 5.4km
DEPTH = 10.0km (geophysicist)
4.0mb (1 obs.)
WESTERN AUSTRALIA (590)

COOL	2.68	234	iPd	27 20.60	2.2	
WARB	4.09	41	iPc	27 33.50	-4.8X	
FORR	4.15	113	iPc	27 40.30	1.1	
MEKA	5.26	299	iPd	27 59.40	4.4X	
KLB	5.57	244	eP	27 59.00	-0.4	
BAL	6.16	256	eP	28 07.00	-0.7	
			eS	29 13.00		
NWAO	6.58	235	eP	28 11.50	-2.1	
MRWA	6.69	269	eP	28 16.50	1.3	
MUN	6.94	246	eP	28 17.00	-1.7	
			eS	29 30.00		
RKG	7.39	228	eP	28 30.00	5.1X	
	0.3s		18.00nm		5.8mb X	
			eS	29 50.00		
MBL	8.82	336	eP	28 45.00	0.2	
	0.2s		50.00nm		6.6mb X	
			eS	30 21.00		
NANU	9.93	311	eP	29 01.00	0.9	
	0.3s		19.00nm		6.1mb X	
			eS	30 47.00		
ASPA	10.76	61	iPd	29 10.90	-0.7	
	0.8s		231.00nm		6.6mb X	
			eS	31 04.50		
PNA	12.78	106	eP	29 38.60	-0.3	
			eS	31 46.20		
			e	32 04.00		
WRA	13.46	49	Pc	29 47.40	-0.6	
	0.2s		3.20nm		5.0mb X	
WB5	13.52	48	iPc	29 48.10	-0.7	
			eS	32 12.00		
KNA	14.29	20	eP	29 59.00	0.1	
	0.3s		11.00nm		5.1mb X	
			iS	32 32.80		
STK	15.66	104	eP	30 14.00	-2.7	
			eS	32 58.00		
WKA	15.69	121	P	30 13.40	-3.6X	
OIS	16.87	63	iPc	30 30.90	-1.4	
			e	30 36.00		
			e	30 42.00		
			eS	33 25.00		
MTN	17.79	25	eP	30 47.00	3.2X	
			eS	33 55.00		
CMS	19.25	102	eP	31 02.00	0.4	
			eS	34 23.00		
TOO	19.97	120	eP	31 10.00	0.3	
			e	35 10.00		
BWA	21.62	110	eP	31 30.30	3.6X	
			eS	35 41.80		
CAN	22.21	112	eP	31 35.00	2.4	
			e	36 05.00		
RMQ	22.35	89	eP	31 37.00	3.0X	
			e	31 42.00		
			eS	35 42.00		
CTA	22.46	71	iPc	31 37.60	2.5	
	0.8s		4.10nm		4.0mb	
			i	31 43.00		
			e	34 39.00		
			i	38 44.00		
			e	38 57.30		

S.D. = 1.5 on 20 of 27 obs.

? MAR 03, 1989 14h 09m 02.57± 0.91s
29.068 S ±14.3km 123.742 E ± 9.0km
DEPTH = 10.0km (geophysicist)
WESTERN AUSTRALIA (590)

COOL	2.89	231	eP	09 49.00	-0.5	
			e	09 54.10		
WARB	3.86	43	eP	10 03.00	-0.3	
			eS	10 52.00		
FORR	4.18	116	eP	10 08.00	0.3	
			eS	10 53.00		
MEKA	5.22	297	eP	10 29.40	6.8X	
MRWA	6.78	267	eP	10 45.00	0.5	
			eS	11 57.50		

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

% MAR 03, 1989 16h 20m 12.80± 0.97s
60.643 N ± 6.6km 6.265 E ±14.2km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.6 (BER).

HYA	0.53	356	iP	20 23.10	-0.3	
			eS	20 31.40		
ODD1	0.76	166	iP	20 26.50	-1.1	
			eS	20 37.10		
BLS1	1.29	167	eP	20 36.80	0.1	
			eS	20 53.40		
KMY	1.52	200	eP	20 40.90	0.8	
			eS	20 57.50		
			eSg	21 01.20		
NRA0	2.60	86	eP	20 56.10	0.6	
			iPg	20 58.70		
			iS	21 32.90		

S.D. = 1.1 on 5 of 5 obs.

& MAR 03, 1989 16h 43m 14.30s
33.370 N 116.250 W
DEPTH = 11.0km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 3.3 (PAS).

PLM	0.51	268	iPc	43 24.00	-0.8	
HAY	0.61	56	iPc	43 25.70	-0.9	
IKP	0.73	171	iPd	43 27.60	-1.0	
TPC	0.75	13	iPd	43 28.20	-0.8	
BAR	0.77	207	iPc	43 28.40	-0.9	
CPE	0.86	236	iPc	43 29.50	-1.3	
PEC	0.92	305	iPc	43 31.00	-0.8	
GLA	1.23	104	eP	43 34.70	-2.5	
NOP	2.75	2	eP	44 04.00	4.8	
PANV	3.10	347	eP	44 04.20	0.0	
TNP	4.77	351	eP	44 31.00	3.0	
KVN	5.86	346	eP	44 44.00	0.6	

12 obs. associated

& MAR 03, 1989 16h 46m 16.50s
35.270 N 118.590 W
DEPTH = 6.0km (geophysicist)
CENTRAL CALIFORNIA (39)
<PAS-P>. ML 3.8 (PAS), 3.7 (BRK). Felt (IV) at Bakersfield, Coliente and Keene; (III) at Bodfish, Lake Isabella and Tehachapi.

ISA	0.40	14	iPc	46 24.20	-0.4	
ABL	0.67	231	iPc	46 28.60	-1.3	
SBB	0.86	133	iPd	46 32.20	-1.2	
CLC	0.98	56	iPc	46 34.30	-1.2	
MWC	1.13	157	iPd	46 37.10	-1.1	
PAS	1.17	163	iPd	46 37.80	-0.9	
BCH	1.23	266	iPc	46 37.90	-1.9	
GSC	1.46	88	iPc	46 42.00	-1.5	
PKEM	1.47	303	eP	46 42.40	-1.1	
QSM	1.57	63	eP	46 43.30	-1.6	
PHAM	1.58	291	eP	46 43.00	-2.1	
BLP	1.65	245	eP	46 44.10	-2.0	
PANV	1.65	47	iPc	46 44.10	-2.3	
PEC	1.81	139	eP	46 46.60	-1.9	
PRI	1.90	298	iPc	46 48.20	-1.7	
			i	47 11.20		
			iS	47 13.60		
FRI	1.94	333	iPc	46 49.30	-1.0	
			eS	47 14.40		
LLA	2.33	306	iPc	46 54.50	-1.6	
PLM	2.39	143	eP	46 55.20	-1.8	
PRS	2.50	296	ePc	46 55.50	-2.8	
			e	46 55.80		
SAO	2.75	304	iPd	47 00.60	-1.4	
TNP	3.02	21	eP	47 04.30	-1.6	
CMB	3.11	333	iPc	47 07.70	0.6	
			iS	47 49.10		
ARN	3.15	312	eP	47 06.00	-1.7	
MHC	3.22	311	ePc	47 05.20	-3.5	
GCC	3.27	303	eP	47 08.00	-1.3	
KVN	3.79	6	eP	47 15.00	-2.0	
BRK	3.93	312	iPc	47 17.00	-1.7	

27 obs. associated

MAR 03, 1989 17h 24m 26.80± 0.57s
37.155 N ± 5.2km 27.970 E ± 5.7km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 3.7 (ATH).

YER	0.25	95	iPg	24 30.70	-1.5	
IZM	1.36	336	iPn	24 52.70	0.9	
ELL	1.61	104	iPn	24 56.10	0.7	
KSL	1.66	128	ePb	24 56.50	0.5	
KHL	1.70	46	iPn	24 56.70	0.0	
KAP	1.72	202	ePb	24 55.50	-1.5	
8CK	2.11	81	ePn	25 03.70	1.0	
PRK	2.48	328	ePn	25 16.50	8.7X	
DST	2.50	12	ePn	25 08.20	0.0	
ALT	2.54	41	ePn	25 08.00	-0.8	
NPS	2.68	226	ePn	25 11.50	0.7	
EZN	2.96	335	ePn	25 16.00	1.3	
KCT	3.10	5	iPn	25 15.40	-1.3	
EDC	3.19	359	ePn	25 17.50	-0.4	
BNT	3.20	359	iPn	25 16.90	-1.1	
YLV	3.58	17	iPn	25 34.90	11.4X	
BBTK	4.62	53	eP	25 39.50	1.1	
IKL	4.68	100	iPn	25 39.50	0.3	

S.D. = 1.1 on 16 of 18 obs.

% MAR 03, 1989 17h 51m 36.73± 0.70s
40.324 N ± 8.4km 28.410 E ± 5.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

KCT	0.09	209	iPg	51 39.40	0.1	
BNT	0.38	275	iPg	51 44.40	-0.1	
			iSg	51 50.40		
EDC	0.42	273	iPg	51 45.20	-0.1	
			eSg	51 51.00		
YLV	0.77	71	iPg	51 51.90	0.0	
CTT	0.82	1	ePg	51 52.80	0.2	
HRT	1.08	62	ePg	51 56.90	-0.2	

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

MAR 03, 1989 18h 44m 40.40± 1.03s
43.412 N ± 6.8km 5.422 E ± 7.9km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
MD 3.0 (STR).

GELF	0.03	172	Pg	44 41.98	-0.5	
TREF	0.21	353	Pg	44 44.61	-0.4	
PUYF	0.24	59	Pg	44 44.60	-0.9	
PRAF	0.43	335	Pg	44 49.57	0.3	
VILF	0.49	26	Pg	44 49.65	-0.7	
TAVF	0.51	66	Pg	44 49.93	-0.7	

03d 18h

GANF	0.68	31	Pg	44 53.78	-0.2
TOUF	1.45	65	Pn	45 07.26	0.4
			Sg	45 26.44	
AUTN	1.57	67	Pn	45 09.23	0.7
			Sg	45 30.21	
SAOF	1.65	69	Pn	45 09.23	-0.3
DOI	1.71	50	P	45 12.80	2.3
			eSg	45 36.00	
BNI	1.87	28	P	45 15.80	2.9X
			eSg	45 40.80	
CKI	2.30	63	P	45 22.00	3.0X
			eSg	45 52.00	

S.D. = 1.0 on 11 of 13 obs.

? MAR 03, 1989 19h 07m 00.41± 1.32s
5.745 S ±32.1km 125.447 E ±25.6km
DEPTH = 196.7 ± 58.2 km
4.1mb (2 obs.)
BANDA SEA (280)

AAI	3.42	53	eP	07 55.10	-0.3
			eS	11 30.00	
PCI	7.38	310	ePd	08 46.80	0.3
MTN	9.01	142	eP	09 07.00	-0.8
WB5	16.51	149	eP	10 43.50	1.0
			eS	13 40.00	
WRA	16.55	149	Pd	10 44.10	1.1
	0.7s		1.80nm		3.6mb
ASPA	19.59	156	iPc	11 24.40	8.8X
	1.1s		19.00nm		4.5mb
WARB	20.36	177	eP	11 22.00	-1.3

S.D. = 1.5 on 6 of 7 obs.

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* MAR 03, 1989 19h 38m 03.82± 0.90s
0.236 S ±18.0km 122.921 E ± 9.8km
DEPTH = 100.6 ± 17.2 km
3.6mb (1 obs.)
MINAHASSA PENINSULA (265)

MNI	2.54	49	eP	38 44.00	-0.2
PCI	3.15	258	iPd	38 52.50	0.0
			iS	39 27.50	
AAI	6.29	123	ePd	39 36.00	0.4
WB5	22.51	151	eP	42 55.80	-0.2
WRA	22.55	151	Pd	42 56.20	-0.2
	0.6s		1.90nm		3.6mb
ASPA	25.61	156	eP	43 24.80	-0.8
QIS	25.96	142	eP	43 28.00	-0.8
BWA	41.55	148	eP	45 44.10	1.0
CAN	42.54	148	eP	45 51.90	0.8

S.D. = 0.8 on 9 of 9 obs.

? MAR 03, 1989 20h 52m 43.58± 9.59s
17.858 N ±41.7km 68.363 W ±72.2km
DEPTH = 10.0km (geophysicist)
MONA PASSAGE (89)

MGP	1.22	83	iP	53 06.20	-0.1
MCP	1.31	65	iP	53 08.00	0.1
SJG	2.12	83	iP	53 20.00	0.4
CSB	2.14	78	iP	53 19.50	-0.4
LPR	2.41	79	iP	53 23.60	-0.2

S.D. = 0.4 on 5 of 5 obs.

& MAR 03, 1989 21h 20m 53.60s
37.832 N 122.595 W
DEPTH = 7.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 2.6 (BRK).
Mo=8.8*10**12 Nm (BRK).

BRK	0.27	81	iPc	20 59.50	0.4
			iS	21 02.80	
BKS	0.29	81	eP	20 59.50	0.0
			iS	21 03.90	
ZSP	0.29	67	eP	21 00.20	0.7
			iS	21 05.50	
PCC	0.37	153	iPd	21 00.70	-0.4
			iS	21 06.20	
MHC	0.90	123	iPd	21 10.37	-0.9
			iS	21 23.50	
GCC	0.93	149	eP	21 10.50	-1.1
			eS	21 24.50	
SAO	1.41	139	eP	21 16.60	-3.0
CMB	1.76	83	iPc	21 24.10	-0.6
			iS	21 46.20	
KVN	3.73	70	eP	21 58.00	4.9
TNP	4.26	85	eP	22 00.00	-0.5

10 obs. associated

% MAR 03, 1989 22h 03m 07.83± 1.36s
15.378 N ± 7.6km 60.883 W ±20.5km
DEPTH = 33.0km (normal)
LEEWARD ISLANDS (92)
ML 2.5 (FDF).

BBL	0.59	284	eP	03 21.00	1.2
MGG	0.68	322	eP	03 24.00	3.0X
			S	03 39.00	
FDF	0.69	202	iPd	03 21.65	0.5
			S	03 38.60	
MVM	0.82	181	eP	03 23.06	0.1
BIM	0.88	192	iPd	03 22.99	-0.8
			S	03 40.70	
DEG	0.95	350	eP	03 26.00	1.2
			S	03 44.00	
PAG	1.00	310	eP	03 24.50	-1.2
SEG	1.18	330	eP	03 27.00	-1.1

S.D. = 1.3 on 7 of 8 obs.

? MAR 03, 1989 22h 14m 52.41± 2.15s
17.108 S ±37.9km 167.385 E ±15.2km
DEPTH = 33.0km (normal)
4.3mb (3 obs.)
VANUATU ISLANDS (186)

PVC	1.09	126	iP	15 11.00	-0.3
			iS	15 24.00	
CTA	20.24	258	iPd	19 28.80	1.0
	0.6s		7.33nm		4.2mb
BWA	24.20	221	eP	20 05.60	-1.5
CAN	24.44	219	eP	20 10.50	1.1
WB5	31.41	260	eP	21 12.80	-0.1
WRA	31.43	260	Pc	21 12.50	-0.6
	0.7s		1.70nm		4.0mb
ASPA	32.00	253	iPc	21 17.50	-0.6
SPA	73.00	180	e(P)	26 21.70	1.0
	0.8s		10.83nm		4.9mb
BNG	146.97	251	iPKPd	34 36.60	4.4X
	0.8s		7.00nm		

S.D. = 1.1 on 8 of 9 obs.

MAR 03, 1989 22h 29m 49.00± 0.34s
43.716 N ± 2.8km 13.363 E ± 3.9km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)
MD 2.9 (TRI). ML 2.7 (KBA).

AOI	0.24	134	iPgc	29 54.01	-0.1
			iSg	29 59.70	
ARV	0.38	235	Pd	29 56.60	-0.1
			eSg	30 02.60	
SSO	0.43	174	e(Pg)	29 57.64	0.0
			iSg	30 06.61	
CIO	0.54	197	iPgd	29 59.45	-0.6
			iSg	30 10.49	
RSM	0.69	288	Pc	30 03.20	0.5
			eSg	30 13.00	
ASS	0.82	219	Pc	30 04.80	-0.2
			eSg	30 17.50	
ALP	0.95	170	ePg	30 06.67	-0.5
			iSg	30 23.56	
CRE	1.03	266	P	30 08.60	0.1
SFI	1.11	281	P	30 10.70	0.9
			eSg	30 25.60	
PGD	1.20	278	P	30 11.90	0.4
			eSg	30 28.50	
MNS	1.42	201	P	30 15.50	0.6
			eSg	30 33.90	
FIR	1.53	273	eP	30 43.00	26.7X
TRI	2.01	8	ePg	30 22.60	-0.8
			iSg	30 44.00	
SDI	2.04	170	P	30 24.60	0.8
PII	2.06	271	P	30 23.00	-1.0
CEY	2.16	20	e(Pn)	30 25.00	-0.5
			eSn	30 52.50	
VBY	2.24	36	e(Pn)	30 28.10	1.4
			iSn	30 56.10	
			e	31 07.30	
VOY	2.35	9	ePn	30 27.00	-1.3
			ePg	30 31.20	
			eSn	30 57.60	
LJU	2.47	19	ePn	30 30.90	1.0
			eSn	31 00.20	
CTI	2.63	333	P	30 31.60	-0.7
			eSn	31 02.00	
RBL	2.73	3	P	30 33.50	-0.2
FVI	2.91	352	Pc	30 35.30	-0.8
KBA	3.36	360	ePn	30 44.00	1.2
			e	30 49.00	

S.D. = 0.8 on 22 of 23 obs.

% MAR 03, 1989 23h 00m 42.79± 0.80s
41.012 N ± 9.5km 27.121 E ± 7.0km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

EDC	0.87	139	iPg	01 00.00	0.4
			eSg	01 06.00	
BNT	0.89	137	iPg	00 59.80	-0.1
			iSg	01 06.30	
DMK	0.94	30	ePn	01 09.80	9.1X
CTT	1.00	82	iPg	01 02.10	0.4
KCT	1.21	129	iPg	01 05.30	0.0
ISK	1.47	87	ePn	01 09.30	0.0
YLV	1.77	104	iPn	01 12.80	-0.9
DST	1.82	140	iPn	01 17.20	2.8X
RZN	1.93	291	ePn	01 16.20	0.0
HRT	1.94	95	ePn	01 16.30	0.1

S.D. = 0.5 on 8 of 10 obs.

% MAR 03, 1989 23h 13m 53.93± 0.81s
37.245 N ± 9.2km 28.707 E ± 6.4km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YER	0.36	252	iPg	14 01.00	-0.3
			eSg	14 08.00	
ELL	1.08	117	iPn	14 14.70	0.3
KHL	1.26	31	iPn	14 16.30	-1.0
BCK	1.51	81	ePn	14 20.70	-0.5
IZM	1.62	316	ePn	14 23.00	0.3
ALT	2.12	31	ePn	14 31.00	1.1

S.D. = 0.9 on 6 of 6 obs.

% MAR 03, 1989 23h 25m 29.40± 0.84s
37.329 N ± 9.6km 28.758 E ± 6.9km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YER	0.43	243	iPg	25 37.50	-0.6
			eSg	25 42.50	
ELL	1.09	122	iPn	25 50.20	0.3
KHL	1.16	31	iPn	25 50.30	-0.9
BCK	1.46	84	ePn	25 56.20	0.3
IZM	1.59	312	ePn	25 58.70	1.0
ALT	2.03	31	ePn	26 10.00	5.9X

S.D. = 1.1 on 5 of 6 obs.

? MAR 04, 1989 00h 44m 37.46± 3.08s
5.730 S ±30.8km 134.078 E ±15.2km
DEPTH = 10.0km (geophysicist)
4.0mb (2 obs.)
AROE ISLANDS REGION (204)

MTN	7.65	202	iPc	46 33.30	1.7
			eS	48 02.00	
KNA	11.24	207	iPd	47 20.40	-0.8
	0.3s		43.00nm		6.3mb X
			iS	49 24.40	
PMG	13.47	107	e(P)	47 50.00	-1.2
WB5	14.07	179	eP	47 58.10	-1.0
			e	48 04.20	
			eS	50 40.80	
WRA	14.13	179	Pc	47 58.40	-1.5
	0.2s		0.50nm		3.9mb
QIS	15.69	160	eP	48 20.00	-0.3
			eS	51 11.00	
ASPA	17.83	181	iPd	48 47.60	0.1
			eS	52 07.40	
CTA	18.54	141	iPc	48 58.60	2.4
	0.6s		6.67nm		4.0mb
			epP	49 11.00	
			i(sP)	49 43.00	
			eS	53 29.00	
			e	53 39.30	
			eSS	54 32.00	
			eSSS	54 42.00	
MBL	20.64	221	eP	49 20.00	0.1
RMQ	24.95	147	eP	50 03.00	0.5
			e	50 26.00	

S.D. = 1.4 on 10 of 10 obs.

? MAR 04, 1989 00h 46m 49.37± 5.89s
15.159 N ±31.5km 61.064 W ±42.9km
DEPTH = 10.0km (geophysicist)
LEEWARD ISLANDS (92)
ML 2.4 (FDF).

DTMT	0.29	285	eP	46 55.70	0.3
			eS	47 01.39	
DSC	0.30	280	eP	46 55.59	0.1
			eS	46 59.67	
DSVT	0.30	283	eP	46 55.67	0.0
			eS	47 01.41	
DPMT	0.33	288	eP	46 55.73	-0.4
			eS	47 01.66	
FDF	0.43	191	iPd	46 58.08	-0.1
			S	47 03.90	
BIM	0.64	181	iPd	47 02.27	0.1
			S	47 11.10	

S.D. = 0.3 on 6 of 6 obs.

• MAR 04, 1989 01h 38m 04.92± 1.05s
5.095 S ±10.9km 144.774 E ± 8.9km
DEPTH = 118.3 ± 11.7 km
4.5mb (7 obs.)
PAPUA NEW GUINEA (202)

MNDI	1.53	226	eP	38 33.50	0.3
LAT	2.70	125	e(P)	38 48.50	0.6
PMG	4.89	151	eP	39 16.50	-1.0
			eS	39 31.00	
MTN	15.51	239	eP	41 38.00	-0.5
			e	44 06.00	
WB5	17.85	214	eP	42 08.00	0.6
WRA	17.92	214	Pd	42 07.00	-1.2
	0.7s		9.40nm	4.2mb	
KNA	18.95	235	eP	42 19.40	-0.2
ASPA	21.23	209	iPd	42 44.40	1.5
			i	42 46.90	
			e	42 49.40	
RMQ	21.61	170	iPc	42 51.50	4.8X
WARB	27.21	218	eP	43 30.80	-8.8X
PSI	46.45	279	eP	46 23.00	1.0
CHTO	51.01	299	eP	46 57.00	-0.1
	1.0s		2.50nm	4.1mb	
GUN	65.52	304	P	48 38.40	-0.1
	0.5s		8.00nm	4.9mb	
KKN	65.98	303	P	48 41.20	0.0
	0.6s		6.00nm	4.7mb	
DMN	66.06	303	P	48 41.70	-0.1
	0.5s		6.00nm	4.8mb	
GKN	66.59	303	P	48 44.70	-0.3
	0.6s		5.00nm	4.6mb	
GBA	69.36	287	Pc	49 01.70	-0.5
	0.6s		3.20nm	4.3mb	
KIC	149.64	274	PKPc	57 44.30	6.0X
	0.5s		8.00nm		
TIC	149.92	274	PKP	57 45.30	6.6X
	0.6s		16.00nm		
LIC	149.93	274	PKPc	57 45.50	6.8X

S.D. = 0.8 on 15 of 20 obs.

& MAR 04, 1989 01h 44m 49.70s
37.335 N 121.740 W
DEPTH = 4.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 2.8 (BRK).

MHC	0.08	85	iPc	44 51.50	-0.1
GCC	0.37	214	iPd	44 57.40	0.3
			iS	45 04.30	
PCC	0.54	288	iPd	45 00.10	-0.3
			iS	45 08.40	
SAO	0.62	157	iPd	45 02.00	0.0
BKS	0.67	324	eP	45 02.50	-0.6
BRK	0.68	323	eP	45 03.10	-0.1
			iS	45 13.70	
ZSP	0.73	326	iPc	45 03.90	-0.5
			iS	45 16.20	
LLA	0.96	138	iPd	45 07.00	-1.5
PRS	1.04	163	iPc	45 09.00	-1.0
			iS	45 23.00	
CMB	1.28	57	iPc	45 12.50	-1.6
KVN	3.34	58	eP	45 44.70	0.7

11 obs. associated

• MAR 04, 1989 02h 41m 32.09± 0.84s
38.212 N ± 8.5km 22.031 E ± 8.8km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 3.0 (ATH).

ITM	1.03	185	eP	41 52.30	0.7
VLS	1.14	269	eP	41 52.60	-0.8
ATH	1.35	100	eP	41 56.40	-0.5
			eS	42 13.40	
NEO	1.44	40	eP	41 57.70	-0.5
KZN	2.10	355	eP	42 08.90	1.1

S.D. = 1.2 on 5 of 5 obs.

MAR 04, 1989 03h 15m 23.73± 0.42s
44.873 N ± 3.8km 17.340 E ± 3.0km
DEPTH = 12.8 ± 3.1 km
YUGOSLAVIA (383)
ML 4.0 (ZAG), 3.8 (KBA), 3.7 (VKA).

ZAG	1.34	315	iPgc	15 50.00	1.9
			iSg	16 07.80	
PTJ	1.42	317	ePg	15 49.00	-0.2
			eSg	16 06.70	
VBY	1.60	294	iPn	15 52.80	1.0
			iSn	16 14.90	
UZD	1.93	26	ePn	16 02.10	5.6X
PLE	2.14	135	ePn	16 04.00	4.3X
			eSn	16 29.20	
BRY	2.16	156	ePn	16 04.20	4.2X
			eSn	16 30.00	
CEY	2.23	294	e(Pn)	16 04.00	3.0X
			eSn	16 32.90	
LJU	2.30	302	ePn	16 06.00	4.1X
			eSn	16 35.90	
NKY	2.38	149	ePn	16 07.20	4.0X
			eSn	16 36.00	
TRI	2.66	290	P	16 07.70	0.7
			eSn	16 40.10	
VOY	2.69	297	ePn	16 08.50	1.0
			ePg	16 12.30	
			eSn	16 40.60	
			eSg	16 49.00	
IVA	2.72	136	ePn	16 14.50	6.4X
			eSn	16 43.50	
TTG	2.81	150	ePn	16 15.00	5.8X
			eSn	16 45.50	
BUD	2.86	24	iPn	16 19.00	9.2X
SOP	2.86	349	iP	16 10.90	1.0
AOI	3.00	245	ePn	16 18.58	6.8X
			iSn	17 00.45	
RBL	3.07	302	Pd	16 15.10	2.2
			eSn	16 49.70	
BZS	3.11	75	ePc	16 13.50	0.1
SSO	3.24	242	e(Pn)	16 22.11	6.9X
SDA	3.26	150	ePn	16 24.50	9.0X
ZST	3.33	357	iPnd	16 16.00	-0.5
			e	16 24.60	
			i	16 36.70	
			e(Sn)	17 07.70	
			i	17 16.10	
ARV	3.45	248	P	16 18.80	0.6
			eSn	16 56.50	
CIO	3.46	242	ePn	16 20.60	2.2
			iSn	17 07.04	
VKA	3.47	349	iPnd	16 18.60	0.2
			iPg	16 30.10	
			i(Sn)	17 00.00	
			i(Sg)	17 19.50	
PSZ	3.52	29	ePn	16 19.40	0.1
KBA	3.55	310	eP	16 23.00	3.1X
			iPgc	16 30.70	
			iSn	17 00.50	
			iSg	17 17.20	
KKS	3.58	140	ePn	16 31.00	11.0X
FVI	3.63	300	P	16 21.20	0.5
ASS	3.83	244	P	16 22.70	-1.0
PHP	3.91	144	ePn	16 27.50	2.8
TIR	3.98	151	ePn	16 38.20	12.5X
SFI	4.05	258	P	16 27.40	0.8
AZI	4.05	226	P	16 26.50	-0.2
CRE	4.07	254	P	16 27.30	0.3
SDI	4.08	220	P	16 26.10	-1.1
PGD	4.15	258	P	16 27.10	-1.2
SKO	4.16	133	iPn	16 28.60	0.3
CTI	4.17	288	P	16 28.00	-0.6
MNS	4.20	235	P	16 28.50	-0.4
OHR	4.54	145	ePn	16 52.00	18.3X
SPC	4.75	24	eP	16 37.80	0.9
VTS	4.83	116	iP	16 38.00	0.1
KBN	4.96	148	ePn	16 47.00	7.4X
KKB	5.15	124	iP	16 43.00	0.6
VAY	5.22	131	ePn	16 43.30	0.0
WET	5.25	326	ePn	16 50.70	6.9X
MMB	5.70	123	eP	16 50.00	-0.2
PVL	5.99	103	eP	16 52.00	-2.2
KSP	6.02	354	eP	16 53.60	-0.9
			e	17 05.20	
			eS	17 47.50	
MLR	6.11	81	eP	17 25.00	29.0X
VAI	6.12	282	P	16 55.20	-0.7
			eSn	18 01.90	
RZN	6.25	118	eP	16 58.00	-0.1
BRG	6.42	340	ePn	17 08.00	7.7X
			e	18 34.00	
			e	18 48.00	
MOX	6.94	328	(Pn)	17 07.00	-0.6
			e	17 38.00	
			e	18 23.00	
SBF	7.17	265	Pn	17 07.20	-3.7X
LPG	7.51	279	Pn	17 15.90	0.1
			Sn	18 29.60	
LPL	7.52	279	Pn	17 16.00	0.1
			Sn	18 29.80	
BNI	7.57	275	P	17 16.20	-0.3
FRF	7.79	264	Pn	17 15.70	-3.8X
BSF	7.87	296	Pn	17 20.10	-0.7
			Sn	18 41.00	
LMR	7.95	263	Pn	17 18.20	-3.4X
HAU	8.21	296	Pn	17 25.40	0.0
			Sn	18 50.00	
BGF	10.28	285	Pn	17 52.80	-1.1

S.D. = 1.0 on 40 of 63 obs.

MAR 04, 1989 03h 59m 37.84± 0.59s
44.129 N ± 4.7km 6.972 E ± 7.2km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.0 (LDG).

STV	0.28	65	P	59 43.76	0.0
			S	59 48.22	
PZZ	0.39	14	P	59 45.49	-0.3
			S	59 51.11	
DOI	0.42	28	Pc	59 46.20	-0.3
			eSg	59 53.20	
SBF	0.43	128	Pg	59 46.90	0.3
			Sg	59 52.00	
FRF	0.61	203	Pg	59 49.10	-1.1
			Sg	59 57.40	
LRG	0.81	214	Pn	59 54.20	0.7
			Sg	00 04.70	
LMR	0.86	203	Pg	59 54.50	0.1
			Sg	00 05.30	
LPL	1.40	353	Pg	00 04.20	0.6

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

• MAR 04, 1989 04h 06m 37.73± 2.62s
45.067 N ±19.4km 15.134 E ± 9.4km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
MD 2.7 (TRI).

VBY	0.45	11	iPgd	06 46.10	-0.7
			iSg	06 52.50	
CEY	0.84	324	eP	06 54.40	0.5
			eSg	07 04.90	
PTJ	1.02	35	ePg	06 57.30	0.3
			eSg	07 10.60	
LJU	1.06	337	ePg	06 58.00	0.2
			eSg	07 12.00	
TRI	1.16	304	ePg	06 58.80	-0.6
			iSg	07 14.60	
VOY	1.30	318	iPgc	07 02.10	0.2
			eSg	07 20.10	
RBL	1.76	322	P	07 08.90	0.4
			eSn	07 33.50	
FVI	2.24	314	P	07 15.20	-0.2
			eSn	07 44.20	
CTI	2.64	293	P	07 21.00	-0.2
			eSn	07 54.00	

S.D. = 0.5 on 9 of 9 obs.

04d 04h

? MAR 04, 1989 04h 10m 03.07± 1.14s
10.617 N ±47.5km 62.435 W ± 8.3km
DEPTH = 33.0km (normal)
NEAR COAST OF VENEZUELA (97)

TCE	0.67	83	eP	10 17.04	0.9
			eS	10 28.23	
TPP	1.01	107	eP	10 21.65	0.7
			eS	10 37.81	
TRN	1.01	88	eP	10 20.60	-0.4
			eS	10 33.91	
TBH	1.35	95	eP	10 24.60	-1.2
			eS	10 44.29	
CUM	1.71	265	iPd	10 31.00	0.0
			iS	10 54.00	

S.D. = 1.2 on 5 of 5 obs.

? MAR 04, 1989 05h 05m 37.95± 0.99s
8.927 N ±18.1km 126.668 E ±26.7km
DEPTH = 33.0km (normal)
4.7mb (4 obs.)
MINDANAO, PHILIPPINE ISLANDS (259)

WB5	29.61	165	eP	11 52.80	10.2X
WARB	34.90	180	iPc	12 28.60	-0.1
FORR	39.57	178	iPc	13 16.30	8.5X
	0.4s		6.00nm		4.7mb
GUN	42.79	302	P	13 35.40	0.5
	0.5s		7.00nm		4.6mb
BWA	47.79	156	eP	14 25.80	11.5X
GBA	48.44	280	P	14 20.00	0.4
	0.8s		4.90nm		4.6mb
KJF	85.91	334	eP	18 15.00	-0.6
			i	18 25.30	
SUF	86.92	333	eP	18 20.00	-0.6
MBC	86.93	13	eP	18 22.00	1.6
SLL	93.44	333	eP	18 49.90	-1.3
	0.4s		1.30nm		4.7mb

S.D. = 1.2 on 7 of 10 obs.

• MAR 04, 1989 05h 13m 37.91± 2.20s
51.609 N ± 7.2km 6.994 E ±28.4km
DEPTH = 10.0km (geophysicist)
GERMANY (543)
MD 2.7 (DOU).

WTS	0.40	344	iPgc	13 46.00	-0.2
	0.8s		37.00nm		
			i	13 47.80	
			i	13 56.30	
ENN	1.08	219	iPg	13 57.50	-0.7
	0.7s		23.00nm		
			iSg	14 16.30	
MEM	1.18	212	P	13 59.20	-0.7
			iS	14 19.30	
WLF	2.02	196	iP	14 12.60	0.3
			iS	14 41.00	
SNF	2.03	238	P	14 12.70	0.2
			e	14 17.90	
DOU	2.15	226	P	14 15.30	1.1
			iS	14 44.60	

S.D. = 0.9 on 6 of 6 obs.

MAR 04, 1989 05h 17m 29.91± 0.29s
36.052 N ± 6.6km 70.174 E ± 4.5km
DEPTH = 141.4km (2 depth phases)
4.6mb (15 obs.)
HINDU KUSH REGION (718)
Felt (III) at Dusti and Shoartuz; (II) at Khorog and Kulyob, USSR.

KSH	5.72	52	iPd	18 55.00	1.1
			S	19 57.00	
MAIO	8.64	275	iPnd	19 33.70	0.5
	0.6s		21.60nm		5.0mb
			eSn	20 54.00	
NDI	9.45	139	iPd	19 44.50	0.6
	0.5s		146.48nm		5.9mb X
			iS	21 22.20	
KHI	9.64	262	e(P)	19 47.00	0.4
GKN	14.65	119	P	20 50.70	-0.8
DMN	15.22	119	P	20 56.80	-2.0
KKN	15.23	118	P	20 56.80	-2.1
PKI	15.45	119	P	21 00.00	-1.8
GUN	15.59	117	P	21 01.60	-1.9
POO	17.75	168	eP	21 44.50	14.8X
			iS	25 10.00	
LSA	18.71	104	P	21 42.50	2.0
HYB	19.99	156	eP	21 58.00	4.5X
			eS	25 26.00	
GBA	23.29	162	Pc	22 27.70	1.9
	0.8s		10.70nm		4.3mb
GTA	23.63	73	Pc	22 30.00	0.8
LZH	27.14	80	eP	23 02.50	0.7
	1.5s		44.00nm		4.9mb
CHG	30.61	116	eP	23 33.60	1.0
CHTO	30.61	116	eP	23 33.20	0.6
	0.6s		2.81nm		4.2mb
BTO	31.40	69	eP	23 40.00	0.6
XAN	31.65	82	P	23 41.70	0.1
GYA	32.47	97	P	23 49.20	0.3
LOE	33.54	115	eP	23 58.80	0.7
TIY	33.64	74	eP	23 59.00	0.1
MLR	34.42	300	eP	24 07.00	1.4
NNT	35.41	124	eP	24 15.50	1.5
WHN	37.09	86	P	24 29.00	1.0
NUR	37.81	325	iP	24 33.50	-0.1
SUF	37.95	329	iP	24 35.00	0.1
	0.7s		4.60nm		4.4mb
KJF	37.96	331	iP	24 35.00	0.1
	0.7s		9.30nm		4.7mb
PSI	42.52	135	ePc	25 13.50	0.6
HFS	43.01	322	eP	25 15.80	-0.6
	0.4s		5.00nm		4.5mb
NAO	44.50	323	P	25 27.20	-1.2
	0.7s		3.20nm		4.1mb
BNG	56.87	249	iPd	27 02.20	0.0
	0.3s		8.00nm		5.1mb
			id	27 34.90	139km
PTZ	62.05	223	iPd	27 38.30	0.6
MBC	67.81	2	eP	28 13.00	-0.9
	0.9s		13.00nm		4.8mb
			pP	28 48.00	144km
KIC	74.09	266	Pc	28 51.80	-0.6
	0.6s		12.00nm		4.8mb
TIC	74.15	267	Pc	28 52.10	-0.7
LIC	74.40	266	Pc	28 53.70	-0.5
INK	74.45	9	ePd	28 53.20	-0.4
FBA	75.08	16	eP	28 57.30	0.0
	0.8s		7.24nm		4.5mb
FRB	75.29	342	eP	28 58.00	-0.5
WB5	82.30	121	eP	29 36.70	-0.3
WRA	82.33	121	Pc	29 36.20	-0.9
	0.7s		3.20nm		4.2mb
ASPA	84.55	124	iPd	29 48.20	-0.1
	0.7s		8.00nm		4.7mb
FFC	89.34	355	eP	30 10.00	-1.1
	1.0s		8.00nm		4.7mb

S.D. = 1.0 on 42 of 44 obs.

? MAR 04, 1989 05h 30m 20.56±11.46s
15.925 N ±20.1km 60.529 W ±94.8km
DEPTH = 33.0km (normal)
LEEWARD ISLANDS (92)
ML 2.4 (FDF).

DEG	0.64	307	ePc	30 33.07	-0.1
			S	30 37.50	
MGG	0.76	270	ePc	30 34.59	-0.2
			S	30 39.10	
BBL	1.00	247	ePc	30 38.33	0.1
			S	30 47.30	
SEG	1.05	297	eP	30 39.20	0.2
PAG	1.11	276	eP	30 40.00	0.1
			S	30 51.20	

S.D. = 0.2 on 5 of 5 obs.

& MAR 04, 1989 05h 34m 16.40s
32.970 N 116.240 W
DEPTH = 10.0km
CALIFORNIA-MEXICO BORDER REGION (45)
<PAS-P>. ML 3.2 (PAS).

IKP	0.34	161	iPd	34 22.90	-0.5
BAR	0.46	232	iPc	34 24.90	-1.0
PLM	0.65	306	ePc	34 28.80	-0.7
CPE	0.73	263	iPc	34 29.50	-1.2
GLA	1.19	86	iPc	34 36.70	-1.9
PEC	1.20	320	iP	34 37.70	-1.1
	6 obs. associated				

• MAR 04, 1989 05h 38m 21.49± 2.46s
17.636 N ±19.1km 61.571 W ±16.2km
DEPTH = 25.5 ± 7.6 km
LEEWARD ISLANDS (92)
ML 3.8 (FDF).

CPB	0.24	271	eP	38 27.76	0.0
			eS	38 45.05	
ANG	0.54	207	eP	38 32.80	0.5
MGH	1.10	214	ePd	38 41.13	-0.2
			S	38 56.20	
SKI	1.15	255	eP	38 41.32	-0.7
			eS	38 56.12	
SKDB	1.20	259	eP	38 44.42	1.7
SEG	1.23	177	ePd	38 43.32	0.3
			S	39 03.40	
DEG	1.40	160	ePd	38 45.46	-0.2
			S	39 06.30	
PAG	1.60	184	eP	38 48.90	0.4
			S	39 12.60	
MGG	1.73	172	ePd	38 51.11	0.9
			S	39 16.00	

S.D. = 0.9 on 9 of 9 obs.

? MAR 04, 1989 06h 21m 44.63± 1.61s
15.379 S ±93.6km 173.873 W ±52.6km
DEPTH = 33.0km (normal)
4.5mb (6 obs.)
TONGA ISLANDS (173)

AFI	2.50	55	iPc	22 22.60	-1.4
			eS	22 51.00	
			eLR	23 41.00	
WB5	49.38	257	eP	30 32.00	-1.4
WRA	49.40	257	Pc	30 35.00	1.4
	0.8s		2.20nm		4.2mb
ASPA	49.69	252	iPc	30 34.00	-1.7
	0.7s		13.00nm		5.1mb
WARB	56.23	249	eP	31 12.50	-11.9X
KVN	75.10	42	eP	33 25.80	0.3
TNP	75.13	43	eP	33 26.00	0.3
	0.7s		6.67nm		4.7mb
ALQ	81.14	50	eP	33 57.00	-1.7
	0.8s		2.24nm		4.2mb
FBA	82.46	11	eP	34 07.80	3.1X
	0.7s		4.07nm		4.6mb
BW06	82.56	42	eP	34 06.60	0.6
	0.7s		2.63nm		4.4mb
GOL	83.97	46	eP	34 14.00	0.7
SES	85.45	35	eP	34 22.00	1.8
NPA	135.41	229	ePKP	41 05.10	1.2
			e	42 00.80	

S.D. = 1.5 on 11 of 13 obs.

• MAR 04, 1989 07h 01m 35.32± 0.45s
27.503 S ±11.8km 13.413 W ± 6.6km
DEPTH = 10.0km (geophysicist)
5.0mb (15 obs.) 4.6Msz (2 obs.)
SOUTH ATLANTIC RIDGE (410)

ITA	28.78	273	eP	07 35.50	-0.4
ITR	30.09	304	eP	07 46.10	-1.3
VAO	30.62	271	e(P)	07 51.00	-1.0
SOB1	31.68	300	eP	07 59.80	-1.5
BAO	34.14	283	eP	08 14.20	-8.7X
KIC	34.69	15	P	08 27.30	-0.1
BFS	35.65	99	eP	08 41.00	5.3X
	1.0s		70.00nm		5.5mb
KSR	35.95	97	eP	08 36.50	-1.8
	0.6s		17.86nm		5.1mb
			i	08 44.00	
PRY	36.25	99	eP	08 39.00	-1.8
	1.0s		45.00nm		5.3mb
			i	08 46.00	
KMZ	39.15	77	iP	09 06.70	1.4
			i	09 12.90	
PTZ	43.61	82	iPc	09 42.00	0.1
			i	09 48.90	
BNG	44.27	49	iPd	09 47.10	0.1
	1.0s		50.00nm		5.3mb
			id	09 54.00	
			id	10 19.90	
			ic	11 32.50	
LWI	47.53	66	iPc	10 14.90	1.7
CCH	49.46	270	eP	10 30.00	1.7
CNCB	51.30	270	Pc	10 44.50	1.9
LPB	51.51	270	eP	10 44.00	-0.1
Z	21s		0.72um		4.7Msz
			LR	26 40.00	

```
ZOBO    51.63 271 P       10 44.00   -1.2
        0.8s     2.26nm              4.2mb
      Z 22s      0.55um              4.5Msz
                 S       18 12.00
                 LR      26 20.00
ARE     54.55 269 eP      11 08.00    1.5
NAI     54.66  70 iPd     11 24.70   17.5X
AVY     56.37  95 iPc     11 15.20   -4.4X
SPA     62.66 180 e(P)    12 02.40    0.1
        1.0s    10.50nm             5.0mb
LFF     73.24  10 eP      13 07.40   -0.8
        0.8s    16.10nm             5.1mb
LSF     74.64  11 eP      13 16.40    0.0
        1.0s    16.00nm             5.0mb
TCF     74.80  11 eP      13 17.50    0.2
        0.8s     3.20nm             4.4mb
LPG     74.93  15 eP      13 18.50    0.0
        0.8s     6.70nm             4.7mb
SMF     75.43  12 eP      13 20.70   -0.2
        1.2s    17.80nm             5.0mb
AVF     75.48  12 eP      13 21.30    0.1
        1.0s    10.80nm             4.9mb
SSF     75.77  12 eP      13 22.90    0.1
        1.0s     6.00nm             4.6mb
ZST     80.18  20 eP      13 46.90   -0.1
SRO     80.22  21 e(P)    13 47.80    0.5
                e         14 03.70
HFS     90.11  13 eP      14 36.10   -0.2
        1.1s     9.10nm             4.9mb
NAO     90.20  12 P       14 38.00    1.2
        1.3s    20.90nm             5.2mb
INK    126.30 336 ePKP     20 39.00    0.0
      S.D. = 1.1  on  29 of  33 obs.
-------------------------------------------
&  MAR 04, 1989  07h 32m 45.10s
   38.815 N          122.808 W
   DEPTH =   7.0km
 NORTHERN CALIFORNIA                ( 36)
      <BRK>. ML 3.2 (BRK).

NWRM    0.36 190 eP       32 51.30   -1.1
ZSP     0.97 153 iPd      33 02.90   -0.9
                 iS       33 20.40
BRK     1.03 155 iPc      33 04.10   -0.8
                 iS       33 19.30
BKS     1.04 154 eP       33 03.80   -1.2
                 eS       33 19.00
ORV     1.26  54 iPc      33 06.60   -2.1
PCC     1.36 166 iPc      33 08.40   -1.9
LTCM    1.49  21 eP       33 10.00   -2.3
WDC     1.77   7 iPc      33 19.60    3.2
MIN     1.79  31 iPc      33 16.60   -0.1
CMB     2.06 112 iPc      33 19.70   -0.8
FHC     2.18 336 eP       33 23.00    0.7
LBFM    2.63  15 eP       33 32.00    3.2
KVN     3.68  85 eP       33 41.00   -2.8
EUR     5.36  81 iP       34 07.20   -0.5
       14 obs. associated
-------------------------------------------
%  MAR 04, 1989  07h 35m 39.06± 1.69s
   38.624 N ±10.3km   27.061 E ±16.6km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                             (366)

IZM     0.28 145 iPg      35 43.90   -1.0
                 iSg      35 47.40
EZN     1.33 335 ePn      36 04.00    0.4
DST     1.56  51 iPn      36 06.30   -0.7
EDC     1.83  20 ePn      36 12.00    1.2
BNT     1.85  21 iPn      36 10.60   -0.5
KCT     1.91  31 iPn      36 10.60   -1.3
KHL     1.96  98 ePn      36 15.00    2.3
YLV     2.64  42 ePn      36 22.00   -0.5
      S.D. = 1.5  on   8 of   8 obs.
-------------------------------------------
*  MAR 04, 1989  07h 36m 28.23± 0.56s
   27.522 S ±13.9km   13.479 W ± 8.2km
   DEPTH =  10.0km  (geophysicist)
   4.8mb ( 13 obs.)  4.6Msz (  2 obs.)
 SOUTH ATLANTIC RIDGE               (410)

ITA    28.72 273 eP       42 27.40   -0.9
                 e        42 35.00
ITR    30.06 304 eP       42 39.50   -0.4
VAO    30.56 271 e(P)     42 51.00    6.6X
SOB1   31.64 300 eP       42 54.10    0.2
KIC    34.73  15 P        43 19.80   -0.8
KSR    36.00  97 eP       43 26.50   -5.2X
       0.8s    12.50nm             4.8mb
                 i        43 37.00
PRY    36.30  99 eP       43 29.00   -5.2X
KMZ    39.21  77 eP       43 56.00   -2.7
PTZ    43.68  82 eP       44 35.00   -0.3
BNG    44.32  49 iPd      44 40.60    0.2
       0.6s    14.00nm             5.0mb
                 ic       44 46.40
                 ic       45 12.30
LWI    47.59  66 iPc      45 08.00    1.4
CCH    49.40 270 eP       45 21.50    0.8
CNCB   51.24 270 P        45 36.00    0.9
LPB    51.45 270 eP       45 37.00    0.5
     Z 21s      0.72um              4.7Msz
                 i        45 43.20
                 LR       01 30.00
ZOBO   51.57 271 P        45 35.20   -2.4
       1.1s     5.80nm             4.4mb
     Z 21s      0.58um              4.6Msz
                 S        53 04.00
                 LR       01 20.00
ARE    54.49 269 eP       46 03.00    4.0X
SPA    62.64 180 e(P)     46 55.80    0.8
       1.0s    13.50nm             5.1mb
                 e        47 22.90
MAF    74.82  11 eP       48 10.70    0.3
       1.2s    17.80nm             5.0mb
TCF    74.83  11 eP       48 09.70   -0.7
       0.8s     3.20nm             4.4mb
LPG    74.97  15 eP       48 12.10    0.5
       1.0s    12.00nm             4.9mb
SMF    75.47  12 eP       48 14.30    0.3
       1.0s     8.00nm             4.7mb
AVF    75.51  12 eP       48 14.70    0.4
       1.0s    10.00nm             4.8mb
LBF    75.82  12 eP       48 15.90   -0.2
       0.8s     4.50nm             4.6mb
LOR    76.07  12 eP       48 17.20   -0.3
       0.8s     3.20nm             4.5mb
HFS    90.14  13 eP       49 30.20    0.8
       1.1s    10.60nm             5.0mb
NAO    90.23  12 P        49 31.30    1.5
       1.1s    12.90nm             5.1mb
NUR    93.08  18 eP       49 43.00    0.1
      S.D. = 1.1  on  23 of  27 obs.
-------------------------------------------
*  MAR 04, 1989  07h 47m 36.74± 1.58s
   42.122 N ±21.9km   143.018 E ±11.9km
   DEPTH =  73.8 ±  9.6 km
   3.9mb (  1 obs.)
 HOKKAIDO, JAPAN REGION             (224)
      Felt (I JMA) at Urokawa.

URA     0.18 282 eP       47 47.00   -0.4
                 S        47 56.30
HOOJ    0.33  37 iP+      47 48.50   -0.1
                 eS       47 55.30
MRRJ    1.48 282 P        48 02.40    0.5
                 S        48 20.00
KUSJ    1.58  51 P        48 03.80    0.5
                 S        48 22.50
ASAJ    2.01 352 P        48 09.00   -0.2
                 eS       48 35.10
HFS    69.97 336 eP       58 41.40   -0.3
       0.4s     0.60nm             3.9mb
      S.D. = 0.6  on   6 of   6 obs.
-------------------------------------------
%  MAR 04, 1989  08h 18m 20.77± 0.99s
   38.251 N ± 8.5km   28.022 E ±24.2km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                             (366)

IZM     0.61 284 ePg      18 47.90   14.7X
                 eSg      18 58.90
YER     1.13 169 ePn      18 42.00    0.0
KCT     2.01   7 iPn      18 56.10    0.9
EZN     2.05 320 ePn      18 56.00    0.3
EDC     2.10 357 ePn      18 55.00   -1.4
BNT     2.10 358 iPn      18 56.60    0.1
ELL     2.12 134 iPn      18 37.20  -19.7X
      S.D. = 1.2  on   5 of   7 obs.
-------------------------------------------
?  MAR 04, 1989  09h 38m 34.23± 4.47s
   44.982 N ±14.7km   28.627 E ±41.0km
   DEPTH =  10.0km  (geophysicist)
 ROMANIA                            (358)

CFR     0.39 301 iPc      38 37.50   -4.8X
TLB     0.58 227 iPc      38 46.00    0.1
PPE     1.42 330 eP       38 59.50   -0.6
ISR     1.48 277 iPd      39 00.00   -1.0
CLI     1.83 330 ePd      39 06.50    0.5
MLR     1.96 286 ePd      39 09.00    1.0
      S.D. = 1.2  on   5 of   6 obs.
-------------------------------------------
&  MAR 04, 1989  10h 14m 24.90s
   40.357 N          124.852 W
   DEPTH =   5.0km
 NEAR COAST OF NORTHERN CALIF.      ( 35)
      <BRK>. ML 3.0 (BRK).

FHC     0.80  56 iPc      14 40.20   -0.7
                 e        14 56.80
WDC     1.78  82 ePc      14 54.30   -2.2
                 eS       15 16.50
LTCM    2.09  93 eP       14 59.20   -1.8
LBFM    2.45  65 eP       15 05.00   -1.5
MIN     2.48  89 ePc      15 04.50   -2.3
       5 obs. associated
-------------------------------------------
    MAR 04, 1989  10h 24m 35.44± 0.54s
   40.809 N ± 4.5km   28.167 E ± 5.2km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                             (366)

CTT     0.39  30 iPg      24 43.10   -0.4
BNT     0.49 203 iPg      24 45.00   -0.4
EDC     0.52 207 ePg      24 46.50    0.6
                 eSg      24 55.00
KCT     0.58 165 iPg      24 46.50   -0.7
ISK     0.72  69 ePg      24 49.30   -0.3
                 eSg      25 00.90
YLV     0.95 104 iPg      24 54.00    0.4
DMK     1.06 343 ePn      24 55.50    0.1
HRT     1.14  89 iPn      24 57.10    0.3
DST     1.25 163 ePn      25 01.40    2.6X
EZN     1.72 236 ePn      25 05.40   -0.1
JMB     2.04 325 eP       25 15.00    4.8X
KDZ     2.24 293 eP       25 19.00    5.9X
RZN     2.75 290 iP       25 26.00    5.5X
      S.D. = 0.5  on   9 of  13 obs.
-------------------------------------------
%  MAR 04, 1989  11h 03m 52.56± 0.89s
   39.636 N ± 6.2km   29.394 E ±10.2km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                             (366)

DST     0.59 267 ePg      04 04.00   -0.6
                 eSg      04 14.00
YLV     0.93 359 iPg      04 10.00   -0.4
HRT     1.20  10 ePn      04 14.90   -0.1
KHL     1.31 176 ePn      04 17.00    0.1
EDC     1.37 302 ePn      04 18.50    0.8
ISK     1.45 350 ePn      04 19.00    0.2
      S.D. = 0.6  on   6 of   6 obs.
-------------------------------------------
*  MAR 04, 1989  12h 40m 10.31± 0.54s
   10.684 S ±13.9km   41.143 E ± 9.5km
   DEPTH =  10.0km  (geophysicist)
   4.3mb (  7 obs.)
 NORTHWEST OF MADAGASCAR            (574)

PTZ    10.21 249 iPn      42 39.50   -0.6
                 iSn      44 32.50
LSZ    13.42 249 ePg      43 15.00   -8.6X
                 eSg      43 51.00
KMZ    15.22 258 iP       43 46.00   -1.2
BUL    15.30 231 iPn      43 48.00   -0.2
                 iSn      46 33.70
KSR    20.24 220 eP       44 44.50   -4.3X
BFS    21.06 218 e(P)     45 01.00    3.8X
BNG    27.05 303 ePd      46 03.90    8.9X
       1.0s     5.00nm             4.2mb
                 id       46 19.00
BCAO   27.06 303 eP       45 55.80    0.7
       1.6s     3.94nm             3.9mb
GKN    57.01  47 P        49 57.20   -1.9
GUN    57.85  47 P        50 03.60   -1.6
CHG    64.08  63 eP       50 47.10   -0.2
CHTO   64.08  63 eP       50 46.60   -0.6
       1.1s     7.95nm             4.8mb
                 e        50 54.10
NUR    72.17 352 iP       51 37.20    0.3
SUF    74.10 353 iP       51 48.60    0.5
```

04d 12h

	0.6s	6.10nm			4.8mb
APO	74.22	346 eP	51	48.40	-0.5
	0.4s	0.50nm			3.9mb
NAO	75.21	345 P	51	55.00	0.3
	0.9s	3.30nm			4.4mb
KJF	75.36	354 iP	51	55.60	0.2
WRA	89.38	110 Pd	53	10.00	0.9
	0.7s	1.50nm			4.4mb
WB5	89.41	110 eP	53	09.70	0.4
EUR	144.83	328 iPKP	59	50.70	0.8
	0.3s	7.31nm			
KVN	146.23	330 ePKP	59	54.70	2.5
TNP	146.52	328 ePKP	59	55.90	3.2X
	0.7s	4.44nm			
	S.D. = 1.1	on 17 of 22 obs.			

? MAR 04, 1989 13h 03m 09.89± 0.92s
63.245 N ± 9.4km 150.885 W ±10.7km
DEPTH = 33.0km (normal)
CENTRAL ALASKA (1)

PMR	1.85	153 iP	03	39.60	-0.2
FBA	2.15	38 eP	03	44.40	0.3
TTA	2.35	265 eP	03	47.40	0.3
IMA	3.08	338 eP	03	57.00	-0.4
DWY	5.17	76 P	04	22.80	-4.1X
	S.D. = 0.7	on 4 of 5 obs.			

MAR 04, 1989 14h 45m 43.19± 0.55s
7.007 S ± 6.8km 125.295 E ±10.9km
DEPTH = 528.7 ± 9.6 km
4.5mb (7 obs.)
BANDA SEA (280)

AAI	4.38	41 eP	47	06.50	-0.8
MKS	6.06	287 iPc	47	23.50	1.3
KNA	9.33	159 iPd	47	54.30	-0.7
MBL	15.03	200 eP	48	52.00	-1.2
WB5	15.53	146 iPc	48	58.00	-0.2
		eS	51	36.10	
WRA	15.57	147 P	49	04.00	5.4X
	0.6s	4.90nm			4.3mb
ASPA	18.51	154 iPc	49	28.10	0.8
	0.6s	40.00nm			5.2mb
		eS	52	30.00	
WARB	19.11	176 eP	49	23.00	-10.0X
MEKA	20.53	197 iPd	49	46.40	0.1
FORR	23.87	174 iPd	50	13.50	-3.0X
CTA	24.13	125 iPc	50	14.00	-5.0X
	0.7s	6.85nm			4.3mb
STK	29.05	151 eP	51	02.00	-0.1
BWA	34.63	145 iPc	51	51.80	2.4X
CAN	35.61	146 eP	51	58.90	1.4
CHTO	36.51	315 eP	52	06.00	1.0
	1.0s	3.00nm			3.8mb
WHN	38.78	345 Pd	52	24.50	1.1
NJ2	39.32	351 Pc	52	28.70	0.9
XAN	43.67	340 Pd	53	01.60	-0.9
LZH	47.37	336 eP	53	30.50	-0.6
GUN	51.52	314 Pd	54	01.90	-0.4
PKI	51.66	313 Pd	54	02.70	-0.6
	0.4s	16.00nm			4.8mb
GTA	51.86	335 iPd	54	04.20	-0.1
KKN	51.88	314 Pd	54	04.30	-0.5
	0.5s	16.00nm			4.7mb
DMN	51.90	313 Pd	54	04.60	-0.4
	0.4s	11.00nm			4.6mb
GKN	52.46	313 Pd	54	08.60	-0.3
	S.D. = 0.9	on 20 of 25 obs.			

MAR 04, 1989 15h 08m 02.27± 0.73s
64.654 N ± 7.0km 152.261 W ± 7.2km
DEPTH = 10.0km (geophysicist)
CENTRAL ALASKA (1)
ML 3.5 (PMR).

IMA	1.54	338 iPc	08	30.70	0.8
FBA	1.93	81 iPc	08	35.00	-0.4
TTA	2.40	226 eP	08	41.00	-1.3
PWA	3.20	159 eP	08	54.10	0.5
PMR	3.39	154 iPc	08	56.30	0.1
PMS	3.64	159 iPd	09	00.20	0.4
TOA	3.75	130 iPc	09	02.10	0.6
SVW	3.88	205 eP	09	03.50	0.3
DWY	5.61	90 P	09	26.70	-1.0
	S.D. = 0.9	on 9 of 9 obs.			

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* MAR 04, 1989 17h 38m 28.24± 2.86s
32.545 S ±12.4km 71.620 W ±26.0km
DEPTH = 33.0km (normal)
NEAR COAST OF CENTRAL CHILE (135)

ROCH	0.67	130 iP	38	40.50	-0.9
JACH	0.88	99 iP	38	43.60	-0.7
SAN	1.21	139 iPd	38	48.70	-0.3
		iS	39	04.00	
TACH	1.25	153 iPd	38	49.50	0.1
		iS	39	06.00	
FCH	1.36	125 iPd	38	51.30	-0.2
LNV	1.42	173 iPd	38	51.90	0.0
		iS	39	10.00	
PCH	1.42	139 eP	38	52.00	0.0
		iS	39	11.00	
CHCH	1.60	150 iPd	38	55.70	1.0
		iS	39	16.00	
MDZ	2.36	99 eP	39	09.10	3.5X
		i	39	19.30	
CFA	3.02	73 ePc	39	17.20	2.3
CYA	6.48	52 e(P)	40	02.50	-1.3
	S.D. = 1.2	on 10 of 11 obs.			

MAR 04, 1989 17h 42m 20.41± 0.32s
44.621 N ± 2.6km 7.176 E ± 4.3km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.2 (GEN), 2.2 (LDG).

DOI	0.13	157 P	42	24.00	0.4
		eSg	42	26.00	
PZZ	0.13	205 P	42	23.31	-0.3
		S	42	25.28	
STV	0.39	164 P	42	28.13	-0.3
		S	42	32.89	
RRL	0.41	317 P	42	28.72	-0.1
		S	42	34.35	
RSP	0.53	6 P	42	31.21	0.0
		S	42	39.39	
BNI	0.56	321 P	42	31.40	-0.5
		eSg	42	38.60	
ROB	0.59	123 P	42	32.21	-0.3
		S	42	40.85	
SBF	0.78	166 Pg	42	35.90	0.2
		Sg	42	45.90	
FIN	0.85	119 P	42	36.88	0.1
		S	42	48.21	
IMI	0.88	144 P	42	37.16	-0.1
		S	42	48.65	
LPG	0.93	341 Pg	42	38.60	0.3
		Sg	42	50.40	
LPL	0.95	341 Pg	42	39.00	0.4
		Sg	42	51.40	
FRF	1.13	200 Pg	42	41.40	-0.1
		Sg	42	55.80	
LRG	1.31	207 Pg	42	45.20	0.7
		Sg	43	01.30	
LMR	1.37	201 Pg	42	45.40	-0.2
		Sg	43	03.80	
	S.D. = 0.3	on 15 of 15 obs.			

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* MAR 04, 1989 19h 18m 07.20± 1.09s
45.310 N ±13.3km 25.960 E ± 8.9km
DEPTH = 33.0km (normal)
ROMANIA (358)

MLR	0.18	356 iPc	18	00.00	-13.8X
ISR	0.45	112 eP	18	22.50	5.4X
VRI	0.78	44 iPd	18	23.00	1.3
PPE	1.47	51 ePd	18	32.00	0.3
CLI	1.55	36 iPc	18	31.50	-1.3
CFR	1.55	94 iPc	18	32.00	-0.8
TLB	1.64	115 P	18	34.50	0.4
BZS	3.07	277 eP	18	54.50	0.0
	S.D. = 1.2	on 6 of 8 obs.			

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* MAR 04, 1989 19h 43m 16.23± 0.79s
50.734 N ±10.0km 99.663 E ±14.8km
DEPTH = 10.0km (geophysicist)
4.7mb (6 obs.)
MONGOLIA (334)

LZH	14.95	167 eP	46	50.00	0.7
BJI	15.74	126 (P)	46	58.00	-1.4
		Lg	51	39.00	
GUN	25.08	210 P	48	42.90	0.3
	0.8s	29.00nm			5.0mb
KKN	25.39	211 P	48	45.60	0.3
	0.6s	15.00nm			4.9mb
GKN	25.40	212 P	48	45.50	0.1
	0.6s	11.00nm			4.7mb
PKI	25.55	210 P	48	47.00	0.0
	0.7s	12.00nm			4.7mb
DMN	25.61	211 P	48	47.60	0.1
CHTO	31.85	181 eP	49	43.20	-0.2
	1.0s	1.00nm			3.7mb
KJF	38.70	318 eP	50	43.00	1.6
SUF	39.79	316 iP	50	49.00	-1.5
HFS	46.30	316 eP	51	41.10	-2.2
	0.5s	1.70nm			4.3mb
YKA	63.90	17 eP	53	53.10	2.3
	S.D. = 1.4	on 12 of 12 obs.			

? MAR 04, 1989 19h 57m 58.55± 1.34s
47.295 N ±31.1km 150.998 E ±15.3km
DEPTH = 33.0km (normal)
4.5mb (13 obs.)
KURIL ISLANDS (221)

FBA	36.64	39 iP	05	05.50	2.2
	0.6s	2.00nm			4.2mb
YKA	51.35	36 eP	07	02.00	0.6
GUN	53.52	273 P	07	18.60	0.1
KKN	54.00	273 P	07	22.50	0.6
	0.6s	4.00nm			4.6mb
PKI	54.06	273 P	07	22.20	-0.2
DMN	54.24	273 P	07	24.00	0.3
GKN	54.30	274 P	07	24.10	0.1
	0.6s	6.00nm			4.8mb
LRM	62.01	52 eP	08	16.90	-1.0
BGMT	62.61	52 eP	08	20.70	-1.2
HFS	67.43	338 eP	08	50.10	-2.4
	0.4s	2.20nm			4.6mb
LOR	81.54	338 eP	10	13.50	-0.4
	0.7s	3.30nm			4.5mb
SSF	81.83	338 eP	10	15.10	-0.2
	1.0s	4.00nm			4.4mb
AVF	82.12	338 eP	10	16.70	-0.1
	0.6s	1.80nm			4.3mb
SMF	82.13	338 eP	10	16.90	0.0
	0.6s	1.80nm			4.3mb
LPG	82.40	336 eP	10	19.10	0.4
BGF	82.46	338 eP	10	19.20	0.6
	0.6s	2.10nm			4.4mb
MAF	82.84	339 eP	10	21.00	0.3
	0.6s	5.70nm			4.8mb
TCF	82.87	339 eP	10	20.80	0.0
	0.8s	4.00nm			4.6mb
LSF	83.07	339 eP	10	22.20	0.4
	0.8s	4.50nm			4.6mb
CAF	84.18	338 eP	10	27.50	0.0
	0.8s	3.20nm			4.5mb
	S.D. = 0.9	on 20 of 20 obs.			

& MAR 04, 1989 21h 48m 36.51s
61.823 N 150.034 W
DEPTH = 43.0km
SOUTHERN ALASKA (2)
<AGS-P>. ML 3.6 (PMR). Felt (IV) at Houston and Skwentna; (III) at Anchorage and Palmer.

PWA	0.19	157 iPd	48	44.20	0.2
PLRM	0.49	118 iP	48	46.39	-0.8
PMR	0.49	118 iPc	48	46.40	-0.8
PME	0.52	112 iP	48	46.85	-0.7
GHO	0.53	95 iP	48	47.40	-0.5
PMS	0.62	158 iPd	48	48.50	-0.6
SML	0.81	90 iP	48	50.65	-1.0
KNK	0.86	118 iP	48	51.66	-0.7
CGLM	1.08	242 iP	48	54.60	-0.9
PTE	1.08	153 iP	48	54.44	-0.9
		iS	49	10.26	
CRP	1.16	242 iP	48	55.86	-0.8
		iS	49	11.81	
SPU	1.16	237 iP	48	55.72	-0.9
NKA	1.23	209 iP	48	58.34	0.8
PWL	1.27	139 iP	48	57.35	-0.7
		iS	49	14.71	
SLKM	1.32	184 iP	48	57.96	-0.9
RDT	1.70	224 iP	49	03.57	-0.7
		iS	49	25.15	
GLI	1.70	122 iP	49	02.82	-1.4

		iS	49	24.64	
SEW	1.75	170 eP	49	05.18	0.3
VZW	1.84	113 iP	49	05.31	-0.9
TOA	1.85	79 iPc	49	06.50	0.2
NNL	1.89	200 iP	49	07.66	0.8
VLZ	1.91	110 iP	49	05.92	-1.2
		eS	49	30.55	
KLU	1.99	98 iP	49	07.38	-1.0
FID	2.03	121 iP	49	07.13	-1.7
		eS	49	32.74	
MTU	2.18	147 eP	49	08.88	-2.1
HIN	2.23	128 eP	49	10.19	-1.6
ILIM	2.26	221 iP	49	11.43	-0.8
		iS	49	39.58	
CNPM	2.38	195 eP	49	13.55	-0.4
CVA	2.44	120 eP	49	15.63	0.9
SGAM	2.69	117 eP	49	16.19	-2.1
SVW	2.78	257 iPc	49	17.60	-2.0
PDB	2.88	227 eP	49	19.51	-1.6
RAGM	2.97	117 eP	49	23.62	1.2
GLB	3.00	95 iP	49	21.24	-1.5
TTA	3.00	294 eP	49	20.70	-2.1
FBA	3.25	17 iPd	49	24.50	-1.7
KDC	4.27	198 eP	49	38.00	-2.7
IMA	4.55	341 iPc	49	42.50	-2.4
DWY	5.33	61 P	49	52.00	-3.7
HYT	6.12	94 P	50	04.60	-2.2
INK	9.51	40 eP	50	52.00	-1.7
YKA	16.44	72 eP	52	25.00	-0.3
MBC	17.77	24 eP	52	40.00	-1.8
FRB	34.96	50 eP	55	21.00	-4.8
	44 obs. associated				

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* MAR 04, 1989 22h 25m 46.03± 0.62s
5.816 N ±11.7km 126.220 E ±18.2km
DEPTH = 33.0km (normal)
4.4mb (4 obs.) 4.0Msz (1 obs.)
MINDANAO, PHILIPPINE ISLANDS (259)

MTN	19.17	165 eP	30	11.00	1.2
KNA	21.57	173 iPd	30	36.60	1.6
WB5	26.76	163 eP	31	23.50	-1.4
WRA	26.82	163 Pd	31	24.50	-0.9
	0.3s	1.10nm		4.0mb	
MBL	27.53	193 eP	31	32.00	0.2
QIS	29.32	154 iPc	31	47.10	-1.0
CHG	29.55	298 eP	31	50.80	0.6
CHTO	29.55	298 eP	31	50.40	0.2
	0.6s	0.84nm		3.7mb	
ASPA	30.25	166 iPc	31	55.30	-1.0
	0.6s	10.00nm		4.8mb	
MEKA	33.09	193 eP	32	10.30	-10.8X
BJI	35.25	347 eP	32	40.00	0.4
Z	20s	0.30um		4.0Msz	
N	16s	0.50um			
LZH	36.46	329 eP	32	51.00	0.9
GUN	44.11	305 P	33	53.40	-0.3
	0.5s	13.00nm		5.0mb	
PKI	44.37	304 P	33	55.90	0.1
KKN	44.56	304 P	33	56.60	-0.5
DMN	44.64	304 P	33	57.20	-0.6
GKN	45.17	304 P	34	01.20	-0.7
BWA	45.18	154 iPc	34	02.80	1.0
CAN	46.19	154 eP	34	09.90	0.2
S.D. = 0.9		on 18 of 19 obs.			

MAR 04, 1989 22h 27m 54.22± 0.33s
54.277 N ± 8.2km 169.192 E ± 4.8km
DEPTH = 10.0km (geophysicist)
4.8mb (18 obs.) 4.9Msz (2 obs.)
KOMANDORSKY ISLANDS REGION (4)

SMY	3.32	116 eP	28	47.50	0.4
		eLg	29	49.10	
ADK	8.83	100 eP	30	02.90	-1.9
TTA	19.85	50 eP	32	28.70	0.8
IMA	21.53	42 eP	32	49.00	3.8X
BRW	22.57	28 eP	32	56.70	1.3
FBA	23.72	46 eP	33	07.90	1.2
MDJ	27.17	266 eP	33	38.80	-0.5
N	20s	1.30um			
MAT	27.74	243 eP	33	47.00	2.4
INK	29.57	39 eP	34	09.00	8.2X
CN2	30.07	268 eP	34	04.20	-1.3
SNY	32.36	266 eP	34	25.30	-0.3
MBC	33.79	24 eP	34	38.00	0.3
	0.6s	7.00nm		4.8mb	

YKA	38.53	46 eP	35	19.90	2.0
HHC	40.01	275 eP	35	31.50	0.8
N	13s	0.70um			
E	13s	0.50um			
ALE	40.97	9 eP	35	39.00	1.0
	0.6s	6.00nm		4.5mb	
BTO	41.07	276 eP	35	41.00	1.6
N	14s	1.30um			
E	14s	1.10um			
		eS	41	43.00	
TIY	41.55	270 eP	35	44.00	0.7
N	11s	0.50um			
E	13s	0.60um			
PNT	42.59	66 eP	35	52.00	0.4
EDM	43.63	58 eP	36	04.00	3.9X
WHN	45.50	261 eP	36	14.50	-0.8
WDC	46.35	78 e(P)	36	21.20	-0.7
ORV	47.63	78 e(P)	36	31.70	-0.3
LZH	47.69	275 eP	36	33.00	0.2
	1.5s	66.00nm		5.5mb	
N	15s	1.30um			
GTA	47.76	282 iPc	36	33.40	0.1
E	12s	0.50um			
FFC	48.19	51 eP	36	44.00	7.8X
	1.0s	12.00nm		4.9mb	
CMB	49.30	79 eP	36	45.50	0.5
EUR	50.83	74 iP	36	54.80	-2.1
	0.3s	3.46nm		4.8mb	
WMQ	51.56	294 eP	37	02.20	-0.1
Z	20s	4.10um		5.5Msz	
		eS	44	12.00	
GYA	53.03	265 P	37	13.80	0.3
KEV	53.27	345 eP	37	23.00	8.4X
FRB	54.11	28 eP	37	20.00	-0.7
SOD	55.48	343 eP	37	29.00	-1.8
KMI	56.33	267 Pd	37	37.50	-0.2
KJF	58.16	341 eP	37	50.00	0.1
ALQ	59.39	72 eP	37	59.00	-0.1
	1.0s	3.25nm		4.4mb	
SUF	59.81	341 eP	38	01.00	-0.4
	0.8s	3.00nm		4.5mb	
NUR	62.13	341 eP	38	15.00	-2.1
Z	20s	0.20um		4.3Msz	
		LR	07	00.00	
CHTO	63.42	265 eP	38	21.50	-4.7X
NAO	63.96	348 P	38	28.40	-0.8
	0.6s	3.70nm		4.8mb	
GUN	64.05	282 P	38	29.80	-0.9
	0.7s	22.00nm		5.5mb	
HFS	64.27	347 eP	38	29.80	-1.4
	0.4s	1.90nm		4.6mb	
KKN	64.48	283 P	38	32.60	-0.8
	0.7s	11.00nm		5.2mb	
PKI	64.58	282 P	38	33.00	-1.1
	0.7s	17.00nm		5.3mb	
GKN	64.69	283 P	38	33.80	-0.8
	0.8s	12.00nm		5.1mb	
DMN	64.72	283 P	38	34.20	-0.8
	0.6s	6.00nm		5.0mb	
ZST	75.21	341 eP	39	39.70	1.4
SRO	75.34	340 eP	40	06.50	27.5X
MLR	75.81	334 eP	39	44.00	2.1
HYB	76.43	281 eP	39	46.00	0.4
CTA	76.64	202 iP	39	47.20	0.6
	1.0s	10.00nm		4.9mb	
KBA	76.97	343 eP	39	49.50	1.1
	1.0s	7.00nm		4.7mb	
		e	39	56.00	
		i	40	16.70	
WB5	79.67	213 eP	40	03.80	0.6
WRA	79.74	213 Pd	40	04.40	0.8
	1.2s	6.30nm		4.5mb	
GBA	80.11	279 Pc	40	04.40	-1.3
	0.6s	2.10nm		4.3mb	
SPA	144.09	180 e(PKP)	47	27.10	-3.2X
	1.0s	3.50nm			
S.D. = 1.1		on 47 of 55 obs.			

% MAR 04, 1989 23h 11m 25.88± 0.85s
37.755 N ± 7.0km 29.234 E ± 8.8km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

KHL	0.61	22 iPg	11	37.70	-0.6
		iSg	11	47.70	
YER	0.98	231 ePn	11	44.60	0.1
BCK	1.12	105 ePn	11	47.10	0.2

ELL	1.14	152 ePn	11	47.00	-0.3
ALT	1.47	28 ePn	11	53.00	0.5
S.D. = 0.6		on 5 of 5 obs.			

? MAR 04, 1989 23h 52m 13.71± 1.10s
34.207 N ±17.4km 135.190 E ± 7.1km
DEPTH = 10.0km (geophysicist)
NEAR S. COAST OF SOUTHERN HONSHU(233)
MG 2.5 (JMA). Felt (I JMA) at Wakayama.

WKY	0.03	315 iP+	52	14.80	-0.9
		iS	52	15.80	
WKYJ	0.33	88 P	52	20.20	-0.5
		S	52	25.20	
TKSJ	0.97	257 P	52	31.90	-0.3
		eS	52	44.70	
YONJ	1.73	305 eP	52	44.00	0.0
S.D. = 0.7		on 4 of 4 obs.			

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* MAR 04, 1989 23h 58m 18.32± 1.00s
5.933 S ±10.9km 130.425 E ±17.9km
DEPTH = 33.0km (normal)
4.4mb (2 obs.)
BANDA SEA (280)

MTN	6.90	174 iPc	00	03.40	3.5X
		eS	01	12.00	
KNA	9.89	189 eP	00	41.00	-0.3
0.2s		53.00nm		6.4mb X	
		eS	02	19.00	
WB5	14.38	165 eP	01	40.20	-1.5
		i	01	44.00	
		eS	04	09.50	
WRA	14.44	165 Pd	01	42.00	-0.4
0.2s		2.40nm		4.4mb	
QIS	17.05	149 eP	02	17.00	1.1
		eS	05	10.00	
ASPA	17.95	170 iPd	02	27.90	0.8
0.6s		23.00nm		4.5mb	
		eS	05	28.40	
MBL	18.29	213 eP	02	32.00	0.7
		eS	05	38.00	
WARB	20.46	190 eP	02	46.00	-9.9X
MEKA	23.49	208 eP	03	26.00	-0.1
GUN	54.58	310 P	07	47.60	1.1
PKI	54.76	310 P	07	51.80	4.0X
KKN	54.97	310 P	07	47.80	-1.4
DMN	55.02	310 P	07	49.60	0.0
GKN	55.57	310 P	07	42.60	-10.8X
S.D. = 1.1		on 10 of 14 obs.			

MAR 05, 1989 00h 22m 25.79± 0.28s
43.722 N ± 2.9km 20.480 E ± 2.4km
DEPTH = 11.5 ± 2.3 km
YUGOSLAVIA (383)
MD 4.6 (TRI). Felt at Kraljevo, Trstenik, Vrnjacka Banjo and Bogutavac.

PLE	0.88	244 iPgd	22	42.40	-0.3
		eSg	22	52.00	
IVA	0.95	207 iPgd	22	43.00	-0.8
		eSg	22	54.00	
PVY	1.19	198 iPgd	22	47.00	-0.9
		iSg	23	01.80	
NKY	1.41	231 ePg	22	51.50	0.1
		eSg	23	12.00	
TTG	1.57	215 ePg	22	53.80	0.3
		iSg	23	15.00	
BRY	1.63	241 ePg	22	55.10	0.5
		eSg	23	20.00	
KKS	1.65	182 iPn	22	57.00	2.4
BDV	1.88	221 ePn	22	59.60	1.5
		eSn	23	27.00	
SKO	1.89	158 ePn	22	57.70	-0.4
		i	22	59.90	
HCY	1.93	229 ePn	23	00.30	1.5
		eSn	23	27.20	
ULC	1.98	208 ePn	23	01.60	2.1
		eSn	23	28.00	
BZS	2.06	23 iPc	23	01.50	0.9
TIM	2.08	14 iPd	23	10.20	9.2X
VTS	2.29	119 iPc	23	05.00	0.8
OHR	2.62	175 iPnc	23	09.30	0.6
KKB	2.67	133 iPc	23	10.00	0.6
DEV	2.77	38 iPc	23	17.00	6.3X

05d 00h

VAY	2.85	147	iPn	23 11.60	-0.4
			i	23 19.00	
DRA	2.88	69	ePd	23 23.00	10.7X
PGB	2.94	112	eP	23 14.00	0.7
HVAR	2.99	261	iPn	23 15.40	1.6
			iSn	23 54.60	
UZD	3.17	336	eP	23 17.20	0.8
MMB	3.21	131	iPc	23 17.00	0.0
KZN	3.55	164	ePn	23 24.10	2.2
PVL	3.57	96	iPd	23 21.00	-1.1
RZN	3.72	122	eP	23 24.00	-0.6
CJR1	3.74	34	eP	23 35.80	11.2X
ZAG	3.83	305	ePb	23 36.60	10.8X
			iSn	24 15.80	
PTJ	3.89	306	ePn	23 26.70	0.0
			eSn	24 10.90	
BUD	3.90	345	eP	23 25.80	-1.0
SZH	3.99	95	iP	23 27.00	-1.1
PLG	4.01	146	ePn	23 27.70	-0.7
DIM	4.07	112	eP	23 33.00	3.8X
VBY	4.13	297	ePn	23 31.30	1.2
			ePg	23 44.80	
			iSn	24 16.20	
KDZ	4.19	118	iPd	23 39.00	8.1X
PSZ	4.22	355	iP	23 31.10	-0.3
MLR	4.28	64	ePc	23 33.50	1.1
SRO	4.36	340	iPn	23 33.80	0.4
			i	23 41.90	
			i	23 48.20	
			i(Sn)	24 29.80	
RDO	4.54	123	ePn	23 36.00	0.1
ISR	4.57	70	eP	23 37.50	1.1
CEY	4.76	297	ePn	23 39.90	0.8
			e(Sn)	24 33.50	
SOP	4.82	327	iPc	23 40.00	0.1
LJU	4.82	301	ePn	23 40.50	0.5
			eSn	24 31.00	
VRI	4.94	62	ePd	23 42.50	0.9
AOI	5.00	270	ePn	23 43.17	0.8
			i(Sn)	24 40.08	
ZST	5.06	333	iPn	23 42.80	-0.4
			i	23 48.80	
MGR	5.13	227	P	23 43.20	-1.1
			eSn	24 42.80	
TRI	5.18	295	ePn	23 44.00	-1.0
VOY	5.22	299	ePnc	23 45.40	-0.2
			eSn	24 40.80	
SDI	5.31	250	P	23 47.20	0.3
			eSn	24 46.00	
CIO	5.37	267	ePn	23 47.38	-0.4
			iSn	24 48.40	
VKA	5.39	329	ePn	23 47.00	-1.0
			iSn	24 45.30	
AZI	5.46	254	P	23 49.20	0.3
SPC	5.47	358	e(Pn)	23 49.90	0.6
ARV	5.48	270	P	23 49.00	-0.3
TLB	5.50	78	ePc	23 49.00	-0.5
RBL	5.60	301	Pd	23 51.00	0.0
ASS	5.73	266	P	23 52.50	-0.4
EZN	5.85	130	ePn	23 52.00	-2.4
KBA	6.04	306	iPnd	23 57.30	0.0
			iSn	25 05.50	
FVI	6.15	300	P	23 59.40	0.7
CRE	6.19	272	P	24 00.10	0.8
PGD	6.34	274	P	24 02.00	0.4
KRA	6.35	357	eP	24 08.80	7.4X
EDC	6.45	119	ePn	24 14.00	11.1X
CTI	6.69	293	Pd	24 06.00	-0.4
WET	7.55	319	iPd	24 17.90	-0.4
KSP	7.67	340	eP	24 21.50	1.5
			e	24 26.50	
BRG	8.42	330	e(P)	25 05.00	34.6X
			e	27 08.00	
MOX	9.18	322	eP	24 41.50	0.5
LPG	9.95	285	eP	24 51.20	-0.7
	0.9s		8.10nm		5.2mb X
BSF	10.41	298	eP	24 56.40	-1.6
	0.5s		10.20nm		5.5mb X
HAU	10.74	298	eP	25 01.10	-1.4
	0.6s		12.60nm		5.5mb X
MEM	12.01	310	eP	25 20.20	0.6
LBF	12.06	291	eP	25 19.00	-1.4
	0.6s		2.70nm		4.7mb X
SMF	12.10	290	eP	25 18.70	-2.2
	0.4s		1.70nm		4.7mb X
LOR	12.19	293	eP	25 20.80	-1.3
	0.6s		3.00nm		4.7mb X

DOU	12.58	306	eP	25 28.50	1.2
	S.D. = 1.0		on	68 of 78 obs.	

MAR 05, 1989 00h 40m 30.84± 0.28s
35.952 N ± 2.9km 112.257 W ± 2.4km
DEPTH = 5.0km (geophysicist)
WESTERN ARIZONA (42)
ML 4.0 (NEIS). Felt at Grand Canyon.

WMZ	0.79	184	P	40 48.50	1.6
FLAG	0.93	147	P	40 50.40	1.2
CCU	1.84	339	P	41 04.00	0.5
EMN	2.03	270	iPc	41 06.59	0.5
			eS	41 36.20	
ARUT	2.06	333	P	41 07.33	0.6
SHRG	2.41	284	iPc	41 12.02	0.3
			eS	41 48.71	
MSU	2.56	1	eP	41 14.00	0.1
EPR	2.65	298	iPc	41 15.59	0.4
PRN	2.67	304	ePc	41 15.46	0.0
APKW	2.72	279	iPc	41 16.41	0.1
			eS	41 57.01	
SPRG	2.96	286	ePc	41 19.95	0.4
MCY	3.08	284	eP	41 21.48	0.4
GMR	3.14	297	eP	41 22.01	-0.1
JON	3.15	280	iPc	41 22.85	0.7
NOP	3.16	274	ePc	41 22.59	0.3
			eS	42 11.69	
CPX	3.21	289	eP	41 23.20	0.1
GLR	3.27	293	iPc	41 24.09	0.1
			eS	42 13.54	
LOP	3.28	287	iPc	41 24.56	0.4
LSM	3.34	285	iPc	41 25.32	0.5
SSP	3.34	288	ePc	41 25.29	0.3
SDH	3.37	283	ePc	41 25.90	0.6
			eS	42 12.92	
BGB	3.38	290	iPc	41 25.53	0.0
			eS	42 15.69	
CDH1	3.40	287	iPc	41 26.10	0.3
			eS	42 18.76	
YMT3	3.46	285	iPc	41 26.95	0.4
BLT	3.46	297	ePc	41 26.35	-0.3
			eS	42 18.14	
YMT6	3.47	286	iPc	41 26.99	0.3
TMBR	3.50	289	iPc	41 27.25	0.1
YMT5	3.51	287	iPc	41 27.65	0.3
GLA	3.59	217	eP	41 28.00	-0.3
TPC	3.62	240	eP	41 27.00	-1.7
FMT	3.72	282	eP	41 31.10	0.9
OSM	3.74	272	ePc	41 30.60	0.1
GSC	3.76	261	eP	41 30.00	-0.9
BMTN	3.77	292	iPc	41 30.91	-0.2
PANV	3.94	278	eP	41 34.14	0.6
MCA	4.12	281	eP	41 36.30	0.5
RW1	4.25	56	eP	41 38.00	0.1
DUG	4.26	354	eP	41 37.30	-0.6
RW4	4.32	58	eP	41 39.80	0.9
CLC	4.34	270	eP	41 38.00	-1.0
TNP	4.50	300	eP	41 40.80	-0.7
DAU	4.52	10	eP	41 42.00	0.2
PEC	4.52	244	ePc	41 41.60	0.0
EUR	4.59	321	iP	41 41.90	-0.9
PLM	4.60	237	eP	41 42.00	-0.8
RVR	4.63	247	eP	41 42.00	-1.1
SBB	4.72	256	eP	41 43.00	-1.5
ALQ	4.84	100	ePc	41 45.00	-1.3
BAR	4.90	229	eP	41 47.00	0.0
MWC	5.06	252	eP	41 55.00	5.6X
KVN	5.58	305	eP	41 55.20	-1.6
GOL	6.61	53	ePd	42 10.80	-0.5
GLD	6.73	54	eP	42 12.50	-0.5
BW06	7.13	16	eP	42 15.90	-2.7X
BGMT	9.27	1	eP	42 50.80	2.4X
RSON	20.01	36	eP	45 03.50	-3.6X
	S.D. = 0.7		on	52 of 56 obs.	

% MAR 05, 1989 01h 47m 30.43± 0.78s
18.172 N ± 8.4km 66.771 W ± 5.1km
DEPTH = 10.0km (geophysicist)
PUERTO RICO REGION (90)

APR	0.29	8	iP	47 37.20	0.8
			S	47 42.20	
MGP	0.34	242	iP	47 37.90	0.4
MCP	0.41	307	P	47 38.00	-0.7
SJG	0.59	96	iP	47 42.70	0.2
			S	47 51.50	
CSB	0.60	79	iP	47 42.20	-0.3
			S	47 52.00	
LPR	0.87	81	iP	47 46.80	-0.4
	S.D. = 0.7		on	6 of 6 obs.	

MAR 05, 1989 02h 59m 06.60± 0.87s
44.622 N ± 6.4km 7.020 E ±10.3km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.0 (GEN), 2.0 (LDG).

PZZ	0.13	153	P	59 09.87	0.0
			S	59 12.11	
RRL	0.34	331	P	59 13.74	0.0
			S	59 18.74	
STV	0.44	150	P	59 15.12	-0.4
			S	59 20.68	
SBF	0.82	158	Pg	59 23.00	0.6
			Sg	59 33.10	
FRF	1.09	194	Pg	59 26.90	-0.3
			Sg	59 41.10	
LRG	1.26	202	Pg	59 30.00	0.0
			Sg	59 45.20	
LMR	1.34	196	Pg	59 31.40	0.1
			Sg	59 48.20	
	S.D. = 0.4		on	7 of 7 obs.	

? MAR 05, 1989 03h 06m 35.45± 1.88s
22.009 S ±21.5km 66.049 W ±19.5km
DEPTH = 308.1 ± 12.7 km
JUJUY PROVINCE, ARGENTINA (128)

CCH	4.60	359	iPd	07 49.60	0.0
LPB	5.78	340	P	08 03.00	-0.4
	0.7s		17.81nm		4.1mb X
ITB1	11.03	106	Pc	09 08.90	1.8
ITB	11.22	107	e(P)	09 09.40	-0.1
VAO	17.66	97	eP	10 21.00	-2.1
			e	10 24.00	
BAO	18.22	73	eP	10 27.50	-1.4
ITA	19.77	95	eP	10 44.50	0.0
BMA	20.26	96	e(P)	10 49.00	0.0
ATB	22.95	38	Pd	11 16.30	1.5
SOB1	27.31	66	eP	11 55.00	0.3
ITR	29.64	68	eP	12 14.60	-0.6
LIC	65.99	72	P	16 53.40	1.7
KIC	66.31	72	P	16 53.20	-0.5
GBA	144.32	97	PKPc	25 35.70	-1.4
	0.6s		5.70nm		
HYB	146.41	91	ePKP	25 42.00	1.3
	S.D. = 1.3		on	15 of 15 obs.	

MAR 05, 1989 05h 30m 56.91± 0.88s
29.512 N ± 6.1km 130.912 E ± 4.5km
DEPTH = 50.5 ± 7.7 km
4.7mb (9 obs.) 4.4Msz (1 obs.)
RYUKYU ISLANDS (238)

KAGJ	1.67	359	iPd	31 25.00	0.8
			S	31 45.00	
KUMJ	3.01	359	iPd	31 43.80	0.5
			S	32 17.10	
SHNJ	4.60	2	P	32 05.10	-0.5
			eS	32 55.60	
TKSJ	5.20	30	P	32 13.80	-0.3
			eS	33 07.20	
YONJ	6.06	20	P	32 25.40	-0.8
			eS	33 27.70	
WKYJ	6.15	39	P	32 26.40	-1.2
			eS	33 29.80	
SSE	8.55	283	P	33 01.80	0.9
	1.0s		22.00nm		5.1mb
	Z 20s		0.90um		
			i	33 08.30	
MAT	9.31	39	eP	33 11.00	-0.3
			(S)	33 28.00	
TIA	13.37	304	eP	34 07.80	1.9
CN2	14.91	344	Pd	34 31.00	4.9X
BJI	16.01	315	eP	34 41.00	0.9
	Z 24s		0.50um		4.0Msz
TIY	17.41	303	eP	34 58.60	0.8
	Z 20s		0.60um		
XAN	19.22	289	P	35 17.70	-2.1
HHC	19.40	311	eP	35 20.90	-0.8
BTO	20.32	309	eP	35 34.80	3.4X
GYA	21.62	268	P	35 45.00	0.3

CD2	23.49	280	eP	36	03.40	0.4
LZH	23.63	293	eP	36	04.50	0.0
GTA	27.36	299	eP	36	34.80	-4.6X
GUN	39.34	279	P	38	23.50	0.0
PKI	39.83	279	P	38	27.20	-0.3
KKN	39.89	279	P	38	27.60	-0.3
DMN	40.08	279	P	38	29.50	0.0
GKN	40.39	280	P	38	31.40	-0.5
MTN	42.11	180	iPc	38	45.90	0.1
			e	39	03.00	
WB5	49.22	176	eP	39	42.00	-0.2
WRA	49.28	176	Pd	39	42.70	0.0
	0.8s		6.20nm			4.7mb
CTA	51.48	161	iPd	40	00.40	0.9
	1.2s		25.00nm			5.1mb
			e	44	07.00	
GBA	51.76	264	Pd	39	59.70	-2.1
	0.8s		6.70nm			4.7mb
ASPA	52.95	177	iPc	40	10.00	-0.5
	0.8s		8.00nm			4.8mb
KEV	67.26	339	eP	41	47.00	-0.9
SOD	68.37	336	iP	41	54.50	-0.3
KJF	69.29	333	iP	42	00.00	-0.5
SUF	70.57	332	eP	42	07.70	-0.6
	0.4s		2.30nm			4.5mb
NUR	72.23	330	eP	42	18.00	-0.3
Z	19s		0.20um			4.4Msz
			LR	17	10.00	
YKA	74.55	26	eP	42	32.60	0.8
HFS	77.01	333	eP	42	45.40	-0.3
	0.6s		6.50nm			4.8mb
NAO	77.69	334	P	42	48.20	-1.3
	0.7s		2.80nm			4.4mb
KSP	81.44	324	eP	43	11.00	1.2
CLL	82.79	326	eP	43	18.00	1.2
	1.1s		8.00nm			4.7mb
CMB	85.41	49	eP	43	31.00	0.6
LRM	85.58	39	eP	43	32.50	1.1
PRS	85.71	50	eP	43	32.40	0.6
FRB	85.79	9	ePc	43	31.50	-0.2
BGMT	86.18	39	eP	43	35.20	0.9
FRI	86.44	49	eP	43	36.00	0.6

S.D. = 0.9 on 43 of 46 obs.

MAR 05, 1989 05h 36m 31.84± 0.62s
39.285 N ± 5.4km 21.775 E ± 6.0km
DEPTH = 10.0km (geophysicist)
GREECE (364)
MD 3.3 (ATH).

LIT	0.98	34	ePb	36	51.30	0.8
KZN	1.02	360	ePn	36	50.90	-0.3
NEO	1.12	88	ePn	36	52.70	-0.2
LSK	1.25	314	ePn	36	54.10	-1.1
VLS	1.44	220	ePn	36	56.90	-1.1
PAIG	1.61	66	ePn	36	59.00	-1.3
THE	1.63	34	ePn	37	00.10	-0.5
PLG	1.68	49	ePn	37	00.60	-0.9
GRG	1.74	16	ePn	37	02.00	-0.3
SOH	1.96	38	ePn	37	05.50	0.1
OHR	1.97	338	iPn	37	07.40	1.7
KNT	2.06	24	ePn	37	06.60	-0.3
ITM	2.11	177	ePn	37	09.00	1.4
VLO	2.12	305	ePn	37	13.40	5.7X
VAY	2.12	16	iPn	37	08.00	0.2
TIR	2.52	325	ePn	37	18.50	5.0X
PHP	2.61	337	ePn	37	26.10	11.4X
SKO	2.70	355	ePn	37	16.60	0.6
			i	37	18.60	
RDO	3.43	56	ePn	37	27.50	1.1

S.D. = 1.0 on 16 of 19 obs.

& MAR 05, 1989 06h 12m 22.26s
61.050 N 149.914 W
DEPTH = 46.5km
SOUTHERN ALASKA (2)
<AGS-P>. ML 3.6 (PMR).

PMS	0.26	41	iPd	12	30.50	-0.3
PTE	0.47	113	iP	12	32.58	-0.4
			eS	12	40.53	
SLKM	0.56	196	iP	12	33.51	-0.7
			eS	12	42.40	
PWA	0.60	2	iPd	12	33.90	-0.8
PLRM	0.66	34	iP	12	34.68	-0.8
			eS	12	44.31	
PMR	0.66	34	iPc	12	34.60	-0.8
			iS	12	42.90	
NKA	0.72	245	iP	12	37.06	0.9
PME	0.72	36	iP	12	35.72	-0.5
KNK	0.79	62	iP	12	36.89	-0.4
PWL	0.79	103	iP	12	36.83	-0.4
			eS	12	48.31	
GHO	0.87	33	iP	12	37.82	-0.5
SEW	0.98	166	iP	12	39.02	-0.7
			eS	12	53.03	
SPU	1.05	278	iP	12	40.05	-0.8
SML	1.08	44	iP	12	40.70	-0.5
CRP	1.11	282	iP	12	41.19	-0.6
			eS	12	57.57	
NNL	1.22	215	iP	12	43.50	0.3
KNIM	1.28	122	eP	12	42.33	-1.7
RDT	1.31	250	iP	12	43.76	-0.8
			eS	13	00.54	
GLI	1.39	96	iP	12	44.28	-1.3
			eS	13	01.94	
MTU	1.55	133	eP	12	45.76	-2.0
VZW	1.63	88	iP	12	48.25	-0.8
CNPM	1.67	204	iP	12	48.88	-0.6
FID	1.71	99	iP	12	48.32	-1.7
			eS	13	09.85	
VLZ	1.74	86	iP	12	50.01	-0.5
ILIM	1.79	238	iP	12	50.95	-0.4
			eS	13	14.02	
HIN	1.80	110	iP	12	49.71	-1.7
KLU	1.98	75	iP	12	53.30	-0.7
TOA	2.08	58	iPd	12	55.10	-0.3
CVA	2.10	102	iP	12	54.14	-1.5
SGAM	2.37	101	iP	12	57.65	-1.9
PDB	2.47	241	eP	13	00.77	-0.2
RAGM	2.66	102	iP	13	01.51	-2.2
SVW	2.77	274	iPc	13	04.00	-1.3
GLB	2.98	80	iP	13	07.09	-1.1
TTA	3.44	306	iPc	13	13.60	-1.1
KDC	3.56	203	ePd	13	13.70	-2.7
FBA	3.98	13	eP	13	22.00	-0.4
CTGM	4.18	87	eP	13	24.08	-1.2
IMA	5.31	343	eP	13	40.70	-0.5
DWY	5.71	54	P	13	44.40	-2.2
HYT	6.05	87	P	13	47.00	-4.6
YKA	16.64	70	eP	16	14.40	1.0

42 obs. associated

MAR 05, 1989 06h 41m 35.74± 1.34s
14.986 S ± 8.6km 167.294 E ± 4.5km
DEPTH = 122.1 ± 12.1 km
5.1mb (20 obs.)
VANUATU ISLANDS (186)

PVC	2.91	160	iP	42	22.30	0.8
			iS	42	57.50	
DZM	7.09	186	iPc	43	17.30	-1.2
			iS	44	39.00	
VUN	11.13	107	eP	44	18.70	6.2X
BRS	18.30	225	Pd	45	44.00	0.9
			i	45	54.20	
CTA	20.69	253	iPc	46	09.50	1.5
	0.9s		15.97nm			4.4mb
			i	46	33.30	
			e	48	11.00	
RMO	20.74	234	iPd	46	09.40	0.9
			e	46	15.00	
COO	21.00	220	eP	46	12.00	1.0
CMS	25.59	226	iPd	46	55.60	0.4
QIS	26.92	254	iPd	47	07.40	-0.1
STK	28.85	230	eP	47	25.00	0.2
WB5	31.76	256	eP	47	48.60	-1.9
			e	50	38.00	
WRA	31.78	256	Pc	47	48.80	-1.9
	0.5s		1.70nm			4.1mb X
ASPA	32.61	249	iPc	47	56.60	-1.3
	0.8s		22.00nm			5.0mb
			epP	48	20.90	108kmX
FORR	39.17	239	iPd	48	53.60	0.3
	0.5s		26.00nm			5.3mb
WARB	39.50	247	eP	48	45.00	-11.1X
	0.4s		2.00nm			
AFR	41.23	100	iP	49	09.90	-0.4
	0.8s		35.00nm			5.2mb
PAE	41.41	100	iP	49	11.50	-0.3
	0.8s		25.00nm			5.0mb
PPT	41.42	100	iP	49	11.60	-0.3
	0.8s		60.00nm			5.4mb
PPN	41.56	100	iP	49	12.70	-0.3
	0.8s		30.00nm			5.1mb
TVO	41.72	100	iP	49	14.20	-0.2
	0.8s		40.00nm			5.2mb
PMO	43.23	96	iP	49	26.90	0.3
	0.8s		45.00nm			5.3mb
VAH	43.46	96	iP	49	28.40	-0.1
	0.8s		25.00nm			5.0mb
TPT	43.49	96	iP	49	29.40	0.6
	0.8s		25.00nm			5.0mb
RUV	43.70	96	iP	49	30.40	-0.1
	0.8s		50.00nm			5.3mb
MBL	45.41	255	iPd	49	44.20	0.2
	0.5s		5.00nm			4.5mb
MEKA	46.78	247	iPd	49	54.70	-0.2
MAT	58.14	333	eP	51	17.00	-1.9
	0.8s		11.19nm			4.9mb
NJ2	65.87	316	Pd	52	10.30	-0.1
WHN	68.13	312	P	52	24.50	-0.2
MDJ	68.52	332	eP	52	26.50	-0.3
TIA	69.54	318	eP	52	32.50	-0.8
SNG	69.65	284	eP	52	34.50	0.2
CN2	69.88	329	Pc	52	34.80	-0.3
GYA	71.88	305	P	52	47.60	-0.2
LOE	72.22	294	iPc	52	50.00	0.2
BJI	72.48	321	eP	52	50.50	-0.3
TIY	73.46	317	Pc	52	57.00	0.3
XAN	73.88	313	P	52	59.00	-0.2
SPA	75.11	180	iPc	53	05.20	-0.7
	0.8s		29.17nm			5.1mb
CHG	75.20	294	iPc	53	08.00	1.0
	0.9s		14.29nm			4.8mb
CHTO	75.20	294	iPc	53	07.50	0.5
			pP	53	38.10	121kmX
CD2	76.18	308	eP	53	13.40	1.0
LZH	78.51	312	eP	53	26.00	0.7
	1.5s		44.00nm			5.0mb
GTA	82.86	314	iPc	53	49.00	0.9
GUN	89.54	299	P	54	21.40	0.1
PKI	89.84	298	P	54	22.20	-0.5
	0.8s		29.00nm			5.4mb
KKN	90.01	299	P	54	23.40	0.1
	1.0s		27.00nm			5.3mb
DMN	90.11	298	P	54	24.00	0.2
GKN	90.62	299	P	54	25.60	-0.4
GBA	93.31	283	Pd	54	37.50	-0.9
	1.0s		6.00nm			4.9mb
SUF	125.09	339	iPKP	00	21.70	-1.0
	0.4s		2.30nm			
BUL	126.44	230	iPKPc	00	25.10	-1.7
NUR	127.11	338	iPKP	00	26.00	-0.6
PTZ	127.64	238	iPKPc	00	28.90	-0.3
LSZ	129.63	235	iPKP	00	17.30	-15.6X
APO	130.57	343	ePKP	00	32.20	-1.1
	0.4s		1.90nm			
NAO	131.16	345	PKP	00	33.70	-0.7
	0.8s		1.90nm			
KMZ	132.53	235	iPKPc	00	39.40	0.9
CDF	142.82	338	ePKP	00	52.30	-4.2X
HAU	143.50	338	ePKP	00	55.70	-1.8
FIR	144.77	329	ePKP	00	59.00	-0.7
ORX	144.83	335	PKP	00	58.34	-1.7
FLN	144.85	346	iPKPc	00	58.50	-1.2
LDF	144.92	345	iPKPc	00	58.90	-1.0
LOR	144.99	340	iPKPc	00	59.50	-0.6
LBF	145.19	340	iPKPc	01	00.10	-0.4
ITR	145.26	131	ePKP	00	58.10	-3.4X
SSF	145.28	340	iPKPc	01	00.70	0.1
GRR	145.29	346	iPKPc	01	00.30	-0.2
LSD	145.31	335	PKP	01	01.11	0.1
GEN	145.38	332	PKP	00	59.47	-1.3
LPG	145.44	336	iPKPc	01	01.80	0.5
RSP	145.52	335	PKP	01	00.39	-0.8
SMF	145.54	340	ePKP	01	01.20	0.2
AVF	145.57	340	ePKP	01	01.20	0.2
LPF	145.66	346	iPKPc	01	01.70	0.6
FIN	145.87	333	PKP	01	00.91	-0.8
RRL	145.90	335	PKP	01	02.75	0.8
BGF	145.94	341	iPKPc	01	02.40	0.7
ROB	145.95	333	PKP	01	01.62	-0.2
PZZ	146.11	334	PKP	01	02.75	0.5
STV	146.23	334	PKP	01	01.62	-0.7
IMI	146.25	333	PKP	01	02.85	0.5
MAF	146.33	341	iPKPc	01	03.70	1.4
AUTN	146.38	333	PKP	01	03.36	0.6
TCF	146.38	341	iPKPc	01	03.70	1.2
TOUF	146.44	334	PKP	01	03.51	0.7
SBF	146.48	333	iPKPc	01	03.50	0.8

05d 07h

AURF	146.51	333	PKP	01	03.66	0.8
MVIF	146.58	334	PKP	01	03.27	0.3
LSF	146.62	342	iPKPc	01	04.20	1.4
MFF	146.77	344	iPKPc	01	04.90	1.9
CALN	146.81	334	PKP	01	04.57	1.2
CVF	146.84	330	PKP	01	03.96	0.7
FRF	147.07	334	ePKP	01	05.20	1.6
LRG	147.27	334	ePKP	01	06.10	2.2
LMR	147.31	334	ePKP	01	06.00	2.0
RJF	147.48	341	iPKPc	01	07.00	2.8
BNG	147.51	254	iPKPd	01	03.00	-2.2
	0.4s		54.00nm			
			ic	01	06.00	
			id	01	36.80	
CAF	147.64	340	iPKPc	01	07.70	3.2X
LFF	148.04	342	iPKPc	01	08.40	3.3X
LPO	148.14	341	iPKPc	01	08.60	3.3X
EPF	149.89	341	iPKPc	01	13.30	5.2X
KIC	168.40	223	PKP	01	28.60	-1.0
	1.0s		11.00nm			
LIC	168.48	222	PKP	01	28.50	-1.1
TIC	168.79	223	PKP	01	28.90	-0.9
	S.D. = 1.0		on 97 of 106 obs.			

& MAR 05, 1989 06h 42m 00.66s
47.813 N 123.357 W
DEPTH = 46.2km
4.6mb (22 obs.)
WASHINGTON (29)
<SEA>. CL 4.5 (SEA). Felt (V) ot Port Ludlow; (IV) ot Brinnon, Coupeville, Forks, Hadlock, Ook Horbor ond Port Orchord; (III) ot Belfair, Bremerton, Chimocum, Freelond, Longley, Port Angeles, Port Gomble, Poulsbo, Quilcene, Seottle, Sequim, Sulton, Suquomish ond Trocyton. Also felt in the Sooke-Victorio-Sidney oreo, British Columbio.

OSD	0.23	272	iPc	42	08.59	-0.6
HDW	0.26	129	iPd	42	08.51	-0.7
BLN	0.32	53	iP	42	09.09	-0.7
STW	0.40	328	iPc	42	10.05	-0.5
GMW	0.47	124	iPc	42	10.63	-0.7
SMW	0.49	179	iPd	42	11.62	-0.1
PGW	0.51	89	iPc	42	11.57	-0.3
OBC	0.53	295	iPc	42	11.87	-0.4
OOW	0.57	263	iPc	42	12.39	-0.3
OBH	0.60	215	iPd	42	12.68	-0.3
VGZ	0.60	2	Pgc	42	12.01	-1.0
OFK	0.69	282	eP	42	13.69	-0.5
OTR	0.72	293	iPc	42	14.23	-0.4
OHW	0.75	47	iPc	42	14.52	-0.5
MEW	0.78	141	iPc	42	15.76	0.4
SPW	0.79	109	iPc	42	15.91	0.3
PGC	0.84	356	eP	42	15.20	-1.0
CPW	0.85	170	iP	42	16.21	-0.3
BLH	0.89	88	iPc	42	16.44	-0.5
MCW	0.94	22	iPc	42	17.05	-0.6
OSP	0.95	300	eP	42	17.00	-0.8
SNB	0.97	7	Pgc	42	17.66	-0.4
ONR	0.98	197	iPc	42	17.94	-0.2
CMW	1.03	53	iPc	42	18.69	-0.3
JCW	1.03	68	iPc	42	18.42	-0.6
PFB	1.05	317	Pgc	42	18.00	-1.2
GHW	1.07	136	iPc	42	18.81	-0.6
HTW	1.07	90	iPc	42	18.98	-0.6
RMW	1.11	108	iPc	42	19.52	-0.6
GSM	1.22	119	iPd	42	21.18	-0.6
APW	1.26	157	iPc	42	21.74	-0.4
RVC	1.28	132	iPc	42	22.01	-0.5
BMW	1.34	176	iPd	42	23.03	-0.3
LMW	1.36	147	iPc	42	23.10	-0.5
MBW	1.38	45	iPc	42	23.74	-0.2
RPW	1.39	62	iPc	42	23.54	-0.5
FMW	1.45	127	iPc	42	24.25	-0.7
VDB	1.47	34	Pgc	42	24.83	-0.3
NAB	1.47	343	Pgc	42	24.21	-1.0
MGB	1.48	324	Pgc	42	24.26	-1.2
CZM	1.50	157	iPc	42	25.41	-0.1
LON	1.50	135	iPc	42	25.00	-0.6
HNB	1.55	19	Pgc	42	25.74	-0.5
KOSW	1.57	149	eP	42	26.24	-0.3
SHW	1.79	154	eP	42	29.70	-0.1
PNT	2.90	57	eP	42	44.30	-1.3
VGB	2.90	141	eP	42	44.90	-0.7
DPW	3.47	87	iPd	42	51.20	-2.4
LNOR	3.99	117	eP	42	58.00	-2.9
LBFM	6.55	170	eP	43	38.00	0.9
LRM	7.74	101	eP	43	49.80	-4.0
BGMT	8.22	104	eP	43	56.50	-3.8
EDM	8.36	46	iPc	43	58.50	-3.6
SES	8.48	68	eP	44	01.00	-2.8
KVN	9.55	155	eP	44	19.00	0.3
EUR	9.89	145	eP	44	23.80	0.4
TNP	10.71	153	eP	44	34.50	0.0
BW06	10.94	112	eP	44	37.50	-0.2
ISA	12.67	162	eP	45	12.00	11.3
CLC	12.73	158	eP	45	04.00	2.6
SBB	13.75	160	eP	45	23.00	8.1
TPC	14.75	156	eP	45	34.00	6.0
FFC	15.03	55	eP	45	26.00	-5.4
FFC	15.03	55	eP	45	33.50	2.1
	0.5s		56.00nm		5.1mb	
PLM	15.25	159	eP	45	40.00	5.4
PLM	15.25	159	eP	45	35.50	0.9
GOL	15.29	115	eP	45	33.00	-2.2
YKA	15.51	15	eP	45	35.60	-2.0
YKC	15.52	16	eP	45	34.00	-3.7
	0.8s		27.00nm		4.5mb	
BAR	15.94	159	eP	45	43.00	-0.3
GLA	16.09	153	eP	45	49.00	3.8
ALQ	18.01	129	eP	46	08.30	-1.0
	1.1s		11.08nm		3.9mb	
RSON	19.50	70	eP	46	19.50	-7.1
INK	21.19	350	eP	46	43.00	-0.8
FBA	21.58	331	eP	46	48.10	0.2
TTA	23.58	322	eP	47	09.50	1.9
	1.2s		22.73nm		4.5mb	
IMA	24.25	330	eP	47	15.20	1.1
	0.8s		8.60nm		4.3mb	
FVM	25.87	100	eP	47	27.00	-2.6
ELC	27.05	100	eP	47	36.20	-4.2
BRW	28.27	338	eP	47	50.90	-0.2
MBC	28.58	2	eP	47	53.00	-0.8
	0.6s		7.00nm		4.5mb	
GAC	32.46	76	eP	48	24.00	-4.4
FRB	33.45	41	eP	48	33.00	-3.8
RSNY	33.52	77	eP	48	32.50	-5.2
	0.8s		7.04nm		4.6mb	
TBR	35.19	82	eP	48	47.50	-4.6
ALE	39.18	10	eP	49	34.00	8.9
	0.7s		5.00nm		4.4mb	
DAG	47.18	18	iPc	50	29.00	-0.8
	0.6s		8.00nm		4.9mb	
SOD	62.92	13	iP	52	22.20	-1.7
NAO	65.56	23	P	52	38.40	-2.8
	1.0s		4.30nm		4.4mb	
KJF	66.04	13	iP	52	43.20	-1.0
	0.7s		16.00nm		5.2mb	
			i	52	56.00	
HFS	66.88	22	eP	52	47.90	-1.7
	0.8s		8.70nm		4.9mb	
SUF	67.17	15	eP	52	50.00	-1.4
NUR	68.96	16	iP	53	01.20	-1.3
CLL	74.40	27	eP	53	34.00	-1.1
			epP	53	47.00	45kmX
MOX	74.55	28	eP	53	35.50	-0.5
			e	53	48.00	
LSF	74.67	36	eP	53	35.90	-0.8
	0.6s		3.60nm		4.5mb	
LOR	74.74	34	eP	53	36.70	-0.4
	0.8s		12.00nm		4.9mb	
SSF	74.77	35	eP	53	36.90	-0.4
	0.6s		3.60nm		4.5mb	
TCF	74.91	36	eP	53	37.40	-0.7
	0.8s		4.00nm		4.4mb	
BGF	74.94	35	eP	53	37.50	-0.8
	0.7s		12.10nm		5.0mb	
AVF	74.94	35	eP	53	37.60	-0.6
LBF	75.02	34	eP	53	38.20	-0.6
	0.8s		5.90nm		4.6mb	
CDF	75.02	32	eP	53	38.20	-0.6
BRG	75.07	26	iP	53	38.00	-0.9
	0.7s		12.00nm		4.9mb	
			i	53	51.00	
MAF	75.10	36	eP	53	38.50	-0.7
	0.8s		4.50nm		4.5mb	
SMF	75.25	35	eP	53	39.40	-0.6
	0.4s		4.00nm		4.7mb	
BSF	75.34	32	eP	53	40.10	-0.6
KSP	75.78	25	eP	53	42.00	-1.0
			e	53	55.30	
LPG	77.31	33	eP	53	52.40	0.4
	0.8s		2.60nm		4.3mb	
BFS	148.70	59	ePKP	01	43.00	2.6
	110 obs. ossociated					

• MAR 05, 1989 06h 58m 33.59± 1.32s
4.472 S ± 9.2km 143.816 E ±14.0km
DEPTH = 137.0 ± 14.2 km
4.8mb (7 obs.)
PAPUA NEW GUINEA (202)

MNDI	1.68	185	eP	59	05.50	0.7
PMG	5.92	146	eP	59	59.00	-1.2
MTN	15.04	236	eP	02	02.00	1.6
CTA	15.70	172	iPc	02	13.00	4.4X
	1.0s		14.00nm		4.2mb	
			e	02	50.00	
			e	05	52.00	
QIS	16.51	194	eP	02	18.00	-0.6
			eS	05	15.00	
WB5	17.87	210	iPd	02	34.20	-0.9
			ePcP	05	38.20	
			eS	06	06.00	
WRA	17.94	210	Pd	02	33.80	-2.1
	1.0s		54.50nm		4.8mb	
KNA	18.56	232	eP	02	42.00	-0.6
ASPA	21.35	206	iPd	03	11.60	0.4
	0.9s		43.00nm		4.9mb	
			epP	03	17.60	22kmX
			eS	06	59.80	
RMO	22.40	168	eP	03	24.00	2.6
WARB	27.14	216	iPc	03	56.50	-9.4X
	0.5s		15.00nm		4.9mb	
MBL	28.59	232	eP	04	19.40	0.4
FORR	30.13	208	eP	04	33.00	0.5
SSE	41.44	330	Pc	06	09.00	0.7
	1.0s		24.00nm		4.8mb	
CHTO	49.88	299	eP	07	15.90	0.7
XAN	50.51	322	P	07	19.30	-0.6
CN2	50.82	343	eP	07	21.50	-0.5
BTO	54.50	329	eP	07	50.00	0.5
LZH	55.01	321	eP	07	53.00	-0.3
	2.0s		55.00nm		5.1mb	
GBA	68.27	286	Pc	09	20.70	-1.4
	0.6s		2.50nm		4.2mb	
BNG	125.45	272	iPKPd	17	20.90	-0.1
	0.2s		8.00nm			
KIC	148.64	275	PKP	18	07.88	4.8X
	0.4s		23.00nm			
TIC	148.91	275	PKP	18	08.54	5.0X
	0.4s		39.00nm			
LIC	148.93	275	PKP	18	08.54	5.0X
	S.D. = 1.2		on 19 of 24 obs.			

% MAR 05, 1989 07h 02m 21.45± 0.97s
44.607 N ± 7.9km 7.029 E ±14.1km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.0 (GEN).

PZZ	0.11	153	P	02	24.55	0.1
			S	02	26.69	
RRL	0.36	331	P	02	28.81	-0.1
			S	02	33.99	
STV	0.42	150	P	02	30.13	0.1
			S	02	35.67	
RSP	0.57	17	P	02	33.19	0.1
			S	02	40.34	
ROB	0.68	117	P	02	34.80	-0.2
			S	02	43.72	
	S.D. = 0.2		on 5 of 5 obs.			

• MAR 05, 1989 07h 46m 02.44± 1.39s
24.036 N ± 8.7km 122.672 E ±13.8km
DEPTH = 10.0km (geophysicist)
TAIWAN REGION (243)

TWC	0.94	307	iPd	46	20.80	0.4
			eS	46	30.00	
TWD	0.99	273	ePc	46	20.10	-1.0
			eS	46	28.90	
ANP	1.55	318	eP	46	30.80	0.6
TWO	1.69	278	ePc	46	32.80	0.6
CVP	6.35	187	eP	47	38.50	0.1
SSE	7.15	350	eP	47	49.00	-0.6
	S.D. = 0.9		on 6 of 6 obs.			

? MAR 05, 1989 07h 55m 23.09± 0.95s
37.353 N ± 7.2km 2.166 W ±11.2km
DEPTH = 10.0km (geophysicist)
SPAIN (377)
MG 2.5 (MDD).

ENIJ	0.38	186	iPg	55 30.80	-0.2
			eSg	55 36.20	
EALH	0.78	49	ePg	55 38.50	0.3
			eSg	55 47.80	
EVIA	1.31	348	ePn	55 46.80	-0.6
			eSn	56 05.00	
EBAN	1.52	303	ePn	55 50.80	0.5
			eSn	56 11.00	

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

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* MAR 05, 1989 08h 29m 41.48± 1.39s
29.178 S ± 9.4km 71.521 W ±13.6km
DEPTH = 78.7 ± 24.1 km
NEAR COAST OF CENTRAL CHILE (135)

ZON	3.41	135	iPc	30 33.50	0.1
			eS	30 57.00	
JACH	3.58	167	iPd	30 36.50	0.6
			iS	31 15.00	
CFA	3.73	131	ePc	30 38.20	0.3
ROCH	3.81	174	iPd	30 38.40	-0.8
			iS	31 09.00	
FCH	4.27	166	iPd	30 47.00	1.2
SAN	4.32	170	eP	30 46.50	0.2
TACH	4.49	174	iPc	30 48.20	-0.3
			i	31 28.50	
			i	31 36.00	
PCH	4.51	169	iP	30 49.40	0.5
LNV	4.76	179	iPd	30 51.00	-1.3
			iS	31 31.50	
CHCH	4.80	171	iP	30 52.70	-0.2
			iS	31 44.50	
CYA	5.08	83	ePc	30 56.00	-0.8
ZOBO	13.22	14	iP	32 48.30	0.4
Z	23s	0.10um			
			LR	37 18.00	
ITA	25.05	81	e(P)	35 15.00	14.7X
BAO	25.52	63	eP	35 04.50	0.0

S.D. = 0.8 on 13 of 14 obs.

MAR 05, 1989 09h 17m 56.08± 0.28s
35.967 N ± 2.9km 112.279 W ± 2.4km
DEPTH = 5.0km (geophysicist)
WESTERN ARIZONA (42)
ML 3.9 (NEIS). Felt at Grand Canyon.

WMZ	0.81	182	P	18 13.70	1.3
FLAG	0.95	147	P	18 15.70	0.9
CCU	1.82	340	P	18 29.03	0.6
EMN	2.01	269	iPc	18 31.63	0.5
ARUT	2.04	333	P	18 32.41	0.7
DWU	2.21	345	P	18 34.27	0.1
SHRG	2.39	284	eP	18 37.07	0.4
MSU	2.54	2	eP	18 39.00	0.1
EPR	2.63	298	iPc	18 40.56	0.5
PRN	2.65	304	ePc	18 40.47	0.1
APKW	2.70	278	iPc	18 41.43	0.2
SPRG	2.94	285	ePc	18 44.99	0.5
JON	3.13	280	iPc	18 47.89	0.8
NOP	3.14	274	iPc	18 47.56	0.3
CPX	3.19	289	eP	18 48.29	0.3
LOP	3.26	287	iPc	18 49.58	0.5
LSM	3.31	285	ePc	18 50.32	0.5
SSP	3.32	288	ePc	18 50.31	0.4
SDH	3.35	283	ePc	18 50.94	0.7
BGB	3.36	290	iPc	18 50.58	0.1
CDH1	3.38	286	iPc	18 51.09	0.4
YMT3	3.44	285	iPc	18 51.94	0.5
YMT6	3.44	286	iPc	18 52.04	0.4
TMBR	3.48	289	ePc	18 52.25	0.1
GLA	3.59	217	eP	18 54.00	0.4
TPC	3.61	240	eP	18 52.00	-1.9
FMT	3.70	282	eP	18 55.59	0.4
OSM	3.72	271	ePc	18 55.56	0.1
GSC	3.75	261	eP	18 55.00	-0.9
BMTN	3.75	292	iPc	18 55.98	-0.1
PANV	3.92	278	eP	18 59.30	0.8
DUG	4.24	354	eP	19 02.40	-0.5
RW1	4.26	56	eP	19 03.20	-0.1
CLC	4.32	270	eP	19 03.00	-1.0
RW4	4.32	58	eP	19 05.00	0.7
TNP	4.48	300	ePc	19 05.80	-0.6
DAU	4.51	10	eP	19 06.90	0.0
PEC	4.51	244	ePc	19 06.60	-0.1
EUR	4.57	321	iP	19 07.20	-0.5
PLM	4.59	237	eP	19 08.00	0.1
SBB	4.71	256	eP	19 08.00	-1.6
SVP	4.76	293	eP	19 10.20	-0.3
ALQ	4.86	100	ePc	19 11.00	-0.8
BAR	4.89	229	eP	19 12.00	-0.1
ISA	5.04	268	eP	19 12.00	-2.3
KVN	5.56	305	eP	19 20.60	-1.1
SYP	6.46	259	eP	19 34.00	-0.4
GOL	6.62	54	ePd	19 35.80	-0.9
GLD	6.74	54	eP	19 38.00	-0.3
BW06	7.12	16	eP	19 40.90	-2.8X
BGMT	9.26	1	eP	20 14.90	1.5X
RSON	20.01	36	eP	22 28.40	-3.9X

S.D. = 0.7 on 49 of 52 obs.

? MAR 05, 1989 09h 20m 34.93± 3.47s
6.192 S ±21.9km 130.534 E ±24.3km
DEPTH = 166.5 ± 38.3 km
4.3mb (2 obs.)
BANDA SEA (280)

MTN	6.64	175	eP	22 11.00	-0.2
			eS	23 23.00	
KNA	9.66	190	eP	22 52.00	0.8
			eS	24 31.00	
WB5	14.11	165	eP	23 46.30	-2.4
			eS	26 13.90	
OIS	16.77	149	eP	24 23.00	1.3
			eS	27 18.00	
ASPA	17.67	170	iPd	24 32.90	0.6
			eS	27 41.30	
MBL	18.13	214	eP	24 37.20	0.0
CHTO	39.84	309	eP	27 54.30	0.6
	0.7s		2.06nm		3.9mb
GUN	54.83	310	P	29 50.20	-0.4
GKN	55.82	310	P	29 57.20	-0.3
	0.4s		4.00nm		4.6mb

S.D. = 1.3 on 9 of 9 obs.

MAR 05, 1989 10h 57m 16.86± 0.90s
44.274 N ± 7.8km 147.839 E ± 5.4km
DEPTH = 94.6 ± 9.1 km
4.9mb (43 obs.)
KURIL ISLANDS (221)
Felt (I JMA) at Nemuro, Hokkaido.

NEM	1.88	241	eP	57 58.00	9.8X
			iS	58 10.80	
KUSJ	2.56	244	iPd	57 56.80	-0.4
			iS	58 25.50	
ASAJ	3.74	269	iPd	58 16.00	2.5
HOOJ	3.82	242	P	58 15.60	1.1
			S	58 59.00	
MRRJ	5.27	252	P	58 35.00	0.4
			S	59 34.10	
AOMJ	6.65	239	eP	58 53.30	-0.4
			S	00 02.00	
OFUJ	6.95	224	P	58 56.00	-1.7
			S	00 09.00	
YAMJ	8.47	227	P	59 17.40	-1.1
			S	00 47.30	
NIIJ	9.71	227	P	59 33.70	-1.7
KAKJ	9.96	219	P	59 35.40	-3.3X
			eS	01 19.80	
CHJJ	10.64	222	P	59 45.90	-2.0
			S	01 36.70	
MAT	10.65	227	iPd	59 46.50	-1.6X
	0.7s		19.86nm		5.1mb
			eS	01 42.00	
MTMJ	10.83	228	P	59 49.40	-1.2
IIDJ	11.62	224	eP	00 05.40	4.4
			eS	02 05.10	
CN2	16.11	276	P	00 57.00	-1.8
SNY	17.89	271	Pc	01 21.60	0.9
BJI	23.77	271	eP	02 21.00	-0.3
HHC	26.80	275	eP	02 50.20	0.4
TIY	27.36	268	eP	02 55.60	0.7
BTO	27.99	276	eP	03 01.50	1.0
WHN	29.70	254	eP	03 18.20	2.4
LZH	34.25	272	eP	03 56.00	0.3
	1.5s		66.00nm		5.3mb
GTA	35.70	279	iPc	04 07.80	-0.1
TTA	36.71	39	eP	04 16.30	0.3
BRW	37.81	26	eP	04 23.90	-1.2
IMA	37.97	34	eP	04 26.80	0.2
	0.9s		16.70nm		5.0mb
PMS	39.75	42	eP	04 42.00	0.6
PMR	39.94	42	P	04 51.10	8.3X
	0.6s		7.39nm		4.7mb
FBA	40.38	36	iPc	04 47.20	0.8
WMO	42.37	291	P	05 03.40	0.3
INK	45.70	31	eP	05 30.50	1.1
CHG	47.91	254	eP	05 48.10	0.7
CHTO	47.91	254	iP	05 47.90	0.6
			pP	06 08.50	84kmX
MBC	48.16	19	eP	05 46.00	-2.6
SHL	48.56	267	iP	05 52.00	-0.6
GUN	51.48	273	P	06 14.90	-0.1
KKN	51.98	274	P	06 18.40	-0.2
	0.7s		27.00nm		5.4mb
PKI	52.02	273	P	06 18.60	-0.5
	0.6s		13.00nm		5.1mb
DMN	52.21	274	P	06 20.20	-0.2
	0.6s		29.00nm		5.5mb
GKN	52.32	274	P	06 20.80	-0.3
	0.6s		23.00nm		5.4mb
YKA	55.09	34	eP	06 41.30	0.6
YKC	55.15	34	eP	06 41.00	-0.2
KEV	58.40	339	iP	07 01.00	-3.1X
	0.6s		15.60nm		5.3mb
PNT	59.66	49	eP	07 13.00	-0.1
SOD	60.17	338	iP	07 14.40	-1.9
KJF	62.11	335	iP	07 26.80	-2.6
	0.8s		16.10nm		5.1mb
WDC	62.97	59	eP	07 42.50	7.0X
HYB	63.29	269	eP	07 37.00	-0.9
SUF	63.67	334	iP	07 37.20	-2.5
	0.3s		15.00nm		5.4mb
FFC	64.98	37	eP	07 49.00	0.7
	0.6s		8.00nm		4.8mb
WB5	65.02	194	eP	07 48.50	-0.3
WRA	65.09	194	Pc	07 49.00	-0.3
	0.7s		1.80nm		4.1mb
NUR	65.80	333	iP	07 51.00	-2.4
CMB	65.84	60	eP	07 54.40	0.2
PRS	66.28	62	eP	07 56.80	-0.1
LLA	66.37	61	eP	07 57.70	0.2
KVN	66.62	58	P	07 59.80	0.5
			pP	08 15.00	55kmX
GBA	66.62	266	Pd	07 57.30	-2.0
	0.8s		2.20nm		4.1mb
EUR	67.63	56	iP	08 06.00	0.3
	0.4s		7.69nm		5.0mb
TNP	67.76	58	P	08 07.10	0.6
			pP	08 15.00	25kmX
FRB	68.54	16	eP	08 09.00	-1.6
BW06	69.19	50	P	08 15.40	0.1
	0.9s		8.47nm		4.6mb
HFS	69.40	337	eP	08 13.70	-2.2
	0.8s		22.90nm		5.1mb
NAO	69.58	339	P	08 15.20	-1.8
	0.8s		13.40nm		4.8mb
PEC	70.49	62	P	08 22.70	-0.4
PLM	71.03	62	P	08 25.50	-1.0
GLD	73.64	50	P	08 43.00	1.2
	1.0s		10.00nm		4.6mb
KRA	75.67	328	eP	08 53.10	0.1
	0.8s		38.00nm		5.3mb
SPC	76.26	328	eP	08 57.40	0.8
ALQ	76.30	54	eP	08 57.20	0.1
	1.0s		4.75nm		4.3mb
KSP	76.35	331	iPd	08 57.00	0.2
MLR	76.85	322	ePc	09 00.00	0.1
CLL	77.08	333	iPc	09 00.20	-0.6
	1.1s		31.00nm		5.1mb
BRG	77.13	332	eP	09 05.10	4.0X
	1.0s		20.00nm		4.9mb
WIT	77.69	337	eP	09 05.00	0.9
MOX	78.10	333	eP	09 07.00	0.5
	1.7s		34.00nm		4.9mb
SRO	78.13	328	eP	09 07.50	0.9
ZST	78.27	329	e(P)	09 08.50	1.1
WTS	78.38	337	eP	09 08.00	0.1
	1.1s		19.00nm		4.9mb
BZS	78.60	325	eP	09 09.50	0.2
ENN	79.73	337	eP	09 15.00	-0.3
	0.7s		8.00nm		4.7mb

05d 11h

MEM	79.84	336	P	09	16.60	0.7
SNF	80.42	337	P	09	19.70	0.8
KBA	80.58	330	iPd	09	20.50	0.4
	0.9s	16.50nm			4.9mb	
		e		09	44.00	
DOU	80.71	337	Pc	09	21.40	0.9
CDF	81.42	335	eP	09	24.20	-0.2
	0.8s	10.70nm			4.7mb	
SKO	81.63	323	eP	09	26.00	0.6
VAY	81.65	322	eP	09	26.00	0.4
HAU	82.07	335	eP	09	27.40	-0.3
	0.8s	5.30nm			4.4mb	
BSF	82.09	335	eP	09	27.50	-0.4
	0.8s	5.30nm			4.4mb	
OHR	82.61	323	eP	09	30.30	-0.3
LOR	83.47	336	eP	09	34.80	-0.1
	1.0s	12.00nm			4.8mb	
LBF	83.69	336	eP	09	36.20	0.1
	1.0s	8.80nm			4.7mb	
SSF	83.76	336	eP	09	36.50	0.2
	0.8s	4.00nm			4.4mb	
SMF	84.04	336	eP	09	37.90	0.1
	0.6s	9.90nm			4.9mb	
AVF	84.05	336	eP	09	38.30	0.5
	1.0s	12.00nm			4.8mb	
LPF	84.09	340	eP	09	38.50	0.5
	0.8s	10.70nm			4.8mb	
LPG	84.18	334	eP	09	39.40	0.5
	1.0s	20.00nm			5.0mb	
MAF	84.79	337	eP	09	42.30	0.7
	0.8s	16.60nm			5.0mb	
TCF	84.83	337	eP	09	42.30	0.5
	0.8s	5.30nm			4.5mb	
LSF	85.06	337	eP	09	43.40	0.5
MFF	85.19	338	eP	09	44.20	0.7
	1.0s	12.00nm			4.8mb	
SBF	85.41	332	eP	09	44.50	-0.3
	0.8s	10.70nm			4.9mb	
CAF	86.12	336	eP	09	49.50	1.3
	0.8s	6.70nm			4.7mb	
LFF	86.48	337	eP	09	51.10	1.2
	0.8s	13.40nm			5.0mb	
S.D. = 1.1		on	98	of	105	obs.

% MAR 05, 1989 12h 05m 50.66± 0.91s
39.119 N ± 7.0km 27.182 E ±11.6km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	0.72	175	ePg	06	05.00	0.1
			eSg	06	13.00	
EZN	0.97	317	ePg	06	09.00	0.0
EDC	1.33	23	ePn	06	16.00	0.8
BNT	1.36	24	iPn	06	15.10	-0.5
KCT	1.45	38	iPn	06	16.60	-0.3
S.D. = 0.7		on	5	of	5	obs.

MAR 05, 1989 13h 48m 41.60± 0.33s
42.511 N ± 5.7km 74.629 E ± 5.6km
DEPTH = 33.0km (normal)
4.8mb (14 obs.) 4.0Msz (2 obs.)
KIRGHIZ SSR (716)
Minor damage (VI) in the epicentral area. Felt (V) at Issykala and Frunze; (IV) at Kant, Takmak and Shopokov.

KSH	3.22	161	Pc	49	35.50	4.4X
WMQ	9.64	78	eP	51	00.00	-1.1
Z	12s	1.00um				
		S		52	46.00	
MAIO	13.24	247	iPc	51	49.20	-0.6
	0.7s	11.44nm			5.0mb X	
		eS		54	13.00	
QUE	13.76	209	eP	51	56.70	-0.1
		(S)		54	36.90	
NDI	13.96	171	eP	52	01.00	1.8
	0.5s	40.85nm			5.4mb	
		eS		54	25.00	
KHI	15.06	242	iPd	52	11.20	-2.5
GKN	16.60	147	P	52	31.80	-1.8
KKN	17.05	146	P	52	38.20	-1.1
DMN	17.14	147	P	52	39.40	-1.0
GUN	17.20	144	P	52	42.40	1.1
PKI	17.30	146	P	52	41.40	-1.1
LSA	18.44	129	P	53	00.00	3.3X
GTA	19.25	91	eP	53	05.00	-1.2
Z	10s	0.90um				
SHL	22.07	135	iP	53	35.00	-0.5
			eS	02	42.00	
LZH	23.43	96	eP	53	48.00	-0.8
	1.5s	44.00nm			4.7mb	
Z	20s	0.50um			4.0Msz	
BOM	23.59	184	eP	53	52.50	2.3
			eS	58	12.80	
POO	23.91	182	eP	54	02.50	9.1X
			iS	57	53.00	
HYB	25.23	171	ePc	54	07.00	0.9
	1.0s	25.00nm			4.8mb	
CD2	25.94	107	eP	54	14.80	2.2
GBA	28.90	174	Pc	54	38.70	-0.9
	0.7s	8.90nm			4.6mb	
TIY	29.14	87	eP	54	48.40	6.7X
Z	16s	0.50um			4.2MszX	
GYA	30.65	111	P	54	55.60	0.3
CHG	31.34	131	eP	55	01.50	0.2
CHTO	31.34	131	eP	55	01.00	-0.3
	1.0s	4.50nm			4.3mb	
KOD	32.25	175	eP	55	10.20	0.7
KJF	34.27	325	eP	55	27.00	0.7
SUF	34.58	323	eP	55	30.00	1.1
MLR	34.72	292	eP	55	30.00	-0.6
SOD	35.68	330	eP	55	36.00	-2.3
KEV	36.43	334	eP	55	42.00	-2.5
NNT	36.92	136	eP	55	50.00	0.8
BZS	37.65	293	eP	55	55.00	0.0
KSP	39.94	303	eP	56	20.30	6.2X
HFS	40.30	317	eP	56	18.30	1.3
	0.5s	2.00nm			4.1mb	
Z	19s	0.24um			4.1Msz	
			LR	12	51.00	
NAO	41.68	319	P	56	27.80	-0.5
	0.9s	3.30nm			4.1mb	
PSI	45.20	145	eP	56	56.80	-0.5
DAG	49.83	342	iPc	57	33.70	0.9
	0.6s	8.00nm			4.9mb	
MBC	61.19	4	eP	58	55.00	0.3
	0.7s	19.00nm			5.3mb	
BNG	62.41	249	iPc	59	02.90	-0.9
	0.3s	13.00nm			5.5mb	
BCAO	62.42	249	iPc	59	02.80	-1.0
	0.6s	7.15nm			5.0mb	
INK	67.51	11	eP	59	36.00	0.1
PTZ	69.07	225	iPd	59	47.00	0.6
LSZ	71.61	227	eP	59	47.00	-14.9X
YKA	75.08	4	eP	00	26.20	4.8X
YKC	75.11	4	eP	00	25.00	3.5X
KIC	77.90	268	Pd	00	39.00	1.1
	0.8s	15.50nm			5.1mb	
TIC	77.92	268	Pd	00	39.00	1.0
LIC	78.20	268	P	00	40.80	1.2
WB5	82.93	125	eP	01	04.70	0.2
WRA	82.96	125	Pc	01	04.80	0.1
	0.6s	1.50nm			4.3mb	
FFC	83.10	358	eP	01	07.00	2.1
	1.1s	22.00nm			5.2mb	
BGMT	92.44	5	eP	01	56.60	6.2X
S.D. = 1.2		on	43	of	52	obs.

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* MAR 05, 1989 14h 05m 32.71± 1.96s
15.050 N ± 6.5km 60.319 W ±18.8km
DEPTH = 31.9 ± 6.6 km
LEEWARD ISLANDS (92)
ML 3.2 (FDF).

CRM	0.65	243	iP	05	47.96	2.4
			S	05	56.60	
FDF	0.86	249	iPd	05	49.01	0.4
			S	05	58.00	
BIM	0.90	234	eP	05	49.94	0.8
			S	06	00.80	
DGBT	0.99	281	eP	05	50.35	-0.1
			eS	06	01.82	
DTMT	1.01	280	eP	05	50.34	-0.4
			eS	06	03.65	
DSC	1.02	279	eP	05	50.38	-0.5
			eS	06	02.97	
DSVT	1.03	280	eP	05	50.23	-0.7
			eS	06	04.23	
DPMT	1.05	282	eP	05	50.35	-0.9
			eS	06	03.65	
SLW	1.19	210	eP	05	53.59	0.4
			eS	06	07.19	
BBL	1.21	293	iPc	05	53.06	-0.5
			S	06	06.80	
MGG	1.29	312	ePc	05	55.33	0.7
			S	06	09.90	
SLB	1.40	210	eP	05	55.94	-0.4
			eS	06	11.34	
DEG	1.44	331	ePc	05	58.64	1.7
			S	06	16.00	
PAG	1.63	307	ePc	05	59.00	-0.7
			S	06	17.10	
FCV	2.08	206	eP	06	04.41	-1.7
			eS	06	26.37	
ANG	2.55	325	eP	06	11.91	-0.8
			eS	06	45.03	
S.D. = 1.2		on	16	of	16	obs.

MAR 05, 1989 14h 18m 18.40± 1.19s
31.173 S ± 5.7km 72.315 W ±12.6km
DEPTH = 47.7 ± 8.7 km
5.0mb (3 obs.)
OFF COAST OF CENTRAL CHILE (134)

JACH	2.10	136	iPc	18	52.30	0.4
SAN	2.67	149	iP	18	59.60	-0.4
			iS	19	16.50	
			i	20	30.50	
TACM	2.73	155	iPc	19	00.90	0.0
			iS	19	32.00	
FCH	2.75	142	eP	19	01.50	0.1
			iS	19	33.00	
LNV	2.88	165	iPc	19	01.20	-1.6
			iS	19	17.80	
PCH	2.88	149	iP	19	03.00	0.0
			iS	19	36.50	
CHCH	3.09	153	iPc	19	06.00	0.1
			iS	19	42.00	
ZON	3.13	98	eP	19	09.00	2.5
CYA	6.28	66	ePc	19	49.60	-1.3
CNCB	14.83	16	P	21	48.20	0.9
LPB	15.07	16	P	21	51.00	0.7
ZOBO	15.32	15	P	21	53.00	-0.7
Z	20s	0.15um				
			LR	26	34.00	
VAO	23.95	76	eP	23	29.00	-0.3
			e	23	43.80	
ITA	26.11	77	eP	23	49.70	-0.3
			e	23	51.30	
BMA	26.43	78	eP	23	51.40	-1.3
BAO	27.07	61	eP	23	57.00	-1.6
SPA	59.00	180	ePc	28	16.10	0.6
	1.0s	12.00nm			5.0mb	
LIC	74.12	72	P	29	52.00	0.1
TIC	74.37	72	P	29	53.40	0.1
KIC	74.44	73	Pd	29	54.00	0.3
LSZ	90.91	108	iP	31	05.70	-13.2X
BCAO	92.99	87	eP	31	27.90	-0.5
	0.6s	1.26nm			4.5mb	
BNG	93.00	87	ePd	31	28.50	0.1
	0.3s	4.00nm			5.3mb	
PTZ	94.03	109	iP	31	35.30	2.1
WRA	123.09	210	PKPd	37	11.10	-0.6
	0.6s	0.90nm				
KOD	145.08	120	ePKP	37	53.80	0.6
GBA	147.17	115	PKPd	37	55.90	-0.2
	0.7s	5.90nm				
HYB	150.23	111	ePKP	38	06.50	5.6X
	1.0s	25.00nm				
		e		38	20.50	
S.D. = 1.0		on	26	of	28	obs.

% MAR 05, 1989 14h 21m 04.66± 0.75s
41.114 N ± 7.6km 28.875 E ± 5.1km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

ISK	0.15	109	ePg	21	08.50	0.4
CTT	0.34	276	ePg	21	11.30	-0.4
HRT	0.67	116	ePg	21	17.50	-0.5
KCT	0.95	205	iPn	21	22.50	-0.3
BNT	1.05	224	iPn	21	24.50	0.0
EDC	1.09	225	ePn	21	25.50	0.4
DMK	1.10	310	ePn	21	25.40	0.1
S.D. = 0.5		on	7	of	7	obs.

% MAR 05, 1989 15h 07m 52.57± 0.59s
37.712 N ± 5.4km 29.310 E ± 6.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

KHL	0.63	15	iPg	08 05.00	-0.3
			iSg	08 15.50	
YER	1.00	235	iPn	08 11.00	-0.6
BCK	1.05	103	ePn	08 12.00	-0.4
ELL	1.07	153	iPn	08 13.30	0.4
ALT	1.48	25	ePn	08 20.00	0.7
IZM	1.76	294	ePn	08 24.00	0.7
DST	1.96	344	ePn	08 25.70	-0.6
BNT	2.85	338	ePn	08 39.00	0.0

S.D. = 0.6 on 8 af 8 abs.

? MAR 05, 1989 15h 19m 32.54± 2.44s
4.151 S ±24.0km 129.678 E ±37.0km
DEPTH = 146.8 ± 16.2 km
4.1mb (5 abs.)
BANDA SEA (280)

AAI	1.55	287	eP	20 02.00	-0.7
			e(S)	20 59.50	
MTN	8.76	171	eP	21 38.00	0.7
			eS	23 21.00	
KNA	11.56	184	eP	22 16.00	1.8
			eS	24 32.00	
WB5	16.29	164	eP	23 13.90	-0.4
			i	23 20.10	
			eS	26 13.00	
WRA	16.34	164	Pc	23 14.60	-0.4
	0.6s		1.90nm	3.6mb	
OIS	18.96	150	iPc	23 45.50	0.5
			eS	27 12.00	
MBL	19.43	209	eP	23 53.50	3.6X
ASPA	19.83	169	iPc	23 58.90	4.8X
	0.7s	135.00nm		5.5mb X	
			eS	27 46.00	
WARB	22.10	187	eP	24 14.00	-2.7
	0.7s	9.00nm		4.3mb	
CTA	22.62	136	iPc	24 30.00	8.3X
	1.3s	36.54nm		4.6mb	
			e(S)	28 28.00	
			e	29 15.00	
			e	37 51.00	
			e	41 42.00	
NANU	22.86	216	eP	24 34.00	10.0X
PSI	31.48	282	ePc	25 47.00	4.5X
BWA	34.79	152	eP	26 15.90	4.9X
CAN	35.80	152	eP	26 23.20	3.8X
CHG	37.90	308	eP	26 42.10	4.8X
CHTO	37.90	308	eP	26 39.10	1.8
	1.1s	4.71nm		4.1mb	
GUN	52.87	310	P	28 35.20	-0.7
KKN	53.27	309	P	28 38.40	-0.3
GKN	53.87	309	P	28 41.80	-1.3
GBA	54.76	290	Pd	28 49.50	0.1
	0.8s	1.50nm		3.9mb	
HYB	54.81	295	eP	28 51.50	1.6

S.D. = 1.5 an 13 af 21 abs.

% MAR 05, 1989 15h 51m 49.49± 0.77s
44.618 N ± 6.2km 7.037 E ± 9.9km
DEPTH = 10.0km (geaphysicist)
NORTHERN ITALY (545)
ML 2.2 (GEN).

PZZ	0.12	158	P	51 52.83	0.2
			S	51 54.97	
DOI	0.19	127	Pc	51 54.00	0.3
			eSg	51 57.30	
RRL	0.35	329	P	51 56.71	-0.1
			S	52 01.98	
STV	0.43	151	P	51 58.12	-0.1
			S	52 03.64	
RSP	0.56	16	P	52 00.96	0.1
			S	52 08.25	
ROB	0.68	118	P	52 02.74	-0.3
			S	52 12.15	
FIN	0.93	116	P	52 07.34	0.0
			S	52 19.37	
IMI	0.94	139	P	52 07.28	-0.1
			S	52 19.13	

S.D. = 0.2 an 8 af 8 abs.

MAR 05, 1989 16h 44m 26.71± 0.40s
39.929 N ± 3.9km 19.646 E ± 2.9km
DEPTH = 18.0 ± 3.7 km
4.4mb (6 abs.)
GREECE-ALBANIA BORDER REGION (392)
ML 4.2 (ATH). Felt (V) at Borsh, Himare, Lukove and Pegeras; (IV) at Saranda, Verga and Delvine, Albania.

SRN	0.28	100	iPgd	44 31.70	-1.2
TPE	0.46	37	iPgc	44 34.70	-1.3
VLO	0.55	348	iPgd	44 38.00	0.5
LSK	0.77	73	iPgc	44 39.30	-2.0
BERA	0.81	17	iPg	44 40.80	-1.1
KBN	1.13	52	iPgc	44 47.80	0.4
LCI	1.36	288	P	44 51.10	0.3
			eSn	45 13.80	
TIR	1.43	7	iPnc	44 53.90	2.2
OHR	1.47	36	iPnc	44 53.20	0.8
KZN	1.67	76	ePb	44 56.50	1.1
			eSn	45 22.00	
PHP	1.86	19	iPnc	44 59.70	1.8
VLS	1.90	157	ePn	44 59.40	0.8
ULC	2.05	352	ePn	45 01.80	0.9
			eSn	45 30.80	
SDA	2.09	357	ePn	45 04.00	2.7
BRT	2.09	298	P	45 04.10	2.7
LIT	2.19	85	ePn	45 03.70	0.8
GRG	2.34	63	ePn	45 05.60	0.6
BDV	2.43	346	ePn	45 06.50	0.3
			eSn	45 40.00	
SKO	2.45	33	iPnc	45 07.60	1.1
	0.8s	224.00nm			
			iPg	45 14.00	
			i	45 35.50	
			iSg	45 45.00	
			Lg	45 48.00	
			LQ	46 03.00	
TTG	2.52	353	ePn	45 08.00	0.6
			eSn	45 42.50	
TDS	2.56	265	P	45 09.20	1.1
VAY	2.62	57	iPn	45 09.60	0.6
THE	2.63	73	ePn	45 06.50	-2.6
			eSn	45 41.00	
HCY	2.66	341	ePn	45 10.10	0.6
			eSn	45 45.30	
PVY	2.68	5	ePn	45 10.50	0.7
			eSn	45 45.20	
KNT	2.77	63	ePn	45 11.50	0.5
NEO	2.83	102	ePn	45 13.50	1.6
PLG	2.95	80	ePn	45 13.90	0.4
			eSn	45 49.10	
IVA	2.95	4	ePn	45 15.00	1.4
			eSn	45 54.50	
SOH	2.97	71	ePn	45 14.30	0.4
PAIG	3.10	89	ePn	45 15.10	-0.6
MGR	3.15	275	Pc	45 18.30	1.9
SRS	3.23	67	ePn	45 17.70	0.0
KKB	3.25	52	iPc	45 19.00	1.2
ITM	3.28	146	ePn	45 20.90	2.7
SOI	3.36	238	Pc	45 20.20	0.9
			eSn	46 00.00	
PLE	3.40	357	ePn	45 21.20	1.1
			eSn	46 05.00	
MMB	3.52	61	iPd	45 22.00	0.3
MSI	3.62	243	P	45 23.90	0.8
ATN	3.70	243	P	45 23.30	-1.0
			eSn	46 09.10	
ATH	3.73	120	ePn	45 25.20	0.6
VTS	3.78	44	iPc	45 27.00	1.5
BSS	3.80	285	P	45 27.30	1.7
HVAR	4.04	325	iPn	45 31.80	2.9
RZN	4.23	64	iPc	45 32.00	0.0
PGB	4.30	51	iPc	45 33.00	0.2
DUI	4.30	295	P	45 35.10	2.2
PLD	4.40	59	eP	45 35.00	0.8
RDO	4.65	73	ePn	45 38.70	0.9
MEU	4.65	234	Pc	45 35.60	-2.3
			eSn	46 29.30	
KDZ	4.71	67	iPd	45 38.00	-0.6
SDI	4.77	294	P	45 40.80	1.3
EZN	5.14	89	eP	45 44.00	-0.6
PRK	5.16	95	eP	45 45.50	0.5
ALP	5.38	304	iPn	45 48.69	0.4
			iSn	46 48.20	
PVL	5.38	51	eP	45 43.00	-5.1X
VAM	5.78	140	ePn	45 54.00	0.3
AOI	5.79	311	ePn	45 53.35	-0.5
			eSn	46 55.17	
BZS	5.87	14	eP	45 52.50	-2.3
CIO	5.87	306	ePn	45 54.31	-0.7
			eSn	46 55.59	
ASS	6.11	303	P	45 59.30	0.9
IZM	6.11	102	eP	45 59.00	0.6
DEV	6.41	21	ePd	46 10.00	7.4X
VBY	6.44	331	ePn	46 02.60	-0.4
			eSn	47 14.60	
PTJ	6.55	337	eP	47 02.00	57.4X
DST	6.93	90	eP	46 10.00	0.1
CEY	6.96	328	ePn	46 09.10	-1.1
			eSn	47 25.40	
LJU	7.17	330	e(Pn)	46 11.90	-1.3
			eSn	47 31.50	
MLR	7.24	38	eP	46 14.50	0.2
VOY	7.41	327	ePn	46 14.90	-1.8
			eSn	47 35.40	
RBL	7.88	328	P	46 20.70	-2.5
			eSn	47 48.20	
VRI	7.89	39	ePc	46 24.00	0.7
SRO	7.94	353	eP	46 33.00	9.1X
			e	47 12.60	
			e	47 40.00	
			e	48 22.70	
FVI	8.33	325	P	46 29.00	-0.4
			eSn	47 58.30	
ZST	8.46	348	eP	46 36.10	4.8X
			e	47 44.40	
			e	48 10.60	
KBA	8.48	329	e(Pn)	46 34.00	2.3
			i	46 44.20	
			iSn	48 04.70	
BOB	8.96	306	P	46 36.50	-1.8
			eSn	48 15.40	
SPC	9.27	2	eP	46 41.90	-0.6
MDI	9.34	312	P	46 40.80	-2.6
VAI	9.94	310	P	46 49.20	-2.4
HFS	20.57	352	eP	49 04.30	-2.5
	0.6s	7.80nm		4.3mb	
NUR	20.84	7	iP	49 07.00	-2.6
NAO	21.62	348	P	49 15.40	-2.2
	0.9s	20.00nm		4.5mb	
SUF	23.16	8	eP	49 32.60	-0.1
	0.7s	4.60nm		4.1mb	
KJF	24.77	8	iP	49 47.00	-1.3
	0.6s	11.70nm		4.7mb	
BNG	35.35	182	ePc	51 21.90	-1.2
	0.5s	5.00nm		4.7mb	
BCAO	35.35	182	eP	51 21.40	-1.7
	0.6s	1.82nm		4.2mb	
HYB	55.30	96	eP	54 09.50	7.9X

S.D. = 1.4 an 82 af 88 abs.

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* MAR 05, 1989 16h 49m 38.59± 1.67s
36.293 N ±12.8km 70.478 E ± 7.0km
DEPTH = 66.8 ± 21.6 km
3.9mb (3 abs.)
HINDU KUSH REGION (718)

QUE	6.77	207	iPd	51 17.80	0.2
			eS	52 30.20	
MAIO	8.87	273	ePn	51 46.00	-0.6
			eSn	53 08.00	
NDI	9.48	141	iPd	51 55.80	1.0
	0.5s	31.69nm		5.5mb X	
			eS	53 33.50	
GKN	14.55	121	P	53 01.70	-0.8
DMN	15.12	121	P	53 09.60	-0.4
KKN	15.13	120	P	53 10.80	0.8
	0.4s	5.00nm		4.1mb	
PKI	15.36	120	P	53 12.60	-0.4
GUN	15.48	118	P	53 14.60	-0.1
GBA	23.44	163	Pc	54 42.30	-0.3
	0.5s	1.30nm		3.6mb	
SUF	37.88	328	eP	56 51.00	0.7
HFS	42.97	322	eP	57 32.60	0.3
	0.4s	1.00nm		4.0mb	
MBC	67.56	3	eP	00 29.00	-0.4

S.D. = 0.7 an 12 af 12 abs.

& MAR 05, 1989 17h 00m 26.35s
60.206 N 153.231 W
DEPTH = 146.8km
4.2mb (1 abs.)
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM	0.19	133	iP	00 45.81	0.9
			eS	01 00.69	
RDT	0.55	48	iP	00 47.22	-0.7

05d 17h

			eS	01 04.01		
PDB	0.64	229	iP	00 47.37	-1.0	
			eS	01 03.43		
NNL	0.98	99	iP	00 50.85	-0.1	
NKA	1.12	61	iP	00 52.86	0.7	
SPU	1.14	30	iP	00 51.61	-0.8	
			eS	01 11.52		
CRP	1.19	26	iP	00 52.47	-0.5	
CNPM	1.22	123	iP	00 52.37	-0.7	
			eS	01 11.95		
CGLM	1.26	28	iP	00 52.89	-0.7	
SVW	1.49	309	eP	00 54.50	-1.4	
SLKM	1.53	77	iP	00 54.80	-1.5	
SEW	1.89	91	eP	00 58.88	-1.5	
			eS	01 23.88		
PMS	2.08	58	iPc	01 00.80	-1.9	
PWA	2.19	47	eP	01 02.30	-1.6	
PLRM	2.44	53	eP	01 04.39	-2.6	
PMR	2.44	53	eP	01 04.30	-2.7	
KDC	2.50	171	iPd	01 04.60	-3.1	
PME	2.50	53	eP	01 05.92	-1.8	
GHD	2.62	51	eP	01 07.10	-2.3	
			eS	01 39.17		
KNK	2.63	61	Pn	01 07.01	-2.5	
SML	2.88	54	iP	01 10.13	-2.5	
TTA	3.04	335	eP	01 12.90	-1.8	
HIN	3.35	84	eP	01 17.04	-1.7	
VZW	3.40	73	eP	01 16.62	-2.7	
VLZ	3.52	72	eP	01 18.38	-2.4	
CVA	3.73	82	iP	01 21.99	-1.6	
KLU	3.80	67	iP	01 22.19	-2.5	
TOA	3.91	58	eP	01 24.40	-1.7	
SGAM	4.00	82	iP	01 25.44	-1.7	
			eS	02 10.81		
RAGM	4.26	84	iP	01 28.85	-1.9	
GLB	4.78	71	iP	01 35.35	-2.2	
FBA	5.34	26	iPd	01 42.50	-2.5	
IMA	5.89	358	eP	01 50.50	-2.1	
CTGM	5.91	77	eP	01 51.85	-1.1	
SDN	6.23	222	eP	01 54.10	-3.0	
DWY	7.52	53	P	02 12.50	-2.0	
HYT	7.79	79	P	02 17.00	-1.2	
SIT	9.85	101	eP	02 44.20	-1.1	
YKA	18.47	66	eP	04 30.30	-2.8	
MBC	19.88	23	eP	04 44.00	-3.5	
	0.5s		5.00nm		4.2mb	
	40 obs. associated					

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* MAR 05, 1989 17h 46m 21.53± 1.21s
43.435 N ± 8.9km 1.945 W ±14.9km
DEPTH = 10.0km (geophysicist)
PYRENEES (378)
ML 3.2 (LDG).

EPF	1.72	103	Pn	46	50.80	-0.9
			Pg	46	52.50	
			Sg	47	15.40	
LFF	2.45	51	Pn	47	04.20	2.1
			Sg	47	44.80	
LPO	2.58	60	Pn	47	04.10	0.1
			Sg	47	48.20	
RJF	3.11	52	Pn	47	12.60	1.1
			Sn	47	49.30	
			Sg	48	05.20	
EBR	3.18	144	eP	47	13.00	0.5
			eSg	47	48.50	
CAF	3.25	61	Pn	47	13.20	-0.3
			Sn	47	51.00	
			Sg	48	08.60	
MFF	3.41	21	Pg	47	31.40	15.6X
LSF	3.75	40	Pn	47	19.90	-0.7
TOL	3.88	205	e(Pn)	47	22.50	-0.1
			ePg	47	30.00	
			eSg	48	16.00	
TCF	4.11	45	Pn	47	25.00	-0.7
MAF	4.25	47	Pn	47	26.80	-1.0
			Sg	48	40.50	
BGF	4.61	46	Pn	47	32.80	-0.1
			Sn	48	25.80	
			Sg	48	53.40	

S.D. = 1.0 on 11 of 12 obs.

MAR 05, 1989 17h 57m 53.31± 0.33s
11.481 S ± 7.4km 112.718 E ±11.8km
DEPTH = 33.0km (normal)
4.8mb (8 obs.)
SOUTH OF JAVA (282)

NANU	11.34	167	eP	00	31.50	-4.6X
MBL	11.80	146	iPd	00	36.30	-6.0X
	0.3s		18.00nm		5.7mb	
			eS	02	33.00	
MEKA	16.02	161	eP	01	34.00	-3.9X
	0.4s		43.00nm		4.9mb	
			eS	04	18.00	
MRWA	17.91	171	eP	02	00.00	-1.6
			eS	05	06.80	
BAL	19.39	170	eP	02	18.00	-1.5
			S	05	41.00	
WARB	19.66	140	eP	02	10.00	-12.6X
	0.4s		10.00nm			
			eS	05	33.00	
KLB	20.55	168	eP	02	34.00	2.2
			eS	06	06.00	
MUN	20.65	172	eP	02	37.00	4.2X
			eS	06	10.00	
COOL	20.83	159	eP	02	36.00	1.3
			eS	06	10.00	
NWAO	21.74	170	eP	02	52.00	8.1X
			eS	06	32.00	
WRA	22.43	115	Pc	02	50.30	-0.6
	0.6s		7.50nm		4.3mb	
WB5	22.43	115	eP	02	50.00	-0.9
ASPA	23.51	124	iPc	03	01.90	0.5
	0.8s		18.00nm		4.6mb	
			eS	06	54.80	
FORR	23.97	146	eP	03	06.00	0.3
			eS	07	20.00	
KHT	29.61	331	eP	04	01.50	3.6X
CHG	33.03	336	eP	04	31.20	3.3X
CHTO	33.03	336	eP	04	29.10	1.2
	1.0s		2.25nm		4.0mb	
GYA	38.17	351	P	05	12.00	0.3
BWA	39.71	131	eP	05	35.50	11.1X
GBA	42.96	305	Pc	05	50.60	-0.6
	0.6s		5.00nm		4.4mb	
CD2	43.02	349	eP	05	51.60	0.0
HYB	44.31	310	eP	06	02.00	-0.3
XAN	45.41	356	P	06	09.70	-1.1
LSA	45.92	334	P	06	16.40	1.0
PKI	46.99	326	P	06	23.40	-0.3
GUN	47.00	327	P	06	24.00	0.1
DMN	47.18	326	P	06	24.80	-0.4
	0.8s		23.00nm		5.2mb	
KKN	47.23	326	P	06	25.20	-0.3
GKN	47.75	326	P	06	29.40	-0.1
LZH	48.05	350	eP	06	31.00	-0.7
	1.5s		44.00nm		5.3mb	
GTA	52.03	347	eP	07	01.80	-0.3
WMQ	59.57	339	P	07	56.60	0.4
YKA	118.93	23	ePKP	16	40.70	1.0
ITR	144.96	236	ePKP	17	34.80	5.0X
GAC	145.19	10	ePKP	17	30.00	0.8
SOB1	146.67	233	ePKP	17	36.20	3.5X
CNCB	151.88	179	PKPd	17	50.80	9.5X
			i	17	59.70	
LPB	152.15	178	ePKP	17	51.00	9.5X
LPB	152.15	178	PKP	17	41.00	-0.5
ZOBO	152.42	178	PKP	17	51.40	9.3X
	S.D. = 0.9		on 26 of 40 obs.			

% MAR 05, 1989 19h 06m 13.44± 0.79s
11.575 N ± 5.9km 61.587 W ±27.2km
DEPTH = 31.8 ± 9.2 km
WINDWARD ISLANDS (95)

GRW	0.59	353	eP	06	25.79	0.4
			eS	06	35.50	
TCE	0.89	191	eP	06	29.67	0.0
			eS	06	42.28	
TRN	0.94	169	iP	06	29.34	-1.0
			eS	06	41.46	
TBH	1.20	155	eP	06	34.79	0.7
SVB	1.72	11	eP	06	41.61	0.0
			eS	07	03.02	
SVV	1.77	12	eP	06	41.98	-0.4
			eS	07	01.64	
SSV	1.78	12	eP	06	42.23	-0.4
			eS	07	04.75	
	S.D. = 0.8		on 7 of 7 obs.			

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* MAR 05, 1989 19h 16m 26.14± 2.65s
47.179 N ± 6.1km 3.389 W ±22.7km
DEPTH = 10.0km (geophysicist)
FRANCE (538)

ML 3.8 (LDG).

LPF	1.80	61	Pn	16	58.30	0.8
			Pg	17	01.70	
			Sg	17	24.50	
GRR	2.09	54	Pn	17	02.30	0.6
			Pg	17	06.80	
			Sg	17	33.20	
MFF	2.30	103	Pn	17	05.80	1.2
			Pg	17	11.20	
			Sg	17	40.40	
FLN	2.51	50	Pn	17	08.00	0.3
			Pg	17	14.30	
			Sg	17	45.60	
LDF	2.61	56	Pn	17	09.50	0.4
			Pg	17	15.60	
			Sg	17	49.80	
LSF	3.51	104	Pn	17	22.30	0.5
			Pg	17	34.00	
			Sn	18	00.40	
			Sg	18	18.00	
LFF	3.64	126	Pn	17	24.30	0.6
			Pg	17	36.50	
			Sn	18	04.20	
			Sg	18	24.80	
RJF	3.89	117	Pn	17	27.30	0.1
			Pg	17	42.10	
			Sn	18	08.90	
			Sg	18	31.00	
TCF	3.95	101	Pn	17	28.40	0.3
			Pg	17	41.90	
			Sn	18	10.20	
			Sg	18	32.60	
LPO	4.05	126	Pn	17	30.60	1.1
			Pg	17	44.70	
			Sg	18	36.20	
HYF	4.11	87	Pn	17	30.90	0.6
			Pg	17	45.80	
			Sg	18	35.00	
MAF	4.21	101	Pn	17	31.70	-0.1
			Pg	17	47.70	
			Sn	18	16.70	
			Sg	18	40.60	
BGF	4.32	96	Pn	17	33.20	-0.2
			Pg	17	49.30	
			Sn	18	18.20	
			Sg	18	43.60	
CAF	4.41	119	Pn	17	34.70	0.0
			Sn	18	22.00	
			Sg	18	47.20	
AVF	4.63	92	Pn	17	37.30	-0.4
			Pg	17	54.30	
			Sn	18	25.80	
			Sg	18	51.40	
SSF	4.71	89	Pn	17	37.70	-1.2
			Pg	17	56.60	
			Sn	18	27.80	
			Sg	18	53.80	
EPF	4.92	146	Pn	17	40.70	-1.1
			Sn	18	35.60	
			Sg	19	05.00	
LOR	4.94	86	Pn	17	41.00	-1.1
			Pg	18	00.40	
			Sn	18	34.80	
			Sg	19	01.40	
SMF	4.98	94	Pn	17	42.40	-0.3
			Pg	18	01.40	
			Sn	18	34.80	
			Sg	19	04.00	
LBF	5.04	90	Pn	17	43.00	-0.5
			Pg	18	01.50	
			Sn	18	36.50	
			Sg	19	05.80	
DOU	6.04	58	iPc	17	56.30	-1.3
	0.3s		75.00nm			5.9mb X
			i	18	06.60	
HAU	6.64	79	Pn	18	03.00	-3.1X
			Sn	19	13.80	
BSF	6.93	81	Pn	18	06.60	-3.7X
	S.D. = 0.8		on 21 of 23 obs.			

MAR 05, 1989 20h 13m 20.61± 0.24s
51.097 N ± 5.6km 178.991 W ± 2.8km
DEPTH = 33.0km (normal)
5.2mb (54 obs.) 4.5Msz (4 obs.)
ANDREANOF ISLANDS, ALEUTIAN IS. (7)
CENTROID, MOMENT TENSOR (HRV)

Data Used: GDSN
L.P.B.: 14S, 26C
Centraid Lacatian:
Origin Time 20:13:22.7 0.9
Lat 51.46N 0.13 Lan 178.90W 0.16
Dep 25.7 5.6 Half-duratian 1.5
Mament Tensor; Scale 10**16 Nm
Mrr= 2.92 0.36 Mtt=-3.00 0.56
Mff= 0.08 0.31 Mrt= 6.75 1.70
Mrf= 3.36 0.82 Mtf=-0.58 0.39
Principol Axes:
T Val= 8.14 Plg=55 Azm=327
N -0.04 6 66
P -8.10 34 160
Best Dauble Cauple:Ma=8.1*10**16
NP1:Strike=274 Dip=12 Slip= 119
NP2: 65 79 84

ADK 1.64 60 iPd 13 49.60 2.1
SMY 4.58 294 eP 14 32.00 2.7
SDN 11.86 62 eP 16 10.80 0.6
SVW 16.35 43 eP 17 13.40 4.4X
KDC 16.72 56 eP 17 13.70 0.1
TTA 17.11 37 eP 17 20.70 2.1
PMS 19.10 47 eP 17 43.60 0.6
PMR 19.41 46 eP 17 48.80 2.3
IMA 19.75 31 eP 17 50.20 -0.2
1.0s 40.00nm 4.7mb
TOA 20.91 46 eP 18 02.40 0.1
FBA 21.24 38 eP 18 05.50 -0.1
INK 27.76 35 eP 19 07.00 -0.7
MAT 33.62 261 eP 20 00.00 0.1
1.1s 39.24nm 5.2mb
MBC 33.91 22 eP 20 02.00 0.0
0.6s 9.00nm 4.9mb
MDJ 34.50 280 eP 20 06.00 -1.4
YKA 35.51 46 eP 20 15.70 -0.1
YKC 35.58 46 eP 20 16.00 -0.4
PNT 37.15 69 eP 20 30.00 0.2
1.0s 29.00nm 5.1mb
CN2 37.48 281 Pc 20 31.70 -0.9
SNY 39.70 280 iPc 20 51.80 0.7
WDC 39.79 83 eP 20 58.00 6.0X
MIN 40.51 82 eP 20 58.70 0.6
ORV 41.04 83 e(P) 21 00.50 -1.7
SES 41.59 63 ePd 21 07.50 0.8
CMB 42.64 84 eP 21 20.60 5.2X
LRM 43.08 70 ePc 21 19.60 0.4
KVN 43.46 82 eP 21 22.50 0.3
BGMT 43.64 70 eP 21 24.00 0.3
EUR 44.53 80 eP 21 31.00 0.1
TNP 44.60 82 eP 21 30.50 -1.0
1.0s 10.00nm 4.6mb
BJI 45.32 282 eP 21 36.50 -0.4
Z 20s 0.30um 4.2Msz
CLC 45.77 85 eP 21 36.00 -4.6X
SBB 46.35 86 eP 21 50.00 4.8X
BW06 46.51 72 eP 21 47.10 0.5
0.8s 24.11nm 5.2mb
GSC 46.59 85 eP 21 58.00 10.8X
RVR 47.08 87 eP 21 58.00 7.1X
TIA 47.08 277 eP 21 50.50 -0.4
HHC 47.65 286 eP 21 55.80 0.3
PLM 47.82 87 eP 21 58.00 1.0
TPC 47.84 85 eP 22 01.00 4.0X
BAR 48.39 87 eP 22 19.00 17.8X
BTO 48.74 287 P 22 05.50 1.6
TIY 49.05 282 eP 22 06.80 0.5
Z 20s 0.50um 4.5Msz
GLA 49.30 86 eP 22 09.00 0.8
RSON 50.72 55 eP 22 17.30 -1.5
GOL 50.88 73 eP 22 20.40 -0.1
1.0s 50.00nm 5.4mb
GLD 50.94 72 eP 22 21.00 0.2
1.0s 22.50nm 5.1mb
DAG 51.79 6 iPd 22 25.00 -1.5
0.8s 10.45nm 4.8mb
WHN 52.56 274 eP 22 31.50 -1.4
ALQ 53.27 78 eP 22 38.00 -0.4
1.1s 6.96nm 4.6mb
FRB 53.33 31 ePc 22 36.80 -1.4
XAN 53.60 281 P 22 39.10 -1.5
LZH 55.35 286 eP 22 54.00 0.4
1.5s 132.00nm 5.7mb
Z 24s 0.60um 4.6MszX
GTA 55.56 292 iPc 22 54.60 -0.4
KEV 57.97 350 eP 23 18.00 6.4X

CD2 58.91 282 eP 23 18.40 -0.3
WMQ 59.39 303 Pc 23 21.20 -0.8
Z 20s 0.70um 4.8Msz
eS 31 32.00
GYA 60.23 276 P 23 27.00 -0.9
SOD 60.29 349 eP 23 26.00 -1.6
SCH 60.33 38 eP 23 26.00 -2.2
FVM 60.78 65 eP 23 30.00 -1.4
KJF 63.17 347 iP 23 45.60 -1.4
0.7s 21.40nm 5.4mb
GAC 63.23 50 eP 23 46.00 -1.6
SUF 64.80 348 iP 23 56.20 -1.5
0.8s 19.40nm 5.3mb
RSCP 65.21 64 eP 24 00.00 -0.8
TKL 66.19 62 eP 24 06.30 -0.7
NUR 67.13 348 iP 24 12.00 -0.5
Z 18s 0.30um 4.6Msz
LR 59 00.00
CVL 67.38 57 eP 24 14.00 -0.5
LSA 67.42 290 Pc 24 16.50 1.0
NAO 68.15 355 P 24 17.20 -1.8
1.0s 6.10nm 4.6mb
UPP 68.59 351 iP 24 20.10 -1.5
1.1s 100.00nm 5.8mb
JSC 68.60 62 eP 24 21.90 -0.2
KSH 68.61 307 eP 24 23.40 1.1
HFS 68.65 353 eP 24 19.90 -2.2
0.4s 3.20nm 4.8mb
Z 16s 0.20um 4.4MszX
LR 51 10.00
CHG 70.66 276 iPc 24 34.50 -0.4
1.0s 12.50nm 4.9mb
GUN 71.85 292 P 24 43.10 0.7
KKN 72.29 292 P 24 45.60 0.7
PKI 72.38 292 P 24 45.80 0.2
GKN 72.51 293 P 24 46.50 0.4
DMN 72.53 292 P 24 47.00 0.7
NDI 76.20 299 iPc 25 07.00 -0.2
1.1s 126.58nm 5.8mb
WIT 76.36 356 eP 25 08.50 0.9
WTS 77.17 356 eP 25 12.00 -0.1
1.0s 24.00nm 5.2mb
CLL 77.46 352 iPc 25 12.70 -1.1
1.2s 16.00nm 4.9mb
KSP 77.61 350 eP 25 14.00 -0.6
BRG 77.81 352 eP 25 15.40 -0.3
1.0s 20.00nm 5.1mb
KRA 77.94 348 eP 25 16.00 -0.4
MOX 78.23 353 ePc 25 17.50 -0.6
1.4s 26.00nm 5.1mb
ENN 78.43 357 eP 25 19.00 -0.1
1.0s 52.00nm 5.5mb
TBI 78.56 152 i(P) 25 24.10 4.1X
MEM 78.58 357 P 25 19.60 -0.3
SNF 78.73 358 Pc 25 20.50 -0.2
MAIO 78.98 315 eP 25 23.00 0.5
DOU 79.14 358 Pc 25 23.00 0.0
WLF 79.52 357 Pc 25 25.60 0.6
ZST 80.13 349 iP 25 28.70 0.4
GWF 80.15 356 P 25 28.28 -0.2
SRO 80.36 348 iP 25 30.00 0.5
QUE 80.46 307 iPc 25 31.20 0.5
FLN 80.51 1 eP 25 30.10 -0.3
0.8s 22.50nm 5.2mb
LDF 80.69 1 eP 25 31.00 -0.3
0.8s 21.40nm 5.2mb
CDF 80.73 356 P 25 31.28 -0.4
GRR 80.88 1 eP 25 32.50 0.2
0.8s 22.50nm 5.2mb
VRI 80.89 342 ePc 25 32.50 0.0
VITF 80.98 357 P 25 32.64 -0.1
HAU 81.17 356 eP 25 34.00 0.1
1.0s 20.00nm 5.1mb
FEL 81.23 355 P 25 33.62 -0.7
LPF 81.24 1 eP 25 34.40 0.2
1.0s 32.00nm 5.3mb
MOF 81.29 356 P 25 34.15 -0.5
BSF 81.33 356 P 25 34.24 -0.6
MLR 81.40 343 ePd 25 36.50 1.2
KBA 81.63 352 iPc 25 37.20 0.7
1.0s 52.10nm 5.5mb
i 26 00.20
i 26 05.20
WB5 81.66 224 eP 25 36.30 -0.4
WRA 81.73 224 Pc 25 36.70 -0.3
1.0s 5.50nm 4.5mb
LOMF 81.81 356 P 25 36.99 -0.3

LOR 81.99 358 eP 25 38.40 0.3
1.2s 26.70nm 5.1mb
BZS 82.03 346 eP 25 38.00 -0.4
FVI 82.16 352 P 25 39.50 0.5
SSF 82.20 358 eP 25 39.60 0.4
1.0s 10.00nm 4.8mb
RBL 82.24 351 Pc 25 39.10 -0.5
LBF 82.27 358 eP 25 39.70 0.1
1.0s 10.80nm 4.9mb
AVF 82.47 358 eP 25 40.90 0.3
1.2s 35.70nm 5.3mb
SMF 82.61 358 eP 25 41.70 0.3
1.1s 39.00nm 5.4mb
MFF 82.68 1 eP 25 42.20 0.5
0.8s 10.70nm 5.0mb
BGF 82.71 359 eP 25 42.20 0.3
1.1s 21.90nm 5.1mb
CTI 82.80 353 P 25 42.00 -0.5
PSI 82.94 266 iPd 25 44.00 0.5
0.6s 14.20nm 5.2mb
TCF 82.99 359 eP 25 43.50 0.1
0.8s 4.50nm 4.6mb
LSF 83.03 360 eP 25 43.60 0.0
0.8s 14.70nm 5.1mb
MAF 83.05 359 eP 25 44.10 0.4
0.8s 11.20nm 5.0mb
VAI 83.19 355 P 25 44.20 -0.1
SAL 83.33 353 P 25 43.80 -1.3
ORX 83.46 355 P 25 49.77 3.8X
LPG 83.66 356 eP 25 48.30 1.1
1.2s 19.00nm 5.1mb
LSD 83.68 356 P 25 48.02 0.8
RJF 83.98 360 eP 25 49.10 0.7
1.0s 17.60nm 5.2mb
RSP 83.98 356 P 25 49.15 0.6
BNI 84.11 356 P 25 50.60 1.4
HYB 84.20 290 ePc 25 50.00 0.0
1.4s 95.00nm 5.8mb
RRL 84.23 356 P 25 51.30 1.3
BOB 84.24 354 Pc 25 50.60 0.8
LFF 84.35 0 eP 25 50.80 0.6
1.0s 45.60nm 5.6mb
CAF 84.36 359 eP 25 51.00 0.7
1.1s 36.60nm 5.5mb
LPO 84.60 360 eP 25 51.90 0.4
0.8s 27.90nm 5.5mb
PZZ 84.63 356 P 25 51.92 0.0
MME 84.72 353 Pc 25 53.40 0.9
ROB 84.80 355 P 25 51.92 -0.7
BDI 84.86 353 P 25 52.60 -0.3
FIN 84.87 355 P 25 52.95 0.0
STV 84.88 355 P 25 51.20 -1.9
PGD 84.95 352 P 25 54.80 1.3
FIR 85.09 353 eP 25 54.00 0.0
TOUF 85.12 355 P 25 54.41 0.0
AUTN 85.13 355 P 25 54.65 0.2
CRE 85.18 352 P 25 55.20 0.6
IMI 85.19 355 P 25 53.97 -0.6
ASPA 85.20 222 iPc 25 55.00 0.3
1.3s 11.00nm 4.9mb
PII 85.20 353 P 25 54.00 -0.5
ARV 85.22 351 P 25 55.40 0.7
AURF 85.24 355 P 25 54.71 -0.2
MVIF 85.24 356 P 25 54.87 -0.1
SBF 85.26 355 eP 25 55.20 0.3
0.8s 26.80nm 5.5mb
BBTK 85.27 336 iP- 25 56.00 0.9
CALN 85.39 356 P 25 55.39 -0.3
FRF 85.60 356 eP 25 56.80 0.3
0.8s 13.40nm 5.2mb
SKO 85.61 345 eP 25 57.70 1.0
ASS 85.67 351 P 25 57.20 0.2
LRG 85.72 356 eP 25 57.80 0.7
0.8s 11.80nm 5.2mb
LMR 85.83 356 eP 25 58.20 0.5
0.8s 14.50nm 5.3mb
POO 86.06 295 eP 25 59.50 0.2
EPF 86.25 0 eP 25 59.70 -0.2
1.0s 8.00nm 4.9mb
MNS 86.35 351 P 26 00.20 -0.1
CVF 86.47 354 P 26 00.89 0.0
SDI 86.90 350 P 26 02.70 -0.4
GBA 87.85 289 Pd 26 04.90 -3.0X
1.0s 16.10nm 5.3mb
TOL 89.29 4 eP 26 15.00 0.5
BWA 89.86 206 eP 26 18.30 1.3
BFS 148.91 311 ePKP 33 07.00 4.7X

05d 20h

BLF 151.04 310 iPKPd 33 19.50 14.0X
KIM 151.42 312 iPKPc 33 20.50 14.5X
S.D. = 0.8 on 164 of 180 obs.

? MAR 05, 1989 20h 51m 42.88± 2.68s
43.611 N ± 9.3km 0.003 W ±43.9km
DEPTH = 10.0km (geophysicist)
PYRENEES (378)
ML 3.2 (LDG). Felt (IV) at Artix ond in the Lacq oilfield area, France.

EPF	0.63	157	Pg	51 54.20	-1.4
			Sg	52 05.10	
LPO	1.37	38	Pg	52 14.20	6.2X
			Sg	52 38.20	
LFF	1.43	22	Pg	52 14.50	5.6X
			Sg	52 38.60	
CAF	1.98	48	Pn	52 18.60	1.7
			Pg	52 26.00	
			Sn	52 46.20	
			Sg	52 57.20	
RJF	2.01	32	Pg	52 25.80	8.5X
			Sn	52 46.80	
			Sg	52 57.30	
EBR	2.81	172	eP	52 30.00	1.3
LSF	2.85	22	Pn	52 28.60	-0.7
			Sn	53 05.30	
			Sg	53 22.30	
MFF	2.99	358	Pg	52 41.20	10.0X
			Sg	53 21.40	
TCF	3.10	30	Pg	52 46.20	13.4X
			Sn	53 11.40	
			Sg	53 30.60	
MAF	3.19	34	Pn	52 33.40	-0.6
			Sn	53 14.00	
			Sg	53 34.60	
BGF	3.57	33	Pn	52 39.10	-0.3
			Pg	52 54.50	
			Sg	53 45.00	

S.D. = 1.6 on 6 of 11 obs.

% MAR 05, 1989 22h 29m 55.02± 3.55s
15.748 N ±11.2km 60.234 W ±32.8km
DEPTH = 33.0km (normal)
LEEWARD ISLANDS (92)
ML 2.8 (FDF).

DEG	0.97	305	eP	30 12.41	0.0
			S	30 25.60	
MGG	1.06	279	eP	30 13.71	0.2
			S	30 27.10	
BBL	1.22	260	eP	30 16.11	0.3
			S	30 31.40	
FDF	1.34	221	eP	30 17.91	0.3
			S	30 35.50	
MVM	1.35	208	eP	30 17.81	0.1
SEG	1.38	298	eP	30 19.00	0.8
PAG	1.42	282	eP	30 19.10	0.3
			S	30 37.00	
BIM	1.47	214	eP	30 20.09	0.6

S.D. = 0.3 on 8 of 8 obs.

? MAR 06, 1989 00h 20m 09.16± 2.99s
32.139 N ±42.9km 69.601 E ±14.5km
DEPTH = 33.0km (normal)
4.7mb (3 obs.)
PAKISTAN (710)

QUE	2.99	230	eP	20 55.90	0.4
NDI	7.42	116	iPc	21 59.50	1.6
	0.6s		30.00nm		5.5mb
			eS	23 18.50	
GKN	13.66	104	P	23 22.40	-0.6
DMN	14.19	105	P	23 30.00	-0.1
KKN	14.26	104	P	23 30.60	-0.4
	0.6s		9.00nm		4.6mb
PKI	14.45	104	P	23 33.20	-0.4
GUN	14.72	102	P	23 37.60	0.5
	0.3s		6.00nm		4.5mb
GBA	19.80	157	Pd	24 38.70	-1.0
	0.9s		2.00nm		3.4mb X

S.D. = 1.0 on 8 of 8 obs.

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* MAR 06, 1989 00h 26m 23.16± 0.59s
51.198 N ±13.3km 179.114 W ± 5.9km
DEPTH = 33.0km (normal)
4.7mb (25 obs.)
ANDREANOF ISLANDS, ALEUTIAN IS. (7)

ADK	1.67	65	ePd	26 51.60	1.2
SMY	4.47	293	eP	27 34.70	4.4X
SVW	16.33	44	eP	30 15.70	4.5X
TTA	17.08	38	eP	30 23.40	2.7
PMS	19.09	47	eP	30 49.20	3.8X
IMA	19.71	31	eP	30 52.30	-0.2
	0.9s		16.70nm		4.3mb
FBA	21.21	38	eP	31 07.80	0.0
INK	27.72	35	eP	32 14.00	4.1X
MBC	33.85	22	eP	33 04.00	0.0
YKA	35.50	46	eP	33 17.90	-0.3
YKC	35.56	46	eP	33 18.50	-0.3
PNT	37.18	69	eP	33 33.00	0.4
KVN	43.52	82	eP	34 27.00	1.7
EUR	44.59	80	iP	34 34.40	0.5
TNP	44.66	82	eP	34 37.00	2.5X
BW06	46.55	72	eP	34 49.10	-0.4
	0.9s		21.19nm		5.1mb
RSON	50.72	55	eP	35 19.60	-1.7
GOL	50.92	73	eP	35 23.00	-0.3
FRB	53.28	31	eP	35 39.00	-1.4
ALQ	53.33	78	eP	35 40.00	-1.4
	1.0s		2.00nm		4.1mb
KJF	63.05	347	iP	36 48.00	-0.8
	0.5s		8.40nm		5.1mb
SUF	64.68	347	iP	36 57.90	-1.6
	0.7s		2.50nm		4.4mb
TKL	66.21	62	eP	37 08.80	-0.8
NUR	67.01	347	iP	37 12.00	-2.4
CVL	67.39	57	eP	37 16.50	-0.6
NAO	68.05	355	P	37 19.00	-1.9
	0.9s		2.60nm		4.3mb
HFS	68.54	353	eP	37 22.10	-1.8
	0.3s		0.80nm		4.3mb
JSC	68.62	62	eP	37 24.20	-0.6
SHL	69.91	286	iP	37 32.00	-1.1
GUN	71.74	292	P	37 45.20	0.9
KKN	72.18	292	P	37 47.40	0.6
	0.5s		8.00nm		5.0mb
PKI	72.27	292	P	37 48.60	1.1
GKN	72.40	293	P	37 48.60	0.6
DMN	72.42	292	P	37 48.40	0.2
KSP	77.50	350	eP	38 16.50	0.0
GRF	79.10	353	eP	38 26.00	0.6
ZST	80.01	349	e(P)	38 31.10	0.8
QUE	80.34	307	eP	38 33.70	1.1
FLN	80.41	1	eP	38 32.00	-0.4
	1.0s		24.00nm		5.1mb
LDF	80.59	1	eP	38 33.00	-0.3
	0.8s		8.00nm		4.8mb
MLR	81.29	342	ePd	38 39.00	1.8
KBA	81.52	351	iPd	38 39.50	1.0
	0.9s		14.10nm		5.0mb
			i	38 42.80	
LOR	81.88	358	eP	38 39.90	-0.2
	0.8s		5.30nm		4.6mb
SSF	82.10	358	eP	38 41.40	0.2
	1.0s		6.80nm		4.6mb
AVF	82.37	358	eP	38 42.90	0.3
	1.0s		6.00nm		4.6mb
SMF	82.51	358	eP	38 43.70	0.3
	0.8s		5.30nm		4.7mb
TCF	82.89	359	eP	38 45.40	0.0
	0.8s		4.00nm		4.6mb
LSF	82.93	360	eP	38 45.70	0.1
	0.8s		4.50nm		4.6mb
MAF	82.95	359	eP	38 46.10	0.4
	0.8s		4.00nm		4.6mb
HYB	84.09	290	eP	38 52.50	0.5
LFF	84.24	0	eP	38 52.70	0.4
	0.6s		5.40nm		4.9mb
LPO	84.50	360	eP	38 53.90	0.3
	0.9s		13.10nm		5.1mb
SBF	85.15	355	eP	38 57.20	0.3
	0.6s		7.90nm		5.1mb
FRF	85.49	356	eP	38 58.90	0.3
	0.8s		5.30nm		4.8mb
LRG	85.61	356	eP	38 59.70	0.6
	0.9s		6.50nm		4.8mb
LMR	85.72	356	eP	39 00.20	0.5
CVF	86.36	354	eP	39 03.30	0.4
	0.7s		8.80nm		5.1mb
GBA	87.74	289	Pc	39 08.40	-1.5
	0.6s		2.80nm		4.7mb
FORR	93.97	223	iPc	39 34.40	-4.0X
	0.4s		22.00nm		5.9mb X
BLF	150.92	310	ePKP	46 14.00	6.2X
FRS	151.87	310	ePKP	46 26.00	17.0X

S.D. = 1.0 on 53 of 61 obs.

MAR 06, 1989 00h 32m 10.28± 1.31s
10.702 S ± 6.8km 166.097 E ± 8.5km
DEPTH = 172.3 ± 10.8 km
5.0mb (11 obs.)
SANTA CRUZ ISLANDS (184)

HNR	6.19	281	eP	33 42.00	1.5
VSC	6.45	282	eP	33 42.00	-2.0
DZM	11.31	178	iPd	34 48.40	0.3
			iS	36 51.00	
PMG	18.70	272	eP	36 18.50	0.4
BRS	20.80	215	iPd	36 59.00	19.5X
CTA	21.26	242	iPd	36 45.30	1.2
	1.2s		85.94nm		5.1mb
			i	37 00.00	
RMQ	22.69	224	iPc	36 58.70	0.8
COO	23.78	212	eP	37 10.00	1.5
QIS	27.29	246	eP	37 40.00	-0.8
BWA	28.61	212	eP	37 51.00	-1.6
WB5	31.89	250	iPd	38 21.00	-0.5
WRA	31.92	249	Pd	38 21.00	-0.8
	0.8s		19.60nm		4.9mb
ASPA	33.26	243	iPd	38 32.20	-1.1
	1.0s		38.00nm		5.0mb
MTN	34.28	263	eP	38 42.00	-0.1
KNA	36.65	258	eP	39 02.00	-0.1
MBL	45.54	251	iPd	40 15.30	0.7
	0.4s		29.00nm		5.2mb
NANU	49.65	250	eP	40 47.10	0.6
KHKI	49.80	268	ePd	40 46.00	-1.8
NJ2	62.02	315	Pc	42 14.70	0.2
MDJ	64.21	332	Pd	42 28.50	-0.2
CN2	65.63	329	iPd	42 37.50	-0.3
			epP	43 16.50	164kmX
BJI	68.43	321	eP	42 55.00	-0.5
TIY	69.54	317	iPc	43 03.00	0.6
CHG	72.40	294	iPd	43 20.30	0.5
	0.8s		11.19nm		4.6mb
CHTO	72.40	294	iP	43 19.90	0.1
	0.7s		9.05nm		4.6mb
CD2	72.67	307	P	43 21.80	0.6
LZH	74.78	312	P	43 33.50	0.0
	1.0s		46.00nm		5.2mb
GTA	79.07	314	iPd	43 58.10	1.0
SHL	80.66	298	iP	44 06.20	0.3
FBA	82.89	18	iP	44 16.40	0.0
	1.0s		16.00nm		4.8mb
KVN	85.88	49	eP	44 31.90	-0.2
GUN	86.45	299	P	44 36.60	1.2
	0.8s		23.00nm		5.1mb
PKI	86.78	299	P	44 37.60	0.7
KKN	86.94	299	P	44 38.40	0.8
	0.8s		17.00nm		5.0mb
DMN	87.05	299	P	44 39.00	0.9
GKN	87.54	299	P	44 40.60	0.2
HYB	90.84	287	ePc	44 56.00	0.2
GBA	91.19	284	Pd	44 56.40	-1.0
	1.6s		23.80nm		5.0mb
YKA	94.51	27	eP	45 11.30	-0.4
MBC	96.69	13	eP	45 22.00	0.6
KJF	119.17	341	iPKP	50 39.20	-0.5
	0.5s		7.00nm		
SUF	120.69	340	iPKP	50 41.80	-0.9
	0.5s		3.50nm		
NUR	122.73	338	iPKP	50 46.10	-0.5
HFS	126.56	343	ePKP	50 53.10	-1.0
	0.4s		0.60nm		
NAO	126.74	345	PKP	50 52.10	-2.3X
	1.0s		3.80nm		
SOB1	146.65	125	ePKP	51 33.20	1.0
BNG	147.26	262	ePKPc	51 31.90	-1.3
	0.2s		32.00nm		
			id	51 34.80	
			ic	52 05.20	

S.D. = 0.9 on 45 of 47 obs.

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* MAR 06, 1989 02h 13m 02.92± 1.17s
37.356 N ± 7.2km 36.406 E ±14.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
Felt at Adana-Kodirli.

LFK	3.11	229	eP	14 00.00	7.0X
CSS	3.45	227	eP	13 59.00	1.2
KVT	3.73	356	ePn	14 01.90	0.1
BBTK	3.78	312	ePn	14 02.50	-0.2
			ePg	14 12.00	
			eSg	15 00.00	
PPCY	4.11	234	eP	14 06.00	-1.1
BCK	4.63	273	eP	14 22.50	7.8X
JARJ	5.12	184	P	14 22.20	0.6
BURJ	5.16	186	P	14 21.10	-0.9
ELL	5.23	265	eP	14 23.30	0.1
MSL	5.49	98	eP	14 51.50	24.7X
			e	16 07.00	
PRNI	7.09	190	eP	14 53.00	3.7X
SLY	7.53	101	eP	15 54.00	58.6X
			e	17 35.00	
MBH	7.67	190	e(P)	15 01.00	3.6X
BHD	7.69	120	eP	15 45.00	47.4X
			i	17 36.00	
			i	17 59.00	
			i	18 18.00	

S.D. = 1.0 on 7 of 14 obs.

? MAR 06, 1989 02h 47m 07.98± 4.21s
31.817 N ± 9.0km 36.477 E ±31.4km
DEPTH = 10.0km (geophysicist)
DEAD SEA REGION (373)

JARJ	0.62	313	P	47 21.10	0.7
MASJ	0.65	262	P	47 21.20	0.2
QUTJ	0.65	218	P	47 21.20	0.1
KFNJ	0.68	274	P	47 22.20	0.7
SALJ	0.70	286	P	47 22.10	0.2
BURJ	0.72	303	P	47 21.00	-1.2
MKRJ	0.76	250	P	47 22.20	-0.7

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

& MAR 06, 1989 03h 09m 54.02s
48.429 N 122.231 W
DEPTH = 1.5km
3.7mb (2 obs.)
WASHINGTON (29)
<SEA>. CL 4.2 (SEA). Felt (V) at Clearlake, Mount Vernon and Sedro Wooley; (IV) at Hamilton, La Conner, Lyman and Silvana; (III) at Bow and Lakewood. Also felt in the Saake-Victoria-Sidney area, British Columbia.

CMW	0.07	94	iPd	09 55.80	0.2
OHW	0.23	242	iP	09 58.38	-0.2
JCW	0.31	139	iPd	09 59.75	-0.5
MBW	0.42	32	iP	10 02.48	0.1
MCW	0.47	302	iP	10 02.57	-0.9
RPW	0.48	87	iPd	10 03.10	-0.5
VDB	0.60	8	Pgd	10 05.71	-0.4
BLH	0.61	167	iPd	10 05.73	-0.4
BLN	0.65	230	iP	10 06.00	-1.0
PGW	0.66	202	iPc	10 06.65	-0.5
HTW	0.70	154	iPd	10 06.89	-1.1
SNB	0.71	299	Pg	10 06.84	-1.4
VGZ	0.73	269	Pgd	10 06.76	-1.8
PGC	0.84	286	eP	10 08.90	-1.9
SPW	0.88	181	eP	10 11.04	-0.5
			eS	10 22.97	
HNB	0.88	345	Pgd	10 09.85	-1.7
GMW	0.96	203	iP	10 11.03	-2.0
HDW	0.96	216	iPc	10 10.86	-2.2
STW	1.00	254	eP	10 11.57	-2.2
RMW	1.01	163	iPd	10 12.60	-1.4
OSD	1.16	239	eP	10 14.92	-1.7
MEW	1.26	193	eP	10 16.88	-1.3
GSM	1.26	166	eP	10 16.69	-1.6
OBC	1.30	253	eP	10 16.89	-2.0
NLW	1.31	105	eP	10 17.68	-1.5
SMW	1.34	214	eP	10 17.61	-2.0
GHW	1.39	181	eP	10 18.32	-2.1
PNT	1.94	62	eP	10 27.40	-1.0
BMW	2.07	199	eP	10 28.80	-1.5
SHW	2.24	180	eP	10 32.30	-0.6
DPW	2.75	100	eP	10 38.30	-1.9
VGB	3.08	161	eP	10 43.80	-0.9
LBFM	7.09	178	eP	11 41.50	-0.1
LRM	7.16	108	ePd	11 39.70	-2.9
HRY	7.24	100	ePd	11 40.50	-3.1
EDM	7.39	46	eP	11 42.00	-3.6
LCCM	7.52	106	eP	11 45.00	-2.6
SES	7.56	71	eP	11 46.00	-2.0
BGMT	7.68	111	ePc	11 47.20	-2.7
FHC	7.73	190	e(P)	11 48.50	-1.9
WDC	7.85	182	eP	11 51.80	-0.3
MIN	8.10	177	e(P)	11 53.80	-1.8
KVN	9.84	161	eP	12 20.40	0.6
EUR	10.01	151	eP	12 23.20	1.0
BW06	10.52	118	eP	12 29.00	-0.2
FFC	14.06	56	eP	13 12.00	-4.3
YKA	14.73	14	eP	13 25.10	0.0
RSON	18.59	72	eP	14 11.30	-2.8
	1.0s		4.50nm		3.6mb
INK	20.73	348	eP	14 40.00	2.0
FBA	21.42	330	eP	14 45.30	0.2
	0.7s		2.91nm		3.8mb
	50 obs. associated				

? MAR 06, 1989 03h 17m 36.63± 1.37s
52.334 N ±24.1km 158.395 E ±24.3km
DEPTH = 33.0km (normal)
4.4mb (6 obs.)
NEAR EAST COAST OF KAMCHATKA (218)

MAT	21.27	230	eP	22 22.00	-0.1
	1.1s		18.99nm		4.4mb
YKA	44.42	41	eP	25 45.70	0.3
CHG	56.73	257	eP	27 20.00	0.5
CHTO	56.73	257	eP	27 19.60	0.1
	0.7s		2.06nm		4.3mb
GUN	57.94	275	P	27 30.20	1.9
KKN	58.39	275	P	27 31.40	0.1
DMN	58.63	275	P	27 33.00	-0.1
GKN	58.63	276	P	27 32.40	-0.5
NAO	64.24	343	P	28 09.50	-0.6
	0.5s		1.80nm		4.4mb
HFS	64.35	341	eP	28 10.30	-0.5
	0.4s		3.80nm		4.8mb
GBA	73.84	271	Pd	29 07.80	-2.0
	0.4s		0.90nm		4.1mb
KBA	76.55	336	eP	29 26.00	1.0
	1.0s		3.50nm		4.3mb

S.D. = 1.0 on 12 of 12 obs.

? MAR 06, 1989 03h 45m 13.71± 0.69s
17.116 S ±25.7km 178.713 W ±16.7km
DEPTH = 551.3 ± 10.8 km
4.9mb (6 obs.)
FIJI ISLANDS REGION (181)

VUN	2.84	251	eP	46 28.50	0.1
AFI	7.41	65	eP	47 06.50	-0.1
			S	19 00.00	
			eLR	20 09.90	
COO	29.94	238	iPd	50 39.50	0.4
RMQ	31.54	247	iPd	50 52.70	0.0
	0.6s		39.00nm		5.2mb
CNB	33.69	231	iPc	51 11.20	0.5
	0.4s		44.00nm		5.4mb
CAN	33.96	231	eP	51 12.80	-0.2
BWA	34.05	233	eP	51 11.90	-1.8
TOO	37.45	230	eP	51 42.00	0.3
STK	38.77	240	iPd	51 53.50	1.0
WB5	44.47	259	iPd	52 37.50	-0.4
WRA	44.49	259	Pd	52 37.20	-0.9
	0.5s		2.70nm		4.0mb
ASPA	44.73	253	iPd	52 40.10	0.2
	0.8s		79.00nm		5.3mb
			iPcP	54 12.30	
FORR	50.06	244	iPd	53 19.70	-0.2
	0.4s		11.00nm		4.7mb
KNA	50.27	264	eP	53 22.00	0.3
MBL	57.89	255	iPd	54 15.70	0.2
	0.3s		4.00nm		4.2mb
NANU	61.67	253	eP	54 41.00	0.5

S.D. = 0.7 on 16 of 16 obs.

MAR 06, 1989 03h 59m 03.00± 0.30s
44.616 N ± 2.4km 7.032 E ± 4.1km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.3 (LDG).

PZZ	0.12	156	P	59 06.42	0.3
			S	59 08.57	
DOI	0.19	126	Pc	59 07.60	0.3
			eSg	59 10.90	
RRL	0.35	330	P	59 10.28	0.0
			S	59 15.53	
STV	0.43	151	P	59 11.69	0.0
			S	59 17.24	
BNI	0.51	330	P	59 12.80	-0.5
			eSg	59 19.50	
RSP	0.56	17	P	59 14.59	0.2
			S	59 21.92	
ROB	0.68	118	P	59 16.23	-0.3
			S	59 25.58	
SBF	0.81	159	Pg	59 18.00	-0.7
			Sg	59 28.40	
LSD	0.85	6	P	59 19.65	0.2
			S	59 30.55	
LPG	0.90	347	Pg	59 20.60	0.1
			Sg	59 33.00	
LPL	0.92	347	Pg	59 20.90	0.1
			Sg	59 33.40	
FIN	0.94	115	P	59 20.96	0.1
			S	59 33.34	
IMI	0.94	139	P	59 20.88	0.0
			S	59 32.91	
FRF	1.09	195	Pg	59 23.50	0.0
			Sg	59 37.10	
LRG	1.26	203	Pg	59 27.00	0.6
			Sg	59 41.70	
LMR	1.34	197	Pg	59 27.40	-0.2
			Sg	59 45.20	

S.D. = 0.3 on 16 of 16 obs.

? MAR 06, 1989 04h 18m 28.55± 1.27s
16.034 S ±56.2km 172.789 W ±32.2km
DEPTH = 33.0km (normal)
4.5mb (6 obs.)
SAMOA ISLANDS REGION (169)

DZM	20.52	250	iPc	23 14.50	7.6X
WB5	50.25	257	eP	27 24.00	0.0
WRA	50.27	257	Pd	27 24.00	-0.2
	0.6s		1.10nm		4.0mb
ASPA	50.48	252	iPc	27 25.90	0.2
	1.0s		16.00nm		5.0mb
KVN	74.90	41	eP	30 08.70	0.4
TNP	74.90	42	iP	30 08.30	0.0
PNT	80.23	32	eP	30 37.00	-0.3
	0.8s		8.00nm		4.8mb
ALQ	80.76	50	e(P)	30 39.00	-1.7
BW06	82.35	42	eP	30 49.00	0.2
	1.2s		5.48nm		4.5mb
FBA	82.91	10	iP	30 50.00	-0.9
	0.8s		1.30nm		4.1mb
GOL	83.67	46	eP	30 56.20	0.5
	1.0s		5.50nm		4.7mb
SES	85.39	34	ePd	31 04.60	0.8
RSSD	86.53	42	eP	31 10.00	0.2
YKA	90.44	23	eP	31 28.60	0.9

S.D. = 0.8 on 13 of 14 obs.

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* MAR 06, 1989 04h 53m 34.05± 0.84s
41.045 N ± 7.2km 20.234 E ± 6.8km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
ML 2.1 (SKO).

BERA	0.40	212	ePgd	53 42.50	0.2
TIR	0.41	317	iPgd	53 42.00	-0.4
OHR	0.43	81	iPg	53 42.10	-0.8
			iSg	53 49.50	
KBN	0.61	134	iPg	53 46.30	0.0
PHP	0.66	14	ePg	53 54.50	7.3X
LSK	0.94	163	ePg	53 56.80	4.8X
SKO	1.30	44	ePn	53 59.00	1.0
			eSn	54 15.00	

S.D. = 0.9 on 5 of 7 obs.

& MAR 06, 1989 06h 51m 49.19s
41.223 N 113.202 W
DEPTH = 7.0km
UTAH (478)
<SLC-P>. ML 2.8 (SLC). Felt at Wendover.

DUG	1.07	164	eP	52 09.30	-0.4
DAU	1.68	118	eP	52 18.70	-0.8
HPI	2.49	2	eP	52 32.50	1.5
EUR	2.74	231	iP	52 34.30	-0.3
MSU	2.82	163	eP	52 34.00	-1.7

06d 06h

```
BW06     3.13  59 eP     52 40.80    0.7
PRN      4.07 201 eP     52 56.00    2.6
KVN      4.34 242 eP     52 56.50   -0.7
         8 obs. assaciated
-------------------------------------------
?  MAR  06, 1989  07h 24m 33.98± 4.41s
   33.055 S ±19.8km   71.540 W ±27.3km
   DEPTH =  10.0km  (geaphysicist)
 NEAR COAST OF CENTRAL CHILE          (135)

ROCH     0.45  80 iPc    24 42.20   -1.0
TACH     0.78 140 iP     24 50.00    0.8
                 iS     25 07.00
SAN      0.84 119 iP     24 50.20    0.0
LNV      0.90 173 iP     24 50.30   -1.0
PCH      1.03 124 iPd    24 53.70    0.2
                 iS     25 14.00
FCH      1.08 105 iPd    24 53.40   -1.2
                 iS     25 13.40
CHCH     1.15 140 iPc    24 56.00    0.5
                 iS     25 18.00
MDZ      2.27  86 e(P)   25 13.80    1.7
      S.D. = 1.2  an   8 af   8 obs.
-------------------------------------------
   MAR  06, 1989  07h 26m 10.13± 0.23s
    3.363 S ± 3.4km  143.899 E ± 5.0km
   DEPTH =  33.0km  (narmal)
   5.2mb ( 11 abs.)  4.8Msz (  3 abs.)
 NEAR N COAST OF PAPUA NEW GUINEA(200)
      CENTROID, MOMENT TENSOR      (HRV)
      Data Used: GDSN
      L.P.B.: 12S, 20C
      Centraid Lacatian:
      Origin Time        07:26:12.8 0.9
      Lat  2.96S 0.13 Lan 143.45E 0.13
      Dep  15.0 FIX Half-duratian  1.5
      Mament Tensar;   Scale 10**16 Nm
        Mrr= 3.50 0.39   Mtt=-2.44 0.45
        Mff=-1.06 0.48   Mrt= 4.44 1.30
        Mrf=-0.67 1.07   Mtf= 3.31 0.39
       Principal Axes:
        T  Val=  6.03   Plg=58   Azm=343
        N        0.67      22        113
        P       -6.69      22        212
      Best Double Couple:Ma=6.4*10**16
       NP1:Strike=337 Dip=30 Slip= 138
       NP2:       105     71       67

JAY      3.30 285 iPd    26 59.50   -1.2
LAT      4.50 137 e(P)   26 21.00  -56.8X
PMG      6.82 152 eP     27 49.00   -1.5
RAB      8.29  96 e(P)   28 12.00    0.9
                 eS     29 56.00
MTN     15.76 233 eP     29 50.00   -1.3
                 e      32 40.00
CTA     16.78 172 iPc-   30 05.00    0.6
        0.9s    11.76nm          4.0mb X
     Z  19s     1.04um
                 eS     33 24.00
OIS     17.60 193 eP     30 18.00    3.4X
                 e      33 59.00
WB5     18.87 209 eP     30 29.90   -0.4
                 eS     33 52.00
WRA     18.94 209 Pd     30 31.10    0.0
        1.1s    33.20nm          4.5mb
KNA     19.32 229 eP     30 36.00    0.4
ASPA    22.38 205 iPc    31 07.50    0.3
        1.0s    32.00nm          4.7mb
                 eS     35 14.50
RMO     23.46 169 eP     31 19.00    1.3
        0.9s   139.00nm          5.5mb
BRS     25.36 161 Pc     31 35.30   -0.6
                 i      31 42.50
COO     28.10 165 eP     32 01.00   -0.1
STK     28.45 184 iPd    32 04.20    0.0
MBL     29.34 231 eP     32 10.00   -2.3
                 i      32 14.70
FORR    31.14 207 iPc    32 28.00   -0.1
        0.4s    24.00nm          5.4mb
BWA     31.19 173 eP     32 28.50   -0.1
ADE     31.81 188 iPd    32 34.70    0.6
CAN     32.15 172 eP     32 36.80   -0.2
MEKA    33.54 224 eP     32 49.00   -0.2
COOL    34.79 216 eP     33 00.00    0.1
KLB     37.33 218 eP     33 21.00   -0.3
BAL     37.33 221 eP     33 22.00    0.6
MUN     38.56 219 eP     33 32.00    0.3

NWAO    38.57 217 eP     33 32.00    0.2
MAT     40.05 353 eP     33 42.00   -2.0
        1.5s    66.67nm          5.2mb
                 eS     40 00.00
SSE     40.53 329 P      33 47.00   -1.0
        4.0s     0.70nm          2.8mb X
     Z  20s      0.50um          4.4Msz
                 e(S)   40 20.00
NJ2     42.50 328 Pc     34 04.80    0.7
        6.0s     0.80nm          2.6mb X
PSI     45.35 277 iPd    34 27.50    0.0
GYA     46.63 312 P      34 38.80    1.3
TIA     46.64 330 eP     34 35.00   -2.3
SNY     48.63 340 Pc     34 51.80   -0.9
     Z  20s      0.80um          4.7Msz
     N  20s      0.50um
                 eS     41 57.00
KMI     48.95 308 Pc     34 57.50    1.7
CHTO    49.42 298 iP     35 00.10    0.8
        1.7s    63.26nm          5.4mb
XAN     49.70 321 Pc     35 00.50   -0.7
BJI     50.13 332 eP     35 03.50   -0.8
TIY     50.22 327 iPd    35 05.00   -0.2
     Z  16s      0.50um          4.6MszX
CD2     51.23 315 iPc    35 14.30    1.3
HHC     52.99 329 eP     35 26.20    0.1
BTO     53.61 328 P      35 30.50   -0.1
LZH     54.21 320 iPc    35 36.50    1.3
        2.0s   247.00nm          5.9mb
GTA     58.75 321 iPc    36 08.10    0.5
GUN     63.85 303 P      36 43.40    0.9
PKI     64.13 303 P      36 45.00    0.7
KKN     64.31 303 P      36 46.00    0.7
DMN     64.40 303 P      36 46.80    0.9
GKN     64.91 303 P      36 49.90    0.7
HYB     67.65 290 eP     37 06.50   -0.1
GBA     68.04 286 Pd     37 08.40   -0.6
        0.7s    5.30nm          4.7mb
WMO     68.79 320 P      37 13.80    0.5
KDC     79.12  29 eP     38 13.20    0.4
TTA     79.87  24 ePc    38 17.00    0.1
PMR     82.21  26 eP     38 28.30   -0.7
        1.3s    66.00nm          5.5mb
IMA     82.22  21 ePc    38 29.40    0.1
        1.1s    26.60nm          5.2mb
BRW     83.74  16 eP     38 37.20    0.4
FBA     83.99  23 ePc    38 36.70   -1.5
SPA     86.66 180 e(P)   38 52.90    1.2
        1.0s    14.00nm          5.1mb
     Z  20s     1.98um          5.5Msz
MAIO    87.46 306 eP     38 57.00    0.9
INK     90.35  22 ePc    39 08.40   -0.5
MBC     94.85  14 eP     39 29.00   -0.6
YKA     98.28  27 eP     39 45.40    0.1
PRU    116.95 326 ePKP   45 09.50   16.3X
CNCB   142.67 123 ePKP   45 41.00   -2.4X
LPB    142.71 123 ePKP   45 40.00   -3.3X
ZOBO   142.82 123 ePKP   45 40.00   -3.7X
CCH    143.89 126 ePKP   45 45.00   -0.2
KIC    148.62 277 PKP    45 56.60    3.9X
      S.D. = 0.9  an  61 af  68 abs.
-------------------------------------------
&  MAR  06, 1989  07h 41m 21.38s
   38.646 N          111.778 W
   DEPTH =  11.9km
 UTAH                                 (478)
      <SLC-P>. ML 3.1 (SLC). Felt
      (III) at Kaasharem and (II) at
      Glenwaad.

MSU      0.34 247 iPc    41 28.20   -0.4
DUG      1.74 333 iP     41 50.90   -0.9
DAU      1.81  13 eP     41 53.50    0.6
PRN      2.86 245 eP     42 07.90    0.1
RW1      3.16  96 eP     42 13.00    0.9
RW4      3.31  97 eP     42 16.30    2.0
EUR      3.37 286 eP     42 15.00   -0.1
LOP      3.91 244 eP     42 23.60    0.9
BW06     4.46  22 eP     42 30.00   -0.5
KVN      4.95 277 eP     42 37.00   -0.5
GOL      5.09  76 eP     42 40.60    1.1
ALO      5.65 129 eP     42 45.50   -1.9
PLM      6.70 219 eP     43 06.00    3.9
        13 abs. assaciated
-------------------------------------------
*  MAR  06, 1989  07h 53m 59.99± 1.10s
   38.617 N ±12.8km  111.888 W ±10.5km
   DEPTH =  10.0km  (geophysicist)
 UTAH                                 (478)
      ML 2.2 (NEIS).

MSU      0.25 245 iPc    54 07.00    1.6
DUG      1.73 336 eP     54 29.70   -0.7
DAU      1.86  15 eP     54 33.30    0.9
PRN      2.77 245 eP     54 43.80   -1.6
RW1      3.24  95 eP     54 52.00   -0.1
BW06     4.52  22 eP     55 12.00    1.8X
      S.D. = 1.8  an   5 af   6 abs.
-------------------------------------------
%  MAR  06, 1989  07h 54m 15.83± 1.09s
   39.870 N ± 6.7km   28.851 E ± 8.7km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                               (366)

DST      0.32 213 iPg    54 22.40    0.0
                 iSg    54 25.90
KCT      0.54 315 iPg    54 26.20   -0.5
BNT      0.86 305 iPg    54 32.70    0.3
EDC      0.89 302 ePg    54 33.00    0.0
                 eSg    54 46.00
HRT      1.14  33 ePn    54 37.00   -0.1
CTT      1.32 346 ePn    54 40.50    0.4
      S.D. = 0.4  an   6 af   6 abs.
-------------------------------------------
&  MAR  06, 1989  07h 57m 06.68s
   48.422 N          122.224 W
   DEPTH =   0.1km
 WASHINGTON                           ( 29)
      <SEA>. CL 2.0 (SEA). Felt at
      Maunt Vernan.

CMW      0.07  89 iPd    57 08.41    0.3
                 eS     57 10.15
OHW      0.23 244 eP     57 10.88   -0.3
                 eS     57 14.79
JCW      0.30 139 eP     57 12.29   -0.4
                 eS     57 17.52
MBW      0.42  31 eP     57 15.15    0.1
RPW      0.47  87 eP     57 15.86   -0.3
MCW      0.48 303 eP     57 15.70   -0.5
BLH      0.60 168 eP     57 18.20   -0.4
BLN      0.65 231 eP     57 19.00   -0.7
HTW      0.69 154 eP     57 19.42   -1.0
GMW      0.95 204 eP     57 23.93   -1.8
HDW      0.95 216 eP     57 23.45   -2.3
RMW      1.00 164 eP     57 25.43   -1.2
STW      1.00 255 eP     57 24.34   -2.3
OSD      1.16 239 eP     57 28.06   -1.3
        14 obs. assaciated
-------------------------------------------
&  MAR  06, 1989  08h 00m 01.17s
   48.423 N          122.226 W
   DEPTH =   0.1km
 WASHINGTON                           ( 29)
      <SEA>. CL 2.4 (SEA). Felt at
      Maunt Vernan.

CMW      0.07  89 iPd    00 03.05    0.4
                 eS     00 03.82
OHW      0.23 244 eP     00 05.56   -0.1
JCW      0.30 139 iPd    00 06.95   -0.3
                 eS     00 12.27
MBW      0.42  31 eP     00 09.81    0.2
RPW      0.48  87 eP     00 10.40   -0.3
MCW      0.48 303 eP     00 09.84   -0.9
BLH      0.60 167 ePd    00 12.90   -0.3
BLN      0.65 230 eP     00 13.36   -0.8
HTW      0.69 154 eP     00 14.05   -0.9
SPW      0.87 181 eP     00 18.23   -0.3
GMW      0.95 203 eP     00 18.21   -2.0
HDW      0.95 216 eP     00 18.01   -2.2
STW      1.00 255 eP     00 18.99   -2.1
RMW      1.00 163 eP     00 19.81   -1.4
OSD      1.16 239 eP     00 22.18   -1.7
GSM      1.25 166 eP     00 24.01   -1.5
        16 abs. assaciated
-------------------------------------------
*  MAR  06, 1989  09h 11m 23.48± 1.48s
   65.443 N ±17.5km  149.332 W ±10.9km
   DEPTH =  10.0km  (geophysicist)
 ALASKA                               (676)
      ML 3.0 (PMR).

FBA      0.85 129 eP     11 40.20    0.4
```

IMA 1.90 291 eP 11 57.60 1.2
TOA 3.63 156 eP 12 22.60 1.6
TTA 3.86 232 eP 12 22.20 -2.0
PMR 3.87 179 eP 12 24.50 0.3
DWY 4.46 104 P 12 31.20 -1.5
S.D. = 1.9 on 6 of 6 obs.

• MAR 06, 1989 09h 16m 07.97± 0.58s
42.186 S ± 8.4km 73.441 W ±13.6km
DEPTH = 10.0km (geophysicist)
4.8mb (6 obs.)
NEAR COAST OF SOUTHERN CHILE (144)

LNV 8.37 12 iP 18 12.00 -0.2
CHCH 8.53 16 eP 18 14.70 0.3
TACH 8.74 14 eP 18 15.50 -1.9
CCH 25.50 16 P 21 40.20 1.8
ARE 25.69 4 iPc 21 41.00 0.8
CNCB 25.72 12 P 21 42.00 1.3
LPB 25.97 12 P 21 44.00 1.1
eLR 32 40.00
ZOBO 26.23 12 P 21 45.70 0.2
Z 23s 0.20um 3.6MszX
LR 33 35.00
BAO 34.33 47 e(P) 22 51.00 -6.0X
SOB1 43.54 50 eP 24 12.10 -1.5
ITR 45.34 53 eP 24 27.00 -1.1
JSC 76.43 353 eP 27 58.20 -0.9
FRS 76.59 118 e(P) 28 00.90 0.6
BLF 77.58 118 e(P) 28 26.80 20.7X
LIC 78.48 71 Pc 28 11.40 0.5
KIC 78.77 71 Pc 28 12.80 0.3
1.0s 11.00nm 4.9mb
TIC 78.78 70 Pc 28 13.00 0.4
FVM 81.28 346 iP 28 29.00 3.6X
1.1s 42.68nm 5.4mb
ALQ 82.50 333 eP 28 31.00 -1.1
1.0s 12.50nm 5.0mb
GOL 86.50 336 iP 28 52.00 -0.2
0.9s 3.79nm 4.6mb
GLD 86.50 336 eP 28 53.00 0.9
GAC 87.52 359 eP 28 56.50 0.0
TNP 89.28 327 eP 29 05.50 0.0
1.0s 6.25nm 4.8mb
BW06 90.61 334 iP 29 11.00 -0.6
0.9s 2.33nm 4.5mb
NAO 123.15 36 PKP 35 04.20 -1.1
1.0s 4.40nm
HFS 124.10 37 ePKP 35 04.40 -2.8X
0.6s 1.50nm
GBA 141.97 130 PKP 35 42.00 -0.1
0.2s 5.10nm
HYB 145.64 127 ePKPc 35 49.00 0.6
1.2s 35.70nm
S.D. = 1.0 on 24 of 28 obs.

• MAR 06, 1989 09h 23m 58.26± 1.38s
38.950 N ± 9.6km 142.823 E ±13.2km
DEPTH = 33.0km (normal)
4.5mb (2 obs.)
NEAR EAST COAST OF HONSHU, JAPAN(228)
Felt (II JMA) at Ofunato and (I JMA) at Miyako.

OFU 0.87 278 P 24 13.30 -0.7
S 24 21.90
OFUJ 0.91 279 iPd 24 13.80 -0.9
S 24 23.30
MIY 0.96 317 iPd 24 16.40 1.0
S 24 27.20
YAMJ 2.32 251 P 24 34.90 0.0
S 25 00.70
AOMJ 2.48 311 P 24 40.30 3.1X
eS 25 08.90
KAKJ 3.46 218 eP 24 49.10 -1.9
eS 25 29.90
NIIJ 3.46 242 P 24 51.40 0.2
CHJJ 4.20 228 P 25 01.90 0.3
MAT 4.38 238 iPd 25 04.70 0.5
eS 25 56.00
MTMJ 4.62 241 eP 25 08.30 0.6
IIDJ 5.23 230 P 25 17.90 1.6
WB5 59.05 189 eP 33 57.80 0.4
WRA 59.12 189 Pc 33 57.90 0.0
0.8s 4.70nm 4.7mb
GBA 62.48 265 Pc 34 19.80 -1.1
0.4s 1.00nm 4.3mb

PTZ 115.47 272 iPdiff38 56.50 5.8X
e 40 48.00
LSZ 118.53 273 iPdiff39 21.40 17.1X
S.D. = 1.0 on 13 of 16 obs.

? MAR 06, 1989 10h 42m 07.54± 1.59s
5.284 S ±41.5km 103.358 E ±50.2km
DEPTH = 40.0km (geophysicist)
4.5mb (3 obs.)
SOUTHERN SUMATERA (274)

CHTO 24.34 350 eP 47 23.60 0.6
0.7s 2.70nm 3.9mb
WB5 33.47 118 eP 48 44.00 -1.4
WRA 33.47 119 Pc 48 46.00 0.6
0.8s 4.70nm 4.4mb
ASPA 34.63 125 iPc 48 55.00 -0.3
0.6s 14.00nm 5.1mb
epP 49 06.80 44kmX
PKI 36.98 333 P 49 23.80 8.3X
GUN 37.06 334 P 49 16.00 -0.2
KKN 37.22 333 P 49 17.20 -0.2
GKN 37.70 332 P 49 21.10 -0.2
STK 44.48 131 eP 50 18.00 1.1
S.D. = 0.9 on 8 of 9 obs.

? MAR 06, 1989 11h 06m 14.96±11.16s
43.902 N ±55.7km 127.723 W ±69.7km
DEPTH = 10.0km (geophysicist)
OFF COAST OF OREGON (30)

NLO 3.74 53 eP 07 13.89 -0.1
PGO 4.07 66 eP 07 18.88 0.3
BMW 4.09 49 eP 07 18.43 -0.5
GT2 4.10 70 eP 07 18.80 -0.2
RVW 4.18 56 eP 07 20.21 0.0
OBH 4.36 37 eP 07 23.15 0.4
VLMM 4.37 66 eP 07 22.79 -0.2
FL2 4.44 57 eP 07 24.28 0.2
MTMW 4.45 60 eP 07 24.01 -0.1
CPW 4.46 45 eP 07 23.42 -0.7
TDH 4.46 70 eP 07 23.94 -0.3
CZM 4.47 54 eP 07 24.04 -0.3
ERK 4.50 56 eP 07 24.63 -0.3
SHW 4.51 58 eP 07 25.38 0.4
APW 4.52 51 eP 07 24.73 -0.2
HSR 4.54 58 eP 07 25.88 0.5
JLK 4.54 58 eP 07 25.50 0.1
YEL 4.55 58 eP 07 25.83 0.2
OOW 4.56 32 eP 07 25.82 0.2
CDFW 4.59 59 eP 07 26.20 0.1
SOSW 4.59 58 eP 07 26.64 0.5
SMW 4.60 40 eP 07 25.43 -0.7
TDL 4.60 56 eP 07 26.58 0.3
LMW 4.73 52 eP 07 28.05 0.0
HDW 4.97 39 eP 07 31.85 0.4
RVC 5.06 51 eP 07 33.11 0.3
S.D. = 0.4 on 26 of 26 obs.

MAR 06, 1989 11h 44m 05.43± 0.38s
3.111 S ± 4.7km 80.488 W ± 6.4km
DEPTH = 38.7km (7 depth phases)
4.7mb (12 obs.)
PERU-ECUADOR BORDER REGION (110)

PURC 6.79 37 iPd 45 47.90 2.1
SALC 7.13 32 iPd 45 49.75 -0.5
ANCC 7.51 29 eP 45 55.00 -0.4
HOOC 7.59 31 eP 45 55.50 -1.2
DIAC 7.67 34 eP 45 56.90 -0.9
CLMC 7.98 29 eP 46 01.85 -0.2
HOBC 8.60 30 eP 46 12.35 1.8
PT10 9.56 159 P 46 41.50 17.7X
S 47 49.00
HUA 10.24 150 P 46 33.40 -0.1
S 48 32.40
UPA 12.05 5 e(P) 47 02.00 4.4X
ARE 15.95 147 eP 47 53.00 3.9X
ZOBO 17.86 138 P 48 13.50 0.2
0.7s 8.23nm 4.0mb
Z 21s 0.74um
LR 54 30.00
LPB 18.06 138 Pc 48 17.00 1.3
1.0s 56.00nm 4.7mb
Z 17s 1.02um
LR 55 20.00
CNCB 18.34 139 P 48 19.60 0.3

CCH 19.98 136 P 48 36.60 -1.4
ATB 28.22 91 Pc 49 56.10 -0.9
SOB1 39.80 101 eP 51 36.80 -0.2
FVM 41.91 348 eP 51 54.20 0.3
1.0s 8.00nm 4.4mb
epP 52 05.00 38km
ITR 42.19 100 eP 51 56.70 0.1
ALQ 45.03 329 eP 52 20.00 0.5
1.0s 21.25nm 5.0mb
epP 52 31.00 38km
GOL 48.35 334 eP 52 47.20 1.5
1.0s 6.50nm 4.6mb
epP 52 58.00 37km
RSSD 51.55 338 eP 53 10.00 0.0
epP 53 22.00 43km
BW06 52.69 333 eP 53 18.20 -0.5
1.1s 11.90nm 4.8mb
epP 53 28.50 34km
TNP 53.24 324 eP 53 23.00 0.2
0.9s 4.30nm 4.4mb
ipP 53 35.00 42km
EUR 53.48 326 iP 53 24.60 0.1
0.1s 9.70nm 5.8mb X
KVN 54.40 324 eP 53 31.00 -0.3
pP 53 42.20 38km
RSON 54.94 350 eP 53 34.00 -0.8
0.9s 5.11nm 4.6mb
PNT 62.22 332 eP 54 26.00 0.5
0.7s 8.00nm 5.0mb
FRB 67.28 6 eP 54 56.00 -2.0
YKA 70.36 344 eP 55 16.60 -0.5
LIC 75.91 83 Pc 55 51.00 0.4
TIC 75.95 82 Pc 55 51.00 0.1
0.7s 8.50nm 4.8mb
INK 80.02 342 eP 56 12.00 -0.1
MBC 82.31 351 ePc 56 24.40 0.4
0.9s 15.00nm 5.0mb
ALE 85.92 2 eP 56 42.00 -0.1
0.8s 8.00nm 5.0mb
GKN 151.47 28 PKP 03 57.40 6.0X
0.8s 22.00nm
KKN 151.95 28 PKP 03 58.60 6.4X
0.8s 9.00nm
DMN 152.02 28 PKP 03 58.20 5.8X
PKI 152.19 28 PKP 03 57.60 4.9X
S.D. = 0.9 on 32 of 39 obs.

• MAR 06, 1989 11h 46m 50.68± 2.84s
44.395 N ±11.1km 6.410 E ±19.6km
DEPTH = 10.0km (geophysicist)
FRANCE (538)

PZZ 0.51 77 P 47 01.15 0.1
S 47 08.08
RRL 0.59 27 P 47 02.56 -0.2
S 47 10.13
DOI 0.61 79 P 47 02.60 -0.4
eSg 47 08.90
STV 0.67 103 P 47 03.77 -0.4
S 47 12.57
BNI 0.68 16 P 47 04.00 -0.3
eSg 47 11.30
RSP 0.97 38 P 47 09.62 0.5
ROB 1.05 95 P 47 10.98 0.4
S 47 24.52
IMI 1.17 114 P 47 13.08 0.5
S 47 27.32
LSD 1.19 26 P 47 13.31 0.3
S 47 28.01
FIN 1.30 98 P 47 14.34 -0.5
S.D. = 0.5 on 10 of 10 obs.

MAR 06, 1989 12h 28m 32.52± 0.84s
43.413 N ± 6.2km 5.435 E ± 6.2km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
MD 2.5 (STR).

GELF 0.03 191 Pg 28 34.01 -0.6
TREF 0.21 350 Pg 28 36.57 -0.6
PUYF 0.23 58 Pg 28 36.25 -1.2
PRAF 0.44 334 Pg 28 41.49 0.1
VILF 0.48 25 Pg 28 41.59 -0.8
TAVF 0.50 65 Pg 28 41.97 -0.6
GANF 0.68 30 Pg 28 45.33 -0.7
CALN 1.11 72 Pg 28 53.64 0.2
MVIF 1.34 68 Pn 28 57.33 0.1

06d 12h

			Sg	29	16.03	
TOUF	1.45	65	Pn	28	58.95	0.0
			Sg	29	19.58	
AURF	1.45	70	Pn	28	59.23	0.3
			Sg	29	19.47	
AUTN	1.56	67	Pn	29	01.21	0.7
			Sg	29	23.31	
DOI	1.70	50	P	29	03.00	0.5
			eSn	29	27.60	
BNI	1.87	28	P	29	07.30	2.4
			eSn	29	33.00	
CKI	2.29	63	P	29	11.00	0.1
			eSn	29	42.50	
S.D. = 0.9			on	15 of	15 obs.	

& MAR 06, 1989 12h 37m 37.29s
62.386 N 152.249 W
DEPTH = 115.5km
CENTRAL ALASKA (1)
<AGS-P>.

CGLM	1.09	174	iP	37	59.35	-0.9
CRP	1.12	178	iP	38	00.00	-0.7
			eS	38	18.41	
SPU	1.21	176	iP	38	00.50	-1.1
			eS	38	18.11	
PMS	1.71	131	iP	38	06.31	-1.2
			eS	38	29.00	
SML	1.93	106	eP	38	08.55	-1.6
KNK	2.04	117	iP	38	09.70	-1.9
			eS	38	35.50	
6 obs. associated						

? MAR 06, 1989 12h 39m 16.69± 0.91s
18.224 N ± 9.6km 66.939 W ± 6.8km
DEPTH = 10.0km (geophysicist)
PUERTO RICO REGION (90)

MCP	0.25	320	P	39	22.20	0.1
			S	39	38.70	
MGP	0.26	214	P	39	22.00	-0.1
APR	0.31	40	P	39	26.20	3.2X
			S	39	45.20	
CSB	0.75	85	P	39	31.60	0.3
SJG	0.76	98	iP	39	32.60	1.1
LPR	1.02	85	P	39	34.70	-1.3
S.D. = 1.2			on	5 of	6 obs.	

% MAR 06, 1989 12h 40m 46.80± 0.88s
39.103 N ± 7.5km 27.620 E ± 9.0km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	0.76	202	ePg	41	01.50	-0.1
			eSg	41	13.00	
DST	0.93	57	iPn	41	05.00	0.4
EZN	1.24	306	ePn	41	10.00	0.3
EDC	1.26	9	iPn	41	10.00	-0.1
KCT	1.28	26	iPn	41	10.10	-0.4
S.D. = 0.5			on	5 of	5 obs.	

MAR 06, 1989 12h 56m 37.28± 0.90s
43.418 N ± 5.8km 5.420 E ± 6.7km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
MD 2.7 (STR).

GELF	0.04	171	Pg	56	39.33	0.0
TREF	0.21	353	Pg	56	41.38	-0.4
PUYF	0.23	61	Pg	56	41.30	-1.0
PRAF	0.43	335	Pg	56	46.28	0.3
VILF	0.48	26	Pg	56	46.41	-0.7
TAVF	0.50	67	Pg	56	46.91	-0.6
GANF	0.68	31	Pg	56	50.37	-0.4
CALN	1.12	72	Pg	56	59.32	1.0
MVIF	1.34	69	Pn	57	02.33	0.2
			Sg	57	21.36	
TOUF	1.45	65	Pn	57	04.24	0.5
			Sg	57	24.09	
AURF	1.46	71	Pn	57	04.07	0.3
			Sg	57	23.50	
AUTN	1.57	68	Pn	57	06.23	0.8
			Sg	57	27.84	
DOI	1.71	50	P	57	08.80	1.5
			eSn	57	31.00	
BNI	1.87	28	P	57	12.20	2.5X
			eSn	57	37.60	
CKI	2.30	63	P	57	20.00	4.2X
			eSn	57	46.50	
CVF	2.67	107	Pn	57	19.75	-1.4
S.D. = 0.9			on	14 of	16 obs.	

? MAR 06, 1989 14h 18m 58.81± 8.07s
58.094 N ±61.6km 6.343 E ±23.1km
DEPTH = 0.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 2.4 (BER). Probable explosion.

KMY	1.26	333	iP	19	23.60	0.5
			iS	19	38.30	
BLS1	1.32	11	iP	19	24.40	0.1
			eS	19	38.70	
ODD1	1.83	5	iP	19	32.80	1.0
			eS	19	53.90	
HYA	3.08	359	eP	19	47.80	-1.8
			eS	20	25.50	
NRA0	3.75	43	iPc	19	59.40	0.2
			iS	20	36.50	
			iSg	20	52.80	
MOL	4.53	7	iP	20	08.20	-2.0X
			eS	20	59.50	
S.D. = 1.5			on	5 of	6 obs.	

% MAR 06, 1989 14h 38m 53.94± 0.82s
37.805 N ± 8.2km 15.074 E ± 7.1km
DEPTH = 10.0km (geophysicist)
SICILY (398)

MNO	0.33	293	Pd	39	00.90	0.1
			eSg	39	05.80	
ATN	0.47	41	Pc	39	04.80	1.3
			eSg	39	12.10	
MSI	0.55	44	P	39	06.10	1.0
			eSg	39	15.00	
MEU	0.71	189	Pd	39	07.30	-0.7
			eSg	39	17.50	
GIB	0.85	283	P	39	10.00	-0.4
			eSg	39	23.50	
MCT	1.16	262	P	39	16.70	1.0
FAI	1.23	245	Pd	39	17.30	0.5
TDS	2.10	28	Pd	39	28.30	-1.2
MGR	2.36	9	Pd	39	31.60	-1.7
S.D. = 1.2			on	9 of	9 obs.	

MAR 06, 1989 14h 39m 42.69± 0.09s
35.545 N ± 1.9km 140.444 E ± 2.2km
DEPTH = 42.1km (geophysicist)
5.9mb (94 obs.) 5.6Msz (16 obs.)
NEAR EAST COAST OF HONSHU, JAPAN(228)
Ms 5.7 (BRK). Felt (V) at Choshi; (III JMA) at Mito, Tokyo, Yokahama, Tateyoma, Onahama and Utsunomiya; (II JMA) at Kumogoya, Maebashi and Shirakawa. Depth from broadband displacement seismograms.
FAULT PLANE SOLUTION: P-Waves
NP1:Strike= 9 Dip=67 Slip= 100
NP2: 165 25 68
Principal Axes:
T Plg=67 Azm=297
P 21 91
Comment: The focal mechanism is moderately well controlled and corresponds to reverse faulting with a small strike-slip component. The preferred fault plane is NP2.
RADIATED ENERGY
No. of sta: 6 Focal mech. C
Energy 2.5±0.8*10**13 Nm
MOMENT TENSOR SOLUTION
Dep 58 No. of sta: 14
Moment Tensor; Scale 10**18 Nm
Mrr= 1.39 Mtt= 0.14
Mff=-1.54 Mrt= 0.16
Mrf= 0.90 Mtf= 0.04
Principal axes:
T Val= 1.66 Plg=73 Azm=292
N 0.13 6 182
P -1.79 16 90
Best Double Couple:Mo=1.7*10**18
NP1:Strike=171 Dip=30 Slip= 78
NP2: 5 61 97
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 14S, 33C
Centroid Location:
Origin Time 14:39:48.5 0.2
Lat 35.43N 0.03 Lon 140.64E 0.03
Dep 32.5 2.2 Half-duration 4.0
Moment Tensor; Scale 10**18 Nm
Mrr= 0.83 0.02 Mtt= 0.17 0.03
Mff=-1.00 0.03 Mrt=-0.08 0.04
Mrf= 1.13 0.08 Mtf=-0.16 0.03
Principal Axes:
T Val= 1.39 Plg=63 Azm=255
N 0.16 8 0
P -1.55 25 94
Best Double Couple:Mo=1.5*10**18
NP1:Strike=201 Dip=21 Slip= 112
NP2: 358 71 82

CHO	0.37	61	iP+	39	53.00	1.1
			eS	39	58.00	
TOK	0.58	284	iPd	39	59.50	5.0X
			S	40	12.00	
YOK	0.65	261	iPd	40	01.70	6.1X
			S	40	14.60	
KAKJ	0.69	342	iPd	39	57.10	1.0
TAT	0.73	220	iPd	40	02.50	5.8X
			S	40	18.60	
MIT	0.83	2	iPd	39	58.70	0.6
			iS	40	08.90	
KMG	1.05	305	iPd	40	04.50	3.4X
			eS	40	20.00	
UTS	1.10	335	iPd	40	03.10	1.3
			iS	40	18.90	
CHJJ	1.28	294	iPd	40	07.80	3.4X
MAE	1.41	308	iPd	40	09.50	3.3X
			S	40	30.10	
ONA	1.45	15	iPd	40	07.10	0.4
			eS	40	22.00	
SHR	1.58	354	eP	40	00.00	-8.7X
NIIJ	2.05	326	iPd	40	17.60	2.2
IIDJ	2.07	269	iPd	40	20.50	4.9X
MAJO	2.07	299	ePnd	40	19.50	3.9X
MAT	2.07	299	iPd-	40	19.40	3.8X
			eS	40	40.00	
MTMJ	2.38	297	iPd	40	24.00	3.9X
YAMJ	2.64	353	iP+	40	25.10	1.3
TSRJ	3.64	271	P	40	42.00	4.0X
OFUJ	3.66	15	iPd	40	36.70	-1.6
			eS	41	16.30	
WKYJ	4.20	253	eP	40	49.60	3.6X
AOMJ	5.01	359	P	40	57.50	0.2
TKSJ	5.49	255	P	41	07.90	3.7X
YONJ	5.72	268	P	41	10.90	3.6X
SHK	6.45	263	iP	41	20.50	2.9X
1.0s		1600.00nm				6.6mb
MRRJ	6.89	4	P	41	20.50	-3.2X
HOOJ	7.18	17	eP	41	23.40	-4.3X
			S	42	39.40	
SHNJ	7.81	262	eP	41	40.90	4.4X
KUSJ	8.23	22	P	41	35.90	-6.5X
			S	43	02.30	
KUMJ	8.53	252	eP	41	50.80	4.3X
ASAJ	8.73	10	P	41	43.70	-5.6X
KAGJ	9.10	244	eP	41	59.00	4.6X
MDJ	12.28	321	Pc	42	38.00	0.3
Z	24s		25.70um			4.7Msz
E	13s		15.80um			
			pP	42	44.00	
			PP	42	49.00	
			S	44	58.00	
			SS	45	13.00	
CN2	14.18	310	iPc	43	02.80	0.2
5.0s		4.70nm				3.4mb X
Z	20s		21.10um			4.1Msz
E	14s		13.60um			
			pP	43	12.00	
			sP	43	18.00	
			eS	45	48.00	
SNY	14.58	301	iPc	43	09.60	1.7
N	13s		7.18um			
E	15s		8.61um			
			sP	43	25.00	
			S	45	56.00	
DL2	15.36	288	iPc	43	21.00	2.9X
Z	24s		25.00um			

	N 10s 4.00um					
	E 11s 12.60um					
	S	46	08.00			
SSE	16.69	260	P+	43	36.00	0.9
	8.0s 5.80nm					2.8mb X
	Z 16s 22.30um					
	N 11s 5.00um					
	E 14s 22.10um					
	pP	43	49.00			
	sP	43	52.00			
	sS	46	44.00			
NJ2	18.27	265	Pd	43	55.00	0.3
	N 13s 10.20um					
	E 11s 8.00um					
	sP	44	13.50			
TIA	18.91	279	Pc	44	01.00	-1.4
	Z 25s 25.90um					
	N 12s 8.30um					
	E 12s 7.70um					
ANP	19.29	243	eP+	44	06.00	-1.0
	eS	48	10.00			
BJI	19.68	290	ePc	44	08.25	-2.8X
	eS	47	53.55			
HIA	20.45	318	iPc	44	14.29	-4.8X
QZH	21.59	247	Pc	44	28.00	-2.7X
	Z 19s 18.00um					5.5Msz
	E 15s 15.60um					
	sP	44	53.00			
PJG	22.22	169	eP	44	36.80	-0.4
GUMO	22.22	169	eP+	44	36.50	-0.7
	1.2s 1688.89nm					6.4mb
GUA	22.28	168	eP	44	36.50	-1.2
	1.4s 2455.81nm					6.5mb
WHN	22.41	265	Pc	44	38.00	-0.9
	7.0s 3.61nm					2.9mb X
	Z 24s 32.20um					5.7MszX
	N 10s 8.76um					
	E 12s 13.70um					
	S	48	40.00			
TIY	22.55	284	iPc	44	38.00	-2.4X
	1.2s 0.30nm					2.6mb X
	E 15s 12.40um					
	PP	45	13.00			
HHC	23.25	292	Pc	44	44.30	-2.9X
	Z 30s 16.80um					5.3MszX
	E 11s 3.80um					
	S	48	54.00			
BTO	24.41	291	P	44	56.80	-1.6
	Z 11s 4.10um					5.2MszX
	N 12s 2.80um					
PIP	24.55	231	ePd	44	58.00	-1.7
XAN	25.88	276	iPc	45	10.70	-1.6
	N 18s 17.80um					
	E 20s 16.70um					
	pP	45	25.30	61kmX		
BAG	26.02	228	eP	45	10.00	-3.9X
	e	45	52.00			
	eS	50	05.00			
HKC	26.42	247	Pc	45	17.00	-0.2
	S	49	47.00			
GZH	26.60	250	eP	45	18.50	-0.4
	Z 18s 21.10um					5.7Msz
	N 18s 13.20um					
	E 16s 15.20um					
QCP	27.12	225	eP	45	24.00	0.3
LZH	29.58	282	ePc	45	45.20	-0.8
	3.0s 1284.00nm					6.1mb
	Z 28s 22.40um					5.6MszX
	E 16s 5.50um					
	esPd	46	00.60			
	ePP	46	47.28			
	eS	50	21.00			
GYA	30.22	262	P	45	50.00	-1.7
	Z 18s 6.20um					5.3Msz
	E 14s 7.30um					
	S	50	49.00			
CD2	30.92	272	iPc	45	56.80	-0.9
	Z 20s 22.50um					5.8Msz
	N 15s 21.20um					
	isP	46	14.00			
	PP	46	58.60			
DAV	31.44	209	eP	46	00.50	-1.8
QIZ	31.61	247	P	46	04.80	0.9
	N 21s 10.70um					
	E 20s 9.00um					
	PP	47	10.00			
	eS	51	11.00			

GTA	32.28	289	iPc	46	08.50	-1.2
	7.0s 1.60nm					3.0mb X
	Z 30s 11.70um					5.4MszX
	pP	46	25.00	68kmX		
	PP	47	15.00			
	S	51	08.50			
PPR	32.39	223	ePd	46	11.00	0.4
KMI	33.98	263	ePc	46	23.68	-1.0
	4.0s 1.00nm					3.1mb X
	E 13s 7.60um					
	esPd	46	40.56			
	sP	46	48.00			
	ePP	47	39.99			
	S	51	54.00			
ADK	34.45	48	eP	46	27.80	-0.4
KKM	36.86	223	ePd	46	46.30	-2.7X
TSM	37.40	219	ePc	46	54.00	0.6
JAY	37.86	180	ePd	46	57.00	-0.3
LOE	38.77	252	eP	47	04.00	-1.0
CHTO	40.18	257	iPc	47	16.18	-0.4
	1.3s 200.16nm					5.7mb
	esPd	47	32.90			
	ePP	48	52.11			
AAI	40.68	199	iPd	47	22.00	1.3
WMQ	40.83	298	iPc	47	22.95	1.1
	Z 22s 8.40um					5.6Msz
	N 14s 5.20um					
	epPd	47	34.87	43kmX		
	esPd	47	38.68			
	PcP	49	16.00			
	S	53	31.20			
BDT	41.00	255	eP	47	21.10	-2.2
NST	41.03	252	iPc	47	25.00	1.4
RAB	41.03	162	e(P)	47	22.00	-1.6
PCI	41.05	212	ePd	47	23.00	-0.7
	1.1s 17.50nm					4.7mb X
LSA	41.58	276	Pc	47	29.80	1.2
	E 17s 4.20um					
	S	53	46.00			
KHT	42.75	252	eP	47	39.30	1.6
NNT	43.21	248	eP	47	41.50	0.0
PMG	45.16	171	eP	47	58.00	0.9
GUN	46.53	277	P	48	09.00	0.6
PKI	47.05	276	P	48	12.70	0.2
KKN	47.07	277	P	48	13.00	0.5
TTA	47.09	34	eP	48	12.10	0.1
DMN	47.28	277	P	48	14.40	0.2
GKN	47.50	277	P	48	16.40	0.5
IPM	47.63	239	ePd	48	17.10	0.3
	1.0s 103.90nm					5.8mb
KGM	47.93	234	eP	48	19.00	-0.1
IMA	48.37	30	ePc	48	21.90	-0.1
	1.1s 35.90nm					5.3mb
	e	49	49.20			
HNR	48.38	154	eP	48	34.00	11.6X
	eS	55	20.00			
KDC	48.78	41	eP	48	24.50	-0.6
MTN	48.93	192	iPc	48	26.70	0.1
KHKI	49.56	213	ePd	48	31.80	0.3
PMR	50.29	36	eP	48	34.00	-2.6
	0.9s 66.70nm					5.7mb
KSH	50.32	295	iPc	48	39.00	1.6
	6.0s 2.50nm					3.4mb X
	N 15s 5.20um					
	epP	48	54.00	57kmX		
TRT	50.37	217	ePc	48	37.20	-0.5
	1.0s 69.30nm					5.6mb
COL	50.78	32	ePd	48	56.83	16.5X
	eS	55	52.93			
FBA	50.78	32	ePc	48	39.60	-0.7
KNA	52.20	194	eP	48	51.50	0.0
NDI	53.19	282	iPc	48	58.60	-0.4
	1.0s 350.00nm					6.3mb
	eS	56	26.00			
OPA	54.97	87	P	49	12.50	0.4
HON	55.15	87	P	49	12.00	-1.4
	Z 21s 4.03um					5.5Msz
WB5	55.42	187	iPc	49	14.50	-0.7
	eS	56	54.50			
WRA	55.49	187	Pc	49	14.70	-1.0
	0.9s 167.00nm					6.1mb
CTA	55.60	173	iPc	49	15.90	-0.6
	1.5s 150.00nm					5.8mb
	i	49	19.50			
	e(pP)	49	35.00	75kmX		
	i(sP)	49	52.00			
	eS	56	58.00			

	e(SPP)	57	24.00			
QIS	55.80	181	iPc	49	17.20	-0.7
	1.1s 95.00nm					5.7mb
	e	49	32.00			
INK	56.07	27	ePc	49	18.40	-1.0
	1.0s 115.00nm					5.9mb
HYB	57.38	269	iPc	49	29.00	-0.5
	1.0s 300.00nm					6.3mb
	i	49	47.00			
	eS	57	23.00			
MBC	58.17	16	eP	49	33.00	-1.2
	0.9s 91.00nm					5.9mb
	pP	49	53.00	78kmX		
ASPA	59.21	187	iPc	49	41.40	-0.6
	0.6s 123.00nm					6.2mb
	eS	57	47.80			
MBL	59.68	202	iPc	49	45.00	-0.2
	0.6s 111.00nm					6.2mb
GBA	60.32	266	Pd	49	49.20	-0.6
	1.1s 518.30nm					6.6mb
POO	60.65	273	iPd	49	51.50	-0.6
	1.2s 125.00nm					5.9mb
	iS	58	09.00			
BOM	61.30	274	iPc	49	55.80	-0.6
	eS	58	15.30			
KOD	62.17	263	iP	50	03.00	0.3
	eS	58	24.00			
RMQ	62.20	172	iPc	50	01.90	-0.3
	1.2s 397.00nm					6.4mb
	e	50	08.00			
NANU	62.43	206	eP	50	03.50	-0.2
MAIO	63.59	297	iPc+	50	12.00	0.4
	1.6s 104.99nm					5.7mb
	eS	59	08.00			
BRS	63.67	168	Pc	50	12.30	0.4
	i	50	21.30			
KEV	64.56	339	iP	50	16.00	-1.2
	1.0s 178.00nm					6.1mb
	eS	58	52.00			
MEKA	65.20	202	iPd	50	21.70	-0.1
	0.7s 48.00nm					5.7mb
YKA	65.49	30	eP	50	22.90	-0.4
YKC	65.55	30	ePc	50	22.50	-1.2
	0.9s 42.00nm					5.5mb
SOD	66.03	337	iP	50	25.80	-0.9
COO	66.65	169	iPd	50	32.70	1.6
CMS	66.87	175	eP	50	33.00	0.6
FORR	67.05	192	iPd	50	33.20	-0.4
	0.5s 232.00nm					6.5mb
STK	67.08	179	eP	50	34.00	0.3
DAG	67.20	355	iPc	50	32.50	-1.5
	1.1s 121.52nm					5.9mb
KJF	67.51	334	iP	50	35.80	-0.4
	0.6s 172.10nm					6.3mb
	eS	59	20.00			
MRWA	68.41	203	eP	50	43.50	1.3
COOL	68.52	198	eP	50	42.00	-0.9
GMW	68.86	46	P	50	45.60	0.7
SUF	68.96	333	iP	50	44.30	-0.9
	0.6s 53.60nm					5.7mb
RMW	69.48	46	P	50	49.10	0.3
BAL	69.49	202	eP	50	49.00	0.3
TEH	69.67	300	eP	50	53.00	2.8X
PNT	69.79	43	eP	50	50.00	-0.5
	1.0s 70.00nm					5.6mb
BWA	70.00	173	iPc	50	52.90	1.0
IR2	70.05	300	iPc	50	52.90	0.4
KLB	70.10	200	eP	50	52.00	-0.5
ADE	70.17	182	iPc	50	53.60	0.8
	1.0s 102.00nm					5.8mb
IR7	70.24	300	iPc	50	54.22	0.6
IR4	70.26	300	iPc	50	54.68	0.9
IR5	70.50	300	iPc	50	55.91	0.6
NUR	70.89	332	iP	50	56.00	-1.0
	0.7s 77.40nm					5.8mb
	Z 23s 3.10um					5.5MszX
	eS	00	00.00			
	LR	25	30.00			
MUN	70.92	202	eP	50	58.00	0.6
CAN	70.95	173	iPc	50	59.00	1.4
CN8	70.98	172	iPc	50	59.10	1.3
EDM	71.00	38	ePc	50	57.00	-0.9
NWAO	71.50	200	eP	51	01.00	0.1
FHC	71.54	53	ePc	51	02.30	1.0
	e	51	14.90			
TAB	71.99	304	iP+	51	05.00	0.8
WDC	72.59	52	ePc	51	08.00	0.5

06d 14h

i 51 20.30
RKG 72.64 200 eP 51 11.00 3.3X
TOO 72.90 176 iPd 51 10.70 1.6
1.0s 147.00nm 5.9mb
MIN 73.32 52 ePc 51 11.80 -0.2
KER 73.39 300 ePc 51 13.00 0.5
SES 73.80 39 eP 51 14.00 -0.4
1.0s 102.00nm 5.7mb
ORV 73.82 53 ePc 51 14.40 -0.3
e 51 37.00
SLY 73.85 302 iPd 51 15.00 0.1
iPcP 51 28.00
iS 00 42.50
iScS 01 05.50
UPP 73.94 334 iPc 51 13.80 -1.2
1.1s 400.00nm 6.3mb
RGS 73.98 339 iP 51 15.00 -0.2
BRK 74.23 55 ePc 51 17.30 0.3
BKS 74.24 55 ePc 51 17.60 0.5
0.9s 102.00nm 5.8mb
Z 20s 3.20um 5.6Msz
N 20s 1.60um
E 20s 3.20um
iS 00 44.00
i 02 10.00
eLQ 10 25.00
eLR 13 40.00
PCC 74.35 55 ePc 51 17.70 0.0
GCC 74.86 55 eP 51 20.70 0.0
MHC 74.93 55 ePc 51 21.70 0.4
Z 20s 1.70um 5.3Msz
N 20s 0.70um
E 20s 1.80um
e 51 33.00
eS 01 06.00
e 02 14.00
eLQ 10 27.00
eLR 13 40.00
GDH 75.01 5 iPd 51 20.10 -0.8
1.1s 121.52nm 5.8mb
i 51 33.00
i 00 55.00
MSL 75.04 304 iPd 51 21.80 0.0
ePcP 51 34.50
eS 00 54.50
HFS 75.12 335 eP 51 20.90 -0.9
1.1s 212.50nm 6.0mb
Z 20s 5.32um 5.8Msz
LR 19 09.00
BRF 75.24 292 eP 51 22.00 -1.0
NB2 75.25 337 P 51 21.80 -0.8
BJA 75.26 291 iP 51 22.10 -1.1
BEE 75.32 292 iP 51 22.60 -0.9
0.5s 156.50nm 6.2mb
SAO 75.37 55 e(P) 51 23.40 -0.3
CMB 75.38 54 ePc 51 24.20 0.4
e 51 36.00
i 51 44.30
ePP 54 26.30
FFC 75.38 32 iPc 51 22.80 -0.6
1.0s 154.00nm 5.9mb
DHR 75.45 292 iPc 51 23.80 -0.5
PRS 75.66 56 ePc 51 25.70 0.3
e 51 38.40
LRM 75.76 44 iPc 51 26.40 0.3
LLA 75.79 55 ePc 51 26.60 0.5
e 51 39.30
BHD 75.88 301 iPd 51 27.00 0.4
iPcP 51 41.00
iPP 54 22.00
iS 01 04.00
iScS 01 29.00
PRI 76.24 55 ePc 51 29.60 0.8
BGMT 76.34 44 ePc 51 29.60 0.3
FRI 76.41 54 ePc 51 29.60 0.1
e 51 41.70
KVT 76.96 311 iP 51 33.10 0.5
EUR 77.39 50 iP 51 35.50 0.2
0.2s 44.10nm 6.1mb
TNP 77.41 52 P 51 35.00 -0.3
1.0s 81.25nm 5.7mb
BER 77.57 339 iP 51 36.00 0.6
SYP 77.61 56 eP 51 49.00 12.6X
WAR 77.87 327 eP 51 39.00 1.7
e 01 32.00
ISA 77.98 55 eP 51 37.00 -1.3
IAS 78.05 320 eP 51 40.00 1.6

TAU 78.33 175 iPd 51 42.00 2.3
FRB 78.40 13 eP 51 39.50 -0.5
1.1s 168.00nm 6.0mb
CLC 78.47 54 eP 51 41.00 0.0
CLI 78.61 320 ePc 51 41.50 0.0
PPE 78.65 319 eP 51 42.00 0.3
PTT 78.83 320 eP 51 45.00 2.3
COP 78.90 333 iPc 51 43.00 0.2
1.1s 288.61nm 6.2mb
ipP 51 59.00 57kmX
DUG 78.93 48 P 51 44.90 1.4
1.0s 44.50nm 5.4mb
SBB 78.98 55 eP 51 44.00 0.2
RYD 78.98 292 iPc 51 43.60 -0.4
CFR 79.02 318 ePc 51 54.00 10.3X
MWC 79.09 56 eP 51 43.00 -1.6
BW06 79.27 45 P 51 45.70 0.2
GSC 79.30 54 eP 51 47.00 1.4
VRI 79.35 319 ePc 51 47.00 1.5
BRD 79.40 319 ePd 51 48.00 2.2
TLB 79.47 318 ePc 51 46.00 -0.1
ANTO 79.68 312 iPc 51 47.96 0.5
epPd 52 02.03 49kmX
esPd 52 05.51
RVR 79.68 56 eP 51 46.00 -1.5
BBTK 79.71 312 iPc 51 48.00 0.2
KRA 79.88 326 iPc 51 48.20 -0.1
1.3s 279.00nm 6.1mb
i 51 48.80
i 51 54.20
e 54 50.40
ISR 79.92 319 ePc 51 50.00 1.3
KRP 80.01 153 Pd 51 51.70 2.8X
e 52 05.00
MLR 80.01 319 ePc 51 50.00 0.7
SPC 80.35 325 eP 51 51.40 0.4
iPP 54 53.10
PLM 80.40 56 eP 51 51.00 -0.6
TPC 80.50 55 eP 51 52.00 0.0
OASM 80.51 295 ePc 51 52.00 -0.1
GPA 80.91 313 eP 51 53.40 -0.6
BAR 80.93 56 eP 51 55.00 0.8
HRT 80.95 314 eP 51 54.00 -0.2
KSP 80.95 328 iPc 51 54.00 0.1
1.2s 197.00nm 5.9mb
i 52 01.20
iPP 54 58.50
ISK 81.15 315 eP 51 54.00 -1.1
DEV 81.33 321 iPc 51 56.00 0.0
PSZ 81.41 324 iP 51 57.10 0.6
DMK 81.41 316 eP 51 57.00 0.5
CTT 81.46 315 eP 51 50.00 -6.8X
RSSD 81.46 41 P 51 57.20 0.2
SZH 81.48 318 iPd 51 58.00 1.1
RSON 81.67 31 P 51 56.40 -1.3
1.0s 63.00nm 5.6mb
PVL 81.84 318 eP 51 59.00 0.3
BRG 81.93 329 iPc 51 59.10 0.1
1.4s 130.00nm 5.8mb
i 52 07.70
i 54 06.80
eS 02 04.00
CLL 81.99 330 iPc 51 59.00 -0.3
1.2s 255.00nm 6.1mb
Z 19s 4.00um 5.8Msz
i 52 15.00
eSKS 02 12.00
LFK 82.03 308 iP 52 00.20 0.3
KCT 82.08 314 iP 52 00.50 0.4
BUD 82.13 324 eP 52 01.00 0.9
BZS 82.17 322 iPd 52 00.00 -0.4
SRO 82.23 325 iP 52 01.60 1.0
i 55 16.50
ADI 82.26 305 iPc 51 59.80 -1.4
JARJ 82.29 304 P 52 02.30 0.9
EDC 82.31 315 eP 52 01.00 -0.2
PRU 82.34 328 Pc 52 01.50 0.3
1.4s 120.00nm 5.7mb
Z 14s 3.90um 5.9MszX
N 14s 2.10um
E 14s 2.50um
e 52 10.50
eS 02 12.00
DST 82.34 314 iP 52 02.00 0.5
CSS 82.36 308 eP 52 02.00 0.4
BURJ 82.43 304 P 52 02.30 0.3
DIM 82.51 317 iP 52 04.00 1.8

ZST 82.52 326 eP 52 03.10 1.0
e 55 19.00
BCK 82.52 311 iP 52 01.20 -1.3
SALJ 82.60 304 P 52 03.80 0.8
MRW 82.63 155 P 52 03.00 0.5
pP 52 17.20 49kmX
KHL 82.63 312 iP 52 02.80 -0.2
KFNJ 82.70 304 Pd 52 04.20 0.9
MASJ 82.75 304 P 52 04.80 1.0
OUTJ 82.81 303 P 52 05.00 0.9
VKA 82.83 326 iPc 52 04.00 0.2
3.7s 884.00nm 6.2mb X
Z 13s 2.50um 5.8MszX
i 52 18.50
i 52 36.80
i 55 22.00
i 55 28.00
LR 33 33.00
KDZ 82.84 317 iP 52 05.00 1.0
MKRJ 82.91 304 P 52 05.70 1.1
PGB 82.93 318 iP 52 04.00 -0.5
PPCY 83.04 308 eP 52 05.00 -0.1
KMSA 83.05 290 ePc 52 05.30 -0.2
MOX 83.06 330 iPc 52 05.00 0.1
1.3s 126.00nm 5.8mb
Z 13s 2.10um 5.7MszX
N 12s 1.70um
E 13s 1.90um
i 52 21.00
eS 02 20.00
eSS 08 30.00
LQ 34 30.00
DSI 83.07 304 iPc 52 06.30 1.0
RDO 83.11 316 iPc 52 05.70 0.4
SOP 83.14 326 iPc 52 05.80 0.4
EDU 83.17 341 ePc 52 05.50 0.1
1.0s 150.00nm 6.0mb
RZN 83.21 317 iPc 52 07.00 0.9
WIT 83.25 334 iPc 52 07.10 1.3
e 52 18.50
KHC 83.40 328 iPc 52 07.50 0.8
1.1s 121.50nm 5.9mb
e 52 22.20
S 02 30.00
ELL 83.40 311 iP 52 07.30 0.2
VTS 83.42 319 iPc 52 07.00 -0.1
ELO 83.42 341 ePc 52 06.70 0.0
1.0s 89.00nm 5.8mb
EZN 83.54 315 eP 52 07.60 0.1
EBH 83.56 341 ePc 52 07.60 0.2
ESY 83.61 340 ePc 52 07.60 0.0
GOL 83.66 45 iPc 52 09.00 0.5
1.7s 92.31nm 5.6mb
Z 20s 1.49um 5.4Msz
GLD 83.71 45 P 52 10.40 1.7
1.2s 121.21nm 5.9mb
MMB 83.82 318 iPc 52 10.00 1.0
EAB 83.84 341 ePc 52 08.70 -0.1
0.9s 71.00nm 5.8mb
WTS 83.86 333 iPc 52 09.00 0.1
1.0s 63.00nm 5.7mb
e 55 16.00
EAU 83.90 340 ePc 52 09.10 0.0
IZM 83.93 313 eP 52 09.80 0.2
PRK 83.95 315 iPc 52 09.90 0.3
GRF 83.96 330 iPc 52 10.50 1.0
1.3s 408.00nm 6.4mb
Z 20s 3.00um 5.7Msz
e(pP) 52 20.30 31kmX
e(SP) 52 26.00
KSL 84.00 310 iPc 52 09.50 -0.5
YER 84.14 312 iP 52 11.80 1.0
EKA 84.27 340 Pd 52 11.70 0.7
1.4s 99.50nm 5.7mb
AYN 84.29 301 iPc 52 12.30 0.8
ESK 84.30 340 eP 52 12.00 0.9
PMO 84.31 113 iP 52 14.70 3.0X
1.2s 50.00nm 5.5mb
TPT 84.51 113 iP 52 15.60 3.0X
1.2s 50.00nm 5.5mb
MBH 84.51 303 iPc 52 13.30 0.7
AFR 84.51 116 eP 52 22.00 9.4X
1.2s 70.00nm 5.7mb
VAY 84.64 318 iPc 52 13.60 0.6
1.3s 0.35nm 3.3mb X
VAH 84.66 113 iP 52 16.10 2.7X
1.2s 35.00nm 5.4mb

PPT		84.68	116	eP	52	23.00	9.5X			1.1s	89.00nm		5.9mb	LBL		90.76	331	P	52	42.67	0.2
		1.2s	55.00nm				5.6mb	MOF		87.08	331	P	52 24.34	-0.8	MFF		90.88	334	iPc	52	43.50	0.5
	Z	22s	6.00um				5.9Msz	LLS		87.10	329	ePc	52 25.30	-0.1			1.2s	208.20nm				6.4mb
HQL		84.70	302	iPc	52	14.40	0.8	DCN		87.15	341	eP	52 25.60	0.3	LRG		90.95	328	iPc	52	43.20	-0.2
PTJ		84.73	325	eP	52	13.10	-0.5			1.3s	294.00nm		6.4mb				1.2s	232.40nm				6.5mb
				e	55	28.20		VDL		87.20	329	ePc	52 26.10	0.2	LMR		90.98	328	iPc	52	43.30	-0.2
SKO		84.79	319	iPc	52	15.00	1.1	BSF		87.23	331	P	52 24.70	-1.2	RJF		91.37	332	iPc	52	45.90	0.6
		1.2s	380.00nm				6.4mb	BBS		87.24	330	P	52 24.94	-0.9			1.1s	141.60nm				6.3mb
	N	16s	3.68um					VITF		87.24	331	P	52 24.79	-0.9	CAF		91.48	332	iPc	52	46.80	0.9
	E	18s	3.61um					HAU		87.26	331	iPc	52 25.60	-0.4	LFF		91.97	333	iPc	52	48.80	0.8
				iPcP	52	23.60				1.0s	53.60nm		5.7mb	LPO		92.02	332	iPc	52	48.90	0.6
				iPP	55	33.00		SAL		87.43	327	Pc	52 26.50	-0.2			1.2s	148.70nm				6.3mb
				iSc	02	40.00		LOMF		87.60	330	P	52 26.71	-1.0	GAC		92.86	24	eP	52	52.50	0.4
				iScS	03	00.50		AOI		87.60	324	eP	52 27.30	-0.4					pP	53	04.50	39kmX
				LR	34	08.00		TMA		87.75	329	ePc	52 28.00	-0.5	CGL		92.89	324	P	52	52.41	-0.1
PLG		84.80	317	iP	52	14.50	0.5	RSM		87.86	325	Pc	52 29.70	0.9	FVM		92.98	38	P	52	52.50	-0.3
SRFA		84.81	302	iPc	52	14.90	0.8	ITM		87.86	315	eP	52 27.50	-1.5	ETER		93.36	330	e(P)	52	55.00	0.5
RUV		84.81	113	iP	52	16.90	2.7X	ARV		87.96	325	Pc	52 29.60	0.2	EPF		93.74	332	iPc	52	56.30	0.0
		1.2s	45.00nm				5.5mb	VAI		87.99	329	Pc	52 28.70	-0.7			1.0s	36.80nm				5.8mb
PLE		84.91	321	eP	52	15.00	0.5	CIO		88.09	324	eP	52 29.88	-0.2	CBM		93.98	19	P	52	57.60	0.3
IVA		84.97	321	eP	52	15.50	0.7	SFI		88.14	326	Pc	52 31.00	0.8	RSNY		94.20	24	P	52	58.00	-0.4
KBA		85.05	327	iPc	52	15.00	-0.3	MMK		88.18	329	ePc	52 30.80	0.1	EBR		95.56	331	eP	53	05.00	0.4
		1.0s	54.90nm				5.7mb	DIX		88.39	329	ePd	52 32.10	0.4	ETOR		96.56	332	e(P)	53	09.00	-0.3
				i	52	25.10		ASS		88.42	325	Pc	52 31.40	-0.2	GUD		97.49	334	e(P)	53	13.00	-0.6
				i	52	32.50		ORX		88.51	329	P	52 30.69	-1.4	TOL		98.12	333	iP	53	16.00	-0.3
				iPP	55	33.60		FIR		88.52	326	eP	52 32.00	0.0					ePP	56	50.00	
				i	55	51.60		BOB		88.56	327	Pc	52 32.10	-0.2	EVIA		98.62	331	e(P)	53	19.00	0.3
				e	57	40.00		EMS		88.59	330	ePc	52 32.30	-0.3	EPLA		98.68	335	e(P)	53	19.00	0.1
FUR		85.12	329	iPc	52	15.90	0.5	BDI		88.60	326	P	52 30.60	-1.9	ASMO		100.21	332	ePdiff	53	25.60	-0.2
		1.3s	236.00nm				6.2mb	DUI		88.61	323	P	52 33.20	0.6	AAPN		100.40	332	ePdiff	53	26.50	-0.1
ENN		85.18	333	iPc	52	15.00	-0.6	LOR		88.83	332	iPc	52 33.10	-0.4	APHE		100.54	331	ePdiff	53	27.00	-0.3
		1.2s	261.00nm				6.3mb			1.2s	139.40nm		6.2mb	ALOJ		100.57	332	ePdiff	53	27.00	-0.4
KKS		85.27	320	eP	52	17.00	0.8	AZI		88.87	323	P	52 32.70	-1.0	ATEJ		100.70	332	ePdiff	53	27.50	-0.5
MEM		85.28	333	iPc	52	15.90	-0.2	SDI		88.90	323	Pc	52 33.40	-0.6	EPRU		101.12	333	e(Pdif	53	29.70	0.0
				e	55	20.70		PII		88.90	326	P	52 32.70	-1.1	NPA		107.61	264	ePKP	57	48.40	-18.8X
LJU		85.29	326	eP	52	16.00	-0.3	MNS		88.93	324	Pc	52 33.30	-0.8	LWI		108.85	281	e(Pdif	54	24.00	19.1X
				e	52	32.00		LSD		88.99	329	P	52 34.38	-0.2	BNG		112.66	293	ePdiff	54	36.10	14.5X
				e	55	35.00		LBF		89.02	332	iPc	52 34.10	-0.4			1.0s	40.00nm				
VBY		85.36	325	iP	52	16.70	0.1			1.2s	50.50nm		5.7mb						id	58	15.90	
RBL		85.43	326	Pc	52	16.20	-0.9	BSS		89.09	322	Pc	52 34.50	-0.3					id	59	04.90	
NKY		85.48	321	eP	52	17.60	0.2	RFI		89.12	323	P	52 35.68	0.8					ic	59	19.00	
PHP		85.53	319	iPd	52	18.10	0.6	LPG		89.13	329	iPc	52 35.10	-0.2	LSZ		116.72	270	iPKP	58	08.50	-16.2X
CEY		85.57	325	eP	52	16.50	-1.2			1.2s	68.40nm		5.9mb						i	58	28.20	
VOY		85.59	326	iPc	52	16.80	-1.1	FLN		89.14	335	eP	52 34.70	-0.2					i	59	16.70	
TTG		85.62	321	eP	52	17.80	-0.1			1.0s	48.00nm		5.8mb	KMZ		117.66	273	iPKPc	58	27.00	0.5
ABHA		85.62	289	iPd	52	21.00	2.3	SSF		89.14	332	iPc	52 34.60	-0.3					i	58	47.50	
BRY		85.65	321	eP	52	17.60	-0.7			1.0s	56.00nm		5.8mb	BUL		118.89	265	iPKPc	58	28.90	0.2
FVI		85.67	327	Pc	52	17.10	-1.0	TDS		89.15	320	P	52 35.40	0.3	SLR		121.83	259	iPKPc	58	34.60	0.4
UCC		85.73	334	P	52	18.60	0.3	LDF		89.16	335	iPc	52 34.80	-0.2			1.0s	50.00nm				
				e	52	38.00				1.2s	85.60nm		5.9mb		Z	20s	4.26um				6.1Msz
OHR		85.74	319	iPd	52	18.10	-0.6	CKI		89.34	328	P	52 34.00	-1.9	PRY		123.01	259	iPKPc	58	36.20	-0.2
		1.2s	0.21nm				3.2mb X	SMF		89.36	332	iPc	52 35.80	-0.2			0.8s	15.63nm				
				iPcP	52	26.80				1.4s	135.00nm		6.1mb	BFS		123.55	259	iPKPc	58	37.50	0.0
KZN		85.78	318	iPc	52	19.00	0.1	AVF		89.42	332	iPc	52 36.20	-0.1			0.6s	26.67nm				
SDA		85.79	320	eP	52	19.10	0.3	BNI		89.52	329	Pc	52 36.50	-0.5	SHGH		124.50	310	ePKP	58	35.00	-4.5X
KAP		85.86	311	eP	52	19.50	0.2	FIN		89.55	328	P	52 35.51	-1.4	KUK		124.51	310	ePKP	58	39.50	0.0
TRI		85.90	326	ePc	52	18.40	-0.9	RRL		89.58	329	P	52 36.84	-0.5					e	00	25.00	
GWF		85.98	331	P	52	19.12	-0.5	GRR		89.59	335	iPc	52 37.10	0.1	KOGH		124.51	310	ePKP	58	39.50	-0.1
SNF		85.99	334	iPc	52	19.60	0.0			1.2s	124.90nm		6.1mb	LEGH		124.81	310	ePKP	58	39.00	-1.1
WLF		85.99	332	iPc	52	20.00	0.4	AKSR		89.61	299	iPc	52 37.80	0.3	SPA		125.36	180	e(PKP)	58	40.30	0.6
HCY		86.00	321	eP	52	19.00	-0.8	ROB		89.62	328	P	52 36.13	-1.2			1.0s	66.50nm				
TIR		86.07	319	eP	52	19.20	-1.0	AKUR		89.62	299	iPd	52 37.80	0.2		Z	22s	2.70um				5.9Msz
KBN		86.07	318	iPd	52	20.80	0.6	AGRW		89.76	299	iPc	52 38.80	0.6					e	58	54.50	
ANMO		86.15	49	ePc	52	21.56	0.6	PZZ		89.78	329	P	52 36.02	-2.2	FRS		125.93	257	iPKPc	58	42.60	0.8
				epPd	52	34.80	44kmX	STV		89.90	328	P	52 35.92	-2.7			1.0s	15.00nm				
ALQ		86.15	49	ePc	52	21.80	0.8	IMI		89.92	328	P	52 37.56	-1.2	KIM		125.95	258	iPKPc	58	41.60	-0.5
		0.9s	62.60nm				5.8mb	LPF		89.96	335	iPc	52 38.90	0.2			1.0s	36.00nm				
	Z	22s	1.26um				5.3Msz			1.0s	120.00nm		6.1mb	TIC		126.93	315	PKP	58	44.02	-0.2
				e	52	35.00		PLDF		90.00	331	P	52 38.99	-0.1			1.1s	60.00nm				
DOU		86.22	333	Pc	52	20.30	-0.5	AGMR		90.02	299	iPd	52 40.80	1.4	KIC		127.00	315	PKP	58	44.06	-0.3
		1.2s	222.20nm				6.3mb	AUTN		90.05	328	P	52 38.48	-1.1			1.1s	57.50nm				
BERA		86.48	319	eP	52	21.10	-1.1	AWAL		90.09	299	iPc	52 40.20	0.5	LIC		127.27	315	PKP	58	44.68	-0.2
LSK		86.52	318	eP	52	22.60	0.0	TOUF		90.12	328	P	52 38.65	-1.2	ARE		145.80	65	ePKP	59	20.00	0.8
DMU		86.55	341	eP	52	22.60	0.2	AGO		90.12	332	P	52 39.57	0.0	ZOBO		148.11	60	PKP	59	24.00	0.8
CDF		86.57	331	P	52	21.84	-0.8	SBF		90.16	328	iPc	52 38.90	-0.9					i	59	27.00	
CTI		86.59	327	Pc	52	21.90	-1.0			1.3s	209.30nm		6.3mb						LR	49	50.00	
SLE		86.59	330	ePc	52	22.40	-0.3	AURF		90.18	328	P	52 38.65	-1.3	LPB		148.30	61	PKP	59	26.00	2.7X
SAX		86.65	329	ePc	52	23.30	0.0	MAF		90.20	332	iPc	52 40.20	0.3			1.0s	400.00nm				
FEL		86.70	330	P	52	22.31	-1.1	MVIF		90.25	328	P	52 39.01	-1.4					LR	49	44.00	
OSS		86.75	328	ePc	52	23.80	0.1	TCF		90.28	332	iPc	52 40.50	0.2	CNCB		148.57	61	PKP	59	25.80	1.8
HLW		86.86	305	eP	52	23.00	-1.3			1.2s	92.20nm		6.0mb						i	59	29.70	
				e	55	48.00		PYM		90.42	332	P	52 41.05	0.0	CCH		150.25	59	PKP	59	27.50	1.3
				eS	02	44.00		CALN		90.48	328	P	52 40.33	-1.1	ITR		153.32	358	iPKPd	59	31.10	0.7
ZLA		86.86	330	ePd	52	24.40	0.3	CVF		90.56	326	P	52 40.33	-1.3					e	59	37.70	
DLE		87.01	341	eP	52	24.50	-0.1	LSF		90.56	333	iPc	52 41.70	0.1					e	59	49.60	
		1.1s	91.00nm				5.9mb	FRF		90.74	328	iPc	52 41.80	-0.6	SOB1		153.76	3	ePKP	59	31.70	0.7
SCH		87.01	15	ePc	52	25.00	0.4			1.2s	148.70nm		6.2mb						e	59	39.10	

06d 14h

			e	59 53.30		
BAO	158.78	23	ePKP	59 37.50	0.0	
ITA	166.13	20	ePKP	59 46.40	1.7	
			e	00 46.40		
			e	01 01.70		
BMA	166.58	19	ePKP	59 47.10	2.4X	
			e	00 03.00		
			e	00 48.40		

S.D. = 0.8 on 427 of 479 obs.

MAR 06, 1989 16h 43m 05.19± 0.77s
35.881 N ± 5.9km 33.639 E ± 9.7km
DEPTH = 10.0km (geophysicist)
CYPRUS (372)
ML 3.2 (CSS).

LFK	0.61	188	ePn	43 18.00	0.5	
FAM	0.93	161	eP	43 23.50	0.6	
CSS	0.95	195	eP	43 23.50	0.2	
			eS	43 41.50		
PPCY	1.45	227	e(P)	43 31.50	0.1	
ELL	3.14	287	ePn	43 55.30	-0.4	
BBTK	4.02	350	eP	44 08.50	0.4	
DSI	4.54	161	eP	44 15.00	-0.4	
			eS	45 11.50		
RMN	5.43	171	eP	44 28.00	-0.2	
MBH	6.18	170	eP	44 38.00	-0.7	
			eS	45 51.00		

S.D. = 0.5 on 9 of 9 obs.

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* MAR 06, 1989 16h 48m 40.63± 1.55s
43.377 N ±11.4km 5.435 E ± 8.2km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
MD 3.1 (STR).

GELF	0.01	322	Pg	48 42.46	-0.1	
PUYF	0.25	51	Pg	48 44.70	-1.2	
TREF	0.25	352	Pg	48 44.83	-1.1	
PRAF	0.47	336	Pg	48 49.96	-0.2	
TAVF	0.51	62	Pg	48 50.28	-0.8	
VILF	0.52	23	Pg	48 49.91	-1.2	
GANF	0.71	29	Pg	48 54.47	-0.2	
CALN	1.12	70	Pg	49 02.08	0.3	
MVIF	1.35	67	Pn	49 05.41	-0.2	
			Sg	49 25.11		
TOUF	1.46	64	Pn	49 07.65	0.4	
			Sg	49 27.95		
AURF	1.47	69	Pn	49 07.08	-0.1	
AUTN	1.57	66	Pn	49 09.40	0.6	
			Sg	49 31.05		
DOI	1.73	49	P	49 11.30	0.4	
			eSn	49 35.50		
BNI	1.90	28	Pc	49 15.90	2.4	
			eSn	49 40.80		
CKI	2.31	62	P	49 19.50	0.2	
			eSn	49 48.80		
CVF	2.65	107	Pn	49 22.86	-1.3	
ORO	2.89	38	P	49 29.70	2.0	

S.D. = 1.1 on 17 of 17 obs.

% MAR 06, 1989 17h 24m 05.19± 2.00s
43.725 N ±17.0km 1.527 E ±26.0km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.7 (LDG).

LPO	0.99	346	Pn	24 23.30	-0.6	
			Pg	24 24.50		
			Sg	24 43.20		
EPF	1.11	232	Pg	24 26.00	0.0	
			Sg	24 46.00		
CAF	1.26	18	Pn	24 23.20	-5.4X	
			Pg	24 24.10		
			Sg	24 42.50		
RJF	1.58	360	Pg	24 32.50	-0.8	
			Sg	24 56.20		
LSF	2.53	0	Pg	24 48.80	1.9	
			Sg	25 23.80		
MAF	2.60	16	Pg	24 47.00	-1.0	
			Sg	25 22.70		
TCF	2.61	10	Pg	24 49.10	1.0	
			Sg	25 24.20		
BGF	2.98	18	Pg	24 53.00	-0.4	
			Sg	25 33.40		

S.D. = 1.3 on 7 of 8 obs.

% MAR 06, 1989 17h 46m 22.64± 2.03s
42.791 N ±19.3km 2.726 W ± 9.0km
DEPTH = 10.0km (geophysicist)
SPAIN (377)
MG 3.0 (MDD).

ECRI	0.24	139	ePg	46 27.50	-0.3	
			eSg	46 31.00		
ETOR	2.03	165	ePn	46 58.30	0.9	
			eSn	47 23.00		
GUD	2.40	207	ePn	47 01.90	-0.8	
			eSn	47 32.00		
EROQ	3.06	129	ePn	47 11.70	-0 2	
			eSn	47 47.20		
ECHE	3.46	157	eP	47 25.30	7.6X	
			eS	48 06.00		
EPLA	3.71	224	ePn	47 21.60	0.3	
			eSn	48 03.00		
ETER	4.15	95	ePn	47 27.50	0.1	
			eSn	48 14.40		
EVIA	4.15	178	ePg	47 46.20	18.6X	
			eSg	48 33.50		

S.D. = 0.7 on 6 of 8 obs.

MAR 06, 1989 18h 30m 19.40± 0.25s
36.293 N ± 4.4km 136.974 E ± 4.6km
DEPTH = 274.3 ± 2.7 km
4.6mb (10 obs.)
NEAR WEST COAST OF HONSHU, JAPAN(226)

MTMJ	0.73	66	iPd	30 57.00	0.8	
			S	31 25.70		
MAT	1.03	76	iPd	30 58.00	0.5	
			iS	31 27.00		
TSRJ	1.10	227	iPd	30 58.30	0.5	
IIDJ	1.11	137	iPd	30 57.50	-0.5	
CHJJ	1.65	98	P	31 01.70	0.2	
			iS	31 33.70		
NIIJ	1.88	59	iP+	31 03.20	0.0	
WKYJ	2.36	209	iPd	31 08.10	0.6	
			S	31 44.60		
KAKJ	2.59	91	P	31 08.70	-0.9	
			S	31 45.60		
YONJ	3.06	250	iPd	31 14.60	0.2	
			eS	31 57.60		
YAMJ	3.08	52	iP+	31 15.20	0.6	
			S	31 57.40		
TKSJ	3.33	227	iPd	31 17.80	0.6	
			S	32 02.50		
SHK	3.92	245	iPd	31 24.00	0.1	
	0.9s		504.20nm			
OFUJ	4.65	52	iP+	31 31.60	-0.7	
			S	32 27.20		
SHNJ	5.27	247	eP	31 40.20	0.5	
MRRJ	6.90	26	P	31 58.70	-0.9	
			S	33 16.40		
HOOJ	7.80	37	P	32 09.10	-1.8	
			S	33 35.10		
ASAJ	8.94	27	P	32 22.40	-2.8	
KUSJ	9.04	39	eP	32 23.10	-3.3X	
			S	33 57.20		
MDJ	10.03	328	iPc	32 39.80	0.8	
CN2	11.58	314	Pc	32 58.20	0.0	
SNY	11.78	302	Pc	33 01.60	0.8	
GUMO	23.69	161	eP	35 09.30	1.1	
	0.5s		155.10nm		5.7mb X	
PJG	23.69	161	eP	35 09.20	1.0	
GUA	23.75	161	eP	35 10.20	1.4	
TTA	48.06	34	eP	38 32.50	-0.5	
IMA	49.13	30	eP	38 41.30	0.1	
MTN	49.18	188	eP	38 40.00	-1.9	
PMR	51.34	36	eP	38 57.00	-0.7	
FBA	51.62	32	eP	39 00.50	0.7	
WB5	55.92	183	iPc	39 29.20	-2.1	
WRA	55.98	183	Pc	39 29.50	-2.3	
	0.5s		6.80nm		4.4mb	
INK	56.66	26	eP	39 36.00	0.0	
MBC	58.23	16	eP	39 46.00	-0.9	
	0.8s		9.00nm		4.4mb	
MBL	59.40	199	eP	39 53.00	-2.4	
ASPA	59.70	183	iPc	39 55.70	-1.8	
	0.9s		10.00nm		4.4mb	
SOD	64.23	336	iP	40 26.40	-0.5	
KJF	65.59	333	eP	40 35.00	-0.6	
	0.7s		16.00nm		4.9mb	
YKA	66.21	29	eP	40 39.30	-0.2	
SUF	67.00	332	iP	40 43.70	-0.8	
	0.7s		7.50nm		4.5mb	
NUR	68.88	331	eP	40 55.00	-1.0	
HFS	73.24	334	eP	41 21.30	-0.6	
	0.7s		9.10nm		4.6mb	
FHC	73.31	52	eP	41 23.90	1.2	
NB2	73.44	336	P	41 22.40	-0.7	
	0.9s		12.10nm		4.6mb	
LBFM	74.31	50	eP	41 29.70	1.0	
WDC	74.34	51	ePd	41 29.00	0.4	
LTCM	74.82	51	eP	41 31.50	0.2	
SES	74.98	38	eP	41 32.00	-0.1	
ORV	75.58	51	ePd	41 35.50	-0.1	
BRK	76.06	53	eP	41 38.40	0.1	
FFC	76.21	31	eP	41 37.50	-1.3	
	0.8s		20.00nm		4.9mb	
LRM	77.13	42	eP	41 45.10	0.7	
CMB	77.17	52	ePd	41 44.90	0.4	
PRS	77.54	54	ePd	41 46.70	0.2	
LLA	77.65	54	eP	41 47.60	0.5	
BGMT	77.73	42	eP	41 48.20	0.6	
KVN	78.01	50	ePd	41 49.90	0.7	
HPI	78.11	44	eP	41 50.70	0.9	
PRI	78.11	54	eP	41 50.50	0.8	
FRI	78.23	53	eP	41 50.30	0.1	
KSP	78.79	326	eP	41 53.30	0.3	
TNP	79.15	51	ePd	41 56.10	0.7	
CLL	79.90	328	iPc	41 58.80	0.0	
DUG	80.50	47	eP	42 03.50	1.1	
BW06	80.68	43	eP	42 03.50	0.1	
	0.8s		12.86nm		4.8mb	
DAU	81.27	46	eP	42 07.70	1.1	
GRF	81.86	328	eP	42 10.00	0.9	
MSU	81.96	48	eP	42 11.40	1.3	
PLM	82.29	54	eP	42 12.30	0.5	
EKA	82.57	338	P	42 13.00	0.4	
	0.9s		7.00nm		4.4mb	
ALQ	87.76	47	eP	42 39.00	0.2	
LPB	150.29	55	PKP	49 38.00	3.3X	
	1.0s		40.00nm			
CNCB	150.57	55	PKP	49 36.00	0.7	
CCH	152.19	53	ePKP	49 55.00	17.7X	
ITR	152.28	350	ePKP	49 43.40	6.2X	
SOB1	152.97	355	ePKP	49 45.20	7.0X	

S.D. = 1.0 on 70 of 75 obs.

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* MAR 06, 1989 18h 54m 27.63± 0.94s
44.784 N ± 7.6km 10.379 E ± 9.6km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)

MME	0.63	159	P	54 40.90	0.4	
			eSg	54 49.30		
BOB	0.66	269	Pd	54 41.00	0.1	
			eSg	54 51.40		
BDI	0.74	168	P	54 42.70	0.5	
PII	1.07	174	P	54 46.80	-0.9	
			eSg	55 01.90		
CTI	1.55	35	Pc	54 55.30	-0.1	
			eSg	55 15.90		

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

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* MAR 06, 1989 19h 19m 23.75± 0.85s
52.564 N ±17.2km 168.629 W ± 8.9km
DEPTH = 33.0km (normal)
5.0mb (3 obs.)
FOX ISLANDS, ALEUTIAN ISLANDS (9)

ADK	5.00	265	eP	20 38.70	0.3	
KDC	10.58	54	eP	21 54.20	-1.8	
TTA	12.36	28	eP	22 22.50	2.4	
PMR	13.88	42	eP	22 39.00	-1.1	
IMA	15.48	23	eP	23 05.00	4.0X	
FBA	16.31	33	eP	23 11.00	-0.6	
INK	22.94	33	eP	24 25.00	-0.5	
YKA	29.77	49	eP	25 30.40	1.4	
MBC	30.19	21	eP	25 33.00	0.4	
SES	35.12	70	eP	26 16.00	0.2	
KVN	36.95	91	eP	26 42.00	10.4X	
BW06	39.92	80	eP	26 57.40	1.0	
			e	27 09.00		
RSON	44.50	61	eP	27 33.00	-0.4	
KJF	62.88	352	eP	29 48.00	-0.2	
SUF	64.47	353	iP	29 58.00	-0.6	
NUR	66.78	353	eP	30 13.00	-0.4	
HFS	67.64	359	eP	30 18.00	-0.9	
	0.3s		5.50nm		5.1mb	
GUN	77.03	299	P	31 15.80	0.4	

0.6s 12.00nm 5.1mb
KKN 77.44 299 P 31 18.00 0.5
PKI 77.55 299 P 31 16.40 -1.8
DOU 77.56 4 P 31 18.30 0.9
GKN 77.61 300 P 31 18.60 0.3
DMN 77.68 299 P 31 19.40 0.6
WLF 78.05 3 P 31 11.60 -8.5X
e 31 17.50
KBA 80.72 359 eP 31 36.00 1.1
HYB 89.45 298 eP 32 12.00 -6.7X
GBA 93.19 297 Pd 32 34.50 -1.4
0.6s 1.10nm 4.5mb
SLR 150.32 328 ePKP 39 13.50 5.9X
S.D. = 1.1 on 23 of 28 obs.

MAR 06, 1989 19h 54m 36.44± 5.59s
55.595 N ±11.4km 161.708 E ± 6.9km
DEPTH = 146.5 ± 55.6 km
4.6mb (7 obs.)
NEAR EAST COAST OF KAMCHATKA (218)

MAT 24.87 230 iPd 59 46.70 0.0
0.8s 11.19nm 4.4mb
FBA 26.02 49 eP 59 56.90 -0.1
1.1s 1.00nm 3.4mb X
MBC 34.37 25 eP 01 10.00 -0.4
YKA 40.70 45 eP 02 03.80 0.5
FFC 50.63 48 eP 03 22.00 0.2
0.9s 12.00nm 4.6mb
KVN 53.71 72 iP 03 44.50 -0.7
EUR 54.54 70 iP 03 51.50 0.1
TNP 54.89 72 iP 03 54.00 0.2
0.8s 6.18nm 4.5mb
KJF 55.41 338 eP 03 57.00 0.1
BW06 55.51 63 eP 03 58.50 0.2
0.8s 2.50nm 4.2mb
SUF 57.05 337 iP 04 09.10 0.5
0.4s 4.90nm 4.8mb
RSSD 57.26 59 iP 04 10.60 -0.1
GUN 59.58 276 P 04 26.40 -0.7
KKN 60.01 276 P 04 30.40 0.6
GKN 60.21 277 P 04 33.60 2.5X
NB2 61.40 344 P 04 38.40 -0.2
0.7s 7.90nm 4.8mb
HFS 61.85 343 eP 04 41.20 -0.3
0.5s 7.70nm 4.9mb
ASPA 82.43 206 eP 06 59.70 16.6X
S.D. = 0.4 on 16 of 18 obs.

? MAR 06, 1989 20h 12m 28.87± 4.34s
5.126 S ±53.0km 145.740 E ±22.5km
DEPTH = 159.1 ± 14.3 km
4.5mb (2 obs.)
EAST PAPUA NEW GUINEA REGION (207)

LAT 1.97 140 eP 13 05.50 0.9
eS 13 37.00
MNDI 2.31 244 eP 13 08.50 -0.3
PMG 4.48 162 iPc 13 35.00 -1.4
0.5s 211.27nm
eS 14 25.00
MTN 16.33 241 eP 16 11.00 0.4
WB5 18.37 216 eP 16 35.50 1.2
WRA 18.44 216 Pd 16 35.60 0.6
0.4s 3.50nm 4.1mb
KNA 19.73 236 eP 16 48.50 0.1
ASPA 21.68 211 iPd 17 11.00 3.1X
0.6s 29.00nm 4.9mb
BWA 29.26 175 eP 18 21.20 3.1X
MBL 29.76 235 eP 18 21.00 -1.6
S.D. = 1.4 on 8 of 10 obs.

• MAR 06, 1989 20h 55m 30.66± 1.74s
45.442 N ±20.5km 15.046 E ± 4.6km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
MD 2.3 (TRI). ML 2.2 (PTJ).

VBY 0.16 67 iPgd 55 34.20 -0.2
iSg 55 40.50
CEY 0.53 305 ePg 55 40.30 -1.0
eSg 55 53.00
LJU 0.70 329 ePg 55 45.50 1.0
eSg 56 00.00
ZAG 0.76 60 iPg 55 45.80 0.4
iSg 55 58.30
PTJ 0.79 54 ePg 55 45.50 -0.5
eSg 55 57.50
TRI 0.94 287 iPgc 55 47.50 -1.1
iSg 56 03.10
VOY 1.00 307 ePg 55 50.00 0.3
eSg 56 07.80
e 56 50.00
RBL 1.44 315 P 55 57.00 0.2
eSg 56 20.90
FVI 1.95 307 P 56 03.50 -0.6
eSn 56 33.20
CTI 2.45 286 P 56 13.00 1.5
eSn 56 47.60
S.D. = 1.0 on 10 of 10 obs.

? MAR 06, 1989 20h 57m 32.55± 1.05s
37.920 N ±12.2km 14.203 E ± 6.8km
DEPTH = 10.0km (geophysicist)
SICILY (398)

GIB 0.16 297 P 57 35.70 -0.5
eSg 57 41.30
MNO 0.39 88 P 57 41.20 0.6
eSg 57 46.00
MCT 0.54 238 P 57 44.10 0.7
eSg 57 51.70
MEU 1.00 144 Pc 57 50.80 -0.8
eSg 58 04.40
S.D. = 1.3 on 4 of 4 obs.

• MAR 06, 1989 21h 15m 00.95± 1.64s
3.988 S ±16.5km 130.434 E ±21.1km
DEPTH = 33.0km (normal)
4.3mb (2 obs.)
CERAM (272)

AAI 2.25 278 eP 15 36.50 -0.2
MTN 8.83 176 eP 17 10.00 0.7
eS 18 54.00
KNA 11.80 188 eP 17 50.00 0.0
WB5 16.26 167 eP 18 47.90 -0.6
eS 21 47.00
WRA 16.31 167 P 18 54.00 4.7X
0.7s 4.20nm 3.7mb
ASPA 19.85 171 iPd 19 32.20 0.0
0.6s 38.00nm 4.9mb
eS 23 27.70
GKN 54.36 309 P 24 27.40 0.2
S.D. = 0.6 on 6 of 7 obs.

MAR 06, 1989 21h 21m 12.78± 1.24s
36.965 N ± 8.5km 71.694 E ± 7.1km
DEPTH = 107.0 ± 14.3 km
4.5mb (8 obs.)
AFGHANISTAN-USSR BORDER REGION (717)
Felt (III) at Khorag, Garm and Dushanbe.

KSH 4.19 52 P 22 18.00 2.2
S 23 04.00
QUE 7.83 212 iPd 23 07.20 1.4
eS 24 35.40
NDI 9.47 149 iPc 23 29.50 1.6
iS 25 08.60
MAIO 9.83 270 iPc 23 31.00 -1.7
0.6s 11.22nm 4.9mb
eS 25 13.00
WMQ 13.97 56 P 24 25.10 -2.1
KKN 14.66 125 P 24 34.40 -1.9
DMN 14.67 126 P 24 34.60 -1.8
PKI 14.90 125 P 24 37.20 -2.1
GUN 14.98 123 P 24 38.20 -2.3
LSA 17.78 108 P 25 16.40 1.1
TAB 20.14 281 eP 25 43.00 2.4
HYB 20.39 161 eP 25 45.00 1.8
GTA 22.20 75 P 26 03.00 1.8
GBA 23.82 166 Pc 26 17.30 0.4
0.5s 2.50nm 3.9mb
GYA 31.38 99 P 27 27.00 1.4
TIY 32.22 76 Pd 27 33.20 0.4
TIA 36.22 77 eP 28 07.80 0.9
KJF 37.76 330 eP 28 20.00 0.5
NUR 37.78 324 eP 28 20.00 0.3
SUF 37.83 328 iP 28 20.00 0.0
0.6s 3.00nm 4.4mb
SSE 41.06 83 Pc 28 48.50 1.3
PSI 42.32 137 eP 28 57.60 0.0
HFS 43.05 322 eP 29 02.30 -0.7
0.4s 6.30nm 4.8mb
NB2 44.35 323 P 29 12.80 -0.8
0.5s 1.70nm 4.1mb
BNG 58.34 250 ePd 30 57.40 -1.6
1.2s 7.00nm 4.6mb
id 31 26.90
MBC 66.85 3 ePc 31 53.60 -0.9
0.5s 9.00nm 4.9mb
INK 73.36 10 eP 32 33.00 -1.0
YKA 80.76 3 eP 33 14.90 -0.2
WRA 81.77 122 Pc 33 20.70 -0.3
0.8s 1.70nm 3.9mb
S.D. = 1.5 on 29 of 29 obs.

• MAR 06, 1989 21h 38m 17.14± 0.86s
42.090 N ± 8.9km 24.454 E ± 8.6km
DEPTH = 10.0km (geophysicist)
BULGARIA (359)

RDO 1.24 139 ePg 38 40.10 -0.1
VAY 1.61 242 ePn 38 45.00 -0.6
PLG 1.88 204 ePb 38 50.30 0.7
eSb 39 08.40
SKO 2.25 268 ePn 38 47.50 -7.5X
DMK 2.48 95 ePn 38 58.00 -0.2
MLR 3.57 17 ePd 39 14.00 0.2
S.D. = 0.7 on 5 of 6 obs.

& MAR 06, 1989 22h 16m 47.60s
33.180 N 115.600 W
DEPTH = 1.0km
4.4mb (3 obs.)
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 4.3 (PAS), 4.5 (BRK). Felt (IV) at Calipotria, Heber, Imperiol, Niland ond Seeley; (III) ot El Centro, Holtville, Mount Laguna, Palo Verde and Potrero. Also felt (III) at Somerton, Arizona.

GLA 0.66 101 iPc 16 59.90 -0.9
IKP 0.68 219 iPc 17 00.70 -0.5
PLM 1.07 280 iPc 17 06.80 -1.9
PEC 1.48 299 iPc 17 13.50 -2.0
ABL 3.44 300 eP 17 42.00 -1.7
BCH 4.22 300 eP 17 53.50 -1.1
TNP 5.07 345 eP 18 06.50 -0.2
FRI 5.08 320 ePn 18 06.00 -0.7
ePb 18 17.80
iPg 18 29.80
iSb 19 24.60
PRI 5.11 307 ePn 18 06.80 -0.5
ePb 18 19.30
LLA 5.57 309 e(Pn) 18 11.40 -2.3
ePb 18 24.50
PRS 5.70 305 ePn 18 11.00 -4.5
SAO 5.98 308 eP 18 25.60 6.1
KVN 6.20 342 eP 18 22.00 -0.7
CMB 6.22 323 ePn 18 22.80 0.0
i 18 43.50
eSg 20 02.60
EUR 6.30 357 eP 18 24.00 -0.2
MHC 6.45 312 e(Pn) 18 22.80 -3.5
ALQ 7.79 74 eP 18 43.00 -2.0
BW06 10.70 25 eP 19 27.00 1.7
BGMT 12.35 12 eP 19 53.20 5.5
LRM 12.86 10 eP 19 59.00 4.5
RSSD 14.16 36 eP 20 12.50 0.8
RSON 23.87 36 eP 22 02.00 -1.2
1.2s 15.52nm 4.5mb
INK 36.65 349 eP 23 58.50 1.4
FBA 37.31 338 eP 24 01.80 -1.0
1.0s 10.00nm 4.5mb
IMA 39.95 337 eP 24 26.00 1.0
0.9s 5.21nm 4.2mb
MBC 43.19 359 eP 24 52.00 0.8
26 obs. associated

& MAR 06, 1989 22h 20m 38.60s
33.180 N 115.620 W
DEPTH = 1.0km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 3.3 (PAS).

HAY 0.53 358 iPd 20 49.10 0.0
1 obs. associated

& MAR 06, 1989 22h 22m 00.20s
33.160 N 115.620 W
DEPTH = 0.0km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 3.1 (PAS).

HAY	0.55	358	eP	22 11.10	0.0

1 obs. associated

& MAR 06, 1989 22h 57m 34.20s
33.200 N 115.600 W
DEPTH = 0.0km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 3.2 (PAS).

HAY	0.51	356	eP	57 44.50	0.2
GLA	0.67	103	eP	57 47.10	-0.4
IKP	0.70	218	eP	57 47.40	-0.7
PLM	1.07	279	eP	57 53.60	-1.8
EUR	6.28	357	iP	59 33.50	22.9
	0.2s	6.98nm			

5 obs. associated

& MAR 06, 1989 22h 58m 32.50s
33.180 N 115.600 W
DEPTH = 1.0km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 3.6 (PAS).

HAY	0.53	357	eP	58 42.80	-0.2
IKP	0.68	219	iPc	58 45.60	-0.5
TPC	1.00	338	eP	58 50.60	-1.7
CPE	1.30	257	ePc	58 54.60	-2.7

4 obs. associated

& MAR 06, 1989 23h 11m 05.10s
33.190 N 115.590 W
DEPTH = 1.0km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 3.1 (PAS).

HAY	0.52	356	iPd	11 15.30	-0.2
GLA	0.66	102	eP	11 17.40	-0.8
TPC	0.99	337	eP	11 23.10	-1.7
PLM	1.08	279	iPc	11 24.50	-1.8

4 obs. associated

& MAR 07, 1989 00h 24m 58.10s
33.180 N 115.610 W
DEPTH = 3.0km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 4.1 (PAS). Felt (IV) at Calipatria.

HAY	0.53	357	iPd	25 08.60	0.0
GLA	0.67	101	iPc	25 10.60	-0.9
IKP	0.68	218	iPd	25 10.80	-0.8
TPC	0.99	338	iPc	25 16.30	-1.3
PLM	1.06	280	iPc	25 17.20	-1.7
PEC	1.48	299	iPc	25 23.00	-2.7
ABL	3.43	300	eP	25 52.00	-1.8
BCH	4.21	300	eP	26 06.00	1.2
BLP	4.22	290	eP	26 03.50	-1.2
TNP	5.06	345	eP	26 20.00	3.1
KVN	6.20	342	eP	26 33.50	0.6
EUR	6.30	357	eP	26 31.00	-3.4
ALQ	7.80	74	eP	26 55.80	0.4
BW06	10.70	25	eP	27 36.00	0.4

14 obs. associated

% MAR 07, 1989 00h 25m 13.65± 0.88s
37.953 N ± 8.2km 29.456 E ±11.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

KHL	0.37	8	iPg	25 19.90	-1.4
			iSg	25 26.90	
BCK	1.02	118	iPn	25 33.40	0.3
YER	1.24	229	iPn	25 32.40	-4.3X
ELL	1.26	163	iPn	25 36.80	-0.3
DST	1.77	339	ePn	25 45.00	0.4
IZM	1.78	285	ePn	25 44.00	-0.8
KCT	2.45	340	ePn	25 56.00	1.7

S.D. = 1.4 on 6 of 7 obs.

& MAR 07, 1989 01h 47m 27.50s
33.180 N 115.610 W
DEPTH = 2.0km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 3.4 (PAS).

HAY	0.53	357	iPd	47 38.00	0.0
GLA	0.67	101	eP	47 40.10	-0.8
IKP	0.68	218	eP	47 40.10	-0.9
TPC	0.99	338	eP	47 45.70	-1.4
BAR	1.02	241	ePc	47 45.60	-2.0
PLM	1.06	280	iPc	47 46.50	-1.9
CPE	1.29	257	eP	47 49.50	-2.6
EUR	6.30	357	iP	49 19.80	15.9
	0.2s	1.40nm			

8 obs. associated

MAR 07, 1989 01h 48m 42.93± 0.69s
41.724 N ± 6.9km 22.281 E ± 6.9km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
ML 3.1 (SKO). Felt (IV) in the Stip area.

VAY	0.46	152	iPg	48 51.30	-0.9
			iSg	48 56.70	
SKO	0.68	292	iPg	48 57.00	0.6
			iSg	49 06.50	
OHR	1.27	242	iPg	49 06.60	0.0
			iSg	49 24.40	
PLG	1.61	146	ePb	49 11.50	0.0
			eSb	49 30.80	
RDO	2.52	102	ePn	49 25.90	1.4
BZS	3.92	353	ePc	49 43.50	-0.9
MLR	4.61	34	eP	49 57.00	2.6X
VRI	5.25	36	ePd	50 03.00	-0.2

S.D. = 1.0 on 7 of 8 obs.

MAR 07, 1989 02h 00m 29.33± 0.32s
38.655 N ± 3.0km 26.675 E ± 3.2km
DEPTH = 27.9 ± 3.3 km
3.8mb (2 obs.)
AEGEAN SEA (365)
ML 3.8 (ATH).

IZM	0.53	119	ePg	00 39.30	-0.8
PRK	0.67	332	iPgc	00 42.10	-0.3
EZN	1.20	347	iPn	00 50.50	0.2
DST	1.79	57	iPn	00 59.20	0.3
EDC	1.92	28	iPn	01 00.50	-0.2
BNT	1.95	29	iPn	01 00.90	-0.3
YER	1.98	140	iPn	01 00.90	-0.8
KCT	2.06	39	iPn	01 02.90	0.2
KHL	2.26	98	iPn	01 06.00	0.4
ATH	2.42	255	ePb	01 14.60	6.7X
RDO	2.64	341	iPnc	01 11.70	0.8
NEO	2.77	285	ePb	01 20.90	8.1X
CTT	2.83	28	ePn	01 13.80	0.2
GBZT	3.02	44	eP	01 20.00	3.7X
			iSg	02 09.00	
ISK	3.03	37	ePn	01 16.00	-0.4
PLG	3.03	306	ePn	01 16.80	0.2
KAP	3.12	172	ePn	01 16.60	-1.3
KDZ	3.14	343	iP	01 19.00	0.9
HRT	3.16	46	ePn	01 18.20	-0.2
ELL	3.19	126	iPn	01 20.80	1.9
GPA	3.25	59	iPn	01 19.40	-0.3
DMK	3.27	14	iPn	01 19.60	-0.3
BCK	3.31	110	iPn	01 21.30	0.7
RZN	3.38	334	iPd	01 22.00	0.4
KSL	3.43	137	ePn	01 23.00	0.8
NPS	3.49	194	ePn	01 23.00	-0.1
DIM	3.50	346	iP	01 24.00	0.8
MMB	3.70	323	iPd	01 26.00	0.0
PLD	3.76	337	iPc	01 28.00	1.2
VAM	3.80	212	ePb	01 36.60	9.2X
JMB	3.81	359	eP	01 47.00	19.5X
ITM	4.03	250	ePn	01 31.30	0.5
VAY	4.13	311	iPn	01 33.00	0.9
PGB	4.33	335	iP	01 35.00	0.0
SZH	4.64	353	eP	01 39.00	-0.4
PVL	4.67	348	eP	01 38.00	-1.7
VTS	4.73	327	iP	01 41.00	0.2
BBTK	4.87	74	ePn	01 44.00	1.3
			iPgc	02 02.00	
			iSg	03 10.00	
OHR	5.14	300	ePn	01 48.20	1.7
PSN	5.15	12	iPd	01 46.00	-0.5
SKO	5.19	311	ePn	01 47.00	-0.2
TLB	6.02	9	ePd	01 58.00	-0.7
ISR	6.48	359	eP	02 08.00	2.7X
CFR	6.62	9	ePc	02 06.00	-1.2
MLR	6.85	356	ePd	02 11.00	0.4
BZS	7.90	333	ePd	02 23.50	-1.7
PRNI	10.76	138	eP	03 01.00	-3.7X
			eS	04 54.00	
NB2	24.40	342	P	05 46.30	0.1
	0.6s	1.20nm			3.6mb
BCAO	34.86	194	e(P)	07 19.30	-1.0
	0.8s	1.28nm			3.9mb

S.D. = 0.8 on 42 of 49 obs.

• MAR 07, 1989 04h 30m 14.89± 1.57s
30.076 S ±13.2km 177.989 W ±12.3km
DEPTH = 60.9 ± 13.1 km
5.0mb (5 obs.)
KERMADEC ISLANDS (178)
Felt (II) on Raoul Island.

RAQ	0.82	4	iP	30 30.50	-0.3
			eS	30 42.30	
KRP	9.49	213	P	32 32.00	0.6
MRW	12.61	206	eP	33 04.00	-9.3X
			eS	35 13.00	
DZM	16.09	296	iPc	34 06.90	8.3X
BRS	25.75	269	iPc	35 41.80	0.3
COO	25.97	261	eP	35 47.00	3.4X
CNB	27.89	251	iPd	36 02.40	1.3
CAN	28.19	251	iPc	36 04.30	0.6
BWA	28.66	252	iPc	36 06.30	-1.7
RMQ	29.44	269	eP	36 16.00	0.9
TOO	31.10	246	eP	36 30.00	0.4
STK	34.56	256	eP	37 01.00	1.3
ADE	36.62	251	iPd	37 17.70	0.5
	1.0s	26.00nm			5.1mb
ASPA	43.14	267	iPd	38 10.90	-0.3
			eS	43 56.00	
WRA	44.09	272	Pd	38 18.40	-0.5
	0.4s	7.90nm			4.8mb
WB5	44.09	272	eP	38 18.50	-0.5
FORR	46.09	255	eP	38 33.00	-1.6
	0.5s	46.00nm			5.7mb
MBL	56.18	264	eP	39 48.80	-2.2
SPA	60.09	180	e(P)	40 16.80	-1.2
	1.0s	13.00nm			5.0mb
			i	40 21.30	
TNP	88.41	44	eP	43 02.00	0.3
	1.0s	3.00nm			4.5mb
KVN	88.52	42	eP	43 02.50	0.3
FBA	97.55	12	eP	43 50.00	7.2X
SOB1	123.20	127	ePKP	49 05.10	-1.8
LSZ	128.33	213	ePKP	49 18.00	1.1
KMZ	131.01	211	ePKP	49 24.00	2.0
			i	52 44.00	
KJF	142.20	342	ePKP	49 39.00	-2.2X
SUF	143.81	341	ePKP	49 40.40	-3.6X
	0.9s	50.40nm			
MSL	145.21	291	ePKP	49 46.50	-0.7
			e	50 04.00	
NUR	146.01	340	ePKP	49 48.00	0.2
	0.7s	28.00nm			
NB2	148.43	351	PKP	49 54.70	3.0X
	1.1s	25.90nm			
HFS	148.93	349	ePKP	49 54.90	2.4
	1.1s	22.30nm			
BNG	150.09	215	iPKPd	49 54.00	-1.7
	0.3s	24.00nm			
			ic	49 58.90	
			id	50 06.50	
			id	50 14.60	

S.D. = 1.3 on 25 of 32 obs.

MAR 07, 1989 05h 58m 53.89± 1.07s
35.830 N ± 6.8km 77.675 E ± 6.3km
DEPTH = 45.6 ± 11.3 km
4.6mb (23 obs.)
EASTERN KASHMIR (302)

KSH	3.86	340	ePn	59 53.50	1.1
NDI	7.14	183	iPd	00 42.50	4.2X
GKN	9.79	141	P	01 14.20	-1.0
	0.4s	21.00nm			5.6mb
KKN	10.30	139	P	01 20.40	-1.8
	0.5s	21.00nm			5.6mb
DMN	10.35	140	P	01 22.30	-0.6

	0.5s	30.00nm			5.7mb	X
GUN	10.53	136	P	01	24.00	-1.5
	0.4s	13.00nm			5.4mb	
PKI	10.54	139	P	01	23.70	-1.9
WMQ	11.09	41	P	01	27.30	-5.4X
			S	03	30.00	
LSA	12.88	115	eP	01	58.00	0.9
MAIO	14.72	277	eP	02	22.00	1.1
			eS	04	55.00	
POO	17.56	192	eP	03	15.00	18.0X
GTA	17.89	72	eP	03	03.00	1.9
HYB	18.36	177	eP	03	08.50	1.7
			eS	06	26.00	
GBA	22.13	181	Pd	03	48.00	0.9
	0.8s	11.30nm			4.4mb	
CD2	22.30	95	eP	03	56.20	7.4X
CHG	25.29	126	eP	04	19.50	1.7
CHTO	25.29	126	eP	04	19.00	1.3
	0.9s	2.98nm			3.8mb	
KOD	25.48	180	eP	04	27.00	7.1X
BTO	25.77	70	eP	04	22.90	0.7
GYA	26.43	103	P	04	31.40	3.0X
ELL	38.20	286	eP	06	12.00	1.0
MLR	39.80	300	ePc	06	26.50	2.2
HFS	46.92	322	eP	07	20.60	-0.9
	0.5s	2.10nm			4.3mb	
BRG	47.25	309	eP	07	27.70	3.5X
NB2	48.16	323	P	07	29.70	-1.5
	0.7s	4.10nm			4.6mb	
BSF	52.41	307	eP	08	03.50	-0.4
	0.6s	3.60nm			4.6mb	
SBF	53.05	302	eP	08	08.50	-0.1
	0.8s	10.70nm			4.9mb	
LPG	53.05	304	eP	08	09.00	0.1
	0.6s	2.70nm			4.4mb	
SMF	54.67	306	eP	08	19.90	-0.5
	0.7s	4.40nm			4.6mb	
SSF	54.77	306	eP	08	20.50	-0.6
	0.6s	1.80nm			4.3mb	
AVF	54.95	306	eP	08	21.80	-0.6
	0.7s	3.70nm			4.5mb	
MAF	55.64	306	eP	08	27.20	-0.2
	0.8s	4.00nm			4.5mb	
EKA	56.48	317	P	08	33.00	-0.3
	0.8s	6.40nm			4.7mb	
LDF	56.64	309	eP	08	33.70	-0.9
	0.6s	4.30nm			4.7mb	
GRR	57.17	309	eP	08	36.80	-1.5
	0.6s	7.20nm			4.9mb	
BNG	62.58	255	ePd	09	20.90	5.0X
	0.7s	6.00nm			4.8mb	
			id	09	31.00	
BCAO	62.59	255	eP	09	17.00	1.1
	0.8s	2.38nm			4.4mb	
APHE	63.48	298	eP	09	21.40	-0.2
ATEJ	63.73	298	eP	09	22.50	-0.8
MBC	67.67	4	eP	09	47.00	-0.8
	0.6s	12.00nm			5.1mb	
IMA	71.03	20	ePc	10	08.30	-0.5
	1.0s	5.00nm			4.4mb	
FBA	73.50	18	eP	10	22.80	-0.4
INK	73.59	12	eP	10	23.00	-0.6
WRA	77.14	126	Pd	10	45.40	0.9
	0.6s	1.30nm			4.1mb	
YKA	81.52	6	eP	11	07.70	0.3
YKC	81.54	6	eP	11	07.50	-0.1
FFC	89.81	360	eP	11	49.00	0.3
	0.8s	7.00nm			5.0mb	
ARE	146.48	297	ePKP	18	25.00	-6.0X

S.D. = 1.1 on 39 of 48 obs.

& MAR 07, 1989 06h 40m 10.18s
47.988 N 124.389 W
DEPTH = 28.6km
NEAR COAST OF WASHINGTON (27)
<SEA>. CL 3.1 (SEA). Felt ot Forks.

OFK	0.04	151	eP	40	14.39	-0.7
			eS	40	18.12	
OTR	0.10	17	iPd	40	14.76	-0.7
OBC	0.21	77	iPc	40	15.81	-0.7
			eS	40	20.41	
OOW	0.29	152	iP	40	17.21	-0.2
OSP	0.33	336	iPc	40	17.45	-0.4
OSD	0.49	110	iPc	40	19.77	-0.8
			eS	40	27.31	
STW	0.51	71	iPc	40	19.80	-0.9
			eS	40	27.64	
OBH	0.75	152	eP	40	23.37	-1.3
			eS	40	33.59	
PGC	0.91	43	eP	40	25.00	-1.9
BLN	0.95	88	eP	40	26.53	-1.1
HDW	0.96	110	eP	40	26.51	-1.3
			eS	40	40.04	
SMW	0.97	133	eP	40	26.63	-1.3
GMW	1.17	112	eP	40	29.23	-1.4
ONR	1.19	159	eP	40	29.73	-1.2
MCW	1.25	56	iPc	40	30.54	-1.3
BMW	1.71	152	eP	40	36.60	-1.9
RMW	1.82	106	eP	40	38.30	-1.9
LON	2.15	124	eP	40	43.00	-1.8
SHW	2.32	140	eP	40	46.50	-0.8
PNT	3.43	65	eP	41	02.00	-1.0
DPW	4.16	89	eP	41	17.00	3.6

21 obs. associated

% MAR 07, 1989 06h 41m 59.29± 1.39s
36.493 N ± 9.4km 4.433 W ±13.8km
DEPTH = 110.0 ± 20.1 km
STRAIT OF GIBRALTAR (385)
MG 3.2 (MDD).

MAL	0.23	4	iPnc	42	14.30	-0.6
			iSg	42	22.30	
EPRU	0.80	307	eP	42	19.30	0.5
			eS	42	32.80	
AFC	1.04	43	eP	42	22.00	0.6
			eS	42	36.00	
EHOR	1.47	334	iPc	42	25.90	-0.2
			eS	42	43.50	
EBAN	1.75	17	iPc	42	29.40	-0.1
			eS	42	49.10	
EVIA	2.63	35	iPc	42	41.00	-0.2
			eS	43	09.40	
IFR	3.02	191	iPn	42	46.50	0.0
			iSn	43	20.00	

S.D. = 0.6 on 7 of 7 obs.

? MAR 07, 1989 07h 30m 22.21± 1.52s
18.181 N ±12.2km 67.166 W ±15.7km
DEPTH = 33.0km (normal)
MONA PASSAGE (89)

MGP	0.19	157	P	30	28.80	0.1
MCP	0.24	12	P	30	29.10	-0.2
			S	30	45.30	
APR	0.50	56	P	30	33.20	0.4
CS8	0.96	83	P	30	39.40	-0.1
			S	31	03.40	
LPR	1.24	84	P	30	43.00	-0.3

S.D. = 0.4 on 5 of 5 obs.

& MAR 07, 1989 07h 43m 44.10s
33.180 N 115.590 W
DEPTH = 1.0km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 4.2 (PAS).

HAY	0.53	356	ePd	43	54.50	-0.2
GLA	0.65	101	iPd	43	56.80	-0.3
IKP	0.69	220	iP	43	57.10	-0.7
TPC	1.00	338	ePd	44	02.20	-1.7
PLM	1.08	280	ePc	44	03.40	-2.0
PEC	1.49	299	iPc	44	09.40	-2.7
OSM	2.97	340	eP	44	30.00	-3.3
PANV	3.44	339	eP	44	37.30	-2.9
ABL	3.45	300	eP	44	38.00	-2.3
LSM	3.60	351	eP	44	39.60	-2.6
YMT6	3.73	350	eP	44	42.60	-1.6
TMBR	3.90	351	eP	44	44.30	-2.4
TNP	5.07	345	eP	45	02.00	-1.3
KVN	6.20	342	eP	45	17.00	-2.2
EUR	6.30	357	eP	45	19.00	-1.7
ALQ	7.78	74	eP	45	41.00	-0.4

16 obs. associated

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* MAR 07, 1989 07h 51m 59.67± 0.87s
36.228 N ± 9.3km 78.537 E ±16.9km
DEPTH = 33.0km (normal)
KASHMIR-XINJIANG BORDER REGION (324)

NDI	7.61	189	e(Pn)	53	51.00	0.0
			eSn	55	06.00	
GKN	9.69	146	P	54	20.20	0.2
	0.5s	11.00nm			5.3mb	X
KKN	10.17	144	P	54	25.60	-1.1
	0.5s	11.00nm			5.4mb	X
DMN	10.24	145	P	54	28.00	0.3
	0.5s	8.00nm			5.2mb	X
GUN	10.37	141	P	54	30.10	0.6
	0.4s	4.00nm			5.0mb	X
PKI	10.42	144	P	54	30.20	0.0
	0.6s	12.00nm			5.3mb	X
MBC	67.22	5	eP	02	52.00	-0.2
YKA	81.05	6	eP	04	12.50	0.2

S.D. = 0.6 on 8 of 8 obs.

% MAR 07, 1989 08h 38m 43.57± 0.91s
17.061 N ±11.0km 99.600 W ±10.7km
DEPTH = 33.0km (normal)
GUERRERO, MEXICO (59)

ACX	0.31	232	iP	38	51.50	0.0
			iS	38	57.50	
III	1.31	5	iP	39	06.00	0.1
			iS	39	23.50	
IIT	2.30	32	(P)	39	20.00	-0.3
IIC	2.71	7	(P)	39	33.50	7.4X
OXX	2.75	89	iP	39	26.50	0.0
IISM	2.85	47	eP	39	28.00	0.2
			iS	40	09.00	

S.D. = 0.2 on 5 of 6 obs.

? MAR 07, 1989 09h 22m 47.59± 2.19s
45.966 S ±42.7km 15.695 W ±23.8km
DEPTH = 10.0km (geophysicist)
4.9mb (3 obs.) 4.4Msz (1 obs.)
SOUTH ATLANTIC RIDGE (410)

ITR	41.90	325	eP	30	41.20	1.5
SPA	44.23	180	e(P)	31	17.10	18.7X
	1.0s	8.50nm				
ZOBO	52.56	286	eP	32	02.00	-2.1
Z	18s	0.35um			4.4Msz	
		e		32	18.00	
		LR		48	50.00	
LIC	52.82	13	P	32	05.20	-0.1
KIC	53.00	14	P	32	06.20	-0.5
TIC	53.24	13	P	32	08.00	-0.4
KUK	53.69	19	eP	32	12.50	0.8
BCAO	58.67	41	eP	32	46.70	-0.8
	1.2s	4.51nm			4.4mb	
BNG	58.68	41	ePd	32	47.00	-0.5
	0.9s	9.00nm			4.9mb	
EPF	89.75	12	eP	35	59.50	12.6X
	1.0s	12.00nm				
LPO	91.49	12	eP	36	04.30	9.5X
	1.0s	16.00nm			5.3mb	
LFF	91.68	12	eP	36	08.20	12.5X
	1.0s	20.00nm				
RJF	92.15	12	eP	36	10.20	12.4X
	1.0s	12.00nm				
INK	141.84	328	ePKP	42	22.00	2.1

S.D. = 1.5 on 9 of 14 obs.

MAR 07, 1989 11h 18m 08.00± 0.64s
41.287 N ± 5.1km 20.954 E ± 6.0km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
ML 2.8 (SKO).

OHR	0.21	214	iPgc	18	12.30	-0.3
			iSg	18	15.90	
PHP	0.56	316	ePg	18	18.00	-1.3
SKO	0.78	28	iPg	18	23.00	-0.1
			iSg	18	33.60	
TIR	0.82	275	ePg	18	23.20	-0.7
LSK	1.17	193	ePg	18	29.60	-0.3
VAY	1.22	88	ePn	18	30.70	0.0
TPE	1.22	216	ePg	18	31.50	0.8
BCI	1.27	329	ePg	18	32.00	0.5
SDA	1.31	304	ePg	18	33.50	1.3

S.D. = 0.9 on 9 of 9 obs.

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* MAR 07, 1989 12h 24m 37.94± 1.36s
29.456 S ± 7.6km 70.701 W ±15.2km
DEPTH = 106.6 ± 8.2 km
5.0mb (2 obs.)
CENTRAL CHILE (136)

07d 12h

ZON	2.72	141	iPc	25 20.70	-0.1
CFA	3.02	136	ePd	25 25.20	0.3
CYA	4.42	78	eP	25 43.20	-0.8
CNCB	12.83	12	P	27 38.00	-0.1
LPB	13.08	11	P	27 42.00	0.7
ZOBO	13.34	11	P	27 37.90	-6.8X
			i	28 02.70	
			LR	34 40.00	
VAO	22.22	79	eP	29 27.20	0.6
ITA	24.39	79	eP	29 49.30	1.3
BMA	24.74	80	eP	29 51.30	0.3
BAO	25.02	62	eP	29 52.70	-1.0
SOB1	34.42	60	eP	31 16.50	-0.7
			e	33 50.30	
ITR	36.59	62	eP	31 35.10	-0.4
LIC	72.27	72	P	35 53.80	-0.1
TIC	72.51	72	P	35 55.00	-0.3
KIC	72.59	72	P	35 55.70	0.0
BCAO	91.49	86	iP	37 34.70	0.8
	0.9s		4.26nm		4.7mb
BNG	91.50	86	iPc	37 34.50	0.5
	0.5s		8.00nm		5.2mb
GBA	146.57	111	PKPd	44 06.20	-1.1
	0.5s		4.60nm		
HYB	149.45	106	ePKP	44 17.00	5.1X
	S.D. = 0.7		on 17 of 19 obs.		

& MAR 07, 1989 12h 43m 07.46s
59.490 N 152.844 W
DEPTH = 94.0km
4.1mb (1 obs.)
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM	0.60	354	Pn	43 23.06	-0.6
			iS	43 34.85	
PDB	0.75	294	Pn	43 24.22	-0.8
			iS	43 37.02	
CNPM	0.82	87	iP	43 25.25	-0.6
			iS	43 38.27	
NNL	0.96	54	iP	43 27.36	0.1
			eS	43 42.45	
RDT	1.11	11	iP	43 28.09	-1.0
			iS	43 44.15	
NKA	1.49	32	Pn	43 34.59	0.9
SLKM	1.67	51	eP	43 34.56	-1.4
			iS	43 55.66	
SPU	1.74	13	iP	43 36.09	-0.9
			iS	43 58.35	
KDC	1.76	174	iPd	43 35.30	-1.8
CRP	1.82	11	iP	43 37.33	-0.7
SEW	1.82	69	eP	43 36.21	-1.7
			eS	43 58.24	
CGLM	1.87	12	iP	43 37.94	-0.8
			iS	44 01.45	
SVW	2.13	321	iPd	43 40.80	-1.3
PTE	2.35	53	iP	43 43.68	-1.4
PMS	2.40	41	iPc	43 44.50	-1.2
PWA	2.62	33	iPc	43 47.90	-0.7
PWL	2.64	57	iP	43 47.19	-1.8
			eS	44 16.66	
MTU	2.68	77	eP	43 48.09	-1.4
KNIM	2.71	69	iP	43 47.65	-2.3
PLRM	2.80	39	eP	43 49.20	-1.8
PMR	2.80	39	eP	43 49.20	-1.8
PME	2.85	40	eP	43 50.17	-1.7
KNK	2.91	47	Pn	43 50.72	-1.9
GHO	3.00	38	eP	43 52.33	-1.6
GLI	3.19	62	eP	43 53.42	-3.1
SML	3.22	42	Pn	43 54.97	-1.9
HIN	3.32	71	iP	43 55.98	-2.3
MID	3.32	88	eP	43 56.40	-1.8
FID	3.43	66	iP	43 56.71	-3.0
VZW	3.51	61	iP	43 58.65	-2.2
VLZ	3.63	60	iP	44 00.62	-1.9
CVA	3.72	70	iP	44 01.11	-2.6
			eS	44 41.93	
TTA	3.78	337	iPd	44 02.70	-1.9
SGAM	3.97	72	eP	44 04.58	-2.6
KLU	3.97	57	iP	44 05.04	-2.3
TOA	4.19	48	ePc	44 08.50	-1.8
RAGM	4.21	74	eP	44 07.96	-2.6
GLB	4.88	62	eP	44 17.25	-2.6
FBA	5.92	21	iPc	44 31.20	-3.0
CTGM	5.92	71	eP	44 32.50	-1.9
IMA	6.62	357	iPc	44 42.20	-1.7
YKU	6.68	84	eP	44 42.70	-1.8
HYT	7.77	74	P	44 57.00	-2.7
DWY	7.83	49	P	44 58.70	-1.7
SIT	9.54	97	eP	45 40.00	16.3
INK	12.20	36	eP	45 56.00	-3.1
YKA	18.60	64	eP	47 17.90	-1.8
MBC	20.46	22	eP	47 36.00	-3.0
	0.5s		5.00nm		4.1mb
	48 obs. associated				

MAR 07, 1989 13h 16m 27.53± 1.75s
33.248 N ± 6.1km 141.666 E ± 5.4km
DEPTH = 52.8 ± 15.2 km
4.9mb (11 obs.)
OFF EAST COAST OF HONSHU, JAPAN (229)

MAT	4.34	320	iPd	17 31.90	-0.7
			iS	18 20.80	
SNY	16.69	306	eP	20 21.00	1.9
BJI	21.51	296	eP	21 14.50	0.8
HHC	25.11	296	eP	21 49.40	0.5
BTO	26.24	295	P	21 59.00	-0.5
XAN	27.21	281	P	22 07.60	-0.7
GYA	31.00	267	P	22 41.60	-0.8
CD2	32.09	276	P	22 50.60	-1.2
GTA	34.04	293	P	23 08.00	-0.8
CHG	40.71	260	eP	24 05.00	0.3
CHTO	40.71	260	eP	24 04.90	0.2
	1.0s		5.00nm		4.2mb
			pP	24 09.50	16kmX
WMQ	42.84	301	eP	24 23.50	1.5
MTN	46.92	194	eP	24 55.00	0.2
GUN	47.85	279	P	25 02.80	0.3
	0.7s		20.00nm		5.2mb
PKI	48.36	279	P	25 06.20	-0.2
	0.6s		7.00nm		4.9mb
KKN	48.39	279	P	25 06.40	-0.1
	0.7s		11.00nm		5.0mb
DMN	48.60	279	P	25 09.20	1.0
GKN	48.84	280	P	25 09.60	-0.3
	0.5s		12.00nm		5.2mb
WB5	53.29	189	eP	25 43.00	-0.3
WRA	53.35	189	Pc	25 43.30	-0.4
	0.7s		5.80nm		4.7mb
ASPA	57.08	188	iPd	26 11.00	0.3
	0.6s		8.00nm		4.9mb
INK	57.67	26	eP	26 13.50	-0.9
			pP	26 32.00	72kmX
MBL	57.98	204	eP	26 17.00	0.0
HYB	58.39	271	eP	26 20.00	-0.2
MBC	60.10	16	eP	26 30.00	-1.1
GBA	61.20	268	Pd	26 38.30	-1.1
	0.7s		3.20nm		4.6mb
FORR	65.03	193	eP	27 04.00	-0.3
	0.4s		19.00nm		5.5mb
NWAO	69.73	202	eP	27 35.00	1.2
WDC	73.19	52	eP	27 54.60	0.0
MIN	73.93	52	eP	27 58.40	-0.7
ORV	74.39	53	ePd	28 01.20	-0.4
CMB	75.92	54	ePd	28 10.40	0.0
PRS	76.12	56	ePd	28 11.60	0.0
LLA	76.27	55	ePd	28 12.40	0.0
PRI	76.71	56	e(P)	28 17.00	2.0
LRM	76.72	44	ePd	28 15.30	0.2
			e	28 32.00	
FFC	76.78	32	eP	28 14.00	-0.9
	0.7s		6.00nm		4.7mb
KVN	76.91	52	iP	28 16.70	0.5
FRI	76.92	54	eP	28 15.80	-0.2
BGMT	77.29	44	ePd	28 18.50	0.3
			e	28 33.60	
NB2	77.76	338	P	28 21.10	0.9
	0.9s		34.00nm		5.4mb
TNP	78.01	52	eP	28 22.70	0.4
FRB	80.41	13	eP	28 34.00	-0.4
ALQ	86.87	50	eP	29 08.20	0.1
ZOBO	148.26	65	PKPc	36 11.90	4.9X
	0.5s		6.49nm		
LPB	148.44	65	PKP	36 11.00	3.9X
CNCB	148.69	66	PKPd	36 13.50	5.8X
	S.D. = 0.8		on 44 of 47 obs.		

? MAR 07, 1989 13h 35m 56.04± 5.77s
39.970 N ±52.9km 21.310 E ±16.8km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 2.7 (SKO).

LSK	0.57	288	ePg	36 06.50	-1.2
OHR	1.20	341	iPg	36 10.70	-7.8X
			iSg	36 22.70	
BERA	1.27	306	ePg	36 20.40	0.8
VAY	1.66	35	ePn	36 25.70	0.5
TIR	1.76	322	ePn	36 27.50	0.8
PHP	1.84	339	ePn	36 41.00	13.1X
SKO	2.00	3	ePn	36 28.50	-1.8
			iSn	36 50.00	
	S.D. = 1.7		on 5 of 7 obs.		

% MAR 07, 1989 13h 40m 45.61± 0.69s
60.646 N ± 5.6km 6.215 E ± 8.7km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.7 (BER).

HYA	0.52	359	iP	40 56.20	0.0
			iSg	41 04.20	
ODD1	0.76	164	iP	40 59.90	-0.7
			eS	41 08.20	
SUE	0.82	301	eP	41 01.20	-0.3
			iS	41 13.60	
BLS1	1.30	166	iP	41 09.60	-0.1
			iS	41 26.00	
KMY	1.52	199	iP	41 13.60	0.8
			eS	41 28.00	
			eSg	41 32.60	
NRA0	2.62	86	iPc	41 28.90	0.2
			iPg	41 31.70	
			iS	42 05.40	
	S.D. = 0.6		on 6 of 6 obs.		

MAR 07, 1989 13h 47m 22.12± 0.79s
40.415 N ± 7.6km 21.036 E ± 5.8km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 3.0 (TTG). MD 3.4 (ATH).

KBN	0.27	321	iPgc	47 27.50	-0.3
LSK	0.43	232	iPg	47 30.10	-0.7
KZN	0.57	101	ePg	47 33.00	-0.8
OHR	0.72	346	iPg	47 34.10	-2.2
			iSg	47 46.20	
TPE	0.79	262	iPgd	47 38.50	1.0
BERA	0.88	290	ePg	47 37.50	-1.4
TIR	1.29	317	iPnd	47 45.70	-0.2
PHP	1.35	341	ePn	47 45.50	-1.4
VAY	1.47	52	iPn	47 49.30	0.6
SKO	1.59	11	iPnd	47 50.50	0.2
			iSn	48 11.50	
			Lg	48 15.00	
PLG	1.84	90	ePn	47 54.50	0.4
SDA	1.98	325	ePn	47 57.10	1.2
ULC	2.05	320	ePn	47 59.50	2.4
			eSn	48 24.20	
BCI	2.08	340	ePn	48 00.00	2.6X
PVY	2.32	340	ePn	48 05.50	4.4X
			eSn	48 35.50	
TTG	2.42	327	ePn	48 04.20	2.0
			eSn	48 33.80	
HCY	2.79	318	ePn	48 08.00	0.4
			eSn	48 41.00	
VOY	7.66	319	e(Pn)	49 15.10	-1.4
			eSn	50 39.10	
	S.D. = 1.4		on 16 of 18 obs.		

& MAR 07, 1989 14h 04m 28.78s
61.544 N 150.228 W
DEPTH = 45.0km
SOUTHERN ALASKA (2)
<AGS-P>. ML 3.9 (PMR). Felt (IV) at Anchoroge ond Goose Boy.

PWA	0.20	57	iP	04 36.30	-0.3
PMS	0.44	133	iPd	04 38.70	-0.4
PLRM	0.53	84	iP	04 39.41	-0.7
			eS	04 48.85	
PMR	0.53	84	iPc	04 39.40	-0.7
PME	0.58	81	iP	04 40.21	-0.6
GHO	0.66	69	iP	04 41.43	-0.6
KNK	0.86	98	iP	04 44.41	-0.3
CGLM	0.89	255	iP	04 44.49	-0.6
PTE	0.90	139	iP	04 44.50	-0.6
NKA	0.94	212	iP	04 46.70	1.0
SML	0.94	73	iP	04 45.07	-0.8
SPU	0.95	248	iP	04 45.32	-0.7

CRP	0.97	254	iP	04	45.63	-0.7
			iS	04	58.96	
SLKM	1.04	180	iP	04	46.26	-0.9
PWL	1.15	126	iP	04	48.00	-0.7
RDT	1.44	228	iP	04	52.07	-0.8
			iS	05	10.35	
SEW	1.49	165	eP	04	51.98	-1.6
NNL	1.60	200	eP	04	55.14	0.1
GLI	1.66	112	iP	04	54.16	-1.7
			iS	05	15.24	
KNIM	1.71	134	iP	04	54.17	-2.4
VZW	1.84	104	iP	04	57.24	-1.3
VLZ	1.92	101	eP	04	58.02	-1.6
FID	1.99	112	iP	04	58.24	-2.3
ILIM	1.99	224	iP	05	00.03	-0.6
			iS	05	25.87	
TOA	2.01	72	iPc	05	00.70	-0.2
MTU	2.01	140	eP	04	58.75	-2.1
KLU	2.07	90	iP	05	00.33	-1.4
CNPM	2.09	194	eP	05	00.75	-1.2
HIN	2.15	121	eP	05	00.65	-2.2
CVA	2.40	113	eP	05	04.19	-2.2
PDB	2.63	230	eP	05	08.27	-1.4
SVW	2.64	263	iPc	05	08.00	-1.9
SGAM	2.66	111	iP	05	07.54	-2.6
RAGM	2.95	111	eP	05	10.71	-3.6
TTA	3.04	300	iPc	05	13.60	-2.1
GLB	3.08	89	iP	05	13.93	-2.3
FBA	3.54	17	eP	05	20.40	-2.3
KDC	3.98	198	eP	05	28.10	-0.7
CTGM	4.34	94	eP	05	32.03	-2.0
IMA	4.79	343	eP	05	37.50	-2.9
DWY	5.55	58	P	05	48.60	-2.5
HYT	6.20	91	P	05	56.90	-3.3
INK	9.78	39	eP	06	44.00	-5.7
YKA	16.62	71	eP	08	19.90	0.2

44 obs. associated

& MAR 07, 1989 15h 03m 22.10s
37.288 N 121.698 W
DEPTH = 2.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 2.8 (BRK).

MHC	0.07	40	iPd	03	23.60	0.0
			iS	03	25.00	
ARN	0.15	65	iP	03	24.60	-0.4
GCC	0.35	223	ePd	03	29.70	0.6
			iS	03	35.80	
SAO	0.56	159	iPd	03	33.50	0.2
			iS	03	42.10	
PCC	0.58	291	ePc	03	33.60	-0.2
BKS	0.73	324	eP	03	35.70	-0.9
			iS	03	48.85	
BRK	0.74	323	ePc	03	36.60	-0.2
			eS	03	48.80	
ZSP	0.79	326	ePc	03	38.10	0.2
			eS	03	51.00	
LLA	0.90	138	iPd	03	39.10	-1.0
PRS	0.99	164	ePd	03	40.50	-1.1
CMB	1.28	54	eP	03	45.30	-1.3
			iS	04	02.60	
FRI	1.62	100	ePc	03	49.80	-1.9
KVN	3.34	57	eP	04	16.20	-0.4

13 obs. associated

? MAR 07, 1989 15h 55m 06.24± 8.66s
45.044 N ±20.7km 5.449 E ±60.1km
DEPTH = 10.0km (geophysicist)
FRANCE (538)

RRL	0.96	97	P	55	24.22	-0.4
			S	55	34.36	
LSD	1.27	70	P	55	30.19	0.1
			S	55	43.84	
RSP	1.28	85	P	55	30.19	0.0
PZZ	1.29	114	P	55	30.67	0.4
			S	55	45.46	
STV	1.56	120	P	55	33.99	-0.1

S.D. = 0.4 on 5 of 5 obs.

MAR 07, 1989 17h 07m 35.60± 0.67s
40.041 N ± 7.7km 15.917 E ± 5.8km
DEPTH = 10.0km (geophysicist)
SOUTHERN ITALY (390)

MGR	0.29	289	Pc	07	41.50	-0.2
			eSg	07	48.00	
TDS	0.50	140	Pd	07	46.00	0.2
			eSg	07	53.40	
BSS	1.13	312	Pc	07	57.20	0.4
			eSg	08	12.30	
BRT	1.29	49	P	07	58.00	-1.5
LCI	1.59	79	P	08	05.30	1.5
ATN	1.91	191	P	08	07.60	-0.9
SDI	2.30	317	P	08	14.50	0.3
TPE	3.15	84	ePn	08	27.00	0.9
SDA	3.35	53	ePn	08	38.60	9.6X
LSK	3.59	87	ePn	08	41.30	8.7X
OHR	3.87	72	ePn	08	35.10	-1.4
BCI	3.90	52	ePn	08	47.50	10.7X
SKO	4.60	63	ePn	08	52.20	5.4X

S.D. = 1.2 on 9 of 13 obs.

% MAR 07, 1989 17h 29m 14.89± 0.70s
38.928 N ± 6.6km 29.468 E ± 9.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

KHL	0.61	176	iPg	29	26.10	-1.1
			eSg	29	36.10	
DST	0.94	316	iPn	29	32.30	-0.5
GPA	1.51	25	iPn	29	37.80	-4.2X
KCT	1.57	327	iPn	29	44.00	1.1
GBZT	1.86	359	ePn	29	45.00	-2.0
			iSg	30	08.00	
EDC	1.88	319	ePn	29	48.00	0.6
HRT	1.90	5	ePn	29	48.00	0.4
YER	2.02	208	ePn	29	52.90	3.5X
ISK	2.16	352	ePn	29	52.90	1.5X
ELL	2.20	171	ePn	29	53.00	0.8
CTT	2.36	341	ePn	29	57.00	2.8X
EZN	2.60	291	ePn	29	57.70	0.1
B8TK	2.71	69	eP	30	00.00	0.6
			iS	30	37.50	

S.D. = 1.2 on 9 of 13 obs.

MAR 07, 1989 18h 01m 38.47± 0.51s
20.468 S ± 7.0km 178.105 W ± 4.0km
DEPTH = 533.7 ± 6.6 km
5.1mb (31 obs.)
FIJI ISLANDS REGION (181)

SVA	4.00	305	iPc	03	01.50	1.7
VUN	4.06	306	iPc	03	01.50	1.2
AFI	8.89	44	P	03	43.00	-2.9
			eS	05	18.80	
DZM	14.49	261	iPc	04	44.10	1.0
KRP	18.25	196	P	05	22.00	2.4
TBI	26.71	101	iP	06	37.10	0.3
	0.7s		25.00nm			4.9mb
AFR	26.93	89	iP	06	38.20	-0.5
	0.8s		110.00nm			5.5mb
PAE	27.09	89	iP	06	39.60	-0.5
	0.8s		40.00nm			5.1mb
PPT	27.11	89	iP	06	40.00	-0.3
	0.8s		95.00nm			5.4mb
PPN	27.25	89	iP	06	41.00	-0.5
	0.8s		50.00nm			5.2mb
TVO	27.38	89	iP	06	42.10	-0.6
	0.8s		50.00nm			5.2mb
BRS	27.45	250	iPd	06	43.50	0.2
COO	28.81	244	eP	06	56.00	0.9
PMO	29.25	84	iP	06	58.40	-0.5
	0.8s		40.00nm			5.1mb
VAH	29.44	85	iP	07	00.10	-0.5
	0.8s		25.00nm			4.9mb
TPT	29.52	84	iP	07	00.80	-0.4
	0.8s		60.00nm			5.2mb
RUV	29.69	85	iP	07	02.00	-0.7
	0.8s		90.00nm			5.4mb
RMO	30.92	252	iPd	07	13.40	0.2
	0.6s		43.00nm			5.2mb
			e	07	27.00	
CNB	32.16	236	iPc	07	24.90	1.2
CAN	32.45	236	eP	07	24.30	-1.7
BWA	32.64	238	eP	07	25.90	-1.7
CMS	34.09	244	iPd	07	40.50	0.7
PMG	35.24	283	eP	07	49.50	0.0
TOO	35.84	234	iPd	07	55.20	0.9
			i	08	16.40	
STK	37.72	244	eP	08	11.00	1.3
QIS	39.53	262	iPd	08	24.10	-0.5
RKT	40.03	102	iP	08	29.20	0.6
	1.0s		35.00nm			4.9mb
ASPA	44.43	257	iPd	09	03.30	-0.2
	0.8s		167.00nm			5.6mb
			i	13	38.60	
WB5	44.49	262	iPd	09	03.10	-0.9
WRA	44.51	262	Pd	09	02.90	-1.2
	0.6s		20.60nm			4.8mb
MTN	49.07	271	eP	09	37.00	-1.9
GUA	49.64	310	eP	09	42.50	-0.5
	0.9s		208.40nm			5.6mb
GUMO	49.71	310	eP	09	43.00	-0.5
	0.7s		81.32nm			5.3mb
KNA	50.54	266	iPd	09	47.40	-2.3
	0.3s		22.00nm			5.1mb
WARB	50.75	252	iPd	09	38.90	-12.2X
COOL	55.15	246	iPd	10	21.40	-1.2
MBL	57.67	257	iPd	10	39.00	-1.0
	0.3s		14.00nm			4.8mb
MEKA	57.91	251	eP	10	40.00	-1.6
KLB	57.98	245	iPd	10	41.10	-0.9
	0.3s		11.00nm			4.7mb
NWAO	58.30	243	iPd	10	43.10	-1.1
RKG	58.39	242	iPd	10	44.30	-0.5
BAL	58.98	246	iPc	10	48.00	-0.8
MUN	59.25	244	iPc	10	50.10	-0.5
MRWA	59.77	247	eP	10	54.00	0.0
NANU	61.31	255	iPd	11	04.00	-0.2
	0.4s		18.00nm			4.9mb
SPA	69.66	180	e(P)	11	56.90	1.2
	1.0s		30.00nm			4.8mb
MAT	70.12	324	eP	11	58.00	-0.6
ADK	72.05	1	P	12	07.90	-1.5
	0.7s		51.74nm			5.2mb
SYP	77.72	46	eP	12	35.00	-6.6X
PRS	77.86	44	eP	12	43.10	1.0
BCH	78.03	45	P	12	43.50	0.3
PRI	78.21	44	eP	12	45.10	1.0
ARN	78.37	43	P	12	45.60	0.8
PLM	79.20	48	eP	12	50.00	0.5
SBB	79.27	47	eP	12	50.00	0.3
CMB	79.51	43	eP	12	51.30	0.5
CLC	80.06	46	eP	12	54.00	0.3
TPC	80.18	48	eP	12	55.00	0.6
GLA	80.48	50	eP	12	57.00	1.0
KVN	81.55	43	P	13	02.00	0.5
TNP	81.58	44	P	13	02.40	0.7
	0.8s		6.32nm			4.2mb
CN2	82.21	322	Pd	13	04.50	0.1
			epP	15	09.00	582kmX
PSI	84.35	275	iPd	13	15.50	-0.3
			e	13	50.00	
TTA	84.93	10	P	13	17.40	-0.2
	1.1s		20.31nm			4.7mb
PMR	85.01	13	P	13	17.60	-0.3
BJI	85.80	315	eP	13	22.50	0.4
GYA	86.55	300	P	13	26.80	0.6
TIY	87.18	312	Pc	13	30.00	1.0
ALQ	87.46	51	ePc	13	30.80	0.3
	1.0s		5.75nm			4.3mb
XAN	88.03	307	Pd	13	34.20	1.2
IMA	88.23	10	P	13	32.90	-0.4
	0.9s		7.29nm			4.5mb
FBA	88.23	12	P	13	32.30	-0.9
	0.9s		28.13nm			5.1mb
KHT	88.99	286	eP	13	39.50	1.9
BW06	89.01	43	P	13	37.90	0.4
	0.6s		3.98nm			4.5mb
BDT	89.52	289	iPd	13	40.00	0.0
	0.8s		43.00nm			5.4mb
CHG	90.14	290	iPd	13	44.50	1.6
	0.9s		30.67nm			5.2mb
CHTO	90.14	290	iPd	13	44.30	1.4
	0.7s		23.82nm			5.2mb
			pP	15	45.50	549kmX
GTA	96.88	309	eP	14	13.80	0.4
UPA	101.07	84	ePdiff	14	48.90	16.3X
	0.5s		42.25nm			
MAIO	127.64	301	ePKP	19	44.00	-0.7
SOB1	128.61	121	ePKP	19	46.20	-0.9
SUF	134.62	345	ePKP	19	53.00	-4.0X
NB2	138.94	353	PKP	19	54.80	-10.3X
	0.8s		1.90nm			
HFS	139.49	351	ePKP	19	57.60	-8.5X
	0.4s		2.50nm			
EKA	144.98	5	PKP	20	15.00	-0.8
	0.8s		8.40nm			
KRA	147.18	338	ePKP	20	21.80	2.3X

07d 18h

		i	20	26.30		
BBTK	147.30	313	iPKP-	20	23.00	2.8X
VRI	147.49	327	ePKP	20	21.50	1.4
WIT	147.50	355	ePKP	20	24.00	4.1X
KSP	147.63	343	iPKPd	20	23.50	3.3X
	0.7s		34.00nm			
		i	20	27.80		
		e	22	31.00		
SPC	147.80	337	ePKP	20	24.20	3.4X
ADI	147.84	300	ePKP	20	23.60	2.5X
CLL	148.01	347	iPKP	20	24.10	3.3X
	0.9s		39.00nm			
CLL	148.01	347	iPKP	20	28.30	7.5X
DSI	148.06	297	ePKP	20	25.50	4.1X
MLR	148.14	327	ePKPd	20	24.50	3.1X
BRG	148.20	345	iPKP	20	24.60	3.5X
	1.0s		24.00nm			
		i	20	29.80		
WTS	148.30	354	ePKP	20	24.50	3.3X
	0.8s		28.00nm			
		e	20	30.00		
NOH	148.59	296	iPKP	20	26.00	3.6X
PRNI	148.62	295	iPKPd	20	20.00	-2.4X
PRU	148.88	344	PKPd	20	26.80	4.7X
	1.0s		21.70nm			
		e	20	33.00		
MOX	148.92	348	iPKPc	20	27.00	4.8X
	1.2s		28.00nm			
ENN	149.60	355	ePKP	20	28.00	4.8X
	0.7s		11.00nm			
		e	20	35.00		
SRO	149.66	338	ePKP	20	28.20	4.8X
		i	20	36.70		
ZST	149.74	340	e(PKP)	20	28.70	5.2X
		i	20	36.80		
MEM	149.75	355	PKPc	20	28.80	5.4X
		e	20	37.30		
GRF	149.91	348	ePKP	20	29.60	5.9X
		e	20	36.80		
KHC	149.91	345	iPKPd	20	29.60	5.8X
	1.2s		16.00nm			
		e	20	37.30		
BZS	150.12	332	ePKP	20	27.50	3.4X
DOU	150.36	356	PKPc	20	30.30	5.9X
WLF	150.67	354	PKP	20	31.50	6.7X
FUR	151.35	347	iPKPc	20	43.30	17.3X
KBA	151.86	343	ePKP	20	32.50	5.6X
		i	20	46.00		
VAY	152.80	324	ePKP	20	35.00	6.8X
		i	20	50.00		
SKO	152.94	327	ePKP	20	37.80	9.4X
OHR	153.89	326	ePKP	20	31.00	1.2
	S.D. = 1.0		on 81 of 116 obs.			

? MAR 07, 1989 19h 58m 49.20± 6.48s
8.479 S ±29.5km 38.549 E ±80.3km
DEPTH = 10.0km (geophysicist)
3.5mb (1 obs.)
TANZANIA (573)

NPA	6.60	174	eP	00	44.00	15.2X
	0.6s		40.00nm			
			eSn	01	59.80	
			eSg	02	48.00	
NAI	7.37	346	iPd	00	39.50	-0.1
			S	02	26.00	
PTZ	9.10	230	ePn	01	03.00	-0.7
			ePb	01	34.00	
			iSn	02	35.00	
			iSb	03	28.80	
			iSg	03	42.30	
LSZ	12.18	235	ePn	01	47.00	1.1
			eSn	04	05.00	
			iSg	05	06.00	
KMZ	13.42	247	eP	02	02.00	-0.5
BCAO	23.72	302	eP	04	02.70	0.2
	1.2s		1.74nm		3.5mb	
	S.D. = 1.0		on 5 of 6 obs.			

MAR 07, 1989 20h 38m 36.09± 0.67s
30.133 N ± 3.1km 138.419 E ± 3.2km
DEPTH = 446.6 ± 7.6 km
4.7mb (32 obs.)
SOUTH OF HONSHU, JAPAN (211)

MAT	6.39	358	iPc	40	13.40	-1.9
			eS	41	32.00	
SSE	14.87	278	e(P)	41	46.00	-1.2
MDJ	16.05	337	eP	41	59.20	0.0
			eS	44	46.00	
SNY	16.72	318	iPc	42	06.40	0.5
			S	44	55.00	
NJ2	16.87	282	iPc	42	08.00	0.6
CN2	17.10	326	Pd	42	10.80	1.1
			S	45	07.00	
GUMO	17.51	159	eP	42	15.00	1.1
PJG	17.51	159	eP	42	15.80	1.9
GUA	17.57	159	eP	42	16.20	1.7
	0.7s		252.05nm		5.8mb	X
TIA	18.81	294	P	42	27.30	0.8
BJI	20.67	305	eP	42	44.00	-0.3
			esP	44	40.00	
			eS	46	04.00	
			eScP	49	29.00	
WHN	20.77	277	eP	42	47.00	1.6
TIY	22.80	296	Pd	43	05.30	1.0
HHC	24.25	303	P	43	17.70	0.2
XAN	25.25	287	iPd	43	26.80	0.3
BTO	25.31	302	eP	43	27.10	0.1
GYA	28.15	270	P	43	52.20	-0.1
LZH	29.46	291	eP	44	03.00	-0.7
	1.5s		48.00nm		4.7mb	
CD2	29.80	280	iPd	44	06.80	0.3
KMI	31.92	270	Pc	44	26.00	1.0
GTA	32.83	297	P	44	32.20	-0.2
			PcP	47	05.20	
			S	49	16.60	
			ScP	50	07.00	
LOE	35.73	258	iPd	44	57.20	0.4
CHG	37.48	262	iPd	45	12.20	0.9
	0.9s		64.71nm		5.0mb	
CHTO	37.48	262	iPd	45	12.00	0.7
	0.9s		75.02nm		5.1mb	
			pP	47	16.90	
BDT	38.12	259	eP	45	15.80	-0.6
ADK	39.44	44	eP	45	26.30	-0.6
	0.6s		22.00nm		4.8mb	
KHT	39.62	256	eP	45	30.00	1.2
WMQ	42.13	303	P	45	49.50	0.6
SNG	42.17	245	eP	45	51.20	1.9
MTN	43.30	190	eP	45	57.00	-1.2
KHKI	44.11	213	ePd	46	04.50	-0.1
			e	47	10.50	
GUN	45.66	281	Pd	46	18.00	0.8
PKI	46.16	281	Pd	46	20.90	-0.1
KKN	46.21	281	Pd	46	21.60	0.4
PSI	46.28	242	eP	46	22.00	0.4
	0.8s		12.00nm		4.4mb	
DMN	46.40	281	Pd	46	23.00	0.2
KNA	46.55	193	eP	46	22.80	-0.7
GKN	46.69	281	Pd	46	25.20	0.3
SDN	49.51	41	eP	46	44.70	-1.0
WB5	49.88	185	iPd	46	47.60	-1.2
			i	48	01.50	
WRA	49.94	185	Pd	46	47.70	-1.5
	0.4s		10.80nm		4.5mb	
QIS	50.41	179	iPd	46	51.20	-1.5
TTA	52.55	32	eP	47	07.90	-0.2
NDI	52.76	285	eP	47	10.00	0.1
ASPA	53.67	185	iPc	47	14.90	-1.5
	0.6s		48.00nm		5.0mb	
BRW	53.73	21	eP	47	16.00	-0.3
IMA	53.92	28	eP	47	17.10	-0.8
	0.8s		8.60nm		4.1mb	
KDC	54.03	38	eP	47	17.30	-1.3
MBL	54.04	202	iPd	47	18.30	-0.8
	0.3s		8.00nm		4.5mb	
HYB	55.68	271	eP	47	30.00	-0.9
	1.2s		45.70nm		4.7mb	
PMR	55.70	34	eP	47	29.20	-1.1
	0.9s		52.10nm		4.9mb	
FBA	56.29	29	eP	47	33.50	-1.0
NANU	56.82	205	eP	47	34.00	-4.5X
WARB	57.12	193	iPd	47	29.00	-11.6X
GBA	58.31	268	Pc	47	46.70	-2.2
	1.0s		36.00nm		4.8mb	
QUE	60.77	290	iPd	48	05.20	-0.2
FORR	61.43	190	eP	48	08.00	-1.4
	0.5s		146.00nm		5.8mb	X
INK	61.67	25	eP	48	09.00	-1.6
STK	61.75	177	eP	48	11.00	-0.4
COOL	62.86	197	eP	48	18.50	-0.3
MBC	63.83	15	eP	48	23.00	-1.4
	0.4s		7.00nm		4.6mb	
BAL	63.84	201	eP	48	24.00	-1.0
KLB	64.45	199	eP	48	28.00	-0.9
MAIO	64.61	299	eP	48	31.00	1.0
BWA	64.90	171	eP	48	31.70	0.0
MUN	65.27	201	eP	48	34.00	-0.1
NWAO	65.85	199	iPd	48	37.10	-0.6
	0.6s		33.00nm		5.1mb	
CAN	65.86	171	eP	48	37.20	-0.6
RKG	66.98	199	eP	48	47.00	2.3
ALE	67.12	3	eP	48	45.00	0.0
	0.4s		4.00nm		4.4mb	
SOD	70.36	338	eP	49	04.00	-0.7
YKA	71.04	28	eP	49	08.70	0.0
YKC	71.10	28	ePd	49	09.00	-0.1
	0.8s		17.00nm		4.7mb	
KJF	71.64	334	iP	49	12.00	-0.2
	0.6s		183.00nm		5.9mb	X
SUF	73.02	334	iP	49	19.60	-0.6
	0.4s		15.50nm		5.0mb	
GMW	73.88	44	P	49	26.10	0.7
BMW	74.10	45	P	49	27.10	0.3
RMW	74.51	44	P	49	29.80	0.7
LON	74.84	45	P	49	30.70	-0.2
NUR	74.85	332	iP	49	30.00	-0.6
PNT	74.92	42	iP	49	32.00	0.7
DPW	76.45	42	P	49	40.50	0.7
WDC	77.29	50	eP	49	44.60	0.2
LBFM	77.36	50	P	49	46.00	1.0
UPP	78.03	334	iP	49	47.40	-0.6
ORV	78.49	51	eP	49	50.70	-0.2
BRK	78.80	53	eP	49	52.70	0.2
BKS	78.81	53	ePd	49	53.30	0.7
	0.6s		41.00nm		5.2mb	
HFS	79.31	335	eP	49	54.20	-0 6
	0.4s		17.90nm		5.1mb	
MHC	79.48	53	eP	49	56.80	0.5
NB2	79.55	337	P	49	55.00	-1.1
	0.5s		7.70nm		4.6mb	
ARN	79.56	53	P	49	57.50	0.9
NRA0	79.66	336	P	49	56.00	-0.6
CMB	80.00	52	eP	49	59.10	0.2
PRS	80.18	54	eP	50	00.30	0.5
LLA	80.33	53	eP	50	01.20	0.6
PRI	80.76	54	eP	50	03.90	0.9
FFC	80.87	31	iPd	50	03.30	0.3
	0.7s		14.00nm		4.7mb	
LRM	80.88	42	eP	50	04.50	0.9
			e	51	43.00	
FRI	80.99	52	eP	50	04.20	0.2
KVN	81.02	50	P	50	05.00	0.6
PHAM	81.11	54	P	50	05.90	1.3
BGMT	81.45	42	eP	50	07.40	0.9
BCH	81.66	54	P	50	08.30	0.7
TNP	82.11	51	P	50	10.20	0.2
	1.1s		33.44nm		4.9mb	
VRI	82.32	319	ePc	50	12.00	1.4
MLR	82.99	319	ePd	50	14.50	0.3
CLC	83.06	53	eP	50	15.00	0.4
KRA	83.36	325	eP	50	16.20	0.5
SBB	83.50	54	eP	50	17.00	0.2
MWC	83.58	54	eP	50	17.00	-0.4
DUG	83.82	47	P	50	19.50	1.0
GSC	83.88	53	eP	50	19.00	0.2
FRB	84.03	12	eP	50	19.00	0.2
RVR	84.18	54	eP	50	20.00	-0.2
BW06	84.33	43	P	50	21.50	0.4
KSP	84.60	327	iPc	50	22.30	0.4
			e	52	07.00	
DAU	84.68	46	P	50	24.00	1.1
PLM	84.89	54	eP	50	24.00	0.1
TPC	85.05	53	eP	50	25.00	0.5
BAR	85.39	55	eP	50	26.00	-0.2
CLL	85.77	329	iPc	50	27.00	-0.6
	1.7s		30.00nm		4.8mb	
RSSD	86.68	40	P	50	32.20	-0.2
RSON	87.18	30	P	50	33.90	-0.5
VAY	87.48	317	eP	50	36.00	0.0
CDF	90.42	330	eP	50	49.20	-0.4
	0.8s		5.30nm		4.5mb	
ALQ	91.00	48	ePd	50	53.00	0.3
	0.9s		7.77nm		4.6mb	
BSF	91.07	330	eP	50	51.80	-0.8
	0.8s		5.30nm		4.5mb	
LOR	92.76	331	eP	50	59.70	-0.6
	0.6s		3.60nm		4.6mb	
LPG	92.87	328	eP	51	00.50	-0.7
	0.5s		4.60nm		4.8mb	

LBF 92.94 331 eP 51 00.40 -0.8
0.8s 4.00nm 4.5mb
SSF 93.08 331 eP 51 01.40 -0.3
0.8s 4.00nm 4.5mb
SMF 93.26 331 eP 51 02.20 -0.4
0.8s 5.30nm 4.6mb
AVF 93.35 331 eP 51 02.60 -0.4
0.8s 4.50nm 4.6mb
KIC 129.36 310 PKP 56 54.40 -0.4
LIC 129.65 310 PKP 56 55.20 -0.1
LPB 152.23 67 ePKP 57 43.00 8.0X
S.D. = 0.8 on 134 of 137 obs.

MAR 07, 1989 21h 01m 50.62± 1.39s
45.260 N ± 5.4km 6.540 E ±12.8km
DEPTH = 10.0km (geophysicist)
FRANCE (538)

LPG 0.28 32 Pg 01 56.50 -0.1
Sg 02 02.20
LPL 0.29 28 Pg 01 56.50 -0.3
Sg 02 02.30
RRL 0.38 153 P 01 57.81 -0.7
S 02 04.64
LSD 0.48 65 P 02 00.57 0.2
S 02 08.44
RSP 0.52 102 P 02 01.74 0.6
S 02 10.28
PZZ 0.85 152 P 02 06.49 -0.7
S 02 18.90
FRF 1.70 177 Pg 02 21.50 1.0
Sg 02 44.20
S.D. = 0.8 on 7 of 7 obs.

? MAR 07, 1989 21h 51m 45.20± 3.34s
26.012 S ±22.7km 179.292 E ±24.1km
DEPTH = 550.0 ± 33.3 km
4.7mb (4 obs.)
SOUTH OF FIJI ISLANDS (171)

DZM 12.38 286 iPc 54 28.10 0.0
CTA 30.91 274 iPd 57 19.60 0.7
0.6s 14.00nm 4.8mb
ASPA 41.10 263 iPd 58 43.10 0.1
1.0s 35.00nm 4.8mb
WB5 41.66 269 iPc 58 47.50 0.1
WRA 41.67 269 Pc 58 46.80 -0.6
0.5s 9.90nm 4.6mb
WARB 47.00 258 eP 59 16.30 -12.4X
MTN 47.02 277 iPc 59 28.80 -0.1
KNA 48.05 272 eP 59 36.50 -0.2
SPA 64.14 180 e(P) 01 27.40 0.0
1.0s 4.00nm 3.9mb
NB2 144.05 350 PKP 10 19.00 0.0
0.7s 4.60nm
HFS 144.47 348 ePKP 10 19.80 0.1
0.4s 3.60nm
BNG 151.71 224 iPKPd 10 39.30 6.8X
0.2s 6.00nm
S.D. = 0.4 on 10 of 12 obs.

MAR 07, 1989 21h 59m 42.40± 0.37s
44.524 N ± 2.9km 7.281 E ± 4.1km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.2 (LDG).

PZZ 0.13 262 Pc 59 45.65 0.0
S 59 47.27
STV 0.28 174 P 59 48.17 -0.2
S 59 51.48
ROB 0.48 118 P 59 52.50 0.3
S 59 59.47
RRL 0.53 318 P 59 52.95 -0.3
S 00 00.03
RSP 0.63 358 P 59 54.93 -0.2
S 00 03.31
SBF 0.67 170 Pg 59 56.40 0.6
Sg 00 04.00
FIN 0.74 115 P 59 56.68 -0.2
S 00 06.25
IMI 0.75 144 P 59 56.66 -0.5
S 00 06.08
LPG 1.04 339 Pg 00 02.60 0.3
Sg 00 15.30
FRF 1.07 206 Pg 00 02.70 0.2
Sg 00 15.50
LPL 1.07 339 Pg 00 02.80 0.2
Sg 00 15.40
LRG 1.26 212 Pg 00 05.80 0.0
Sg 00 22.30
LMR 1.31 205 Pg 00 06.40 -0.3
Sg 00 23.40
S.D. = 0.3 on 13 of 13 obs.

? MAR 07, 1989 22h 08m 34.61± 1.96s
38.696 N ±17.1km 27.934 E ±17.6km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM 0.61 241 iPg 08 46.90 0.0
eSg 08 55.20
DST 1.06 30 iPn 08 54.40 -0.1
KCT 1.58 12 iPn 09 05.90 3.1X
EDC 1.65 358 ePn 09 04.00 0.3
EZN 1.68 313 ePn 09 04.00 -0.2
S.D. = 0.4 on 4 of 5 obs.

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* MAR 07, 1989 22h 54m 24.11± 0.88s
40.397 S ±18.7km 75.510 W ±12.9km
DEPTH = 10.0km (geophysicist)
5.0mb (5 obs.)
OFF COAST OF SOUTHERN CHILE (143)

ITB1 23.66 55 e(P) 59 36.10 -0.3
CNCB 24.39 18 Pc 59 45.00 0.7
LPB 24.63 17 P 59 46.00 -0.4
0.3s 46.75nm 5.6mb
ZOBO 24.88 17 iPd 59 48.30 -0.7
0.9s 6.49nm 4.3mb
LR 10 10.00
VAO 29.66 63 eP 00 32.00 -0.1
ITA 31.63 65 eP 00 52.00 2.2
BAO 34.36 52 eP 01 09.00 -4.4X
SOB1 43.68 54 eP 02 25.40 -5.5X
KIC 79.69 73 P 06 32.30 -1.4
ALQ 80.21 335 ePd 06 36.00 -0.3
0.9s 10.92nm 4.8mb
GOL 84.24 337 P 06 56.90 -0.3
RSNY 84.57 1 P 06 57.50 -0.7
0.8s 9.86nm 5.1mb
MSU 85.40 332 P 07 03.30 0.4
DAU 86.77 333 P 07 10.00 0.3
TNP 86.94 328 P 07 11.20 0.7
DUG 87.11 332 P 07 11.70 0.5
CMB 88.21 326 P 07 17.20 0.8
BW06 88.33 336 P 07 16.30 -0.8
1.0s 9.50nm 5.1mb
MAIO 144.76 82 iPKPc 14 00.40 -2.3
HYB 147.97 128 ePKP 14 10.00 1.6
S.D. = 1.1 on 18 of 20 obs.

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* MAR 08, 1989 00h 15m 29.89± 0.91s
38.987 N ±11.9km 141.962 E ±21.9km
DEPTH = 145.9 ± 10.3 km
4.1mb (2 obs.)
NEAR EAST COAST OF HONSHU, JAPAN(228)
Felt (I JMA) at Miyoko.

OFUJ 0.25 292 iPd 15 50.10 0.3
S 16 01.90
YAMJ 1.71 242 P 16 00.50 -1.3
S 16 20.60
KAKJ 3.12 208 P 16 19.90 0.8
S 16 54.70
MRRJ 3.50 349 eP 16 22.10 -2.0
eS 16 59.30
HOOJ 3.54 16 P 16 25.50 0.9
S 17 05.20
CHJJ 3.76 220 P 16 28.20 0.6
S 17 09.40
MAT 3.85 232 iPc 16 28.90 0.2
0.8s 59.70nm
MTMJ 4.07 235 P 16 31.80 0.0
KUSJ 4.60 26 P 16 39.40 0.7
S 17 29.40
IIDJ 4.76 224 eP 16 42.00 1.0
ASAJ 5.15 5 eP 16 45.30 -0.8
eS 17 39.50
WB5 58.99 188 eP 25 15.00 -1.2
WRA 59.05 188 Pc 25 14.90 -1.8
0.5s 2.90nm 4.5mb
HFS 72.49 336 eP 26 44.50 2.7
0.4s 0.60nm 3.7mb
S.D. = 1.5 on 14 of 14 obs.

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* MAR 08, 1989 00h 26m 08.14± 1.65s
35.353 N ±16.4km 4.200 W ± 7.4km
DEPTH = 10.0km (geophysicist)
STRAIT OF GIBRALTAR (385)
MG 3.0 (MDD).

EMEL 1.02 93 eP 26 26.80 -0.6
OJEN 1.32 305 iP 26 34.00 1.5
MAL 1.38 353 iPnd 26 33.20 -0.2
iSg 26 54.20
PLAT 1.48 302 iP 26 37.50 2.6X
EJIF 1.50 317 eP 26 35.20 0.1
TAF 1.56 110 ePg 26 39.00 3.0X
eSg 27 06.00
MOMI 1.57 308 iP 26 37.00 0.9
EPRU 1.81 333 eP 26 39.70 0.0
CNIL 1.81 305 eP 26 40.00 0.4
AFC 1.97 15 eP 26 44.10 2.0
IFR 1.99 203 iPg 26 34.00 -8.3X
iSg 26 55.50
ENIJ 2.28 44 eP 26 47.00 0.6
EHOR 2.60 341 eP 26 50.00 -0.9
EBAN 2.83 7 eP 26 54.80 0.6
EVAL 3.03 318 eP 26 54.70 -2.3
AVE 3.36 233 iPg 27 04.00 2.3X
iSg 27 45.00
EPLA 4.94 343 eP 27 22.70 -1.4
GUD 5.28 0 eP 27 28.00 -1.1
S.D. = 1.3 on 14 of 18 obs.

MAR 08, 1989 02h 34m 25.85± 0.13s
0.206 S ± 2.7km 124.885 E ± 3.6km
DEPTH = 34.8km (geophysicist)
5.8mb (56 obs.) 5.2Msz (14 obs.)
MOLUCCA SEA (269)
Depth from broadband
displacement seismograms.
FAULT PLANE SOLUTION: P-Waves
NP1:Strike= 2 Dip=78 Slip= 142
NP2: 101 53 15
Principal Axes:
T Plg=35 Azm=315
P 16 57
Comment: The focal mechanism is moderately well controlled and corresponds to strike-slip faulting with a large reverse component. The preferred fault plane is not determined.
RADIATED ENERGY
No. of sta: 5 Focal mech. M
Energy 9.1±2.2*10**12 Nm
MOMENT TENSOR SOLUTION
Dep 35 No. of sta: 13
Moment Tensor; Scale 10**17 Nm
Mrr= 3.02 Mtt=-0.14
Mff=-2.88 Mrt=-0.67
Mrf= 7.49 Mtf= 0.14
Principal axes:
T Val= 8.14 Plg=56 Azm=264
N -0.13 1 355
P -8.01 34 86
Best Double Couple:Mo=8.1*10**17
NP1:Strike=179 Dip=11 Slip= 94
NP2: 355 79 89
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 15S, 33C
Centroid Location:
Origin Time 02:34:30.2 0.3
Lat 0.11S 0.05 Lon 125.42E 0.05
Dep 27.0 BDY Half-duration 3.3
Moment Tensor; Scale 10**17 Nm
Mrr= 4.12 0.24 Mtt=-1.39 0.22
Mff=-2.73 0.38 Mrt= 0.48 0.58
Mrf= 6.06 0.83 Mtf=-1.96 0.22
Principal Axes:
T Val= 7.69 Plg=59 Azm=263
N -0.75 13 15
P -6.94 28 112
Best Double Couple:Mo=7.3*10**17
NP1:Strike=232 Dip=21 Slip= 129
NP2: 11 74 77

AAI 4.78 136 ePc 35 37.50 0.0

08d 02h

PCI 5.10 262 ePd 35 48.00 6.1X
e(S) 36 22.20
DAV 7.28 5 eP 36 16.00 3.4X
TSM 8.11 303 iPd 36 30.80 6.6X
0.8s 712.40nm 6.8mb X
e 38 14.00
KKM 10.65 306 ePd 37 03.00 3.7X
1.0s 90.00nm 5.9mb
ec 37 17.50
PPR 11.66 328 ePd 37 17.00 4.1X
1.0s 248.00nm 6.3mb
MTN 14.00 154 eP 37 43.00 -1.1
e 37 55.00
PGP 14.17 344 eP 37 50.00 3.8X
eS 37 59.00
OCP 15.22 346 eP 37 56.00 -4.0X
KNA 15.91 166 iPc 38 08.50 -0.5
1.0s 690.00nm 5.8mb
BAG 17.05 346 eP+ 38 25.00 1.5
1.3s 1730.77nm 6.0mb
eS 41 34.00
CVP 18.05 351 ePd 38 37.80 2.0
eS 38 56.00
PIP 18.89 347 iPd 38 46.00 -0.1
1.0s 416.00nm 5.6mb
MNDI 19.65 108 eP 38 55.00 -0.1
MBL 21.40 193 eP 39 13.00 0.1
0.5s 111.00nm 5.5mb
WB5 21.65 155 eP 39 13.20 -2.2
eS 43 14.20
KGM 21.67 276 ePd 39 17.90 2.2
WRA 21.69 155 Pc 39 13.70 -2.2
1.0s 54.90nm 4.9mb
PMG 23.98 113 iPd- 39 39.00 0.7
1.5s 938.89nm 6.1mb
NANW 24.02 202 eP 39 39.10 0.5
0.5s 111.00nm 5.6mb
GUMO 24.08 55 e(P) 39 40.30 1.0
0.8s 169.84nm 5.6mb
PJG 24.08 55 e(P) 39 39.90 0.6
GUA 24.09 55 e(P) 39 39.30 -0.1
0.8s 208.96nm 5.7mb
QIZ 24.15 323 P 39 40.00 0.0
N 14s 1.50um
E 19s 3.30um
pP 39 55.00 64kmX
S 43 47.00
IPM 24.30 282 ePd 39 42.50 1.0
1.0s 263.20nm 5.7mb
HKC 24.69 336 iPd 39 46.50 1.4
S 44 15.00
MCO 24.79 334 eP 39 48.00 1.9
QIS 24.83 145 iPd 39 45.90 -0.6
e 41 34.00
ASPA 24.91 160 iPc 39 47.00 -0.3
1.4s 265.00nm 5.6mb
epP 40 05.30 81kmX
iS 44 09.00
e 44 22.70
SNG 25.29 287 eP 39 44.80 -6.2X
GZH 25.73 335 P 39 55.00 0.1
Z 20s 4.80um 5.0Msz
QZH 25.73 347 eP 39 56.10 1.2
Z 24s 2.80um 4.7MszX
N 10s 1.10um
S 44 18.00
WARB 25.88 176 eP 39 45.40 -11.0X
MEKA 26.96 193 iPd 40 05.80 -0.5
1.0s 419.00nm 6.0mb
RAB 27.54 99 iPd 40 11.00 -0.7
0.8s 656.72nm 6.3mb
iS 44 52.00
NNT 28.00 298 eP 40 16.50 0.6
LOE 28.74 309 eP 40 22.00 -0.5
CTA 28.78 135 iPd 40 20.70 -2.1
1.8s 425.00nm 5.8mb
i 40 40.30
i 41 00.50
ipP 41 10.00 251kmX
e(sP) 41 34.00
i(PcP) 43 12.00
i 43 23.00
i 43 38.50
iS 45 05.50
eScP 46 34.00
e(SS) 47 05.00
NST 29.09 304 eP 40 28.40 2.7X

KHT 29.97 301 ePKP 40 35.00 1.5
MRWA 30.07 196 iPd 40 34.00 -0.3
FORR 30.63 175 eP 40 38.00 -1.1
0.4s 43.00nm 5.6mb
COOL 30.72 186 eP 40 38.40 -1.6
BGA 30.81 102 eP 40 43.00 1.9
BDT 30.83 306 eP 40 40.00 -1.1
1.1s 123.10nm 5.6mb
PAA 31.14 102 eP 40 44.00 0.1
BAL 31.22 194 eP 40 43.00 -1.4
0.8s 104.00nm 5.7mb
SSE 31.33 354 eP 40 45.00 -0.3
1.4s 105.00nm 5.5mb
Z 22s 2.40um 4.8Msz
N 24s 3.10um
sP 40 56.00
ePcP 42 30.00
eS 45 48.00
sS 45 59.00
CHG 31.72 308 iPc+ 40 59.00 10.1X
1.2s 214.84nm
eS 46 42.00
CHTO 31.72 308 ePc 40 49.34 0.4
epPd 40 55.46 21kmX
esPd 41 04.73
ePP 41 59.94
KAGJ 31.74 10 eP 40 48.80 -0.1
GYA 31.80 328 P 40 49.60 -0.1
Z 22s 1.70um 4.7Msz
N 14s 1.90um
E 14s 1.90um
PcP 43 40.00
S 45 56.00
ScP 47 21.40
ScS 51 17.00
KLB 31.94 192 eP 40 49.30 -1.4
WHN 32.18 343 Pd 40 52.30 -0.5
Z 20s 3.81um 5.1Msz
N 10s 0.62um
E 14s 0.97um
eS 46 02.00
NJ2 32.59 350 Pc 40 55.60 -0.7
Z 28s 3.90um 5.0MszX
MUN 32.65 194 iPc 40 56.30 -0.6
0.7s 38.00nm 5.4mb
KUMJ 33.04 9 eP 40 58.40 -1.9
KMI 33.06 321 Pc+ 41 02.00 1.2
4.0s 0.70nm 2.9mb X
N 16s 2.70um
pP 41 17.00 60kmX
PP 42 18.00
iS 46 16.00
sS 46 46.00
ScP 47 27.00
KMI 33.06 321 iPc 40 44.30 -16.5X
N 16s 2.70um
epPd 41 10.83 120kmX
esPd 41 17.28
PP 42 18.00
iS 46 16.00
sS 46 46.00
ScP 47 27.00
NWAO 33.34 192 ePc 41 02.54 -0.3
epPd 41 09.00 22kmX
esPd 41 16.62
RKG 34.49 192 iPc 41 18.10 5.3X
SHNJ 34.65 9 eP 41 13.80 -0.3
RMQ 34.80 141 iPd 41 14.20 -1.4
e 47 32.00
TKSJ 35.08 13 P 41 18.30 0.5
STK 35.24 155 eP 41 19.00 -0.3
0.4s 64.00nm 5.9mb
e 43 06.00
e 46 49.00
SHK 35.32 11 iP 41 19.20 -0.7
0.9s 299.16nm 6.2mb
WKYJ 35.69 15 P 41 22.40 -0.7
VSG 35.82 106 eP 41 22.00 -2.4
HNR 36.08 106 eP 41 22.00 -4.6X
YONJ 36.11 12 P 41 26.20 -0.4
CD2 36.88 329 P 41 32.80 -0.3
3.0s 1.00nm 3.2mb X
Z 24s 2.00um 4.8MszX
N 13s 1.70um
PP 42 59.80
S 47 11.80
CMS 36.90 149 iPd 41 34.10 0.9

ADE 36.91 161 iPd 41 34.30 0.9
0.8s 41.79nm 5.4mb
TIA 36.94 350 eP 41 32.20 -1.4
Z 31s 3.50um 5.0MszX
N 17s 1.50um
eS 47 09.00
TSRJ 37.03 15 P 41 34.80 0.5
XAN 37.21 338 P 41 33.50 -2.4
N 16s 2.90um
E 14s 1.00um
S 47 17.70
IIDJ 37.52 18 P 41 37.60 -0.9
BRS 38.05 138 Pc 41 40.80 -2.2
i 41 51.00 35kmX
i 41 58.30
i 42 03.30
CHJJ 38.38 19 P 41 43.40 -2.3
MTMJ 38.52 17 P 41 45.90 -1.0
MAT 38.60 17 eP 41 46.00 -1.5
1.0s 124.00nm 5.7mb
Z 20s 1.06um 4.7Msz
eS 47 28.00
KAKJ 38.92 20 P 41 48.10 -2.0
DLZ 39.04 356 eP 41 51.40 0.4
Z 24s 2.30um 4.9MszX
TIY 39.44 344 Pc 41 53.80 -0.8
E 16s 0.80um
pP 42 12.00 74kmX
S 47 59.00
COO 39.63 142 eP 41 57.00 0.8
BWA 40.55 149 eP 42 05.10 1.4
e 48 18.20
YAMJ 40.66 18 P 42 05.40 0.9
BJI 40.84 350 eP 42 04.00 -1.9
Z 30s 2.60um 4.9MszX
eScP 47 53.00
eS 48 08.00
eScS 52 07.50
SHL 40.89 311 iP 42 06.20 -0.6
iS 47 54.50
LZH 41.07 334 ePc 42 08.41 0.3
3.0s 802.00nm 5.9mb
Z 20s 9.20um 5.6Msz
E 17s 2.40um
epPd 42 17.68 31kmX
esPd 42 23.48
PP 43 36.00
e 43 53.36
eS 48 13.00
CAN 41.54 150 eP 42 13.00 1.2
e 47 57.00
CNB 41.72 149 eP 42 15.00 1.6
TOO 41.76 155 iPc 42 16.20 2.6X
0.9s 110.00nm 5.6mb
SNY 41.86 359 iPd 42 14.30 0.1
Z 28s 3.50um 5.1MszX
N 26s 3.10um
E 26s 1.50um
S 48 26.50
OFUJ 42.02 20 P 42 15.70 0.1
HHC 42.62 345 Pc 42 20.00 -0.7
Z 26s 3.10um 5.1MszX
S 48 44.00
BTO 42.81 343 P 42 22.50 0.3
N 20s 1.70um
PP 44 04.50
S 48 42.00
eSS 51 46.50
AOMJ 42.95 17 eP 42 25.30 2.1
LSA 43.80 316 P 42 31.00 0.2
S 48 57.00
CN2 43.82 1 Pc 42 28.00 -2.2
5.0s 0.60nm 2.6mb X
E 15s 0.60um
PP 44 15.00
eS 49 03.00
ScS 52 22.00
MDJ 44.82 5 Pc 42 38.00 -0.3
Z 22s 1.80um 5.0Msz
S 49 12.00
MRRJ 44.87 17 P 42 39.10 0.4
HOOJ 45.52 19 P 42 45.60 1.7
GTA 45.62 333 iPc 42 44.20 -0.7
2.0s 0.70nm 3.2mb X
Z 18s 2.40um 5.2Msz
N 15s 1.60um
PcP 44 23.40

			ScP	48	13.00	
			S	49	20.00	
			ScS	52	35.20	
DZM	45.94	121	iPd	42	47.20	-0.5
KUSJ	46.64	20	P	42	53.30	0.6
GUN	46.68	310	P	42	52.90	-0.9
ASAJ	46.89	18	P	42	55.40	0.7
TAU	47.04	157	iPd	42	57.70	1.8
KKN	47.08	310	P	42	55.50	-1.3
DMN	47.13	309	P	42	57.00	-0.2
GKN	47.68	309	P	42	59.90	-1.6
KOD	48.29	284	iP	43	07.80	1.3
HYB	48.84	293	eP	43	08.80	-1.6
	1.0s	250.00nm			6.2mb	
			e	44	35.50	440kmX
			eS	50	12.00	
GBA	48.95	288	Pc	43	07.00	-4.2X
	0.9s	54.90nm			5.6mb	
HIA	49.48	356	ePc	43	14.77	0.0
			epPd	43	23.21	28kmX
			eS	50	17.47	
			eSS	53	03.00	
SGE	54.93	111	eP	43	56.50	0.3
WMQ	54.96	328	ePc	43	55.15	-0.9
Z	28s	2.20um			5.1MszX	
			epPd	44	04.91	32kmX
			esPd	44	10.54	
			S	51	33.60	
			ScS	53	32.00	
KSH	59.56	317	iPd	44	31.00	2.3
Z	20s	5.60um			5.7Msz	
			PP	46	45.00	
KRP	59.76	135	P	44	29.80	-0.1
WEL	60.79	139	P	44	35.30	-1.6
QUE	62.75	304	P	44	46.00	-4.5X
			eS	53	15.50	
MAIO	70.47	309	iPc+	45	38.00	-1.3
	1.0s	17.25nm			5.1mb	
			eS	54	48.00	
KHI	70.60	306	ePc	45	39.80	-0.5
ADK	71.23	34	eP	45	43.10	-0.3
	0.9s	89.90nm			5.8mb	
IR4	77.07	306	iPc	46	16.75	-1.0
IR2	77.14	307	iPc	46	16.56	-1.6
IR1	77.27	306	iPc	46	17.73	-1.1
IR5	77.32	306	iP	46	18.44	-0.7
IR7	77.38	307	iPc	46	18.25	-1.2
AVY	77.78	251	iPd	46	22.90	0.9
			e	48	10.40	492kmX
KER	80.03	305	eP	46	31.00	-3.0X
TAB	81.12	308	eP+	46	40.00	0.4
SDN	81.45	34	eP	46	41.00	0.3
SLY	81.49	306	ePd	46	40.00	-1.4
BHD	82.16	303	iP	46	46.00	1.0
			eS	56	53.00	
MSL	83.46	307	eP	46	52.00	0.4
SVW	85.10	29	eP	47	00.70	1.3
TTA	85.22	27	eP	47	00.70	0.7
NPA	85.73	255	iP	47	06.00	2.7X
	1.0s	450.00nm			6.6mb	
KDC	86.23	32	eP	47	05.50	0.6
BRW	86.47	18	eP	47	06.80	0.9
IMA	86.70	24	eP	47	07.40	0.0
	1.0s	41.50nm			5.6mb	
PMO	87.26	105	eP	47	17.00	6.2X
	1.2s	30.00nm			5.4mb	
NAI	88.08	269	iPd	47	18.00	2.8X
	1.0s	155.00nm			6.3mb	
PMR	88.26	29	eP	47	13.90	-0.8
	1.2s	54.70nm			5.7mb	
FBA	89.04	25	P	47	18.30	-0.1
KVT	89.26	311	iP	47	20.40	0.4
TOA	89.68	28	eP	47	21.80	0.2
SPA	89.80	180	e(P)	47	23.10	1.0
	1.0s	56.50nm			5.8mb	
Z	20s	1.67um			5.5Msz	
ADI	89.83	303	iP	47	21.60	-1.2
ZNT	89.98	302	eP	47	23.30	-0.2
PRNI	90.01	300	iPd	47	24.00	0.3
MBH	90.11	300	iPd	47	25.00	0.9
CSS	91.39	305	eP	47	30.50	0.5
BBTK	91.77	310	iPc	47	31.00	-0.7
AKSR	91.79	294	iPc	47	33.80	1.9
	1.0s	125.00nm			6.3mb	
AKUR	92.01	294	iPc	47	36.00	3.0X
PPCY	92.20	305	eP	47	34.00	0.3
AGMR	92.23	293	eP	47	34.00	0.0
KEV	92.93	340	eP	47	35.00	-1.3
	0.8s	14.70nm			5.5mb	
KJF	93.32	334	eP	47	37.00	-1.2
	0.7s	32.00nm			5.9mb	
SOD	93.37	337	iP	47	37.30	-1.1
PTZ	93.39	256	iPd	47	40.00	0.4
			i	49	27.00	471kmX
ELL	94.12	307	iP	47	42.30	-0.3
SUF	94.19	333	iP	47	40.50	-1.7
	0.4s	20.40nm			5.9mb	
KHL	94.34	308	eP	47	42.80	-0.8
INK	94.48	21	eP	47	43.00	-0.4
			pP	48	01.50	66kmX
CFR	94.90	315	ePc	47	46.00	0.2
TLB	95.03	315	eP	47	46.00	-0.5
PPE	95.19	316	eP	47	47.00	-0.2
NUR	95.22	331	iP	47	45.60	-1.4
Z	20s	1.20um			5.4Msz	
			LR	36	20.00	
CLI	95.39	317	ePd	47	49.00	0.9
BUL	95.82	250	iPc	47	51.00	0.2
			ipP	47	59.30	26kmX
VRI	95.84	316	ePc	47	50.50	0.3
SLR	95.86	244	iPd	47	51.20	0.3
	1.3s	44.23nm			5.8mb	
Z	22s	2.22um			5.6Msz	
			i	51	42.90	
LWI	96.07	268	iPc	47	52.60	0.4
IZM	96.11	308	eP	47	51.00	-0.6
MBC	96.17	13	eP	47	51.00	-0.1
	1.0s	24.00nm			5.6mb	
SEK	96.30	242	iPc	47	54.50	1.6
	1.0s	20.00nm			5.6mb	
LSZ	96.41	255	iPd	47	54.00	0.5
			i	48	11.00	59kmX
			i	49	41.50	
MLR	96.42	316	ePc	47	53.00	0.0
PRY	96.52	243	iPc	47	54.50	0.6
EZN	96.71	310	eP	47	53.00	-1.2
ALE	97.69	1	eP	47	58.00	0.1
	0.7s	4.00nm			5.1mb	
CJR1	97.91	317	eP	48	00.20	0.7
FRS	98.21	240	iPd	48	02.50	1.3
	1.0s	25.00nm			5.7mb	
SWZ	98.41	243	eP	48	00.60	-1.8
KMZ	98.76	256	iPd	48	05.00	1.0
			i	50	09.00	563kmX
UPP	98.79	331	iP	48	01.80	-1.3
BZS	99.42	316	ePc	48	06.00	-0.3
SPC	99.70	320	eP	48	07.90	0.1
KRA	99.73	321	iPc	48	07.60	-0.1
	0.9s	59.00nm			6.1mb	
			i	48	08.30	2kmX
			e	48	22.90	
SKO	100.12	313	ePdiff	48	08.50	-1.2
			i	52	08.80	
HFS	100.60	332	ePdiff	48	09.40	-1.9
	1.1s	58.00nm			6.0mb	
Z	18s	0.58um			5.1Msz	
			LR	32	04.00	
OHR	100.73	312	ePdiff	48	10.30	-2.2
DAG	100.89	352	iPdiff	48	11.90	-0.4
	0.8s	12.69nm			5.5mb	
SRO	101.24	319	ePdiff	48	15.00	0.5
			e	48	33.70	
NRA0	101.41	333	Pdiff	48	13.80	-1.1
NB2	101.45	333	Pdiff	48	13.00	-2.2
	0.9s	24.00nm			5.8mb	
KSP	101.82	322	ePdiff	48	15.30	-1.7
	1.1s	40.00nm			5.9mb	
			i	48	17.50	
			e	48	32.70	
			e	50	00.00	
ZST	101.95	319	ePdiff	48	17.60	0.0
PRU	103.13	322	Pdiff	48	23.40	0.6
	1.0s	14.50nm			5.7mb	
BRG	103.25	323	iPdiff	48	23.80	0.4
	1.1s	41.00nm			6.1mb	
			e	52	42.30	
CLL	103.69	323	ePdiff	48	25.00	-0.3
	1.3s	22.00nm			5.8mb	
			e	48	31.00	
YKA	103.82	24	ePdiff	48	27.20	1.6
KHC	103.97	321	Pdiffc	48	27.40	0.7
			e	51	21.40	
LJU	104.17	318	ePdiff	48	27.00	-0.6
VOY	104.60	318	ePdiff	48	28.80	-0.8
RBL	104.71	318	Pdiff	48	30.00	-0.1
MOX	104.73	323	ePdiff	48	30.50	0.5
	1.3s	24.00nm			5.9mb	
			e(PP)	52	44.00	
			eSP	02	15.00	
			eSS	08	20.00	
			e(SSS)	13	00.00	
			eLR	25	00.00	
CTI	106.10	318	Pdiff	48	36.80	0.5
BNG	106.31	275	iPdiff	48	37.50	-0.4
	0.9s	14.00nm			6.0mb	
			id	52	49.40	
EOM	108.63	33	ePKPd	52	53.80	1.0
CVF	109.05	315	ePdiff	49	07.70	18.3X
	1.0s	13.60nm				
LPG	109.52	319	ePdiff	48	52.30	0.5
	1.0s	8.00nm				
LBF	110.75	321	iPdiff	49	03.50	6.6X
	0.8s	4.00nm				
KVN	110.85	48	PKP	52	59.30	1.6
SES	111.18	35	ePdiff	49	00.00	1.3
EUR	112.28	47	iPKP	53	02.00	1.6
	0.2s	5.86nm				
LRM	112.33	40	ePKP	53	01.40	1.1
BGMT	112.84	40	ePKP	53	02.70	1.4
FFC	113.55	28	iPKPd	53	02.80	0.7
	1.0s	18.00nm				
BW06	115.50	42	PKP	53	06.60	0.1
FRB	115.83	7	ePKP	53	06.00	-0.1
RSSD	118.41	38	PKP	53	12.30	0.3
GOL	119.70	43	PKP	53	15.00	0.3
GLD	119.78	43	PKP	53	15.70	1.0
RSON	119.88	27	PKP	53	14.50	0.2
TAF	120.04	311	iPKPd	53	18.00	2.8X
ALQ	121.01	48	ePKP	53	17.50	0.3
IFR	122.62	311	iPKP	53	22.00	1.7
SCH	124.73	8	ePKP	53	24.00	0.5
LEGH	124.90	277	ePKP	53	26.00	1.0
KOGH	124.93	277	ePKP	53	26.50	1.4
KUK	125.05	277	ePKP	53	25.50	0.2
KIC	129.37	278	PKP	53	33.90	0.3
	1.1s	36.50nm				
TIC	129.62	278	PKP	53	34.30	0.2
	1.1s	29.50nm				
LIC	129.66	278	PKP	53	34.50	0.4
FVM	130.32	37	PKP	53	35.00	0.3
DHN	132.78	23	PKP	53	39.90	0.6
TBR	135.73	21	PKP	53	45.80	0.9
TKL	135.78	34	PKP	53	45.50	0.3
PRIN	136.23	22	PKP	53	46.40	0.6
JSC	138.19	33	PKP	53	50.70	1.0
CYA	149.73	161	e(PKP)	54	11.20	1.7
SLA	153.25	159	ePKPd	54	17.30	2.3
			e	54	24.90	
UPA	154.17	70	e(PKP)	54	24.90	8.7X
BMA	154.86	204	ePKP	54	19.40	2.4X
			e	54	28.40	
			e	54	43.10	
ITA	155.37	204	ePKP	54	20.30	2.3X
			e	54	29.30	
			e	54	45.40	
VAO	155.61	198	ePKP	54	28.90	10.8X
			e	54	46.10	
ARE	156.87	136	ePKP	54	33.00	12.8X
ZOBO	159.20	142	PKP	54	24.90	1.7
	1.1s	52.20nm				
Z	22s	0.50um			5.3Msz	
			i	55	02.90	
			LR	52	45.00	
ITR	161.14	241	ePKP	54	25.80	1.2
			e	54	41.40	
			e	55	09.50	
BAO	162.76	204	ePKP	54	27.50	1.2
SOB1	163.03	236	ePKP	54	27.90	1.4
			e	55	17.50	
ATB	175.49	220	PKPc	54	34.60	0.7
	S.D. = 1.1	on 227 of 257 obs.				

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* MAR 08, 1989 02h 57m 05.05± 0.69s
41.041 N ± 8.0km 141.870 E ±11.5km
DEPTH = 101.0 ± 12.3 km
HOKKAIDO, JAPAN REGION (224)
MG 3.7 (JMA). Felt (I JMA) at Hachinohe, Honshu.

AOMJ	1.23	248	eP	57	28.60	0.1
			S	57	45.30	

08d 02h

MRRJ 1.51 337 P 57 31.10 -0.7
eS 57 50.00
HOOJ 1.71 38 P 57 35.30 0.9
eS 57 58.70
OFUJ 1.96 185 iP+ 57 37.30 -0.4
S 58 01.30
KUSJ 2.95 45 P 57 50.00 -0.9
S 58 21.60
ASAJ 3.13 10 P 57 53.80 0.5
MAT 5.32 214 eP 58 24.00 0.4
GUN 47.24 272 P 05 30.00 -0.1
S.D. = 0.8 on 8 of 8 obs.

MAR 08, 1989 03h 57m 21.57± 0.79s
19.129 S ± 5.6km 168.681 E ± 4.0km
DEPTH = 65.1 ± 6.7 km
5.2mb (15 obs.)
VANUATU ISLANDS (186)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 15S, 33C
Centroid Location:
Origin Time 03:57:28.0 0.5
Lat 19.21S 0.06 Lon 168.04E 0.04
Dep 50.0 BDY Half-duration 2.2
Moment Tensor; Scale 10**17 Nm
Mrr= 1.88 0.08 Mtt= 0.52 0.19
Mff=-2.40 0.16 Mrt= 0.19 0.13
Mrf=-0.18 0.15 Mtf= 0.39 0.09
Principal Axes:
T Val= 1.91 Plg=82 Azm= 13
N 0.55 7 172
P -2.46 3 262
Best Double Couple:Mo=2.2*10**17
NP1:Strike= 0 Dip=43 Slip= 101
NP2: 166 48 80

PVC 1.43 346 iP 57 44.50 -1.3
iS 58 05.00
DZM 3.60 215 iPc 58 12.10 -4.1X
iS 58 54.20
SGE 8.91 82 eP 59 32.00 1.8
SVA 9.32 85 eP 59 33.60 -2.2
VUN 9.34 85 eP 59 36.90 0.8
HNR 12.82 318 eP 00 34.00 11.2X
VSG 13.11 317 eP 00 27.00 0.4
BRS 16.76 238 Pd 01 13.50 -0.1
i 01 17.30
i 01 26.50
i 01 32.30
COO 19.00 230 eP 01 42.00 1.0
KRP 19.66 164 P 01 49.00 1.1
RMQ 19.76 245 eP 01 50.00 0.9
CTA 21.15 264 iPd+ 02 22.50 19.2X
0.8s 88.81nm
Z 22s 2.41um 4.5Msz
i 02 47.00
i(sP) 04 32.00
e(S) 06 22.50
i 11 28.50
CTA 21.15 264 iPc 02 04.00 0.7
1.0s 22.50nm 4.5mb
i 02 09.20
e 02 16.00
i 02 27.50
e(sP) 04 14.00
ePcP 05 24.00
e(S) 06 03.00
i 11 10.00
SNZO 22.70 168 e(P) 02 12.00 -6.5X
PMG 22.97 292 iPd 02 23.50 2.2
CNB 23.49 223 iPd 02 28.00 1.6
e 02 41.00
CAN 23.73 223 eP 02 29.80 1.1
CMS 23.99 235 iPd 02 31.90 0.7
TOO 27.34 223 eP 03 03.00 0.6
STK 27.46 237 eP 03 03.00 -0.6
e 03 15.00
TAU 29.79 213 eP 03 35.00 10.7X
WB5 32.32 263 eP 03 45.00 -1.8
e 04 00.00
WRA 32.34 263 Pd 03 44.70 -2.3
1.0s 8.50nm 4.5mb
ASPA 32.65 256 iPc 03 48.00 -1.6
0.9s 45.00nm 5.3mb
ipP 04 00.00 45kmX
i 10 59.80

MTN 36.58 274 iPd 04 23.00 -0.3
0.5s 62.00nm 5.8mb
KNA 38.17 269 eP 04 35.50 -1.2
FORR 38.39 244 eP 04 37.50 -0.9
PMO 41.64 91 eP 05 20.00 14.7X
1.1s 35.00nm
RUV 42.08 92 eP 05 22.00 13.1X
1.1s 30.00nm
MBL 45.76 259 eP 05 38.00 -0.6
KLB 47.28 244 eP 05 49.00 -1.5
NWAO 47.79 243 eP 05 53.00 -1.5
Z 20s 1.50um 5.0Msz
N 20s 0.70um
E 20s 1.60um
NANU 49.58 256 iPd 06 08.20 -0.1
0.5s 9.00nm 5.1mb
MAT 62.41 333 eP 07 39.00 -1.0
1.6s 143.33nm 5.8mb
YAMJ 63.03 335 eP 07 44.70 0.7
OZH 65.54 310 eP 08 01.30 0.7
HOOJ 65.54 340 eP 07 54.70 -5.5X
KUSJ 65.73 341 eP 08 01.60 0.2
MRRJ 66.33 338 eP 07 56.70 -8.6X
ASAJ 67.30 340 eP 08 11.80 0.3
KGM 67.51 281 eP 08 14.00 0.6
SSE 67.63 317 P 08 13.00 -0.8
1.4s 52.00nm 5.3mb
i 08 26.70
e 18 32.00
NJ2 69.76 316 Pd 08 27.00 0.1
IPM 70.58 282 ePd 08 31.50 -0.8
0.7s 21.60nm 5.2mb
SPA 70.99 180 e(P) 08 33.30 -0.8
1.1s 27.98nm 5.1mb
e 08 57.10
WHN 71.89 312 P 08 39.50 -0.3
TIA 73.51 319 Pd 08 49.10 -0.1
SNY 73.60 327 eP 08 45.00 -4.6X
CN2 74.09 329 Pc 08 52.20 -0.2
GYA 75.33 305 P 09 01.00 0.9
BJI 76.52 321 eP 09 06.50 0.2
eS 18 54.00
KHT 76.77 291 eP 09 10.50 2.3
TIY 77.40 317 Pd 09 12.50 1.1
XAN 77.65 313 P 09 13.30 0.5
KMI 77.77 302 Pc 09 15.00 1.1
sP 09 29.00
CD2 79.75 308 eP 09 25.00 0.6
HHC 79.79 320 eP 09 25.00 0.6
BTO 80.60 319 eP 09 30.30 1.6
LZH 82.26 312 eP 09 38.50 0.9
1.5s 85.00nm 5.5mb
pP 09 52.00 46kmX
PRS 86.01 49 eP 09 56.30 0.0
TTA 86.37 15 P 09 56.60 -1.0
BCH 86.43 51 P 09 58.70 0.2
PRI 86.43 50 eP 10 00.20 1.7
GTA 86.67 314 P 10 00.00 0.4
WDC 87.16 45 eP 10 03.10 1.4
PMR 87.19 19 P 09 59.70 -1.7
ORV 87.39 47 eP 10 03.10 0.2
PAS 87.40 53 eP 10 05.00 1.9
CMB 87.48 48 eP 10 03.00 -0.4
FRI 87.50 50 eP 10 03.00 -0.4
MWC 87.52 53 eP 10 03.00 -0.9
ISA 87.82 51 eP 10 05.00 -0.1
SBB 87.89 52 eP 10 04.00 -1.5
BAR 87.93 54 eP 10 06.00 0.3
RVR 87.94 53 eP 10 06.00 0.4
PLM 88.06 54 eP 10 06.00 -0.5
CLC 88.53 51 eP 10 09.00 0.5
TPC 88.99 53 eP 10 11.00 0.3
GLA 89.50 55 eP 10 14.00 0.8
KVN 89.53 48 P 10 13.20 -0.2
IMA 89.54 14 P 10 09.20 -3.6X
TNP 89.75 49 P 10 14.20 -0.2
SHW 89.99 40 P 10 15.50 0.2
FBA 90.13 17 P 10 14.00 -1.3
0.7s 5.09nm 4.9mb
GMW 90.30 39 P 10 16.40 -0.1
RMW 90.84 39 P 10 18.80 -0.3
EUR 91.22 48 iP 10 20.50 -0.7
0.2s 13.68nm 6.0mb
PNT 92.98 38 eP 10 29.00 0.2
0.8s 11.00nm 5.3mb
KKN 93.14 298 P 10 31.40 1.1
DMN 93.23 298 P 10 32.00 1.3

GKN 93.75 298 P 10 33.20 0.2
GBA 95.51 282 Pc 10 38.70 -2.4
0.7s 2.00nm 4.7mb
INK 96.61 18 eP 10 44.00 -0.9
ALQ 96.67 55 eP 10 45.00 -1.3
0.9s 2.73nm 4.8mb
WMQ 96.75 314 P 10 47.00 0.8
YKA 100.81 27 ePdiff11 04.40 0.3
CNCB 113.83 119 ePKP 15 53.00 -3.1X
LPB 113.87 119 (PKP) 15 47.00 -9.0X
LR 51 20.00
ZOBO 113.98 118 (PKP) 15 49.00 -7.4X
KEV 124.30 345 ePKP 16 13.00 -0.8
0.6s 13.00nm
BUL 124.73 227 ePKP 16 15.20 -1.1
ipP 16 29.70
BMA 127.49 141 e(PKP)16 23.00 1.5
KJF 127.90 340 ePKP 16 20.00 -0.9
0.7s 21.40nm
SUF 129.41 339 iPKP 16 22.60 -1.2
0.7s 7.10nm
BAQ 130.04 131 ePKP 16 24.50 -2.1
NUR 131.43 337 iPKP 16 27.30 -0.4
Z 28s 0.90um 5.3MszX
LR 08 40.00
NB2 135.20 345 PKP 16 34.40 -0.6
0.8s 4.00nm
HFS 135.30 342 (PKP) 16 26.20 -8.9X
0.4s 1.00nm
Z 17s 0.18um 4.9MszX
LR 11 01.00
SOB1 139.47 131 ePKP 16 32.70 -11.6X
e 16 45.10
MLR 139.54 319 ePKP 16 36.00 -7.7X
SPC 140.75 327 ePKP 16 41.80 -4.0X
ITR 141.50 134 ePKP 16 39.10 -8.9X
KSP 141.54 332 ePKP 16 42.00 -4.9X
BZS 142.09 322 ePKPd 16 45.50 -2.5X
BRG 142.54 334 ePKP 16 45.00 -3.6X
1.3s 23.00nm
e 16 52.50
CLL 142.59 335 ePKP 16 44.00 -4.7X
1.5s 23.00nm
SRO 142.61 327 ePKP 16 36.80 -12.0X
e 16 45.90
PRU 142.93 332 ePKP 16 47.00 -2.3X
e 17 00.00
ZST 142.98 328 ePKP 16 49.20 -0.3
EKA 143.33 352 PKP 16 49.00 -0.8
1.1s 12.40nm
VAY 143.65 315 iPKP 16 47.00 -3.8X
i 17 02.30
MOX 143.66 335 ePKP 16 47.00 -3.6X
1.6s 62.00nm
e 17 20.00
KHC 143.99 332 PKPd 16 49.30 -1.9
i 17 04.20
SKO 144.09 317 iPKPc 16 49.20 -2.4X
1.3s 125.00nm
i 17 04.50
WTS 144.25 341 iPKP 16 50.10 -1.4
0.8s 20.00nm
i 17 05.10
BCI 144.77 318 iPKP 16 51.60 -1.1
PHP 144.88 317 iPKPd 16 51.00 -1.9
OHR 144.93 316 iPKPc 16 51.80 -1.3
1.4s 0.23nm
i 17 06.40
PTJ 145.08 326 ePKP 16 52.60 -0.7
ZAG 145.12 326 iPKP 16 53.40 0.2
DMU 145.13 355 ePKP 16 51.40 -1.5
0.9s 77.00nm
SDA 145.31 318 ePKP 16 53.80 0.2
TIR 145.42 317 ePKP 16 53.50 -0.3
LSK 145.52 314 ePKP 16 52.80 -1.4
KBA 145.59 330 iPKPc 16 52.90 -1.3
1.1s 61.40nm
i 16 54.20
i 17 04.00
i 17 10.20
ENN 145.59 341 ePKP 16 53.50 -0.3
0.9s 99.00nm
i 17 07.10
MEM 145.70 340 iPKPc 16 54.00 0.0
e 17 08.40
DCN 145.71 356 ePKP 16 53.30 -0.6
0.9s 240.00nm

DLE	145.71	355	ePKP	16 53.20	-0.7
	1.1s		99.00nm		
VBY	145.71	326	iPKP	16 54.80	0.6
			e	17 09.10	
FUR	145.72	333	ePKP	16 54.40	0.2
	1.6s		362.00nm		
LJU	145.73	327	ePKPc	16 54.00	-0.3
			e	17 08.50	
TPE	145.85	315	ePKP	16 52.50	-2.1
RBL	145.93	329	PKPd	16 53.80	-0.9
YRH	145.96	353	ePKP	16 54.40	0.0
CEY	145.99	327	ePKP	16 54.80	0.1
UCC	146.04	342	PKPc	16 56.40	1.8
VOY	146.06	328	ePKPc	16 54.30	-0.6
FVI	146.21	330	PKPd	16 55.20	0.2
ETA	146.26	354	ePKP	16 55.30	0.4
	0.7s		51.00nm		
SNF	146.32	342	PKP	16 55.70	0.7
			e	17 11.10	
TRI	146.35	328	ePKPc	16 55.00	-0.2
WLF	146.47	339	iPKPc	16 56.80	1.5
GWF	146.54	337	PKP	16 56.19	0.7
DOU	146.59	341	PKPc	16 56.70	1.2
			e	17 11.50	
ECB	146.64	355	ePKP	16 56.90	1.4
	1.0s		89.00nm		
ECP	146.79	354	ePKP	16 56.60	0.9
	0.9s		125.00nm		
STR	146.81	337	PKP	16 56.24	0.4
CDF	147.13	337	PKP	16 57.36	0.8
CTI	147.14	330	PKPd	16 57.10	0.4
BNG	147.41	247	iPKPd	16 56.50	-1.4
	0.7s		42.00nm		
			id	16 59.70	
			ic	17 11.50	
			ic	18 24.10	
MOF	147.65	337	PKP	16 56.35	-1.1
VITF	147.77	338	PKP	16 57.60	0.2
BSF	147.80	337	PKP	16 58.07	0.4
HAU	147.81	338	ePKP	16 59.80	2.2
BBS	147.83	336	PKP	16 56.68	-1.0
MDI	148.24	331	PKP	16 57.90	-0.3
RSM	148.25	326	PKP	16 59.70	1.4
SFI	148.57	327	PKP	17 00.20	1.4
VAI	148.59	333	PKP	16 59.80	1.0
TDS	148.60	317	PKP	16 58.70	-0.4
PGD	148.67	327	PKP	17 00.30	1.0
CRE	148.72	326	PKPd	16 59.50	0.2
BSS	148.93	320	PKP	17 01.10	1.6
SDI	148.96	322	PKP	16 56.90	-2.7X
FIR	148.97	327	ePKP	17 02.00	2.5X
BDI	149.10	328	PKPd	17 02.40	2.6X
ORX	149.11	333	PKP	17 02.58	2.7X
ORO	149.12	333	PKP	17 01.60	1.8
BOB	149.13	331	PKP	17 03.30	3.5X
FLN	149.17	346	ePKP	17 02.70	3.1X
LDF	149.24	345	ePKP	17 02.80	3.0X
LOR	149.31	340	ePKP	17 03.50	3.5X
PII	149.39	328	PKPd	17 01.20	1.1
LBF	149.52	339	ePKP	17 04.20	3.9X
RDP	149.56	323	PKP	17 03.00	2.5X
LSD	149.60	334	PKP	17 05.15	4.4X
GRR	149.61	346	ePKP	17 04.10	3.8X
SSF	149.61	340	ePKP	17 04.50	4.1X
LPG	149.74	334	ePKP	17 05.50	4.5X
RSP	149.81	333	PKP	17 04.43	3.5X
SMF	149.86	339	ePKP	17 05.00	4.2X
AVF	149.90	340	ePKP	17 04.90	4.1X
ATN	149.97	315	PKP	17 03.90	2.7X
LPF	149.98	346	ePKP	17 05.10	4.2X
BNI	150.13	334	PKPd	17 06.90	5.5X
FIN	150.13	331	PKP	17 04.94	3.7X
RRL	150.19	334	PKP	17 06.17	4.5X
ROB	150.22	332	PKP	17 05.56	4.1X
BGF	150.27	340	ePKP	17 06.00	4.6X
PZZ	150.39	333	PKP	17 06.79	5.0X
STV	150.50	332	PKP	17 06.17	4.3X
IMI	150.51	331	PKP	17 06.28	4.4X
AUTN	150.65	332	PKP	17 03.56	1.2
MAF	150.65	340	ePKP	17 06.80	4.8X
TCF	150.71	341	ePKP	17 06.80	4.7X
TOUF	150.71	332	PKP	17 05.00	2.6X
SBF	150.75	332	ePKP	17 07.00	4.7X
LSF	150.95	341	ePKP	17 07.20	4.8X
CVF	151.05	328	PKP	16 58.50	-4.2X
CALN	151.08	332	PKP	17 03.00	0.1
MFF	151.10	344	ePKP	17 07.80	5.2X
USI	151.16	318	PKP	17 06.80	3.9X
FRF	151.34	332	ePKP	17 08.30	5.2X
LRG	151.55	332	ePKP	17 09.10	5.7X
LMR	151.58	332	ePKP	17 08.90	5.5X
RJF	151.80	341	ePKP	17 09.50	5.8X
CAF	151.97	340	ePKP	17 10.00	6.0X
LFF	152.37	341	ePKP	17 10.70	6.2X
LPO	152.47	340	ePKP	17 11.10	6.4X

S.D. = 1.1 on 150 of 220 obs.

% MAR 08, 1989 04h 27m 48.92± 1.06s
35.033 N ± 9.9km 4.315 W ±11.4km
DEPTH = 10.0km (geophysicist)
STRAIT OF GIBRALTAR (385)

EMEL	1.14	76	eP	28 10.80	0.5
TAF	1.58	97	ePn	28 22.00	4.9X
			iSn	28 49.00	
IFR	1.66	204	iPg	28 18.00	-0.3
			iSg	28 39.00	
MAL	1.69	357	ePn	28 17.00	-1.6
			iSg	28 38.00	
EJIF	1.70	327	eP	28 20.00	1.3
EPRU	2.07	339	eP	28 24.30	0.2

S.D. = 1.5 on 5 of 6 obs.

• MAR 08, 1989 04h 50m 34.29± 1.69s
31.214 N ±16.0km 131.952 E ±14.6km
DEPTH = 33.0km (normal)
KYUSHU, JAPAN (235)

KAGJ	0.91	269	iP+	50 50.60	-0.1
			S	51 03.20	
KUMJ	1.63	324	P	51 01.30	0.3
			eS	51 22.60	
SHNJ	2.99	346	eP	51 20.30	-0.1
			eS	51 56.70	
YONJ	4.16	17	P	51 36.80	-0.3
BJI	15.54	309	eP	54 16.00	3.5X
GUN	39.99	277	P	58 08.00	-0.1
MBC	64.22	15	eP	01 08.00	0.3

S.D. = 0.3 on 6 of 7 obs.

• MAR 08, 1989 05h 40m 48.70± 1.15s
38.764 N ±10.7km 21.305 E ± 9.9km
DEPTH = 30.0 ± 7.9 km
GREECE (364)
ML 3.5 (ATH).

VLS	0.81	224	ePn	41 03.50	-0.5
			eSn	41 16.50	
KZN	1.58	13	ePn	41 13.00	-2.1
			eSn	41 34.10	
NEO	1.59	69	ePn	41 17.00	1.9
TPE	1.83	327	ePn	41 19.00	0.4
ATH	2.05	112	ePn	41 28.10	6.3X
PLG	2.31	45	ePn	41 24.00	-1.4
OHR	2.38	351	ePn	41 26.20	-0.3
VAY	2.73	20	iPn	41 31.40	0.0
TIR	2.81	337	ePn	41 36.00	3.6X
PHP	2.99	348	ePn	41 39.50	4.4X
LACI	3.12	337	ePn	41 40.80	3.9X
SKO	3.21	2	iPn	41 39.50	1.3
			i	41 43.00	
BCI	3.72	346	ePn	41 46.50	1.1
RDO	4.03	52	ePn	41 50.00	0.1
MLR	7.55	26	eP	42 39.00	-0.6

S.D. = 1.4 on 11 of 15 obs.

MAR 08, 1989 05h 48m 15.74± 0.64s
4.581 N ± 3.3km 125.874 E ± 4.9km
DEPTH = 101.3 ± 6.1 km
5.4mb (31 obs.)
TALAUD ISLANDS (263)
CENTROID, MOMENT TENSOR (HRV)
Doto Used: GDSN
L.P.B.: 14S, 28C
Centroid Locotion:
Origin Time 05:48:18.8 0.4
Lot 4.77N 0.03 Lon 125.79E 0.05
Dep 98.8 2.5 Holf-duration 2.5
Moment Tensor; Scole 10**17 Nm
Mrr= 2.57 0.12 Mtt= 1.24 0.16
Mff=-3.81 0.24 Mrt=-1.62 0.09
Mrf=-0.66 0.11 Mtf= 1.69 0.14
Principol Axes:
T Vol= 3.95 Plg=52 Azm=162
N 0.37 38 345
P -4.33 1 254
Best Double Couple:Mo=4.1*10**17
NP1:Strike=311 Dip=55 Slip= 41
NP2: 195 58 137

DAV	2.51	353	eP+	48 56.00	0.4
TSM	7.79	268	ePd	50 14.70	6.6X
	1.5s		4060.00nm		6.8mb X
			e	51 35.00	
PCI	8.13	228	ePc	50 17.60	4.8X
			eS	51 34.70	
AAI	8.53	164	ePc	50 17.50	-0.8
			eS	51 42.00	
KKM	9.73	279	ePc	50 39.50	4.9X
	1.5s		1217.50nm		6.6mb X
			e	50 54.00	
QCP	11.05	335	eP	50 49.00	-3.2X
BAG	12.85	337	eP+	51 20.00	3.9X
	1.9s		442.11nm		5.8mb
			eS	53 40.00	
CVP	13.63	343	ePc	51 31.00	4.9X
			eS	52 14.00	
PIP	14.59	340	iPd	51 43.00	4.5X
JAY	16.41	115	ePd	52 03.50	2.1
			e	56 47.00	
MTN	18.08	163	iPd	52 19.60	-2.4X
	0.3s		98.00nm		5.5mb
KNA	20.40	172	iPc	52 46.00	-0.8
	0.6s		185.00nm		5.6mb
MNDI	20.71	121	eP	52 51.00	0.7
GUMO	20.76	63	eP	52 48.80	-1.7
PJG	20.76	63	eP	52 49.50	-1.0
ANP	20.91	349	e(P)	52 44.00	-8.0X
QIZ	21.24	314	eP	53 02.20	6.9X
N	17s		4.70um		
E	15s		2.70um		
			S	56 42.00	
			SS	57 15.00	
QZH	21.42	342	eP	52 58.70	1.7
Z	22s		2.60um		4.6Msz
N	12s		0.90um		
			S	56 48.00	
			sS	57 14.00	
GZH	22.02	328	P	53 05.50	2.5
Z	18s		1.90um		4.6Msz
			eS	56 58.00	
			sS	57 26.00	
KGM	22.66	264	ePd	53 13.80	4.5X
IPM	24.77	271	ePc	53 31.20	1.5
	0.9s		105.10nm		5.3mb
SNG	25.25	277	eP	53 36.20	2.0
PMG	25.36	123	iPc+	53 35.50	0.4
	1.5s		772.22nm		5.9mb
WB5	25.70	161	iPc	53 47.00	8.7X
			eS	58 08.00	
WRA	25.75	161	Pc	53 35.80	-2.9
	0.4s		27.20nm		5.1mb
MBL	26.26	193	iPc	53 43.00	-0.3
SSE	26.74	351	eP	53 48.00	0.4
SSE	26.74	351	eP	53 54.00	6.4X
	1.5s		32.00nm		4.6mb
Z	18s		0.50um		4.1Msz
E	15s		1.20um		
			pP	54 09.00	63kmX
			sP	54 16.00	
			eS	58 08.00	
			sS	58 32.00	
			eSS	59 08.00	
LOE	26.86	300	eP	53 51.00	2.1
KAGJ	26.88	10	eP	53 48.90	-0.1
WHN	28.02	338	eP	53 58.00	-1.2
Z	36s		3.99um		4.7MszX
E	10s		1.02um		
			eS	58 48.00	
KUMJ	28.19	9	eP	54 00.00	-0.8
QIS	28.39	152	iPc	54 01.90	-0.8
GYA	28.48	322	P	54 09.80	6.3X
NANU	28.81	200	iPc	54 06.10	-0.3
	0.3s		16.00nm		5.1mb
ASPA	29.15	165	iPc	54 08.80	-0.7
	1.3s		80.00nm		5.2mb
BDT	29.18	298	eP	54 08.40	-1.4
SHNJ	29.80	9	eP	54 15.00	-0.1
CHG	29.86	300	iPd	54 18.00	2.1
	1.0s		49.50nm		5.2mb
			eS	59 50.00	

08d 05h

CHTO		29.86	300	eP	54	17.00	1.2
		1.4s		95.67nm			5.3mb
				pP	54	38.10	93kmX
				PcP	57	16.80	
				ScP	00	49.10	
KMI		30.18	315	eP	54	20.00	1.1
	Z	28s		1.60um			4.5MszX
WARB		30.59	179	iPc	54	10.90	-11.3X
CTA		31.66	141	iPc-	54	31.50	-0.1
		1.9s		447.37nm			5.9mb
				ipP	54	45.00	53kmX
				e	55	21.00	
				ePP	55	31.00	
				iPcP	57	22.00	
				e(S)	59	44.00	
				eScP	01	02.00	
MEKA		31.81	193	iPd	54	32.20	-0.7
TSRJ		32.19	16	P	54	36.10	0.1
TIA		32.49	347	eP	54	40.80	2.1
	E	13s		0.70um			
XAN		33.28	334	P	54	43.80	-1.8
CD2		33.46	324	eP	54	46.60	-0.6
	N	10s		0.94um			
				eS	00	07.20	
CHJJ		33.57	19	P	54	46.30	-1.7
MTMJ		33.68	17	P	54	48.20	-1.0
MAT		33.77	18	iPc	54	48.30	-1.5
		0.8s		57.46nm			5.5mb
	Z	20s		1.06um			4.6Msz
				eS	59	58.00	
MRWA		34.92	195	iPc	54	59.10	-0.6
TIY		35.19	341	Pc	55	03.00	1.0
	E	13s		0.70um			
				S	00	31.00	
				sS	00	56.00	
FORR		35.29	177	eP	55	02.00	-0.8
		0.4s		216.00nm			6.4mb
COOL		35.55	187	eP	55	04.10	-1.0
YAMJ		35.84	19	eP	55	07.50	0.1
BAL		36.07	193	eP	55	08.80	-0.6
		0.4s		25.00nm			5.5mb
BJI		36.37	347	eP	55	09.50	-2.3
				esP	55	34.50	
				eS	00	44.00	
				eScP	01	11.00	
				eScS	05	18.50	
KLB		36.79	192	iPc	55	15.20	-0.2
		0.3s		20.00nm			5.5mb
SNY		37.14	357	Pd	55	18.00	-0.2
	E	25s		3.10um			
				S	00	54.00	
OFUJ		37.21	21	eP	55	19.00	0.1
LZH		37.34	330	P	55	19.50	-0.7
		1.5s		88.00nm			5.5mb
	Z	42s		2.40um			4.7MszX
	E	11s		2.10um			
				pP	55	41.00	90kmX
				eS	00	56.00	
MUN		37.50	194	iPc	55	21.30	-0.1
		0.7s		65.00nm			5.7mb
RMQ		38.01	146	iPc	55	24.80	-1.0
AOMJ		38.12	18	eP	55	30.40	3.9X
NWAO		38.19	192	iPc	55	27.40	0.2
		0.4s		41.00nm			5.7mb
BTO		38.59	341	eP	55	31.50	0.9
	N	13s		0.40um			
	E	13s		0.90um			
SHL		38.69	306	iP	55	30.50	-1.2
				eS	01	19.50	
CN2		39.06	360	P	55	33.40	-0.9
STK		39.23	159	iPc	55	36.40	0.6
				e	57	43.00	
RKG		39.34	192	iPc	55	42.00	5.3X
		0.4s		28.00nm			5.4mb
MDJ		40.01	4	Pc	55	43.00	0.9
	Z	16s		0.90um			4.7MszX
	E	10s		0.50um			
				esP	56	03.00	
				S	01	40.00	
CMS		40.60	153	eP	55	47.00	-0.1
BRS		41.05	142	Pc	55	49.50	-1.4
				i	55	57.50	
				i	57	18.30	
ADE		41.15	164	iPc	55	53.00	1.4
		1.0s		156.00nm			5.8mb
LSA		41.24	311	P	55	54.50	1.5
				S	01	56.50	

GTA		41.93	329	eP	55	57.00	-1.1
	Z	16s		1.20um			4.9MszX
	E	12s		0.80um			
				ScP	01	31.80	
COO		42.91	146	iPc	56	06.90	0.8
GUN		44.54	306	P	56	19.00	-0.7
KKN		44.98	305	P	56	21.70	-1.3
DMN		45.05	305	P	56	24.50	0.9
CAN		45.25	153	iPc	56	25.90	1.1
				ePcP	58	12.80	
CNB		45.41	153	iPc	56	27.70	1.6
		1.1s		151.00nm			5.7mb
GKN		45.58	305	P	56	26.40	-1.3
TOO		45.74	158	iPc	56	30.30	1.7
				e	58	17.00	
DZM		47.72	125	iPc	56	44.80	0.3
HYB		48.03	289	eP	56	47.00	0.1
GBA		48.58	284	Pd	56	49.20	-1.9
		1.5s		104.60nm			5.5mb
TAU		51.11	160	iPc	57	10.90	0.9
WMQ		51.54	325	eP	57	10.40	-3.1X
POO		52.62	290	iP	57	20.50	-1.4
				iS	05	20.50	
KRP		62.50	137	P	58	31.00	0.2
ADK		66.75	35	eP	58	58.10	0.0
		1.0s		39.20nm			5.3mb
MAIO		68.32	307	iPc	59	07.50	-0.9
				eS	07	19.00	
AVY		80.31	250	eP	00	18.50	0.7
BHD		80.39	303	eP	00	16.50	-1.2
SVW		80.45	29	ePc	00	18.70	1.1
TTA		80.53	27	ePc	00	18.50	0.5
MSL		81.45	306	ePd	00	21.50	-1.7
				e	00	48.00	
BRW		81.64	19	ePc	00	24.70	1.2
IMA		81.96	24	ePc	00	26.50	1.1
		1.1s		21.60nm			4.9mb
PMR		83.61	29	eP	00	33.80	0.0
FBA		84.32	25	ePc	00	36.80	-0.5
TOA		85.02	28	eP	00	41.60	0.6
PMO		87.54	105	iP	00	57.00	3.0X
		1.2s		35.00nm			5.3mb
TPT		87.80	105	iP	00	58.10	2.8X
		1.2s		35.00nm			5.3mb
RUV		88.05	105	iP	00	59.20	2.7X
		1.2s		30.00nm			5.2mb
KJF		89.46	334	eP	01	01.00	-1.3
INK		89.69	21	eP	01	03.00	-0.3
				pP	01	43.00	158kmX
SUF		90.41	333	eP	01	05.10	-1.6
		0.3s		1.20nm			4.5mb
MBC		91.31	13	eP	01	06.00	-4.7X
NUR		91.55	331	eP	01	15.00	3.0X
SPA		94.55	180	e(P)	01	27.10	1.2
		1.1s		29.17nm			5.6mb
KRA		96.65	321	eP	01	30.30	-5.3X
				e	01	38.30	
NB2		97.65	333	P	01	32.20	-7.8X
		0.7s		7.70nm			5.3mb
YKA		99.08	24	eP	01	47.40	1.0
YKC		99.14	24	eP	01	47.00	0.4
BRG		100.05	323	ePdiff	01	51.00	0.0
CLL		100.45	324	e(Pdif	01	53.00	0.3
EUR		108.29	46	i(PKP)	06	27.00	-7.4X
		0.2s		2.51nm			
BW06		111.27	41	PKP	06	39.50	-0.4
GOL		115.53	42	PKP	06	48.50	0.3
ALQ		117.08	47	ePKP	06	51.30	0.1
KOGH		125.17	281	ePKP	07	07.50	0.4
FVM		125.89	35	PKP	07	07.50	-0.3
KIC		129.51	282	PKP	07	14.92	-0.4
TIC		129.73	282	PKP	07	15.36	-0.4
LIC		129.82	282	PKP	07	15.52	-0.4
UPA		151.31	62	e(PKP)	07	54.20	0.6
CNCB		161.77	133	PKPc	08	10.00	2.7X
LPB		161.86	132	PKP	08	09.00	1.8
ZOBO		162.01	131	PKPc	08	09.40	1.9
		1.4s		18.42nm			
	Z	23s		0.10um			
				LR	04	50.00	
ITR		163.86	254	ePKP	08	08.20	-0.6
				e	08	35.50	
SOB1		166.09	250	ePKP	08	11.20	0.5
BAO		167.47	208	ePKP	08	12.00	0.2
ATB		177.71	304	PKPc	08	15.70	0.0
		S.D. = 1.1		on 109 of 136 obs.			

MAR 08, 1989 05h 56m 44.30± 0.36s
40.178 N ± 3.7km 19.557 E ± 2.6km
DEPTH = 17.5 ± 3.3 km
4.3mb (5 obs.)

ALBANIA (391)

ML 4.4 (ATH). Felt (IV) ot Polose, Dhermi ond Himare; (III) ot Vlore.

VLO		0.29	351	iPgd	56	50.60	-0.2
TPE		0.37	71	iPg	56	50.00	-2.0
SRN		0.45	131	iPgd	56	52.70	-0.7
LSK		0.80	92	ePg	56	56.70	-2.7
KBN		1.06	65	iPgc	57	02.50	-1.3
TIR		1.19	11	iPnc	57	06.50	0.5
LCI		1.24	278	P	57	06.50	-0.2
				eSg	57	26.80	
OHR		1.33	45	iPn	57	07.80	-0.2
PHP		1.65	24	iPnc	57	14.00	1.4
KZN		1.70	85	ePn	57	15.20	1.8
ULC		1.80	353	ePn	57	15.60	0.8
				eSn	57	50.00	
SDA		1.84	359	iPnd	57	17.00	1.7
BRT		1.93	292	P	57	18.60	2.0
KKS		2.00	19	iPn	57	21.00	3.3X
VLS		2.15	158	ePn	57	20.50	0.6
BDV		2.17	346	ePn	57	20.70	0.5
				eSn	57	57.00	
BCI		2.22	10	iPnd	57	23.50	2.7
TTG		2.26	354	ePn	57	22.30	0.9
				eSn	58	01.00	
SKO		2.29	38	iPnc	57	23.20	1.4
		1.2s		570.00nm			
				iPg	57	27.00	
				iSn	57	50.00	
				iSg	57	56.00	
				Lg	58	03.00	
				LQ	58	14.00	
HCY		2.40	341	ePn	57	23.50	0.1
				eSn	58	03.20	
PVY		2.44	7	ePn	57	26.00	2.0
				eSn	58	07.50	
TDS		2.53	259	Pd	57	27.10	1.9
VAY		2.56	63	iPn	57	26.60	0.9
IVA		2.70	5	ePn	57	29.70	1.9
				eSn	58	15.00	
GRI		2.78	242	P	57	30.30	1.4
BRY		2.82	345	ePn	57	30.00	0.4
				eSn	58	15.00	
NEO		2.96	106	ePn	57	33.00	1.7
PLG		2.98	85	ePn	57	32.00	0.3
MGR		3.07	271	P	57	34.30	1.4
MMB		3.46	65	iPd	57	40.00	1.5
GMB		3.50	236	P	57	39.10	-0.1
VTS		3.66	48	iPc	57	42.00	0.6
BSS		3.67	281	P	57	43.60	2.1
ATN		3.77	239	Pc	57	42.90	0.1
				eSn	58	27.90	
ATH		3.92	123	ePn	57	45.70	0.8
DUI		4.14	293	P	57	50.30	2.1
PGB		4.20	54	iP	57	50.00	0.9
RFI		4.38	287	P	57	54.00	2.5
MNO		4.40	241	P	57	51.40	-0.6
SDI		4.61	291	P	57	56.40	1.5
RDO		4.65	76	ePn	57	55.00	-0.4
KDZ		4.68	70	iPd	57	55.00	-0.8
MEU		4.75	231	P	57	54.50	-2.4
				eSn	58	49.60	
PZI		4.81	231	P	57	54.80	-2.8
DIM		4.89	66	eP	58	01.00	2.3
AZI		4.97	293	P	58	00.10	0.3
ALP		5.19	302	eP	58	03.52	0.4
EZN		5.21	92	eP	58	03.10	-0.1
PVL		5.28	53	eP	58	03.00	-1.3
AOI		5.58	309	eP	58	08.10	-0.4
MNS		5.63	295	P	58	09.80	0.5
CIO		5.67	304	eP	58	10.18	0.3
DRA		5.68	36	eP	58	32.00	22.1X
JMB		5.76	64	eP	58	10.00	-1.1
ASS		5.92	301	P	58	13.40	0.1
				eSn	59	21.20	
ARV		5.95	306	Pd	58	13.10	-0.6
				eSn	59	20.30	
VBY		6.19	331	ePnc	58	17.20	0.2
				eSn	59	26.80	
IZM		6.24	104	eP	58	19.00	1.2
PTJ		6.30	336	ePn	58	17.40	-1.3

			eSn	59	28.30	
BUC	6.44	47	eP	58	24.00	3.5X
RSM	6.48	308	P	58	21.90	0.7
CRE	6.64	304	Pd	58	24.80	1.3
CEY	6.71	328	ePn	58	23.80	-0.6
SFI	6.85	306	P	58	26.80	0.5
PGD	6.90	305	P	58	27.50	0.2
LJU	6.92	330	ePn	58	26.40	-0.9
			eSn	59	46.20	
TRI	6.97	324	iPnc	58	26.90	-1.1
			iSn	59	44.30	
MLR	7.09	39	ePd	58	33.00	3.2X
ISR	7.15	44	eP	58	31.00	0.4
VOY	7.17	327	iPnd	58	29.40	-1.5
			eSn	59	51.10	
PSN	7.32	59	eP	59	14.00	41.0X
RBL	7.63	327	P	58	36.30	-1.0
TLB	7.67	52	eP	58	35.00	-2.8X
SRO	7.69	354	eP	58	56.40	18.4X
			e	59	47.00	
			e	00	14.60	
			e	01	09.00	
VRI	7.74	40	ePc	58	40.00	1.2
FVI	8.09	325	P	58	42.90	-0.7
CTI	8.24	318	P	58	44.10	-1.7
			eSn	00	13.60	
KBA	8.24	329	iPnd	58	46.60	0.7
			i	58	53.50	
			i	59	06.20	
			eSn	00	17.00	
			i	00	32.20	
			i	00	35.90	
			i	00	42.80	
			i	01	18.30	
CVF	8.38	290	Pn	58	48.20	0.3
SPC	9.02	3	e(P)	58	51.10	-5.7X
VAI	9.73	309	Pd	59	04.20	-2.1
SBF	9.74	296	Pn	59	07.10	0.4
KHC	9.91	337	P	59	06.40	-2.5
			e	00	57.00	
LMR	10.25	292	Pn	59	12.20	-1.3
LPG	10.80	304	Pn	59	20.00	-1.4
			Sn	01	08.60	
LPL	10.82	304	Pn	59	20.00	-1.6
			Sn	01	09.20	
BSF	11.95	314	Pn	59	35.80	-1.0
			Sn	01	38.80	
HAU	12.29	314	Pn	59	40.00	-1.3
			Sn	01	47.00	
LBF	13.17	306	Pn	59	53.20	0.1
			Sn	02	08.20	
LOR	13.37	307	Pn	59	54.40	-1.3
			Sn	02	12.30	
PRNI	15.96	123	eP	00	30.00	0.5
MBH	16.27	125	eP	00	29.00	-4.5X
HFS	20.31	352	eP	01	20.90	-0.9
	0.9s	15.00nm			4.3mb	
NRA0	21.17	349	P	01	29.40	-1.3
EKA	21.37	323	P	01	34.00	1.3
	1.1s,	21.50nm			4.5mb	
BNG	35.59	182	ePd	03	41.40	-1.5
	1.0s	10.00nm			4.7mb	
			id	06	35.00	
YKA	71.26	339	eP	08	05.40	1.4
IMA	73.96	357	P	08	22.00	2.0
	0.5s	1.29nm			4.2mb	
FBA	74.79	354	P	08	18.50	-6.2X
	0.7s	1.82nm			4.2mb	
	S.D. = 1.3	on	89	of	99 obs.	

? MAR 08, 1989 06h 02m 01.59± 2.66s
17.673 S ±27.1km 178.611 W ±39.2km
DEPTH = 567.9 ± 9.9 km
5.1mb (9 obs.)
FIJI ISLANDS REGION (181)

SGE	3.31	271	ePc	03	20.70	0.1
DZM	14.72	250	iPc	05	06.70	-1.0
COO	29.73	239	iPd	07	24.50	0.2
CTA	33.29	260	iPd	07	55.00	0.6
	0.6s	40.67nm			5.2mb	
			i(pP)	08	13.00	75kmX
			i(sP)	08	37.50	
			e(S)	12	36.00	
CMS	34.97	240	iPd	08	08.50	0.2
TOO	37.17	230	iPd	08	26.90	0.6
	0.4s	53.00nm			5.5mb	

STK	38.58	241	iPd	08	38.90	1.1
	0.5s	27.00nm			5.1mb	
ADE	41.60	237	iPd	09	02.20	0.1
	0.6s	17.33nm			4.8mb	
WB5	44.46	259	eP	09	24.90	0.2
WRA	44.48	259	Pd	09	24.30	-0.5
	0.6s	12.70nm			4.6mb	
ASPA	44.67	254	iPd	09	26.60	0.3
	0.7s	199.00nm			5.8mb	
FORR	49.90	244	eP	10	05.00	-0.5
KNA	50.30	264	iPd	10	09.10	0.4
	0.4s	39.00nm			5.3mb	
WARB	51.18	250	iPd	10	08.40	-6.7X
COOL	55.88	244	iPd	10	47.10	-1.2
MBL	57.85	256	iPd	11	02.00	0.2
	0.4s	19.00nm			4.7mb	
MEKA	58.41	249	eP	11	04.50	-1.1
KLB	58.76	243	iPd	11	07.30	-0.5
NWAO	59.15	242	eP	11	10.70	0.3
BAL	59.71	245	eP	11	13.60	-0.6
MUN	60.06	243	eP	11	16.50	0.1
MRWA	60.42	246	eP	11	19.00	0.1
NANU	61.61	254	iPd	11	27.70	1.1
	0.5s	32.00nm			5.0mb	
CLL	145.19	347	iPKPc	20	40.60	4.6X
	S.D. = 0.7	on	22	of	24 obs.	

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* MAR 08, 1989 06h 05m 56.06± 2.29s
36.084 N ±16.4km 70.821 E ±15.1km
DEPTH = 138.9 ± 25.4 km
4.6mb (5 obs.)
HINDU KUSH REGION (718)

NDI	9.15	142	iPd	08	05.00	-1.0
	0.5s	56.34nm			5.5mb	X
			eS	09	40.00	
MAIO	9.16	275	eP	08	07.00	0.7
			eS	09	43.00	
GKN	14.21	121	P	09	06.80	-5.5X
DMN	14.78	121	P	09	14.80	-4.7X
KKN	14.79	120	P	09	14.30	-5.3X
PKI	15.01	120	P	09	17.40	-5.2X
POO	17.69	171	eP	10	06.00	10.8X
			iS	13	17.50	
HYB	19.82	158	eP	10	19.50	1.5
	0.8s	44.60nm			4.9mb	
			eS	13	48.00	
SHL	20.86	114	iP	10	28.00	-0.6
			eS	14	03.50	
GBA	23.16	163	Pc	10	51.90	0.9
	0.8s	21.30nm			4.6mb	
SUF	38.20	328	iP	13	03.70	0.4
HFS	43.31	322	eP	13	45.50	0.3
	0.7s	6.50nm			4.4mb	
	Z 16s	0.18um			4.1MszX	
			LR	44	50.00	
NB2	44.63	323	P	13	55.20	-0.7
	0.7s	4.00nm			4.2mb	
BNG	57.37	249	ePd	16	10.90	38.7X
	0.6s	3.00nm				
BCAO	57.38	249	eP	15	30.00	-2.2
			epP	16	10.90	178kmX
MBC	67.76	3	eP	16	39.00	-1.0
	0.6s	6.00nm			4.6mb	
YKA	81.67	3	eP	18	01.20	1.8
	S.D. = 1.5	on	11	of	17 obs.	

MAR 08, 1989 06h 49m 25.87± 0.30s
36.331 N ± 3.6km 27.736 E ± 3.1km
DEPTH = 96.0 ± 4.1 km
4.5mb (37 obs.)
DODECANESE ISLANDS (369)
MD 4.0 (ATH). Felt on Rodhos.

KAP	0.90	210	iPnd	49	46.30	1.1
YER	0.91	29	iPn	49	45.10	-0.3
KSL	1.51	98	iPnc	49	53.70	1.3
ELL	1.80	76	iPn	49	58.30	2.0
NPS	2.03	239	ePn	50	00.00	0.8
IZM	2.10	350	iPn	49	59.40	-0.7
KHL	2.45	35	iPn	50	04.40	-0.5
BCK	2.55	63	iPn	50	07.90	1.6
VAM	3.02	253	ePn	50	13.70	1.2
PRK	3.13	339	ePn	50	13.50	-0.6
DST	3.34	12	iPn	50	17.20	0.1
ATH	3.60	298	ePn	50	21.50	0.9
EZN	3.66	343	ePn	50	20.40	-1.0

KCT	3.94	7	iPn	50	24.80	-0.5
EDC	4.01	1	iPn	50	25.40	-0.8
PPCY	4.02	110	eP	50	27.50	1.1
GPA	4.44	26	iPn	50	32.00	-0.2
NEO	4.65	311	iPn	50	35.70	0.7
GBZT	4.65	16	ePg	50	33.00	-2.0
HRT	4.73	18	iPn	50	36.30	0.1
CSS	4.76	105	eP	50	36.50	0.0
			eSn	51	23.50	
LFK	4.83	101	ePn	50	38.20	0.7
ISK	4.84	12	ePn	50	36.00	-1.6
CTT	4.84	6	ePn	50	36.00	-1.6
RDO	5.11	341	ePn	50	41.20	-0.1
PLG	5.26	321	ePn	50	43.80	0.3
FAM	5.27	103	eP	50	46.50	2.8
BBTK	5.29	47	iP-	50	45.00	0.9
DMK	5.48	0	ePn	50	44.80	-1.8
KDZ	5.61	342	eP	50	48.00	-0.4
DIM	5.96	344	eP	50	53.00	-0.2
VLS	5.99	290	ePn	50	55.50	1.9
MMB	6.11	330	iPc	50	55.00	-0.2
KZN	6.14	312	iPnc	50	57.00	1.2
JMB	6.19	352	eP	50	55.00	-1.3
VAY	6.41	323	iP	51	00.50	1.2
LSK	6.79	306	iPc	51	06.70	2.1
PGB	6.80	337	iP	51	05.00	0.3
KBN	6.92	310	iPc	51	09.00	2.7
ADI	6.97	116	eP	51	06.40	-0.7
CRI	7.05	119	eP	51	06.80	-1.3
PVL	7.12	346	eP	51	09.00	-0.1
HLW	7.13	154	ePn	51	09.50	0.3
			e	52	15.00	
			eSn	52	24.00	
ATZ	7.13	117	eP	51	08.10	-1.2
			eS	52	24.00	
VTS	7.16	332	iP	51	10.00	0.1
OHR	7.22	313	iP	51	10.90	0.3
	1.1s	0.08nm			2.2mb	X
TPE	7.25	305	eP	51	13.00	2.1
ZNT	7.29	122	eP	51	10.10	-1.3
			eS	52	28.20	
MML	7.44	119	eP	51	12.60	-1.0
SKO	7.46	321	iPd	51	15.50	1.7
DOR	7.52	128	eP	51	12.30	-2.3
			eS	52	34.20	
PHP	7.80	316	eP	51	20.00	1.6
BURJ	7.81	119	Pc	51	17.70	-0.9
SALJ	7.87	121	Pd	51	18.80	-0.7
TIR	7.92	312	eP	51	20.00	-0.1
JARJ	7.93	119	P	51	02.00	-18.2X
MASJ	8.06	122	P	51	21.30	-0.8
MKRJ	8.11	124	P	51	21.50	-1.3
BCI	8.46	318	eP	51	29.50	2.1
MLR	9.25	352	ePc	51	39.00	0.7
HQL	9.35	137	iPd	51	39.10	-0.4
			iS	53	13.00	
BRT	9.41	302	Pd	51	39.70	-0.7
TDS	9.59	294	P	51	40.50	-2.3
SRFA	9.69	138	iPd	51	43.30	-0.8
			eS	53	26.00	
BADA	9.91	140	iPc	51	45.70	-1.4
			iS	53	20.70	
ATN	9.95	284	P	51	45.70	-2.0
			eSn	53	26.20	
MGR	10.31	295	P	51	50.40	-2.1
			eSn	53	31.30	
MEU	10.31	278	P	51	51.20	-1.4
SDI	12.08	301	P	52	18.60	2.6
CEY	13.74	317	e(P)	52	39.40	1.7
TRI	14.09	316	eP	52	42.80	0.7
VOY	14.21	317	iP	52	44.70	0.8
ZST	14.21	330	eP	52	48.30	4.6X
FVI	15.17	317	P	52	57.70	1.8
KBA	15.17	320	eP	52	59.50	3.4X
	0.8s	12.90nm			4.2mb	
			i	53	00.10	
			i	53	01.80	
CVF	15.84	299	eP	53	08.90	4.5X
BOB	16.23	307	Pd	53	12.30	2.9
KHC	16.45	325	iPd	53	13.10	1.0
KSP	16.68	334	eP	53	15.80	1.0
FIN	16.83	304	P	53	16.41	-0.4
IMI	16.94	303	P	53	19.30	1.1
ROB	17.08	304	P	53	19.50	-0.5
VAI	17.14	310	P	53	21.70	1.1
SBF	17.23	302	eP	53	20.80	-1.0
	0.8s	32.20nm			4.6mb	

08d 06h

STV	17.43	303	P	53 24.53	0.2
ORO	17.53	308	Pd	53 24.90	-0.6
ORX	17.53	308	P	53 24.52	-1.0
BRG	17.59	330	eP	53 26.10	0.0
PZZ	17.67	304	P	53 27.18	-0.1
FRF	17.68	301	eP	53 26.10	-1.2
	0.7s	11.00nm		4.2mb	
LMR	17.71	300	eP	53 27.10	-0.5
	0.5s	4.30nm		3.9mb	
RSP	17.81	306	P	53 26.67	-2.2
LRG	17.85	300	eP	53 28.90	-0.4
	0.7s	9.70nm		4.1mb	
LSD	17.99	307	P	53 29.03	-2.3
RRL	18.03	305	P	53 30.99	-0.8
LPG	18.27	307	eP	53 33.80	-1.0
	0.5s	21.80nm		4.7mb	
CLL	18.31	329	iP	53 34.50	-0.3
	1.1s	26.00nm		4.4mb	
MOX	18.42	326	eP	53 37.00	0.8
	1.2s	28.00nm		4.4mb	
		e	55 29.00		
BSF	19.26	313	eP	53 43.40	-2.0
	0.4s	6.80nm		4.3mb	
CDF	19.28	315	eP	53 44.10	-1.4
	0.6s	46.80nm		5.0mb	
HAU	19.61	313	eP	53 47.80	-1.2
	0.4s	10.30nm		4.5mb	
SMF	20.58	307	eP	53 57.30	-1.6
LBF	20.62	308	eP	53 58.10	-1.2
LOR	20.80	309	eP	54 00.10	-1.1
	0.7s	17.60nm		4.5mb	
AVF	20.95	307	eP	54 01.20	-1.4
	0.5s	16.30nm		4.6mb	
SSF	20.95	308	eP	54 01.30	-1.3
	0.5s	24.30nm		4.8mb	
BGF	21.19	307	eP	54 03.50	-1.5
	0.7s	29.10nm		4.7mb	
CAF	21.22	302	eP	54 04.90	-0.5
	0.9s	24.50nm		4.5mb	
MAF	21.26	305	eP	54 04.50	-1.3
	1.0s	26.80nm		4.5mb	
TCF	21.52	305	eP	54 07.90	-0.4
	0.5s	6.10nm		4.2mb	
DOU	21.65	317	Pc	54 10.10	0.6
	0.6s	16.40nm		4.5mb	
RJF	21.70	303	eP	54 09.60	-0.5
	0.5s	8.70nm		4.4mb	
LPO	21.77	301	eP	54 10.10	-0.7
	0.7s	20.70nm		4.6mb	
LSF	21.95	305	eP	54 13.90	1.3
EPF	22.06	296	eP	54 12.10	-1.7
	0.5s	5.80nm		4.2mb	
LFF	22.14	301	eP	54 13.80	-0.6
	0.5s	5.80nm		4.2mb	
MFF	23.17	305	eP	54 23.80	-0.6
	0.5s	16.60nm		4.7mb	
LDF	23.78	310	eP	54 29.20	-1.2
	0.5s	31.10nm		5.0mb	
FLN	24.07	310	eP	54 31.60	-1.5
	0.4s	39.30nm		5.2mb	
GRR	24.17	309	eP	54 32.60	-1.5
LPF	24.17	308	eP	54 32.90	-1.2
	0.5s	29.70nm		5.0mb	
HFS	25.48	344	eP	54 45.70	-0.6
	0.5s	7.90nm		4.4mb	
MAIO	25.53	81	eP	54 53.00	5.8X
NRA0	26.52	342	P	54 56.90	1.0
NB2	26.87	342	P	54 57.80	-1.3
	0.8s	3.30nm		3.9mb	
EKA	28.36	322	P	55 15.00	2.5
	0.5s	1.70nm		3.9mb	
BNG	32.85	197	iPc	55 54.10	1.6
	0.6s	11.00nm		4.9mb	
BCAO	32.85	197	eP	55 54.00	1.5
	0.6s	4.63nm		4.5mb	
GKN	48.29	83	P	58 01.20	1.8
	0.5s	13.00nm		5.1mb	
DMN	48.83	83	P	58 05.80	2.1
KKN	48.89	83	P	58 05.70	1.6
STJ	58.36	308	eP	59 12.30	-0.7
MBC	65.77	352	eP	00 02.00	0.0
CBM	68.09	313	P	00 17.70	0.6
MIM	69.50	311	P	00 27.00	1.2
BRW	72.62	2	P	00 45.20	1.2
DHN	76.32	313	P	01 06.70	0.9
YKA	76.96	343	eP	01 09.20	0.2
IMA	77.92	1	P	01 15.70	1.4

	0.8s	2.16nm		4.0mb	
FBA	79.04	358	P	01 21.80	1.5
	0.5s	2.58nm		4.3mb	
RSON	79.09	327	P	01 20.50	-0.3
	0.6s	4.77nm		4.5mb	
FFC	79.56	333	eP	01 23.50	0.2
	0.6s	7.00nm		4.7mb	
TKL	84.19	310	P	01 49.30	1.6
GBTN	84.45	311	P	01 50.70	1.7
ELC	86.34	315	P	01 59.10	0.7
FVM	86.54	316	P	02 00.70	1.4
	S.D. = 1.3	on 141 of 146 obs.			

? MAR 08, 1989 06h 54m 57.76± 3.46s
38.250 N ±24.9km 20.353 E ±21.8km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 3.7 (ATH).

LSK	1.91	6	ePn	55 30.10	-0.6
TPE	2.06	353	ePn	55 37.50	4.7X
VLO	2.31	344	ePn	55 43.30	6.9X
KZN	2.33	28	ePn	55 37.00	0.2
KBN	2.40	8	ePn	55 39.20	1.6
NEO	2.48	64	ePn	55 39.00	0.1
ATH	2.67	95	ePn	55 41.30	-0.2
OHR	2.88	7	iPn	55 45.40	0.9
TIR	3.12	353	ePn	55 48.00	0.2
PLG	3.20	48	ePn	55 50.00	0.9
PHP	3.43	1	ePn	55 52.00	-0.3
VAY	3.51	28	ePn	55 52.30	-1.1
SKO	3.81	12	ePn	55 56.00	-1.7
			iSn	56 39.30	
BCI	4.12	357	ePn	56 02.10	0.1
	S.D. = 1.0	on 12 of 14 obs.			

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* MAR 08, 1989 07h 21m 26.04± 1.42s
28.001 N ±12.1km 84.028 E ±21.6km
DEPTH = 33.0km (normol)
4.5mb (3 obs.)
NEPAL (310)

NDI	6.04	278	eP	22 55.50	0.0
HYB	11.68	207	eP	24 13.50	0.0
			eS	26 19.50	
POO	13.27	227	eP	24 42.30	7.6X
			iS	27 28.30	
SUF	50.87	330	iP	30 25.90	0.5
	0.5s	3.30nm		4.6mb	
SOD	52.05	336	eP	30 35.00	0.7
HFS	56.41	326	eP	31 06.30	-0.1
	0.6s	5.10nm		4.7mb	
NB2	57.65	327	P	31 14.00	-1.2
	0.6s	0.60nm		3.8mb	
	S.D. = 0.8	on 6 of 7 obs.			

MAR 08, 1989 07h 25m 31.55± 0.29s
51.230 N ± 6.7km 179.063 W ± 2.9km
DEPTH = 33.0km (normol)
5.0mb (41 obs.)
ANDREANOF ISLANDS, ALEUTIAN IS. (7)
ML 5.2 (PMR). Felt (IV) on Adak.

ADK	1.62	65	eP	25 59.80	1.6
SMY	4.48	292	eP	26 44.90	6.0X
SDN	11.84	62	eP	28 21.10	0.2
SVW	16.28	44	ePd	29 23.90	4.8X
KDC	16.68	57	eP	29 23.90	-0.2
TTA	17.03	38	eP	29 31.30	2.8
PMR	19.35	46	eP	29 57.00	0.2
IMA	19.66	31	eP	30 00.70	0.3
TOA	20.84	46	eP	30 12.00	-0.6
FBA	21.16	38	eP	30 15.00	-0.7
BRW	22.54	19	eP	30 29.10	-0.2
INK	27.68	35	eP	31 17.00	-0.9
MAT	33.60	261	eP	32 10.00	-0.6
	0.8s	8.21nm		4.7mb	
MBC	33.81	22	eP	32 12.00	0.0
	0.7s	7.00nm		4.7mb	
MDJ	34.43	279	eP	32 17.00	-0.8
YKA	35.45	46	eP	32 26.20	-0.1
YKC	35.52	46	eP	32 26.00	-0.8
GMW	36.05	73	eP	32 32.90	1.4
BMW	36.29	75	eP	32 33.70	0.1
LON	37.02	74	eP	32 40.40	0.7
PNT	37.14	69	ePc	32 41.00	0.4
CN2	37.41	281	eP	32 42.00	-0.9

EDM	39.03	61	eP	32 56.50	0.0
	0.5s	15.00nm		5.0mb	
WDC	39.82	83	e(P)	33 06.90	3.8X
SES	41.58	63	ePd	33 17.30	-0.1
ALE	42.80	10	eP	33 27.50	0.4
	0.6s	5.00nm		4.4mb	
LRM	43.08	70	eP	33 27.80	-2.3
PRS	43.11	87	e(P)	33 32.20	2.1
KVN	43.49	82	eP	33 34.00	0.6
BGMT	43.64	70	eP	33 34.90	0.3
HPI	43.85	73	eP	33 37.10	0.7
EUR	44.55	80	eP	33 42.00	0.0
TNP	44.62	82	eP	33 42.90	0.3
	1.0s	10.25nm		4.6mb	
BJI	45.24	282	eP	33 47.50	0.3
DUG	46.06	77	eP	33 54.80	0.9
BW06	46.51	72	eP	33 57.70	0.2
	0.9s	38.14nm		5.4mb	
DAU	46.88	76	eP	34 01.30	0.7
HHC	47.57	286	eP	34 07.00	1.2
SSE	47.83	269	eP	34 02.00	-5.8X
BTO	48.66	287	eP	34 15.00	0.8
RSSD	48.97	67	eP	34 16.00	-0.7
TIY	48.98	282	eP	34 16.90	0.3
RSON	50.68	55	eP	34 27.70	-1.7
GOL	50.88	73	eP	34 31.20	-0.2
GLD	50.94	72	eP	34 31.90	0.1
	1.0s	60.00nm		5.5mb	
FRB	53.24	31	eP	34 47.00	-1.4
ALQ	53.29	78	eP	34 49.00	-0.5
	1.0s	5.75nm		4.5mb	
LZH	55.27	286	P	35 03.50	-0.4
	1.5s	66.00nm		5.4mb	
GTA	55.47	292	iPc	35 05.20	-0.1
SOD	60.15	349	eP	35 35.00	-2.6
SCH	60.25	38	eP	35 37.00	-1.6
FVM	60.77	65	eP	35 41.00	-1.2
ELC	61.93	65	eP	35 48.80	-1.3
KJF	63.03	347	iP	35 56.00	-1.0
	0.5s	21.10nm		5.5mb	
SUF	64.66	347	iP	36 06.90	-0.8
	0.7s	9.20nm		5.0mb	
RSCP	65.19	64	eP	36 10.00	-1.6
	1.0s	17.00nm		5.1mb	
GBTN	65.92	63	eP	36 15.70	-0.5
TKL	66.17	62	eP	36 17.30	-0.5
BLA	66.87	59	eP	36 22.20	-0.1
NUR	66.99	348	iP	36 21.90	-0.7
CVL	67.35	57	eP	36 25.00	-0.2
NRA0	68.06	354	P	36 28.30	-1.0
UPP	68.45	351	iP	36 30.30	-1.4
HFS	68.51	353	eP	36 31.00	-1.1
	0.7s	6.50nm		4.8mb	
JSC	68.58	62	eP	36 32.50	-0.4
LHS	68.68	61	eP	36 33.00	-0.5
CHG	70.60	276	eP	36 45.80	0.3
GUN	71.76	292	P	36 53.60	0.8
KKN	72.20	292	P	36 55.90	0.6
PKI	72.29	292	P	36 56.20	0.2
	0.4s	18.00nm		5.4mb	
GKN	72.41	293	P	36 57.10	0.6
DMN	72.44	292	P	36 57.40	0.7
EKA	73.75	2	Pc	37 03.30	-0.3
	0.9s	5.90nm		4.6mb	
CLL	77.33	352	iP	37 24.00	0.0
	0.8s	10.00nm		4.9mb	
KSP	77.47	350	eP	37 25.00	0.2
BRG	77.68	352	iP	37 26.30	0.4
	1.0s	20.00nm		5.1mb	
KRA	77.80	348	eP	37 26.40	-0.2
MOX	78.10	353	eP	37 28.50	0.3
MEM	78.45	357	P	37 31.30	1.2
PRU	78.50	351	Pc	37 30.20	-0.2
SNF	78.60	358	P	37 32.00	1.1
SPC	78.61	347	eP	37 31.70	0.4
DOU	79.00	358	P	37 33.60	0.4
KHC	79.44	352	iPc	37 36.50	0.9
	1.0s	7.00nm		4.6mb	
ZST	79.99	349	eP	37 38.80	0.3
FLN	80.38	1	eP	37 40.30	-0.3
	0.9s	17.60nm		5.1mb	
LDF	80.55	1	eP	37 41.00	-0.5
	0.7s	11.00nm		5.0mb	
CDF	80.59	356	eP	37 41.60	-0.3
GRR	80.75	1	eP	37 42.50	-0.1
	0.8s	21.40nm		5.2mb	
HAU	81.04	356	eP	37 43.90	-0.2

0.8s 9.10nm 4.8mb
LPF 81.10 1 eP 37 44.50 0.1
BSF 81.19 356 eP 37 44.60 -0.5
0.8s 6.40nm 4.7mb
MLR 81.26 342 ePd 37 47.50 2.0
KBA 81.49 351 iPc 37 47.60 0.9
0.9s 41.20nm 5.4mb
WRA 81.79 224 Pd 37 47.40 -0.9
0.8s 2.20nm 4.2mb
LOR 81.85 358 eP 37 48.50 0.1
0.9s 10.40nm 4.9mb
BZS 81.89 346 eP 37 38.50 -10.1X
SSF 82.06 358 eP 37 49.70 0.2
0.9s 8.80nm 4.8mb
LBF 82.13 358 eP 37 49.60 -0.3
AVF 82.34 358 eP 37 50.90 0.0
1.0s 16.80nm 5.0mb
SMF 82.47 358 eP 37 51.60 0.0
1.0s 20.00nm 5.1mb
MFF 82.54 1 eP 37 52.20 0.2
0.8s 11.80nm 5.0mb
BGF 82.58 359 eP 37 52.30 0.1
TCF 82.86 359 eP 37 53.50 -0.1
0.8s 6.70nm 4.8mb
LSF 82.90 360 eP 37 53.80 0.0
0.9s 16.30nm 5.1mb
MAF 82.92 359 eP 37 54.30 0.4
ORX 83.33 355 P 37 59.41 3.2X
LPG 83.52 356 eP 37 58.50 1.1
LSD 83.54 356 P 37 58.70 1.2
RSP 83.84 356 P 37 59.52 0.7
RJF 83.85 360 eP 37 59.00 0.3
1.1s 24.40nm 5.3mb
RRL 84.10 356 P 38 01.67 1.4
HYB 84.11 290 eP 38 01.00 0.5
LFF 84.21 0 eP 38 00.90 0.4
1.2s 41.60nm 5.5mb
CAF 84.22 359 eP 38 01.10 0.5
1.2s 23.80nm 5.2mb
LPO 84.47 360 eP 38 02.00 0.2
0.9s 29.40nm 5.5mb
PZZ 84.50 356 P 38 01.67 -0.5
ROB 84.67 355 P 38 02.90 0.0
FIN 84.73 355 P 38 03.62 0.4
STV 84.75 355 P 38 02.29 -1.0
IMI 85.05 355 P 38 04.95 0.1
SBF 85.12 355 eP 38 05.10 -0.1
0.8s 30.60nm 5.6mb
FRF 85.46 356 eP 38 06.90 0.1
0.8s 18.80nm 5.4mb
LRG 85.58 356 eP 38 08.10 0.7
LMR 85.69 356 eP 38 08.40 0.5
0.9s 11.10nm 5.1mb
EPF 86.12 0 eP 38 09.70 -0.5
CVF 86.33 354 eP 38 11.20 0.0
0.8s 29.50nm 5.6mb
GBA 87.76 289 Pd 38 17.10 -1.3
0.7s 6.90nm 5.0mb
SLR 147.09 310 iPKPc 45 12.50 2.1X
PRY 148.48 310 ePKP 45 15.50 2.9X
SEK 149.57 309 iPKPc 45 20.50 6.3X
0.7s 10.27nm
SWZ 149.71 313 ePKP 45 17.00 2.6X
0.4s 25.42nm
BLF 150.92 310 ePKP 45 06.00 -10.2X
FRS 151.87 310 iPKPd 45 34.00 16.6X
S.D. = 0.8 on 122 of 134 obs.

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* MAR 08, 1989 08h 07m 06.96± 1.35s
35.253 N ±15.8km 27.196 E ± 8.5km
DEPTH = 10.0km (geophysicist)
DODECANESE ISLANDS (369)
MD 3.5 (ATH).

KAP 0.30 357 iPgc 07 13.30 0.1
NPS 1.30 271 ePb 07 30.00 -1.0
eSb 07 48.00
YER 2.07 25 ePn 07 36.00 -6.3X
KSL 2.13 65 ePn 07 43.70 0.7
VAM 2.45 274 ePn 07 48.70 1.0
ELL 2.66 55 ePn 07 49.80 -0.9
S.D. = 1.3 on 5 of 6 obs.

MAR 08, 1989 08h 22m 35.27± 0.24s
6.012 S ± 6.0km 105.361 E ± 6.7km
DEPTH = 33.0km (normal)
5.3mb (17 obs.)

SUNDA STRAIT (276)
KGM 8.23 346 eP 24 40.00 4.6X
NANU 19.16 150 eP 26 58.00 -0.8
MBL 20.58 138 eP 27 14.00 -0.1
KMT 21.72 342 eP 27 28.00 2.2
NST 22.16 347 eP 27 36.50 6.4X
BDT 23.95 345 eP 27 47.20 -0.3
KNA 24.91 115 eP 27 55.50 -1.4
CHG 25.47 346 iPc 28 02.80 0.6
1.0s 22.00nm 4.7mb
CHTO 25.47 346 eP 28 02.00 -0.1
1.3s 12.66nm 4.4mb
MTN 26.30 107 eP 28 10.00 0.1
0.6s 32.00nm 5.1mb
WARB 28.55 137 eP 28 18.00 -12.3X
KMI 31.05 355 eP 28 54.00 1.2
WB5 31.37 119 eP 28 55.00 -0.5
WRA 31.37 119 Pd 28 54.20 -1.3
0.5s 18.20nm 5.2mb
GYA 32.30 2 P 29 03.60 0.0
ASPA 32.58 126 iPd 29 05.60 -0.5
GBA 33.89 305 Pc 29 15.40 -2.0
1.2s 31.20nm 5.1mb
HYB 35.26 312 eP 29 29.00 -0.2
QIS 36.22 117 eP 29 36.00 -1.3
CD2 36.74 358 eP 29 41.20 -0.4
PKI 38.56 331 P 29 56.10 -1.1
GUN 38.62 332 P 29 56.60 -1.1
DMN 38.73 331 P 29 57.20 -1.4
KKN 38.80 331 P 29 57.60 -1.5
GKN 39.29 330 P 30 01.60 -1.5
POO 39.50 309 iP 30 04.00 -0.9
SSE 39.88 21 eP 30 09.00 1.3
1.2s 17.00nm 4.7mb
Z 16s 0.40um 4.4MszX
e 44 08.00
XAN 39.98 5 Pd 30 08.50 -0.1
N 10s 0.90um
E 10s 0.50um
PMG 41.53 97 eP 30 21.50 -0.1
LZH 41.90 358 eP 30 24.00 -0.5
1.5s 86.00nm 5.3mb
Z 10s 0.60um 4.8MszX
CTA 42.08 113 iPd 30 26.00 -0.1
1.6s 175.00nm 5.5mb
i 31 16.00
ADE 42.12 138 ePd 30 27.00 0.8
0.6s 18.67nm 5.0mb
STK 42.51 132 eP 30 30.00 0.6
0.4s 30.00nm 5.4mb
TIY 44.00 8 eP 30 42.70 1.3
E 15s 0.70um
pP 30 55.50 47kmX
GTA 45.48 354 Pd 30 53.20 -0.2
CMS 45.53 129 iPc 30 54.70 0.9
BTO 46.58 5 eP 31 03.00 1.0
N 12s 0.60um
E 12s 0.70um
BJI 46.90 11 eP 31 04.50 0.1
HHC 46.98 6 eP 31 05.60 0.4
BWA 48.76 131 iPd 31 21.10 2.0
CAN 49.57 132 eP 31 26.00 0.6
BRS 49.76 121 iPd 31 24.30 -2.6
WMQ 52.11 344 P 31 43.10 -1.5
CN2 52.80 18 Pd 31 48.40 -1.2
SLY 69.72 311 ePd 33 43.00 -1.1
MSL 71.78 311 ePc 33 55.50 -1.1
KSR 77.04 245 eP 34 29.00 1.6
BLF 77.65 242 eP 34 35.00 4.3X
SWZ 78.43 244 eP 34 30.00 -5.0X
1.2s 31.25nm 5.2mb
ALT 82.42 311 eP 34 55.20 -0.7
IZM 84.44 309 eP 35 06.00 -0.2
VRI 86.42 317 ePc 35 17.00 1.2
MLR 86.87 316 ePc 35 19.00 0.8
BNG 87.30 275 iPd 35 21.00 0.2
0.8s 25.00nm 5.5mb
ic 35 26.30
BCAD 87.31 275 iP 35 20.20 -0.6
1.5s 43.36nm 5.5mb
VAY 88.53 312 eP 35 26.40 0.3
CJR1 88.75 317 eP 35 28.50 1.5
DEV 89.04 316 iPd 35 30.00 1.6
SKO 89.47 312 eP 35 30.00 -0.5
OHR 89.82 311 eP 35 32.20 -0.1
1.2s 10.05nm 2.7mb X
BZS 89.89 316 eP 35 32.50 0.1
KJF 90.02 335 iP 35 33.00 0.4
1.0s 44.00nm 5.7mb
SUF 90.38 333 iP 35 34.50 0.3
NUR 90.63 331 eP 35 35.00 -0.4
KRA 91.63 320 eP 35 41.10 0.8
1.3s 67.00nm 5.9mb
SRO 92.43 318 eP 35 44.80 0.8
ZST 93.27 318 eP 35 47.80 -0.1
VBY 94.32 315 e(P) 35 53.50 0.7
LJU 94.86 316 eP 35 55.30 0.0
BRG 95.51 320 eP 35 58.50 0.3
1.4s 17.00nm 5.3mb
HFS 96.00 330 eP 35 59.40 -0.8
1.5s 62.70nm 5.9mb
YKA 116.49 19 ePKP 41 17.30 0.2
PNT 122.62 33 ePKPc 41 30.00 0.8
FFC 126.67 19 ePKP 41 36.50 -0.4
1.0s 17.00nm
LRM 128.60 33 ePKP 41 41.70 0.5
BGMT 129.19 34 ePKP 41 43.80 1.5
EUR 130.08 42 iPKP 41 45.00 0.8
0.8s 4.87nm
SOB1 143.13 246 ePKP 42 04.60 -4.1X
e 42 07.40
BAO 145.95 231 ePKP 42 14.70 1.1
ZOBO 156.94 196 PKP 42 32.20 1.9X
S.D. = 1.0 on 73 of 80 obs.

MAR 08, 1989 09h 01m 36.31± 0.92s
43.388 N ± 6.2km 5.428 E ± 7.1km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
MD 3.0 (STR).

GELF 0.00 186 Pg 01 37.92 -0.3
TREF 0.24 352 Pg 01 40.55 -0.9
PUYF 0.24 54 Pg 01 40.46 -1.1
PRAF 0.46 336 Pg 01 45.60 0.0
VILF 0.51 24 Pg 01 45.51 -1.1
TAVF 0.51 63 Pg 01 45.96 -0.7
GANF 0.70 30 Pg 01 49.74 -0.5
CALN 1.12 71 Pg 01 57.64 0.2
MVIF 1.35 67 Pn 02 01.09 -0.2
Sg 02 20.22
TOUF 1.46 64 Pn 02 03.36 0.5
AURF 1.47 69 Pn 02 02.82 -0.1
AUTN 1.57 67 Pn 02 05.16 0.6
Sg 02 26.15
DOI 1.72 49 Pd 02 07.50 0.9
eSn 02 31.50
BNI 1.89 28 Pd 02 11.90 2.9
eSg 02 35.70
CKI 2.31 62 Pd 02 15.50 0.5
eSn 02 44.30
CVF 2.66 107 Pn 02 19.05 -0.9
S.D. = 1.1 on 16 of 16 obs.

% MAR 08, 1989 09h 41m 02.92± 0.92s
39.221 N ± 8.9km 27.726 E ±10.6km
DEPTH = 28.1 ± 8.9 km
TURKEY (366)

DST 0.80 61 iPg 41 18.20 0.0
eSg 41 30.20
IZM 0.90 204 ePn 41 19.50 -0.1
EDC 1.13 5 iPn 41 22.40 -0.5
KCT 1.14 25 iPn 41 23.70 0.7
BNT 1.14 7 iPn 41 22.70 -0.4
EZN 1.24 300 ePn 41 24.70 0.3
S.D. = 0.7 on 6 of 6 obs.

? MAR 08, 1989 09h 59m 21.24±15.10s
50.504 N ±31.3km 4.094 E ±109.km
DEPTH = 10.0km (geophysicist)
BELGIUM (541)
MD 2.9 (UCC).

SNF 0.12 86 iPd 59 23.09 -1.1
iS 59 30.64
UCC 0.34 30 eP 59 35.00 6.7X
DOU 0.52 142 P 59 31.00 -0.8
S 00 43.70
ENN 1.19 77 iPnc 59 43.00 -0.5
0.8s 30.00nm
eSn 00 03.00
MEM 1.22 84 P 59 45.10 1.1

08d 09h

			S	00 06.00		
WLF	1.57	122	iPc	59 50.40	1.3	
			iS	00 15.30		
S.D. = 1.6			on	5 of	6 obs.	

% MAR 08, 1989 10h 09m 58.52± 0.82s
39.112 N ± 6.8km 27.602 E ± 8.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	0.76	201	ePg	10 13.50	0.1	
			eSg	10 25.50		
DST	0.94	58	iPn	10 16.20	-0.2	
EZN	1.22	306	ePn	10 21.00	-0.2	
EDC	1.25	9	iPn	10 21.40	-0.3	
BNT	1.27	11	iPn	10 22.70	0.7	
KCT	1.28	27	iPn	10 22.20	0.0	
S.D. = 0.5			on	6 of	6 obs.	

* MAR 08, 1989 11h 00m 55.54± 0.45s
3.113 N ±11.6km 31.273 W ± 8.0km
DEPTH = 10.0km (geophysicist)
5.1mb (7 obs.) 5.2Msz (1 obs.)
CENTRAL MID-ATLANTIC RIDGE (406)

SOB1	15.55	218	eP	04 34.40	-2.2	
			e	04 42.70		
			e	04 47.80		
ATB	21.88	253	Pc	05 49.50	-1.2	
LIC	26.34	82	P	06 32.98	-0.7	
KIC	26.63	82	P	06 36.72	0.3	
CCH	39.98	238	eP	08 40.00	7.3X	
ZOBO	41.20	241	eP	08 43.00	0.0	
	1.5s		14.52nm		4.5mb	
Z	23s		1.64um		4.8MszX	
			S	15 02.00		
			LR	20 40.00		
LPB	41.29	241	P	08 46.00	2.5	
Z	18s		2.75um		5.2Msz	
			LR	20 40.00		
CNCB	41.30	240	P	08 46.00	2.2	
UPA	48.31	279	e(P)	09 41.70	2.2	
BNG	49.72	87	iPc	09 49.90	-0.5	
MOX	59.51	30	e(P)	11 01.00	-0.3	
	2.6s		101.00nm		5.5mb	
KHC	59.62	32	eP	11 06.90	4.8X	
OHR	60.06	43	eP	11 06.00	0.7	
BRG	60.83	31	eP	11 16.80	6.5X	
	2.0s		44.00nm		5.2mb	
SKO	60.85	43	eP	11 10.50	-0.1	
			i	11 16.50		
ZST	61.06	35	e(P)	11 17.80	5.9X	
VAY	61.36	44	eP	11 14.70	0.6	
SRO	61.56	36	eP	11 17.10	1.8	
SPC	63.36	35	e(P)	11 34.90	7.4X	
KRA	63.61	34	eP	11 28.70	-0.2	
MLR	65.25	41	ePc	11 40.00	0.2	
ISR	65.51	41	eP	11 28.00	-13.4X	
VRI	65.90	40	eP	11 44.00	0.2	
NB2	66.08	21	P	11 44.40	-0.3	
	1.3s		17.80nm		5.1mb	
RSON	70.45	323	P	12 11.30	-0.8	
ALQ	76.08	305	eP	12 45.00	-0.7	
	1.5s		18.75nm		5.0mb	
FFC	76.39	326	eP	12 46.00	-0.8	
	0.9s		15.00nm		5.1mb	
BW06	79.29	313	P	13 02.20	-1.1	
	1.8s		32.55nm		5.0mb	
SES	81.09	320	eP	13 12.00	-0.5	
LRM	81.62	316	eP	13 15.80	0.1	
EDM	82.77	323	eP	13 20.00	-1.2	
GLA	82.91	303	eP	13 24.00	1.7	
TPC	83.94	304	eP	13 35.00	7.4X	
YKA	84.17	332	eP	13 27.60	-0.4	
PLM	84.62	303	eP	13 32.00	0.8	
TNP	84.90	308	P	13 32.60	0.1	
CLC	85.21	306	eP	13 28.00	-5.9X	
KVN	85.59	309	P	13 35.00	-0.9	
ISA	85.93	305	eP	13 36.00	-1.5	
MBC	86.54	346	eP	13 39.00	-0.7	
PNT	86.58	319	ePc	13 41.00	0.6	
S.D. = 1.1			on	33 of	41 obs.	

% MAR 08, 1989 11h 05m 19.59± 0.98s
18.166 N ± 9.7km 66.911 W ± 7.2km
DEPTH = 10.0km (geophysicist)
PUERTO RICO REGION (90)

MGP	0.23	227	P	05 25.10	0.6	
MCP	0.32	323	P	05 25.10	-1.0	
			S	05 34.30		
APR	0.34	31	P	05 28.30	1.7	
			S	05 39.80		
SJG	0.73	94	iP	05 34.50	0.6	
CSB	0.73	80	P	05 33.30	-0.6	
LPR	1.00	82	P	05 37.30	-1.3	
S.D. = 1.5			on	6 of	6 obs.	

MAR 08, 1989 11h 44m 32.31± 0.10s
1.031 N ± 2.3km 126.189 E ± 2.8km
DEPTH = 31.9km (geophysicist)
5.9mb (65 obs.) 5.6Msz (13 obs.)
MOLUCCA PASSAGE (266)

Two hundred thirty-three houses and public buildings damaged and 5,500 people left homeless on Morotai, Indonesio. Sixteen houses damaged and some homeless at Tanowangu, Halmahero. Depth from broadband displacement seismograms.

FAULT PLANE SOLUTION: P-Waves
NP1:Strike=242 Dip=52 Slip= 90
NP2: 62 38 90
Principal Axes:
T Plg=83 Azm=152
P 7 332

Comment: The focal mechanism is poorly controlled and corresponds to reverse faulting. The preferred fault plane is NP2.

RADIATED ENERGY
No. of sta: 9 Focal mech. M
Energy 3.9±1.2*10**13 Nm

MOMENT TENSOR SOLUTION
Dep 40 No. of sto: 14
Moment Tensor; Scale 10**18 Nm
Mrr= 1.20 Mtt=-1.07
Mff=-0.13 Mrt=-0.25
Mrf= 0.56 Mtf=-0.79
Principal axes:
T Val= 1.51 Plg=63 Azm=243
N 0.01 27 59
P -1.53 1 150

Best Double Couple:Mo=1.5*10**18
NP1:Strike=265 Dip=50 Slip= 127
NP2: 36 52 55

CENTROID, MOMENT TENSOR (HRV)
Doto Used: GDSN
L.P.B.: 16S, 36C M.W.: 13S, 26C
Centroid Location:
Origin Time 11:44:38.1 0.1
Lat 1.14N 0.02 Lon 126.38E 0.02
Dep 30.8 BDY Half-duration 4.0
Moment Tensor; Scale 10**18 Nm
Mrr= 1.42 0.03 Mtt=-0.49 0.03
Mff=-0.93 0.04 Mrt=-0.20 0.07
Mrf= 0.10 0.07 Mtf=-0.55 0.03
Principal Axes:
T Val= 1.45 Plg=82 Azm=210
N -0.15 8 34
P -1.30 1 304

Best Double Couple:Mo=1.4*10**18
NP1:Strike= 26 Dip=45 Slip= 79
NP2: 222 46 101

AAI	5.10	157	ePc	45 50.60	2.1	
			eS	46 56.00		
DAV	6.05	354	eP-	46 04.00	2.1	
TSM	8.71	292	iPd	46 45.50	6.4X	
	0.8s	4266.80nm			7.7mb X	
KKM	11.13	297	eP	47 16.40	3.9X	
	1.1s	1169.30nm			7.0mb X	
			e	47 33.00		
PPR	11.42	320	ePd	47 20.00	3.6X	
			eS	47 55.00		
PGP	13.43	338	iPc	47 52.00	8.8X	
	1.0s	221.00nm			6.0mb	
OCP	14.43	340	eP	47 58.00	1.6	
MTN	14.63	161	iPc	47 58.30	-0.7	
JAY	14.93	104	ePd	48 04.00	1.0	
			e	53 50.00		
BAG	16.25	340	eP	48 20.00	-0.2	
	1.0s	1120.00nm			5.9mb	

			eS	51 18.00		
KNA	16.87	171	eP	48 27.00	-0.7	
	0.6s	446.00nm			5.8mb	
CVP	17.12	346	eP	48 32.00	1.1	
			eS	48 46.50		
PIP	18.04	343	iPd	48 41.00	-1.3	
	1.5s	1448.00nm			5.9mb	
MNDI	18.84	112	eP	48 53.00	0.5	
LAT	22.13	110	e(P)	49 28.00	1.0	
GUMO	22.30	55	eP	49 27.30	-1.4	
	0.9s	344.42nm			5.8mb	
PJG	22.30	55	eP	49 27.60	-1.1	
GUA	22.31	55	eP	49 27.40	-1.4	
	1.0s	440.00nm			5.9mb	
WRA	22.32	159	Pc	49 28.00	-0.9	
	1.3s	726.90nm			6.0mb	
KGM	22.88	273	ePc	49 36.20	1.8	
	1.3s	140.90nm			5.3mb	
MBL	22.91	195	iPc	49 35.10	0.4	
	0.4s	86.00nm			5.6mb	
PMG	23.31	117	iPc+	49 39.00	0.4	
QIZ	24.02	319	P	49 45.00	-0.4	
E	16s	5.40um				
HKC	24.16	332	iPc	49 47.20	0.4	
			S	54 00.00		
MCO	24.30	330	iP	49 49.00	0.8	
ANP	24.43	350	eP-	49 52.00	2.5	
			eS	54 04.00		
KLM	24.61	275	eP	49 54.20	2.9	
QZH	24.88	343	iPc	49 53.20	-0.5	
	6.0s	2.30nm			2.9mb X	
Z	24s	13.90um			5.4MszX	
E	21s	14.10um				
			S	54 04.00		
QIS	25.16	149	eP	49 55.00	-1.4	
			e	51 52.00		
GZH	25.23	331	iPc	49 57.00	0.0	
Z	29s	17.90um			5.4MszX	
N	18s	10.80um				
IPM	25.38	278	ePc	49 59.00	0.5	
	0.9s	336.00nm			5.9mb	
			e	53 32.50		
NANU	25.65	203	eP	50 01.00	0.0	
ASPA	25.67	163	ePd	50 00.10	-1.1	
	0.7s	437.00nm			6.2mb	
			iS	54 30.40		
SNG	26.22	284	eP	50 07.10	0.8	
	1.7s	923.08nm			6.1mb	
RAB	26.47	101	iP+	50 08.00	-0.7	
			iS	54 40.00		
WARB	27.06	179	eP	50 02.30	-11.7X	
NNT	28.63	295	iPc	50 27.70	-0.6	
CTA	28.76	138	iPc+	50 28.50	-1.0	
	1.3s	234.62nm			5.7mb	
			i	50 33.50		
			ipP	50 41.50	51kmX	
			isP	50 51.00		
			iPP	51 23.00		
			i	52 55.00		
			ePcP	53 38.00		
			e	54 30.00		
			eS	55 10.00		
			eScP	57 19.00		
LOE	29.04	305	iPc	50 31.50	-0.5	
NST	29.54	301	iPc	50 38.00	1.6	
SSE	30.27	351	P	50 43.00	0.2	
	1.5s	160.00nm			5.6mb	
Z	22s	10.60um			5.4Msz	
N	16s	3.80um				
E	12s	1.80um				
			PcP	53 43.00		
			S	55 38.00		
			sS	56 16.00		
			PcS	57 16.00		
KAGJ	30.32	8	P	50 42.90	-0.3	
KHT	30.50	298	iPc	50 46.00	1.0	
BDT	31.22	303	iPc	50 49.90	-1.4	
	0.8s	202.40nm			6.0mb	
WHN	31.43	340	Pd	50 53.50	0.5	
Z	24s	16.10um			5.6MszX	
N	12s	2.68um				
E	12s	1.70um				
			S	55 52.00		
GYA	31.50	325	iPc	50 53.00	-0.8	
Z	28s	9.10um			5.3MszX	
N	17s	7.62um				
E	17s	5.60um				

				PcP	53	46.00				Z	28s	6.10um	5.3MszX		DMN	47.39	308	P	53	05.00	-1.1
				S	55	54.00				N	15s	3.30um			TAU	47.70	159	iPc	53	08.10	0.2
				ScS	01	24.20				E	15s	3.70um			GKN	47.94	308	P	53	09.00	-1.2
MRWA	31.62	197	iPd	50	55.00	0.3						S	57 36.00		HIA	48.37	354	iPc	53	13.50	0.4
NJ2	31.62	348	Pc	50	54.00	-0.7		BRS	38.11	140	Pc	51 48.90	-1.4				epPd	53	23.44	33kmX
Z	28s	9.60um	5.3MszX								i	52 10.30	90kmX				esPd	53	29.73	
				S	55	52.00					i	53 17.80					iS	59	42.47	
KUMJ	31.64	7	eP	50	54.50	-0.3					iScP	57 48.30					eSS	59	45.99	
FORR	31.76	177	eP	50	54.00	-1.8		TIY	38.64	342	Pc	51 54.10	-0.6		KOD	49.28	283	eP	53	19.60	-1.3
	0.4s	259.00nm	6.5mb					N	22s	11.00um							eS	00	20.00	
CHG	32.03	305	iPc+	50	59.00	0.5					S	57 44.00			HYB	49.57	292	iPc	53	21.60	-1.2
	1.2s	276.56nm	6.0mb					YAMJ	39.09	17	P	51 58.50	0.1			1.2s	971.40nm		6.7mb	
			eS	56	36.00			COO	39.83	144	eP	52 04.00	-0.7				eS	00	24.00	
CHTO	32.03	305	iPc	50	58.17	-0.3					e	53 37.00	511kmX		GBA	49.83	287	Pc	53	20.70	-4.0X
			epPd	51	06.45	29kmX		BJI	39.88	348	ePc	52 04.70	-0.2			1.4s	297.10nm		6.1mb	
			ePP	52	05.63			Z	28s	8.80um	5.5MszX				SGE	54.18	113	eP	53	56.60	-0.9
COOL	32.10	188	iPc	50	57.80	-1.1		N	16s	2.00um					POO	54.18	292	iPc	53	50.00	-7.4X
	0.6s	54.00nm	5.6mb								epPd	52 14.80	35kmX		POO	54.18	292	iPc	53	55.00	-2.4
BAL	32.73	195	eP	51	03.30	-1.1					esPd	52 22.41				1.1s	93.67nm		5.7mb	
	0.5s	96.00nm	6.0mb								ePP	53 40.05			NDI	54.18	305	iPc	53	54.50	-2.8X
KMI	32.96	318	iPc	51	07.26	0.5					ePcP	54 22.43				0.7s	136.99nm		6.1mb	
N	14s	4.60um									S	58 04.50					eS	01	29.00	
			epPd	51	15.70	29kmX					eScS	02 10.50			WMO	54.64	326	iPc	53	59.69	-0.8
			sP	51	32.00			OFUJ	40.43	19	P	52 09.80	0.4		Z	24s	9.40um	5.8MszX		
			i	51	43.50			LZH	40.58	332	ePc	52 10.88	0.0		N	18s	6.50um			
			ePP	52	21.39			Z	24s	11.10um	5.6MszX				E	18s	4.40um			
			iSKS	55	53.42			E	18s	4.40um							epPd	54	10.61	37kmX
			e	55	55.77						esPd	52 31.58					esPd	54	19.06	
			S	56	15.00						eS	58 17.10					S	01	34.00	
SHNJ	33.24	7	P	51	08.10	-0.6					eSS	01 17.12					ScS	03	44.00	
KLB	33.42	193	eP	51	09.70	-0.6		SNY	40.68	357	iPc	52 11.50	0.1		VUN	54.78	113	eP	54	01.00	-0.8
	0.5s	164.00nm	6.2mb						8.0s	1.70nm	2.8mb X				BOM	55.21	292	iPd	54	04.00	-0.9
TKSJ	33.60	12	P	51	11.90	0.0		Z	22s	9.30um	5.6Msz							eS	01	37.00	
SHK	33.88	10	iP	51	14.10	-0.2		N	23s	6.50um					KSH	59.55	316	Pc	54	36.00	0.5
	1.0s	520.00nm	6.4mb					E	22s	5.20um					Z	15s	9.50um		6.0MszX	
MUN	34.16	195	iPc	51	16.00	-0.8					pP	52 21.00	32kmX		N	16s	3.10um			
	0.6s	221.00nm	6.3mb								S	58 10.00					S	02	45.00	
Z	20s	3.70um	5.1Msz					BWA	40.97	152	eP	52 14.90	0.9		KRP	59.72	136	P	54	35.20	-1.3
WKYJ	34.17	14	P	51	16.30	-0.6					e	53 48.80	513kmX			1.0s	111.00nm		5.9mb	
YONJ	34.65	11	P	51	20.90	-0.1		SHL	41.09	309	iP	52 14.80	-0.5		SNZO	60.84	140	P	54	40.50	-3.5X
NWAO	34.82	193	iPc	51	22.60	0.2		AOMJ	41.40	16	eP	52 18.30	1.0					S	03	02.00	
	0.5s	155.00nm	6.2mb					HHC	41.79	343	Pc	52 21.00	0.3		AFI	63.19	106	eP	55	00.00	-0.3
			epPd	51	31.37	30kmX		Z	32s	17.70um	5.7MszX							e	04	17.60	
			esPd	51	39.98			N	20s	6.80um								e	08	20.00	
VSG	34.92	108	eP	51	21.00	-2.5X		E	20s	3.90um					SMY	65.06	30	P	55	11.60	-0.1
RMQ	34.96	143	eP	51	21.00	-2.7X					PP	54 02.00				1.1s	354.17nm		6.4mb	
			e	53	56.00						S	58 32.00			DRV	68.26	174	eP	55	31.60	-0.2
HNR	35.19	108	eP	51	23.00	-2.8X		CAN	41.98	152	eP	52 22.10	-0.1		ADK	69.49	34	eP	55	38.40	-1.2
			eS	56	55.00						iPcP	54 17.50			MAIO	70.73	308	iPc	55	47.30	-0.4
TSRJ	35.52	14	P	51	28.30	0.0		BTO	42.03	342	P	52 22.00	-0.6			0.8s	53.81nm		5.7mb	
STK	35.84	157	eP	51	30.00	-1.1		Z	25s	14.40um	5.8MszX							eS	04	56.00	
	0.7s	155.00nm	6.0mb					N	25s	11.10um					KHI	70.93	306	ePc	55	48.80	-0.3
			e	53	58.00						sP	52 45.00			HON	76.40	68	P	56	21.00	0.1
RKG	35.96	193	eP	51	37.00	4.8X		CNB	42.15	151	iPd	52 24.20	0.6		Z	22s	13.33um		6.2Msz	
	0.4s	98.00nm	6.1mb					TOO	42.36	157	eP	52 26.00	0.7		BJA	76.59	296	eP	56	20.40	-1.5
IIDJ	35.97	16	P	51	31.40	-0.8					e	54 05.00	548kmX		BEE	76.67	296	eP	56	21.90	-0.4
TIA	36.00	347	eP	51	30.10	-2.3		CN2	42.59	359	iPc	52 26.80	-0.2			0.7s	97.00nm		5.9mb	
Z	28s	11.40um	5.5MszX						6.0s	1.10nm	2.8mb X				DHR	77.04	297	iPc	56	24.20	-0.2
N	20s	5.20um						Z	22s	6.70um	5.5Msz				IR4	77.40	306	iPc	56	27.00	0.6
		PcP	53	58.50				E	18s	2.90um					IR1	77.60	306	iPc	56	28.00	0.5
		S	57	03.00							pP	52 36.00	31kmX		AVY	79.42	251	iPc	56	38.70	0.9
CD2	36.54	327	iPc	51	36.30	-0.8					PP	54 05.00			SDN	79.71	34	eP	56	38.50	0.1
Z	30s	8.10um	5.3MszX					MRRJ	43.32	16	eP	52 33.60	0.6		RYD	80.10	295	iPc	56	41.00	-0.2
E	13s	3.30um						MDJ	43.50	4	Pc	52 35.00	0.5		MAW	81.05	200	iPc	56	46.30	1.0
		PP	53	01.00				Z	30s	6.80um	5.4MszX				TAB	81.38	308	iPc+	56	49.00	1.2
		iS	57	13.60							S	58 50.00			SBA	81.75	172	Pc	56	50.80	2.0
		iPcS	57	46.00				LSA	43.86	314	Pc	52 38.80	0.7		SLY	81.83	306	iPd	56	49.50	-0.5
		ScS	01	41.00							PcS	58 17.00						iPcP	56	55.00	
XAN	36.60	336	P	51	36.40	-1.2					iS	59 05.50						iS	06	56.50	
N	22s	6.30um									ScS	02 33.00						iPS	07	10.00	
E	20s	9.30um						HOOJ	43.94	18	P	52 39.30	1.3		BHD	82.58	303	iPd	56	55.00	1.1
		S	57	10.00				KUSJ	45.04	19	P	52 47.20	0.3					eS	07	05.00	
CHJJ	36.81	17	P	51	37.30	-2.0		GTA	45.15	331	iPc	52 47.60	-0.4		QASM	82.95	296	iPc	56	56.70	0.6
MTMJ	36.98	16	P	51	39.90	-0.8			2.0s	0.70nm	3.2mb X				SVW	83.40	29	ePc	56	58.50	0.8
MAJO	37.05	16	ePc	51	39.84	-1.4		Z	20s	6.50um	5.6Msz				TTA	83.54	27	ePc	56	59.00	0.6
		epPd	51	51.93	44kmX			E	16s	3.90um					MSL	83.78	306	iPd	57	00.50	0.4
MAT	37.05	16	iPc	51	40.00	-1.2					PP	54 37.00						iPcP	57	06.00	
1.2s	453.13nm	6.2mb									PcS	58 20.40						eS	07	13.00	
Z	20s	3.55um	5.2Msz								S	59 15.00			KDC	84.49	32	ePc	57	03.70	0.6
		eS	57	19.00							ScS	02 40.00			AFR	84.62	108	iP	57	07.10	2.6X
KAKJ	37.32	19	P	51	40.70	-2.8X		ASAJ	45.33	17	P	52 49.10	-0.1			1.5s	80.00nm		5.7mb	
CMS	37.32	152	eP	51	42.00	-1.6		PVC	45.46	116	iP	52 51.50	0.9		PAE	84.81	108	iP	57	08.20	2.7X
		e	53	09.00	459kmX		DZM	45.48	123	iPc	52 49.20	-1.6			1.5s	125.00nm		5.9mb	
ADE	37.68	163	iPd	51	46.70	0.1					pP	54 30.20	552kmX		PPT	84.81	108	iP	57	08.40	2.9X
0.8s	231.34nm	6.1mb						GUN	46.92	308	P	53 01.60	-0.8			1.5s	105.00nm		5.8mb	
NIIJ	37.92	17	P	51	47.30	-1.2		PKI	47.13	308	P	53 02.70	-1.4		Z	12s	3.00um		5.9MszX	
DL2	37.92	354	iPc	51	49.00	0.5		KKN	47.33	308	P	53 04.30	-1.3		BRW	84.89	18	ePc	57	06.10	1.2

08d 11h

```
PPN   84.95 108 iP    57 09.00   2.8X
      1.5s    50.00nm        5.5mb
IMA   85.05  24 ePc   57 06.40   0.4
      1.5s   250.00nm        6.2mb
TVO   85.13 108 iP    57 10.20   3.0X
      1.5s   125.00nm        5.9mb
PMO   86.32 105 iP    57 14.50   1.5
      1.5s   105.00nm        5.8mb
PMR   86.56  28 eP    57 12.40  -0.9
VAH   86.58 105 iP    57 15.50   1.2
      1.5s    60.00nm        5.6mb
TPT   86.58 105 iP    57 15.90   1.6
      1.5s   115.00nm        5.9mb
RUV   86.82 105 iP    57 16.80   1.3
      1.5s   105.00nm        5.8mb
AAE   87.30 279 eP    57 20.40   2.1
NPA   87.31 255 iPd   57 11.50  -6.4X
      0.9s   150.00nm        6.2mb
FBA   87.38  25 eP    57 16.00  -1.3
TOA   87.99  28 ePc   57 21.10   0.7
KVT   89.44 311 iP    57 28.60   0.9
OUTJ  89.62 301 P     57 30.20   1.4
JARJ  89.66 302 P     57 30.00   1.0
BURJ  89.82 302 P     57 30.60   0.9
SALJ  89.89 302 P     57 30.20   0.2
MKRJ  89.93 301 P     57 31.30   1.0
DSI   90.16 301 iPc   57 32.00   0.8
CRI   90.41 303 eP    57 33.00   0.6
HQL   90.50 299 iPc   57 33.40   0.6
MBH   90.63 300 iPc   57 34.50   1.1
SPA   91.02 180 e(P)  57 25.00  -9.6X
      1.8s   237.04nm        6.2mb
   Z  20s     2.34um         5.6Msz
                e     57 53.90 109kmX
LFK   91.58 305 eP    57 37.80   0.1
CSS   91.76 305 eP    57 39.00   0.5
ANTO  91.96 310 ePd   57 35.72  -3.7X
BBTK  91.99 310 eP    57 40.00   0.4
KEV   92.22 340 eP    57 38.00  -1.9
                eS    08 08.00
AGRW  92.69 294 iPd   57 44.80   1.9
SOD   92.74 338 iP    57 41.10  -1.2
KJF   92.78 334 iP    57 41.80  -0.7
      0.9s    32.10nm        5.8mb
                eS    08 40.00
INK   92.86  21 eP    57 42.50  -0.3
      1.3s   172.00nm        6.3mb
AGMR  92.94 293 iPc   57 47.00   2.9X
SUF   93.70 333 iP    57 45.70  -1.1
      0.5s    11.60nm        5.6mb
SIT   93.76  33 ePc   57 48.20   1.0
BCK   93.83 307 eP    57 47.00  -1.1
GPA   93.83 310 eP    57 47.70  -0.3
ALT   94.08 309 eP    57 48.20  -1.0
HRT   94.27 311 iP    57 49.60  -0.4
ELL   94.43 307 eP    57 50.30  -0.6
GBZT  94.45 311 iPd   57 49.00  -1.7
KHL   94.60 308 eP    57 50.90  -0.7
MBC   94.69  13 eP    57 51.00  -0.2
      1.1s    51.00nm        5.9mb
ISK   94.71 311 eP    57 52.00   0.1
NUR   94.79 331 eP    57 51.00  -0.8
      0.7s    26.70nm        5.8mb
                i     57 57.00  19kmX
CFR   94.95 315 eP    57 52.00  -0.9
PSN   95.09 314 eP    57 54.00   0.4
TLB   95.10 315 eP    57 54.00   0.4
CTT   95.18 311 eP    57 54.00  -0.1
CLI   95.39 317 eP    57 56.00   1.0
DMK   95.61 312 eP    57 55.00  -1.1
BNT   95.65 311 iP    57 55.70  -0.6
EDC   95.69 311 iP    57 56.40  -0.1
VRI   95.86 316 ePc   57 58.00   0.9
ISR   96.08 315 eP    58 00.00   1.8
IZM   96.36 309 eP    58 07.00   7.4X
JMB   96.40 313 iPc   58 00.00   0.4
ALE   96.44   1 eP    57 59.00  -0.1
      0.6s     3.00nm        5.0mb
MLR   96.45 316 ePc   58 00.00   0.0
BUC   96.49 315 eP    57 56.00  -4.0X
BUC1  96.55 315 ePc   58 00.00  -0.2
EZN   96.92 310 eP    58 01.20  -0.8
PVL   97.21 314 iPd   58 05.00   1.8
KDZ   97.37 312 iPd   58 04.00   0.0
BUL   97.47 250 iPd   58 05.10   0.1
      1.1s    27.85nm        5.7mb
                i     02 02.60
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SLR    97.57 244 iPc   58 06.00   0.6
       1.0s    20.00nm        5.6mb
CJR1   97.90 317 eP    58 09.70   3.4X
SEK    98.03 242 eP    58 02.80  -4.7X
       0.5s     7.04nm        5.4mb
PGB    98.16 313 iP    58 07.00  -0.6
PRY    98.24 243 eP    58 06.50  -1.9
       1.0s    10.00nm        5.3mb
UPP    98.35 331 iPc   58 05.90  -2.1
DEV    98.49 317 iPd   58 10.00   1.0
MMB    98.63 312 iPd   58 09.00  -0.7
KSR    98.81 244 eP    57 54.50 -16.6X
VTS    98.85 313 iP    58 10.00  -0.9
BFS    98.86 243 eP    57 50.50 -20.7X
       0.8s    29.85nm
BLF    99.24 241 eP    58 14.00   1.1
VAY    99.53 312 iP    58 12.80  -1.0
KRA    99.59 321 iPc   58 13.70  -0.2
       1.2s    75.00nm        6.1mb
    Z  20s     2.10um         5.6Msz
    N  20s     3.20um
                 e     58 28.70  51kmX
                 e     00 55.30
SPC    99.60 320 eP    58 14.60   0.4
                 e     01 13.10
DAG    99.86 352 iPd   58 13.90  -0.7
FRS    99.95 240 eP    58 17.50   1.6
PSZ   100.11 319 ePdiff58 16.50   0.1
HFS   100.14 332 ePdiff58 14.90  -1.2
       1.3s    45.00nm        5.8mb
    Z  19s     1.95um         5.6Msz
                 LR    38 54.00
SWZ   100.14 243 ePdiff58 15.00  -2.1
SKO   100.25 313 iPdiff58 16.00  -1.1
    E  22s     2.69um
                 iS    08 53.30
                 LR    48 30.00
OHR   100.88 312 iPdiff58 18.50  -1.5
       1.2s     0.06nm        3.0mb X
NRA0  100.91 333 Pdiff 58 22.60   3.0X
NB2   100.94 333 Pdiff 58 18.20  -1.6
       1.3s   122.60nm        6.3mb
PHP   101.04 313 ePdiff58 19.10  -1.4
SRO   101.17 319 ePdiff58 21.40   0.4
                 e     02 22.40
                 e     02 41.90
BCI   101.17 313 ePdiff58 21.00  -0.1
LSK   101.21 311 ePdiff58 17.70  -3.8X
TIR   101.53 312 ePdiff58 21.00  -1.8
LACI  101.58 313 ePdiff58 17.00  -6.0X
TPE   101.63 311 ePdiff58 34.00  10.7X
KSP   101.65 323 ePdiff58 23.00  -0.1
       1.0s    37.00nm        5.9mb
                 e     01 33.50
ZST   101.86 320 ePdiff58 24.60   0.5
                 e     01 39.70
                 e     02 39.20
YKA   102.16  24 ePdiff58 25.60   0.5
YKC   102.22  24 ePdiff58 25.50   0.2
PRU   102.97 322 Pdiffd58 30.00   1.0
    Z  23s     3.60um         5.8MszX
    N  22s     1.30um
    E  22s     2.40um
BRG   103.06 323 iPdiff58 29.50   0.1
       1.4s    48.00nm        6.0mb
    Z  24s     4.50um         5.9MszX
    N  24s     2.50um
    E  24s     3.00um
                 i     58 34.70
                 e     01 40.00
PTJ   103.22 318 ePdiff58 31.00   0.7
GMW   103.29  41 Pdiff 58 31.10   0.6
BMW   103.30  42 Pdiff 58 31.60   1.0
CLL   103.48 324 iPdiff58 31.90   0.7
       1.9s    40.00nm        5.9mb
    Z  20s     2.50um         5.7Msz
                 i     02 50.10
VBY   103.80 317 ePdiff58 33.70   0.9
KHC   103.83 321 iPdiff58 34.80   1.9
       1.0s     8.50nm        5.5mb
                 e     01 38.40
RMW   103.95  40 Pdiff 58 34.60   1.1
SHW   104.04  42 Pdiff 58 35.80   1.8
CEY   104.29 318 e(Pdif58 35.50   0.5
MOX   104.53 323 e(Pdif58 36.00   0.1
       1.7s    31.00nm        5.9mb
    Z  25s     2.90um         5.7MszX
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    N  28s     2.00um
                 e     58 42.00
                 e     01 58.00
                 e(PP) 02 53.00
                 e     12 12.00
                 e     23 00.00
                 e     26 20.00
                 LQ    48 25.00
                 LR    50 00.00
VOY   104.56 318 e(Pdif58 29.50  -6.8X
                 e     58 38.50
KBA   104.61 319 e(Pdif58 36.00  -0.6
TR1   104.74 318 ePdiff58 24.90 -12.1X
PNT   104.75  38 ePdiff58 37.00   0.0
TUH   104.78 236 ePdiff58 42.00   4.5X
WDC   105.35  47 e(Pdif58 40.20   0.4
ORV   106.39  48 e(Pdif58 44.50   0.0
EDM   106.89  33 ePdiff58 47.00   0.6
ARN   106.93  50 Pdiff 58 48.00   1.0
PRS   107.32  51 ePdiff58 50.20   1.5
CMB   107.63  49 ePdiff58 50.80   0.7
SYP   108.87  53 ePKP  03 15.00  14.2X
KVN   109.06  48 Pdiff 58 57.30   0.7
ISA   109.76  51 ePKP  03 03.00   0.6
TNP   110.01  49 Pdiff 59 01.80   0.9
CLC   110.40  51 ePKP  03 04.00   0.4
                 e     03 37.00
MWC   110.49  53 ePKP  03 04.00   0.0
EUR   110.49  47 iPdiff59 04.20   1.2
       0.5s     1.60nm
EUR   110.49  47 iPKP  03 01.30  -2.6X
       1.0s     3.46nm
SBB   110.54  52 ePKP  03 04.00   0.1
LRM   110.55  40 ePKP  02 58.90  -4.9X
BGMT  111.06  40 ePKP  03 05.50   0.7
RVR   111.09  53 ePKP  03 04.00  -0.9
PEC   111.29  53 PKP   03 05.50   0.2
FFC   111.86  28 ePdiff59 11.50   3.1X
       1.2s    14.00nm
FFC   111.86  28 ePKP  03 05.50  -0.1
       0.9s    17.00nm
BAR   112.03  54 ePKP  03 08.00   1.3
TPC   112.11  52 ePKP  03 07.00   0.1
                 e     03 49.00
GLA   113.40  53 ePKP  03 10.00   0.6
BW06  113.72  42 PKP   03 08.80  -1.2
FRB   114.46   7 ePKP  03 09.00  -1.4
RSSD  116.63  38 PKP   03 14.50  -1.0
GOL   117.92  43 PKP   03 17.80  -0.3
RSON  118.19  27 PKP   03 16.80  -1.1
ALQ   119.22  48 ePKP  03 21.00   0.3
ASMO  120.04 315 ePKP  03 21.50  -0.5
APHE  120.19 315 ePKP  03 22.50   0.2
TAF   120.21 312 iPKPd 03 24.00   1.6
AAPN  120.33 315 ePKP  03 22.20  -0.4
ALOJ  120.41 315 ePKP  03 22.50  -0.3
ATEJ  120.44 315 ePKP  03 22.50  -0.3
IFR   122.80 312 iPKPd 03 29.00   1.5
SCH   123.32   9 ePKP  03 27.00  -0.6
AVE   124.59 313 iPKP  03 31.00   0.3
SHGH  125.87 278 ePKP  03 34.00   0.2
LEGH  126.04 278 ePKP  03 35.00   0.9
KOGH  126.06 278 ePKP  03 34.50   0.3
KUK   126.17 278 ePKP  03 34.50   0.1
FVM   128.55  37 PKP   03 37.80  -0.4
OLY   129.46  40 PKP   03 40.00   0.0
ELC   129.73  37 PKP   03 40.60   0.2
KIC   130.47 279 PKP   03 42.44  -0.1
CBM   130.61  13 PKP   03 42.40   0.6
TIC   130.71 280 PKP   03 42.92  -0.1
LIC   130.77 279 PKP   03 42.90  -0.2
CLE   130.78  27 iPKP  03 42.50   0.2
PTN   130.83  20 PKP   03 42.00  -0.3
RSNY  131.01  20 PKP   03 42.50  -0.2
    Z  20s     1.92um         5.8Msz
DHN   131.14  24 PKP   03 42.50  -0.5
STJ   131.59 359 ePKP  03 43.50  -0.1
PWLA  131.95  38 PKP   03 44.00  -0.7
RSCP  133.03  36 PKP   03 46.00  -0.8
GBTN  133.78  35 PKP   03 49.20   1.0
TKL   134.03  34 PKP   03 48.50  -0.2
TBR   134.11  22 PKP   03 49.10   0.4
PRIN  134.60  23 PKP   03 50.70   1.1
BLA   134.66  30 PKP   03 48.70  -1.2
JSC   136.45  34 PKP   03 53.50   0.2
ZON   146.55 157 ePKP  04 12.00   0.7
CYA   150.43 156 e(PKP)04 18.20   0.8
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UPA 152.51 68 ePKP 04 20.20 -0.6
Z 20s 2.52um 6.0Msz
ITA 157.01 202 ePKP 04 28.80 1.7
e 04 59.10
CNCB 159.01 139 PKPc 04 32.00 2.2
e 05 09.00
LPB 159.13 138 PKP 04 30.00 0.2
1.9s 263.16nm
Z 24s 2.33um 5.9MszX
e 05 08.00
LR 00 10.00
ZOBO 159.30 138 iPKP 04 32.00 1.8
1.0s 45.00nm
Z 23s 1.41um 5.7MszX
i 05 09.50
LR 00 25.00
CCH 159.72 144 (PKP) 04 30.00 -0.3
BAO 164.39 201 ePKP 04 39.00 4.2X
SOB1 164.79 237 ePKP 04 35.50 0.4
e 04 56.60
e 05 32.60
ATB 177.25 215 PKPc 04 40.50 -0.6
S.D. = 1.0 on 307 of 348 obs.

MAR 08, 1989 12h 43m 42.87± 0.25s
40.727 N ± 5.2km 74.780 E ± 4.7km
DEPTH = 33.0km (normal)
4.7mb (16 obs.)
KIRGHIZ-XINJIANG BORDER REGION (320)
Felt (III) at Naryn, USSR.

KSH 1.57 144 iPd 44 14.00 5.1X
S 44 36.00
WMO 10.06 68 P 46 03.20 -5.0X
Z 10s 1.20um
S 47 52.00
NDI 12.18 170 iPc 46 37.50 0.6
0.6s 26.67nm 5.6mb
eS 48 49.00
QUE 12.29 214 iPc 46 39.20 0.5
eS 49 04.00
MAIO 12.76 255 iPd 46 42.70 -2.1
0.8s 8.78nm 4.9mb
eS 49 03.00
KHI 14.40 248 eP 47 04.80 -1.6
GKN 15.06 144 P 47 13.70 -1.4
KKN 15.53 143 P 47 20.10 -1.2
DMN 15.61 144 P 47 22.10 -0.2
0.4s 19.00nm 4.6mb
GUN 15.71 141 P 47 23.00 -0.7
PKI 15.78 143 P 47 23.10 -1.5
GTA 19.19 86 Pc 48 06.40 -0.3
POO 22.13 182 eP 48 51.50 14.2X
iS 52 52.50
LZH 23.19 92 eP 48 47.50 -0.2
HYB 23.46 171 eP 48 54.00 3.8X
CD2 25.36 104 eP 49 10.00 1.5
GBA 27.12 174 Pc 49 25.40 0.7
0.7s 5.80nm 4.3mb
TIY 29.18 84 eP 49 43.60 0.3
CHTO 30.10 129 eP 49 52.00 0.4
0.9s 1.28nm 3.7mb
KOD 30.46 175 eP 49 59.20 4.1X
MLR 35.53 294 ePc 50 40.00 1.3
KJF 35.81 327 eP 50 54.00 13.3X
SUF 36.07 324 eP 50 44.00 1.1
NUR 36.31 320 eP 50 33.00 -11.9X
KRA 38.83 303 eP 51 05.80 -0.4
VAY 38.90 289 eP 51 08.00 1.1
HFS 41.71 319 eP 51 29.40 -0.4
0.4s 2.00nm 4.2mb
PRU 42.28 304 eP 51 34.50 -0.1
NB2 42.91 320 P 51 37.80 -1.9
0.9s 8.00nm 4.4mb
CLL 42.98 306 iPd 51 44.00 3.7X
KHC 43.07 303 eP 51 42.30 1.2
TRI 43.80 298 eP 51 47.40 0.4
BSF 47.77 302 eP 52 18.30 -0.4
0.7s 6.60nm 4.8mb
HAU 48.00 303 eP 52 19.90 -0.5
LPG 48.55 300 eP 52 25.30 0.3
LOR 49.83 303 eP 52 33.50 -1.0
SMF 50.05 302 eP 52 35.40 -0.8
AVF 50.32 302 eP 52 37.50 -0.7
0.7s 9.90nm 4.9mb
MAF 51.03 302 eP 52 43.40 -0.2
0.5s 2.40nm 4.4mb

TCF 51.24 302 eP 52 44.90 -0.3
LSF 51.69 302 eP 52 47.80 -0.8
BNG 61.90 250 iPc 54 00.30 -1.3
MBC 62.96 4 eP 54 06.00 -1.8
0.6s 7.00nm 5.0mb
INK 69.23 11 eP 54 47.00 -0.9
FBA 69.57 18 eP 54 49.50 -0.6
1.0s 5.00nm 4.5mb
BUL 74.21 225 eP 55 19.60 1.2
SHGH 74.66 265 eP 55 22.00 1.0
KOGH 74.71 265 eP 55 22.50 1.1
KUK 74.74 265 eP 55 23.00 1.5
LEGH 74.94 264 eP 55 24.00 1.3
YKA 76.85 4 eP 55 32.40 -0.3
KIC 77.94 268 Pc 55 40.08 0.6
0.7s 10.50nm 5.0mb
TIC 77.97 268 P 55 40.28 0.6
LIC 78.25 268 P 55 41.72 0.6
WRA 81.84 125 P 56 03.00 2.8
0.6s 0.60nm 3.8mb
FFC 84.88 358 iPd 56 15.40 0.2
1.1s 26.00nm 5.3mb
EDM 86.16 5 iPd 56 21.60 -0.1
PNT 89.44 9 eP 56 38.00 0.4
0.7s 5.00nm 4.9mb
LRM 93.59 5 eP 56 57.40 0.3
BGMT 94.21 5 eP 57 00.30 0.4
S.D. = 1.0 on 52 of 60 obs.

& MAR 08, 1989 12h 55m 44.13s
62.298 N 149.423 W
DEPTH = 43.7km
CENTRAL ALASKA (1)
<AGS-P>.

GHO 0.58 156 iP 55 55.73 -0.4
PWA 0.68 199 iP 55 56.87 -0.6
PME 0.70 164 iP 55 57.07 -0.6
SML 0.71 133 iP 55 57.13 -0.8
PLRM 0.72 169 iP 55 57.10 -0.9
KNK 1.00 152 iP 56 01.20 -0.7
eS 56 15.12
PMS 1.06 184 iP 56 01.81 -1.0
PTE 1.45 172 iP 56 07.67 -0.6
PWL 1.53 160 iP 56 08.87 -0.6
CGLM 1.58 232 eP 56 09.33 -0.9
CRP 1.66 233 eP 56 11.16 -0.3
eS 56 35.13
SPU 1.68 229 eP 56 10.67 -0.9
NKA 1.79 210 eP 56 14.92 1.9
SLKM 1.84 192 eP 56 12.61 -1.2
KLU 1.84 114 iP 56 13.02 -0.9
VZW 1.85 131 iP 56 12.91 -1.1
VLZ 1.88 127 eP 56 12.89 -1.4
SEW 2.20 180 eP 56 18.69 -0.2
RDT 2.25 221 eP 56 18.86 -0.8
CVA 2.49 133 eP 56 22.97 -0.1
FBA 2.71 15 iP 56 24.17 -2.1
iS 56 55.48
SGAM 2.71 130 eP 56 24.61 -1.7
GLB 2.79 105 eP 56 26.19 -1.3
ILIM 2.81 219 eP 56 26.55 -1.1
CNPM 2.92 198 eP 56 28.43 -0.8
TTA 3.11 285 eP 56 29.71 -2.3
26 obs. associated

? MAR 08, 1989 14h 35m 33.26± 4.19s
35.902 S ±21.2km 178.651 W ±50.0km
DEPTH = 33.0km (normal)
4.8mb (3 obs.)
EAST OF NORTH ISLAND, N.Z. (688)

KRP 5.07 245 P 36 49.00 0.0
S 37 41.00
DZM 18.94 313 iPc 39 54.00 -0.1
RMQ 29.31 279 eP 41 35.00 0.1
CTA 34.54 288 iPc 42 21.20 0.4
1.1s 35.44nm 5.2mb
i 42 31.20
QIS 39.51 281 iPd 43 03.40 0.7
ASPA 42.57 273 iPc 43 27.80 0.0
1.0s 12.00nm 4.6mb
WRA 44.05 278 Pc 43 39.20 -0.6
0.5s 6.50nm 4.7mb
WB5 44.06 278 eP 43 39.50 -0.4
BNG 144.90 211 ePKPd 55 12.60 3.5X
0.6s 3.00nm

SOD 145.33 343 iPKP 55 12.80 4.6X
KJF 147.49 339 iPKP 55 19.00 7.2X
0.7s 21.40nm
SUF 149.06 338 iPKP 55 23.60 9.2X
0.7s 12.50nm
NUR 151.20 336 iPKP 55 29.10 11.5X
NB2 154.07 349 PKP 55 35.60 13.8X
0.8s 2.50nm
SLL 154.23 346 ePKP 55 36.40 14.4X
0.5s 1.70nm
S.D. = 0.5 on 8 of 15 obs.

? MAR 08, 1989 14h 35m 42.12± 9.42s
15.608 N ±70.9km 96.903 W ±42.9km
DEPTH = 33.0km (normal)
NEAR COAST OF OAXACA, MEXICO (66)

OXX 1.47 7 iP 36 07.00 0.2
ACX 3.10 294 iP 36 30.00 0.1
iS 37 05.00
IISM 3.39 352 iP 36 33.00 -1.0
iS 37 20.00
IIT 3.65 339 eP 36 39.00 1.1
iS 37 25.00
III 3.69 319 eP 36 38.00 -0.4
iS 37 27.00
CRX 4.61 325 (P) 36 56.00 4.3X
iS 37 55.00
IIC 4.71 332 (P) 36 41.00 -12.0X
iS 37 47.00
YKA 48.47 349 eP 44 29.40 6.2X
MBC 61.79 354 eP 46 10.00 10.4X
S.D. = 1.1 on 5 of 9 obs.

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* MAR 08, 1989 14h 56m 50.72± 1.97s
0.035 N ±27.3km 121.767 E ±27.8km
DEPTH = 237.8 ± 17.2 km
4.4mb (5 obs.)
MINAHASSA PENINSULA (265)

PCI 2.14 244 ePd 57 34.00 0.2
eS 57 59.00
MTN 15.81 144 iPc 00 22.10 -0.6
0.3s 44.00nm 5.4mb
WB5 23.33 149 eP 01 39.70 0.5
WRA 23.37 149 Pd 01 39.60 0.0
0.4s 5.00nm 4.4mb
ASPA 26.34 154 eP 02 07.20 0.2
WARB 26.49 170 eP 01 57.90 -10.3X
PMG 26.96 111 e(P) 01 44.00 -28.5X
CHTO 29.16 311 eP 02 32.10 -0.1
0.8s 1.83nm 3.8mb
GUN 44.17 312 P 04 38.60 0.2
PKI 44.34 311 P 04 39.50 -0.2
KKN 44.55 311 P 04 41.40 0.2
DMN 44.59 311 P 04 41.60 0.0
GKN 45.15 311 P 04 45.80 -0.1
HYB 45.89 294 eP 04 52.60 0.9
1.0s 25.00nm 4.5mb
GBA 45.92 289 Pc 04 50.60 -1.3
0.6s 9.20nm 4.3mb
S.D. = 0.6 on 13 of 15 obs.

MAR 08, 1989 15h 36m 57.88± 1.05s
51.703 N ± 8.7km 175.200 W ± 3.9km
DEPTH = 59.7 ± 8.8 km
5.0mb (17 obs.)
ANDREANOF ISLANDS, ALEUTIAN IS. (7)
Felt (IV) on Adak.

ADK 0.94 282 iP 37 16.10 0.9
SMY 6.66 283 eP 38 33.80 -1.4
SVW 14.30 41 eP 40 21.40 3.0X
KDC 14.41 56 eP 40 17.10 -2.7
TTA 15.22 35 ePd 40 36.70 6.4X
PMR 17.30 45 eP 40 57.20 0.9
IMA 18.04 29 eP 41 08.10 2.4
0.8s 15.00nm 4.2mb
TOA 18.79 45 eP 41 14.00 -0.7
FBA 19.33 36 eP 41 19.00 -1.6
BRW 21.36 16 ePc 41 42.70 1.2
INK 25.91 34 eP 42 25.00 -0.5
MBC 32.47 22 eP 43 25.00 1.0
0.5s 6.00nm 4.7mb
YKA 33.37 47 eP 43 33.10 1.2
PNT 34.71 71 eP 43 45.00 1.4
0.5s 10.00nm 5.0mb

08d 15h

```
MAT    36.06 264 eP    43 55.00  -0.2
       1.2s    23.44nm          5.0mb
EDM    36.68  63 iPc   44 01.70   1.4
       0.5s    95.00nm          6.0mb
CN2    39.68 283 eP    44 25.00  -0.4
LRM    40.64  73 eP    44 34.50   0.9
KVN    41.03  85 eP    44 38.00   1.2
BGMT   41.20  73 eP    44 39.10   1.0
SNY    41.93 281 Pc    44 44.40   0.6
EUR    42.09  83 eP    44 45.00  -0.5
FFC    42.11  56 eP    44 46.00   0.8
       0.6s    11.00nm          4.8mb
TNP    42.17  85 eP    44 46.50   0.3
BW06   44.06  75 eP    45 02.50   1.0
       1.0s    30.00nm          5.0mb
BJI    47.49 284 eP    45 29.00   0.6
RSON   48.41  57 eP    45 35.40  -0.1
       0.7s    24.07nm          5.3mb
TIA    49.34 280 Pc    45 42.80   0.0
SSE    50.24 272 P     45 50.30   0.6
BTO    50.82 289 eP    45 48.40  -5.7X
ALQ    50.83  81 eP    45 53.00  -1.4
       1.0s     4.25nm          4.4mb
NJ2    51.04 274 Pc    45 55.00  -0.8
TIY    51.22 284 eP    45 58.00   0.8
FRB    51.55  33 eP    45 58.50  -0.7
XAN    55.79 283 P     46 31.00   0.1
GTA    57.51 294 eP    46 42.00  -1.2
FVM    58.36  68 eP    46 47.50  -1.5
ELC    59.53  67 eP    46 55.80  -1.3
GAC    61.00  52 eP    47 07.00   0.0
WMQ    61.03 305 eP    47 06.60  -0.7
CD2    61.09 284 P     47 07.40  -0.5
DHN    61.69  56 eP    47 11.60  -0.1
PTN    62.06  53 eP    47 13.50  -0.7
GYA    62.51 279 P     47 17.00  -0.5
KJF    63.07 349 eP    47 19.00  -1.5
       0.7s    13.30nm          5.1mb
GBTN   63.54  65 eP    47 23.20  -0.8
CBM    63.59  47 eP    47 23.40  -0.8
NAV    64.25  62 eP    47 28.50  -0.2
SUF    64.68 349 eP    47 30.00  -1.1
CVL    65.04  60 eP    47 34.40   0.7
KMI    65.89 280 Pc    47 40.00   0.3
              pP       47 49.50  30kmX
JSC    66.21  65 eP    47 41.30   0.1
NUR    67.01 349 iP    47 45.00  -0.9
NB2    67.49 357 P     47 48.20  -0.9
       0.7s     4.60nm          4.6mb
HFS    68.29 355 eP    47 53.10  -0.8
       0.5s    10.20nm          5.1mb
LSA    69.43 292 P     48 03.20   1.2
CHG    72.93 279 eP    48 23.50   0.9
GUN    73.79 294 P     48 28.50   0.6
KKN    74.23 295 P     48 30.80   0.5
PKI    74.32 295 P     48 31.40   0.4
       0.8s    32.00nm          5.3mb
GKN    74.43 295 P     48 31.90   0.6
MTN    79.24 233 iPc   48 58.00   0.0
       0.6s    84.00nm          5.8mb
KHC    79.27 354 P     48 59.00   1.2
MLR    81.48 345 eP    49 11.00   1.2
WB5    83.77 227 eP    49 21.00  -0.6
WRA    83.84 227 Pc    49 21.40  -0.6
       1.3s    17.30nm          4.9mb
SKO    85.59 348 eP    49 30.60   0.0
HYB    86.18 293 ePc   49 34.00   0.1
ASPA   87.28 225 iPc   49 39.20   0.3
       1.0s    17.00nm          5.2mb
              ipP      49 56.50  61kmX
GBA    89.86 292 Pd    49 47.60  -3.9X
       0.8s     6.10nm          4.9mb
WARB   92.78 230 eP    49 53.90 -10.7X
BNG   122.86 344 iPKPd 55 48.00  -0.7
       0.5s     5.00nm
BUL   143.41 320 iPKPc 56 24.30  -2.9X
       0.8s     7.46nm
MAW   148.12 218 ePKP  56 37.50   4.1X
SLR   148.52 317 iPKPd 56 36.00   0.5
       0.7s    34.25nm
              i        56 40.00
KSR   149.22 319 iPKPd 56 41.70   5.0X
       0.8s     9.38nm
PRY   149.91 317 iPKPd 56 42.50   4.9X
       1.1s    47.30nm
BFS   150.18 318 iPKPd 56 43.00   5.0X
SWZ   151.03 320 iPKPc 56 44.50   5.2X
       0.6s   103.33nm
SEK   151.06 315 iPKPc 56 46.50   7.2X
       0.6s    54.67nm
BLF   152.36 317 iPKPd 56 49.00   7.8X
       0.6s    17.86nm
FRS   153.29 317 ePKP  56 50.60   8.4X
      S.D. = 1.0  on  68 of  82 obs.
-------------------------------------
%  MAR  08, 1989  18h 00m 32.19± 0.72s
   60.733 N ± 5.9km    5.543 E ± 7.7km
   DEPTH =  10.0km  (geophysicist)
 SOUTHERN NORWAY                 (535)
      ML 1.5 (BER).

SUE     0.50 311 iP     00 42.20  -0.2
                eS      00 50.30
HYA     0.54  36 iP     00 43.00   0.0
                eS      00 50.60
ODD1    0.99 146 eP     00 50.10  -0.8
                eS      01 02.80
BLS1    1.49 154 eP     00 59.40   0.3
                eS      01 18.60
KMY     1.53 186 eP     01 00.00   0.4
                iSg     01 20.30
NRA0    2.95  87 iPc    01 20.20   0.3
                iPg     01 23.80
                iS      01 56.70
                iSg     02 02.40
      S.D. = 0.6  on   6 of   6 obs.
-------------------------------------
   MAR  08, 1989  18h 01m 33.28± 0.82s
    6.824 S ± 5.5km  148.038 E ± 5.7km
   DEPTH =  63.5 ±  7.6 km
   4.8mb (  7 obs.)
 NEW BRITAIN REGION              (192)

LAT     1.04 279 iPd    01 51.00  -1.3
PMG     2.71 199 iPc+   02 16.00   0.6
       0.8s   671.64nm
                eS      02 44.00
MNDI    4.40 278 eP     02 40.50   1.1
VSG    11.81 103 eP     04 22.00   0.8
HNR    12.07 103 eP     04 24.00  -0.7
                e(S)    06 52.00
CTA    13.30 187 iPc    04 42.00   1.1
       1.3s    69.23nm          5.2mb
                e(PPP)05 00.00
                i       05 05.50
                e(S)    07 06.00
                e(ScP)13 26.00
OIS    15.91 210 iPd    05 04.40 -10.3X
                e       07 54.00
MTN    17.70 249 eP     05 38.00   1.0
WB5    18.56 224 eP     05 47.00  -0.7
                eS      09 16.20
WRA    18.62 224 Pc     05 48.70   0.3
       0.4s     4.50nm          4.0mb
RMQ    19.57 178 iPc    05 58.60  -0.3
                e       06 13.00
PJG    20.52 351 eP     05 47.80 -21.1X
KNA    20.86 243 eP     06 10.50  -1.8
BRS    20.94 168 P      06 12.00  -1.2
                i       06 21.00
                i       06 27.80
ASPA   21.56 218 iPc    06 19.60   0.2
       0.9s    60.00nm          5.0mb
                eS      10 18.50
DZM    23.35 132 iPc    06 42.10   5.1X
CMS    24.62 185 eP     06 50.00   0.8
STK    25.65 193 eP     06 59.00   0.2
BWA    27.47 179 eP     07 15.50   0.0
WARB   28.04 224 eP     07 10.00 -10.8X
CAN    28.37 178 eP     07 23.80   0.2
PCI    28.73 281 ePc    07 34.40   7.4X
       1.0s     3.00nm          3.9mb
FORR   30.34 215 eP     07 40.00  -1.1
       0.4s     9.00nm          4.9mb
MBL    30.78 240 eP     07 45.00  -0.2
MEKA   34.28 232 eP     08 16.00   0.4
COOL   34.75 223 eP     08 19.80   0.2
NANU   35.00 240 eP     08 21.00  -0.8
KLB    37.50 225 eP     08 42.30  -0.5
MRWA   37.52 230 eP     08 44.00   1.0
NWAO   38.63 224 eP     08 52.50   0.2
MUN    38.81 226 eP     08 52.00  -1.8
MAT    44.11 349 (P)    09 36.00  -1.1
       1.6s   116.67nm          5.4mb
SSE    45.63 327 eP    10 01.00  11.8X
       1.0s    12.00nm
KHT    53.52 294 eP    10 51.00   1.1
CHG    54.68 299 eP    11 00.00   1.4
CHTO   54.68 299 eP    11 00.00   1.5
XAN    54.97 320 eP    10 59.00  -1.4
BJI    55.12 330 eP    11 10.00   8.7X
TIY    55.36 326 eP    11 03.20   0.0
GTA    64.03 320 eP    12 06.20   3.4X
LSA    65.56 307 eP    12 14.20   0.9
HYB    72.71 291 eP    12 57.00   0.0
GBA    72.96 286 Pd    12 57.10  -1.3
       1.2s    12.20nm          4.7mb
WMQ    74.08 319 eP    13 04.60   0.0
MEM   126.14 331 ePdiff16 45.20 -23.9X
DOU   127.16 331 iPdiff17 10.90  -2.8X
KUK   148.61 271 ePKP   21 13.00   1.1
KIC   152.96 271 PKP    21 38.00  19.7X
      S.D. = 1.0  on  37 of  48 obs.
-------------------------------------
   MAR  08, 1989  18h 39m 42.14± 0.38s
    3.095 N ± 9.8km   31.414 W ± 8.4km
   DEPTH =  10.0km  (geophysicist)
   5.1mb (  9 obs.) 5.1Msz (  1 obs.)
 CENTRAL MID-ATLANTIC RIDGE      (406)
      CENTROID, MOMENT TENSOR    (HRV)
      Data Used: GDSN
      L.P.B.: 13S, 24C
      Centroid Location:
      Origin Time        18:39:46.5 1.0
      Lat  3.29N FIX;Lon  31.38W  FIX
      Dep  15.0 FIX Half-duration  1.8
      Moment Tensor;   Scale 10**16 Nm
        Mrr=-4.24 0.37  Mtt=-0.33 0.47
        Mff= 4.58 0.59  Mrt=-4.52 1.19
        Mrf=-3.48 1.42  Mtf=-1.31 0.36
      Principal Axes:
        T  Val=  5.80  Plg=21  Azm= 93
        N        2.44      27      195
        P       -8.24      54      332
      Best Double Couple:Mo=7.0*10**16
        NP1:Strike=145 Dip=34 Slip=-145
        NP2:       25     71      -61

ITR    13.69 211 eP    42 57.30  -1.6
SOB1   15.45 218 eP    43 21.60  -0.3
                e       43 28.80
ATB    21.74 253 e(P)  44 35.60  -0.3
LIC    26.48  82 P     45 22.32   0.7
TIC    26.53  81 P     45 22.94   0.9
KIC    26.78  82 P     45 25.34   1.0
ZOBO   41.07 241 Pd    47 29.80   1.3
       1.2s     6.08nm          4.2mb
     Z 23s      1.82um          4.9MszX
                LR      59 30.00
LPB    41.16 241 P     47 30.70   1.6
       1.5s    83.33nm          5.2mb
     Z 21s      2.87um          5.1Msz
                LR      00 10.00
CNCB   41.17 240 Pd    47 33.00   3.6X
BNG    49.86  87 iPc   48 36.30  -1.8
       1.0s    20.00nm          5.0mb
                id      48 48.90
MOX    59.60  30 eP    49 48.00  -0.5
       2.2s    88.00nm          5.5mb
KHC    59.72  33 eP    49 48.90  -0.4
CLL    60.70  30 e(P)  49 55.00  -0.9
PRU    60.72  32 eP    49 58.20   2.1
BRG    60.92  31 eP    49 48.20  -9.3X
       1.6s    28.00nm          5.1mb
SKO    60.96  43 iP    49 57.00  -0.9
ZST    61.16  35 eP    49 58.70  -0.4
VAY    61.48  44 eP    50 01.60   0.2
SRO    61.66  36 eP    50 14.10  11.6X
KSP    62.13  32 eP    50 05.50  -0.2
SPC    63.46  35 eP    50 14.50  -0.2
MLR    65.36  41 ePd   50 26.50  -0.6
NB2    66.14  21 P     50 30.40  -1.4
       1.3s    23.20nm          5.2mb
HFS    66.48  23 eP    50 40.40   6.6X
       0.5s     0.70nm          4.1mb
SUF    72.88  24 eP    51 13.00   0.0
ALQ    75.98 305 eP    51 31.00  -0.7
       1.3s    10.58nm          4.8mb
FFC    76.32 326 eP    51 32.00  -1.0
       1.1s    20.00nm          5.1mb
SES    81.01 320 eP    52 00.00   1.3
```

EDM 82.70 323 eP 52 08.00 0.6
YKA 84.12 332 eP 52 14.40 0.0
MAIO 88.92 54 eP 52 40.00 1.4
S.D. = 1.1 on 27 of 31 obs.

? MAR 08, 1989 19h 25m 01.14±11.39s
10.658 N ±44.1km 62.626 W ±94.0km
DEPTH = 33.0km (normal)
NEAR COAST OF VENEZUELA (97)

TCE 0.86 87 eP 25 17.68 0.9
eS 25 28.84
TRN 1.20 90 iPc 25 21.13 -0.6
eS 25 34.71
TPP 1.20 106 eP 25 22.05 0.3
eS 25 34.06
TBH 1.54 96 eP 25 26.02 -0.6
GRW 1.77 32 eP 25 29.95 0.0
eS 25 49.00
S.D. = 0.9 on 5 of 5 obs.

• MAR 08, 1989 19h 25m 29.20± 1.13s
27.635 N ±14.1km 66.130 E ±14.5km
DEPTH = 33.0km (normal)
4.0mb (4 obs.)
PAKISTAN (710)

QUE 2.64 16 iPc 26 12.00 1.4
e(S) 26 44.00
NDI 9.84 81 iPc 27 50.20 -1.3
0.6s 30.00nm 5.7mb X
eS 29 35.00
MAIO 10.31 329 eP 27 58.00 0.0
eS 30 20.00
HYB 15.32 129 eP 29 08.50 3.7X
eS 32 37.00
GBA 17.50 141 Pd 29 33.30 1.0
1.0s 4.30nm 3.5mb
SUF 43.72 335 iP 33 35.70 3.1X
0.4s 1.20nm 4.0mb
HFS 47.92 328 eP 34 05.10 -0.9
0.5s 1.90nm 4.4mb
NB2 49.36 328 P 34 17.10 -0.1
0.8s 1.50nm 4.1mb
S.D. = 1.3 on 6 of 8 obs.

% MAR 08, 1989 19h 28m 16.74± 1.35s
18.271 N ±12.2km 67.140 W ±13.2km
DEPTH = 33.0km (normal)
MONA PASSAGE (89)

MCP 0.15 11 P 28 22.70 -0.2
MGP 0.27 170 P 28 24.20 0.1
APR 0.43 64 P 28 27.00 0.7
CSB 0.93 89 P 28 33.40 -0.2
S 28 56.90
SJG 0.95 99 iP 28 34.00 0.2
S 28 59.50
LPR 1.21 88 P 28 36.80 -0.6
S.D. = 0.6 on 6 of 6 obs.

MAR 08, 1989 20h 02m 03.85± 0.16s
26.987 N ± 3.3km 92.751 E ± 2.8km
DEPTH = 33.0km (normal)
5.1mb (42 obs.) 4.1Msz (2 obs.)
EASTERN INDIA (317)
Felt in the Guohati oreo.

LSA 3.05 333 iPgc 02 57.20 5.9X
Sn 03 32.50
KMI 9.17 99 Pc 04 19.00 1.9
pP 04 29.50
sP 04 40.50
eS 05 56.00
CHG 9.93 144 iPc 04 28.00 0.6
1.0s 23.50nm 5.4mb
CHTO 9.93 144 eP 04 28.00 0.6
CD2 10.40 65 eP 04 34.00 0.1
BDT 11.29 148 eP 04 45.20 -0.7
GYA 12.45 89 P 05 01.60 -0.1
N 10s 1.80um
LOE 12.64 137 eP 05 14.00 9.8X
LZH 13.10 43 iPd 05 09.50 -0.8
2.0s 1600.00nm 6.7mb X
Z 24s 1.40um
pP 05 37.00
Lg 09 03.00

KHT 13.31 155 eP 05 13.00 0.0
e 07 40.00
GTA 13.72 24 Pd 05 16.40 -2.1
1.4s 0.20nm 2.7mb X
NDI 13.85 281 iPc 05 18.00 -2.1
0.6s 33.33nm 5.3mb
eS 07 39.00
XAN 15.60 59 Pd 05 41.40 -1.5
pP 05 51.00
NNT 15.75 154 eP 05 48.20 3.3X
HYB 16.22 237 ePc 05 49.80 -1.1
1.0s 38.00nm 4.5mb
eS 08 39.00
WMQ 17.29 348 eP 06 04.00 -0.3
E 10s 1.40um
S 09 18.10
QIZ 17.60 113 P 06 12.80 4.5X
KSH 18.71 316 eP 06 23.00 1.1
WHN 19.26 74 Pc 06 28.50 0.0
POO 19.34 248 iPd 06 31.50 2.0
iS 09 47.00
GBA 19.56 230 Pd 06 31.90 0.0
0.7s 10.00nm 4.2mb
BTO 19.71 42 iPd 06 33.00 -0.5
Z 12s 0.70um
N 10s 0.50um
E 12s 0.50um
pP 06 39.00 23kmX
HHC 20.80 44 Pd 06 44.60 -0.2
N 10s 0.50um
E 11s 0.70um
eS 10 22.00
TIA 22.66 60 Pd 07 03.80 0.4
S 11 10.00
QUE 22.86 284 iPc 07 07.30 1.6
eS 11 13.30
NJ2 23.24 71 Pc 07 10.00 0.9
Z 25s 0.70um 4.0MszX
S 11 14.00
BJI 23.39 50 eP 07 12.00 1.6
Z 24s 0.70um 4.0MszX
N 12s 0.60um
esP 07 28.00
eS 11 26.00
esS 11 48.00
IPM 23.64 159 ePd 07 16.00 2.9
SSE 25.16 74 P 07 27.50 -0.2
1.0s 12.00nm 4.4mb
Z 18s 0.50um 4.1Msz
E 12s 0.30um
sP 07 47.00
i 08 07.00
eS 12 00.00
sS 12 16.00
MAIO 29.68 297 iPc 08 10.00 1.1
eS 13 43.00
CN2 31.24 49 eP 08 22.50 0.0
Z 18s 0.50um 4.2Msz
eS 13 24.00
ScP 14 52.00
MDJ 34.31 49 eP 08 48.80 -0.5
MAT 39.50 64 eP 09 33.00 -0.1
TAB 40.30 298 eP 09 42.00 2.1
ALT 52.95 300 eP 11 19.10 -0.3
HRT 53.09 302 eP 11 20.80 0.4
ELL 53.41 297 iP 11 22.80 -0.1
MBL 54.58 149 iPd 11 31.10 -0.2
VRI 54.81 309 ePc 11 35.50 2.6
KJF 55.20 331 eP 11 34.00 -1.5
MLR 55.39 308 ePc 11 38.00 0.8
SUF 55.68 329 iP 11 39.00 0.1
0.4s 7.90nm 5.1mb
NUR 56.16 326 eP 11 42.00 -0.3
KDZ 56.18 304 eP 11 43.00 0.2
SOD 56.22 335 iP 11 42.80 0.0
KEV 56.58 338 eP 11 48.00 2.7
RZN 56.70 304 eP 11 47.00 0.2
PGB 56.98 305 iP 11 49.00 0.4
VTS 57.68 305 eP 11 54.00 0.4
MEKA 58.79 153 iPd 12 01.10 -0.2
UPP 59.65 326 iPc 12 06.10 -0.8
KSP 61.21 315 eP 12 17.40 -0.3
HFS 61.60 326 eP 12 19.70 -0.5
0.5s 29.20nm 5.7mb
WB5 61.62 135 iPc 12 20.30 -0.5
i 12 36.60
i 12 42.50

WRA 61.65 135 Pd 12 25.00 4.0X
0.4s 2.20nm 4.6mb
BAL 61.68 157 eP 12 20.00 -1.0
WARB 62.13 145 iPc 12 12.40 -11.7X
0.5s 8.00nm
PRU 62.46 315 P 12 26.00 0.0
1.5s 22.30nm 5.1mb
e 12 50.50
NRA0 62.61 327 iP 12 26.40 -0.5
BRG 62.68 316 eP 12 27.50 0.0
1.4s 24.00nm 5.1mb
NB2 62.73 327 P 12 27.00 -0.7
0.6s 8.00nm 5.0mb
MUN 62.75 158 iPd 12 27.30 -0.8
KLB 62.95 156 eP 12 28.00 -1.4
AVY 63.15 229 iPc 12 31.00 -0.2
CLL 63.19 316 iP 12 30.80 0.0
KHC 63.23 314 P 12 31.60 0.4
COOL 63.62 153 eP 12 32.80 -1.1
PMG 63.95 117 e(P) 12 37.00 0.7
NWAO 63.97 157 eP 12 34.00 -2.1
ASPA 64.16 138 iPc 12 37.50 -0.1
0.6s 10.00nm 5.1mb
epP 12 52.20 53kmX
MOX 64.18 316 eP 12 37.00 -0.4
QIS 65.53 131 eP 12 46.00 -0.4
e 13 03.00
OSS 66.02 312 ePc 12 49.30 -0.2
SAX 66.41 312 ePc 12 51.80 -0.4
VDL 66.52 312 ePc 12 52.60 -0.2
FORR 66.69 147 eP 12 53.00 -0.7
0.5s 18.00nm 5.4mb
LLS 66.74 312 ePc 12 53.70 -0.5
SLE 66.83 313 ePc 12 55.00 0.5
TMA 67.02 311 ePc 12 55.30 -0.6
CDF 67.45 314 eP 12 58.00 -0.5
0.7s 6.60nm 4.8mb
MMK 67.64 311 ePc 12 59.50 -0.5
WLF 67.82 316 iPc 13 01.40 0.8
e 24 36.00
BSF 67.92 314 eP 13 00.70 -0.8
DIX 68.01 312 ePc 13 02.50 0.2
HAU 68.16 314 eP 13 02.40 -0.5
EMS 68.33 312 ePc 13 04.20 0.0
LPG 68.61 311 eP 13 05.80 -0.3
0.6s 12.00nm 5.1mb
SBF 68.63 309 eP 13 05.30 -0.6
0.8s 22.50nm 5.3mb
LRG 69.50 309 eP 13 10.90 -0.2
CTA 69.83 126 iP 13 10.30 -3.2X
1.8s 113.64nm 5.6mb
i 13 29.00
LOR 69.99 314 eP 13 13.30 -0.8
0.8s 5.30nm 4.7mb
LBF 70.00 313 eP 13 13.40 -0.8
0.6s 5.40nm 4.8mb
SMF 70.19 313 eP 13 14.70 -0.7
0.5s 12.60nm 5.2mb
SSF 70.28 313 eP 13 15.60 -0.3
0.7s 19.80nm 5.3mb
AVF 70.47 313 eP 13 16.40 -0.6
0.8s 8.50nm 4.9mb
BGF 70.87 313 eP 13 19.00 -0.5
0.6s 6.30nm 4.9mb
MAF 71.17 313 eP 13 21.30 0.0
0.8s 13.40nm 5.0mb
TCF 71.38 313 eP 13 22.60 0.0
0.6s 14.70nm 5.2mb
EKA 71.46 323 Pd 13 23.40 0.5
0.5s 10.20nm 5.1mb
LSF 71.83 313 eP 13 24.70 -0.6
0.6s 2.10nm 4.3mb
CAF 71.94 312 eP 13 26.10 0.1
0.5s 11.60nm 5.1mb
LDF 72.07 316 eP 13 26.00 -0.6
0.5s 13.10nm 5.2mb
RJF 72.17 312 eP 13 27.70 0.4
0.5s 17.40nm 5.3mb
FLN 72.23 316 eP 13 27.30 -0.3
0.6s 11.50nm 5.1mb
GRR 72.60 316 eP 13 29.40 -0.4
0.5s 18.90nm 5.3mb
LPO 72.61 312 eP 13 29.90 0.0
0.5s 10.70nm 5.1mb
MFF 72.79 314 eP 13 30.60 -0.3
0.6s 6.10nm 4.8mb
LFF 72.81 312 eP 13 31.30 0.2

08d 20h

	0.5s	18.00nm		5.3mb	
LPF	72.84	315 eP	13 31.10	-0.1	
	0.6s	9.00nm		4.9mb	
EPF	73.78	310 eP	13 36.30	-0.5	
BNG	73.93	267 iPc	13 36.80	-1.3	
	0.2s	60.00nm		6.2mb X	
		ic	13 40.50		
		id	13 52.20		
		ic	15 18.10		
DMU	74.03	323 eP	13 38.80	0.9	
DLE	74.07	322 eP	13 39.00	0.8	
MBC	75.09	8 eP	13 44.00	0.3	
RMQ	75.70	130 iPc	13 49.00	1.0	
FBA	77.23	22 eP	13 57.50	1.6	
	1.0s	7.50nm		4.7mb	
BUL	77.81	240 iPd	14 00.10	0.1	
	0.9s	11.34nm		4.9mb	
		ipP	14 15.90	56kmX	
PMR	78.74	25 eP	14 05.20	1.0	
BRS	79.05	128 P	14 07.00	0.4	
		e	14 20.00		
INK	79.07	16 eP	14 07.00	1.1	
SLR	81.26	235 iPd	14 19.60	1.1	
	0.6s	14.00nm		5.1mb	
		i	14 35.50		
IFR	81.61	303 iPd	14 22.00	1.6	
KSR	82.35	236 iPd	14 24.50	0.3	
	1.1s	13.51nm		4.9mb	
PRY	82.54	235 iPc	14 25.50	0.4	
	0.7s	10.00nm		5.0mb	
SEK	83.23	234 eP	14 46.00	17.3X	
	1.1s	13.92nm			
SWZ	84.26	236 iPc	14 31.70	-2.2	
	0.4s	10.17nm		5.3mb	
FRB	88.38	352 eP	14 53.50	0.2	
	S.D. = 0.9	on 119 of 127 obs.			

% MAR 08, 1989 21h 25m 09.42± 1.19s
11.009 N ± 5.7km 61.819 W ±20.1km
DEPTH = 33.0km (normal)
WINDWARD ISLANDS (95)

TCE	0.32	168 eP	25 17.75	0.3	
		eS	25 29.46		
TRN	0.54	131 iPc	25 21.21	0.6	
		eS	25 35.05		
TPP	0.78	152 eP	25 23.22	-0.7	
		eS	25 35.33		
TBH	0.90	125 eP	25 25.56	-0.2	
		eS	25 45.11		
GRW	1.15	8 eP	25 29.40	0.0	
		eS	25 52.24		
SVB	2.32	14 eP	25 46.76	0.7	
		eS	26 20.24		
SVV	2.37	14 eP	25 46.62	-0.2	
SSV	2.38	15 eP	25 47.25	0.2	
		eS	26 21.33		
SLB	2.90	15 eP	25 53.61	-0.8	
		eS	26 35.02		
	S.D. = 0.6	on 9 of 9 obs.			

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* MAR 08, 1989 22h 34m 29.58± 1.56s
3.563 S ±16.8km 142.005 E ±17.1km
DEPTH = 33.0km (normal)
3.6mb (1 obs.)
NEAR N COAST OF PAPUA NEW GUINEA(200)

JAY	1.66	309 ePc	34 57.00	0.1	
		e(S)	35 18.00		
		e	39 20.00		
MNDI	3.06	147 eP	35 19.00	2.1	
PMG	7.74	139 e(P)	36 21.00	-1.8	
WB5	17.85	204 eP	38 36.50	-0.7	
		eS	42 06.40		
WRA	17.92	204 Pc	38 38.10	0.1	
	1.0s	4.80nm		3.6mb	
ASPA	21.47	201 eP	39 17.70	0.2	
KHT	46.71	294 eP	43 01.70	4.1X	
	S.D. = 1.6	on 6 of 7 obs.			

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* MAR 08, 1989 23h 43m 06.40± 0.85s
34.107 N ±18.5km 118.513 W ±11.1km
DEPTH = 5.0km (geophysicist)
SOUTHERN CALIFORNIA (43)
ML 3.1 (PAS). Felt at Encino.

ABL	0.95	322 eP	43 25.00	0.0	
PEC	1.14	100 eP	43 28.40	0.1	
PLM	1.57	118 iPd	43 35.00	-0.1	
BLP	1.63	287 eP	43 35.80	0.0	
BCH	1.68	310 eP	43 36.90	0.2	
PHAM	2.32	319 eP	43 45.70	-0.2	
	S.D. = 0.2	on 6 of 6 obs.			

& MAR 08, 1989 23h 59m 31.76s
62.092 N 151.385 W
DEPTH = 89.2km
CENTRAL ALASKA (1)
<AGS-P>.

PWA	0.84	121 iP	59 49.52	-0.3	
		eS	00 02.25		
CRP	0.91	204 eP	59 50.25	-0.6	
		eS	00 04.87		
SPU	0.97	200 iP	59 50.55	-0.8	
		iS	00 05.77		
PLRM	1.18	114 eP	59 52.63	-1.2	
PMR	1.18	114 eP	59 52.77	-1.0	
GHO	1.21	104 eP	59 53.46	-0.8	
		iS	00 10.67		
PME	1.21	112 iP	59 53.52	-0.7	
PMS	1.22	134 eP	59 53.42	-0.9	
		eS	00 11.25		
SML	1.47	100 iP	59 56.53	-1.0	
KNK	1.55	115 iP	59 57.38	-1.2	
RDT	1.60	198 eP	59 58.90	-0.4	
SLKM	1.69	160 eP	59 59.00	-1.3	
PWL	1.92	129 iP	00 01.73	-1.6	
		eS	00 25.50		
GLI	2.39	119 eP	00 07.02	-2.7	
		eS	00 35.67		
TOA	2.45	87 eP	00 11.39	0.7	
VLZ	2.60	110 eP	00 09.85	-2.7	
FID	2.72	118 eP	00 11.56	-2.6	
	17 obs. associated				

MAR 09, 1989 00h 28m 31.98± 0.66s
35.232 N ± 4.7km 27.656 E ± 4.1km
DEPTH = 27.8 ± 5.8 km
4.2mb (9 obs.)
DODECANESE ISLANDS (369)
ML 4.4 (ATH).

KAP	0.51	309 iPbc	28 42.00	-0.4	
ARG	1.05	21 iPgd	28 50.00	-0.9	
KSL	1.80	60 ePn	29 02.70	1.1	
YER	1.97	15 iPn	29 04.70	0.6	
ELL	2.37	50 iPn	29 10.80	0.9	
VAM	2.83	275 ePn	29 20.00	3.7X	
IZM	3.18	354 ePn	29 20.60	-0.7	
BCK	3.25	46 iPn	29 23.20	0.9	
KHL	3.43	25 iPn	29 23.60	-1.3	
PPCY	3.86	94 eP	29 31.50	0.6	
PRK	4.16	345 ePn	29 34.70	-0.4	
ATH	4.19	312 ePn	29 36.50	1.0	
ALT	4.29	26 ePn	29 39.10	2.0	
DST	4.43	10 iPn	29 38.40	-0.7	
CSS	4.66	92 eP	29 41.50	-0.8	
		eSn	30 31.50		
EZN	4.71	347 ePn	29 41.60	-1.3	
ITM	5.02	294 ePn	29 50.00	2.5	
KCT	5.04	6 ePn	29 43.00	-4.7X	
EDC	5.11	2 iPn	29 46.40	-2.2	
BNT	5.12	2 iPn	29 45.30	-3.5X	
NEO	5.39	320 ePn	29 53.20	0.6	
GPA	5.47	22 ePn	29 56.00	2.3	
GBZT	5.72	14 iPd	30 15.50	18.2X	
HRT	5.80	15 ePn	30 00.00	1.5	
CTT	5.94	6 ePn	30 03.00	2.7X	
PLG	6.12	328 ePn	30 09.30	6.4X	
BBTK	6.13	40 ePn	30 03.00	-0.2	
		iPg	30 12.00		
HLW	6.20	149 ePn	30 06.00	2.0	
		S	31 14.00		
VLS	6.39	299 ePn	30 11.00	4.2X	
KDZ	6.64	345 eP	30 10.00	-0.3	
RZN	6.85	341 iP	30 13.00	-0.3	
KZN	6.88	319 ePn	30 15.00	1.3	
DIM	7.01	347 eP	30 14.00	-1.3	
MMB	7.06	335 iPc	30 15.00	-1.1	
JMB	7.27	354 eP	30 19.00	0.0	
VAY	7.28	328 eP	30 17.00	-2.1	
8URJ	7.39	112 P	30 19.80	-1.0	
DSI	7.42	117 iPd	30 20.00	-1.1	
KFNJ	7.49	114 P	30 21.60	-0.5	
JARJ	7.52	111 P	30 21.70	-1.0	
MKRJ	7.62	117 P	30 25.40	1.4	
PGB	7.80	341 eP	30 27.00	0.5	
PRNI	7.87	126 iP	30 26.00	-1.5	
		eS	31 51.00		
OHR	7.97	319 eP	30 30.50	1.6	
OUTJ	8.02	117 P	30 30.90	1.3	
VTS	8.12	336 iPd	30 33.00	1.9	
PVL	8.17	348 eP	30 31.00	-0.6	
MBH	8.18	130 eP	30 31.50	-0.2	
SKO	8.30	326 eP	30 28.50	-5.0X	
HQL	8.63	131 ePd	30 37.70	-0.3	
LCI	9.21	306 P	30 44.40	-1.6	
AYN	9.50	130 ePd	30 49.00	-1.0	
TDS	10.02	299 P	30 56.60	-0.6	
ATN	10.22	290 P	30 59.60	-0.3	
MEU	10.46	284 P	31 03.60	0.3	
VRI	10.65	356 eP	31 08.00	2.2X	
MGR	10.76	301 P	31 05.30	-2.1	
SRO	14.37	334 eP	32 08.90	13.5X	
LJU	14.67	321 eP	32 02.00	2.6	
SPC	14.98	341 eP	32 08.60	5.1X	
VOY	14.99	320 e(P)	32 03.90	0.2	
KHC	17.33	328 Pc	32 36.30	2.9X	
	1.0s	5.50nm		3.6mb	
PRU	17.58	331 eP	32 40.50	4.0X	
KSP	17.64	336 eP	32 38.00	0.8	
LPG	18.89	309 eP	32 49.30	-3.7X	
MOX	19.30	328 e(P)	33 02.00	4.5X	
	1.6s	31.00nm		4.3mb	
BSF	19.98	315 eP	33 06.70	1.6	
CDF	20.02	317 eP	33 07.40	2.0	
SMF	21.21	310 eP	33 16.60	-1.0	
	0.9s	11.40nm		4.3mb	
LBF	21.27	311 eP	33 18.80	0.6	
	1.1s	18.00nm		4.4mb	
LOR	21.46	311 eP	33 19.90	-0.3	
AVF	21.58	310 eP	33 20.20	-1.1	
SSF	21.59	311 eP	33 20.30	-1.2	
	0.7s	11.00nm		4.4mb	
BGF	21.81	309 eP	33 23.10	-0.5	
	0.7s	5.50nm		4.1mb	
MEM	21.96	321 P	33 34.10	9.1X	
DOU	22.42	319 Pc	33 35.80	6.2X	
LDF	24.45	312 eP	33 48.40	-1.0	
GRR	24.82	311 eP	33 52.50	-0.5	
HFS	26.52	344 eP	34 04.90	-3.8X	
	0.4s	1.80nm		4.0mb	
NB2	27.89	343 P	34 20.20	-1.1	
	1.0s	2.10nm		3.8mb	
BCAO	31.79	197 eP	34 57.30	1.0	
	0.7s	1.59nm		4.0mb	
	S.D. = 1.3	on 63 of 81 obs.			

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* MAR 09, 1989 00h 53m 47.79± 1.27s
24.846 N ± 9.8km 123.754 E ±12.3km
DEPTH = 33.0km (normal)
4.4mb (1 obs.)
SOUTHWESTERN RYUKYU ISLANDS (246)

TWC	1.75	263 iPc	54 17.00	0.8	
		eS	54 30.40		
TWZ	1.99	278 iPc	54 21.30	1.5	
		eS	54 38.90		
ANP	2.06	280 eP	53 59.50	-21.3X	
		eS	54 22.00		
TWD	2.11	249 iPc	54 20.50	-0.9	
		eS	54 37.90		
TWQ	2.72	259 iPc	54 29.40	-0.7	
TWK	3.37	243 ePc	54 38.60	-0.9	
SSE	6.63	341 ePn	55 25.00	-0.4	
		Pg	55 32.50		
		eLg	57 01.20		
CVP	7.33	195 eP	55 36.00	0.7	
WRA	45.70	166 Pd	02 07.40	-0.1	
	0.8s	4.40nm		4.4mb	
	S.D. = 1.1	on 8 of 9 obs.			

% MAR 09, 1989 01h 05m 44.38± 0.92s
39.503 N ± 8.0km 27.982 E ± 8.0km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.51	78 iPg	05 53.40	-1.3	
		iSg	06 01.40		
KCT	0.80	21 iPg	05 59.80	-0.1	

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EDC      0.85 354 iPg    05 59.40  -1.3
                  eSg    06 11.40
BNT      0.85 357 iPg    06 00.60  -0.2
IZM      1.24 207 ePn    06 07.50   0.1
EZN      1.32 285 ePn    06 08.60  -0.1
CTT      1.68  12 ePn    06 15.00   1.1
HRT      1.85  44 ePn    06 18.30   1.9
      S.D. = 1.3  on   8 of   8 obs.
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   MAR 09, 1989  01h 24m 58.20± 0.44s
   52.029 N ± 9.6km  169.732 W ± 5.3km
   DEPTH =  33.0km  (normal)
   4.9mb ( 21 obs.) 4.4Msz (  2 obs.)
 FOX ISLANDS, ALEUTIAN ISLANDS    ( 9)

ADK      4.30 271 eP     26 03.70   0.7
TTA     13.15  28 eP     28 06.80   1.8
IMA     16.24  24 eP     28 45.20   0.0
FBA     17.13  33 eP     28 54.30  -2.0
BRW     20.21  12 eP     29 30.60  -1.9
INK     23.75  33 eP     30 08.00   0.1
YKA     30.63  48 eP     31 11.60   0.5
YKC     30.70  48 eP     31 11.50  -0.1
MBC     30.93  21 eP     31 13.00  -0.6
EDM     33.49  65 ePc    31 36.40   0.2
WDC     33.97  91 ePc    31 57.60  17.1X
MIN     34.69  90 e(P)   32 03.80  17.0X
SES     35.94  69 eP     31 57.00  -0.2
CMB     36.84  92 ePc    32 21.80  16.9X
LLA     37.40  95 e(P)   32 26.90  17.3X
FRI     37.92  93 e(P)   32 32.10  18.2X
FFC     39.09  58 eP     32 23.00  -0.5
        0.8s     9.00nm          4.6mb
BW06    40.68  78 eP     32 37.00  -0.1
        0.9s     7.94nm          4.5mb
ALE     40.95  11 eP     32 38.00  -0.6
        0.6s     5.00nm          4.4mb
CN2     42.89 286 eP     32 54.00  -0.8
                  sP     33 06.00
GOL     45.05  79 eP     33 12.30  -0.4
RSON    45.35  60 eP     33 13.30  -1.3
        0.8s     4.40nm          4.4mb
BJI     50.67 287 eP     33 55.50  -0.5
     Z  20s      0.30um          4.3Msz
TIA     52.60 283 Pc     34 10.20  -0.6
HHC     52.83 291 Pd     34 13.00   0.4
SSE     53.61 275 eP     34 19.00   0.8
        1.0s    15.00nm          4.9mb
BTO     53.89 292 eP     34 20.00  -0.3
NJ2     54.37 278 Pc     34 22.50  -1.3
TIY     54.39 288 eP     34 24.30   0.3
     Z  20s      0.50um          4.6Msz
WHN     58.18 280 eP     34 50.00  -1.1
XAN     58.98 287 P      34 56.10  -0.7
SOD     60.29 353 iP     35 04.00  -1.2
LZH     60.51 292 Pc     35 07.50   0.2
        1.5s    48.00nm          5.4mb
CVL     61.90  64 eP     35 15.90  -0.6
KJF     63.32 352 eP     35 24.00  -1.5
WMQ     63.57 308 P      35 27.00  -0.6
CD2     64.26 288 P      35 32.60   0.3
SUF     64.91 352 iP     35 35.40  -0.5
        0.3s     3.20nm          4.9mb
GYA     65.79 282 P      35 42.00  -0.2
NUR     67.22 352 iP     35 49.60  -1.1
NB2     67.28 360 P      35 50.00  -1.1
        0.9s     9.40nm          4.9mb
HFS     68.16 358 eP     35 55.40  -1.2
        1.1s    18.80nm          5.1mb
LSA     72.40 296 P      36 24.60   1.2
CHG     76.20 283 eP     36 45.10   0.2
KSP     77.38 356 eP     36 50.50  -0.4
BRG     77.43 358 eP     36 51.70   0.5
        1.0s    16.00nm          5.0mb
MOX     77.70 359 eP     36 54.00   1.3
KRA     77.96 354 eP     36 55.00   0.9
PRU     78.30 357 eP     36 55.00  -0.9
KHC     79.18 358 iPc    37 01.90   1.0
        1.2s    11.00nm          4.7mb
CDF     79.91   2 eP     37 05.70   0.9
ZST     79.98 355 eP     37 06.30   1.2
HAU     80.29   3 eP     37 07.80   1.0
BSF     80.47   2 eP     37 08.60   0.7
LOR     80.93   4 eP     37 11.20   1.0
        1.0s     6.80nm          4.6mb
SSF     81.12   5 eP     37 12.30   1.1
        1.0s     8.00nm          4.7mb

MFF     81.34   7 eP     37 13.30   1.0
        1.2s    29.70nm          5.2mb
AVF     81.38   5 eP     37 13.40   0.9
        1.3s    28.80nm          5.1mb
SMF     81.55   4 eP     37 14.30   0.8
        1.3s    30.30nm          5.2mb
BGF     81.59   5 eP     37 14.70   1.1
        1.2s    17.80nm          5.0mb
LSF     81.81   6 eP     37 15.70   0.9
        1.1s    18.00nm          5.0mb
TCF     81.82   6 eP     37 15.70   0.8
RJF     82.75   6 eP     37 20.60   0.9
LFF     83.06   7 eP     37 22.50   1.2
FIR     84.57 359 eP     37 29.00   0.1
EPF     84.93   7 eP     37 31.50   0.6
        0.9s    10.40nm          5.0mb
SKO     85.88 352 eP     37 36.80   1.2
VAY     86.42 351 eP     37 39.40   1.2
OHR     86.79 352 eP     37 38.00  -2.1
HYB     89.10 297 eP     37 51.50   0.0
ASPA    90.01 230 iPc    37 55.50   0.0
        1.3s    18.00nm          5.2mb
                  iPcP   39 43.50
GBA     92.83 296 Pc     38 07.00  -1.7
        0.2s     6.60nm          5.7mb
BUL    145.10 329 iPKPd  44 33.50  -0.3
        1.0s    20.50nm
SLR    150.40 326 iPKPc  44 48.20   6.1X
KSR    150.99 328 ePKP   44 49.20   6.1X
PRY    151.78 326 ePKP   44 46.50   2.3X
SWZ    152.72 330 ePKP   44 45.24  -0.3
      S.D. = 0.9  on  69 of  77 obs.
-----------------------------------------
   MAR 09, 1989  01h 38m 10.72± 0.79s
   38.094 N ± 7.4km   21.960 E ± 8.4km
   DEPTH =  10.0km  (geophysicist)
 GREECE                            (364)
      ML 3.0 (ATH).

ITM      0.91 182 ePb    38 28.50   0.3
VLS      1.08 275 ePb    38 30.20  -0.9
ATH      1.39  94 ePb    38 36.50   0.4
NEO      1.56  39 ePb    38 37.80  -0.8
KZN      2.21 356 ePb    38 49.00   0.9
PLG      2.55  26 ePn    38 51.70  -1.1
OHR      3.14 344 e(Pn)  39 02.50   1.3
      S.D. = 1.2  on   7 of   7 obs.
-----------------------------------------
   MAR 09, 1989  02h 37m 00.47± 0.14s
   13.710 S ± 2.5km   34.381 E ± 3.3km
   DEPTH =  29.6km  (geophysicist)
   5.8mb ( 53 obs.) 5.4Msz ( 14 obs.)
 MALAWI                            (577)
      Felt in most areas of central
      Malawi, including Lilongwe. Also
      felt in Niossa Province,
      Mozombique and at Chipato,
      Zambia. Depth from broadband
      displacement seismograms.
      CENTROID, MOMENT TENSOR     (HRV)
      Data Used: GDSN
      L.P.B.: 14S, 30C
      Centroid Location:
      Origin Time        02:37: 6.0 0.8
      Lat 13.44S 0.06 Lon  34.33E 0.06
      Dep  15.0 BDY Half-duration  2.5
      Moment Tensor;   Scale 10**17 Nm
        Mrr=-2.29 0.06  Mtt= 0.68 0.09
        Mff= 1.60 0.09  Mrt= 0.85 0.26
        Mrf=-2.59 0.26  Mtf=-1.45 0.07
       Principal Axes:
        T  Val=  3.80  Plg=24  Azm= 59
        N       -0.21       11      154
        P       -3.58       64      266
      Best Double Couple:Mo=3.7*10**17
       NP1:Strike=128 Dip=23 Slip=-118
       NP2:       338     69      -79

PTZ      3.00 259 iPn    37 19.00 -28.2X
                  iSn    37 55.00
NPA      4.92 107 iPnc   38 14.00  -0.3
                  iPg    38 21.00
                  iSg    38 33.00
LSZ      6.20 255 iP     38 32.50   0.0
KMZ      8.32 271 iPnc   38 28.50 -33.7X
                  iSn    40 01.00
BUL      8.45 220 iPn    39 02.50  -1.5

                  iSn    40 31.00
NAI     12.59  11 iPc    39 58.00  -2.6X
        1.0s    37.00nm          5.5mb
                  S      43 23.00
LWI     12.66 334 iP-     39 56.50  -5.2X
                  iS     42 11.50
SLR     13.27 205 eP      40 07.50  -2.0
        0.6s   180.00nm          6.2mb
     Z  18s     58.42um          5.1Msz
                  S      42 30.00
BPI     13.76 205 eP      40 01.40 -14.7X
AVY     13.82 114 iPd     40 19.10   2.2
KSR     13.99 209 iPc     40 16.00  -3.1X
                  S      42 43.20
PRY     14.65 205 iPc     40 25.50  -2.3
                  S      43 00.50
BFS     14.92 207 iPc     40 28.50  -2.8
SEK     15.84 202 iPc     40 42.00  -1.2
                  S      43 29.00
SWZ     15.85 211 iPc     40 36.00  -7.3X
                  S      43 08.50
BLF     17.11 205 iPc     40 58.00  -1.2
                  e      43 59.50
KIM     17.42 209 eP      41 00.00  -3.2X
        1.0s   700.00nm          5.7mb
                  S      43 03.00
FRS     18.03 206 iPc     41 08.00  -2.5
                  S      44 17.00
POF     20.54 218 eP      41 38.00  -1.2
                  e      45 17.50
AAE     23.01  11 eP      42 07.00   2.6
BNG     23.92 318 iPd     42 10.40  -2.5
        1.0s   271.00nm          5.7mb
                  id     46 28.50
                  id     47 25.90
                  id     48 28.70
BCAO    23.92 318 iPd     42 10.30  -2.7X
                  pP     42 28.20  79kmX
TUH     23.93 213 iPc     42 12.50  -0.4
                  S      47 09.00
BLE     24.66 213 iPc     42 21.00   1.0
                  S      47 11.00
ARO     26.44  19 ePd     42 36.30  -0.6
                  eS     47 23.00
ASW     37.58 358 eP      44 15.00   0.8
                  S      50 12.00
LEGH    39.33 297 eP      44 20.50  -8.6X
SHGH    39.35 298 eP      44 28.00  -1.2
KOGH    39.60 298 eP      44 31.50   0.1
KUK     39.76 298 eP      44 32.50  -0.2
MBH     43.23   1 iPd     45 02.00   1.2
HLW     43.41 356 eP-     45 03.00   0.7
KIC     43.66 295 Pc      45 03.80  -0.8
        0.6s    73.00nm          5.6mb
LIC     43.85 294 Pc      45 05.12  -1.0
TIC     44.03 295 Pc      45 06.92  -0.7
        0.6s   111.00nm          5.9mb
DSI     45.03   1 iPd     45 16.00   0.7
GLH     46.17   1 ePd     45 25.00   0.7
BHD     47.68  11 eP      45 37.00   0.7
                  eS     52 31.50
                  e      03 09.00
BOM     49.84  50 eP      45 41.00 -12.1X
                  eS     52 54.00
SLY     50.16  12 ePc     45 55.00  -0.3
                  i      46 03.50
                  eS     53 05.00
ELL     50.36 355 eP      45 57.30   0.3
POO     50.40  52 iPd     45 55.80  -1.7
MSL     50.50   9 ePc     45 58.50   0.6
                  e      46 07.50
                  e      48 03.50
                  e      52 29.00
GBA     50.55  59 Pd      45 56.00  -2.6X
        0.8s    34.30nm          5.4mb
YER     50.89 354 eP      45 57.30  -3.7X
BCK     51.02 356 iP      46 01.70  -0.3
IR5     51.02  17 eP      46 02.20   0.1
IR4     51.14  17 eP-     46 03.10   0.1
IR1     51.24  17 eP-     46 04.00   0.2
IR7     51.49  17 eP-     46 05.70   0.1
IR2     51.53  17 eP-     46 05.70  -0.3
KHL     51.96 355 eP      46 08.60  -0.5
IZM     52.26 353 eP      46 11.90   0.6
ALT     52.64 356 eP      46 13.60  -0.6
TAB     52.71  12 eP      46 14.00  -0.8
KHI     52.89  25 eP      46 16.20  -0.1
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09d 02h

BBTK	53.29	358	iP-	46	19.00	0.0	MAL	62.07	325	eP	47	21.00	0.2		1.5s	182.00nm		6.0mb					
HYB	53.45	56	iPc	46	19.00	-1.5	LJU	62.11	344	ePd	47	20.50	-0.5			e	47	47.00					
QUE	53.75	35	iPd	46	22.60	0.0	ASMO	62.17	326	eP	47	22.00	0.4	GUN	64.80	50	P	47	37.80	-1.6			
EZN	53.78	352	eP	46	16.00	-6.4X	ALOJ	62.18	326	eP	47	22.50	0.8	GUD	64.80	328	e(P)	47	38.50	-0.4			
BNT	54.12	354	iP	46	24.30	-0.6	IMI	62.23	339	P	47	21.80	-0.1	FUR	64.94	343	eP	47	39.00	-0.5			
HRT	54.43	356	eP	46	28.00	0.7	LMR	62.23	337	eP	47	21.30	-0.5		1.8s	453.00nm		6.3mb					
ATN	54.56	342	Pd	46	28.80	0.5		1.5s	146.20nm			5.9mb		ZLA	65.20	341	ePd	47	41.30	0.1			
MNO	54.59	341	P	46	23.30	-5.4X	VOY	62.27	344	iPd	47	21.80	-0.3	KHC	65.22	345	Pc	47	41.00	-0.3			
MCT	54.66	340	eP	46	31.00	1.8	GEN	62.31	340	P	47	21.90	-0.4			i	47	50.20					
			epP	46	38.80	26kmX	AAPN	62.33	326	eP	47	23.00	0.3	CAF	65.31	335	eP	47	42.00	0.1			
LSK	55.09	347	iPc	46	33.20	1.0	SBF	62.35	338	eP	47	22.40	-0.3		1.7s	201.40nm		6.0mb					
MAIO	55.10	25	iPd	46	31.60	-0.8	FRF	62.38	338	eP	47	22.10	-0.6	EPLA	65.39	327	e(P)	47	42.00	-0.5			
			eS	54	10.00			1.5s	156.60nm			5.9mb		SLE	65.42	341	ePd	47	42.90	0.3			
TPE	55.36	347	iPd	46	35.20	1.2	LRG	62.39	337	eP	47	22.60	-0.2	BBS	65.47	340	P	47	42.98	0.1			
ERC	55.38	339	eP	46	34.80	0.5	AURF	62.41	338	P	47	23.19	0.1	LPO	65.47	335	eP	47	42.70	-0.2			
KBN	55.50	347	iPd	46	35.50	0.5	SAOF	62.41	338	P	47	22.41	-0.6		1.5s	192.20nm		6.0mb					
TDS	55.69	343	P	46	36.80	0.4	BOB	62.45	340	Pd	47	23.80	0.5	KSH	65.57	34	iPd	47	43.00	-0.8			
KDZ	55.70	352	iPc	46	36.00	-0.5	CALN	62.45	338	P	47	23.25	-0.2			S	56	25.00					
VAY	55.83	349	iPd	46	37.30	-0.1	EVIA	62.46	328	e(P)	47	23.50	0.0	LOMF	65.59	340	P	47	43.83	0.0			
	0.8s		0.15nm			3.1mb X	AUTN	62.47	338	P	47	23.80	0.2	FEL	65.66	341	P	47	44.26	0.0			
			i	46	45.40		MVIF	62.48	338	P	47	23.56	-0.1	PRU	65.78	346	P	47	43.80	-1.0			
RZN	55.84	351	iPd	46	37.00	-0.7	CKI	62.54	339	Pd	47	23.20	-0.6			e	47	53.30					
LCI	55.89	345	P	46	38.70	0.9	TOUF	62.55	338	P	47	24.40	0.3	TBT	65.81	310	eP	47	46.90	1.5			
MMB	55.89	350	iPc	46	37.00	-0.9	ROB	62.57	339	P	47	24.67	0.6	RJF	65.84	335	eP	47	45.10	-0.2			
OHR	55.97	348	iPd	46	38.20	-0.3	VVI	62.63	343	P	47	24.70	0.3		1.6s	199.00nm		6.0mb					
	1.8s		0.30nm			3.0mb X	EBR	62.68	332	eP	47	23.00	-1.7	LFF	65.87	334	eP	47	45.40	0.0			
			i	46	47.90		PSZ	62.70	349	eP	47	24.10	-0.8	MOF	65.93	340	P	47	45.58	-0.4			
DIM	56.08	352	iPc	46	39.00	-0.1	EPRU	62.70	325	e(P)	47	24.70	-0.3	BSF	66.02	340	P	47	46.22	-0.3			
PLD	56.25	351	eP	46	40.00	-0.4	STV	62.72	338	P	47	25.90	0.8	SMF	66.05	337	eP	47	46.20	-0.4			
JMB	56.35	353	iP	46	41.00	-0.1	RBL	62.73	344	Pd	47	25.40	0.3	MAF	66.18	336	eP	47	47.80	0.3			
MGR	56.36	343	Pd	46	40.60	-0.6	EBAN	62.78	327	e(P)	47	24.50	-1.0	KSP	66.20	348	eP	47	46.00	-1.5			
TIR	56.40	347	iPc	46	42.50	1.0	SAL	62.86	341	Pd	47	26.30	0.5			id	47	56.10					
BRT	56.59	344	P	46	43.20	0.3	CFTV	62.86	312	iPd	47	26.30	0.1	LBF	66.28	338	eP	47	47.50	-0.7			
PHP	56.60	348	eP	46	43.30	0.4				i	47	51.60			1.4s	123.70nm		5.8mb					
SKO	56.67	348	iPd	46	42.70	-0.8	SRO	62.90	348	iPd	47	25.60	-0.5	HAU	66.32	340	eP	47	47.90	-0.5			
	1.8s	210.00nm			5.9mb					i	47	35.30		BGF	66.35	337	eP	47	48.50	0.0			
N	20s	1.78um								i	48	02.80			1.5s	153.50nm		5.9mb					
E	18s	1.53um					CTI	62.91	342	Pd	47	26.60	0.2	AVF	66.35	337	eP	47	48.10	-0.4			
		i	46	52.80			DOI	62.97	339	P	47	26.30	-0.5	TCF	66.37	336	eP	47	49.00	0.3			
		LR	11	55.00			PZZ	63.03	338	P	47	27.24	0.0	CDF	66.37	341	P	47	48.10	-0.7			
LACI	56.71	347	iPc	46	44.30	0.6	FVI	63.09	343	P	47	27.90	0.6	SSF	66.52	338	eP	47	49.10	-0.5			
PGB	56.76	351	iP	46	43.00	-1.2	SOP	63.15	347	iPd	47	28.20	0.4		1.5s	104.40nm		5.7mb					
VTS	56.95	350	iPc	46	46.00	0.3	MDI	63.26	341	Pd	47	27.70	-0.8	LOR	66.56	338	eP	47	49.50	-0.4			
KKS	56.98	348	iP	46	46.00	0.4	EHOR	63.32	326	e(P)	47	28.50	-0.5		1.5s	195.80nm		6.0mb					
MAW	56.99	167	eP	46	47.00	1.6	RRL	63.50	338	P	47	30.93	0.5	LSF	66.61	336	eP	47	50.30	0.1			
8SS	57.18	342	P	46	47.30	0.2	ZST	63.52	347	iPd	47	29.30	-0.9	VITF	66.63	340	P	47	50.15	-0.1			
PVL	57.25	352	iPd	46	46.00	-1.5				i	47	38.60		8RG	66.75	346	iP	47	50.10	-0.9			
BCI	57.33	347	iP	46	49.00	0.9				e	48	23.00			1.4s	60.00nm		5.5mb					
DUI	58.08	342	Pd	46	53.20	-0.3	VAI	63.65	340	Pd	47	29.70	-1.3			i	47	59.30					
BUC1	58.27	353	ePd	46	54.00	-0.6	BNI	63.65	338	Pd	47	31.40	0.1			e	49	39.00					
TLB	58.30	355	ePd	46	54.50	-0.3	ORO	63.70	340	Pd	47	30.10	-1.5	GWF	66.76	341	P	47	51.07	-0.1			
SDI	58.31	342	P	46	54.70	-0.4	ORX	63.70	340	P	47	30.11	-1.5	MOX	67.11	344	iPd	47	54.00	0.7			
AZI	58.69	342	Pd	46	58.00	0.4	VKA	63.76	347	iPd	47	31.70	-0.1		2.2s	251.00nm		5.9mb					
RDP	58.70	341	P	46	58.40	0.6		2.0s	284.00nm			6.0mb					ipP	48	03.00	29kmX			
CFR	58.88	355	eP	46	58.00	-0.9				i	47	40.30					LR	19	20.00				
ISR	59.00	354	ePc	47	01.00	1.2				i	48	11.00		CLL	67.37	346	iPd	47	54.40	-0.5			
NDI	59.09	44	eP	46	59.00	-1.6				e	49	03.00			2.0s	160.00nm		5.8mb					
MNS	59.28	341	Pd	47	02.00	0.2	GGC	63.82	311	eP	47	31.50	-1.1			i	48	04.00					
MLR	59.41	353	ePd	47	02.50	-0.2	TMA	63.82	340	ePd	47	32.00	-0.5	MFF	67.57	335	eP	47	56.30	0.0			
TAF	59.57	325	iPc	47	05.00	1.1	LSD	63.83	339	P	47	32.26	-0.4		1.5s	98.10nm		5.7mb					
VRI	59.70	354	ePd	47	04.50	-0.1	SPC	63.86	350	iPd	47	32.60	0.0	WLF	67.83	341	Pd	47	58.00	0.2			
ASS	59.91	342	Pd	47	05.00	-1.1	ETOR	63.89	330	e(P)	47	33.50	0.6			ed	48	04.70					
PPE	59.96	355	eP	47	07.00	0.7	GKN	63.93	49	P	47	31.60	-1.9			e	14	11.60					
BZS	60.16	350	eP	47	07.50	-0.2	OSS	63.94	342	ePd	47	33.60	0.4	SHL	68.25	55	iP	48	00.00	-1.2			
IFR	60.20	322	iPc	47	09.50	1.1	VDL	63.97	341	ePd	47	33.20	-0.3			eS	56	54.40					
ARV	60.21	342	P	47	06.80	-1.3	LPG	64.01	339	eP	47	33.20	-0.7	MEM	68.69	341	iPd	48	03.80	0.6			
TIM	60.35	349	iPd	47	00.20	-8.8X		1.5s	104.40nm			5.7mb					ec	48	12.80				
CRE	60.63	341	P	47	09.60	-1.5	DMN	64.06	50	P	47	32.70	-1.8	DOU	68.71	340	Pd	48	03.70	0.4			
CVF	60.71	339	P	47	11.05	-0.5		0.6s	20.00nm			5.4mb			0.7s	35.50nm		5.6mb					
PTT	60.79	354	eP	47	12.00	0.1	MMK	64.08	340	ePd	47	33.20	-1.0			e	48	12.80					
IAS	60.93	355	eP	47	11.00	-1.9	KMR	64.08	345	iP-	47	34.30	0.4	ENN	68.86	341	ePd	48	04.50	0.3			
CJR1	60.98	352	eP	47	14.30	1.1	TOL	64.19	328	ePd	47	35.08	0.3		0.9s	47.00nm		5.6mb					
FIR	60.98	341	eP	47	11.00	-2.3		1.0s	140.00nm			6.0mb					i	48	14.60				
ENIJ	61.06	327	e(P)	47	14.30	0.3				epPc	47	44.35	30kmX	LPF	69.08	335	eP	48	05.30	-0.3			
PII	61.17	340	Pd	47	13.10	-1.5				ePcP	48	07.44		LDF	69.17	336	eP	48	05.50	-0.7			
EALH	61.31	328	e(P)	47	17.00	1.3	PKI	64.27	50	P	47	33.70	-2.2		1.6s	191.50nm		5.9mb					
VBY	61.42	345	ePd	47	16.70	0.4		0.7s	28.00nm			5.5mb		SNF	69.17	340	iPd	48	07.00	0.9			
AVE	61.43	321	iP	47	16.50	-0.1	DIX	64.29	339	ePd	47	35.30	-0.3			e	48	16.30					
		i	47	39.00		KKN	64.29	50	P	47	34.00	-1.9	GRR	69.29	336	eP	48	06.40	-0.5			
ZAG	61.53	345	iPd	47	17.50	0.5		0.7s	30.00nm			5.5mb			1.5s	135.80nm		5.8mb					
PTJ	61.62	345	eP	47	17.80	0.1	EMS	64.44	339	ePd	47	36.00	-0.5	UCC	69.39	340	P	48	08.20	0.8			
APHE	61.84	326	eP	47	20.40	1.0	LLS	64.46	341	ePd	47	36.30	-0.4			e	48	17.60					
CEY	61.86	344	eP	47	19.30	0.0	CTFE	64.48	311	eP	47	38.00	1.1	FLN	69.45	336	eP	48	07.10	-0.7			
AFC	61.98	326	e(P)	47	20.70	0.3	EPF	64.51	333	eP	47	36.90	0.1		1.3s	72.20nm		5.6mb					
ATEJ	61.99	326	eP	47	20.70	0.2		1.5s	244.80nm			6.1mb		KHT	69.56	68	eP	48	09.70	0.6			
TRI	62.01	344	ePd	47	19.90	-0.3	SAX	64.69	341	ePd	47	37.90	-0.3	WTS	69.66	342	iPd	48	09.80	0.7			
ACHM	62.03	326	eP	47	22.10	1.5	KRA	64.75	350	iPd	47	37.40	-0.8		0.8s	49.00nm		5.7mb					

			e	48 19.00	
LSA	69.68	51	P	48 09.90	-0.3
WIT	70.42	343	eP	48 15.50	1.8
			e	48 25.00	
NST	71.26	68	eP	48 30.00	10.5X
CHG	71.34	65	iPd	48 19.20	-0.8
	0.9s	23.11nm			5.2mb
			eS	57 38.00	
CHTO	71.34	65	ePd	48 18.51	-1.5
			epPc	48 28.28	31kmX
ITR	71.36	265	eP	48 13.00	-7.2X
LOE	73.30	67	eP	48 39.00	7.4X
SOB1	73.66	264	eP	48 33.80	0.0
YRH	74.28	337	eP	48 37.20	0.7
NUR	74.38	355	iP	48 36.30	-0.6
	0.5s	25.30nm			5.5mb
Z	20s	1.20um			5.2Msz
			i	48 46.00	
			LR	26 00.00	
BMA	74.41	250	eP	48 39.50	1.5
			e	48 48.80	
			e	48 51.70	
ECP	74.47	335	eP	48 37.90	0.3
	0.8s	172.00nm			6.1mb
UPP	74.55	351	iP	48 37.30	-0.6
			i	48 46.40	
ECB	74.77	335	eP	48 40.00	0.6
	0.7s	99.00nm			5.9mb
ETA	74.79	336	eP	48 40.30	0.8
	0.8s	134.00nm			6.0mb
ITA	74.96	250	eP	48 43.00	1.4
			e	48 52.20	
WMQ	75.06	37	ePd	48 41.21	-0.2
Z	20s	1.10um			5.2Msz
			epPc	48 49.82	28kmX
			esPd	48 58.42	
			e	52 16.24	
			eS	58 16.71	
DLE	75.37	336	iPd	48 43.80	1.0
HFS	75.45	349	eP	48 42.80	-0.4
	0.6s	18.90nm			5.3mb
Z	17s	0.45um			4.8MszX
			LR	22 06.00	
EKA	75.70	339	P	48 45.00	0.3
	0.9s	30.00nm			5.3mb
DCN	75.71	336	iPd	48 46.00	1.3
	0.9s	192.00nm			6.1mb
DMU	75.98	336	iPd	48 47.30	1.0
	0.6s	58.00nm			5.8mb
MUN	76.02	120	iPc	48 48.30	1.2
Z	20s	1.50um			5.3Msz
SPA	76.38	180	e(P)	48 49.90	1.3
	0.8s	18.33nm			5.1mb
Z	19s	1.60um			5.4Msz
NRA0	76.41	349	P	48 48.20	-0.4
			pP	48 56.30	26kmX
SUF	76.45	356	iP	48 48.30	-0.4
	0.6s	61.70nm			5.8mb
BAL	76.63	119	eP	48 51.00	0.4
NB2	76.75	349	P	48 50.00	-0.6
	0.8s	20.40nm			5.2mb
NWAO	76.76	121	eP	48 52.00	0.8
Z	20s	1.30um			5.2Msz
N	20s	0.20um			
E	20s	1.30um			
NANU	76.82	110	eP	48 52.50	0.9
VAO	76.93	249	eP	48 53.60	1.2
			e	49 03.20	
KMI	76.97	60	iPd	48 51.88	-0.9
			epPc	49 01.15	30kmX
			eS	58 52.58	
KLB	77.39	120	eP	48 55.50	0.8
KJF	77.84	357	iP	48 56.00	-0.3
	0.8s	32.30nm			5.4mb
			i	49 05.80	
CD2	79.99	55	iPc	49 08.60	-0.3
			eS	59 06.70	
GTA	80.55	46	P	49 11.80	0.0
GYA	80.75	60	P	49 13.00	-0.1
			pP	49 22.00	29kmX
			S	59 15.00	
MBL	81.00	110	iPc	49 14.90	0.5
SOD	81.05	357	iP	49 13.70	0.1
			i	49 24.00	
LZH	82.06	50	P	49 20.00	0.2
	3.0s	245.00nm			5.7mb
Z	20s	1.10um			5.2Msz
			pP	49 29.00	28kmX
KEV	83.41	357	iP	49 26.90	1.1
	0.8s	45.50nm			5.7mb
XAN	85.19	53	P	49 35.60	0.0
ATB	85.94	268	Pc	49 41.60	1.9
WARB	86.05	116	iPc	49 28.60	-11.5X
BTO	88.23	48	eP	49 51.00	0.6
N	16s	0.90um			
E	16s	1.00um			
			pP	49 59.00	25kmX
			eSKS	00 16.00	
			S	00 33.00	
WHN	88.45	58	eP	49 51.00	-0.5
Z	20s	1.27um			5.3Msz
			pP	49 59.00	25kmX
BJI	92.54	50	eP	50 19.00	8.7X
Z	20s	0.70um			5.1Msz
			eS	00 38.00	
ASPA	93.06	115	eP	50 13.50	0.3
			e	50 22.20	
ADE	93.62	127	e(P)	50 18.10	2.5X
	0.6s	20.00nm			5.7mb
WRA	94.49	112	P	50 21.00	1.2
	1.2s	10.50nm			5.1mb
WB5	94.53	112	eP	50 19.00	-1.0
			e	50 29.70	
CNCB	97.56	251	ePKP	50 37.00	2.5
ZOBO	97.85	251	Pc	50 36.90	1.1
Z	24s	2.14um			5.6MszX
			SKS	01 36.00	
			LR	24 40.00	
MDJ	103.17	47	ePdiff	50 57.00	-1.4
Z	20s	0.90um			5.3Msz
			SKS	01 28.00	
BRW	122.04	4	ePKP	55 53.30	0.3
RSON	124.20	323	PKP	55 56.50	-1.3
Z	20s	1.69um			5.7Msz
ELC	124.83	306	PKP	55 58.90	-0.5
INK	124.88	355	ePKP	55 58.00	-0.6
			pP	56 09.00	
FVM	125.64	307	PKP	56 01.30	0.2
YKC	126.51	343	ePKP	56 01.00	-0.9
YKA	126.53	343	ePKP	56 02.00	0.0
IMA	127.41	4	ePKP	56 04.10	0.3
	0.7s	4.80nm			
FBA	128.85	1	ePKP	56 05.50	-0.8
TTA	130.30	6	ePKP	56 10.00	0.7
PMR	132.12	2	ePKP	56 13.30	0.7
EDM	133.02	334	ePKPc	56 14.80	0.1
SES	133.88	330	ePKP	56 16.00	-0.4
GLD	136.10	314	PKP	56 20.50	-0.7
Z	20s	2.50um			5.9Msz
GOL	136.23	314	PKP	56 20.50	-1.0
Z	20s	1.85um			5.8Msz
LRM	137.50	326	ePKP	56 24.60	0.9
PNT	138.56	334	ePKP	56 26.00	0.8
ALQ	138.88	308	ePKP	56 20.00	-6.5X
Z	18s	1.20um			5.7Msz
DPW	139.02	332	PKP	56 27.00	0.8
LON	141.48	334	PKP	56 25.00	-5.6X
BMW	142.30	335	PKP	56 27.80	-4.3X
EUR	143.40	320	iPKP	56 31.50	-2.9X
	0.9s	16.56nm			
KVN	144.97	321	PKP	56 36.00	-1.1
TNP	145.01	319	PKP	56 36.60	-0.6
MNA	145.39	320	e(PKP)	56 38.60	0.9
			e	56 48.10	
LBFM	145.58	328	PKP	56 39.00	1.0
GLA	146.00	310	ePKP	56 40.00	1.2
MIN	146.14	326	ePKPd	56 39.20	0.3
			e	56 48.80	
GSC	146.30	315	ePKP	56 41.00	1.7
			e	56 51.00	
TPC	146.39	312	ePKP	56 42.00	2.6X
			e	56 52.00	
WDC	146.47	327	ePKPd	56 39.20	0.0
			e	56 49.10	
CLC	146.56	316	ePKP	56 42.00	2.4X
			e	56 52.00	
ORV	146.63	325	ePKP	56 40.30	0.8
			e	56 50.70	
CMB	147.00	322	ePKPd	56 41.10	0.9
			e	56 51.10	
FHC	147.05	329	e(PKP)	56 43.00	2.8
ISA	147.24	317	ePKP	56 43.00	2.3X
			e	56 53.00	
FRI	147.25	320	ePKPd	56 41.70	1.1
			e	56 51.60	
PEC	147.29	313	PKP	56 43.00	2.2
SBB	147.34	315	ePKP	56 43.00	2.1
			e	56 53.00	
PLM	147.35	312	ePKP	56 44.00	2.9X
			e	56 54.00	
RVR	147.39	313	ePKP	56 43.00	2.1
			e	56 53.00	
BAR	147.54	310	ePKP	56 45.00	3.8X
			e	56 54.00	
PAS	147.87	314	ePKP	56 45.00	3.3X
ARN	148.14	322	PKP	56 43.80	1.7
BKS	148.20	323	ePKPc	56 46.70	4.6X
Z	20s	1.20um			5.7Msz
E	20s	1.80um			
MHC	148.21	322	ePKPd	56 44.00	1.7
BRK	148.22	323	e(PKP)	56 43.60	1.5
LLA	148.25	320	ePKPd	56 43.80	1.6
PRI	148.38	319	ePKP	56 44.60	2.0
BCH	148.58	317	PKP	56 44.60	1.6
GCC	148.63	322	e(PKP)	56 45.80	3.0X
PRS	148.70	320	e(PKP)	56 45.00	2.0
SYP	148.90	316	ePKP	56 49.00	5.5X
VAH	151.17	176	iPKP	56 55.60	8.4X
	0.8s	20.00nm			
RUV	151.23	176	iPKP	56 55.80	8.5X
	0.8s	30.00nm			
PMO	151.38	175	iPKP	56 56.30	8.8X
	0.8s	10.00nm			
TPT	151.42	176	iPKP	56 56.40	8.9X
	0.8s	30.00nm			

S.D. = 0.9 on 321 of 360 obs.

MAR 09, 1989 04h 20m 22.07± 0.85s
34.713 N ± 7.1km 24.007 E ± 4.4km
DEPTH = 45.8 ± 8.6 km
4.1mb (5 obs.)

CRETE (370)

MD 3.9 (ATH).

VAM	0.71	13	ePn	21 06.20	30.3X
KAP	2.73	71	ePn	21 06.20	1.8
ITM	2.98	326	ePn	21 10.00	1.9
ATH	3.26	356	ePn	21 12.70	0.8
ARG	3.68	65	ePn	21 18.70	0.8
YER	4.23	54	iP	21 27.10	1.4
VLS	4.42	322	ePn	21 30.20	1.8
IZM	4.52	35	iP	21 30.60	0.9
NEO	4.63	352	ePn	21 31.50	0.2
KSL	4.76	71	ePn	21 32.70	-0.5
PRK	4.87	21	ePn	21 34.00	-0.7
ELL	5.21	65	iP	21 39.30	-0.3
PLG	5.67	356	ePn	21 45.00	-1.0
KHL	5.72	49	eP	21 46.10	-0.7
KZN	5.86	343	ePn	21 48.50	-0.2
BCK	5.99	61	iP	21 49.70	-0.9
LSK	6.07	334	iPnc	21 51.20	-0.4
TPE	6.41	331	ePn	21 56.50	0.1
KBN	6.42	338	ePn	22 08.00	11.6X
ALT	6.53	47	eP	21 55.00	-3.2X
RDO	6.54	10	ePn	21 57.80	-0.3
VAY	6.69	351	ePn	22 01.40	1.1
OHR	6.87	339	ePn	22 01.40	-1.4
LCI	7.39	321	P	22 08.40	-1.6
SKO	7.52	345	ePn	22 10.00	-1.9
ATN	7.70	299	P	22 15.00	0.6
MEU	7.74	291	P	22 15.20	0.1
			eSn	23 35.10	
TDS	7.86	311	P	22 15.50	-1.1
BRT	8.18	321	P	22 20.20	-0.7
			eSn	23 44.00	
BCI	8.24	339	ePn	22 20.30	-1.5
MGR	8.63	311	P	22 25.80	-1.4
BBTK	8.65	51	iP-	22 27.00	-0.6
DSI	10.04	105	eP	22 32.00	-14.5X
			e(S)	24 27.00	
BURJ	10.13	101	P	22 43.40	-4.5X
JARJ	10.27	101	P	22 44.30	-5.6X
MBH	10.44	115	iP	22 50.00	-2.0
MLR	10.87	7	eP	22 59.00	1.0
KHC	16.34	335	P	24 10.10	0.4
PRU	16.77	338	eP	24 17.50	2.4
KSP	17.07	343	eP	24 21.00	2.2
CLL	18.40	338	e(P)	24 36.00	0.7
DOU	20.92	323	Pc	25 03.20	0.3
	0.8s	16.70nm			4.4mb
			e	25 22.40	

09d 04h

NUR	25.81	1	eP	25 49.00	-1.4
HFS	26.31	348	eP	25 54.00	-1.0
	0.5s	3.00nm		4.1mb	
NB2	27.60	347	P	26 05.40	-1.4
	0.6s	2.60nm		4.0mb	
SUF	28.06	2	eP	26 10.00	-0.9
BNG	30.55	191	ePc	26 34.30	0.7
	0.8s	4.00nm		4.2mb	
		ic		26 44.50	
BCAO	30.55	191	eP	26 33.70	0.1
	1.0s	2.00nm		3.8mb	
GKN	51.54	80	P	29 25.80	0.0
DMN	52.07	80	P	29 30.00	0.0
KKN	52.14	80	P	29 30.20	-0.2
PKI	52.34	80	P	29 33.10	1.1
GUN	52.58	79	P	29 33.80	-0.1
YKA	77.58	342	eP	32 16.20	1.7
S.D. = 1.2 on 48 of 54 obs.					

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* MAR 09, 1989 04h 54m 15.98± 1.32s
0.230 S ±10.7km 122.812 E ±14.4km
DEPTH = 100.4 ± 11.3 km
4.5mb (7 obs.)
MINAHASSA PENINSULA (265)

PCI	3.05	257	ePc	55 03.20	0.0
			eS	56 12.00	
TSM	6.48	313	iPd	55 50.70	0.2
	0.2s	83.30nm		5.8mb X	
KKM	9.07	314	ePc	56 25.50	-0.4
WB5	22.57	151	eP	59 08.60	-0.2
WRA	22.61	151	Pd	59 09.30	0.1
	0.6s	3.50nm		3.9mb	
ASPA	25.66	156	eP	59 38.30	0.0
CHG	30.12	310	eP	00 19.00	0.5
CHTO	30.12	310	eP	00 19.10	0.6
	0.9s	5.33nm		4.3mb	
SHL	39.37	313	eP	01 37.50	-0.2
GUN	45.13	311	P	02 24.80	0.1
	0.5s	24 00nm		5.3mb	
PKI	45.30	311	P	02 25.90	-0.2
	0.6s	7.00nm		4.7mb	
KKN	45.52	311	P	02 27.40	-0.2
	0.5s	5.00nm		4.6mb	
DMN	45.55	311	P	02 27.80	-0.2
GKN	46.11	311	P	02 32.10	-0.1
	0.6s	11.00nm		4.9mb	
GBA	47.00	289	P	02 39.00	-0.2
	0.5s	1.20nm		4.0mb	
S.D. = 0.3 on 15 of 15 obs.					

MAR 09, 1989 05h 01m 16.54± 0.86s
17.864 N ± 6.4km 60.942 W ± 8.5km
DEPTH = 33.0km (normal)
LEEWARD ISLANDS (92)
ML 4.0 (FDF).

CPB	0.87	255	eP	01 32.19	-0.2
ANG	1.10	230	eP	01 35.67	0.0
BPA	1.19	227	eP	01 36.50	-0.5
DEG	1.55	184	ePc	01 41.22	-0.9
SEG	1.55	200	ePc	01 41.85	-0.3
SFG	1.62	189	eP	01 42.50	-0.6
MGH	1.67	227	ePc	01 43.96	0.1
			S	02 05.00	
SKI	1.79	253	iP	01 46.07	0.4
			eS	02 08.08	
SKDB	1.84	256	eP	01 47.01	0.7
			eS	02 09.91	
PAG	1.96	201	eP	01 47.80	-0.3
			S	02 11.50	
MGG	1.97	191	eP	01 48.34	0.1
			S	02 12.60	
BBL	2.38	193	eP	01 53.70	-0.5
DPMT	2.63	189	eP	01 57.00	-0.5
			eS	02 47.00	
FDF	3.12	184	eP	02 03.64	-1.0
TRN	7.19	184	eP	03 03.79	1.7
TBH	7.34	181	eP	03 06.25	2.1
TPP	7.52	184	eP	03 06.78	0.1
LIC	55.70	95	P	11 02.60	10.0X
KIC	55.94	94	P	11 04.20	10.0X
YKA	57.86	334	eP	11 06.80	-0.3
MBC	65.45	347	eP	11 58.00	0.0
S.D. = 0.8 on 19 of 21 obs.					

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* MAR 09, 1989 05h 12m 16.09± 0.72s
55.891 S ±13.3km 27.113 W ±16.1km
DEPTH = 33.0km (normal)
4.9mb (3 obs.)
SOUTH SANDWICH ISLANDS REGION (153)

SPA	34.29	180	e(P)	19 01.20	0.1
	0.5s	8.33nm		4.9mb	
SOB1	47.81	341	eP	20 52.40	0.1
			e	21 20.40	
ZOBO	50.33	305	Pc	21 12.00	-0.3
	0.6s	5.81nm		4.8mb	
BUL	54.48	73	eP	21 42.90	0.1
LIC	64.53	24	P	22 52.30	0.5
TIC	64.94	24	P	22 54.80	0.3
	0.8s	13.50nm		5.1mb	
BNG	70.78	49	iPd	23 30.10	-1.0
	0.2s	16.00nm		5.7mb X	
MBC	143.85	336	ePKP	31 44.00	-3.7X
S.D. = 0.6 on 7 of 8 obs.					

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* MAR 09, 1989 06h 18m 48.55± 3.96s
17.773 N ±25.5km 60.943 W ±21.5km
DEPTH = 20.8 ± 7.7 km
LEEWARD ISLANDS (92)
ML 3.7 (FDF).

CPB	0.85	261	eP	19 04.40	-0.1
ANG	1.05	234	iP	19 07.62	-0.2
DEG	1.46	184	eP	19 13.30	-0.5
			S	19 30.90	
SEG	1.47	202	eP	19 13.74	-0.1
			S	19 31.60	
MGH	1.61	229	eP	19 16.12	0.2
			S	19 37.50	
SKI	1.77	256	iP	19 18.18	-0.1
			eS	19 39.56	
SKDB	1.82	258	eP	19 18.94	-0.1
			eS	19 44.37	
PAG	1.87	202	eP	19 19.70	-0.2
			S	19 44.00	
MGG	1.88	191	eP	19 19.90	0.0
BBL	2.30	193	eP	19 26.50	0.6
MDN	2.48	190	eP	19 28.40	-0.2
S.D. = 0.3 on 11 of 11 obs.					

% MAR 09, 1989 08h 06m 59.93± 0.87s
39.160 N ± 7.6km 27.583 E ± 8.8km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	0.80	198	ePg	07 15.50	0.0
			eSg	07 26.00	
DST	0.92	61	ePn	07 17.50	-0.1
EZN	1.18	305	ePn	07 22.00	0.1
BNT	1.22	12	iPn	07 22.10	-0.6
KCT	1.24	29	iPn	07 23.60	0.6
S.D. = 0.6 on 5 of 5 obs.					

& MAR 09, 1989 09h 41m 32.40s
47.700 N 69.890 W
DEPTH = 18.0km (geophysicist)
3.9mb (1 obs.)
GASPE PENINSULA (448)
<OTT-P>. mbLg 4.3 (OTT). Felt at La Malbaie and Baie St. Paul.

CBM	1.43	122	eP	41 57.60	0.2
MIM	2.53	166	eP	42 12.90	-0.3
EMM	3.40	150	eP	42 24.40	-1.2
GAC	4.33	245	ePc	42 38.70	-0.1
RSNY	4.51	227	eP	42 40.00	-1.4
PTN	4.72	230	eP	42 43.00	-1.4
SCH	7.39	14	eP	43 17.30	-4.6
DHN	7.62	233	eP	43 25.00	-0.2
ELF	9.21	245	P	43 42.40	-4.8
LDN	9.21	244	P	43 43.30	-4.0
DLA	9.55	244	(P)	43 48.30	-3.6
BLA	13.04	220	e(P)	44 42.00	2.7
FRB	16.10	2	eP	45 10.00	-9.1
RSCP	16.81	230	e(P)	45 25.00	-3.3
FFC	21.15	301	eP	46 17.00	-1.5
	0.8s	4.00nm		3.9mb	
15 obs. associated					

MAR 09, 1989 10h 10m 37.85± 0.77s
17.225 N ± 7.3km 99.749 W ± 8.0km
DEPTH = 52.9 ± 7.0 km
4.5mb (6 obs.)
GUERRERO, MEXICO (59)
Felt (IV) at Acapulco.

ACX	0.37	196	iPc	10 46.50	-1.5
			iS	10 53.50	
III	1.18	13	iP	10 59.00	0.6
			iS	11 26.50	
UNM	2.16	14	iP	11 12.50	0.1
			iS	11 40.50	
CRX	2.17	2	iP	11 14.00	1.5
			iS	11 53.50	
IIT	2.25	37	iP	11 14.00	0.4
			iS	11 50.00	
IIC	2.57	10	iPd	11 17.50	-0.7
			iS	12 01.50	
IISM	2.86	52	(P)	11 13.50	-8.5X
			iS	11 58.00	
OXX	2.90	92	iP	11 24.50	1.7
			iS	12 00.00	
ALQ	18.63	343	eP	14 52.80	-1.1
	0.9s	9.03nm		4.0mb	
OLY	19.64	20	P	15 03.20	-1.8
GLA	20.81	322	eP	15 17.00	-0.2
BAR	21.6B	318	eP	15 26.00	0.0
FVM	22.24	20	P	15 29.80	-1.7
TPC	22.27	322	eP	15 31.00	-0.9
PEC	22.79	320	P	15 37.80	0.8
GOL	22.92	349	P	15 37.70	-0.8
RVR	22.99	320	eP	15 40.00	1.1
TKL	23.21	35	P	15 41.60	0.6
SBB	23.74	321	eP	15 47.00	0.8
CLC	24.38	323	eP	15 55.00	2.6
ISA	24.79	321	eP	15 53.00	-3.3X
TNP	25.82	327	P	16 06.90	0.8
FRI	26.42	322	e(P)	16 11.30	-0.1
BW06	26.81	344	P	16 14.20	-1.0
	1.4s	11.09nm		4.3mb	
KVN	27.00	327	P	16 17.40	0.4
CMB	27.52	323	ePc	16 20.30	-1.2
GMW	35.68	333	P	17 32.60	-0.3
EDM	37.47	347	ePd	17 47.10	-0.8
FFC	37.47	358	eP	17 46.00	-1.8
	1.1s	19.00nm		4.9mb	
LPB	45.80	135	(P)	19 06.00	9.1X
CNCB	46.08	136	eP	19 04.00	4.7X
INK	55.35	345	eP	20 08.00	-0.3
FBA	57.40	338	P	20 24.10	1.1
	0.8s	2.59nm		4.4mb	
		pP		20 33.90	32kmX
TTA	59.70	334	P	20 40.20	1.1
	0.9s	3.54nm		4.5mb	
		pP		20 49.30	30kmX
MBC	59.92	355	eP	20 40.00	-0.3
	0.7s	5.00nm		4.8mb	
SOB1	63.82	110	eP	21 06.70	-0.7
			e	21 22.90	
ALE	66.95	5	eP	21 37.00	10.5X
	0.5s	3.00nm			
WRA	128.84	258	PKP	29 43.00	1.1
	0.7s	1.40nm			
HYB	145.54	3	ePKP	30 12.00	-0.6
			e	30 24.50	
GBA	149.24	5	PKPd	30 19.70	1.2
	0.8s	3.00nm			
S.D. = 1.1 on 35 of 40 obs.					

% MAR 09, 1989 11h 31m 44.11± 0.84s
45.060 N ± 6.2km 7.180 E ±10.1km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)

RSP	0.11	31	P	31 53.34	6.3X
			Pg	31 55.66	
			Sn	32 22.40	
RRL	0.31	244	P	31 50.06	-0.7
			S	32 14.17	
LSD	0.40	358	P	31 52.62	0.3
			S	32 16.53	
PZZ	0.56	186	Pn	31 57.44	1.9
			Pg	31 59.90	
ORX	0.81	44	Pn	31 59.70	-0.1
			Pg	32 03.99	
STV	0.82	173	P	31 59.39	-0.7
IMI	1.26	156	P	32 06.78	-0.7
S.D. = 1.3 on 6 of 7 obs.					

& MAR 09, 1989 12h 38m 26.87s
61.440 N 149.639 W
DEPTH = 56.4km
SOUTHERN ALASKA (2)
<AGS-P>. Felt (III) at Eagle River and Palmer.

PMS	0.20	169	iP	38	35.87	-0.2
PWA	0.24	332	iP	38	35.30	-0.9
PLRM	0.29	58	iP	38	35.96	-0.6
			iS	38	43.30	
PMR	0.29	58	iP	38	35.90	-0.7
PME	0.35	57	iP	38	36.71	-0.4
GHO	0.48	45	iP	38	37.97	-0.5
KNK	0.57	92	iP	38	39.49	0.0
PTE	0.65	152	iP	38	40.34	0.0
SML	0.73	59	iP	38	40.82	-0.6
PWL	0.86	132	iP	38	43.11	0.0
SLKM	0.98	197	iP	38	44.23	-0.4
NKA	1.05	229	Pn	38	46.66	1.1
CGLM	1.15	264	iP	38	46.65	-0.4
SPU	1.19	259	iP	38	47.03	-0.6
			iS	39	02.63	
CRP	1.22	263	iP	38	47.63	-0.5
SEW	1.34	176	eP	38	48.51	-1.1
GLI	1.36	113	iP	38	49.04	-0.8
			iS	39	07.10	
KNIM	1.44	139	iP	38	49.47	-1.5
VZW	1.54	103	iP	38	51.88	-0.6
RDT	1.60	238	iP	38	52.40	-0.9
			iS	39	12.62	
NNL	1 62	211	Pn	38	53.42	-0.1
VLZ	1.63	100	iP	38	52.84	-0.7
FID	1.68	113	iP	38	53.16	-1.2
MTU	1.75	145	iP	38	54.27	-1.1
TOA	1.78	66	iP	38	56.12	0.3
KLU	1.79	87	iP	38	55.16	-0.7
HIN	1.86	123	iP	38	55.94	-0.9
CNPM	2.08	203	iP	38	58.94	-1.0
CVA	2.10	114	eP	38	58.76	-1.4
ILIM	2.13	232	iP	38	59.84	-0.8
SGAM	2.36	112	iP	39	02.36	-1.5
PDB	2.79	236	iP	39	08.24	-1.8
GLB	2.80	87	eP	39	08.39	-1.8
SVW	2.91	266	eP	39	09.78	-2.0
TTA	3.34	299	iPc	39	15.30	-2.6
FBA	3.57	13	eP	39	19.30	-1.8
KDC	3.98	203	eP	39	24.20	-2.5
IMA	4.98	341	eP	39	38.40	-2.6
DWY	5.37	56	P	39	45.00	-1.4
HYT	5.91	91	P	39	52.00	-2.0
YKA	16.38	71	eP	42	15.30	1.2

41 obs. associated

MAR 09, 1989 13h 02m 09.23± 0.74s
40.503 N ±10.2km 27.134 E ± 5.9km
DEPTH = 10.0km (geaphysicist)
TURKEY (366)

EDC	0.58	105	iPg	02	20.40	-0.6
			eSg	02	27.40	
BNT	0.62	104	iPg	02	20.90	-0.8
EZN	0.92	223	iPn	02	31.10	4.3X
KCT	0.97	105	iPg	02	26.90	-0.8
CTT	1.18	56	iPn	02	30.40	-0.8
DMK	1.40	19	ePn	02	35.50	0.7
DST	1.46	128	iPn	02	37.50	1.9
ISK	1.57	68	ePn	02	38.00	0.9
HRT	1.95	80	ePg	03	00.00	17.2X
OHR	4.85	279	ePn	03	49.00	25.0X
LSK	5.01	268	ePn	03	37.10	10.8X
TPE	5.44	270	ePn	03	31.50	-0.9
VLO	5.82	272	ePg	03	37.90	0.2

S.D. = 1.1 an 9 of 13 abs.

& MAR 09, 1989 14h 05m 00.09s
37.143 N 116.067 W
DEPTH = 0.0km
5.0mb (19 obs.)
SOUTHERN NEVADA (41)
<DOE>. ML 4.8 (BRK). 37° 08' 34.20" N., 116° 04' 00.99" W., Surface Elev. 1307 m., Depth af Burial 500 m., Shot Time 140500.086, "INGOT," Nevada Test Site (Dept. af Energy).

GLR	0.07	35	iPc	05	01.60	0.1
BGB	0.17	231	iPc	05	03.80	0.4
CPX	0.21	177	iP	05	04.30	0.0
TMBR	0.28	247	iP	05	05.80	0.2
LOP	0.30	196	iPc	05	06.10	0.0
BLT	0.34	353	iPc	05	06.60	-0.3
CDH1	0.35	215	iPc	05	06.90	-0.1
YMT6	0.39	224	iPc	05	07.90	0.0
YMT5	0.39	232	iPc	05	07.90	-0.1
YMT4	0.43	226	iPc	05	08.40	-0.2
LSM	0.43	202	iP	05	08.20	-0.6
YMT3	0.45	218	iPc	05	08.70	-0.4
YMT1	0.47	232	iPc	05	09.40	-0.1
YMT2	0.49	223	iPc	05	09.40	-0.5
SPRG	0.49	155	iPc	05	09.60	-0.3
SDH	0.54	204	iPc	05	10.00	-0.9
OCS	0.64	11	iPc	05	11.60	-1.2
KRNA	0.65	337	iPc	05	12.70	-0.3
JON	0.70	182	iPc	05	13.30	-0.8
CTS	0.73	315	iPc	05	14.30	-0.4
FMT	0.76	229	iPc	05	14.00	-1.3
SGV	0.79	258	iPc	05	15.30	-0.5
AMR	0.81	204	iPc	05	15.20	-1.1
MTI	0.83	50	iPc	05	15.50	-1.1
PRN	0.85	72	iP	05	16.30	-0.8
WRN	0.92	24	iPc	05	17.10	-1.3
SHRG	0.97	131	ePc	05	17.90	-1.7
NOP	1.02	184	iPc	05	18.80	-1.5
GVN	1.03	262	iPc	05	19.80	-0.8
NPN	1.03	60	ePc	05	19.40	-1.3
GWY	1.07	207	ePc	05	20.00	-1.3
SRG	1.08	47	iPc	05	20.50	-1.0
MCA	1.09	243	ePc	05	20.30	-1.2
PANV	1.11	228	eP	05	20.80	-1.2
TMO	1.13	253	iPc	05	21.20	-1.1
HCR	1.13	345	iPc	05	21.20	-1.1
DLM	1.15	66	iPc	05	21.90	-0.8
MGM	1.18	285	iPc	05	22.40	-0.8
MZP	1.19	298	iPc	05	22.40	-0.9
LCH	1.27	275	iPc	05	23.70	-0.9
TNP	1.31	316	iPc	05	25.00	-0.4
QSM	1.34	209	iPc	05	25.00	-0.8
SVP	1.49	293	iPc	05	28.10	-0.4
PPK	1.49	281	iPc	05	27.90	-0.5
CLC	1.81	223	iPc	05	31.90	-0.9
GSC	1.93	198	iPc	05	33.80	-0.8
MNA	2.10	309	iPc	05	36.30	-0.8
			iS	06	09.10	
EUR	2.34	2	iP	05	40.00	-0.7
	0.2s		8.09nm			4.3mb X
ISA	2.44	233	iPc	05	41.20	-0.7
KVN	2.49	321	iPc	05	42.00	-0.8
SBB	2.83	211	ePc	05	46.30	-1.3
FRI	2.92	268	iPnc	05	48.20	-0.4
			iPb	05	53.20	
TPC	3.03	180	iPc	05	49.20	-1.1
PEC	3.36	196	iPc	05	54.50	-0.6
MSU	3.37	65	eP	05	54.10	-1.3
PKEM	3.43	253	eP	05	56.00	0.1
ABL	3.43	229	eP	05	55.20	-1.0
CMB	3.54	286	iPnc	05	56.70	-0.9
			iPb	06	04.90	
PHAM	3.73	251	eP	05	59.50	-0.7
BCH	3.79	240	ePc	06	00.30	-0.9
PRI	3.83	256	ePc	06	00.90	-0.9
PLM	3.84	190	eP	06	01.20	-0.7
LLA	3.94	264	ePc	06	02.70	-0.6
DUG	3.97	39	eP	06	02.50	-1.3
GLA	4.21	166	ePc	06	05.50	-1.5
PRS	4.34	261	ePc	06	07.70	-1.1
BLP	4.36	235	eP	06	09.00	-0.2
ARN	4.37	274	eP	06	09.00	-0.3
MHC	4.45	274	ePnc	06	09.80	-0.8
			iPb	06	18.80	
			iPg	06	26.90	
			iSg	07	21.00	
ORV	4.90	301	ePc	06	15.40	-1.5
BRK	4.98	280	e(P)	06	16.50	-1.4
DAU	4.98	48	eP	06	18.00	-0.2
ZSP	4.98	281	e(P)	06	17.00	-1.0
PCC	5.05	276	ePc	06	17.10	-1.8
WDC	6.11	306	ePc	06	32.00	-1.8
BW06	7.53	40	ePc	06	53.50	-0.5
ALQ	8.09	103	ePc	07	00.00	-1.9
CCMT	8.13	16	ePc	07	04.70	2.3
BGMT	8.63	19	eP	07	13.20	3.8
GOL	8.77	70	ePc	07	10.70	-0.8
VGB	9.08	339	eP	07	16.20	0.7
LRM	9.08	16	ePc	07	16.70	1.0
LCCM	9.24	19	eP	07	19.40	1.7
HRY	10.07	17	eP	07	30.10	1.0
DPW	10.84	352	eP	07	39.80	0.2
RSSD	11.49	49	eP	07	46.00	-2.7
PNT	12.44	349	eP	08	02.00	0.7
SES	13.73	14	eP	08	19.00	0.5
EDM	16.19	6	eP	08	49.70	-0.8
OLY	19.88	87	eP	09	35.40	-0.4
FFC	20.06	24	iPc	09	35.20	-2.4
	0.6s		26.00nm			4.7mb
FVM	20.33	80	eP	09	39.30	-1.3
RSON	21.03	42	eP	09	45.00	-2.7
	1.0s		80.00nm			5.0mb
ELC	21.36	81	eP	09	50.30	-0.8
RSCP	24.54	84	eP	10	21.50	-1.1
	1.6s		51.02nm			5.0mb
YKC	25.38	2	ePc	10	28.50	-1.8
	1.0s		30.00nm			5.0mb
YKA	25.39	2	eP	10	28.90	-1.5
TKL	25.97	83	eP	10	35.00	-1.1
NAV	27.99	79	eP	10	53.10	-1.5
BLA	28.30	79	eP	10	56.40	-1.0
	1.2s		41.04nm			5.1mb
PMR	31.98	330	eP	11	29.60	-0.1
	1.4s		46.50nm			5.2mb
FBA	33.52	336	eP	11	42.90	-0.2
TTA	35.42	330	eP	11	59.10	-0.5
IMA	36.18	335	eP	12	05.50	-0.6
FRB	38.88	32	eP	12	28.00	-0.5
MBC	39.22	359	ePc	12	30.50	-0.8
	0.8s		17.00nm			4.7mb
BRW	40.14	341	eP	12	38.70	-0.2
ALE	48.84	8	eP	13	46.00	-2.7
	0.6s		7.00nm			4.9mb
DAG	55.83	16	iPd	14	37.80	-3.2
	0.8s		7.46nm			4.8mb
TPT	59.76	216	iP	15	09.00	-0.2
	1.1s		20.00nm			5.2mb
RUV	59.83	215	iP	15	09.40	-0.3
	1.1s		30.00nm			5.3mb
PMO	59.91	216	iP	15	09.90	-0.3
	1.1s		20.00nm			5.2mb
VAH	59.99	216	iP	15	10.50	-0.3
	1.1s		25.00nm			5.3mb
ZOBO	69.71	131	P	16	12.80	-1.9
	0.8s		5.64nm			4.8mb
LPB	69.93	131	eP	16	15.00	-0.8
KEV	70.05	13	eP	16	24.00	8.7
CNCB	70.22	131	P	16	17.00	-0.7
CCH	71.78	130	P	16	10.20	-16.6
SOD	72.04	14	iP	16	25.00	-2.4
NBO	73.03	24	P	16	31.00	-2.4
	1.1s		10.00nm			4.9mb
HFS	74.65	24	iPc	16	40.70	-2.0
	0.7s		13.10nm			5.1mb
KJF	75.02	16	iP	16	42.80	-2.0
	1.0s		26.00nm			5.2mb
			i	17	06.50	
SUF	75.96	17	iP	16	48.20	-2.0
NUR	77.50	19	eP	16	57.00	-1.8
MOX	81.22	31	eP	17	18.50	-0.6
	1.4s		10.00nm			4.7mb
CLL	81.26	30	iPc	17	18.60	-0.6
BRG	81.97	29	eP	17	22.10	-0.9
	0.8s		10.00nm			5.0mb
PRU	82.91	30	eP	17	27.00	-0.8
KHC	83.20	31	eP	17	29.30	-0.1
SOB1	83.90	106	eP	17	32.60	-0.8
KRA	84.89	27	eP	17	37.10	-0.8
BUL	144.93	71	iPKPc	24	38.80	-2.6
	1.2s		23.44nm			

132 abs. assaciated

% MAR 09, 1989 14h 18m 32.93± 0.92s
40.422 N ± 8.2km 28.920 E ± 7.6km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

KCT	0.46	248	iPg	18	42.90	0.5
			iSg	18	49.40	
HRT	0.70	55	ePg	18	46.40	-0.3
BNT	0.77	265	iPg	18	47.90	0.0
EDC	0.81	265	ePg	18	47.40	-1.2
			eSg	19	00.40	
CTT	0.81	333	ePg	18	49.40	0.7

09d 14h

DST 0.85 195 iPg 18 49.60 0.3
eSg 19 03.60
S.D. = 0.9 on 6 of 6 obs.

& MAR 09, 1989 14h 49m 08.00s
37.143 N 116.067 W
DEPTH = 0.0km
SOUTHERN NEVADA (41)
<SPEC>. ML 3.7 (BRK). NTS Collapse. Held to "INGOT" location.

TNP 1.31 316 eP 49 33.00 -0.3
MNA 2.10 309 eP 49 44.00 -1.0
EUR 2.34 2 eP 49 47.50 -1.1
KVN 2.49 321 eP 49 50.00 -0.7
PEC 3.36 196 eP 50 03.00 0.0
CMB 3.54 286 eP 50 05.00 -0.5
PLM 3.84 190 eP 50 09.40 -0.4
ALQ 8.09 103 eP 51 39.00 29.2
1.0s 10.00nm
LRM 9.08 16 eP 51 26.60 3.0
EDM 16.19 6 eP 53 02.00 3.6
FFC 20.06 24 eP 53 46.00 0.5
1.7s 59.00nm 4.6mb
11 obs. associated

? MAR 09, 1989 15h 32m 25.73± 2.81s
13.653 S ±12.0km 34.408 E ±28.3km
DEPTH = 10.0km (geophysicist)
MALAWI (577)
MG 3.5 (BUL).

PTZ 3.04 258 iPn 33 16.00 1.2
iSn 33 53.00
IKZ 3.87 333 iPn 33 26.70 0.0
iPg 33 36.60
iSg 36 48.00
LSZ 6.24 254 iPn 34 00.80 0.6
iSn 35 09.00
iSg 35 41.70
KMZ 8.34 270 iPn 34 28.50 -1.3
iSn 36 01.00
iSg 36 48.00
BUL 8.51 220 iPn 34 30.50 -1.6
iSn 35 57.80
iSg 36 51.30
SEK 15.90 202 eP 36 21.00 9.5X
S 39 11.00
SWZ 15.91 211 eP 36 12.60 1.0
S 38 54.00
S.D. = 1.5 on 6 of 7 obs.

% MAR 09, 1989 16h 00m 42.07± 1.34s
42.762 N ± 7.9km 19.062 E ±10.7km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
MD 2.0 (TTG).

NKY 0.07 317 ePg 00 44.50 0.0
eSg 00 46.50
TTG 0.36 156 ePg 00 49.50 0.0
eSg 00 55.50
BRY 0.41 290 ePg 00 50.50 0.1
eSg 00 57.00
BDV 0.51 200 ePg 00 52.50 0.1
eSg 01 01.40
HCY 0.52 233 ePg 00 52.50 -0.1
eSg 01 01.50
S.D. = 0.1 on 5 of 5 obs.

& MAR 09, 1989 16h 21m 32.30s
37.258 N 121.675 W
DEPTH = 5.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 3.6 (BRK). Mo=2.3*10**14 Nm (BRK). Felt at Son Jose.

MHC 0.09 18 iPd 21 34.20 -0.2
iS 21 35.95
ARN 0.15 51 iPd 21 34.80 -0.5
GCC 0.34 229 iPd 21 39.60 0.4
SAO 0.53 159 iPd 21 42.95 0.1
eS 21 50.35
PCC 0.61 293 iPc 21 44.10 -0.5
iS 21 54.80
BKS 0.76 324 iPd 21 47.15 -0.4
eS 21 58.70
BRK 0.77 323 iPc 21 47.10 -0.6
iS 22 00.10
LLA 0.87 137 iPc 21 48.20 -1.3
PRS 0.96 165 iPd 21 50.00 -1.0
CMB 1.28 52 iPd 21 55.20 -1.4
PRI 1.38 144 e(P)c 21 56.60 -1.7
NWRM 1.53 322 eP 21 58.40 -1.9
FRI 1.59 99 iPc 21 59.30 -1.9
PKEM 1.74 133 eP 22 02.00 -1.3
PHAM 1.75 144 eP 22 01.30 -2.2
ORV 2.30 3 eP 22 08.90 -2.5
BCH 2.44 148 eP 22 10.50 -3.0
ABL 3.12 140 eP 22 21.00 -2.3
KVN 3.34 56 eP 22 24.90 -1.5
TNP 3.63 76 e(P) 22 29.00 -1.6
20 obs. associated

? MAR 09, 1989 17h 10m 11.11± 1.80s
1.943 N ±37.6km 126.097 E ±43.5km
DEPTH = 33.0km (normal)
3.9mb (3 obs.)
MOLUCCA PASSAGE (266)

WB5 23.16 160 eP 15 16.00 0.2
WRA 23.21 160 Pc 15 15.50 -0.7
0.6s 4.10nm 4.1mb
ASPA 26.56 164 eP 15 48.50 0.4
WARB 27.97 179 eP 15 52.30 -8.6X
CHTO 31.44 304 eP 16 32.80 0.8
0.6s 0.84nm 3.8mb
FORR 32.67 177 eP 16 43.00 0.6
0.4s 11.00nm 5.1mb X
BWA 41.81 152 eP 18 00.00 0.5
CAN 42.82 152 eP 18 07.00 -0.8
GUN 46.29 308 P 18 30.00 -6.1X
GBA 49.48 286 Pd 18 59.70 -1.0
0.6s 0.80nm 3.9mb
S.D. = 0.8 on 8 of 10 obs.

? MAR 09, 1989 17h 24m 13.14± 4.56s
43.221 N ±33.7km 7.094 E ±16.0km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
ML 2.1 (LDG).

LMR 0.44 285 Pg 24 22.10 0.0
Sg 24 28.20
FRF 0.47 316 Pg 24 22.70 0.0
Sg 24 29.30
LRG 0.58 294 Pg 24 25.00 0.1
Sg 24 33.10
SBF 0.69 21 Pg 24 26.80 0.0
Sg 24 36.90
S.D. = 0.1 on 4 of 4 obs.

% MAR 09, 1989 17h 44m 55.60± 1.84s
40.728 N ±15.3km 29.949 E ±14.0km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

HRT 0.23 294 iPg 45 00.80 0.2
GBZT 0.39 279 ePg 45 08.00 4.5X
GPA 0.52 148 iPg 45 05.30 -0.8
CTT 1.22 290 ePn 45 18.30 -0.1
KCT 1.31 249 iPn 45 19.30 -0.5
DST 1.51 222 ePn 45 22.60 -0.2
ALT 1.68 176 ePn 45 26.50 1.3
S.D. = 0.9 on 6 of 7 obs.

& MAR 09, 1989 17h 49m 46.26s
59.721 N 152.795 W
DEPTH = 86.7km
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM 0.37 347 iP 49 59.42 -0.6
PDB 0.71 276 iP 50 01.99 -0.8
iS 50 14.45
CNPM 0.82 103 iP 50 03.25 -0.7
NNL 0.82 66 iP 50 04.32 0.4
RDT 0.88 13 iP 50 03.79 -0.9
iS 50 17.89
NKA 1.29 36 eP 50 10.48 1.0
eS 50 26.95
SLKM 1.51 57 eP 50 11.60 -0.8
SPU 1.51 14 iP 50 11.51 -0.9
CRP 1.58 11 iP 50 12.61 -0.9
iS 50 34.13
CGLM 1.64 13 iP 50 13.31 -0.9
SEW 1.73 76 eP 50 13.88 -1.3
SVW 1.98 316 eP 50 16.97 -1.6
KDC 1.99 175 eP 50 16.62 -2.0
eS 50 39.09
PMS 2.21 45 iP 50 20.65 -1.2
PWA 2.41 35 eP 50 23.38 -1.0
PWL 2.50 61 eP 50 23.46 -2.2
eS 50 48.82
PLRM 2.60 42 eP 50 24.66 -2.4
MTU 2.61 82 eP 50 25.30 -1.9
KNIM 2.62 74 iP 50 24.72 -2.6
PME 2.66 42 eP 50 25.92 -2.0
KNK 2.73 50 eP 50 26.66 -2.2
GHO 2.80 41 eP 50 27.63 -2.3
SML 3.03 44 iP 50 30.69 -2.3
GLI 3.07 65 eP 50 29.90 -3.6
HIN 3.23 75 eP 50 33.13 -2.6
FID 3.31 69 eP 50 33.53 -3.4
VZW 3.38 64 eP 50 35.57 -2.2
TTA 3.57 336 eP 50 38.26 -2.3
KLU 3.83 59 iP 50 41.25 -2.8
iS 51 23.36
TOA 4.02 51 eP 50 44.56 -2.2
GLB 4.76 65 eP 50 54.32 -2.7
YKA 18.47 65 eP 53 54.30 -3.2
32 obs. associated

& MAR 09, 1989 17h 53m 29.00s
38.990 N 122.847 W
DEPTH = 1.0km
NORTHERN CALIFORNIA (36)
<BRK>. ML 3.1 (BRK). Felt at Cleorlake, Kelseyville, Lakeport and Lucerne.

NWRM 0.53 183 eP 53 40.40 0.8
ZSP 1.14 156 eP 53 50.80 -0.4
ORV 1.19 61 eP 53 50.40 -1.6
BRK 1.21 157 ePc 53 51.30 -1.0
BKS 1.21 156 ePc 53 51.30 -1.1
eS 54 07.25
PCC 1.53 166 ePc 54 00.10 2.6
WDC 1.61 8 e(P)c 53 58.20 -0.4
i 53 59.80
i 54 06.60
i 54 15.80
MIN 1.66 35 iPc 53 57.50 -2.0
ARN 1.94 147 eP 54 01.30 -2.2
FHC 2.01 335 ePd 54 10.40 5.9
CMB 2.15 116 ePc 54 04.50 -2.1
e 54 34.00
KVN 3.70 88 eP 54 26.00 -2.7
12 obs. associated

% MAR 09, 1989 18h 57m 38.04± 1.00s
40.787 N ± 6.0km 27.895 E ±11.7km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

BNT 0.43 177 iPg 57 46.80 0.0
EDC 0.44 183 iPg 57 47.40 0.4
iSg 57 53.40
KCT 0.64 147 iPg 57 50.30 -0.6
DMK 1.04 354 ePn 57 57.50 -0.1
HRT 1.35 88 ePn 58 03.30 0.4
S.D. = 0.6 on 5 of 5 obs.

* MAR 09, 1989 19h 01m 50.63± 2.01s
15.201 N ± 6.1km 60.887 W ±26.5km
DEPTH = 120.6 ± 25.9 km
LEEWARD ISLANDS (92)

DSC 0.46 271 iP 02 08.74 0.1
eS 02 22.19
MDN 0.51 283 eP 02 08.96 0.1
S 02 21.30
FDF 0.53 209 iPd 02 09.23 0.1
S 02 23.20
BBL 0.65 299 eP 02 09.89 -0.1
S 02 24.00
MGG 0.82 330 iPc 02 11.31 0.0
S 02 26.00
SFG 1.09 344 eP 02 14.14 0.3

DEG	1.12	351	ePc	02 14.16	-0.1
			S	02 31.60	
PAG	1.12	317	eP	02 14.08	-0.3
			S	02 31.30	
SLW	1.18	182	eP	02 14.67	-0.2
			eS	02 31.88	
SLB	1.38	186	iP	02 16.70	-0.4
			eS	02 37.22	
SVV	1.90	190	eP	02 23.74	0.4

S.D. = 0.3 on 11 of 11 obs.

MAR 09, 1989 19h 02m 24.76± 0.53s
62.763 N ± 6.2km 148.944 W ± 6.6km
DEPTH = 105.7 ± 16.1 km
CENTRAL ALASKA (1)

PMR	1.18	184	iPc	02 47.90	0.1
PWA	1.20	202	iPc	02 48.00	-0.1
FBA	2.21	13	iPd	03 00.20	-0.5
TTA	3.25	276	eP	03 15.40	0.6
IMA	3.90	330	eP	03 23.90	0.1
DWY	4.47	69	P	03 31.40	0.0
KDC	5.33	201	eP	03 42.60	-0.7
HYT	5.76	105	P	03 50.00	0.6
INK	8.46	42	eP	04 26.00	0.0
YKA	15.69	76	eP	06 06.60	6.0X
MBC	16.70	24	eP	06 13.00	-0.1

S.D. = 0.5 on 10 of 11 obs.

MAR 09, 1989 21h 32m 55.42± 0.98s
17.780 N ± 6.2km 60.813 W ± 8.6km
DEPTH = 31.9 ± 4.8 km
LEEWARD ISLANDS (92)
ML 3.9 (FDF).

CPB	0.98	262	eP	33 12.52	-0.3
ANG	1.15	238	eP	33 15.34	0.0
DEG	1.48	189	eP	33 20.02	-0.1
SFG	1.56	194	eP	33 20.20	-1.1
MGH	1.71	232	ePc	33 23.48	0.1
			S	33 41.00	
SKI	1.89	257	iP	33 26.15	0.1
			eS	33 52.69	
MGG	1.91	195	ePc	33 27.60	1.2
PAG	1.93	206	eP	33 27.00	0.3
			S	33 50.00	
SKDB	1.94	259	eP	33 26.89	0.1
			eS	33 52.06	
BBL	2.33	196	eP	33 32.40	0.0
FDF	3.05	186	eP	33 42.22	-0.3
SVV	4.45	185	eP	34 02.86	0.3
SVB	4.50	185	eP	34 02.94	-0.3
			eS	34 56.26	
YKA	57.99	334	eP	42 46.90	-0.2
MBC	65.56	347	eP	43 38.00	0.3

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

MAR 09, 1989 23h 37m 09.64± 0.85s
36.318 N ± 6.5km 141.037 E ± 6.9km
DEPTH = 49.4 ± 6.0 km
5.0mb (13 obs.)
NEAR EAST COAST OF HONSHU, JAPAN(228)
Felt (III JMA) at Mito ond (I JMA) at Onahama, Shirakawa ond Utsunomiya.

MIT	0.46	278	iPd	37 20.70	0.3
			iS	37 28.00	
ONA	0.63	351	iPd	37 22.00	-0.6
			S	37 30.60	
KAKJ	0.71	261	iPd	37 23.00	-0.5
			S	37 32.50	
UTS	0.97	284	iPd	37 26.60	-0.5
			S	37 40.10	
SHR	1.03	321	P	37 00.00	-28.0X
CHJJ	1.67	261	iPd	37 36.80	-0.2
NIIJ	1.88	300	iPd	37 40.40	0.6
YAMJ	2.02	337	P	37 42.10	0.3
			eS	38 06.20	
MTMJ	2.62	277	iPd	37 51.60	1.1
IIDJ	2.67	253	iPd	37 52.80	1.6
			eS	38 26.70	
OFUJ	2.80	10	P	37 52.40	-0.6
			S	38 24.00	
TSRJ	4.17	261	P	38 13.70	1.3
WKYJ	4.92	246	P	38 24.00	1.0
MRRJ	6.10	0	P	38 38.60	-0.8
TKSJ	6.18	250	eP	38 40.70	0.1
YONJ	6.26	262	P	38 42.40	0.6
HOOJ	6.30	15	eP	38 39.80	-2.5
			eS	39 46.70	
KUSJ	7.34	22	P	38 52.10	-4.7X
			S	40 10.50	
ASAJ	7.89	8	eP	39 02.10	-2.3
MDJ	12.02	317	eP	40 03.20	2.4
CN2	14.07	307	P	40 30.00	2.1
TIA	19.28	277	eP	41 30.30	-2.8
BJI	19.88	288	eP	41 37.00	-2.4
WHN	22.97	263	Pd	42 11.00	0.4
HHC	23.42	290	eP	42 17.20	2.1
XAN	26.29	275	P	42 40.60	-1.7
GYA	30.81	261	P	43 21.80	-1.3
CD2	31.38	271	P	43 26.60	-1.4
GTA	32.49	288	eP	43 36.20	-1.5
CHTO	40.83	256	eP	44 47.10	-1.0
WMQ	40.90	298	P	44 49.20	0.6
SHL	43.10	270	iP	45 05.50	-1.4
LAT	43.11	171	e(P)	44 48.50	-18.2X
PMG	45.84	172	e(P)	45 18.00	-10.7X
GUN	46.93	276	P	45 38.20	0.5
PKI	47.45	276	P	45 41.80	0.0
	0.7s		16.00nm		5.1mb
KKN	47.46	276	P	45 42.00	0.3
	0.6s		17.00nm		5.2mb
DMN	47.68	276	P	45 43.60	0.1
GKN	47.89	277	P	45 45.20	0.2
MTN	49.78	193	eP	46 00.20	0.8
	0.4s		15.00nm		5.4mb
FBA	49.87	32	eP	46 01.00	1.4
	0.6s		1.10nm		4.1mb
			pP	46 14.90	52kmX
INK	55.16	27	eP	46 39.50	0.5
WB5	56.25	188	iPc	46 46.00	-1.3
WRA	56.31	188	Pc	46 46.40	-1.3
	0.4s		4.00nm		4.8mb
MBC	57.30	16	eP	46 54.00	-0.2
HYB	57.88	269	eP	46 58.50	-0.6
ASPA	60.04	188	iPd	47 13.10	-0.6
	0.8s		11.00nm		5.0mb
GBA	60.86	266	Pc	47 17.70	-1.8
	0.7s		10.20nm		5.1mb
WARB	63.63	194	eP	47 26.50	-11.3X
	0.5s		5.00nm		
MAIO	63.67	297	eP	47 38.00	-0.2
YKA	64.58	30	eP	47 44.10	0.5
SOD	65.51	337	eP	47 49.00	-0.5
KJF	67.03	334	iP	47 59.00	-0.2
	0.6s		13.00nm		5.1mb
FORR	67.91	192	eP	48 05.00	0.0
	0.4s		24.00nm		5.6mb
SUF	68.49	333	iP	48 07.70	-0.7
	0.6s		4.70nm		4.6mb
NUR	70.44	332	iP	48 19.70	-0.6
FFC	74.47	32	eP	48 44.00	-0.2
	0.8s		11.00nm		4.8mb
HFS	74.61	336	eP	48 44.50	-0.5
	0.4s		1.60nm		4.3mb
KVN	75.44	52	eP	48 52.00	1.7
			pP	49 03.90	40kmX
TNP	76.56	53	eP	48 58.30	1.6
			pP	49 11.00	43kmX
FRB	77.54	13	eP	49 02.00	0.7
VRI	79.07	320	eP	49 01.00	-9.1X
KSP	80.55	328	eP	49 18.70	0.8
BRG	81.51	329	e(P)	49 23.50	0.6
CLL	81.56	330	iP	49 22.80	-0.4
PRU	81.93	328	Pc	49 26.00	0.9
			e	49 38.00	
MOX	82.63	330	e(P)	49 32.00	3.2X
KHC	82.99	328	P	49 32.00	1.3
			e	49 44.80	
VAY	84.38	318	eP	49 38.50	0.7
SKO	84.52	319	iP	49 39.50	0.9
ALQ	85.28	50	e(P)	49 45.00	2.3
	1.0s		1.25nm		4.0mb
			pP	49 57.90	43kmX
ZOBO	147.31	60	iPKPd	56 51.00	3.1X
			i	57 06.50	
LPB	147.50	60	PKP	56 50.00	1.9X
CNCB	147.77	61	PKPd	56 53.00	4.3X
			i	57 05.00	
CCH	149.44	59	(PKP)	56 54.00	3.0X

S.D. = 1.2 on 64 of 75 obs.

& MAR 10, 1989 01h 40m 25.45s
37.525 N 118.874 W
DEPTH = 4.5km
CALIFORNIA-NEVADA BORDER REGION (40)
<REN>. ML 3.3 (BRK), 3.2 (PAS). MD 3.4 (REN).

FRI	0.85	232	iPc	40 41.20	-1.2
			iS	40 51.80	
MNA	1.07	32	eP	40 45.50	-0.7
			eS	41 00.20	
CMB	1.30	293	iPd	40 48.90	-1.2
			iS	41 05.50	
TNP	1.42	67	iPc	40 52.00	-0.3
KVN	1.64	22	eP	40 55.50	0.2
PKEM	1.77	215	eP	40 57.90	1.0
ISA	1.89	170	eP	40 59.70	1.0
LLA	1.89	242	ePc	40 59.20	0.5
YMT1	1.99	109	eP	41 00.00	-0.3
PRI	1.99	227	eP	41 01.10	0.8
PHAM	2.08	216	eP	41 03.00	1.4
ARN	2.12	266	eP	41 02.60	0.4
SAO	2.19	251	iPc	41 03.80	0.7
MHC	2.21	266	eP	41 04.30	0.8
			eS	41 32.65	
BCH	2.53	203	eP	41 08.00	-0.1
ORV	2.89	315	e(P)	41 16.60	3.5
EUR	3.00	48	iP	41 19.60	4.7
PRN	3.05	91	eP	41 14.50	-0.9

18 obs. associated

& MAR 10, 1989 01h 53m 21.11s
37.525 N 118.873 W
DEPTH = 4.0km
CALIFORNIA-NEVADA BORDER REGION (40)
<REN>. ML 3.2 (BRK), 3.2 (PAS). MD 3.2 (REN).

FRI	0.85	232	iPc	53 36.90	-1.2
			iS	53 47.50	
MNA	1.07	32	eP	53 41.30	-0.6
			eS	53 55.90	
CMB	1.30	293	ePd	53 44.60	-1.2
			iS	54 01.10	
TNP	1.42	67	iPc	53 47.70	-0.3
KVN	1.64	22	eP	53 51.00	0.0
PKEM	1.77	215	eP	53 52.00	-0.7
ISA	1.89	170	eP	53 55.50	1.0
LLA	1.89	242	iPd	53 55.00	0.6
YMT1	1.99	109	eP	53 55.60	-0.4
PRI	1.99	227	e(P)	53 57.50	1.4
PHAM	2.08	216	eP	53 59.00	1.7
ARN	2.12	266	eP	53 58.50	0.6
SAO	2.19	251	iPd	53 59.35	0.5
			i	54 27.50	
MHC	2.21	266	eP	54 00.30	1.1
			iS	54 28.20	
PRS	2.33	240	eP	54 01.20	0.4
BCH	2.53	203	eP	54 03.50	-0.3
EUR	3.00	48	iP	54 16.50	5.9
PRN	3.04	91	eP	54 10.30	-0.8

18 obs. associated

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* MAR 10, 1989 02h 06m 51.52± 2.74s
43.267 N ±13.3km 5.690 E ±19.6km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
MD 3.1 (STR).

CALN	1.00	61	Pg	07 10.96	0.4
MVIF	1.24	59	Pn	07 14.78	0.2
AURF	1.34	62	Pn	07 16.29	0.0
			Sg	07 35.94	
TOUF	1.36	56	Pn	07 16.29	-0.3
			Sg	07 35.92	
AUTN	1.46	59	Pn	07 17.87	-0.2
			Sg	07 39.30	
SAOF	1.53	61	Pn	07 18.83	-0.2
DOI	1.67	42	P	07 20.40	-0.6
			eSg	07 44.10	
BNI	1.92	21	Pc	07 25.20	0.5
			eSg	07 50.10	
CKI	2.20	57	P	07 28.80	0.1
CVF	2.44	106	Pn	07 32.17	0.1

S.D. = 0.4 on 10 of 10 obs.

MAR 10, 1989 03h 40m 41.45± 0.34s

10d 03h

44.493 N ± 7.6km 148.363 E ± 5.3km
DEPTH = 48.0km (5 depth phases)
4.9mb (28 obs.)
KURIL ISLANDS (221)

KUSJ	2.99	243	iPd	41 26.90	-0.5
			S	41 58.50	
HOOJ	4.26	242	eP	41 47.00	1.7
			eS	42 34.70	
MRRJ	5.70	251	eP	42 07.20	1.6
			eS	43 11.80	
AOMJ	7.09	239	eP	42 25.00	-0.1
			eS	43 40.40	
OFUJ	7.37	225	P	42 26.10	-2.9X
			S	43 43.30	
YAMJ	8.89	228	P	42 48.10	-2.0X
			eS	44 21.20	
NIIJ	10.13	228	P	43 05.10	-2.0X
CHJJ	11.05	223	P	43 17.00	-2.7X
			S	45 12.70	
MAT	11.07	228	iPd	43 18.00	-2.0X
	1.0s	28.00nm		5.3mb	
			(S)	45 23.00	
MTMJ	11.26	229	P	43 21.00	-1.5X
MDJ	13.39	277	eP	43 53.00	2.2
CN2	16.46	276	Pc	44 32.60	2.2
BJI	24.14	271	eP	45 53.50	-0.3
TIA	25.09	262	eP	46 03.40	0.5
SSE	25.16	247	e(P)	46 04.00	0.3
NJ2	26.14	252	Pd	46 12.50	-0.2
HHC	27.15	275	eP	46 21.80	-0.3
TIY	27.74	268	eP	46 27.40	0.0
BTO	28.34	276	eP	46 34.10	1.3
WHN	30.12	254	P	46 48.00	-0.7
XAN	31.99	265	P	47 03.70	-1.5
LZH	34.62	272	Pc	47 28.00	-0.1
	1.5s	88.00nm		5.5mb	
GTA	36.03	279	iPd	47 40.30	0.3
TTA	36.30	40	P	47 43.10	1.2
	0.7s	7.12nm		4.7mb	
CD2	37.35	264	iPc	47 50.40	-0.6
BRW	37.45	26	P	47 51.20	-0.1
IMA	37.58	35	P	47 53.30	0.7
	0.7s	8.72nm		4.8mb	
GYA	37.95	256	P	47 55.60	-0.6
FBA	39.98	37	iP	48 13.70	1.2
	0.7s	9.88nm		4.7mb	
			pP	48 27.10	51km
WMO	42.64	291	P	48 35.00	0.3
CHG	48.33	254	iPc	49 20.60	0.5
	0.8s	14.18nm		5.0mb	
CHTO	48.33	254	iPc	49 20.30	0.2
	0.9s	14.92nm		5.0mb	
			pP	49 32.50	44km
GUN	51.84	273	P	49 46.90	-0.4
KKN	52.34	274	P	49 50.50	-0.4
PKI	52.38	273	P	49 50.60	-0.8
DMN	52.57	274	P	49 52.40	-0.3
GKN	52.68	274	P	49 52.90	-0.5
YKA	54.70	34	eP	50 07.90	0.4
YKC	54.76	34	eP	50 08.00	0.0
PNT	59.23	50	eP	50 40.00	0.1
	0.4s	3.00nm		4.8mb	
SOD	60.11	338	iP	50 43.30	-2.4
SES	63.10	45	eP	51 06.00	-0.1
SUF	63.64	334	iP	51 06.70	-2.6
	0.5s	5.00nm		4.8mb	
HYB	63.67	269	eP	51 08.80	-1.4
FFC	64.58	37	iPc	51 16.50	0.9
	0.6s	15.00nm		5.2mb	
WB5	65.32	195	eP	51 19.80	-0.9
WRA	65.39	195	Pd	51 20.50	-0.6
	0.9s	7.00nm		4.7mb	
NUR	65.77	333	iP	51 21.30	-1.8
KVN	66.18	58	P	51 26.90	0.5
			pP	51 40.90	50km
GBA	67.01	267	Pc	51 28.80	-2.8
	0.8s	7.10nm		4.8mb	
TNP	67.33	59	P	51 34.40	0.7
	0.8s	4.41nm		4.5mb	
			pP	51 48.20	49km
FRB	68.22	17	eP	51 38.00	-0.5
BW06	68.76	51	P	51 42.50	-0.1
			pP	51 56.10	48km
ASPA	69.11	194	eP	51 45.00	0.5
HFS	69.34	338	eP	51 43.90	-1.6
	0.4s	3.20nm		4.6mb	

RSSD	70.81	47	P	51 55.00	0.0
RSON	70.87	36	P	51 54.50	-0.5
ALQ	75.86	55	eP	52 25.00	0.4
	0.8s	1.49nm		4.0mb	
MLR	76.91	322	ePc	52 31.00	0.8
CLL	77.05	333	e(P)	52 30.00	-0.7
EKA	77.66	344	P	52 34.00	0.0
	2.0s	92.30nm		5.5mb	
KHC	78.73	332	iPd	52 40.50	0.5
KBA	80.57	331	iPd	52 50.30	0.2
	1.0s	4.20nm		4.3mb	
CDF	81.39	335	eP	52 53.70	-0.6
DSI	82.80	308	e(P)	53 01.00	-0.8
FLN	83.20	340	eP	53 03.30	-0.3
	0.5s	4.90nm		4.8mb	
GRR	83.64	340	eP	53 05.90	0.1
	0.5s	8.70nm		5.1mb	
PRNI	83.93	307	eP	53 08.50	0.9
SMF	83.99	336	eP	53 07.50	-0.1
	0.9s	13.10nm		5.0mb	
AVF	84.00	337	eP	53 07.70	0.1
	0.7s	5.50nm		4.7mb	
LPF	84.02	340	eP	53 08.00	0.3
	0.7s	6.60nm		4.8mb	
LPG	84.15	334	eP	53 09.20	0.4
	0.7s	8.10nm		4.9mb	
MBH	84.43	307	iPc	53 11.00	0.9
MAF	84.74	337	eP	53 12.00	0.6
	0.7s	9.90nm		5.0mb	
MFF	85.12	339	eP	53 13.80	0.5
	0.7s	8.80nm		5.0mb	
CAF	86.07	337	eP	53 19.00	0.9
	0.7s	7.70nm		5.0mb	
LFF	86.42	338	eP	53 20.70	0.9
	0.7s	8.80nm		5.1mb	
LPO	86.54	337	eP	53 21.10	0.8
	0.6s	5.40nm		5.0mb	
S.D. = 1.0 on 72 of 78 obs.					

MAR 10, 1989 04h 08m 39.13± 0.30s
15.971 N ± 8.6km 92.544 W ± 6.4km
DEPTH = 212.2 ± 3.9 km
4.4mb (2 obs.)
MEXICO-GUATEMALA BORDER REGION (62)

SCX	0.77	354	iP	09 10.00	1.0
SBG	0.96	150	iPc	09 10.00	-0.6
TPX	1.09	166	iP	09 11.50	0.5
			iS	09 36.00	
KKG	1.10	154	iPc	09 10.20	-1.0
			S	09 34.50	
OC2	1.44	166	ePd	09 13.50	-0.2
SOG2	1.56	143	ePc	09 14.80	-0.2
			S	09 46.00	
JAT	1.86	152	iPd	09 18.00	0.5
			S	09 43.00	
LHG	2.01	139	iPd	09 18.80	-0.2
ITG	2.13	130	ePc	09 20.70	0.1
			S	10 02.00	
FUG	2.23	132	iPc	09 21.40	-0.1
			S	10 01.20	
MMG	2.29	128	eP	09 25.40	3.2X
			S	10 07.50	
SLP	2.50	119	iPc	09 24.00	-0.4
IXG	2.70	131	ePd	09 26.80	0.3
			S	10 10.50	
CMG2	2.96	116	iPd	09 29.50	-0.1
MYT	3.07	128	ePc	09 31.30	0.5
OXX	4.16	286	iP	09 44.00	-0.1
			iS	10 31.00	
IIT	6.28	300	iP	10 11.50	0.3
III	7.04	291	iP	10 21.00	0.1
			iS	11 34.00	
ACX	7.08	278	iP	10 21.00	-0.2
IIC	7.42	302	(P)	10 26.00	-0.1
CRX	7.61	298	(P)	10 24.00	-4.6X
ALQ	22.64	329	eP	13 23.90	0.7
	0.8s	2.05nm		3.8mb	
ZOBO	40.09	142	P	15 56.40	0.1
	0.5s	35.71nm		5.1mb	
LPB	40.31	142	eP	15 58.00	0.1
CNCB	40.59	142	P	16 01.00	0.6
CCH	42.14	141	P	16 28.10	15.3X
YKA	49.00	347	eP	17 04.40	-1.5
S.D. = 0.6 on 24 of 27 obs.					

MAR 10, 1989 04h 11m 22.40± 0.29s

5.806 S ± 7.8km 35.605 W ± 6.9km
DEPTH = 10.0km (geophysicist)
5.0mb (13 obs.) 5.0Msz (2 obs.)
BRAZIL (528)
Slight damage at Natal. Felt at Jaao Camara. Felt in Paraiba State and at Olinda.

ITR	4.05	223	iPc	12 24.70	-1.1
SOB1	6.24	237	ePd	12 53.60	-3.2X
BAO	15.59	230	eP	14 57.50	-6.6X
ATB	16.75	278	e(P)	15 12.80	-6.0X
RDJ	18.51	203	eP	15 41.20	0.5
ITA	18.67	207	eP	15 52.70	9.7X
BMA	18.71	205	eP	15 48.00	4.8X
VAO	20.31	212	eP	16 01.20	-0.3
CCH	31.99	246	P	17 54.00	2.4X
TIC	32.94	68	P	17 58.40	-1.1
ZOBO	33.51	249	Pd	18 05.70	0.5
	1.1s	9.28nm		4.6mb	
	Z 18s	3.09um		5.1Msz	
			S	23 25.00	
			LR	27 45.00	
CNCB	33.52	248	P	18 08.00	2.8X
LPB	33.56	249	P	18 07.00	1.6
	1.0s	160.00nm		5.9mb	
	Z 15s	10.00um		5.7MszX	
			LR	27 40.00	
ARE	36.70	250	eP	18 31.00	-1.1
KUK	37.14	72	eP	18 37.00	1.6
LEGH	37.15	73	eP	18 37.00	1.5
KOGH	37.22	72	eP	18 37.00	0.8
SHGH	37.37	72	eP	18 39.00	1.7
AVE	47.19	33	iP	20 00.00	2.7X
IFR	48.61	34	iP	20 10.00	1.4
TAF	51.10	35	iP	20 27.00	-0.5
TOL	53.97	30	eP	20 49.50	0.8
BCAO	55.01	81	eP	20 54.90	-2.0
	1.0s	4.25nm		4.4mb	
BNG	55.02	81	iPc	20 55.00	-2.0
	1.2s	63.00nm		5.5mb	
			id	20 58.10	
EPF	58.51	30	eP	21 21.90	0.6
	1.6s	70.80nm		5.5mb	
LFF	60.10	29	eP	21 31.90	-0.3
	1.6s	99.50nm		5.7mb	
CAF	60.74	30	eP	21 36.60	0.0
RJF	60.75	29	eP	21 35.80	-0.8
LPF	61.61	26	eP	21 41.80	-0.6
FRF	62.20	34	eP	21 46.10	-0.4
CALN	62.46	34	P	21 47.97	-0.4
MVIF	62.70	34	P	21 49.77	-0.2
AURF	62.79	34	P	21 50.03	-0.5
CVF	62.82	36	P	21 41.08	-9.6X
TOUF	62.83	33	P	21 50.72	-0.1
SBF	62.83	34	eP	21 50.90	0.2
AUTN	62.91	34	P	21 51.37	-0.1
SAOF	62.98	34	P	21 50.29	-1.4
HAU	65.01	30	eP	22 04.50	-0.4
BSF	65.11	30	eP	22 04.90	-0.8
LJU	68.16	35	e(P)	22 24.00	-0.9
VBY	68.27	36	e(P)	22 26.80	1.2
MOX	69.35	30	eP	22 32.00	-0.2
	2.0s	78.00nm		5.5mb	
	Z 20s	0.70um		4.9Msz	
	E 24s	0.50um			
			LQ	46 00.00	
			LR	49 00.00	
KHC	69.43	32	iPc	22 32.40	-0.4
			e	22 47.50	
OHR	69.50	42	eP	22 35.00	1.6
SKO	70.33	42	eP	22 37.50	-0.9
PRU	70.44	32	eP	22 38.50	-0.4
CLL	70.45	30	eP	22 38.00	-0.9
	2.3s	63.00nm		5.3mb	
VAY	70.79	43	eP	22 38.00	-3.1X
ZST	70.81	34	eP	22 40.40	-0.8
SRO	71.29	35	eP	22 45.00	0.9
SPC	73.11	35	eP	22 56.10	1.0
KRA	73.38	34	eP	22 55.80	-0.6
			e	23 12.40	
FRB	73.66	345	eP	22 57.00	-0.7
MLR	74.81	40	ePc	23 05.00	0.0
VRI	75.47	40	eP	23 08.00	-0.6
HFS	76.25	23	eP	23 13.50	0.8
	0.4s	0.80nm		4.2mb	
	Z 17s	0.53um		4.9MszX	

		LR	53 10.00			
ALQ	77.83	307 eP	23 22.60	0.3		
	1.0s	2.50nm		4.3mb		
GOL	78.37	312 eP	23 24.80	-0.4		
	0.7s	2.18nm		4.3mb		
FFC	81.40	327 eP	23 42.00	1.2		
	0.7s	5.00nm		4.7mb		
BW06	82.27	314 eP	23 44.90	-1.0		
SUF	82.66	24 iP	23 48.70	1.6		
KJF	83.96	23 iP	23 54.80	1.0		
	0.6s	6.50nm		5.0mb		
SOD	85.03	20 eP	23 58.00	-1.1		
SES	85.24	322 eP	24 00.00	-0.6		
PLM	85.89	304 eP	24 05.60	1.2		
KVN	87.81	309 eP	24 13.90	0.3		
SSE	146.73	38 PKP+	31 06.00	1.0		
	1.5s	320.00nm				
		i	31 26.00			
ASPA	148.97	161 ePKP	31 13.70	4.8X		
	1.2s	20.00nm				
WRA	152.57	159 PKP	31 25.00	10.7X		
	0.9s	2.90nm				
WB5	152.64	159 ePKP	31 24.00	9.6X		
S.D. = 1.0 on 58 of 71 obs.						

MAR 10, 1989 04h 44m 09.98± 1.17s
38.034 N ± 9.6km 0.740 W ± 9.6km
DEPTH = 10.0km (geophysicist)
SPAIN (377)
MG 3.2 (MDD). Felt (IV) in the Torreviejo oreo.

ACU	0.54	28 ePg	44 21.50	0.6		
		eSg	44 29.20			
EALH	0.57	252 ePg	44 22.00	0.5		
		eSg	44 30.00			
EVIA	1.51	294 ePn	44 37.50	0.3		
		eSn	44 56.50			
ECHE	1.56	353 ePn	44 38.00	0.1		
		eSn	44 58.50			
ENIJ	1.58	228 ePn	44 37.80	-0.3		
		eSn	44 57.70			
EBAN	2.41	274 ePn	44 49.90	-0.1		
EROQ	2.92	17 ePn	44 57.00	-0.3		
TOL	3.17	307 e(Pn)	45 01.50	0.6		
		iPg	45 10.00			
		iSg	45 51.50			
GUD	3.71	316 ePn	45 07.60	-1.2		
		eSn	45 50.50			
EPF	5.06	9 Pn	45 27.60	-0.1		
		Sn	46 22.50			
S.D. = 0.6 on 10 of 10 obs.						

MAR 10, 1989 04h 45m 54.42± 0.89s
34.423 N ± 6.5km 33.002 E ±10.5km
DEPTH = 10.0km (geophysicist)
CYPRUS (372)
ML 3.3 (CSS).

CSS	0.60	27 eP	46 05.00	-1.6		
		eS	46 15.00			
PPCY	0.71	311 eP	46 09.00	0.6		
LFK	0.96	27 iPn	46 12.50	-0.2		
FAM	1.00	55 eP	46 15.00	1.6		
DSI	3.48	144 e(P)	46 50.00	0.4		
PRNI	4.40	157 eP	47 02.00	-0.8		
MBH	4.91	161 iPc	47 10.00	0.1		
S.D. = 1.3 on 7 of 7 obs.						

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* MAR 10, 1989 05h 14m 13.50± 0.87s
36.147 N ±11.6km 140.135 E ± 8.5km
DEPTH = 48.3 ± 8.4 km
NEAR EAST COAST OF HONSHU, JAPAN(228)
MG 3.9 (JMA). Felt (I JMA) at Mito ond Utsunomiyo.

KAKJ	0.07	29 iP+	14 21.70	0.7		
		S	14 29.40			
MIT	0.36	50 iP+	14 22.30	-0.7		
		iS	14 30.20			
UTS	0.45	332 iP+	14 24.60	0.5		
		S	14 34.90			
CHJJ	0.93	264 iPd	14 31.10	0.7		
		S	14 46.40			
NIIJ	1.42	320 iPd	14 37.30	0.0		
MAT	1.60	285 eP	14 40.00	0.1		
		(S)	14 59.00			
IIDJ	1.93	250 iPd	14 45.70	1.2		
		S	15 10.50			
MTMJ	1.93	284 iPd	14 45.60	1.0		
YAMJ	2.02	358 iP+	14 44.20	-1.6		
		eS	15 09.30			
OFUJ	3.17	22 P	14 57.50	-4.6X		
		S	15 33.20			
TSRJ	3.43	261 P	15 06.30	0.5		
WKYJ	4.19	244 eP	15 15.20	-1.3		
TKSJ	5.44	248 eP	15 32.60	-1.5		
YONJ	5.51	262 eP	15 34.10	-1.1		
GKN	47.18	277 P	22 39.00	-4.4X		
ORV	73.65	53 e(P)	25 43.40	-0.4		
LRM	75.50	44 eP	25 56.40	1.8		
		e	26 07.30			
KIC	126.40	315 PKP	33 07.66	-5.6X		
LIC	126.67	315 PKP	33 06.66	-7.1X		
S.D. = 1.2 on 15 of 19 obs.						

MAR 10, 1989 05h 19m 52.34± 0.35s
17.586 N ± 5.9km 101.013 W ± 4.7km
DEPTH = 43.5km (6 depth phases)
5.3mb (32 obs.) 4.8Msz (4 obs.)
NEAR COAST OF GUERRERO, MEXICO (58)
Felt ot Ixtapo ond Zihuotanejo.
Felt (III) ot Mexico City.
CENTROID, MOMENT TENSOR (HRV)
Doto Used: GDSN
L.P.B.: 13S, 26C
Centroid Location:
Origin Time 05:19:49.3 0.9
Lot 16.91N 0.08 Lon 100.44W 0.07
Dep 46.8 5.0 Half-duration 1.9
Moment Tensor; Scale 10**17 Nm
Mrr= 1.01 0.08 Mtt=-1.05 0.11
Mff= 0.05 0.15 Mrt= 0.50 0.12
Mrf=-0.76 0.12 Mtf= 0.04 0.08
Principal Axes:

T	Val= 1.49	Plg=61	Azm= 70
N	-0.29	23	289
P	-1.21	16	192

Best Double Couple:Mo=1.4*10**17
NP1:Strike=251 Dip=35 Slip= 47
NP2: 120 65 116

ACX	1.31	123 iP	20 13.50	-1.1		
		iS	20 22.00			
III	1.67	62 iP	20 38.50	18.7X		
		iS	21 29.50			
III	1.67	62 iP	20 21.00	1.2		
CRX	2.21	35 iP	20 29.50	1.9		
UNM	2.46	45 iP	20 36.50	5.4X		
IIC	2.73	37 iP	20 36.50	1.4		
IIT	2.94	61 iP	20 38.50	0.5		
		iS	21 29.50			
PUE	3.04	61 iP	20 40.00	0.6		
		iS	21 29.00			
IISM	3.73	67 iP	20 51.50	2.7X		
VHO	4.10	94 iPc	20 55.00	0.6		
		iS	21 55.00			
OXX	4.13	96 iP	20 55.50	0.7		
MAZ	7.53	319 iP	21 51.00	8.7X		
SCX	8.05	95 iP	21 52.50	2.8X		
ALQ	17.96	345 iPc	24 01.80	1.1		
	0.8s	81.16nm		4.9mb		
		e	24 13.00			
LNO	18.83	13 Pd	24 09.50	-1.6		
		e	24 19.70			
OLY	19.76	24 P	24 19.40	-2.2		
GLA	19.79	324 eP	24 21.00	-1.0		
BAR	20.62	320 eP	24 30.00	-0.6		
PWLA	20.82	31 P	24 30.40	-2.2		
PLM	21.20	321 eP	24 37.00	0.3		
TPC	21.26	324 eP	24 37.00	-0.1		
PEC	21.75	321 P	24 42.70	0.6		
RVR	21.95	321 eP	24 45.00	1.0		
		e	24 56.00	43km		
ELC	22.20	26 P	24 44.80	-1.6		
FVM	22.34	22 P	24 45.80	-2.0		
GOL	22.36	351 P	24 47.60	-0.7		
GLD	22.39	351 P	24 48.30	-0.2		
	1.2s	126.26nm		5.2mb		
MWC	22.52	321 eP	24 50.00	0.2		
GSC	22.56	325 eP	24 51.00	0.9		
UPA	22.57	110 eP-	24 51.50	1.3		
Z	18s	2.41um		4.7Msz		
SBB	22.70	322 eP	24 52.00	0.5		
		e	25 04.00	48km		
CLC	23.37	324 eP	24 58.00	0.0		
PRM	23.42	42 P	24 56.80	-1.6		
ISA	23.76	323 eP	25 05.00	3.2X		
		e	25 15.00	37km		
SGS	24.11	46 P	25 05.40	0.4		
JSC	24.26	43 P	25 05.00	-1.5		
BCH	24.40	320 P	25 10.50	2.5		
DAU	24.41	341 P	25 10.00	1.7		
LHS	24.67	43 P	25 10.10	-0.4		
TNP	24.87	328 P	25 13.30	0.7		
	1.0s	52.50nm		5.0mb		
PHAM	25.02	320 P	25 15.30	1.4		
PRI	25.38	321 e(P)	25 19.40	2.0		
EUR	25.40	332 iP	25 18.80	1.2		
	0.8s	14.75nm		4.6mb		
FRI	25.40	323 eP	25 17.30	-0.1		
MNA	25.61	328 e(P)	25 21.00	1.4		
KVN	26.06	329 P	25 24.60	0.9		
		pP	25 35.60	42km		
CMB	26.52	324 eP	25 28.10	0.3		
CLE	29.10	31 iP	25 49.10	-2.0		
CBN	29.15	40 eP	25 50.00	-1.5		
PRIN	32.10	40 P	26 17.80	0.2		
TBR	32.87	39 P	26 24.00	-0.3		
RSON	33.71	8 P	26 28.60	-2.8X		
	0.7s	7.29nm		4.7mb		
SES	33.71	348 eP	26 31.00	-0.5		
GMW	34.82	334 P	26 38.80	-2.3		
PNT	35.05	339 ePd	26 43.00	0.0		
	1.1s	46.00nm		5.3mb		
GAC	35.18	32 ePd	26 42.00	-2.1		
FFC	37.07	359 iPc	26 58.00	-2.0		
	1.1s	37.00nm		5.2mb		
SEG	37.76	86 eP	27 21.90	15.7X		
DEG	38.19	86 eP	27 21.30	11.4X		
ARE	44.62	138 e(P)	28 13.00	10.1X		
SCH	45.47	27 eP	28 08.00	-0.9		
YKC	45.83	351 eP	28 10.00	-1.6		
	1.0s	38.00nm		5.3mb		
YKA	45.86	351 eP	28 11.00	-0.8		
ZOBO	46.71	134 Pd	28 18.80	-1.0		
Z	19s	0.88um		4.7Msz		
		LR	44 20.00			
LPB	46.91	134 eP	28 20.00	-1.2		
	2.0s	117.65nm		5.5mb		
Z	18s	1.37um		5.0Msz		
		LR	44 50.00			
CNCB	47.19	135 Pc	28 22.20	-1.3		
CCH	48.84	134 eP	28 35.00	-1.1		
FRB	51.18	18 eP	28 52.00	-1.0		
INK	54.70	346 ePc	29 18.20	-0.9		
	1.1s	165.00nm		6.0mb		
		pP	29 30.00	41km		
PMR	55.37	334 P	29 23.70	-0.4		
	0.9s	14.58nm		5.0mb		
FBA	56.62	338 P	29 32.30	-0.8		
	1.1s	31.25nm		5.3mb		
TTA	58.85	334 P	29 47.00	-1.8		
	1.2s	26.52nm		5.2mb		
MBC	59.45	355 eP	29 51.00	-1.7		
	1.0s	98.00nm		5.9mb		
BAO	61.81	119 e(P)	29 51.00	-18.8X		
SOB1	65.08	109 ePd	30 30.50	-0.6		
		e	30 39.10	28kmX		
ALE	66.70	5 eP	30 39.00	-1.5		
	1.1s	51.00nm		5.5mb		
ITR	67.13	108 eP	30 42.60	-1.7		
DAG	71.22	14 iPd	31 07.90	-0.6		
	1.0s	47.00nm		5.4mb		
DCN	78.28	38 eP	31 49.00	-0.2		
DMU	78.37	37 eP	31 50.00	0.3		
EKA	80.10	35 P	32 00.00	1.0		
	1.4s	53.00nm		5.3mb		
EPLA	82.56	50 e(P)	32 13.00	0.7		
EVAL	82.76	53 e(P)	32 14.00	0.6		
AVE	83.46	57 eP	32 14.00	-3.1X		
GRR	83.58	41 eP	32 17.80	0.4		
LPF	83.59	42 eP	32 17.70	0.3		
FLN	83.70	41 eP	32 17.70	-0.2		
	1.0s	37.60nm		5.4mb		
GUD	83.79	49 e(P)	32 20.00	1.2		
EHOR	83.83	52 e(P)	32 19.30	0.5		
LDF	83.98	41 eP	32 19.40	0.0		
EJIF	84.07	54 e(P)	32 22.00	1.9		
TOL	84.10	50 eP	32 21.00	0.8		
MAL	84.80	53 iPd	32 26.00	2.3		

10d 05h

EBAN	84.83	52 e(P)	32 24.50	0.6	
AAPN	84.84	53 iPd	32 25.50	1.4	
ALOJ	84.91	53 iPd	32 26.50	2.0	
NAO	84.96	27 P	32 25.00	1.0	
	1.1s	16.20nm		5.1mb	
ATEJ	85.04	53 iPd	32 26.70	1.6	
ACHM	85.12	53 iPc	32 27.00	1.6	
IFR	85.22	57 iP	32 27.50	1.4	
ETOR	85.25	49 e(P)	32 27.00	1.0	
CRT	85.27	53 iP	32 28.00	1.8	
APHE	85.28	53 iPd	32 28.00	1.7	
AFC	85.29	53 e(P)	32 27.50	1.1	
KEV	85.58	16 eP	32 30.00	3.0X	
	0.8s	26.40nm		5.5mb	
LFF	85.79	44 eP	32 29.10	0.6	
	1.2s	73.70nm		5.8mb	
RJF	86.17	44 eP	32 30.90	0.5	
	1.1s	26.30nm		5.4mb	
LPO	86.18	44 eP	32 30.90	0.5	
	1.1s	21.40nm		5.3mb	
EPF	86.19	46 eP	32 31.10	0.5	
	1.1s	47.30nm		5.6mb	
DOU	86.31	38 Pc	32 31.70	0.8	
APO	86.43	27 eP	32 31.50	0.1	
	1.1s	27.20nm		5.4mb	
MAF	86.52	43 eP	32 32.10	0.0	
	1.1s	27.80nm		5.4mb	
BGF	86.58	42 eP	32 32.00	-0.4	
	0.8s	12.00nm		5.2mb	
CAF	86.67	44 eP	32 33.70	0.8	
	1.0s	6.80nm		4.8mb	
AVF	86.81	42 eP	32 32.90	-0.6	
	0.9s	8.10nm		5.0mb	
ENN	86.82	37 eP	32 34.00	0.6	
	1.0s	25.00nm		5.4mb	
WTS	86.82	36 eP	32 50.00	16.6X	
	1.0s	18.00nm			
TAF	86.94	55 eP	32 36.00	1.5	
SOD	87.05	18 eP	32 32.00	-2.3	
		i	32 49.00	60kmX	
SMF	87.18	42 eP	32 34.80	-0.5	
	0.9s	8.10nm		5.0mb	
WLF	87.40	38 eP	32 47.50	11.3X	
KJF	89.49	20 iP	32 46.20	0.2	
	0.6s	9.10nm		5.3mb	
LPG	89.50	42 eP	32 46.20	-0.6	
SUF	89.94	22 iP	32 47.60	-0.5	
NUR	90.81	24 iP	32 51.70	-0.4	
Z	21s	1.30um		5.3Msz	
		LR	13 20.00		
KHC	91.97	37 P	33 01.50	3.8X	
		e	36 26.00		
PRU	92.08	36 eP	32 58.50	0.3	
		e	33 13.20	50km	
ZST	94.45	36 eP	33 25.10	16.0X	
KRA	94.97	34 eP	33 11.70	0.2	
PTJ	95.00	39 eP	33 09.00	-2.8X	
SPC	95.63	34 eP	33 15.70	0.9	
WB5	127.70	258 ePKP	38 54.80	-0.7	
WRA	127.73	258 PKPd	38 55.40	-0.1	
	0.7s	4.40nm			
CHG	138.85	331 ePKP	39 16.70	0.1	
HYB	145.22	1 ePKPc	39 25.50	-2.3	
	1.0s	60.00nm			
NANU	145.38	256 ePKP	39 26.00	-1.9	
GBA	148.97	3 PKPc	39 32.60	-1.2	
	0.8s	11.10nm			
AVY	150.31	97 ePKP	39 42.00	6.0X	
S.D. = 1.2 on 119 of 138 obs.					

MAR 10, 1989 05h 33m 34.89± 0.42s
12.461 N ± 7.6km 87.407 W ± 7.0km
DEPTH = 88.1 ± 6.3 km
4.5mb (8 obs.)
NEAR COAST OF NICARAGUA (74)
Felt strongly at Managua.

RIN3	2.59	130 ePc	34 16.30	0.6	
JUD	2.92	141 iPd	34 19.60	-0.7	
		S	35 49.50		
MYT	3.03	302 ePd	34 21.50	-0.3	
		S	34 57.30		
CMG2	3.18	314 ePd	34 24.00	0.0	
JTS	3.23	132 eP	34 24.90	0.4	
		S	35 58.40		
IXG	3.42	300 ePd	34 26.40	-0.8	
		S	35 06.60		
CAO	3.55	140 ePc	34 28.30	-0.6	
		S	35 05.20		
SLP	3.60	309 ePc	34 29.70	0.0	
EPA	3.69	131 ePd	34 30.80	-0.1	
HDC2	4.03	127 ePd	34 36.20	0.6	
LHG	4.17	299 iPd	34 37.00	-0.5	
		S	35 22.20		
OPS	4.42	133 eP	34 41.20	0.2	
JAT	4.51	295 ePd	34 41.70	-0.5	
SOG2	4.63	299 eP	34 44.00	0.0	
IDC	5.10	137 ePc	34 49.90	-0.4	
KKG	5.15	300 eP	34 50.80	-0.3	
SBG	5.24	301 ePd	34 54.20	1.6	
PBC	5.88	133 ePd	35 00.50	-0.8	
PRM	22.01	11 P	38 26.00	2.9X	
JSC	22.43	13 P	38 29.00	1.8	
LHS	22.73	14 P	38 32.70	2.6	
RSCP	23.10	4 P	38 36.50	2.8X	
	0.8s	19.37nm		4.5mb	
OLY	23.23	352 P	38 35.00	0.0	
GBTN	23.28	7 P	38 37.00	1.5	
TKL	23.33	7 P	38 36.00	0.1	
LNO	24.54	343 P	38 47.50	-0.1	
		e	38 49.70		
BLA	25.43	13 P	38 57.00	1.0	
	0.8s	16.97nm		4.6mb	
ALQ	28.27	326 eP	39 22.30	0.2	
	0.9s	7.98nm		4.3mb	
GOL	31.43	333 P	39 50.00	-0.2	
RSNY	33.83	17 P	40 10.00	-0.7	
PLM	33.99	313 P	40 13.00	0.6	
MSU	34.03	324 P	40 14.00	1.2	
ZOBO	34.33	146 P	40 15.30	-0.6	
LPB	34.56	146 eP	40 18.00	0.3	
RSSD	34.64	339 P	40 18.00	0.1	
CNCB	34.85	146 P	40 21.00	0.7	
DAU	34.86	327 P	40 20.80	0.9	
CCH	36.34	144 eP	40 34.00	1.4	
TNP	36.82	319 P	40 37.80	1.4	
	0.7s	3.15nm		4.4mb	
PHAM	37.75	314 P	40 45.50	1.5	
KVN	37.95	320 P	40 47.00	1.2	
RSON	38.63	354 P	40 49.30	-1.8	
	0.7s	6.56nm		4.6mb	
LRM	39.46	332 eP	40 59.50	1.1	
SES	42.49	338 eP	41 24.00	1.1	
FFC	43.70	348 ePc	41 32.20	-0.4	
	0.7s	17.00nm		5.0mb	
LON	44.78	327 P	41 41.00	-0.5	
SCH	45.26	17 eP	41 44.00	-1.1	
PNT	45.34	331 eP	41 46.00	0.2	
	0.7s	17.00nm		5.0mb	
FRB	52.91	10 eP	42 41.00	-2.7	
YKC	53.57	345 eP	42 47.00	-1.6	
YKA	53.61	345 eP	42 47.80	-1.1	
INK	63.21	343 eP	43 54.00	-1.6	
MBC	66.01	352 eP	44 12.00	-1.7	
FBA	66.44	336 P	44 14.70	-1.8	
	0.7s	2.54nm		4.3mb	
TTA	69.29	333 P	44 32.40	-2.0	
WB5	139.29	254 ePKP	52 55.20	0.9	
WRA	139.31	254 PKP	52 49.00	-5.4X	
	0.6s	0.90nm			
WARB	145.21	242 ePKP	52 53.50	-11.0X	
MUN	150.88	224 ePKP	53 20.00	6.7X	
S.D. = 1.1 on 54 of 59 obs.					

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* MAR 10, 1989 07h 48m 45.22± 0.80s
42.462 N ± 6.7km 27.665 E ±10.9km
DEPTH = 10.0km (geophysicist)
BULGARIA (359)

DMK	0.64	174 ePg	48 57.10	-1.0	
		eSg	49 06.10		
PSN	1.28	17 iPd	49 08.00	-0.9	
CTT	1.43	156 ePn	49 12.10	0.8	
KDZ	1.86	245 iP	49 18.00	0.6	
PVL	1.87	295 eP	49 17.00	-0.6	
TLB	2.14	7 ePd	49 22.50	1.1	
S.D. = 1.2 on 6 of 6 obs.					

% MAR 10, 1989 07h 50m 53.51± 0.82s
47.819 N ± 7.5km 0.553 W ±11.1km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.4 (LDG).

LPF	0.39	303 Pg	51 02.50	1.0	
		Sg	51 09.10		
GRR	0.61	340 Pg	51 05.50	-0.2	
		Sg	51 14.50		
LDF	0.83	20 Pg	51 08.10	-1.4	
		Sg	51 18.10		
FLN	0.95	3 Pg	51 11.00	-0.5	
		Sg	51 23.50		
MFF	1.25	167 Pg	51 14.50	-2.2	
		Sg	51 29.60		
LSF	2.12	137 Pg	51 29.60	0.1	
		Sg	51 53.80		
TCF	2.43	128 Pg	51 35.00	1.1	
		Sg	52 03.70		
MAF	2.67	126 Pg	51 38.20	0.9	
		Sg	52 12.00		
S.D. = 1.4 on 8 of 8 obs.					

MAR 10, 1989 08h 00m 48.76± 0.52s
40.027 N ±10.8km 41.816 E ± 8.6km
DEPTH = 10.0km (geophysicist)
4.4mb (12 obs.) 4.4Msz (1 obs.)
TURKEY (366)
Ten houses collapsed and 120 damaged in the Erzurum-Kars area.

MSL	3.79	164 ePn	01 58.50	10.1X	
		eSn	02 53.50		
TAB	4.02	118 eP	01 59.00	7.2X	
KVT	4.52	285 iPn	02 05.30	6.5X	
SLY	5.29	145 ePn	02 20.00	10.2X	
		iPg	02 55.00		
		iSn	03 45.50		
		iS*	04 08.00		
		iSg	04 27.50		
BBTK	6.96	271 eP	02 59.00	25.6X	
BHD	7.05	162 ePn	03 02.00	27.5X	
		iP*	03 18.00		
		iS*	04 50.00		
		iSg	05 11.00		
IR7	8.18	119 eP	02 55.00	4.5X	
IR2	8.40	118 eP	02 55.20	1.7	
IR1	8.40	120 eP	02 56.00	2.4X	
IR5	8.45	122 eP	02 57.70	3.4X	
IR4	8.65	121 eP	02 58.60	1.6	
ELL	9.90	254 eP	03 20.30	6.0X	
TLB	11.18	299 eP	03 31.00	-0.5	
CLI	12.43	306 eP	03 50.00	1.5	
VRI	12.50	303 ePd	03 46.00	-3.4X	
MLR	12.87	300 eP	03 56.50	1.9	
MAIO	14.40	99 eP	04 06.00	-8.6X	
SKO	15.51	284 eP	04 42.50	13.5X	
SPC	17.83	308 eP	05 12.30	13.7X	
KRA	18.36	310 eP	05 03.30	-1.7	
SRO	18.59	303 eP	05 15.70	8.0X	
ZST	19.47	303 eP	05 19.60	1.1	
KSP	20.82	310 eP	05 31.00	-1.7	
VOY	21.21	296 e(P)	05 36.80	-0.1	
		e	05 43.00		
PRU	21.59	307 eP	05 40.50	0.0	
		e	05 43.70		
KBA	21.73	298 eP	05 42.50	0.4	
	0.9s	28.80nm		4.7mb	
		i	05 46.70		
		i	05 50.20		
KHC	21.97	304 iPc	05 45.00	0.6	
BRG	22.23	308 e(P)	05 46.10	-0.8	
	2.0s	32.00nm		4.4mb	
CLL	22.93	309 eP	05 55.00	1.2	
	1.6s	26.00nm		4.5mb	
NUR	23.12	338 eP	05 57.00	1.5	
Z	18s	1.30um		4.4Msz	
		LR	15 30.00		
SUF	24.60	343 eP	06 10.00	0.1	
	0.6s	4.70nm		4.3mb	
UPP	24.97	331 iP	06 19.00	5.6X	
KJF	25.59	346 iP	06 18.80	-0.5	
	0.6s	14.30nm		4.8mb	
LPG	26.18	294 eP	06 26.20	0.9	
	0.7s	5.50nm		4.4mb	
HFS	26.68	328 eP	06 28.30	-1.1	
	0.8s	13.40nm		4.7mb	
LBF	28.10	297 eP	06 44.70	2.1	
LOR	28.19	298 eP	06 45.90	2.6X	
	0.8s	4.50nm		4.3mb	
NBO	28.37	328 P	06 43.00	-1.8	

0.7s 3.40nm 4.2mb
SSF 28.43 297 eP 06 48.60 3.2X
EKA 33.27 313 P 07 31.00 2.9X
2.5s 162.30nm 5.5mb X
8NG 41.19 217 ePc 08 34.20 -1.0
0.6s 6.00nm 4.5mb
BCAO 41.20 217 eP 08 34.00 -1.2
0.9s 2.13nm 3.9mb
CHG 53.12 96 eP 10 07.50 -1.4
CHTO 53.12 96 eP 10 07.70 -1.2
1.0s 2.50nm 4.1mb
LIC 53.76 244 P 10 13.00 -0.5
FRB 62.94 332 eP 11 15.00 -2.1
YKA 76.08 349 eP 12 38.70 1.0
S.D. = 1.3 on 28 of 47 obs.

MAR 10, 1989 09h 10m 45.33± 0.44s
6.930 S ± 3.3km 155.960 E ± 3.2km
DEPTH = 106.3 ± 4.0 km
5.2mb (25 obs.)
SOLOMON ISLANDS (193)
Felt (IV) at Arawa and Ponguna, Bougainville.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 11S, 19C
Centroid Location:
Origin Time 09:10:42.9 0.9
Lat 6.71S 0.09 Lon 156.11E 0.11
Dep 105.5 7.3 Half-duration 1.5
Moment Tensor; Scale 10**16 Nm
Mrr= 4.21 0.60 Mtt=-4.53 1.06
Mff= 0.32 1.21 Mrt= 3.33 0.58
Mrf=-2.01 0.51 Mtf= 0.61 0.78
Principal Axes:
T Val= 5.87 Plg=66 Azm= 46
N 0.03 12 287
P -5.91 20 192
Best Double Couple:Mo=5.9*10**16
NP1:Strike=262 Dip=27 Slip= 63
NP2: 112 66 103

PAA 0.78 323 iPc 11 04.00 -0.4
iS 11 21.00
BGA 1.10 315 iPc 11 08.00 0.3
eS 11 20.00
VSG 4.37 122 eP 11 50.00 -0.8
RAB 4.65 306 iPc 11 56.00 1.4
0.5s 394.37nm
iS 12 54.00
HNR 4.66 122 eP 11 54.00 -0.7
eS 12 52.00
LAT 8.90 271 eP 12 53.00 0.2
PMG 9.06 254 e(P) 12 56.00 1.1
eS 14 38.00
MNDI 12.25 273 eP 13 41.50 3.9X
JAY 15.82 285 ePd 14 22.00 -1.4
CTA 16.12 215 iPc- 14 27.80 0.7
1.2s 278.13nm 5.4mb
i(pP) 14 37.00
iPP 14 42.00
iPPP 14 49.00
i 14 52.00
i 16 20.00
eS 17 32.00
DZM 18.14 147 iPc 14 51.70 -0.3
RMQ 20.63 199 iPd 15 17.60 -0.7
e 15 32.00
QIS 20.85 228 eP 15 20.00 -0.5
COO 23.83 189 eP 15 50.60 0.8
0.7s 47.00nm 5.0mb
SGE 23.90 118 ePd 15 50.70 0.1
VUN 24.54 119 ePd 15 56.20 -0.4
WB5 24.59 236 iPd 15 57.30 0.2
iPcP 19 33.00
WRA 24.64 236 Pc 15 58.00 0.4
0.7s 84.00nm 5.3mb
MTN 25.15 255 eP 16 04.00 1.7
CMS 26.20 200 iPc 16 11.80 -0.1
0.7s 50.00nm 5.2mb
ASPA 26.94 229 iPd 16 17.80 -1.0
0.6s 26.00nm 4.9mb
i 16 42.10
iPcP 19 38.50
eScP 23 12.00
ASPA 26.94 229 iPd 16 25.60 6.8X
0.5s 43.00nm 5.2mb

KNA 28.04 249 eP 16 29.00 0.4
BWA 28.23 193 eP 16 29.00 -1.3
ePcP 19 41.10
CAN 28.97 192 eP 16 36.80 -0.2
ADE 32.11 207 iPd 17 03.80 -0.7
0.9s 28.57nm 5.0mb
WARB 33.86 232 iPd 17 07.30 -12.5X
FORR 35.31 224 eP 17 30.00 -2.1
0.5s 89.00nm 5.9mb
KRP 35.60 153 P 17 35.00 0.6
TAU 36.64 191 eP 17 44.00 0.9
MBL 37.67 244 eP 17 52.00 -0.1
MSZ 39.01 166 P 18 04.00 1.0
MEKA 40.60 237 eP 18 16.80 0.5
KKM 41.70 287 ePc 18 26.00 0.4
NANU 41.90 244 eP 18 27.00 0.0
MRWA 43.67 234 eP 18 41.00 -0.3
MUN 44.62 231 eP 18 49.00 0.1
CHJJ 45.63 341 eP 18 55.00 -1.8
TSRJ 46.24 337 P 19 02.50 0.9
MAT 46.34 340 (P) 19 01.00 -1.4
0.8s 11.19nm 4.7mb
MTMJ 46.51 340 eP 19 02.90 -1.0
NIIJ 46.71 341 eP 19 05.90 0.6
NJ2 52.48 320 Pc 19 50.00 0.5
AFR 53.90 107 iP 20 00.60 0.4
0.8s 35.00nm 5.4mb
PAE 54.10 107 iP 20 02.00 0.3
PPN 54.23 107 iP 20 02.90 0.2
0.8s 20.00nm 5.2mb
TVO 54.42 107 iP 20 04.70 0.5
0.8s 45.00nm 5.5mb
PMO 55.57 103 iP 20 12.80 0.4
0.8s 35.00nm 5.4mb
VAH 55.84 104 iP 20 14.40 0.1
0.8s 20.00nm 5.2mb
TPT 55.84 103 P 20 14.60 0.3
0.8s 25.00nm 5.3mb
IPM 56.01 280 ePc 20 14.40 -1.2
0.8s 32.80nm 5.4mb
RUV 56.08 104 iP 20 16.20 0.2
0.8s 25.00nm 5.3mb
TIA 56.29 322 eP 20 16.30 -1.0
CN2 57.54 334 eP 20 26.80 0.9
GYA 58.18 307 P 20 30.40 -0.4
NNT 59.15 289 eP 20 37.00 -0.5
BJI 59.41 325 eP 20 38.50 -0.4
TIY 60.14 321 eP 20 43.60 -0.5
KHT 60.83 291 eP 20 50.30 1.3
CHG 61.74 296 eP 20 55.70 0.5
CHTO 61.74 296 eP 20 54.00 -1.2
0.8s 8.24nm 4.8mb
CD2 62.50 310 iPc 20 59.60 -0.5
HHC 62.61 323 P 21 00.60 -0.1
BTO 63.38 322 eP 21 06.00 0.2
LZH 64.94 315 eP 21 16.00 -0.1
GTA 69.35 317 eP 21 43.80 0.1
LSA 72.03 304 P 22 00.90 0.4
GUN 75.91 301 P 22 23.10 0.3
PKI 76.22 300 P 22 24.30 -0.2
0.7s 33.00nm 5.3mb
KKN 76.38 301 P 22 25.50 0.2
GKN 76.99 301 P 22 28.70 0.1
TTA 78.63 20 P 22 36.00 -0.8
WMQ 79.43 317 P 22 42.00 0.5
HYB 80.15 289 ePc 22 45.00 -0.8
1.0s 55.00nm 5.3mb
e 23 06.00
PMR 80.35 23 P 22 46.00 0.1
0.8s 11.21nm 4.7mb
GBA 80.56 285 Pc 22 46.80 -1.1
1.0s 33.40nm 5.1mb
IMA 81.44 19 P 22 52.00 0.3
pP 23 16.00 91kmX
FBA 82.71 21 P 22 56.00 -2.2
0.8s 12.07nm 4.8mb
SPA 83.12 180 iPc 23 01.60 1.2
0.9s 32.27nm 5.2mb
e 23 24.10
NDI 83.51 300 iPd 23 03.00 0.0
KSH 86.68 310 P 23 21.50 2.8
KVN 91.17 51 P 23 40.50 0.5
pP 24 05.50 93kmX
TNP 91.73 52 P 23 43.50 0.9
EUR 92.87 51 iP 23 48.50 0.7
0.2s 6.14nm 5.6mb
M8C 95.41 14 eP 23 58.00 -0.5

YKA 95.83 28 eP 24 02.00 1.4
YKC 95.89 28 eP 24 02.00 1.1
SEK 119.10 232 ePKP 29 24.00 -0.1
SLL 119.67 340 ePKP 29 22.70 -1.3
0.5s 1.70nm
NBO 120.10 341 PKP 29 24.20 -0.6
0.7s 3.30nm
SWZ 121.43 232 iPKPd 29 25.60 -3.0X
0.4s 16.95nm
BUL 121.66 241 iPKPd 29 28.60 -0.6
BRG 126.05 331 i(PKP) 29 36.80 0.2
0.8s 16.00nm
CLL 126.21 332 iPKPc 29 36.90 0.0
0.7s 19.00nm
PRU 126.33 330 ePKP 29 37.40 0.2
SKO 126.79 318 ePKP 29 38.00 -0.3
KHC 127.37 330 PKPd 29 40.00 0.8
1.0s 7.00nm
e 30 03.40
CNCB 130.56 119 PKP 29 41.70 -5.2X
LPB 130.57 119 ePKP 29 44.00 -2.7X
ZOBO 130.66 118 ePKP 29 47.00 -0.1
BSF 131.53 333 ePKP 29 47.60 0.3
0.8s 8.00nm
HAU 131.60 333 ePKP 29 47.80 0.5
LPG 133.24 330 ePKP 29 50.90 0.0
LOR 133.26 334 ePKP 29 51.40 0.9
SSF 133.57 334 ePKP 29 52.10 1.1
0.9s 5.50nm
SMF 133.75 334 ePKP 29 52.20 0.8
0.9s 6.50nm
AVF 133.85 334 ePKP 29 52.20 0.6
TCF 134.73 334 ePKP 29 54.30 1.0
0.8s 6.70nm
ASMO 144.53 332 ePKP 30 10.20 -1.2
e 30 32.50
ITA 144.53 146 ePKP 30 11.30 -0.8
BMA 144.58 147 ePKP 30 27.30 15.5X
AAPN 144.74 332 ePKP 30 10.50 -1.3
e 30 32.50
APHE 144.83 331 ePKP 30 11.00 -1.0
e 30 32.50
ALOJ 144.90 332 ePKP 30 11.00 -1.1
e 30 34.00
ATEJ 145.01 331 ePKP 30 11.00 -1.3
e 30 32.70
TAF 145.84 327 ePKP 30 15.50 1.8
i 30 35.50
BAO 147.36 134 ePKP 30 15.10 -1.5
IFR 148.27 329 iPKPd 30 22.50 4.8X
AVE 149.57 332 ePKP 30 25.00 5 5X
ATB 150.09 109 e(PKP) 30 21.10 0.3
SOB1 156.78 133 ePKP 30 30.50 0.3
S.D. = 0.9 on 112 of 121 obs.

% MAR 10, 1989 09h 50m 16.87± 0.80s
39.087 N ± 6.6km 27.625 E ± 8.4km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM 0.74 202 ePg 50 31.50 0.0
eSg 50 43.50
DST 0.93 56 iPn 50 34.70 0.0
EZN 1.25 307 ePn 50 40.00 0.0
EDC 1.27 8 iPn 50 40.40 -0.1
BNT 1.29 10 iPn 50 40.80 0.1
KCT 1.29 26 iPn 50 40.80 0.0
S.D. = 0.1 on 6 of 6 obs.

? MAR 10, 1989 09h 56m 40.87± 9.95s
46.028 N ±73.0km 7.526 E ± 7.2km
DEPTH = 10.0km (geophysicist)
SWITZERLAND (544)

ORX 0.51 141 P 56 51.66 0.5
S 57 00.12
ORO 0.51 142 P 56 50.90 -0.4
eSg 57 01.60
LSD 0.63 205 P 56 53.26 -0.4
S 57 02.48
VAI 0.88 100 Pc 56 47.40 -10.4X
RSP 0.90 192 P 56 58.33 0.2
S 57 11.64
BNI 1.14 212 Pd 57 02.80 0.4
eSg 57 22.50
RRL 1.23 205 P 57 03.79 0.0
ROB 1.75 172 P 57 11.58 0.1

10d 09h

STV 1.79 185 P 57 11.85 -0.3
S.D. = 0.4 on 8 of 9 obs.

MAR 10, 1989 10h 38m 16.04± 0.38s
56.263 N ± 6.2km 153.692 W ± 4.9km
DEPTH = 33.0km (normal)
4.9mb (24 obs.) 4.5Msz (2 obs.)
KODIAK ISLAND REGION (13)

KDC 1.63 23 iPc 38 42.30 -0.4
SDN 3.95 259 eP 39 14.30 -1.5
SVW 4.96 349 iPc 39 29.60 -0.7
PWA 5.75 18 iPc 39 40.00 -1.3
PMR 5.84 22 eP 39 39.80 -2.8
TTA 6.79 351 eP 39 56.70 0.7
TOA 7.01 30 eP 39 56.70 -2.4
FBA 9.13 16 eP 40 25.20 -3.3X
HYT 9.61 55 P 40 34.50 -0.6
IMA 9.84 0 eP 40 37.80 -0.5
1.3s 84.90nm 5.8mb
SIT 10.14 78 eP 40 35.30 -7.0X
DWY 10.53 36 P 40 45.80 -1.9
ADK 14.17 262 eP 41 33.30 -2.9
0.5s 10.20nm 4.7mb
BRW 15.16 356 eP 41 47.00 -2.0
INK 15.18 29 eP 41 52.00 2.7
0.4s 11.00nm 4.5mb
YKA 20.60 56 eP 42 53.60 -0.8
YKC 20.66 56 eP 42 54.50 -0.6
0.9s 33.00nm 4.7mb
PNT 21.57 94 ePc 43 04.00 -0.5
0.8s 19.00nm 4.6mb
MBC 23.65 20 eP 43 26.00 1.4
0.9s 68.00nm 5.2mb
SES 25.80 85 eP 43 45.00 -0.5
KVN 29.07 111 eP 44 15.00 -0.5
EUR 29.88 108 iP 44 23.00 0.3
0.6s 3.59nm 4.3mb
TNP 30.26 111 eP 44 25.00 -1.1
0.8s 3.38nm 4.2mb
ALE 34.82 13 eP 45 06.00 0.9
0.9s 26.00nm 5.2mb
ALQ 38.33 103 eP 45 35.00 -0.5
1.2s 4.30nm 4.2mb
FRB 40.16 43 eP 45 45.00 -5.0X
DAG 44.21 14 iPd 46 23.30 0.4
0.6s 24.67nm 5.2mb
MAT 48.73 276 eP 46 58.00 -1.1
1.3s 30.77nm 5.2mb
CN2 50.46 292 P 47 12.00 -0.3
Z 20s 0.60um 4.6Msz
eS 54 24.00
SNY 52.83 292 iPd 47 30.20 0.0
Z 22s 0.40um 4.4Msz
N 23s 1.00um
E 22s 0.70um
KEV 54.29 360 iP 47 41.00 0.5
0.7s 17.40nm 5.2mb
SOD 56.68 360 iP 47 58.10 0.2
HHC 59.62 299 eP 48 19.70 0.7
KJF 59.86 359 eP 48 21.00 0.9
0.6s 7.80nm 5.0mb
i 48 30.80
BTO 60.57 300 eP 48 25.00 -0.4
N 13s 0.40um
E 13s 0.70um
SUF 61.35 0 eP 48 31.00 0.7
TIY 61.60 296 eP 48 28.50 -3.9X
SSE 62.15 285 e(P) 48 36.50 0.5
NAO 62.62 8 P 48 38.40 -0.4
0.9s 10.70nm 5.0mb
NJ2 62.66 287 Pd 48 39.00 -0.4
NUR 63.57 1 iP 48 45.10 0.2
0.8s 13.20nm 5.1mb
i 48 55.30
XAN 66.25 296 P 49 02.60 -0.1
GTA 66.30 306 Pc 49 02.80 -0.3
Z 16s 1.20um 5.2MszX
N 11s 0.70um
LZH 67.10 301 P 49 07.50 -0.8
2.0s 60.00nm 5.3mb
WMO 67.72 317 P 49 13.00 1.0
Z 16s 1.10um 5.2MszX
eS 58 10.00
CD2 71.34 298 P 49 34.60 0.3
CLL 72.23 9 eP 49 38.00 -1.2
i 49 47.10

BRG 72.74 8 eP 49 43.50 1.3
1.0s 18.00nm 5.0mb
e 49 50.60
MOX 72.76 10 eP 49 44.00 1.6
1.2s 14.00nm 4.8mb
KSP 72.94 7 ePd 49 44.20 0.8
GYA 73.50 293 P 49 48.00 0.8
PRU 73.67 8 eP 49 48.50 0.9
KHC 74.44 9 iPd 49 53.80 1.6
e 50 16.10
HAU 74.77 14 eP 49 54.70 0.6
SPC 74.80 4 eP 49 55.20 0.8
LOR 75.14 16 eP 49 57.10 0.9
0.8s 5.90nm 4.6mb
SSF 75.29 16 eP 49 58.00 1.0
0.9s 7.20nm 4.7mb
LBF 75.43 16 eP 49 58.50 0.6
AVF 75.53 16 eP 49 59.00 0.6
0.5s 2.10nm 4.4mb
ZST 75.63 6 eP 50 07.30 8.4X
TCF 75.84 17 eP 50 00.80 0.6
KBA 76.46 9 eP 50 04.00 0.1
1.2s 9.40nm 4.7mb
i 50 12.40
RJF 76.68 18 eP 50 05.50 0.6
LFF 76.90 18 eP 50 07.10 1.0
CAF 77.14 17 eP 50 08.30 0.8
0.9s 8.10nm 4.8mb
LPO 77.22 18 eP 50 08.70 0.8
SKO 82.05 4 eP 50 32.20 -1.7
i 50 35.00
CHG 83.78 295 eP 50 44.40 1.2
WRA 96.83 244 Pd 51 55.10 10.6X
0.7s 1.70nm
SPA 146.08 180 e(PKP) 57 55.20 3.4X
1.0s 10.50nm
SLR 149.47 356 iPKPd 58 02.80 4.3X
PRY 150.68 358 ePKP 58 04.00 3.8X
SWZ 150.93 2 ePKP 58 03.50 2.9X
0.4s 8.47nm
SEK 152.06 358 ePKP 58 10.00 7.7X
S.D. = 1.1 on 63 of 74 obs.

* MAR 10, 1989 11h 15m 01.15± 1.60s
37.129 N ±10.3km 22.616 E ±18.0km
DEPTH = 10.0km (geophysicist)
SOUTHERN GREECE (368)
ML 3.2 (ATH).

ATH 1.21 46 ePb 15 23.80 0.1
VAM 2.14 143 ePn 15 36.40 -1.0
NEO 2.23 12 ePn 15 36.60 -2.1
NPS 3.06 127 ePb 15 51.50 1.1
KZN 3.24 348 ePn 15 54.40 1.3
PLG 3.30 11 ePn 15 54.40 0.4
EZN 3.97 46 eP 16 09.00 5.7X
KAP 4.00 112 ePn 16 02.80 -1.0
VAY 4.19 360 eP 16 06.40 0.0
ARG 4.52 100 ePn 16 12.50 1.3
SKO 4.92 350 eP 16 33.00 16.1X
MLR 8.72 16 ePd 16 49.50 -20.8X
S.D. = 1.4 on 9 of 12 obs.

* MAR 10, 1989 12h 24m 04.38± 0.87s
39.242 N ± 7.7km 27.780 E ± 8.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST 0.75 61 iPg 24 18.80 -0.3
eSg 24 32.00
IZM 0.93 206 ePn 24 22.40 0.2
KCT 1.10 24 ePn 24 25.20 0.2
EDC 1.11 3 ePn 24 25.40 0.3
EZN 1.27 298 ePn 24 27.60 -0.3
S.D. = 0.4 on 5 of 5 obs.

MAR 10, 1989 13h 52m 23.33± 0.49s
43.561 N ± 4.9km 0.605 W ± 6.9km
DEPTH = 10.0km (geophysicist)
PYRENEES (378)
ML 3.8 (LDG). Felt (IV) at
Mourenx and in the Lacq oilfield
area, France.

EPF 0.87 127 Pg 52 39.20 -0.9
Sg 52 51.30
LFF 1.68 35 Pn 52 54.90 2.0
Pg 52 58.40
Sg 53 23.40
ECRI 1.69 236 ePg 52 54.00 0.9
eSg 53 10.80
LPO 1.71 48 Pn 52 54.70 1.4
Pg 52 58.30
Sg 53 23.80
RJF 2.31 40 Pn 53 02.60 0.5
Pg 53 10.20
Sn 53 32.00
Sg 53 41.40
CAF 2.35 54 Pn 53 03.30 0.6
Pg 53 11.20
Sg 53 44.00
ETER 2.84 115 ePn 53 18.00 8.5X
eSn 53 52.00
EROO 2.84 164 ePn 53 11.70 2.2
eSn 53 40.40
EBR 2.86 163 ePn 53 16.00 6.2X
eSg 53 52.00
ETOR 2.94 202 ePn 53 09.70 -1.4
eSn 53 37.70
MFF 3.06 6 Pn 53 13.30 0.7
Pg 53 23.80
Sg 54 04.80
LSF 3.09 29 Pn 53 13.40 0.4
Sn 53 50.20
Sg 54 07.20
TCF 3.38 35 Pn 53 16.80 -0.4
Pg 53 29.00
Sg 54 15.60
MAF 3.49 39 Pn 53 18.40 -0.3
Sg 54 18.00
BGF 3.87 38 Pn 53 23.50 -0.6
Sn 54 07.00
Sg 54 32.20
GUD 3.93 223 ePn 53 24.30 -0.9
eSn 54 03.00
AVF 4.27 40 Pn 53 29.50 -0.4
Sg 54 42.80
SMF 4.41 44 Pn 53 31.40 -0.4
Sg 54 48.60
LPF 4.48 356 Pn 53 32.90 0.1
Sn 54 22.60
SSF 4.55 38 Pn 53 33.30 -0.4
Sg 54 52.50
LBF 4.71 42 Pn 53 35.10 -1.0
Sg 54 56.20
GRR 4.83 358 Pn 53 37.80 0.0
LOR 4.86 39 Pn 53 36.50 -1.7
Sg 55 00.40
FLN 5.20 1 Pn 53 42.60 -0.4
S.D. = 1.1 on 22 of 24 obs.

MAR 10, 1989 14h 14m 10.23± 0.38s
4.346 S ± 2.8km 152.797 E ± 2.8km
DEPTH = 53.3 ± 3.3 km
5.6mb (46 obs.) 5.4Msz (14 obs.)
NEW BRITAIN REGION (192)
One person killed by a landslide
in the Rabaul area. Felt (V) at
Rabaul.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 17S, 37C
Centroid Location:
Origin Time 14:14:14.0 0.2
Lat 4.51S 0.03 Lon 152.87E 0.03
Dep 25.7 2.9 Half-duration 3.1
Moment Tensor; Scale 10**17 Nm
Mrr= 2.68 0.12 Mtt= 2.31 0.15
Mff=-4.99 0.15 Mrt=-0.36 0.33
Mrf= 0.42 0.30 Mtf= 4.06 0.12
Principal Axes:
T Val= 4.14 Plg= 6 Azm=156
N 2.69 83 309
P -6.83 3 66
Best Double Couple:Mo=5.5*10**17
NP1:Strike=201 Dip=83 Slip= 178
NP2: 291 88 7

RAB 0.64 284 iPd- 14 22.40 -1.1
BGA 2.97 127 iPd 14 58.50 2.3
eS 15 37.00
PAA 3.31 126 iPd 15 02.00 1.1
iS 15 42.00
LAT 6.21 248 eP 15 44.00 2.4

PMG 7.53 228 eP- 15 59.00 -1.0
0.9s 806.72nm 6.5mb
eS 17 26.00
VSG 8.42 126 eP 16 12.00 -0.3
eS 16 49.00
HNR 8.71 126 eP 16 15.00 -1.3
eS 17 50.00
eLQ 18 02.00
MNDI 9.28 258 eP 16 29.00 4.7X
JAY 12.21 278 ePc 17 03.50 -0.4
1.0s 180.10nm 6.0mb
CTA 16.90 202 iPc 18 04.50 -0.2
1.7s 417.31nm 5.3mb
Z 18s 3.61um
i(PP) 18 15.50
i(PPP) 18 24.50
i 18 41.00
i 19 53.00
i 20 14.00
eS 21 08.00
e(SS) 21 20.00
e(SSS) 21 39.00
e 22 08.00
i(PcP) 23 05.00
i 24 09.00
i 25 31.00
iScP 26 25.60
iScS 30 04.00
i 30 25.50
GUA 19.42 336 eP 18 36.50 1.4
0.9s 389.92nm 5.7mb
GUMO 19.48 336 eP 18 36.50 0.7
2.2s 4742.52nm 6.4mb
PJG 19.48 336 eP 18 37.00 1.2
PVC 20.20 132 iPc 18 45.50 2.2
QIS 20.60 217 ePd 18 46.00 -1.5
DZM 22.03 144 iPc 19 01.10 -0.9
ScP 26 37.10
RMQ 22.36 190 iPc 19 05.30 0.2
1.0s 490.00nm 5.9mb
MTN 23.01 247 eP 19 11.00 -0.5
WB5 23.68 228 iPd 19 17.90 -0.2
iPcP 22 34.00
iS 23 30.10
iScP 26 39.60
i 26 45.00
WRA 23.74 228 Pc 19 18.90 0.2
0.9s 309.40nm 5.8mb
AAI 24.55 271 eP 19 26.40 -0.1
KNA 26.20 243 eP 19 40.80 -1.1
0.4s 182.00nm 6.0mb
ASPA 26.48 222 iPd 19 43.30 -1.2
1.4s 222.00nm 5.5mb
eS 24 20.00
VUN 28.55 120 ePc 20 01.90 -1.4
SVA 28.59 121 eP 20 01.90 -1.7
DAV 29.45 293 eP 20 20.00 8.6X
BWA 30.20 187 iPc 20 17.00 -1.0
iPcP 23 18.00
eScP 27 02.00
CNB 30.98 185 iPd 20 25.40 0.6
e 22 09.00
CAN 31.02 186 iPc 20 25.00 -0.1
eScP 27 03.20
PCI 33.10 275 ePc 20 45.50 2.0
1.0s 4.50nm 4.3mb X
WARB 33.14 226 iPc 20 31.20 -12.6X
e 26 57.40
ADE 33.15 201 iPc 20 43.40 -0.3
0.7s 63.01nm 5.6mb
FORR 35.16 219 eP 21 00.00 -1.0
0.5s 205.00nm 6.3mb
TSM 35.72 283 ePd 21 13.50 7.5X
MBL 36.11 240 iPc 21 07.70 -1.5
0.9s 272.00nm 6.2mb
QCP 36.67 302 eP 21 21.00 7.1X
PPR 36.73 293 ePd 21 19.00 4.6X
1.0s 90.00nm 5.7mb
KHKI 37.16 262 ePd 21 17.40 -0.7
e 24 19.20
CVP 37.61 306 eP 21 30.00 8.2X
1.0s 31.00nm 5.2mb
BAG 37.95 304 ePd- 21 31.80 6.9X
eS 27 13.00
KKM 37.96 286 ePd 21 31.50 6.6X
1.0s 166.20nm 5.9mb
e 21 37.00

TAU 38.71 186 iPc 21 32.40 1.7
KRP 39.34 151 P 21 36.00 -0.1
1.0s 766.00nm 6.5mb
pP 21 53.00 69kmX
PP 23 13.00
PPP 23 45.00
S 27 33.00
MEKA 39.53 232 iPc 21 37.30 -0.5
0.7s 105.00nm 5.8mb
COOL 39.81 225 iPc 21 39.00 -1.1
0.9s 110.00nm 5.7mb
TRT 40.07 263 ePc 21 42.50 0.1
0.9s 48.60nm 5.3mb
NANU 40.34 240 iPc 21 43.80 -0.7
0.4s 14.00nm 5.1mb
KAGJ 41.05 331 eP 21 51.20 1.0
WKYJ 41.65 338 eP 21 54.10 -1.1
WEL 41.72 155 P 21 55.00 -0.6
1.0s 1200.00nm 6.6mb
eS 28 44.00
IIDJ 42.01 342 P 22 05.80 7.7X
KAKJ 42.03 345 P 22 03.80 5.6X
TKSJ 42.03 336 eP 21 58.10 -0.1
KUMJ 42.20 332 eP 22 00.20 0.6
CHJJ 42.21 343 iPd 21 58.30 -1.4
ANP 42.24 316 eP 22 10.00 9.8X
MSZ 42.30 164 P 22 01.50 1.2
pP 22 14.00 46kmX
KLB 42.61 226 eP 22 02.00 -1.0
TSRJ 42.70 340 P 22 05.00 1.4
MRWA 42.73 231 eP 22 03.00 -1.1
0.3s 3.00nm 4.6mb X
BAL 42.87 228 eP 22 04.00 -1.2
MAT 42.90 343 eP 22 04.00 -1.3
0.8s 10.45nm 4.6mb
Z 21s 2.15um 5.0Msz
eS 28 28.00
MTMJ 43.06 342 P 22 05.30 -1.4
SHK 43.07 335 eP 22 11.20 4.5X
NIIJ 43.32 344 iPd 22 08.20 -0.5
SHNJ 43.40 333 eP 22 09.40 0.1
NWAO 43.70 225 eP 22 10.00 -1.9
Z 20s 6.00um 5.5Msz
N 20s 5.00um
E 20s 3.80um
MUN 43.94 227 iPc 22 12.80 -1.0
OZH 44.19 313 eP 22 16.50 0.6
Z 20s 2.00um 5.0Msz
E 18s 2.10um
OFUJ 44.42 348 eP 22 17.30 -0.2
RKG 44.48 224 iPd 22 20.20 2.0
AOMJ 46.12 347 eP 22 34.90 3.9X
HKC 46.13 307 P 22 43.00 11.6X
HKC 46.13 307 iPd 22 39.50 8.1X
SSE 46.39 322 eP 22 33.00 -0.2
6.0s 0.40nm 2.5mb X
Z 20s 2.30um 5.1Msz
N 14s 0.70um
E 14s 0.50um
pP 22 42.00 30kmX
S 29 22.00
sS 29 32.00
eSS 32 44.00
QIZ 48.24 300 eP 22 53.50 5.5X
PP 24 44.50
NJ2 48.49 321 Pd 22 51.00 1.2
N 18s 0.80um
E 17s 1.10um
ScP 28 08.40
S 29 54.00
ASAJ 49.10 350 eP 22 54.90 0.6
KGM 49.84 276 eP 23 01.00 0.5
WHN 50.53 316 eP 23 05.00 -0.4
N 18s 0.80um
E 17s 1.10um
eS 30 18.00
DL2 51.78 329 eP 23 15.10 0.3
E 15s 1.60um
S 30 32.00
TIA 52.35 323 eP 23 18.40 -0.7
Z 30s 1.80um 4.9MszX
IPM 52.47 279 ePd 23 25.70 5.3X
0.9s 42.50nm 5.5mb
MDJ 53.00 339 eP 23 23.00 -0.8
Z 25s 1.90um 5.0MszX
N 16s 1.00um
SNY 53.10 333 eP 23 23.60 -0.9

Z 19s 2.90um 5.3Msz
N 18s 1.90um
E 18s 1.90um
S 30 50.50
CN2 53.89 336 Pc 23 29.40 -0.9
6.0s 1.20nm 3.1mb X
Z 19s 2.40um 5.3Msz
N 15s 0.80um
eS 30 58.00
GYA 54.12 307 P 23 33.40 0.9
E 20s 2.91um
S 31 07.00
HON 54.52 60 P 23 40.00 4.6X
Z 20s 7.98um 5.8Msz
LOE 54.84 295 eP 23 38.80 1.1
NNT 55.34 288 eP 23 42.50 1.1
BJI 55.52 326 eP 23 41.50 -0.7
Z 24s 2.90um 5.3MszX
E 20s 1.60um
e 23 52.50
S 31 38.00
NST 55.78 292 eP 23 55.00 10.5X
TIY 56.17 322 Pd 23 47.20 0.1
Z 24s 3.00um 5.3MszX
N 18s 1.90um
XAN 56.29 316 Pc 23 47.20 -0.9
N 21s 3.30um
E 20s 3.70um
KMI 56.73 304 Pd 23 52.50 0.9
N 20s 2.20um
pP 23 59.00 21kmX
sP 24 03.00
S 31 46.00
KHT 56.97 291 eP 23 55.00 1.9
BDT 57.27 294 eP 23 52.40 -2.7X
AFR 57.67 108 PKP 23 56.80 -1.1
1.2s 80.00nm 5.7mb
CHG 57.79 295 iPc 24 00.80 2.0
1.0s 34.50nm 5.4mb
eS 32 24.00
CHTO 57.79 295 eP 24 00.30 1.5
PPT 57.87 108 PKP+ 23 58.40 -0.9
1.2s 70.00nm 5.7mb
Z 18s 2.00um 5.3Msz
PPN 58.00 108 PKP 24 00.50 0.3
1.2s 85.00nm 5.8mb
TVO 58.20 108 PKP 24 02.10 0.4
1.2s 30.00nm 5.3mb
CD2 58.44 310 eP 24 02.60 -0.6
Z 24s 2.10um 5.2MszX
N 16s 2.20um
eS 32 06.00
HHC 58.68 324 eP 24 04.60 -0.2
PMO 59.25 105 PKP 24 09.40 0.4
1.2s 120.00nm 5.9mb
BTO 59.44 323 P 24 10.00 0.0
N 17s 1.70um
E 17s 1.60um
PP 26 24.50
TPT 59.52 105 PKP 24 11.00 0.2
1.2s 100.00nm 5.8mb
VAH 59.53 105 PKP 24 10.90 0.0
1.2s 50.00nm 5.5mb
SMY 59.65 15 P 24 15.00 3.8X
Z 22s 4.30um 5.5Msz
RUV 59.76 105 PKP 24 12.60 0.1
1.2s 85.00nm 5.8mb
LZH 60.90 316 Pc 24 19.50 -0.7
2.0s 82.00nm 5.5mb
Z 20s 2.90um 5.4Msz
E 20s 2.90um
pP 24 27.00 25kmX
sP 24 32.00
i 31 19.00
S 32 37.00
ADK 61.75 21 eP 24 25.20 -0.2
DRV 62.84 186 iPc 24 33.00 0.5
GTA 65.32 317 iPc 24 49.50 0.2
Z 20s 2.10um 5.3Msz
E 18s 2.20um
S 33 33.50
sS 33 45.00
LSA 67.98 304 P 25 07.10 0.3
S 34 05.00
SDN 70.80 26 eP 25 21.60 -1.3
GUN 71.89 301 P 25 30.50 0.0
PKI 72.20 301 P 25 32.90 0.5

10d 14h

KKN	72.37	301	P	25	33.20	0.0	VRI	117.65	320	ePKP	32	52.00	-0.2	ASS	127.74	324	PKP	33	11.80	0.1
DMN	72.47	301	P	25	34.20	0.3	SEK	118.09	235	iPKPd	32	53.40	-0.4	CRE	127.82	325	PKP	33	11.20	-0.7
GKN	72.97	301	P	25	36.60	-0.1		1.0s		20.00nm				SDI	127.83	322	PKP	33	11.60	-0.3
SBA	73.83	177	Pc	25	42.90	2.4	MLR	118.31	320	ePKPd	32	54.00	0.4	AZI	127.90	322	PKP	33	12.20	0.3
WMO	75.41	317	Pd	25	51.00	0.7	SLR	118.50	238	iPKPc	32	54.90	0.3	MNS	128.13	323	PKP	33	11.40	-1.1
Z	24s		1.70um			5.3MszX		0.9s		26.89nm				VAI	128.15	329	PKPd	33	12.00	-0.3
KDC	75.80	27	eP	25	51.90	-0.2	PRY	118.74	236	iPKPc	32	55.00	-0.1	BDI	128.33	326	PKP	33	12.00	-0.8
HYB	76.34	289	eP	25	54.70	-1.3		0.5s		5.41nm				RDP	128.47	322	PKP	33	11.60	-1.6
	1.4s	125.00nm				5.7mb	BLF	118.94	233	ePKP	32	55.50	0.1	BOB	128.51	327	PKP	33	11.60	-1.6
KOD	76.39	282	eP	25	59.00	2.3	PTZ	119.09	251	iPKPd	32	55.50	-0.4	PII	128.59	325	PKP	33	12.00	-1.2
GBA	76.85	285	P	25	59.00	0.2	FRS	119.37	232	iPKPd	32	57.00	1.1	ORO	128.72	329	PKP	33	12.40	-1.2
	0.6s	5.60nm				4.7mb		0.9s		25.21nm				CKI	129.37	327	PKP	33	13.50	-1.2
TTA	77.35	21	eP	26	00.80	0.0	KRA	119.65	327	ePKP	32	55.90	0.1	LPG	129.44	329	ePKP	33	14.60	-0.6
PMR	79.28	24	eP	26	10.40	-0.8	SPC	119.95	326	iPKP	32	57.10	0.4	LOR	129.56	333	ePKP	33	15.40	0.4
	1.0s	40.00nm				5.3mb	BUL	120.04	244	iPKPd	32	57.10	-0.6		0.9s		14.70nm			
Z	20s		1.50um			5.3Msz	KDZ	120.23	316	iPKP	32	56.00	-1.3	LBF	129.71	333	ePKP	33	15.60	0.3
NDI	79.50	300	iPd	26	15.70	2.5X	EZN	120.30	314	ePKP	32	56.00	-1.4		1.1s		20.50nm			
	0.9s	33.61nm				5.3mb	SWZ	120.41	235	iPKPc	32	54.60	-3.6X	BNI	129.79	329	PKP	33	16.50	0.8
			eS	36	12.00			0.4s		21.19nm				SSF	129.87	333	ePKP	33	16.10	0.5
IMA	80.03	19	ePc	26	15.40	-0.1	RZN	120.70	317	ePKP	32	58.00	-0.4		1.1s		26.80nm			
	1.0s	36.30nm				5.3mb	BZS	120.96	322	ePKPd	32	58.50	0.0	SMF	130.03	332	ePKP	33	16.10	0.2
TOA	80.75	25	eP	26	19.50	0.3	KSP	121.12	329	ePKP	32	59.00	0.4		1.1s		25.30nm			
POO	80.93	289	iP	26	16.00	-5.0X				e	35	39.50		AUTN	130.11	328	PKP	33	15.38	-1.1
FBA	81.47	22	iPc	26	21.60	-1.2				e	36	34.50		AVF	130.14	333	ePKP	33	16.10	0.0
BRW	82.33	15	eP	26	27.00	-0.2	GAC	121.25	38	ePKP	32	58.50	-0.5	TOUF	130.20	328	PKP	33	16.53	0.0
KSH	82.62	311	eP	26	31.00	1.5	VTS	121.33	318	ePKP	32	58.00	-1.5	SBF	130.20	327	ePKP	33	16.30	-0.1
			eS	36	49.00		KKB	121.73	318	ePKP	33	00.00	-0.1		1.0s		21.60nm			
SPA	85.68	180	iPc	26	45.70	1.2	LSZ	121.80	249	iPKPd	33	01.60	0.5	LDF	130.22	337	ePKP	33	16.40	0.2
	1.0s	150.00nm				6.1mb	ZST	122.24	326	ePKP	33	01.00	0.2	FLN	130.23	337	ePKP	33	16.60	0.4
			i	26	59.20					e	36	35.90			0.9s		30.70nm			
MAW	85.99	203	iPc	26	46.30	0.6				e	46	55.50		AURF	130.24	328	PKP	33	16.38	-0.1
	0.8s	112.00nm				6.1mb	BRG	122.27	330	iPKPd	33	01.60	0.8	CVF	130.25	325	PKP	33	16.53	0.0
INK	88.04	21	ePc	26	55.10	-0.5		1.0s		40.00nm				MVIF	130.33	328	PKP	33	15.90	-0.8
	1.1s	98.00nm				5.9mb				e	34	41.00		BGF	130.55	333	ePKP	33	17.20	0.3
			pP	27	27.00	123kmX				e	36	35.50		CALN	130.56	328	PKP	33	17.34	0.1
QUE	88.58	300	eP	26	58.30	-1.0	VAY	122.32	317	iPKP	33	00.50	-0.7	GRR	130.68	337	ePKP	33	17.50	0.5
WDC	88.75	49	e(P)	27	06.20	6.6X	TUH	122.37	226	iPKPd	33	01.50	0.0		0.9s		24.20nm			
GMW	89.41	42	P	26	52.00	-10.6X		1.0s		40.00nm				MAF	130.93	333	ePKP	33	18.20	0.6
LON	89.98	43	P	27	02.00	-3.4X	CLL	122.45	331	iPKP	33	01.30	0.2	LPF	131.04	337	ePKP	33	18.30	0.6
PAS	91.61	56	eP	27	13.00	-0.1		1.1s		31.00nm					0.8s		26.80nm			
PNT	91.69	41	eP	27	15.00	1.9				iSKP	36	35.50		TCF	131.04	333	ePKP	33	18.20	0.3
	0.9s	14.00nm				5.4mb				PKKP	42	56.40			1.2s		41.60nm			
MWC	91 71	56	eP	27	14.00	0.2				SKKP	46	54.80		LRG	131.05	328	ePKP	33	18.10	0.2
SBB	91.93	56	eP	27	15.00	0.4	PRU	122.53	329	PKP	33	01.00	-0.3		1.1s		39.00nm			
			e	27	34.00					e	33	46.40		LMR	131.05	328	ePKP	33	18.20	0.3
KVN	92.01	51	P	27	14.00	-1.1	SKO	122.79	318	iPKPc	33	01.50	-0.6		1.2s		38.00nm			
CLC	92.19	54	eP	27	16.00	0.2		1.9s		104.00nm				LSF	131.37	334	ePKP	33	18.80	0.3
RVR	92.26	56	eP	27	16.00	-0.1				i	36	55.20		ARE	131.58	116	iPKPd	33	22.00	1.9
PLM	92.65	57	eP	27	18.00	-0.1				i	37	54.20		MFF	131.82	335	ePKP	33	19.80	0.5
BAR	92.77	58	eP	27	24.00	5.5X	MOX	123.55	331	ePKP	33	03.00	-0.3	RJF	132.11	333	ePKP	33	20.90	1.0
TPC	93.36	56	eP	27	22.00	0.8		2.6s		101.00nm				CAF	132.14	332	ePKP	33	21.00	1.0
MBC	93.68	14	eP	27	21.00	-0.7				ePP	34	56.00		LPO	132.73	332	ePKP	33	22.00	0.9
	0.8s	13.00nm				5.4mb				ePKKP	42	53.00			1.1s		19.50nm			
EUR	93.68	51	iP	27	23.00	0.2				eSKKP	46	49.00		LFF	132.74	333	ePKP	33	21.90	0.8
	1.0s	6.15nm				5.0mb				eLR	13	00.00		EPF	134.39	332	ePKP	33	25.30	0.9
GLA	94.33	57	eP	27	27.00	1.3	KHC	123.55	329	iPKPc	33	03.50	0.1		0.8s		9.40nm			
			e	27	47.00			1.0s		16.00nm				BNG	134.39	272	ePKPd	33	15.00	-10.2X
YKC	95.09	28	eP	27	28.50	0.1				e	36	38.60		CNCB	134.56	119	ePKP	33	12.00	-14.1X
	0.7s	8.00nm				5.3mb	PTJ	124.18	325	e(PKP)	33	04.30	-0.5				i	33	28.00	
MAIO	95.21	306	eP	27	30.00	0.3	WIT	124.22	336	ePKP	33	06.50	2.0	LPB	134.56	118	ePKP	33	09.00	-16.9X
LRM	96.41	45	eP	27	31.60	-3.6X	KMZ	124.47	251	iPKPc	33	07.50	1.2	Z	24s		0.78um			5.3MszX
SES	97.26	40	eP	27	39.00	0.4	WTS	124.77	335	iPKPd	33	06.50	1.0				i	33	27.00	
BW06	98.55	48	P	27	43.00	-1.9		1.0s		26.00nm							LR	12	40.00	
ALE	100.47	4	ePdiff	27	52.00	-0.5	VBY	124.81	325	iPKPc	33	06.20	0.3	ZOBO	134.65	118	ePKP	33	11.00	-15.2X
	0.9s	9.00nm				5.4mb	LJU	124.91	326	ePKP	33	06.40	0.3				i	33	27.20	
ALQ	101.28	55	ePdiff	27	56.50	-0.9	KBA	124.95	327	ePKP	33	04.50	-1.9	CCH	135.91	120	PKP	33	20.00	-8.3X
Z	19s		1.22um			5.4Msz		1.0s		11.30nm				TOL	138.90	333	ePKP	33	34.00	1.1
GOL	101.87	50	Pdiff	28	16.00	16.0X				i	33	05.50					ePP	35	50.00	
FFC	102.31	35	ePdiff	28	17.50	16.3X				i	33	13.50		ASMO	140.75	330	ePKP	33	36.00	-0.4
	0.9s	10.00nm								i	33	38.20					e	37	09.50	
RSSD	102.46	46	Pdiff	28	01.00	-1.5				e	35	03.50		AAPN	140.98	330	ePKP	33	29.50	-7.3X
RSON	108.07	38	Pdiff	28	30.00	3.1X	CEY	125.15	325	ePKP	33	06.50	-0.1				e	37	12.20	
Z	22s		1.90um			5.6Msz	RBL	125.21	326	PKP	33	06.30	-0.5	APHE	141.03	329	ePKP	33	37.00	0.0
KJF	108.57	338	ePKP	32	33.00	-1.3	VOY	125.28	326	iPKPd	33	06.70	-0.2				e	37	10.50	
	0.7s	14.70nm					TRI	125.54	326	ePKP	33	04.80	-2.5	ALOJ	141.12	330	ePKP	33	35.50	-1.6
SUF	109.94	337	iPKP	32	36.50	-0.4	FVI	125.55	327	PKP	33	07.40	0.1				e	37	13.00	
	0.7s	4.80nm					EKA	125.60	343	PKP	33	07.00	-0.1	ATEJ	141.23	330	ePKP	33	37.00	-0.4
NUR	111.73	335	iPKP	32	40.10	-0.2		1.1s		19.00nm							e	37	12.20	
	0.7s	12.00nm					ENN	126.05	335	ePKP	33	08.00	-0.1	MAL	141.57	330	ePKP	33	37.00	-0.7
			i	32	45.90			1.0s		63.00nm				TAF	141.97	326	iPKP	33	40.00	1.4
FRB	113.60	19	ePKP	32	43.00	-0.9	MEM	126.13	334	PKPc	33	08.60	0.3				i	34	00.00	
NAI	115.80	266	iPKPc	32	51.50	1.6	CTI	126.50	327	PKP	33	09.20	-0.2				i	37	15.00	
	1.5s	25.00nm					WLF	126.76	334	PKP	33	10.50	1.0	IFR	144.43	327	iPKPd	33	41.50	-1.5
SLL	116.16	339	ePKP	32	46.70	-2.2	SNF	126.93	335	PKP	33	10.60	0.8	SVB	145.24	73	ePKP	33	43.27	-1.4
	0.5s	4.10nm					DOU	127.12	335	PKPc	33	10.50	0.3	SVV	145.27	73	ePKP	33	43.66	-1.0
NAO	116.77	340	PKP	32	46.30	-3.8X	TDS	127.29	318	PKP	33	11.80	0.9	SSV	145.29	73	ePKP	33	45.09	0.3
	0.7s	5.90nm					ARV	127.32	324	PKP	33	11.50	0.6	SLB	145.33	72	ePKP	33	45.49	0.7

TPP	145.54	78	ePKP	33	45.40	0.3
TRN	145.54	78	ePKP	33	44.62	-0.5
AVE	145.79	330	iPKPd	33	46.20	1.1
			i	37	25.50	
TBH	145.89	78	ePKP	33	45.68	-0.1
VAO	146.66	145	ePKP	33	48.50	1.6
			e	34	02.70	
ITA	148.41	148	iPKPc	33	54.70	4.7X
BMA	148.43	149	ePKP	33	54.30	4.6X
			e	33	55.20	
			e	33	58.40	
SHGH	152.90	274	ePKP	34	04.00	7.5X
LEGH	153.05	274	ePKP	34	04.50	7.8X
KOGH	153.10	275	ePKP	33	57.50	0.6
KUK	153.22	275	ePKP	33	57.00	0.0
ATB	153.87	106	PKPd	34	00.10	2.2
KIC	157.55	276	PKP	34	03.12	0.4
	1.1s		27.00nm			
LIC	157.84	276	PKP	34	03.44	0.4
SOB1	160.83	135	ePKPd	34	07.90	1.6
			e	34	11.90	
ITR	162.83	139	ePKP	34	08.60	0.3
			e	34	14.00	
			e	34	58.70	

S.D. = 0.9 on 259 of 303 obs.

% MAR 10, 1989 15h 30m 25.68± 3.43s
43.898 N ±23.0km 7.185 E ±15.9km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)

STV	0.36	16	P	30	33.20	0.1
			S	30	41.61	
IMI	0.51	88	P	30	35.97	0.0
			S	30	46.12	
PZZ	0.61	354	P	30	37.10	-1.0
			S	30	48.75	
ROB	0.63	51	P	30	38.94	0.5
			S	30	50.60	
FIN	0.80	67	P	30	40.79	-0.5
RRL	1.06	344	P	30	45.82	0.0
LSD	1.56	359	P	30	54.74	1.0

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

? MAR 10, 1989 15h 51m 47.78± 5.07s
45.176 N ±13.5km 5.835 E ±37.5km
DEPTH = 10.0km (geophysicist)
FRANCE (538)

RRL	0.72	110	P	52	02.30	0.2
			S	52	15.53	
LSD	0.97	73	P	52	06.20	-0.3
			S	52	22.23	
RSP	1.01	91	P	52	06.92	0.0
			S	52	23.64	
PZZ	1.12	126	P	52	09.17	0.2
			S	52	28.89	
STV	1.41	131	P	52	14.00	0.4
			S	52	33.53	
ORX	1.58	72	P	52	16.36	0.4
ROB	1.70	121	P	52	16.66	-1.0

S.D. = 0.6 on 7 of 7 obs.

? MAR 10, 1989 16h 12m 58.21± 1.23s
37.960 N ±12.3km 29.039 E ±17.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

KHL	0.53	46	iPg	13	08.10	-0.8
			iSg	13	17.10	
YER	1.02	216	ePn	13	17.30	-0.2
ALT	1.38	37	ePn	13	24.40	0.9
ELL	1.39	150	ePn	13	24.00	0.2
IZM	1.47	288	ePn	13	29.00	4.3X

S.D. = 1.2 on 4 of 5 obs.

MAR 10, 1989 16h 24m 06.68± 0.76s
45.368 N ± 9.1km 23.031 E ± 7.8km
DEPTH = 33.0km (normal)
ROMANIA (358)

BZS	1.03	285	iPd	24	25.00	0.2
MLR	2.05	86	ePc	24	40.50	0.8
ISR	2.49	94	ePc	24	50.50	4.6X
VRI	2.64	78	ePc	24	47.00	-0.9
PSZ	3.34	321	eP	24	57.90	0.0
SKO	3.59	199	ePn	25	00.20	-1.1
VAY	4.06	185	ePn	25	09.00	1.0

S.D. = 1.1 on 6 of 7 obs.

% MAR 10, 1989 17h 37m 23.56± 1.48s
60.174 N ± 6.3km 4.668 E ±13.2km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
ML 1.6 (BER).

BER	0.39	58	eP	37	32.20	0.6
			iSg	37	37.50	
SUE	0.89	3	eP	37	40.60	0.1
			iSg	37	52.40	
KMY	1.01	163	iPd	37	42.70	0.1
			iS	37	55.60	
ODD1	1.02	104	iP	37	43.10	0.2
			iS	37	56.80	
HYA	1.24	36	iP	37	46.90	0.2
			iSg	38	03.50	
BLS1	1.35	125	eP	37	48.80	0.4
			eS	38	05.60	
NRA0	3.45	78	eP	38	16.80	-1.6
			iPg	38	24.30	
			iS	38	55.60	
			iSg	39	09.20	

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

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* MAR 10, 1989 18h 03m 41.05± 1.44s
29.514 N ±12.2km 139.535 E ±15.8km
DEPTH = 417.5 ± 14.0 km
4.1mb (5 obs.)
SOUTH OF HONSHU, JAPAN (211)

MAT	7.10	351	eP	05	27.00	0.0
CHG	38.36	263	iPc	10	26.20	0.5
	0.6s		7.00nm		4.2mb	
CHTO	38.36	263	iP	10	25.90	0.2
	0.5s		5.99nm		4.2mb	
PKI	47.23	281	P	11	36.10	-0.4
KKN	47.28	282	P	11	36.60	-0.2
DMN	47.48	282	P	11	38.00	-0.3
GKN	47.77	282	P	11	40.40	0.0
WB5	49.36	186	eP	11	52.10	-0.1
SUF	74.00	334	iP	14	33.70	0.2
	0.5s		3.00nm		4.2mb	
HFS	80.28	336	eP	15	07.30	-0.3
	0.5s		1.50nm		3.9mb	
NAO	80.78	337	P	15	10.60	0.4
	0.7s		1.90nm		3.9mb	

S.D. = 0.3 on 11 of 11 obs.

? MAR 10, 1989 19h 27m 17.36± 3.91s
13.710 S ±14.9km 34.545 E ±37.3km
DEPTH = 10.0km (geophysicist)
MALAWI (577)
MG 3.3 (LSZ).

PTZ	3.16	260	iPn	28	09.90	1.7
			iPg	28	18.30	
			iSn	28	52.00	
IKZ	3.98	332	iPn	28	20.00	0.1
			iPb	28	30.00	
			iPg	28	38.80	
			iSn	29	17.00	
LSZ	6.35	255	iPn	28	53.00	-0.5
			iSn	30	03.00	
			iSg	30	33.00	
KMZ	8.47	271	ePn	29	22.00	-1.3
			iPb	29	32.10	
			iSn	31	03.50	
			iSg	31	42.40	
BUL	8.55	221	iPn	29	24.20	-0.1
			iSn	30	53.20	
			iSg	31	44.90	

S.D. = 1.5 on 5 of 5 obs.

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* MAR 10, 1989 19h 32m 14.90± 1.62s
37.398 N ±11.6km 20.838 E ±13.9km
DEPTH = 45.0 ± 15.1 km
3.7mb (1 obs.)
IONIAN SEA (399)
MD 3.5 (ATH).

VLS	0.80	346	iPgd	32	27.80	-2.2
			eSg	32	39.50	
ITM	0.90	104	ePg	32	29.50	-1.8
ATH	2.35	75	ePb	32	55.10	3.2X
SRN	2.56	345	ePn	33	01.70	6.8X
NEO	2.67	44	ePn	32	57.50	1.0
LSK	2.75	356	ePn	32	58.20	0.5
TPE	2.96	348	ePn	33	05.10	4.5X
KZN	2.99	14	ePn	33	02.40	1.3
KBN	3.22	360	ePn	33	05.50	1.3
VLO	3.24	342	ePn	33	13.30	8.8X
VAM	3.36	125	ePn	33	07.50	1.3
BERA	3.37	348	ePn	33	09.00	2.7X
PLG	3.60	34	ePn	33	09.80	0.2
OHR	3.71	360	iPn	33	12.10	0.9
TIR	4.01	349	ePn	33	16.50	1.0
PHP	4.30	356	ePn	33	23.00	3.6X
SKO	4.59	6	iPn	33	22.00	-1.6
			i	33	38.80	
KKS	4.68	356	ePn	33	27.50	2.7X
MMB	4.74	27	iPc	33	25.00	-0.8
BCI	5.00	353	ePn	33	29.60	0.4
RDO	5.23	43	ePn	33	31.20	-1.3
RZN	5.23	34	iPd	33	33.00	0.3
VTS	5.50	19	iP	33	36.00	-0.5
KDZ	5.53	38	iP	33	36.00	-0.8
MLR	8.95	24	eP	34	26.00	1.5
HFS	23.21	351	eP	37	16.80	-1.6
	0.4s		1.20nm		3.7mb	
GKN	53.60	80	P	41	35.00	1.0

S.D. = 1.3 on 20 of 27 obs.

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* MAR 10, 1989 20h 13m 56.75± 0.86s
37.887 N ± 9.3km 29.114 E ± 8.1km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

KHL	0.54	36	iPg	14	06.70	-1.0
			eSg	14	13.70	
YER	1.00	222	iPn	14	15.10	-0.7
BCK	1.25	110	iPn	14	20.40	0.5
ELL	1.30	151	iPn	14	23.80	2.9X
ALT	1.40	34	iPn	14	23.10	0.6
IZM	1.55	290	ePn	14	25.00	0.6
DST	1.76	348	iPn	14	31.90	4.4X
YLV	2.68	4	ePn	14	46.00	5.2X
BBTK	3.45	54	eP	15	06.00	14.3X

S.D. = 1.1 on 5 of 9 obs.

? MAR 10, 1989 21h 15m 01.40± 4.63s
17.918 N ±11.4km 101.075 W ±42.1km
DEPTH = 33.0km (normal)
NEAR COAST OF GUERRERO, MEXICO (58)

ACX	1.56	132	iP	15	27.50	0.3
			iS	15	54.00	
III	1.59	73	iP	15	28.00	0.2
			iS	15	56.00	
CRX	1.98	42	iP	15	33.50	-0.1
			iS	16	07.00	
IIC	2.52	43	eP	15	41.00	-0.2
IIT	2.85	67	(P)	15	55.00	9.2X
			iS	16	30.00	
IISM	3.67	73	(P)	15	58.00	0.8
			iS	16	51.00	
OXX	4.23	101	(P)	16	04.50	-1.0

S.D. = 0.8 on 6 of 7 obs.

MAR 10, 1989 21h 16m 49.02± 0.67s
43.520 N ± 6.9km 0.527 W ± 9.3km
DEPTH = 10.0km (geophysicist)
PYRENEES (378)
ML 3.5 (LDG). Felt (IV) at Pardies and in the Lacq oilfield area, France.

EPF	0.80	127	Pg	17	04.90	0.3
			Sg	17	17.10	
LFF	1.69	32	Pn	17	20.60	2.0
			Pg	17	23.80	
			Sg	17	48.00	
LPO	1.70	46	Pn	17	21.00	2.2
			Pg	17	24.00	
			Sg	17	49.40	
ECRI	1.72	239	eP	17	19.70	0.5
			eS	17	35.50	
RJF	2.31	39	Pn	17	28.20	0.5
			Pg	17	35.50	
			Sn	17	57.40	
			Sg	18	06.80	
CAF	2.33	52	Pn	17	29.00	0.9

10d 21h

		Pg	17 36.30			
		Sn	17 58.20			
		Sg	18 07.60			
EROO	2.78	165 eP	17 38.00	3.5X		
		eS	18 06.40			
EBR	2.80	164 ePn	17 42.00	7.3X		
		eSg	18 16.00			
ETOR	2.93	203 eP	17 35.80	-0.8		
		eS	18 04.00			
MFF	3.09	5 Pn	17 39.30	0.5		
		Pg	17 50.20			
		Sn	18 15.80			
		Sg	18 30.50			
LSF	3.10	27 Pn	17 38.70	-0.1		
		Sn	18 16.00			
		Sg	18 32.20			
TCF	3.38	34 Pn	17 42.20	-0.7		
		Sn	18 21.80			
		Sg	18 41.80			
MAF	3.48	38 Pn	17 43.50	-0.8		
		Pg	17 57.50			
		Sg	18 42.40			
BGF	3.87	37 Pn	17 49.20	-0.6		
		Pg	18 04.60			
		Sn	18 32.80			
		Sg	18 54.60			
AVF	4.27	39 Pn	17 55.50	0.0		
		Sn	18 44.60			
		Sg	19 07.30			
SMF	4.40	43 Pn	17 56.80	-0.5		
		Sg	19 14.20			
SSF	4.54	37 Pn	17 58.10	-1.3		
LBF	4.70	41 Pn	18 00.50	-1.2		
LOR	4.86	38 Pn	18 02.80	-1.1		

S.D. = 1.1 on 17 of 19 obs.

MAR 10, 1989 21h 49m 45.86± 0.12s
13.702 S ± 2.2km 34.420 E ± 2.6km
DEPTH = 30.3km (geophysicist)
6.2mb (55 obs.) 6.1Msz (31 obs.)
MALAWI (577)

Ms 6.6 (BRK). At least two people killed, 100 injured ond damage in the Solimo orea, six people killed ond domoge in the Dedzo area and one person killed ond domoge in the Mohinji area. About 50,000 left homeless in Molowi. Felt strongly in much af central Molowi. Felt in Niassa ond Tete Provinces, Mozombique. Alsa felt in Zombio. Depth from broadband displacement seismogroms.

FAULT PLANE SOLUTION: P-Waves
NP1:Strike=327 Dip=66 Slip=-120
NP2: 202 38 -42
Principol Axes:
T Plg=16 Azm= 79
P 58 195

Comment: The facal mechanism is poorly controlled and corresponds to normol faulting with a moderate strike-slip component. The preferred fault plone is NP1.

RADIATED ENERGY
No. of sta: 7 Focal mech. M
Energy 9.8±3.4*10**13 Nm

MOMENT TENSOR SOLUTION
Dep 34 No. of sta: 10
Moment Tensor; Scale 10**18 Nm
Mrr=-2.81 Mtt=-0.29
Mff= 3.09 Mrt= 1.23
Mrf=-1.51 Mtf=-2.99
Principal axes:
T Val= 5.29 Plg=13 Azm= 59
N -1.96 12 326
P -3.33 72 195
Best Double Couple:Mo=4.3*10**18
NP1:Strike=165 Dip=33 Slip= -67
NP2: 319 59 -104
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 16S, 43C M.W.: 11S, 19C
Centroid Location:
Origin Time 21:49:53.8 0.3
Lat 13.40S 0.03 Lon 34.34E 0.02
Dep 15.0 BDY Holf-durotion 5.0
Moment Tensor; Scale 10**18 Nm
Mrr=-1.68 0.03 Mtt= 0.41 0.02
Mff= 1.28 0.02 Mrt= 1.07 0.13
Mrf=-2.35 0.14 Mtf=-0.86 0.02
Principol Axes:
T Val= 3.16 Plg=28 Azm= 61
N -0.10 3 153
P -3.06 62 250
Best Double Couple:Mo=3.1*10**18
NP1:Strike=142 Dip=17 Slip=-102
NP2: 334 73 -86

PTZ	3.04	259 iPn	50	34.30	1.2	
		iSn	51	15.80		
		iSg	02	28.00		
LSZ	6.24	255 iPn	51	18.20	-0.2	
		iSn	52	27.70		
		iSg	03	53.00		
KMZ	8.35	271 iPnc	51	46.10	-1.9	
		iSn	53	24.40		
BUL	8.48	220 iPn	51	49.40	-0.4	
		iSn	53	19.50		
NAI	12.57	11 iPd	52	42.50	-3.3X	
	1.0s	150.00nm			6.1mb	
		iS	52	44.00		
LWI	12.67	334 iPd	52	42.10	-5.0X	
		iS	54	57.40		
SLR	13.29	205 iPd	52	51.60	-3.5X	
	1.0s	1005.00nm			6.8mb	
		S	55	13.20		
BPI	13.78	205 eP	52	59.50	-2.2	
PRY	14.68	205 iPd	53	10.40	-3.0X	
	1.0s	400.00nm			5.8mb	
BFS	14.95	207 iPd	53	13.00	-3.9X	
SEK	15.86	202 iPc	53	27.50	-1.3	
SWZ	15.88	211 iPd	53	21.00	-8.0X	
BLF	17.13	205 iPc	53	41.00	-3.8X	
		e	56	28.00		
KIM	17.45	209 eP	53	45.00	-3.8X	
FRS	18.05	206 iPd	53	53.50	-2.6	
SUR	22.37	212 iPd	54	43.00	-0.3	
		S	58	50.50		
AAE	22.99	11 eP	54	52.50	2.9X	
BNG	23.94	318 iPd	54	56.20	-2.2	
	1.6s	767.00nm			6.0mb	
		id	59	11.90		
		ic	01	15.00		
		id	06	51.80		
BCAO	23.94	318 iPd	54	56.20	-2.3	
TUH	23.95	213 iPd	54	57.00	-1.4	
BLE	24.69	213 iPc	55	06.00	0.5	
		(S)	59	44.00		
ARO	26.42	19 ePd	55	22.00	0.0	
		eS	00	00.08		
AWAL	36.90	357 iPd	56	55.00	1.3	
AGMR	37.06	357 iPd	56	55.70	0.6	
AKSR	37.13	358 iPd	56	56.50	0.8	
AGRW	37.15	358 iPd	56	57.00	1.1	
AKUR	37.40	358 iPd	56	59.00	1.0	
ASW	37.58	358 eP	56	59.60	0.1	
		S	02	26.00		
LEGH	39.36	297 eP	57	13.50	-1.1	
	1.5s	7.00nm			4.2mb X	
		e	58	48.50	528kmX	
SHGH	39.38	297 eP	57	13.00	-1.8	
		e	07	21.50		
KOGH	39.63	298 eP	57	16.00	-0.9	
		e	07	20.50		
KUK	39.79	298 ePd	57	17.80	-0.4	
	0.6s	17.00nm			5.0mb X	
		e	11	13.00		
HLW	43.41	356 eP+	57	49.00	1.5	
		e	58	08.00	78kmX	
		e	59	34.00		
		eS	04	16.00		
KIC	43.69	295 Pd	57	49.26	-0.8	
PRNI	43.79	1 iPd	57	51.00	0.3	
LIC	43.88	294 Pd	57	50.50	-1.2	
TIC	44.06	295 P	57	52.34	-0.8	
MKRJ	45.01	1 P	58	01.20	0.6	
DSI	45.02	1 ePd	58	01.00	0.5	
MASJ	45.19	2 P	58	02.70	0.7	
SALJ	45.47	2 P	58	05.80	1.6	
BURJ	45.67	2 P	58	06.80	1.1	
MML	45.88	1 iPd	58	08.50	1.1	
BHD	47.67	11 iPc	58	22.00	0.5	
		iPP	00	21.00		
		iPcS	03	44.00		
		iS	05	18.00		
		iScS	08	15.00		
		iSS	09	06.00		
CSS	48.41	359 eP	58	27.80	0.6	
FAM	48.43	360 eP	58	28.50	1.2	
LFK	48.72	359 eP	58	30.90	1.3	
KOD	48.88	63 eP	58	31.00	-0.6	
NPS	49.41	351 iPd	58	35.50	0.6	
KAP	49.46	352 iPd	58	35.70	0.4	
KSL	49.76	355 eP	58	37.10	-0.5	
VAM	49.79	349 iPd	58	38.00	0.2	
ARG	50.00	353 iPd	58	39.80	0.4	
SLY	50.14	12 iPc	58	40.00	-0.5	
		i	58	49.50	32kmX	
		iPcS	03	54.00		
		iS	05	51.50		
		iScS	08	26.00		
		eSSS	10	28.00		
		eLQ	16	15.00		
ELL	50.36	355 iP	58	43.30	1.0	
POO	50.37	51 iPc	58	42.50	-0.1	
	0.8s	149.25nm			6.0mb	
GBA	50.51	59 Pd	58	41.50	-2.1	
	0.8s	55.00nm			5.6mb	
YER	50.89	354 iP	58	46.50	0.2	
IR5	51.00	17 iP	58	47.70	0.4	
BCK	51.02	356 iP	58	47.40	0.2	
IR4	51.12	17 iP-	58	48.70	0.5	
IR1	51.22	17 iP-	58	49.60	0.7	
IR7	51.47	17 iP-	58	51.20	0.4	
IR2	51.51	17 iP-	58	51.40	0.3	
TEH	51.73	18 eP	58	52.00	-0.8	
KHL	51.95	355 iP	58	54.20	-0.1	
ITM	51.96	347 eP	58	53.90	-0.4	
IZM	52.26	353 iP	58	56.90	0.3	
ATH	52.37	349 eP	58	57.10	-0.3	
		eS	06	20.00		
ALT	52.63	356 iP	58	59.50	0.0	
TAB	52.69	12 e(P)	59	00.00	0.0	
		i	59	10.00	33kmX	
KHI	52.87	25 ePd	59	01.70	0.3	
VLS	53.21	346 eP	59	03.50	-0.1	
PRK	53.22	352 eP	59	04.00	0.4	
BBTK	53.29	358 iP-	59	05.00	0.7	
DST	53.30	354 iP	59	04.90	0.6	
ANTO	53.31	358 iPd	59	04.75	0.3	
		epPc	59	13.69	29kmX	
		esPd	59	18.32		
		ePcP	00	11.13		
HYB	53.42	56 eP	59	03.80	-1.7	
	1.0s	425.00nm			6.4mb	
		i	59	12.00	27kmX	
		eS	06	24.00		
QUE	53.72	35 iPd	59	08.00	0.3	
		eS	06	34.00		
NEO	53.76	349 iPd	59	06.90	-0.7	
MEU	53.76	341 Pd	59	08.30	0.5	
EZN	53.78	352 eP	59	07.80	0.1	
GPA	53.85	356 iP	59	08.00	-0.3	
KCT	53.97	354 iP	59	10.00	0.9	
EDC	54.11	354 iP	59	10.40	0.2	
YLV	54.19	355 iP	59	10.50	-0.3	
HRT	54.42	356 eP	59	12.50	0.0	
PTS	54.50	338 P	59	12.50	-0.6	
KVT	54.52	2 iP	59	12.80	-0.4	
ATN	54.56	342 iPd	59	13.50	-0.1	
MNO	54.59	341 Pd	59	15.00	0.9	
MCT	54.67	340 eP	59	16.00	1.4	
ISK	54.71	355 eP	59	15.50	0.9	
PLG	54.75	350 iPd	59	13.90	-1.1	
CTT	54.85	354 eP	59	15.50	-0.1	
GIB	54.86	340 P	59	16.70	0.8	
KZN	55.00	348 iPd	59	16.40	-0.4	
MAIO	55.08	25 iPd-	59	16.50	-1.0	
	1.0s	79.50nm			5.7mb	
		eS	06	54.00		
LSK	55.09	347 iPd	59	18.20	0.7	
RDO	55.18	352 iPd	59	17.50	-0.5	
TPE	55.36	347 iPc	59	24.20	4.9X	
ERC	55.39	339 eP	59	20.00	0.3	
LVI	55.43	339 P	59	18.40	-1.4	
KBN	55.50	347 iPd	59	21.00	0.7	
DMK	55.58	354 eP	59	20.00	-0.9	
VLO	55.65	346 iPd	59	20.90	-0.4	

TDS 55.69 343 P 59 22.40 0.7
KDZ 55.70 352 iPd 59 21.00 -0.7
BERA 55.77 347 eP 59 22.40 0.2
USI 55.79 340 P 59 21.10 -1.3
VAY 55.83 349 iPd 59 23.20 0.5
1.3s 0.80nm 3.6mb X
RZN 55.83 351 iPd 59 23.00 0.1
MMB 55.89 350 ePd 59 22.00 -1.2
LCI 55.89 345 P 59 22.00 -1.1
OHR 55.97 348 iPd 59 24.00 0.2
1.7s 0.94nm 3.5mb X
i 59 32.00 26kmX
iPcP 00 20.00
DIM 56.07 352 iP 59 25.00 0.6
PLD 56.24 351 iPd 59 26.00 0.4
JMB 56.35 353 iPd 59 26.00 -0.4
MGR 56.36 343 P 59 25.00 -1.6
TIR 56.40 347 iPd 59 27.30 0.5
BRT 56.60 344 P 59 25.90 -2.3
PHP 56.60 347 iPd 59 28.50 0.3
SKO 56.67 348 iPd 59 28.30 -0.5
1.8s 680.00nm 6.4mb
Z 23s 10.63um 5.9MszX
N 23s 15.50um
E 22s 12.72um
i 59 38.30 33kmX
iPcP 00 28.00
iS 07 19.00
iScS 09 15.50
iSS 11 28.00
LR 24 30.00
LACI 56.71 347 iPd 59 29.50 0.5
PGB 56.76 351 iPd 59 28.00 -1.4
VTS 56.95 350 iPd 59 31.00 0.1
MAW 56.98 167 eP 59 31.80 1.1
0.9s 230.00nm 6.2mb
SDA 57.12 347 iP 59 33.10 1.2
ULC 57.13 347 eP 59 32.00 0.0
BSS 57.18 342 P 59 31.60 -0.8
SZH 57.22 353 ePd 59 32.00 -0.6
PVL 57.25 352 iPd 59 32.00 -0.8
BCI 57.33 347 iP 59 34.10 0.7
PSN 57.39 355 iPd 59 34.00 0.3
BDV 57.53 346 iPd 59 35.20 0.4
TTG 57.57 347 iPd 59 35.70 0.7
eS 07 32.00
PVY 57.57 347 eP 59 36.00 0.8
CGL 57.76 337 iPd 59 37.00 0.4
HCY 57.76 346 eP 59 36.50 0.1
IVA 57.85 347 iPd 59 37.70 0.6
DUI 58.09 342 P 59 38.00 -0.8
BRY 58.18 346 iPd 59 40.00 0.5
BUC1 58.27 353 iPd 59 40.00 0.1
TLB 58.30 355 ePd 59 40.00 -0.1
SDI 58.32 342 P 59 40.00 -0.4
BUC 58.33 353 iP 59 41.00 0.7
AZI 58.69 342 P 59 42.70 -0.2
RDP 58.70 341 P 59 43.30 0.2
RMP 58.76 341 P 59 44.10 0.7
DRA 58.83 352 ePd 59 44.00 0.2
CFR 58.88 355 ePd 59 44.50 0.4
HVAR 58.95 345 iPd 59 44.80 0.1
ISR 58.99 354 ePd 59 46.50 1.5
MNS 59.28 341 P 59 46.60 -0.5
ALP 59.37 342 eP 59 46.68 -1.1
MLR 59.41 353 iPd 59 48.50 0.5
TAF 59.58 325 iPd 59 40.00 -9.3X
VRI 59.70 354 ePd 59 50.50 0.7
MAO 59.80 340 P 59 50.30 -0.3
CIO 59.88 342 eP 59 49.96 -1.3
ASS 59.91 342 P 59 50.00 -1.4
PPE 59.95 355 eP 59 52.50 1.0
BIR 60.00 355 eP 59 52.00 0.1
AOI 60.07 343 eP 59 51.59 -0.9
BZS 60.16 350 eP 59 53.50 0.5
IFR 60.21 322 iPd 59 55.00 1.2
TIM 60.35 349 iPd 59 45.40 -8.8X
CVF 60.72 339 P 59 56.79 -0.1
ESEL 60.75 332 iPd 59 57.60 0.5
RSM 60.75 342 Pd 59 56.20 -0.8
PTT 60.79 354 eP 59 58.00 0.8
IAS 60.93 355 eP 59 59.00 0.9
PGD 60.93 341 P 59 56.50 -2.0
SFI 60.93 342 P 59 57.20 -1.0
FIR 60.99 341 eP 59 57.50 -1.1
ENIJ 61.08 327 e(P) 59 59.00 -0.4
PII 61.17 340 Pd 59 59.00 -0.9

ACU 61.32 329 eP 00 01.00 -0.1
EALH 61.33 328 eP 00 01.00 -0.1
VBY 61.43 345 iP 00 01.90 0.3
AVE 61.45 321 iPd 00 01.50 -0.5
i 00 24.50 91kmX
BDI 61.45 341 P 59 59.70 -2.2
ZAG 61.54 345 iP 00 03.50 1.2
MME 61.54 341 P 00 00.60 -2.1
PTJ 61.62 345 eP 00 03.10 0.1
APHE 61.85 326 iPd 00 05.00 0.2
CEY 61.86 344 iPd 00 04.80 0.2
CRT 61.98 326 iP 00 07.00 1.4
AFC 62.00 326 iPd 00 06.40 0.6
ATEJ 62.00 326 iPc 00 06.10 0.2
TRI 62.01 344 P 00 05.00 -0.5
CEI 62.03 351 iPc 00 04.00 -1.7
ACHM 62.04 326 iPd 00 07.40 1.4
MAL 62.09 325 iPc 00 06.00 -0.2
iS 08 30.00
LJU 62.11 344 ePd 00 06.10 -0.2
i 00 15.50 31kmX
eS 08 28.00
ASMO 62.18 326 iPd 00 07.20 0.2
ALOJ 62.19 326 iPd 00 07.40 0.3
IMI 62.24 339 Pd 00 07.07 -0.1
LMR 62.24 337 eP 00 06.80 -0.3
VOY 62.27 344 iPd 00 07.40 0.0
GEN 62.32 340 Pd 00 06.76 -0.8
AAPN 62.35 326 iPd 00 08.20 0.1
SBF 62.36 338 eP 00 07.70 -0.3
FIN 62.39 339 Pd 00 07.99 -0.1
FRF 62.39 338 eP 00 07.60 -0.5
LRG 62.40 337 eP 00 08.10 -0.1
1.5s 489.70nm 6.4mb
AURF 62.42 338 P 00 08.70 0.3
SAOF 62.42 338 P 00 08.60 0.2
ECHE 62.43 330 iPd 00 09.50 1.0
BOB 62.46 340 P 00 07.50 -1.1
CALN 62.46 338 P 00 09.16 0.4
EVIA 62.47 328 iPd 00 09.00 0.1
AUTN 62.48 338 P 00 09.33 0.4
EJIF 62.48 324 iPd 00 08.20 -0.6
MVIF 62.49 338 P 00 09.37 0.4
CKI 62.55 339 Pd 00 09.00 -0.2
TOUF 62.56 338 P 00 09.85 0.4
ROB 62.58 339 Pc 00 09.63 0.2
EBR 62.69 332 eP 00 11.00 0.9
eS 08 32.00
PSZ 62.70 349 iPd 00 09.80 -0.4
EPRU 62.71 325 e(P) 00 10.00 -0.4
STV 62.73 338 Pd 00 10.86 0.4
EROQ 62.73 331 eP 00 11.30 0.9
RBL 62.74 344 Pd 00 10.60 0.1
CNIL 62.76 324 eP 00 06.50 -4.1X
LIJA 62.77 325 eP 00 10.00 -0.8
EBAN 62.79 327 eP 00 10.00 -0.9
ETER 62.84 334 eP 00 11.30 0.2
SAL 62.86 341 P 00 11.00 -0.1
CFTV 62.88 312 iPc 00 11.30 -0.4
SRO 62.90 348 iPd 00 11.60 0.2
e 29 27.90
CTI 62.92 342 Pd 00 12.40 0.7
DOI 62.98 338 P 00 10.90 -1.2
PZZ 63.03 338 Pd 00 11.89 -0.6
FVI 63.09 343 Pd 00 13.10 0.5
SOP 63.16 347 iPc 00 14.20 1.1
MDI 63.27 341 P 00 13.50 -0.3
EHOR 63.33 326 eP 00 13.70 -0.7
KBA 63.38 344 iPd 00 14.70 -0.2
1.2s 240.00nm 6.2mb
i 00 27.40 44kmX
i 01 02.40
iPP 02 34.60
e 29 12.00
RRL 63.51 338 Pd 00 16.20 0.4
ZST 63.52 347 iPd 00 14.60 -0.9
Z 22s 6.80um 5.8Msz
e 08 42.40
RSP 63.54 339 Pd 00 14.45 -1.4
VAI 63.65 340 Pd 00 15.50 -0.9
BNI 63.66 338 Pd 00 17.10 0.4
ORO 63.70 340 Pd 00 15.30 -1.6
ORX 63.71 340 Pd 00 15.27 -1.7
VKA 63.76 347 iPd 00 16.60 -0.5
2.0s 1046.00nm 6.6mb
Z 17s 5.10um 5.8MszX
i 00 24.40 25kmX

i 01 00.30
i 02 27.00
iPP 02 38.40
LR 34 44.00
LSD 63.84 339 Pd 00 17.84 -0.1
GGC 63.84 311 iPc 00 18.40 0.3
SPC 63.86 350 iPd 00 18.00 0.1
1.6s 511.00nm 6.4mb
i 00 28.00 32kmX
e 29 03.50
e 29 20.40
GKN 63.90 49 Pd 00 16.80 -1.8
ETOR 63.90 330 iPd 00 19.00 0.7
EVAL 64.00 324 eP 00 18.30 -0.6
LPG 64.02 339 eP 00 18.40 -0.8
DMN 64.03 50 Pd 00 18.10 -1.4
KMR 64.08 345 iP- 00 19.30 0.1
i 00 28.20 29kmX
e 06 29.00
TOL 64.20 328 ePd 00 20.25 0.1
1.8s 3000.00nm 7.1mb
epPc 00 29.69 30kmX
esPd 00 34.16
ePP 02 19.60
e 02 35.00
iS 08 57.00
ePS 10 22.00
iSS 13 18.00
iSSS 15 40.00
PKI 64.23 50 Pd 00 19.20 -1.8
KKN 64.26 50 Pd 00 19.40 -1.6
CTFE 64.50 311 iPd 00 22.00 -0.3
EPF 64.52 333 eP 00 22.30 0.1
1.5s 979.40nm 6.7mb
KRA 64.75 350 iPd 00 22.80 -0.6
1.5s 468.00nm 6.4mb
Z 20s 8.60um 5.9Msz
N 20s 10.30um
e 00 32.40 31kmX
eS 09 03.00
GUN 64.77 50 Pd 00 23.00 -1.5
GUD 64.82 328 iPd 00 24.20 -0.1
LBL 65.10 336 P 00 26.40 0.6
KHC 65.22 345 iPd 00 25.60 -1.0
1.2s 147.00nm 6.0mb
e 00 35.00 30kmX
CAF 65.32 335 eP 00 27.60 0.3
EPLA 65.40 327 eP 00 27.00 -0.9
BBS 65.47 340 P 00 28.55 0.3
LPO 65.48 335 eP 00 28.30 0.0
ECRI 65.49 331 eP 00 28.80 0.3
KSH 65.54 34 Pd 00 29.00 0.1
Z 24s 22.20um 6.3MszX
N 22s 14.20um
pP 00 38.00 29kmX
S 09 11.00
PLDF 65.57 337 P 00 29.24 0.3
LOMF 65.60 340 P 00 29.55 0.4
PYM 65.62 336 P 00 30.34 1.1
FEL 65.67 341 P 00 29.77 0.2
PRU 65.78 346 iPd 00 29.00 -1.1
1.6s 120.00nm 5.8mb
Z 19s 5.60um 5.8Msz
N 19s 6.10um
E 16s 3.80um
e 00 40.70 39kmX
S 09 12.00
AGO 65.83 337 P 00 31.27 0.8
TBT 65.83 310 iPd 00 30.60 -0.2
RJF 65.85 335 eP 00 30.80 0.1
LFF 65.88 334 eP 00 31.10 0.3
MOF 65.93 340 P 00 31.31 0.1
BSF 66.03 340 P 00 32.01 0.1
SMF 66.05 337 eP 00 31.50 -0.4
LIS 66.15 324 iPd 00 33.60 0.9
MAF 66.19 336 eP 00 33.10 0.3
KSP 66.20 348 iPd 00 32.30 -0.5
1.5s 153.00nm 5.9mb
i 00 41.40 29kmX
LBF 66.29 338 eP 00 32.90 -0.6
HAU 66.33 340 eP 00 33.20 -0.5
GRFO 66.35 344 iPd 00 33.95 0.2
epPc 00 42.73 28kmX
BGF 66.36 337 eP 00 33.80 -0.1
AVF 66.36 337 eP 00 33.50 -0.4
STR 66.37 341 P 00 34.35 0.4
CDF 66.38 341 P 00 33.87 -0.2

10d 22h

Sta	Dist / Period	Az	Phase / Amp	Time	Res / Mag
TCF	66.38	336	eP	00 34.40	0.3
SSF	66.53	337	eP	00 34.60	-0.4
LOR	66.57	338	eP	00 34.90	-0.4
	1.4s		639.90nm		6.5mb
LSF	66.62	336	eP	00 35.60	0.0
VITF	66.63	340	P	00 35.89	0.3
WAR	66.69	351	eP	00 32.00	-3.8X
Z	20s		11.50um		6.1Msz
			e	03 16.00	
			e	09 24.00	
			e	09 32.00	
BRG	66.75	346	iPd	00 35.60	-0.7
	1.6s		250.00nm		6.1mb
			ipP	00 45.40	31kmX
			eS	09 24.00	
			eP'P'	29 10.80	
GWF	66.76	341	P	00 36.97	0.5
MOX	67.11	344	iPd	00 38.50	-0.1
	1.6s		426.00nm		6.3mb
Z	21s		9.00um		6.0Msz
N	22s		6.60um		
E	20s		6.60um		
			ePP	03 15.00	
			ePPP	04 55.00	
			iS	09 30.00	
			iSSS	17 20.00	
			eP'P'	29 09.00	
			LQ	32 00.00	
			LR	32 18.00	
CLL	67.38	346	iPd	00 39.60	-0.6
	1.7s		390.00nm		6.2mb
			i	00 49.20	31kmX
			eS	09 33.00	
			P'P'	29 08.00	
PTO	67.52	326	iPd	00 41.70	0.4
			eS	09 26.00	
MFF	67.58	335	eP	00 41.50	-0.1
ERUA	67.63	328	eP	00 42.40	0.4
WLF	67.83	341	P	00 43.40	0.3
EZAM	68.27	327	eP	00 44.80	-1.2
EMON	68.47	329	iPd	00 47.80	0.5
IPM	68.53	79	ePd	00 47.90	-0.3
	0.5s		46.50nm		5.8mb
			e	00 57.30	30kmX
MEM	68.70	341	Pd	00 49.15	0.7
STS	68.71	327	eP	00 49.00	0.3
DOU	68.72	340	iPd-	00 49.00	0.4
			e	05 09.30	
			S	09 53.00	
ENN	68.86	341	iPd	00 50.30	0.8
	1.5s		911.00nm		6.6mb
			i	00 59.00	28kmX
LPF	69.09	335	eP	00 50.60	-0.4
SNF	69.18	340	Pd	00 52.23	0.8
LDF	69.18	336	eP	00 50.80	-0.7
GRR	69.30	336	eP	00 51.80	-0.5
UCC	69.40	340	P-	00 53.40	0.6
			e	02 28.00	436kmX
			S	10 02.00	
FLN	69.45	336	eP	00 52.50	-0.7
	1.4s		408.40nm		6.3mb
KHT	69.52	68	iPd	00 54.90	0.7
LSA	69.64	51	P	00 54.80	-0.5
N	17s		6.50um		
E	16s		5.00um		
			pP	01 04.00	29kmX
			iS	09 59.00	
WTS	69.66	342	iPd	00 55.40	1.0
	1.5s		819.00nm		6.6mb
			i	01 05.00	31kmX
NNT	69.80	71	iPd	00 55.40	-0.5
			e	28 51.50	
KGM	70.03	83	eP	00 57.00	-0.4
DBN	70.25	341	iP-	00 59.00	1.0
Z	20s		10.00um		6.1Msz
			i	01 08.00	29kmX
			eS	10 16.00	
			eSS	15 10.00	
			eSSS	18 19.00	
WIT	70.43	343	iPd	01 00.40	1.4
			e	01 10.00	31kmX
BDT	70.77	66	eP	01 10.50	8.7X
NST	71.22	68	eP	00 59.50	-5.0X
CHG	71.30	65	iPd	01 04.70	-0.4
	1.1s		98.10nm		5.8mb
			eS	10 22.00	
CHTO	71.30	65	ePd	01 04.51	-0.5
			epPc	01 13.45	29kmX
ITR	71.40	265	iPd	01 03.90	-1.8
COP	71.55	347	iPd-	01 06.00	0.2
	1.5s		411.11nm		6.3mb
Z	20s		2.13um		5.4Msz
			ipP	01 16.00	32kmX
RDJ	73.57	250	iP+	01 19.60	1.3
SOB1	73.70	264	iPd	01 17.20	-2.1
			i	01 32.40	54kmX
			e	01 47.10	
YRH	74.29	337	eP	01 22.30	0.4
	1.8s		1320.00nm		6.6mb
NUR	74.37	355	iP	01 22.00	-0.2
	1.2s		179.20nm		6.0mb
Z	21s		8.00um		6.0Msz
			eS	10 52.00	
			LR	38 50.00	
BMA	74.45	250	iPd	01 24.60	1.1
			e	01 33.90	30kmX
ECP	74.48	335	eP	01 23.30	0.4
	1.4s		760.00nm		6.5mb
UPP	74.55	351	iP	01 22.40	-0.8
ECB	74.78	335	eP	01 25.10	0.4
	1.4s		515.00nm		6.3mb
ETA	74.80	336	eP	01 25.40	0.6
	1.3s		1155.00nm		6.7mb
ITA	75.00	250	iPd	01 28.30	1.2
WMQ	75.03	37	ePd	01 26.53	0.0
Z	24s		8.80um		6.0MszX
N	18s		6.50um		
E	18s		5.80um		
			epPc	01 35.64	29kmX
			iS	10 35.46	
DLE	75.38	336	iPd	01 29.10	0.9
	1.4s		451.00nm		6.3mb
HFS	75.45	349	eP	01 27.50	-0.9
	0.7s		81.30nm		5.8mb
Z	16s		3.41um		5.7MszX
			LR	33 26.00	
EKA	75.70	339	P	01 30.00	0.0
	2.0s		813.30nm		6.4mb
ESK	75.71	339	iPd	01 31.00	1.0
	1.5s		500.00nm		6.3mb
DCN	75.71	336	iPd	01 31.20	1.1
	1.3s		1087.00nm		6.7mb
VAL	75.93	333	iP	01 32.30	1.0
			S	11 10.00	
DMU	75.98	336	iPd	01 32.40	0.8
	1.3s		410.00nm		6.3mb
MUN	75.99	120	iPd	01 33.20	1.0
SPA	76.39	180	iPd	01 35.00	1.0
	1.9s		310.42nm		6.0mb
RKG	76.39	122	eP	01 35.00	0.6
NRA0	76.41	349	P	01 33.40	-0.5
SUF	76.45	356	iP	01 33.20	-0.8
	0.8s		167.20nm		6.1mb
BAL	76.60	119	eP	01 36.00	0.3
NAO	76.63	348	P	01 34.80	-0.3
NWAO	76.73	121	ePd	01 37.10	0.8
			epPc	01 46.70	31kmX
TRT	76.82	95	ePc	01 37.00	-0.1
	0.7s		49.20nm		5.6mb
KMI	76.93	60	ePd	01 37.35	-0.5
N	20s		7.10um		
			epPc	01 46.29	29kmX
			ePP	04 38.78	
			eS	11 21.84	
VAO	76.96	249	ePd	01 39.10	1.2
			e	01 52.00	44kmX
KLB	77.36	120	eP	01 41.00	1.2
BER	77.43	346	iP	01 40.30	0.8
KJF	77.83	357	iP	01 41.20	-0.4
	1.1s		287.90nm		6.2mb
Z	20s		8.90um		6.1Msz
			i	01 54.60	46kmX
			eS	11 28.00	
			eScS	12 08.00	
			eSS	16 48.00	
			LR	41 30.00	
RGS	78.72	349	iP	01 47.00	0.4
MEKA	78.81	115	eP	01 49.00	1.1
KHKI	79.55	96	ePc	01 52.20	0.1
			e	06 39.00	
CD2	79.95	55	P	01 52.80	-1.2
Z	20s		4.30um		5.8Msz
N	16s		5.10um		
			pP	02 01.50	28kmX
			iS	11 52.00	
			SKS	12 03.20	
COOL	80.33	119	eP	01 57.00	0.9
GTA	80.52	46	iPd	01 56.80	-0.2
	1.6s		0.20nm		2.9mb X
Z	22s		6.50um		5.9Msz
E	17s		6.20um		
			pP	02 02.00	17kmX
			sP	02 06.00	
			S	11 59.00	
			sS	12 11.50	
GYA	80.71	60	P	01 57.80	-0.4
N	15s		2.80um		
E	15s		6.00um		
			pP	02 07.00	29kmX
			S	12 00.00	
MBL	80.97	110	eP	01 59.00	-0.5
SOD	81.05	357	iP	01 59.20	0.3
QIZ	81.08	68	eP	01 58.00	-2.1
N	20s		5.24um		
			sP	02 10.00	
			S	12 04.00	
			SS	17 27.00	
LZH	82.03	50	ePd	02 05.16	0.2
	6.0s		1150.00nm		6.1mb X
Z	20s		9.70um		6.2Msz
E	19s		6.00um		
			epPc	02 14.43	29kmX
			S	12 12.00	
KEV	83.41	357	iP	02 11.80	0.7
	1.0s		196.00nm		6.2mb
Z	16s		3.40um		5.8MszX
			i	02 15.30	11kmX
			eS	12 28.00	
			LR	44 10.00	
KKM	83.49	82	ePd	02 12.50	-0.3
SBA	84.76	171	P	02 20.80	2.8
TSM	84.84	84	ePc	02 19.00	-0.5
XAN	85.15	53	iPd	02 19.90	-0.8
N	21s		5.40um		
E	18s		3.40um		
			sP	02 30.00	
PCI	85.33	90	eP	02 23.00	1.0
GZH	85.40	65	eP	02 22.50	0.4
Z	20s		14.70um		6.4Msz
E	19s		16.30um		
			SKS	12 44.00	
			S	12 50.00	
HKC	85.91	66	Pd	02 25.00	0.4
			S	12 50.00	
ATB	85.97	268	Pd	02 26.40	1.2
WARB	86.02	116	eP	02 13.50	-11.7X
	0.3s		2.00nm		
FORR	86.19	121	eP	02 26.00	0.0
	0.5s		33.00nm		5.8mb
BTO	88.20	48	P	02 35.00	-0.5
Z	18s		10.00um		6.3Msz
E	18s		6.30um		
			pP	02 44.00	28kmX
WHN	88.42	58	P	02 36.80	0.2
Z	20s		8.90um		6.2Msz
N	21s		7.00um		
E	18s		5.06um		
			pP	02 46.00	29kmX
TIY	89.04	51	iPd	02 39.40	-0.2
Z	20s		8.51um		6.2Msz
N	20s		8.27um		
			S	13 25.00	
HHC	89.39	48	eP	02 41.00	-0.2
Z	40s		5.30um		5.7MszX
N	15s		4.20um		
E	15s		7.70um		
BAG	90.21	73	eP	02 45.00	-0.5
			eS	13 12.00	
KNA	90.43	106	eP	02 46.50	0.2
QZH	90.52	65	eP	02 46.00	-0.6
Z	20s		10.60um		6.3Msz
E	18s		9.70um		
			SS	19 38.00	
CVP	91.67	72	eP	02 52.00	0.0
TIA	92.21	53	eP	02 53.40	-0.8
Z	22s		4.00um		5.8Msz
N	18s		6.80um		
BJI	92.51	50	P	02 54.50	-0.9
Z	19s		6.30um		6.1Msz
N	18s		3.50um		
E	18s		3.90um		

		SKS	13	24.00		
		eS	13	54.00		
		PS	15	13.00		
NJ2	92.54	58 Pc	02	55.00	-0.7	
Z	20s	5.40um			6.0Msz	
N	18s	2.20um				
E	19s	2.30um				
		pP	03	05.00	31kmX	
DAV	92.77	83 eP	02	57.00	-0.2	
ASPA	93.03	115 iPd	02	58.50	0.2	
	1.6s	130.00nm			6.1mb	
		epP	03	08.20	30kmX	
SLA	93.11	244 ePc	02	58.60	-0.2	
ANP	93.15	65 eP+	03	04.00	5.2X	
		eS	13	32.00		
ADE	93.60	127 iPc	03	03.20	2.4X	
	0.9s	70.59nm			6.1mb	
ZON	93.76	236 eP	03	03.00	1.4	
SSE	94.24	59 eP	03	02.50	-1.1	
	1.3s	21.00nm			5.4mb	
		SKS	13	32.00		
		eS	14	08.00		
WRA	94.46	112 Pc	03	05.30	0.4	
	1.8s	137.80nm			6.1mb	
WB5	94.50	112 iPKPd	03	05.00	-0.1	
		i	03	14.50	30kmX	
		ePP	06	31.80		
CCH	95.75	251 eP	03	13.00	1.7	
HIA	97.23	41 ePDIFd	03	17.27	0.4	
		epP	03	26.37	28kmX	
CNCB	97.60	251 Pd	03	21.00	1.1	
		i	03	36.00	51kmX	
LPB	97.79	251 P	03	20.00	-0.6	
	1.0s	22.00nm			5.6mb	
Z	23s	11.74um			6.3MszX	
		SP	16	17.00		
		LR	37	50.00		
ZOBO	97.89	251 ePd	03	21.00	-0.2	
	1.0s	8.00nm			5.2mb	
		SKS	14	24.00		
		LR	36	48.00		
SNY	98.38	49 eP	03	21.40	-0.7	
Z	24s	5.20um			5.9MszX	
N	18s	3.20um				
E	17s	2.20um				
OIS	99.00	114 eP	03	24.80	-0.7	
	1.5s	70.00nm			6.0mb	
CN2	100.08	47 Pdiff	03	28.00	-2.0	
Z	20s	8.40um			6.2Msz	
N	17s	2.90um				
ARE	100.92	250 e(Pdif	03	24.00	-10.7X	
GDH	101.98	339 ePdiff	03	34.00	-3.8X	
Z	22s	5.56um			6.0Msz	
		i	07	36.00		
		i	17	00.00		
		e	22	27.00		
MDJ	103.14	47 ePdiff	03	42.00	-1.6	
Z	35s	4.10um			5.7MszX	
N	18s	4.30um				
		ePP	08	05.00		
		SKS	14	20.00		
CAR	103.34	278 ePdiff	03	40.00	-5.3X	
ALE	104.38	352 ePdiff	03	47.00	-1.3	
	0.7s	5.00nm			5.5mb	
FRB	107.93	333 ePdiff	04	04.00	-0.4	
MAT	109.03	56 ePdiff	04	13.00	3.0X	
		eS	14	45.00		
GUMO	112.65	81 ePdiff	04	30.00	3.5X	
PJG	112.65	81 ePdiff	04	30.00	3.5X	
RSNY	112.97	313 PKP	08	40.00	18.2X	
Z	21s	17.28um			6.6Msz	
GAC	113.56	314 ePKP	08	23.00	0.1	
SNZO	114.11	148 ePKP	08	40.00	15.9X	
		SKS	17	18.00		
		PS	19	05.00		
		SS	25	18.00		
UPA	115.23	274 iPKPc	08	27.50	0.5	
	0.8s	44.78nm				
Z	22s	12.22um			6.5Msz	
		i	08	41.00		
		i	09	25.30		
		i	19	15.00		
MBC	115.93	353 ePKP	08	26.00	-0.6	
	0.9s	14.00nm				
BLA	117.89	305 PKP	08	31.80	0.3	
GBTN	121.05	303 PKP	08	37.40	-0.1	
BRW	122.03	4 ePKP	08	37.40	-0.8	
RSON	124.22	323 PKP	09	00.00	16.8X	
Z	19s	13.41um			6.6Msz	
ELC	124.85	306 PKP	08	44.40	-0.4	
INK	124.88	355 ePKP	08	43.00	-0.8	
	0.5s	23.00nm				
FVM	125.67	307 PKP	08	46.00	-0.4	
YKC	126.51	343 ePKPd	08	46.50	-0.7	
	1.1s	29.00nm				
YKA	126.54	343 ePKP	08	47.40	0.1	
FFC	126.87	330 iPKPd	08	47.00	-1.2	
	1.6s	112.00nm				
OLY	126.94	304 PKP	08	48.00	-0.9	
IMA	127.40	4 PKP	08	53.10	4.1X	
FBA	128.84	1 PKP	08	50.00	-1.6	
SMY	129.61	31 PKP	09	00.00	6.6X	
Z	20s	3.00um			6.0Msz	
TTA	130.29	6 ePKP	08	54.80	0.3	
LNO	130.30	306 PKP	08	54.90	-0.3	
		e	09	04.20		
TOA	131.67	0 ePKP	08	57.20	0.0	
PMR	132.11	2 ePKP	08	56.70	-1.2	
	1.7s	185.20nm				
EDM	133.03	334 iPKPd	09	00.00	0.0	
SES	133.89	330 ePKPd	09	00.20	-1.5	
	1.3s	151.00nm				
		pP	09	11.00		
GLD	136.13	314 PKP	09	10.00	3.5X	
Z	18s	18.12um			6.8Msz	
GOL	136.25	314 PKP	09	10.00	3.2X	
Z	18s	12.69um			6.7Msz	
LRM	137.51	326 ePKP	09	01.40	-7.6X	
BW06	137.56	320 PKP	08	59.00	-10.2X	
ALQ	138.91	308 PKP	09	07.00	-4.9X	
Z	19s	3.09um			6.1Msz	
ALQ	138.91	308 ePKP	09	03.00	-8.9X	
Z	19s	7.81um			6.5Msz	
RKT	141.96	196 PKP	09	11.40	-6.0X	
	1.2s	80.00nm				
EUR	143.42	320 iPKP	09	17.00	-2.7X	
	0.3s	17.31nm				
KVN	144.99	321 PKP	09	20.00	-2.4	
TNP	145.03	319 PKP	09	22.40	-0.1	
MNA	145.41	320 ePKPd	09	24.00	0.9	
LBFM	145.59	328 PKP	09	23.80	0.4	
GLA	146.02	310 ePKP	09	25.00	0.9	
MIN	146.15	326 ePKPd	09	24.90	0.7	
GSC	146.33	315 ePKP	09	26.00	1.4	
TPC	146.41	312 ePKP	09	26.00	1.3	
WDC	146.48	327 iPKPd	09	25.00	0.4	
CLC	146.58	316 ePKP	09	26.00	1.1	
ORV	146.65	325 ePKPd	09	25.50	0.7	
CMB	147.02	322 ePKP	09	26.72	1.2	
		pPKP	09	36.81		
FHC	147.06	329 ePKP	09	27.50	2.0	
IKP	147.16	310 ePKP	09	30.40	4.4X	
ISA	147.26	317 ePKP	09	28.00	2.0X	
FRI	147.27	320 iPKPd	09	27.50	1.6	
PEC	147.32	313 PKP	09	27.40	1.3	
SBB	147.36	315 ePKP	09	27.00	0.8	
PLM	147.37	312 ePKP	09	27.00	0.6	
RVR	147.42	313 ePKP	09	26.00	-0.2	
BAR	147.57	311 ePKP	09	28.00	1.4	
MWC	147.77	314 ePKP	09	28.00	0.9	
CPE	147.78	311 ePKP	09	31.90	5.1X	
PAS	147.89	314 ePKP	09	30.59	3.6X	
ARN	148.16	322 PKP	09	29.40	2.0	
BKS	148.22	323 ePKPd	09	29.20	1.8	
	0.9s	276.00nm				
		ePPS	37	56.00		
MHC	148.23	322 ePKPd	09	29.60	2.0	
BRK	148.23	323 ePKPd	09	29.10	1.7	
LLA	148.27	320 ePKPd	09	29.70	2.1	
PRI	148.40	319 ePKPd	09	30.50	2.6X	
SAO	148.49	321 ePKP	09	31.00	3.1X	
		ePP	13	04.00		
		e	14	32.00		
		eSKKS	20	06.00		
		eLR	09	00.00		
TVO	148.51	173 PKP	09	34.60	6.1X	
	0.1s	305.00nm				
PAE	148.59	173 PKP	09	34.60	6.1X	
	1.4s	220.00nm				
BCH	148.60	317 PKP	09	30.70	2.4X	
GCC	148.65	322. ePKP	09	29.70	1.6	
PPT	148.68	173 PKP+	09	35.10	6.4X	
	1.4s	420.00nm				
Z	22s	9.00um			6.5Msz	
AFR	148.68	172 PKP	09	34.80	6.1X	
	1.4s	200.00nm				
PRS	148.72	320 ePKPd	09	30.00	1.7	
PPN	148.73	173 PKP	09	35.10	6.4X	
	1.4s	335.00nm				
SYP	148.92	316 ePKP	09	31.00	2.2X	
VAH	151.17	176 PKP	09	34.80	2.4X	
	1.4s	60.00nm				
RUV	151.24	176 PKP	09	35.00	2.5X	
	1.4s	75.00nm				
PMO	151.39	175 PKP	09	35.50	2.7X	
	1.4s	65.00nm				
TPT	151.43	176 PKP	09	35.60	2.8X	
	1.4s	95.00nm				
HON	165.94	56 PKP	10	00.00	10.6X	
Z	21s	10.22um				
PFH	169.33	56 PKP	09	53.00	1.2	
	S.D. = 0.9	on 448 of 504 obs.				

MAR 10, 1989 22h 26m 54.32± 0.68s
40.879 N ± 8.9km 22.009 E ± 6.0km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 2.7 (SKO).

VAY	0.61	44 iPg	27	06.00	-0.6
		iSg	27	15.00	
OHR	0.94	285 iPg	27	12.20	-0.2
		iSg	27	27.30	
SKO	1.17	339 iPn	27	16.50	0.3
		iSn	27	35.00	
LSK	1.30	236 ePn	27	17.30	-1.1
MMB	1.48	61 eP	27	20.00	-1.0
TIR	1.68	287 ePn	27	27.50	3.6X
SRN	1.83	238 ePn	27	27.20	1.2
VTS	1.93	27 eP	27	28.00	0.3
RZN	2.19	68 eP	27	32.00	0.5
PGB	2.32	43 eP	27	37.00	3.8X
KDZ	2.68	72 eP	27	39.00	0.7
	S.D. = 0.9	on 9 of 11 obs.			

MAR 10, 1989 23h 35m 58.94± 0.41s
42.888 N ± 4.1km 0.455 W ± 5.5km
DEPTH = 10.0km (geophysicist)
PYRENEES (378)
ML 3.4 (LDG). Felt (IV) in the Joco area, Spain. Felt (II) at Arthez d'Asson, Fronce.

EPF	0.60	76 Pg	36	10.50	-0.6
		Sg	36	19.60	
ECRI	1.54	260 ePn	36	27.80	1.3
		eSn	36	45.00	
LPO	2.15	33 Pn	36	36.20	0.9
		Pg	36	41.00	
		Sg	37	09.40	
EROO	2.16	162 ePn	36	36.80	1.3
		eSn	37	02.00	
EBR	2.18	161 ePn	36	35.00	-0.8
		eSg	37	05.00	
LFF	2.23	22 Pn	36	36.90	0.5
		Pg	36	41.80	
		Sg	37	10.20	
ETOR	2.39	211 ePn	36	38.00	-0.8
		eSn	37	03.80	
ETER	2.51	102 ePn	36	45.30	4.8X
		eSn	37	16.40	
CAF	2.73	41 Pn	36	43.80	0.1
		Pg	36	52.60	
		Sn	37	14.80	
		Sg	37	26.30	
RJF	2.80	30 Pg	36	52.90	8.3X
		Sg	37	29.40	
GUD	3.56	232 ePn	36	54.70	-0.8
		eSn	37	32.00	
LSF	3.65	22 Pn	36	55.00	-1.6
		Sn	37	37.80	
		Sg	37	55.10	
MFF	3.72	3 Pn	36	57.60	0.0
		Sn	37	40.40	
		Sg	37	59.40	
TCF	3.90	28 Pn	37	00.60	0.5
MAF	3.97	32 Pn	37	01.60	0.4
		Sg	38	07.00	
BGF	4.36	32 Pn	37	07.10	0.4
		Sn	37	56.00	
		Sg	38	17.20	

10d 23h

AVF	4.75	33	Pn	37	12.00	-0.2
SMF	4.84	38	Pn	37	13.50	-0.1
SSF	5.03	33	Pn	37	15.60	-0.6
LPF	5.16	356	Pn	37	18.80	0.8
			Sn	38	14.20	
LBF	5.16	36	Pn	37	18.10	0.0
LOR	5.34	33	Pn	37	19.00	-1.6
GRR	5.51	357	Pn	37	23.10	0.1
			Sn	38	22.70	
LDF	5.71	2	Pn	37	25.70	-0.1
			Sn	38	28.00	
LPG	5.80	61	Pn	37	29.20	1.8
FLN	5.88	360	Pn	37	27.60	-0.5
			Sn	38	30.00	
DOU	8.01	24	P	37	57.70	-0.3
0.3s		2.50nm			4.9mb X	
S.D. = 0.9 on 25 of 27 obs.						

% MAR 11, 1989 00h 15m 47.76± 0.79s
36.524 N ± 9.7km 139.308 E ± 8.7km
DEPTH = 33.0km (normal)
HONSHU, JAPAN (227)
Felt (III JMA) at Nikko.

CHJJ	0.54	208	P	15	58.10	-0.8
			S	16	06.20	
NIIJ	0.76	341	iPd	15	58.50	-3.4X
			S	16	06.90	
KAKJ	0.77	114	iPd	16	01.60	-0.5
			S	16	12.40	
MAT	0.89	271	iPd	16	02.50	-1.4
			iS	16	13.50	
MTMJ	1.21	273	P	16	08.80	0.2
			S	16	24.60	
IIDJ	1.54	228	P	16	15.10	1.9
			S	16	36.10	
YAMJ	1.75	19	iP+	16	15.70	-0.5
			eS	16	36.90	
OFUJ	3.16	36	P	16	37.30	1.0
S.D. = 1.4 on 7 of 8 obs.						

& MAR 11, 1989 00h 49m 11.84s
60.503 N 152.732 W
DEPTH = 115.3km
SOUTHERN ALASKA (2)
<AGS-P>.

RDT	0.18	66	iP	49	27.77	1.2
			eS	49	40.44	
ILIM	0.44	195	iP	49	28.59	-0.6
			iS	49	41.90	
SPU	0.76	26	eP	49	31.04	-0.5
NKA	0.77	71	eP	49	32.74	1.2
CRP	0.82	20	eP	49	31.85	-0.4
NNL	0.85	122	iP	49	32.63	0.3
CGLM	0.88	23	eP	49	31.93	-0.8
PDB	1.02	226	iP	49	33.13	-0.9
CNPM	1.24	142	eP	49	35.34	-1.0
			eS	49	54.11	
SLKM	1.24	89	iP	49	35.41	-1.0
			iS	49	53.59	
PMS	1.72	63	eP	49	41.71	-0.4
			eS	50	04.00	
PTE	1.86	77	eP	49	42.90	-0.8
GHO	2.24	54	eP	49	46.80	-2.0
KNK	2.28	65	eP	49	48.96	-0.2
KNIM	2.48	91	eP	49	48.53	-3.3
SML	2.50	57	eP	49	49.42	-2.7
KLU	3.46	70	eP	50	07.40	2.4
17 obs. associated						

MAR 11, 1989 01h 15m 21.05± 0.66s
42.915 N ± 7.4km 0.408 W ± 9.3km
DEPTH = 10.0km (geophysicist)
PYRENEES (378)
ML 3.1 (LDG). Felt at Jaca, Spain.

EPF	0.56	78	Pg	15	32.30	-0.2
			Sg	15	40.80	
ECRI	1.58	260	ePn	15	49.80	0.6
			eSn	16	07.20	
LPO	2.11	33	Pn	15	57.60	0.7
			Pg	16	03.30	
			Sg	16	31.10	
EROO	2.18	163	ePn	15	58.70	0.9
			eSn	16	23.30	
LFF	2.19	22	Pn	15	58.00	0.1
			Pg	16	03.60	
			Sg	16	31.90	
EBR	2.20	162	eP	16	03.00	4.9X
ETOR	2.43	211	ePn	16	00.30	-1.2
			eSn	16	25.50	
ETER	2.49	103	ePn	16	07.40	5.2X
			eSn	16	38.40	
CAF	2.69	41	Pn	16	03.20	-2.0
			Pg	16	12.40	
			Sn	16	38.20	
			Sg	16	48.80	
RJF	2.76	29	Pg	16	13.60	7.4X
			Sg	16	50.60	
LSF	3.61	22	Pn	16	16.50	-1.7
			Sn	16	57.70	
			Sg	17	16.00	
TCF	3.86	28	Pn	16	22.50	0.8
MAF	3.93	32	Pn	16	24.00	1.3
			Sg	17	28.70	
BGF	4.32	31	Pn	16	28.70	0.5
			Sg	17	40.40	
AVF	4.71	33	Pn	16	33.40	-0.4
SMF	4.80	38	Pn	16	35.70	0.6
S.D. = 1.1 on 13 of 16 obs.						

MAR 11, 1989 01h 20m 44.89± 0.39s
44.923 N ± 3.6km 11.973 E ± 4.5km
DEPTH = 18.8 ± 5.2 km
NORTHERN ITALY (545)
ML 2.6 (KBA).

SFI	1.01	185	P	21	03.50	0.0
			eSn	21	19.20	
RSM	1.05	161	Pc	21	04.30	0.0
			eSn	21	20.50	
PGD	1.06	190	P	21	04.30	-0.3
			eSn	21	19.20	
CTI	1.15	349	P	21	05.10	-0.8
			eSn	21	23.40	
MME	1.17	232	Pc	21	06.50	0.1
			eSn	21	22.30	
SAL	1.23	304	P	21	07.50	0.4
			eSn	21	25.80	
CRE	1.29	181	P	21	09.00	0.9
			eSn	21	26.90	
BDI	1.31	229	P	21	08.10	-0.2
			eSn	21	27.90	
TRI	1.49	57	P	21	10.30	-0.4
			eSn	21	31.70	
ARV	1.59	154	Pc	21	13.70	1.5
			eSn	21	34.40	
PII	1.59	221	Pc	21	11.50	-0.7
VOY	1.75	50	ePn	21	14.60	0.0
			eSn	21	41.50	
FVI	1.76	18	P	21	16.40	1.7
			eSn	21	39.80	
BOB	1.80	266	P	21	15.50	0.1
			eSn	21	38.20	
MDI	1.81	299	P	21	15.80	0.4
			eSn	21	39.10	
RBL	1.89	36	P	21	18.50	1.9
			eSn	21	41.60	
ASS	1.92	165	P	21	16.80	-0.2
LJU	2.12	57	eP	21	18.40	-1.5
			e	21	21.60	
			eSn	21	53.50	
KBA	2.36	23	e(Pg)	21	29.00	5.6X
			iSg	22	02.10	
VAI	2.45	294	P	21	25.20	0.7
ORO	2.91	285	P	21	31.20	0.1
			eSn	22	02.70	
ZAG	2.96	71	e(P)	21	40.80	9.0X
KHC	4.35	14	eP	22	11.30	19.7X
S.D. = 0.9 on 20 of 23 obs.						

? MAR 11, 1989 01h 40m 46.84± 3.36s
13.106 S ±12.7km 34.791 E ±33.2km
DEPTH = 10.0km (geophysicist)
MALAWI (577)
MG 3.5 (LSZ).

PTZ	3.54	251	iPn	41	43.60	0.5
			iSn	42	25.00	
IKZ	3.59	324	iPn	41	44.00	0.1
			iPb	42	04.50	
			iSn	42	37.50	
			iSg	42	51.50	
LSZ	6.76	251	iPn	42	27.00	-1.7
			iSn	43	37.00	
			iSg	44	11.00	
KMZ	8.73	267	iPn	42	56.80	0.6
			iSn	44	27.40	
			iSg	45	13.50	
BUL	9.16	219	iPn	43	03.90	1.6
			iSn	44	27.00	
			iSg	45	18.30	
SWZ	16.57	211	e(P)	44	40.00	-1.1
			S	47	21.40	
S.D. = 1.5 on 6 of 6 obs.						

% MAR 11, 1989 02h 11m 03.42± 0.79s
40.754 N ± 9.3km 15.359 E ± 8.6km
DEPTH = 10.0km (geophysicist)
SOUTHERN ITALY (390)

BSS	0.42	275	P	11	11.90	-0.1
			eSg	11	19.80	
MGR	0.63	166	P	11	15.10	-1.0
DUI	1.13	323	P	11	25.10	0.4
TDS	1.33	145	P	11	29.40	1.5
BRT	1.41	84	P	11	28.40	-0.7
			eSn	11	45.20	
SDI	1.50	310	P	11	30.40	-0.1
S.D. = 1.2 on 6 of 6 obs.						

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* MAR 11, 1989 02h 16m 16.45± 1.24s
24.811 N ± 9.5km 141.154 E ±11.7km
DEPTH = 219.8 ± 11.7 km
4.1mb (4 obs.)
VOLCANO ISLANDS REGION (213)
Felt (I JMA) at Chichi-shimo.

CBI	2.45	22	iP	17	01.00	-0.4
			iS	17	32.40	
NJ2	20.87	295	Pc	20	44.00	1.6
CN2	22.89	330	eP	21	02.20	0.3
TIA	23.55	304	eP	21	08.60	0.3
TIY	27.60	305	eP	21	45.80	0.4
GTA	37.58	303	P	23	11.80	0.3
WB5	44.91	189	eP	24	10.90	-0.1
			i	25	49.20	
WRA	44.98	189	Pd	24	11.30	-0.3
0.4s		8.10nm			4.5mb	
WARB	52.60	196	eP	24	58.50	-11.3X
BWA	59.31	173	eP	25	57.70	0.3
CAN	60.26	173	eP	26	03.40	-0.4
GBA	60.74	272	Pc	26	00.50	-6.9X
MBC	68.33	15	eP	26	54.00	-1.3
YKA	74.59	28	eP	27	33.10	0.6
PNT	77.28	41	eP	27	50.00	2.1
KJF	77.47	336	eP	27	44.00	-4.6X
SUF	78.85	335	eP	27	55.00	-1.1
0.5s		2.50nm			4.2mb	
NUR	80.68	333	iP	28	05.60	-0.2
SES	81.79	38	ePc	28	12.20	0.3
LRM	83.17	43	eP	28	20.80	1.4
FFC	84.17	31	eP	28	24.00	0.2
1.0s		130.00nm			5.7mb X	
HFS	85.14	337	eP	28	26.50	-2.1
0.4s		0.80nm			3.8mb	
NAO	85.66	338	P	28	29.40	-1.8
0.8s		1.90nm			4.0mb	
S.D. = 1.2 on 20 of 23 obs.						

& MAR 11, 1989 04h 00m 45.80s
59.574 N 152.959 W
DEPTH = 94.0km
SOUTHERN ALASKA (2)
<AGS-P>. Felt (II) at Homer.

ILIM	0.51	360	iP	01	00.58	-0.7
			eS	01	12.42	
PDB	0.66	289	iP	01	01.71	-0.8
			iS	01	14.02	
CNPM	0.88	92	iP	01	03.99	-0.8
			iS	01	18.41	
NNL	0.96	60	iP	01	05.72	0.1
			iS	01	20.83	
RDT	1.04	15	iP	01	05.73	-0.9
			iS	01	21.53	
NKA	1.45	36	iP	01	12.55	1.0
SLKM	1.66	55	eP	01	12.83	-1.4
SPU	1.67	15	iP	01	13.62	-0.8

CRP	1.74	13	iP	01	14.75	-0.7
CGLM	1.80	15	iP	01	15.41	-0.7
KDC	1.85	172	iPd	01	14.30	-2.3
SEW	1.85	72	eP	01	14.87	-1.8
			eS	01	37.50	
SVW	2.03	320	iPd	01	17.80	-1.3
PTE	2.35	55	iP	01	21.97	-1.4
PMS	2.38	44	iPd	01	22.50	-1.3
PWA	2.58	35	iPd	01	25.10	-1.3
PWL	2.64	59	Pn	01	25.56	-1.8
MTU	2.72	79	iP	01	26.65	-1.7
KNIM	2.74	71	iP	01	26.08	-2.6
PLRM	2.77	41	eP	01	26.99	-2.0
PMR	2.77	41	iPd	01	27.00	-2.0
PME	2.83	42	eP	01	27.97	-1.9
KNK	2.89	48	eP	01	28.73	-2.0
			iS	02	01.67	
GHO	2.97	40	eP	01	29.77	-2.1
SML	3.19	43	iP	01	32.76	-2.1
GLI	3.21	63	eP	01	31.83	-3.2
HIN	3.35	73	iP	01	34.48	-2.5
MID	3.38	90	iPc	01	35.30	-2.1
FID	3.45	67	iP	01	35.05	-3.3
VZW	3.52	62	iP	01	36.74	-2.6
VLZ	3.64	62	eP	01	38.75	-2.3
TTA	3.68	338	iPd	01	39.70	-1.9
CVA	3.74	72	eP	01	39.55	-2.8
			iS	02	20.23	
KLU	3.97	58	iP	01	43.21	-2.5
SGAM	4.00	73	iP	01	43.01	-2.9
TOA	4.18	50	iPd	01	46.40	-2.1
RAGM	4.24	75	eP	01	46.46	-2.9
GLB	4.89	64	iP	01	55.81	-2.6
FBA	5.86	22	iPc	02	09.00	-2.8
SDN	5.88	227	eP	02	08.70	-3.2
CTGM	5.95	71	eP	02	11.06	-2.1
IMA	6.53	357	eP	02	18.70	-2.3
YKU	6.72	84	eP	02	22.60	-1.0
HYT	7.80	74	P	02	36.30	-2.2
DWY	7.82	49	P	02	36.00	-2.6
SIT	9.61	98	eP	02	59.10	-3.9
YKA	18.61	65	eP	04	55.60	-2.6
FRB	37.53	47	eP	07	50.00	-1.6

48 obs. associoted

MAR 11, 1989 04h 02m 26.89± 0.59s
5.240 S ± 3.4km 152.535 E ± 3.3km
DEPTH = 47.6 ± 5.2 km
5.5mb (24 obs.) 4.5Msz (1 obs.)
NEW BRITAIN REGION (192)
CENTROID, MOMENT TENSOR (HRV)
Dota Used: GDSN
L.P.B.: 16S, 29C
Centroid Location:
Origin Time 04:02:29.7 0.4
Lat 5.47S 0.04 Lan 152.45E 0.04
Dep 38.0 4.3 Half-durotion 2.1
Moment Tensor; Scale 10**17 Nm
Mrr= 0.37 0.05 Mtt=-1.95 0.08
Mff= 1.58 0.08 Mrt= 0.01 0.11
Mrf= 0.17 0.11 Mtf= 0.48 0.05
Principal Axes:
T Val= 1.67 Plg= 8 Azm=278
N 0.34 82 100
P -2.01 0 8
Best Double Couple:Mo=1.8*10**17
NP1:Strike= 53 Dip=84 Slip= 5
NP2: 322 85 174

RAB	1.10	341	iPd	02	47.50	1.3
BGA	2.78	109	eP	03	11.00	0.9
			eS	03	43.00	
PAA	3.12	110	eP	03	14.00	-0.9
			eS	03	49.00	
LAT	5.68	255	eP	03	51.50	0.5
PMG	6.76	232	eP	04	06.50	0.5
	0.8s	552.24nm			6.3mb	
			eS	05	24.00	
VSG	8.16	120	eP	04	26.00	0.4
HNR	8.45	120	eP	04	28.00	-1.6
			eS	06	12.00	
MNDI	8.88	264	e(P)	04	40.00	4.3X
JAY	12.11	282	ePd	05	19.70	0.2
CTA	15.97	202	iPd-	06	10.80	0.7
	2.0s	505.88nm			5.3mb	
Z	21s	1.29um				
			e	06	20.00	
			i	06	45.00	
			i(PP)	06	55.00	
			e(sP)	08	35.00	
			eS	09	09.00	
			eSS	09	39.00	
			ePcP	10	25.00	
			eScP	13	08.00	
QIS	19.74	218	iPd	06	55.40	-0.4
	0.9s	107.00nm			5.1mb	
			eS	10	34.90	
PVC	19.81	130	iPc	06	56.50	0.1
GUA	20.13	338	eP	07	03.30	3.4X
GUMO	20.19	338	eP	07	04.00	3.5X
	1.2s	300.00nm			5.5mb	
RMO	21.44	189	iPd	07	12.10	-1.0
			e	07	18.00	
DZM	21.48	142	iPc	07	13.00	-0.6
MTN	22.43	249	eP	07	23.00	-0.1
			e	11	26.00	
WB5	22.90	229	eP	07	28.00	0.3
			eS	11	35.30	
WRA	22.96	229	Pc	07	28.10	-0.1
	1.1s	129.50nm			5.3mb	
COO	25.21	181	eP	07	50.20	0.3
	1.1s	45.00nm			4.9mb	
KNA	25.57	244	iPd	07	53.80	0.5
ASPA	25.65	223	iPc	07	54.20	0.1
			eS	12	32.10	
CMS	26.86	193	iPc	08	04.00	-1.1
	1.1s	80.00nm			5.2mb	
STK	28.42	200	eP	08	18.00	-1.2
BWA	29.29	187	eP	08	28.50	1.4
DAV	29.56	294	eP	08	30.80	1.1
CAN	30.11	186	iPc	08	33.50	-0.9
ADE	32.23	202	eP	08	52.10	-0.9
	1.0s	28.00nm			5.1mb	
WARB	32.35	227	eP	08	42.00	-12.1X
			i	08	47.80	
PCI	32.93	276	ePd	08	59.50	0.3
	1.0s	10.00nm			4.6mb	
FORR	34.30	219	eP	09	10.50	-0.5
	0.4s	28.00nm			5.5mb	
MBL	35.44	240	eP	09	20.00	-0.8
TAU	37.80	186	eP	09	41.00	0.7
BAG	38.23	305	ePc+	09	44.00	-0.5
	1.9s	400.00nm			6.0mb	
KRP	38.70	150	P	09	49.20	1.3
MEKA	38.78	233	iPd	09	49.30	0.4
COOL	38.99	225	eP	09	50.50	-0.1
NANU	39.67	241	iPd	09	56.10	-0.2
MSZ	41.52	163	eP	10	12.00	0.8
KLB	41.81	227	eP	10	13.00	-0.7
MRWA	41.97	231	eP	10	15.00	-0.1
BAL	42.09	229	eP	10	15.50	-0.5
MUN	43.14	227	eP	10	24.50	-0.1
QZH	44.61	314	eP	10	36.00	-0.5
SSE	46.92	322	P	10	54.00	-0.8
Z	20s		0.50um		4.5Msz	
N	10s		0.40um			
E	10s		0.20um			
			sP	11	10.00	
			sS	14	28.00	
QIZ	48.47	301	Pd	11	07.80	0.7
			eS	18	02.50	
NJ2	49.02	321	Pc	11	11.80	0.7
N	21s		1.50um			
E	19s		2.00um			
			ScP	16	28.40	
			S	18	12.00	
KGM	49.69	277	eP	11	15.50	-1.1
WHN	50.99	317	Pc	11	26.00	-0.2
IPM	52.36	280	ePd	11	25.70	-11.2X
	1.0s	69.30nm				
TIA	52.91	324	eP	11	39.50	-1.1
GYA	54.45	308	P	11	52.00	-0.2
CN2	54.59	336	Pd	11	55.50	2.7
			pP	12	07.50	42kmX
BJI	56.11	327	eP	12	02.50	-1.3
TIY	56.71	322	iPd	12	07.60	-0.7
N	16s		1.10um			
E	17s		1.30um			
XAN	56.76	317	Pc	12	07.10	-1.6
KMI	57.01	304	Pc+	12	10.50	-0.4
			sP	12	25.50	
KHT	57.04	291	eP	12	11.70	0.8
CHG	57.94	296	iPc	12	18.60	1.4
	1.0s	77.50nm			5.8mb	
			eS	20	32.00	
CD2	58.82	311	P	12	22.40	-0.8
HHC	59.25	325	P	12	25.20	-0.9
BTO	59.99	324	eP	12	30.00	-1.1
N	20s		0.80um			
E	20s		1.00um			
			sP	12	45.50	
LZH	61.36	316	eP	12	40.00	-0.6
	1.5s	154.00nm			5.9mb	
ADK	62.67	21	eP	12	47.30	-1.5
	1.3s	226.40nm			6.1mb	
GTA	65.80	317	iPc	13	09.50	-0.2
LSA	68.27	305	P	13	26.00	0.1
SDN	71.71	26	eP	13	43.90	-1.8
GUN	72.12	301	Pd	13	49.30	0.1
PKI	72.43	301	Pd	13	50.70	-0.4
KKN	72.60	301	Pd	13	51.80	-0.1
DMN	72.70	301	Pd	13	52.60	0.1
GKN	73.20	301	Pd	13	55.10	-0.3
WMQ	75.88	318	P	14	10.00	-0.4
KOD	76.32	282	eP	14	12.50	-1.1
HYB	76.39	289	eP	14	12.00	-1.6
	1.4s	125.00nm			5.7mb	
KDC	76.71	27	eP	14	13.70	-0.8
GBA	76.83	285	Pc	14	13.90	-2.1
	0.6s	6.40nm			4.8mb	
TTA	78.27	21	eP	14	23.10	-0.1
NDI	79.72	300	iPd	14	31.40	-0.3
	0.9s	100.84nm			5.8mb	
PMR	80.19	24	P	14	33.00	-0.5
	1.0s	90.00nm			5.7mb	
PMR	80.19	24	eP	14	43.25	9.8X
	1.2s	93.80nm			5.6mb	
IMA	80.96	19	ePd	14	37.60	-0.1
	1.3s	129.70nm			5.7mb	
TOA	81.67	25	eP	14	41.60	0.2
FBA	82.39	22	eP	14	43.40	-1.6
KSH	83.00	311	P	14	51.50	2.7
			eS	25	11.00	
BRW	83.25	15	eP	14	49.40	0.1
SPA	84.80	180	e(P)	14	57.90	0.5
	0.9s	11.82nm			5.0mb	
INK	88.96	21	eP	15	17.00	-0.4
	0.5s	16.00nm			5.6mb	
CMB	90.89	52	P	15	47.00	19.9X
PNT	92.53	41	eP	15	34.00	-0.3
KVN	92.77	51	P	15	36.50	0.6
			pP	15	55.00	66kmX
EUR	94.45	51	iP	15	43.80	0.1
	0.5s	2.93nm			5.0mb	
MBC	94.60	14	eP	15	44.00	0.7
MAIO	95.52	306	eP	15	48.00	-0.5
YKA	95.94	28	eP	15	50.90	1.2
YKC	96.00	28	ePc	15	50.50	0.5
EDM	96.63	37	eP	15	53.00	-0.1
	0.8s	22.00nm			5.7mb	
SES	98.11	40	ePc	15	58.50	-1.3
			pP	16	16.00	61kmX
BW06	99.34	48	P	16	06.00	0.2
FRB	114.53	19	ePKP	21	02.00	-1.0
BBTK	116.02	312	ePKP	21	06.50	-0.3
HFS	116.99	338	ePKP	21	05.30	-2.5
	0.4s	0.60nm				
NAO	117.52	340	PKP	21	08.10	-0.8
	0.7s	1.30nm				
SPC	120.54	326	ePKP	21	15.60	0.4
BRG	122.92	330	ePKP	21	20.00	0.6
			i	21	36.80	
			eSg	49	49.6A	
CLL	123.10	331	iPKP	21	20.40	0.6
			i	21	38.30	
PRU	123.16	329	ePKP	21	20.00	0.1
			e	21	37.00	
SKO	123.27	318	ePKP	21	20.00	-0.4
OHR	124.08	317	ePKP	21	22.50	0.4
KHC	124.18	329	iPKPd	21	22.50	0.5
			e	21	40.80	
WIT	124.92	335	e(PKP)	21	40.00	16.8X
WTS	125.46	335	e(PKP)	21	25.00	0.7
			e	21	40.00	
ENN	126.73	334	ePKP	21	27.50	0.7
	1.0s	10.00nm				
			e	21	41.50	
MEM	126.81	334	PKP	21	27.70	0.7
			e	21	45.20	
WLF	127.43	333	PKP	21	29.70	1.5
			e	21	45.00	

11d 04h

SNF	127.63	335	ePKP	21	47.10	18.6X
DOU	127.80	334	ePKP	21	44.40	15.5X
BSF	128.44	331	ePKP	21	30.50	0.1
HAU	128.53	331	ePKP	21	30.70	0.3
	0.5s	2.90nm				
LPG	130.07	329	ePKP	21	34.50	0.7
LOR	130.23	332	ePKP	21	34.40	0.7
	0.7s	2.60nm				
LBF	130.38	332	ePKP	21	34.70	0.7
SSF	130.54	332	ePKP	21	35.30	1.1
SMF	130.69	332	ePKP	21	35.40	0.9
SBF	130.80	327	ePKP	21	35.30	0.4
CVF	130.83	325	ePKP	21	35.60	0.6
BGF	131.22	332	ePKP	21	36.40	0.9
	0.6s	3.60nm				
GRR	131.39	337	ePKP	21	35.50	-0.3
FRF	131.43	327	ePKP	21	36.50	0.5
MAF	131.60	332	ePKP	21	37.30	1.0
LMR	131.66	327	ePKP	21	37.20	0.8
LRG	131.65	327	ePKP	21	37.50	1.1
TCF	131.71	333	ePKP	21	37.40	0.9
	0.6s	2.70nm				
LPF	131.75	336	ePKP	21	36.90	0.4
LSF	132.05	333	ePKP	21	37.80	0.7
LPO	133.39	332	ePKP	21	41.10	1.4
BNG	134.15	271	ePKPd	21	40.80	-1.3
	0.5s	6.00nm				
			ic	21	58.10	
CNCB	134.35	120	ePKP	21	41.00	-2.0
			i	22	03.00	
LPB	134.37	119	ePKP	21	44.00	1.1
			e	21	52.00	
ZOBO	134.45	119	PKPc	21	44.10	0.8
CCH	135.68	121	PKPc	21	44.10	-1.1
IFR	145.03	326	iPKP	22	01.50	0.1
TCE	145.63	79	ePKP	22	01.92	-0.8
SVB	145.75	74	ePKP	22	01.24	-1.6
SVV	145.77	74	ePKP	22	02.48	-0.4
SSV	145.79	74	ePKP	22	02.84	-0.2
SLB	145.85	73	ePKP	22	04.25	1.2
TPP	145.97	79	ePKP	22	04.53	1.3
TRN	145.98	79	ePKP	22	03.27	0.0
VAO	146.07	147	ePKP	22	05.60	2.3
			e	22	21.60	
AVE	146.42	329	iPKP	22	07.00	3.5X
ITA	147.79	149	ePKP	22	15.80	9.4X
BMA	147.80	150	ePKP	22	14.50	8.4X
SHGH	152.70	273	ePKP	22	24.00	10.4X
LEGH	152.84	272	ePKP	22	24.50	10.7X
KOGH	152.90	273	ePKP	22	24.00	10.0X
KUK	153.02	273	ePKP	22	25.00	10.9X
ATB	153.86	108	e(PKP)	22	24.20	9.0X
KIC	157.37	274	PKP	22	35.84	15.9X
TIC	157.63	275	PKP	22	36.30	16.1X
LIC	157.65	274	PKP	22	36.40	16.2X
SOB1	160.37	137	ePKP	22	32.70	9.5X
S.D. = 0.9 on 140 of 162 obs.						

% MAR 11, 1989 04h 14m 55.34± 1.11s
36.732 N ±11.9km 139.381 E ±10.2km
DEPTH = 33.0km (normal)
HONSHU, JAPAN (227)
Felt (III JMA) ot Nikko.

NIIJ	0.59	329	iPd	15	07.40	0.2
			S	15	15.80	
KAKJ	0.83	129	iPd	15	10.40	-0.1
			S	15	22.60	
MAT	0.96	259	iPd	15	11.30	-1.2
			iS	15	22.30	
MTMJ	1.28	264	iPd	15	17.70	0.6
			S	15	33.40	
IIDJ	1.73	224	P	15	24.10	0.6
			S	15	44.90	
S.D. = 1.1 on 5 of 5 obs.						

MAR 11, 1989 05h 05m 00.63± 0.11s
17.766 S ± 4.5km 174.761 W ± 3.2km
DEPTH = 230.1km (geophysicist)
6.4mb (46 obs.)
TONGA ISLANDS (173)
mb 6.7 (BRK). Depth from
broadband displacement
seismograms.
FAULT PLANE SOLUTION: P-Waves
NP1:Strike= 24 Dip=82 Slip= 90
NP2: 204 8 90

Principal Axes:
T Plg=53 Azm=294
P 37 114
Comment: The focal mechanism is poorly controlled and corresponds to reverse faulting. The preferred fault plane is NP2.
RADIATED ENERGY
No. of sto: 8 Focal mech. C
Energy 1.5±0.4*10**14 Nm
MOMENT TENSOR SOLUTION
Dep 233 No. of sto: 12
Moment Tensor; Scale 10**19 Nm
Mrr= 1.34 Mtt= 0.76
Mff=-2.10 Mrt= 0.78
Mrf= 1.50 Mtf= 0.41
Principal axes:
T Val= 2.38 Plg=55 Azm=326
N 0.29 27 189
P -2.67 20 88
Best Double Couple:Mo=2.5*10**19
NP1:Strike=140 Dip=35 Slip= 36
NP2: 19 70 119
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 13S, 34C M.W.: 16S, 38C
Centroid Locotion:
Origin Time 05:05:10.6 0.1
Lot 17.78S 0.02 Lon 174.77W 0.01
Dep 244.0 0.6 Half-duration 10.0
Moment Tensor; Scale 10**19 Nm
Mrr= 0.71 0.02 Mtt= 0.19 0.03
Mff=-0.90 0.03 Mrt= 1.20 0.02
Mrf= 1.95 0.02 Mtf= 0.71 0.02
Principal Axes:
T Val= 2.77 Plg=47 Azm=315
N -0.56 22 199
P -2.21 34 93
Best Double Couple:Mo=2.5*10**19
NP1:Strike=128 Dip=23 Slip= 18
NP2: 22 83 112

AFI	4.79	37	ePn	06	10.23	-3.6X
API	4.87	37	P	06	06.00	-8.8X
VUN	6.46	267	ePd	06	38.00	3.1X
SVA	6.46	266	eP	06	37.30	2.4
			eS	07	41.00	
SGE	6.98	270	ePd	06	44.90	3.3X
RAO	11.79	194	eP	07	40.90	-2.2
			eS	09	47.00	
RAR	14.54	106	P	08	16.00	-1.3
			S	11	05.00	
PVC	16.13	268	iPc	08	37.50	1.0
			iS	11	51.50	
DZM	18.18	253	iPc	08	57.00	-1.9
			iS	12	08.50	
			ScP	16	36.90	
HBZ	20.68	196	P	09	25.20	1.3
			eS	13	07.00	
AUC	21.14	204	P	09	32.00	3.6X
KRP	21.81	201	P	09	35.00	0.1
	0.4s	570.00nm			6.5mb	
			S	13	30.00	
AFR	23.81	93	iP	09	53.20	-1.0
PAE	23.98	94	iP	09	55.00	-0.9
PPT	24.00	93	iP	09	55.20	-0.8
PPN	24.13	93	iP	09	56.20	-1.1
TVO	24.29	94	iP	09	58.10	-0.7
WEL	25.11	199	P	10	03.50	-2.5
			(PcP)	13	36.00	
			S	14	16.00	
			ScP	16	53.00	
			ScS	20	40.00	
PMO	25.91	88	iP	10	12.70	-0.9
	1.2s	2885.00nm			6.8mb	
HNR	25.91	285	eP	10	12.00	-1.6
			eS	14	24.00	
VAH	26.13	88	iP	10	14.00	-1.5
	1.2s	1895.00nm			6.6mb	
TPT	26.18	88	iP	10	15.00	-1.0
	1.2s	3065.00nm			6.8mb	
VSG	26.20	285	eP	10	16.00	-0.2
RUV	26.37	88	iP	10	16.50	-1.2
	1.2s	2615.00nm			6.8mb	
MSZ	30.51	205	eP	10	52.00	-2.2
			S	15	39.00	

PAA	31.19	288	eP	11	02.00	1.4
COO	32.86	241	iPc	11	13.90	-1.0
			iPcP	13	58.00	
RIV	34.41	236	eP	11	28.00	0.0
			eS	16	32.00	
			e	18	00.00	
			e	19	20.00	
RMQ	34.80	249	iPd	11	29.30	-2.1
	0.9s	516.00nm			6.1mb	
CNB	36.29	234	iPd	11	43.10	-0.9
			e	20	16.00	
CAN	36.58	234	eP	11	44.70	-1.6
BWA	36.75	236	eP	11	44.00	-3.8X
CTA	36.89	260	iPd+	11	47.00	-2.1
Z	21s	19.35um			5.9Msz	
			e	12	16.00	
			i	12	30.00	
			ipP	12	39.00	248kmX
			e	13	42.00	
			e	13	48.00	
			e(PP)	14	05.00	
			iS	16	40.00	
			i	16	57.00	
			i	17	06.00	
			iScP	17	33.00	
			e(sS)	18	40.00	
			iScS	21	41.00	
CTAO	36.89	260	ePc	11	48.07	-1.0
			epPc	12	37.73	236kmX
			esPd	13	04.21	
RKT	37.58	105	iP	11	54.60	-0.2
	0.8s	615.00nm			6.2mb	
PMG	37.88	278	iPc+	11	57.00	-0.3
CMS	38.13	241	iPd	11	57.90	-1.4
LAT	38.89	282	eP	12	06.00	0.3
TOO	39.98	232	iPc	12	13.60	-0.8
			e	13	05.00	
TAU	40.71	224	Pc	12	20.30	0.0
			eS	18	04.00	
			e	19	40.00	
STK	41.75	242	iPd	12	28.00	-1.0
MNDI	42.18	281	eP	12	34.00	1.1
ADE	44.65	238	iPd	12	50.20	-2.1
	0.8s	529.85nm			6.0mb	
WB5	48.05	259	eP	13	16.10	-2.9
			eS	19	54.40	
WRA	48.07	259	Pd	13	16.00	-3.1X
	0.8s	265.70nm			5.7mb	
ASPA	48.17	254	iPd	13	17.90	-2.0
	0.8s	5976.00nm			7.0mb	
			ipP	14	14.80	267kmX
			iS	19	56.00	
			i	20	09.80	
GUA	50.51	305	eP	13	37.50	-0.2
	1.3s	4800.00nm			6.8mb	
GUMO	50.57	305	eP	13	37.10	-1.1
	1.2s	3066.67nm			6.6mb	
			pP	14	31.80	252kmX
PJG	50.57	305	eP	13	37.20	-1.0
MTN	52.28	267	eP	13	48.00	-2.9X
			e	20	54.00	
FORR	53.17	244	eP	13	55.00	-2.3
KNA	53.94	263	eP	14	00.00	-3.1X
			e	21	13.00	
WARB	54.60	250	iPd	13	53.10	-14.8X
			eS	21	55.00	
DRV	56.94	200	eP	14	24.50	0.7
AAI	57.54	277	eP	14	28.50	-0.3
COOL	59.15	244	eP	14	27.00	-12.7X
SBA	60.80	184	ePd	14	51.80	1.6
MBL	61.38	255	eP	14	52.20	-2.7
MEKA	61.80	249	iPd	14	55.10	-2.5
	0.6s	163.00nm			5.9mb	
KLB	61.99	243	eP	14	56.50	-2.3
NWAO	62.34	242	iPc	15	00.45	-0.6
			epPc	15	53.42	231kmX
			esPd	16	19.24	
			iS	23	11.00	
RKG	62.45	240	iPc	15	01.20	-0.6
	0.5s	191.00nm			6.1mb	
BAL	62.98	244	eP	15	03.00	-2.3
MUN	63.28	243	eP	15	05.00	-2.3
	0.7s	500.00nm			6.4mb	
			iS	23	19.00	
MRWA	63.74	246	iPd	15	09.80	-0.5
	0.3s	13.00nm			5.2mb X	
DAV	63.87	287	ePc+	15	10.00	-1.2

1.0s 1888.00nm 6.8mb
NANU 65.09 253 iPd 15 17.70 -1.3
KAKJ 68.53 322 P 15 39.70 -0.5
ADK 69.37 359 eP 15 43.70 -1.3
IIDJ 69.40 320 P 15 45.30 -0.3
OFUJ 69.70 325 eP 15 45.50 -1.8
TSM 69.72 282 iPd 15 49.90 2.0
1.0s 2082.50nm 6.8mb
MAJO 69.92 321 ePc 15 47.13 -1.6
esPd 17 06.75
MAT 69.92 321 iPc 15 47.70 -1.1
1.2s 953.13nm 6.4mb
eS 24 38.00
NIIJ 69.92 322 P 15 48.80 0.1
YAMJ 69.97 323 P 15 49.20 0.2
WKYJ 70.03 318 P 15 49.20 -0.3
MTMJ 70.19 321 P 15 50.70 0.2
TSRJ 70.62 319 P 15 52.50 -0.5
SMY 70.86 353 eP 15 53.30 -0.7
TKSJ 70.88 317 P 15 54.50 -0.1
QCP 70.98 293 eP 15 54.00 -1.5
KUSJ 71.09 330 P 15 54.00 -1.6
HOOJ 71.25 328 iP+ 15 57.30 0.8
KAGJ 71.35 313 P 15 57.50 0.1
AOMJ 71.45 325 eP 15 58.50 0.7
YONJ 72.00 317 P 16 01.00 -0.2
KKM 72.09 283 ePc 16 02.00 -0.2
0.8s 1021.20nm 6.6mb
e 16 18.00
SHK 72.11 316 ePc 16 02.00 0.2
BAG 72.16 294 ePc+ 16 01.00 -1.7
1.1s 987.34nm 6.5mb
e 17 22.00
eS 25 09.50
KUMJ 72.17 314 eP 16 01.20 -1.0
SPA 72.35 180 iPd 16 03.00 0.1
1.0s 231.00nm 5.9mb
Z 20s 6.22um 5.9Msz
i 16 59.90
MRRJ 72.41 327 P 16 03.60 0.3
SAP 72.73 328 iP 16 05.40 0.2
iS 25 15.00
ASAJ 72.85 329 eP 16 05.50 -0.4
SHNJ 72.91 315 eP 16 04.90 -1.5
PIP 72.95 296 iPd 16 07.50 0.5
1.5s 3298.00nm 6.8mb
BLP 73.32 44 P 16 09.20 0.4
SYP 73.58 45 eP 16 10.00 -0.6
e 17 07.00
e 25 21.00
SCI 73.67 47 eP 16 11.60 0.7
PRS 73.74 42 eP 16 11.10 -0.2
GCC 73.76 42 eP 16 10.90 -0.5
PCC 73.81 41 eP 16 11.80 0.2
SDN 73.82 8 eP 16 09.40 -1.8
BCH 73.90 44 P 16 11.70 -0.6
SAO 73.95 42 eP 16 11.70 -0.8
CIS 74.01 46 eP 16 13.30 0.4
PHAM 74.07 43 P 16 13.00 -0.2
PRI 74.08 43 eP 16 13.30 -0.1
eS 25 32.10
NWRM 74.09 40 P 16 12.80 -0.4
BRK 74.12 41 eP 16 12.30 -1.1
BKS 74.14 41 iPd 16 13.40 -0.1
0.8s 1188.00nm 6.7mb
e 17 05.00
epP 17 06.50 224kmX
e 22 11.00
eS 25 12.00
eScS 25 30.00
iS 25 32.00
esSP 27 39.00
eSS 29 40.00
e 29 48.00
eSS 30 10.00
e 30 20.00
eSSS 33 20.00
eLQ 35 26.00
e 39 06.00
e 39 12.00
MHC 74.18 41 eP 16 13.70 -0.2
epP 17 10.00 239kmX
eS 25 33.00
e 26 16.00
esSP 27 41.00
eSS 30 21.00
eSSS 33 38.00

eLQ 35 43.00
LLA 74.19 42 eP 16 13.60 -0.3
ARN 74.25 42 P 16 14.20 0.0
ABL 74.28 45 P 16 14.60 -0.1
pP 17 11.90 244kmX
PKEM 74.40 43 P 16 15.40 0.4
PAS 74.59 46 ePd 16 15.77 -0.4
epPd 17 07.75 219kmX
esPd 17 30.76
ePP 19 01.80
MWC 74.71 46 eP 16 16.00 -1.1
e 17 13.00
BAR 74.82 48 eP 16 16.00 -1.6
e 25 38.00
FHC 74.93 38 eP 16 18.00 0.0
YSS 74.97 331 P 16 19.00 1.0
RVR 75.05 46 eP 16 17.00 -1.8
e 17 06.00
PLM 75.06 47 eP 16 18.00 -1.1
e 17 13.00
e 25 41.00
SBB 75.13 46 eP 16 18.00 -1.3
e 17 16.00
e 25 38.00
PEC 75.14 47 P 16 18.40 -1.0
IKP 75.20 48 eP 16 20.70 0.9
FRI 75.21 43 eP 16 18.80 -0.8
eS 25 41.70
ISA 75.25 44 eP 16 18.00 -2.0
e 17 15.00
e 25 43.00
ANP 75.29 303 iP+ 16 20.00 -0.5
eS 25 40.00
CMB 75.39 42 ePd 16 20.39 -0.3
epPd 17 13.20 222kmX
esPd 17 38.19
ORV 75.62 40 ePd 16 21.20 -0.7
WDC 75.63 38 ePd 16 21.40 -0.5
epP 17 17.50 237kmX
LTCM 75.65 39 P 16 22.20 0.2
CLC 75.92 45 eP 16 23.00 -0.7
e 25 49.00
TPC 76.03 47 eP 16 23.00 -1.4
e 17 19.00
e 25 48.00
MIN 76.04 39 eP 16 23.40 -1.0
GSC 76.17 46 eP 16 24.00 -1.2
e 25 54.00
GLA 76.33 48 eP 16 26.00 -0.1
e 25 51.00
LBFM 76.50 38 P 16 26.40 -0.6
MNA 77.04 42 ePd 16 30.20 0.2
KVN 77.44 42 P 16 30.60 -1.6
TNP 77.45 43 P 16 31.50 -0.8
KDC 77.47 12 eP 16 30.50 -1.2
QZH 77.54 301 iPc 16 32.00 -0.8
iS 26 06.00
ScS 26 28.50
MZX 78.18 61 iPc 16 37.00 0.7
SSE 78.36 308 P+ 16 36.00 -1.1
Z 20s 6.50um 6.0Msz
N 13s 2.90um
E 14s 2.50um
epP 17 30.00 225kmX
isP 17 57.00
PP 18 48.00
iS 26 14.00
SKS 26 16.00
iScS 26 34.00
sS 27 42.00
BMW 79.02 33 P 16 40.00 -0.5
EUR 79.04 42 iP 16 40.00 -1.0
0.5s 38.30nm 5.4mb
SHW 79.36 34 P 16 43.40 1.0
VGB 79.73 35 P 16 44.00 -0.3
GMW 79.95 33 P 16 45.00 -0.3
LON 79.94 34 P 16 44.00 -1.4
HKC 80.10 297 iPc 16 48.20 1.6
S 26 37.00
MDJ 80.11 323 iPc 16 47.00 0.8
7.0s 6.90nm 3.5mb X
Z 30s 17.80um 6.2MszX
E 14s 5.30um
ePP 19 50.00
S 26 36.00
PGC 80.33 32 eP 16 48.00 0.8
1.0s 136.00nm 5.6mb

MID 80.34 14 eP 16 45.70 -1.4
i 16 47.90
RMW 80.40 33 P 16 47.00 -0.8
MCO 80.55 297 eP 16 50.60 1.6
NJ2 80.56 308 iPc 16 49.00 0.2
9.0s 12.00nm 3.6mb X
PP 19 54.00
iS 26 42.00
MCW 80.66 32 P 16 49.20 0.2
MSU 81.02 45 P 16 51.60 0.2
GZH 81.11 298 P 16 52.80 0.9
Z 40s 20.20um 6.2MszX
iS 26 47.00
ACX 81.36 69 iP 16 55.00 1.7
DUG 81.47 43 P 16 52.80 -0.8
SIT 81.48 21 eP 16 52.20 -0.9
i 16 54.00
PMR 81.69 12 eP 16 52.50 -1.6
1.2s 820.30nm 6.3mb
i 16 54.90
TTA 81.77 9 eP 16 53.80 -0.8
DL2 81.91 315 iPc 16 56.00 0.3
Z 28s 10.40um 6.0MszX
N 18s 8.10um
E 15s 3.70um
PP 19 58.00
iS 26 54.00
CN2 82.07 321 iPc 16 56.00 -0.4
7.5s 13.00nm 3.7mb X
pP 17 39.00 174kmX
sP 17 59.00
PP 20 05.00
S 26 53.00
sS 28 09.00
SNY 82.15 318 iPc 16 57.00 0.1
PP 20 03.00
iS 26 54.00
sS 28 11.00
III 82.26 68 iPd 16 59.00 0.8
AIA 82.26 157 eP 16 58.00 0.9
CRX 82.45 67 iPd 17 01.00 1.7
DPW 82.57 35 P 16 57.80 -1.2
QIZ 82.59 293 iPc 17 00.00 0.4
PP 20 11.00
S 27 00.00
SS 32 33.00
DAU 82.60 44 P 16 59.50 -0.2
PNT 82.70 33 ePc 16 58.00 -1.6
TOA 82.77 13 eP 16 59.10 -0.6
KGM 82.92 274 ePd 17 02.70 1.3
1.0s 864.80nm 6.4mb
IIC 82.95 67 iPd 17 02.50 0.6
HPI 83.16 40 P 17 02.50 0.1
ALQ 83.31 50 ePc 17 03.80 0.6
0.9s 220.59nm 5.9mb
Z 18s 8.08um 6.1Msz
epP 18 01.20 238kmX
ANMO 83.31 50 ePd 17 03.56 0.3
epPd 17 57.03 220kmX
esPd 18 19.54
WHN 83.35 305 iPc 17 04.00 0.8
iS 27 04.00
IIT 83.52 68 iPc 17 06.00 1.4
TIA 83.75 311 eP 17 05.60 0.5
iS 27 07.00
OXX 84.24 70 iPd 17 10.00 1.8
IISM 84.33 68 iPd 17 10.00 1.7
LRM 84.67 38 eP 17 08.70 -1.2
e 18 06.90
BW06 84.89 42 P 17 09.30 -1.7
COL 84.95 11 ePc 17 08.38 -2.2
esPd 18 26.84
iS 27 17.48
esS 28 53.49
FBA 84.95 11 iPc 17 09.10 -1.4
IMA 85.08 8 ePc 17 10.50 -0.8
1.0s 505.00nm 6.3mb
i 17 12.50
e 18 11.00
MAW 85.15 199 eP 17 12.00 0.4
0.9s 277.00nm 6.1mb
IPM 85.89 276 ePd 17 17.40 1.2
0.8s 489.80nm 6.4mb
e 18 22.00
BJI 86.15 314 ePc 17 17.79 0.9
9.0s 10.50nm 3.7mb X
esPd 18 38.41

11d 05h

ePP 20 32.96
eSKS 27 21.56
GOL 86.22 46 P 17 17.60 -0.1
Z 20s 8.00um 6.1Msz
GLD 86.35 46 P 17 18.30 0.1
Z 20s 10.00um 6.2Msz
PSI 87.30 274 ePc 17 22.80 -0.3
0.7s 193.50nm 6.0mb
TIY 87.78 311 Pc 17 25.40 0.4
PP 20 51.50
SES 87.88 35 ePc 17 23.00 -2.1
1.0s 831.00nm 6.5mb
pP 18 22.00 243kmX
GYA 88.00 298 iPc 17 28.00 1.7
EDM 88.17 32 ePc 17 25.00 -1.4
1.0s 874.00nm 6.6mb
pP 18 24.00 243kmX
HIA 88.30 323 iPc 17 27.28 0.2
esPd 18 47.57
ePP 20 51.06
eSKS 27 34.57
iS 27 56.09
esSKS 28 58.58
esS 29 37.48
XAN 88.96 306 Pc 17 34.50 3.9X
Z 30s 11.90um 6.1MszX
N 13s 3.70um
E 12s 2.80um
PP 21 04.00
LOE 89.27 288 eP 17 33.00 0.7
BRW 89.70 6 eP 17 33.90 0.8
NST 90.18 286 iPc 17 45.00 8.6X
BTO 90.66 313 iPc 17 38.50 0.2
8.0s 7.60nm 3.7mb X
N 18s 4.90um
E 15s 3.90um
PP 21 14.00
SKS 27 48.00
S 28 20.00
INK 90.87 14 eP 17 37.00 -1.5
1.0s 624.00nm 6.5mb
pP 18 40.00 260kmX
KMI 90.88 296 iPc 17 41.87 2.0
Z 20s 4.70um 5.9Msz
esPd 19 03.31
ePP 21 14.91
LNO 91.67 53 Pd 17 42.50 -0.3
BDT 91.69 287 iPc 17 42.60 -0.8
0.6s 310.70nm 6.5mb
CD2 91.93 302 eP 17 45.00 0.7
Z 30s 6.40um 5.9MszX
N 17s 9.10um
iSKS 27 54.80
iS 28 30.20
CHG 92.23 289 ePc+ 17 47.30 1.4
1.0s 262.50nm 6.2mb
eS 28 00.20
CHTO 92.23 289 iPc 17 47.33 1.5
esPd 19 09.44
ePP 21 29.65
YKA 92.78 24 eP 17 47.10 -0.3
YKC 92.82 24 ePd 17 47.00 -0.6
1.0s 225.00nm 6.2mb
MDZ 93.21 126 eP 17 49.50 -0.8
LZH 93.57 307 iPc 17 53.10 1.1
esPd 19 13.88
iPP 21 32.35
ZON 93.87 125 eP 17 55.00 1.6
CFA 94.19 125 ePc 17 55.80 0.9
FFC 94.78 34 ePd 17 55.30 -1.5
1.2s 160.00nm 6.1mb
FVM 96.40 52 P 18 04.30 -0.3
1.1s 182.93nm 6.3mb
pP 19 04.50 247kmX
ARE 97.15 110 eP 18 10.00 1.2
PSO 97.44 91 eP 18 12.00 1.7
UPA 97.63 83 eP- 18 11.70 1.1
1.4s 79.07nm 5.9mb
Z 20s 15.46um 6.5Msz
i 28 25.60
GTA 97.64 309 iPc 18 10.80 0.5
Z 31s 11.50um 6.2MszX
N 18s 7.40um
RSON 98.09 39 P 18 10.80 -1.1
Z 20s 6.78um 6.1Msz
SLA 99.19 120 ePd 18 19.00 1.1
RSCP 99.47 56 P 18 17.70 -0.9

Z 20s 5.65um 6.1Msz
MBC 99.49 12 eP 18 17.00 -0.8
0.9s 86.00nm 6.2mb
pP 19 19.00 255kmX
LPB 100.16 111 Pdiff 18 24.00 1.4
1.0s 40.00nm 5.8mb
SKS 28 40.00
LR 52 10.00
CNCB 100.16 111 Pdiff 18 25.00 2.2
CCH 101.56 113 ePdiff18 33.00 4.3X
BOG 101.57 89 ePdiff18 30.00 1.1
ePP 22 44.00
iS 28 48.00
LSA 102.04 297 Pdiff 18 32.30 1.5
SKS 28 48.00
S 30 00.00
GUN 106.16 295 Pdiff 18 50.20 1.2
0.8s 36.00nm 6.6mb
CBN 106.46 55 e(PKP)22 45.00 -14.6
PKI 106.50 294 Pdiff 18 51.20 0.7
1.0s 38.00nm 6.5mb
KKN 106.66 294 Pdiff 18 52.00 1.0
0.8s 42.00nm 6.7mb
DMN 106.77 294 Pdiff 18 52.90 1.3
GKN 107.26 294 Pdiff 18 54.40 0.8
WMQ 107.45 311 ePdiff18 54.00 0.0
SKS 29 12.00
GAC 108.91 47 ePdiff19 02.50 2.2
KOD 109.87 275 ePdiff19 12.30 6.7X
ALE 110.39 7 ePKP 23 06.00 0.1
1.3s 69.00nm
HYB 110.57 282 ePKP 23 07.00 -1.1
1.2s 71.40nm
GBA 110.74 278 Pdiffd19 11.50 2.4
0.4s 1.60nm
FRB 112.95 28 ePdiff19 18.00 0.2
VAO 114.85 127 ePKP 23 13.80 -2.4
KSH 115.80 306 PKP 23 18.80 1.2
SKKS 31 05.00
ITA 116.93 127 ePKP 23 25.20 4.7X
GDH 117.35 20 ePKP 23 22.00 2.6
i 24 33.00
i 32 02.00
i 40 26.00
ATB 119.63 104 e(PKP)23 24.30 -1.1
DAG 119.71 6 iPKPd 23 22.90 -0.9
1.0s 43.00nm
i 24 24.40
i 33 38.00
STJ 124.43 44 ePKP 23 32.00 -1.6
AVY 124.57 231 ePKP 23 36.00 1.0
KEV 126.32 351 ePKP 23 26.00 -10.7X
1.0s 252.00nm
i 23 37.00
i 24 41.00
ePP 25 28.00
eSKP 26 36.00
eSS 42 32.00
e 43 52.00
SOB1 127.14 117 ePKP 23 25.50 -14.4X
e 23 38.50
e 24 40.20
TRO 127.46 354 iPKP 23 38.10 -0.7
SUR 127.96 197 iPKPd 23 41.50 0.3
0.8s 13.43nm
SOD 128.53 350 ePKP 23 31.00 -10.0X
i 23 41.20
MAIO 128.93 303 iPdiff20 32.00 2.4
BLF 129.20 204 iPKPc 23 44.50 0.9
1.0s 110.00nm
i 24 49.00
SEK 129.32 206 ePKP 23 32.00 -11.9X
0.8s 67.16nm
ITR 129.46 118 ePKP 23 25.50 -18.8X
e 23 42.50
KHI 129.84 300 ePKP 23 31.70 -13.0X
PRY 130.61 206 iPKPc 23 46.00 -0.4
0.6s 33.93nm
KJF 131.15 347 ePKP 23 30.00 -16.0X
1.2s 167.70nm
i 23 44.20
e 24 50.00
ePP 26 00.00
eSKP 26 52.00
e 28 12.00
ePPP 28 32.00
eSS 43 56.00

e 45 40.00
SWZ 131.26 204 ePKP 23 35.00 -12.6X
0.5s 91.55nm
i 23 46.50
SUF 132.79 347 ePKP 23 35.00 -14.2X
NSS 133.05 356 ePKP 23 37.30 -12.3X
NUR 135.09 347 ePKP 23 38.00 -15.6X
1.0s 402.00nm
Z 24s 7.30um 6.3MszX
i 23 54.00
ePP 26 28.00
eSKP 27 04.00
ePKS 27 40.00
ePPP 28 48.00
eSS 44 08.00
MOL 135.21 358 iPKP 23 44.00 -9.8X
BUL 135.89 212 ePKP 23 57.20 0.6
iPP 25 00.40
iPcP 27 05.00
iS 28 33.50
IR2 135.92 303 ePKP 23 44.80 -11.4X
IR4 136.00 303 ePKP 23 44.40 -12.0X
IR7 136.14 303 ePKP 23 45.50 -11.1X
IR5 136.26 303 ePKP 23 46.50 -10.4X
NAO 136.81 356 PKP 23 45.40 -11.5X
1.1s 99.10nm
NRA0 136.85 355 PKP 23 43.50 -13.4X
UPP 137.01 351 iPKP 23 45.80 -11.4X
i 26 38.10
i 27 18.80
HFS 137.25 354 ePKP 23 44.00 -13.7X
0.8s 41.50nm
TAB 138.86 308 iPKP+ 23 45.00 -16.6X
e 24 05.00
KER 139.24 302 ePKP 23 58.00 -4.4X
RYD 140.94 287 iPKPd 23 59.40 -6.2X
COP 141.76 353 iPKPd+24 02.40 -3.6X
0.9s 275.63nm
i 27 11.00
i 45 25.00
EKA 141.96 8 PKPc 24 00.30 -6.1X
1.2s 181.60nm
ESK 141.97 8 ePKPd 24 02.50 -3.9X
1.0s 140.00nm
DMU 142.73 12 ePKP 24 03.20 -4.5X
0.7s 241.00nm
ARO 143.14 266 iPKP+ 24 11.00 1.3
DCN 143.18 13 ePKP 24 05.10 -3.4X
1.0s 650.00nm
DLE 143.38 12 ePKP 24 06.50 -2.3
1.0s 557.00nm
WAR 143.42 344 ePKP+ 24 01.00 -7.9X
e 25 14.00
e 27 20.00
e 28 36.00
NAI 143.61 242 iPKPc 24 10.00 -0.7
1.0s 210.00nm
QASM 143.63 290 ePKPc 24 08.30 -1.9
VAL 143.77 16 ePKP 24 09.00 -0.5
ETA 144.00 12 ePKP 24 08.20 -1.7
0.8s 636.00nm
YRH 144.16 10 iPKPc 24 08.90 -1.3
0.8s 383.00nm
ECB 144.20 13 iPKPc 24 08.90 -1.4
0.8s 478.00nm
ECP 144.46 12 ePKP 24 09.20 -1.5
0.7s 471.00nm
KVT 144.81 318 iPKP 24 12.00 0.2
WIT 145.01 358 iPKPc 24 11.60 0.0
ipPKP 25 16.00
IAS 145.38 333 ePKPd 24 14.00 1.6
KRA 145.69 343 ePKP 24 12.60 -0.3
1.0s 775.00nm
i 24 13.80
i 24 14.80
i 24 20.40
i 25 11.00
e 28 51.00
DBN 145.74 0 iPKP+ 24 14.00 1.2
ipPKP 25 16.00
isPKP 25 40.00
ePP 27 30.00
epPP 28 35.00
e(P'P'41 26.00
eSS 46 10.00
esSS 47 40.00
eSSS 51 24.00

WTS	145.82	358	iPKPc	24	13.20	0.2	BUD	148.27	342	iPKPd	24	17.00	-0.1	VBY	151.11	345	ePKPc	24	21.70	0.2
	1.1s	1414	.00nm				FLN	148.73	7	ePKP	24	16.90	-0.9				i	24	28.70	
			ipPKP	25	15.20		SOP	148.75	345	ePKPc	24	17.60	-0.3	SMF	151.18	2	ePKP	24	20.90	-0.7
KSP	145.84	347	ePKPc	24	12.50	-0.6	DRA	148.79	333	ePKPd	24	19.00	1.0	ELL	151.18	316	ePKP	24	20.80	-1.3
CLL	145.97	351	iPKP	24	13.40	0.1	GWF	148.81	357	PKP	24	19.37	1.4	BGF	151.22	3	ePKP	24	21.40	-0.2
	Z 20s	4.50um				6.2Msz	GPA	148.82	321	iPKP	24	17.40	-0.9	TRI	151.25	348	e(PKP)	24	20.70	-1.0
			i	24	17.50		HRT	148.86	323	ePKP	24	18.20	-0.1				e	24	27.80	
			pPKP	25	12.00		KMR	148.93	348	iPKP-	24	19.00	0.9				e	25	19.00	
			SKKP	35	28.00					i+	24	22.80					e	28	05.00	
BIR	146.06	332	ePKP	24	14.50	0.9				i	24	30.40					e	36	12.00	
PTT	146.09	334	ePKP	24	14.00	0.3				ipPKP	25	27.40					e	38	02.00	
BRG	146.24	350	iPKP	24	14.10	0.3				i	25	34.60					e	45	08.00	
			ipPKP	25	18.20					iPP	27	25.20					e	48	06.00	
AAE	146.30	259	ePKP	24	17.90	2.6				eSKS	31	08.00					e	54	20.00	
SPC	146.38	342	ePKP	24	13.60	-0.7				iSKSP	37	56.00					e	56	40.00	
			i	24	16.10					iSPP	40	20.80		CTI	151.30	351	PKP	24	22.30	0.4
CFR	146.63	330	ePKPd	24	15.00	0.5	LDF	148.94	7	ePKP	24	17.20	-0.9	EZN	151.42	325	ePKP	24	21.00	-1.1
VRI	146.77	332	ePKPd	24	15.00	0.2	BURJ	148.95	303	PKP	24	18.50	-0.2	LSF	151.43	5	ePKP	24	21.10	-0.9
MOX	146.80	353	iPKPd	24	15.00	0.3	ISK	149.05	324	ePKP	24	18.70	0.2	TCF	151.45	4	ePKP	24	21.60	-0.4
	1.0s	1078	.00nm				QUTJ	149.05	302	PKP	24	19.80	0.8	MMB	151.46	330	ePKP	24	22.00	-0.2
	Z 14s	1.10um				5.8MszX	GRR	149.05	8	ePKP	24	17.80	-0.5	MAF	151.54	4	ePKP	24	21.80	-0.3
			ipPKP	25	18.00		BZS	149.06	337	ePKP	24	18.00	-0.4	AGO	151.74	3	PKP	24	23.57	1.1
			isPKP	25	45.00		SALJ	149.08	303	PKP	24	18.70	-0.3	KSL	151.75	315	ePKP	24	27.40	4.7X
			iPP	27	40.00		TIM	149.10	338	iPKPc	24	09.60	-8.8X	MDI	151.82	353	PKP	24	21.90	-0.6
			isPP	29	50.00		SZH	149.12	330	ePKP	24	21.00	2.4	VAI	151.83	355	PKP	24	22.00	-0.5
			iPPP	30	55.00		MASJ	149.15	303	PKP	24	19.80	0.7	PLE	151.84	338	ePKP	24	22.50	-0.3
			isPPP	32	10.00		MML	149.15	304	iPKPd	24	20.00	1.0	PLDF	151.84	2	PKP	24	23.81	1.1
			eSKPP'	34	52.00		STR	149.19	357	PKP	24	19.62	1.1	IZM	151.85	321	ePKP	24	21.00	-1.9
			iSKSP	37	35.00		FAM	149.20	310	ePKP	24	23.50	4.6X	PRK	151.85	324	ePKP	24	23.60	0.8
			iScSP'	39	05.00		DMK	149.25	326	ePKP	24	19.00	0.2	SAL	151.89	352	PKP	24	22.10	-0.5
			iSS	46	15.00		MKRJ	149.27	302	PKP	24	20.10	0.8	YER	152.01	318	ePKP	24	22.30	-0.9
			iSSS	51	50.00		CTT	149.35	324	ePKP	24	21.00	2.0	PYM	152.03	3	PKP	24	24.32	1.4
			iLQ	05	00.00		LPF	149.38	8	ePKP	24	18.20	-0.6	IVA	152.05	337	ePKP	24	24.00	0.9
CEI	146.99	338	iPKPd	24	16.00	1.0	CDF	149.39	357	PKP	24	20.69	1.7	ORX	152.12	356	PKP	24	24.04	0.9
PRU	146.99	349	PKP	24	15.00	0.0	JMB	149.40	328	iPKPd	24	19.00	0.0	ORO	152.13	356	PKP	24	22.20	-0.9
			i	24	18.30		LFK	149.41	310	ePKP	24	20.50	1.1	SKO	152.18	334	iPKPc	24	22.80	-0.4
UCC	147.04	1	PKP+	24	16.00	1.0	LWI	149.43	232	iPKP+	24	20.00	-0.2		1.5s	170	.00nm			
			e-	24	18.30		PVL	149.45	330	iPKPc	24	19.00	0.0	VAY	152.21	331	iPKP	24	22.00	-1.2
			e	25	18.00		DSI	149.47	302	ePKP	24	20.00	0.6		1.0s	0	.40nm			
			e	27	45.00		VITF	149.62	359	PKP	24	20.05	0.9				i	24	30.00	
			e	46	18.00		SSR	149.65	336	iPKP	24	20.00	0.7	EMON	152.29	20	e(PKP)	24	24.50	1.2
			e	48	08.00		ALT	149.70	320	iPKP	24	18.80	-0.9	LPG	152.32	358	ePKP	24	23.70	0.0
ENN	147.07	359	ePKP	24	14.50	-0.6	CSS	149.71	310	ePKP	24	20.60	0.8	LSD	152.34	357	PKP	24	24.63	1.0
	1.0s	801	.00nm				AYN	149.75	297	ePKPc	24	19.70	-0.2	STS	152.35	22	e(PKP)	24	25.20	1.8
			id	24	18.40		HAU	149.83	359	ePKP	24	18.90	-0.6	RJF	152.37	6	ePKP	24	23.10	-0.3
			ipPKP	25	21.00		FEL	149.88	356	PKP	24	20.21	0.5	BCI	152.41	336	iPKP	24	24.00	0.6
TLB	147.13	329	ePKPd	24	16.50	1.2	MOF	149.95	357	PKP	24	21.05	1.2	BRY	152.51	339	ePKP	24	24.00	0.2
MEM	147.23	359	PKP	24	15.90	0.6	BSF	149.99	358	PKP	24	21.10	1.2	KKS	152.52	335	ePKP	24	24.00	0.4
			id	24	18.70		KCT	149.99	323	iPKP	24	25.80	5.8X	PLG	152.53	329	ePKP	24	23.00	-0.8
			e	25	21.00		KBA	150.01	349	ePKP	24	18.50	-1.5	LBL	152.56	3	PKP	24	25.41	1.9
SNF	147.32	1	PKP	24	16.80	1.3				i	24	19.70		RSP	152.64	357	PKP	24	23.65	-0.2
			i	24	19.20					i	24	25.10		LFF	152.65	7	ePKP	24	23.30	-0.4
			e	25	20.50					i	25	28.60		ARG	152.66	317	ePKP	24	27.00	3.0X
CJR1	147.37	336	ePKP	24	16.30	0.6				i	27	54.70		PUK	152.75	336	ePKP	24	25.60	1.7
MLR	147.41	333	ePKPd	24	16.50	0.5	BNT	150.17	324	iPKP	24	21.80	1.5	BNI	152.77	358	PKP	24	24.90	0.8
ISR	147.42	331	ePKPd	24	17.00	1.1	EDC	150.21	324	iPKP	24	23.50	3.2X	CAF	152.79	5	ePKP	24	23.90	-0.1
ANTO	147.55	318	ePKP	24	16.02	-0.3	DIM	150.23	329	ePKP	24	20.00	-0.3	PHP	152.83	335	ePKP	24	24.50	0.4
			esPKP	25	42.27		DST	150.25	322	ePKP	24	19.90	-0.6	BOB	152.85	353	PKP	24	24.50	0.4
			eSKP	27	48.91		BBS	150.32	357	PKP	24	21.01	0.7	RRL	152.90	358	PKP	24	25.71	1.3
BBTK	147.58	318	iPKP	24	17.00	0.6	BCK	150.33	317	iPKP	24	19.50	-1.2	HCY	152.93	338	ePKP	24	24.50	0.3
PSZ	147.62	341	iPKPd	24	16.80	0.6	SRFA	150.42	298	ePKPc	24	21.70	0.8	SDA	152.93	336	iPKPd	24	24.50	0.3
PSN	147.71	328	iPKPc	24	20.00	3.7X	MBH	150.45	299	iPKPd	24	21.50	0.6	EZAM	152.94	23	e(PKP)	24	26.00	1.7
DOU	147.74	1	PKPc	24	17.20	1.0	HOL	150.45	298	ePKPc	24	20.70	-0.3	HVAR	152.94	342	iPKP	24	24.10	-0.1
			i	24	20.10		PPCY	150.46	311	ePKP	24	26.50	5.7X				i	24	31.90	
			e	25	18.00		LOMF	150.47	358	PKP	24	21.35	0.8	LPO	152.95	6	ePKP	24	23.90	-0.3
			e	29	14.00		PGB	150.51	331	iPKPd	24	21.00	0.2	BDV	152.95	337	ePKP	24	25.20	0.9
			e	46	31.00		KHL	150.51	319	iPKP	24	19.80	-1.2	OHR	153.16	333	iPKP	24	24.00	-0.7
KHC	147.99	350	iPKP	24	16.00	-0.7	LOR	150.56	2	ePKP	24	20.40	-0.2		1.2s	1	.06nm			
			i	24	21.20		FVI	150.58	349	PKPd	24	20.30	-0.3				i	24	33.10	
ZST	148.14	345	ePKP	24	16.40	-0.5	RBL	150.58	348	PKP	24	19.60	-1.2				i	24	46.20	
			i	24	21.80		KDZ	150.59	328	iPKP	24	21.00	0.1	RSM	153.22	348	PKP	24	25.70	1.2
			i	25	22.30		ZAG	150.63	345	ePKP	24	20.20	-0.5	GEN	153.25	354	PKP	24	23.87	-0.7
			i	26	36.40		BADA	150.69	297	ePKPc	24	21.00	-0.3	MME	153.25	351	PKP	24	25.80	0.9
WLF	148.17	359	PKPc	24	16.60	-0.2	SSF	150.75	2	ePKP	24	20.90	0.0	ERUA	153.28	21	e(PKP)	24	25.00	0.3
			i	24	21.90		LJU	150.76	347	ePKPc	24	20.50	-0.5	DOI	153.29	357	PKP	24	22.70	-2.1
			e	25	21.40					i	24	28.00		PZZ	153.30	357	PKP	24	24.76	-0.1
BUC	148.17	331	ePKP	24	19.00	2.0				i	25	31.00		CKI	153.30	355	PKP	24	24.80	0.1
SRO	148.17	343	ePKP	24	17.80	0.9				e	46	56.00		SFI	153.33	349	PKP	24	25.80	1.1
			i	24	22.60		LBF	150.84	2	ePKP	24	20.80	-0.3	AOI	153.34	346	ePKP	24	25.68	0.9
			i	25	23.70		RDO	150.90	327	ePKP	24	21.80	0.5	TIR	153.35	335	ePKP	24	25.70	0.9
BUC1	148.26	331	ePKPc	24	18.00	0.8	MFF	150.90	8	ePKP	24	20.60	-0.5	KZN	153.38	331	ePKP	24	24.60	-0.4
VKA	148.26	346	iPKPc	24	16.80	-0.3	RZN	150.91	329	ePKPc	24	21.00	-0.6	AKSR	153.39	287	iPKPd	24	26.00	0.6
	7.0s	*******	nm				VTS	150.91	332	iPKPc	24	20.00	-1.5	BDI	153.40	351	PKP	24	23.90	-1.0
			i	24	22.00		VOY	150.91	348	iPKPc	24	21.10	-0.2	PGD	153.40	349	PKP	24	25.40	0.4
			i	24	24.40		AVF	151.01	3	ePKP	24	20.60	-0.7	NEO	153.45	328	ePKP	24	24.60	-0.5
			i	25	25.40		CEY	151.08	347	ePKPc	24	20.80	-0.7	ROB	153.46	356	PKP	24	25.10	0.1
			i	27	48.00					i	24	28.80		FIN	153.52	355	PKP	24	24.78	-0.2

11d 05h

ARV	153.53	347	PKP	24	25.30	0.3	
STV	153.54	357	PKP	24	24.72	-0.4	
KBN	153.56	333	iPKPd	24	25.70	0.6	
FIR	153.58	350	ePKP	24	25.00	0.0	
AKUR	153.58	288	iPKPd	24	27.50	1.9	
AGRW	153.58	287	iPKPd	24	26.00	0.4	
CRE	153.60	349	PKP	24	25.50	0.3	
SSO	153.63	346	ePKP	24	26.68	1.5	
KAP	153.68	317	ePKP	24	26.10	0.6	
CIO	153.78	347	ePKP	24	26.07	0.6	
TOUF	153.78	357	PKP	24	25.50	-0.1	
AGMR	153.84	287	ePKP	24	26.00	0.0	
IMI	153.84	356	PKP	24	25.61	0.1	
PTO	153.84	24	ePKP	24	18.30	-7.2X	
			e	24	47.80		
BERA	153.86	334	ePKP	24	25.70	0.2	
SBF	153.92	356	ePKP	24	25.10	-0.5	
ASS	154.00	348	PKP	24	25.20	-0.5	
LSK	154.04	332	iPKPd	24	26.30	0.4	
CALN	154.06	357	PKP	24	26.00	0.1	
ALP	154.08	346	ePKP	24	26.19	0.2	
ATH	154.17	325	iPKPc	24	26.80	0.8	
VLO	154.24	334	ePKP	24	25.40	-0.6	
FRF	154.26	358	ePKP	24	25.50	-0.5	
ECRI	154.37	13	e(PKP)	24	27.00	0.7	
LRG	154.37	358	ePKP	24	26.10	0.0	
EPF	154.47	8	ePKP	24	26.40	0.0	
LMR	154.49	358	ePKP	24	26.00	-0.3	
SRN	154.52	333	iPKPd	24	28.60	2.2	
MNS	154.65	347	PKP	24	26.00	-0.6	
BRT	154.77	338	PKP	24	27.60	0.9	
AZI	154.86	346	PKP	24	27.20	0.4	
NPS	154.87	318	ePKP	24	27.50	0.4	
DUI	154.91	344	PKP	24	27.80	0.8	
MAO	154.92	350	PKP	24	28.00	1.1	
LCI	154.97	337	PKP	24	27.80	0.8	
SDI	155.03	345	PKP	24	27.00	-0.1	
CVF	155.09	354	PKP	24	27.50	0.3	
RMP	155.20	347	PKP	24	28.00	0.7	
RDP	155.24	347	PKP	24	28.10	0.7	
ETER	155.46	4	e(PKP)	24	29.00	1.4	
BSS	155.62	342	PKP	24	26.50	-1.4	
VLS	155.63	330	ePKP	24	28.90	0.9	
LIS	155.64	28	iPKPc	24	30.50	2.5	
VAM	155.66	320	ePKP	24	29.50	1.4	
EPLA	155.71	21	e(PKP)	24	29.70	1.6	
ITM	155.72	326	ePKP	24	27.90	-0.3	
GUD	155.80	18	e(PKP)	24	29.70	1.3	
MGR	155.99	340	PKP	24	28.10	-0.3	
TDS	156.15	338	PKP	24	28.50	-0.2	
ETOR	156.18	14	e(PKP)	24	29.70	0.9	
TOL	156.54	18	ePKP	24	31.24	2.0	
EROO	156.65	9	e(PKP)	24	29.00	-0.3	
EBR	156.66	9	ePKP	24	30.00	0.7	
			e	28	40.00		
CTFE	157.57	58	iPKP	24	33.60	2.8	
			i	25	39.00		
ECHE	157.60	13	e(PKP)	24	31.70	1.2	
EVAL	157.63	26	e(PKP)	24	32.30	1.7	
ESEL	157.98	5	e(PKP)	24	32.50	1.6	
EHOR	158.01	23	e(PKP)	24	32.00	1.0	
EVIA	158.13	16	e(PKP)	24	32.50	1.2	
EBAN	158.19	19	e(PKP)	24	32.20	1.0	
ACU	158.75	12	e(PKP)	24	33.00	1.1	
LIJA	158.75	24	ePKP	24	34.00	2.0	
EPRU	158.76	24	e(PKP)	24	34.00	2.1	
AAPN	158.86	21	iPKPc	24	33.60	1.5	
			i	25	11.50		
MEU	158.93	338	PKP	24	35.60	3.4X	
ASMO	158.94	20	iPKPc	24	33.00	0.8	
			i	25	11.00		
CNIL	158.95	26	ePKP	24	31.00	-1.1	
ALOJ	159.05	21	iPKPc	24	33.50	1.1	
			i	25	11.50		
AFC	159.10	20	e(PKP)	24	32.20	-0.3	
EJIF	159.12	25	e(PKP)	24	34.70	2.4	
ACHM	159.14	21	iPKP	24	34.00	1.6	
			i	25	12.10		
CRT	159.14	20	iPKPd	24	34.50	2.1	
			i	25	12.50		
EALH	159.15	15	e(PKP)	24	34.00	1.7	
ATEJ	159.25	21	iPKPc	24	33.50	0.9	
			i	25	12.20		
MAL	159.28	22	iPKP+	24	34.00	1.6	
SRO	159.32	25	ePKP	24	37.50	5.0X	
APHE	159.33	21	iPKPc	24	34.00	1.3	
			i	25	12.00		
CFTV	159.34	56	iPKP	24	35.20	2.4	
			i	25	39.30		
OJEN	159.39	25	ePKP	24	37.00	4.3X	
ENIJ	159.77	17	e(PKP)	24	34.00	1.0	
AVE	160.81	34	iPKP	24	36.50	2.4	
			i	25	19.00		
BNG	161.42	226	iPKPc	24	34.00	-1.3	
	1.6s		338.00nm				
			ic	25	22.00		
			id	26	23.50		
			id	29	06.20		
TAF	161.70	20	iPKPd	24	38.00	2.9X	
IFR	161.76	29	iPKP	24	35.50	0.2	
			i	24	38.00		
			i	25	25.00		
LIC	164.77	138	PKP	24	37.90	-0.6	
KIC	165.05	138	PKP	24	38.12	-0.7	
TIC	165.09	137	PKP	24	38.16	-0.7	
LEGH	166.84	156	ePKP	24	41.00	0.8	
			e	25	43.50		
SHGH	167.15	156	ePKP	24	41.50	1.1	
KOGH	167.22	155	ePKP	24	40.00	-0.5	
KUK	167.26	154	ePKP	24	41.50	1.0	
	S.D. = 1.3		on 515 of 573 obs.				

& MAR 11, 1989 05h 10m 08.55s
60.240 N 152.814 W
DEPTH = 117.0km
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM	0.18	204	iP	10	24.40	1.0	
			iS	10	37.14		
RDT	0.39	31	iP	10	25.28	-0.6	
NNL	0.78	104	eP	10	28.79	0.2	
PDB	0.83	237	iP	10	28.05	-0.9	
			iS	10	43.12		
NKA	0.93	56	eP	10	30.88	1.0	
SPU	1.02	21	iP	10	30.11	-0.7	
CNPM	1.07	131	eP	10	30.78	-0.6	
CRP	1.08	17	eP	10	30.90	-0.7	
			eS	10	48.37		
CGLM	1.14	20	eP	10	31.64	-0.6	
			eS	10	49.23		
SLKM	1.32	77	eP	10	33.28	-0.8	
PMS	1.89	56	eP	10	39.83	-1.1	
			eS	11	03.25		
PTE	1.97	70	iP	10	40.22	-1.7	
KNK	2.44	59	eP	10	45.66	-2.3	
GHO	2.44	49	eP	10	46.00	-2.1	
KDC	2.51	176	eP	10	45.86	-3.0	
KNIM	2.53	85	eP	10	46.86	-2.4	
SML	2.69	52	eP	10	49.00	-2.3	
KLU	3.60	67	eP	11	00.74	-2.8	
	18 obs. associated						

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* MAR 11, 1989 06h 53m 33.00± 1.12s
40.680 N ± 8.0km 23.305 E ±11.8km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 2.1 (VAY). MD 2.8 (ATH).

PLG	0.32	161	iPbc	53	39.30	-0.4	
			eSb	53	43.90		
VAY	0.85	319	ePg	53	49.30	0.0	
			eTT	54	01.00		
MMB	0.96	19	iPgc	53	49.00	-2.3	
RZN	1.47	46	iP	53	59.00	-0.6	
RDO	1.75	74	ePn	54	04.70	1.1	
PLD	1.77	36	eP	54	07.00	3.2X	
VTS	1.91	358	eP	54	07.00	1.0	
PGB	1.98	19	iP	54	08.00	1.1	
PVL	2.95	30	eP	54	21.00	0.3	
	S.D. = 1.4		on 8 of 9 obs.				

MAR 11, 1989 07h 12m 16.96± 0.21s
35.839 N ± 3.7km 140.482 E ± 3.2km
DEPTH = 34.6km (2 depth phases)
5.1mb (29 obs.)
NEAR EAST COAST OF HONSHU, JAPAN(228)
Felt (III JMA) at Choshi, Mito, Chibo and Utsunomiyo; (II JMA) ot Yokohama, Tokyo, Onohamo and Kumogayo; (I JMA) ot Maebashi ond Tateyamo.

CHO	0.31	111	iP+	12	25.60	0.6	
			iS	12	31.10		
KAKJ	0.44	326	iPd	12	26.90	0.2	
			S	12	33.50		
MIT	0.54	359	iPd	12	28.30	0.3	
			iS	12	35.70		
TOK	0.61	256	iPd	12	30.40	1.4	
			iS	12	39.00		
YOK	0.78	239	eP	12	34.00	2.4	
			S	12	46.00		
UTS	0.86	325	iPd	12	32.90	0.3	
			iS	12	43.70		
KMG	0.94	289	iPd	12	34.30	0.5	
			eS	12	42.00		
TAT	0.99	211	iPd	12	37.10	2.6	
			iS	12	46.30		
ONA	1.16	17	iPd	12	36.80	-0.1	
			S	12	49.60		
MAE	1.28	296	iPd	12	39.40	0.7	
			iS	12	55.80		
NIIJ	1.84	320	iPd	12	47.50	0.8	
			eS	13	10.90		
MAT	1.97	292	iPd	12	49.70	1.1	
			eS	13	14.00		
IIDJ	2.12	261	iPd	12	53.10	2.2	
			eS	13	29.50		
MTMJ	2.29	290	iPd	12	54.50	1.2	
			S	13	24.40		
YAMJ	2.36	351	iPd	12	54.90	0.8	
OFUJ	3.37	16	P	13	07.50	-1.0	
			eS	13	46.10		
TSRJ	3.67	267	P	13	16.00	3.2X	
WKYJ	4.32	249	P	13	24.50	2.3	
TKSJ	5.60	253	P	13	41.00	0.9	
YONJ	5.76	266	eP	13	44.10	1.7	
MRRJ	6.59	4	eP	13	53.90	-0.1	
HOOJ	6.89	18	P	13	56.90	-1.2	
			eS	15	13.10		
SHNJ	7.88	260	eP	14	17.00	4.9X	
KUSJ	7.95	23	P	14	09.00	-4.0X	
			S	15	34.80		
ASAJ	8.43	11	eP	14	16.30	-3.4X	
KUMJ	8.65	250	eP	14	26.10	3.4X	
KAGJ	9.26	243	P	14	33.20	2.1	
MDJ	12.08	320	eP	15	10.50	1.0	
E	12s		0.70um				
			S	17	20.00		
CN2	14.01	309	eP	15	35.00	-0.1	
SNY	14.46	300	Pc	15	42.90	1.9	
DL2	15.30	287	eP	15	56.00	4.0X	
SSE	16.78	259	P	16	10.00	-0.8	
N	12s		0.50um				
			sP	16	22.00		
			eS	19	22.00		
			esS	19	38.00		
NJ2	18.33	264	eP	16	29.80	-0.4	
TIA	18.89	278	eP	16	35.20	-1.9	
BJI	19.61	290	eP	16	43.00	-2.2	
			eS	20	18.00		
QZH	21.74	246	eP	17	06.00	-1.2	
WHN	22.47	264	eP	17	14.50	0.1	
GUMO	22.50	169	eP	17	19.80	4.9X	
	1.4s		553.85nm			5.8mb	
PJG	22.50	169	eP	17	19.70	4.8X	
TIY	22.51	283	eP	17	14.00	-1.0	
N	15s		0.50um				
HHC	23.17	291	P	17	20.60	-0.8	
BTO	24.34	290	eP	17	30.80	-1.9	
XAN	25.88	275	P	17	45.30	-2.0	
LZH	29.55	281	eP	18	20.00	-0.7	
	1.5s		44.00nm			5.0mb	
GYA	30.29	262	P	18	24.80	-2.6	
CD2	30.94	272	P	18	30.60	-2.4	
GTA	32.22	289	P	18	43.80	-0.4	
KMI	34.05	262	eP	18	58.50	-1.8	
CHG	40.28	256	eP	19	52.30	-0.2	
WMQ	40.72	298	P	19	57.00	1.0	
GUN	46.53	276	P	20	44.00	0.5	
SVW	46.91	37	eP	20	47.00	1.4	
PKI	47.05	276	P	20	47.40	-0.2	
	0.8s		16.00nm			5.1mb	
KKN	47.07	276	P	20	47.80	0.3	
	0.8s		24.00nm			5.2mb	
DMN	47.28	276	P	20	49.20	-0.1	
GKN	47.50	277	P	20	50.40	-0.5	
IMA	48.10	30	eP	20	55.90	0.9	
	1.3s		21.20nm			5.0mb	
PMR	50.03	36	eP	21	09.30	-0.4	

	1.3s	14.20nm		4.8mb		
FBA	50.51	32 eP	21	14.30	0.9	
WB5	55.72	187 eP	21	50.70	-1.7	
WRA	55.78	187 Pc	21	50.80	-2.1	
	0.9s	8.30nm		4.8mb		
INK	55.79	27 eP	21	52.00	-0.5	
		pP	22	03.00	37km	
QIS	56.09	181 eP	21	53.00	-2.1	
HYB	57.42	269 eP	22	03.00	-1.9	
MBC	57.88	16 eP	22	07.00	-0.3	
	1.0s	27.00nm		5.3mb		
ASPA	59.51	187 eP	22	19.20	0.1	
MBL	59.97	202 eP	22	20.50	-1.8	
G8A	60.37	266 Pc	22	22.60	-2.7	
	0.8s	8.90nm		4.9mb		
ALE	61.35	3 eP	22	31.00	-0.1	
	1.0s	24.00nm		5.3mb		
KOD	62.24	262 eP	22	37.70	-0.6	
RMQ	62.48	172 eP	22	38.00	-1.2	
DZM	62.62	153 iPd	22	42.10	1.8	
NANU	62.70	206 eP	22	40.00	-0.7	
WARB	63.06	194 eP	22	31.00	-12.0X	
MAIO	63.49	297 eP	22	48.00	2.0	
YKA	65.22	30 eP	22	56.70	0.0	
SOD	65.77	337 iP	22	59.60	-0.6	
DAG	66.91	355 iPd	23	06.30	-1.0	
	1.0s	17.00nm		5.1mb		
KJF	67.26	334 iP	23	09.10	-0.6	
	0.9s	43.90nm		5.5mb		
		i	23	42.20		
FORR	67.35	192 eP	23	10.00	-0.6	
	0.4s	22.00nm		5.6mb		
SUF	68.71	333 iP	23	18.00	-0.8	
	0.7s	12.90nm		5.1mb		
PNT	69.55	43 eP	23	24.00	-0.2	
BWA	70.29	173 eP	23	28.60	-0.2	
NUR	70.65	332 eP	23	30.00	-0.6	
EDM	70.75	38 ePd	23	31.30	-0.2	
CAN	71.24	173 eP	23	33.20	-1.3	
WDC	72.39	52 eP	23	42.00	0.5	
SES	73.56	39 ePc	23	47.00	-1.2	
HFS	74.86	335 eP	23	55.20	-0.3	
	0.5s	3.20nm		4.6mb		
FFC	75.11	32 eP	23	56.50	-0.5	
	0.8s	13.00nm		5.0mb		
CMB	75.18	54 eP	23	58.40	0.6	
NAO	75.28	337 P	23	57.10	-0.8	
	0.7s	8.70nm		4.9mb		
LRM	75.53	44 eP	24	00.60	0.7	
KVN	76.08	52 P	24	04.00	0.9	
		pP	24	14.00	32km	
EUR	77.18	50 iP	24	10.00	0.7	
	0.6s	5.90nm		4.8mb		
FRB	78.10	13 eP	24	13.00	-0.5	
CLC	78.28	54 eP	24	15.00	-0.1	
SBB	78.78	55 eP	24	19.00	1.1	
BW06	79.03	45 P	24	19.50	0.1	
	0.8s	5.36nm		4.6mb		
KRA	79.66	326 eP	24	22.70	0.5	
		e	24	33.80		
SPC	80.13	325 eP	24	21.90	-3.1X	
SPC	80.13	325 eP	24	25.90	0.9	
PLM	80.21	56 eP	24	27.00	1.2	
KSP	80.72	328 eP	24	28.00	0.1	
		e	27	32.00		
BAR	80.74	56 eP	24	30.00	1.6	
RSSD	81.22	41 P	24	31.00	0.0	
ALT	81.63	312 eP	24	32.30	-0.7	
BRG	81.69	329 eP	24	33.10	0.1	
	1.6s	28.00nm		5.0mb		
CLL	81.75	330 iP	24	32.90	-0.3	
	1.7s	34.00nm		5.1mb		
GLA	81.76	55 eP	24	34.00	0.3	
PRU	82.10	328 eP	24	35.80	0.7	
ZST	82.29	326 eP	24	36.80	0.7	
MOX	82.83	330 eP	24	38.50	-0.4	
DSI	82.94	304 e(P)	24	41.00	1.2	
KHC	83.16	328 P	24	40.50	-0.2	
	1.2s	7.00nm		4.6mb		
GLD	83.48	45 P	24	43.50	0.8	
	1.0s	40.00nm		5.5mb		
MSZ	83.91	161 eP	24	46.00	1.8	
PRNI	83.95	303 eP	24	45.00	0.0	
MBH	84.38	303 iPd	24	48.00	0.9	
SKO	84.59	319 iP	24	48.80	0.8	
OHR	85.54	319 eP	24	53.00	0.2	
ALQ	85.93	49 eP	24	56.00	0.9	

	1.2s	16.80nm		5.1mb		
CDF	86.33	331 eP	24	56.20	-0.5	
	0.8s	6.40nm		4.9mb		
PGD	88.01	326 Pd	25	04.10	-0.9	
LOR	88.59	332 eP	25	07.10	-0.4	
LPG	88.89	329 eP	25	08.90	-0.5	
AVF	89.18	332 eP	25	10.20	-0.1	
	1.0s	8.00nm		5.0mb		
GRR	89.34	335 eP	25	10.70	-0.3	
BGF	89.56	332 eP	25	11.80	-0.3	
LPF	89.71	335 eP	25	12.60	-0.1	
SBF	89.92	328 eP	25	12.60	-1.3	
MAF	89.95	332 eP	25	14.00	0.0	
	1.2s	13.00nm		5.1mb		
TCF	90.03	333 eP	25	14.20	-0.2	
LSF	90.32	333 eP	25	15.30	-0.3	
FRF	90.51	328 eP	25	15.60	-0.9	
MFF	90.62	334 eP	25	17.00	0.0	
LMR	90.75	328 eP	25	17.00	-0.6	
	1.0s	13.60nm		5.2mb		
RJF	91.12	332 eP	25	19.50	0.1	
CAF	91.23	332 eP	25	20.20	0.3	
	1.1s	10.70nm		5.1mb		
LFF	91.72	333 eP	25	22.40	0.3	
LPO	91.77	332 eP	25	22.50	0.1	
ATB	145.54	23 e(PKP)	31	53.80	0.1	
ARE	145.64	64 ePKP	31	54.00	-0.1	
ZOBO	147.93	60 ePKP	32	01.00	2.8	
		LR	34	00.00		
LPB	148.13	60 PKP	32	02.30	4.0X	
		LR	22	50.00		
CNCB	148.40	61 PKP	32	01.00	2.1	
CCH	150.08	59 ePKP	32	08.00	6.9X	
ITR	153.03	358 ePKP	32	11.10	5.9X	
	S.D. = 1.1	on 135 of 148 obs.				

? MAR 11, 1989 07h 15m 22.52± 3.00s
36.130 N ±20.4km 140.312 E ±26.9km
DEPTH = 33.0km (normol)
NEAR EAST COAST OF HONSHU, JAPAN(228)

KAKJ	0.13	304 P	15	27.30	-1.2	
		S	15	33.60		
NIIJ	1.53	317 P	15	48.00	0.2	
		S	16	13.10		
MAT	1.75	284 eP	15	50.00	-1.0	
		eS	16	15.00		
YAMJ	2.05	354 P	15	55.70	0.3	
IIDJ	2.06	252 P	15	56.30	0.8	
	S.D. = 1.3	on 5 of 5 obs.				

• MAR 11, 1989 07h 30m 36.22± 0.65s
4.815 S ±20.0km 103.123 E ±19.9km
DEPTH = 33.0km (normol)
4.9mb (7 obs.)
SOUTHERN SUMATERA (274)

CHG	23.84	350 eP	35	48.40	0.9	
GBA	31.39	306 P	36	57.00	0.5	
WB5	33.90	119 eP	37	18.60	0.1	
WRA	33.90	119 Pc	37	18.10	-0.4	
	0.3s	1.60nm		4.4mb		
ASPA	35.09	125 iPc	37	29.50	0.8	
		i	37	35.60		
GUN	36.54	334 P	37	41.00	-0.2	
	0.4s	18.00nm		5.3mb		
DMN	36.63	333 P	37	41.80	-0.1	
KKN	36.70	333 P	37	41.90	-0.6	
	0.4s	8.00nm		5.0mb		
GKN	37.18	332 P	37	46.10	-0.3	
	0.5s	10.00nm		4.9mb		
CTA	44.60	114 iPc	38	47.00	-0.5	
	0.7s	9.93nm		4.8mb		
KJF	88.00	335 iP	43	23.70	-0.3	
	0.6s	10.40nm		5.3mb		
SUF	88.31	333 iP	43	25.40	-0.1	
	0.4s	2.40nm		4.9mb		
NUR	88.51	331 iP	43	26.60	0.2	
SOD	89.24	338 iP	43	29.80	-0.1	
	S.D. = 0.5	on 14 of 14 obs.				

% MAR 11, 1989 08h 10m 35.70± 3.24s
47.040 N ±17.7km 1.119 W ±35.1km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 3.0 (LDG).

MFF	0.80	123 Pg	10	52.20	1.0	
		Sg	11	04.00		
LPF	0.99	3 Pg	10	54.10	-0.4	
		Sg	11	07.20		
GRR	1.36	7 Pn	10	59.60	-1.1	
		Pg	11	00.30		
		Sg	11	18.50		
LDF	1.69	23 Pg	11	06.50	1.1	
		Sn	11	25.10		
		Sg	11	29.30		
FLN	1.78	14 Pg	11	07.60	1.0	
		Sg	11	31.00		
LSF	1.99	112 Pn	11	10.50	0.8	
		Pg	11	14.40		
		Sg	11	39.80		
TCF	2.41	107 Pn	11	15.50	-0.4	
		Pg	11	22.90		
		Sg	11	53.20		
LFF	2.47	148 Pg	11	21.90	5.3X	
		Sg	11	54.00		
RJF	2.52	133 Pg	11	23.60	6.2X	
		Sg	11	56.50		
MAF	2.67	107 Pg	11	26.80	7.3X	
		Sg	12	01.50		
BGF	2.77	99 Pn	11	19.20	-1.7	
		Pg	11	29.40		
		Sg	12	04.60		
LPO	2.86	145 Pg	11	29.20	7.1X	
		Sg	12	05.80		
CAF	3.07	132 Pn	11	24.80	-0.3	
		Pg	11	33.00		
		Sn	12	00.70		
		Sg	12	14.00		
SSF	3.16	88 Pg	11	36.90	10.5X	
LOR	3.40	84 Pg	11	40.40	10.5X	
LBF	3.49	89 Pg	11	41.30	10.2X	
	S.D. = 1.2	on 9 of 16 obs.				

& MAR 11, 1989 08h 31m 52.10s
47.700 N 69.900 W
DEPTH = 18.0km (geophysicist)
GASPE PENINSULA (448)
<DTT-P>. mbLg 4.4 (OTT). Felt at Lo Malbaie.

CBM	1.43	122 eP	32	17.30	0.1	
MIM	2.53	166 eP	32	32.80	-0.2	
EMM	3.40	150 eP	32	44.00	-1.3	
GAC	4.33	245 eP	32	58.00	-0.5	
RSNY	4.50	227 eP	32	59.70	-1.3	
PTN	4.72	230 eP	33	02.50	-1.6	
TBR	7.25	207 eP	33	38.00	-1.7	
ELF	9.20	245 P	34	02.40	-4.4	
LDN	9.21	244 P	34	02.60	-4.3	
DLA	9.54	244 (P)	34	06.50	-5.1	
CVL	11.56	216 eP	34	40.00	0.9	
BLA	13.03	220 eP	34	59.00	0.1	
RSON	15.83	290 eP	35	29.00	-6.5	
FRB	16.10	2 eP	35	30.00	-8.8	
RSCP	16.80	230 eP	35	46.00	-1.9	
FFC	21.15	301 eP	36	35.00	-3.1	
YKA	28.84	317 eP	37	50.60	-0.4	
	17 obs. ossocioted					

MAR 11, 1989 08h 37m 42.03± 0.72s
38.045 N ± 5.6km 27.517 E ±10.1km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	0.40	330 iPg	37	50.20	-0.1	
YER	1.09	146 iPn	38	01.20	-1.4	
KHL	1.61	79 ePn	38	09.80	-0.8	
DST	1.78	29 iPn	38	15.00	1.9	
ARG	1.89	165 ePb	38	14.60	0.0	
EZN	2.01	333 ePn	38	16.00	-0.3	
KCT	2.30	16 ePn	38	19.00	-1.5	
ELL	2.30	123 ePn	38	20.00	-0.7	
EDC	2.31	7 ePn	38	20.50	-0.3	
BCK	2.50	103 ePn	38	29.00	5.5X	
KAP	2.50	186 ePb	38	23.90	0.5	
KSL	2.54	139 ePb	38	25.90	2.0	
YLV	2.90	29 ePn	38	30.00	0.9	
	S.D. = 1.3	on 12 of 13 obs.				

% MAR 11, 1989 09h 27m 58.13± 0.69s
39.239 N ± 6.2km 27.798 E ± 6.5km
DEPTH = 10.0km (geophysicist)

11d 09h

TURKEY (366)

DST	0.74	60	iPg	28 12.00	-0.7
IZM	0.94	207	ePn	28 16.10	0.0
KCT	1.10	23	iPn	28 18.70	0.0
EDC	1.11	3	iPn	28 18.50	-0.4
EZN	1.28	298	ePn	28 22.00	0.1
KHL	1.63	124	ePn	28 26.00	-1.0
YLV	1.80	42	ePn	28 30.00	0.6
ALT	1.81	95	ePn	28 31.00	1.4

S.D. = 0.9 on 8 of 8 obs.

MAR 11, 1989 10h 57m 34.95± 0.44s
43.483 N ± 5.7km 0.521 W ± 6.9km
DEPTH = 10.0km (geophysicist)
PYRENEES (378)
ML 3.6 (LDG).

EPF	0.77	125	Pg	57 50.40	0.3
			Sg	58 00.70	
ECRI	1.70	240	ePg	58 06.00	1.1
			eSg	58 19.80	
LFF	1.71	31	Pn	58 05.50	0.5
			Pg	58 10.50	
			Sg	58 34.80	
LPO	1.72	45	Pn	58 05.40	0.3
			Pg	58 10.40	
			Sg	58 34.40	
RJF	2.33	38	Pn	58 14.20	0.2
			Pg	58 21.70	
			Sn	58 43.00	
			Sg	58 53.00	
CAF	2.35	51	Pn	58 14.60	0.3
			Pg	58 22.00	
			Sn	58 43.00	
			Sg	58 53.30	
ERQQ	2.75	165	ePn	58 25.00	5.1X
			eSn	58 52.80	
ETER	2.75	114	ePg	58 25.30	5.4X
			eSg	59 00.80	
EBR	2.77	164	ePn	58 25.00	4.9X
			eSg	58 59.00	
ETQR	2.90	204	ePn	58 21.70	-0.3
			eSn	58 46.50	
LSF	3.13	27	Pn	58 25.10	-0.1
			Sn	59 01.90	
			Sg	59 18.30	
MFF	3.13	5	Pg	58 36.90	11.7X
			Sn	59 01.20	
			Sg	59 17.00	
TCF	3.41	34	Pn	58 29.20	-0.1
			Pg	58 41.80	
			Sn	59 08.50	
			Sg	59 28.10	
MAF	3.51	38	Pn	58 30.20	-0.4
			Sn	59 11.20	
			Sg	59 30.70	
BGF	3.89	37	Pn	58 35.60	-0.5
			Pg	58 50.70	
			Sn	59 19.70	
			Sg	59 41.50	
GUD	3.92	225	ePn	58 35.70	-0.9
			eSn	59 11.50	
AVF	4.29	38	Pn	58 42.00	0.2
			Sg	59 54.60	
SMF	4.42	43	Pn	58 42.80	-0.8
			Sg	59 59.80	

S.D. = 0.6 on 14 of 18 obs.

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* MAR 11, 1989 11h 43m 40.47± 1.13s
33.903 N ±22.2km 118.335 W ±11.6km
DEPTH = 5.0km (geophysicist)
SOUTHERN CALIFORNIA (43)
ML 2.7 (PAS). Felt at Inglewood.

PEC	0.98	90	eP	43 59.80	0.3
ABL	1.20	322	eP	44 02.80	-0.6
PLM	1.35	114	eP	44 05.60	-0.3
BLP	1.83	292	eP	44 12.80	0.0
BCH	1.93	312	eP	44 15.00	0.6
GLA	3.05	105	eP	44 39.00	8.7X
TNP	4.27	12	eP	45 01.50	13.7X
KVN	5.14	2	eP	45 14.00	13.9X

S.D. = 0.7 on 5 of 8 obs.

MAR 11, 1989 12h 21m 45.10± 0.27s
37.870 N ± 2.2km 116.015 W ± 2.0km
DEPTH = 5.0km (geophysicist)
SOUTHERN NEVADA (41)
ML 2.8 (NEIS).

QCS	0.13	143	iP	21 48.80	0.9
KRNA	0.32	246	iPc	21 52.10	0.6
WRN	0.36	72	iPc	21 52.70	0.4
BLT	0.40	192	iPd	21 53.30	0.2
HCR	0.49	318	iPc	21 55.00	0.0
GMR	0.57	160	eP	21 56.80	0.3
CTS	0.60	249	iPc	21 57.20	0.0
GLR	0.67	180	eP	21 58.00	-0.5
SRG	0.75	89	eP	21 59.50	-0.6
BMTN	0.76	221	eP	22 00.30	-0.3
BGB	0.85	192	eP	22 01.40	-0.7
PRN	0.90	121	eP	22 02.70	-0.1
SSP	0.96	190	eP	22 03.50	-0.5
TNP	0.97	283	iPc	22 04.30	0.1
LOP	1.02	187	eP	22 05.00	0.0
CDH1	1.04	194	eP	22 05.00	-0.2
DLM	1.05	104	eP	22 05.30	-0.1
YMT4	1.08	199	eP	22 06.00	0.0
YMT1	1.09	202	iPc	22 06.80	0.6
MZP	1.10	262	eP	22 06.00	-0.4
YMT2	1.15	199	eP	22 07.30	0.2
GVN	1.37	231	eP	22 11.00	0.1
EUR	1.61	1	iP	22 14.60	0.1
	0.2s		37.40nm		
MNA	1.78	289	eP	22 17.00	0.1
KVN	2.02	306	eP	22 20.00	-0.4
CMB	3.46	274	eP	22 43.00	2.2X
PLM	4.56	189	eP	22 59.00	2.5X
GLA	4.90	168	e(P)	23 03.00	1.7X
ALQ	8.24	108	e(P)	24 09.00	20.6X

S.D. = 0.4 on 25 of 29 obs.

& MAR 11, 1989 14h 38m 50.48s
60.998 N 152.893 W
DEPTH = 1.4km
SOUTHERN ALASKA (2)
<AGS-P>. ML 3.1 (PMR).

SPU	0.45	65	iP	39 00.22	0.8
			iS	39 06.73	
CRP	0.45	53	iP	39 00.20	0.8
			iS	39 07.15	
RDT	0.49	150	iP	39 00.70	0.5
CGLM	0.53	54	iP	39 01.39	0.3
NKA	0.85	107	iP	39 09.09	1.7
			eS	39 24.12	
ILIM	0.92	182	iP	39 07.55	-1.3
			iS	39 19.80	
NNL	1.24	140	iP	39 15.07	0.7
SVW	1.33	276	iPd	39 13.50	-2.4
PDB	1.38	209	iP	39 14.74	-1.9
			iS	39 31.98	
SLKM	1.40	109	iP	39 16.45	-0.6
			iS	39 35.30	
PWA	1.59	64	iPc	39 19.70	-0.1
PMS	1.64	80	iP	39 20.30	-0.2
CNPM	1.69	150	iP	39 20.68	-0.6
PTE	1.89	92	eP	39 24.44	0.3
PLRM	1.91	70	eP	39 24.00	-0.4
PMR	1.91	70	iPc	39 23.90	-0.5
SEW	1.92	116	eP	39 24.50	-0.1
PME	1.97	70	eP	39 25.28	0.0
GHO	2.06	66	eP	39 26.87	0.2
KNK	2.19	77	iP	39 29.69	1.2
PWL	2.23	92	eP	39 30.05	1.0
			eS	39 59.68	
SML	2.34	68	iP	39 31.81	1.1
TTA	2.44	324	eP	39 27.60	-4.5
KNIM	2.62	102	eP	39 33.74	-0.9
MTU	2.78	109	eP	39 36.92	-0.1
GLI	2.83	90	eP	39 37.16	-0.5
			eS	40 13.22	
VZW	3.09	86	eP	39 40.70	-0.6
FID	3.15	92	eP	39 41.06	-1.0
HIN	3.20	98	eP	39 42.84	0.0
KDC	3.27	176	iPc	39 43.30	-0.5
TOA	3.40	68	eP	39 46.20	0.4
KLU	3.41	79	eP	39 45.04	-0.8
CVA	3.53	94	eP	39 46.82	-0.7
GLB	4.41	80	eP	39 59.52	-0.6
FBA	4.56	29	eP	39 59.50	-2.6
IMA	5.10	356	eP	40 07.50	-2.5
DWY	6.94	58	P	40 34.10	-1.6

37 obs. associated

% MAR 11, 1989 14h 54m 28.87± 0.89s
40.162 N ± 9.2km 29.328 E ± 8.4km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

GPA	0.76	80	ePg	54 43.70	-0.1
			eSg	54 56.70	
ISK	0.93	347	ePg	54 47.40	0.9
EDC	1.14	280	iPn	54 50.50	0.4
			eSg	55 05.50	
CTT	1.20	326	ePn	54 50.00	-1.2
ALT	1.26	151	iPn	54 52.30	-0.1

S.D. = 1.1 on 5 of 5 obs.

MAR 11, 1989 16h 31m 19.85± 0.78s
36.706 N ± 6.5km 27.348 E ± 8.3km
DEPTH = 10.0km (geophysicist)
DODECANESE ISLANDS (369)
MD 3.6 (ATH).

ARG	0.80	128	iPnc	31 34.30	-1.0
YER	0.86	60	iPg	31 34.90	-1.6
KAP	1.16	187	ePb	31 41.10	-0.5
IZM	1.69	358	ePn	31 49.20	-0.4
KSL	1.90	107	ePb	31 53.50	1.0
NPS	2.01	225	ePn	31 54.80	0.5
ELL	2.06	88	iPn	31 56.30	1.3
KHL	2.37	46	ePn	31 59.00	-0.4
PRK	2.67	342	ePn	32 10.80	7.1X
BCK	2.70	73	ePn	32 04.00	-0.2
DST	3.07	19	ePn	32 12.00	2.8
ALT	3.21	42	ePn	32 11.00	-0.3
EZN	3.22	346	ePn	32 10.00	-1.3
PRNI	9.00	133	eP	33 29.00	-3.8X

S.D. = 1.4 on 12 of 14 obs.

MAR 11, 1989 16h 50m 20.21± 0.72s
37.069 N ± 5.7km 27.704 E ± 8.0km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 3.8 (ATH).

YER	0.47	82	iPg	50 29.90	0.2
ARG	0.92	158	iPbd	50 38.60	0.9
IZM	1.37	345	iPn	50 44.10	-1.3
KAP	1.57	196	eP	50 48.10	-0.1
KSL	1.78	122	ePn	50 53.90	2.6
ELL	1.80	100	iPn	50 54.80	3.2X
KHL	1.91	49	iPn	50 52.90	-0.3
BCK	2.33	79	ePn	51 00.70	1.4
PRK	2.45	333	ePn	51 06.00	5.2X
NPS	2.47	224	ePn	51 03.30	2.1
DST	2.63	16	iPn	50 59.10	-4.4X
ALT	2.75	43	ePn	51 06.30	1.1
EZN	2.96	339	ePn	51 06.30	-1.7
KCT	3.22	9	ePn	51 12.00	0.3
EDC	3.28	2	ePn	51 13.00	0.4
VAM	3.28	241	ePg	51 24.40	11.7X
YLV	3.73	20	ePn	51 20.00	0.9
PPCY	4.35	119	eP	51 28.50	0.7
CSS	5.02	113	eP	51 39.00	1.6
MML	7.85	124	e(P)	52 16.00	-1.2
BURJ	8.22	124	P	52 20.90	-1.4
SALJ	8.29	125	P	52 21.70	-1.7
JARJ	8.33	123	P	52 22.00	-1.9
DSI	8.39	129	eP	52 25.00	0.3
			eS	53 58.00	
MASJ	8.50	126	P	52 21.00	-5.3X
MLR	8.52	352	eP	52 33.00	6.4X
PRNI	9.05	136	eP	52 31.00	-2.8
KHC	15.83	324	P	54 09.50	4.8X

S.D. = 1.5 on 21 of 28 obs.

% MAR 11, 1989 17h 02m 43.59± 0.79s
44.629 N ± 6.2km 7.083 E ±11.1km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.3 (GEN).

PZZ	0.12	174	P	02 47.00	0.2
			S	02 49.42	
RRL	0.36	324	P	02 50.95	-0.1
			S	02 55.89	
STV	0.42	156	P	02 52.12	-0.1
			S	02 57.89	

RSP	0.54	13	P	02 54.60	0.1
			S	03 02.43	
ROB	0.66	120	P	02 56.60	-0.1
			S	03 05.96	

S.D. = 0.2 on 5 of 5 obs.

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* MAR 11, 1989 17h 42m 56.10± 0.81s
36.193 N ±11.6km 28.020 E ± 8.3km
DEPTH = 10.0km (geophysicist)
DODECANESE ISLANDS (369)
MD 3.2 (ATH).

ARG	0.09	75	iPgc	42 57.20	-1.5
KAP	0.94	227	ePg	43 13.70	-0.3
YER	0.96	13	iPn	43 14.30	-0.2
KSL	1.27	93	ePg	43 19.80	0.2
ELL	1.62	69	ePn	43 26.30	1.4
NPS	2.17	245	ePn	43 33.10	0.3

S.D. = 1.2 on 6 of 6 obs.

MAR 11, 1989 18h 37m 34.47± 1.03s
15.891 N ± 4.7km 60.693 W ± 9.6km
DEPTH = 23.5 ± 5.8 km
LEEWARD ISLANDS (92)
ML 3.1 (FDF).

DEG	0.55	320	iPc	37 45.10	-0.3
			S	37 52.70	
MGG	0.60	273	iPc	37 46.80	0.5
			S	37 54.90	
SFG	0.60	307	ePc	37 46.33	0.0
DOG	0.90	279	eP	37 51.37	0.0
DTMT	0.91	224	eP	37 51.46	-0.1
DPMT	0.92	227	eP	37 51.48	-0.1
			eS	38 07.64	
DSC	0.94	224	eP	37 51.50	-0.4
			eS	38 04.92	
PAG	0.96	278	eP	37 52.18	-0.2
			S	38 05.50	
CRM	1.15	191	iPd	37 54.99	-0.2
FDF	1.23	201	iPd	37 56.23	-0.1
			S	38 10.70	
MVM	1.34	188	eP	37 57.96	0.1
			S	38 15.10	
BIM	1.41	195	eP	37 59.28	0.4
			S	38 17.80	
ANG	1.66	319	eP	38 02.30	-0.2
			eS	38 22.20	
ANGH	1.68	300	eP	38 03.00	0.3

S.D. = 0.3 on 14 of 14 obs.

MAR 11, 1989 18h 42m 48.14± 0.26s
45.671 N ± 2.8km 6.732 E ± 3.0km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 3.5 (LDG), 3.4 (GEN).

LPL	0.15	180	Pg	42 51.10	-0.8
LPG	0.17	176	Pg	42 51.40	-0.8
LSD	0.37	126	Pc	42 53.83	-1.9
			S	42 58.39	
BNI	0.62	184	Pc	42 59.10	-1.6
			eSg	43 07.90	
RSP	0.64	144	Pc	42 59.08	-1.9
			S	43 07.28	
RRL	0.75	177	Pc	43 01.65	-1.4
			S	43 12.10	
ORO	0.88	93	P	43 03.00	-2.1
ORX	0.88	92	P	43 03.04	-2.0
			S	43 14.60	
PZZ	1.19	167	Pc	43 09.13	-1.4
			S	43 24.45	
DOI	1.22	163	Pc	43 09.60	-1.4
			eSn	43 25.60	
VAI	1.44	81	P	43 13.20	-1.0
STV	1.49	163	P	43 13.81	-1.2
			S	43 33.07	
ROB	1.60	149	P	43 15.72	-0.8
			S	43 35.77	
CKI	1.66	138	P	43 17.30	-0.1
			eSn	43 39.70	
TOUF	1.70	167	Pn	43 18.50	0.4
			Pg	43 21.63	
AUTN	1.75	163	Pn	43 18.12	-0.8
SAOF	1.78	161	Pn	43 18.64	-0.6
			Pg	43 24.83	
FIN	1.80	144	P	43 19.47	0.0
			S	43 41.26	
MVIF	1.80	170	Pn	43 20.08	0.5
			Sg	43 49.23	
AURF	1.83	166	Pn	43 21.30	1.3
			Pg	43 24.26	
			Sg	43 50.16	
SBF	1.88	164	Pn	43 20.50	-0.1
			Pg	43 24.20	
			Sg	43 49.40	
CALN	1.92	177	Pn	43 23.51	2.2
IMI	1.94	155	P	43 21.53	-0.1
			S	43 45.22	
REVF	1.98	167	Pn	43 23.93	1.8
			Pg	43 26.45	
			Sg	43 54.08	
MDI	2.09	86	P	43 24.80	1.2
			eSn	43 53.20	
FRF	2.11	182	Pn	43 24.80	0.8
			Sg	43 55.60	
BOB	2.12	114	P	43 25.50	1.3
			eSn	43 52.40	
BSF	2.16	1	Pn	43 24.00	-0.8
			Pg	43 28.30	
			Sg	43 57.50	
MOF	2.20	7	Pg	43 28.80	3.5X
LRG	2.23	187	Pn	43 26.80	1.1
			Sg	43 59.60	
SMF	2.23	297	Pn	43 26.10	0.4
			Pg	43 30.80	
			Sg	43 59.40	
LBF	2.32	306	Pn	43 27.70	0.7
			Pg	43 32.60	
			Sg	44 01.40	
LMR	2.34	184	Pn	43 28.00	0.7
HAU	2.35	354	Pn	43 26.90	-0.5
			Sn	43 54.50	
			Sg	44 03.00	
FEL	2.37	21	Pn	43 26.10	-1.7
			Pg	43 31.93	
LOR	2.55	310	Pn	43 30.40	0.2
			Pg	43 36.20	
			Sg	44 07.00	
VITF	2.60	349	Pn	43 29.72	-1.1
			Pg	43 36.37	
			Sg	44 12.02	
AVF	2.60	297	Pn	43 31.40	0.5
			Pg	43 39.00	
			Sg	44 09.30	
SSF	2.63	303	Pn	43 32.10	0.7
			Sg	44 11.30	
SAL	2.66	90	P	43 34.20	2.4
CDF	2.77	8	Pn	43 31.80	-1.6
			Pg	43 39.80	
			Sg	44 16.28	
MAF	2.96	282	Pn	43 36.20	0.2
			Pg	43 42.90	
			Sg	44 20.10	
MME	3.18	116	P	43 40.80	1.4
			eSn	44 18.30	
TCF	3.21	283	Pn	43 39.80	0.1
			Pg	43 48.30	
			Sg	44 30.90	
GWF	3.36	10	Pn	43 40.37	-1.4
CAF	3.38	259	Pn	43 42.70	0.7
			Sg	44 33.20	
CTI	3.46	82	P	43 45.00	1.8
			eSn	44 26.30	
LSF	3.67	281	Pn	43 46.40	0.2
			Pg	43 57.40	
			Sg	44 44.60	
RJF	3.69	266	Pn	43 47.30	0.9
			Pg	43 57.40	
			Sg	44 46.60	
PGD	3.98	115	P	43 51.90	1.2
WLF	4.02	355	P	43 54.00	3.1
			ic	44 05.50	
LPO	4.04	258	Pn	43 52.00	0.6
			Pg	44 05.40	
			Sg	44 58.60	
LFF	4.29	262	Pn	43 55.50	0.6
			Pg	44 10.80	
			Sg	45 05.70	
FVI	4.31	75	P	43 57.50	2.4
			eSn	44 46.00	
DOU	4.66	343	iPc	43 59.50	-0.6
	0.5s		22.30nm		
			i	44 19.00	
KBA	4.79	71	e(Pn)	44 04.00	1.8
			e(Sn)	45 08.00	
			e	45 30.00	
			e	45 37.00	
RBL	4.82	78	P	44 04.00	1.5
MFF	4.87	283	Pn	44 03.40	0.2
TRI	4.93	87	eP	44 04.10	0.2
MEM	4.97	355	Pc	44 03.10	-1.3
SNF	5.11	342	Pc	44 05.60	-0.9
LDF	5.52	304	Pn	44 11.50	-0.8
KHC	5.79	51	ePg	44 40.20	24.0X
			Sg	45 16.80	
FLN	5.81	305	Pn	44 15.30	-1.0
LPF	5.83	297	Pn	44 16.20	-0.5
GRR	5.86	300	Pn	44 16.50	-0.5
MOX	5.95	32	e(Pn)	44 42.00	23.6X
			eSg	45 56.00	
PRU	6.80	48	Pn	44 55.30	24.9X
			Sg	46 25.50	

S.D. = 1.3 on 64 of 68 obs.

MAR 11, 1989 18h 46m 47.24± 0.50s
6.730 S ± 3.5km 129.729 E ± 5.2km
DEPTH = 148.2 ± 5.3 km
5.1mb (21 obs.)
BANDA SEA (280)

AAI	3.39	333	ePd	47 43.00	2.9
MTN	6.23	167	iPc	48 17.40	-0.6
KNA	9.01	186	iPd	48 53.70	-1.6
	0.2s		125.00nm		6.2mb X
			eS	50 27.00	
PCI	11.44	300	ePd	49 37.50	10.2X
	1.0s		5.00nm		
JAY	11.71	70	ePd	49 29.50	-1.4
			eS	51 37.50	
MNDI	13.85	88	e(P)	50 00.00	1.3
WRA	13.88	162	Pd	49 54.60	-4.2X
	0.7s		70.60nm		5.1mb
QIS	16.75	146	iPc	50 32.90	-1.7
	0.5s		70.00nm		5.2mb
			eS	53 26.00	
MBL	17.25	213	iPc	50 40.40	-0.3
	0.3s		24.00nm		5.0mb
			eS	53 42.00	
ASPA	17.31	167	iPc	50 40.40	-1.1
	0.8s		178.00nm		5.4mb
			eS	53 46.70	
PMG	17.46	100	iPd	50 44.00	0.8
	1.0s		280.00nm		5.5mb
KKM	18.52	313	ePc	50 56.00	0.9
WARB	19.57	188	eP	50 54.00	-12.0X
			eS	54 27.00	
CTA	20.82	131	iPc	51 18.50	-0.1
	1.5s		177.78nm		5.3mb
			i	51 24.50	
			i	51 34.50	
			i(PP)	51 55.00	
			i	52 23.00	
			eS	55 06.00	
			i	55 58.00	
			i(SS)	56 23.50	
			i	57 36.00	
			iScP	58 18.50	
NANU	20.86	220	iPc	51 19.80	0.8
	0.4s		21.00nm		4.9mb
			eS	55 08.00	
MEKA	22.47	207	iPd	51 36.10	1.4
	0.3s		11.00nm		4.8mb
			eS	55 49.00	
FORR	24.04	183	eP	51 50.00	0.1
	0.4s		30.00nm		5.2mb
COOL	25.34	197	eP	52 02.00	-0.1
MRWA	25.85	208	iPd	52 07.80	1.1
			eS	57 04.00	
BAL	26.71	206	eP	52 14.80	0.2
RMQ	26.73	139	eP	52 14.00	-0.8
			e	52 34.00	
KLB	27.15	203	eP	52 18.60	0.1
	0.5s		25.00nm		5.1mb
STK	27.37	158	iPc	52 20.70	0.2
			e	52 48.00	
			e	57 43.00	
MUN	28.11	205	iPc	52 27.00	-0.2
NWAO	28.54	202	iPc	52 31.20	0.2
ADE	29.29	165	e(P)	52 38.20	0.4
	0.7s		26.03nm		5.1mb

11d 18h

RKG	29.64	202	eP	52	46.00	5.2X
PSI	32.15	286	ePd	53	01.80	-1.1
			e	56	50.00	
BWA	32.52	150	iPd	53	07.50	1.5
QZH	33.30	341	eP	53	11.50	-1.3
CAN	33.52	151	eP	53	14.90	0.2
KHT	37.55	305	iPc	53	50.00	1.1
BDT	38.59	308	iPd	53	56.30	-1.3
	0.9s	9.00nm			4.5mb	
CHG	39.56	310	iPc	54	06.00	0.4
	1.0s	41.00nm			5.1mb	
GYA	39.86	327	P	54	07.80	-0.3
WHN	39.89	339	Pc	54	09.00	1.0
NJ2	39.94	346	Pc	54	09.00	0.6
KMI	41.14	321	eP	54	20.00	1.3
MAT	43.77	10	iPd	54	38.50	-1.2
	0.8s	20.90nm			4.8mb	
CD2	44.93	328	P	54	48.10	-1.0
XAN	45.08	335	iPc	54	49.40	-0.8
TIY	47.07	341	Pd	55	05.80	-0.1
BJI	48.19	346	eP	55	14.00	-0.4
LZH	49.04	332	eP	55	21.00	-0.3
	2.0s	82.00nm			5.1mb	
HHC	50.20	342	P	55	30.20	0.2
MDJ	51.11	360	eP	55	36.00	-0.6
GTA	53.61	331	iPc	55	55.20	-0.2
GUN	54.57	311	Pc	56	02.30	-0.7
KOD	54.70	288	eP	56	03.00	-1.0
PKI	54.75	311	Pc	56	03.20	-1.0
	0.6s	22.00nm			5.2mb	
KKN	54.96	311	Pc	56	04.90	-0.7
DMN	55.00	310	Pc	56	05.40	-0.5
	0.7s	37.00nm			5.3mb	
GKN	55.55	311	Pc	56	09.20	-0.6
GBA	55.71	291	Pc	56	07.40	-3.4X
	0.6s	6.20nm			4.7mb	
HYB	55.96	296	eP	56	11.00	-1.7
	1.0s	40.00nm			5.3mb	
MAIO	78.30	309	iPc	58	33.60	0.9
	0.9s	10.66nm			4.6mb	
AVY	80.31	252	iPc	58	44.50	0.6
SPA	83.31	180	ePc	58	58.80	0.3
	0.6s	9.35nm			4.8mb	
YKA	107.63	26	ePKP	04	58.30	0.6
LPG	117.58	318	ePKP	05	17.40	-0.3
	0.6s	2.70nm				
SBF	117.66	316	ePKP	05	17.20	-0.4
LBF	118.83	321	ePKP	05	19.50	-0.1
SSF	119.09	321	ePKP	05	20.20	0.1
TCF	120.22	320	ePKP	05	22.50	0.2
LSF	120.67	321	ePKP	05	22.90	-0.2
MFF	121.56	322	ePKP	05	24.90	0.1
FRB	121.58	9	ePKP	05	24.00	-0.2
KIC	134.78	272	PKP	05	51.80	0.7
LIC	135.06	272	PKP	05	52.20	0.6
BMA	150.15	191	ePKP	06	24.20	6.8X
VAO	150.28	186	ePKP	06	24.10	6.4X
ITA	150.57	191	ePKP	06	25.50	7.1X
CNCB	150.78	143	PKP	06	21.30	2.1
			i	06	27.00	
LPB	150.93	143	ePKP	06	27.00	7.8X
Z	18s	1.37um			5.8Msz	
		LR		51	40.00	
ZOBO	151.11	142	PKP	06	21.70	2.0
			i	06	27.00	
CCH	151.36	147	ePKP	06	23.00	3.3X
S.D. = 1.0 on 66 of 76 obs.						

MAR 11, 1989 19h 31m 24.61± 0.44s
17.784 N ± 3.1km 60.925 W ± 3.5km
DEPTH = 32.9 ± 3.2 km
4.8mb (8 obs.) 4.6Msz (1 obs.)
LEEWARD ISLANDS (92)
ML 4.7 (FDF).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 13S, 22C
Centroid Location:
Origin Time 19:31:25.8 0.9
Lat 17.37N 0.13 Lon 60.82W 0.11
Dep 34.5 7.2 Half-duration 1.5
Moment Tensor; Scale 10**16 Nm
Mrr= 3.62 0.37 Mtt=-0.22 0.42
Mff=-3.41 0.56 Mrt=-2.65 0.84
Mrf= 3.50 1.17 Mtf= 2.17 0.52
Principal Axes:
T Val= 5.60 Plg=65 Azm=222

	N	0.78		7		327
	P	-6.38		23		61
Best Double Couple:Mo=6.0*10**16						
NP1:Strike=165 Dip=22 Slip= 109						
NP2:		325		69		82
CPB	0.87	261	eP	31	40.59	0.1
			eS	31	50.76	
			e	31	54.46	
ANG	1.07	234	eP	31	43.60	0.3
DEG	1.47	185	eP	31	48.60	-0.5
SEG	1.48	202	eP	31	50.30	1.1
SFG	1.54	190	eP	31	50.00	-0.1
MGH	1.63	230	ePc	31	51.82	0.5
SKI	1.79	256	eP	31	54.41	0.7
			eS	32	21.29	
SKDB	1.84	258	eP	31	55.02	0.6
DOG	1.86	201	eP	31	55.32	0.5
PAG	1.89	203	eP	31	55.40	0.2
			S	32	20.60	
BBL	2.31	193	eP	32	01.20	0.0
DPMT	2.55	190	eP	32	05.60	1.1
			eS	32	36.48	
DTMT	2.57	189	eP	32	05.34	0.5
			eS	32	36.38	
DSVT	2.58	190	eP	32	05.61	0.7
DSC	2.60	189	eP	32	06.37	1.2
			eS	32	38.93	
CRM	3.01	180	eP	32	10.06	-1.1
FDF	3.04	184	eP	32	10.51	-1.1
MVM	3.21	179	eP	32	12.98	-1.0
BIM	3.25	182	eP	32	13.79	-0.8
SLB	3.94	182	eP	32	24.35	0.0
			eS	33	09.73	
SSV	4.44	183	eP	32	31.59	0.1
			eS	33	21.66	
SVV	4.45	184	eP	32	32.01	0.4
SVB	4.50	184	eP	32	32.12	-0.1
			eS	33	23.94	
FCV	4.61	184	eP	32	33.24	-0.6
SJG	4.98	275	iP	32	38.30	-0.9
PNP	5.49	274	P	32	45.00	-1.2
APR	5.56	278	P	32	45.00	-2.3
GRW	5.64	187	eP	32	47.20	-1.2
MGP	5.87	273	P	32	50.00	-1.7
TCE	7.09	187	eP	33	10.37	1.6
TRN	7.11	184	eP	33	09.99	1.0
			eS	34	24.50	
TBH	7.26	181	eP	33	12.91	1.8
TPP	7.44	184	eP	33	13.41	-0.3
CUM	7.93	204	iP	33	21.00	0.5
CAR	9.28	220	eP	33	36.00	-3.4X
TOV	11.72	228	eP	34	14.60	2.0
SDV	12.94	228	eP	34	29.70	0.6
BMG	15.93	230	iPd	35	08.00	-0.2
BOG	18.34	226	eP	35	38.00	-0.7
			eS	39	12.00	
UPA	20.09	247	eP-	36	02.00	3.6X
PSO	23.06	226	eP	36	24.50	-4.2X
CCH	35.32	189	P	38	12.80	-6.5X
LNO	35.72	307	P	38	22.60	0.5
ALQ	43.83	302	eP	39	30.40	0.7
	1.1s	7.28nm			4.4mb	
Z	19s	0.69um			4.6Msz	
FRB	46.22	355	eP	39	49.00	1.0
FFC	48.39	329	eP	40	05.00	-0.2
	1.0s	9.00nm			4.8mb	
GLA	50.49	298	eP	40	23.00	1.3
LRM	50.84	315	eP	40	25.50	1.0
SES	51.37	321	eP	40	28.00	-0.2
TPC	51.57	300	eP	40	31.00	1.0
BAR	52.02	298	eP	40	34.00	0.6
EUR	52.07	306	iP	40	34.50	0.6
	0.2s	10.33nm			5.4mb	
PLM	52.21	299	eP	40	36.00	1.0
RVR	52.67	299	eP	40	39.00	0.8
CLC	52.96	302	eP	40	41.00	0.6
SBB	53.08	300	eP	40	41.00	-0.3
MWC	53.24	300	eP	40	43.00	0.3
EDM	53.71	324	eP	40	44.50	-1.0
TIC	55.56	94	P	40	58.70	-1.0
LIC	55.68	95	P	40	59.50	-1.0
KIC	55.91	94	P	41	01.00	-1.2
	0.8s	16.00nm			5.1mb	
EPF	57.16	50	eP	41	11.50	0.7
	1.2s	14.80nm			4.9mb	
YKA	57.93	334	eP	41	15.00	-0.8

LSF	58.38	46	eP	41	19.20	0.0
CAF	58.60	48	eP	41	20.90	0.1
	1.0s	8.80nm			4.8mb	
AVF	59.69	46	eP	41	28.00	-0.2
	1.2s	10.10nm			4.8mb	
SSF	59.82	46	eP	41	29.10	-0.1
SMF	60.01	46	eP	41	30.60	0.1
LOR	60.08	45	eP	41	30.80	-0.2
LPG	61.94	47	eP	41	44.90	0.9
MBC	65.54	347	eP	42	06.00	-0.6
BRG	66.89	42	eP	42	26.40	10.7X
	1.5s	16.00nm				
			i	42	46.40	
INK	67.18	337	eP	42	16.00	-1.2
SUF	73.03	29	eP	42	59.00	6.2X
KJF	73.57	27	eP	43	13.00	17.1X
MLR	75.38	47	eP	43	10.00	3.0X
BNG	78.64	89	ePd	43	25.50	-0.1
	0.6s	4.00nm			4.6mb	
			i	43	36.00	
S.D. = 0.9 on 69 of 77 obs.						

• MAR 11, 1989 20h 14m 47.98± 2.22s
18.360 N ±49.3km 64.603 W ±13.3km
DEPTH = 33.0km (normal)
VIRGIN ISLANDS (91)

LPR	1.20	268	P	15	08.70	0.1
SJG	1.49	261	iP	15	13.30	0.5
SKDB	1.96	119	eP	15	20.42	0.9
			eS	15	44.56	
PNP	2.00	262	P	15	20.00	-0.1
APR	2.02	273	P	15	19.60	-0.8
SKI	2.05	120	eP	15	20.88	0.1
			eS	15	47.00	
MGP	2.39	262	P	15	26.00	0.4
MGH	2.80	125	eP	15	31.50	0.0
			S	16	05.00	
PAG	3.63	129	eP	15	42.30	-1.0
MGG	3.97	127	eP	15	48.00	-0.1
S.D. = 0.7 on 10 of 10 obs.						

MAR 11, 1989 21h 05m 44.33± 0.45s
41.815 N ± 4.4km 15.449 E ± 4.7km
DEPTH = 10.0km (geophysicist)
SOUTHERN ITALY (390)
ML 3.9 (ROM).

DUI	0.76	259	P	05	59.47	0.3
BSS	1.13	206	Pd	06	05.20	-0.3
RFI	1.21	245	P	06	07.21	0.3
SDI	1.23	265	P	06	06.70	-0.5
			eSg	06	24.00	
AZI	1.51	277	P	06	12.27	0.8
HVAR	1.55	28	iPn	06	26.40	14.4X
BRT	1.62	125	Pc	06	12.60	-0.4
			eSn	06	30.20	
ALP	1.69	305	i(Pg)	06	16.37	2.2
			iSg	06	31.12	
RDP	2.04	269	P	06	18.60	-0.6
			eSn	06	44.30	
RMP	2.05	271	P	06	18.80	-0.5
MNS	2.14	286	P	06	21.10	0.5
CIO	2.19	310	ePgd	06	21.21	-0.2
			iSg	06	37.79	
AOI	2.21	322	iPg	06	21.24	-0.3
			iSg	06	38.08	
TDS	2.26	162	P	06	22.20	-0.1
LCI	2.40	127	P	06	24.50	0.2
			eSn	06	52.70	
ASS	2.42	302	P	06	25.20	0.6
ARV	2.50	313	Pd	06	25.50	-0.2
RSM	3.05	315	P	06	32.70	-0.7
GRI	3.08	166	P	06	34.54	0.5
CRE	3.15	306	P	06	35.70	0.7
			eSg	07	12.40	
MAO	3.25	282	P	06	35.90	-0.5
SFI	3.38	310	P	06	38.00	-0.2
PGD	3.43	308	P	06	39.70	0.7
VBY	3.69	358	ePn	06	58.70	16.1X
			iPg	07	08.70	
			iSn	07	38.60	
			iSb	07	48.00	
			i(Sg)	07	53.60	
CEY	3.99	350	ePn	07	05.50	18.6X
			i	07	12.00	
			eSn	07	49.00	

PII	4.10	299	P	06 47.90	-0.4
BDI	4.21	304	P	06 49.40	-0.7
			eSn	07 36.30	
MME	4.22	306	P	06 49.10	-1.2

S.D. = 0.7 on 25 of 28 obs.

MAR 11, 1989 21h 24m 03.26± 0.54s
48.044 N ± 4.2km 7.800 E ± 4.7km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 3.1 (LDG).

FEL	0.22	140	Pg	24 07.36	-0.7
MOF	0.49	247	Pg	24 14.25	1.1
			Sg	24 23.24	
CDF	0.51	317	Pg	24 14.51	0.9
STR	0.54	358	Pg	24 14.40	0.2
BBS	0.61	199	Pg	24 15.84	0.2
BSF	0.71	253	Pg	24 17.99	0.6
			Sg	24 29.12	
GWF	0.94	353	Pg	24 20.32	-0.9
			Sg	24 33.87	
LOMF	0.96	224	Pg	24 22.71	1.2
			Sg	24 35.97	
HAU	0.98	268	Pn	24 21.90	0.1
			Pg	24 22.70	
			Sg	24 37.20	
VITF	1.23	279	Pn	24 25.56	-0.5
			Pg	24 27.95	
			Sg	24 45.45	
WLF	1.95	327	iPc	24 41.00	4.3X
			iS	25 06.50	
LPL	2.63	197	Pg	24 53.60	6.9X
			Sg	25 27.60	
LPG	2.65	196	Pg	24 54.50	7.5X
			Sg	25 28.50	
LOR	2.77	255	Pn	24 47.80	-0.8
			Pg	24 56.70	
			Sg	25 32.10	
LBF	2.80	249	Pg	24 57.30	8.4X
			Sg	25 33.80	
MEM	2.82	336	P	24 56.60	7.4X
DOU	2.94	315	P	24 50.90	0.0
			S	25 34.70	
SMF	3.03	244	Pn	24 51.90	-0.3
			Pg	25 01.50	
			Sg	25 40.70	
SSF	3.07	253	Pn	24 51.60	-1.1
			Pg	25 02.50	
			Sg	25 42.30	
AVF	3.27	249	Pn	24 54.50	-1.0
			Pg	25 06.10	
			Sg	25 47.50	
MOX	3.61	42	iPn	24 55.53	-4.8X
			ePg	25 09.00	
			eSg	25 53.00	
KHC	3.99	72	Pn	25 06.80	1.1
			Pg	25 16.10	
			Sg	26 05.20	
MAF	4.01	245	Pg	25 19.40	13.4X
TCF	4.20	247	Pg	25 23.00	14.3X
LSF	4.64	250	Pg	25 30.90	15.9X

S.D. = 0.9 on 16 of 25 obs.

? MAR 11, 1989 22h 03m 06.65± 8.29s
17.940 N ±53.5km 60.817 W ±47.2km
DEPTH = 33.0km (normal)
LEEWARD ISLANDS (92)
ML 3.6 (FDF).

CPB	1.01	253	eP	03 24.44	0.0
			eS	03 32.70	
ANG	1.24	231	eP	03 27.46	-0.3
DEG	1.63	188	eP	03 32.82	-0.7
			S	03 45.80	
SEG	1.66	203	eP	03 34.74	0.8
MGH	1.81	228	eP	03 35.59	-0.4
			S	03 56.00	
SKI	1.93	252	eP	03 38.07	0.3
			eS	04 01.04	
MGG	2.07	193	eP	03 39.42	-0.3
PAG	2.07	204	eP	03 39.60	-0.3
			S	04 03.90	
BBL	2.49	195	eP	03 46.60	0.9

S.D. = 0.6 on 9 of 9 obs.

? MAR 11, 1989 23h 54m 59.61± 2.80s
41.438 N ±23.1km 19.016 E ±25.0km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
MD 2.2 (TTG).

ULC	0.55	18	ePg	55 21.60	10.7X
			eSg	55 28.50	
BDV	0.86	351	iPgc	55 15.60	-0.5
			iSg	55 17.50	
TTG	1.01	10	iPgc	55 18.90	0.2
			eSg	55 23.60	
HCY	1.08	339	ePg	55 20.60	0.7
			eSg	55 26.50	
OHR	1.38	103	e(Pn)	55 25.00	0.0
BRY	1.50	347	ePg	55 26.30	-0.4
			eSg	55 37.70	

S.D. = 0.7 on 5 of 6 obs.

? MAR 12, 1989 00h 41m 53.02± 2.38s
60.921 N ±11.7km 4.716 E ±22.9km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.8 (BER).

SUE	0.14	9	iPg	41 56.70	0.4
			eSg	42 00.50	
HYA	0.76	70	iPd	42 08.20	0.4
			iS	42 20.70	
ODD1	1.39	136	eP	42 18.40	0.0
			iS	42 37.40	
			iSg	42 39.50	
MOL	2.13	38	eP	42 28.30	-0.8
			iS	42 51.20	

S.D. = 1.0 on 4 of 4 obs.

? MAR 12, 1989 00h 51m 33.69± 2.60s
4.823 S ±20.6km 130.399 E ±30.6km
DEPTH = 73.5 ± 22.6 km
4.4mb (4 obs.)
BANDA SEA (280)

AAI	2.47	297	ePc	52 13.00	0.5
			eS	52 45.00	
MTN	8.01	175	eP	53 30.00	0.4
			eS	54 57.00	
KNA	10.98	188	eP	54 10.00	-0.1
			eS	56 09.00	
WB5	15.46	166	eP	55 05.20	-3.7X
			eS	57 51.00	
WRA	15.51	166	Pd	55 08.20	-1.4
	0.5s		2.60nm		3.7mb
QIS	18.02	151	eP	55 40.00	-0.8
			eS	58 48.00	
ASPA	19.04	170	iPd	55 53.80	0.9
	0.7s		26.00nm		4.6mb
			eS	59 15.90	
CTA	21.64	136	iPc	56 23.60	3.9X
	1.0s		13.00nm		4.3mb
			i	57 19.50	
			e(S)	00 07.50	
			e(PcP)	00 43.00	
			e	01 42.00	
FORR	25.98	185	eP	57 01.00	-0.3
	0.5s		23.00nm		5.0mb
BWA	33.87	153	eP	58 13.10	1.7
CHG	38.88	308	eP	58 53.00	-0.9
GKN	54.85	309	P	00 50.00	-9.1X

S.D. = 1.2 on 9 of 12 obs.

? MAR 12, 1989 01h 41m 04.56± 3.24s
13.398 S ±14.7km 33.810 E ±33.2km
DEPTH = 10.0km (geophysicist)
MALAWI (577)
MG 3.2 (LSZ).

PTZ	2.54	250	iPn	41 48.50	1.8
			iPg	41 57.00	
			iSn	42 25.00	
			iSg	42 37.00	
IKZ	3.40	340	ePn	41 59.00	0.1
LSZ	5.76	250	iPn	42 31.00	-1.3
			eSn	43 41.00	
			iSg	44 14.00	
KMZ	7.76	269	ePn	43 00.00	-0.5
			eSn	44 42.00	
BUL	8.35	216	iPn	43 08.60	-0.1
			iSn	44 30.60	
			iSg	45 28.20	

S.D. = 1.6 on 5 of 5 obs.

MAR 12, 1989 02h 22m 14.05± 0.88s
38.338 N ± 7.5km 141.884 E ±10.2km
DEPTH = 61.9 ± 5.5 km
4.8mb (7 obs.)
NEAR EAST COAST OF HONSHU, JAPAN(228)
Felt (II JMA) at Ofunoto and (I JMA) at Ishinomaki.

ISN	0.46	281	iPd	22 25.30	-0.6
			iS	22 32.70	
OFU	0.73	350	P	22 29.00	0.1
			S	22 38.90	
OFUJ	0.76	347	iPd	22 29.30	0.1
			S	22 39.50	
YAMJ	1.46	264	iPd	22 38.70	0.1
			eS	22 55.80	
KAKJ	2.53	213	P	22 51.90	-1.5
			S	23 19.40	
NIIJ	2.53	245	iPd	22 53.70	0.2
MAT	3.43	240	iPd	23 06.80	0.6
			eS	23 59.00	
MTMJ	3.69	243	iPd	23 11.10	1.2
MRRJ	4.13	352	eP	23 16.50	0.5
			eS	24 04.10	
HOOJ	4.18	14	P	23 16.70	0.0
			eS	24 02.00	
IIDJ	4.27	229	iP+	23 19.70	1.6
			eS	24 10.20	
KUSJ	5.22	23	P	23 29.80	-1.5
			S	24 26.00	
TSRJ	5.49	241	P	23 36.90	1.8
ASAJ	5.80	5	P	23 39.10	-0.4
MDJ	11.15	308	eP	24 57.30	4.3X
SSE	18.46	253	P	26 26.00	-1.0
	0.6s		16.00nm		4.4mb
TIA	19.81	272	eP	26 39.80	-2.3
NJ2	19.81	259	Pc	26 40.00	-2.1
BJI	19.98	283	eP	26 43.00	-0.8
GYA	31.83	259	P	28 34.00	-1.1
GTA	32.56	285	eP	28 41.00	-0.4
WMQ	40.60	296	P	29 50.80	1.6
GUN	47.41	275	P	30 45.20	0.7
KKN	47.94	275	P	30 49.20	0.7
	0.8s		31.00nm		5.3mb
PKI	47.94	275	P	30 48.80	0.2
DMN	48.16	275	P	30 50.20	0.0
GKN	48.34	276	P	30 52.40	0.9
	0.8s		26.00nm		5.3mb
WB5	58.34	188	eP	32 04.20	-0.8
GBA	61.69	265	Pc	32 26.30	-1.9
	0.8s		6.20nm		4.8mb
SOD	63.91	337	iP	32 42.30	0.2
KJF	65.51	334	iP	32 52.80	0.3
	0.7s		12.00nm		5.0mb
SUF	66.99	333	iP	33 02.00	0.1
HFS	73.06	336	eP	33 38.50	-0.3
	0.4s		1.50nm		4.3mb
NAO	73.42	337	P	33 41.30	0.4
	0.9s		6.50nm		4.6mb
FR8	75.42	13	eP	33 53.00	0.6
KHC	81.63	329	eP	34 28.50	2.0
ZOBO	145.69	58	ePKP	41 49.00	0.9
LPB	145.90	59	(PKP)	41 53.00	4.8X
CNCB	146.17	59	PKP	41 52.00	3.1X

S.D. = 1.1 on 36 of 39 obs.

MAR 12, 1989 02h 53m 12.92± 0.62s
13.303 S ± 7.5km 33.820 E ± 9.0km
DEPTH = 33.0km (normal)
4.4mb (2 obs.)
MALAWI (577)
MG 3.8 (LSZ).

SONG	2.50	204	iPg	53 53.30	1.0
			iSg	54 13.00	
PTZ	2.59	248	ePn	53 57.00	3.5X
IKZ	3.32	340	ePn	54 05.00	1.1
LSZ	5.80	250	iPnd	54 39.00	-0.1
			iSn	55 49.00	
			iSg	56 18.00	
KMZ	7.77	268	iPn	55 07.40	0.6
			iSn	56 38.50	
			iSg	57 26.00	
BUL	8.43	216	iPn	55 09.40	-6.6X

12d 02h

			iSn	56	37.60	
			iSg	57	30.40	
PRY	14.80	203	eP	56	40.50	-1.3
			S	59	05.00	
BLF	17.25	203	e(P)	57	09.00	-4.1X
BNG	23.25	318	iPd	58	18.90	0.4
	0.3s		5.00nm			4.5mb
CER	23.96	211	eP	58	26.50	1.3
KIC	42.99	295	P	01	10.20	-1.0
LIC	43.18	294	P	01	11.60	-1.1
TIC	43.37	295	P	01	13.40	-0.8
GBA	50.81	60	Pc	02	11.70	-0.9
	0.6s		2.20nm			4.3mb
GKN	64.08	50	P	03	47.00	0.5
GUN	64.96	50	P	03	52.80	0.4

S.D. = 1.0 on 13 of 16 obs.

& MAR 12, 1989 06h 25m 30.62s
60.552 N 153.140 W
DEPTH = 165.1km
SOUTHERN ALASKA (2)
<AGS-P>.

RDT	0.36	86	iP	25	52.90	1.0
			eS	26	11.45	
ILIM	0.48	169	iP	25	53.30	-0.6
			eS	26	11.40	
SPU	0.83	40	eP	25	55.17	-0.7
PDB	0.93	215	iP	25	55.35	-1.2
			eS	26	14.10	
CGLM	0.94	36	eP	25	56.21	-0.6
			eS	26	16.09	
NNL	1.05	118	eP	25	57.81	0.3
SVW	1.34	296	eP	25	58.00	-2.1
CNPM	1.40	136	eP	26	00.34	-0.4
			eS	26	22.59	
SLKM	1.44	90	iP	25	59.98	-1.2
			iS	26	22.72	
PMS	1.88	67	eP	26	04.56	-1.2
PTE	2.05	79	eP	26	07.89	0.3
KNIM	2.69	92	iP	26	12.93	-2.3

12 obs. associoted

MAR 12, 1989 06h 30m 18.69± 0.30s
36.994 N ± 3.1km 112.881 W ± 3.0km
DEPTH = 5.0km (geophysicist)
WESTERN ARIZONA (42)
ML 3.1 (NEIS). Felt (IV) at Springdale, Utah; (III) at Rockville, Utah; (II) at Colorado City, Arizona.

CCU	0.70	348	iP	30	33.04	0.4
			eS	30	41.90	
ARUT	0.91	331	iP	30	37.18	0.5
			eS	30	48.92	
GCAZ	1.13	147	P	30	40.50	0.3
DLM	1.60	293	eP	30	48.00	0.1
MSU	1.62	20	eP	30	49.30	1.1
PRN	1.78	284	eP	30	50.90	0.4
EMN	1.85	235	eP	30	52.90	1.5
WMZ	1.89	166	P	30	52.50	0.4
			S	31	18.00	
SRG	1.95	298	P	30	52.90	-0.1
FLAG	2.08	151	P	30	57.10	2.2X
			S	31	23.00	
SPRG	2.37	264	eP	30	59.20	0.2
OCS	2.54	289	eP	31	01.00	-0.4
NOP	2.77	253	eP	31	05.00	0.3
KRNA	2.89	286	eP	31	05.70	-0.7
DUG	3.20	1	eP	31	13.00	2.3X
EUR	3.48	317	iP	31	14.80	0.0
TNP	3.61	289	eP	31	16.00	-0.7
DAU	3.64	20	e(P)	31	20.00	2.8X
RW1	4.23	71	eP	31	25.50	-0.1
GLA	4.24	203	eP	31	25.00	-0.5
KVN	4.60	298	eP	31	29.80	-1.0
PEC	4.67	230	eP	31	31.20	-0.3
PLM	4.88	223	eP	31	34.70	0.0
ALQ	5.60	110	eP	31	44.00	-0.8
BW06	6.32	23	e(P)	31	54.50	-0.5
GOL	6.49	63	eP	31	57.40	-0.1

S.D. = 0.6 on 23 of 26 obs.

MAR 12, 1989 06h 44m 36.64± 0.92s
40.450 N ± 7.6km 21.027 E ± 7.4km
DEPTH = 10.0km (geophysicist)

GREECE (364)
MD 3.2 (ATH). ML 2.8 (SKO).

KBN	0.24	317	iPgc	44	41.00	-0.7
LSK	0.44	228	iP	44	44.50	-1.2
KZN	0.59	104	iPbc	44	41.70	-6.9X
			eSb	44	57.90	
OHR	0.68	345	iPgc	44	48.40	-1.8
			iSg	44	59.40	
BERA	0.86	287	ePg	44	52.00	-1.2
SRN	0.97	234	ePn	44	57.00	1.9
TIR	1.26	316	ePn	45	01.20	1.2
PHP	1.31	340	ePn	45	01.20	0.3
VAY	1.46	53	ePn	45	02.50	-0.5
LACI	1.55	320	ePn	45	04.50	0.3
SKO	1.55	11	ePn	45	06.50	2.2
			iSn	45	26.00	
PLG	1.85	92	ePb	45	08.10	-0.6
SDA	1.94	324	ePn	45	13.00	3.0X

S.D. = 1.5 on 11 of 13 obs.

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* MAR 12, 1989 06h 50m 31.87± 1.21s
55.791 N ±10.3km 159.001 W ±14.3km
DEPTH = 33.0km (normal)
4.4mb (3 obs.)
ALASKA PENINSULA (12)

KDC	4.08	59	eP	51	33.00	-0.5
TTA	7.32	11	eP	52	20.60	1.4
PMR	7.76	37	eP	52	26.00	0.8
IMA	10.63	12	eP	53	06.50	1.6
FBA	10.67	27	eP	53	03.50	-1.9
INK	17.13	33	eP	54	29.00	-0.9
YKA	23.33	55	eP	55	37.20	-0.2
PNT	24.54	89	eP	55	51.00	1.6
	0.7s		9.00nm			4.4mb
MBC	25.13	21	eP	55	55.00	0.3
EDM	26.26	76	eP	56	05.00	-0.5
KVN	31.77	104	eP	56	55.20	0.0
TNP	32.94	105	eP	57	06.00	0.6
BW06	34.03	91	eP	57	14.70	-0.1
			e	57	31.00	
RSON	38.01	69	eP	57	47.50	-0.6
FRB	42.51	41	eP	58	25.00	-0.1
SUF	61.76	357	eP	00	49.00	0.2
	0.6s		2.50nm			4.5mb
NUR	64.01	358	iP	01	03.70	0.0
HFS	64.28	4	eP	01	03.80	-1.7
	0.4s		0.90nm			4.2mb

S.D. = 1.0 on 18 of 18 obs.

MAR 12, 1989 06h 58m 06.01± 0.99s
2.424 N ± 3.2km 126.761 E ± 4.8km
DEPTH = 54.2 ± 9.4 km
5.2mb (31 obs.) 4.3Msz (2 obs.)
MOLUCCA PASSAGE (266)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 13S, 24C
Centroid Location:
Origin Time 06:58: 9.3 0.8
Lat 2.46N 0.18 Lon 126.72E 0.17
Dep 24.3 6.6 Half-duration 1.5
Moment Tensor; Scale 10**16 Nm
Mrr= 4.97 0.84 Mtt= 0.62 0.93
Mff=-5.59 1.21 Mrt=-1.78 1.43
Mrf= 2.29 1.61 Mtf=-3.53 0.80
Principal Axes:

T	Val= 6.60	Plg=59	Azm=214
N	0.75	30	19
P	-7.35	7	113

Best Double Couple:Mo=7.0**16
NP1:Strike=232 Dip=47 Slip= 134
NP2: 358 58 54

MNI	2.15	243	iPd	58	43.00	2.9
			eS	59	14.00	
DAV	4.78	346	eP	59	18.00	0.7
AAI	6.24	167	eP	59	43.00	5.3X
PCI	7.67	245	ePd	00	02.50	4.8X
	0.9s		12.50nm			4.7mb
TSM	8.86	282	eP	00	17.50	3.4X
KKM	11.11	289	ePd	00	47.50	2.5
	0.7s		57.80nm			5.8mb
			e	00	52.00	
JAY	14.78	109	ePd	01	38.30	4.9X
BAG	15.17	337	eP	01	38.00	-0.7
MTN	15.78	164	eP	01	44.00	-2.3
			e	04	49.00	
CVP	15.94	343	ePc	01	49.00	0.7
	1.0s		38.00nm			4.5mb
KNA	18.17	174	eP	02	15.00	-1.1
	0.7s		187.00nm			5.4mb
GUMO	21.06	57	eP	02	48.00	0.1
	1.1s		235.57nm			5.4mb
Z	24s		0.82um			4.0MszX
PJG	21.06	57	eP	02	47.70	-0.2
GUA	21.07	57	eP	02	47.50	-0.5
	0.6s		69.33nm			5.2mb
QIZ	23.38	316	eP	03	10.60	-0.2
			eS	07	13.00	
WB5	23.39	162	iPc	03	10.50	-0.4
			eS	07	20.00	
KGM	23.43	269	eP	03	14.00	2.7
PMG	23.47	120	e(P)	03	10.00	-1.7
QZH	23.73	341	eP	03	14.00	-0.2
Z	28s		2.10um			4.5MszX
MBL	24.40	196	eP	03	21.00	0.3
IPM	25.77	275	ePd	03	33.20	-0.6
QIS	26.08	152	iPc	03	35.80	-0.7
	0.3s		23.00nm			5.2mb
			eS	08	13.40	
ASPA	26.85	165	eP	03	42.50	-1.1
			eS	08	18.40	
NANU	27.15	203	iPc	03	46.60	0.4
	0.4s		7.00nm			4.6mb
PSI	27.81	271	ePd	03	51.70	-0.6
	0.9s		16.60nm			4.7mb
WARB	28.44	180	eP	03	46.00	-11.9X
NNT	28.60	292	eP	03	58.50	-1.0
LOE	28.74	303	eP	03	59.00	-1.7
KAGJ	28.87	7	eP	04	01.30	-0.4
SSE	29.00	350	Pc	04	03.50	0.7
	1.0s		24.00nm			4.8mb
Z	20s		0.30um			3.9Msz
			eS	08	54.00	
NST	29.35	298	eP	04	12.30	6.1X
CTA	29.44	140	iPc	04	06.30	-0.7
	1.3s		17.31nm			4.6mb
			e(S)	09	08.00	
MEKA	29.94	195	eP	04	10.00	-1.4
KUMJ	30.20	7	eP	04	13.50	0.0
WHN	30.34	338	eP	04	14.50	-0.3
Z	20s		1.95um			4.7Msz
			eS	09	10.00	
KHT	30.38	295	iPc	04	16.50	1.1
NJ2	30.40	347	Pd	04	15.60	0.3
Z	26s		0.70um			4.2MszX
GYA	30.71	323	P	04	18.60	0.3
			PcP	07	16.40	
BDT	30.99	300	eP	04	18.30	-2.4
	0.8s		83.00nm			5.5mb
CHG	31.73	303	iPc	04	26.30	-1.0
	0.9s		51.68nm			5.3mb
SHNJ	31.80	7	eP	04	27.70	0.1
TKSJ	32.13	11	eP	04	29.80	-0.7
WKYJ	32.69	14	P	04	35.80	0.4
MRWA	33.11	197	eP	04	39.50	0.4
FORR	33.11	178	eP	04	38.00	-1.0
	0.4s		65.00nm			5.8mb
YONJ	33.19	10	P	04	40.10	0.4
COOL	33.55	189	eP	04	42.00	-0.9
	0.3s		4.00nm			4.8mb
TSRJ	34.04	14	P	04	47.20	0.1
BAL	34.22	196	eP	04	48.50	-0.2
IIDJ	34.48	16	eP	04	51.60	0.7
TIA	34.78	346	P	04	53.10	-0.3
KLB	34.89	193	eP	04	54.40	0.0
	0.6s		22.00nm			5.3mb
CHJJ	35.32	17	eP	04	56.80	-1.2
MTMJ	35.49	15	P	04	59.30	-0.3
MAT	35.56	16	iPc	04	58.80	-1.3
	1.0s		60.00nm			5.5mb
			eS	10	25.00	
XAN	35.59	334	iPd	04	59.30	-1.1
MUN	35.65	195	eP	05	01.00	0.1
CD2	35.72	325	eP	04	59.40	-2.1
RMQ	35.75	145	eP	05	00.00	-1.8
KAKJ	35.83	19	eP	04	59.90	-2.4
NWAO	36.30	194	eP	05	06.60	0.3
	0.6s		13.00nm			5.0mb
NIIJ	36.43	17	eP	05	06.40	-1.0
DL2	36.61	353	eP	05	10.00	1.2
STK	36.91	159	eP	05	11.00	-0.4

```
RKG    37.44 193 eP    05 22.00   6.1X
TIY    37.50 341 eP    05 16.20  -0.3
     Z  34s      1.90um          4.7MszX
YAMJ   37.60  17 P     05 18.00   0.8
BJI    38.66 347 eP    05 26.00   0.0
     Z  28s      0.50um          4.2MszX
ADE    38.85 164 iPd   05 28.40   0.6
       0.8s     26.87nm          5.2mb
OFUJ   38.94  19 P     05 29.20   0.8
LZH    39.64 330 eP    05 34.00  -0.5
       1.5s     88.00nm          5.4mb
     Z  30s      0.80um          4.4MszX
COO    40.64 146 iPd   05 43.10   0.5
       0.5s     16.00nm          5.1mb
HHC    40.64 342 eP    05 41.80  -0.8
BTO    40.91 340 eP    05 45.60   0.8
CN2    41.22 359 Pc    05 47.00  -0.1
MRRJ   41.84  16 eP    05 52.90   0.7
BWA    41.93 153 eP    05 54.80   1.7
MDJ    42.09   3 iPc   05 55.50   1.3
HOOJ   42.45  18 eP    05 59.40   2.2
CAN    42.94 153 eP    06 02.00   0.6
LSA    43.33 312 P     06 05.50   0.4
TOO    43.42 158 eP    06 07.00   1.8
KUSJ   43.55  19 eP    06 07.30   1.2
ASAJ   43.84  17 eP    06 09.50   1.0
GTA    44.23 330 iPc   06 11.40  -0.5
              PcP      07 57.00
GUN    46.52 307 Pc    06 29.80  -0.8
PKI    46.75 306 Pc    06 31.10  -1.3
KKN    46.95 307 Pc    06 32.60  -1.2
DMN    47.01 306 Pc    06 33.50  -0.9
GKN    47.56 307 Pc    06 37.40  -1.1
KOD    49.55 281 eP    06 53.50  -0.8
HYB    49.59 291 eP    06 52.50  -1.7
       1.0s     75.00nm          5.7mb
GBA    49.99 286 Pd    06 54.00  -3.2X
       0.7s     26.70nm          5.4mb
WMQ    53.81 326 P     07 25.40  -0.1
     Z  32s      0.50um          4.4MszX
NDI    53.87 304 iPd   07 24.00  -2.1
       0.8s     52.24nm          5.6mb
KSH    58.96 316 eP    08 01.50  -1.0
MAIO   70.33 308 iPc   09 16.00  -0.3
AVY    80.42 250 iPc   10 15.20   1.0
NAI    90.01 269 eP    11 07.50   5.4X
       1.0s     10.00nm          5.1mb
PRNI   90.31 300 iPc   11 04.00   1.1
MBH    90.44 300 iPc   11 05.50   2.0
INK    91.36  22 eP    11 07.50   0.6
SOD    91.68 338 eP    11 08.00  -0.4
KJF    91.77 334 iP    11 09.00   0.1
       0.7s     16.00nm          5.6mb
SUF    92.72 333 iP    11 12.70  -0.6
       0.6s      2.80nm          4.9mb
MBC    93.21  13 eP    11 16.00   0.7
       0.6s      6.00nm          5.2mb
NUR    93.85 331 iP    11 18.40  -0.1
MLR    95.86 316 ePd   11 29.00   0.8
BUL    98.48 250 iPc   11 41.30   0.8
       0.8s     48.51nm          6.1mb
HFS    99.18 332 eP    11 40.70  -2.0
       0.4s      0.60nm          4.5mb
NAO   100.22 333 Pdiff 11 46.30  -1.1
       0.8s      4.40nm          5.1mb
YKA   100.67  24 ePdiff11 51.10   1.8
FRB   113.01   7 ePKP  16 38.00  -0.3
ALQ   117.87  48 ePKP  16 50.00   1.1
       0.8s      2.80nm
GAC   128.18  20 ePKP  17 09.00   1.0
KIC   130.80 280 PKP   17 15.40   1.4
LIC   131.10 280 PKP   17 16.00   1.5
MDZ   146.34 156 iPKP  17 43.50   1.7
UPA   151.45  66 iPKPc 17 56.80   6.7X
CNCB  159.64 136 PKP   18 04.80   3.5X
LPB   159.75 135 ePKP  18 04.00   2.7
SOB1  166.00 241 ePKPd 18 08.80   2.0
              epP      19 09.20
      S.D. = 1.2  on 111 of 122 obs.
-------------------------------------
?  MAR  12, 1989  07h 15m 11.07± 6.40s
   58.498 N ±52.3km   10.596 E ±30.5km
   DEPTH =  10.0km  (geophysicist)
 SWEDEN                          (536)
     ML 2.4 (BER).

BLS1   2.15 296 eP    15 47.80   0.3
                iS    16 07.90
NRA0   2.30  12 iPd   15 49.60   0.1
                iPg   15 53.20
                iS    16 17.70
                iSg   16 24.20
BLS3   2.31 295 eP    15 50.80   1.0
                eS    16 10.30
                iSg   16 22.90
ODD1   2.49 306 iP    15 52.00  -0.2
                eS    16 17.00
                eSg   16 26.90
KMY    2.87 287 eP    15 56.90  -0.8
                eS    16 28.60
                eSg   16 38.00
HYA    3.48 322 eP    16 06.00  -0.3
                eS    16 35.30
      S.D. = 0.8  on   6 of   6 obs.
-------------------------------------
?  MAR  12, 1989  07h 25m 32.41± 1.22s
   59.768 N ±14.6km   11.803 E ± 8.9km
   DEPTH =  10.0km  (geophysicist)
 SOUTHERN NORWAY                 (535)
     MD 2.3 (BER).

NRA0   0.98 352 iPd   25 51.00   0.0
                iPg   25 54.60
                iSg   26 27.10
HFS    1.02  68 eP    25 51.70   0.0
       0.2s      8.90nm
BLS1   2.56 264 eP    26 14.70   0.0
                iS    26 41.70
BLS3   2.71 265 eP    26 16.90   0.0
                eS    26 44.60
HYA    3.11 299 eP    26 28.10   5.7X
                eS    26 59.90
      S.D. = 0.0  on   4 of   5 obs.
-------------------------------------
   MAR  12, 1989  07h 28m 24.32± 0.41s
   29.441 S ±13.1km  177.994 W ±10.1km
   DEPTH =  53.9km  (  3 depth phases)
   5.2mb (  9 obs.)
 KERMADEC ISLANDS                (178)
      CENTROID, MOMENT TENSOR    (HRV)
      Data Used: GDSN
      L.P.B.: 13S, 23C
      Centroid Location:
      Origin Time        07:28:26.6 1.0
      Lat 30.14S 0.09 Lon 177.52W 0.09
      Dep  54.5 6.4 Half-duration  1.6
      Moment Tensor;   Scale 10**16 Nm
        Mrr= 4.32 0.41  Mtt= 0.93 0.72
        Mff=-5.25 0.54  Mrt=-0.54 0.57
        Mrf= 5.29 0.76  Mtf=-2.54 0.52
       Principal Axes:
        T  Val=  7.07  Plg=60  Azm=239
        N        1.03      19      6
        P       -8.10      22    104
      Best Double Couple:Mo=7.6*10**16
       NP1:Strike=225 Dip=28 Slip= 133
       NP2:       359     70      70

KRP    10.03 211 P     30 50.00   1.6
SNZO   13.25 205 eP    31 32.00   0.5
                S     33 34.00
DZM    15.82 294 iPc   32 15.80  10.7X
MSZ    18.86 212 P     32 35.00  -7.7X
COO    26.07 260 eP    33 57.30   2.7
CAN    28.40 249 eP    34 16.00   0.2
BWA    28.85 251 eP    34 17.90  -2.0
CMS    31.16 257 iPd   34 41.20   0.9
       1.0s     54.00nm          5.2mb
TOO    31.36 245 eP    34 42.00   0.0
CTA    33.66 278 iPc   35 04.00   1.8
       1.0s     40.50nm          5.3mb
     Z  20s      0.71um          4.4Msz
                i     35 09.00
                i     35 16.50
                i(pP) 35 33.00 132kmX
                i     35 41.00
                eS    40 32.00
                e(ScP)40 47.00
STK    34.71 256 eP    35 11.00  -0.1
ASPA   43.18 266 iPd   36 21.10  -0.6
       0.9s     36.00nm          5.1mb
WB5    44.07 271 eP    36 28.40  -0.6
FORR   46.25 254 eP    36 44.00  -2.1
       0.5s     17.00nm          5.2mb
NANU   59.45 260 eP    38 21.90  -2.1
SPA    60.72 180 e(P)  38 23.60  -8.9X
       1.0s     19.00nm          5.2mb
MAT    77.46 325 (P)   40 16.00   0.5
       1.0s     13.00nm          4.9mb
SSE    83.48 311 eP    40 46.50  -1.0
              i       41 03.50
PRS    84.32  43 eP    40 52.50   0.8
              e       41 07.70
PAS    84.81  46 eP    41 09.00  14.8X
BAR    84.82  48 eP    41 09.00  14.7X
BKS    84.87  41 e(P)  41 03.80   9.4X
MWC    84.93  46 eP    41 05.00   9.9X
PLM    85.13  47 P     40 56.80   0.7
RVR    85.21  47 eP    41 11.00  14.8X
PSI    85.29 276 ePd   40 55.50  -1.5
SBB    85.38  46 eP    40 57.00  -0.1
              e       41 12.00
ISA    85.62  45 eP    41 06.00   7.7X
              e       41 14.00
FRI    85.75  43 eP    40 58.90   0.1
              e       41 14.50
CMB    86.05  42 eP    41 00.60   0.3
              e       41 15.90
TPC    86.13  47 eP    41 02.00   1.2
              e       41 16.00
CLC    86.26  45 eP    41 01.00  -0.4
GLA    86.26  49 eP    41 01.00  -0.5
WDC    86.57  39 eP    41 04.70   1.9
              e       41 18.50
TNP    87.95  44 P     41 08.70  -1.1
       0.9s     5.66nm           4.8mb
              pP      41 25.20  58km
KVN    88.06  42 P     41 10.00  -0.2
              pP      41 25.30  53km
SNY    89.06 320 eP    41 16.10   1.5
TIA    89.32 313 eP    41 16.80   0.7
CN2    89.38 323 Pd    41 17.00   0.9
              pP      41 32.00  51km
EUR    89.60  43 iP    41 17.50  -0.1
       0.2s     3.35nm           5.3mb
BJI    92.25 315 eP    41 33.00   3.6X
ALQ    92.97  51 eP    41 32.70  -0.5
       1.2s     19.53nm          5.4mb
              e       41 48.00
CHG    93.27 290 eP    41 38.00   3.4X
BW06   95.44  43 P     41 43.80  -0.6
RSSD   99.53  45 P     42 01.50  -1.4
MBC   111.48  13 ePKP  46 51.00  -2.0
SOB1  123.58 126 ePKP  47 31.00  13.0X
BUL   124.43 211 iPKPd 47 16.40  -3.3X
       0.8s     37.31nm
FRB   124.55  31 ePKP  47 20.00   1.7
MAIO  131.83 294 ePKP  47 28.00  -5.3X
KJF   141.60 342 ePKP  47 46.00  -4.5X
SUF   143.21 342 ePKP  47 48.00  -5.3X
       0.5s     8.00nm
MSL   144.98 292 ePKP  47 55.80  -1.4
              e       48 12.00
NUR   145.42 340 iPKP  47 56.20  -0.9
       0.7s     58.70nm
UPP   147.79 345 iPKP  48 02.00   1.0
NAO   148.06 352 PKP   48 03.70   2.3
       0.9s     18.30nm
HFS   148.31 349 ePKP  48 03.00   1.2
       0.6s      4.00nm
BNG   150.61 215 ePKPc 48 04.40  -2.4
       0.5s     28.00nm
              i       48 08.70
              i       48 27.00
MML   151.26 284 ePKPc 48 13.00   5.8X
PRNI  151.44 280 ePKPc 48 13.00   5.4X
EKA   153.86   7 PKPd  48 31.00  20.8X
       2.3s    102.00nm
KRA   155.34 332 ePKP  48 32.80  20.5X
KHC   158.44 339 ePKP  48 15.90  -0.4
              e       48 52.30
      S.D. = 1.3  on  43 of  63 obs.
-------------------------------------
&  MAR  12, 1989  09h 54m 14.50s
   33.190 N          115.590 W
   DEPTH =    1.0km
 SOUTHERN CALIFORNIA             ( 43)
     <PAS-P>. ML 3.0 (PAS).

HAY    0.52 356 eP    54 25.00   0.1
GLA    0.66 102 eP    54 25.00  -2.6
```

12d 09h

PLM 1.08 279 eP 54 31.80 -3.9
3 obs. associated

% MAR 12, 1989 12h 37m 12.64± 0.79s
39.249 N ± 6.9km 27.754 E ± 7.8km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST 0.76 62 iPg 37 26.30 -1.3
eSg 37 37.30
IZM 0.93 204 ePn 37 30.10 -0.4
EDC 1.10 4 ePn 37 33.50 0.2
KCT 1.10 25 iPn 37 33.90 0.6
EZN 1.25 298 ePn 37 35.70 -0.1
KHL 1.66 123 ePn 37 43.00 1.0
S.D. = 1.0 on 6 of 6 obs.

MAR 12, 1989 12h 45m 33.50± 1.11s
41.485 N ± 9.6km 138.730 E ± 7.3km
DEPTH = 246.8 ± 12.1 km
4.3mb (7 obs.)
EASTERN SEA OF JAPAN (223)

MAT 4.95 185 iPc 46 49.10 -0.1
CN2 10.06 288 eP 47 54.50 0.8
BJI 17.14 273 eP 49 17.50 -1.9
TIA 17.62 260 eP 49 23.30 -1.2
TIY 20.58 268 eP 49 55.60 1.1
WHN 22.47 249 P 50 12.50 -0.2
GTA 29.52 279 eP 51 16.00 -1.1
CHG 40.67 248 iPd 52 52.90 1.5
0.9s 9.87nm 4.2mb
GUN 44.86 270 P 53 26.00 0.5
KKN 45.37 270 P 53 30.00 0.6
0.4s 10.00nm 4.5mb
PKI 45.39 270 P 53 30.40 0.8
0.6s 11.00nm 4.4mb
DMN 45.60 270 P 53 31.80 0.6
GKN 45.75 271 P 53 32.90 0.7
INK 51.42 28 eP 54 15.00 0.1
MBC 52.87 17 eP 54 25.00 -0.5
HYB 56.42 264 eP 54 51.50 -0.3
GBA 59.66 261 Pc 55 12.90 -1.2
0.5s 2.60nm 4.1mb
YKA 61.02 31 eP 55 23.00 0.2
WB5 61.18 185 eP 55 24.00 -0.2
KJF 61.61 332 eP 55 22.00 -4.6X
SUF 63.08 331 iP 55 36.20 -0.1
0.4s 1.30nm 4.0mb
NUR 65.05 330 iP 55 48.50 -0.5
PNT 66.44 44 eP 55 58.00 -0.1
0.5s 2.00nm 4.1mb
FFC 71.08 32 eP 56 26.50 0.2
0.7s 8.00nm 4.6mb
FRB 72.90 12 eP 56 37.00 0.3
S.D. = 0.9 on 24 of 25 obs.

& MAR 12, 1989 14h 06m 56.86s
60.084 N 152.882 W
DEPTH = 120.9km
4.4mb (3 obs.)
SOUTHERN ALASKA (2)
<AGS-P>. Felt (III) at Homer.

ILIM 0.04 264 iP 07 12.95 0.9
RDT 0.55 26 iP 07 14.73 -0.8
PDB 0.72 246 iP 07 16.10 -0.6
iS 07 30.64
NNL 0.80 92 iP 07 17.73 0.4
CNPM 1.00 123 Pn 07 19.10 -0.2
NKA 1.05 50 iP 07 20.83 1.1
SPU 1.17 20 iP 07 20.32 -0.8
eS 07 38.09
CRP 1.24 16 iP 07 21.30 -0.6
CGLM 1.30 19 iP 07 21.80 -0.7
SLKM 1.39 71 iP 07 22.22 -1.3
SVW 1.70 308 iP 07 25.69 -1.4
SEW 1.72 88 iP 07 25.93 -1.4
PMS 2.01 53 iP 07 29.59 -1.4
PTE 2.07 66 iP 07 29.86 -1.7
PWA 2.15 42 Pn 07 31.28 -1.4
KDC 2.35 175 iPd 07 33.20 -2.1
PLRM 2.38 49 Pn 07 33.35 -2.3
PMR 2.38 49 iPc 07 33.30 -2.3
PWL 2.38 69 iP 07 33.50 -2.2
PME 2.44 49 Pn 07 34.32 -2.1
KNK 2.55 57 iP 07 35.71 -2.2
GHO 2.57 47 iP 07 36.12 -2.1
KNIM 2.58 82 iP 07 35.83 -2.5
iS 08 06.19
MTU 2.63 90 iP 07 37.62 -1.3
SML 2.81 50 iP 07 39.14 -2.3
GLI 2.97 72 iP 07 37.70 -5.8
HIN 3.20 82 eP 07 43.86 -2.6
TTA 3.23 334 iPd 07 44.90 -2.0
FID 3.25 75 iP 07 43.70 -3.4
VZW 3.27 70 iP 07 44.76 -2.8
MID 3.38 98 eP 07 47.46 -1.4
VLZ 3.40 69 eP 07 46.59 -2.5
CVA 3.58 79 eP 07 49.14 -2.4
eS 08 29.02
KLU 3.69 65 iP 07 50.80 -2.4
TOA 3.84 55 iP 07 53.28 -1.9
SGAM 3.84 80 eP 07 52.13 -3.0
RAGM 4.10 82 eP 07 55.84 -2.9
GLB 4.65 69 iP 08 03.60 -2.6
FBA 5.38 24 eP 08 13.20 -2.8
CTGM 5.77 76 iP 08 20.20 -1.4
IMA 6.02 357 eP 08 22.30 -2.6
BCPM 6.64 85 eP 08 31.16 -2.2
DWY 7.46 52 P 08 42.50 -1.9
HYT 7.64 78 P 08 44.60 -2.4
SIT 9.65 101 eP 09 11.20 -2.7
INK 11.74 37 eP 09 39.00 -2.4
YKA 18.36 66 eP 11 01.90 -2.5
YKC 18.43 66 iPc 11 02.50 -2.6
0.3s 10.00nm 4.6mb
MBC 19.92 23 eP 11 17.00 -3.6
0.5s 8.00nm 4.3mb
PNT 21.79 105 eP 11 41.00 1.4
EDM 22.50 90 eP 11 46.50 0.0
SES 25.33 94 eP 12 13.00 -0.5
FFC 27.35 78 eP 12 31.00 -0.9
0.8s 7.00nm 4.3mb
FRB 37.15 47 eP 14 01.00 4.2
54 obs. associated

MAR 12, 1989 14h 32m 19.75± 1.43s
14.355 S ± 8.0km 167.180 E ± 9.0km
DEPTH = 163.3 ± 12.0 km
4.8mb (5 obs.)
VANUATU ISLANDS (186)

DZM 7.71 185 iPc 34 09.30 -1.0
iS 35 38.30
HNR 8.60 304 eP 34 23.00 0.8
eS 36 02.00
VSG 8.90 304 eP 34 27.00 0.9
eS 36 08.00
PMG 20.20 282 eP 36 44.00 0.3
CTA 20.78 251 iPc 36 49.50 0.0
0.7s 7.88nm 4.3mb
RMQ 21.04 232 iPd 36 52.50 0.5
COO 21.41 219 iPd 36 57.20 1.5
0.7s 18.00nm 4.6mb
CMS 25.95 225 iPc 37 39.10 0.3
STK 29.18 229 eP 38 08.00 0.1
0.3s 11.00nm 5.1mb
WB5 31.80 255 eP 38 29.40 -1.6
ASPA 32.73 249 iPc 38 37.30 -1.8
FORR 39.40 239 iPd 39 35.00 -0.1
0.4s 20.00nm 5.2mb
WARB 39.65 246 eP 39 24.70 -12.6X
MAT 57.53 332 (P) 41 52.00 -2.3
WHN 67.63 312 eP 43 00.00 -1.1
MDJ 67.91 332 eP 43 03.00 0.4
CN2 69.28 329 Pc 43 10.40 -0.6
CHG 74.85 294 eP 43 44.90 0.5
GTA 82.35 314 eP 44 25.00 0.2
GCC 83.86 49 eP 44 32.10 -0.2
BKS 84.01 49 e(P) 44 33.40 0.3
PRS 84.05 50 eP 44 33.30 0.0
PRI 84.51 51 eP 44 36.00 0.3
WDC 84.87 46 eP 44 37.10 -0.2
ORV 85.20 47 eP 44 38.50 -0.5
CMB 85.42 49 eP 44 39.70 -0.5
GUN 89.14 299 P 44 58.60 -0.1
PKI 89.44 299 P 45 00.00 -0.1
KKN 89.61 299 P 45 00.60 -0.1
DMN 89.71 298 P 45 01.20 0.0
PNT 90.17 39 eP 45 02.00 -0.6
GKN 90.22 299 P 45 03.40 0.0
GBA 93.06 283 Pc 45 14.60 -1.8
0.9s 3.70nm 4.6mb
YKA 97.26 27 eP 45 33.80 -0.8
KJF 122.95 340 iPKP 50 56.80 -0.6
0.5s 11.20nm
SUF 124.46 339 iPKP 50 59.80 -0.7
0.4s 9.40nm
NUR 126.49 338 iPKP 51 03.90 -0.6
HFS 130.34 343 ePKP 51 11.50 -0.3
0.4s 1.80nm
NAO 130.52 345 PKP 51 12.50 0.4
0.7s 2.50nm
PRU 138.05 334 PKP 51 28.50 1.7
KHC 139.11 334 ePKP 51 29.50 0.7
CDF 142.20 338 ePKP 51 29.40 -5.0X
BSF 142.86 338 ePKP 51 31.40 -4.1X
HAU 142.87 339 ePKP 51 31.50 -3.9X
VAI 143.70 334 PKPc 51 34.80 -2.0
ASS 143.98 328 PKP 51 36.60 -0.9
MME 144.13 331 PKPc 51 37.00 -1.0
FIR 144.17 330 ePKP 51 37.00 -0.7
FLN 144.21 346 ePKP 51 36.10 -1.5
ORX 144.22 335 PKP 51 36.41 -1.5
LDF 144.29 346 ePKP 51 36.20 -1.6
SDI 144.29 325 PKP 51 36.00 -2.1
LOR 144.36 340 ePKP 51 36.70 -1.3
LBF 144.57 340 ePKP 51 37.20 -1.2
GRR 144.65 346 ePKP 51 37.10 -1.3
SSF 144.65 341 ePKP 51 37.80 -0.7
LSD 144.70 335 PKP 51 39.28 0.3
RSP 144.91 335 PKP 51 38.87 -0.2
SMF 144.91 340 ePKP 51 38.20 -0.7
AVF 144.94 341 ePKP 51 38.20 -0.7
LPF 145.03 346 ePKP 51 38.40 -0.6
BNI 145.22 335 PKP 51 39.70 0.0
FIN 145.26 333 PKP 51 39.59 0.0
RRL 145.29 335 PKP 51 40.82 0.9
ROB 145.34 334 PKP 51 40.00 0.2
PZZ 145.50 335 PKP 51 39.79 -0.4
PLDF 145.58 340 PKP 51 40.71 0.5
STV 145.61 334 PKP 51 39.69 -0.6
IMI 145.64 333 PKP 51 41.02 0.7
AGO 145.67 340 PKP 51 40.25 0.0
TCF 145.75 341 ePKP 51 40.90 0.5
SBF 145.87 333 ePKP 51 41.10 0.4
PYM 145.97 340 PKP 51 42.42 1.6
LSF 145.99 342 ePKP 51 41.40 0.6
MFF 146.14 344 ePKP 51 41.90 0.9
CVF 146.24 331 ePKP 51 42.30 1.0
LBL 146.35 339 PKP 51 43.23 1.9
FRF 146.45 334 ePKP 51 42.70 1.1
LRG 146.66 334 ePKP 51 43.70 1.8
LMR 146.70 334 ePKP 51 43.60 1.7
RJF 146.85 341 ePKP 51 44.20 2.0
CAF 147.01 340 ePKP 51 45.10 2.6
LFF 147.41 342 ePKP 51 45.80 2.8
LPO 147.51 341 ePKP 51 46.10 2.9
BNG 147.57 255 iPKPc 51 45.20 0.9
0.5s 10.00nm
i 52 25.00
EPF 149.26 341 ePKP 51 51.10 5.0X
S.D. = 1.1 on 81 of 86 obs.

* MAR 12, 1989 17h 10m 46.30± 1.21s
18.572 S ±14.6km 179.498 W ±14.3km
DEPTH = 631.0 ± 11.8 km
5.1mb (18 obs.)
FIJI ISLANDS REGION (181)

VUN 2.02 286 eP 12 04.00 -0.7
eS 12 36.00
PVC 11.62 272 iPc 13 28.50 7.2X
DZM 13.64 253 iPc 13 45.00 4.1X
KRP 19.76 192 P 14 32.20 -6.0X
0.3s 43.00nm 5.4mb
COO 28.55 240 iPd 15 57.30 1.4
0.4s 33.00nm 5.3mb
RMQ 30.30 249 iPd 16 12.30 1.6
0.6s 43.00nm 5.3mb
CTA 32.32 262 iPc 16 30.20 2.5
0.7s 103.42nm 5.6mb
i 16 35.00
i 16 44.00
e 19 27.00
CAN 32.48 233 iPd 16 28.90 -0.1
BWA 32.59 235 iPd 16 27.90 -2.1
PMG 33.56 281 iPd 16 42.50 4.4X
0.8s 238.81nm 5.9mb
CMS 33.80 241 iPd 16 41.20 1.2

0.7s 95.00nm 5.5mb
TOO 35.95 231 iPc 16 58.30 0.7
STK 37.41 242 iPd 17 11.10 1.5
0.6s 39.00nm 5.1mb
OIS 38.52 260 iPd 17 20.10 1.4
0.7s 19.00nm 4.7mb
ADE 40.41 238 iPd 17 33.70 0.0
0.7s 27.40nm 4.8mb
WB5 43.48 260 iPd 17 59.10 1.2
MTN 47.75 269 eP 18 31.00 0.4
FORR 48.76 245 iPd 18 37.20 -0.5
0.4s 82.00nm 5.5mb
KNA 49.38 265 iPd 18 43.60 1.1
0.4s 72.00nm 5.5mb
WARB 50.09 251 iPd 18 35.10 -12.6X
0.7s 125.00nm
AAI 53.20 280 eP 19 10.00 -0.1
COOL 54.74 245 iPd 19 19.10 -1.6
0.3s 8.00nm 4.5mb
M8L 56.82 256 iPd 19 34.60 -0.5
0.4s 37.00nm 5.0mb
MEKA 57.31 250 iPd 19 37.40 -1.0
KLB 57.60 244 iPd 19 38.40 -1.9
0.6s 42.00nm 4.8mb
NWAO 57.99 242 eP 19 41.00 -1.9
RKG 58.13 241 eP 19 42.60 -1.2
BAL 58.57 245 iPd 19 45.20 -1.5
MUN 58.90 243 iPc 19 48.00 -0.9
NANU 60.55 254 iPd 20 00.00 0.2
0.4s 18.00nm 4.7mb
PCI 61.99 279 ePd 20 13.50 4.3X
0.9s 11.50nm 4.2mb
MAT 67.83 324 iPd 20 43.30 -1.8
0.7s 6.16nm 4.2mb
QZH 74.17 304 eP 21 22.40 0.4
NJ2 77.56 310 Pc 21 40.40 0.1
MDJ 78.14 325 eP 21 42.60 -0.5
CN2 79.92 323 Pd 21 51.40 -1.0
WHN 80.17 307 eP 21 54.00 0.1
PSI 82.88 275 ePc 22 07.60 -0.4
BJI 83.53 316 eP 22 10.00 -0.6
GYA 84.47 300 P 22 15.60 -0.1
TIY 84.94 312 Pc 22 17.90 0.2
XAN 85.84 308 P 22 22.00 -0.1
CHG 88.26 290 iPd 22 34.00 0.4
0.9s 12.18nm 4.7mb
HRI 145.28 302 ePKP 29 14.00 -1.5
MLR 145.85 327 ePKPc 29 13.50 -2.6
CLL 145.87 346 iPKPd 29 12.60 -3.1X
0.8s 17.00nm
BRG 146.04 345 iPKP 29 13.40 -2.6
MKT 146.35 298 ePKP 29 17.00 -0.2
PRU 146.70 343 ePKP 29 15.00 -2.1
MBH 146.83 296 iPKPd 29 18.00 0.1
ZST 147.51 339 ePKP 29 17.30 -1.2
e 36 27.60
KHC 147.74 344 iPKPc 29 18.40 -0.5
DOU 148.38 355 PKPc 29 19.00 -0.8
WLF 148.65 353 PKP 29 20.40 0.3
CDF 149.73 351 ePKP 29 22.00 0.0
FLN 149.87 1 ePKP 29 21.70 -0.4
LDF 150.05 1 ePKP 29 22.00 -0.3
GRR 150.24 2 ePKP 29 22.60 0.0
LJU 150.24 340 e(PKP) 29 23.50 0.8
HAU 150.26 352 ePKP 29 23.00 0.3
BSF 150.37 351 ePKP 29 23.30 0.3
VOY 150.46 341 e(PKP) 29 23.90 0.7
VBY 150.48 339 e(PKP) 29 24.70 1.6
CEY 150.55 340 e(PKP) 29 24.50 1.2
LPF 150.59 2 ePKP 29 23.50 0.3
TRI 150.79 341 ePKP 29 24.50 1.0
LOR 151.25 355 ePKP 29 25.50 1.3
SSF 151.48 356 ePKP 29 26.10 1.6
LBF 151.52 355 ePKP 29 26.20 1.6
BGF 152.02 357 ePKP 29 27.00 1.7
MFF 152.04 1 ePKP 29 26.90 1.6
TCF 152.32 357 ePKP 29 27.70 1.9
LPG 152.65 350 ePKP 29 29.60 3.0X
S.D. = 1.2 on 65 of 73 obs.

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* MAR 12, 1989 17h 34m 35.16± 1.89s
51.391 N ±18.0km 15.911 E ± 9.0km
DEPTH = 10.0km (geophysicist)
POLAND (548)

KSP 0.60 156 iPd 34 46.20 -1.1
0.4s 63.00nm

iS 34 55.20
BRG 1.34 248 iPg 35 00.60 0.7
iSg 35 20.50
PRU 1.65 212 Pn 35 04.50 0.2
Pg 35 06.30
Sn 35 23.50
Sg 35 39.50
CLL 1.83 269 iPn 35 06.00 -0.8
iPg 35 08.50
eSg 35 34.00
KHC 2.71 214 Pn 35 19.50 -0.1
Pg 35 25.80
Sn 35 54.20
Sg 36 04.10
MOX 2.81 256 ePg 35 28.00 7.0X
iSg 36 08.00
VKA 3.14 175 eP 35 26.00 0.4
i 35 34.50
e 36 13.00
iSg 36 17.70
SPC 3.55 127 eP 35 32.20 0.7
S.D. = 0.9 on 7 of 8 obs.

& MAR 12, 1989 18h 27m 17.13s
59.723 N 153.819 W
DEPTH = 142.4km
SOUTHERN ALASKA (2)
<AGS-P>.

PDB 0.20 289 iP 27 35.81 0.7
eS 27 50.46
ILIM 0.56 50 iP 27 37.40 -0.9
eS 27 53.65
RDT 1.11 39 eP 27 41.56 -1.0
eS 28 00.90
NNL 1.31 75 eP 27 44.35 -0.1
CNPM 1.33 97 eP 27 43.57 -1.1
eS 28 03.87
SPU 1.71 30 eP 27 48.03 -0.8
CRP 1.75 27 eP 27 48.87 -0.6
CGLM 1.83 29 eP 27 49.66 -0.6
SLKM 1.97 65 iP 27 51.17 -0.7
eS 28 14.99
PMS 2.60 52 eP 27 59.33 -0.4
eS 28 28.65
KNIM 3.12 76 iP 28 04.10 -2.2
KNK 3.14 55 eP 28 06.02 -0.6
12 obs. associated

MAR 12, 1989 19h 17m 49.78± 0.41s
43.702 N ± 5.1km 10.427 E ± 3.1km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)
ML 2.7 (LDG).

PII 0.07 75 P 17 51.80 -0.3
eSg 17 52.90
BDI 0.38 19 P 17 57.10 -0.5
eSg 18 02.20
MME 0.53 22 P 18 00.20 -0.4
eSg 18 07.70
FIR 0.61 83 ePg 18 02.00 0.0
eSg 18 10.00
PGD 0.95 79 P 18 08.10 0.0
SFI 1.05 78 P 18 09.70 0.1
eSg 18 23.20
CRE 1.11 93 P 18 11.20 0.5
eSg 18 26.50
BOB 1.28 327 P 18 14.80 1.3
eSg 18 32.70
CVF 1.61 226 Pn 18 18.50 0.2
Sn 18 38.70
SBF 2.17 275 Pn 18 26.40 -0.2
Sn 18 52.40
CTI 2.50 20 P 18 31.30 0.1
eSn 18 59.60
FRF 2.75 268 Pn 18 34.20 -0.5
Sn 19 06.20
LMR 2.87 264 Pn 18 35.80 -0.6
Sn 19 09.00
LRG 2.97 267 Pn 18 38.10 0.4
S.D. = 0.6 on 14 of 14 obs.

MAR 13, 1989 00h 48m 08.40± 1.00s
41.684 N ±10.7km 22.274 E ± 7.1km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)

MD 2.9 (ATH). ML 3.0 (VAY), 2.6 (SKO).

VAY 0.43 148 iPg 48 16.30 -0.8
iSg 48 21.70
SKO 0.69 295 iPg 48 21.50 -0.5
iSg 48 31.50
OHR 1.25 243 iPg 48 32.10 0.5
iSg 48 49.90
KZN 1.43 196 ePn 48 34.60 0.2
PLG 1.58 146 ePn 48 36.70 0.2
eSn 48 59.20
RDO 2.51 101 ePn 48 50.40 0.5
EZN 3.59 120 ePn 49 57.00 51.7X
S.D. = 0.7 on 6 of 7 obs.

MAR 13, 1989 00h 51m 46.51± 0.25s
44.560 N ± 1.7km 6.871 E ± 2.8km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.6 (LDG), 2.4 (GEN).

PZZ 0.17 108 P 51 51.30 0.8
S 51 54.72
DOI 0.27 102 Pc 51 52.60 0.3
eSg 51 57.80
RRL 0.37 350 P 51 54.17 0.1
S 51 59.53
STV 0.45 134 P 51 55.68 -0.1
S 52 02.30
BNI 0.51 344 P 51 56.60 -0.3
eSg 52 03.40
TOUF 0.61 153 Pg 51 58.58 -0.4
RSP 0.65 25 P 51 59.70 0.1
S 52 09.29
AUTN 0.69 144 Pg 52 00.13 -0.2
MVIF 0.69 163 Pg 52 00.16 -0.2
Sg 52 09.31
AURF 0.75 154 Pg 52 01.18 -0.1
SAOF 0.76 139 Pg 52 01.20 -0.1
Sg 52 11.48
ROB 0.76 110 P 52 01.52 0.0
S 52 12.37
SBF 0.81 150 Pg 52 02.30 0.1
Sg 52 12.10
LSD 0.92 13 P 52 04.39 0.1
S 52 17.12
LPG 0.94 355 Pg 52 04.80 0.1
Sg 52 17.90
LPL 0.96 354 Pg 52 05.30 0.3
Sg 52 18.70
IMI 0.98 131 P 52 05.16 0.0
S 52 18.32
FRF 1.01 189 Pg 52 05.50 -0.2
Sg 52 18.10
CKI 1.02 97 Pd 52 05.90 0.1
eSg 52 20.30
FIN 1.02 110 P 52 05.91 0.1
S 52 19.38
LRG 1.16 199 Pg 52 08.10 -0.1
LMR 1.25 192 Pg 52 10.30 0.5
Sg 52 25.30
ORO 1.32 36 P 52 10.20 -0.8
eSg 52 26.10
BOB 1.85 83 P 52 18.20 -0.4
SMF 2.98 316 Pg 52 42.40 7.7X
BGF 3.46 307 Pn 52 41.70 0.2
Pg 52 51.20
S.D. = 0.3 on 25 of 26 obs.

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* MAR 13, 1989 01h 37m 36.10± 1.72s
26.103 N ± 9.8km 125.155 E ±18.9km
DEPTH = 170.4 ± 16.2 km
4.2mb (3 obs.)
NORTHEAST OF TAIWAN (245)

ANP 3.41 255 eP 38 30.40 0.4
QZH 6.04 260 iPc 39 04.50 0.2
SSE 6.07 326 eP 39 04.50 -0.3
e 39 36.00
CVP 8.91 201 eP 39 42.00 -0.4
GTA 25.01 308 eP 42 46.00 0.1
MBC 70.59 13 eP 48 33.00 -1.0
SUF 71.12 331 iP 48 37.10 -0.3
HFS 77.63 332 eP 49 14.60 0.0
0.4s 1.60nm 4.1mb
NAO 78.46 333 P 49 18.80 -0.4

13d 01h

	0.5s	1.60nm		4.0mb		
YKA	79.79	24 eP	49 27.20	1.0		
FFC	89.91	25 eP	50 17.50	0.7		
	0.7s	8.00nm		4.8mb		
	S.D. = 0.7 on 11 of 11 obs.					
& MAR 13, 1989 01h 59m 56.94s						
56.961 N		143.421 W				
DEPTH = 10.0km (geophysicist)						
4.2mb (5 obs.)						
GULF OF ALASKA				(15)		
<AGS-P>. ML 4.6 (PMR).						
YKU	3.25	35 ePd	00 42.90	-6.0		
RAGM	3.50	350 iP	00 45.75	-6.7		
BCPM	3.60	32 iP	00 47.16	-6.8		
		eS	01 24.14			
SGAM	3.67	346 iP	00 48.34	-6.6		
MTU	3.76	326 iP	00 48.96	-7.3		
CVA	3.80	342 iP	00 49.47	-7.2		
		eS	01 29.87			
HIN	3.80	336 iP	00 49.74	-7.1		
KNIM	4.08	328 iP	00 52.84	-7.8		
		eS	01 37.19			
FID	4.12	339 iP	00 53.92	-7.3		
CTGM	4.16	14 iP	00 55.10	-6.9		
GLI	4.37	336 iP	00 56.77	-8.0		
VZW	4.42	340 iP	00 57.99	-7.6		
SIT	4.43	85 eP	00 57.00	-8.6		
VLZ	4.44	341 eP	00 58.28	-7.6		
		eS	01 46.11			
SEW	4.46	317 iP	00 58.59	-7.5		
		eS	01 46.56			
GLB	4.50	358 iP	01 00.54	-6.2		
		eS	01 45.71			
PWL	4.67	329 eP	01 00.97	-8.1		
		eS	01 51.09			
KLU	4.72	345 iP	01 02.28	-7.7		
		eS	01 53.43			
CNPM	4.86	305 iP	01 05.14	-6.7		
		eS	01 57.17			
PTE	4.87	326 eP	01 03.90	-8.0		
		eS	01 56.75			
HYT	4.94	36 P	01 06.40	-6.7		
KDC	4.98	283 eP	01 07.60	-5.8		
SLKM	5.02	318 iP	01 06.77	-7.3		
NNL	5.16	310 eP	01 09.95	-6.0		
KNK	5.16	332 iP	01 08.47	-7.6		
PMS	5.33	326 ePc	01 10.60	-8.0		
TOA	5.35	346 iPc	01 11.70	-7.1		
SML	5.47	335 iP	01 12.99	-7.5		
PLRM	5.49	330 eP	01 14.86	-5.8		
PMR	5.49	330 ePc	01 12.60	-8.1		
PME	5.49	331 eP	01 15.22	-5.5		
NKA	5.55	316 eP	01 16.41	-5.1		
GHO	5.58	332 eP	01 15.03	-7.1		
PWA	5.75	328 eP	01 16.40	-7.9		
ILIM	5.89	306 iP	01 19.29	-7.1		
		eS	02 24.40			
RDT	5.91	312 iP	01 19.38	-7.3		
SPU	6.14	317 eP	01 22.00	-7.9		
CGLM	6.20	318 iP	01 23.27	-7.6		
CRP	6.23	317 eP	01 24.34	-7.0		
DWY	7.38	14 P	01 40.20	-7.1		
SVW	7.54	309 eP	01 41.47	-8.1		
FBA	8.24	347 eP	01 51.00	-8.3		
TTA	8.69	319 eP	01 57.00	-8.6		
IMA	10.35	336 eP	02 19.60	-8.9		
INK	12.24	18 eP	02 46.00	-8.0		
YKA	15.46	57 eP	03 31.80	-4.6		
PNT	16.14	108 eP	03 41.00	-4.2		
	1.0s	14.00nm		4.0mb		
BMW	16.26	122 eP	03 46.50	-0.4		
EDM	17.54	90 eP	03 59.50	-3.3		
DPW	17.78	110 eP	04 04.00	-1.9		
SES	20.13	95 eP	04 29.00	-4.6		
MBC	21.25	16 eP	04 40.00	-4.8		
	0.8s	14.00nm		4.4mb		
WDC	21.26	132 ePc	04 44.00	-1.3		
MIN	21.85	130 eP	04 50.20	-1.1		
LRM	22.11	107 eP	04 53.70	-0.3		
FFC	23.12	78 iPc	05 01.30	-2.4		
	1.0s	12.00nm		4.4mb X		
CMB	24.30	131 e(P)	05 14.30	-1.0		
MHC	24.39	134 e(P)	05 18.00	1.7		
KVN	24.43	126 eP	05 16.20	-0.5		
EUR	25.04	123 iP	05 22.00	-0.6		
	0.1s	11.85nm		5.5mb X		
LLA	25.30	134 e(P)	05 26.00	1.2		
FRI	25.47	132 e(P)	05 25.60	-0.8		
TNP	25.61	126 e(P)	05 26.00	-2.0		
BW06	25.71	109 eP	05 26.50	-2.4		
	0.8s	2.50nm		4.0mb		
PRI	25.82	134 eP	05 31.60	1.7		
RSSD	27.71	101 eP	05 44.50	-2.7		
RSON	29.36	81 eP	05 58.10	-3.6		
	0.8s	3.87nm		4.3mb		
ALQ	33.22	116 eP	06 34.30	-1.8		
	1.7s	9.53nm		4.4mb		
FRB	35.62	47 eP	06 54.00	-2.2		
MOX	70.79	17 eP	11 18.00	3.0		
KHC	72.57	16 eP	11 23.40	-2.2		
	71 obs. associated					
? MAR 13, 1989 03h 17m 54.11± 1.90s						
19.684 S ±20.8km		177.221 W ±18.6km				
DEPTH = 352.7 ± 15.8 km						
4.7mb (7 obs.)						
FIJI ISLANDS REGION				(181)		
VUN	4.41	291 ePc	19 07.00	-1.1		
SGE	5.05	294 ePc	19 15.90	0.8		
DZM	15.45	258 iPc	21 17.40	1.3		
COO	29.90	243 iPc	23 33.60	1.1		
	0.6s	19.00nm		4.6mb		
RMQ	31.96	251 iPc	23 50.30	0.0		
	0.8s	38.00nm		4.8mb		
CAN	33.57	235 eP	24 04.00	0.0		
BWA	33.75	237 eP	24 03.50	-2.1		
CTA	34.31	263 iPc	24 10.60	0.3		
	0.9s	25.63nm		4.6mb		
		e	24 25.00			
		e	28 55.00			
STK	38.81	243 iPd	24 48.60	1.0		
ASPA	45.42	256 iPc	25 40.80	-0.1		
	0.8s	142.00nm		5.3mb		
KNA	51.43	265 eP	26 25.90	-0.7		
	0.5s	51.00nm		5.1mb		
MBL	58.65	257 eP	27 17.00	-0.9		
NANU	62.32	254 eP	27 42.00	-0.3		
SPA	70.44	180 e(P)	28 32.90	0.3		
	0.8s	12.08nm		4.7mb		
PNT	85.57	34 eP	29 54.00	-0.2		
	0.8s	8.00nm		4.7mb		
YKA	95.47	24 eP	30 40.50	0.6		
GAC	111.92	48 ePdiff	32 08.50	14.8X		
KHC	149.37	346 ePKP	36 44.40	-13.6X		
	S.D. = 1.0 on 16 of 18 obs.					
% MAR 13, 1989 03h 18m 13.08± 0.82s						
61.345 N ± 9.8km		8.044 E ± 7.9km				
DEPTH = 10.0km (geophysicist)						
SOUTHERN NORWAY				(535)		
MD 2.2 (BER).						
HYA	0.92	259 iP	18 30.50	-0.1		
		iS	18 42.60			
ODD1	1.60	207 iP	18 40.80	-0.7		
		iS	19 00.10			
SUE	1.62	261 iP	18 40.70	-0.9		
		eS	19 01.40			
NRA0	1.81	108 iPc	18 43.70	-0.8		
		iPg	18 45.70			
		iS	19 09.00			
RGS	2.02	33 eP	18 48.20	0.6		
		eS	19 09.50			
		eSg	19 14.00			
BLS1	2.05	198 iP	18 48.60	0.5		
		eS	19 09.20			
		iSg	19 13.80			
KMY	2.55	214 eP	18 56.50	1.3		
		eS	19 21.30			
		iSg	19 28.20			
	S.D. = 1.1 on 7 of 7 obs.					
* MAR 13, 1989 03h 25m 23.26± 0.99s						
16.942 N ± 8.7km		99.072 W ± 8.8km				
DEPTH = 58.2 ± 8.8 km						
4.4mb (4 obs.) 3.6Msz (1 obs.)						
NEAR COAST OF GUERRERO, MEXICO				(58)		
ACX	0.76	265 P	25 37.00	-1.2		
CHPM	1.42	18 P	25 47.90	0.7		
III	1.48	345 P	25 57.50	9.4X		
		iS	26 24.50			
OXX	2.25	86 P	25 59.60	0.6		
SRP	2.30	32 P	25 47.20	-12.2X		
UNM	2.38	357 P	26 16.50	15.7X		
CRX	2.52	347 P	26 03.50	0.7		
ALQ	19.10	341 eP	29 43.00	-1.5		
	0.8s	6.16nm		3.9mb		
LNO	19.12	8 P	29 43.30	-1.0		
		e	29 45.50			
		e	29 50.70			
GLA	21.43	321 eP	30 11.00	2.6		
BAR	22.32	318 eP	30 39.00	21.7X		
CLC	24.99	322 eP	30 56.00	12.8X		
EUR	26.85	330 iP	31 01.20	0.7		
	0.5s	1.86nm		3.9mb		
LRM	30.89	342 eP	31 37.40	0.8		
PNT	36.34	337 eP	32 25.00	1.7		
	0.9s	12.00nm		4.8mb		
FFC	37.78	357 eP	32 54.00	18.8X		
	0.7s	7.00nm				
EDM	37.89	346 eP	32 36.00	-0.3		
ZOBO	44.94	136 eP	33 35.00	-0.2		
Z	21s	0.08um		3.6Msz		
		LR	49 53.00			
LPB	45.15	136 eP	33 37.00	0.4		
SCH	45.21	26 eP	33 35.00	-1.2		
YKC	46.75	350 eP	33 47.50	-0.7		
YKA	46.79	350 eP	33 48.20	-0.3		
FRB	51.24	17 eP	34 22.00	-0.8		
INK	55.78	345 eP	34 55.50	-0.8		
		pP	35 06.50	37kmX		
MBC	60.26	355 eP	35 27.00	-0.5		
	1.0s	21.00nm		5.2mb		
WB5	129.38	258 ePKP	44 28.90	1.2		
HYB	145.78	4 ePKP	44 57.00	-0.8		
GBA	149.45	7 PKPc	45 07.90	4.3X		
	0.8s	4.00nm				
	S.D. = 1.1 on 21 of 28 obs.					
& MAR 13, 1989 03h 30m 02.09s						
60.967 N		147.290 W				
DEPTH = 24.5km						
SOUTHERN ALASKA				(2)		
<AGS-P>.						
GLI	0.13	132 iP	30 06.93	0.0		
		eS	30 11.49			
VZW	0.37	75 iP	30 09.94	-0.3		
FID	0.45	118 iP	30 10.58	-0.9		
		eS	30 17.75			
VLZ	0.49	70 iP	30 11.43	-0.7		
		eS	30 19.31			
PWL	0.52	259 iP	30 11.38	-1.3		
		eS	30 19.25			
KNIM	0.66	200 iP	30 13.26	-1.6		
HIN	0.69	146 iP	30 15.09	-0.4		
KNK	0.72	309 iP	30 14.80	-1.1		
		eS	30 24.55			
KLU	0.85	51 iP	30 16.75	-1.4		
		eS	30 29.76			
PTE	0.85	264 iP	30 16.61	-1.5		
		eS	30 27.79			
CVA	0.87	118 iP	30 18.02	-0.4		
SML	0.98	330 iP	30 18.65	-1.6		
MTU	1.00	190 iP	30 19.61	-0.9		
		eS	30 33.73			
PME	1.07	309 iP	30 20.17	-1.4		
		eS	30 34.38			
PLRM	1.09	306 eP	30 20.24	-1.5		
		eS	30 34.22			
SGAM	1.13	114 iP	30 21.66	-0.7		
GHO	1.13	316 iP	30 21.12	-1.3		
PMS	1.14	285 iP	30 21.10	-1.4		
TOA	1.26	25 iP	30 23.69	-0.6		
SEW	1.37	232 iP	30 24.18	-1.6		
RAGM	1.41	113 eP	30 25.63	-0.8		
PWA	1.43	300 iP	30 25.77	-0.8		
SLKM	1.51	254 iP	30 26.55	-1.3		
		eS	30 46.37			
GLB	1.75	73 iP	30 30.63	-0.7		
NKA	1.95	265 eP	30 33.99	-0.1		
NNL	2.19	247 eP	30 36.75	-0.9		
CGLM	2.31	281 eP	30 37.72	-1.7		
SPU	2.33	277 iP	30 37.48	-2.1		
CNPM	2.44	235 iP	30 39.11	-2.1		
RDT	2.54	263 eP	30 40.33	-2.4		
ILIM	2.94	255 iP	30 45.63	-2.7		

		eS	31	21.00		
31 obs. associated						

MAR 13, 1989 03h 36m 38.61± 0.69s
23.029 N ± 6.3km 120.638 E ± 6.7km
DEPTH = 10.0km (geophysicist)
TAIWAN (244)

TWK	0.27	330	iPd	36	42.90	-1.5
			eS	36	47.10	
TWM1	0.28	224	iPc	36	44.30	-0.2
TWG	0.45	117	iPd	36	48.30	0.5
			eS	36	55.80	
TWF1	0.69	62	ePc	36	52.70	0.5
			eS	37	03.20	
TWQ	1.25	8	ePc	37	01.20	-0.7
ANP	2.29	20	eP	37	17.00	-0.1
CVP	5.41	168	eP	38	00.00	-1.3
MCO	6.61	264	eP	38	18.90	0.7
SSE	8.05	3	e(P)	38	42.50	4.2X
			Lg	40	46.00	
			e	41	02.00	
GYA	13.15	288	P	39	45.00	-3.2X
BJI	17.38	348	eP	40	47.00	4.3X
LZH	19.53	316	eP	41	11.50	2.1

S.D. = 1.3 on 9 of 12 obs.

MAR 13, 1989 03h 37m 47.16± 0.33s
25.791 S ± 9.2km 176.912 W ± 6.6km
DEPTH = 70.6km (9 depth phases)
5.1mb (8 obs.)
SOUTH OF FIJI ISLANDS (171)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 11S, 18C
Centroid Location:
Origin Time 03:37:50.2 1.3
Lat 26.25S 0.13 Lon 177.08W 0.13
Dep 91.9 7.2 Half-duration 1.5
Moment Tensor; Scale 10**16 Nm
Mrr= 2.06 0.52 Mtt=-6.53 0.88
Mff= 4.47 0.74 Mrt=-0.74 0.46
Mrf=-4.52 0.45 Mtf=-0.76 0.71
Principal Axes:

T	Val= 7.94	Plg=38	Azm= 89
N	-1.20	51	252
P	-6.74	8	353

Best Double Couple:Mo=7.3*10**16
NP1:Strike=124 Dip=58 Slip= 157
NP2: 227 71 35

SGE	9.47	329	ePd	40	05.20	2.0
KRP	13.69	206	P	41	12.00	12.7X
DZM	15.66	280	iPc	41	28.70	3.6X
RAR	16.37	77	P	41	28.00	-5.8X
			S	44	16.00	
TBI	25.07	90	iP	43	06.50	0.0
	1.3s	125.00nm			5.2mb	
CAN	30.73	244	eP	44	01.00	3.3X
			e	44	20.00	
RMQ	30.78	261	eP	43	59.00	0.8
			i	44	17.50	
BWA	31.08	246	eP	44	00.00	-0.9
			i	44	19.50	
CTA	34.32	272	iPc	44	30.60	1.5
	0.8s	9.70nm			4.8mb	
			i	44	46.80	
			e	44	58.00	
			eS	50	08.00	
ASPA	44.52	262	eP	45	52.40	-1.3
			epP	46	09.00	66km
WB5	45.09	267	eP	45	56.80	-1.4
FORR	48.27	251	eP	46	20.00	-3.1X
	0.5s	60.00nm			5.8mb	
SBA	52.69	184	eP	46	58.20	2.2
BAL	57.95	249	eP	47	31.50	-3.1X
SPA	64.36	180	iPc	48	17.90	0.3
	1.0s	20.00nm			5.0mb	
PRS	80.99	42	ePc	49	55.70	0.2
			epP	50	14.90	70km
BCH	81.03	44	P	49	56.20	0.3
PCC	81.15	41	ePc	49	56.20	-0.1
PRI	81.29	43	ePc	49	57.70	0.4
BRK	81.48	41	e(P)	49	59.20	1.2
MHC	81.49	41	ePc	49	58.00	-0.3
ARN	81.56	42	P	49	59.00	0.5
PLM	81.96	47	eP	50	02.00	1.1
FRI	82.43	43	ePc	50	02.80	-0.2
			epP	50	21.80	69km
CMB	82.70	42	ePc	50	03.90	-0.5
			epP	50	23.00	70km
ORV	83.04	40	ePc	50	05.90	-0.2
WDC	83.13	39	ePc	50	06.30	-0.2
			epP	50	25.20	69km
TNP	84.65	43	P	50	14.60	0.1
	1.0s	15.00nm			5.0mb	
			pP	50	34.30	72km
KVN	84.72	42	P	50	14.60	-0.2
			pP	50	34.50	73km
CN2	87.08	322	P	50	25.00	-1.1
			pP	50	45.50	75km
TIA	87.57	312	eP	50	28.30	-0.3
RMW	88.16	34	P	50	31.30	0.0
ALQ	89.94	51	eP	50	39.60	-0.6
	1.0s	15.00nm			5.2mb	
			epP	51	00.00	74km
BJI	90.34	315	eP	50	40.50	-1.1
PNT	90.48	33	eP	50	42.00	-0.1
BGMT	92.04	40	eP	50	49.50	-0.1
BW06	92.14	43	P	50	49.10	-1.0
	0.8s	5.36nm			5.0mb	
LRM	92.15	39	eP	50	46.70	-3.4X
CHG	92.96	289	eP	50	48.50	-5.6X
GOL	93.16	47	P	50	54.40	-0.5
GLD	93.28	47	P	50	55.00	-0.4
	1.2s	15.15nm			5.3mb	
KJF	138.39	344	ePKP	57	09.00	3.4X
SUF	140.02	344	iPKP	56	59.30	-9.2X
	0.6s	2.40nm				
NUR	142.27	343	ePKP	57	09.00	-3.6X
UPP	144.49	347	iPKP	57	12.40	-4.0X
NAO	144.58	353	PKP	57	13.70	-2.9X
	0.6s	7.50nm				
HFS	144.90	351	ePKP	57	13.40	-3.7X
	0.5s	12.00nm				
MML	151.07	291	ePKP	57	34.00	6.2X
PRNI	151.53	287	iPKPd	57	34.50	5.9X
MBH	151.64	285	ePKPd	57	35.00	6.3X
KRA	152.50	336	ePKP	57	35.50	6.2X
			e	57	39.00	
KSP	153.01	341	ePKP	57	36.50	6.5X
SPC	153.09	335	ePKP	57	37.60	7.2X
			e	57	46.90	
CLL	153.41	346	ePKP	57	37.00	6.5X
			e	57	56.00	
BRG	153.60	344	ePKP	57	48.50	17.7X
	1.0s	10.00nm				
			e	57	58.80	
			e	58	16.60	
BNG	154.10	217	ePKPd	57	38.80	6.2X
	0.7s	17.00nm				
			i	57	52.40	
			i	58	13.10	
PRU	154.27	343	ePKP	57	43.00	11.3X
			e	57	53.70	
KHC	155.31	343	PKP	57	41.20	8.0X
			e	58	23.40	

S.D. = 0.9 on 33 of 58 obs.

& MAR 13, 1989 03h 46m 03.93s
60.639 N 148.244 W
DEPTH = 19.5km
KENAI PENINSULA, ALASKA (14)
<AGS-P>. ML 3.3 (PMR).

PWL	0.23	349	iP	46	09.66	0.2
KNIM	0.38	139	iP	46	11.28	-0.7
			iS	46	17.68	
PTE	0.44	301	iP	46	12.58	-0.4
			eS	46	18.28	
GLI	0.61	66	iP	46	14.34	-1.5
			eS	46	22.83	
MTU	0.72	155	iP	46	17.06	-0.6
			eS	46	27.26	
KNK	0.78	353	iP	46	17.56	-1.2
SEW	0.80	229	iP	46	17.80	-1.3
			eS	46	29.41	
FID	0.88	82	iP	46	18.06	-2.3
			eS	46	29.33	
PMS	0.88	314	iPc	46	19.40	-1.1
HIN	0.90	105	iP	46	19.68	-1.0
VZW	0.93	62	iP	46	19.45	-1.8
SLKM	0.99	263	iP	46	20.96	-1.2
PLRM	1.05	336	iP	46	21.49	-1.7
PMR	1.05	336	iPc	46	21.50	-1.7
VLZ	1.06	61	eP	46	21.66	-1.7
			eS	46	34.62	
PME	1.06	339	iP	46	21.79	-1.7
SML	1.17	358	iP	46	23.83	-1.5
GHO	1.18	344	iP	46	23.92	-1.6
CVA	1.23	93	iP	46	24.85	-1.3
PWA	1.29	323	iPc	46	25.60	-1.3
KLU	1.42	52	iP	46	27.56	-1.2
NKA	1.48	275	iP	46	29.56	0.0
SGAM	1.51	94	iP	46	28.44	-1.5
MID	1.55	141	eP	46	30.30	-0.2
NNL	1.63	250	eP	46	30.98	-0.8
TOA	1.78	33	eP	46	33.70	-0.3
RAGM	1.78	97	iP	46	41.98	7.9
CNPM	1.87	235	iP	46	33.44	-1.8
			eS	46	58.58	
SPU	1.94	288	iP	46	34.34	-2.0
CGLM	1.95	292	iP	46	34.83	-1.7
CRP	2.01	290	iP	46	35.67	-1.8
RDT	2.05	270	iP	46	35.57	-2.4
GLB	2.30	68	iP	46	40.01	-1.5
ILIM	2.41	259	iP	46	40.59	-2.4
CTGM	3.40	81	eP	46	55.48	-1.7
KDC	3.63	219	eP	46	57.10	-3.2
SVW	3.64	281	eP	46	56.40	-4.1
FBA	4.28	3	eP	47	08.20	-1.4
TTA	4.35	305	eP	47	06.70	-3.8
IMA	5.97	338	eP	47	33.50	0.0

40 obs. associated

MAR 13, 1989 04h 08m 39.48± 1.33s
17.058 N ± 7.2km 98.919 W ± 7.7km
DEPTH = 28.8 ± 10.0 km
4.8mb (7 obs.)
GUERRERO, MEXICO (59)
Felt (IV) at Acapulco.

ACX	0.92	258	P	08	55.00	-1.4
III	1.41	338	P	09	14.50	10.9X
MOPM	1.92	30	P	09	12.90	1.9
OXX	2.10	89	P	09	17.80	4.2X
UNM	2.28	354	P	09	34.50	18.4X
IISM	2.42	37	P	09	20.00	2.1
CRX	2.45	343	P	09	21.70	3.1X
MRX	3.40	321	P	09	17.00	-14.9X
SCX	6.02	92	P	10	29.00	20.0X
LNO	18.98	8	P	12	59.20	-2.0
			e	13	00.70	
			e	13	02.00	
			e	13	03.50	
ALQ	19.04	341	eP	13	01.00	-1.3
	0.8s	12.87nm			4.2mb	
OLY	19.53	18	P	13	05.40	-2.3
GLA	21.43	321	eP	13	29.00	1.5
ELC	21.89	21	P	13	30.40	-1.6
RSCP	21.95	30	P	13	33.00	0.3
FVM	22.14	18	P	13	34.60	0.1
BAR	22.34	317	eP	13	35.00	-1.5
PRM	22.54	38	P	13	38.80	0.4
PLM	22.89	318	eP	13	44.00	1.8
TPC	22.90	321	eP	13	44.00	2.0
SGS	23.09	42	P	13	45.80	2.0
GOL	23.25	347	P	13	45.20	-0.5
GLD	23.27	348	P	13	46.00	0.3
	1.0s	15.00nm			4.5mb	
RVR	23.64	319	eP	13	51.00	1.8
LHS	23.74	40	P	13	34.20	-16.0X
CLC	24.99	322	eP	14	02.00	-0.4
ISA	25.41	321	eP	14	09.00	2.7
BLA	25.87	35	P	14	10.40	-0.1
	1.1s	43.16nm			5.0mb	
TNP	26.39	326	P	14	16.20	0.6
BW06	27.19	343	P	14	22.20	-0.7
	1.1s	14.88nm			4.5mb	
KVN	27.57	326	P	14	27.00	0.7
CMB	28.14	322	e(P)	14	31.70	0.4
LRM	30.82	341	eP	14	55.50	0.1
GAC	34.61	29	eP	15	27.00	-1.1
SES	34.66	346	eP	15	28.00	-0.5
PNT	36.29	337	eP	15	43.00	0.7
FFC	37.67	357	eP	15	53.00	-0.8
	1.1s	19.00nm			4.9mb	
EDM	37.82	346	ePd	15	54.40	-0.7
ZOBO	44.92	136	P	16	53.70	-0.8
Z	23s	0.13um			3.8MszX	
		LR		24	20.00	

13d 04h

			LR	32 40.00		
SCH	45.04	26	eP	16 54.00	-0.4	
LPB	45.13	136	P	16 57.00	1.0	
CNCB	45.41	136	P	16 59.00	0.7	
			i	18 37.20		
YKC	46.67	350	ePd	17 06.00	-1.0	
YKA	46.70	350	eP	17 06.70	-0.6	
CCH	47.04	135	eP	17 11.50	0.5	
FRB	51.09	17	eP	17 40.00	-1.2	
INK	55.71	345	eP	18 14.00	-1.3	
	0.8s	27.00nm		5.3mb		
			pP	18 25.00	37kmX	
MBC	60.16	354	eP	18 46.00	-0.5	
	1.0s	34.00nm		5.4mb		
SOB1	63.01	110	eP	19 05.70	-0.9	
			e	19 16.70		
ITR	65.07	108	eP	19 29.90	9.9X	
ITA	65.96	125	eP	19 25.30	-0.7	
CN2	107.10	328	PKPd	26 54.80	-9.7X	
DL2	112.63	327	PKP	26 56.00	-19.1X	
TIA	117.00	328	PKP	27 29.60	6.0X	
NJ2	119.22	323	PKPc	27 18.40	-9.5X	
QZH	124.51	318	iPKPc	27 48.50	10.3X	
WB5	129.55	258	ePKP	27 47.30	-0.8	
HYB	145.65	4	ePKP	28 15.20	-2.5	
	1.0s	25.00nm				
NANU	147.18	255	iPKPc	28 21.10	1.2	
GBA	149.32	7	PKPc	28 26.20	2.7	
	0.5s	4.60nm				
PSI	153.63	316	ePKPd	28 36.30	6.4X	
	S.D. = 1.4	on 47 of 61 obs.				

MAR 13, 1989 04h 23m 57.24± 0.33s
34.035 N ± 5.6km 137.095 E ± 3.7km
DEPTH = 345.1 ± 2.8 km
4.7mb (25 obs.)
NEAR S. COAST OF HONSHU, JAPAN (230)

WKYJ	1.26	279	iP+	24 45.10	1.1	
			S	25 21.50		
IIDJ	1.59	25	P	24 46.10	0.3	
			eS	25 23.90		
TSRJ	1.76	329	iP+	24 47.90	1.2	
			S	25 26.60		
TKSJ	2.53	270	iP+	24 53.90	1.4	
			S	25 37.30		
CHJJ	2.54	37	iPd	24 52.80	0.2	
			S	25 36.60		
MTMJ	2.61	13	iPd	24 53.80	0.5	
MAT	2.66	20	iPd	24 53.70	0.0	
			iS	25 37.20		
YONJ	3.21	292	iP+	24 59.90	1.3	
			S	25 49.00		
KAKJ	3.32	48	P	24 57.60	-2.0	
			eS	25 43.00		
NIIJ	3.56	25	P	25 01.10	-0.8	
			eS	25 49.60		
SHK	3.69	279	iPc	25 04.20	0.9	
	0.9s	1260.50nm				
YAMJ	4.77	29	iPd	25 13.60	-1.0	
			eS	26 13.40		
SHNJ	4.97	273	P	25 18.20	1.4	
			eS	26 22.40		
KUMJ	5.46	256	P	25 23.90	1.6	
			eS	26 31.50		
KAGJ	5.96	243	eP	25 29.60	1.6	
			eS	26 42.50		
OFUJ	6.24	35	iPd	25 29.30	-1.9	
			eS	26 39.80		
MRRJ	8.94	19	P	26 01.60	-1.6	
			eS	27 42.00		
HOOJ	9.65	28	eP	26 10.00	-1.8	
			eS	27 52.10		
KUSJ	10.83	31	P	26 24.60	-1.4	
			eS	28 19.20		
ASAJ	10.95	22	P	26 26.40	-1.1	
			eS	28 24.80		
MDJ	12.05	333	Pd	26 40.80	0.1	
			S	28 54.00		
SNY	13.19	310	Pd	26 54.10	-0.3	
			S	29 18.00		
SSE	13.73	262	P	26 58.80	-2.0	
			i	27 23.00		
BJI	17.73	296	eP	27 42.00	-0.9	
WHN	19.53	266	iPd	28 01.40	0.4	
TIY	20.30	287	eP	28 08.60	0.1	
HHC	21.34	296	eP	28 18.50	-0.1	
BTO	22.46	295	eP	28 30.00	0.8	
XAN	23.32	278	iPd	28 37.10	-0.1	
LZH	27.22	284	eP	29 11.50	-1.2	
	1.5s	66.00nm		4.8mb		
GYA	27.28	262	P	29 11.60	-1.6	
CD2	28.23	273	iPd	29 19.80	-1.6	
GTA	30.21	291	iPd	29 38.00	-0.8	
LOE	35.69	251	eP	30 24.80	-0.7	
CHG	37.14	256	iPd	30 37.70	0.1	
	1.1s	34.81nm		4.6mb		
WMQ	39.14	299	P	30 54.00	0.1	
SNG	42.97	240	eP	31 25.70	0.6	
GUN	43.97	276	Pd	31 33.30	-0.1	
PKI	44.48	276	Pd	31 36.80	-0.6	
	0.6s	27.00nm		4.7mb		
IPM	44.49	237	ePd	31 36.90	-0.3	
	0.9s	49.20nm		4.7mb		
KKN	44.50	277	Pd	31 37.30	-0.2	
DMN	44.71	276	Pd	31 38.70	-0.5	
GKN	44.96	277	Pd	31 40.60	-0.4	
TTA	49.87	33	P	32 18.30	0.1	
	0.6s	7.39nm		4.2mb		
BRW	50.54	22	P	32 23.60	0.7	
IMA	51.04	29	P	32 27.10	0.2	
	1.0s	8.75nm		4.1mb		
KDC	51.72	40	P	32 31.50	-0.3	
	0.5s	23.97nm		4.8mb		
PMR	53.11	35	P	32 41.40	-0.6	
	1.0s	40.00nm		4.7mb		
FBA	53.50	31	P	32 44.70	-0.1	
	0.7s	15.99nm		4.5mb		
WB5	53.68	183	iPc	32 44.90	-1.6	
CTA	54.52	169	iPc	32 50.20	-2.4	
	0.8s	7.46nm		4.1mb		
HYB	54.58	268	ePd	32 52.00	-1.3	
	0.8s	38.50nm		4.8mb		
GBA	57.45	265	Pd	33 12.20	-1.1	
	0.6s	13.40nm		4.6mb		
ASPA	57.46	183	iPc	33 11.60	-1.6	
	0.6s	16.00nm		4.6mb		
INK	58.64	26	ePc	33 20.40	-0.4	
	0.5s	13.00nm		4.6mb		
MBC	60.37	16	ePc	33 52.00	19.5X	
	0.5s	14.00nm				
RMQ	61.20	168	iPc	33 36.80	-1.6	
	0.7s	15.00nm		4.6mb		
DZM	62.40	149	iPc	33 46.10	-0.4	
YKA	68.14	28	eP	34 22.20	0.0	
YKC	68.20	28	ePc	34 22.30	-0.3	
	0.7s	10.00nm		4.7mb		
SUF	69.04	333	iP	34 27.30	-0.4	
NUR	70.90	331	iP	34 38.60	-0.2	
GMW	71.88	45	P	34 45.80	0.9	
RMW	72.50	44	P	34 49.60	1.0	
PNT	72.76	42	iPc	34 50.30	0.3	
	0.6s	8.00nm		4.6mb		
EDM	73.86	36	iPc	34 56.30	0.0	
DPW	74.34	43	P	34 59.60	0.5	
SLL	75.21	335	eP	35 02.20	-1.5	
	0.4s	1.20nm		4.0mb		
WDC	75.69	51	e(P)	35 07.30	0.6	
LBFM	75.69	50	P	35 07.90	0.9	
NAO	75.82	336	P	35 06.60	-0.5	
	0.7s	1.60nm		3.9mb		
SES	76.70	38	iPc	35 12.00	-0.1	
ORV	76.92	51	ePc	35 13.70	0.2	
BRK	77.34	53	e(P)	35 16.20	0.4	
BKS	77.35	53	e(P)	35 17.10	1.2	
MHC	78.04	53	ePc	35 19.10	-0.8	
FFC	78.10	31	iPc	35 19.60	0.0	
	0.7s	12.00nm		4.8mb		
CMB	78.48	52	ePc	35 22.60	0.5	
LRM	78.74	42	eP	35 24.20	0.6	
PRS	78.78	54	ePc	35 24.20	0.5	
LLA	78.91	53	ePc	35 24.80	0.4	
PRI	79.36	54	e(P)	35 27.70	0.8	
KVN	79.38	50	P	35 27.80	0.7	
FRI	79.52	52	ePc	35 27.70	0.2	
HPI	79.66	44	P	35 29.70	1.1	
PHAM	79.71	54	P	35 29.90	1.3	
FRB	80.44	11	eP	35 32.00	0.2	
EUR	80.47	49	iP	35 33.20	0.4	
	0.2s	14.51nm		5.5mb		
TNP	80.50	50	P	35 33.80	0.8	
	0.9s	19.40nm		4.9mb		
ISA	81.09	53	eP	35 35.00	-0.9	
CLC	81.58	52	eP	35 38.00	-0.4	
CLL	81.86	328	eP	35 41.00	1.5	
DUG	81.97	47	P	35 41.60	1.1	
SBB	82.09	53	eP	35 41.00	-0.1	
BW06	82.26	43	P	35 42.40	0.4	
	0.8s	14.11nm		4.8mb		
DAU	82.77	46	P	35 45.80	1.1	
PEC	83.01	54	P	35 45.60	-0.1	
KHC	83.17	327	P	35 47.50	1.3	
PLM	83.53	54	eP	35 48.00	-0.5	
TPC	83.62	53	eP	35 48.00	-0.8	
BAR	84.05	54	eP	35 51.00	0.1	
RSON	84.36	30	P	35 51.60	-0.5	
GLA	85.07	53	eP	35 56.00	0.0	
GOL	86.66	43	P	36 04.80	0.9	
GLD	86.71	43	P	36 05.50	1.5	
	0.8s	20.59nm		5.1mb		
ALQ	89.21	47	eP	36 16.90	0.9	
	1.0s	4.75nm		4.4mb		
ARE	148.94	63	iPKPd	43 08.00	5.7X	
ZOBO	151.25	58	PKPc	43 12.70	6.6X	
	0.6s	13.79nm				
LPB	151.44	59	PKP	43 08.00	1.8	
	1.0s	20.00nm				
			i	43 14.00		
CNCB	151.71	59	PKP	43 09.00	2.3	
			i	43 14.70		
	S.D. = 1.0	on 107 of 110 obs.				

& MAR 13, 1989 04h 59m 37.82s
57.175 N 142.948 W
DEPTH = 10.0km (geophysicist)
GULF OF ALASKA (15)
<AGS-P>. ML 3.6 (PMR).

MID	2.88	323	eP	00 19.30	-5.3	
YKU	2.93	34	eP	00 19.70	-5.5	
BCPM	3.28	31	iP	00 23.61	-6.7	
RAGM	3.34	345	iP	00 24.73	-6.5	
SGAM	3.54	342	iP	00 27.62	-6.3	
CVA	3.68	338	iP	00 29.13	-6.8	
			eS	01 10.62		
HIN	3.72	332	iP	00 30.06	-6.5	
MTU	3.74	321	iP	00 30.40	-6.5	
			eS	01 11.58		
CTGM	3.89	12	iP	00 32.33	-6.8	
FID	4.02	334	eP	00 34.02	-6.8	
KNIM	4.04	324	iP	00 33.65	-7.4	
SIT	4.16	88	eP	00 33.90	-8.7	
GLI	4.29	332	eP	00 37.10	-7.5	
GLB	4.30	354	iP	00 37.86	-7.0	
			eS	01 22.71		
VZW	4.32	336	eP	00 38.11	-6.9	
SEW	4.49	314	eP	00 40.62	-6.7	
KLU	4.59	342	iP	00 41.73	-7.2	
			eS	01 31.08		
HYT	4.62	35	P	00 43.00	-6.4	
PWL	4.63	325	eP	00 42.09	-7.3	
PTE	4.85	322	eP	00 45.31	-7.2	
CNPM	4.96	302	eP	00 47.83	-6.3	
SLKM	5.04	315	iP	00 48.92	-6.4	
KNK	5.10	329	eP	00 49.44	-6.7	
			eS	01 45.50		
KDC	5.19	280	eP	00 51.90	-5.3	
TOA	5.21	343	eP	00 50.90	-6.8	
NNL	5.23	307	eP	00 52.37	-5.5	
PMS	5.31	323	eP	00 51.50	-7.6	
SML	5.40	332	eP	00 53.83	-6.5	
PLRM	5.44	327	eP	00 55.46	-5.4	
PMR	5.44	327	eP	00 53.80	-7.1	
GHO	5.52	329	eP	00 55.44	-6.7	
RDT	5.97	309	eP	01 01.39	-7.0	
ILIM	5.99	303	eP	01 01.90	-6.7	
SPU	6.17	314	eP	01 04.66	-6.5	
CRP	6.26	315	iP	01 06.56	-6.0	
PDB	6.45	299	eP	01 09.62	-5.5	
YKA	15.13	58	eP	03 14.60	1.7	
MBC	20.97	16	eP	04 18.00	-4.9	
	38 obs. associated					

MAR 13, 1989 05h 41m 07.87± 0.33s
29.750 N ± 6.5km 43.044 W ± 6.1km
DEPTH = 10.0km (geophysicist)
4.8mb (15 obs.) 4.3Msz (1 obs.)
NORTH ATLANTIC RIDGE (403)

SCH	30.31	333	eP	47 22.00	0.6	
FRB	37.70	342	eP	48 25.00	0.2	

SOB1	38.79	177	eP	48 34.50	0.0
RSON	43.01	314	P	49 08.80	-0.1
	0.5s		3.82nm		4.4mb
			pP	49 14.70	20kmX
LNO	44.30	292	Pd	49 20.20	0.7
			e	49 26.30	
			e	49 29.20	
			e	49 30.50	
KHC	46.65	49	P	49 39.50	1.3
BRG	46.99	47	e(P)	49 47.80	7.0X
NAO	47.03	33	P	49 40.60	-0.4
	1.3s		34.80nm		5.3mb
PRU	47.32	48	eP	49 41.00	-2.4
			e	49 43.50	
HFS	48.23	34	ePKP	49 49.30	-1.1
	0.6s		1.70nm		4.3mb
FFC	48.51	318	iPd	49 53.00	0.3
	0.6s		9.00nm		5.0mb
ZST	48.96	50	eP	49 56.80	0.6
SPC	51.02	49	eP	50 16.20	4.0X
ZOBO	51.75	211	iP	50 17.70	-0.8
Z	20s		0.26um		4.3Msz
			LR	06 35.00	
CCH	51.88	208	eP	50 19.00	-0.1
LPB	51.97	211	P	50 19.80	-0.1
	0.9s		100.84nm		5.7mb
CNCB	52.16	211	P	50 20.00	-1.6
OHR	52.19	59	e(P)	50 21.00	0.0
BZS	52.20	53	eP	50 20.00	-0.9
ALQ	53.04	293	eP	50 28.00	0.4
	1.5s		17.36nm		4.8mb
ALE	53.33	357	eP	50 28.00	-0.8
	0.6s		4.00nm		4.6mb
BW06	53.89	303	P	50 34.00	0.2
	0.8s		18.53nm		5.2mb
SUF	54.52	32	iP	50 36.70	-1.1
	0.6s		6.30nm		4.8mb
SOD	55.10	26	iP	50 45.20	3.2X
EDM	55.20	316	ePd	50 42.50	-0.5
MLR	55.23	53	ePc	50 44.00	0.6
KJF	55.30	30	iP	50 42.60	-0.9
	0.8s		161.00nm		6.1mb X
			i	50 48.20	
KEV	55.52	23	eP	50 47.00	2.0
YKC	55.54	328	eP	50 44.50	-0.7
DAU	55.58	301	P	50 46.60	0.4
YKA	55.60	328	eP	50 45.40	-0.3
DUG	56.79	301	P	50 55.60	0.9
	0.6s		2.63nm		4.4mb
			pP	51 00.80	17kmX
MBC	58.09	344	eP	51 03.00	-0.2
	0.8s		11.00nm		4.9mb
EUR	59.32	301	iP	51 12.90	0.4
	0.2s		6.14nm		5.4mb
PNT	59.64	312	eP	51 20.00	5.7X
TNP	60.63	299	P	51 21.60	0.1
	0.7s		2.41nm		4.4mb
KVN	61.03	301	P	51 24.00	-0.1
INK	62.90	335	eP	51 36.00	0.0
BNG	63.23	101	ePd	51 41.20	2.1
	0.8s		4.00nm		4.7mb
FBA	69.38	334	P	52 17.60	0.1
	1.0s		6.75nm		4.8mb
SLR	87.83	121	eP	54 00.20	1.2
PRY	87.90	123	eP	54 03.50	4.2X
S.D. = 0.9 on 37 of 42 obs.					

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* MAR 13, 1989 05h 47m 43.45± 2.27s
3.246 S ±17.4km 129.309 E ±21.3km
DEPTH = 94.3 ± 18.6 km
4.3mb (1 obs.)
CERAM (272)

AAI	1.20	248	ePd	48 06.10	0.1
			eS	48 25.90	
MTN	9.71	169	eP	50 03.00	0.9
			e	51 53.00	
KNA	12.44	182	eP	50 38.00	-0.4
WB5	17.25	164	eP	51 38.00	-2.0
			eS	54 59.00	
QIS	19.92	151	iPc	52 09.80	-0.4
			e	55 53.00	
MBL	20.05	207	eP	52 12.00	0.4
ASPA	20.78	168	iPc	52 19.80	0.8
			eS	56 10.80	
CTA	23.53	137	iPd	52 47.00	1.0
	0.9s		13.45nm		4.3mb
CHG	37.06	307	eP	54 47.40	1.1
GUN	52.01	309	P	56 45.30	-0.7
GKN	53.02	309	P	56 52.50	-0.7
S.D. = 1.1 on 11 of 11 obs.					

? MAR 13, 1989 05h 56m 34.35± 0.99s
35.644 N ±15.3km 26.722 E ± 8.0km
DEPTH = 10.0km (geophysicist)
CRETE (370)
MD 3.1 (ATH).

KAP	0.38	104	iPgc	56 41.90	-0.3
NPS	0.98	248	ePg	56 53.00	0.0
YER	1.95	40	ePn	57 07.60	-0.3
VAM	2.07	264	ePb	57 13.70	4.1X
KSL	2.37	78	ePn	57 14.40	0.5
S.D. = 0.6 on 4 of 5 obs.					

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* MAR 13, 1989 06h 25m 33.45± 0.70s
5.132 S ± 9.7km 151.370 E ± 7.5km
DEPTH = 143.5 ± 8.5 km
4.7mb (4 obs.)
NEW BRITAIN REGION (192)

RAB	1.23	40	iPc	25 58.50	-1.5
	0.3s	6753.25nm			
			iS	26 18.00	
BGA	3.92	105	eP	26 36.00	2.6
PAA	4.26	106	eP	26 58.50	20.7X
			eS	27 22.00	
LAT	4.60	251	eP	26 43.00	0.7
PMG	5.96	224	eP	27 01.00	0.4
	0.7s	513.70nm			5.9mb X
			eS	28 09.00	
HNR	9.52	117	eP	27 47.00	-1.3
OIS	19.13	216	eP	29 47.00	-1.0
RMQ	21.38	186	eP	30 10.60	-0.2
	0.6s	20.00nm			4.7mb
WB5	22.11	227	eP	30 18.10	0.2
			eS	34 14.00	
DZM	22.28	140	iPc	30 19.60	-0.1
ASPA	24.96	221	iPc	30 45.00	-0.3
			eS	35 10.30	
MBL	34.49	240	iPd	32 09.20	-0.5
	0.3s	7.00nm			4.9mb
NANU	38.71	240	iPd	32 45.00	-0.2
	0.4s	6.00nm			4.7mb
GUN	71.08	302	P	36 39.10	0.4
DMN	71.65	301	P	36 42.60	0.6
GKN	72.16	301	P	36 45.00	0.2
GBA	75.69	285	Pd	37 05.30	0.2
	0.9s	4.40nm			4.2mb
S.D. = 1.1 on 16 of 17 obs.					

MAR 13, 1989 07h 37m 23.81± 1.11s
27.986 N ± 9.6km 55.281 E ± 6.3km
DEPTH = 70.5 ± 11.3 km
4.5mb (4 obs.)
SOUTHERN IRAN (353)

SHI	2.93	305	e(P)	38 11.00	1.9
BEE	4.68	246	ePn	38 32.10	-1.4
			(Sn)	39 24.10	
KHI	6.78	24	eP	39 02.60	-0.4
GBA	25.11	120	Pd	42 44.20	0.6
	1.0s	3.40nm			3.8mb
GKN	25.90	83	P	42 50.90	-0.2
KKN	26.49	83	P	42 56.40	-0.2
GUN	27.00	83	P	43 01.20	-0.2
MLR	29.06	315	eP	43 23.50	3.9X
WMQ	30.40	50	eP	43 31.00	-0.5
OHR	31.06	304	eP	43 36.00	-1.3
GTA	38.41	61	P	44 40.00	-0.3
NUR	38.54	336	eP	44 40.00	-0.8
SUF	39.62	339	eP	44 51.00	1.2
CHG	40.92	93	iPd	45 02.00	1.0
	0.8s	9.70nm			4.7mb
LZH	41.60	66	eP	45 06.00	-0.6
	1.0s	0.02nm			1.9mb X
HFS	42.68	331	eP	45 14.20	-0.7
	0.4s	6.60nm			4.8mb
LOE	43.90	94	eP	45 26.00	0.7
NAO	44.25	331	P	45 26.80	-0.8
	0.6s	2.90nm			4.3mb
CN2	57.37	54	eP	47 06.00	-1.0
KIC	60.62	261	P	47 30.60	0.7
MBC	75.97	359	eP	49 04.00	-0.2
FRB	78.51	338	eP	49 19.00	0.5
YKA	89.47	355	eP	50 15.80	1.8
S.D. = 1.0 on 22 of 23 obs.					

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* MAR 13, 1989 09h 26m 37.24± 0.39s
17.462 S ±11.5km 174.752 W ±10.6km
DEPTH = 206.2km (3 depth phases)
4.7mb (14 obs.)
TONGA ISLANDS (173)

AFI	4.55	39	iPc	27 40.00	-6.7X
			S	28 26.90	
			eLR	29 27.80	
DZM	18.28	252	iPd	30 37.80	-0.5
KRP	22.10	201	P	31 18.00	1.8
HNR	25.85	285	e(P)	31 54.00	2.4
COO	33.01	240	iPd	32 55.30	0.3
	0.6s	35.00nm			5.2mb
CAN	36.76	234	eP	33 26.00	-0.7
BWA	36.93	236	eP	33 25.30	-2.8
CTA	36.96	260	iPc	33 27.00	-1.4
	0.9s	11.34nm			4.5mb
			e	34 11.00	
CMS	38.28	241	iPd	33 39.10	-0.3
	0.9s	92.00nm			5.4mb
TOO	40.17	232	iPc	33 55.00	0.1
STK	41.91	242	eP	34 09.70	0.6
ASPA	48.27	254	iPd	34 58.70	-0.9
	1.0s	99.00nm			5.2mb
			iPcP	36 23.20	
COOL	59.29	244	eP	36 18.00	-1.7
KLB	62.14	243	eP	36 37.50	-1.4
BAL	63.12	244	eP	36 44.00	-1.3
MUN	63.43	243	iPc	36 47.00	-0.3
NANU	65.19	253	iPd	36 58.70	0.0
	0.5s	23.00nm			5.2mb
MAT	69.69	321	(P)	37 26.00	-0.5
	0.9s	9.24nm			4.5mb
SPA	72.65	180	e(P)	37 45.20	1.3
	1.0s	20.00nm			4.8mb
KVN	77.21	42	P	38 09.70	-0.5
TNP	77.22	43	P	38 09.80	-0.5
	1.0s	7.50nm			4.4mb
RMW	80.14	33	P	38 24.90	-0.8
PMR	81.39	12	P	38 30.50	-1.2
	0.6s	6.53nm			4.5mb
TTA	81.47	9	P	38 32.00	-0.3
	0.9s	5.21nm			4.3mb
CN2	81.84	321	P	38 34.80	0.3
ALQ	83.11	50	eP	38 41.00	-0.5
	1.0s	8.25nm			4.4mb
			epP	39 31.00	205km
FBA	84.65	11	P	38 47.60	-0.7
	0.6s	29.56nm			5.2mb
			pP	39 38.10	206km
BW06	84.66	42	P	38 48.40	-0.8
	0.8s	4.46nm			4.3mb
IMA	84.78	8	P	38 48.80	-0.3
MAW	85.43	199	eP	38 53.50	1.2
BJI	85.95	314	eP	38 56.50	1.3
GOL	86.01	46	P	38 55.50	-0.4
			pP	39 46.40	208km
SNG	87.04	278	eP	39 05.80	4.8X
SES	87.63	35	eP	39 02.00	-1.2
GYA	87.87	298	P	39 06.60	1.6
CHG	92.14	289	iPd	39 26.90	2.1
	0.6s	6.67nm			4.9mb
YKA	92.49	24	eP	39 25.50	0.1
SOB1	127.27	117	e(PKP)	45 19.00	-0.6
KRA	145.40	343	ePKP	45 52.10	0.3
KSP	145.55	348	iPKP	45 52.60	0.5
CLL	145.67	351	iPKPd	45 52.40	0.1
	1.3s	59.00nm			
BRG	145.95	350	iPKP	45 53.50	0.7
	1.2s	34.00nm			
SPC	146.10	342	e(PKP)	45 53.90	0.6
MOX	146.50	353	ePKP	45 55.50	1.8
	1.9s	56.00nm			
			e	46 49.00	
MLR	147.15	333	ePKPc	45 57.50	2.5
DOU	147.44	1	PKPc	45 58.30	3.1X
FLN	148.43	7	ePKP	45 59.80	3.0X
LDF	148.64	7	ePKP	46 00.10	3.0X
GRR	148.75	8	ePKP	46 00.90	3.6X
LPF	149.08	8	ePKP	46 01.60	3.8X
CDF	149.09	357	ePKP	46 01.70	3.7X
HAU	149.52	359	ePKP	46 02.90	4.4X

13d 09h

BSF	149.69	358	ePKP	46	03.00	4.1X
KBA	149.72	349	iPKPc	46	03.60	4.5X
	1.0s		7.00nm			
LOR	150.25	2	ePKP	46	04.80	5.1X
PTJ	150.27	345	ePKP	46	05.70	5.9X
SSF	150.45	2	ePKP	46	05.40	5.5X
LBF	150.54	2	ePKP	46	05.50	5.4X
MFF	150.60	8	ePKP	46	05.50	5.3X
AVF	150.71	3	ePKP	46	05.40	5.1X
SMF	150.88	2	ePKP	46	06.10	5.5X
BGF	150.92	3	ePKP	46	06.20	5.5X
TRI	150.95	348	ePKP	46	06.40	5.7X
LSF	151.13	5	ePKP	46	06.20	5.2X
TCF	151.15	4	ePKP	46	06.50	5.5X
MAF	151.24	4	ePKP	46	06.90	5.7X
LPG	152.02	358	ePKP	46	09.70	7.0X

S.D. = 1.2 on 43 of 67 obs.

? MAR 13, 1989 09h 36m 40.62± 5.41s
9.930 S ±54.0km 123.474 E ±18.4km
DEPTH = 33.0km (normal)
TIMOR (289)

KNA	7.75	139	eP	38	34.00	0.0
			eS	39	59.00	
MTN	8.05	112	eP	38	38.00	-0.2
			eS	40	06.00	
MBL	11.70	197	eP	39	28.00	-0.4
			iS	41	31.70	
WB5	14.44	134	eP	40	03.00	-1.7
			eS	42	36.00	
NANU	14.69	210	eP	40	07.00	-0.9
			eS	42	41.00	
ASPA	16.90	145	iPd	40	37.00	0.6
			eS	43	36.00	
MEKA	17.24	195	eP	40	42.00	1.4
			eS	43	41.00	
OIS	18.79	126	eP	41	01.00	1.1
			eS	44	21.00	

S.D. = 1.2 on 8 of 8 obs.

MAR 13, 1989 09h 41m 11.78± 0.81s
14.190 N ± 9.2km 92.064 W ± 5.5km
DEPTH = 45.3 ± 5.5 km
4.8mb (10 obs.) 3.6Msz (1 obs.)
NEAR COAST OF CHIAPAS, MEXICO (69)
Felt in Guotemolo and southern Mexico.

OC2	0.39	342	iPd	41	20.30	-1.1
SOG2	0.71	42	iPd	41	25.80	0.1
TPX	0.74	345	P	41	27.30	1.4
			iS	41	48.00	
KKG	0.78	2	iPc	41	25.00	-1.6
SBG	0.94	1	iPc	41	26.60	-2.4
FUG	1.21	78	iPc	41	32.60	-0.1
ITG	1.25	71	ePc	41	34.20	0.8
PSG	1.26	101	ePd	41	33.50	0.3
MMG	1.38	75	ePd	41	33.10	-2.2
BVA	1.46	71	iPc	41	37.50	1.1
REC	1.51	80	iPc	41	37.60	0.6
GCG	1.54	75	iPc	41	38.50	1.2
			S	42	04.00	
IXG	1.56	90	iPc	41	32.00	-5.7X
SLP	1.81	72	iPc	41	43.00	1.8
MYT	1.95	94	ePc	41	43.00	-0.1
YUP	2.19	89	ePc	41	46.60	-0.1
SCX	2.59	348	P	41	56.00	3.8X
			iS	42	37.00	
PBJ	3.92	305	P	42	06.00	-5.1X
			iS	43	25.50	
VHO	5.42	305	P	42	31.00	-1.4
CIPM	6.71	305	P	42	50.20	-0.1
SRP	7.21	311	P	42	58.00	0.8
IIT	7.67	310	P	43	06.00	1.9
III	8.24	301	P	43	11.50	-0.3
CRX	8.95	306	P	43	36.50	14.8X
			iS	44	54.00	
RSCP	22.10	14	P	46	05.10	0.3
	0.9s		12.60nm		4.3mb	
JSC	22.26	24	P	46	07.00	0.6
GBTN	22.52	17	P	46	09.90	1.0
TKL	22.64	18	P	46	11.20	1.1
ELC	23.14	6	P	46	15.00	0.1
FVM	23.74	3	P	46	15.20	-5.6X
ALQ	24.40	330	ePc	46	28.80	1.4
	0.8s		11.38nm		4.5mb	
GOL	27.97	338	P	47	00.30	-0.3
RSSD	31.53	343	P	47	31.60	-0.6
BW06	32.23	335	P	47	38.60	0.3
TNP	32.60	322	P	47	42.60	1.1
	0.8s		1.76nm		4.0mb	
KVN	33.76	322	P	47	52.60	1.1
HPI	34.49	333	P	47	58.70	0.8
LRM	35.92	335	eP	48	10.70	0.7
ZOBO	38.41	141	eP	48	31.00	-0.6
Z	22s		0.11um		3.6Msz	
			LR	00	10.00	
DPW	39.97	333	P	48	44.80	1.1
LON	40.90	329	P	48	52.50	1.3
PNT	41.68	333	eP	48	58.00	0.5
	0.8s		16.00nm		4.8mb	
EDM	42.43	341	eP	49	03.00	-0.7
MCW	42.71	330	P	49	06.90	0.8
YKC	50.78	347	ePd	50	08.50	-0.8
	0.8s		20.00nm		5.2mb	
YKA	50.83	347	eP	50	09.20	-0.4
FRB	52.14	13	eP	50	17.00	-2.6
SOB1	55.83	112	iPd	50	46.80	-0.5
ITR	57.89	110	eP	51	00.30	-1.7
INK	60.24	344	ePd	51	17.20	-0.2
PMR	62.22	333	P	51	30.30	-0.6
	0.8s		6.03nm		4.8mb	
KDC	62.47	328	P	51	32.90	0.3
	0.7s		9.30nm		5.0mb	
FBA	63.05	337	P	51	35.40	-0.9
	0.8s		8.10nm		4.9mb	
MBC	63.72	353	eP	51	39.00	-1.6
TTA	65.70	333	P	51	52.30	-1.4
	0.9s		14.58nm		5.0mb	
ALE	69.38	4	eP	52	14.00	-2.4
	0.8s		6.00nm		4.6mb	
HRI	111.41	45	iPKP	59	23.00	-20.3X
PRNI	112.51	48	ePKP	59	51.50	6.2X
NAI	127.87	80	ePKP	59	56.00	-19.5X
	1.0s		15.00nm			
CHG	145.46	341	ePKP	00	47.00	-0.4
LOE	145.78	336	ePKP	00	48.00	0.1
HYB	147.26	17	ePKP	00	52.50	2.1
GBA	150.49	21	PKPd	00	55.90	0.5
	0.5s		1.20nm			

S.D. = 1.2 on 55 of 63 obs.

MAR 13, 1989 09h 57m 36.84± 0.32s
38.110 N ± 3.3km 29.105 E ± 3.6km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 3.9 (ATH).

KHL	0.39	57	iPg	57	43.90	-1.0
YER	1.17	214	iPn	57	57.40	-1.4
ALT	1.23	40	iPn	57	59.60	-0.2
BCK	1.34	118	iPn	58	00.60	-1.0
IZM	1.48	282	iPn	58	03.50	0.0
ELL	1.50	155	iPn	58	03.90	0.0
DST	1.54	346	iPn	58	04.50	0.1
KSL	2.02	169	ePn	58	11.30	-0.1
			eSn	58	42.00	
KCT	2.21	345	iPn	58	15.30	1.1
GPA	2.37	23	iPn	58	15.90	-0.5
EDC	2.43	337	iPn	58	18.50	1.3
YLV	2.46	5	ePn	58	18.30	0.6
PRK	2.49	298	ePn	58	18.50	0.5
GBZT	2.69	6	ePn	58	28.70	7.8X
HRT	2.74	9	ePn	58	21.00	-0.7
EZN	2.76	309	iPn	58	22.30	0.4
ISK	2.95	359	ePn	58	25.00	0.4
KAP	2.99	212	ePn	58	25.10	0.0
CTT	3.08	350	ePn	58	26.00	-0.4
DMK	3.85	345	ePn	58	38.00	0.6
RDO	4.10	319	ePn	58	41.10	0.3
KDZ	4.53	322	iPc	58	48.00	0.9
LFK	4.54	127	eP	58	48.00	0.7
CSS	4.63	131	eP	58	48.50	0.0
RZN	4.92	318	iP	58	53.00	0.3
PLG	4.94	299	ePn	58	53.00	0.1
MMB	5.40	312	iPc	58	59.00	-0.4
PGB	5.82	321	eP	59	04.00	-1.3
PVL	5.85	332	iPd	59	06.00	0.4
KKB	5.95	311	eP	59	07.00	-0.1
VAY	5.97	305	ePn	59	08.00	0.6
KZN	6.10	293	ePn	59	09.80	0.5
TLB	6.52	353	eP	59	11.50	-3.6X
SKO	7.03	306	ePn	59	22.00	-0.3
			LR	02	15.00	
OHR	7.08	298	ePn	59	20.50	-2.5
CFR	7.11	355	eP	59	21.00	-2.3
ZNT	7.61	139	iPc	59	32.70	2.3
			eS	00	49.70	
VRI	7.95	348	ePc	59	35.50	0.3
BZS	9.35	326	ePc	59	55.50	1.0

S.D. = 1.0 on 37 of 39 obs.

• MAR 13, 1989 10h 16m 15.53± 0.77s
3.865 S ± 9.9km 128.986 E ±12.5km
DEPTH = 33.0km (normal)
4.9mb (2 obs.)
CERAM (272)

AAI	0.81	283	iPc	16	29.80	-0.7
			iS	16	38.00	
KNA	11.81	181	eP	19	04.50	-0.3
WB5	16.76	162	eP	20	07.90	-1.6
MBL	19.36	207	eP	20	41.00	-0.4
OIS	19.55	149	eP	20	43.00	-0.6
ASPA	20.25	167	iPc	20	51.10	0.1
	0.9s		35.00nm		4.7mb	
			i	20	57.60	
NANU	22.70	214	eP	21	17.70	2.0
CTA	23.31	135	iPc	21	23.00	1.4
MEKA	24.74	203	iPc	21	35.80	0.4
GUN	52.16	310	P	25	25.80	0.0
	0.6s		14.00nm		5.1mb	
KKN	52.56	310	P	25	28.40	-0.2
DMN	52.60	309	P	25	29.30	0.3
GKN	53.16	309	P	25	32.80	-0.2
LIJA	126.84	314	ePdiff	31	40.00	-18.8X

S.D. = 1.0 on 13 of 14 obs.

? MAR 13, 1989 10h 35m 32.89± 1.26s
42.925 N ±12.5km 18.375 E ±10.5km
DEPTH = 10 0km (geophysicist)
YUGOSLAVIA (383)
MD 2.2 (TTG).

BRY	0.13	101	iPgc	35	36.30	0.2
			iSg	35	40.00	
HCY	0.49	169	ePg	35	43.20	0.4
			eSg	35	51.60	
BDV	0.72	152	ePg	35	46.50	-0.6
			eSg	35	58.60	
HVAR	1.43	281	iPn	35	58.90	0.0
			iSn	36	19.70	

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

MAR 13, 1989 12h 37m 54.77± 0.79s
35.585 N ± 9.0km 139.601 E ± 7.5km
DEPTH = 33.0km (normal)
NEAR S. COAST OF HONSHU, JAPAN (230)
MG 3.3 (JMA). Felt (I JMA) at at Tokyo and Yokohama.

YOK	0.15	163	eP	38	01.00	0.1
			S	38	06.70	
TOK	0.16	52	iP	38	01.00	0.0
			iS	38	06.50	
CHJJ	0.68	313	iPd	38	06.40	-1.5
			eS	38	15.80	
KAKJ	0.77	37	iPd	38	09.10	-0.1
			S	38	19.40	
IIDJ	1.38	266	P	38	17.80	-0.2
MAT	1.48	311	iPd	38	19.90	0.6
			iS	38	40.50	
NIIJ	1.72	344	P	38	23.10	0.3
MTMJ	1.76	305	P	38	24.40	0.8

S.D. = 0.8 on 8 of 8 obs.

MAR 13, 1989 13h 02m 14.78± 0.14s
50.711 N ± 1.8km 9.896 E ± 1.6km
DEPTH = 1.0km (geophysicist)
5.4mb (27 obs.) 4.7Msz (1 obs.)
GERMANY (543)
ML 5.8 (ZUR), 5.7 (GRF), 5.6 (BNS), 5.5 (LDG). Rockburst triggered by blasting at the Ernst Thoelmonn Mine near Merkers. Three people injured and 80 percent of buildings damaged in the Voelkershausen area. Felt in large parts of Germany, as far west as Koln and

Dusseldorf. Also felt in France, Czechoslovakia, Switzerland and Austria.

HAT	0.12	14	iPgd	02	18.20	1.0
MOX	1.10	93	iPgd-	02	35.50	-0.7
			iSg	02	48.00	
GRF	1.33	140	iPn	02	41.10	0.9
			Pg	02	42.80	
			Sg	03	02.50	
KOE	1.41	259	ePnd	02	42.60	1.1
BGG	1.71	254	ePnd	02	46.90	1.0
BNS	1.74	279	iPnd	02	47.19	0.9
			iPgc	02	49.08	
			Sg	03	21.65	
CLL	2.05	72	iPnd	02	48.80	-2.0
	1.3s	560.00nm				
			iPg	02	51.20	
			iSg	03	17.00	
GWF	2.28	221	Pn	02	55.44	1.3
			Pg	03	03.77	
KLL	2.28	270	iPnd	02	54.80	0.6
WTS	2.32	305	iPn	02	55.10	0.4
	1.0s	936.00nm				
			iPb	02	57.80	
MEM	2.48	269	iPd	02	57.71	0.8
			i	02	59.30	
			S	03	44.40	
ENN	2.52	273	iPnd	02	58.30	0.7
	0.7s	422.00nm				
			iPg	03	05.00	
STR	2.54	214	Pn	02	58.22	0.4
			Pg	03	09.45	
BRG	2.58	85	iPnd	02	56.50	-1.8
	1.2s	900.00nm				
			iPg	03	05.00	
			iSg	03	35.00	
WLF	2.62	248	iP	03	00.00	1.0
			i	03	08.30	
FUR	2.70	160	P	03	01.00	0.8
KHC	2.86	122	iPnd	03	02.80	0.4
			Pg	03	11.00	
			Sn	03	36.00	
			Sg	03	48.00	
CDF	2.86	218	Pn	03	03.06	0.5
			Pg	03	14.89	
WIT	2.91	318	i(Pb)	03	05.00	2.0
			iPg	03	11.00	
PRU	3.06	102	Pnd	03	04.70	-0.5
			Sn	03	40.00	
			Sg	03	53.00	
SLE	3.09	198	ePd	03	05.00	-0.6
FEL	3.09	204	Pn	03	04.93	-0.9
DBN	3.27	297	ePn	03	11.00	2.9
			eSn	03	52.00	
ZLA	3.38	198	ePd	03	09.00	-0.8
MOF	3.39	213	Pn	03	10.24	0.3
			Pg	03	24.85	
DOU	3.45	262	Pc	03	12.30	1.6
			id	03	12.70	
			id	03	13.20	
			S	04	06.00	
			e	13	33.50	
SAX	3.48	186	ePd	03	11.10	-0.4
UCC	3.52	274	P	03	12.70	1.0
			S	04	11.60	
BSF	3.53	216	Pn	03	11.22	-0.7
			Pg	03	28.09	
HAU	3.57	222	Pn	03	11.30	-1.1
			Pg	03	28.00	
			Sg	04	13.30	
VITF	3.57	227	Pn	03	13.38	1.0
			Pg	03	29.72	
SNF	3.58	269	P	03	14.54	2.0
			S	04	12.50	
BBS	3.61	207	Pn	03	13.64	0.6
			Pg	03	29.45	
KMR	3.84	132	iPn+	03	17.20	0.9
			iPg	03	32.40	
			i	03	58.60	
			iSn	04	04.80	
			iSg	04	26.20	
LLS	3.89	189	ePd	03	16.70	-0.6
LOMF	3.92	212	Pn	03	18.16	0.6
			Pg	03	35.94	
OSS	4.03	178	eP+	03	19.30	0.1
KSP	4.06	86	iPnd	03	17.90	-1.5
			iPg	03	33.50	
			i(Sn)	04	04.00	
			i(Sg)	04	19.00	
VDL	4.24	184	eP+	03	22.10	0.0
KBA	4.29	147	iPnd	03	23.20	0.4
			ic	03	24.00	
FVI	4.54	154	P	03	27.10	0.9
TMA	4.66	189	ePd	03	29.70	1.6
CTI	4.81	165	P	03	31.90	1.7
			eSn	04	57.00	
MMK	4.84	196	ePd	03	29.90	-0.8
VKA	4.85	118	iPnc	03	30.10	-0.5
			i	03	32.30	
VIE	4.88	118	iPn+	03	32.90	1.8
			i	03	49.30	
			i	03	56.00	
			iSn	04	27.10	
			i	04	42.00	
			i	04	53.60	
VAI	4.91	189	P	03	30.60	-0.8
			eSn	04	57.70	
RBL	4.92	149	P	03	31.70	0.0
DIX	4.92	201	ePd	03	30.50	-1.4
MDI	4.94	182	P	03	33.20	1.3
			eSn	04	59.70	
VVI	5.02	159	P	03	35.30	2.2
EMS	5.05	204	eP+	03	31.80	-1.8
SAL	5.12	175	P	03	35.20	0.7
ORX	5.24	195	P	03	36.99	0.7
ORO	5.25	195	P	03	37.60	1.2
LOR	5.26	231	Pn	03	35.00	-1.5
			Pg	03	58.10	
			Sg	05	08.40	
SOP	5.31	122	iPnd	03	35.40	-1.8
ZST	5.33	115	iPn	03	36.50	-0.9
	2.0s	73.00nm			5.0mb	
			i(Pb)	03	46.00	
			i	04	06.50	
			i	04	18.10	
			i(Sn)	04	36.00	
			i	04	40.00	
			i(Sg)	04	58.00	
VOY	5.39	149	ePn	03	39.00	0.7
			e(Sn)	04	37.50	
LBF	5.40	229	Pn	03	36.80	-1.7
			Pg	04	00.40	
LSD	5.57	200	P	03	39.82	-1.2
SSF	5.58	232	Pn	03	39.40	-1.5
			Pg	04	03.20	
LPL	5.61	203	Pn	03	40.30	-1.4
			Pg	04	03.30	
LPG	5.63	203	Pn	03	40.20	-1.7
TRI	5.63	151	ePn	03	41.80	0.1
			iPb	03	53.60	
			iSn	04	40.10	
			iSb	05	03.50	
			iSg	05	09.50	
			i	05	13.00	
			i	05	29.10	
SMF	5.71	227	Pn	03	42.30	-0.5
CEY	5.82	147	ePn	03	44.10	-0.3
			iPg	04	09.50	
			eSg	05	30.50	
RSP	5.84	199	P	03	44.13	-0.6
AVF	5.84	230	Pn	03	44.50	-0.1
BOB	5.96	183	P	03	47.50	1.2
BNI	6.06	202	P	03	47.00	-0.9
RRL	6.16	201	P	03	47.77	-1.6
SRO	6.23	115	iPn	03	50.30	0.3
			i	04	11.60	
			i	04	41.80	
			i(Sn)	05	17.20	
BGF	6.25	231	Pn	03	49.40	-1.0
PTJ	6.29	138	ePn	03	49.80	-1.2
			e	04	05.00	
			e	04	31.50	
			e(Sn)	04	35.80	
			e	04	50.40	
			e	05	04.20	
PLDF	6.32	224	Pn	03	50.51	-1.0
			Pg	04	21.68	
VBY	6.33	143	iPn	03	51.20	-0.2
			i(Sn)	04	59.40	
			iSg	05	38.00	
GEN	6.33	186	P	03	52.79	1.2
ZAG	6.36	138	iPn	03	52.40	0.4
			iSg	05	40.70	
CKI	6.38	190	P	03	53.40	1.1
KRA	6.46	92	eP	03	50.40	-2.9
	0.9s	387.00nm			6.4mb	
			i	03	53.00	
			i	03	58.40	
			i	05	02.60	
			i	05	06.60	
DOI	6.46	197	P	03	53.00	-0.5
AGO	6.48	227	Pn	03	52.37	-1.3
			Pg	04	24.46	
PZZ	6.49	198	P	03	53.20	-0.8
MME	6.54	175	P	03	55.10	0.3
ROB	6.56	193	P	03	54.23	-0.7
FIN	6.61	191	P	03	55.15	-0.3
MAF	6.63	230	Pn	03	54.20	-1.5
BDI	6.67	176	P	03	55.50	-0.9
STV	6.70	196	P	03	56.28	-0.6
TCF	6.76	232	Pn	03	56.20	-1.3
PYM	6.77	225	Pn	03	58.53	0.8
			Pg	04	29.23	
BUD	6.81	115	iPnc	03	57.00	-1.2
LDF	6.84	256	Pn	03	58.50	-0.2
			Pg	04	25.60	
SPC	6.85	99	ePn	03	56.60	-2.4
	1.8s	9.70nm			4.6mb	
			i	03	58.70	
			i	04	19.30	
			i	04	33.30	
			i	04	53.70	
			i(Sn)	05	07.10	
			i	05	45.80	
SFI	6.92	168	P	04	01.10	1.3
AUTN	6.92	195	Pn	03	59.78	-0.3
TOUF	6.94	196	Pn	04	00.80	0.5
IMI	6.94	192	P	04	00.59	0.4
PGD	6.95	169	P	03	59.90	-0.5
FIR	7.00	172	ePn	04	01.00	0.1
			eSn	05	25.00	
FLN	7.00	258	Pn	04	01.40	0.4
RSM	7.01	165	P	04	01.00	0.0
PII	7.01	176	P	04	00.30	-0.7
AURF	7.05	195	Pn	04	03.53	1.8
SBF	7.05	195	Pn	04	00.00	-1.8
LBL	7.07	222	Pn	04	00.10	-1.7
MVIF	7.07	196	Pn	04	02.51	0.5
WAR	7.12	73	eP	04	00.00	-2.6
			e	04	10.00	
			e	05	20.00	
			e	05	40.00	
LSF	7.13	234	Pn	04	01.40	-1.3
GRR	7.37	256	Pn	04	06.40	0.3
FRF	7.49	198	Pn	04	06.80	-1.0
ARV	7.51	163	P	04	07.00	-1.1
AOI	7.60	159	eP	04	08.36	-0.9
LPF	7.63	254	Pn	04	09.70	0.0
LRG	7.65	200	Pn	04	09.00	-1.0
LMR	7.73	199	Pn	04	10.20	-1.0
SSO	7.80	161	e(P)	04	09.66	-2.5
MFF	7.82	242	Pn	04	12.20	-0.1
			Pg	04	46.20	
CAF	7.83	225	Pn	04	11.60	-0.9
CIO	7.84	162	eP	04	11.60	-1.2
ASS	7.87	165	P	04	15.92	2.7
CVF	8.18	185	Pn	04	16.72	-0.8
ALP	8.32	161	eP	04	18.54	-1.1
MAO	8.34	174	P	04	19.50	-0.3
LPO	8.42	228	Pn	04	21.20	0.5
LFF	8.44	230	Pn	04	20.00	-1.1
MNS	8.55	166	P	04	21.40	-1.2
AQU	8.70	163	P	04	24.00	-0.8
HVAR	8.76	147	ePnd	04	24.30	-1.2
			iPg	05	04.20	
			iSn	06	04.20	
			iSg	06	52.10	
BLS1	8.87	350	iP	04	23.70	-3.5X
KMY	8.93	344	iP	04	23.10	-4.7X
TIM	9.05	119	iPc	04	29.30	-0.1
AZI	9.06	163	P	04	28.90	-0.7
ESY	9.12	310	ePc	04	27.60	-2.9
	0.8s	357.00nm			6.9mb X	
ESK	9.14	305	ePd	04	29.00	-1.7
	1.0s	600.00nm			7.0mb X	
EBL	9.26	308	eP	04	29.80	-2.6
BZS	9.34	119	ePc	04	31.00	-2.5
EDI	9.40	309	ePc	04	31.00	-3.3X
	0.8s	500.00nm			7.0mb X	
SDI	9.41	162	P	04	32.50	-2.0

13d 13h

ODD1		9.41	350	iP	04	30.20	-4.3X	BUC1		12.61	114	ePd	05	18.00	-0.1				i	07	36.50		
EAU		9.50	308	eP	04	33.10	-2.6	VAL		12.66	283	eP	05	20.00	1.4	LFK		23.02	123	eP	07	20.00	-2.3
DUI		9.59	159	P	04	37.40	0.4	PGB		12.74	124	iPd	05	20.00	0.1	CSS		23.16	124	eP	07	24.00	0.5
EDU		9.63	312	iPc	04	36.00	-1.6	GRI		12.76	156	P	05	22.40	2.3	ATZ		25.83	124	iPd	07	52.00	2.8
ETER		9.71	213	e(P)	04	39.00	0.5	LVI		12.84	171	P	05	22.80	1.6	PRNI		27.66	128	eP	08	07.00	1.0
EBH		9.72	310	ePc	04	35.60	-3.1X	NUR		12.85	35	iP	05	18.20	-2.9	MSL		27.76	108	ePd	08	08.50	1.7
		0.9s	678.00nm			7.1mb X			Z	23s	2.60um			6.1MszX		MBH		28.07	129	e(P)	08	07.00	-2.7
BRY		9.80	140	ePn	04	40.80	0.8					LR	10	30.00		SLY		29.70	107	ePd	08	25.00	0.7
				eSn	06	37.00		VAY		12.86	132	iP	05	20.50	-0.9	BHD		30.63	111	ePd	08	34.00	1.5
PLE		9.82	135	ePn	04	39.50	-0.7	PVL		12.92	120	iPd	05	22.00	-0.2	IR7		32.79	101	eP	08	52.00	0.4
MLS		9.82	221	ePc	04	44.50	4.3X	ETOR		12.92	225	e(P)	05	26.00	3.6X	IR2		32.99	101	eP	08	52.90	-0.5
RFI		9.83	162	P	04	49.59	9.3X	SRN		12.94	143	eP	05	20.50	-2.0	IR1		33.02	102	eP	08	53.60	-0.1
CJR1		9.85	108	eP	04	40.70	0.2	LSK		12.95	141	eP	05	20.00	-2.7	IR5		33.09	102	eP	08	55.80	1.6
DEV		9.92	114	iPc	04	40.00	-1.5	ATN		13.16	160	P	05	26.50	1.1	IR4		33.27	102	eP	08	56.20	0.4
ELO		9.93	311	eP	04	38.30	-3.3X	MMB		13.22	128	iPc	05	25.00	-1.2	GDH		34.66	326	iPc	09	06.50	-0.8
SLL		9.98	10	eP	04	37.00	-5.3X	MNO		13.23	163	P	05	26.20	-0.3			0.9s	58.82nm			5.5mb	
		0.5s	11.80nm			5.7mb		GMB		13.24	159	P	05	45.20	18.6X	ALE		37.75	348	eP	09	33.00	-0.3
BER		10.03	347	eP	04	35.80	-7.2X	KZN		13.31	137	eP	05	24.70	-2.7			1.4s	42.00nm			5.0mb	
EPF		10.08	224	Pn	04	43.30	-0.5	PLD		13.34	124	eP	05	27.00	-0.8	STJ		40.01	291	eP	09	54.00	1.5
NRA0		10.09	5	iPnc	04	37.80	-6.0X	MCT		13.35	167	P	05	29.00	0.9	FRB		41.58	319	eP	10	04.00	-1.2
				iSn	06	25.10		CFR		13.42	107	ePc	05	28.00	-0.7	SCH		44.42	306	eP	10	29.00	0.5
				iSg	07	51.50		ECHE		13.49	219	e(P)	05	35.00	5.2X	KUK		45.20	194	eP	10	37.00	1.9
EAB		10.10	308	ePc	04	40.80	-3.2X	RZN		13.64	126	eP	05	33.00	1.0	KOGH		45.28	194	eP	10	33.50	-2.3
		0.9s	589.00nm			7.1mb X		TLB		13.66	110	iPd	05	33.00	1.1	SHGH		45.40	194	eP	10	39.00	2.3
NAO		10.15	3	P	04	37.90	-6.8X	EMON		13.79	245	e(P)	05	37.00	3.2X	TIC		45.65	201	P	10	38.00	-0.7
HCY		10.16	141	ePn	04	46.00	1.2	DIM		13.82	123	eP	05	34.00	-0.1	LEGH		45.70	194	eP	10	40.00	1.0
UPP		10.16	23	iPn	04	42.50	-2.3	PLG		14.01	132	eP	05	37.90	1.2	KIC		45.86	200	P	10	40.08	-0.3
				iSn	06	22.50		KDZ		14.04	124	eP	05	36.00	-1.0	LIC		46.06	201	P	10	41.44	-0.5
				i	06	46.50		GUD		14.04	230	e(P)	05	48.50	11.3X	KSH		46.52	77	eP	10	47.50	2.0
				i	06	56.50		MEU		14.08	163	P	05	36.80	-0.8		Z	14s	1.80um			5.2MszX	
				iLg	07	41.00		JMB		14.11	119	eP	05	18.00	-19.9X	BNG		46.69	168	iPc	10	45.50	-1.4
ETA		10.20	287	eP	04	44.50	-0.8	ACU		14.22	215	e(P)	05	43.20	3.8X			0.6s	84.00nm			6.0mb	
		1.1s	551.00nm			7.0mb X		PSN		14.26	112	iPc	05	41.00	1.1				i	10	47.80		
ECP		10.26	285	P	04	45.20	-1.0	ERUA		14.35	241	e(P)	05	40.40	-0.7				i	12	21.10		
		1.0s	260.00nm			6.7mb X		RDO		14.46	125	eP	05	43.80	1.3	QUE		46.72	94	eP	10	47.50	0.2
IVA		10.41	135	ePn	04	49.50	1.2	TOL		14.59	227	eP	05	48.00	3.8X	MBC		49.22	346	eP	11	06.00	0.0
DLE		10.46	291	eP	04	46.80	-2.1					ePP	06	07.50		WMO		50.96	66	P	11	19.20	-0.6
		0.8s	174.00nm			6.6mb						eS	09	20.00			Z	14s	2.30um			5.3MszX	
				eS	06	52.00		NEO		14.77	135	eP	05	38.90	-7.7X	LWI		55.17	157	iPc	11	52.80	1.3
TTG		10.49	139	ePn	04	50.50	1.2	SUF		14.92	30	eP	05	44.00	-4.4X	BRW		57.92	355	eP	12	10.00	-0.2
				eSn	07	09.20				0.6s	4.00nm			4.1mb X		INK		58.22	345	eP	12	12.00	-0.3
BSS		10.49	159	P	04	49.20	-0.2	EVIA		14.92	221	e(P)	05	53.50	4.8X	YKC		58.88	333	ePc	12	16.00	-1.1
ECB		10.52	286	eP	04	47.30	-2.4	DMK		15.19	119	eP	05	51.00	-1.0			0.7s	7.00nm			4.9mb	
		1.2s	527.00nm			6.9mb X		EPLA		15.43	233	e(P)	05	59.50	4.2X	YKA		58.91	333	eP	12	16.60	-0.7
HYA		10.68	350	iP	04	47.70	-4.2X	EZN		15.84	127	eP	06	00.00	-0.5	RSON		59.85	315	P	12	22.40	-1.6
SUE		10.76	347	eP	04	49.60	-3.3X	EBAN		15.87	223	e(P)	06	05.00	4.1X	FFC		60.57	322	eP	12	29.00	0.2
DMU		10.77	294	eP	04	51.60	-1.6	ITM		16.03	143	eP	05	59.00	-4.0X			1.4s	71.00nm			5.6mb	
		0.7s	64.00nm			6.2mb		ISK		16.42	119	eP	06	01.00	-6.9X	GTA		60.74	63	eP	12	29.80	-0.6
ULC		10.87	140	ePn	04	53.50	-1.0	KJF		16.48	28	eP	06	03.00	-5.5X		Z	10s	0.80um			5.2MszX	
DCN		10.90	291	eP	04	54.80	-0.1			0.8s	126.20nm			5.1mb		IMA		62.87	353	ePc	12	44.20	-0.1
		1.1s	580.00nm			6.9mb X						i	06	09.00				1.1s	48.40nm			5.6mb	
SDA		10.93	139	eP	04	55.20	-0.1					iS	09	02.00		FBA		63.43	350	eP	12	47.20	-0.6
BRT		11.07	150	P	04	53.80	-3.5X	ASMO		16.53	221	iPd	06	15.00	5.6X	LZH		65.34	63	eP	13	00.00	-0.9
PUK		11.07	138	iP	04	58.40	1.1	AFC		16.53	221	e(P)	06	15.00	5.5X			2.0s	110.00nm			5.7mb	
KKS		11.27	136	eP	05	01.50	1.5	CRT		16.61	221	eP	06	18.50	8.1X		N	13s	0.50um				
MGR		11.29	157	P	04	59.90	-0.4	AAPN		16.73	222	iPc	06	17.60	5.6X	GBA		65.38	99	Pc	13	00.20	-0.9
LACI		11.33	139	iPd	05	01.00	0.2	EHOR		16.80	226	e(P)	06	16.70	4.0X			1.0s	19.40nm			5.3mb	
PTT		11.51	103	eP	05	03.00	-0.2	APHE		16.85	220	iPd	06	19.20	5.7X	TKL		65.49	297	P	13	00.00	-1.6
TIR		11.64	140	eP	05	05.50	0.5	ALOJ		16.89	222	iPd	06	19.20	5.2X	GBTN		65.74	297	P	13	03.00	-0.2
ECRI		11.75	231	e(P)	05	10.50	4.0X	HRT		16.92	118	eP	06	17.00	2.6	EDM		65.97	327	eP	13	03.50	-1.0
LCI		11.81	148	P	05	05.70	-1.5	ATEJ		17.02	221	iPd	06	20.70	5.1X	HHC		66.09	54	eP	13	05.80	0.3
SKO		11.82	133	iPd	05	07.90	0.4	IZM		17.40	128	eP	06	22.00	1.6		Z	14s	3.60um			5.7MszX	
		1.9s	176.00nm			6.1mb		EPRU		17.50	224	e(P)	06	28.00	6.5X		N	12s	2.00um				
	Z	10s	7.73um					ALJ		17.91	224	iP	06	35.00	8.3X		E	12s	1.10um				
	N	11s	7.47um					EJIF		18.03	224	e(P)	06	32.00	3.8X	TTA		66.16	353	eP	13	05.70	0.1
				iPP	05	17.00		SRQ		18.15	223	eP	06	35.00	5.4X	PMR		66.80	349	eP	13	08.90	-0.6
				iS	07	40.00		TAF		18.24	214	iP	06	37.00	6.2X			1.1s	28.10nm			5.4mb	
				i	08	04.00		MOMI		18.25	224	eP	06	36.00	5.1X	ELC		67.35	301	P	13	12.60	-0.8
				i	08	47.00		OJEN		18.36	223	eP	06	37.00	4.8X	PTZ		67.35	157	iPc	13	16.00	2.3
				LR	10	03.00		CNIL		18.36	225	eP	06	35.00	2.8	SES		67.43	324	eP	13	13.00	-0.8
EBR		11.86	217	eP	05	17.00	9.0X	ALT		18.40	122	eP	06	33.00	0.2	FVM		67.48	303	P	13	13.00	-1.3
				eS	08	48.00		PLAT		18.44	224	eP	06	34.00	0.8	LSZ		67.64	161	eP	13	18.00	2.5
EROO		11.89	217	e(P)	05	13.00	4.6X	KHL		18.62	124	eP	06	37.00	1.5	KOD		67.98	101	eP	13	18.00	0.0
MLR		11.92	110	iPc	05	09.00	0.0	SOD		18.68	20	iP	06	32.30	-3.5X	TIY		68.86	56	eP	13	23.50	0.6
TDS		11.94	155	P	05	08.40	-0.7	YER		18.89	129	eP	06	37.00	-1.8	BJI		69.04	52	eP	13	23.50	-0.4
IAS		12.13	100	eP	05	12.00	0.4	BBTK		19.34	115	iP	06	46.00	1.7		Z	14s	3.20um			5.7MszX	
VRI		12.20	107	iP	05	12.00	-0.6	BCK		19.82	124	iP	06	51.50	1.8		N	13s	1.60um				
BERA		12.22	141	eP	05	11.00	-1.8	ELL		20.01	127	eP	06	52.90	1.1		E	13s	1.00um				
VTS		12.22	127	iPd	05	13.00	0.0	IFR		20.41	218	iP	06	55.00	-1.1	CD2		69.04	67	eP	13	22.50	-1.6
OHR		12.23	138	iP	05	06.70	-6.3X					i	06	57.50		RSSD		69.53	315	P	13	26.80	-0.3
CLI		12.23	103	iPd	05	11.70	-1.3	KVT		20.49	108	iP	06	56.20	-0.6	XAN		69.68	61	P	13	26.80	-1.2
VLO		12.24	143	eP	05	09.00	-4.1X	KEV		20.75	17	iP	06	55.80	-3.3X		N	10s	0.70um				
ISR		12.47	110	iPd	05	19.20	2.9			0.7s	45.40nm			4.9mb		OLY		69.88	302	P	13	28.20	-0.9
BIR		12.57	104	eP	05	17.00	-0.5					i	07	00.20		CN2		70.50	44	eP	13	31.60	-1.2
BRD		12.58	108	iPc	05	18.30	0.7					eS	10	45.00		KDC		70.94	350	e(P)	13	37.10	1.9
PPE		12.58	104	iPc	05	18.50	0.8	AVE		21.55	223	iPd	07	10.50	3.0X	SNY		71.22	46	eP	13	35.20	-1.9
TPE		12.59	142	eP	05	19.20	1.4					i	07	23.00		PNT		71.40	328	eP	13	38.00	-0.2

LRM	71.71	322	eP	13	38.20	-2.2
			e	13	43.00	
LNO	71.87	305	P	13	40.60	-0.4
			e	13	42.20	
TIA	72.44	54	P	13	45.10	0.6
ITR	72.48	231	eP	13	46.40	1.5
KMI	72.70	71	Pc	13	47.00	0.5
BW06	73.01	318	P	13	47.60	-0.5
	1.4s	54.24nm			5.5mb	
GLD	73.53	313	P	13	53.00	1.9
GOL	73.64	313	P	13	52.00	0.2
RMW	73.74	328	P	13	52.00	-0.1
GMW	73.99	329	P	13	54.20	0.8
GYA	74.04	68	P	13	55.00	0.8
SOB1	74.09	233	ePc	13	54.90	0.5
			e	13	57.30	
VGB	75.08	327	P	14	01.70	1.9
ATB	75.35	246	e(P)	14	04.90	3.2X
DUG	76.53	318	P	14	09.00	0.8
	1.0s	18.75nm			5.2mb	
NJ2	76.57	56	Pc	14	09.60	1.2
	2.0s	0.40nm			3.2mb X	
AVY	76.90	143	iPc	14	12.70	2.2
SLR	77.83	163	iPc	14	17.00	1.6
ALQ	77.98	311	ePc	14	16.90	0.5
	1.1s	18.67nm			5.1mb	
EUR	78.43	320	iP	14	22.00	3.1X
	0.5s	12.24nm			5.2mb	
SSE	78.54	55	eP	14	18.50	-0.7
BFS	78.70	165	iPd	14	21.50	1.3
	1.0s	32.00nm			5.3mb	
PRY	78.85	164	iPd	14	23.50	2.5
	0.7s	12.50nm			5.1mb	
KVN	79.66	321	P	14	25.80	0.3
MIN	79.88	324	ePc	14	28.20	1.6
WDC	80.02	325	ePc	14	28.50	1.4
TNP	80.13	320	P	14	28.40	0.3
ORV	80.53	324	e(P)	14	32.00	2.1
BLF	80.77	166	eP	14	34.00	2.7
	1.0s	50.00nm			5.5mb	
FRS	81.26	166	eP	14	34.60	1.0
	1.0s	45.00nm			5.5mb	
CMB	81.43	322	ePc	14	37.00	2.3
MAT	81.94	40	eP	14	38.00	0.7
	1.3s	40.38nm			5.4mb	
FRI	82.07	321	ePc	14	40.50	2.6
CLC	82.23	319	eP	14	42.00	3.1X
BRK	82.29	324	e(P)	14	40.30	1.2
MHC	82.52	323	ePc	14	44.10	3.6X
ISA	82.72	320	eP	14	43.00	1.5
LLA	82.88	322	ePc	14	46.60	4.4X
GCC	82.93	323	e(P)	14	47.70	5.3X
TPC	83.04	317	eP	14	45.00	1.8
BAO	83.17	235	e(P)	14	41.00	-3.0X
PRI	83.19	322	ePc	14	47.90	3.9X
SBB	83.30	319	eP	14	48.00	3.5X
PRS	83.30	322	ePc	14	48.00	3.6X
GLA	83.41	316	eP	14	46.00	1.0
RVR	83.70	318	eP	14	49.00	2.5
MWC	83.79	319	eP	14	50.00	2.8X
PLM	84.04	318	eP	14	53.00	4.6X
BAR	84.53	317	eP	14	54.00	3.3X
ITA	87.20	229	eP	15	08.80	4.6X
ZOBO	95.06	251	eP	15	42.00	0.8
Z	22s	0.32um			4.7Msz	
		LR		49	15.00	
LPB	95.25	250	(P)	15	45.00	3.1X
CNCB	95.39	250	P	15	45.00	2.3
SPA	140.52	180	e(PKP)	21	43.00	-3.4X
	1.0s	5.00nm				
COO	145.36	69	ePKP	21	57.00	1.2
BWA	145.91	78	ePKP	21	59.00	2.4
DZM	146.04	41	iPKPc	21	58.70	1.5
CAN	146.85	78	ePKP	22	01.00	2.9X
SBA	151.42	170	PKP	22	14.10	10.3X
	S.D. = 1.3	on 324 of 397 obs.				

MAR 13, 1989 13h 06m 46.63± 0.45s
22.598 N ± 7.8km 91.967 E ± 6.0km
DEPTH = 33.0km (normol)
4.1mb (4 obs.)
BANGLADESH (316)

CHG	7.54	119	iPc	08	36.90	-0.2
	1.0s	45.00nm			5.4mb X	
		eS		12	02.00	
GUN	7.64	315	P	08	39.30	0.5
PKI	7.74	311	P	08	40.00	-0.1
KKN	7.96	312	P	08	43.70	0.5
DMN	7.97	310	P	08	43.40	0.0
BDT	8.49	128	eP	08	48.90	-1.4
GKN	8.54	311	P	08	50.40	-0.8
KHT	9.99	140	eP	09	12.50	1.5
HYB	13.62	250	eP	10	00.00	0.1
			eS	12	21.00	
NDI	14.61	298	eP	10	12.50	-0.4
	0.5s	3.52nm			4.1mb	
			eS	12	14.00	
GBA	16.44	240	Pd	10	43.60	7.0X
	0.8s	4.70nm			3.7mb	
LZH	16.95	35	eP	10	44.50	1.5
	2.0s	27.00nm			4.0mb	
POO	17.44	260	iPd	10	49.50	0.4
			iS	13	55.50	
PSI	20.90	160	ePc	11	44.20	15.4X
BJI	26.89	44	eP	12	30.00	3.7X
SSE	27.35	66	eP	12	29.50	-1.2
			i	14	18.50	
WB5	59.13	132	eP	16	47.00	0.4
HFS	64.86	327	eP	17	23.50	-1.0
	0.4s	0.80nm			4.2mb	
	S.D. = 0.9	on 15 of 18 obs.				

% MAR 13, 1989 14h 21m 26.62± 0.95s
60.659 N ± 6.6km 6.303 E ±13.9km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.6 (BER).

HYA	0.51	354	iP	21	36.70	-0.3
			eS	21	45.70	
ODD1	0.77	168	eP	21	40.40	-1.2
			eS	21	48.10	
BLS1	1.30	168	eP	21	51.10	0.4
			eS	22	05.60	
KMY	1.55	201	iP	21	54.90	0.7
			eS	22	12.80	
NRA0	2.58	86	eP	22	09.50	0.4
			iPg	22	12.20	
			iS	22	46.50	
	S.D. = 1.1	on 5 of 5 obs.				

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* MAR 13, 1989 14h 42m 33.31± 1.22s
20.756 S ±14.8km 177.255 W ±15.2km
DEPTH = 494.5 ± 9.8 km
5.1mb (9 obs.)
FIJI ISLANDS REGION (181)

VUN	4.88	303	eP	44	00.20	0.5
SGE	5.54	304	eP	44	07.10	1.1
			eS	45	20.40	
AFI	8.58	38	eP	44	35.70	-1.3
			e(S)	46	08.50	
DZM	15.24	262	iPc	45	46.10	-0.5
KRP	18.21	199	P	46	21.90	6.3X
			pP	46	29.00	
COO	29.40	244	eP	47	58.60	1.3
	0.5s	28.00nm			5.0mb	
RMO	31.60	253	iPd	48	15.90	-0.3
	0.7s	71.00nm			5.3mb	
CAN	32.95	237	eP	48	28.80	1.3
BWA	33.16	238	eP	48	28.00	-1.3
CTA	34.16	265	iPd	48	37.20	-0.5
	0.8s	82.09nm			5.3mb	
			e	52	40.00	
			e	58	30.00	
CMS	34.68	244	iPd	48	42.20	0.2
	0.7s	40.00nm			5.0mb	
STK	38.31	245	iPc	49	13.50	1.6
ASPA	45.14	257	iPd	50	05.20	-1.4
	0.7s	179.00nm			5.7mb	
			iPcP	52	15.70	
			eS	56	03.40	
KNA	51.32	266	iPc	50	52.00	-1.1
	0.4s	51.00nm			5.3mb	
WARB	51.42	253	eP	50	40.20	-13.6X
	0.4s	8.00nm				
COOL	55.76	246	eP	51	23.50	-1.2
MBL	58.38	257	iPc	51	41.80	-1.0
	0.4s	34.00nm			5.1mb	
MEKA	58.57	251	eP	51	43.00	-1.0
KLB	58.57	245	eP	51	43.20	-0.8
BAL	59.59	246	eP	51	50.70	-0.1
MUN	59.84	244	eP	51	52.00	-0.4
NANU	62.00	255	iPc	52	06.80	0.1
	0.4s	20.00nm			5.0mb	
PCI	64.42	279	iPd	52	23.00	0.7
	1.0s	13.50nm			4.5mb	
MAT	70.83	323	eP	52	59.00	-1.9
OZH	77.14	303	Pc	53	36.50	-0.2
MDJ	81.13	325	eP	53	57.70	0.4
CN2	82.93	322	eP	54	06.60	0.2
WHN	83.16	306	Pc	54	08.50	0.7
SNG	85.21	279	eP	54	20.30	2.0
BJI	86.56	315	eP	54	24.00	-0.2
GYA	87.38	299	P	54	29.20	0.6
TIY	87.97	312	eP	54	32.00	0.9
SOB1	127.78	120	ePKP	00	45.90	1.6
KSP	148.13	344	iPKP	01	24.70	4.9X
CLL	148.46	348	iPKPd	01	25.30	5.0X
	1.0s	48.00nm				
BRG	148.68	346	iPKPd	01	25.70	5.1X
	1.0s	20.00nm				
MLR	148.81	328	ePKPc	01	26.00	4.8X
MOX	149.36	349	iPKP	01	28.00	6.3X
	1.6s	25.00nm				
PRU	149.36	345	ePKPd	01	27.40	5.7X
KHC	150.39	346	iPKPc	01	30.40	7.1X
	1.0s	10.50nm				
	S.D. = 1.1	on 31 of 40 obs.				

? MAR 13, 1989 16h 35m 27.19± 1.77s
5.725 S ±25.2km 146.046 E ±27.0km
DEPTH = 115.5 ± 23.0 km
4.1mb (1 obs.)
EAST PAPUA NEW GUINEA REGION (207)

LAT	1.32	134	iPd	35	53.50	0.9
			eS	36	15.00	
PMG	3.82	163	iPd	36	24.00	-1.2
	1.0s	180.00nm				
			eS	37	09.00	
JAY	6.21	301	ePd	36	57.50	-0.4
			eS	38	27.80	
CTA	14.28	179	iPc	38	49.00	3.7X
	1.0s	12.50nm			4.1mb	
WB5	18.08	218	iPd	39	32.90	0.3
RMQ	20.81	173	eP	40	00.70	-0.5
ASPA	21.33	212	iPd	40	07.20	0.8
			i	40	13.80	
WARB	27.52	220	eP	40	52.00	-13.0X
	S.D. = 1.3	on 6 of 8 obs.				

? MAR 13, 1989 16h 47m 48.17± 3.25s
39.604 N ±26.4km 19.764 E ±11.7km
DEPTH = 12.4 ± 7.4 km
GREECE-ALBANIA BORDER REGION (392)

SRN	0.33	33	iPg	47	55.50	0.4
TPE	0.72	15	iPgd	48	01.60	-0.4
LSK	0.84	49	ePg	48	03.40	-0.9
VLO	0.89	347	ePg	48	06.20	1.3
BERA	1.11	7	ePg	48	06.70	-2.0
LCI	1.57	298	P	48	15.40	-0.4
			eSg	48	34.40	
OHR	1.70	27	ePn	48	17.40	-0.4
TIR	1.74	3	ePn	48	18.00	-0.3
PHP	2.14	14	ePn	48	24.80	0.7
SKO	2.69	28	ePn	48	34.00	2.1
			iSn	49	09.50	
	S.D. = 1.4	on 10 of 10 obs.				

MAR 13, 1989 17h 30m 11.82± 0.29s
41.121 N ± 3.6km 23.968 E ± 2.7km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)
MD 3.7 (ATH). ML 3.6 (SKO).

MMB	0.50	339	iPgc	30	20.00	-2.0
RZN	0.80	45	iPc	30	28.00	0.5
PLG	0.85	208	iPnc	30	28.10	-0.1
KKB	1.00	319	iPc	30	30.00	-0.7
VAY	1.07	281	iPgd	30	31.30	-0.7
			iSg	30	43.30	
PLD	1.13	29	iPgc	30	35.00	2.1
RDO	1.19	88	iPnd	30	34.10	0.2
KDZ	1.21	64	iPd	30	34.00	-0.4
PGB	1.44	6	iPc	30	38.00	0.1
DIM	1.50	51	iPd	30	42.00	3.3X
VTS	1.57	339	iPc	30	41.00	1.0
KZN	1.86	245	ePn	30	43.70	-0.3

13d 17h

NEO	1.90	198	iPnc	30 43.50	-1.1
SKO	2.08	295	iPn	30 46.40	-0.8
			iSn	31 16.60	
EZN	2.22	125	iPn	30 48.60	-0.5
PVL	2.33	25	iPc	30 50.00	-0.7
JMB	2.37	55	iP	30 57.00	5.6X
OHR	2.39	271	iPn	30 51.10	-0.7
PRK	2.57	136	ePn	30 53.80	-0.4
PHP	2.71	283	ePn	30 58.30	2.1
LSK	2.74	250	ePn	30 57.10	0.4
KKS	2.83	291	ePn	30 53.00	-4.9X
DMK	2.93	75	ePn	30 59.50	0.2
EDC	3.06	103	ePn	31 00.50	-0.6
BERA	3.07	263	ePn	31 02.80	1.5
TIR	3.10	276	ePn	31 08.20	6.5X
TPE	3.12	256	ePn	31 14.50	12.6X
BCI	3.17	294	ePn	31 02.30	-0.4
PUK	3.19	288	ePn	31 03.50	0.5
LACI	3.25	281	ePn	31 06.20	2.4
SRN	3.27	249	ePn	31 07.40	3.3X
CTT	3.37	88	ePn	31 06.10	0.5
KCT	3.45	103	iPn	31 06.50	-0.2
SDA	3.47	286	ePn	31 07.70	0.8
BUC1	3.56	25	eP	31 28.00	19.8X
IZM	3.72	136	ePn	31 10.30	-0.3
ISK	3.85	89	ePn	31 14.00	1.7
DST	3.87	112	iPn	31 12.60	-0.1
PSN	4.04	49	eP	31 15.00	0.1
ITM	4.24	203	ePn	31 19.00	1.0
HRT	4.33	92	ePn	31 19.00	-0.2
ISR	4.43	24	eP	31 36.00	15.3X
TLB	4.58	39	eP	31 37.00	14.4X
MLR	4.60	18	iPc	31 23.50	0.4
BZS	4.81	340	iPc	31 24.00	-1.9
DEV	4.82	351	ePd	31 44.00	17.9X
CFR	5.09	36	ePc	31 28.50	-1.3
ALT	5.14	112	ePn	31 30.20	-0.6
VRI	5.15	22	ePd	31 31.50	0.7
MGR	6.48	264	P	31 47.50	-2.0
			eSg	31 52.00	

S.D. = 1.1 on 40 of 50 obs.

MAR 13, 1989 18h 33m 49.98± 0.70s
42.054 N ± 6.9km 19.223 E ± 6.0km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
MD 2.4 (TTG).

ULC	0.09	168	ePg	33 51.20	-1.4
			iSg	33 53.10	
SDA	0.21	100	iPgd	33 54.60	0.1
BDV	0.37	308	ePg	33 57.40	-0.2
			eSg	34 04.50	
TTG	0.38	4	ePg	33 58.00	0.3
			eSg	34 06.20	
PUK	0.50	91	ePg	33 59.20	-0.9
LACI	0.55	139	ePg	34 03.00	1.8
HCY	0.67	306	ePg	34 03.00	-0.2
			eSg	34 13.00	
BCI	0.70	63	ePg	34 03.40	-0.4
KKS	0.89	88	ePg	34 07.50	0.6
OHR	1.51	128	ePn	34 15.50	-1.7
SKO	1.65	92	ePn	34 18.00	-1.2
			i	34 43.50	

S.D. = 1.1 on 11 of 11 obs.

MAR 13, 1989 19h 14m 24.27± 0.64s
43.211 N ± 5.0km 11.017 E ± 5.4km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)
MD 2.8 (FIR).

FIR	0.59	17	ePg	14 37.00	0.8
			eSg	14 45.00	
PII	0.62	325	P	14 36.40	-0.4
			eSg	14 45.00	
CRE	0.80	58	P	14 39.70	-0.2
			eSg	14 50.20	
MAO	0.80	173	Pc	14 40.10	0.3
			eSg	14 51.30	
PGD	0.84	37	P	14 40.60	0.0
			eSg	14 52.80	
BDI	0.90	340	P	14 41.90	0.3
			eSg	14 55.00	
SFI	0.93	40	P	14 42.00	-0.1
			eSg	14 54.20	
MME	1.01	347	P	14 43.40	-0.1
			eSg	14 57.70	
ASS	1.21	96	P	14 46.50	-0.4
			eSn	15 01.50	
BOB	1.92	325	P	14 57.20	-0.2

S.D. = 0.4 on 10 of 10 obs.

MAR 13, 1989 19h 20m 14.27± 0.27s
45.354 N ± 2.9km 6.416 E ± 2.8km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 3.1 (LDG), 2.6 (GEN).

LPG	0.28	59	Pg	20 20.80	0.6
			Sg	20 24.50	
LPL	0.28	54	Pg	20 20.30	0.1
			Sg	20 24.00	
BNI	0.35	149	P	20 20.90	-0.7
			eSg	20 25.20	
RRL	0.51	149	P	20 23.85	-0.7
			S	20 31.92	
LSD	0.53	79	P	20 24.81	-0.3
			S	20 32.54	
RSP	0.63	109	P	20 26.75	-0.2
			S	20 36.09	
PZZ	0.98	150	P	20 32.80	-0.2
			S	20 45.65	
DOI	1.03	145	P	20 33.30	-0.6
			eSg	20 47.10	
ORO	1.13	76	P	20 35.90	0.3
			eSg	20 52.50	
ORX	1.14	75	P	20 35.71	0.1
			S	20 50.94	
STV	1.28	149	P	20 38.07	-0.1
			S	20 54.50	
ROB	1.48	135	P	20 41.56	0.5
			S	20 59.32	
SBF	1.66	154	Pn	20 45.60	2.0
			Sn	21 09.20	
FIN	1.71	131	P	20 43.21	-1.2
VAI	1.73	72	P	20 43.90	-0.6
			eSg	21 07.50	
IMI	1.79	143	P	20 44.55	-0.9
FRF	1.80	175	Pn	20 46.40	0.8
			Sn	21 11.00	
LRG	1.90	181	Pn	20 48.20	1.2
			Sn	21 13.30	
LMR	2.02	178	Pn	20 49.40	0.6
SMF	2.21	307	Pn	20 51.30	-0.2
			Pg	20 55.40	
			Sg	21 22.50	
LBF	2.35	315	Pn	20 53.40	-0.2
			Pg	20 59.00	
			Sg	21 28.30	
BSF	2.49	6	Pg	21 01.30	5.7X
			Sg	21 33.40	
AVF	2.57	305	Pn	20 56.20	-0.4
			Pg	21 03.40	
			Sg	21 34.00	
LOR	2.61	318	Pn	20 57.10	-0.1
			Pg	21 03.90	
			Sg	21 34.60	
SSF	2.65	311	Pn	20 58.20	0.5
			Pg	21 04.30	
			Sg	21 35.50	
HAU	2.65	359	Pn	20 57.10	-0.8
			Pg	21 04.50	
			Sg	21 37.80	
BGF	2.77	297	Pn	20 59.00	-0.4
			Pg	21 05.90	
			Sg	21 39.60	
MAF	2.83	289	Pn	21 00.10	-0.3
			Pg	21 07.10	
			Sg	21 42.80	
TCF	3.09	289	Pn	21 03.40	-0.5
CAF	3.11	264	Pn	21 03.80	-0.5
CDF	3.12	11	Pg	21 13.30	8.9X
			Sg	21 55.40	
DOU	4.90	346	P	21 31.70	2.0

S.D. = 0.8 on 30 of 32 obs.

% MAR 13, 1989 20h 12m 35.69± 0.58s
38.056 N ± 5.4km 29.154 E ± 5.9km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

KHL	0.40	47	iPg	12 43.10	-0.7
YER	1.15	217	iPn	12 56.50	-0.7
ALT	1.25	37	iPn	12 58.70	-0.2
BCK	1.28	117	iPn	12 59.60	0.1
ELL	1.44	155	iPn	13 02.90	1.0
IZM	1.53	283	iPn	13 02.50	-0.6
DST	1.60	345	iPn	13 04.60	0.5
KCT	2.28	344	ePn	13 15.40	1.5
EDC	2.50	337	ePn	13 18.00	1.0
HRT	2.79	8	ePn	13 20.00	-1.2
EZN	2.83	310	iPn	13 21.20	-0.5

S.D. = 1.0 on 11 of 11 obs.

& MAR 13, 1989 20h 22m 10.90s
31.620 N 115.760 W
DEPTH = 6.0km (geophysicist)
BAJA CALIFORNIA (48)
<PAS-P>. ML 3.0 (PAS).

IKP	1.07	344	ePd	22 30.50	-0.9
			eS	22 44.40	
BAR	1.31	324	iPd	22 34.20	-1.3
			eS	22 50.90	
PLM	1.96	332	eP	22 45.20	0.0

3 obs. associated

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* MAR 13, 1989 21h 39m 51.33± 2.77s
16.129 S ±13.5km 179.145 W ± 7.8km
DEPTH = 322.0 ± 25.8 km
4.8mb (16 obs.)
FIJI ISLANDS REGION (181)

TBI	28.81	109	iP	45 22.80	0.2
	0.8s		20.00nm		4.6mb
PMO	30.11	92	iP	45 35.10	1.1
	0.8s		15.00nm		4.5mb
VAH	30.34	93	iP	45 36.50	0.5
	0.8s		15.00nm		4.5mb
TPT	30.38	92	iP	45 37.30	1.0
	0.8s		20.00nm		4.6mb
RUV	30.58	93	iP	45 38.90	0.8
	0.8s		25.00nm		4.7mb
WB5	44.26	258	eP	47 30.00	-1.7
ASPA	44.62	253	iPc	47 32.70	-1.8
	0.7s		20.00nm		4.5mb
WARB	51.23	249	eP	48 08.90	-16.2X
MAT	66.07	323	eP	50 08.00	1.7
	0.8s		16.42nm		4.8mb
GCC	75.42	44	ePc	51 02.00	0.1
PCC	75.43	43	eP	51 01.70	-0.2
PRS	75.46	45	ePc	51 02.50	0.3
SAO	75.65	44	e(P)	51 03.30	0.1
BCH	75.74	46	P	51 04.60	0.8
MHC	75.83	44	ePc	51 05.30	1.0
PRI	75.84	45	ePc	51 05.50	1.1
ARN	75.91	44	P	51 05.40	0.8
NJ2	76.27	309	Pc	51 08.00	1.3
MDJ	76.33	325	eP	51 08.00	1.3
MWC	76.67	48	eP	51 09.00	-0.1
KDC	76.85	14	P	51 10.50	1.2
	1.1s		56.25nm		5.2mb
FRI	76.94	45	eP	51 09.90	-0.4
CMB	77.04	44	eP	51 10.60	-0.3
RVR	77.05	49	eP	51 10.00	-1.0
WDC	77.05	41	eP	51 10.70	-0.1
SBB	77.07	48	eP	51 11.00	-0.2
PLM	77.11	49	eP	51 10.00	-1.5
ORV	77.14	42	eP	51 11.30	0.0
MIN	77.51	41	eP	51 12.30	-1.3
CLC	77.80	47	eP	51 14.00	-1.1
TPC	78.07	49	eP	51 16.00	-0.6
CN2	78.19	322	Pd	51 18.00	1.1
GLA	78.47	51	eP	51 19.00	0.2
WHN	78.99	306	eP	51 22.00	0.5
KVN	79.10	44	P	51 22.00	-0.2
TNP	79.20	45	P	51 22.80	0.0
	0.9s		13.67nm		4.8mb
EUR	80.75	44	iP	51 30.20	-0.7
	0.2s		13.96nm		5.4mb
TTA	80.86	10	P	51 31.60	0.9
	1.0s		21.25nm		4.9mb
PMR	81.05	14	P	51 31.50	-0.1
	1.0s		20.00nm		4.9mb
BJI	82.03	316	eP	51 37.50	0.3
SNG	82.68	280	eP	51 40.00	-1.0
TIY	83.56	312	Pc	51 45.80	0.7
PNT	83.67	35	eP	51 46.00	0.7
IMA	84.15	10	P	51 47.50	0.0
FBA	84.24	13	P	51 46.90	-0.9

	0.9s	29.17nm		5.1mb		
XAN	84.62	308 P	51	50.80	0.4	
ALQ	85.55	52 eP	51	53.30	-1.9	
	1.0s	11.00nm		4.7mb		
LRM	86.07	40 eP	51	56.70	-0.8	
BW06	86.56	44 P	51	58.80	-1.2	
	1.1s	26.04nm		5.0mb		
GOL	88.19	48 P	52	07.00	-0.9	
	1.0s	20.00nm		5.0mb		
SES	89.01	36 ePd	52	09.50	-1.6	
LZH	89.25	308 eP	52	12.50	-0.2	
INK	90.37	15 eP	52	16.00	-0.9	
RSSD	90.78	44 P	52	17.90	-1.8	
YKA	93.02	25 eP	52	28.50	-0.7	
MBC	98.76	12 eP	52	54.00	-1.1	
KRA	142.80	340 ePKP	58	41.20	-6.8X	
		e	58	48.70		
WIT	143.11	354 ePKP	58	44.00	-4.4X	
KSP	143.21	344 iPKPd	58	43.70	-5.0X	
	0.9s	76.00nm				
VRI	143.30	329 ePKPd	58	44.00	-5.0X	
SPC	143.43	339 iPKP	58	44.30	-5.1X	
CLL	143.58	347 iPKPd	58	44.20	-5.1X	
	1.1s	100.00nm				
BRG	143.78	346 iPKPd	58	45.40	-4.2X	
	1.0s	50.00nm				
WTS	143.91	354 ePKP	58	45.00	-4.8X	
	0.9s	84.00nm				
ISR	143.91	329 ePKP	58	46.00	-4.1X	
MLR	143.95	330 ePKPd	58	45.50	-4.8X	
PRU	144.45	345 ePKPd	58	47.00	-3.8X	
MOX	144.49	348 iPKP	58	47.00	-3.9X	
ENN	145.21	354 ePKP	58	49.50	-2.5	
	0.8s	21.00nm				
		i	58	51.10		
SRO	145.28	339 ePKP	58	50.30	-2.0	
ZST	145.34	341 ePKP	58	49.00	-3.4X	
MEM	145.36	354 PKPc	58	49.60	-2.7	
DOU	145.99	356 PKP	58	51.60	-1.8	
WLF	146.28	354 PKP	58	52.70	-1.1	
CDF	147.38	352 ePKP	58	54.70	-1.1	
FLN	147.44	2 ePKP	58	54.60	-1.1	
KBA	147.45	344 iPKPd	58	54.40	-1.7	
	0.9s	12.90nm				
		i	58	58.90		
EZN	147.60	322 ePKP	58	54.00	-2.3	
LDF	147.61	1 ePKP	58	54.80	-1.3	
GRR	147.80	2 ePKP	58	55.50	-0.8	
HAU	147.89	353 ePKP	58	56.00	-0.6	
BSF	148.01	352 ePKP	58	56.10	-0.8	
LPF	148.15	2 ePKP	58	56.60	-0.3	
TRI	148.59	343 ePKPd	58	57.50	-0.2	
VAY	148.67	328 ePKP	58	57.40	-0.5	
SKO	148.75	330 iPKPd	58	57.50	-0.6	
LOR	148.85	356 ePKP	58	58.40	0.3	
SSF	149.08	356 ePKP	58	59.10	0.7	
LBF	149.13	356 ePKP	58	59.10	0.6	
AVF	149.36	357 ePKP	58	59.10	0.3	
SMF	149.47	356 ePKP	58	59.50	0.5	
MFF	149.61	1 ePKP	58	59.90	0.7	
BGF	149.62	357 ePKP	59	00.00	0.8	
OHR	149.72	329 ePKP	59	00.30	0.7	
TCF	149.91	358 ePKP	59	00.80	1.1	
LSF	149.96	359 ePKP	59	00.60	0.8	
MAF	149.96	358 ePKP	59	01.00	1.2	
ORX	149.98	350 PKP	59	00.06	0.1	
LSD	150.29	351 PKP	59	02.68	2.1	
LPG	150.31	352 ePKP	59	02.60	1.9	
RSP	150.57	351 PKP	59	01.40	0.5	
RRL	150.87	351 PKP	59	03.76	2.3	
RJF	150.91	359 ePKP	59	02.90	1.7	
PZZ	151.22	351 PKP	59	02.21	0.3	
CAF	151.28	358 ePKP	59	04.10	2.3	
LFF	151.28	0 ePKP	59	03.80	2.1	
ROB	151.30	349 PKP	59	03.25	1.3	
FIN	151.32	349 PKP	59	03.25	1.3	
STV	151.44	350 PKP	59	03.04	0.9	
LPO	151.54	360 ePKP	59	04.30	2.1	
IMI	151.67	349 PKP	59	03.22	0.7	
	S.D. = 1.2	on 97 of 111 obs.				

MAR 13, 1989 22h 05m 17.30± 0.80s
0.617 N ± 4.3km 127.408 E ± 8.0km
DEPTH = 139.3 ± 7.7 km
5.0mb (7 obs.)
HALMAHERA (267)

MNI	2.70	288 iPd	06	00.00	-0.9	
		eS	06	33.50		
AAI	4.35	170 iPd	06	24.30	1.6	
		iS	06	36.00		
DAV	6.68	344 eP	06	53.00	-1.3	
PCI	7.72	259 iPd	07	10.00	1.7	
		iS	08	22.50		
MKS	9.82	234 ePc	07	43.00	6.7X	
		iS	09	24.00		
TSM	9.99	291 eP	07	44.00	5.5X	
JAY	13.65	103 ePc	08	29.80	3.4X	
MTN	13.88	165 eP	08	23.00	-6.2X	
		e	08	28.00		
KHKI	14.76	233 eP	08	46.00	5.6X	
		e	10	47.00		
KNA	16.32	175 eP	08	59.00	-0.8	
	0.7s	61.00nm		5.0mb		
TRT	16.89	240 ePd	09	10.20	3.3X	
BAG	17.08	337 eP	09	08.10	-1.2	
CVP	17.85	342 ePc	09	17.40	-1.0	
WB5	21.48	162 eP	09	56.00	0.0	
		eS	13	44.80		
MBL	22.88	198 iPd	10	09.60	0.0	
	0.5s	10.00nm		4.5mb		
QIS	24.20	151 eP	10	22.00	-0.3	
ASPA	24.95	166 iPc	10	29.10	-0.3	
		epP	10	58.50	143kmX	
		iS	14	49.10		
QIZ	25.13	318 eP	10	31.60	0.5	
QZH	25.64	341 eP	10	31.00	-4.7X	
NANU	25.78	206 eP	10	37.00	0.0	
WARB	26.65	182 iPc	10	33.30	-11.7X	
FORR	31.30	179 eP	11	25.00	-1.2	
	0.4s	17.00nm		5.2mb		
MRWA	31.61	199 eP	11	28.00	-1.0	
WHN	32.24	339 eP	11	35.50	1.0	
GYA	32.54	324 P	11	38.20	0.9	
		PcP	14	20.40		
KLB	33.31	195 eP	11	43.00	-0.8	
MUN	34.11	197 eP	11	50.00	-0.6	
NWAO	34.72	195 eP	11	55.50	-0.3	
TIA	36.68	346 eP	12	12.70	0.4	
XAN	37.49	334 eP	12	19.50	0.3	
CD2	37.56	326 P	12	20.40	0.6	
TIY	39.41	341 eP	12	36.00	0.9	
BWA	40.04	153 iPd	12	41.90	1.6	
BJI	40.55	347 eP	12	44.00	-0.3	
CAN	41.05	153 eP	12	49.20	0.6	
LZH	41.52	331 eP	12	53.50	0.9	
HHC	42.55	342 eP	13	02.00	1.2	
BTO	42.82	340 eP	13	04.00	1.0	
DZM	44.24	123 iPc	13	14.80	0.0	
GTA	46.11	330 P	13	29.50	0.2	
GUN	48.13	308 Pd	13	46.50	0.9	
PKI	48.35	307 Pd	13	47.70	0.4	
KKN	48.55	308 Pd	13	49.30	0.6	
DMN	48.61	307 Pd	13	50.00	0.8	
GKN	49.15	307 Pd	13	53.70	0.4	
HYB	50.85	292 ePd	14	06.00	-0.2	
	0.8s	38.50nm		5.2mb		
GBA	51.11	287 Pc	14	05.40	-2.7	
	0.8s	8.10nm		4.6mb		
WMO	55.66	326 eP	14	40.00	-1.2	
KRP	58.58	136 eP	15	02.00	0.2	
AVY	80.43	251 iPc	17	15.20	-0.4	
INK	92.79	22 eP	18	13.00	-1.7	
MBC	94.82	13 eP	18	23.00	-0.9	
SLL	101.12	333 ePdiff	18	49.30	-3.3X	
	0.5s	2.80nm		5.2mb		
YKA	102.03	25 ePdiff	18	56.60	0.1	
NAO	102.11	333 Pdiff	18	55.00	-2.0	
	0.9s	2.70nm		5.0mb		
KIC	131.74	279 PKP	24	16.70	0.2	
TIC	131.98	279 PKP	24	17.00	0.1	
LIC	132.04	279 PKP	24	17.30	0.3	
CNCB	157.89	138 PKP	25	01.60	1.6	
LPB	158.01	137 (PKP)	24	59.00	-1.0	
ZOBO	158.17	136 PKP	25	01.30	0.9	
	S.D. = 1.0	on 52 of 61 obs.				

& MAR 13, 1989 22h 51m 39.67s
59.740 N 153.376 W
DEPTH = 124.4km
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM	0.40	31 iP	51	56.92	-1.0	
		eS	52	11.72		
PDB	0.42	277 iP	51	56.74	-1.1	
		eS	52	10.03		
RDT	0.97	30 iP	52	01.13	-1.0	
		eS	52	17.45		
NNL	1.09	73 iP	52	03.52	0.2	
CNPM	1.11	100 eP	52	02.70	-0.8	
		eS	52	20.75		
SPU	1.59	24 eP	52	07.85	-1.0	
CRP	1.65	21 eP	52	08.86	-0.8	
		eS	52	32.17		
CGLM	1.71	23 iP	52	09.40	-1.0	
SLKM	1.76	63 eP	52	09.71	-1.1	
		eS	52	31.75		
SVW	1.77	322 eP	52	08.98	-2.0	
SEW	2.01	78 eP	52	12.70	-1.2	
		eS	52	37.33		
KDC	2.05	167 eP	52	12.18	-2.2	
PMS	2.42	50 iP	52	18.81	-0.3	
		eS	52	45.25		
PTE	2.44	61 eP	52	18.60	-0.8	
PWL	2.75	64 eP	52	22.60	-0.9	
		eS	52	53.19		
KNIM	2.89	75 iP	52	23.30	-2.1	
MTU	2.90	83 eP	52	24.26	-1.1	
		eS	52	57.37		
GHO	2.99	45 eP	52	24.67	-2.0	
SML	3.23	48 eP	52	28.43	-1.4	
GLI	3.33	67 eP	52	29.52	-1.6	
FID	3.58	71 eP	52	32.35	-2.2	
KLU	4.07	61 eP	52	40.07	-1.1	
	22 obs. associated					

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* MAR 13, 1989 23h 01m 49.36± 1.14s
34.305 N ±11.5km 26.584 E ± 7.9km
DEPTH = 33.0km (normal)
CRETE (370)
MD 3.5 (ATH).

NPS	1.25	320 eP	02	11.00	0.4	
KAP	1.33	21 eP	02	11.70	-0.1	
VAM	2.25	300 eP	02	29.10	4.1X	
KSL	3.05	53 eP	02	36.80	0.4	
YER	3.14	26 ePn	02	36.90	-0.8	
ELL	3.65	47 ePn	02	45.40	0.5	
ITM	4.75	308 eP	03	00.30	-0.2	
DSI	7.88	108 eP	03	40.00	-4.5X	
		eS	05	08.00		
PRNI	8.14	117 eP	03	48.00	-0.2	
	S.D. = 0.6	on 7 of 9 obs.				

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* MAR 13, 1989 23h 31m 05.91± 2.09s
2.952 N ± 9.9km 126.530 E ±13.9km
DEPTH = 82.4 ± 19.1 km
4.9mb (6 obs.)
MOLUCCA PASSAGE (266)

MNI	2.26	228 iPd	31	43.00	1.0	
		eS	32	14.50		
MTN	16.35	164 eP	34	50.00	-1.8	
KNA	18.71	173 eP	35	19.00	-1.8	
	0.7s	28.00nm		4.6mb		
WB5	23.96	162 eP	36	13.60	-0.2	
		eS	40	28.50		
QIS	26.65	152 eP	36	39.00	0.1	
ASPA	27.41	165 eP	36	45.50	-0.4	
NANU	27.54	202 eP	36	48.30	1.4	
STK	37.48	159 eP	38	14.00	0.7	
SNY	38.79	356 eP	38	24.00	-0.1	
LZH	39.07	330 eP	38	26.50	-0.3	
	1.5s	22.00nm		4.8mb		
MDJ	41.58	3 eP	38	48.50	1.5	
BWA	42.50	153 eP	38	56.90	2.1	
GTA	43.66	330 P	39	01.00	-3.3X	
GUN	46.02	307 P	39	23.50	-0.1	
	0.5s	25.00nm		5.4mb		
PKI	46.26	306 P	39	25.50	0.1	
KKN	46.45	306 P	39	26.70	-0.1	
	0.5s	13.00nm		5.1mb		
DMN	46.52	306 P	39	28.20	0.8	
GKN	47.06	306 P	39	31.30	-0.2	
HYB	49.19	290 ePd	39	47.00	-1.1	
GBA	49.62	285 Pd	39	49.60	-1.7	
	1.0s	13.00nm		4.9mb		
WMO	53.25	325 P	40	17.80	-0.5	
AVY	80.38	250 iPc	43	12.00	1.5	
KJF	91.20	334 eP	44	03.00	0.2	

13d 23h

SUF 92.15 333 iP 44 07.50 0.4
SLL 98.66 333 eP 44 35.30 -1.6
0.5s 1.80nm 4.9mb
S.D. = 1.2 on 24 of 25 obs.

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* MAR 14, 1989 00h 04m 03.52± 1.15s
9.649 S ±14.1km 120.574 E ± 8.8km
DEPTH = 33.0km (normol)
SUMBA ISLAND REGION (287)

KHKI 5.07 284 eP 05 19.30 0.1
eS 06 14.90
e 07 23.00
KNA 10.03 128 eP 06 29.00 0.5
eS 08 13.00
MTN 10.83 108 eP 06 39.00 -0.4
eS 08 32.00
MBL 11.47 183 eP 06 48.00 -0.1
0.3s 7.00nm 5.4mb
eS 08 50.00
NANU 13.72 200 eP 07 18.00 -0.1
0.3s 5.00nm 4.9mb
eS 09 38.00
MRWA 19.94 192 eP 08 41.00 5.4X
eS 12 06.00
S.D. = 0.5 on 5 of 6 obs.

% MAR 14, 1989 00h 57m 05.77± 1.10s
43.320 N ±12.7km 141.699 E ±10.9km
DEPTH = 33.0km (normol)
HOKKAIDO, JAPAN REGION (224)

SAP 0.38 226 eP 57 14.00 -0.5
eS 57 22.00
MRRJ 1.01 207 P 57 24.30 0.7
eS 57 38.40
ASAJ 1.05 40 P 57 24.10 -0.1
S 57 39.40
HOOJ 1.50 128 P 57 29.90 -0.7
S 57 50.50
KUSJ 2.21 95 P 57 41.40 0.6
S.D. = 0.9 on 5 of 5 obs.

% MAR 14, 1989 01h 22m 51.32± 2.83s
35.627 N ±20.0km 140.243 E ±19.8km
DEPTH = 12.5 ± 6.3 km
NEAR EAST COAST OF HONSHU, JAPAN(228)

KAKJ 0.58 354 iP+ 23 03.20 0.4
eS 23 12.80
CHJJ 1.10 293 P 23 11.70 0.0
MAT 1.88 300 iPc 23 23.30 -0.2
eS 23 58.00
NIIJ 1.90 328 P 23 24.10 0.4
IIDJ 1.91 266 iP+ 23 22.80 -1.1
eS 23 47.50
MTMJ 2.19 297 P 23 27.80 -0.3
TSRJ 3.47 270 eP 23 44.90 -1.3
OFUJ 3.63 18 eP 23 48.00 -0.4
TKSJ 5.35 254 eP 24 13.50 0.6
YONJ 5.55 267 eP 24 17.60 1.9
S.D. = 1.1 on 10 of 10 obs.

MAR 14, 1989 01h 48m 55.91± 0.63s
44.255 N ± 4.6km 11.737 E ± 6.4km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)

SFI 0.34 166 Pc 49 03.50 0.5
eSg 49 09.50
PGD 0.38 182 P 49 03.80 0.0
eSg 49 09.60
CRE 0.65 166 P 49 08.50 -0.4
eSg 49 18.40
MME 0.75 266 P 49 10.90 0.2
BDI 0.84 257 P 49 12.60 0.4
PII 1.03 239 P 49 14.60 -0.7
CTI 1.79 358 P 49 27.40 0.2
FVI 2.45 17 P 49 36.30 -0.2
S.D. = 0.5 on 8 of 8 obs.

% MAR 14, 1989 02h 19m 39.22± 0.94s
40.115 N ± 8.5km 29.296 E ± 8.8km
DEPTH = 22.4 ± 14.0 km
TURKEY (366)

HRT 0.76 22 ePg 19 52.80 -0.9
GPA 0.80 77 ePg 19 55.00 0.7
eSg 20 08.60
ISK 0.97 349 ePg 19 57.30 0.1
EDC 1.12 282 ePn 19 59.50 -0.1
CTT 1.22 328 ePn 20 01.50 0.5
ALT 1.23 149 ePn 20 00.90 -0.3
S.D. = 0.9 on 6 of 6 obs.

& MAR 14, 1989 02h 36m 46.60s
40.378 N 125.453 W
DEPTH = 9.0km
4.1mb (2 obs.)
OFF COAST OF NORTHERN CALIFORNIA(34)
<BRK>. ML 3.9 (BRK).

FHC 1.20 69 iPc 37 07.30 -1.7
i 37 24.10
i 37 40.40
WDC 2.23 84 iPc 37 22.00 -2.3
i 37 32.20
i 37 55.20
LTCM 2.55 93 eP 37 26.70 -2.1
NWRM 2.76 133 eP 37 29.70 -2.1
LBFM 2.87 69 eP 37 31.60 -2.0
MIN 2.94 89 iPc 37 31.90 -2.6
iS 38 08.20
ORV 3.15 104 ePc 37 34.30 -3.0
iS 38 11.20
ZSP 3.47 133 ePc 37 40.60 -1.3
BRK 3.52 134 eP 37 40.20 -2.4
BKS 3.54 134 ePc 37 40.60 -2.2
PCC 3.74 139 eP 37 42.90 -2.8
MHC 4.25 134 ePc 37 50.70 -2.3
GCC 4.30 140 eP 37 50.40 -3.2
ARN 4.30 133 eP 37 50.80 -2.9
CMB 4.58 119 ePc 37 55.70 -2.0
SAO 4.78 138 eP 37 56.80 -3.8
LLA 5.16 135 ePc 38 02.80 -3.1
PRS 5.16 140 ePc 38 02.80 -3.0
FRI 5.62 125 eP 38 10.80 -1.6
PRI 5.66 137 e(P) 38 11.10 -2.0
KVN 5.82 101 eP 38 12.50 -2.9
KOSW 6.53 20 eP 38 25.59 0.4
JBO 6.54 37 eP 38 24.84 -0.5
LMW 6.69 19 eP 38 27.87 0.3
BCH 6.70 139 eP 38 24.70 -3.1
GLK 6.79 23 eP 38 28.66 -0.2
TNP 6.79 107 eP 38 26.50 -2.6
PATW 6.90 35 eP 38 29.47 -0.8
WPW 6.92 23 eP 38 29.75 -1.0
RVC 7.03 20 eP 38 31.33 -0.9
FMW 7.10 21 eP 38 32.06 -1.3
YAKW 7.11 29 eP 38 32.83 -0.4
NAC 7.19 26 eP 38 33.94 -0.4
PRW 7.19 34 eP 38 33.46 -0.9
MXC 7.24 29 eP 38 34.39 -0.8
EUR 7.34 94 iP 38 33.90 -2.9
0.5s 5.32nm 5.0mb X
RSW 7.37 33 eP 38 35.80 -1.2
EBG 7.43 27 eP 38 37.49 -0.3
HDW 7.47 13 eP 38 37.70 -0.7
WIW 7.53 35 eP 38 38.12 -1.0
GBL 7.59 33 eP 38 39.01 -1.0
TBM 7.64 26 eP 38 40.19 -0.6
WAH2 7.68 32 eP 38 40.08 -1.1
PNT 9.85 23 eP 39 10.00 -1.3
0.5s 5.00nm 5.2mb X
LRM 10.95 56 eP 39 24.40 -2.3
SES 14.22 40 eP 40 06.00 -4.1
EDM 15.26 29 eP 40 20.50 -3.2
ALQ 15.98 104 eP 40 33.00 -0.4
0.9s 2.73nm 3.4mb
FFC 21.24 40 iPc 41 33.40 -1.5
1.0s 45.00nm 4.8mb
YKA 23.09 13 eP 41 54.40 1.1
MBC 36.07 2 eP 43 51.00 1.2
FRB 40.23 35 eP 44 24.00 -0.7
52 obs. associated

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* MAR 14, 1989 03h 27m 15.78± 0.56s
29.909 N ±15.1km 67.638 E ± 7.1km
DEPTH = 33.0km (normal)
4.6mb (2 obs.)
PAKISTAN (710)

QUE 0.66 295 iPd 27 29.70 0.9
NDI 8.45 96 iPd 29 21.00 2.1
0.4s 93.22nm 6.3mb X
eS 30 57.50
KHI 8.72 301 e(P) 29 28.00 5.2X
MAIO 9.34 315 eP 29 31.00 -0.2
eS 31 47.00
KSH 11.73 34 eP 30 13.00 9.0X
POO 12.66 152 eP 30 26.00 9.7X
GKN 15.00 93 P 30 46.70 -0.6
0.5s 20.00nm 4.7mb
DMN 15.49 94 P 30 53.80 0.1
0.6s 22.00nm 4.5mb
PKI 15.76 94 P 30 56.10 -1.2
HYB 15.94 139 eP 31 00.00 0.7
GUN 16.10 93 P 31 00.60 -1.0
WMQ 21.15 43 P 32 07.00 6.8X
Z 16s 0.30um 3.8MszX
eS 36 10.00
SHL 21.88 96 eP 32 15.20 7.3X
eS 36 21.80
GTA 27.99 62 eP 33 12.80 7.1X
CHG 30.49 104 eP 33 31.70 3.6X
GYA 34.46 86 P 34 07.80 5.0X
KIC 71.59 267 P 38 35.80 -0.4
TIC 71.69 267 P 38 36.20 -0.6
LIC 71.90 267 P 38 37.60 -0.5
MBC 74.01 2 eP 38 50.00 0.7
INK 80.82 8 eP 39 32.00 4.8X
YKA 87.91 1 eP 40 07.60 4.6X
S.D. = 1.0 on 12 of 22 obs.

MAR 14, 1989 08h 19m 43.18± 1.11s
41.932 N ± 9.4km 19.173 E ± 7.0km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
MD 2.4 (TTG).

SDA 0.26 71 iPgd 19 48.10 -0.5
BDV 0.43 324 ePg 19 51.50 -0.5
eSg 19 59.10
LACI 0.50 126 iPgd 19 53.60 0.3
TTG 0.50 7 ePg 19 52.20 -1.1
eSg 20 00.50
PUK 0.55 78 iPg 19 54.40 0.2
HCY 0.72 316 ePg 19 57.00 -0.3
eSg 20 08.00
BCI 0.79 57 ePg 20 00.00 1.4
KKS 0.93 81 ePg 20 01.00 0 0
PHP 0.98 104 ePg 20 00.80 -0.9
BRY 1.07 335 ePg 20 05.00 1.5
eSg 20 20.20
SKO 1.69 88 ePn 20 09.00 -3.9X
S.D. = 1.0 on 10 of 11 obs.

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* MAR 14, 1989 08h 42m 05.45± 0.89s
40.118 N ± 9.3km 79.315 E ±33.6km
DEPTH = 33.0km (normol)
4.6mb (2 obs.)
SOUTHERN XINJIANG, CHINA (321)

GKN 12.86 158 P 45 09.20 0.4
0.4s 10.00nm 5.2mb X
KKN 13.25 156 P 45 13.70 -0.3
GUN 13.33 154 P 45 15.70 0.5
DMN 13.37 157 P 45 15.50 -0.1
PKI 13.49 156 P 45 16.50 -0.8
HYB 22.63 182 eP 47 05.00 0.2
NAO 45.79 321 P 50 16.20 -9.2X
0.6s 1.90nm 4.2mb
MBC 63.30 5 eP 52 32.00 -0.7
0.7s 10.00nm 5.0mb
IMA 66.57 21 e(P) 52 54.80 0.7
FBA 69.03 20 eP 53 20.70 11.3X
TOA 71.73 21 eP 53 16.80 -9.1X
YKA 77.12 7 eP 53 56.80 0.0
S.D. = 0.6 on 9 of 12 obs.

? MAR 14, 1989 09h 11m 39.80± 2.76s
13.012 N ±37.9km 90.291 W ±12.8km
DEPTH = 33.0km (normol)
4.6mb (3 obs.)
NEAR COAST OF GUATEMALA (71)

TPX 2.68 315 P 12 19.50 -2.1
iS 12 39.50
SCX 4.34 329 P 12 46.50 1.3
OXX 7.41 304 P 13 30.00 1.3
CIPM 8.80 305 P 13 46.50 -1.2

MOPM	9.28	309	P	13 54.50	-0.2	
CHPM	9.58	304	P	13 59.50	0.8	
III	10.32	302	P	14 08.50	-0.4	
LNO	23.33	349	P	16 45.30	-0.6	
ALO	26.29	329	eP	17 14.80	0.4	
EUR	34.77	324	iP	18 30.20	0.6	
	0.2s	8.65nm		5.3mb		
FFC	42.62	350	eP	19 34.00	-0.5	
	0.7s	6.00nm		4.4mb		
PNT	43.51	332	eP	19 43.00	1.2	
	0.5s	3.00nm		4.3mb		
EDM	44.11	340	eP	19 46.50	-0.2	
YKA	52.37	346	eP	20 51.10	0.4	
MBC	65.10	353	eP	22 18.00	-1.0	
CHG	147.09	344	ePKP	31 25.00	5.3X	
GBA	150.89	25	PKPd	31 35.70	10.1X	
	0.9s	6.00nm				

S.D. = 1.1 on 15 of 17 obs.

• MAR 14, 1989 09h 43m 46.89± 2.68s
40.901 N ±22.7km 23.402 E ± 8.6km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 2.2 (SKO).

MMB	0.73	20	iPgd	44 00.00	-1.2	
VAY	0.76	304	iPg	44 01.00	-0.7	
			iSg	44 12.30		
KKB	0.99	346	iP	44 06.00	0.3	
RZN	1.26	51	iP	44 10.00	-0.5	
KDZ	1.69	63	iP	44 17.00	0.3	
VTS	1.70	355	iP	44 18.00	1.2	
PGB	1.74	19	eP	44 18.00	0.6	
PVL	2.72	31	eP	44 37.00	5.6X	

S.D. = 1.0 on 7 of 8 obs.

MAR 14, 1989 11h 08m 02.23± 0.68s
35.508 N ± 5.4km 23.322 E ± 3.6km
DEPTH = 54.4 ± 5.9 km
4.7mb (32 obs.)
CRETE (370)
MD 4.4 (ATH).

VAM	0.72	98	ePn	08 17.80	1.2	
NPS	1.89	97	ePn	08 34.50	1.9	
ITM	2.01	326	ePn	08 37.50	3.1X	
ATH	2.48	7	ePn	08 44.60	3.7X	
KAP	3.14	88	ePn	08 52.00	1.6	
VLS	3.45	321	ePn	08 55.70	1.0	
NEO	3.79	359	ePn	09 01.00	1.4	
IZM	4.28	46	eP	09 07.60	1.2	
PRK	4.41	31	ePn	09 08.50	0.3	
PLG	4.86	1	ePn	09 15.40	0.8	
EZN	4.92	28	eP	09 15.00	-0.5	
KZN	4.95	346	ePn	09 17.20	1.3	
SRN	5.10	330	ePn	09 18.80	0.9	
LSK	5.11	336	ePn	09 18.80	0.6	
KSL	5.12	81	ePn	09 17.60	-0.7	
TPE	5.45	332	iPnc	09 28.10	5.3X	
ELL	5.47	75	iP	09 23.40	0.1	
KHL	5.71	59	iP	09 28.30	1.7	
VLO	5.80	330	ePn	09 27.90	0.2	
BERA	5.83	334	ePn	09 28.30	0.2	
VAY	5.83	354	iPn	09 28.60	0.4	
DST	5.87	44	iP	09 29.70	0.9	
RDO	5.89	17	ePn	09 29.70	0.7	
OHR	5.94	341	iPn	09 26.40	-3.3X	
EDC	6.02	35	eP	09 31.00	0.2	
MMB	6.08	3	iPd	09 33.00	1.3	
BCK	6.17	69	iP	09 32.80	-0.2	
RZN	6.27	10	iPc	09 36.00	1.5	
KDZ	6.35	14	iP	09 37.00	1.6	
KKB	6.35	358	eP	09 36.00	0.5	
LCI	6.42	320	P	09 34.60	-1.8	
			eSn	10 38.80		
TIR	6.43	336	ePn	09 37.00	0.5	
ALT	6.47	55	eP	09 38.40	1.2	
PHP	6.57	341	ePn	09 38.40	-0.1	
SKO	6.62	348	iPn	09 38.80	-0.4	
			iPb	09 53.50		
			iSn	10 47.00		
PLD	6.68	9	iP	09 43.00	3.0X	
LACI	6.74	336	ePn	09 38.00	-2.9	
DIM	6.76	14	iP	09 41.00	-0.1	
KKS	6.94	342	ePn	09 43.50	-0.2	
PUK	7.05	339	ePn	09 46.00	0.8	
PGB	7.06	5	iP	09 45.00	-0.5	
VTS	7.07	359	iP	09 48.00	2.3	
SDA	7.15	336	ePn	09 46.00	-0.6	
ULC	7.19	335	ePn	09 45.50	-1.7	
			eSn	11 01.00		
DMK	7.19	27	iP	09 47.50	0.3	
BRT	7.21	320	P	09 45.40	-2.0	
GPA	7.30	47	eP	09 49.50	0.7	
BCI	7.30	341	iPn	09 45.90	-2.8	
JMB	7.40	19	eP	09 49.00	-1.1	
PVY	7.54	341	ePn	09 51.50	-0.7	
			eSn	11 10.50		
TTG	7.60	337	ePn	09 51.30	-1.5	
			eSn	11 10.50		
BDV	7.62	334	ePn	09 50.70	-2.4	
			eSn	11 08.00		
MGR	7.69	309	P	09 52.50	-1.6	
			eSn	11 13.00		
IVA	7.82	341	ePn	09 55.00	-1.0	
			eSn	11 15.50		
PVL	7.85	11	iPd	09 55.00	-1.3	
HCY	7.88	333	ePn	09 54.50	-2.2	
			eSn	11 14.50		
CSS	8.21	91	eP	09 57.00	-4.3X	
			eS	11 23.00		
PLE	8.38	340	ePn	10 02.00	-1.7	
			eSn	11 28.50		
BBTK	8.64	57	iP	10 09.00	1.6	
DUI	9.27	314	P	10 15.60	-0.3	
HVAR	9.32	327	iPn	10 13.10	-3.5X	
SDI	9.67	313	P	10 20.00	-1.5	
ISR	9.93	13	ePc	10 25.00	0.1	
AZI	10.07	313	P	10 27.20	0.4	
BZS	10.18	353	ePc	10 27.50	-0.8	
CFR	10.34	19	eP	10 29.00	-1.5	
DEV	10.37	358	ePc	10 31.00	0.1	
VRI	10.67	13	ePc	10 34.50	-0.5	
BURJ	10.85	104	P	10 32.10	-5.4X	
SALJ	10.86	105	P	10 32.10	-5.7X	
KFNJ	10.91	106	P	10 32.00	-6.3X	
MASJ	11.00	107	P	10 34.20	-5.4X	
MKRJ	11.01	108	P	10 34.10	-5.6X	
VBY	11.71	331	eP	10 47.00	-2.0	
			eS	12 49.80		
PTJ	11.78	334	eP	10 47.60	-2.5	
VOY	12.70	329	eP	11 00.20	-2.1	
			eS	13 16.30		
KBA	13.77	330	eP	11 12.00	-4.3X	
	0.8s	9.50nm		4.6mb X		
			i	11 26.40		
			eS	13 40.00		
			e	14 07.50		
			i	14 33.70		
SPC	13.86	352	eP	11 19.60	2.1	
			i	11 26.60		
AGMR	14.36	144	eP	11 21.50	-2.6	
	1.0s	437.00nm		5.9mb X		
KRA	14.75	351	eP	11 34.60	5.7X	
	0.9s	48.00nm		4.8mb X		
KHC	15.38	335	P	11 36.20	-1.0	
			i	11 43.70		
PRU	15.83	339	eP	11 40.50	-2.3	
			e	11 46.70		
LPG	16.05	313	eP	11 51.70	5.7X	
KSP	16.15	344	eP	11 43.30	-3.6X	
	0.9s	63.00nm		4.7mb		
			i	11 50.70		
BRG	16.79	339	iP	11 53.10	-1.8	
	1.0s	40.00nm		4.5mb		
MOX	17.35	334	eP	12 03.50	1.6	
	1.8s	31.00nm		4.2mb		
Z	20s	0.40um		5.3Msz		
			LR	19 50.00		
BSF	17.39	320	eP	12 03.20	0.6	
	0.8s	10.70nm		4.0mb		
CLL	17.45	338	eP	12 04.00	0.8	
			i	12 18.20		
CDF	17.52	322	eP	12 06.60	2.4	
	0.7s	7.40nm		3.9mb		
HAU	17.74	320	eP	12 07.50	0.8	
	0.7s	11.00nm		4.1mb		
AVF	18.74	313	eP	12 19.50	0.5	
WLF	18.91	324	Pc	12 24.40	3.4X	
MAF	18.94	311	eP	12 23.80	2.3	
	1.0s	8.80nm		3.9mb		
LSF	19.60	310	eP	12 30.50	1.8	
	1.0s	10.80nm		4.1mb		
MEM	19.62	326	P	12 29.10	0.3	
ENN	19.77	326	iPd	12 32.00	1.7	
	1.0s	52.00nm		4.8mb		
		e		12 36.00		
		e		12 49.50		
DOU	19.95	323	iPd	12 33.30	1.0	
	0.9s	257.50nm		5.6mb		
		ed		12 37.30		
WTS	20.27	330	iPd	12 37.00	1.5	
	0.8s	44.00nm		4.8mb		
		i		12 40.60		
SNF	20.37	323	P	12 37.60	1.0	
UCC	20.52	324	P	12 40.30	2.1	
MFF	20.80	309	eP	12 42.70	1.6	
	0.7s	15.40nm		4.4mb		
WIT	20.94	331	eP	12 44.50	2.1	
LDF	21.67	314	eP	12 50.70	0.9	
	0.8s	17.10nm		4.5mb		
LPF	21.96	312	eP	12 53.70	1.1	
	0.7s	16.30nm		4.6mb		
FLN	21.96	314	eP	12 53.60	0.9	
	0.8s	29.50nm		4.8mb		
GRR	22.00	313	eP	12 54.50	1.4	
	0.7s	11.90nm		4.4mb		
HFS	25.42	349	eP	13 25.60	-0.4	
	0.5s	12.70nm		4.7mb		
NAO	26.57	346	P	13 36.10	-0.6	
	1.0s	17.20nm		4.6mb		
EKA	26.90	326	P	13 40.00	0.3	
	1.0s	21.70nm		4.7mb		
SUF	27.29	3	iP	13 41.90	-1.3	
	0.9s	34.00nm		5.0mb		
KJF	28.85	4	iP	13 55.70	-1.5	
	0.8s	30.80nm		5.0mb		
MAIO	29.21	78	eP	14 00.00	-0.9	
			eS	19 35.00		
BNG	31.23	189	iPd	14 18.00	-0.8	
	0.3s	20.00nm		5.3mb		
		i		14 30.00		
SOD	31.97	2	iP	14 24.20	-0.5	
KEV	34.36	2	iP	14 45.40	-0.1	
	0.8s	19.10nm		5.1mb		
KUK	36.41	222	eP	15 04.50	1.1	
TIC	38.76	229	P	15 23.36	0.2	
	0.9s	18.00nm		5.0mb		
LIC	39.09	228	P	15 26.38	0.5	
DAG	45.40	347	iPd	16 17.00	0.4	
	0.5s	8.45nm		4.9mb		
NDI	45.69	83	eP	16 18.00	-1.5	
WMQ	49.13	60	P	16 45.00	-1.3	
GKN	51.95	80	P	17 07.30	-0.8	
DMN	52.49	80	P	17 11.70	-0.6	
	0.7s	40.00nm		5.6mb		
KKN	52.56	80	P	17 11.80	-0.9	
	0.6s	13.00nm		5.1mb		
PKI	52.75	80	P	17 13.30	-1.0	
GBA	53.12	100	Pc	17 15.60	-1.1	
	0.6s	2.90nm		4.5mb		
ALE	54.46	351	eP	17 24.00	-1.8	
	0.6s	3.00nm		4.5mb		
KOD	55.08	103	eP	17 30.00	-1.5	
GTA	59.12	61	iPc	17 58.60	-0.9	
FRB	59.60	329	eP	18 03.00	0.7	
LZH	63.39	63	eP	18 27.50	-0.9	
	1.5s	44.00nm		5.3mb		
CD2	65.67	68	eP	18 42.30	-0.8	
MBC	66.04	351	eP	18 45.00	0.2	
HHC	66.69	56	eP	18 49.60	0.0	
CHG	67.84	82	eP	18 56.50	-0.5	
TIY	68.76	58	eP	19 02.00	-0.6	
GYA	70.06	71	P	19 10.00	-0.7	
CN2	74.06	47	Pc	19 33.40	-0.6	
YKC	76.63	341	ePc	19 49.20	0.9	
YKA	76.65	341	eP	19 49.70	1.2	
FFC	78.61	331	eP	20 01.50	2.1	
	0.9s	22.00nm		5.1mb		
EDM	83.97	335	ePc	20 28.70	1.1	
SES	85.46	333	eP	20 37.00	1.9	
MAT	86.20	47	iPd	20 39.70	0.7	
	1.1s	18.99nm		5.2mb		

S.D. = 1.3 on 127 of 144 obs.

% MAR 14, 1989 11h 18m 39.01± 1.06s
60.056 N ± 5.0km 4.964 E ±10.4km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.9 (BER).

14d 11h

BER	0.38	29	iP	18	46.80	0.1
			iSg	18	52.30	
ODD1	0.85	99	iP	18	55.30	-0.1
			eS	19	06.20	
			iSg	19	10.60	
KMY	0.86	170	eP	18	55.50	0.0
			eS	19	06.90	
			iSg	19	09.80	
SUE	1.01	354	eP	18	58.00	-0.1
			eS	19	12.30	
			iSg	19	13.90	
BLS1	1.16	124	iP	19	00.90	0.2
			eS	19	16.10	
			iSg	19	19.20	
HYA	1.27	28	iP	19	02.70	0.2
			eS	19	20.30	
NRA0	3.34	75	iPd	19	32.00	-0.2
			iPg	19	37.70	
			iS	20	13.70	
			iSg	20	21.70	

S.D. = 0.2 on 7 of 7 obs.

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* MAR 14, 1989 11h 42m 56.94± 0.76s
32.110 S ± 7.0km 71.631 W ±11.5km
DEPTH = 33.0km (normal)
4.9mb (6 obs.)
NEAR COAST OF CENTRAL CHILE (135)

MDZ	2.47	109	iP	43	36.80	0.9
			iS	44	11.60	
ZON	2.57	78	iPc	43	43.00	5.7X
			eS	44	33.00	
CYA	6.23	56	e(P)	44	29.50	0.5
			S	45	46.50	
VBA	9.88	130	e(P)	45	19.80	0.0
ARE	15.58	0	iPd	46	41.80	5.7X
	0.6s	36.00nm			4.7mb	
CNCB	15.59	13	Pd	46	37.00	0.5
			i	46	42.30	
LPB	15.84	13	eP	46	41.00	1.5
	1.0s	100.00nm			4.9mb	
Z	16s	2.02um			4.9MszX	
			i	46	45.40	
			LR	53	40.00	
ZOBO	16.09	12	P	46	42.20	-0.7
	0.6s	13.79nm			4.3mb	
Z	18s	1.32um			5.1Msz	
			LR	51	23.00	
VAQ	23.63	74	eP	48	07.00	0.9
ITA	25.77	75	eP	48	25.40	-1.4
			e	48	37.70	
BMA	26.07	76	eP	48	22.60	-6.7X
BAQ	27.04	58	eP	48	37.30	-1.0
ATB	33.98	36	e(P)	49	38.30	-1.3
SOB1	36.46	58	eP	49	50.60	-10.3X
			e	52	24.20	
SPA	58.06	180	e(P)	52	49.00	-0.1
	0.9s	10.00nm			4.9mb	
LIC	73.86	72	P	54	30.18	-0.4
TIC	74.11	71	Pc	54	31.78	-0.2
	0.8s	21.00nm			5.2mb	
KIC	74.17	72	Pc	54	32.26	-0.1
	0.7s	28.00nm			5.4mb	
ALQ	74.29	331	e(P)	54	28.00	-4.9X
PRY	83.20	117	eP	55	21.80	0.1
ISR	117.33	52	iPKPd	01	41.00	0.5
			e	06	44.00	
GBA	146.24	116	PKPc	02	35.40	0.4
	1.1s	10.50nm				
HYB	149.35	111	ePKPc	02	44.00	4.0X
PSI	149.42	161	ePKP	02	44.70	4.5X

S.D. = 0.9 on 17 of 24 obs.

MAR 14, 1989 12h 05m 42.52± 0.88s
42.346 N ± 6.8km 28.987 E ± 9.9km
DEPTH = 10.0km (geophysicist)
BLACK SEA (360)

DMK	1.06	241	iPg	06	02.90	0.5
			eSg	06	16.60	
CTT	1.27	199	ePg	06	06.00	-0.1
ISK	1.28	178	ePg	06	06.00	-0.3
GBZT	1.59	167	ePn	06	10.20	-0.6
			eSg	06	29.80	
HRT	1.61	161	ePg	06	11.00	-0.1
KCT	2.15	193	iPn	06	18.50	-0.4
GPA	2.28	154	ePn	06	22.00	1.1
TLB	2.35	343	ePd	06	21.50	-0.2
CFR	2.90	34B	iPc	07	00.00	30.5X
VRI	3.88	336	eP	07	00.00	16.5X

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

MAR 14, 1989 12h 19m 39.73± 0.45s
44.394 N ± 3.6km 8.343 E ± 3.8km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.8 (LDG), 2.5 (GEN).

CKI	0.06	304	Pc	19	40.90	-1.1
			eSg	19	41.80	
FIN	0.21	208	P	19	44.04	-0.3
			S	19	47.80	
ROB	0.35	254	P	19	46.47	-0.6
			S	19	51.97	
GEN	0.42	86	P	19	47.90	-0.4
			S	19	54.13	
IMI	0.58	214	P	19	51.10	-0.5
			S	19	59.67	
STV	0.75	259	P	19	53.99	-0.4
			S	20	03.91	
AUTN	0.77	239	Pg	19	54.71	-0.2
DOI	0.79	278	P	19	54.60	-0.6
			eSg	20	04.30	
SBF	0.84	231	Pg	19	56.10	0.1
			Sg	20	07.50	
BOB	0.87	64	P	19	57.30	0.7
			eSg	20	10.20	
TOUF	0.87	245	Pg	19	56.94	0.3
			Sg	20	10.66	
AURF	0.89	236	Pg	19	56.94	0.1
			Sg	20	13.95	
PZZ	0.90	278	P	19	56.58	-0.4
			S	20	08.69	
MVIF	0.99	240	Pg	19	58.76	0.1
			Sg	20	15.34	
RSP	1.08	315	P	19	59.81	-0.4
			S	20	13.83	
RRL	1.23	296	P	20	02.38	-0.4
ORX	1.27	348	P	20	03.33	0.0
LSD	1.36	322	P	20	04.54	-0.4
FRF	1.48	236	Pg	20	07.40	1.0
			Sg	20	28.20	
LPG	1.58	315	Pg	20	09.20	1.1
LPL	1.60	315	Pg	20	09.80	1.4
LMR	1.70	232	Pg	20	11.30	1.8
			Sg	20	34.80	
LRG	1.71	237	Pg	20	11.30	1.6
			Sn	20	30.80	
			Sg	20	35.10	
CVF	1.87	168	Pn	20	10.54	-1.5
BGF	4.43	301	Pn	20	47.60	-0.9

S.D. = 0.9 on 25 of 25 obs.

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* MAR 14, 1989 12h 43m 47.20± 0.77s
8.198 S ±11.4km 158.508 E ± 9.5km
DEPTH = 94.2 ± 9.4 km
4.8mb (2 obs.)
SOLOMON ISLANDS (193)

VSG	1.59	131	eP	44	14.00	-0.7
			eS	44	54.00	
HNR	1.88	131	eP	44	19.00	0.5
			eS	44	45.00	
PAA	3.54	302	eP	44	42.00	0.9
BGA	3.88	301	eP	44	44.00	-1.8
RAB	7.45	302	e(P)	45	36.50	1.4
RMQ	20.41	206	eP	48	20.20	1.2
WB5	26.10	241	eP	49	13.50	-0.6
			e	49	38.00	
WRA	26.14	241	Pd	49	13.80	-0.7
	0.6s	2.80nm			4.0mb	
WARB	35.15	235	eP	50	20.50	-13.5X
COOL	41.52	232	eP	51	26.70	-0.2
EUR	91.71	51	iP	56	45.80	0.0
	0.3s	11.15nm			5.7mb	
YKA	95.77	28	eP	57	03.50	-0.1

S.D. = 1.1 on 11 of 12 obs.

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* MAR 14, 1989 13h 38m 05.33± 0.77s
8.343 S ± 8.5km 118.381 E ±11.0km
DEPTH = 33.0km (normal)
4.4mb (2 obs.)
SUMBAWA ISLAND REGION (285)

KHKI	2.74	269	iPd	38	41.10	-6.9X
			iS	39	17.50	
			e	43	30.00	
PCI	7.53	11	ePd	39	55.50	-0.1
MBL	12.82	174	eP	41	07.00	-1.0
			eS	43	22.00	
MTN	13.31	111	iPd	41	13.20	-1.3
			e	41	22.00	
			eS	43	37.00	
NANU	14.40	191	eP	41	27.00	-1.9
			eS	43	58.00	
MEKA	18.17	180	eP	42	19.00	2.1
			eS	45	30.00	
WB5	19.26	128	eP	42	30.00	-0.2
WRA	19.28	128	Pc	42	31.80	1.4
	0.5s	5.40nm			4.1mb	
WARB	19.40	157	eP	42	22.00	-9.8X
			eS	45	54.00	
MRWA	20.89	186	eP	42	47.00	-0.3
			eS	46	32.00	
ASPA	21.29	137	iPd	42	52.60	1.1
	0.6s	23.00nm			4.8mb	
PSI	22.29	299	iPc	43	01.60	0.2
COOL	22.57	174	eP	43	04.70	0.5
OIS	23.83	123	eP	43	17.00	0.4
CTA	29.38	116	ePd	44	06.90	-1.0
GUN	47.82	320	P	46	36.00	-6.4X

S.D. = 1.2 on 13 of 16 obs.

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* MAR 14, 1989 15h 16m 12.37± 1.26s
44.088 N ± 7.9km 16.244 E ±15.7km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
Felt (IV) ot Knin.

HVAR	0.92	171	iPg	16	30.10	0.1
			iSg	16	45.10	
VBY	1.58	334	ePn	16	42.00	1.5
			iSn	17	01.20	
PTJ	1.82	354	ePn	16	43.60	-0.5
			eSn	17	06.70	
AOI	1.99	255	ePn	16	46.53	0.1
			eSn	17	10.82	
CEY	2.10	323	e(Pg)	16	50.50	2.5X
			eSn	17	17.00	
LJU	2.30	329	ePn	16	48.90	-2.0
			eSn	17	16.30	
			e(Sg)	17	31.00	
CIO	2.42	249	ePn	16	52.25	-0.4
			eSn	17	21.55	
VOY	2.56	320	ePn	16	55.80	1.1
			eSn	17	28.30	

S.D. = 1.4 on 7 of 8 obs.

MAR 14, 1989 15h 46m 42.93± 0.19s
55.387 N ± 5.7km 166.286 E ± 2.8km
DEPTH = 33.0km (normal)
4.9mb (19 obs.) 4.4Msz (1 obs.)
KOMANDORSKY ISLANDS REGION (4)

SMY	5.32	117	eP	48	01.10	-0.9
ADK	10.70	102	eP	49	17.00	0.2
	1.1s	125.00nm			6.0mb X	
TTA	20.48	53	ePc	51	20.20	-0.1
IMA	21.87	45	ePc	51	34.10	-0.3
	1.3s	75.50nm			5.0mb	
BRW	22.43	31	eP	51	40.50	0.9
PMR	23.71	57	eP	51	51.60	-0.6
	0.9s	9.40nm			4.3mb	
FBA	24.21	48	eP	51	57.50	0.5
TOA	25.06	55	eP	52	05.90	0.6
MDJ	25.63	261	eP	52	10.70	-0.1
Z	15s	0.90um			4.4MszX	
			S	56	38.00	
MAT	26.84	237	(P)	52	23.00	1.0
	0.9s	38.66nm			5.0mb	
CN2	28.48	263	Pc	52	36.00	-0.7
Z	17s	0.60um			4.3MszX	
N	14s	0.50um				
			eS	57	19.00	
INK	29.80	40	eP	52	48.00	-0.3
MBC	33.47	25	eP	53	20.00	-0.4
BJI	36.18	266	eP	53	44.00	0.1
Z	17s	0.70um			4.5MszX	
N	16s	0.80um				
			eS	59	24.00	
YKA	38.98	46	eP	54	07.60	0.4

YKC 39.04 46 ePc 54 07.80 0.1
0.8s 10.00nm 4.6mb
BTO 39.32 272 P 54 11.50 1.1
N 17s 1.50um
pP 54 19.00 25kmX
SSE 39.86 251 eP 54 18.70 3.9X
TIY 39.90 267 eP 54 16.20 1.0
N 14s 0.80um
eS 00 17.50
ALE 40.13 9 eP 54 16.00 -0.5
0.9s 9.00nm 4.5mb
PNT 43.67 66 eP 54 47.00 1.1
0.9s 18.00nm 4.8mb
WHN 44.05 258 eP 54 49.00 0.0
EDM 44.47 58 iPc 54 52.80 0.5
1.0s 53.00nm 5.3mb
XAN 44.51 266 eP 54 53.10 0.2
E 13s 0.40um
GTA 45.91 279 Pd 55 04.00 -0.1
Z 12s 0.60um 4.8MszX
N 13s 0.60um
LZH 45.94 272 eP 55 04.50 0.2
Z 14s 0.80um 4.8MszX
N 15s 0.70um
E 14s 0.70um
SES 47.35 60 ePc 55 14.50 -0.7
DAG 48.07 2 iPd 55 20.10 -0.3
0.6s 8.00nm 4.9mb
FFC 48.78 50 eP 55 26.00 -0.2
1.8s 82.00nm 5.5mb
WMQ 49.59 291 P 55 32.60 0.0
Z 20s 0.40um 4.4Msz
LRM 49.64 65 eP 55 33.20 0.0
CD2 49.76 267 eP 55 34.10 0.1
BGMT 50.25 65 ePc 55 38.10 0.3
KVN 51.27 75 P 55 46.00 0.4
GYA 51.49 261 P 55 48.00 0.6
EUR 52.13 73 iP 55 52.80 0.6
1.2s 10.77nm 4.7mb
TNP 52.44 75 P 55 55.00 0.5
1.0s 10.83nm 4.8mb
BW06 53.24 66 P 56 00.60 0.2
1.0s 16.56nm 5.0mb
CLC 53.86 78 eP 56 05.00 0.2
FRB 53.89 27 eP 56 04.00 -0.5
SBB 54.56 79 eP 56 09.00 -1.0
KMI 54.75 264 Pc 56 12.00 0.3
MWC 54.77 79 eP 56 12.00 0.3
RSON 55.09 50 P 56 12.60 -1.0
1.0s 15.00nm 5.0mb
TPC 55.98 78 eP 56 20.00 -0.3
ALQ 60.62 70 eP 56 53.00 0.2
1.1s 12.66nm 5.0mb
CHG 61.87 262 eP 57 02.50 1.3
GUN 62.19 279 P 57 02.90 -0.8
0.9s 29.00nm 5.4mb
KKN 62.62 280 P 57 05.60 -0.8
PKI 62.72 280 P 57 06.10 -1.1
GKN 62.82 280 P 57 06.70 -0.9
DMN 62.86 280 P 57 08.30 0.3
KSP 71.23 340 eP 58 10.00 9.8X
CLL 71.38 343 eP 58 10.00 9.0X
1.7s 21.00nm 4.9mb
BRG 71.63 342 i(P) 58 18.50 15.9X
1.2s 26.00nm
KHC 73.37 342 eP 58 14.40 1.5
HYB 74.58 278 eP 58 19.00 -1.3
CTA 77.09 199 eP 58 34.00 -0.3
GBA 78.28 277 Pc 58 39.90 -1.1
1.0s 3.50nm 4.3mb
WRA 79.80 210 Pd 58 53.50 4.4X
1.0s 5.80nm 4.5mb
ASPA 83.45 210 iPc 59 13.20 5.1X
1.0s 9.00nm 4.9mb
SPA 145.21 180 e(PKP)06 17.00 -0.2
1.0s 20.00nm
S.D. = 0.7 on 56 of 62 obs.

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* MAR 14, 1989 16h 48m 41.00± 2.92s
44.192 N ±19.5km 127.480 W ±17.2km
DEPTH = 10.0km (geophysicist)
OFF COAST OF OREGON (30)
CL 3.3 (SEA).

KMOR 3.18 62 eP 49 31.44 -0.7
eS 50 18.22
NLO 3.42 55 eP 49 35.48 -0.1
ONR 3.74 43 eP 49 39.93 -0.1
BMW 3.77 51 eP 49 39.96 -0.5
PGO 3.80 69 eP 49 41.31 0.5
GT2 3.84 74 eP 49 41.05 -0.4
RVW 3.88 58 eP 49 41.94 0.0
FL2 4.14 59 eP 49 46.23 0.4
MTMW 4.16 62 eP 49 45.75 -0.2
CZM 4.16 56 eP 49 45.53 -0.5
APW 4.20 52 eP 49 46.32 -0.2
ERK 4.20 58 eP 49 46.32 -0.3
TDH 4.20 73 eP 49 46.27 -0.4
SHW 4.21 60 eP 49 47.32 0.5
OOW 4.22 32 eP 49 46.45 -0.4
HSR 4.24 60 eP 49 47.98 0.8
STD 4.24 59 eP 49 47.48 0.3
JLK 4.24 61 eP 49 47.51 0.3
YEL 4.25 60 eP 49 47.78 0.4
SOSW 4.29 60 eP 49 48.48 0.5
VBEM 4.30 76 eP 49 47.60 -0.4
TDL 4.30 58 eP 49 48.36 0.3
KOSW 4.37 57 eP 49 48.89 0.0
LMW 4.41 54 eP 49 49.66 0.0
YKA 19.81 18 eP 53 14.40 0.2
S.D. = 0.4 on 25 of 25 obs.

? MAR 14, 1989 17h 13m 53.60± 6.34s
17.179 N ±21.2km 94.993 W ±64.4km
DEPTH = 33.0km (normal)
CHIAPAS, MEXICO (61)

PBJ 0.84 208 P 14 09.00 0.0
iS 14 21.00
OXX 1.66 267 P 14 28.00 7.0X
iS 14 42.00
CIPM 2.84 286 P 14 38.30 0.7
IISM 2.89 309 P 14 39.00 0.6
MOPM 3.18 299 P 14 41.50 -1.2
CHPM 3.63 288 P 14 48.60 -0.3
S.D. = 1.1 on 5 of 6 obs.

? MAR 14, 1989 17h 50m 57.93± 0.90s
42.542 N ± 7.3km 18.703 E ± 7.7km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
MD 2.0 (TTG).

HCY 0.18 238 ePg 51 01.80 -0.1
eSg 51 04.90
BDV 0.27 160 ePg 51 03.90 0.2
eSg 51 08.70
BRY 0.38 342 ePg 51 05.80 0.1
eSg 51 12.50
TTG 0.43 105 ePg 51 06.50 -0.1
eSg 51 14.00
S.D. = 0.3 on 4 of 4 obs.

MAR 14, 1989 18h 00m 39.17± 0.81s
43.326 N ± 6.6km 147.014 E ± 5.7km
DEPTH = 70.4 ± 7.2 km
4.9mb (34 obs.)
KURIL ISLANDS (221)
Felt (II JMA) at Nemuro, Hokkoido.

NEM 1.04 271 iPd 00 58.90 0.5
iS 01 11.50
KUSJ 1.70 263 iPd 01 06.40 -0.8
S 01 25.10
HOOJ 2.90 252 P 01 25.20 1.3
S 01 57.20
ASAJ 3.27 286 iP+ 01 30.60 1.5
eS 02 09.20
MRRJ 4.46 260 P 01 45.70 -0.1
S 02 33.80
AOMJ 5.67 243 eP 02 02.60 -0.1
eS 03 01.50
OFUJ 5.85 225 P 02 02.90 -2.4
S 03 05.20
YAMJ 7.38 228 eP 02 25.00 -1.5
eS 03 43.80
KAKJ 8.85 219 P 02 46.70 0.1
S 04 17.30
CHJJ 9.54 223 eP 02 57.90 1.9
S 04 34.30
MAT 9.57 228 (P) 02 54.00 -2.5X
0.8s 5.97nm 4.6mb
MTMJ 9.76 229 eP 03 01.00 1.8
MDJ 12.62 282 eP 03 35.00 -2.4
CN2 15.64 279 Pc 04 12.90 -3.7X
SNY 17.32 273 iPc 04 38.20 0.6
BJI 23.20 272 eP 05 39.50 -0.8
SSE 23.82 248 eP 05 48.00 1.6
TIA 23.96 263 Pd 05 47.70 -0.1
NJ2 24.85 252 Pd 05 59.00 2.7
HHC 26.31 277 P 06 09.60 -0.3
TIY 26.75 270 eP 06 15.70 1.7
BTO 27.50 277 P 06 20.80 0.0
WHN 28.87 255 eP 06 40.00 7.0X
XAN 30.92 266 P 06 50.00 -1.3
GTA 35.27 280 Pc 07 28.40 -0.6
CD2 36.27 265 P 07 36.50 -0.9
GYA 36.72 256 P 07 40.40 -0.9
TTA 37.82 39 P 07 50.20 0.1
0.6s 3.08nm 4.4mb
IMA 39.09 34 P 08 01.20 0.5
0.8s 18.97nm 5.1mb
KDC 39.66 47 P 08 04.50 -0.9
0.7s 23.26nm 5.2mb
PMR 41.04 41 P 08 16.80 0.2
FBA 41.50 36 P 08 20.70 0.3
0.8s 11.38nm 4.7mb
WMQ 42.16 292 P 08 26.00 -0.2
INK 46.82 30 eP 09 03.00 -0.1
CHG 47.07 254 eP 09 06.20 0.5
MBC 49.25 18 eP 09 21.00 -0.9
GUN 50.94 274 P 09 35.60 -0.2
KKN 51.45 274 P 09 39.20 -0.3
0.9s 45.00nm 5.5mb
PKI 51.48 273 P 09 39.00 -0.9
DMN 51.67 274 P 09 40.70 -0.6
0.7s 40.00nm 5.6mb
GKN 51.79 274 P 09 41.20 -0.9
YKA 56.21 34 eP 10 13.50 -0.3
YKC 56.27 34 ePd 10 13.50 -0.7
NDI 56.78 280 iPc 10 17.00 -1.3
0.6s 26.67nm 5.5mb
KEV 59.08 339 iP 10 32.60 -1.2
0.6s 7.80nm 5.0mb
PNT 60.73 48 eP 10 45.00 -0.4
0.5s 6.00nm 5.0mb
SOD 60.82 338 iP 10 43.40 -2.3
HYB 62.67 269 eP 10 57.50 -1.3
KJF 62.71 335 iP 10 57.10 -1.3
0.7s 14.70nm 5.2mb
WB5 63.96 193 eP 11 06.70 -0.3
WRA 64.02 193 Pc 11 06.60 -0.9
0.6s 2.90nm 4.4mb
SUF 64.26 334 eP 11 06.80 -1.8
0.4s 18.40nm 5.4mb
SES 64.62 44 ePd 11 10.70 -0.5
GBA 65.96 266 Pc 11 18.60 -1.5
0.6s 3.30nm 4.5mb
FFC 66.10 36 iPd 11 20.30 -0.2
0.6s 12.00nm 5.0mb
NUR 66.37 333 iP 11 20.70 -1.4
LRM 66.71 48 eP 11 25.00 0.1
KVN 67.63 57 P 11 31.00 0.3
pP 11 49.00 67kmX
ASPA 67.74 193 eP 11 31.10 -0.1
1.0s 10.00nm 4.7mb
e 11 52.20
TNP 68.77 57 P 11 38.00 0.1
0.7s 4.44nm 4.5mb
FRB 69.61 16 eP 11 41.00 -1.2
HFS 70.04 337 eP 11 43.60 -1.3
0.4s 46.10nm 5.8mb
NAO 70.25 339 P 11 44.70 -1.5
0.5s 11.60nm 5.1mb
BW06 70.25 50 P 11 46.40 -0.5
0.7s 4.02nm 4.5mb
KRA 76.16 328 eP 12 21.00 0.1
0.9s 27.00nm 5.2mb
e 12 29.20
KSP 76.89 330 eP 12 24.50 -0.4
ALQ 77.33 54 eP 12 28.00 0.0
1.0s 3.00nm 4.2mb
CLL 77.64 332 iP 12 28.90 -0.2
1.0s 15.00nm 4.9mb
PRU 78.22 331 eP 12 32.50 0.2
EKA 78.50 343 Pd 12 34.90 1.2
0.6s 9.40nm 4.9mb
WTS 79.01 336 eP 12 38.00 1.5
0.7s 14.00nm 5.0mb
KHC 79.28 331 P 12 39.00 0.8

14d 18h

ENN	80.36	336	eP	12	45.50	1.7
	0.5s	10.00nm			5.0mb	
CDF	82.02	334	eP	12	53.10	0.4
HAU	82.67	335	eP	12	57.00	1.0
OHR	82.99	322	e(P)	12	58.00	0.2
LOR	84.09	336	eP	13	03.70	0.5
	0.8s	4.00nm			4.5mb	
LBF	84.31	336	eP	13	05.70	1.3
SSF	84.38	336	eP	13	05.50	0.8
	0.9s	8.10nm			4.8mb	
SMF	84.66	335	eP	13	06.90	0.8
	1.0s	14.80nm			5.0mb	
AVF	84.67	336	eP	13	07.20	1.1
LPG	84.76	333	eP	13	08.20	1.2
	0.7s	5.90nm			4.7mb	
MAF	85.42	336	eP	13	11.40	1.5
	0.7s	10.30nm			5.0mb	
TCF	85.47	336	eP	13	11.50	1.4
	0.6s	2.70nm			4.5mb	
LSF	85.70	337	eP	13	12.60	1.3
CAF	86.75	336	eP	13	18.20	1.7
	1.0s	12.80nm			5.0mb	
LFF	87.12	337	eP	13	19.50	1.3
	0.7s	11.00nm			5.1mb	
LPO	87.23	336	eP	13	20.50	1.8
SOB1	145.32	14	ePKP	20	10.30	-0.4
ITA	156.95	29	e(PKP)	20	28.00	-0.1
S.D. = 1.1 on 87 of 90 obs.						

MAR 14, 1989 18h 15m 11.89± 0.73s
43.388 N ± 6.2km 5.447 E ± 4.7km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
MD 2.7 (STR).

GELF	0.02	255	Pg	15	13.77	-0.1
PUYF	0.23	52	Pg	15	16.45	-0.5
TREF	0.24	349	Pg	15	16.55	-0.5
PRAF	0.46	334	Pg	15	21.61	0.3
TAVF	0.50	62	Pg	15	21.78	-0.3
VILF	0.50	23	Pg	15	21.66	-0.5
GANF	0.70	29	Pg	15	26.22	0.6
TOUF	1.45	64	Pn	15	39.06	0.7
			Sg	15	59.30	
AURF	1.45	69	Pn	15	38.26	0.0
			Sg	15	59.13	
AUTN	1.56	66	Pn	15	40.65	0.7
			Sg	16	02.25	
CVF	2.64	107	Pn	15	54.73	-0.6
S.D. = 0.6 on 11 of 11 obs.						

% MAR 14, 1989 18h 20m 10.78± 0.78s
60.738 N ± 6.3km 5.592 E ± 9.1km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.8 (BER).

SUE	0.52	309	iP	20	21.00	-0.2
			iS	20	28.70	
HYA	0.52	34	iP	20	21.50	0.2
			eS	20	29.90	
ODD1	0.98	148	iP	20	28.80	-0.5
			eS	20	41.50	
			eSg	20	45.10	
BLS1	1.49	155	eP	20	37.60	0.0
			eS	20	55.10	
			iSg	20	57.80	
KMY	1.54	187	iP	20	38.90	0.6
			iS	20	58.30	
NRA0	2.92	87	iPd	20	53.40	-4.7X
			iPg	21	02.40	
			iS	21	41.00	
S.D. = 0.6 on 5 of 6 obs.						

MAR 14, 1989 18h 27m 41.39± 0.53s
32.901 N ± 6.2km 132.088 E ± 3.9km
DEPTH = 57.3 ± 5.5 km
4.6mb (5 obs.)
SHIKOKU, JAPAN (236)
Felt (I JMA) at Uwajima. Also
felt (I JMA) at Oita, Kyushu.

UWA	0.51	51	eP	28	00.00	6.7X
OIT	0.51	310	iP+	27	53.10	-0.2
			iS	28	01.30	
KUMJ	1.12	251	iP+	28	01.10	0.0
			S	28	16.20	
SHNJ	1.47	326	iP+	28	05.10	-0.8
			S	28	23.30	
SHK	1.70	17	iPd	28	09.00	-0.1
	1.0s	1040.00nm				
TKSJ	1.96	56	P	28	12.50	-0.3
			eS	28	35.90	
KAGJ	1.99	211	eP	28	12.90	-0.3
YONJ	2.55	26	P	28	20.70	-0.4
WKYJ	3.21	65	P	28	30.00	-0.5
TSRJ	4.16	50	iPd	28	44.30	0.5
			S	29	30.60	
IIDJ	5.47	60	P	29	02.40	0.1
MTMJ	5.97	50	eP	29	09.20	-0.2
MAT	6.21	53	iPc	29	12.30	-0.3
			eS	30	19.00	
CHJJ	6.51	59	eP	29	17.70	0.9
SSE	9.43	262	P	29	57.70	0.5
	1.0s	49.00nm			5.5mb	
			i	30	04.30	
NJ2	11.21	269	Pc	30	23.80	2.4
CN2	12.06	336	eP	30	33.40	0.7
TIA	12.77	289	eP	30	43.00	0.9
BJI	14.64	304	eP	31	07.00	0.4
WHN	15.28	266	eP	31	21.00	6.1X
TIY	16.74	292	eP	31	33.40	-0.1
E	12s	0.40um				
HHC	18.21	302	eP	31	56.80	5.1X
BTO	19.25	300	eP	32	05.00	1.0
XAN	19.36	280	eP	32	02.50	-2.6
GYA	22.97	260	P	32	50.00	8.1X
LZH	23.46	286	eP	32	54.00	7.4X
CD2	24.11	273	eP	32	51.60	-1.2
GTA	26.76	293	eP	33	16.00	-1.7
PSI	43.22	233	ePc	35	49.60	10.9X
WB5	52.53	177	eP	36	50.00	-1.0
WRA	52.59	177	P	36	52.00	0.5
	0.9s	2.40nm			4.2mb	
TTA	53.11	33	P	36	54.50	-0.5
	0.7s	4.36nm			4.6mb	
PMR	56.42	34	P	37	18.00	-1.0
FBA	56.60	30	P	37	20.00	-0.2
	0.5s	2.58nm			4.5mb	
MBC	62.56	15	eP	38	00.00	-1.1
YKA	71.08	27	eP	38	55.90	0.9
SES	80.09	35	eP	39	47.00	0.6
FRB	82.30	9	eP	39	58.00	0.4
KVN	83.27	48	P	40	04.00	0.6
TNP	84.41	48	P	40	10.40	1.2
	0.5s	2.82nm			4.6mb	
			pP	40	26.00	55kmX
BW06	85.89	41	P	40	17.50	1.0
S.D. = 1.0 on 35 of 41 obs.						

MAR 14, 1989 19h 12m 15.47± 0.52s
42.018 N ± 5.1km 142.682 E ± 6.8km
DEPTH = 39.6 ± 5.2 km
4.7mb (14 obs.)
HOKKAIDO, JAPAN REGION (224)
Felt (II JMA) at Urakawa.

URA	0.16	27	iPd	12	20.70	-1.7
			iS	12	25.40	
HOOJ	0.58	51	iPd	12	27.00	-0.2
			S	12	36.10	
MRRJ	1.26	289	iPd	12	36.60	-0.3
			S	12	53.00	
SAP	1.44	317	eP	12	40.00	0.6
			eS	12	58.00	
KUSJ	1.85	54	P	12	45.60	0.4
			S	13	10.60	
ASAJ	2.10	359	P	12	51.10	2.2
			eS	13	17.60	
AOMJ	2.27	231	P	12	51.60	0.3
			eS	13	19.50	
OFUJ	3.03	195	P	13	02.30	0.2
			S	13	40.10	
YAMJ	4.34	209	eP	13	21.50	0.8
NIIJ	5.55	212	eP	13	38.80	1.0
KAKJ	6.12	199	P	13	43.40	-2.4
			S	14	54.50	
MAT	6.48	214	iPc	13	51.40	0.6
	0.7s	23.29nm			5.0mb	
			eS	15	32.00	
MTMJ	6.61	216	P	13	54.20	1.4
CHJJ	6.61	207	P	13	51.50	-1.2
IIDJ	7.52	211	P	14	06.30	0.9
TSRJ	8.32	221	P	14	18.00	1.5
BJI	20.07	273	eP	16	46.00	-2.1
Z	12s	0.30um			3.9MszX	
SSE	20.37	245	eP	16	49.80	-1.4
Z	16s	0.50um			4.0MszX	
WHN	25.43	252	eP	17	39.00	-2.1
GTA	32.35	280	eP	18	43.00	-0.3
GYA	33.30	254	eP	18	49.00	-2.6
WMO	39.68	292	eP	19	46.00	0.6
CHG	43.64	252	eP	20	19.00	1.1
GUN	47.81	272	P	20	51.50	0.0
KKN	48.32	272	P	20	55.30	0.0
PKI	48.34	272	P	20	55.90	0.3
DMN	48.55	272	P	20	57.10	0.0
GKN	48.69	273	P	20	57.80	-0.2
MBC	51.48	18	eP	21	18.00	-0.5
ALE	55.08	4	eP	21	44.00	-1.1
	0.4s	2.00nm			4.5mb	
PSI	55.34	237	iPd	21	47.30	-0.4
YKA	59.04	32	eP	22	13.60	0.3
KEV	59.15	339	eP	22	10.00	-4.1X
HYB	59.41	266	eP	22	18.00	1.4
SOD	60.77	337	eP	22	24.00	-1.2
WB5	62.06	189	eP	22	33.00	-1.3
WRA	62.13	189	P	22	35.00	0.2
	0.4s	0.70nm			4.1mb	
KJF	62.49	333	eP	22	36.00	-0.7
GBA	62.66	264	P	22	41.00	2.5
	0.9s	2.60nm			4.4mb	
PNT	63.97	46	eP	22	47.00	0.2
SUF	63.99	333	eP	22	45.70	-1.0
	0.9s	10.20nm			4.9mb	
NUR	66.03	331	eP	23	08.00	8.2X
FFC	69.01	34	eP	23	18.50	-0.1
	0.7s	7.00nm			4.8mb	
HFS	69.96	336	eP	23	23.30	-1.0
	0.5s	5.00nm			4.8mb	
NAO	70.26	337	P	23	24.90	-1.3
	0.9s	5.30nm			4.6mb	
FRB	71.71	14	eP	23	34.00	-0.8
KSP	76.38	328	eP	24	03.20	1.1
KHC	78.81	329	eP	24	16.10	0.6
LOR	83.90	333	eP	24	42.30	0.0
	0.7s	3.70nm			4.6mb	
LBF	84.10	333	eP	24	43.40	0.1
	0.7s	2.60nm			4.5mb	
SSF	84.19	333	eP	24	44.10	0.4
	0.8s	4.00nm			4.6mb	
SMF	84.44	333	eP	24	45.40	0.4
	0.8s	6.70nm			4.8mb	
AVF	84.48	333	eP	24	45.60	0.4
	0.9s	8.10nm			4.9mb	
MAF	85.24	333	eP	24	50.00	1.0
CAF	86.55	333	eP	24	56.30	0.7
	0.9s	11.40nm			5.1mb	
SOB1	147.17	7	ePKP	31	56.70	2.7
S.D. = 1.2 on 54 of 56 obs.						

MAR 14, 1989 19h 42m 06.54± 0.18s
61.138 N ± 4.2km 59.295 W ± 2.9km
DEPTH = 10.0km (geophysicist)
4.8mb (37 obs.)
DAVIS STRAIT (444)
ML 5.3 (OTT).

FRB	5.03	305	eP	43	21.00	-2.7
SCH	7.48	215	ePd	43	57.20	-1.1
	0.3s	528.00nm			7.2mb X	
GDH	8.49	14	iPc	44	07.00	-5.4X
	0.6s	26.67nm			5.7mb	
		i		46	22.00	
STJ	14.11	161	eP	45	28.00	-0.4
CBM	15.12	204	P	45	37.50	-4.1X
MIM	16.93	204	P	46	01.00	-3.7X
GAC	18.14	219	eP	46	17.00	-2.7
RSNY	18.91	215	P	46	28.00	-1.3
	0.6s	11.13nm			4.3mb	
PTN	19.02	216	P	46	31.00	0.4
DAG	20.64	25	iPd	46	46.90	-1.2
	1.3s	178.85nm			5.3mb	
ALE	21.49	359	eP	46	54.50	-2.4
	0.9s	21.00nm			4.5mb	
RSON	21.55	257	P	46	56.20	-1.5
	0.5s	14.32nm			4.6mb	
DHN	21.57	220	P	46	59.00	1.0
TBR	22.00	211	P	46	59.40	-2.8
FFC	23.20	273	eP	47	14.00	0.1
MBC	24.91	331	eP	47	31.00	0.6

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      0.6s     12.00nm          4.8mb
YKC   25.44 297 eP     47 35.00  -0.5
      0.5s      5.00nm          4.5mb
YKA   25.49 297 eP     47 35.70  -0.3
CVL   26.10 216 P      47 45.00   3.2X
BLA   27.39 219 P      47 56.50   2.8
      0.8s      6.79nm          4.4mb
DMU   28.35  81 eP     48 04.00   1.8
EDM   29.55 279 eP     48 13.50   0.4
TKL   29.88 223 P      48 17.00   0.9
SES   30.22 273 ePc    48 20.00   0.9
JSC   30.36 218 P      48 18.20  -2.2
INK   30.60 315 eP     48 21.00  -1.1
NRA0  32.88  59 P      48 42.00  -0.2
KEV   33.84  39 eP     48 50.00  -0.4
                eS     54 28.00
FLN   34.73  84 eP     48 57.80  -0.5
GRR   34.80  84 eP     48 58.70  -0.3
BW06  34.91 262 P      49 01.00   0.8
      0.7s      6.58nm          4.6mb
SOD   34.95  42 eP     48 55.00  -5.0X
LPF   34.96  85 eP     49 00.10  -0.2
      1.2s     55.90nm          5.3mb
PNT   35.08 278 eP     49 02.00   0.7
      0.8s     21.00nm          5.1mb
DOU   36.25  78 P      49 11.00  -0.2
ENN   36.43  76 eP     49 13.00   0.3
      1.0s     29.00nm          5.1mb
KJF   37.13  46 eP     49 17.00  -1.4
      0.7s     10.70nm          4.7mb
                 i     49 30.00
                eS     55 22.00
FBA   37.22 315 eP     49 20.40   1.2
WLF   37.28  77 P      49 20.60   0.8
SUF   37.46  49 eP     49 21.20   0.0
      0.5s      2.20nm          4.2mb
LSF   37.46  85 eP     49 21.20  -0.3
      1.1s     31.70nm          5.0mb
TCF   37.77  84 eP     49 23.90  -0.1
      1.0s     32.80nm          5.1mb
SSF   37.84  82 iPc    49 24.50  -0.1
      1.0s     52.00nm          5.3mb
LOR   37.86  82 iPc    49 24.70  -0.1
      1.1s     51.20nm          5.2mb
BGF   37.88  84 iPc    49 24.70  -0.2
      1.2s     57.70nm          5.2mb
AVF   37.96  83 eP     49 25.20  -0.4
      1.1s     36.60nm          5.1mb
MAF   37.99  84 iPc    49 25.60  -0.2
      1.1s     29.30nm          5.0mb
LFF   38.03  87 iPc    49 26.50   0.3
      0.9s     39.30nm          5.2mb
LBF   38.12  82 eP     49 26.80  -0.2
      1.1s     52.20nm          5.2mb
RJF   38.14  86 eP     49 26.70  -0.5
      0.8s      9.10nm          4.6mb
NUR   38.26  53 eP     49 35.00   7.1X
   Z  16s      0.80um          4.6MszX
                LR     05 20.00
SMF   38.30  83 iPc    49 28.00  -0.4
      0.9s     23.50nm          4.9mb
LPO   38.44  87 iPc    49 29.60   0.0
      0.9s     22.90nm          4.9mb
IMA   38.44 319 eP     49 30.10   0.5
      1.1s     15.60nm          4.6mb
HAU   38.53  79 eP     49 30.50   0.1
      1.2s     32.10nm          4.9mb
CDF   38.69  78 eP     49 32.00   0.2
      0.9s     17.60nm          4.8mb
BSF   38.86  79 eP     49 33.30   0.0
      1.1s     16.60nm          4.6mb
MOX   39.17  72 eP     49 36.00   0.3
                eLR    00 50.00
CLL   39.35  71 eP     49 37.00  -0.2
TOL   39.53  97 eP     49 40.00   1.1
ALQ   39.68 251 eP     49 43.00   2.6
      1.0s      2.50nm          3.8mb
PMR   39.77 312 eP     49 41.50   1.0
BRG   40.08  70 eP     49 43.20   0.0
      1.2s     15.00nm          4.5mb
LPG   40.53  82 eP     49 47.60   0.3
EUR   40.53 264 iP     49 51.00   3.6X
      0.2s      5.58nm          4.9mb
PRU   40.97  71 P      49 50.90   0.4
KHC   41.13  73 iPd    49 53.00   1.1
KSP   41.17  69 iP     49 52.50   0.3
TTA   41.27 316 P      49 53.00   0.0

KVN   41.90 266 P      50 00.40   1.9
TNP   42.23 264 P      50 03.40   2.1
      0.7s      2.96nm          4.1mb
KBA   42.50  75 eP     50 03.50   0.1
      1.0s      8.50nm          4.4mb
                 i     50 22.60
KRA   43.37  67 eP     50 09.70  -0.4
ZST   43.43  71 e(P)   50 19.10   8.4X
SPC   44.14  68 eP     50 16.40  -0.2
SRO   44.27  71 e(P)   50 17.70   0.3
PTJ   44.59  74 eP     50 19.90  -0.3
BZS   47.42  70 eP     50 43.00   0.5
MLR   49.47  67 eP     50 55.00  -3.6X
VRI   49.53  66 ePd    50 59.00   0.1
SKO   50.15  73 iP     51 03.50  -0.1
DHR   50.52  75 eP     51 06.30  -0.3
      1.2s      0.05nm          2.3mb X
VAY   51.18  73 eP     51 11.40  -0.1
TIC   67.55 119 P      53 04.40  -0.5
KIC   67.92 119 P      53 06.88  -0.4
      0.8s     97.00nm          6.0mb X
LIC   67.92 119 P      53 06.94  -0.4
KUK   69.96 115 eP     53 20.00   0.1
MAIO  70.94  49 iPc    53 26.40   0.7
                eS     02 55.00
SOB1  71.61 161 eP     53 30.90   1.1
WMQ   72.01  24 P      53 32.20   0.2
KSH   73.35  35 eP     53 41.00   1.0
ZOBO  77.46 189 Pd     54 05.00   0.9
      1.0s      3.00nm          4.3mb
   Z  24s      0.10um          4.1MszX
                LR     18 45.00
BTO   78.24   8 eP     54 08.40   0.8
GTA   78.36  16 eP     54 08.00  -0.3
BNG   80.27  99 iPd    54 18.20  -0.6
      1.0s     15.00nm          4.9mb
TIY   81.27   7 eP     54 24.50   0.6
LZH   82.15  14 eP     54 27.50  -1.1
XAN   84.68  10 P      54 41.50   0.1
GKN   86.47  31 P      54 50.30  -0.3
KKN   86.83  31 P      54 52.60   0.2
GUN   86.87  30 P      54 53.10   0.4
DMN   86.96  31 P      54 53.50   0.4
PKI   87.08  31 P      54 53.60  -0.1
CD2   87.25  15 eP     54 54.50   0.3
WHN   88.50   5 eP     54 59.50  -0.6
MEKA 145.45   3 ePKP   01 45.00  -0.8
COOL 149.74 359 ePKP   01 56.50   3.9X
KLB  150.38   5 ePKP   01 59.00   5.5X
MUN  150.68   8 ePKP   01 59.00   5.1X
SPA  150.97 180 iPKPd  02 01.50   8.1X
      1.0s     29.00nm
     S.D. = 1.0  on  97 of 110 obs.
-----------------------------------------
*  MAR  14, 1989  21h 52m 41.98± 1.53s
   35.527 N ± 9.8km  140.919 E ±13.4km
   DEPTH =  29.1 ±  8.0 km
 NEAR EAST COAST OF HONSHU, JAPAN(228)

KAKJ   0.91 318 iPd    52 57.90  -0.8
                S      53 06.70
CHJJ   1.65 289 P      53 08.80  -0.5
NIIJ   2.31 318 P      53 18.10  -0.6
MAT    2.42 296 (P)    53 20.00  -0.4
                eS     53 47.00
IIDJ   2.45 270 P      53 22.00   1.1
YAMJ   2.73 345 eP     53 25.70   0.9
MTMJ   2.74 294 iP+    53 25.50   0.6
OFUJ   3.60   9 P      53 37.20   0.1
                S      54 16.90
WB5   55.45 187 eP     02 15.90  -0.3
     S.D. = 0.9  on   9 of   9 obs.
-----------------------------------------
   MAR  14, 1989  23h 32m 21.32± 0.93s
    8.077 S ±14.2km   37.971 E ±15.5km
   DEPTH =  10.0km  (geophysicist)
 TANZANIA                          (573)
      MG 4.3 (LSZ).

IKZ    5.65 248 iPn    34 14.00  26.4X
NPA    7.08 170 iPn    34 11.00   3.4X
                iSn    35 28.00
                iSg    36 09.50
CLK    8.10 201 iPn    34 22.50   0.5
                iSn    35 54.20
                iSg    36 38.90
PTZ    8.94 226 iPn    34 35.50   1.9

                iSn    36 19.00
                iSg    37 07.00
LSZ   11.95 232 iPn    35 13.00  -2.0
                iSn    37 29.00
KMZ   13.06 245 ePn    35 30.00   0.1
                iSn    38 21.00
                iSg    39 18.00
BUL   15.03 216 iPn    35 54.90  -0.8
                iSn    38 33.00
                iLg    40 16.30
BNG   23.02 302 ePd    37 28.10   0.4
      0.8s      4.00nm          4.0mb X
                 i     37 35.20
GKN   57.61  50 P      42 13.70  -0.6
GUN   58.51  50 P      42 21.30   0.5
     S.D. = 1.3  on   8 of  10 obs.
-----------------------------------------
*  MAR  14, 1989  23h 35m 29.82± 1.90s
   33.656 S ± 7.1km   71.650 W ±15.3km
   DEPTH =  19.0 ± 10.5 km
 NEAR COAST OF CENTRAL CHILE       (135)

LCCH   0.19  20 iP     35 35.00   0 2
                iS     36 40.80
LNV    0.36 146 iP     35 37.50   0.1
TACH   0.59  90 iPd    35 41.50   0.1
                iS     35 54.00
SAN    0.85  77 iP     35 46.00   0.2
ROCH   0.87  38 iP     35 45.60  -0.6
CHCH   0.88 109 iP     35 45.60  -0 6
                iS     36 01.50
PCH    0.95  88 iPd    35 48.00   0.5
                iS     36 05.50
FCH    1.18  74 iPc    35 51.60   0.0
                iS     36 12.30
JACH   1.32  43 iP     35 53.50   0.2
                iS     36 14.30
     S.D. = 0.5  on   9 of   9 obs.
-----------------------------------------
   MAR  14, 1989  23h 54m 22.94± 0.45s
   26.058 N ± 7.5km  128.522 E ± 7.3km
   DEPTH =  33.0km  (normol)
   4.7mb (  8 obs.)  4.3Msz (  1 obs.)
 RYUKYU ISLANDS                    (238)

SSE    8.17 310 P      56 01.00 -21.1X
     Z  12s      1.80um
     N  11s      1.60um
     E  11s      1.70um
                 i     56 21.20
                eS     58 34.00
                sS     58 52.00
NJ2   10.35 307 Pc     56 52.40   0.2
     Z  14s      2.40um
BJI   17.34 327 eP     58 25.00   1.1
     Z  13s      0.90um
     N  13s      1.50um
CN2   17.88 353 eP     58 30.00  -0.6
     Z  12s      1.30um
     N  11s      0.70um
                eS     01 48.00
TIY   17.91 314 eP     58 32.00   0.9
     N  12s      1.00um
QIZ   18.61 252 eP     58 41.80   2.1
XAN   18.72 300 P      58 41.00  -0.1
GUMO  19.73 126 eP     58 51.50  -1.4
HHC   20.39 321 eP     58 58.40  -1.3
BTO   21.14 318 eP     59 06.00  -1.4
CD2   22.28 288 eP     59 16.60  -2.3
KMI   23.26 273 eP     59 29.50   0.8
     Z  20s      1.00um          4.3Msz
                 S     03 42.00
LZH   23.32 301 eP     59 28.50  -0.7
      1.5s     66.00nm          4.9mb
     Z  16s      0.50um          4.1MszX
GTA   27.44 306 iPc    00 06.10  -1.8
     Z  12s      0.70um          4.5MszX
     N  11s      0.60um
                pP     00 14.00  28kmX
SHL   32.92 277 iP     00 55.50  -1.2
WMQ   37.43 309 P      01 33.50  -1.4
GUN   37.91 283 P      01 39.80   0.4
PKI   38.37 282 P      01 43.00  -0.2
KKN   38.45 283 P      01 44.00   0.2
DMN   38.63 282 P      01 45.40   0.1
GKN   38.99 283 P      01 48.20   0.0
WB5   46.01 172 eP     02 44.90  -0.3
```

15d 00h

WRA 46.07 172 Pc 02 45.00 -0.6
0.7s 2.40nm 4.2mb
HYB 46.97 270 eP 02 53.00 0.0
GBA 49.35 266 Pc 03 11.30 -0.1
1.1s 5.20nm 4.5mb
MAIO 58.83 298 eP 04 21.00 0.2
INK 68.94 23 eP 05 32.00 5.6X
MBC 69.93 14 eP 05 32.00 -0.4
SOD 70.66 336 iP 05 37.00 0.1
KJF 71.40 333 iP 05 40.80 -0.6
0.6s 9.10nm 5.0mb
e 05 50.00
ALE 71.51 1 eP 05 42.00 0.1
SUF 72.61 332 eP 05 48.40 -0.2
0.9s 6.80nm 4.6mb
YKA 78.57 25 eP 06 24.00 1.6
HFS 79.09 332 eP 06 24.70 -0.6
0.4s 1.20nm 4.2mb
VRI 79.39 316 ePd 06 29.50 2.2
NAO 79.86 334 P 06 29.00 -0.5
0.8s 5.50nm 4.6mb
MLR 80.05 316 ePd 06 32.00 1.0
KSP 82.99 324 eP 06 47.30 1.3
VAY 84.19 313 eP 06 53.30 1.0
SKO 84.60 314 eP 06 55.50 1.1
i 07 04.00
KHC 85.40 323 eP 07 03.50 5.2X
FFC 88.63 27 eP 07 15.00 1.2
0.9s 11.00nm 5.2mb
FRB 89.49 8 eP 07 24.00 6.3X
S.D. = 1.1 on 39 of 43 obs.

MAR 14, 1989 23h 58m 02.82± 0.57s
45.505 N ± 5.2km 6.902 E ± 5.3km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.6 (LDG).

LPG 0.11 266 Pg 58 04.90 -1.0
Sg 58 07.20
LPL 0.12 275 Pg 58 04.60 -1.4
Sg 58 06.80
LSD 0.18 105 P 58 07.32 0.2
S 58 11.44
RSP 0.43 145 P 58 12.86 1.2
S 58 20.32
BNI 0.48 200 P 58 11.40 -1.2
eSg 58 19.50
RRL 0.59 188 P 58 15.18 0.2
S 58 24.28
ORO 0.77 81 P 58 16.40 -1.5
eSg 58 27.90
ORX 0.77 80 P 58 16.59 -1.3
S 58 26.91
PZZ 1.01 172 P 58 22.76 0.7
S 58 36.37
DOI 1.03 166 P 58 23.20 0.8
eSg 58 39.00
FRF 1.95 185 Pg 58 40.30 4.0X
BSF 2.33 358 Pg 58 42.60 0.7
SMF 2.42 299 Pg 58 44.30 1.3
Sg 59 13.20
HAU 2.53 352 Pg 58 45.80 1.2
BGF 3.01 292 Pg 58 55.70 4.2X
S.D. = 1.2 on 13 of 15 obs.

MAR 15, 1989 01h 28m 43.07± 0.36s
26.065 N ± 5.7km 128.386 E ± 5.6km
DEPTH = 33.0km (normal)
5.1mb (13 obs.)
RYUKYU ISLANDS (238)

KAGJ 5.56 23 P 30 03.80 -1.8
ANP 6.26 263 eP 30 12.00 -3.7X
KUMJ 6.79 18 P 30 21.10 -1.9
SSE 8.07 310 Pc 30 40.00 -0.9
1.2s 17.00nm 5.0mb X
N 10s 6.23um
E 11s 8.57um
e 32 29.00
Lg 32 51.00
e 33 07.00
OZH 8.92 265 eP 30 50.00 -2.6
Z 12s 2.60um
E 11s 2.20um
eS 32 28.50
NJ2 10.25 308 eP 31 15.40 4.5X
N 12s 5.40um
E 12s 8.70um
WHN 13.14 293 eP 31 49.50 -0.5
Z 14s 8.33um
N 11s 2.64um
E 12s 5.24um
MAT 13.39 36 (P) 32 04.00 10.8X
1.5s 55.56nm
eS 34 36.00
TIA 13.96 319 Pd 32 01.10 0.4
Z 15s 5.30um 4.4MszX
N 12s 3.50um
E 12s 2.90um
DL2 14.01 338 eP 32 08.00 6.7X
Z 14s 2.30um
N 12s 2.70um
E 11s 1.30um
S 34 35.00
SNY 16.22 347 Pc 32 30.00 0.1
Z 14s 5.20um
N 13s 2.40um
E 11s 1.70um
S 35 39.00
BJI 17.27 327 Pc+ 32 44.50 1.4
Z 13s 4.70um 4.3Msz
N 14s 7.60um
eS 36 16.00
TIY 17.81 315 Pd 32 51.40 1.3
N 11s 4.20um
E 11s 2.00um
CN2 17.86 353 eP 32 49.60 -0.9
Z 12s 5.70um 4.5MszX
N 11s 3.10um
epP 32 57.00
eS 36 08.00
OIZ 18.49 252 P 33 00.00 1.5
N 19s 3.10um
XAN 18.61 300 Pd 32 59.40 -0.5
N 13s 2.04um
E 13s 3.30um
GYA 19.49 276 P 33 11.00 0.5
N 12s 1.50um
E 12s 2.60um
GUMO 19.83 126 eP 33 13.00 -1.0
HHC 20.30 321 Pc 33 17.50 -1.5
Z 12s 6.20um 5.2MszX
N 11s 4.60um
E 12s 5.10um
BTO 21.05 318 P 33 26.00 -0.6
N 13s 4.60um
sP 33 45.00
CD2 22.16 288 eP 33 36.40 -1.4
Z 13s 4.20um 5.0MszX
E 13s 5.80um
eS 37 42.50
KMI 23.14 273 Pc 33 46.00 -1.7
Z 16s 2.60um 4.8MszX
N 11s 2.10um
sP 33 58.00
S 37 56.00
LZH 23.22 301 eP 33 46.50 -1.8
2.0s 165.00nm 5.2mb
Z 14s 2.30um 4.8MszX
N 10s 0.90um
E 10s 1.40um
eS 38 00.00
LOE 26.18 256 eP 34 17.00 0.5
GTA 27.34 306 iPc 34 25.40 -1.7
1.0s 0.10nm 2.4mb X
Z 12s 2.40um 5.0MszX
N 12s 2.30um
pP 34 33.40 28kmX
S 39 10.00
CHG 28.11 261 eP 34 34.00 -0.1
SHL 32.80 277 iP 35 15.00 -0.8
eS 40 32.00
WMQ 37.33 309 iPc 35 52.40 -1.8
Z 12s 1.80um 5.1MszX
N 12s 1.10um
E 12s 1.70um
pP 36 01.00 29kmX
GUN 37.79 283 P 35 59.00 0.5
PKI 38.24 282 P 36 02.40 0.1
KKN 38.33 283 P 36 03.00 0.1
DMN 38.51 282 P 36 04.20 -0.3
GKN 38.86 283 P 36 07.00 -0.3
NDI 45.24 285 eP 36 58.00 -1.2
KSH 45.46 301 eP 37 03.00 2.0
E 12s 1.20um
WB5 46.04 172 eP 37 03.50 -2.0
WRA 46.10 172 P 37 05.00 -1.0
0.7s 3.70nm 4.4mb
HYB 46.85 270 eP 37 12.00 -0.1
QIS 47.61 166 eP 37 16.00 -1.9
GBA 49.22 266 Pc 37 30.10 -0.4
1.6s 19.00nm 4.9mb
ASPA 49.73 173 eP 37 36.40 2.2
0.5s 13.00nm 5.2mb
QUE 53.77 289 eP 38 04.60 -0.3
MAIO 58.72 298 eP 38 41.00 0.9
eS 46 40.00
INK 68.99 23 eP 39 47.00 0.2
KEV 69.64 339 eP 39 51.00 0.2
MBC 69.95 14 eP 39 52.00 -0.6
1.0s 20.00nm 5.1mb
SOD 70.61 336 iP 39 55.60 -1.1
KJF 71.33 333 eP 40 01.00 -0.2
i 40 24.40
ALE 71.51 1 eP 40 02.00 0.0
1.0s 12.00nm 4.9mb
SUF 72.54 332 iP 40 07.40 -1.0
1.2s 22.30nm 5.0mb
DAG 75.45 353 iPd 40 24.20 -0.8
1.3s 32.69nm 5.2mb
YKA 78.62 25 eP 40 44.10 1.3
YKC 78.67 25 eP 40 43.00 -0.1
SLL 79.00 333 eP 40 44.30 -0.6
0.7s 22.60nm 5.3mb
TLB 79.03 314 eP 40 46.00 0.6
VRI 79.30 316 ePd 40 48.00 1.1
ISR 79.74 315 eP 40 51.00 1.7
NAO 79.80 334 P 40 48.30 -1.0
0.6s 4.70nm 4.7mb
MLR 79.96 316 ePd 40 51.50 0.9
JMB 80.92 313 iPc 40 57.00 1.4
KRA 81.34 322 eP 40 58.30 0.7
e 41 07.10
DEV 81.66 317 ePd 41 00.00 0.6
KDZ 82.07 312 iP 41 03.00 1.4
PGB 82.46 314 eP 41 05.00 1.3
RZN 82.51 313 iPc 41 05.00 0.9
KSP 82.91 324 eP 41 06.50 0.8
e 41 15.70
VTS 83.06 314 iP 41 08.00 1.1
KKB 83.50 314 iPc 41 10.00 1.0
ZST 83.90 321 eP 41 13.50 2.7
VAY 84.10 313 iP 41 12.30 0.3
BRG 84.13 325 eP 41 13.30 1.4
1.6s 27.00nm 5.2mb
VKA 84.30 322 e(P) 41 14.00 1.1
PRU 84.31 324 eP 41 13.80 0.9
Z 12s 1.30um 5.5MszX
N 14s 0.80um
E 12s 0.80um
e 41 23.00
CLL 84.37 325 iP 41 13.30 0.2
2.6s 82.00nm 5.4mb
i 41 22.40
KHC 85.32 323 Pd 41 19.50 1.5
OHR 85.36 314 eP 41 18.50 0.1
MOX 85.47 325 eP 41 30.50 11.8X
2.1s 89.00nm
Z 14s 1.10um 5.4MszX
N 18s 1.50um
E 20s 1.30um
LQ 17 30.00
LR 24 50.00
KBA 86.63 322 e(P) 41 30.00 5.3X
i 41 38.20
SES 87.54 33 eP 41 29.00 0.1
FFC 88.68 27 eP 41 34.00 -0.2
0.9s 14.00nm 5.3mb
FRB 89.50 7 eP 41 43.00 5.1X
S.D. = 1.2 on 74 of 81 obs.

MAR 15, 1989 02h 08m 07.28± 0.30s
43.702 N ± 3.3km 12.042 E ± 3.0km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)
MD 3.3 (FIR). ML 3.0 (KBA).

CRE 0.10 222 Pd 08 10.60 0.5
eSg 08 13.10
SFI 0.26 328 P 08 13.10 0.4

			eSg	08	17.00	
PGD	0.29	307	Pd	08	13.90	0.5
			eSg	08	20.30	
RSM	0.37	53	Pd	08	13.20	-1.7
			eSg	08	20.40	
FIR	0.57	278	iPgd	08	19.00	0.1
			iSg	08	28.00	
ARV	0.68	107	Pd	08	20.70	-0.2
			eSg	08	31.80	
ASS	0.78	144	P	08	22.50	0.1
			eSg	08	34.00	
CIO	0.95	122	ePg	08	26.33	0.9
			iSg	08	42.84	
MME	1.09	297	P	08	27.90	0.0
			eSg	08	44.60	
PII	1.10	272	P	08	27.60	-0.3
			eSg	08	44.20	
BDI	1.11	290	P	08	27.70	-0.4
			eSn	08	44.30	
AOI	1.14	97	ePg	08	30.20	1.5
			iSg	08	50.25	
MNS	1.40	160	P	08	32.00	-0.8
			eSn	08	50.30	
MAO	1.44	207	P	08	35.20	1.8
AZI	2.00	149	P	08	40.50	-0.9
RDP	2.00	165	P	08	40.60	-1.0
BOB	2.15	301	P	08	44.80	1.1
			eSn	09	10.70	
TRI	2.35	31	P	08	47.00	0.5
CTI	2.36	353	P	08	47.30	0.5
			eSn	09	15.00	
SDI	2.38	146	P	08	47.10	0.0
MDI	2.66	322	P	08	50.40	-0.5
CKI	2.81	286	P	08	52.20	-0.8
FVI	2.94	10	P	08	54.80	0.0
RBL	2.95	21	P	08	54.30	-0.7
VAI	3.18	314	P	08	58.70	0.5
HVAR	3.25	98	iPn	08	59.20	-0.1
KBA	3.50	15	e(Pn)	09	04.00	1.0
			e	09	11.00	
			iSn	09	46.50	
			i	10	10.50	
DOI	3.55	285	P	09	01.80	-1.8
PTJ	3.55	50	e(Pn)	09	14.00	10.4X
			eSn	09	51.80	
KHC	5.53	11	eP	09	51.50	19.8X
			e	10	35.20	

S.D. = 0.9 on 28 of 30 obs.

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* MAR 15, 1989 02h 42m 47.49± 0.72s
7.374 S ±22.3km 107.937 E ±15.3km
DEPTH = 33.0km (normal)
4.4mb (5 obs.)
JAVA (277)

TRT	4.67	94	iPd	44	05.00	7.5X
			iS	45	07.00	
NANU	16.78	155	eP	46	42.00	0.4
			eS	49	30.00	
WB5	28.48	119	eP	48	42.00	0.0
WRA	28.48	119	P	48	43.00	1.0
	0.6s		2.90nm			4.2mb
ASPA	29.72	126	eP	48	51.90	-1.2
	1.2s		11.00nm			4.5mb
QIS	33.33	116	eP	49	24.00	-0.8
GBA	36.76	304	Pd	49	54.40	0.3
	0.7s		1.80nm			4.1mb
CTA	39.20	113	iPc	50	15.00	0.4
	0.9s		10.92nm			4.6mb
STK	39.70	132	iPc	50	18.70	0.1
	0.4s		47.00nm			5.6mb
			e	50	21.00	
BUL	77.51	251	iPc	54	41.90	-0.4
	0.8s		74.63nm			5.8mb X
SOB1	144.85	243	ePKP	02	22.30	-1.6
BAO	146.97	226	ePKP	02	29.00	1.6

S.D. = 1.0 on 11 of 12 obs.

MAR 15, 1989 02h 48m 07.59± 0.35s
42.059 N ± 4.2km 142.663 E ± 6.1km
DEPTH = 72.1 ± 3.4 km
4.8mb (21 obs.)
HOKKAIDO, JAPAN REGION (224)
Felt (II JMA) at Urakawa; (I JMA) at Obihiro and Hiroo.

URA	0.13	41	iP+	48	17.90	0.0
			iS	48	24.90	
HOO	0.53	65	P	48	00.00	-21.1X
HOOJ	0.56	55	iP+	48	21.40	0.0
			eS	48	31.20	
OBI	0.95	25	eP	48	26.00	0.2
			eS	48	40.00	
MRRJ	1.24	288	iPd	48	28.60	-0.9
			S	48	44.10	
SAP	1.40	316	iP	48	31.30	-0.4
			iS	48	49.00	
KUSJ	1.83	55	iPd	48	37.70	0.2
			S	49	00.60	
ASAJ	2.06	360	P	48	41.20	0.6
			eS	49	07.50	
AOMJ	2.28	230	eP	48	44.10	0.3
			S	49	11.30	
OFUJ	3.07	195	P	48	53.90	-0.8
			eS	49	30.90	
NIIJ	5.58	212	eP	49	29.90	0.0
KAKJ	6.16	199	P	49	36.60	-1.3
			S	50	43.00	
MAT	6.50	214	(P)	49	44.00	1.3
			(S)	51	09.00	
MTMJ	6.64	216	P	49	45.00	0.3
CHJJ	6.65	207	P	49	45.10	0.4
			S	50	57.30	
TSRJ	8.34	221	P	50	09.10	1.1
BJI	20.05	273	eP	52	34.00	-3.3X
CHG	43.64	252	eP	56	07.20	0.6
			e	19	02.30	
GUN	47.80	272	P	56	40.00	0.0
KKN	48.31	272	P	56	44.00	0.2
	0.8s		39.00nm			5.4mb
PKI	48.33	272	P	56	44.00	-0.1
DMN	48.53	272	P	56	45.80	0.2
	0.6s		16.00nm			5.2mb
GKN	48.67	273	P	56	46.40	-0.1
	0.6s		14.00nm			5.1mb
MBC	51.44	18	eP	57	06.00	-0.8
YKA	59.01	32	eP	58	02.20	0.6
HYB	59.40	266	ePd	58	04.20	-0.8
SOD	60.73	337	iP	58	12.00	-1.4
WB5	62.10	189	eP	58	22.20	-0.8
			e	58	40.50	
WRA	62.17	189	Pd	58	22.40	-1.1
	1.0s		4.30nm			4.5mb
KJF	62.44	333	iP	58	23.20	-1.7
GBA	62.65	264	Pd	58	26.30	-0.6
	0.5s		2.40nm			4.5mb
SUF	63.95	333	iP	58	33.60	-1.2
	0.5s		5.80nm			4.8mb
NUR	65.99	331	iP	58	46.90	-1.0
FFC	68.98	34	eP	59	07.00	0.2
	1.0s		11.00nm			4.7mb
HFS	69.92	336	eP	59	11.50	-0.9
	0.4s		9.70nm			5.1mb
NAO	70.22	337	P	59	13.00	-1.3
	0.6s		3.60nm			4.5mb
FRB	71.67	14	eP	59	22.00	-0.9
KHC	78.76	329	P	00	04.90	1.3
LOR	83.85	333	iPd	00	30.80	0.5
	0.6s		3.60nm			4.6mb
LBF	84.06	333	eP	00	31.70	0.4
	0.8s		4.00nm			4.5mb
SSF	84.15	333	eP	00	32.40	0.7
	0.8s		4.00nm			4.5mb
LPG	84.36	331	eP	00	33.30	0.1
	0.8s		4.00nm			4.5mb
SMF	84.40	333	eP	00	33.90	0.9
	0.8s		5.30nm			4.6mb
AVF	84.44	333	eP	00	34.10	0.9
	0.7s		8.10nm			4.9mb
MAF	85.20	333	iPd	00	38.20	1.2
	0.6s		5,40nm			4.8mb
LRG	86.26	330	eP	00	42.10	-0.1
	0.8s		6.40nm			4.7mb
LMR	86.30	330	eP	00	42.00	-0.5
	0.8s		10.70nm			5.0mb
CAF	86.51	333	iPd	00	45.50	2.0
	0.6s		5.40nm			4.8mb
LFF	86.93	334	eP	00	46.50	1.0
	0.8s		13.40nm			5.1mb
LPO	87.01	334	eP	00	47.50	1.5
	0.6s		5.40nm			4.9mb
SOB1	147.13	6	ePKP	07	45.10	3.2X

S.D. = 0.9 on 48 of 51 obs.

? MAR 15, 1989 03h 13m 12.45± 2.26s
15.480 S ±49.7km 173.361 W ±33.1km
DEPTH = 86.4 ± 15.3 km
4.3mb (5 obs.)
TONGA ISLANDS (173)

AFI	2.19	45	iPd	13	48.00	0.3
			eS	14	00.00	
DZM	20.20	248	iPc	17	42.40	-0.5
WB5	49.84	257	eP	21	58.20	-0.8
WRA	49.86	257	Pd	22	01.00	1.8
	0.4s		0.80nm			4.1mb
ASPA	50.12	252	iPc	22	00.00	-1.2
	0.9s		16.00nm			5.0mb
TNP	74.87	43	P	24	44.00	-1.8
TTA	79.33	8	P	25	10.00	0.2
ALQ	80.82	50	eP	25	18.50	-0.1
	0.9s		2.10nm			4.0mb
BW06	82.31	42	P	25	26.00	-0.2
	1.0s		3.75nm			4.2mb
FBA	82.47	11	P	25	25.30	-0.9
	0.8s		6.90nm			4.6mb
IMA	82.64	8	P	25	27.40	0.2
SES	85.25	35	eP	25	41.00	0.4
SPC	144.59	345	ePKP	32	40.20	-0.5
KHC	145.96	352	PKPc	32	43.50	0.6
	1.0s		7.50nm			
			e	33	00.00	
ZST	146.25	347	ePKP	32	45.80	2.5
BZS	147.42	340	ePKP	32	49.00	3.8X

S.D. = 1.2 on 15 of 16 obs.

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* MAR 15, 1989 04h 13m 13.29± 1.93s
35.308 S ±12.5km 179.946 E ±13.5km
DEPTH = 88.5 ± 14.3 km
4.9mb (1 obs.)
OFF E. COAST OF N. ISLAND, N.Z. (160)

HBZ	2.64	210	P	13	55.00	0.3
			S	14	44.00	
GNZ	3.67	204	P	14	08.00	-0.8
GBZ	3.74	255	P	14	09.50	-0.4
KRP	4.40	232	Pd	14	20.10	1.1
			S	15	26.00	
NGZ	5.19	221	P	14	29.80	-0.3
			S	15	49.00	
NEZ	6.12	228	eP	14	47.50	4.6X
			S	16	13.60	
WEL	7.22	213	eP	15	00.00	2.0
			S	16	16.00	
COB	8.09	222	P	15	08.00	-2.0
			S	16	39.00	
RTY	8.54	218	P	15	17.20	1.1
			S	16	55.00	
MSZ	13.12	221	eP	16	16.00	-1.2
			eS	18	32.00	
DZM	17.70	315	iPd	17	14.70	-0.9
CAN	25.21	261	eP	18	38.90	6.7X
BWA	25.83	263	eP	18	40.00	2.0
RMO	28.08	280	eP	19	01.00	2.5
QIS	38.28	282	eP	20	27.00	0.3
ASPA	41.39	273	iPd	20	53.60	1.2
	0.6s		38.00nm			5.4mb X
WRA	42.83	279	Pd	21	03.40	-0.8
	0.4s		10.50nm			5.0mb X
WB5	42.84	279	eP	21	02.50	-1.7
			i	21	05.00	
COOL	48.84	258	eP	21	51.70	0.0
	0.4s		6.00nm			4.9mb
KNA	49.54	280	iPd	21	57.30	0.2
NWAO	51.20	254	eP	22	09.00	-0.6
KLB	51.27	255	iPd	22	10.00	-0.2
	0.4s		10.00nm			5.2mb X
MUN	52.35	254	eP	22	18.10	-0.2
MEKA	52.65	261	eP	22	20.00	-0.6
MRWA	53.60	257	eP	22	27.00	-0.5
MBL	54.06	268	iPd	22	30.30	-0.7
	0.4s		20.00nm			5.5mb X
SPA	54.87	180	iPc	22	41.00	4.4X
	1.0s		29.50nm			5.3mb X
			i	23	40.80	
NANU	56.91	264	iPd	22	51.60	0.1
	0.5s		15.00nm			5.3mb X
PSI	84.23	277	iPc	25	35.60	-0.8
MBC	117.57	14	ePKP	31	49.00	-0.2
ITR	123.15	133	e(PKP)	32	08.00	6.4X
FRB	130.44	33	ePKP	32	14.00	-0.1

15d 04h

KEV	142.46	345	ePKP	32 35.00	-1.3
				37 08.00	
SOD	144.42	343	iPKP	32 43.30	3.6X
BNG	144.79	213	iPKPc	32 41.00	-1.0
	0.3s		23.00nm		
KJF	146.52	338	iPKP	32 43.80	0.5
	0.7s		18.70nm		
SUF	148.08	337	ePKP	32 48.00	2.2
	0.4s		21.30nm		
NUR	150.19	335	iPKP	32 54.60	5.5X
LEGH	150.48	180	ePKP	33 00.50	9.5X
LIC	150.70	170	PKP	32 59.66	8.4X
	0.7s		31.00nm		
KIC	150.87	170	PKP	33 00.08	8.5X
	0.7s		26.00nm		
KOGH	150.92	180	ePKP	33 01.00	9.3X
KUK	151.02	179	ePKP	33 00.50	8.7X
TIG	151.11	170	PKP	33 00.54	8.6X
NAQ	153.52	348	PKP	32 54.80	0.8
	0.7s		15.10nm		

S.D. = 1.2 on 33 of 45 obs.

MAR 15, 1989 04h 17m 33.41± 2.21s
30.539 S ± 9.5km 178.008 W ± 9.3km
DEPTH = 56.6 ± 18.7 km
5.2mb (12 obs.) 4.9Msz (5 obs.)
KERMADEC ISLANDS (178)
Ms 5.2 (BRK).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 15S, 30C
Centroid Location:
Origin Time 04 17:37.4 0.6
Lat 30.55S 0.05 Lon 177.86W 0.05
Dep 44.5 2.9 Half-duration 2.3
Moment Tensor; Scale 10**17 Nm
Mrr= 1.86 0.08 Mtt= 0.13 0.13
Mff=-1.99 0.10 Mrt= 0.28 0.12
Mrf= 1.52 0.16 Mtf=-0.70 0.09
Principal Axes:
T Val= 2.39 Plg=71 Azm=273
N 0.33 4 14
P -2.72 19 106
Best Double Couple:Mo=2.6*10**17
NP1:Strike=202 Dip=27 Slip= 99
NP2: 12 64 86

KRP	9.10	214	eP	19 47.00	2.4
MRW	12.19	207	eP	20 24.00	-2.5
			eS	22 29.00	
SVA	12.78	345	eP	20 33.60	-0.7
VUN	12.88	345	eP	20 28.30	-7.4X
SGE	13.41	343	ePc	20 46.10	3.3X
DZM	16.28	298	iPc	21 24.10	4.3X
			iS	24 58.90	
			ScP	29 56.50	
MSZ	17.94	214	eP	21 39.00	-1.3
			eS	24 45.00	
CQO	25.89	262	iPc	23 06.90	5.2X
CNB	27.72	251	iPc	23 22.00	3.5X
CAN	28.02	251	eP	23 24.90	3.7X
BWA	28.51	253	eP	23 25.30	-0.3
RMQ	29.42	270	eP	23 36.00	2.2
TAU	30.20	236	eP	23 41.00	0.5
TOO	30.90	247	eP	23 49.00	2.2
CTA	33.81	279	iPc	24 14.00	1.7
	0.4s		99.15nm	6.1mb	
Z	18s		2.75um	5.0Msz	
			e(pP)	24 20.50	22kmX
			i(sP)	24 28.00	
			i	24 42.00	
			e	25 21.00	
			i	28 23.50	
			iS	29 43.00	
			i(PcS)	30 23.00	
			iScP	30 46.00	
STK	34.44	257	eP	24 20.00	2.4
	0.2s		38.00nm	6.0mb	
ADE	36.46	251	iPd	24 37.10	2.3
OIS	39.32	274	eP	24 59.00	0.2
ASPA	43.10	267	iPc	25 29.80	0.0
	0.4s		23.00nm	5.3mb	
			eS	31 14.20	
DRV	44.01	203	eP	25 38.00	1.4
WRA	44.09	272	Pc	25 37.20	-0.7
	0.6s		18.10nm	5.0mb	
WBS	44.10	272	eP	25 37.90	0.0

KNA	50.67	274	eP	26 28.50	-0.8
COOL	51.72	253	eP	26 36.00	-1.1
	0.5s		13.00nm	5.2mb	
KLB	54.29	251	eP	26 54.50	-1.7
MUN	55.44	250	eP	27 03.00	-1.5
BAL	55.45	252	eP	27 01.00	-5.6X
MBL	56.11	264	eP	27 07.00	-2.5
MRWA	56.47	253	eP	27 10.50	-1.5
GUA	56.51	315	eP	27 13.30	1.0
	0.9s		87.39nm	5.8mb	
Z	22s		1.63um	5.1Msz	
GUMO	56.57	315	eP	27 14.20	1.5
NANU	59.25	260	eP	27 30.00	-1.4
	0.4s		5.00nm	5.0mb	
SPA	59.63	180	e(P)	27 34.10	0.3
	0.9s		11.36nm	5.0mb	
			i	28 00.70	
KKM	72.59	288	eP	29 01.00	4.0X
MAT	78.35	325	eP	29 28.00	-1.1
ADK	82.07	1	P	29 46.80	-1.7
	0.9s		41.67nm	5.4mb	
SSE	84.19	311	eP	29 58.00	-1.9
Z	20s		0.50um	4.9Msz	
IPM	84.55	279	ePc	30 01.10	-1.0
QIZ	85.05	295	eP	30 05.80	1.4
PSI	85.39	276	e(P)	30 05.00	-1.3
BAR	85.57	48	eP	30 25.00	18.2X
MWC	85.70	46	eP	30 23.00	15.4X
PLM	85.88	47	P	30 09.50	1.0
RVR	85.98	47	eP	30 11.00	2.3
SNG	86.24	281	eP	30 08.40	-2.0
ISA	86.40	45	eP	30 11.00	0.1
FRI	86.55	43	e(P)	30 20.00	8.5X
TPC	86.88	47	eP	30 10.00	-3.3X
GLA	86.99	49	eP	30 15.00	1.2
CLC	87.04	45	eP	30 14.00	0.0
GSC	87.19	46	eP	30 31.00	16.3X
WDC	87.43	39	e(P)	30 15.00	-0.6
WHN	88.42	307	eP	30 20.00	-0.6
MDJ	88.73	326	eP	30 28.00	6.2X
TNP	88.76	44	P	30 21.70	-0.6
	1.0s		8.33nm	5.0mb	
KVN	88.88	42	P	30 21.80	-1.1
NNT	89.77	285	eP	30 38.00	10.7X
TIA	90.06	313	eP	30 28.50	0.3
CN2	90.25	323	eP	30 28.00	-0.9
Z	26s		0.70um	5.0MszX	
EUR	90.41	43	iP	30 28.80	-1.3
	0.5s		1.33nm	4.5mb	
KDC	90.53	13	P	30 32.00	2.2
GYA	91.61	300	P	30 41.40	5.6X
BJI	93.02	315	eP	30 51.00	9.3X
CHG	93.62	290	eP	30 48.00	3.0X
ALQ	93.67	51	eP	30 44.00	-1.1
	1.0s		4.25nm	4.8mb	
TIY	93.96	312	eP	30 48.00	1.8
Z	22s		0.50um	4.9Msz	
TTA	94.79	10	P	30 49.50	0.0
BW06	96.25	44	P	30 57.00	0.2
CNCB	97.91	115	Pc	31 09.00	3.6X
LPB	97.98	114	P	31 07.00	1.5
Z	20s		0.18um	4.6Msz	
			LR	03 10.00	
FBA	98.01	13	P	31 02.00	-1.9
ZOBO	98.11	114	eP	31 06.00	-0.3
			LR	03 20.00	
YKA	105.57	26	ePdiff	31 38.00	0.1
MBC	112.55	13	ePKP	36 02.00	-1.8
SOB1	122.94	127	e(PKP)	36 24.90	-0.6
			e	36 37.70	
BUL	123.48	210	ePKP	36 25.60	-0.9
ITR	124.95	129	e(Pdif	33 09.00	3.6X
ITR	124.95	129	e(PKP)	36 27.00	-2.4
MAIO	132.26	293	ePKP	36 44.00	1.1
SOD	140.32	345	ePKP	36 44.00	-12.8X
KJF	142.63	342	ePKP	36 58.00	-3.0X
	0.6s		13.00nm		
			i	37 06.80	
SUF	144.24	341	iPKP	37 00.30	-3.5X
	0.4s		11.10nm		
MSL	145.37	291	iPKPd	37 05.50	-1.0
			e	37 15.50	
NUR	146.44	340	iPKP	37 07.60	0.1
	0.8s		66.00nm		
Z	23s		0.60um	5.3MszX	
			i	37 17.00	
			LR	38 10.00	

RGS	147.05	353	ePKP	37 09.00	0.6
UPP	148.85	345	iPKP	37 12.90	1.5
NAO	149.15	352	PKP	37 14.20	2.3
	0.8s		22.10nm		
HFS	149.38	349	ePKP	37 14.80	2.6
	0.7s		17.10nm		
BNG	149.70	214	iPKPc	37 17.90	-3.8X
	1.7s		45.00nm		
				37 20.10	
BBTK	153.30	299	ePKP	37 28.00	9.2X
CFR	154.84	313	ePKP	37 30.00	9.5X
TLB	155.18	312	ePKP	37 30.00	9.1X
VRI	155.40	315	ePKP	37 30.00	14.7X
MLR	156.06	315	ePKP	37 34.00	11.6X
SPC	156.80	329	e(PKP)	37 26.00	2.7
BRG	157.81	340	e(PKP)	37 30.60	6.4X
	1.0s		20.00nm		
			e	37 56.70	
			i	38 13.50	
			e	38 55.70	
			eSg	48 48.50	
BZS	158.51	320	ePKP	37 26.50	1.4
SRO	158.68	329	ePKP	37 09.50	-15.7X
			e	38 08.70	
ZST	158.92	331	ePKP	37 36.70	11.2X
SKO	160.65	311	e(PKP)	37 28.00	0.4
			i	38 19.00	
OHR	161.49	310	e(PKP)	37 26.00	-2.5

S.D. = 1.5 on 69 of 101 obs.

MAR 15, 1989 05h 16m 34.31± 1.04s
22.435 S ± 7.0km 171.057 E ± 5.5km
DEPTH = 83.9 ± 9.1 km
5.2mb (12 obs.)
LOYALTY ISLANDS REGION (189)

DZM	4.29	274	iPc	17 33.40	-5.2X
			iS	18 22.00	
PVC	5.34	331	iPc	17 53.40	0.3
SGE	8.06	54	ePd	18 30.90	0.1
SVA	8.17	60	eP	18 31.70	-0.5
VUN	8.23	59	eP	18 28.10	-5.0X
KRP	15.91	167	P	20 15.00	0.5
HNR	16.76	319	eP	20 26.00	0.8
VSG	17.04	318	eP	20 30.00	1.2
SNZO	19.07	172	P	20 49.00	-3.8X
			S	24 38.00	
RMQ	20.69	254	iPd	21 10.30	0.5
			e	21 22.00	
MSZ	22.33	186	P	21 26.00	0.1
CAN	23.13	231	eP	21 34.70	0.8
CTA	23.23	271	iPc	21 35.50	0.7
	2.0s		147.06nm	5.0mb	
			i	21 44.20	
			e	24 17.00	
			e(S)	25 47.00	
CMS	24.18	243	eP	21 45.00	1.0
PMG	26.33	296	eP	22 04.00	-0.2
	1.0s		28.00nm	4.7mb	
ASPA	34.15	261	iPc	23 11.80	-1.7
	0.9s		22.00nm	5.1mb	
			ipP	23 25.40	53kmX
WB5	34.26	267	eP	23 12.20	-2.2
WRA	34.27	267	Pd	23 12.40	-2.1
	1.6s		32.50nm	5.0mb	
JAY	35.49	300	ePd	23 23.00	-2.0
	0.7s		97.50nm	5.8mb	
KNA	40.41	272	eP	24 05.00	-1.0
WARB	40.50	256	eP	23 52.60	-14.1X
MBL	47.39	261	eP	25 01.30	-0.9
NANU	51.04	259	eP	25 29.00	-1.1
KKM	60.65	291	ePc	26 39.00	-0.3
SPA	67.70	180	iPd	27 24.10	-0.5
	1.0s		40.50nm	5.3mb	
KGM	70.30	281	eP	27 42.00	0.8
QIZ	72.63	300	Pd	27 55.80	0.8
SNG	74.91	284	eP	28 06.00	-2.3
TIA	77.45	318	eP	28 21.60	-0.5
CN2	78.06	328	eP	28 25.00	-0.2
GYA	79.03	305	P	28 31.20	0.1
KHT	80.01	291	ePc	28 38.50	2.1
BJI	80.47	320	eP	28 38.00	-0.4
TIY	81.32	317	Pc	28 43.20	0.2
KMI	81.39	302	Pc	28 44.50	0.7
XAN	81.51	312	iPc	28 44.20	0.2
CHG	81.52	294	ePc	28 45.90	1.6
	1.0s		35.00nm	5.2mb	

HHC	83.74	319	eP	28	55.60	0.2
LZH	86.11	312	eP	29	17.50	10.0X
	1.0s	56.00nm				
MWC	87.79	52	eP	29	21.00	5.4X
SBB	88.18	51	eP	29	17.00	-0.3
ISA	88.19	50	eP	29	17.00	-0.3
PLM	88.25	53	P	29	17.30	-0.5
CLC	88.88	50	eP	29	20.00	-0.7
TPC	89.20	52	eP	29	22.00	-0.2
GLA	89.62	54	eP	29	24.00	-0.1
KVN	90.10	47	P	29	25.80	-0.6
TNP	90.23	49	P	29	26.00	-1.1
	0.8s	5.39nm			4.8mb	
GTA	90.54	313	iPc	29	29.00	0.6
FBA	92.64	16	P	29	34.90	-2.4
	0.9s	4.17nm			4.8mb	
GUN	96.19	297	P	29	55.40	0.5
PKI	96.45	297	P	29	56.20	0.2
	0.8s	12.00nm			5.5mb	
KKN	96.64	297	P	29	57.20	0.5
	0.6s	9.00nm			5.5mb	
ALQ	96.72	55	eP	29	56.00	-0.9
DMN	96.72	297	P	29	57.50	0.4
GKN	97.25	297	P	29	59.40	0.0
	0.8s	13.00nm			5.5mb	
BW06	97.54	47	P	30	02.00	1.5
KJF	131.76	339	iPKP	35	38.80	0.2
	0.6s	10.40nm				
SUF	133.28	339	ePKP	35	41.00	-0.5
HFS	139.10	343	ePKP	35	43.10	-9.4X
	0.4s	0.90nm				
NAO	139.23	345	PKP	35	43.30	-9.5X
	0.9s	2.30nm				
MLR	143.47	317	ePKPd	35	58.50	-2.4
DEV	145.14	320	ePKPc	36	00.00	-3.5X
KSP	145.49	332	iPKP	36	03.70	-0.3
	0.9s	122.00nm				
PSZ	145.68	325	ePKP	36	04.90	0.4
BRG	146.47	334	iPKPc	36	06.20	0.6
	1.0s	200.00nm				
		i		36	28.00	
CLL	146.52	335	iPKPc	36	06.50	0.9
	1.1s	45.00nm				
SRO	146.58	326	iPKP	36	07.40	1.6
EKA	146.86	354	PKP	36	06.00	0.0
	0.7s	10.70nm				
PRU	146.88	332	PKP	36	08.00	1.7
	0.9s	28.00nm				
		e		36	21.00	
ZST	146.95	327	e(PKP)	36	05.70	-0.7
		i		36	08.40	
		e		36	45.80	
VAY	147.53	313	ePKP	36	07.50	-0.1
MOX	147.58	335	iPKPc	36	10.00	2.6
	1.2s	28.00nm				
BNG	147.94	240	iPKPd	36	11.20	2.1
	0.9s	18.00nm				
		i		36	25.60	
KHC	147.94	332	iPKPc	36	11.50	3.4X
	1.0s	29.00nm				
		e		36	23.70	
SKO	147.99	315	iPKP	36	11.30	3.0X
	0.7s	60.00nm				
		i		36	14.30	
DMU	148.55	358	ePKP	36	12.00	3.2X
	S.D. = 1.1	on	65 of	77	obs.	

& MAR 15, 1989 05h 22m 34.74s
60.112 N 152.920 W
DEPTH = 116.7km
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM	0.04	212	iP	22	50.31	0.9
			eS	23	03.44	
RDT	0.53	29	iP	22	52.07	-0.8
			eS	23	05.88	
NNL	0.82	94	iP	22	55.09	0.1
CNPM	1.03	124	iP	22	56.50	-0.7
			eS	23	13.21	
NKA	1.05	52	eP	22	58.24	1.0
SPU	1.16	21	iP	22	57.67	-0.8
			eS	23	15.41	
CRP	1.22	18	iP	22	58.64	-0.6
			eS	23	17.08	
CGLM	1.28	20	iP	22	59.13	-0.8
			eS	23	18.05	
SLKM	1.40	72	iP	23	00.03	-1.2
SVW	1.67	308	iP	23	03.01	-1.4
SEW	1.74	89	eP	23	03.69	-1.5
			eS	23	25.89	
PMS	2.01	54	iP	23	07.27	-1.4
			eS	23	31.75	
PTE	2.07	67	iP	23	07.45	-1.9
PLRM	2.38	50	eP	23	12.21	-1.1
KDC	2.38	174	iP	23	10.47	-2.9
PWL	2.39	70	eP	23	10.91	-2.7
GHO	2.56	48	eP	23	13.50	-2.4
			eS	23	43.97	
KNIM	2.60	83	iP	23	13.10	-3.2
MTU	2.65	90	eP	23	15.29	-1.6
			eS	23	46.38	
SML	2.81	51	iP	23	16.54	-2.6
GLI	2.98	73	eP	23	19.37	-2.0
FID	3.26	76	iP	23	22.93	-2.1
VZW	3.28	70	eP	23	24.42	-1.0
VLZ	3.40	70	eP	23	25.62	-1.4
KLU	3.70	65	iP	23	28.32	-2.8
			eS	24	09.28	
TOA	3.84	56	eP	23	30.97	-2.0
SGAM	3.86	81	iP	23	31.06	-2.1
	27 obs. associated					

MAR 15, 1989 05h 46m 02.09± 0.61s
37.441 N ± 9.0km 70.995 E ± 6.7km
DEPTH = 33.0km (normal)
AFGHANISTAN-USSR BORDER REGION (717)

QUE	7.98	206	eP	47	59.50	0.7
MAIO	9.29	266	eP	48	16.00	-0.8
NDI	10.17	147	iPd	48	29.00	0.1
	0.4s	46.61nm			6.1mb	
			eS	50	07.00	
GKN	14.83	125	P	49	31.20	-0.1
KKN	15.39	125	P	49	38.40	-0.3
DMN	15.40	125	P	49	39.40	0.6
PKI	15.63	125	P	49	41.00	-0.8
GUN	15.71	123	P	49	42.80	-0.1
MBC	66.40	3	eP	56	50.00	0.6
YKA	80.31	3	eP	58	10.80	0.1
	S.D. = 0.6	on	10 of	10	obs.	

% MAR 15, 1989 07h 42m 51.67± 0.84s
10.587 N ± 6.5km 61.115 W ± 7.9km
DEPTH = 10.0km (geophysicist)
TRINIDAD (98)
MD 3.6 (TRN).

TBH	0.11	155	eP	42	55.01	0.5
			eS	43	09.17	
TRN	0.29	282	eP	42	58.67	0.9
TPP	0.43	231	eP	42	59.61	-0.7
			eS	43	15.32	
TCE	0.64	280	eP	43	04.19	-0.3
			eS	43	22.72	
GRW	1.65	341	eP	43	16.28	-4.6X
			eS	43	47.49	
SVB	2.67	357	eP	43	35.48	-0.1
			eS	44	07.66	
SVV	2.72	358	eP	43	36.83	0.7
			eS	44	09.24	
SLB	3.22	1	eP	43	42.33	-1.0
			eS	44	17.20	
	S.D. = 0.9	on	7 of	8	obs.	

? MAR 15, 1989 08h 56m 50.56± 1.00s
48.531 N ±19.6km 156.202 E ±16.8km
DEPTH = 33.0km (normal)
4.7mb (7 obs.)
KURIL ISLANDS REGION (222)

INK	39.02	34	eP	04	16.00	0.9
MBC	42.20	21	eP	04	42.00	0.8
YKA	48.24	38	eP	05	30.00	0.4
GUN	56.91	276	P	06	35.20	0.1
	0.4s	6.00nm			5.0mb	
KKN	57.39	276	P	06	39.00	0.7
	0.8s	21.00nm			5.2mb	
PKI	57.45	276	P	06	39.30	0.4
DMN	57.62	276	P	06	40.80	0.8
GKN	57.67	277	P	06	40.80	0.6
	0.6s	18.00nm			5.3mb	
SUF	62.23	337	iP	07	09.50	-1.3
SLL	67.27	341	eP	07	42.00	-1.4
	0.4s	1.60nm			4.5mb	
NAO	67.47	342	P	07	43.00	-1.7
	0.8s	3.80nm			4.5mb	
WRA	70.91	202	Pd	08	05.20	-1.1
	0.5s	1.60nm			4.3mb	
GBA	72.51	271	P	08	21.00	5.0X
KBA	79.44	335	iPd	08	55.80	0.9
	1.0s	6.30nm			4.6mb	
		i		09	12.40	
		i		09	16.50	
		e(Sg)		20	39.00	
	S.D. = 1.1	on	13 of	14	obs.	

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* MAR 15, 1989 09h 42m 29.24± 2.47s
35.726 N ±20.3km 140.039 E ±15.5km
DEPTH = 29.3 ± 7.4 km
NEAR EAST COAST OF HONSHU, JAPAN(228)

KAKJ	0.49	13	iP+	42	39.60	0.1
			S	42	47.90	
CHJJ	0.91	291	iP+	42	46.10	0.2
			S	42	59.60	
MAT	1.69	299	iPc	42	57.30	0.1
			(S)	43	18.00	
NIIJ	1.73	331	iP+	42	57.40	-0.3
IIDJ	1.75	263	P	42	58.00	-0.1
			S	43	19.70	
MTMJ	2.00	296	iP+	43	01.80	0.0
YAMJ	2.44	360	P	43	08.00	0.0
OFUJ	3.59	21	eP	43	24.20	0.0
	S.D. = 0.2	on	8 of	8	obs.	

% MAR 15, 1989 09h 55m 27.59± 0.73s
39.252 N ± 6.0km 27.698 E ± 7.4km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.80	64	iPg	55	42.00	-1.2
			eSg	55	54.00	
IZM	0.92	202	ePn	55	45.50	0.3
EDC	1.10	7	iPn	55	48.50	0.3
BNT	1.12	9	iPn	55	49.10	0.6
KCT	1.12	27	iPn	55	49.10	0.5
EZN	1.21	299	ePn	55	49.30	-0.7
KHL	1.70	122	ePn	55	57.80	0.3
	S.D. = 0.8	on	7 of	7	obs.	

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* MAR 15, 1989 10h 55m 08.38± 2.44s
2.137 N ±17.4km 126.459 E ±23.8km
DEPTH = 121.5 ± 18.6 km
4.4mb (5 obs.)
MOLUCCA PASSAGE (266)

MNI	1.76	247	ePd	55	39.40	0.0
			eS	56	18.00	
KNA	17.92	173	eP	59	11.40	-0.1
WB5	23.22	161	eP	00	06.30	0.8
WRA	23.27	161	Pd	00	05.20	-0.8
	0.5s	2.60nm			3.9mb	
QIS	25.98	151	eP	00	32.00	0.5
ASPA	26.65	165	iPd	00	38.70	1.0
	0.7s	7.00nm			4.3mb	
WARB	28.15	180	eP	00	41.50	-9.7X
CHG	31.64	303	eP	01	21.80	-0.4
COOL	33.22	188	eP	01	34.00	-1.8
	0.4s	13.00nm			5.1mb	
LZH	39.74	331	eP	02	30.00	-0.8
GUN	46.45	307	P	03	25.40	0.0
	0.6s	10.00nm			4.7mb	
PKI	46.68	307	P	03	27.70	0.5
KKN	46.88	307	P	03	28.40	-0.3
DMN	46.94	307	P	03	29.00	-0.2
GKN	47.48	307	P	03	33.20	-0.1
HYB	49.41	291	eP	03	49.00	0.8
GBA	49.77	286	Pd	03	51.80	1.0
	0.7s	3.00nm			4.3mb	
	S.D. = 0.9	on	16 of	17	obs.	

& MAR 15, 1989 13h 27m 44.80s
35.510 N 116.900 W
DEPTH = 8.0km
CENTRAL CALIFORNIA (39)
<PAS-P>. ML 3.3 (PAS).

GSC	0.22	159	iPd	27	49.30	-0.2
CLC	0.64	299	iPc	27	56.40	-1.3
SBB	1.12	223	iPd	28	04.90	-1.1

15d 13h

ISA	1.29	277	iPc	28 07.50	-1.5
TPC	1.57	153	ePc	28 11.70	-1.3
PEC	1.63	188	eP	28 13.00	-0.9
ABL	2.01	252	eP	28 19.00	-0.6
PLM	2.15	179	eP	28 21.00	-0.6
TNP	2.58	354	eP	28 26.30	-1.4
BCH	2.62	264	eP	28 26.40	-1.9
GLA	2.99	144	eP	28 30.00	-3.4
KVN	3.66	345	eP	28 41.60	-1.5
EUR	4.03	10	iP	28 47.10	-1.3

13 obs. associated

? MAR 15, 1989 13h 28m 26.18± 0.93s
60.305 N ± 7.2km 5.433 E ±11.9km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.6 (BER).

BER	0.09	328	eP	28 28.50	-0.3
			eSg	28 30.40	
ODD1	0.72	123	iP	28 40.10	-0.2
			eS	28 51.40	
			iSg	28 55.50	
HYA	0.94	23	iP	28 44.30	0.2
			eS	28 57.80	
KMY	1.10	185	iP	28 47.00	0.2
			eS	29 01.20	

S.D. = 0.5 on 4 of 4 abs.

MAR 15, 1989 14h 10m 28.54± 0.79s
49.709 N ± 4.9km 7.775 E ±10.7km
DEPTH = 10.0km (geophysicist)
GERMANY (543)
ML 3.0 (LDG). MD 2.7 (UCC).

WLF	1.05	268	iP	10 50.20	1.8
			iS	11 06.40	
CDF	1.34	194	Pn	10 54.20	0.9
			Sg	11 16.00	
MEM	1.45	309	iP	10 54.50	-0.3
			iS	11 12.90	
HAU	1.95	209	Pn	11 02.20	0.2
			Pg	11 08.50	
			Sg	11 35.80	
BSF	1.99	199	Pn	11 02.80	0.1
			Pg	11 08.90	
			Sg	11 36.40	
DOU	2.09	282	P	11 03.50	-0.6
			i	11 08.10	
			S	11 34.40	
LOR	3.57	228	Pn	11 24.00	-1.1
			Sn	12 06.90	
LBF	3.72	224	Pn	11 26.00	-1.3
			Sn	12 10.70	
KMY	9.64	352	iPd	12 49.50	-0.6
			eS	13 01.60	
			eSg	13 04.60	
BLS1	9.72	357	iP	12 50.50	-0.9
			eS	13 04.40	
			iSg	13 08.00	
ODD1	10.25	357	eP	12 58.70	0.1
			iS	13 16.10	
			iSg	13 20.50	
NRA0	11.26	10	iPc	13 18.60	6.3X
			iPg	13 25.30	
			iS	14 05.90	
			iSg	14 19.80	
SUE	11.50	353	eP	13 15.60	0.0
			eS	13 50.10	
HYA	11.52	356	iP	13 15.90	0.0
			eS	13 50.10	
			eSg	13 58.70	
MOL	12.89	360	eP	13 35.90	1.6
			eS	14 24.50	

S.D. = 1.0 on 14 of 15 obs.

? MAR 15, 1989 15h 31m 19.06± 6.54s
58.153 N ±49.8km 6.243 E ±18.9km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 2.4 (BER).

KMY	1.18	334	iP	31 41.00	-0.1
			eS	31 52.20	
			iSg	31 57.40	
BLS1	1.28	14	iP	31 42.70	-0.2
			eS	31 57.80	
			iSg	32 00.30	
ODD1	1.78	6	iP	31 50.60	0.6
			eS	32 11.70	
HYA	3.02	359	eP	32 07.50	-0.3
			eS	32 43.20	
			iSg	32 51.20	
NRA0	3.75	44	eP	32 18.00	-0.1
			ePg	32 27.50	
			iS	32 59.80	
			iSg	33 12.70	

S.D. = 0.5 on 5 of 5 abs.

& MAR 15, 1989 15h 41m 58.28s
60.270 N 149.924 W
DEPTH = 53.7km
KENAI PENINSULA, ALASKA (14)
<AGS-P>.

SLKM	0.28	328	iP	42 07.31	-0.4
			eS	42 14.29	
SEW	0.29	125	iP	42 07.42	-0.3
			eS	42 14.06	
NNL	0.72	252	iP	42 13.02	0.4
PTE	0.74	36	iP	42 12.27	-0.6
			eS	42 22.47	
NKA	0.81	307	iP	42 14.52	0.9
PWL	0.98	52	Pn	42 15.50	-0.6
			eS	42 28.18	
PMS	0.99	10	iPd	42 15.60	-0.6
CNPM	1.00	222	iP	42 16.01	-0.3
			eS	42 29.77	
KNIM	1.09	85	iP	42 16.27	-1.3
MTU	1.17	103	iP	42 17.95	-0.7
			eS	42 33.59	
RDT	1.27	285	iP	42 19.17	-0.9
			eS	42 35.02	
PLRM	1.38	16	iP	42 20.74	-0.8
PMR	1.38	16	iPd	42 20.70	-0.8
PWA	1.39	1	eP	42 21.10	-0.5
SPU	1.39	312	iP	42 20.97	-0.8
			eS	42 37.58	
PME	1.43	17	iP	42 21.59	-0.6
CGLM	1.46	316	iP	42 22.09	-0.6
CRP	1.48	313	iP	42 22.59	-0.5
GLI	1.53	65	iP	42 21.66	-1.9
			eS	42 39.36	
ILIM	1.53	264	iP	42 23.06	-0.6
			eS	42 42.33	
GHO	1.58	17	iP	42 23.82	-0.6
HIN	1.71	84	iP	42 24.54	-1.6
			eS	42 45.18	
SML	1.73	26	iP	42 25.72	-0.7
FID	1.77	73	iP	42 24.93	-2.1
			eS	42 44.84	
VZW	1.84	63	iP	42 26.68	-1.3
VLZ	1.97	62	eP	42 28.32	-1.4
			eS	42 51.51	
CVA	2.09	81	iP	42 29.56	-1.9
			eS	42 54.06	
PDB	2.20	259	eP	42 32.21	-0.8
			eS	42 58.56	
KLU	2.31	56	iP	42 33.80	-0.9
SGAM	2.35	82	iP	42 33.03	-2.2
TOA	2.59	43	eP	42 38.50	-0.1
RAGM	2.61	85	eP	42 36.50	-2.4
KDC	2.86	209	iPc	42 40.70	-1.7
SVW	2.93	289	eP	42 41.10	-2.3
GLB	3.21	66	iP	42 45.59	-1.9
TTA	3.95	315	eP	42 56.60	-1.2
FBA	4.75	11	ePd	43 07.80	-1.3
IMA	6.06	345	eP	43 25.40	-2.2

38 obs. associated

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* MAR 15, 1989 16h 31m 31.53± 1.31s
11.137 S ±18.6km 125.517 E ±13.1km
DEPTH = 33.0km (normal)
TIMOR SEA (290)

KUG	2.13	297	eP	32 05.50	0.1
	1.0s	1414.50nm			
KNA	5.57	146	eP	32 59.00	4.7X
	0.3s	25.00nm			5.2mb X
			eS	34 14.00	
MBL	11.36	208	eP	34 14.30	-0.3
WB5	12.17	137	eP	34 24.50	-1.1
			eS	36 51.00	
WRA	12.20	137	Pd	34 25.40	-0.6
	0.4s	3.10nm			4.8mb X
ASPA	14.80	148	iPc	35 02.10	1.8
	0.7s	22.00nm			4.7mb
			eS	37 58.40	
WARB	15.01	176	eP	34 53.00	-10.0X
			eS	37 53.00	
QIS	16.46	126	eP	35 22.00	0.2
			eS	38 24.00	
CTA	21.84	117	eP	36 14.00	-9.3X
			i	36 21.00	
			e	36 39.00	
			e	41 38.00	

S.D. = 1.3 on 6 of 9 obs.

MAR 15, 1989 16h 37m 06.51± 1.01s
9.668 N ± 4.4km 122.487 E ± 6.8km
DEPTH = 50.3 ± 9.8 km
4.9mb (7 obs.) 4.0Msz (2 abs.)
NEGROS, PHILIPPINE ISLANDS (257)

PPR	3.70	272	iPd	37 58.00	-4.7X
			iS	38 42.50	
TSM	6.96	219	iPd	38 48.30	-0.2
	0.9s	843.30nm			6.5mb X
KKM	7.18	240	iPc	38 49.60	-2.0
			eS	40 10.00	
CVP	8.01	355	eP	39 03.00	-0.1
MNI	8.50	164	e(P)	39 09.50	-0.3
PIP	8.80	348	ePd	39 15.00	1.1
QIZ	15.37	309	eP	40 43.00	1.1
E	16s	0.70um			
			eS	43 35.00	
			sS	43 46.00	
QZH	15.64	347	Pc	40 49.50	4.3X
KGM	20.52	249	eP	41 44.50	1.3
SSE	21.36	357	Pc	41 50.50	-1.1
	0.8s	53.00nm			5.0mb
			eS	45 48.00	
LOE	21.58	293	eP	41 53.00	-1.0
WHN	22.11	341	eP	42 01.00	1.8
GYA	22.43	320	P	42 03.20	0.7
NNT	22.51	280	eP	42 04.00	0.8
NJ2	22.53	352	Pc	42 05.20	2.0
Z	20s	0.40um,			3.8Msz
			S	46 10.00	
KHT	23.89	285	eP	42 17.80	1.1
KMI	24.26	312	Pd	42 21.00	0.5
PSI	24.41	255	ePd	42 22.40	0.7
CHG	24.54	294	ePd	42 22.50	-0.5
	1.2s	23.44nm			4.6mb
XAN	27.27	335	eP	42 46.70	-1.5
CD2	27.40	323	eP	42 48.20	-1.2
TIY	29.36	344	eP	43 05.00	-2.0
Z	20s	0.60um			4.2Msz
BJI	30.76	351	(P)	43 20.00	0.7
LZH	31.29	330	eP	43 23.50	-0.7
WB5	31.61	158	eP	43 24.00	-3.0X
WRA	31.66	158	P	43 27.00	-0.4
	0.5s	1.50nm			4.0mb
SNY	32.05	2	iPc	43 30.40	-0.1
SHL	33.06	303	iP	43 39.00	-0.8
MDJ	35.36	9	eP	43 57.80	-1.4
WARB	35.86	174	eP	43 49.80	-13.8X
MEKA	36.27	186	eP	44 06.00	-1.0
GUN	38.91	303	P	44 30.10	0.4
PKI	39.18	302	P	44 32.00	0.0
KKN	39.37	302	P	44 33.60	0.3
DMN	39.45	302	P	44 34.40	0.3
GKN	39.97	302	P	44 38.40	0.1
COOL	40.34	182	eP	44 43.00	2.0
	0.5s	23.00nm			5.2mb
HYB	43.32	285	ePd	45 05.50	-0.1
	1.0s	25.00nm			4.9mb
GBA	44.25	280	Pd	45 12.80	-0.3
	1.3s	18.80nm			4.7mb
STK	45.18	157	eP	45 20.00	-0.3
WMQ	45.48	325	eP	45 23.00	0.3
NDI	46.42	300	iPc	45 29.00	-1.3
	0.8s	22.39nm			5.1mb
ADE	46.97	162	e(P)	45 39.50	5.0X
POO	47.86	286	iPd	45 42.20	0.4
BWA	50.27	152	eP	46 06.50	6.4X
CAN	51.28	152	eP	46 09.00	1.3
MAIO	62.61	306	eP	47 28.00	-0.3
KEV	82.90	340	eP	49 26.00	-0.8
SOD	83.40	337	iP	49 29.10	-0.4
KJF	83.45	334	eP	49 30.00	0.3

SUF	84.38	333	iP	49 33.70	-0.8
NUR	85.50	331	eP	49 48.00	7.9X
INK	86.20	21	eP	49 44.00	0.5
BRG	93.99	323	e(P)	50 20.30	0.0

S.D. = 1.0 on 47 of 54 obs.

MAR 15, 1989 17h 31m 53.41± 0.67s
39.675 N ± 6.0km 28.792 E ± 6.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.14	241	iPg	31 56.10	-0.7
			eSg	31 59.10	
KCT	0.66	330	iPg	32 06.40	-0.2
BNT	0.95	316	iPg	32 10.90	-0.7
EDC	0.98	314	iPg	32 10.50	-1.5
			eSg	32 22.00	
YLV	1.00	26	iPn	32 12.40	0.1
GBZT	1.22	24	ePg	32 32.20	16.1X
			iSg	32 35.50	
GPA	1.32	62	ePn	32 17.10	-0.7
HRT	1.33	30	ePn	32 18.10	0.2
KHL	1.47	157	ePn	32 20.00	0.0
CTT	1.50	349	ePn	32 22.00	1.7
IZM	1.75	224	ePn	32 24.00	0.0
EZN	1.91	275	ePn	32 28.00	1.8

S.D. = 1.1 on 11 of 12 obs.

MAR 15, 1989 19h 26m 45.44± 0.81s
31.844 N ± 6.9km 50.596 E ± 6.2km
DEPTH = 70.3 ± 10.2 km
4.6mb (5 obs.)
IRAN (348)
Felt in the Ardan-Dashtok oreo.

SHI	2.75	142	eP	27 28.00	-0.3
KER	3.85	311	eP	27 45.00	1.3
TEH	3.94	9	eP	27 47.00	2.1
BHD	5.43	287	ePnc	28 26.50	20.8X
			iSn	29 36.00	
			i	29 44.00	
			i	30 06.00	
			i	30 48.00	
SLY	5.66	313	ePnd	28 08.00	-0.9
			iPg	28 28.50	
			iSn	29 10.00	
			iS•	29 25.00	
			i	29 49.00	
BEE	5.81	181	ePn	28 13.30	2.4
			(Sn)	29 19.40	
BJA	5.83	180	(Pn)	28 11.30	0.1
TAB	7.13	332	e(P)	28 53.00	23.6X
KHI	7.14	69	eP	28 27.70	-1.8
MSL	7.66	308	ePc	28 38.00	1.5
			e	29 08.00	
			eS	29 54.50	
			eLR	31 04.50	
RYD	7.92	207	eP	28 39.00	-1.2
QASM	8.43	229	iPd	28 45.50	-1.8
MAIO	8.61	57	eP	28 48.00	-1.8
			eS	30 50.00	
PRNI	13.45	268	e(P)	29 58.00	3.3X
MBH	13.67	265	eP	29 59.00	1.6
BBTK	16.50	304	eP	30 32.00	-1.8
ELL	17.77	292	eP	30 49.40	-0.2
KHL	18.40	296	eP	30 57.00	-0.3
HRT	19.06	304	eP	31 03.00	-1.9
TLB	21.74	312	eP	31 31.00	-1.3
KSH	21.93	63	eP	31 37.50	3.0X
N	12s		1.00um		
CFR	21.95	314	eP	31 33.00	-1.4
VRI	23.16	314	ePd	31 47.00	0.7
MLR	23.47	313	ePc	31 52.00	2.6
HYB	29.08	113	eP	32 41.50	0.0
WMQ	31.39	57	eP	33 03.70	1.9
KSP	31.60	317	eP	33 05.70	2.3
KBA	32.19	309	e(P)	33 07.00	-1.8
	0.8s		3.80nm		4.3mb
			i	33 20.40	
KHC	32.62	313	P	33 13.50	1.1
NUR	33.39	337	eP	33 18.00	-0.8
CLL	33.69	316	iP	33 24.00	2.4
	0.8s		11.00nm		4.8mb
SUF	34.61	340	iP	33 29.70	0.3
KJF	35.39	343	eP	33 34.00	-1.9
SHL	36.59	89	eP	33 46.50	-0.2
HFS	37.33	330	eP	33 51.00	-1.3
	0.7s		16.10nm		5.1mb
NAO	38.90	330	P	34 03.60	-1.8
	0.6s		5.00nm		4.6mb
GTA	40.30	65	eP	34 19.00	1.5
EKA	44.08	319	P	34 51.00	3.1X
	1.1s		10.20nm		4.6mb
XAN	48.42	71	P	35 22.70	0.2
KIC	57.39	256	PKP	36 29.10	0.0
MBC	71.99	357	eP	38 02.00	-0.8
FRB	73.39	336	eP	38 11.00	-0.2
SCH	78.37	328	eP	38 40.00	0.5
YKA	85.24	353	eP	39 16.30	1.2

S.D. = 1.5 on 39 of 44 obs.

• MAR 15, 1989 19h 48m 10.29± 0.80s
2.713 N ±11.8km 127.075 E ±14.7km
DEPTH = 33.0km (normal)
4.5mb (4 obs.)
MOLUCCA PASSAGE (266)

MNI	2.57	241	ePc	48 52.00	1.5
KNA	18.42	175	eP	52 23.40	-1.5
WB5	23.57	163	eP	53 19.00	0.1
WRA	23.62	163	Pd	53 19.60	0.2
	0.4s		3.40nm		4.2mb
MBL	24.76	196	eP	53 30.00	-0.5
QIS	26.19	153	eP	53 44.00	0.1
ASPA	27.05	166	eP	53 50.20	-1.6
	0.7s		7.00nm		4.4mb
WARB	28.73	181	iPc	53 54.20	-12.7X
KHT	30.55	295	eP	54 23.30	0.0
CHG	31.84	302	eP	54 34.50	-0.2
COOL	33.88	189	iPd	54 46.70	-5.6X
	0.4s		15.00nm		5.3mb
STK	37.07	159	eP	55 20.00	0.8
BWA	42.04	153	eP	56 02.80	2.2
GUN	46.60	307	P	56 38.20	0.4
KKN	47.03	306	P	56 41.40	0.4
DMN	47.10	306	P	56 41.60	0.0
GKN	47.64	306	P	56 46.00	0.3
GBA	50.21	285	Pc	57 03.20	-2.3
	0.8s		4.20nm		4.5mb

S.D. = 1.2 on 16 of 18 obs.

• MAR 15, 1989 20h 58m 35.53± 2.43s
45.767 N ±19.4km 11.928 E ±12.2km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.3 (KBA).

CTI	0.34	326	P	58 42.50	-0.1
			eSg	58 46.70	
FVI	1.02	35	P	58 54.10	-0.6
			eSg	59 08.10	
TRI	1.29	92	P	58 59.40	0.0
			eSg	59 17.60	
RBL	1.33	59	P	59 00.00	-0.1
			eSn	59 17.50	
VOY	1.40	78	ePn	59 00.90	-0.3
			eSn	59 21.20	
KBA	1.64	36	iPgd	59 05.70	1.1
			e	59 27.50	
			iSg	59 28.80	

S.D. = 0.7 on 6 of 6 obs.

MAR 15, 1989 21h 57m 05.42± 0.78s
40.424 N ± 6.1km 19.966 E ± 8.5km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
ML 2.4 (SKO).

TPE	0.13	165	iPgc	57 10.40	1.8
BERA	0.28	357	iPgc	57 10.50	-0.8
VLO	0.36	277	ePg	57 12.40	-0.5
SRN	0.54	177	ePg	57 16.00	-0.4
LSK	0.56	119	ePg	57 15.00	-1.8
TIR	0.92	355	ePg	57 26.70	3.6X
OHR	0.93	42	ePg	57 23.00	-0.3
			eSg	57 38.00	
PUK	1.62	358	ePn	57 34.10	0.1
SKO	1.90	35	ePn	57 40.00	1.8
			iSn	58 06.00	

S.D. = 1.5 on 8 of 9 obs.

& MAR 15, 1989 23h 34m 11.50s
38.405 N 119.408 W
DEPTH = 5.0km
CALIFORNIA-NEVADA BORDER REGION (40)
<BRK>. ML 3.6 (BRK).

CMB	0.85	245	iPc	34 27.00	-1.5
			iS	34 38.40	
MNA	0.98	88	ePc	34 29.30	-1.4
			i	34 46.70	
KVN	1.21	57	iPc	34 33.50	-1.1
FRI	1.43	190	iPd	34 37.30	-0.8
			iS	34 56.10	
SVP	1.44	118	eP	34 37.70	-0.9
PPK	1.54	129	eP	34 39.20	-0.6
TNP	1.75	100	ePc	34 41.40	-1.6
ARN	1.98	239	eP	34 46.40	0.3
ORV	1.99	306	ePc	34 46.20	0.0
MHC	2.06	240	iPc	34 48.30	1.0
			eS	35 15.95	
LLA	2.16	215	ePd	34 49.10	0.4
BKS	2.29	258	ePc	34 50.20	-0.3
			eS	35 20.30	
			e	35 21.30	
SAO	2.30	225	iPc	34 51.20	0.5
			eS	35 20.05	
BRK	2.31	258	ePc	34 52.30	1.5
PRI	2.47	204	ePc	34 53.90	0.7
MIN	2.58	319	iPc	34 57.60	2.8
PRS	2.59	218	eP	34 54.90	0.1
EUR	2.89	67	iP	34 57.00	-2.3

18 obs. associated

& MAR 15, 1989 23h 42m 08.10s
38.392 N 119.427 W
DEPTH = 3.0km
CALIFORNIA-NEVADA BORDER REGION (40)
<BRK>. ML 3.0 (BRK).

CMB	0.83	245	iPc	42 23.50	-1.2
			iS	42 34.70	
MNA	1.00	87	eP	42 26.00	-1.8
KVN	1.23	57	iPc	42 29.80	-2.0
FRI	1.42	189	iPc	42 33.70	-1.1
			iS	42 51.20	
SVP	1.45	117	eP	42 34.00	-1.5
PPK	1.54	128	eP	42 35.50	-1.2
TNP	1.77	99	eP	42 38.00	-2.0
ARN	1.96	239	eP	42 42.70	0.0
ORV	1.99	306	eP	42 43.00	0.0
MHC	2.04	240	eP	42 44.90	1.0
			e(S)	43 12.15	
LLA	2.14	215	eP	42 46.00	0.7
BKS	2.27	258	ePd	42 46.10	-1.0
SAO	2.28	225	eP	42 47.58	0.3
PRI	2.45	204	eP	42 52.20	2.4
PRS	2.57	218	eP	42 51.70	0.3
EUR	2.91	67	iP	42 52.80	-3.6

16 obs. associated

& MAR 16, 1989 00h 20m 53.70s
32.150 N 115.060 W
DEPTH = 6.0km (geophysicist)
CALIFORNIA-MEXICO BORDER REGION (45)
<PAS-P>. ML 3.1 (PAS).

GLA	0.92	12	eP	21 09.80	-1.9
BAR	1.46	292	eP	21 19.70	-1.0
PLM	1.94	309	eP	21 29.40	1.8

3 obs. associated

? MAR 16, 1989 01h 23m 31.72± 5.38s
18.788 N ±41.5km 61.619 W ±16.7km
DEPTH = 10.0km (geophysicist)
LEEWARD ISLANDS (92)
ML 3.0 (FDF).

CPB	1.16	190	iP	23 53.56	0.2
			eS	24 02.18	
ANG	1.64	187	iP	24 00.15	-0.5
			eS	24 11.61	
SKDB	1.79	219	eP	24 02.84	0.0
			eS	24 19.70	
SKI	1.80	217	eP	24 03.05	0.0
			eS	24 17.56	
MGH	2.13	196	eP	24 07.80	-0.1
			S	24 25.80	
DEG	2.52	168	eP	24 13.50	0.1
PAG	2.74	181	eP	24 16.60	-0.1
			S	24 42.10	

16d 01h

MGG	2.87	174	eP	24 18.85	0.5
BBL	3.25	178	eP	24 23.40	-0.4

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

MAR 16, 1989 03h 11m 47.16± 1.14s
10.395 N ± 9.7km 62.166 W ± 6.8km
DEPTH = 10.0km (geophysicist)
NEAR COAST OF VENEZUELA (97)
ML 4.2 (FDF). MD 3.7 (TRN).

TCE	0.50	54	eP	11 57.21	-0.2
			eS	12 06.86	
TPP	0.71	96	eP	12 00.72	-0.4
TRN	0.79	71	eP	12 01.44	-1.1
			eS	12 14.76	
TBH	1.08	85	eP	12 07.98	0.4
			eS	12 30.73	
PIG	1.51	60	eP	12 15.02	0.8
			eS	12 37.50	
GRW	1.82	16	eP	12 19.99	1.1
			eS	12 48.00	
CUM	1.97	272	eP	12 21.00	0.1
SVB	3.00	17	eP	12 37.66	2.1
			eS	13 20.90	
SVV	3.05	18	eP	12 38.31	2.0
			eS	13 22.39	
SSV	3.07	18	eP	12 40.21	3.6X
			eS	13 23.45	
SLB	3.58	18	eP	12 43.59	-0.4
BIM	4.23	15	eP	12 52.33	-0.9
			S	13 40.00	
MVM	4.32	17	eP	12 53.87	-0.5
FDF	4.42	13	eP	12 54.96	-1.0
			S	13 44.40	
DSVT	4.87	9	eP	13 01.35	-0.8
			eS	13 04.20	
DTMT	4.87	9	eP	13 01.49	-0.8
			eS	13 04.41	
DPMT	4.89	9	eP	13 01.70	-0.8
			eS	13 04.47	

S.D. = 1.1 on 16 of 17 obs.

MAR 16, 1989 04h 17m 28.43± 0.11s
60.038 N ± 3.0km 69.657 W ± 2.0km
DEPTH = 10.0km (geophysicist)
5.2mb (58 obs.) 5.0Msz (1 obs.)
NORTHERN QUEBEC (443)

FRB	3.76	8	eP	18 27.00	-0.6
SCH	5.46	162	eP	18 50.60	-1.2
JAQ	7.08	211	P	19 13.11	-1.4
			S	20 29.74	
MNQ	9.54	177	P	19 45.02	-3.8X
			S	21 24.99	
GSQ	11.25	171	P	20 08.10	-4.0X
			S	22 08.50	
GDH	11.49	30	iPd	20 12.20	-3.2X
	0.9s		100.84nm		6.1mb
			i	22 11.00	
CBM	13.16	175	P	20 32.40	-5.4X
GAC	14.77	196	ePc	20 53.80	-5.1X
MIM	14.82	178	P	20 53.90	-5.7X
EMM	15.38	174	P	21 00.70	-6.1X
BNH	15.50	184	P	21 03.00	-5.5X
RSNY	15.79	193	P	21 07.00	-5.2X
PTN	15.82	194	P	21 07.00	-5.6X
RSON	16.36	246	P	21 11.00	-8.4X
DHN	18.01	201	P	21 36.50	-3.7X
FFC	18.09	267	iPc	21 35.00	-6.1X
	1.1s		95.00nm		4.8mb
INY	18.11	196	P	21 38.60	-2.8
			iSn	24 47.00	
			Lg	26 42.00	
ELF	18.31	208	P	21 40.49	-3.3X
LDN	18.42	208	(P)	21 41.70	-3.5X
DLA	18.68	208	P	21 44.90	-3.5X
TBR	19.13	191	P	21 53.20	-0.7
PNJ	19.36	190	eP	21 55.80	-0.8
			i	21 57.00	
			eS	25 21.10	
			eLQ	26 32.10	
			eLR	27 18.80	
GMTN	19.39	190	eP	21 54.90	-2.1
			i	21 56.10	
YKC	21.36	296	eP	22 15.50	-2.0
YKA	21.41	296	eP	22 16.50	-1.6
CBN	22.40	196	eP	22 32.00	3.9X
			e	22 50.00	
ALE	22.66	2	ePc	22 29.40	-1.0
	0.9s		261.00nm		5.7mb
CVL	22.78	198	P	22 30.00	-1.8
BLO	23.44	215	eP	22 38.40	0.1
MBC	23.44	333	eP	22 38.00	0.0
DAG	23.85	26	iPd	22 42.50	0.5
	1.2s		87.50nm		5.2mb
BLA	23.86	202	P	22 44.00	1.5
	0.8s		57.71nm		5.2mb
EDM	24.59	273	eP	22 49.80	0.4
SES	25.10	266	eP	22 55.00	0.7
FVM	25.72	220	P	23 00.00	-0.2
RSSD	26.05	248	P	23 03.00	-0.5
JSC	26.87	202	P	23 10.00	-0.8
INK	27.74	314	eP	23 16.50	-1.9
HRY	27.93	261	ePc	23 20.50	0.0
LRM	28.86	260	ePc	23 29.20	0.1
BGMT	29.07	259	ePc	23 31.30	0.3
BW06	29.68	253	P	23 36.20	-0.3
CCMT	29.71	259	ePc	23 37.50	0.8
PNT	30.08	272	eP	23 40.40	0.7
GOL	30.15	244	P	23 40.00	-0.7
DWY	31.46	308	P	23 51.00	-0.6
HYT	32.15	301	P	23 58.50	0.6
SIT	33.14	294	P	24 06.50	0.2
	1.0s		30.00nm		5.2mb
DMU	33.57	72	eP	24 09.70	-0.5
	0.6s		20.00nm		5.2mb
DCN	33.73	73	eP	24 10.50	-1.0
	0.8s		70.00nm		5.6mb
DLE	34.11	73	eP	24 13.80	-1.0
	0.7s		51.00nm		5.6mb
BRW	34.22	325	eP	24 15.40	-0.1
MSU	34.25	250	P	24 16.80	0.3
FBA	34.28	312	ePc	24 16.30	0.1
	0.8s		43.70nm		5.4mb
EKA	34.50	68	P	24 18.00	-0.1
	1.0s		14.70nm		4.8mb
ECB	34.56	74	eP	24 20.20	1.5
ALQ	34.58	240	eP	24 19.00	-0.3
	0.9s		5.88nm		4.5mb
ECP	34.87	74	eP	24 21.00	-0.4
TOA	35.08	307	ePc	24 22.90	-0.3
EUR	35.31	256	iP	24 26.00	0.4
	0.9s		16.23nm		4.9mb
IMA	35.81	316	ePc	24 29.70	0.3
PMR	36.54	308	ePc	24 35.50	0.1
	0.8s		36.00nm		5.2mb
KVN	36.68	257	P	24 37.10	0.0
LBFM	36.81	263	P	24 38.00	-0.2
TNP	37.01	255	P	24 40.40	0.5
	0.6s		10.80nm		4.8mb
NAO	37.38	53	P	24 39.40	-3.1X
	1.0s		7.80nm		4.4mb
MIN	37.42	262	eP	24 43.30	0.1
WDC	37.71	263	ePc	24 45.00	-0.4
NRA0	37.72	53	P	24 47.40	2.1
KEV	37.77	34	eP	24 46.00	0.4
ORV	37.97	261	eP	24 46.90	-0.8
TTA	38.40	313	P	24 51.40	0.3
CMB	38.60	259	eP	24 52.80	-0.2
HFS	38.94	52	eP	24 54.60	-0.9
	0.4s		1.30nm		4.0mb X
CLC	39.00	254	eP	24 56.00	-0.4
SOD	39.08	38	iP	24 55.60	-1.0
FRI	39.08	257	ePc	24 57.60	0.6
ISA	39.54	254	eP	25 02.00	1.1
BKS	39.63	260	e(P)	25 02.80	1.2
			e	38 04.00	
			e	38 38.00	
			e	41 33.00	
TPC	39.65	250	eP	25 03.00	1.2
MHC	39.76	259	eP	25 04.60	1.8
GLA	39.94	248	eP	25 04.00	-0.2
FLN	39.95	74	eP	25 03.80	-0.3
	0.6s		19.80nm		5.0mb
LLA	39.98	258	ePc	25 06.40	1.9
SBB	40.02	253	eP	25 05.00	0.1
GRR	40.03	75	eP	25 04.40	-0.3
	0.8s		18.80nm		4.8mb
SAO	40.11	258	e(P)	25 07.20	1.6
LPF	40.19	76	eP	25 05.80	-0.2
	0.8s		18.80nm		4.8mb
KDC	40.22	305	P	25 06.50	0.4
	0.9s		40.00nm		5.1mb
LDF	40.24	74	eP	25 06.10	-0.4
	0.8s		22.50nm		4.9mb
RVR	40.37	252	eP	25 08.00	0.3
PRS	40.42	258	eP	25 10.00	1.9
MWC	40.51	253	eP	25 09.00	0.0
PLM	40.65	251	eP	25 10.00	-0.2
UPP	40.65	51	iP	25 11.70	2.0
BAR	41.11	250	eP	25 14.00	0.2
SYP	41.19	255	eP	25 18.00	3.5X
KJF	41.45	41	eP	25 16.00	-0.2
	0.7s		14.70nm		4.8mb
DOU	41.46	69	P	25 16.70	0.2
	0.7s		20.00nm		5.0mb
MFF	41.62	77	eP	25 17.40	-0.4
	0.8s		13.40nm		4.7mb
ENN	41.63	68	eP	25 20.50	2.7
	0.7s		19.00nm		4.9mb
SUF	41.91	43	iP	25 20.20	0.3
WLF	42.49	69	P	25 25.90	1.0
LSF	42.69	76	iPc	25 26.10	-0.5
	0.8s		38.90nm		5.2mb
NUR	42.87	46	eP	25 27.00	-0.8
Z	23s		0.30um		4.1MszX
			LR	40 20.00	
TCF	42.99	75	iPc	25 28.80	-0.3
SSF	43.06	73	iPc	25 29.40	-0.2
LOR	43.09	73	iPc	25 29.80	0.0
	0.8s		71.30nm		5.5mb
BGF	43.11	74	iPc	25 29.50	-0.5
MAF	43.21	75	iPc	25 30.10	-0.7
	1.0s		34.00nm		5.1mb
LFF	43.24	78	iPc	25 31.20	0.1
LBF	43.35	73	iPc	25 31.60	-0.4
	0.8s		38.10nm		5.2mb
RJF	43.36	77	eP	25 31.60	-0.4
	0.6s		10.80nm		4.8mb
EPLA	43.45	88	e(P)	25 33.00	0.1
SMF	43.52	74	iPc	25 32.40	-1.0
	0.7s		18.70nm		5.0mb
LPO	43.65	78	iPc	25 34.00	-0.4
	0.8s		37.60nm		5.2mb
HAU	43.75	70	eP	25 35.10	-0.1
	0.8s		32.20nm		5.2mb
CDF	43.90	69	iPc	25 36.60	0.1
	0.7s		22.90nm		5.1mb
CAF	43.90	77	iPc	25 36.70	0.2
	0.6s		11.70nm		4.9mb
GUD	43.98	86	e(P)	25 37.50	0.2
BSF	44.08	70	iPc	25 37.80	-0.2
	0.8s		24.10nm		5.1mb
MOX	44.32	64	eP	25 39.00	-0.8
			LR	42 00.00	
EPF	44.44	80	iPc	25 39.90	-1.0
	0.6s		12.60nm		5.0mb
CLL	44.48	63	eP	25 41.00	0.0
TOL	44.61	86	iPc	25 46.50	4.2X
	1.3s		192.31nm		5.8mb
			eS	37 46.00	
ETOR	44.90	84	e(P)	25 45.00	0.3
BRG	45.20	63	iP	25 46.50	-0.4
	1.2s		17.00nm		4.9mb
			i	25 50.00	
EHOR	45.59	89	e(P)	25 50.00	0.0
LPG	45.75	73	eP	25 51.90	0.3
	0.8s		18.80nm		5.1mb
BNI	46.04	73	P	25 54.50	0.8
EBAN	46.06	88	e(P)	25 54.40	0.6
PRU	46.11	63	P	25 54.00	0.0
ETER	46.22	79	e(P)	25 55.00	0.0
ORO	46.24	72	P	25 56.50	1.2
KSP	46.27	61	iPc	25 55.20	0.0
	0.9s		55.00nm		5.6mb
			ic	25 58.20	
KHC	46.29	64	iP	25 56.20	0.7
	1.0s		10.50nm		4.8mb
			e	26 18.10	
EVIA	46.34	86	e(P)	25 56.30	0.2
ECHE	46.37	84	e(P)	25 56.70	0.4
VAI	46.44	71	P	25 57.40	0.8
EJIF	46.54	91	e(P)	25 58.60	1.0
AAPN	46.55	89	iP	25 58.50	0.7
ASMO	46.70	88	iP	25 59.50	0.5
ALOJ	46.71	89	iP	26 00.00	0.9
ACHM	46.85	89	iP	26 02.00	1.9
MAL	46.86	89	iP	26 03.00	3.0X
ATEJ	46.91	89	iP	26 01.00	0.3
MDI	46.95	70	P	26 00.50	-0.2
APHE	47.04	89	iP	26 02.50	0.8

LRG	47.07	75 eP	26 01.60	-0.1
	0.8s	32.20nm		5.5mb
FRF	47.13	75 eP	26 01.90	-0.3
	0.8s	45.60nm		5.6mb
LMR	47.24	75 iPc	26 02.70	-0.3
	0.7s	44.00nm		5.7mb
SBF	47.29	74 eP	26 03.70	0.2
	0.6s	19.80nm		5.4mb
SAL	47.46	70 P	26 04.50	-0.2
BOB	47.58	71 Pd	26 06.50	0.7
CTI	47.67	69 Pd	26 06.50	0.0
KBA	47.69	67 iPc	26 07.00	0.2
	0.9s	41.20nm		5.5mb
		i	26 10.10	
		i	26 14.70	
		i	26 20.50	
		i	26 37.10	
		e	26 42.50	
		e	26 49.00	
FVI	47.79	67 P	26 07.70	0.4
AVE	48.06	95 e(P)	26 11.50	1.9
RBL	48.26	67 Pd	26 10.80	-0.3
KRA	48.43	59 eP	26 14.50	2.2
ZST	48.57	63 eP	26 13.80	0.5
		e	26 25.60	
MME	48.60	71 Pd	26 13.40	-0.6
VOY	48.72	67 e(P)	26 15.10	0.4
TRI	48.90	67 eP	26 15.70	-0.2
CVF	48.95	74 eP	26 15.60	-0.8
	0.8s	25.20nm		5.3mb
LJU	49.01	67 e(P)	26 19.20	2.4
IFR	49.03	93 iPc	26 19.50	2.2
FIR	49.18	71 iPd	26 17.50	-0.5
CEY	49.19	67 eP	26 17.50	-0.7
SPC	49.21	60 eP	26 18.40	-0.1
PGD	49.33	71 P	26 19.00	-0.4
TAF	49.36	89 iPc	26 19.00	-0.7
SRO	49.39	63 e(P)	26 19.60	-0.1
RSM	49.63	70 Pd	26 22.30	0.8
VBY	49.75	67 e(P)	26 21.80	-0.6
ARV	50.19	70 P	26 25.50	-0.4
ASS	50.38	71 Pd	26 26.60	-0.8
MNS	50.92	71 P	26 30.50	-0.9
AQU	51.28	71 Pd	26 35.30	1.1
SDI	51.98	71 Pd	26 38.60	-0.9
BZS	52.54	62 eP	26 43.50	-0.1
MGR	54.02	71 P	26 52.50	-2.1
MLR	54.53	59 ePc	27 00.00	1.5
VRI	54.57	58 ePd	26 59.00	0.4
SKO	55.31	65 eP	27 03.50	-0.6
VTS	55.62	63 iP	27 05.00	-1.5
OHR	55.70	66 eP	27 05.30	-1.7
CFR	55.72	58 eP	27 05.00	-1.9
PVL	56.07	61 eP	27 08.00	-1.5
MMB	56.65	64 iPc	27 14.00	0.2
PSN	56.94	59 iPd	27 14.00	-1.7
RZN	57.02	63 iPc	27 16.00	-0.6
KDZ	57.36	62 iPd	27 18.00	-0.8
BBTK	62.04	58 eP	27 51.00	-0.1
KVT	62.39	55 eP	27 44.40	-8.9X
BCK	63.08	61 eP	27 57.40	-0.5
ATB	64.61	161 e(P)	28 09.90	1.9
PRNI	71.04	62 iPd	28 48.50	0.3
MBH	71.48	63 iPd	28 51.00	0.2
TIC	71.76	109 Pc	28 51.78	-0.9
	0.6s	9.00nm		5.0mb
LIC	72.12	109 P	28 54.16	-0.6
KIC	72.14	109 Pc	28 54.36	-0.6
	0.6s	27.00nm		5.5mb
SOB1	72.73	150 eP	29 01.80	3.5X
KUK	74.39	105 eP	29 07.50	-0.5
MDJ	74.52	346 Pc	29 07.00	-1.4
		epP	29 11.00	13kmX
KOGH	74.54	105 eP	29 08.50	-0.5
SHGH	74.77	105 eP	29 12.00	1.7
WMQ	74.84	17 iPc	29 10.00	-0.4
LEGH	74.95	105 eP	29 11.00	-0.3
CN2	75.78	349 P	29 14.50	-1.1
ZOBO	76.05	178 Pc	29 17.20	-0.9
	0.8s	24.45nm		5.3mb
		LR	53 20.00	
ARE	76.24	182 eP	29 21.00	2.2
LPB	76.31	178 P	29 22.00	2.7
	0.8s	25.37nm		5.4mb
CNCB	76.59	178 P	29 21.00	-0.1
KSH	76.90	27 P	29 23.00	0.8
CCH	77.20	177 P	29 24.50	0.4
		i	29 27.00	
BAO	77.42	159 eP	29 26.60	1.4
SNY	77.91	350 eP	29 27.00	-0.5
HHC	79.47	359 P	29 37.00	0.8
BTO	79.72	0 eP	29 38.60	1.0
BJI	80.16	355 eP	29 39.50	-0.3
GTA	80.53	8 iPc	29 42.00	0.1
DL2	80.97	351 eP	29 44.10	0.0
MAT	81.06	338 (P)	29 44.00	-0.6
	1.0s	22.00nm		5.1mb
TIY	82.59	358 Pc	29 53.00	0.4
Z	20s	0.60um		5.0Msz
TIA	83.94	354 eP	29 59.20	-0.3
LZH	84.08	5 eP	30 00.00	-0.4
	1.5s	44.00nm		5.5mb
ITA	84.61	157 e(P)	30 12.00	8.8X
XAN	86.26	1 P	30 11.40	0.2
LSA	89.20	17 P	30 27.10	1.1
CD2	89.23	6 eP	30 25.50	-0.1
WHN	89.69	357 iPd	30 27.50	-0.2
		pP	30 31.50	13kmX
GKN	89.77	23 PKP	30 28.30	0.0
	0.8s	47.00nm		5.8mb
GUN	90.09	21 PKP	30 30.30	0.2
KKN	90.10	22 PKP	30 30.10	0.2
	1.1s	61.00nm		5.8mb
DMN	90.24	22 PKP	30 30.90	0.3
	1.0s	56.00nm		5.8mb
PKI	90.34	22 PKP	30 30.80	-0.4
	1.0s	30.00nm		5.5mb
GYA	93.77	3 P	30 47.00	0.3
CTA	132.64	311 ePKP	36 45.00	0.4
WB5	136.37	326 ePKP	36 41.80	-9.9X
BWA	144.42	299 ePKP	37 03.80	-2.0
CAN	144.92	297 ePKP	37 05.20	-1.4
STK	145.05	310 iPKPc	37 06.40	-0.5
	1.0s	131.00nm		
MEKA	146.11	347 iPKPc	37 09.00	0.1
ADE	148.89	311 iPKPc	37 17.00	3.9X
	0.7s	75.34nm		
MRWA	148.95	350 iPKPd	37 17.00	3.7X
	0.3s	2.00nm		
SPA	149.87	180 e(PKP)	37 19.70	6.0X
	1.0s	38.00nm		
COOL	149.96	341 iPKPc	37 15.30	0.5
	0.7s	63.00nm		
BAL	150.26	349 ePKP	37 29.00	13.8X
MUN	151.66	349 ePKP	37 23.00	5.7X

S.D. = 0.9 on 220 of 250 obs.

? MAR 16, 1989 04h 25m 27.05± 2.44s
44.711 N ±10.3km 6.789 E ±27.8km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.0 (GEN).

RRL	0.21	359 P	25 31.81	0.1
		S	25 34.36	
PZZ	0.30	133 P	25 33.66	0.2
		S	25 38.10	
RSP	0.55	37 P	25 38.26	-0.1
		S	25 45.85	
STV	0.60	140 P	25 39.09	-0.2
		S	25 47.84	

S.D. = 0.3 on 4 of 4 obs.

MAR 16, 1989 05h 44m 09.35± 0.48s
2.434 S ± 6.7km 140.364 E ±10.1km
DEPTH = 33.0km (normol)
4.7mb (5 obs.)
NEAR N. COAST OF WEST IRIAN (197)

JAY	0.35	103 iPc	44 16.50	-1.3
PMG	9.67	136 eP	46 33.50	4.1X
GUMO	16.53	16 eP	48 04.50	4.1X
KNA	17.48	220 eP	48 12.60	0.2
QIS	18.03	182 eP	48 18.00	-1.2
		eS	51 33.00	
WB5	18.30	198 eP	48 21.00	-1.6
		eS	51 39.10	
WRA	18.37	198 Pd	48 23.80	0.4
	0.9s	18.60nm		4.3mb
CTA	18.47	162 iPc	48 24.80	0.2
	0.6s	3.33nm		3.7mb
		i	48 28.00	
		e(S)	54 11.00	
		e(SS)	56 13.00	
RMQ	25.24	162 iPc	49 35.20	1.2
	0.7s	35.00nm		5.1mb
MBL	27.32	226 iPd	49 51.70	-1.6
STK	29.31	178 eP	50 11.00	-0.2
BWA	32.70	168 eP	50 42.00	1.0
CAN	33.69	167 eP	50 49.20	-0.4
PSI	41.74	277 ePc	51 58.50	1.1
CHG	45.88	299 eP	52 15.50	-15.3X
XAN	46.82	324 Pc	52 37.20	-0.8
BJI	47.73	335 eP	52 44.00	-1.0
CN2	47.94	345 P	52 44.40	-2.2
CD2	48.10	316 eP	52 48.00	-0.2
BTO	51.01	330 eP	53 11.00	0.6
LZH	51.27	322 eP	53 13.00	0.5
	1.5s	26.00nm		5.0mb
GTA	55.84	323 eP	53 42.00	-4.2X
GUN	60.40	304 P	54 19.00	0.4
GBA	64.39	286 Pc	54 45.40	0.5
	0.8s	6.40nm		4.8mb
INK	90.80	22 eP	57 15.00	4.8X
KIC	145.00	278 PKP	03 42.40	-3.6X
CNCB	146.11	125 PKP	03 49.80	1.3
LPB	146.16	125 PKP	03 51.00	2.6
ZOBO	146.27	124 PKP	03 49.30	0.5
	0.7s	3.79nm		

S.D. = 1.2 on 23 of 29 obs.

MAR 16, 1989 06h 36m 35.26± 1.33s
45.964 N ±11.2km 7.933 E ± 5.6km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.5 (GEN).

ORX	0.33	174 P	36 42.38	0.2
		S	36 46.06	
ORO	0.34	174 Pd	36 42.40	0.1
		eSg	36 46.40	
VAI	0.59	99 P	36 47.30	0.1
		eSg	36 54.40	
LSD	0.74	227 P	36 49.94	-0.1
		S	36 58.45	
RSP	0.94	211 P	36 53.20	-0.1
		S	37 03.19	
LPG	0.95	241 Pg	36 53.60	0.0
		Sg	37 05.60	
BNI	1.27	225 P	36 59.30	0.4
		eSg	37 14.50	
RRL	1.32	218 P	37 00.13	0.3
		S	37 13.53	
PZZ	1.57	202 P	37 02.58	-0.8
		S	37 18.38	

S.D. = 0.4 on 9 of 9 obs.

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* MAR 16, 1989 07h 23m 56.20± 0.42s
63.328 S ± 9.8km 62.446 W ±14.2km
DEPTH = 33.0km (normol)
5.3mb (8 obs.) 4.8Msz (3 obs.)
SOUTH SHETLAND ISLANDS (154)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 13S, 25C
Centroid Location:
Origin Time 07:24: 2.0 0.5
Lat 63.96S 0.08 Lon 61.41W 0.24
Dep 15.0 FIX Half-durotion 1.9
Moment Tensor; Scale 10**17 Nm
Mrr=-0.74 0.06 Mtt= 0.48 0.06
Mff= 0.26 0.08 Mrt= 1.38 0.20
Mrf=-0.46 0.19 Mtf= 0.11 0.06
Principal Axes:

	Val=	Plg=	Azm=
T	1.40	34	10
N	0.33	6	104
P	-1.74	56	202

Best Double Couple:Mo=1.6*10**17
NP1:Strike= 77 Dip=12 Slip=-118
NP2: 285 79 -84

AIA	2.09	202 eP	24 29.00	-0.5
VBA	25.31	1 e(P)	29 25.80	4.8X
SPA	26.83	180 ePd	29 36.20	1.1
	0.8s	37.08nm		5.1mb
Z	19s	3.00um		4.9Msz
		e	29 58.40	
SLA	38.64	356 ePd	31 23.40	5.2X
VAO	41.63	22 eP	31 43.90	1.2
BMA	42.44	25 e(P)	32 07.00	17.8X
ITA	42.64	25 eP	31 57.30	6.0X

16d 07h

CCH	45.97	355	P	32 22.00	4.0X
CNCB	46.63	353	P	32 27.00	3.5X
LPB	46.91	353	P	32 24.20	-1.4
Z	19s		2.78um		5.2Msz
			LR	48 20.00	
ZOBO	47.17	353	eP	32 30.00	2.2
	0.5s		5.84nm		4.8mb
Z	19s		0.19um		4.1Msz
			S	39 24.00	
			LR	48 10.00	
ARE	47.24	348	eP	32 36.00	8.0X
BAO	48.70	19	eP	32 39.50	0.3
SOB1	56.20	26	eP	33 33.70	-1.4
			e	33 38.50	
			e	33 49.80	
ITR	57.15	29	eP	33 40.20	-1.6
ATB	60.38	12	Pc	34 09.30	5.1X
FRS	62.88	102	iPc	34 21.00	0.1
	0.8s		37.31nm		5.6mb
BFS	65.99	102	eP	34 41.00	-0.3
PRY	66.26	103	iPc	34 41.00	-2.1
	1.0s		40.00nm		5.5mb
SLR	67.65	103	iPd	34 50.60	-1.4
	0.7s		41.10nm		5.6mb
BUL	72.68	100	iPc	35 21.40	-1.2
	0.9s		47.48nm		5.5mb
LSZ	76.77	98	iP	35 47.50	1.5
			i	35 53.00	
KMZ	77.32	95	iPc	35 50.40	1.3
			i	35 56.20	
KIC	81.87	58	P	36 14.00	0.7
AVY	81.94	116	iPc	36 15.48	1.6
TIC	82.02	58	P	36 15.00	0.9
COOL	86.07	183	eP	36 33.00	-1.5
	0.4s		5.00nm		5.1mb
LWI	88.58	92	iPc	36 50.40	3.4X
WRA	95.96	196	P	37 29.00	8.1X
	1.0s		2.40nm		4.6mb
WB5	96.02	196	eP	37 25.00	3.8X
TNP	110.04	317	PKP	42 20.00	-5.2X
KVN	111.20	316	PKP	42 20.00	-7.4X
BW06	112.19	324	PKP	42 33.00	3.8X
SES	119.64	326	ePKPc	43 15.80	32.9X
PNT	120.97	320	ePKP	42 43.00	-2.5
FFC	121.67	334	ePKP	42 52.00	5.4X
	1.3s		25.00nm		
EDM	122.81	326	ePKP	42 48.50	-0.4
FRB	126.85	357	ePKP	42 57.00	0.7
MLR	128.71	64	ePKP	43 00.50	-0.1
VRI	129.33	65	ePKPd	43 00.00	-1.6
KRA	130.07	57	ePKP	43 08.60	5.7X
YKC	131.40	331	ePKPc	43 05.50	0.5
YKA	131.44	331	ePKP	43 05.90	0.8
HFS	135.93	44	ePKP	43 13.00	-0.7
	0.4s		1.40nm		
GKN	138.74	133	PKP	43 11.00	-9.2X
PMR	140.46	311	ePKP	43 15.80	-6.2X
INK	140.71	326	ePKP	43 16.00	-6.2X
SUF	141.90	48	ePKP	43 23.00	-1.5
FBA	142.33	316	PKP	43 21.70	-3.6X
KJF	143.41	47	ePKP	43 28.00	0.9
TTA	143.74	309	PKP	43 26.40	-1.4
MBC	143.85	340	ePKP	43 27.00	-0.5
	0.7s		19.00nm		
ADK	144.60	283	PKP	43 28.80	-0.7
IMA	144.96	315	ePKP	43 31.10	1.2
	0.8s		34.20nm		
SOD	145.09	43	ePKP	43 29.00	-0.9
KSH	145.71	114	PKP	43 33.50	1.5
CD2	146.39	158	ePKP	43 33.50	0.2
KEV	146.62	39	ePKP	43 35.00	2.7
WHN	147.14	175	ePKP	43 38.00	3.7X
SSE	147.67	186	ePKP	43 37.50	2.3
NJ2	148.69	182	ePKP	43 41.50	4.7X
XAN	150.19	165	iPKPc	43 43.50	4.4X
MAT	150.35	215	ePKP	43 45.00	5.8X
LZH	151.46	156	ePKP	43 47.00	5.9X
	2.0s		110.00nm		
TIA	152.85	179	ePKP	43 50.70	7.8X
GTA	153.80	148	PKPd	43 52.20	7.9X
WMQ	154.03	125	ePKP	43 52.00	7.6X
BJI	156.66	177	ePKP	44 17.00	29.1X

S.D. = 1.4 on 38 of 68 obs.

5.1mb (45 obs.)

MAR 16, 1989 08h 13m 26.51± 0.21s
58.593 N ± 3.1km 152.795 W ± 2.8km
DEPTH = 58.9km (18 depth phases)

KODIAK ISLAND REGION (13)
Felt (III) at Anchor Point, Homer and Port Graham.

KDC	0.86	169	iPc	13 42.30	-0.5
CNPM	1.24	40	iP	13 49.78	1.9
PDB	1.40	330	iP	13 51.98	1.9
ILIM	1.49	357	iP	13 53.53	2.0
NNL	1.64	27	iP	13 56.23	2.7
RDT	2.00	6	iP	14 00.49	2.0
			eS	14 27.42	
SEW	2.29	47	iP	14 02.71	0.2
NKA	2.30	19	Pn	14 05.99	3.4X
SLKM	2.33	33	iP	14 03.87	0.8
			eS	14 31.46	
SPU	2.62	8	iP	14 09.17	1.9
			eS	14 42.86	
CRP	2.70	7	iP	14 10.74	2.2
CGLM	2.75	8	iP	14 11.26	2.1
SVW	2.90	332	iP	14 12.56	1.3
PTE	2.97	38	iP	14 12.46	0.2
MTU	2.99	60	eP	14 11.70	-0.7
PMS	3.12	30	iP	14 15.07	0.7
KNIM	3.13	54	eP	14 13.34	-1.1
PWL	3.20	43	iP	14 15.68	0.1
PWA	3.40	24	iP	14 18.96	0.8
MID	3.44	73	eP	14 18.43	-0.4
PLRM	3.52	30	iP	14 20.09	0.1
			eS	14 59.35	
PMR	3.52	30	iPd	14 20.10	0.1
PME	3.58	30	iP	14 21.10	0.3
HIN	3.68	58	iP	14 21.44	-0.8
GLI	3.69	49	iP	14 20.93	-1.3
GHO	3.73	30	iP	14 23.12	0.2
FID	3.87	53	iP	14 23.36	-1.4
SML	3.92	33	iP	14 25.42	-0.2
VZW	4.01	49	iP	14 26.14	-0.7
CVA	4.08	58	iP	14 26.84	-1.0
VLZ	4.14	49	iP	14 27.98	-0.5
SGAM	4.31	60	iP	14 30.19	-0.8
KLU	4.51	47	iP	14 33.48	-0.4
RAGM	4.51	63	eP	14 33.20	-0.7
TTA	4.63	341	iPc	14 36.20	0.6
TOA	4.82	40	iPd	14 38.20	-0.1
GLB	5.34	54	iP	14 44.34	-1.2
CTGM	6.26	63	eP	14 57.49	-1.0
FBA	6.76	18	iPd	15 03.80	-1.5
BCPM	6.88	73	iP	15 05.28	-1.7
IMA	7.52	357	ePc	15 15.60	-0.4
HYT	8.05	67	P	15 22.10	-1.2
DWY	8.43	44	P	15 27.10	-1.3
SIT	9.45	92	eP	15 37.50	-4.8X
BRW	12.87	354	eP	16 28.60	0.3
INK	12.93	33	eP	16 27.00	-2.1
ADK	15.14	254	eP	16 59.00	1.1
	0.7s		31.98nm		4.6mb
YKC	19.04	62	ePd	17 45.60	-0.7
	0.4s		19.00nm		4.7mb
GMW	20.96	109	eP	18 07.00	0.6
MBC	21.29	21	eP	18 08.00	-1.4
	0.6s		211.00nm		5.7mb
PNT	21.41	101	eP	18 12.00	1.1
	0.8s		24.00nm		4.6mb
BMW	21.49	111	eP	18 12.50	0.8
RMW	21.50	108	eP	18 13.00	1.1
LON	21.99	109	eP	18 16.00	-0.8
EDM	22.50	87	eP	18 23.50	1.8
	0.8s		84.00nm		5.2mb
SES	25.23	91	eP	18 50.00	2.0
			pP	19 04.00	58km
LBFM	25.98	118	eP	18 56.70	1.4
			epP	19 11.80	64km
WDC	26.29	120	eP	19 03.00	5.1X
			e	19 13.90	41kmX
LRM	27.37	100	eP	19 08.30	0.3
FFC	27.64	76	eP	19 18.00	7.9X
	1.3s		21.00nm		4.6mb
CMB	29.33	120	eP	19 26.00	0.5
			epP	19 41.00	61km
KVN	29.57	116	eP	19 28.50	0.7
			epP	19 43.00	59km
EUR	30.24	113	iP	19 35.20	1.4
	1.0s		1.73nm		3.7mb X
FRI	30.49	121	eP	19 37.00	1.3
			e	19 51.30	57km
TNP	30.75	116	eP	19 38.00	-0.3
			epP	19 53.30	63km
BW06	30.98	101	eP	19 40.50	0.3
			epP	19 55.30	60km
ISA	32.15	120	eP	20 06.00	15.7X
CLC	32.42	119	eP	20 08.00	15.3X
ALE	32.43	14	eP	19 51.00	-1.3
	0.6s		13.00nm		4.9mb
			pP	20 09.50	78kmX
GSC	33.21	119	eP	20 15.00	15.4X
SBB	33.25	121	eP	20 14.00	14.1X
MWC	33.54	121	eP	20 17.00	14.4X
PAS	33.55	122	eP	20 18.00	15.6X
RSON	33.96	77	eP	20 05.80	0.0
RVR	34.04	121	eP	20 22.00	15.4X
TPC	34.55	119	eP	20 27.00	15.9X
PLM	34.81	121	eP	20 29.00	15.5X
PLM	34.81	121	eP	20 14.50	1.0
			epP	20 29.20	58km
BAR	35.46	121	eP	20 35.00	16.2X
GLA	35.99	118	eP	20 38.00	14.7X
GLA	35.99	118	eP	20 22.80	-0.5
FRB	38.15	46	eP	20 42.00	1.0
DAG	41.83	14	iPc	21 10.40	-0.8
	0.8s		20.15nm		4.9mb
SCH	44.29	56	eP	21 32.00	0.4
GAC	46.50	70	eP	22 05.00	15.8X
RSNY	47.80	71	eP	22 00.00	0.5
			epP	22 14.00	53km
PWLA	47.95	90	eP	22 00.50	-0.2
			epP	22 16.00	60km
MAT	48.99	275	eP	22 06.00	-2.7
	1.2s		39.06nm		5.3mb
CBM	49.18	64	e(P)	22 09.00	-1.0
			epP	22 24.00	57km
GBTN	49.44	86	eP	22 11.60	-0.6
			epP	22 26.80	58km
TKL	49.68	86	eP	22 13.70	-0.3
			epP	22 28.50	56km
CN2	50.06	291	P	22 15.60	-1.2
			pP	22 33.00	69km
TBR	50.45	74	eP	22 21.00	1.2
			epP	22 34.70	51km
PRM	51.63	86	eP	22 28.00	-0.8
			epP	22 43.30	58km
KEV	51.95	0	iP	22 29.20	-1.6
JSC	52.05	85	eP	22 31.00	-1.0
			epP	22 46.30	58km
SOD	54.35	0	iP	22 47.30	-1.2
BJI	57.41	294	eP	23 11.50	0.6
KJF	57.53	360	iP	23 10.20	-1.2
	0.7s		30.70nm		5.5mb
HHC	58.93	298	eP	23 20.50	-1.2
SUF	59.02	1	iP	23 20.70	-1.1
	0.5s		20.60nm		5.5mb
NAO	60.24	9	P	23 28.40	-1.8
	1.1s		19.20nm		5.1mb
HFS	61.14	8	eP	23 34.80	-1.6
	0.7s		22.40nm		5.4mb
NUR	61.22	1	iP	23 35.80	-1.0
Z	21s		0.40um		4.5Msz
			LR	46 40.00	
EKA	63.84	19	P	23 54.00	-0.3
	1.1s		14.80nm		4.9mb
GTA	65.33	306	eP	24 02.60	-1.8
XAN	65.67	296	P	24 04.50	-2.0
ETA	65.80	22	iPc	24 07.80	0.8
	0.7s		52.00nm		5.6mb
WHN	65.90	289	eP	24 07.00	-0.9
ECB	66.00	22	eP	24 09.00	0.7
ECP	66.26	22	eP	24 10.00	0.1
LZH	66.32	301	eP	24 09.50	-1.3
	1.5s		22.00nm		4.9mb
CLL	69.85	9	iPc	24 32.60	0.4
DOU	70.10	15	Pc	24 34.00	0.2
BRG	70.36	9	eP	24 35.00	-0.4
	1.3s		22.00nm		4.9mb
			e	24 45.90	36kmX
MOX	70.38	10	iPc	24 35.50	0.0
	0.8s		27.00nm		5.2mb
KSP	70.56	7	iP	24 36.70	0.1
CD2	70.68	298	eP	24 36.50	-1.2
WLF	70.73	14	P	24 38.70	1.1
PRU	71.28	9	eP	24 41.00	0.0
KRA	71.55	5	eP	24 41.80	-0.7
KHC	72.06	9	iPc	24 46.00	0.3
			e	25 02.50	60km
CDF	72.11	14	eP	24 45.90	-0.1

0.6s 4.30nm 4.6mb
HAU 72.39 15 eP 24 47.50 -0.1
0.4s 8.40nm 5.0mb
SPC 72.43 5 iP 24 48.00 0.0
BSF 72.61 14 eP 24 48.70 -0.3
0.6s 7.20nm 4.8mb
LOR 72.76 16 eP 24 49.80 0.0
0.6s 12.60nm 5.0mb
MFF 72.76 19 eP 24 49.90 0.1
0.6s 12.60nm 5.0mb
SSF 72.91 17 eP 24 50.80 0.2
0.6s 19.20nm 5.2mb
GYA 73.04 293 P 24 51.00 -0.9
LBF 73.05 16 eP 24 51.20 -0.3
0.6s 8.10nm 4.8mb
AVF 73.15 17 eP 24 51.90 -0.1
0.6s 23.40nm 5.3mb
ZST 73.25 7 e(P) 24 53.00 0.4
BGF 73.30 17 eP 24 52.70 -0.2
0.6s 25.20nm 5.3mb
SMF 73.37 17 eP 24 53.10 -0.2
0.6s 9.90nm 4.9mb
LSF 73.39 18 eP 24 53.20 -0.2
TPT 73.43 175 iP 24 54.80 0.9
0.8s 15.00nm 5.0mb
MAF 73.58 18 eP 24 54.40 -0.2
0.6s 6.30nm 4.7mb
RUV 73.65 175 iP 24 56.10 1.0
0.8s 15.00nm 5.0mb
VAH 73.68 175 iP 24 56.20 0.9
0.8s 15.00nm 5.0mb
KBA 74.07 10 iPc 24 58.10 0.5
0.7s 25.60nm 5.3mb
i 25 02.50 14kmX
i 25 13.20
i 25 16.00
FVI 74.50 10 P 25 00.00 0.2
LFF 74.53 19 eP 25 00.50 0.5
0.6s 14.40nm 5.1mb
RBL 74.73 10 P 25 00.60 -0.7
CAF 74.76 18 eP 25 01.60 0.1
0.8s 12.00nm 4.9mb
VAI 74.79 13 Pd 25 02.10 0.6
LPO 74.85 19 eP 25 02.00 0.1
0.6s 15.10nm 5.1mb
LPG 74.90 15 eP 25 02.90 0.3
0.6s 3.60nm 4.5mb
CTI 74.93 11 P 25 03.40 0.9
BNI 75.33 15 P 25 06.00 1.2
VRI 75.90 0 eP 25 06.00 -1.9
MLR 76.28 1 eP 25 11.50 1.4
CFR 76.58 359 eP 25 08.50 -3.1X
SBF 76.60 15 eP 25 12.10 0.2
0.8s 24.10nm 5.2mb
BDI 76.79 12 P 25 16.50 3.6X
PGD 77.09 11 P 25 16.50 1.7
LSA 77.30 307 Pc 25 16.90 0.4
ASS 77.98 11 P 25 19.50 0.0
MNS 78.66 11 P 25 23.00 -0.2
SDI 79.44 10 P 25 27.50 0.0
DUI 79.55 10 P 25 30.50 2.4
SKO 79.68 4 iP 25 29.00 0.3
VAY 80.38 4 eP 25 32.40 0.0
KVT 80.42 353 iP 25 34.50 1.8
OHR 80.52 5 eP 25 31.00 -2.2
GUN 81.04 310 Pc 25 36.80 0.2
0.8s 34.00nm 5.3mb
MGR 81.15 9 Pc 25 36.50 0.0
KKN 81.39 310 Pc 25 38.40 0.2
0.6s 18.00nm 5.2mb
GKN 81.45 311 Pc 25 38.50 0.0
PKI 81.53 310 Pc 25 38.80 -0.3
0.7s 23.00nm 5.3mb
DMN 81.62 311 Pc 25 39.50 0.0
0.7s 26.00nm 5.3mb
MAIO 81.69 334 iPc 25 40.20 0.7
CHG 83.24 295 eP 25 46.90 -0.8
NDI 83.62 317 iPd 25 49.00 -0.5
1.0s 45.00nm 5.4mb
IFR 84.35 27 iP 25 55.00 1.7
CTA 92.97 235 iPc 26 34.40 0.3
1.0s 8.50nm 5.1mb
GBA 97.27 311 Pd 26 52.90 -1.1
0.7s 3.00nm 4.9mb
SLR 147.16 358 ePKP 32 56.50 -5.4X
0.8s 14.93nm
PRY 148.35 360 ePKP 32 51.00 -12.8X

0.7s 5.00nm
SPA 148.42 180 ePKPd 33 06.50 3.9X
1.0s 24.50nm
FRS 151.13 3 ePKP 33 15.00 7.3X
S.D. = 1.0 on 159 of 181 obs.

% MAR 16, 1989 08h 35m 49.17±10.73s
19.000 N ±57.8km 67.431 W ±62.4km
DEPTH = 27.4 ± 11.6 km
MONA PASSAGE (89)

MCP 0.65 152 P 36 02.00 0.0
S 36 07.70
APR 0.86 129 P 36 05.00 -0.2
MGP 1.04 162 P 36 07.90 0.0
CSB 1.40 120 P 36 12.90 -0.2
SJG 1.50 126 iP 36 14.80 0.2
LPR 1.63 115 P 36 16.60 0.1
S.D. = 0.3 on 6 of 6 obs.

* MAR 16, 1989 08h 39m 06.18± 0.37s
14.229 S ±10.5km 167.633 E ±10.1km
DEPTH = 33.0km (normol)
4.8mb (6 obs.)
VANUATU ISLANDS (186)

DZM 7.88 188 iPc 40 59.60 -1.9
iS 42 31.00
VSG 9.20 302 eP 41 19.00 -0.7
PMG 20.60 281 eP 43 50.00 4.7X
CTA 21.23 251 iPc 43 53.00 1.3
i 43 57.80
e 44 51.00
RMQ 21.46 232 iPc 43 55.10 1.1
i 43 57.30
CMS 26.35 226 eP 44 41.00 -0.1
STK 29.59 229 iPc 45 11.50 1.0
WB5 32.26 255 eP 45 32.70 -1.4
WRA 32.29 255 Pd 45 32.60 -1.8
0.8s 5.80nm 4.5mb
WARB 40.10 246 iPc 46 27.50 -13.1X
0.4s 10.00nm
CN2 69.40 329 eP 50 12.00 -0.9
KMI 74.34 302 Pc 50 43.00 0.0
CHG 75.20 294 eP 50 48.00 0.2
LZH 78.25 312 eP 51 06.00 1.3
TTA 81.95 16 P 51 23.50 -0.2
GTA 82.58 314 eP 51 27.60 0.0
PMR 82.91 19 P 51 27.50 -1.2
0.8s 8.62nm 4.9mb
IMA 85.08 15 P 51 39.50 -0.2
0.9s 4.43nm 4.7mb
FBA 85.77 17 P 51 41.70 -1.3
0.8s 8.62nm 5.0mb
PLM 86.02 54 P 51 45.50 0.4
KVN 87.05 49 P 51 50.00 -0.1
TNP 87.36 50 P 51 52.00 0.4
0.9s 3.26nm 4.6mb
GUN 89.46 299 P 52 02.10 0.0
PKI 89.77 298 P 52 02.70 -0.8
PNT 89.80 39 eP 52 03.00 0.3
KKN 89.94 299 P 52 03.50 -0.6
DMN 90.04 298 P 52 04.10 -0.5
GKN 90.55 299 P 52 06.50 -0.3
GBA 93.46 283 P 52 22.00 1.8
0.4s 1.80nm 4.9mb
ALQ 94.73 55 eP 52 25.00 -1.0
KJF 122.98 340 iPKP 58 01.80 1.6
SUF 124.50 340 iPKP 58 02.30 -0.9
0.7s 5.20nm
KHC 139.19 334 ePKP 58 33.90 2.3
SOB1 143.35 128 ePKP 58 32.90 -7.0X
LOR 144.39 341 ePKP 58 38.80 -1.9
LBF 144.60 341 ePKP 58 39.40 -1.7
SSF 144.68 341 ePKP 58 40.00 -1.2
LSD 144.76 336 PKP 58 40.35 -1.4
LPG 144.89 336 ePKP 58 41.10 -0.9
SMF 144.94 340 ePKP 58 40.50 -1.2
AVF 144.97 341 ePKP 58 40.50 -1.2
LPF 145.01 347 ePKP 58 40.70 -1.0
BGF 145.33 341 ePKP 58 41.80 -0.5
FIN 145.35 334 PKP 58 40.66 -1.8
RRL 145.36 336 PKP 58 42.20 -0.5
ROB 145.42 334 PKP 58 40.66 -2.0
PZZ 145.57 335 PKP 58 41.99 -1.0
MAF 145.72 341 ePKP 58 43.60 0.6
IMI 145.72 334 PKP 58 41.99 -1.2

TCF 145.77 342 ePKP 58 43.50 0.4
SBF 145.95 334 ePKP 58 43.80 0.2
LSF 146.01 343 ePKP 58 44.30 0.8
MFF 146.14 345 ePKP 58 44.80 1.1
CVF 146.34 331 ePKP 58 44.90 0.7
FRF 146.53 335 ePKP 58 45.30 0.9
LRG 146.74 335 ePKP 58 46.40 1.7
LMR 146.78 334 ePKP 58 46.20 1.4
RJF 146.87 342 ePKP 58 47.30 2.4
CAF 147.04 341 ePKP 58 47.70 2.5
LFF 147.43 343 ePKP 58 48.40 2.6
LPO 147.53 342 ePKP 58 48.50 2.5
BNG 148.02 255 iPKPc 58 49.90 2.2
0.4s 10.00nm
id 58 53.00
S.D. = 1.3 on 59 of 62 obs.

MAR 16, 1989 09h 33m 57.28± 0.14s
30.270 S ± 5.0km 177.986 W ± 3.7km
DEPTH = 37.4km (geophysicist)
5.7mb (37 obs.) 5.5Msz (13 obs.)
KERMADEC ISLANDS (178)
Ms 5.7 (BRK). Mo=1*10**18 Nm
(PPT). Felt (III) on Roaul
Island. Depth from broadband
displacement seismograms.
FAULT PLANE SOLUTION: P-Waves
NP1:Strike= 15 Dip=53 Slip= 90
NP2: 195 37 90
Principal Axes:
T Plg=82 Azm=285
P 8 105
Comment: The focal mechanism is
moderately well controlled and
corresponds to reverse
faulting. The preferred fault
plane is NP2.
MOMENT TENSOR SOLUTION
Dep 33 No. of sto: 13
Moment Tensor; Scale 10**17 Nm
Mrr= 9.14 Mtt=-1.24
Mff=-7.90 Mrt= 0.82
Mrf= 2.32 Mtf=-3.50
Principal axes:
T Val= 9.46 Plg=83 Azm=286
N 0.26 1 23
P -9.72 7 113
Best Double Couple:Mo=9.6*10**17
NP1:Strike=204 Dip=38 Slip= 92
NP2: 22 52 89
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 16S, 38C
Centroid Locotion:
Origin Time 09:34: 6.5 0.4
Lat 30.25S 0.04 Lon 177.88W 0.03
Dep 54.5 2.0 Half-durotion 3.6
Moment Tensor; Scale 10**17 Nm
Mrr= 7.33 0.19 Mtt= 1.56 0.33
Mff=-8.90 0.27 Mrt= 0.66 0.28
Mrf= 3.79 0.33 Mtf=-3.35 0.24
Principal Axes:
T Val= 8.17 Plg=77 Azm=266
N 2.51 4 15
P -10.69 12 106
Best Double Couple:Mo=9.4*10**17
NP1:Strike=201 Dip=33 Slip= 98
NP2: 12 57 85

RAO 1.02 3 iP 34 15.00 -0.2
KRP 9.33 213 eP 36 12.00 -0.4
S 37 54.00
WEL 12.46 206 eP 36 48.00 -6.9X
eS 39 02.00
SVA 12.52 344 eP 36 57.00 1.2
VUN 12.63 344 eP 36 57.00 -0.2
SGE 13.16 343 eP 37 07.30 2.9
DZM 16.17 297 iPc 37 49.20 5.7X
iS 41 02.90
ScP 46 12.00
PVC 17.65 312 iPc 38 09.00 7.0X
MSZ 18.18 214 P 38 07.30 -1.0
S 41 16.00
RAR 18.70 65 P 38 12.00 -2.9
S 41 22.00
COO 25.94 262 iPd 39 32.70 4.7X
TBI 26.33 82 iP 39 34.60 3.1X

16d 09h

1.2s 90.00nm 5.2mb
RIV 26.34 254 eP 39 36.00 4.4X
e 44 08.00
e 46 44.00
CNB 27.83 251 iPd 39 48.70 3.5X
CAN 28.13 251 iPc 39 50.30 2.4
BWA 28.61 253 iPc 39 52.40 0.2
AFR 28.65 70 eP 39 52.00 -0.6
1.2s 55.00nm 5.1mb
PAE 28.74 71 iP 39 53.60 0.1
1.2s 55.00nm 5.1mb
PPT 28.79 70 iP+ 39 53.80 -0.2
1.2s 55.00nm 5.1mb
Z 18s 5.00um 5.2Msz
PPN 28.93 71 iP 39 55.30 0.1
1.2s 30.00nm 4.8mb
TVO 28.95 71 iP 39 57.00 1.6
1.2s 35.00nm 4.9mb
HNR 29.22 311 eP 39 58.00 0.2
eS 45 04.00
RMQ 29.44 269 iPc 40 02.10 2.3
0.7s 313.00nm 6.1mb
e 40 17.00
e 42 03.00
e 43 08.00
TAU 30.36 236 iPc 40 09.00 1.3
CMS 31.00 258 iPc 40 16.00 2.5
1.0s 216.00nm 5.9mb
e 40 45.00
TOO 31.03 247 iPc 40 16.90 3.2X
0.7s 123.00nm 5.8mb
PMO 31.53 68 iP 40 18.80 0.6
1.2s 25.00nm 4.9mb
VAH 31.61 69 iP 40 19.20 0.2
1.2s 35.00nm 5.1mb
TPT 31.76 68 iP 40 20.80 0.5
1.2s 40.00nm 5.1mb
RUV 31.84 69 iP 40 21.40 0.5
1.2s 40.00nm 5.2mb
CTA 33.79 279 iPc+ 40 39.90 1.9
0.8s 384.33nm 6.4mb
Z 22s 9.44um 5.5Msz
i 40 45.00
i 40 58.50
i 41 05.00
i(pP) 41 18.00 181kmX
i 41 24.50
i(sP) 41 32.50
ePP 42 00.00
iPcP 43 18.50
e 44 29.00
eS 45 56.00
e 46 03.00
iScP 46 57.00
e(SS) 47 53.00
e(ScS)50 58.00
CTAO 33.79 279 ePc 40 40.23 2.3
epPd 40 46.85 23kmX
esPd 40 55.29
ePP 42 15.08
STK 34.52 257 iPc 40 46.80 2.6
0.9s 500.00nm 6.4mb
e 40 54.00
ADE 36.56 251 iPc 41 03.50 2.0
1.0s 170.00nm 5.9mb
RAB 38.29 307 eP 41 17.50 1.4
eS 47 22.00
PMG 38.56 295 eP 41 19.50 1.1
QIS 39.32 274 eP 41 25.00 0.3
e 41 48.00
e 42 07.00
e 47 24.00
LAT 40.40 298 eP 41 35.00 1.4
WRA 44.10 272 Pd 42 03.60 -0.3
0.6s 128.60nm 5.9mb
WB5 44.10 272 iPc 42 04.20 0.3
DRV 44.26 202 iPd 42 05.40 0.8
i 51 01.20
i 53 00.40
JAY 47.85 297 ePc 42 33.00 -0.7
0.8s 67.70nm 5.7mb
WARB 48.56 261 eP 42 24.50 -14.6X
KNA 50.67 274 eP 42 55.00 -0.3
0.5s 76.00nm 5.9mb
RKG 54.33 248 eP 43 18.50 -3.9X
KLB 54.40 251 eP 43 21.00 -1.9
NWAO 54.45 249 ePc 43 21.39 -1.9
Z 20s 2.70um 5.3Msz
epPd 43 30.66 30kmX
esPd 43 37.11
MEKA 55.30 257 eP 43 28.30 -1.3
MUN 55.55 250 iPd 43 30.20 -1.1
MBL 56.16 264 eP 43 34.00 -1.9
0.7s 88.00nm 5.9mb
GUA 56.33 315 eP 43 35.20 -1.8
0.8s 328.36nm 6.4mb
Z 24s 6.51um 5.6MszX
GUMO 56.40 315 eP+ 43 35.00 -2.5
0.9s 196.08nm 6.1mb
PJG 56.40 315 eP 43 35.20 -2.3
MRWA 56.57 253 eP 43 37.00 -1.7
NANU 59.31 260 eP 43 56.50 -1.4
SPA 59.90 180 iPc 44 03.10 1.4
0.9s 297.27nm 6.4mb
Z 19s 2.91um 5.4Msz
i 44 23.00
MNI 62.85 289 ePc 44 21.50 -0.5
DAV 65.59 295 eP 44 38.60 -1.3
TRT 68.36 274 ePd 44 37.10 -20.3X
TSM 69.98 288 iPd 45 08.50 1.2
MAW 72.43 201 iPc 45 21.90 0.6
0.8s 85.00nm 5.8mb
KKM 72.53 288 ePc 45 22.00 -0.8
0.8s 96.90nm 5.8mb
QCP 73.69 298 eP 45 25.00 -4.4X
BAG 75.15 299 eP 45 36.00 -2.1
KAKJ 76.92 326 P 45 47.10 -0.3
CHJJ 77.36 325 P 45 48.70 -1.2
IIDJ 77.45 324 P 45 49.20 -1.2
MAT 78.14 325 eP 45 53.00 -1.2
1.0s 50.00nm 5.5mb
eS 55 40.00
MTMJ 78.37 325 P 45 54.60 -1.0
KGM 81.26 277 ePd 46 11.80 0.4
ADK 81.81 1 P 46 12.80 -0.5
1.0s 250.00nm 6.2mb
QZH 81.89 305 Pc 46 14.00 -0.4
Z 20s 1.30um 5.3Msz
E 20s 1.30um
S 56 22.00
sS 56 46.00
SMY 82.94 355 P 46 18.60 -0.5
1.0s 166.67nm 6.1mb
BLP 84.29 44 P 46 27.50 1.0
pP 46 44.70 61kmX
SYP 84.52 45 eP 46 29.00 1.1
IPM 84.53 278 ePd 46 28.10 -0.1
0.9s 91.10nm 5.9mb
GZH 84.59 301 eP 46 28.20 0.0
PRS 84.92 43 ePc 46 30.50 0.9
QIZ 84.95 295 P 46 30.00 -0.1
eS 56 55.00
GCC 85.04 42 e(P) 46 31.00 0.8
SAO 85.17 42 eP 46 31.40 0.5
PRI 85.20 43 eP 46 32.50 1.3
BAR 85.37 48 eP 46 32.00 0.0
PSI 85.38 276 ePc 46 31.50 -0.9
0.8s 45.30nm 5.7mb
PAS 85.38 46 eP 46 32.00 0.0
MHC 85.46 42 eP 46 33.30 0.8
BRK 85.47 41 e(P) 46 33.00 0.7
BKS 85.49 41 ePd 46 33.50 1.1
0.9s 65.00nm 5.8mb
Z 20s 2.80um 5.7Msz
N 20s 2.80um
E 20s 1.50um
eS 57 06.00
e 12 10.00
e 12 24.00
eLR 12 42.00
MWC 85.50 46 eP 46 33.00 0.2
PLM 85.69 47 eP 46 34.00 0.2
RVR 85.78 47 eP 46 34.00 0.0
SBB 85.95 46 eP 46 35.00 0.1
e 46 53.00
NJ2 86.17 311 Pc 46 36.00 0.1
7.0s 0.60nm 2.9mb X
N 22s 1.70um
E 23s 1.40um
ISA 86.20 45 eP 46 37.00 0.9
FRI 86.35 43 ePc 46 37.10 0.4
CMB 86.66 42 iPc 46 38.60 0.3
ePP 50 18.00
TPC 86.69 47 eP 46 39.00 0.5
e 46 56.00
GLA 86.80 49 eP 46 40.00 0.9
CLC 86.83 45 eP 46 39.00 -0.2
GSC 86.99 46 eP 46 40.00 0.0
ORV 87.07 40 eP 46 40.30 0.1
WDC 87.21 39 ePc 46 41.40 0.6
WHN 88.28 307 eP 46 47.00 0.9
Z 24s 2.10um 5.5MszX
S 57 27.00
MDJ 88.52 326 Pc 46 47.00 0.0
Z 30s 2.50um 5.5MszX
SKS 57 07.00
S 57 30.00
TNP 88.55 44 P 46 48.00 0.4
1.0s 50.00nm 5.8mb
KVN 88.67 42 P 46 48.00 -0.1
SNY 89.70 320 eP 46 52.40 -0.2
Z 26s 2.00um 5.4MszX
N 30s 1.20um
E 28s 1.40um
NNT 89.72 285 eP 46 54.00 0.7
TIA 89.89 313 P 46 54.10 0.4
Z 28s 1.80um 5.4MszX
S 57 45.50
CN2 90.04 323 P 46 54.00 -0.2
EUR 90.20 43 iP 46 55.50 0.2
1.0s 15.38nm 5.3mb
KDC 90.26 13 P 46 55.00 0.2
1.0s 90.00nm 6.0mb
NST 90.97 287 eP 47 01.10 2.1
BMW 91.00 34 P 46 59.00 0.4
GYA 91.50 300 P 47 01.80 0.4
PP 50 42.00
SKS 57 32.00
S 57 54.00
KHT 91.79 286 eP 47 04.00 1.2
MSU 91.89 46 P 47 04.00 0.9
BJI 92.84 315 eP 47 07.00 -0.1
Z 34s 3.00um 5.5MszX
eSKS 57 32.00
eS 58 10.00
ALQ 93.48 51 eP 47 10.30 -0.2
1.0s 22.50nm 5.6mb
Z 18s 1.72um 5.6Msz
ANMO 93.49 51 ePc 47 10.21 -0.3
epPd 47 19.48 29kmX
esPd 47 26.76
CHG 93.55 290 eP 47 11.70 0.8
CHTO 93.55 290 ePc 47 10.56 -0.3
epPd 47 22.65 39kmX
esPd 47 27.78
KMI 93.77 297 eP 47 13.00 0.9
Z 30s 1.60um 5.3MszX
sP 47 37.50
eS 57 48.00
TIY 93.79 312 Pc 47 12.20 0.5
E 20s 1.00um
SKS 57 44.00
S 58 10.00
XAN 94.04 307 P 47 13.80 0.9
PMR 94.48 13 ePc 47 13.00 -1.2
TTA 94.53 10 P 47 14.50 0.0
1.2s 34.09nm 5.7mb
PNT 94.72 34 eP 47 16.00 0.4
ARE 95.42 112 eP 47 22.00 2.0
CD2 96.03 302 eP 47 22.50 0.4
BW06 96.04 44 P 47 20.80 -1.3
1.0s 12.50nm 5.3mb
HHC 96.15 314 eP 47 23.00 0.5
Z 30s 3.80um 5.7MszX
sP 47 38.00
SKS 57 56.00
sS 59 04.00
LRM 96.20 40 eP 47 22.70 -0.1
GOL 96.87 48 P 47 26.00 0.0
Z 20s 1.00um 5.3Msz
BTO 96.98 313 eP 47 32.50 6.3X
N 25s 2.00um
E 25s 2.00um
eSKS 57 57.00
FBA 97.74 13 ePc 47 28.20 -0.7
IMA 97.83 10 eP 47 29.50 0.0
CNCB 98.01 115 P 47 35.70 3.7X
LPB 98.07 114 (P) 47 39.00 6.8X
LR 00 15.00
ZOBO 98.20 114 eP 47 34.00 1.1
SES 99.70 37 eP 47 38.00 -0.2

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U. S. DEPARTMENT OF THE INTERIOR

Geological Survey

EARTHQUAKE DATA REPORT

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

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

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

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

Two types of magnitude are computed: body-wave magnitude (m_b) and surface-wave magnitude (M_{SZ}). Each is a 25% trimmed mean of individual station values. Station magnitudes not used in the trimmed mean are marked with an X. This includes station magnitudes of either type which deviate significantly from the mean and surface-wave magnitudes determined from horizontal amplitudes. Body-wave magnitudes are computed according to the formula $\log(A/T) + Q$, derived by Gutenberg and Richter (1956), where A is the P-wave amplitude in micrometers, T is the period in seconds, and Q is the depth-distance factor. Surface-wave magnitudes are computed from the formula $\log(A/T) + 1.66\log(\Delta) + 3.3$, where A is the maximum vertical surface-wave amplitude in micrometers, T is the period in seconds, and Δ is the epicentral distance in degrees. Surface-wave magnitudes are determined only for earthquakes whose focal depths (taking into account the computed standard deviations) are potentially less than 50 km, for stations having

$20° \leq \Delta \leq 160°$, and for reported periods of $18 \leq T \leq 22$ s. No correction for focal depth is used in the M_S calculation. Body-wave magnitudes are not determined from PKP arrivals or for stations having $\Delta \leq 5°$. Amplitude values stated in this report are in nanometers (nm) for body-waves and micrometers (μm) for surface-waves.

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

Hypocenter Symbols

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

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

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

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

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

Note: On printers available to the NEIS for this publication, the symbol for degrees (°) appears as "`".

References

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

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

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

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

			pP	47	52.00	47kmX
UPA	101.74	86	(Pdiff	47	28.50	-19.7X
	Z 20s		2.62um			5.8Msz
			i	01	05.00	
GTA	103.07	308	ePdiff	47	54.20	0.4
INK	103.65	16	ePdiff	47	59.00	3.6X
YKA	105.32	25	ePKP	52	18.80	2.0
GBA	109.20	275	PKPd	52	22.00	-3.5X
	0.7s		3.30nm			
HYB	109.97	279	ePKP	52	25.00	-2.0
MBC	112.28	13	ePKP	52	28.00	-1.6
WMQ	113.15	308	PKP	52	30.80	-1.6
	Z 24s		0.80um			5.2MszX
AVY	114.21	228	iPKPd	52	35.40	0.1
FRS	116.32	203	ePKP	52	39.00	0.3
PRY	118.13	206	iPKPc	52	42.00	-0.5
	0.7s		7.50nm			
BFS	118.41	205	e(PKP)	52	42.00	-1.0
SLR	118.89	207	ePKP	52	43.00	-1.0
GAC	119.28	52	ePKP	52	43.00	-0.9
KSH	120.16	301	ePKP	52	45.50	-0.5
SOB1	123.08	127	iPKPc	52	51.20	-0.9
			e	53	08.80	
ALE	123.12	8	ePKP	52	48.00	-2.2
	0.8s		10.00nm			
BUL	123.72	210	iPKPd	52	52.50	-0.9
	0.9s		50.42nm			
QUE	124.63	288	iPKPd	52	55.20	0.3
ITR	125.10	128	ePKP	52	54.40	-1.6
			e	53	11.90	
FRB	125.26	31	ePKP	52	53.00	-1.8
SCH	126.16	42	ePKP	52	56.00	-0.9
LSZ	128.17	213	iPKPc	53	02.50	0.5
KMZ	130.85	211	iPKP	52	56.60	-10.5X
			i	53	08.30	
			i	55	22.00	
			i	56	28.20	
			i	56	48.20	
MAIO	132.17	293	ePKP	53	08.00	-1.0
			e	56	31.00	
DAG	132.40	6	iPKPd	53	06.00	-2.1
	0.5s		9.15nm			
KHI	132.45	290	ePKPc	53	09.00	-0.7
NAI	134.37	233	ePKP	53	15.00	1.0
	1.0s		10.00nm			
KEV	138.00	347	iPKP	53	17.30	-1.6
	0.6s		10.40nm			
			i	53	24.20	
SOD	140.07	345	iPKP	53	14.80	-7.9X
			i	53	24.00	
KJF	142.38	342	iPKP	53	21.20	-5.7X
	0.7s		26.70nm			
TAB	142.80	294	ePKP	53	24.00	-4.7X
SLY	143.34	290	ePKPd	53	28.00	-1.4
SUF	143.99	341	iPKP	53	26.10	-3.6X
	0.7s		58.20nm			
BHD	144.03	286	ePKPd	53	29.00	-1.7
NSS	145.15	352	iPKPc	53	29.80	-1.8
MSL	145.29	291	iPKPd	53	37.00	4.3X
			e	53	45.00	
NUR	146.19	340	iPKP	53	32.30	-1.2
RGS	146.79	353	iPKP	53	34.80	0.5
MOL	147.49	355	iPKPc	53	37.30	1.8
NC2	148.44	352	PKP	53	36.10	-1.1
UPP	148.59	345	iPKP	53	38.60	1.3
NRA0	148.88	351	PKP	53	37.40	-0.4
HFS	149.12	349	ePKP	53	36.70	-1.5
	0.9s		117.70nm			
	Z 19s		0.63um			5.4Msz
			LR	48	28.00	
BER	149.80	357	iPKP	53	43.80	4.7X
BNG	149.93	214	iPKPd	53	40.80	0.0
	0.9s		230.00nm			
			ic	53	45.50	
			id	54	04.10	
KVT	150.49	301	iPKP	53	47.50	6.6X
HRI	151.24	285	ePKP	53	43.00	0.6
BADA	151.26	275	ePKPd	53	42.70	0.4
DSI	151.41	281	iPKPc	53	49.00	6.5X
MBH	151.59	277	iPKPc	53	43.00	0.2
FAM	152.72	288	ePKP	53	57.00	12.7X
LFK	153.10	289	ePKP	53	52.20	7.3X
BBTK	153.19	299	iPKPc	53	44.00	-1.0
CSS	153.27	288	ePKP	53	51.50	6.4X
PPCY	154.08	288	ePKP	53	54.50	8.3X
PPE	154.51	316	ePKP	53	53.00	6.6X
CLI	154.54	317	ePKP	53	55.00	8.6X
HLW	154.64	277	ePKP	53	44.00	-3.0X
CFR	154.67	313	ePKP	53	55.00	8.4X
EKA	154.68	7	PKP	53	54.00	7.7X
	1.2s		17.00nm			
TLB	155.01	312	ePKP	53	47.00	-0.1
LIC	155.18	163	PKP	53	48.48	0.3
BRD	155.20	315	ePKP	53	52.50	5.2X
VRI	155.22	316	ePKPc	53	49.00	1.6
HRT	155.25	303	ePKP	53	55.00	7.4X
BCK	155.27	295	ePKP	53	44.60	-3.2X
ALT	155.36	298	ePKP	53	46.00	-1.9
KIC	155.38	164	PKP	53	48.70	0.2
YLV	155.54	302	ePKP	53	56.00	7.9X
TIC	155.59	163	PKP	53	48.88	0.1
ISR	155.69	314	ePKP	53	48.00	-0.1
SHGH	155.71	175	ePKP	53	53.00	4.0X
KOGH	155.85	175	ePKP	53	50.00	0.8
MLR	155.88	316	ePKP	53	48.00	-0.5
ELL	155.91	293	ePKP	53	47.50	-1.3
KUK	155.94	174	ePKP	53	50.00	0.7
KHL	155.96	297	ePKP	53	51.00	2.2
KRA	156.07	331	ePKP	53	47.40	-1.0
	Z 20s		2.70um			6.1Msz
	N 20s		2.90um			
			e	53	56.80	
SPC	156.58	329	e(PKP)	53	49.00	-0.4
KSP	156.84	337	ePKPd	53	49.30	-0.1
	0.9s		44.00nm			
			id	54	19.70	
			e	58	05.20	
DEV	157.44	320	ePKPd	53	50.00	-0.3
CLL	157.44	342	ePKP	53	49.00	-1.1
	1.3s		66.00nm			
	Z 20s		1.00um			5.6Msz
			i	54	04.20	
			i	54	21.20	
BRG	157.57	340	ePKP	53	49.50	-0.8
	1.7s		46.00nm			
			i	54	08.50	
			i	54	22.40	
			e	54	37.00	
IZM	157.68	298	ePKP	53	49.00	-1.9
WTS	158.01	352	ePKP	53	50.50	-0.2
	1.0s		77.00nm			
			id	54	24.30	
PRU	158.16	338	ePKP	53	50.00	-1.0
	Z 22s		1.20um			5.7Msz
	N 20s		0.70um			
	E 20s		0.50um			
			e	54	02.50	
BZS	158.32	320	ePKP	53	50.00	-1.3
MOX	158.41	343	ePKP	53	50.00	-1.3
	2.0s		69.00nm			
			e	53	53.00	
			e	54	26.00	
			ePP	58	05.00	
			ePPPP	04	00.00	
			ePPS	11	15.00	
			eSS	18	50.00	
			eSSS	24	45.00	
SRO	158.46	329	ePKP	53	50.90	-0.5
			e	56	06.00	
ZST	158.69	331	ePKP	53	52.00	0.4
			e	58	40.80	
KHC	159.21	338	PKPc	53	52.30	0.1
	1.0s		10.50nm			
			i	54	30.50	
ENN	159.32	353	ePKP	53	52.00	-0.2
	0.9s		131.00nm			
			ed	54	30.00	
MEM	159.46	353	PKP	53	50.80	-1.5
			e	54	30.90	
SNF	159.71	356	PKPc	53	53.70	1.1
			e	54	31.40	
VAY	160.06	309	ePKP	53	51.30	-2.0
DOU	160.10	355	PKP	53	54.70	1.6
			e	54	33.10	
WLF	160.38	352	PKP	53	54.50	1.2
			ed	54	34.70	
SKO	160.49	312	iPKPc	53	52.40	-1.4
			i	54	36.00	
			i	54	52.50	
			i	58	16.00	
PTJ	160.97	329	ePKP	53	49.60	-4.6X
KBA	161.06	336	ePKP	53	52.00	-2.4
	1.6s		21.30nm			
			e	54	25.00	
			i	54	39.20	
			e	58	20.50	
OHR	161.33	311	ePKP	53	54.30	-0.4
	1.2s		0.07nm			
FLN	161.43	5	ePKP	53	54.30	-0.2
LJU	161.47	332	ePKP	53	53.50	-1.1
RBL	161.52	334	PKP	53	51.10	-3.6X
VBY	161.59	329	ePKP	53	51.70	-3.0X
LDF	161.63	5	ePKP	53	54.40	-0.3
FVI	161.68	336	PKP	53	53.00	-1.7
VOY	161.73	333	ePKP	53	53.70	-1.3
GRR	161.77	6	ePKP	53	54.70	-0.1
HAU	161.98	351	ePKP	53	54.70	-0.4
BSF	162.08	349	ePKP	53	54.80	-0.5
CTI	162.54	337	PKP	53	55.00	-0.8
LOR	162.97	356	ePKP	53	56.20	0.1
SSF	163.19	356	ePKP	53	56.40	0.1
LBF	163.24	355	ePKP	53	56.30	-0.1
AVF	163.47	357	ePKP	53	56.20	-0.4
VAI	163.56	343	PKPd	53	55.90	-0.7
SMF	163.59	356	ePKP	53	56.50	-0.2
BGF	163.72	358	ePKP	53	56.90	0.0
MAF	164.07	359	ePKP	53	57.10	-0.1
LPG	164.35	348	ePKP	53	57.80	-0.1
RJF	164.99	1	ePKP	53	58.40	0.3
TDS	164.99	312	PKP	53	59.30	1.1
MNS	165.18	328	PKP	53	57.50	-0.9
MGR	165.20	315	PKP	53	56.70	-1.7
LFF	165.32	4	ePKP	53	59.30	1.0
CAF	165.37	360	ePKP	53	59.00	0.6
LPO	165.60	2	ePKP	53	59.10	0.5
EPF	167.19	6	ePKP	54	00.40	0.4
GUD	168.50	24	e(PKP)	54	02.50	1.5
ETOR	168.97	16	e(PKP)	54	01.00	-0.2
TOL	169.20	26	ePKP	54	04.00	2.7
			ePKKP	55	17.00	
			iPP	58	56.00	
			eSKKS	05	41.00	
			eSKS	10	01.50	
			ePPS	12	50.00	
			iSS	18	15.00	
			eSSS	25	33.00	
EBR	169.40	6	ePKP	54	04.00	2.7
			e	55	16.00	
			e	59	02.00	
EVAL	169.70	43	e(PKP)	54	03.50	1.9
ECHE	170.39	14	e(PKP)	54	03.30	1.3
EBAN	170.78	30	e(PKP)	54	03.50	1.3
EVIA	170.86	23	e(PKP)	54	04.00	1.7
EJIF	171.22	43	e(PKP)	54	05.00	2.6
AAPN	171.32	34	ePKP	54	02.70	0.1
AVE	171.43	67	ePKP	53	57.00	-5.6X
			i	54	03.50	
ASMO	171.46	33	ePKP	54	03.00	0.3
AFC	171.64	32	e(PKP)	54	03.20	0.4
ATEJ	171.68	36	ePKP	54	03.50	0.7
IFR	173.12	60	iPKPc	54	05.50	2.0
			i	59	44.50	
TAF	174.13	38	iPKP	54	04.00	0.3
	S.D. = 1.1		on 242 of 287 obs.			

MAR 16, 1989 09h 47m 49.48± 0.74s
43.401 N ± 4.9km 5.428 E ± 5.7km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
MD 2.9 (STR).

GELF	0.02	180	Pg	47	51.34	-0.1
TREF	0.23	352	Pg	47	54.07	-0.3
PUYF	0.24	56	Pg	47	53.89	-0.7
PRAF	0.44	335	Pg	47	58.64	0.1
VILF	0.50	25	Pg	47	58.91	-0.7
TAVF	0.51	65	Pg	47	59.30	-0.5
GANF	0.69	30	Pg	48	03.40	0.2
MVIF	1.35	68	Pn	48	14.63	0.3
			Sg	48	33.74	
TOUF	1.46	64	Pn	48	16.55	0.6
AURF	1.46	70	Pn	48	16.25	0.3
			Sg	48	36.99	
AUTN	1.57	67	Pn	48	18.16	0.5
			Sg	48	40.51	
DOI	1.71	49	P	48	20.60	1.0
			eSn	48	44.70	
BNI	1.88	28	P	48	25.40	3.3X
			eSn	48	48.40	
CVF	2.66	107	Pn	48	32.46	-0.7
	S.D. = 0.6		on 13 of 14 obs.			

* MAR 16, 1989 10h 23m 15.21± 0.53s
15.292 S ±16.9km 173.438 W ±10.5km
DEPTH = 33.0km (normal)
4.8mb (13 obs.) 5.1Msz (2 obs.)
TONGA ISLANDS (173)

SGE	8.60	253	ePc	25	29.00	8.5X
DZM	20.20	247	iPc	27	49.30	-1.0
PMO	24.65	93	iP	28	34.10	-0.2
	1.2s	60.00nm				5.0mb
VAH	24.89	93	iP	28	35.80	-0.8
	1.2s	30.00nm				4.8mb
TPT	24.92	93	iP	28	36.70	-0.2
	1.2s	80.00nm				5.2mb
RUV	25.13	93	iP	28	38.40	-0.5
	1.2s	35.00nm				4.8mb
WB5	49.81	257	eP	32	06.10	-1.2
WRA	49.83	257	P	32	07.00	-0.5
	0.5s	1.60nm				4.3mb
TNP	74.78	43	P	34	54.00	-0.3
	1.0s	7.08nm				4.6mb
SPA	74.81	180	e(P)	34	54.00	0.1
	1.0s	11.00nm				4.8mb
		e		35	07.90	
RMW	77.65	33	P	35	15.50	5.5X
PMR	79.02	12	P	35	15.00	-2.1
TTA	79.15	8	P	35	16.40	-1.6
	1.0s	11.88nm				4.8mb
PNT	79.94	32	eP	35	25.00	2.6
	0.8s	8.00nm				4.8mb
ALQ	80.76	50	eP	35	27.00	-0.3
	1.0s	4.25nm				4.4mb
Z	20s	0.44um				4.8Msz
LRM	81.95	38	eP	35	36.60	3.2X
BW06	82.22	42	P	35	34.00	-0.8
	1.2s	10.70nm				4.8mb
FBA	82.30	11	P	35	32.00	-2.4
	0.8s	22.41nm				5.3mb
IMA	82.46	8	P	35	35.00	-0.4
	0.8s	3.02nm				4.4mb
SES	85.13	35	eP	35	49.00	-0.2
BJI	85.37	313	eP	35	57.00	6.5X
INK	88.17	14	eP	36	04.00	0.4
YKA	90.01	23	eP	36	14.20	1.8
TLB	145.59	332	ePKP	42	53.00	1.2
MLR	145.76	335	ePKP	42	53.00	0.7
KHC	145.77	352	iPKPc	42	54.00	1.9
	1.1s	12.50nm				
ZST	146.05	347	e(PKP)	42	55.00	2.5
		i		43	02.30	
SRO	146.14	346	iPKP	43	14.20	21.6X
BBTK	146.50	322	iPKP-	42	55.00	1.3
CDF	146.97	359	ePKP	43	00.80	6.7X
	1.0s	12.00nm				
HAU	147.38	0	ePKP	43	00.90	6.2X
	0.8s	9.10nm				
KBA	147.81	351	e(PKP)	43	07.00	11.4X
	1.0s	3.50nm				
		e		43	30.00	
LOR	148.04	3	ePKP	43	01.70	5.9X
	0.8s	5.90nm				
SSF	148.22	4	ePKP	43	02.10	6.1X
LBF	148.33	3	ePKP	43	01.90	5.6X
	0.8s	6.70nm				
PTJ	148.48	347	ePKP	43	03.50	6.9X
MAF	148.98	5	ePKP	43	02.80	5.5X
	0.8s	5.30nm				
LPG	149.89	360	ePKP	43	05.70	6.7X
EZN	150.07	329	ePKP	43	03.00	3.9X
SKO	150.47	337	iPKP	43	04.40	4.8X
Z	22s	0.76um				5.5Msz
N	20s	1.07um				
E	20s	0.86um				
		i		43	12.30	
		LR		13	10.00	
VAY	150.59	335	ePKP	43	05.00	5.2X
OHR	151.46	337	ePKP	43	08.20	7.0X
S.D. = 1.4 on 24 of 42 obs.						

% MAR 16, 1989 10h 28m 54.99± 0.96s
39.220 N ± 8.8km 27.811 E ± 9.9km
DEPTH = 30.1 ± 9.8 km
TURKEY (366)

DST	0.74	58	ePg	29	09.20	-0.1
			eSg	29	21.20	
IZM	0.93	208	ePn	29	12.00	0.1
KCT	1.11	22	iPn	29	15.00	0.5
EDC	1.13	2	ePn	29	14.50	-0.2
BNT	1.14	4	iPn	29	15.00	0.1
EZN	1.30	298	ePn	29	17.20	0.1
S.D. = 0.4 on 6 of 6 obs.						

MAR 16, 1989 12h 00m 43.18± 0.71s
8.895 N ±10.6km 93.707 E ± 6.1km
DEPTH = 33.0km (normal)
4.9mb (9 obs.)
NICOBAR ISLANDS REGION (704)

BSI	3.73	155	ePd	00	42.50	-57.3X
	0.5s	258.00nm				
NNT	6.97	58	eP	02	24.00	-1.6
SNG	7.05	104	eP	02	16.00	-10.8X
KHT	7.56	39	iPd	02	34.30	0.4
NST	9.21	42	eP	02	56.80	0.0
BDT	9.77	31	iPd	03	03.50	-1.0
CHG	11.09	27	iPd	03	24.30	1.6
	0.9s	10.92nm				5.0mb
LOE	11.51	42	eP	03	28.90	0.5
GBA	16.63	288	P	04	37.00	1.5
	0.5s	3.50nm				3.7mb X
SHL	16.67	354	iP	04	36.50	0.3
			iS	07	34.50	
HYB	17.00	301	ePc	04	43.70	3.4X
	1.0s	50.00nm				4.6mb
			eS	07	39.50	
KMI	18.29	27	Pc+	05	01.00	4.6X
QIZ	18.60	56	eP	05	02.00	1.9
N	12s	1.00um				
E	14s	0.70um				
PKI	20.16	338	Pd	05	17.70	-0.4
GUN	20.31	340	Pd	05	19.10	-0.5
DMN	20.31	338	Pd	05	19.20	-0.3
	0.7s	35.00nm				4.8mb
KKN	20.41	338	Pd	05	20.00	-0.5
LSA	20.84	354	P	05	24.00	-1.1
GKN	20.84	337	Pd	05	24.80	-0.1
GYA	21.36	34	P	05	32.00	1.9
POO	21.52	299	iPd	05	32.80	1.1
			iS	09	28.50	
NDI	25.06	324	iPc	06	07.50	1.3
	1.0s	40.00nm				5.0mb
LZH	28.60	17	eP	06	38.00	-0.7
GTA	30.87	9	Pd	06	58.40	-0.5
QUE	32.77	314	iPc	07	17.60	1.9
KSH	34.32	335	eP	07	27.00	-1.9
WMQ	35.18	352	P	07	36.40	0.1
VRI	67.67	316	iPc	11	39.00	-0.3
MLR	68.15	315	ePd	11	41.50	-1.0
BUL	70.22	245	iPd	11	51.20	-4.4X
	0.7s	4.79nm				4.7mb
SUF	71.93	333	iP	12	04.10	-0.9
NUR	72.05	331	iP	11	56.20	-9.4X
SOD	73.11	338	iP	12	11.40	-0.4
ZST	74.49	318	eP	12	18.70	-1.5
BNG	74.68	272	iPd	12	22.40	0.3
	0.7s	9.00nm				4.9mb
			ic	12	32.40	
KSP	75.21	320	iPc	12	24.60	0.3
PRU	76.28	319	eP	12	30.50	0.1
KHC	76.87	318	eP	12	33.60	-0.2
HFS	77.36	330	eP	12	35.00	-1.2
	0.4s	1.90nm				4.5mb
EKA	86.64	325	Pc	13	25.20	0.6
	0.7s	6.70nm				5.0mb
IMA	90.85	22	eP	13	45.40	0.8
MBC	92.81	8	eP	13	53.00	-0.2
PMR	94.64	25	P	14	02.10	0.2
	0.7s	4.36nm				5.0mb
INK	96.14	16	ePd	14	08.30	-0.4
BW06	124.36	21	PKP	19	40.00	-1.0
ALQ	132.41	23	ePKP	19	53.00	-3.6X
ATB	145.69	277	PKPd	20	21.30	0.3
S.D. = 1.0 on 40 of 47 obs.						

% MAR 16, 1989 12h 36m 06.98± 0.82s
39.371 N ± 7.3km 27.878 E ± 7.7km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.63	68	iPg	36	19.20	-0.4
			iSg	36	28.20	
KCT	0.95	23	iPg	36	25.40	0.3
EDC	0.97	359	iPg	36	24.50	-1.0
			eSg	36	37.50	
BNT	0.98	2	iPg	36	25.40	-0.3
IZM	1.08	206	ePn	36	27.10	-0.3
EZN	1.28	291	ePn	36	31.30	0.6
YLV	1.66	43	iPn	36	37.40	1.1
S.D. = 0.9 on 7 of 7 obs.						

* MAR 16, 1989 13h 20m 16.89± 0.81s
42.544 N ± 9.4km 24.119 E ± 8.9km
DEPTH = 10.0km (geophysicist)
BULGARIA (359)

VAY	1.68	224	ePn	20	46.70	0.2
SKO	2.07	255	ePn	20	52.50	0.4
DMK	2.80	104	ePn	21	01.80	-0.7
OHR	2.86	241	ePn	21	10.50	7.0X
ISR	3.13	33	eP	21	17.50	10.3X
MLR	3.23	23	ePc	21	09.00	0.3
		e		35	31.00	
TLB	3.50	53	eP	21	18.00	5.6X
BZS	3.56	330	ePc	21	12.00	-1.3
VRI	3.82	29	iPc	21	18.00	1.0
CFR	3.93	46	eP	21	30.00	11.4X
S.D. = 1.1 on 6 of 10 obs.						

MAR 16, 1989 13h 33m 37.30± 0.17s
13.673 N ± 2.9km 120.815 E ± 3.6km
DEPTH = 136.5km (3 depth phases)
5.3mb (34 obs.)
MINDORO, PHILIPPINE ISLANDS (250)
Felt (III) at Cubi Point.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 14S, 25C
Centroid Location:
Origin Time 13:33:35.3 0.6
Lat 13.42N 0.05 Lon 120.39E 0.09
Dep 138.1 2.5 Half-durotion 2.1
Moment Tensor; Scale 10**17 Nm
Mrr= 1.65 0.10 Mtt=-0.55 0.14
Mff=-1.10 0.18 Mrt= 0.06 0.08
Mrf= 0.75 0.10 Mtf= 0.75 0.12
Principal Axes:

T	Val= 1.87	Plg=73	Azm=292
N	-0.13	13	150
P	-1.73	10	58

Best Double Couple:Mo=1.8*10**17
NP1:Strike=132 Dip=37 Slip= 67
NP2: 339 57 106

QCP	0.99	15	eP	33	56.50	-4.5X
BAG	2.73	355	ePd-	34	21.20	-0.2
			iS	34	50.00	
DAV	8.05	144	eP	35	38.20	5.5X
KKM	8.83	211	ePc	35	44.80	1.5
	1.8s	480.80nm				5.9mb
TSM	9.77	196	ePd	35	58.90	3.2X
HKC	10.66	325	Pd	36	05.00	-2.4
MCO	10.87	322	eP	36	11.90	1.7
QZH	11.40	350	eP	36	17.50	0.3
N	14s	1.00um				
E	14s	0.90um				
		S		38	28.00	
ANP	11.47	3	eP	36	14.00	-4.1X
GZH	11.74	324	eP	36	20.00	-1.6
N	10s	2.10um				
E	12s	1.00um				
		eS		38	32.50	
QIZ	11.80	298	P	36	22.80	0.4
N	15s	1.70um				
E	12s	0.80um				
		S		38	30.20	
MNI	12.79	162	eP	36	39.20	3.9X
WHN	17.82	341	Pc	37	39.00	0.9
E	10s	1.07um				
		sP		38	16.00	
		S		40	56.00	
GYA	18.37	316	iPc	37	45.00	0.5
	2.0s	2.20nm				3.1mb X
		sP		38	23.00	
		S		41	05.00	
NJ2	18.38	355	Pd	37	45.20	0.8
		sP		38	20.00	
LOE	18.76	284	iPc	37	47.50	-1.0
MKS	18.82	184	iPd	37	51.00	1.9
	1.0s	263.40nm				5.5mb

KAGJ 19.74 26 P 37 59.20 0.6
NST 20.11 278 iPc 38 03.00 0.6
eSg 51 46.50
KMI 20.48 306 iPc+ 38 07.50 1.1
5.0s 1.10nm 2.5mb X
pP 38 33.00 140km
sP 38 49.00
sS 41 39.00
iS 41 52.00
NNT 20.56 269 iPc 38 07.00 0.0
KGM 20.82 238 ePd 38 11.10 1.4
SNG 20.88 254 eP 38 09.50 -0.7
1.2s 243.75nm 5.5mb
eS 41 56.70
KUMJ 20.89 24 iPd 38 11.20 1.0
BDT 21.32 282 ePc 38 13.60 -1.0
IPM 21.51 247 ePd 38 17.90 1.4
0.7s 86.70nm 5.3mb
KHT 21.57 276 iPc 38 18.00 0.9
CHG 21.60 287 iPc 38 18.40 0.9
1.0s 247.50nm 5.6mb
eS 42 16.00
SHNJ 22.40 23 eP 38 28.00 3.0X
TIA 22.69 352 Pc 38 28.50 0.7
S 42 25.00
TRT 22.74 201 iPd 38 31.60 3.1X
0.7s 244.20nm 5.7mb
XAN 22.97 334 iPc 38 30.70 0.0
N 14s 1.10um
S 42 28.70
CD2 23.25 320 iPd 38 33.60 0.1
E 11s 0.80um
sP 39 17.00
iS 42 33.00
sS 43 30.00
GUMO 23.37 87 eP 38 38.00 3.3X
1.2s 130.56nm 5.2mb
pP 39 05.40 134km
PJG 23.37 87 eP 38 38.20 3.5X
GUA 23.42 87 eP 38 37.50 2.4
KUPT 23.83 173 eP 38 59.00 19.9X
1.0s 233.00nm
TIY 25.08 344 iPc 38 50.50 -0.3
1.2s 0.10nm 2.2mb X
N 15s 0.90um
S 43 03.00
DL2 25.14 1 P 38 50.00 -1.2
E 12s 0.70um
TSRJ 25.70 29 iP+ 38 57.20 0.8
BJI 26.58 352 eP 39 04.00 -0.4
esP 39 36.00
ePP 39 48.00
eS 43 24.00
IIDJ 26.62 32 eP 39 04.50 -0.4
LZH 27.03 329 iPc 39 09.00 0.3
2.0s 1207.00nm 6.2mb
Z 40s 1.20um 4.2MszX
pP 39 23.50 60kmX
S 43 35.00
MTMJ 27.43 31 eP 39 10.50 -1.7
MAT 27.59 31 eP 39 12.00 -1.6
1.2s 29.69nm 4.8mb
eS 43 39.00
CHJJ 27.62 33 iPd 39 12.90 -1.0
SNY 28.15 4 eP 39 17.40 -1.1
Z 22s 0.80um 4.3Msz
E 21s 1.30um
S 43 50.00
HHC 28.26 345 Pc 39 20.00 0.3
Z 40s 4.09um 4.7MszX
E 10s 0.57um
S 43 56.00
BTO 28.44 343 iPc 39 21.00 -0.3
N 12s 0.50um
E 12s 0.70um
eS 43 48.00
SHL 29.64 298 iP 39 31.40 -0.8
iS 44 16.00
CN2 30.29 7 P 39 36.00 -1.5
Z 20s 0.90um 4.4Msz
E 12s 0.40um
GTA 31.62 328 iPc 39 49.70 0.3
2.0s 1.10nm 3.3mb X
Z 15s 0.80um 4.5MszX
PcP 42 38.70
S 44 47.50
ScP 46 08.20

LSA 31.72 305 iPc 39 51.40 0.6
5.0s 0.90nm 2.8mb X
S 44 50.00
MDJ 31.74 12 eP 39 49.70 -0.5
MBL 34.63 182 eP 40 13.50 -1.8
0.3s 28.00nm 5.5mb
GUN 35.45 299 P 40 22.60 -0.2
PKI 35.76 298 P 40 24.70 -0.7
WB5 35.91 158 eP 40 24.30 -1.9
KKN 35.93 299 P 40 26.30 -0.4
WRA 35.96 158 Pd 40 25.50 -1.1
0.5s 6.90nm 4.7mb
DMN 36.03 298 P 40 27.20 -0.4
NANU 36.38 188 eP 40 30.10 0.0
GKN 36.54 299 P 40 31.10 -0.6
QIS 38.71 151 eP 40 49.00 -0.7
WARB 40.02 172 eP 40 47.20 -13.2X
MEKA 40.11 183 eP 41 00.20 -0.9
0.3s 50.00nm 5.7mb
HYB 40.83 281 iPc 41 07.70 0.5
1.4s 525.00nm 6.0mb
iS 48 16.00
WMQ 41.29 323 Pc 41 11.80 1.0
4.0s 0.90nm 2.8mb X
Z 20s 0.70um 4.5Msz
N 12s 0.60um
E 10s 0.90um
PP 42 52.00
S 47 16.00
CTA 41.86 143 iPc 41 16.50 1.0
i 41 35.00
i 41 42.30
i 43 10.00
e(S) 47 23.00
GBA 42.11 275 Pc 41 17.40 -0.3
1.1s 191.40nm 5.7mb
MRWA 42.89 186 eP 41 23.00 -0.8
NDI 43.06 297 iPc 41 23.50 -1.8
1.2s 132.81nm 5.5mb
BAL 44.20 185 eP 41 34.00 -0.4
COOL 44.30 180 eP 41 34.00 -1.2
KLB 45.10 184 eP 41 40.00 -1.5
POO 45.28 283 iPd 41 42.80 -0.5
1.4s 172.09nm 5.5mb
MUN 45.60 185 eP 41 45.00 -0.5
BOM 46.26 283 iPc 41 51.50 0.6
eS 47 13.00
NWAO 46.46 184 eP 41 52.00 -0.2
KSH 46.97 312 P 41 58.90 2.4
Z 22s 2.90um 5.2Msz
RKG 47.61 184 eP 42 05.00 3.7X
RMO 48.29 146 eP 42 06.00 -0.6
e 42 37.00
STK 49.48 157 eP 42 15.00 -0.7
QUE 52.13 298 iPc+ 42 55.50 19.4X
DZM 57.13 128 iPd 43 12.60 0.4
MAIO 58.98 304 iPc+ 43 25.00 0.0
0.9s 75.87nm 5.7mb
eSn 51 24.00
KHI 59.50 302 iPc 43 28.20 -0.5
KER 69.05 302 ePd 44 30.00 -0.6
TAB 69.55 306 eP 44 34.00 0.4
SLY 70.31 303 iPd 44 37.00 -1.0
e 47 21.00
BHD 71.38 301 iPd 44 45.00 0.5
e 47 28.00
MSL 72.17 304 iPd 44 48.50 -0.7
i 45 34.50
BRW 74.72 19 ePc 45 04.30 1.0
TTA 74.83 28 P 45 05.00 0.8
1.0s 45.00nm 5.2mb
IMA 75.79 25 ePc 45 10.80 1.2
1.0s 37.70nm 5.1mb
KDC 76.80 33 P 45 15.80 0.6
0.8s 22.41nm 5.0mb
PMR 78.12 29 P 45 22.50 0.1
0.8s 28.45nm 5.1mb
FBA 78.32 26 ePc 45 23.50 0.0
KEV 78.60 339 iP 45 24.20 -0.7
GLH 78.72 301 iPc 45 28.00 1.7
AVY 78.93 247 iPc 45 28.30 0.5
SOD 79.10 337 iP 45 27.10 -0.5
DSI 79.14 300 iPc 45 30.00 1.4
KJF 79.15 334 iP 45 27.00 -1.0
0.6s 31.30nm 5.2mb
TOA 79.44 29 eP 45 30.80 1.1
MBH 79.87 298 iPc 45 33.50 1.0

BBTK 79.90 309 eP 45 32.00 -0.7
SUF 80.09 332 iP 45 31.80 -1.2
0.4s 9.60nm 4.9mb
CSS 80.27 304 eP 45 35.50 0.9
PPCY 81.08 304 eP 45 39.50 0.7
NUR 81.23 330 iP 45 38.60 -0.4
ALT 82.06 308 iP 45 43.10 -0.9
CFR 82.29 315 ePc 45 45.00 0.2
ELL 82.67 306 iP 45 46.50 -0.7
HLW 82.87 299 eP 45 47.00 -1.2
INK 83.08 21 eP 45 48.50 0.0
1.0s 51.00nm 5.3mb
VRI 83.13 315 iPc 45 50.00 0.8
ISR 83.41 315 ePd 45 52.00 1.3
MBC 83.55 12 eP 45 51.00 0.3
MLR 83.75 315 ePc 45 52.50 0.0
e 10 28.00
e 13 14.00
JMB 83.98 312 iPc 45 54.00 0.5
IZM 84.38 308 eP 45 55.60 -0.1
NAI 84.48 267 eP 46 00.00 3.2X
PVL 84.70 313 iPc 45 58.00 0.9
EZN 84.77 310 eP 45 56.80 -0.7
UPP 84.79 330 iP 45 56.30 -0.8
KDZ 85.01 312 eP 45 58.00 -0.7
RZN 85.51 312 iPc 46 01.00 -0.5
PGB 85.69 313 iPc 46 02.00 -0.2
DEV 85.72 316 ePc 46 02.00 -0.1
SIT 86.01 32 P 46 04.50 1.2
MMB 86.25 312 iPd 46 04.00 -0.9
VTS 86.37 313 iPc 46 06.00 0.4
KRA 86.48 321 eP 46 05.70 -0.1
0.6s 33.00nm 5.4mb
e 46 12.70
SPC 86.54 320 eP 46 06.60 0.2
e 49 33.70
HFS 86.55 331 eP 46 04.80 -1.1
0.7s 23.50nm 5.2mb
DAG 86.67 351 iPd 46 05.00 -1.2
0.5s 8.45nm 4.9mb
VAY 87.16 312 iP 46 08.00 -1.2
1.4s 0.11nm 2.6mb X
NRA0 87.31 332 P 46 08.80 -0.8
NAO 87.59 333 P 46 09.70 -1.2
0.9s 23.60nm 5.2mb
SKO 87.80 313 iP 46 11.60 -0.7
SRO 88.18 319 eP 46 15.10 1.1
e 49 47.90
KSP 88.45 322 iPd 46 16.00 0.8
e 46 49.00
e 49 40.00
OHR 88.50 312 eP 46 09.80 -6.0X
PRU 89.79 322 eP 46 20.00 -1.6
e 46 53.50
BRG 89.83 323 eP 46 21.50 -0.2
1.1s 29.00nm 5.2mb
e 47 11.00
e 49 54.00
CLL 90.22 323 iP 46 22.90 -0.6
2.0s 50.00nm 5.2mb
e 47 07.00
KHC 90.69 321 iPd 46 26.40 0.6
e 50 05.00
MOX 91.28 323 ePc 46 28.00 -0.4
2.0s 83.00nm 5.6mb
ePP 50 02.00
KBA 91.60 319 eP 46 29.00 -1.2
0.9s 4.10nm 4.6mb
i 46 33.90
YKA 92.76 23 eP 46 36.40 1.4
PTZ 92.80 256 iP 46 26.40 -9.7X
YKC 92.82 22 ePc 46 36.00 0.8
1.2s 17.00nm 5.2mb
pP 47 11.00 136km
WLF 94.88 324 Pd 46 45.90 1.0
DOU 95.56 325 P 46 48.70 0.6
LSZ 96.00 256 iPc 46 51.50 0.7
BUL 96.63 251 iPc 46 53.60 0.0
KMZ 97.84 258 eP 47 00.00 0.9
BNG 100.83 277 ePdiff 47 16.00 3.3X
1.3s 8.00nm 5.2mb
ic 51 07.50
ALQ 114.07 41 ePKP 52 03.00 0.4
FVM 120.85 29 PKP 52 14.80 -0.3
ELC 121.97 28 PKP 52 17.00 -0.2
KIC 122.41 287 PKP 52 19.40 0.6
TIC 122.57 287 PKP 52 18.70 -0.4

16d 13h

LIC	122.72	287	PKP	52	19.20	-0.1
CVL	125.53	19	PKP	52	24.00	-0.2
BLA	125.58	21	PKP	52	24.00	-0.4
TKL	125.70	25	PKP	52	24.50	-0.1
UPA	149.76	43	iPKPd	53	13.60	5.2X
	1.7s	253.85nm				
ITR	159.06	281	ePKP	53	21.10	0.2
			e	53	58.50	
SOB1	161.54	282	ePKP	53	03.50	-20.0X
			e	53	24.20	
LPB	170.93	109	ePKP	53	33.00	1.8
CNCB	170.96	111	PKP	53	34.00	2.6
ZOBO	170.98	108	PKP	53	33.00	1.5
	1.0s	3.25nm				
			i	54	54.50	

S.D. = 1.0 on 155 of 174 obs.

MAR 16, 1989 17h 12m 22.44± 0.89s
16.927 S ± 6.8km 65.005 W ± 5.4km
DEPTH = 44.2 ± 8.4 km
5.1mb (17 obs.) 5.4Msz (3 obs.)
BOLIVIA (120)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 14S, 27C
Centroid Location:
Origin Time 17:12:26.2 0.6
Lat 16.80S 0.10 Lon 65.07W 0.10
Dep 35.4 6.8 Half-duration 1.7
Moment Tensor; Scale 10**16 Nm
Mrr= 1.70 0.39 Mtt=-0.08 0.52
Mff=-1.62 0.57 Mrt=-6.20 1.03
Mrf= 5.81 1.16 Mtf= 1.79 0.48
Principal Axes:

	Val=	Plg=	Azm=
T	8.36	52	217
N	0.89	5	314
P	-9.25	38	48

Best Double Couple:Mo=8.8*10**16
NP1:Strike=171 Dip= 9 Slip= 127
NP2: 313 83 85

CCH	1.18	247	iP	12	41.20	-1.8
CNCB	2.85	272	iPc	13	08.00	0.9
			S	13	50.00	
LPB	2.99	277	iP	13	11.00	2.1
			iS	13	54.00	
ZOBO	3.06	282	iP	13	10.50	0.4
			iS	13	50.00	
ARE	6.23	273	iPc	13	54.90	0.3
SLA	7.78	183	ePc	14	10.60	-5.4X
CYA	11.49	183	e(P)	15	01.00	-5.8X
ITB1	12.55	129	eP	15	17.90	-3.1X
ITB	12.77	130	e(P)	15	18.80	-5.1X
ITB7	12.98	131	e(P)	15	21.90	-4.9X
MDZ	16.26	192	eP	16	09.60	0.2
VAO	17.99	113	eP	16	30.40	-0.7
ATB	18.47	44	Pd	16	36.90	-0.1
ITA	19.87	109	eP	16	52.20	-1.0
BMA	20.43	110	eP	16	57.90	-0.9
RDJ	21.31	110	eP	17	16.80	9.1X
PSO	21.72	325	eP	17	14.00	1.7
BOG	23.21	337	eP	17	31.00	4.1X
			eS	21	44.00	
SOB1	24.69	75	ePd	17	41.50	0.6
BMG	25.14	341	iPd	17	47.00	1.7
TOV	26.96	350	eP	18	03.90	1.9
ITR	27.13	76	eP	18	02.70	-0.9
UPA	29.48	330	P	18	27.80	3.1X
Z	19s	2.71um			4.9Msz	
JSC	53.22	343	P	21	38.00	-0.7
LHS	53.29	344	P	21	38.00	-1.1
PRM	53.35	342	P	21	39.40	-0.3
TKL	55.24	341	P	21	52.40	-1.1
GBTN	55.38	341	P	21	54.20	-0.3
BLA	55.77	345	P	21	57.00	-0.3
OLY	57.87	335	P	22	10.00	-2.2
ELC	58.55	337	P	22	14.60	-2.3
FVM	59.61	337	P	22	22.40	-1.9
RSNY	61.79	352	P	22	38.00	-1.0
	1.0s	36.67nm			5.5mb	
GAC	63.05	352	ePc	22	48.00	0.7
LIC	63.58	74	P	22	50.20	-1.2
CBM	63.62	358	P	22	51.50	0.5
TIC	63.74	74	P	22	51.44	-1.0
KIC	63.89	74	P	22	52.46	-1.0
	0.7s	11.50nm			5.1mb	
ALQ	64.89	323	eP	22	59.40	-0.4
	1.5s	31.25nm			5.1mb	
GOL	67.75	327	P	23	17.00	-1.1
KUK	67.87	76	eP	23	18.50	-0.4
KOGH	67.95	76	eP	23	18.50	-1.0
SHGH	68.08	76	eP	23	20.00	-0.2
GLA	68.80	317	eP	23	22.00	-2.4
BAR	69.81	315	eP	23	30.00	-0.6
TPC	70.25	317	eP	23	33.00	-0.3
PLM	70.34	316	eP	23	39.00	5.0X
RVR	71.06	316	eP	23	38.00	-0.1
SCH	71.47	359	ePd	23	40.10	-0.1
	0.7s	36.00nm			5.4mb	
GSC	71.47	317	eP	23	41.00	0.3
			e	23	46.00	
MWC	71.65	316	eP	23	46.00	4.1X
SBB	71.77	316	eP	23	42.00	-0.5
RSON	72.04	341	P	23	42.00	-1.7
BW06	72.16	327	P	23	44.00	-0.8
	0.6s	10.17nm			5.0mb	
CLC	72.30	317	eP	23	45.00	-0.6
ISA	72.78	317	eP	23	54.00	5.6X
SPA	73.18	180	e(P)	23	50.20	-0.2
	1.0s	9.00nm			4.7mb	
TNP	73.43	319	P	23	52.70	0.3
	0.8s	4.41nm			4.5mb	
AVE	74.24	47	iP	23	59.00	2.1
			i	24	19.50	
KVN	74.57	320	P	23	58.80	-0.1
HPI	74.67	326	P	24	00.00	0.5
LLA	74.96	316	ePc	24	02.10	1.1
CMB	75.41	318	e(P)	24	03.70	0.1
LRM	75.77	328	eP	24	05.60	-0.1
IFR	75.98	48	iPd	24	09.00	1.9
ORV	77.00	319	e(P)	24	10.40	-2.0
FFC	78.00	339	eP	24	18.00	0.4
	0.8s	14.00nm			5.0mb	
WDC	78.24	319	ePc	24	17.80	-1.4
SES	78.29	332	ePd	24	19.20	-0.1
TOL	80.05	43	iPc	24	32.50	3.4X
	1.5s	277.78nm			6.0mb	
FRB	80.46	358	eP	24	30.00	-0.6
EDM	81.29	333	iPd	24	35.00	-0.4
LON	81.36	324	P	24	36.00	0.1
FRS	82.06	119	eP	24	40.00	0.1
	1.0s	15.00nm			5.0mb	
			e	24	45.00	
EBR	83.52	44	eP	24	50.00	2.9
			eS	35	12.00	
BFS	84.06	116	iPd	24	50.00	-0.4
	1.0s	40.00nm			5.5mb	
PRY	84.64	116	iPd	24	52.50	-0.8
	0.7s	7.50nm			4.9mb	
BNG	85.13	84	iPc	24	55.90	0.1
	0.9s	14.00nm			5.1mb	
SLR	85.67	115	iPc	24	58.00	-0.5
	0.7s	17.12nm			5.4mb	
Z	18s	2.41um			5.6Msz	
KMZ	86.95	103	iPd	25	05.80	0.9
			i	25	13.00	
BUL	87.58	110	iPd	25	07.30	-0.5
	1.2s	16.41nm			5.1mb	
YKC	88.12	339	ePd	25	09.70	0.4
	0.7s	10.00nm			5.2mb	
YKA	88.18	339	eP	25	10.10	0.5
LSZ	88.61	105	iPc	25	14.40	1.6
			i	25	42.00	
DOU	90.37	37	P	25	27.80	7.7X
WLF	91.09	38	P	25	25.20	1.8
KBA	94.54	42	eP	25	40.00	0.3
	1.3s	7.50nm			5.0mb	
KHC	95.38	40	P	25	44.20	0.9
CLL	95.76	38	eP	25	46.00	1.1
MAIO	127.48	57	ePKP	31	23.00	-1.7
			e	33	23.00	
WB5	138.77	208	ePKP	31	35.80	-10.6X
			e	31	45.70	
NDI	143.41	65	ePKPc	31	51.00	-3.4X
GBA	143.65	90	PKPc	31	50.10	-5.0X
	1.1s	5.60nm				
WMQ	144.62	35	PKP	31	55.20	-0.9
Z	20s	0.80um			5.5Msz	
HYB	145.21	84	iPKPd	31	56.80	-1.0
	1.0s	82.00nm				
MDJ	149.78	339	ePKP	32	08.00	3.7X
GKN	149.94	63	PKP	32	05.90	0.6
DMN	150.44	64	PKP	32	07.10	0.9
KKN	150.54	63	PKP	32	06.90	0.7
PKI	150.71	64	PKP	32	07.00	0.3
GUA	150.95	267	ePKP	32	11.80	4.9X
	0.8s	53.73nm				
GUMO	151.01	268	ePKP	32	12.30	5.4X
	1.3s	173.20nm				
PJG	151.01	268	ePKP	32	12.20	5.3X
GUN	151.02	63	PKP	32	08.00	0.9
MAT	151.64	318	(PKP)	32	14.00	6.6X
GTA	153.98	28	ePKP	32	11.60	0.9
LSA	154.74	56	ePKP	32	14.30	1.9
SHL	156.83	64	iPKP	32	15.50	0.5
LZH	158.50	25	e(PKP)	32	19.00	2.3
XAN	162.11	17	PKPc	32	22.00	1.7
CHG	164.60	81	ePKP	32	23.90	0.8
KMI	165.96	52	PKPc	32	24.50	0.1
GYA	167.76	38	PKP	32	26.20	0.6

S.D. = 1.1 on 92 of 113 obs.

% MAR 16, 1989 17h 33m 58.87± 0.79s
39.289 N ± 7.2km 29.336 E ± 8.1km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.63	300	ePg	34	11.00	-0.6
ALT	0.65	111	iPg	34	11.60	-0.3
			iSg	34	21.10	
KHL	0.98	171	ePg	34	17.80	0.3
			iSg	34	30.30	
KCT	1.22	322	iPn	34	22.30	0.7
GPA	1.25	37	ePn	34	21.00	-1.1
YLV	1.28	1	iPn	34	22.30	-0.3
BNT	1.52	315	iPn	34	25.80	-0.4
HRT	1.55	9	ePn	34	29.00	2.4
ISK	1.79	353	ePn	34	38.00	8.1X
CTT	1.98	340	ePn	34	32.00	-0.8

S.D. = 1.2 on 9 of 10 obs.

MAR 16, 1989 17h 40m 49.08± 0.96s
45.593 N ±10.8km 14.540 E ± 5.3km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
MD 2.9 (TRI). ML 2.5 (KBA).

CEY	0.17	331	iPgd	40	53.00	0.1
			iSg	40	55.70	
LJU	0.45	359	iPgc	40	57.50	-0.8
			iSg	41	04.50	
VBY	0.51	100	iPgc	40	58.50	-0.9
			iSg	41	05.10	
TRI	0.56	282	iPgc	40	59.30	-1.1
			iSg	41	08.50	
VOY	0.63	314	iPgd	41	01.00	-0.8
			eSg	41	10.70	
ZAG	1.04	77	iPn	41	10.20	1.6
			iSn	41	25.00	
PTJ	1.04	72	ePn	41	08.30	-0.5
			eSn	41	23.90	
RBL	1.09	322	P	41	09.90	0.4
			eSg	41	26.00	
FVI	1.58	310	P	41	18.60	1.4
			eSg	41	40.00	
KBA	1.70	331	iPgd	41	23.60	4.5X
			iSg	41	42.40	
CTI	2.07	284	P	41	25.00	0.6
KHC	3.60	350	eP	42	13.80	27.7X
			e	42	43.90	

S.D. = 1.1 on 10 of 12 obs.

MAR 16, 1989 18h 54m 42.50± 0.65s
43.402 N ± 4.8km 5.437 E ± 5.0km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
MD 2.5 (STR).

GELF	0.02	202	Pg	54	44.31	-0.2
TREF	0.23	350	Pg	54	46.93	-0.4
PUYF	0.23	56	Pg	54	46.71	-0.8
PRAF	0.45	334	Pg	54	51.82	0.2
VILF	0.49	24	Pg	54	52.26	-0.3
TAVF	0.50	64	Pg	54	52.28	-0.4
GANF	0.69	30	Pg	54	56.40	0.3
MVIF	1.34	68	Pn	55	07.56	0.3
			Sg	55	26.45	
TOUF	1.45	64	Pn	55	09.66	0.7
AURF	1.46	70	Pn	55	09.18	0.3
			Sg	55	30.46	
AUTN	1.56	67	Pn	55	11.22	0.7

Sg 55 33.78
SAOF 1.64 68 Pn 55 11.78 0.2
CVF 2.65 107 Pn 55 25.35 -0.7
S.D. = 0.5 on 13 of 13 obs.

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* MAR 16, 1989 19h 22m 42.82± 1.36s
51.458 N ±12.6km 15.946 E ± 8.1km
DEPTH = 10.0km (geophysicist)
POLAND (548)
ML 3.8 (VKA), 3.4 (KBA).

KSP 0.65 160 iPd 22 55.00 -0.8
0.3s 101.00nm
iS 23 04.20
BRG 1.39 246 iPn 23 08.60 0.4
iPg 23 10.00
iSg 23 30.00
PRU 1.72 212 Pn 23 13.20 0.2
Pg 23 14.70
Sn 23 31.00
Sg 23 37.80
CLL 1.85 267 iPn 23 14.60 -0.2
iPg 23 17.70
iSg 23 44.00
KHC 2.78 214 iPn 23 28.50 0.3
Pg 23 34.50
Sn 24 03.00
Sg 24 18.00
MOX 2.85 255 ePn 23 30.00 0.8
iPg 23 37.00
iSg 24 15.00
KRA 2.90 117 eP 23 37.70 7.9X
iS 24 13.20
VKA 3.21 176 ePn 23 34.50 0.3
iPgc 23 42.90
iSg 24 26.50
ZST 3.35 167 eP 24 03.10 26.8X
i 24 30.90
SPC 3.57 128 e(Pn) 23 40.00 0.5
i 23 50.60
e 24 36.30
KBA 4.70 202 iPnc 23 55.30 -0.4
e 24 04.00
MEM 6.33 266 P 24 17.30 -1.1
DOU 7.33 264 Pn 24 32.40 0.0
0.3s 2.50nm 4.9mb X
S.D. = 0.6 on 11 of 13 obs.

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* MAR 16, 1989 21h 45m 27.14± 1.06s
39.440 N ± 7.7km 20.258 E ±10.5km
DEPTH = 10.0km (geophysicist)
GREECE-ALBANIA BORDER REGION (392)
MD 3.2 (ATH).

SRN 0.48 336 iPg 45 35.80 -1.1
LSK 0.76 20 iPgc 45 40.20 -1.8
VLO 1.18 331 ePn 45 49.90 0.7
VLS 1.29 168 ePb 45 50.80 -0.2
KZN 1.45 53 ePb 45 53.80 0.3
OHR 1.72 14 ePn 45 58.20 0.9
TIR 1.93 351 ePn 46 06.00 5.7X
NEO 2.30 92 ePb 46 09.20 3.4X
VAY 2.58 42 ePn 46 09.30 -0.3
PLG 2.62 68 ePn 46 10.00 -0.3
SKO 2.68 19 ePn 46 13.00 1.8
S.D. = 1.3 on 9 of 11 obs.

MAR 17, 1989 00h 50m 53.23± 0.33s
41.237 N ± 2.6km 19.891 E ± 2.0km
DEPTH = 26.9 ± 3.2 km
5.1mb (20 obs.)
ALBANIA (391)
ML 4.9 (ATH), 4.6 (TIR). Felt
(V) in the Tirano-Elbasan area.
Also felt in western Macedonia,
Yugoslavia.

TIR 0.11 351 iPgc 50 56.40 -1.8
LACI 0.42 341 iPgc 51 01.50 -0.7
BERA 0.54 175 iPg 51 02.80 -1.2
PHP 0.61 42 iPg 51 03.10 -2.2
OHR 0.70 100 iPg 51 04.10 -2.7
iSg 51 13.00
PUK 0.81 0 iPgc 51 07.80 -0.7
VLO 0.82 201 iPg 51 09.30 0.5
SDA 0.83 339 iPgc 51 09.50 0.6
ULC 0.87 327 ePg 51 09.40 -0.2
eSg 51 26.20
KKS 0.92 25 iPg 51 10.00 -0.3
BCI 1.14 7 iPgc 51 13.40 0.0
LSK 1.21 153 iPg 51 13.10 -1.5
TTG 1.28 339 iPgc 51 16.10 0.7
iSg 51 40.00
BDV 1.31 323 ePg 51 17.50 1.6
eSg 51 41.00
SRN 1.36 176 iPgc 51 19.30 2.8
PVY 1.36 3 iPgc 51 17.20 0.5
eSg 51 40.00
SKO 1.37 57 iPgd 51 15.70 -1.1
i 51 18.00
iSg 51 33.50
LQ 51 36.00
LR 51 55.00
HCY 1.60 320 iPnc 51 22.50 2.5
eSn 51 48.00
IVA 1.63 0 iPnc 51 22.50 1.9
eSn 51 48.00
KZN 1.70 122 iPnc 51 21.80 0.2
LCI 1.73 239 P 51 22.20 0.4
BRY 1.94 329 iPnc 51 28.00 2.9
eSn 51 57.50
VAY 2.02 87 iPnd 51 25.70 -0.5
i 51 27.40
eSn 51 50.50
BRT 2.06 261 Pd 51 28.80 2.0
PLE 2.12 350 ePn 51 31.30 3.6X
eSn 52 01.50
PLG 2.83 107 ePn 51 38.30 0.6
VLS 3.10 170 ePn 51 41.60 0.0
TDS 3.14 241 P 51 43.70 1.7
NEO 3.20 126 ePn 51 43.00 0.1
HVAR 3.21 308 iPn 51 43.80 0.8
iSn 52 24.50
iSg 52 38.80
MGR 3.47 253 Pc 51 48.50 1.7
eSn 52 31.50
GRI 3.60 229 P 51 49.50 0.9
BSS 3.87 265 P 51 54.70 2.3
DUI 4.11 278 P 51 57.60 1.8
eSn 52 46.60
RDO 4.26 89 ePn 51 56.80 -1.1
ITM 4.35 158 ePn 51 59.90 0.7
ATH 4.40 137 ePn 52 01.10 1.2
MSI 4.51 229 P 52 02.70 1.2
BZS 4.55 15 iPc 52 03.00 0.9
SDI 4.59 278 P 52 04.30 1.6
eSn 52 58.60
ATN 4.59 229 P 52 02.40 -0.3
eSn 52 54.90
LPI 4.70 236 P 52 04.50 0.3
DRA 4.70 42 eP 52 08.00 3.8X
AZI 4.90 281 P 52 08.80 1.9
ALP 4.95 290 ePn 52 08.57 0.7
iSn 53 07.26
AQU 4.98 285 P 52 09.90 1.7
eSn 53 07.80
EZN 5.10 104 eP 52 09.00 -0.9
MNO 5.20 232 P 52 12.80 1.4
AOI 5.20 298 ePn 52 10.68 -0.6
iSn 53 10.13
SSO 5.22 295 e(Pn) 52 11.24 -0.3
e(Sn) 53 14.09
PRK 5.27 110 ePn 52 13.70 1.4
CIO 5.38 294 iPn 52 13.34 -0.5
iSn 53 17.08
ZAG 5.39 329 iPnd 52 14.40 0.6
iSg 53 48.20
RDP 5.41 278 P 52 15.80 1.5
RMP 5.43 278 P 52 16.30 1.8
VBY 5.44 323 ePnc 52 15.40 0.8
iPg 52 37.20
iSn 53 20.20
iSg 53 52.50
PTJ 5.47 330 iPnc 52 15.10 0.0
e 53 10.70
BUC1 5.48 53 P 52 43.00 27.8X
MNS 5.51 284 P 52 17.30 1.6
BUC 5.56 53 ePd 52 30.00 13.7X
MEU 5.65 225 P 52 16.00 -1.7
eSn 53 21.10
ASS 5.68 291 P 52 18.70 0.6
eSn 53 24.30
DMK 5.93 82 eP 52 21.00 -0.6
CEY 6.00 320 iPnc 52 23.10 0.5
iSn 53 35.00
RSM 6.11 299 Pd 52 24.30 0.2
EDC 6.12 96 iP 52 23.60 -0.6
MLR 6.13 44 eP 52 25.50 1.1
BNT 6.16 96 iP 52 23.60 -1.2
LJU 6.18 323 ePnd 52 25.60 0.6
eSn 53 39.00
ISR 6.23 49 ePd 52 27.50 1.6
BUD 6.28 355 iPd 52 27.00 0.6
TRI 6.31 317 iPnc 52 26.00 -0.9
iSn 53 39.50
i 54 24.50
IZM 6.34 114 eP 52 27.80 0.4
CTT 6.44 88 eP 52 28.00 -0.8
VOY 6.47 320 iPnd 52 29.10 -0.2
eSn 53 45.70
KCT 6.51 96 iP 52 29.10 -0.6
PGD 6.58 296 Pc 52 31.50 0.6
eSn 53 45.40
MAO 6.63 283 P 52 32.20 0.7
SRO 6.67 351 ePn 52 33.30 1.4
i 52 35.80
i 52 40.80
i 52 49.90
i 53 58.50
CEI 6.70 15 eP 53 21.00 48.6X
VAM 6.73 148 ePn 52 31.40 -1.5
BRD 6.74 48 eP 52 36.50 3.5X
VRI 6.79 45 ePc 52 35.00 1.4
TLB 6.85 58 ePd 52 34.50 0.0
DST 6.86 101 iP 52 34.30 -0.4
FIR 6.87 295 ePn 52 35.00 0.3
iSn 53 52.50
SOP 6.87 341 ePc 52 34.90 0.2
ISK 6.92 88 eP 52 37.00 1.5
RBL 6.92 321 P 52 35.50 -0.1
eSn 53 51.10
CFR 7.21 54 eP 52 40.00 0.5
YLV 7.22 92 iP 52 39.60 -0.1
ZST 7.24 345 e(Pn) 52 42.10 2.3
i 52 45.20
i 53 11.40
i 54 24.70
e 54 51.20
PII 7.36 293 P 52 41.10 -0.4
MME 7.38 297 P 52 42.80 0.6
HRT 7.40 90 eP 52 40.00 -2.3
BDI 7.41 295 P 52 41.10 -1.3
eSn 54 05.10
FVI 7.42 319 P 52 41.50 -0.8
NPS 7.47 141 ePn 52 44.50 1.3
VKA 7.47 341 iPd 52 45.70 2.5
1.5s 302.00nm 6.2mb X
Z 10s 10.80um 5.5Msz
i 53 19.80
i 54 17.50
LR 56 10.00
PPE 7.49 46 eP 52 36.00 -7.4X
KBA 7.50 323 ePn 52 43.00 -0.7
id 52 44.10
i 52 50.50
i 53 15.20
iSn 53 59.50
i 54 04.30
i 54 11.90
i 54 15.60
i 54 43.40
CLI 7.53 43 eP 52 45.00 1.0
YER 7.70 119 iP 52 48.20 1.8
SPC 7.96 2 e(P) 52 51.50 1.4
i 54 22.20
KMR 7.96 331 iP+ 52 50.60 0.7
iS 54 29.40
GPA 7.97 93 eP 52 50.00 -0.2
KHL 7.97 108 eP 52 50.40 0.2
KAP 8.06 132 ePn 52 51.70 0.3
SAL 8.09 306 Pd 52 50.40 -1.5
eSn 54 19.60
IAS 8.11 40 eP 52 58.00 5.9X
ALT 8.13 102 eP 52 52.50 0.0
CGL 8.31 260 P 52 53.90 -1.1
CVF 8.33 283 P 52 54.50 -0.7
BOB 8.43 298 Pc 52 56.20 -0.4
eSn 54 28.10
GEN 8.66 295 P 52 58.78 -0.9
MDI 8.68 305 P 52 57.70 -2.2
KRA 8.82 0 eP 53 03.90 2.0

17d 00h

e 53 05.90
i 53 09.50
ELL 8.99 117 eP 52 58.00 -6.5X
KHC 9.06 333 iPd 53 05.60 0.3
1.0s 25.00nm 5.4mb
e 53 41.30
FIN 9.10 293 P 53 04.08 -1.7
BCK 9.10 111 iP 53 08.30 2.4
CKI 9.11 294 P 53 03.80 -2.1
eSn 54 45.30
KSL 9.14 121 ePn 53 08.80 2.5
IMI 9.25 291 P 53 07.96 0.0
VAI 9.30 304 P 53 06.70 -1.9
ROB 9.35 293 P 53 07.54 -1.9
PRU 9.52 339 P 53 11.60 0.1
1.5s 53.60nm 5.6mb
Z 12s 6.30um 5.5MszX
N 12s 4.70um
e 55 18.00
SBF 9.56 290 Pn 53 12.00 -0.2
Sn 54 58.00
ORX 9.71 301 P 53 10.55 -3.8X
STV 9.72 292 P 53 13.10 -1.4
TOUF 9.72 291 P 53 14.00 -0.6
DOI 9.84 294 P 53 14.30 -1.8
BBTK 9.90 94 eP 53 18.00 1.1
KSP 9.93 347 eP 53 18.50 1.4
i 53 25.80
eS 55 17.00
PZZ 9.94 293 P 53 15.06 -2.5
RSP 10.02 297 P 53 14.52 -4.1X
FRF 10.07 288 Pn 53 19.50 0.3
Sn 55 10.80
LMR 10.14 286 Pn 53 20.20 0.1
LSD 10.19 299 P 53 16.80 -4.3X
LRG 10.26 287 Pn 53 22.20 0.4
RRL 10.27 295 P 53 19.38 -2.8
BNI 10.38 296 P 53 21.30 -2.3
LPG 10.47 298 Pn 53 21.80 -3.2X
BRG 10.48 339 iPd 53 24.90 0.2
1.5s 40.00nm 5.5mb
e 54 59.00
e 55 58.00
LPL 10.49 298 Pn 53 22.00 -3.1X
FEL 10.76 312 P 53 26.75 -1.9
BBS 10.83 309 P 53 27.81 -1.7
MOX 11.03 331 ePn 53 30.50 -1.7
Z 10s 5.00um
N 10s 3.20um
E 10s 3.60um
iSn 55 44.50
e(Sg) 56 54.00
LQ 57 30.00
LR 58 30.00
CLL 11.14 337 iPn 53 33.40 -0.3
1.5s 50.00nm 5.5mb
e(Sg) 57 10.00
LOMF 11.17 308 P 53 32.01 -2.3
MOF 11.24 310 P 53 33.46 -1.8
BSF 11.43 310 P 53 35.66 -2.2
CDF 11.47 313 P 53 35.82 -2.5
GWF 11.61 316 P 53 38.57 -1.6
HAU 11.78 310 Pn 53 40.00 -2.4
Sn 55 47.20
VITF 12.09 310 P 53 44.71 -1.9
SMF 12.76 300 Pn 53 52.70 -2.9X
Sn 56 10.80
LBF 12.79 302 Pn 53 53.60 -2.4
Sn 56 10.60
WLF 12.79 316 P 53 55.80 -0.1
LOR 12.97 303 Pn 53 56.40 -2.0
Sn 56 15.50
SSF 13.12 302 Pn 53 57.80 -2.5
Sn 56 18.00
AVF 13.13 301 Pn 53 58.50 -1.9
BGF 13.39 299 Pn 54 02.00 -1.9
Sn 56 25.00
MEM 13.44 319 iPc 54 06.20 1.7
MAF 13.48 297 Pn 54 04.00 -1.1
Sn 56 28.40
ENN 13.58 319 iPnd 54 07.80 1.4
0.5s 18.00nm 5.2mb
i 54 44.80
e 56 35.00
TCF 13.73 297 Pn 54 06.00 -2.5
Sn 56 35.40
DOU 13.87 315 P 54 09.80 -0.3
1.3s 92.80nm 5.4mb
WTS 14.00 325 ePn 54 15.00 3.2X
0.9s 28.00nm 5.0mb
e 54 35.00
e 57 08.00
SNF 14.26 316 P 54 21.40 6.1X
GLH 15.19 119 eP 54 25.00 -2.5
BURJ 15.57 120 Pd 54 31.80 -0.7
JARJ 15.68 120 Pd 54 32.90 -1.0
DSI 15.75 123 eP 54 33.00 -1.7
MBH 16.70 129 iPc 54 43.00 -3.9X
GUD 18.17 276 e(P) 55 08.40 3.1X
TOL 18.23 274 eP 55 09.00 3.0X
EBAN 18.46 268 e(P) 55 10.50 1.7
AFC 18.57 265 e(P) 55 13.00 2.8
UPP 18.70 356 iP 55 11.80 0.4
MSL 18.74 97 ePd 55 13.50 1.3
e 55 18.00
eS 58 53.00
e 01 36.00
HFS 19.31 351 eP 55 17.70 -1.1
0.8s 23.30nm 4.5mb
Z 14s 1.03um
LR 03 06.00
NUR 19.52 7 iP 55 19.30 -1.9
0.6s 19.60nm 4.6mb
Z 18s 1.20um 6.1Msz
i 55 26.90
LR 04 00.00
EHOR 19.67 268 e(P) 55 23.00 0.0
NRA0 20.19 348 P 55 27.20 -1.1
EJIF 20.29 265 e(P) 55 30.00 0.4
NAO 20.39 347 P 55 30.10 -0.3
0.6s 6.30nm 4.2mb
TAB 20.57 90 eP 55 30.00 -2.7
EKA 20.70 321 Pd 55 33.50 -0.1
1.1s 32.70nm 4.6mb
SLY 20.80 97 ePd 55 37.00 2.2
e 55 50.50
eS 59 32.00
eLR 04 32.00
ECP 20.95 310 eP 55 34.80 -1.4
1.2s 141.00nm 5.3mb
BHD 21.01 104 eP 55 37.00 0.1
e 59 38.00
ETA 21.05 312 eP 55 37.80 0.5
0.8s 119.00nm 5.4mb
ECB 21.26 311 eP 55 40.30 1.0
1.0s 89.00nm 5.1mb
IFR 21.27 257 iP 55 41.00 1.1
SUF 21.84 8 iP 55 44.10 -1.0
0.5s 18.40nm 4.8mb
KJF 23.45 9 iP 56 01.80 0.9
0.6s 37.80nm 5.1mb
SOD 26.45 6 iP 56 29.30 0.0
KEV 28.83 5 eP 56 50.00 -0.8
MAIO 31.08 86 eP 57 12.00 0.6
eS 02 15.00
BNG 36.66 182 iPc 58 00.10 0.6
0.6s 11.00nm 4.9mb
KIC 41.09 219 P 58 37.20 0.8
NDI 47.83 86 eP 59 29.00 -1.5
WMQ 48.75 63 eP 59 33.80 -3.7X
FRB 53.32 326 eP 00 12.00 0.3
GKN 53.76 83 P 00 13.50 -2.1
KKN 54.35 82 P 00 18.00 -2.1
0.5s 13.00nm 5.2mb
PKI 54.57 83 P 00 19.60 -2.2
GUN 54.74 82 P 00 20.50 -2.6
SCH 55.89 316 eP 00 31.00 0.4
GTA 58.84 63 eP 00 51.00 -0.9
MBC 59.95 350 eP 00 59.00 0.2
SHL 60.50 81 iP 01 03.30 -0.2
CD2 66.12 69 eP 01 42.00 1.7
XAN 67.89 64 P 01 52.00 0.5
BJI 69.06 55 eP 02 01.00 2.4
CHG 69.75 82 eP 02 02.80 -0.3
YKA 70.36 339 eP 02 07.10 1.0
GYA 70.79 71 P 02 11.40 1.9
CN2 72.15 47 eP 02 18.00 0.7
IMA 72.91 357 P 02 22.00 0.5
0.8s 3.02nm 4.4mb
FBA 73.76 355 P 02 24.00 -2.3
0.8s 2.59nm 4.3mb
SOB1 74.99 243 e(P) 02 39.00 4.9X
BGMT 83.77 328 eP 03 24.20 2.8
BAO 84.39 244 e(P) 03 23.00 -1.7
DZM 146.00 66 iPKPc 10 34.00 2.4
S.D. = 1.4 on 204 of 226 obs.

MAR 17, 1989 01h 53m 49.53± 0.59s
17.846 S ± 8.7km 178.773 W ± 7.3km
DEPTH = 569.6 ± 7.1 km
5.0mb (20 obs.)
FIJI ISLANDS REGION (181)
VUN 2.64 266 eP 55 05.00 0.4
eS 55 48.20
SGE 3.16 274 iPc 55 09.00 1.2
eS 56 41.10
AFI 7.79 61 iPd 55 41.90 -4.7X
DZM 14.52 251 iPd 56 53.80 0.2
KRP 20.62 193 P 57 51.60 0.2
MSZ 28.98 200 P 59 05.00 -0.5
COO 29.51 239 iPd 59 11.20 0.9
RMQ 31.21 248 iPd 59 24.70 0.0
0.6s 118.00nm 5.7mb
e 59 38.00
CTA 33.11 260 iPd 59 40.90 0.1
0.8s 52.24nm 5.2mb
e 59 48.00
CNB 33.19 232 iPc 59 42.30 1.0
CAN 33.47 232 iPd 59 43.60 0.0
BWA 33.57 234 eP 59 42.70 -1.8
PMG 34.11 280 iPd 59 50.50 1.4
0.9s 84.03nm 5.4mb
CMS 34.75 240 iPd 59 54.70 0.4
TOO 36.94 231 iPd 00 13.10 0.8
0.4s 147.00nm 6.0mb
TAU 38.05 222 iPd 00 21.60 0.4
STK 38.36 241 iPd 00 25.20 1.3
0.5s 100.00nm 5.7mb
OIS 39.32 259 iPd 00 31.20 -0.7
ADE 41.38 237 iPd 00 48.50 0.3
0.6s 116.00nm 5.6mb
WB5 44.28 260 eP 01 10.10 -1.0
WRA 44.30 260 Pd 01 09.80 -1.4
0.5s 26.00nm 5.0mb
ASPA 44.48 254 iPd 01 12.60 0.0
0.7s 766.00nm 6.3mb X
KNA 50.13 264 iPd 01 54.80 -0.5
0.4s 51.00nm 5.4mb
WARB 50.98 250 iPd 01 57.10 -4.3X
COOL 55.67 244 iPd 02 33.10 -1.6
0.5s 42.00nm 5.0mb
MBL 57.66 256 iPd 02 47.40 -0.9
0.3s 28.00nm 5.0mb
MEKA 58.20 249 eP 02 50.00 -2.0
KLB 58.54 244 iPd 02 52.80 -1.4
0.6s 40.00nm 4.9mb
NWAO 58.93 242 eP 02 56.00 -0.8
RKG 59.09 241 eP 02 57.00 -0.8
BAL 59.50 245 eP 02 59.00 -1.6
MUN 59.84 243 eP 03 02.00 -0.8
MRWA 60.21 246 eP 03 04.00 -1.3
NANU 61.41 254 iPd 03 13.00 -0.2
ADK 69.45 1 P 04 01.00 -1.4
0.8s 51.72nm 5.1mb
SPA 72.27 180 e(P) 04 19.00 0.0
1.0s 40.50nm 4.9mb
SYP 76.37 47 eP 04 42.00 -0.4
GCC 76.41 44 eP 04 42.20 -0.1
PCC 76.43 43 ePc 04 42.20 -0.2
PRS 76.43 44 ePc 04 42.70 0.3
SAO 76.62 44 eP 04 43.20 -0.3
BCH 76.66 46 P 04 45.80 1.9
BRK 76.72 43 e(P) 04 43.90 -0.1
PRI 76.79 45 ePc 04 44.90 0.3
MHC 76.82 43 eP 04 44.90 0.2
LLA 76.87 44 ePc 04 44.90 0.0
ARN 76.90 43 P 04 45.20 0.2
MWC 77.55 48 eP 04 48.00 -0.8
BAR 77.75 50 eP 04 49.00 -0.7
FRI 77.90 45 ePc 04 50.20 -0.1
RVR 77.92 48 eP 04 49.00 -1.5
PLM 77.96 49 eP 04 51.00 0.0
SBB 77.96 47 eP 04 50.00 -0.8
PEC 78.02 48 P 04 51.00 -0.1
ISA 78.02 46 eP 04 51.00 -0.1
CMB 78.03 43 ePc 04 50.80 -0.3
WDC 78.12 40 ePc 04 51.40 0.0
ORV 78.18 42 eP 04 51.30 -0.4
KDC 78.41 14 P 04 52.10 -0.4
1.0s 45.00nm 4.9mb

MIN	78.56	41	eP	04	53.50	-0.5
CLC	78.71	47	eP	04	54.00	-0.7
TPC	78.92	49	eP	04	55.00	-0.8
GLA	79.28	50	eP	04	57.00	-0.7
KVN	80.09	44	P	05	02.00	0.0
TNP	80.16	45	P	05	02.20	-0.2
BMW	81.24	35	P	05	07.70	0.1
SHW	81.62	36	P	05	10.40	0.8
GMW	82.13	35	P	05	12.00	0.0
LON	82.19	36	P	05	12.10	-0.2
TTA	82.47	10	P	05	13.30	-0.1
	1.0s	25.00nm			4.7mb	
RMW	82.61	35	P	05	14.10	-0.4
PMR	82.62	14	P	05	13.50	-0.6
SNG	83.32	280	eP	05	20.80	2.3
MAW	83.80	200	eP	05	20.00	0.0
DPW	84.84	36	P	05	25.10	-0.3
PNT	84.88	34	ePc	05	25.50	0.0
	0.7s	21.00nm			4.9mb	
IMA	85.77	10	P	05	29.20	-0.4
	0.8s	3.45nm			4.1mb	
FBA	85.82	13	P	05	29.00	-0.7
	0.8s	18.97nm			4.9mb	
ALQ	86.33	52	eP	05	33.00	-0.1
	1.0s	5.00nm			4.2mb	
		epP		07	37.00	571kmX
BGMT	87.12	41	ePc	05	36.80	0.2
LRM	87.15	40	eP	05	36.50	-0.3
CHG	88.65	290	eP	05	45.40	1.4
GLD	89.20	48	P	05	47.00	0.7
	1.0s	22.00nm			5.0mb	
RSSD	91.76	44	P	05	57.50	-0.5
YKA	94.42	25	eP	06	09.00	-0.5
BUL	133.66	217	iPKPd	12	04.30	0.1
	0.8s	3.73nm				
LSZ	137.70	221	iPKP	12	13.50	1.6
KMZ	140.54	220	iPKP	12	11.50	-5.6X
		i		12	20.10	
WIT	144.85	354	ePKP	12	24.50	1.4
KSP	144.95	343	iPKPc	12	24.40	1.0
CLL	145.32	347	iPKPc	12	25.00	1.0
	0.7s	17.00nm				
BRG	145.52	346	iPKP	12	25.90	1.5
	1.1s	18.00nm				
WTS	145.64	354	ePKP	12	25.00	0.5
	0.8s	16.00nm				
PRU	146.19	345	PKPc	12	27.60	2.1
		e		12	30.00	
LWI	146.29	236	iPKPd	12	29.70	2.7
ENN	146.94	355	ePKP	12	29.50	2.9
	0.6s	12.00nm				
MEM	147.09	354	PKP	12	29.80	3.0X
KHC	147.23	345	PKPd	12	31.10	3.9X
DOU	147.71	356	PKPd	12	31.70	3.8X
CDF	149.12	352	ePKP	12	35.30	5.0X
	0.6s	4.30nm				
FLN	149.13	2	ePKP	12	34.70	4.6X
	1.2s	59.50nm				
LDF	149.31	2	ePKP	12	34.90	4.5X
	0.6s	9.00nm				
GRR	149.49	3	ePKP	12	35.80	5.1X
	0.4s	4.50nm				
HAU	149.63	353	ePKP	12	36.20	5.2X
	0.5s	2.90nm				
LPF	149.84	3	ePKP	12	36.70	5.5X
	0.4s	4.50nm				
LOR	150.58	356	ePKP	12	38.60	6.2X
	0.5s	6.50nm				
SSF	150.80	357	ePKP	12	39.30	6.6X
	0.4s	4.50nm				
LBF	150.85	356	ePKP	12	39.20	6.3X
	0.6s	2.70nm				
BGF	151.34	358	ePKP	12	40.20	6.7X
	0.7s	7.70nm				

S.D. = 1.0 on 93 of 109 obs.

MAR 17, 1989 02h 21m 55.15± 0.11s
27.141 N ± 2.3km 127.406 E ± 2.2km
DEPTH = 87.2km (geophysicist)
5.8mb (84 obs.)
RYUKYU ISLANDS (238)
Felt (III JMA) at Nago and Noha; (II JMA) at Naze and on Kume-shima. Depth from broadbond displacement seismograms.
FAULT PLANE SOLUTION: P-Waves
NP1:Strike=238 Dip=85 Slip= 110
NP2: 341 21 14
Principal Axes:
T Plg=46 Azm=169
P 37 310
Comment: The focal mechanism is poorly controlled and correspands to reverse faulting with a moderate strike-slip component. The preferred fault plane is not determined.
RADIATED ENERGY
No. of sto: 5 Focal mech. F
Energy 4.6±0.7*10**12 Nm
MOMENT TENSOR SOLUTION
Dep 96 No. of sta: 8
Moment Tensor; Scale 10**17 Nm
Mrr= 0.38 Mtt= 0.30
Mff=-0.68 Mrt=-4.08
Mrf=-1.84 Mtf=-0.87
Principal axes:
T Val= 4.52 Plg=47 Azm=168
N 0.14 12 65
P -4.66 41 325
Best Double Couple:Mo=4.6*10**17
NP1:Strike=349 Dip=12 Slip= 14
NP2: 246 87 102
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 13S, 32C
Centroid Location:
Origin Time 02:21:59.3 0.3
Lat 26.82N 0.03 Lan 127.08E 0.06
Dep 102.8 3.1 Half-durotion 2.7
Moment Tensor; Scale 10**17 Nm
Mrr= 0.54 0.15 Mtt= 0.42 0.23
Mff=-0.96 0.29 Mrt=-3.57 0.12
Mrf=-1.87 0.12 Mtf=-1.24 0.20
Principal Axes:
T Val= 4.10 Plg=47 Azm=171
N 0.37 17 62
P -4.47 38 318
Best Double Couple:Mo=4.3*10**17
NP1:Strike=348 Dip=18 Slip= 16
NP2: 243 85 107

NGO	0.74	137	iPd	22	13.90	1.9
			iS	22	25.40	
NAH	0.95	165	iPd	22	16.70	2.4
			iS	22	31.00	
KMJ	0.96	214	iPd	22	17.00	2.5
			iS	22	31.00	
NZJ	2.23	56	iP+	22	32.10	1.3
			iS	22	37.40	
KAGJ	5.05	36	P	23	10.20	0.2
			eS	24	08.30	
TWC	5.60	245	ePc	23	19.40	1.8
			eS	23	34.80	
ANP	5.64	251	eP	23	21.80	3.6X
KUMJ	6.14	28	P	23	26.60	1.5
			S	24	36.90	
SSE	6.72	307	iP-	23	35.00	2.0
	4.0s	4.50nm			3.3mb	X
Z	10s	7.30um				
			pP	23	42.00	
			sP	23	47.00	
			S	24	48.00	
TWK	7.36	240	ePc	23	41.20	-0.7
SHNJ	7.66	24	P	23	47.20	1.3
OZH	8.22	257	Pc	23	55.50	1.8
E	10s	3.70um				
			S	25	24.50	
SHK	8.65	30	eP	23	58.00	-1.5
TKSJ	8.90	38	P	24	00.40	-2.6
			S	25	34.70	
NJ2	8.91	305	Pd	24	05.20	2.2
	5.0s	3.10nm			3.4mb	X
			S	25	48.00	
YONJ	9.55	31	P	24	08.60	-3.2X
			S	25	49.40	
WKYJ	9.97	43	P	24	15.90	-1.6
			S	25	59.30	
TSRJ	11.12	39	P	24	31.10	-1.8
WHN	11.94	290	iPd	24	45.60	1.9
			S	26	52.00	
BAG	12.41	212	eP+	24	49.00	-1.2
			eS	27	07.60	

TIA	12.58	318	Pd	24	55.00	2.8
	6.0s	2.50nm			3.1mb	X
Z	12s	4.20um				
			sP	25	20.00	
DL2	12.69	339	iPd	24	56.00	2.4
Z	38s	8.30um				
			S	27	19.00	
CHJJ	13.27	45	P	24	59.30	-2.0
GZH	13.36	255	eP	25	01.00	-1.4
			S	27	34.00	
QCP	13.77	207	eP	25	04.50	-3.3X
NIIJ	14.05	41	P	25	10.70	-0.7
KAKJ	14.12	47	P	25	14.30	2.0
SNY	14.98	349	iPd	25	26.00	2.6
			sP	25	50.00	
			iS	28	12.00	
YAMJ	15.29	41	P	25	28.00	0.8
BJI	15.89	327	ePd	25	37.97	3.2X
	8.0s	4.00nm			2.7mb	X
			eS	28	54.38	
			eSS	29	06.00	
			eScP	33	52.50	
TIY	16.44	314	iPd	25	45.00	3.2X
	6.0s	5.50nm			2.9mb	X
E	10s	3.50um				
			pP	25	54.00	
OFUJ	16.84	41	P	25	44.50	-2.2
AOMJ	17.15	35	eP	25	52.30	1.7
XAN	17.33	298	iPd	25	52.40	-0.4
	5.0s	5.00nm			3.0mb	X
			sP	26	18.00	
			S	29	10.00	
MDJ	17.53	5	Pd	25	54.00	-1.2
Z	10s	2.90um				
E	11s	1.90um				
			PP	26	15.00	
			esP	26	24.00	
			S	29	10.00	
QIZ	18.05	247	P	26	02.60	0.9
Z	10s	1.60um				
N	10s	1.00um				
E	10s	1.30um				
			PP	26	22.00	
			S	29	22.00	
			sS	29	41.00	
GYA	18.53	273	P	26	07.80	0.2
			S	29	34.00	
			sS	29	56.00	
MRRJ	18.89	33	eP	26	09.40	-2.0
HHC	18.92	320	iPd	26	12.80	1.0
Z	12s	33.30um				
			PP	26	38.00	
			S	29	44.00	
BTO	19.67	317	iPd	26	21.00	1.3
	5.0s	2.20nm			2.7mb	X
N	10s	2.00um				
E	13s	2.30um				
			PP	26	40.50	
			SS	30	32.00	
HOOJ	19.98	36	eP	26	21.90	-0.9
			eS	30	12.70	
DAV	20.02	185	eP	26	22.80	-0.7
ASAJ	20.93	32	eP	26	28.90	-3.6X
CD2	21.01	286	P	26	32.00	-1.5
			pP	26	55.50	119kmX
			S	30	20.00	
			sS	30	56.00	
PJG	21.17	126	eP	26	35.30	0.2
GUMO	21.17	126	eP+	26	35.40	0.3
	1.1s	1441.70nm			6.2mb	
GUA	21.24	126	ePc+	26	36.10	0.3
	1.0s	2208.00nm			6.5mb	
KUSJ	21.24	37	P	26	38.00	2.4
LZH	21.92	300	ePd	26	43.31	0.7
	2.0s	2103.00nm			6.2mb	
			e	30	40.02	
KMI	22.23	270	ePd	26	47.15	1.3
			e	30	38.91	
HIA	22.87	347	ePd	26	49.76	-1.9
			e	30	55.58	
			eS	30	59.68	
TSM	24.47	203	ePd	27	08.10	0.7
	1.0s	1144.20nm			6.3mb	
GTA	26.00	305	iPd	27	21.00	-0.7
	0.8s	0.20nm			2.7mb	X
PCT	27.20	248	eP	27	33.00	0.4
CHG	27.44	258	ePd	27	34.90	0.1

17d 02h

	1.0s	89.50nm			5.3mb
			e	28 47.00	
			eS	32 08.00	
			e	34 23.70	
NST	27.77	251	iPd	27 40.00	2.2
BDT	28.02	255	eP	27 41.00	1.0
	0.5s	35.80nm			5.3mb
KHT	29.50	251	iPd	27 55.00	1.6
NNT	29.69	246	iPd	27 56.70	1.7
AAI	30.66	178	eP	28 03.00	-0.5
SHL	31.81	275	iP	28 12.90	-0.9
			iS	33 12.50	
LSA	31.91	283	P	28 14.60	-0.4
			S	33 10.00	
SNG	32.26	237	eP	28 18.90	1.4
			eS	33 26.00	
MKS	33.07	195	iPd	28 23.50	-1.1
IPM	33.72	233	ePc	28 31.20	1.0
	1.0s	282.50nm			6.1mb
			e	28 49.00	
KGM	34.01	227	ePd	28 34.00	1.2
WMQ	35.97	308	ePd	28 48.66	-0.6
Z	20s	2.50um			5.0Msz
			epPd	29 09.52	87kmX
			esPc	29 17.96	
			eS	34 17.59	
GUN	36.71	281	P	28 55.90	-0.1
PKI	37.17	281	P	28 59.20	-0.7
KKN	37.25	281	P	29 00.00	-0.4
DMN	37.43	281	P	29 01.50	-0.4
GKN	37.78	281	P	29 04.30	-0.4
RAB	39.28	139	iPc	29 18.00	0.9
	1.0s	2680.00nm			7.1mb X
PMG	41.07	150	iPc	29 31.50	-0.3
	1.1s	177.22nm			5.8mb
BGA	42.63	137	eP	29 48.00	3.2X
KNA	42.65	178	iPc	29 44.30	-0.4
	0.7s	469.00nm			6.4mb
PAA	42.94	137	eP	29 48.00	0.8
SMY	42.96	41	eP	29 47.70	0.9
NDI	44.11	284	iPc	29 56.00	-0.6
	0.9s	260.50nm			6.1mb
KSH	44.16	300	P	29 57.00	0.0
	5.0s	0.90nm			2.9mb X
			pP	30 21.50	105kmX
			PP	31 44.00	
			S	36 26.00	
			sS	37 01.50	
HYB	45.99	268	ePd	30 11.50	-0.1
	1.0s	75.00nm			5.5mb
			eS	36 48.00	
WB5	47.23	171	iPc	30 20.80	-0.4
			i	30 41.80	
WRA	47.28	171	Pd	30 21.10	-0.6
	0.8s	236.60nm			6.1mb
HNR	48.14	135	eP	30 26.00	-2.4
ADK	48.27	43	eP	30 27.80	-1.2
	0.7s	40.00nm			5.4mb
GBA	48.44	264	Pc	30 31.20	0.4
	0.9s	101.50nm			5.7mb
MBL	48.57	189	iPc	30 30.70	-0.9
	0.8s	77.00nm			5.7mb
QIS	48.87	165	iPc	30 33.00	-0.9
	1.0s	410.00nm			6.4mb
POO	49.79	272	iPc	30 40.70	-0.5
	1.0s	46.00nm			5.5mb
			iS	37 39.50	
CTA	50.38	157	iPc	30 45.20	-0.3
	1.2s	235.94nm			6.1mb
			ipP	31 07.70	93kmX
			i(sP)	31 16.50	
			iPcP	32 03.00	
			e	34 27.00	
			eS	37 56.00	
			e(PS)	38 31.00	
CTAO	50.38	157	ePc	30 45.08	-0.4
			epPc	31 07.59	93kmX
			esPd	31 15.37	
BOM	50.59	273	eP	30 46.50	-0.7
			eS	37 52.50	
NANU	50.73	194	eP	30 47.30	-0.8
ASPA	50.90	172	iPc	30 48.00	-1.4
	1.0s	331.00nm			6.3mb
QUE	52.59	289	iPd-	31 01.90	-0.5
			eS	38 23.80	
WARB	53.02	181	iPc	30 51.90	-13.3X
	0.5s	63.00nm			

MEKA	54.12	190	iPc	31 12.60	-0.7
	0.8s	272.00nm			6.3mb
MRWA	57.09	192	iPd	31 34.40	-0.3
RMQ	57.14	157	iPc	31 33.70	-1.4
	1.0s	127.00nm			6.0mb
MAIO	57.44	297	iPd-	31 37.50	0.3
	1.2s	42.36nm			5.4mb
			eS	39 32.40	
COOL	58.01	186	iPc	31 38.60	-2.4
	0.8s	209.00nm			6.3mb
SDN	58.07	40	eP	31 39.00	-2.2
BAL	58.32	191	iPc	31 42.20	-1.1
	0.8s	139.00nm			6.1mb
KLB	59.12	190	iPc	31 47.80	-1.0
	0.9s	140.00nm			6.1mb
MUN	59.75	191	eP	31 52.00	-1.1
BRW	60.02	21	eP	31 53.70	-0.8
TTA	60.13	31	ePd	31 55.20	-0.3
STK	60.23	166	iPc	31 55.20	-1.1
	0.9s	119.00nm			6.0mb
NWAO	60.51	190	iPc	31 57.71	-0.5
	0.9s	150.00nm			6.1mb
			esPd	32 28.83	
CMS	60.89	162	eP	32 00.00	-0.9
IMA	61.04	27	iPd	32 01.30	-0.4
	1.0s	150.00nm			6.0mb
RKG	61.67	190	iPc	32 09.30	3.2X
DZM	61.80	138	iPc	32 06.40	-0.9
COO	61.98	156	eP	32 08.00	-0.3
KDC	62.28	37	eP	32 09.20	-0.7
ADE	62.69	170	iPc	32 12.20	-0.7
	0.8s	208.96nm			6.2mb
PMR	63.45	32	ePd	32 16.50	-1.1
	1.0s	125.00nm			5.8mb
COL	63.59	28	ePd	32 17.37	-1.1
			eS	40 46.27	
			esS	41 23.52	
FBA	63.59	28	iPd	32 17.80	-0.7
IR2	64.36	299	iP-	32 23.90	-0.2
BWA	64.38	161	iP	32 24.60	0.6
IR4	64.48	298	iP-	32 24.90	0.0
IR7	64.58	299	iP-	32 25.50	0.0
IR1	64.60	298	iP-	32 25.70	0.1
IR5	64.74	298	iP	32 26.30	-0.3
TOA	64.75	31	ePd	32 26.30	0.2
MID	65.18	34	eP	32 29.00	0.2
CAN	65.39	161	iPc	32 30.80	0.3
CNB	65.49	160	iPd	32 31.30	0.1
			ipP	32 56.90	102kmX
TOO	66.57	164	iPc	32 38.00	0.0
	0.9s	107.00nm			5.8mb
VUN	66.82	126	eP	32 39.10	-0.8
TAB	67.19	302	eP	32 40.00	-2.2
BRF	67.60	289	eP	32 43.40	-1.3
BJA	67.61	289	eP	32 43.30	-1.5
BEE	67.67	289	eP	32 44.10	-1.1
	0.6s	177.00nm			6.2mb
DHR	67.90	289	iPd	32 45.80	-0.8
KEV	68.32	338	iP	32 47.80	-0.8
	1.0s	72.00nm			5.5mb
MBC	69.12	14	eP	32 52.00	-1.4
	0.4s	97.00nm			6.0mb
SOD	69.27	336	iP	32 52.70	-1.7
KJF	69.98	333	iP	32 56.80	-2.0
	0.9s	74.30nm			5.6mb
MSL	70.13	301	iPc	32 59.50	-0.7
			e	33 31.00	
BHD	70.21	298	iPd	33 01.00	0.3
			iS	42 03.00	
			iScS	42 52.00	
ALE	70.46	1	eP	33 01.00	-0.5
	0.9s	20.00nm			5.0mb
SUF	71.18	331	iP	33 03.90	-2.2
SIT	71.43	35	eP	33 08.30	0.7
RYD	71.44	289	iPd	33 08.50	0.2
TAU	72.08	165	iPc	33 12.00	0.5
NUR	72.73	330	iP	33 13.50	-1.7
Z	18s	1.50um			5.3Msz
			LR	09 10.00	
KVT	73.68	308	iP	33 21.20	0.0
DAG	74.27	352	iPd	33 22.50	-1.5
	0.9s	121.85nm			5.8mb
KMSA	74.92	285	ePd	33 15.30	-13.4X
UPP	76.14	331	iP	33 31.90	-2.9
ANTO	76.43	308	ePd	33 36.56	-0.5
BBTK	76.47	308	iP-	33 37.00	-0.3
IAS	76.82	316	eP	33 47.00	8.1X

BIR	77.19	315	ePc	33 42.00	1.1
JARJ	77.19	300	Pc	33 41.30	-0.1
PPE	77.21	315	eP	33 40.50	-0.6
GLH	77.22	300	iPd	33 42.30	0.9
CLI	77.28	316	ePc	33 41.50	0.0
CFR	77.32	314	ePc	33 41.50	-0.2
BURJ	77.35	300	Pd	33 42.30	0.1
FAM	77.55	303	eP	33 43.00	-0.2
MASJ	77.58	299	Pc	33 43.50	0.0
TLB	77.66	314	ePc	33 43.50	0.0
HFS	77.67	332	eP	33 41.70	-1.6
	0.9s	74.70nm			5.6mb
Z	17s	0.81um			5.1MszX
			LR	08 14.00	
LFK	77.78	303	iP	33 44.30	-0.2
DSI	77.91	299	iPc	33 45.50	0.3
VRI	77.92	315	ePd	33 45.50	0.5
GPA	77.99	309	iP	33 44.40	-1.2
YKA	78.01	25	eP	33 46.10	0.9
CSS	78.06	303	eP	33 46.00	0.0
YKC	78.07	25	ePd	33 45.60	0.1
	1.0s	150.00nm			5.8mb
HRT	78.21	310	eP	33 47.00	0.3
ISR	78.36	315	ePd	33 48.00	0.5
NAO	78.45	333	P	33 45.40	-2.2
	0.9s	63.00nm			5.5mb
ISK	78.51	310	eP	33 48.00	-0.3
YLV	78.52	310	iP	33 47.10	-1.4
MLR	78.58	315	ePd	33 48.50	-0.3
ALT	78.66	308	iP	33 48.10	-1.2
PPCY	78.83	303	eP	33 50.00	-0.2
KRP	78.89	143	P	33 50.00	-0.3
CTT	78.91	311	eP	33 51.00	0.5
BCK	79.01	306	iP	33 48.80	-2.5
MBH	79.05	298	iPd	33 52.00	0.6
DMK	79.06	311	eP	33 50.70	-0.6
SRFA	79.16	297	ePd	33 52.30	0.3
KHL	79.39	308	iP	33 52.00	-1.3
DST	79.45	309	iP	33 53.30	-0.3
BADA	79.48	297	iPd	33 54.10	0.3
JMB	79.55	312	iPd	33 54.00	0.1
BNT	79.61	310	iP	33 54.60	0.3
EDC	79.65	310	iP	33 53.60	-0.9
ELL	79.81	306	iP	33 55.00	-0.6
KRA	79.95	321	iPc	33 56.20	0.3
	0.8s	71.00nm			5.6mb
			i	33 58.70	
PVL	80.02	313	iPc	33 57.00	0.6
SPC	80.22	320	iP	33 57.90	0.3
KSL	80.32	306	eP	33 56.90	-1.3
DIM	80.43	312	iPc	33 59.00	0.4
MSZ	80.47	152	P	33 59.50	0.9
	1.0s	96.00nm			5.6mb
KDZ	80.70	312	iPc	34 00.00	-0.1
YER	80.80	307	iP	34 00.70	-0.1
RDO	80.85	312	eP	34 01.00	0.2
EZN	80.94	310	iP	34 00.60	-0.7
IZM	80.95	308	iP	34 00.90	-0.6
PLD	80.95	313	eP	34 02.00	0.6
PGB	81.09	313	iP	34 02.00	-0.2
RZN	81.14	312	iPd	34 03.00	0.4
BZS	81.20	317	eP	34 02.50	-0.1
PRK	81.24	310	eP	34 03.00	0.1
KSP	81.52	323	eP	34 04.00	-0.2
			ic	34 05.20	
VTS	81.69	314	iPd	34 06.00	0.6
MMB	81.84	313	iPc	34 06.00	-0.1
SRO	82.03	320	iP	34 07.60	0.8
			i	35 45.90	
KKB	82.12	313	iPd	34 08.00	0.5
KAP	82.32	306	eP	34 08.30	-0.4
ZST	82.51	321	eP	34 10.00	0.6
			e	37 17.60	
GMW	82.58	40	P	34 11.00	1.2
PLG	82.62	312	eP	34 09.30	-0.8
VAY	82.73	313	iPd	34 10.40	-0.2
	1.0s	0.14nm			2.8mb X
BRG	82.75	324	iPc	34 11.00	0.5
	1.0s	95.00nm			5.7mb
			e	34 33.00	
			e	34 57.00	
			eS	44 22.00	
VKA	82.91	321	iPc	34 12.70	1.2
	1.1s	287.00nm			6.1mb
PRU	82.93	323	P	34 12.30	0.8
	1.0s	73.80nm			5.6mb
Z	16s	1.00um			5.3MszX

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      N  16s      0.80um
      E  16s      0.90um
                   e      34 23.50
CLL     82.98 325 iPd    34 12.40    0.7
        1.1s    135.00nm          5.8mb
                   iS     44 21.60
SKO     83.14 314 iPd    34 13.00    0.3
        1.1s    210.00nm          6.0mb
                   i      34 16.50
AKSR    83.20 293 iPd    34 15.50    2.2
AKUR    83.29 293 iPd    34 15.50    1.8
NEO     83.29 311 eP     34 13.00   -0.6
PNT     83.37  37 eP     34 14.00    0.2
        1.0s     67.00nm          5.5mb
AKRL    83.44 293 iPd    34 16.50    1.9
LON     83.57  40 P      34 16.00    1.1
NPS     83.58 306 eP     34 14.70   -0.5
ATH     83.61 309 eP     34 14.30   -0.9
KKS     83.74 314 iP     34 16.50    0.8
GDH     83.89   0 iPc    34 15.90    0.0
        1.0s    170.00nm          6.0mb
KHC     83.93 323 iPc    34 17.80    1.1
        1.1s     96.00nm          5.7mb
OHR     83.99 313 iP     34 16.50   -0.6
        1.2s      0.23nm          3.0mb X
                   eS     44 26.00
MOX     84.08 325 iPc-   34 18.00    0.6
        1.2s    154.00nm          5.9mb
      Z  18s      1.30um          5.4Msz
      N  18s      0.80um
      E  16s      0.70um
                   e      34 32.00
                   e      37 55.00
                   eS     44 32.00
                   eSPP   45 50.00
                   eLR    02 00.00
                   LQ     11 00.00
                   LR     17 00.00
EDM     84.22  32 iPc    34 18.60    0.6
KMR     84.25 322 iP-    34 18.60    0.4
                   i      35 13.40
SDA     84.35 315 iPc    34 19.10    0.3
LACI    84.42 314 iPd    34 19.00   -0.1
PTJ     84.42 319 eP     34 19.50    0.3
TIR     84.47 314 iPc    34 20.00    0.6
VAM     84.53 307 eP     34 19.70   -0.1
LSK     84.61 313 iPc    34 20.30    0.0
AAE     84.74 277 eP     34 24.00    2.4
BERA    84.75 313 eP     34 20.30   -0.5
VGB     84.85  41 P      34 22.70    1.4
DPW     84.97  38 P      34 23.00    1.1
VBY     85.05 319 ePd    34 22.90    0.6
LJU     85.16 320 ePd    34 22.50   -0.3
VLO     85.17 313 iP     34 23.20    0.3
WIT     85.17 328 iPc    34 24.70    2.0
ITM     85.23 309 eP     34 22.40   -1.0
KBA     85.24 321 iPd    34 23.40   -0.1
        0.9s     96.20nm          5.8mb
                   i      34 58.70
                   e      36 20.50
                   e(PP)  37 45.00
CEY     85.40 320 ePd    34 24.00   -0.1
FHC     85.44  46 ePc    34 26.00    1.6
RBL     85.49 321 P      34 24.20   -0.3
VOY     85.54 320 iPd    34 24.20   -0.6
WTS     85.63 328 iPc    34 25.60    0.6
        1.1s     83.00nm          5.7mb
                   e      34 45.00
VLS     85.64 311 eP     34 24.80   -0.6
TRI     85.80 320 iPc    34 25.90   -0.1
FVI     85.84 321 Pc     34 25.70   -0.4
LBFM    86.48  45 P      34 31.00    1.3
WDC     86.49  46 ePc    34 30.40    0.9
                   e      34 56.20
                   e      35 12.20
CTI     86.80 321 Pc     34 30.80   -0.2
ENN     86.85 327 iPc    34 31.50    0.5
        0.9s     59.00nm          5.7mb
                   e      34 50.00
MEM     86.91 327 Pc     34 31.40    0.1
SES     87.12  33 ePc    34 33.20    0.7
        1.0s    106.00nm          5.9mb
                   pP     34 56.00   84kmX
AOI     87.13 318 eP     34 33.01    0.4
GWF     87.15 325 P      34 32.62    0.0
MIN     87.21  46 e(P)   34 33.60    0.4
STR     87.33 325 P      34 32.67   -0.7
WLF     87.45 326 Pc     34 34.60    0.7
UCC     87.58 328 Pc     34 34.80    0.3
RSM     87.59 319 Pc     34 36.20    1.5
ALP     87.59 318 eP     34 35.37    0.4
CIO     87.61 318 eP     34 35.47    0.5
EKA     87.64 334 Pd     34 34.10   -0.6
        0.9s     46.60nm          5.6mb
TDS     87.64 314 Pc     34 35.90    0.8
FEL     87.65 324 P      34 34.50   -0.6
CDF     87.69 325 P      34 34.69   -0.6
SAL     87.69 321 P      34 35.70    0.6
ORV     87.72  46 ePc    34 35.90    0.4
SNF     87.80 328 P      34 35.80    0.2
DOU     87.93 327 Pc     34 36.30    0.1
        0.9s    205.00nm          6.2mb
AQU     87.94 317 P      34 38.40    1.8
ASS     87.97 318 Pc     34 37.50    0.8
PGD     88.05 319 P      34 38.80    1.6
SDI     88.07 317 Pc     34 36.90   -0.3
FFC     88.10  26 iPd    34 37.30    0.3
        0.9s    161.00nm          6.1mb
MOF     88.12 324 P      34 36.53   -0.8
AZI     88.14 317 P      34 38.50    1.1
BRK     88.15  48 ePc    34 38.40    0.9
BBS     88.17 324 P      34 37.12   -0.4
PCC     88.27  48 ePc    34 38.50    0.4
BSF     88.31 325 P      34 36.57   -1.7
FIR     88.38 319 iPc    34 39.50    1.0
HAU     88.43 325 eP     34 38.10   -0.6
        1.0s     72.00nm          5.8mb
MME     88.45 320 P      34 40.40    1.2
VITF    88.48 325 P      34 37.89   -1.0
VAI     88.50 322 Pc     34 38.50   -0.5
FRB     88.55   7 ePd    34 38.10   -0.8
        0.9s    145.00nm          6.1mb
BOB     88.81 321 Pc     34 41.20    0.5
PII     88.83 320 Pc     34 40.40   -0.3
MHC     88.85  48 ePc    34 42.30    1.2
ATN     89.04 313 P      34 40.80   -1.0
ORX     89.08 322 P      34 40.98   -1.0
CMB     89.29  47 ePc    34 43.80    0.7
                   e      35 09.70
                   e      35 25.70
LRM     89.35  37 ePc    34 44.50    1.0
PRS     89.59  49 ePc    34 45.30    0.9
LSD     89.64 323 P      34 45.08    0.3
MNO     89.67 313 P      34 45.20    0.1
LLA     89.72  48 ePc    34 45.80    0.7
RSP     89.78 322 P      34 44.57   -0.7
LPG     89.83 323 eP     34 45.60   -0.2
FIN     89.85 321 P      34 44.06   -1.5
BGMT    89.94  37 eP     34 47.30    1.1
ROB     89.98 321 P      34 44.98   -1.2
MEU     89.99 312 P      34 47.00    0.6
DMU     90.15 335 eP     34 46.00   -0.7
BNI     90.16 322 Pc     34 46.80   -0.3
PRI     90.17  49 ePc    34 48.40    1.1
KVN     90.17  45 P      34 48.30    1.0
LOR     90.18 325 eP     34 46.00   -1.0
        0.8s     18.80nm          5.3mb
RRL     90.18 322 P      34 46.83   -0.5
IMI     90.21 321 P      34 45.60   -1.7
PZZ     90.27 322 P      34 45.49   -2.1
LBF     90.31 325 eP     34 46.60   -1.0
        1.0s     30.00nm          5.5mb
STV     90.32 322 P      34 45.80   -2.0
FRI     90.32  48 ePc    34 48.30    0.5
                   e      35 13.90
HPI     90.33  39 P      34 50.00    1.9
SAOF    90.35 321 P      34 47.13   -0.7
AUTN    90.42 321 P      34 47.35   -1.1
DLE     90.49 334 eP     34 48.30    0.1
CVF     90.50 320 P      34 48.34   -0.2
SSF     90.50 325 eP     34 47.90   -0.5
        1.0s     22.80nm          5.4mb
SBF     90.50 321 eP     34 48.10   -0.5
        0.8s     64.40nm          5.9mb
TOUF    90.51 321 P      34 47.69   -1.1
PHAM    90.52  49 P      34 50.00    1.2
AURF    90.54 321 P      34 48.04   -0.8
SMF     90.61 325 eP     34 48.00   -0.9
        1.2s     50.50nm          5.6mb
MVIF    90.63 321 P      34 48.26   -1.0
DCN     90.72 335 eP     34 48.30   -1.0
AVF     90.76 325 eP     34 48.80   -0.8
        1.0s     34.00nm          5.6mb
FRF     91.13 321 eP     34 50.90   -0.5
        0.8s     42.90nm          5.8mb
BGF     91.17 325 eP     34 51.20   -0.3
        1.0s     18.00nm          5.3mb
LDF     91.21 328 eP     34 51.00   -0.6
        1.0s     84.00nm          6.0mb
EUR     91.24  44 iP     34 52.80    0.5
        1.3s     27.38nm          5.4mb
FLN     91.26 329 eP     34 51.30   -0.5
        1.0s     56.00nm          5.8mb
TNP     91.30  45 P      34 53.60    1.0
LMR     91.35 321 eP     34 52.10   -0.3
        1.0s     81.60nm          6.0mb
LRG     91.36 321 eP     34 51.40   -1.0
        1.0s     88.00nm          6.0mb
MAF     91.54 325 eP     34 52.80   -0.5
        1.0s     16.80nm          5.3mb
SYP     91.54  50 eP     34 55.00    1.4
TCF     91.68 325 eP     34 53.50   -0.4
        1.0s     20.00nm          5.4mb
GRR     91.70 328 eP     34 53.60   -0.3
        0.8s     38.60nm          5.8mb
ISA     91.90  48 eP     34 55.00   -0.2
LSF     92.05 326 eP     34 54.50   -1.1
        1.2s     39.80nm          5.7mb
CLC     92.39  47 eP     34 58.00    0.6
MFF     92.63 327 eP     34 57.90   -0.3
        1.0s     36.00nm          5.7mb
CAF     92.69 325 eP     34 58.80    0.2
        0.9s     33.40nm          5.7mb
RJF     92.71 325 eP     34 58.60    0.0
        1.0s     48.00nm          5.8mb
DUG     92.71  42 P      35 01.00    2.0
        1.0s     15.00nm          5.3mb
SBB     92.90  49 eP     35 01.00    1.2
BW06    92.90  38 P      35 00.00    0.1
                   pP     35 24.00   88kmX
MWC     93.02  49 eP     35 01.00    0.5
GSC     93.22  48 eP     35 03.00    1.7
                   e      35 28.00
LPO     93.30 325 eP     35 01.10   -0.3
        0.8s     11.80nm          5.3mb
LFF     93.35 325 eP     35 01.60    0.0
RVR     93.61  49 eP     35 02.00   -1.0
PEC     93.81  49 P      35 05.00    1.0
PLM     94.33  49 eP     35 07.00    0.4
TPC     94.43  48 eP     35 07.00    0.2
BAR     94.86  50 eP     35 09.00    0.2
RSSD    94.89  34 P      35 10.20    1.2
                   pP     35 34.00   87kmX
GLA     95.88  48 eP     35 15.00    1.5
SCH     97.47   8 eP     35 20.00   -0.3
TOL     99.45 324 iPc    35 31.00    1.5
        1.0s    140.00nm          6.5mb
ALQ     99.96  42 eP     35 33.80    1.6
        1.0s      2.50nm          4.8mb
LSZ    104.87 260 iPdiff 35 55.00    0.8
SPA    116.98 180 e(PKP) 40 28.90   -1.8
        1.0s     15.50nm
                   e      41 05.20
KOGH   119.57 295 ePKP   40 37.00   -0.1
KUK    119.61 295 ePKP   40 38.00    0.9
KIC    122.98 299 PKP    40 43.26   -0.3
        0.5s      5.50nm
TIC    123.03 299 PKP    40 43.22   -0.4
        0.5s      5.50nm
LIC    123.29 299 PKP    40 43.72   -0.4
        0.6s      5.00nm
ATB    156.28 359 e(PKP) 41 43.10    1.7
ITR    157.33 321 ePKP   41 43.70    1.0
                   i      42 13.60
SOB1   159.01 326 ePKP   41 45.00    0.4
                   e      42 20.60
ZOBO   161.99  56 PKP    41 49.80    1.5
LPB    162.17  57 PKP    41 51.00    2.7
                   eLR    42 00.00
                   pPKP   42 37.00
CNCB   162.43  57 PKPc   41 50.00    1.3
CCH    164.15  55 ePKP   41 54.00    3.9X
                   i      42 46.10
BAO    167.78 339 ePKP   41 54.00    1.2
     S.D. = 1.0  on 384 of 396 obs.
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% MAR 17, 1989  02h 52m 37.14± 2.20s
   41.211 N ±18.3km   20.027 E ±10.7km
   DEPTH = 10.0km  (geophysicist)
 ALBANIA                          (391)
      ML 2.0 (SKO).
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17d 02h

TIR	0.18	318	iPgd	52 40.80	-0.4
LACI	0.49	331	ePg	52 46.00	-1.0
PHP	0.57	33	ePg	52 47.20	-1.5
OHR	0.59	99	ePg	52 48.70	-0.4
			eSg	52 58.00	
PUK	0.84	353	ePg	52 54.00	0.7
SDA	0.90	334	ePg	52 55.20	0.9
SKO	1.30	54	iPg	53 02.50	1.2
			iSg	53 18.50	

S.D. = 1.3 on 7 of 7 obs.

MAR 17, 1989 03h 01m 26.52± 0.48s
41.248 N ± 3.8km 20.072 E ± 4.9km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
ML 2.7 (SKO). MD 2.7 (TTG).

TIR	0.18	303	iPgc	01 30.20	-0.4
LACI	0.47	325	iPgd	01 36.00	-0.2
PHP	0.52	32	iPgc	01 37.20	0.2
BERA	0.55	190	iPgd	01 36.20	-1.5
OHR	0.57	104	iPg	01 38.10	0.1
			iSg	01 47.00	
KKS	0.87	17	ePg	01 44.00	0.9
SDA	0.88	331	iPgd	01 43.80	0.4
VLO	0.89	210	ePg	01 45.10	1.5
ULC	0.94	319	ePg	01 44.00	-0.5
			eSg	01 59.00	
BCI	1.12	360	ePg	01 45.80	-1.6
LSK	1.17	160	ePn	01 48.40	0.0
SKO	1.26	54	iPg	01 50.00	0.1
			i	01 52.00	
			iSg	02 08.80	
TTG	1.33	333	ePg	01 51.80	0.8
			eSg	02 12.50	
PVY	1.35	357	ePg	01 51.20	-0.2
			eSg	02 12.00	
SRN	1.37	182	ePn	01 56.30	4.7X
BDV	1.39	318	ePg	01 52.50	0.5
			eSg	02 13.50	
TRI	6.40	316	eP	03 38.00	34.9X

S.D. = 0.9 on 15 of 17 obs.

& MAR 17, 1989 03h 18m 27.94s
46.968 N 119.721 W
DEPTH = 1.5km
WASHINGTON (29)
<SEA>. CL 2.7 (SEA).

VTG	0.18	267	eP	18 32.42	0.8
WAH2	0.24	153	eP	18 33.02	0.3
CRF	0.27	122	iP	18 33.69	0.4
			eS	18 38.71	
MDW	0.36	184	eP	18 35.45	0.4
EPH	0.40	12	eP	18 36.50	0.7
WRD	0.40	90	eP	18 36.55	0.7
GBL	0.41	154	eP	18 36.67	0.5
BRVW	0.52	201	eP	18 39.02	0.7
MXC	0.55	225	iPc	18 39.81	0.8
EBG	0.58	265	eP	18 40.63	1.0
RSW	0.58	171	eP	18 40.31	0.7
WIW	0.61	151	eP	18 40.90	0.7
TBM	0.63	289	eP	18 41.38	0.8
ETP	0.68	138	eP	18 41.70	0.2
ODS	0.75	63	eP	18 43.02	0.2
WTV	0.75	348	eP	18 42.89	0.0
SAW	0.77	16	eP	18 42.78	-0.4
NAC	0.79	253	eP	18 44.47	0.7
DHW2	1.02	358	eP	18 47.67	-0.4
PATW	1.09	181	eP	18 49.56	0.4
WG2	1.11	147	eP	18 49.69	0.1
NLW	1.19	340	eP	18 50.44	-0.5
GL2	1.26	217	eP	18 51.61	-0.6
WPW	1.28	259	eP	18 51.95	-0.6
FMW	1.34	269	eP	18 53.18	-0.4
GLK	1.36	253	eP	18 54.11	0.2
DPW	1.37	48	eP	18 53.59	-0.5
GSM	1.44	280	eP	18 55.30	0.1
LNOR	1.48	137	eP	18 55.39	-0.4
RMW	1.50	290	eP	18 56.30	0.2
JBO	1.51	183	eP	18 55.70	-0.5

31 obs. ossociated

MAR 17, 1989 04h 02m 07.76± 1.37s
35.628 N ± 9.1km 80.532 E ± 6.8km
DEPTH = 34.2 ± 16.0 km
4.8mb (8 obs.)

KASHMIR-TIBET BORDER REGION (304)

KSH	5.26	318	iPnd	03 26.50	0.3
			eSn	04 28.50	
NDI	7.47	203	iPd	04 01.50	4.3X
	1.0s		50.00nm	5.5mb	
GKN	8.36	154	P	04 09.80	0.0
	0.6s		25.00nm	5.5mb	
KKN	8.80	151	P	04 15.50	-0.3
DMN	8.89	153	P	04 17.10	-0.1
GUN	8.94	148	P	04 18.90	1.0
PKI	9.04	151	P	04 18.50	-0.8
WMQ	9.86	32	P	04 23.00	-7.3X
N	10s		1.70um		
			eS	06 14.00	
LSA	10.72	120	P	04 44.30	1.8
QUE	12.63	248	eP	05 07.00	-1.0
			eS	09 29.00	
SHL	13.99	133	iP	05 21.50	-4.5X
GTA	15.76	70	Pc	05 51.00	2.1
MAIO	17.05	278	eP	06 04.00	-1.2
			eS	08 57.00	
HYB	18.22	186	eP	06 25.00	5.2X
LZH	18.90	82	eP	06 26.00	-2.1
	2.0s		55.00nm	4.4mb	
CD2	19.97	97	eP	06 37.50	-2.5
KMI	21.79	113	Pd	06 58.00	-0.8
GBA	22.11	188	Pc	07 02.80	1.0
	1.3s		9.00nm	4.0mb	
XAN	23.33	86	P	07 12.60	-1.1
BTO	23.67	69	eP	07 18.00	1.0
N	13s		0.30um		
			eS	11 22.00	
GYA	24.13	105	P	07 22.00	0.4
TIY	25.61	76	eP	07 36.00	0.3
N	15s		0.60um		
MLR	41.90	301	ePd	09 58.00	1.4
KJF	42.53	329	eP	10 00.00	-1.3
SUF	42.83	327	eP	10 03.00	-0.8
NUR	43.11	323	eP	10 09.00	3.0X
SOD	43.91	333	eP	10 17.00	4.6X
HFS	48.51	322	eP	10 48.30	-0.7
	0.8s		8.60nm	4.8mb	
KHC	49.70	308	P	11 02.50	4.2
NAO	49.91	323	P	10 58.30	-1.4
	0.8s		5.30nm	4.6mb	
BNG	64.78	257	ePc	12 45.40	-0.1
	0.9s		9.00nm	4.9mb	
			ic	12 54.10	
MBC	67.68	5	eP	13 03.00	-0.1
	0.7s		7.00nm	4.9mb	
YKA	81.46	7	eP	14 22.90	0.5
CTA	83.29	120	iP	14 32.60	0.1

S.D. = 1.5 on 28 of 34 obs.

& MAR 17, 1989 04h 26m 12.06s
62.350 N 151.206 W
DEPTH = 86.3km
CENTRAL ALASKA (1)
<AGS-P>.

SKT	0.40	202	iP	26 25.27	-0.6
PWA	0.94	138	iP	26 30.32	-0.7
CGLM	1.11	200	eP	26 32.36	-0.9
CRP	1.18	203	eP	26 33.48	-0.6
			eS	26 49.85	
GHO	1.22	117	iP	26 33.82	-0.7
SPU	1.24	199	iP	26 33.99	-0.8
PLRM	1.24	127	eP	26 33.54	-1.1
PME	1.26	124	eP	26 33.75	-1.1
			eS	26 51.54	
PMS	1.36	144	iP	26 35.18	-1.0
SML	1.46	111	iP	26 36.42	-1.1
			iS	26 56.94	
NKA	1.61	181	eP	26 40.99	1.5
PTE	1.82	144	eP	26 40.62	-1.6
RDT	1.87	198	eP	26 42.28	-0.8
SLKM	1.91	165	eP	26 42.42	-1.1
			eS	27 04.60	
PWL	2.03	136	eP	26 42.98	-2.1
			eS	27 07.80	
TTA	2.29	287	iP	26 47.50	-1.3
NNL	2.32	181	eP	26 49.84	0.9
TOA	2.37	94	eP	26 48.50	-1.3
SEW	2.41	159	eP	26 49.87	-0.3
ILIM	2.43	201	eP	26 50.32	-0.3
SVW	2.44	241	eP	26 49.72	-1.0
GLI	2.46	125	eP	26 48.11	-2.8
VZW	2.57	118	eP	26 50.34	-2.1
KNIM	2.61	139	iP	26 49.56	-3.5
VLZ	2.62	116	eP	26 50.29	-2.8
KLU	2.64	107	iP	26 50.84	-2.7
			iS	27 20.92	
FID	2.77	123	iP	26 52.41	-2.8
FBA	2.98	29	eP	26 56.26	-1.8
HIN	2.99	129	eP	27 02.08	3.8
GLB	3.62	101	eP	27 04.21	-2.7

30 obs. ossociated

MAR 17, 1989 04h 43m 17.19± 0.64s
41.207 N ± 4.6km 19.986 E ± 6.6km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
ML 2.8 (SKO).

TIR	0.17	327	iPgc	43 21.00	0.0
LACI	0.48	334	iPgd	43 26.50	-0.4
BERA	0.50	183	iPgd	43 26.90	-0.5
PHP	0.59	35	iPgd	43 28.20	-0.9
OHR	0.62	99	iPg	43 29.30	-0.4
			iSg	43 38.80	
PUK	0.84	355	iPgc	43 34.30	1.0
SDA	0.89	336	ePg	43 34.40	0.2
KKS	0.92	20	ePg	43 35.40	0.6
LSK	1.15	156	ePn	43 39.00	0.2
BCI	1.16	3	ePg	43 38.40	-0.4
SRN	1.33	180	ePn	43 45.70	4.1X
SKO	1.33	54	iPn	43 40.50	-1.3
			i	43 42.60	
			iSn	43 59.50	
VAY	1.95	86	ePn	43 52.70	2.0
YER	7.62	120	iPg	45 56.60	45.6X
			iSg	46 05.60	
ELL	8.92	117	ePn	46 07.50	38.4X

S.D. = 1.0 on 12 of 15 obs.

MAR 17, 1989 05h 42m 54.43± 0.83s
34.662 N ± 3.3km 25.450 E ± 2.2km
DEPTH = 31.3 ± 6.3 km
4.8mb (45 obs.) 5.2Msz (1 obs.)
CRETE (370)
MD 4.9 (ATH).
CENTROID, MOMENT TENSOR (HRV)
Doto Used: GDSN
L.P.B.: 14S, 24C
Centroid Locotion:
Origin Time 05:42:53.3 1.0
Lot 34.51N 0.10 Lon 25.53E 0.10
Dep 17.0 FIX Holf-durotion 2.2
Moment Tensor; Scole 10**17 Nm
Mrr=-1.12 0.12 Mtt= 1.44 0.19
Mff=-0.32 0.13 Mrt= 3.71 0.28
Mrf=-1.02 0.23 Mtf=-0.12 0.13
Principol Axes:

T	Vol= 4.19	Plg=36	Azm= 11
N	-0.27	5	104
P	-3.92	54	201

Best Double Couple:Mo=4.1*10**17
NP1:Strike= 77 Dip=10 Slip=-118
NP2: 285 81 -85

NPS	0.61	12	eP	43 09.10	2.4
VAM	1.27	306	eP	43 20.00	3.9X
KAP	1.67	57	eP	43 25.00	3.1X
YER	3.37	42	iPn	43 47.50	1.3
ATH	3.59	338	eP	43 50.70	1.5
KSL	3.68	66	eP	43 50.50	0.0
ITM	3.81	312	eP	43 53.70	1.4
IZM	4.00	21	ePn	43 55.90	0.7
ELL	4.18	59	iPn	43 58.20	0.4
PRK	4.62	8	eP	44 04.00	0.1
KHL	4.91	41	iPn	44 07.10	-1.0
NEO	4.97	340	eP	44 09.40	0.6
BCK	5.01	55	ePn	44 10.80	1.3
EZN	5.20	7	iP	44 12.10	0.0
VLS	5.26	313	eP	44 13.40	0.5
DST	5.55	26	iP	44 17.40	0.4
PPCY	5.68	86	ePn	44 18.00	-0.8
			eSn	45 17.50	
ALT	5.76	39	eP	44 18.50	-1.6
PLG	5.92	345	eP	44 22.50	0.2
EDC	5.99	18	iP	44 23.60	0.4
BNT	6.01	18	iP	44 24.50	0.9
KCT	6.04	22	iP	44 25.00	1.1

17d 05h

KZN	6.35	334	eP	44	30.70	2.4	TLB	10.11	11	eP	45	17.00	-3.5X	IMI	16.41	309	P	46	46.90	2.9X
RDO	6.47	1	eP	44	30.50	0.5	BADA	10.18	124	ePd	45	16.00	-5.5X	SLY	16.43	81	ePc	46	46.00	1.8
CSS	6.49	85	ePn	44	28.00	-2.3	ISR	10.50	4	ePc	45	29.00	3.2X				iPP	47	22.00	
			eSn	45	37.00		KVT	10.54	49	eP	45	28.70	2.2				eS	49	52.00	
LFK	6.66	82	iPn	44	32.30	-0.5	USI	10.65	296	P	45	26.60	-1.3	ROB	16.61	311	P	46	47.82	1.4
YLV	6.67	27	iP	44	33.00	0.2	AYN	10.67	120	eP	45	23.80	-4.4X	SBF	16.68	309	eP	46	47.30	0.0
SRN	6.78	322	iPn	44	34.20	-0.1	CFR	10.71	10	eP	45	32.00	3.3X		0.6s		45.00nm			4.8mb
GPA	6.82	33	eP	44	35.50	0.7	MLR	10.82	2	eP	45	38.00	7.6X	AUTN	16.74	309	P	46	47.97	-0.4
CTT	6.89	19	eP	44	37.00	1.2	BRD	10.91	6	eP	45	44.50	13.1X	AURF	16.76	309	P	46	47.71	-0.7
HLW	6.91	132	ePn-	44	34.00	-2.2	HVAR	11.01	323	iPn	45	27.30	-5.6X	TOUF	16.87	309	P	46	50.01	0.1
			e	44	46.00					iSn	47	27.10		MVIF	16.87	309	P	46	48.36	-1.6
			e	45	06.50		DUI	11.12	312	P	45	33.90	-0.4	KHC	16.91	332	iPc	46	51.10	0.9
			eSn	45	46.00		RFI	11.21	310	P	45	34.20	-1.3				e	47	01.50	
KDZ	6.98	360	iP	44	37.00	-0.1	VRI	11.24	5	ePd	45	38.50	2.6	VAI	16.91	316	P	46	51.00	0.8
HRT	7.00	27	eP	44	36.50	-0.9	BZS	11.33	346	ePc	45	26.00	-11.1X	STV	16.93	310	P	46	52.95	2.5
ISK	7.00	23	eP	44	37.00	-0.4	TIM	11.52	345	iPc	45	37.20	-2.5	FRF	17.06	307	eP	46	53.90	1.9
VAY	7.03	342	iP	44	41.00	3.3X	SDI	11.54	311	P	45	37.80	-2.2		0.6s		16.90nm			4.3mb
RZN	7.04	356	iPc	44	39.00	0.9	CLI	11.96	6	eP	46	01.00	15.4X	TAB	17.15	73	eP	46	55.00	1.6
FAM	7.04	85	ePn	44	37.50	-0.5	ALP	12.31	315	ePn	45	50.38	-0.1	PZZ	17.19	310	P	46	54.38	0.5
MMB	7.05	349	iPd	44	38.00	-0.1				eSn	47	55.34		LRG	17.20	306	eP	46	54.80	1.0
DMK	7.37	14	eP	44	42.00	-0.6	AKUR	12.48	147	iPd	45	50.80	-1.9		0.8s		16.10nm			4.2mb
DIM	7.38	0	eP	44	43.00	0.4	MNS	12.62	311	P	45	54.40	-0.1	ORO	17.23	315	P	46	54.90	0.6
KKB	7.43	346	eP	44	43.00	-0.4	AKRL	12.66	148	iPd	45	53.50	-1.6	ORX	17.24	315	P	46	53.46	-0.9
BERA	7.44	326	ePn	44	43.90	0.4	AOI	12.77	318	e(Pn)	45	53.69	-2.9	PRU	17.28	336	eP	46	54.50	-0.3
PLD	7.45	356	eP	44	45.00	1.3				eSn	48	03.23			Z 14s		4.80um			
VLO	7.48	323	ePn	44	45.30	1.2	CIO	12.81	315	e(Pn)	45	57.23	0.1		N 14s		3.40um			
BBTK	7.79	46	eP	44	48.00	-0.6				iSn	48	11.32			E 12s		3.00um			
JMB	7.84	6	iPd	44	50.00	0.8	AKSR	12.82	147	iPd	45	55.00	-2.1				e	47	32.30	
PGB	7.94	353	iPc	44	51.00	0.4	VBY	13.34	327	eP	46	02.80	-1.1				S	50	08.00	
SKO	7.95	338	iPc	44	49.50	-1.2				iS	48	20.80		RSP	17.41	312	P	46	57.97	1.3
	9.5s	1060.00nm					PTJ	13.35	330	ePn	45	59.30	-4.9X	KSP	17.49	340	eP	46	57.50	0.1
N	12s	13.4Bum								eSn	46	56.30					i	47	07.80	
E	10s	17.64um					CEY	13.89	326	eP	46	08.50	-2.8	RRL	17.59	311	P	47	00.95	2.0
		i		45	03.00					eS	48	34.00		LSD	17.63	313	P	47	00.33	0.8
		iS		45	35.00		PGD	14.05	315	P	46	14.60	1.1	BNI	17.72	311	P	47	02.40	1.9
		LR		49	05.00		LJU	14.07	327	e(P)	46	20.50	6.9X	KER	17.85	85	eP	47	08.00	5.8X
TIR	8.00	328	ePn	44	51.00	-0.3				eS	48	45.50		WAR	17.86	351	e(P)	46	58.00	-3.9X
PHP	8.05	332	ePn	44	54.20	2.2	TRI	14.18	325	iPnd	46	13.00	-2.0				e	50	10.00	
VTS	8.11	348	iP	43	54.00	-59.1X				i	46	22.50					e	51	00.00	
LCI	8.22	316	P	44	51.10	-3.3X				iSn	48	38.50					e	51	08.00	
			eSn	46	16.00					i	49	02.00		LPG	17.90	313	eP	47	03.10	0.3
CRI	8.24	101	iPc	44	51.30	-3.4X				i	50	22.00		BRG	18.23	336	eP	47	07.50	0.9
LACI	8.30	329	ePn	44	55.20	-0.3				e	51	17.00			1.2s		40.00nm			4.4mb
GRI	8.35	302	P	44	55.30	-1.0	SRO	14.18	340	eP	46	21.70	6.7X				e	47	16.50	
ZNT	8.36	104	iPc	44	51.80	-4.7X				i	46	25.20					e	47	30.00	
			eS	46	19.20					i	46	34.80					e	47	56.00	
ATZ	8.38	100	iP	44	52.30	-4.4X	FIR	14.26	314	iPc	46	23.00	6.9X				eS	50	46.00	
			eS	46	19.60					e(S)	49	18.00		BBS	18.56	319	P	47	08.78	-1.9
PVL	8.54	359	iPc	44	59.00	0.1	VOY	14.36	326	eP	46	15.20	-2.2	LOMF	18.87	318	P	47	13.52	-1.0
SDA	8.70	329	iPnc	45	00.80	-0.3				e	46	23.40		MOX	18.89	332	eP	47	14.00	-0.6
MSI	8.72	297	P	45	01.70	0.3				eS	48	45.60			4.0s	1074.00nm				5.4mb X
GLH	8.73	100	iPc	44	57.50	-4.0X	MSL	14.52	78	ePc	46	24.00	4.5X		Z 12s		6.40um			
ULC	8.77	328	ePn	45	00.50	-1.5				ePP	46	55.00			N 14s		3.80um			
			eSn	46	31.00					e	47	35.50			E 12s		3.90um			
ATN	8.77	296	P	45	01.40	-0.7				eS	49	16.00					i	47	29.00	
TDS	8.82	307	P	45	00.70	-2.0				eSS	49	36.00					eS	50	57.00	
			eSn	46	31.50		SOP	14.62	336	eP	46	21.80	1.1				LR	56	16.00	
PZI	8.87	288	P	45	01.50	-2.1	PII	14.67	312	P	46	21.80	0.3				LQ	56	20.00	
MEU	8.88	289	P	45	02.20	-1.5	RBL	14.81	326	P	46	23.90	0.5	CLL	18.92	335	iP	47	13.60	-1.4
			eSn	00	00.00		MME	14.83	314	P	46	23.40	-0.4				i	47	26.00	
BURJ	8.96	103	Pd	45	00.40	-4.3X	ZST	14.89	338	eP	46	29.60	5.3X				eS	50	54.00	
SALJ	8.96	104	Pd	45	00.60	-4.2X				i	46	41.80		MOF	19.00	319	P	47	14.56	-1.5
MKT	8.97	112	iPc	45	00.30	-4.5X				e	47	27.40		BSF	19.17	319	P	47	15.81	-2.3
			eS	46	33.00		SPC	15.02	347	eP	46	32.70	6.5X	ETER	19.23	300	e(P)	47	19.40	0.7
BRT	9.00	316	P	45	02.70	-2.6	CVF	15.16	306	P	46	27.02	-0.9	CDF	19.27	321	P	47	17.18	-2.1
			eSn	46	36.90		VKA	15.20	336	iP	46	35.30	7.0X	GWF	19.45	323	P	47	20.28	-1.0
MKRJ	9.09	107	Pd	45	02.20	-4.4X				e	47	00.00		HAU	19.51	319	eP	47	20.20	-1.8
JARJ	9.10	102	Pc	45	01.80	-4.9X				LR	54	23.00			0.6s		48.60nm			5.0mb
TTG	9.14	330	ePn	45	06.20	-1.0	FVI	15.29	325	P	46	28.90	-0.6	VITF	19.83	319	P	47	23.72	-1.6
			eSn	46	41.00		KBA	15.39	327	e(P)	46	30.00	-1.0	SMF	20.23	313	eP	47	27.30	-2.2
BDV	9.21	328	ePn	45	06.00	-2.1		0.7s		33.30nm			4.7mb		0.6s		17.40nm			4.6mb
			eSn	46	41.50					iPP	46	35.70		LBF	20.31	314	eP	47	28.40	-2.0
PSN	9.25	12	eP	45	09.00	0.3				iS	49	15.30		LOR	20.52	314	eP	47	30.70	-1.9
IVA	9.27	334	ePn	45	10.00	1.0	CTI	15.47	321	P	46	32.70	0.8		0.6s		25.20nm			4.8mb
			eSn	46	48.50		BHD	15.77	90	eP	46	39.50	3.6X	AVF	20.59	313	eP	47	32.00	-1.3
MNO	9.27	294	P	45	08.40	-0.8				iPP	47	17.00			0.8s		26.00nm			4.7mb
			eSn	46	44.00					iS	49	35.00		CAF	20.62	307	eP	47	33.30	-0.3
LPI	9.28	297	P	45	08.80	-0.4	SAL	15.78	318	P	46	39.00	3.2X		0.8s		17.40nm			4.5mb
MBH	9.36	119	iP	45	07.00	-3.1X	KMR	15.83	331	eP	46	51.00	14.6X	SSF	20.63	314	eP	47	32.10	-1.6
OUTJ	9.48	108	P	45	07.50	-4.5X				i	47	05.80			0.7s		34.60nm			4.8mb
MGR	9.58	308	P	45	11.20	-2.1				i	49	49.00		WLF	20.63	322	P	47	32.30	-1.3
BUC1	9.68	2	P	45	00.00	-14.6X				i	50	49.80		EBR	20.64	295	eP	47	36.00	2.2
BUC	9.75	3	eP	45	15.00	-0.5	KRA	15.91	347	eP	46	26.60	-10.8X	BGF	20.79	312	eP	47	34.90	-0.5
HOL	9.76	121	eP	45	11.00	-4.7X				e	46	38.20		MAF	20.82	311	eP	47	35.00	-0.6
BRY	9.83	329	ePn	45	14.00	-2.8				e	46	50.20			0.9s		13.10nm			4.3mb
			eSn	46	57.00		MDI	16.33	318	P	46	44.60	1.8	RYD	20.85	113	ePd	47	36.00	-0.1
FAI	9.89	289	P	45	18.40	0.8	FIN	16.35	311	P	46	47.21	4.0X	TCF	21.07	310	eP	47	38.10	-0.1

17d 05h

```
     0.8s    18.80nm          4.5mb
ACU  21.09 288 e(P)  47 40.00   1.4
LPO  21.12 306 eP    47 38.90   0.2
     0.6s    28.80nm          4.9mb
RJF  21.12 307 eP    47 39.10   0.4
     0.8s    25.20nm          4.7mb
EPF  21.21 301 eP    47 38.90  -0.8
     0.8s    17.90nm          4.5mb
MEM  21.31 324 iPc   47 40.20  -0.3
ENN  21.46 325 iPd   47 42.80   0.8
     0.9s   206.00nm          5.5mb
LSF  21.48 310 eP    47 42.50   0.1
     0.6s    22.50nm          4.8mb
LFF  21.50 306 eP    47 42.70   0.1
     1.0s    53.60nm          4.9mb
ECHE 21.60 291 e(P)  47 45.00   1.4
DOU  21.69 322 P+    47 43.70  -0.7
     0.8s   175.00nm          5.5mb
               i     48 00.40
               S     51 46.00
WTS  21.89 328 eP    47 46.50   0.2
     0.9s    87.00nm          5.2mb
KMSA 22.03 125 eP    47 49.20   1.1
SNF  22.10 322 P     47 47.80  -0.7
UCC  22.24 323 Pc+   47 51.80   2.0
               S     51 47.00
ENIJ 22.53 284 e(P)  47 54.30   1.4
WIT  22.54 329 eP    47 53.50   0.8
ETOR 22.55 294 e(P)  47 53.50   0.3
MFF  22.69 309 eP    47 55.20   0.9
     0.6s    30.60nm          5.0mb
DBN  22.70 326 eP    47 53.00  -1.3
   Z  24s     3.00um          4.6MszX
               eS    52 01.00
EVIA 22.74 288 e(P)  47 58.00   3.0X
TAF  22.87 278 iPc   47 58.00   1.6
               i     48 13.00
ECRI 23.16 298 e(P)  48 02.00   2.9X
LDF  23.51 314 eP    48 01.80  -0.5
     0.4s    17.10nm          4.9mb
AFC  23.57 285 e(P)  48 06.40   3.2X
CRT  23.62 285 eP    48 13.00   9.4X
APHE 23.70 284 iP    48 06.50   2.0
ASMO 23.73 285 iP    48 06.50   1.8
EBAN 23.74 287 e(P)  48 06.00   1.3
FLN  23.79 314 eP    48 04.70  -0.3
     0.4s    28.60nm          5.1mb
ACHM 23.81 284 eP    48 10.50   5.1X
GRR  23.86 313 eP    48 05.60   0.0
     0.6s    10.80nm          4.6mb
ATEJ 23.97 284 iP    48 07.00   0.0
TOL  23.99 291 eP    48 09.00   2.0
ALOJ 24.03 284 iP    48 10.00   2.4
AAPN 24.03 285 iP    48 10.50   2.9X
GUD  24.12 293 e(P)  48 07.00  -1.5
EHOR 24.90 286 e(P)  48 16.00   0.1
EPRU 24.94 284 e(P)  48 18.00   1.7
LIJA 25.09 284 iP    48 21.50   3.7X
SRQ  25.11 283 iP    48 29.00  11.1X
EJIF 25.17 283 e(P)  48 19.30   0.9
OJEN 25.26 282 eP    48 28.00   8.7X
ALJ  25.26 284 iP    48 21.50   2.1
IFR  25.31 276 iPd   48 22.00   2.0
MOMI 25.38 283 iP    48 22.50   2.0
PLAT 25.43 282 iP    48 26.00   5.1X
GIBL 25.52 284 iP    48 24.00   2.2
EPLA 25.55 292 e(P)  48 22.80   0.7
CNIL 25.64 283 iP    48 25.00   2.1
UPP  25.73 351 iP    48 21.70  -1.7
NUR  25.87 359 eP    48 21.00  -3.7X
     0.7s    24.00nm          4.9mb
   Z  22s     7.60um          5.2Msz
               i     48 40.00
               LR    59 20.00
HFS  26.61 347 eP    48 28.80  -2.8
     0.8s    11.40nm          4.5mb
   Z  15s     1.92um          4.8MszX
               LR    57 36.00
AVE  27.22 277 eP    48 42.00   4.6X
               i     48 58.50
               i     49 18.50
KHI  27.33  82 eP    48 39.00   0.4
PTO  27.52 294 eP    48 34.30  -5.7X
               i     48 59.50
NRA0 27.60 345 P     48 37.00  -3.5X
MAIO 27.69  77 eP    48 47.00   5.2X
               eS    53 20.00
NAO  27.83 345 P     48 38.80  -3.9X
     0.5s     3.00nm          4.2mb
SUF  28.08   1 iP    48 41.60  -3.3X
EKA  28.58 325 Pc    48 48.30  -1.2
     0.8s    13.60nm          4.7mb
DLE  29.25 319 eP    49 03.00   7.5X
KJF  29.60   2 iP    48 55.00  -3.5X
     0.7s    26.70nm          5.1mb
DCN  29.67 319 eP    48 58.70  -0.6
DMU  29.72 320 eP    48 59.60  -0.2
BNG  30.75 194 iPd   49 08.20  -1.0
     0.6s    25.00nm          5.2mb
               ic    49 34.00
VAL  30.79 315 eP    49 09.00  -0.2
SOD  32.76   1 iP    49 24.00  -2.2
KEV  35.16   1 eP    49 46.00  -0.9
LWI  36.84 174 eP    50 02.40   0.5
KOGH 37.03 226 eP    50 03.00  -0.3
SHGH 37.04 225 eP    50 03.50   0.2
LEGH 37.35 225 eP    50 05.00  -0.9
TIC  39.57 232 P     50 24.04  -0.6
     0.6s     9.50nm          4.7mb
KIC  39.60 232 Pc    50 24.20  -0.6
     0.5s    14.50nm          5.0mb
               S     56 22.00
LIC  39.89 232 P     50 26.54  -0.7
     0.9s    20.00nm          4.9mb
KSH  40.18  68 eP    50 31.00   1.4
NDI  44.06  83 eP    51 03.00   1.7
POO  45.72  98 eP    51 32.50  17.8X
DAG  46.61 347 eP    51 19.00  -1.9
WMQ  48.05  59 P     51 34.20   1.4
   Z  28s     2.30um          5.0MszX
               pP    51 48.00  52kmX
               PP    53 24.00
               S     58 24.00
               sS    58 45.00
HYB  50.14  96 iPd   51 50.80   1.7
               eS    58 56.00
GKN  50.37  80 P     51 49.40  -1.5
DMN  50.91  81 P     51 53.90  -1.2
KKN  50.98  80 P     51 54.40  -1.2
PKI  51.17  81 P     51 56.10  -1.1
GBA  51.25 101 Pc    51 56.00  -1.5
     0.6s     9.90nm          4.9mb
GUN  51.42  80 P     51 57.70  -1.4
KOD  53.18 104 eP    52 13.00   0.7
GDH  54.19 334 ePc   52 17.00  -1.7
     0.6s    20.00nm          5.3mb
               e     00 17.00
               e     07 30.00
BUL  54.58 176 eP    52 22.00  -0.2
     0.8s     7.46nm          4.8mb
LSA  54.96  76 P     52 25.40   0.0
ALE  55.57 351 eP    52 26.50  -2.2
     0.5s     7.00nm          4.9mb
SHL  57.27  80 iP    52 48.80   7.0X
               eS    00 28.00
AVY  57.34 155 eP    52 43.30   1.1
GTA  57.99  62 eP    52 46.40  -0.1
               S     00 42.50
               sS    01 04.00
SLR  60.13 177 iPc   53 02.50   1.2
     0.7s    10.27nm          5.1mb
FRB  61.22 330 eP    53 07.00  -1.2
SWZ  61.51 180 eP    53 05.00  -5.7X
     0.3s    46.75nm          6.1mb X
LZH  62.20  64 eP    53 15.50   0.0
   Z  30s     1.90um          5.1MszX
               i     53 50.50
SEK  62.68 178 eP    53 19.00   0.5
     0.5s    70.42nm          6.0mb X
SCH  63.70 320 ePc   53 23.20  -1.7
     0.4s    27.00nm          5.7mb
FRS  64.07 180 eP    53 28.00   0.6
     0.7s     8.22nm          4.9mb
BTO  64.76  57 eP    53 31.50  -0.7
   E  13s     0.50um
HHC  65.72  56 eP    53 38.00  -0.3
   Z  32s     2.05um          5.1MszX
               S     02 23.00
CHG  66.21  83 eP    53 41.10  -0.6
XAN  66.84  64 P     53 45.50   0.0
MBC  67.14 351 eP    53 45.00  -1.7
     0.7s    11.00nm          5.1mb
TIY  67.71  59 eP    53 52.00   1.0
   E  18s     1.10um
               S     02 45.50
BJI  69.22  55 eP    54 01.00   0.8
   Z  28s     1.10um          4.9MszX
               eS    03 02.00
               esS   03 24.00
NNT  70.09  88 eP    54 05.00  -0.9
TIA  71.73  58 eP    54 16.60   1.1
WHN  72.55  65 eP    54 26.00   5.6X
   Z  24s     0.98um          5.0MszX
               S     03 40.00
               sS    04 04.00
GAC  72.88 314 eP    54 23.50   1.4
SNY  73.20  51 eP    54 24.00  -0.1
   Z  30s     1.50um          5.1MszX
   N  24s     1.20um
   E  28s     1.20um
CN2  73.33  48 P     54 25.00   0.2
   Z  34s     1.00um          4.9MszX
               sP    54 35.00
               S     03 44.00
SNG  73.76  92 eP    54 25.60  -2.1
ITR  74.15 247 eP    54 29.90   0.0
QIZ  74.95  77 eP    54 35.10   0.6
INK  76.14 352 eP    54 41.00   0.5
SOB1 76.32 249 eP    54 42.60   0.2
               e     54 54.50
               e     54 58.20
YKC  77.98 342 ePc   54 49.60  -1.2
YKA  78.00 342 eP    54 50.00  -0.9
IMA  79.59 360 eP    55 00.00   0.4
     0.8s     4.30nm          4.5mb
FFC  80.18 332 eP    55 02.00  -0.9
     0.6s     8.00nm          4.9mb
FBA  80.63 357 eP    55 04.50  -0.5
ATB  81.75 260 e(P)  55 14.20   2.4
TTA  82.74   1 P     55 16.40   0.2
PMR  83.99 357 P     55 24.00   1.5
     1.0s    23.75nm          5.3mb
PMS  84.35 358 eP    55 22.00  -2.4
EDM  85.45 337 ePc   55 29.00  -1.1
BAO  85.72 248 eP    55 33.50   1.5
SES  87.00 334 eP    55 40.00   2.2
ITA  87.43 241 eP    55 49.40   8.9X
BGMT 91.65 331 eP    56 01.10   1.1
WB5 116.29  97 ePKP  01 36.20  -0.6
SPA 124.48 180 e(PKP)01 51.30   0.1
     0.6s     4.07nm
CTA 126.16  91 e(PKP)01 49.00  -6.8X
DZM 143.68  80 iPKPc 02 33.00   4.6X
     S.D. = 1.3  on 255 of 325 obs.
-----------------------------------------
* MAR 17, 1989  08h 28m 51.57± 0.96s
  41.637 N ±10.2km    20.314 E ± 9.0km
  DEPTH =  10.0km  (geophysicist)
 ALBANIA                          (391)
      MD 2.7 (TTG). ML 2.5 (SKO).

OHR   0.64 145 ePg   29 04.80   0.4
               iSg   29 13.50
SKO   0.91  68 ePg   29 08.30  -0.6
               i     29 11.00
               iSg   29 23.50
PVY   0.99 345 ePg   29 11.50   1.1
               eSg   29 28.00
TTG   1.11 316 ePg   29 12.00  -0.4
               eSg   29 29.50
BDV   1.28 301 ePg   29 15.00  -0.4
               eSg   29 35.00
VAY   1.72 100 ePn   29 25.40   3.6X
     S.D. = 1.0  on    5 of   6 obs.
-----------------------------------------
% MAR 17, 1989  09h 22m 24.89± 0.84s
  39.123 N ± 7.0km    27.579 E ± 8.7km
  DEPTH =  10.0km  (geophysicist)
 TURKEY                           (366)

IZM   0.77 199 ePg   22 40.00   0.1
               eSg   22 52.00
DST   0.95  59 ePn   22 42.40  -0.5
EZN   1.20 306 ePn   22 47.00  -0.2
EDC   1.24  10 ePn   22 47.60  -0.3
BNT   1.26  12 iPn   22 48.40   0.1
KCT   1.27  28 iPn   22 49.40   0.9
     S.D. = 0.6  on    6 of   6 obs.
-----------------------------------------
? MAR 17, 1989  09h 26m 54.23±11.03s
  33.023 S ±22.5km    71.858 W ±80.5km
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   DEPTH =  13.4 ±  9.8 km
 NEAR COAST OF CENTRAL CHILE          (135)

ROCH     0.71  86 iP     27 08.50    0.4
TACH     0.99 129 iP     27 12.60   -0.2
                 iS     27 25.80
SAN      1.09 113 iPc    27 14.50    0.1
                 iS     27 27.50
JACH     1.12  73 iP     27 14.60   -0.4
                 iS     27 29.50
PCH      1.27 118 iPd    27 17.40   -0.2
                 iS     27 35.00
FCH      1.35 103 iP     27 19.10    0.1
                 iS     27 37.00
CHCH     1.36 132 iPd    27 19.00    0.2
                 iS     27 36.50
      S.D. = 0.4  on   7 of   7 obs.
-------------------------------------
%  MAR  17, 1989  09h 52m 31.30± 0.95s
   32.838 S ± 7.9km   70.572 W ±10.2km
   DEPTH =  33.0km  (normal)
 CHILE-ARGENTINA BORDER REGION        (127)

JACH     0.16 353 eP     52 37.50   -0.1
ROCH     0.39 250 iP     52 41.40    0.8
FCH      0.54 154 iPc    52 43.00    0.2
SAN      0.62 187 iPd    52 44.20    0.6
                 iS     53 02.50
PCH      0.78 176 iPc    52 46.00    0.0
TACH     0.87 201 iPd    52 46.90   -0.3
LCCH     1.05 233 iPd    52 48.90   -0.8
                 iS     53 09.50
CHCH     1.09 184 iPd    52 50.00   -0.4
                 iS     53 12.00
      S.D. = 0.6  on   8 of   8 obs.
-------------------------------------
   MAR  17, 1989  11h 08m 08.60± 0.40s
   21.629 N ± 5.1km   97.816 E ± 5.9km
   DEPTH =  33.0km  (normal)
   4.8mb (  4 obs.)  4.2Msz (  1 obs.)
 BURMA                                (296)

CHG      2.99 159 ePn    08 56.10    1.2
                 iPg    09 04.50
                 iSg    09 34.80
BDT      4.50 165 ePn    09 18.00    1.7
                 ePg    09 28.10
                 eSg    10 07.20
KMI      5.71  51 Pgc    09 50.50   17.0X
                 Sg     10 48.00
NST      6.32 159 ePn    09 42.50    0.6
                 eSg    11 35.00
SHL      6.71 307 iP     09 47.50    0.0
                 eS     11 16.50
KHT      6.85 174 ePn    09 48.00   -1.3
                 ePg    10 16.00
                 Sg     11 48.50
NNT      9.17 168 eP     10 20.50   -1.2
                 e      11 04.20
                 e      12 49.00
GYA      9.41  58 P      10 23.00   -2.1
LSA     10.03 325 eP     10 34.60    0.6
CD2     10.67  29 eP     10 44.50    2.3
QIZ     11.58 101 eP     10 52.80   -1.8
      N  12s      2.50um
      E  12s      1.50um
                 eS     13 05.40
GUN     12.51 302 P      11 06.70   -0.9
PKI     12.74 300 P      11 10.60    0.0
      0.5s    11.00nm          5.2mb
KKN     12.94 301 P      11 12.70   -0.4
DMN     13.00 300 P      11 13.60   -0.3
GKN     13.54 301 P      11 19.90   -1.1
LZH     15.34  19 eP     11 44.50    0.1
      2.5s   158.00nm          4.8mb
                 eS     16 30.00
XAN     15.77  36 Pc     11 46.00   -4.0X
WHN     17.29  56 eP     12 05.60   -3.5X
GTA     17.81   5 eP     12 18.00    2.4
HYB     18.63 260 eP     12 32.50    6.7X
NDI     19.91 295 eP     12 40.50    0.1
TIY     20.41  35 eP     12 44.50   -1.1
      N  10s      0.90um
GBA     20.98 251 Pc     13 02.10   10.6X
      1.1s    15.60nm
NJ2     21.42  57 Pc     13 02.30    6.5X
BTO     21.56  26 eP     12 57.00   -0.4
      N  10s      0.60um
                 eS     16 55.00
HHC     22.43  28 eP     13 05.70   -0.3
      Z  15s      0.83um          4.3MszX
                 S      17 14.00
KOD     22.58 243 eP     13 21.20   13.3X
WMO     23.67 342 P      13 21.80    3.7X
      Z  18s      0.70um          4.2Msz
BJI     24.11  36 eP     13 22.00   -0.2
      N  11s      0.70um
                 eS     17 44.00
KSH     25.76 319 eP     13 43.50    5.3X
WB5     54.58 137 eP     17 38.10    1.8
WRA     54.61 137 Pd     17 36.30   -0.2
      1.0s      3.90nm          4.4mb
VRI     61.78 311 ePc    18 25.00   -1.5
MLR     62.35 311 eP     18 32.00    1.6
HFS     68.60 328 eP     19 10.20    0.1
      0.7s      5.90nm          4.8mb
INK     82.87  17 eP     20 31.00    0.2
      S.D. = 1.2  on  28 of  37 obs.
-------------------------------------
?  MAR  17, 1989  11h 14m 20.08± 1.40s
   22.111 N ±23.2km   97.798 E ±10.2km
   DEPTH =  33.0km  (normal)
   3.7mb (  1 obs.)
 BURMA                                (296)

CHG      3.45 162 ePg    14 33.00  -39.9X
                 iSg    15 10.00
KMI      5.43  56 Pgc    15 58.00   16.9X
                 Sg     16 56.00
SHL      6.41 304 eP     15 55.50    0.6
KHT      7.33 174 ePg    16 24.00   16.5X
                 eSg    17 55.00
QIZ     11.69 103 eP     17 07.80    0.1
      N  12s      0.80um
      E  11s      0.60um
                 eS     19 07.00
PKI     12.49 298 P      17 18.20   -0.5
GTA     17.33   5 eP     18 27.80    6.6X
HYB     18.70 259 eP     18 44.00    5.9X
GBA     21.13 250 P      19 13.00    8.5X
      0.7s      2.40nm          3.7mb
BTO     21.14  27 eP     19 05.00    0.4
BJI     23.73  37 eP     19 29.50   -0.5
      S.D. = 0.7  on   5 of  11 obs.
-------------------------------------
*  MAR  17, 1989  11h 51m 55.10± 0.77s
   36.034 N ±10.2km  140.039 E ± 8.5km
   DEPTH =  65.0 ±  7.3 km
   4.8mb (  1 obs.)
 NEAR EAST COAST OF HONSHU, JAPAN(228)
      Felt (II JMA) ot Mito and
      Utsunomiya.

KAKJ     0.20  32 iP+    52 04.60   -0.6
                 S      52 10.30
MIT      0.49  45 iP+    52 08.40    0.9
                 S      52 16.70
UTS      0.53 345 iPd    52 07.10   -0.8
                 iS     52 14.90
CHJJ     0.85 271 iPd    52 10.30   -1.3
                 S      52 20.40
NIIJ     1.46 326 iPd    52 19.50   -0.3
IIDJ     1.82 253 P      52 25.80    1.1
                 S      52 49.60
MTMJ     1.89 288 iPd    52 25.70   -0.1
YAMJ     2.14 360 P      52 30.00    0.9
OFUJ     3.30  23 P      52 45.50    0.0
                 eS     53 24.00
TSRJ     3.33 263 P      52 47.20    1.3
GKN     47.12 277 P      00 23.00    0.2
WB5     55.87 186 eP     01 28.00   -0.3
GBA     60.03 265 Pd     01 56.70   -0.9
      0.4s      3.00nm          4.8mb
      S.D. = 1.0  on  13 of  13 obs.
-------------------------------------
*  MAR  17, 1989  12h 37m 10.31± 2.02s
   21.194 N ± 9.6km  146.230 E ± 9.7km
   DEPTH =  48.1 ± 18.5 km
   4.5mb (  3 obs.)
 MARIANA ISLANDS REGION               (215)

GUMO     7.68 190 eP     39 03.00    0.7
PJG      7.67 190 eP     39 02.80    0.5
GUA      7.72 190 eP     39 02.30   -0.6
                 eS     40 28.20
SSE     24.50 299 eP     42 25.20   -1.2
MTN     36.94 205 eP     44 16.00   -0.7
LZH     39.73 301 e(P)   44 41.00    0.8
CTA     41.03 180 eP     44 37.00  -13.7X
WB5     42.44 197 eP     45 01.30   -1.0
WRA     42.51 197 Pc     45 01.90   -0.9
      0.8s      6.80nm          4.4mb
GTA     43.47 305 eP     45 11.40    0.7
WARB    50.78 203 eP     45 54.00  -13.9X
WMQ     53.09 309 P      46 25.30    0.0
PKI     55.30 289 P      46 42.40    0.5
KKN     55.38 290 P      46 43.20    0.8
GKN     55.92 290 P      46 46.90    0.7
HYB     63.56 279 eP     47 38.50   -0.2
GBA     65.66 276 Pd     47 51.50   -0.7
      0.8s      7.00nm          4.7mb
INK     66.90  23 eP     47 59.00   -0.3
YKA     75.56  28 eP     48 50.60   -0.8
SOD     81.20 340 eP     49 22.00    0.0
SES     81.69  39 eP     49 25.00    0.0
KJF     82.63 337 eP     49 29.00   -0.6
SUF     84.06 336 eP     49 36.00   -0.9
      0.5s      2.50nm          4.5mb
FFC     84.73  33 eP     49 40.00   -0.4
ALQ     91.33  52 eP     50 12.00   -0.7
BZS     96.66 324 ePd    50 54.50   17.8X
ZOBO   147.14  87 PKP    56 50.20    1.3
      1.0s     10.00nm
LPB    147.23  88 PKP    56 49.00    0.1
CNCB   147.40  88 PKP    56 52.00    2.7
      S.D. = 0.9  on  26 of  29 obs.
-------------------------------------
*  MAR  17, 1989  13h 22m 33.74± 1.73s
   38.904 S ±16.6km  174.777 E ±14.7km
   DEPTH = 271.0 ± 17.8 km
 NORTH ISLAND, NEW ZEALAND            (159)

NEZ      0.65 235 P      23 10.00    0.4
                 S      23 33.00
CNZ      0.67 116 iPc    23 09.00   -0.8
                 S      23 33.00
KRP      1.15  32 iPd    23 12.00    0.0
                 S      23 37.40
WEL      2.38 180 P      23 22.00    0.3
                 S      23 53.00
GNZ      2.55  85 P      23 23.00   -0.3
                 S      23 57.00
COB      2.69 215 P      23 24.60   -0.1
                 S      24 00.00
HBZ      3.07  66 P      23 29.10    0.5
                 S      24 07.00
RTY      3.25 206 P      23 31.00    0.4
                 S      24 13.00
CMZ      4.95 198 P      23 50.00    0.0
                 S      24 48.00
MSZ      7.71 219 P      24 23.70   -0.4
                 S      25 47.20
      S.D. = 0.5  on  10 of  10 obs.
-------------------------------------
   MAR  17, 1989  13h 38m 39.78± 0.12s
   5.851 S ± 2.6km  146.596 E ± 2.8km
   DEPTH =  43.3km  (  7 depth phases)
   5.7mb ( 39 obs.)  5.5Msz ( 16 obs.)
 EAST PAPUA NEW GUINEA REGION         (207)
      Ms 5.3 (BRK).
      CENTROID, MOMENT TENSOR         (HRV)
      Data Used: GDSN
      L.P.B.: 16S, 40C
      Centroid Location:
      Origin Time        13:38:46.6 0.2
      Lat  5.97S 0.02 Lon 146.63E 0.02
      Dep  54.8 2.1 Half-durotion  3.5
      Moment Tensor;   Scale 10**17 Nm
        Mrr= 6.78 0.16  Mtt=-8.39 0.30
        Mff= 1.61 0.30  Mrt= 0.09 0.31
        Mrf=-0.53 0.26  Mtf= 1.33 0.20
       Principal Axes:
        T  Val=  6.83  Plg=84  Azm= 92
        N        1.74        6       278
        P       -8.57        1       187
      Best Double Couple:Mo=7.7*10**17
       NP1:Strike=272 Dip=45 Slip=  82
       NP2:        103     46        98

LAT      0.89 153 iPd    38 57.60    1.6
PMG      3.58 171 iPd-   39 35.50    1.3
```

17d 13h

RAB	5.79	74	iPd-	40	04.50	-1.0
	0.5s	1295.78nm			6.7mb	
			iS	41	22.00	
BGA	8.54	92	eP	40	45.00	1.0
PAA	8.86	93	eP	40	47.00	-1.3
VSG	13.43	105	eP	41	50.00	-0.2
			e	41	58.00	
HNR	13.70	106	eP	41	54.00	0.4
			eS	44	30.00	
			eLQ	45	10.00	
CTA	14.16	181	iPd-	42	00.90	1.3
	0.9s	340.34nm			6.0mb	
			i	42	01.80	
			e	42	10.00	
			i	42	16.00	
			i	43	00.00	
			i	44	11.50	
			eS	44	30.00	
			e	44	44.00	
			e	44	52.00	
			i(PcP)	46	30.50	
			i	47	53.00	
			i	48	18.00	
QIS	16.12	204	eP	42	26.00	1.0
			e	45	20.00	
			e	46	24.00	
			e	48	35.00	
WB5	18.33	219	iPd	42	52.30	-0.3
			eS	46	14.30	
WRA	18.39	219	Pc	42	51.30	-2.1
	1.0s	152.00nm			5.1mb	
AAI	18.46	276	eP	42	57.00	2.7
GUA	19.33	355	eP	43	04.70	0.1
	0.8s	519.40nm			5.8mb	
GUMO	19.39	355	eP	43	04.70	-0.5
	0.8s	535.87nm			5.9mb	
PJG	19.39	355	eP	43	04.80	-0.4
KNA	20.07	239	iPd	43	12.00	-0.4
RMQ	20.63	174	eP	43	17.00	-1.2
			e	44	21.00	
ASPA	21.52	213	iPc	43	27.40	0.1
			eS	47	21.90	
PVC	24.28	121	iPd	43	55.50	1.1
DAV	24.60	301	eP	43	56.00	-1.5
DZM	25.06	132	iPc	44	00.40	-1.6
COO	25.10	169	eP	44	02.00	-0.1
			e	44	15.00	
CMS	25.51	182	eP	44	05.00	-1.0
			e	44	08.00	
			e	44	57.00	
STK	26.32	190	iPd	44	12.70	-0.7
			e	44	16.00	
MKS	27.01	270	iPd	44	21.00	1.1
WARB	27.78	221	iPc	44	13.80	-13.1X
BWA	28.48	177	iPc	44	32.30	-0.8
			ePcP	47	43.30	
			eScP	51	48.70	
CAN	29.41	176	iPc	44	39.80	-1.7
			ePcP	47	30.00	
			eScP	51	30.00	
CNB	29.43	175	eP	44	40.00	-1.7
	0.7s	30.00nm			5.1mb	
			epP	44	59.70	86kmX
			LR	55	21.00	
ADE	29.88	193	eP	44	44.60	-1.0
	1.0s	124.00nm			5.6mb	
BKB2	29.98	278	eP	44	47.50	0.8
MBL	30.06	237	eP	44	46.50	-0.9
	0.5s	22.00nm			5.2mb	
TSM	30.19	289	eP	45	03.00	14.4X
TOO	31.59	182	iPc	45	00.30	-0.4
	0.9s	100.00nm			5.6mb	
QCP	32.48	309	eP	44	51.00	-17.6X
KKM	32.55	291	eP	45	09.00	-0.4
SGE	32.75	114	eP	45	11.10	-0.1
VUN	33.37	114	eP	45	15.80	-0.6
SVA	33.40	114	iPd	45	17.00	0.4
MEKA	33.79	229	eP	45	20.00	0.0
BAG	33.94	311	eP	45	20.00	-1.5
			eS	50	42.00	
NANU	34.27	238	eP	45	24.20	0.0
COOL	34.51	221	iPc	45	25.60	-0.5
	0.5s	52.00nm			5.7mb	
TAU	36.91	179	P	45	46.00	-0.2
			e	46	06.00	
MRWA	37.09	228	eP	45	49.20	1.3
	0.2s	3.00nm			4.8mb	

KLB	37.20	223	eP	45	48.00	-0.9
BAL	37.35	225	eP	45	50.00	-0.1
NWAO	38.37	222	eP	45	58.00	-0.7
MUN	38.49	224	eP	46	01.00	1.3
RKG	39.23	220	eP	46	09.00	3.2X
KAGJ	39.77	339	eP	46	11.40	1.1
QZH	40.98	319	eP	46	21.00	0.7
E	33s		3.80um			
			S	52	30.00	
KUMJ	41.01	340	eP	46	20.90	0.4
WKYJ	41.19	346	eP	46	22.50	0.5
TKSJ	41.36	344	P	46	23.50	0.2
KRP	41.37	145	P	46	24.30	1.0
	1.0s	409.00nm			6.1mb	
			pP	46	36.00	42km
AFI	41.73	104	eP	46	26.50	-0.2
			eS	52	44.00	
IIDJ	41.91	349	eP	46	27.50	-0.4
SHK	42.26	343	iP	46	30.40	-0.3
	0.7s	101.37nm			5.7mb	
KAKJ	42.26	352	eP	46	30.20	-0.5
CHJJ	42.28	351	eP	46	30.80	-0.1
TSRJ	42.36	347	eP	46	31.80	0.3
SHNJ	42.37	341	eP	46	31.50	-0.1
YONJ	42.65	344	eP	46	34.40	0.5
MSZ	42.93	158	Pc	46	36.20	0.2
	1.0s	442.00nm			6.1mb	
MTMJ	43.01	350	eP	46	35.50	-1.4
WEL	43.32	149	P	46	40.20	0.9
			ipPc	46	50.90	37km
			S	53	05.00	
			e	59	36.00	
GZH	43.39	313	P	46	41.00	0.9
N	10s		1.90um			
			eS	53	03.00	
NIIJ	43.45	351	eP	46	40.40	0.1
QIZ	43.84	305	P	46	44.00	0.2
Z	15s		1.10um		4.9MszX	
E	16s		1.00um			
			PP	48	23.00	
			eS	53	12.00	
KGM	43.92	279	ePc	46	46.20	1.7
SSE	44.04	328	P	46	45.00	-0.2
	5.0s		0.80nm		2.7mb X	
Z	20s		2.60um		5.1Msz	
N	16s		1.90um			
			pP	47	03.00	73kmX
			ePP	48	30.00	
			S	53	14.00	
			sS	53	46.00	
			ScS	56	39.00	
YAMJ	44.22	353	eP	46	47.50	0.9
OFUJ	44.94	355	eP	46	52.30	0.0
NJ2	46.03	327	Pc	47	01.70	0.6
N	16s		1.40um			
E	16s		1.40um			
			sP	47	16.00	
			S	53	48.50	
AOMJ	46.53	353	eP	47	07.40	2.5
IPM	46.67	282	ePc	47	06.90	0.5
	0.9s	198.70nm			6.1mb	
WHN	47.57	321	eP	47	14.50	1.3
Z	20s		1.91um		5.1Msz	
E	16s		1.36um			
			sP	47	28.50	
			S	54	06.00	
			sS	54	28.00	
NNT	50.05	292	eP	47	33.00	0.4
TIA	50.14	329	Pc	47	32.30	-0.7
Z	20s		2.70um		5.3Msz	
N	19s		2.70um			
E	19s		1.80um			
			sP	47	46.00	
			S	54	41.00	
DL2	50.18	335	eP	47	33.00	-0.2
Z	24s		2.30um		5.1MszX	
N	18s		2.70um			
			esP	47	50.00	
			eS	54	40.00	
GYA	50.28	312	P	47	34.00	-0.4
			sP	47	49.00	
			S	54	44.00	
KHT	51.81	294	eP	47	46.00	0.0
SNY	51.90	338	iPc	47	45.00	-1.2
	5.0s		0.90nm		3.0mb X	
Z	22s		6.60um		5.6Msz	
N	24s		4.10um			

E	22s		3.30um			
			pP	47	58.00	47km
			sP	48	04.00	
			S	55	02.00	
MDJ	52.51	345	eP	47	50.00	-0.8
Z	28s		3.10um		5.2MszX	
N	12s		0.90um			
			epP	48	03.00	47km
			S	55	12.00	
KMI	52.59	308	Pc	47	52.50	0.5
	6.0s		0.80nm		2.9mb X	
Z	25s		4.00um		5.4MszX	
			sP	48	07.00	
			S	55	19.00	
			iS	55	21.50	
CN2	52.99	341	Pc	47	53.00	-1.4
N	16s		1.50um			
			sP	48	07.00	
XAN	53.31	321	iPc	47	56.20	-0.8
N	12s		1.10um			
			sP	48	10.20	
			S	55	25.00	
BJI	53.58	331	eP	47	58.00	-0.7
Z	20s		3.00um		5.3Msz	
N	16s		1.30um			
			esP	48	10.00	
			eS	55	21.00	
			eSS	59	00.00	
TIY	53.76	326	eP	47	59.80	-0.4
N	21s		3.00um			
			sP	48	13.00	
			S	55	32.00	
			sS	55	53.00	
CD2	54.88	314	eP	48	08.00	-0.6
Z	16s		1.00um		5.0MszX	
			S	55	48.00	
HHC	56.50	329	Pc	48	19.20	-0.9
Z	32s		6.15um		5.5MszX	
			S	56	13.50	
BTO	57.13	327	iPc	48	23.50	-1.1
N	20s		1.70um			
E	20s		2.80um			
			pP	48	36.50	46km
			PP	50	34.50	
			S	56	15.00	
			sS	56	40.00	
LZH	57.83	319	P	48	29.50	-0.2
	6.0s	657.00nm			5.9mb X	
Z	35s		4.00um		5.3MszX	
			pP	48	41.50	42km
			eS	56	25.00	
HON	60.65	62	P	49	00.00	10.8X
Z	21s		5.91um		5.7Msz	
SHL	61.60	303	iP	48	56.00	0.2
			iS	57	16.00	
GTA	62.37	320	P	49	00.00	-0.7
	6.0s		0.80nm		3.0mb X	
Z	30s		1.60um		5.0MszX	
E	10s		0.50um			
			pP	49	12.00	41km
			sP	49	19.00	
			S	57	23.00	
			sS	57	45.00	
AFR	63.13	107	iP	49	05.60	-0.2
	0.8s	65.00nm			5.8mb	
PAE	63.32	107	iP	49	07.00	-0.1
	0.8s	60.00nm			5.8mb	
PPT	63.32	107	iP+	49	07.00	-0.2
	0.8s	75.00nm			5.8mb	
Z	20s		2.00um		5.3Msz	
PPN	63.46	107	iP	49	08.00	0.0
	0.8s	90.00nm			5.9mb	
TVO	63.64	107	iP	49	09.50	0.2
	0.8s	70.00nm			5.8mb	
TBI	63.80	113	iP	49	10.40	0.2
	0.8s	85.00nm			5.9mb	
LSA	63.83	307	P	49	11.00	0.1
			eS	57	42.00	
PMO	64.87	104	iP	49	17.40	0.1
	0.8s	80.00nm			5.8mb	
VAH	65.13	104	iP	49	18.70	-0.3
	0.8s	30.00nm			5.4mb	
TPT	65.14	104	iP	49	18.90	-0.1
	0.8s	40.00nm			5.5mb	
RUV	65.37	104	iP	49	20.40	-0.1
	0.8s	60.00nm			5.7mb	
ADK	65.49	24	eP	49	20.60	0.0

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        1.2s  148.40nm            5.9mb
GUN   67.45 303 P       49 33.40  -0.7
PKI   67.73 303 P       49 34.90  -0.9
        0.9s   34.00nm            5.4mb
KKN   67.91 303 P       49 35.90  -0.9
DMN   67.99 303 P       49 36.80  -0.6
GKN   68.52 303 P       49 39.60  -0.9
KOD   70.67 283 eP      49 54.00   0.0
                eS      59 08.00
HYB   71.03 291 iPd     49 55.80   0.0
        0.8s   38.50nm            5.4mb
GBA   71.31 286 Pc      49 59.10   1.6
        1.1s   51.90nm            5.4mb
WMQ   72.42 319 iPc     50 02.80  -0.9
     Z  24s    1.50um             5.2MszX
                PP      52 44.00
                S       59 27.20
SBA   72.74 176 P+      50 06.00   1.1
SDN   74.95  28 eP      50 16.40  -1.6
NDI   74.96 302 ePc     50 17.00  -1.7
POO   75.64 291 eP      50 25.10   2.3
                iS      00 21.50
RKT   77.10 112 iP      50 30.80   0.0
        0.9s   70.00nm            5.7mb
KSH   78.96 312 eP      50 40.60  -0.3
     Z  28s    0.70um             4.8MszX
                eS      00 38.00
KDC   79.99  28 eP      50 45.40  -0.4
TTA   81.07  23 eP      50 51.40  -0.3
MAW   82.23 203 iPc     50 57.20  -0.3
        1.0s  187.00nm            6.1mb
PMR   83.25  26 eP      51 01.60  -1.2
        0.9s   52.10nm            5.6mb
     Z  20s    1.80um             5.4Msz
IMA   83.56  21 eP      51 04.20  -0.4
        1.2s   41.00nm            5.4mb
QUE   84.02 301 iPc     51 07.00  -0.7
SPA   84.19 180 iPc     51 07.20  -0.6
        0.8s  125.42nm            6.1mb
                i       51 20.00
TOA   84.74  26 eP      51 10.50   0.0
FBA   85.20  23 eP      51 10.80  -1.8
BRW   85.38  16 P       51 13.40   0.0
SIT   88.43  32 eP      51 28.20  -0.2
MAIO  91.09 306 eP      51 34.00  -7.5X
                e       55 34.00
                eS      02 28.00
INK   91.66  21 ePc     51 41.10  -2.2
                pP      51 59.50  65kmX
FHC   93.34  49 ePd     51 53.10   1.4
WDC   94.42  50 ePd     51 56.30  -0.3
BRK   94.45  53 eP      51 57.60   0.8
BKS   94.47  53 e(P)    51 58.00   1.1
     Z  20s    1.20um             5.4Msz
     E  20s    1.20um
                eS      04 28.00
                e(PPS)05 20.00
                eSS     10 20.00
                e       21 44.00
                eLR     22 16.00
GMW   94.69  43 P       51 59.20   1.5
LTCM  94.71  50 P       51 58.00   0.0
MCW   94.73  42 P       51 59.20   1.3
MHC   94.91  53 ePd     52 00.00   0.9
LBFM  94.96  49 P       51 59.00  -0.4
ARN   94.99  53 P       51 59.00  -0.4
PRS   95.06  54 ePc     51 59.90   0.2
MIN   95.12  50 eP      52 00.00   0.0
ORV   95.15  51 ePd     51 59.30  -0.7
RMW   95.35  43 P       52 01.30   0.4
LLA   95.42  54 ePd     52 02.10   0.7
PRI   95.62  54 eP      52 03.40   1.0
BLP   95.75  56 P       52 02.00  -0.9
CMB   95.94  52 ePd     52 03.20  -0.5
SYP   96.10  56 eP      52 05.00   0.4
FRI   96.43  54 ePd     52 05.30  -0.6
AVY   96.46 250 iPc     52 06.60   0.0
PNT   96.87  41 eP      52 08.00   0.4
        0.7s   34.00nm            6.0mb
ISA   97.38  55 eP      52 10.00  -0.3
PAS   97.57  56 eP      52 12.00   0.9
MWC   97.67  56 eP      52 12.00   0.2
KVN   97.77  51 P       52 11.20  -0.9
SBB   97.88  56 eP      52 12.00  -0.6
CLC   98.09  55 eP      52 13.00  -0.5
RVR   98.23  57 eP      52 15.00   0.9
TNP   98.44  52 P       52 15.00  -0.2

        0.8s    4.90nm            5.1mb
PLM   98.64  57 eP      52 19.00   2.8
BAR   98.79  58 eP      52 19.00   2.4
YKA   99.23  28 eP      52 17.60  -0.3
YKC   99.29  28 ePd     52 17.30  -0.9
        0.7s    5.00nm            5.2mb
TPC   99.33  57 eP      52 22.00   2.8
EUR   99.42  51 iP      52 19.50  -0.2
        0.3s   11.15nm            5.9mb
GLA  100.35  58 ePdiff52 25.00   1.2
EDM  100.68  37 ePdiff52 26.30   1.5
TAB  101.66 308 ePdiff52 30.00   0.3
                e       56 42.00
LRM  101.80  45 ePdiff52 30.30   0.0
BGMT 102.13  45 ePdiff52 32.30   0.6
SES  102.36  40 ePdiff52 33.00   0.6
BW06 104.11  47 Pdiff  52 39.80  -0.8
        1.0s   18.75nm            5.9mb
GOL  107.58  50 Pdiff  52 57.00   0.8
     Z  20s    2.50um             5.8Msz
DAG  108.68 356 ePKP    57 01.00  -4.0X
SEK  112.15 236 ePKP    57 13.00  -0.2
        0.5s   10.56nm
SLR  112.45 239 ePKP    57 12.50  -1.3
PTZ  112.76 252 iPdiff53 21.20   1.7
                i       53 33.70
                i       57 26.50
                i       58 14.50
RSON 113.00  37 Pdiff  53 20.00   0.4
     Z  20s    4.52um             6.1Msz
BUL  113.82 245 iPKPc   57 15.90  -0.8
        0.8s   18.66nm
                ipP     57 29.70
                i       02 57.40
SWZ  114.46 237 ePKP    57 13.50  -4.2X
        0.6s   16.67nm
MLR  115.39 318 iPKPc   57 31.00  12.1X
                e       10 31.00
LSZ  115.48 250 iPKP    57 20.50   0.6
                i       57 34.10
TUH  116.83 228 iPKPd   57 20.00  -1.8
        0.4s   20.34nm
DEV  117.26 319 ePKPc   57 33.00  10.7X
KRA  117.40 324 ePKP    57 41.80  19.4X
KMZ  118.14 251 iPKP    57 25.70   0.7
                i       57 39.70
                i       58 49.00
VAY  119.07 314 ePKP    57 36.70  10.9X
SKO  119.65 315 ePKP    57 37.00  10.1X
     N  22s    1.12um
     E  20s    0.86um
                i       57 57.70
                e       15 36.00
BRG  120.36 327 ePKP    57 39.00  11.0X
        1.2s   17.00nm
     Z  18s    2.00um             5.8Msz
     N  18s    1.50um
     E  18s    2.00um
OHR  120.40 315 ePKP    57 48.00  19.5X
PRU  120.50 326 ePKP    57 31.50   3.2X
     Z  19s    1.40um             5.6Msz
     N  20s    1.10um
     E  19s    0.50um
                e       57 49.00
CLL  120.62 328 ePKP    57 38.00   9.5X
     Z  22s    2.00um             5.7Msz
                e       57 59.00
                PKKP    07 35.00
KHC  121.48 326 ePKP    57 32.00   1.8
                i       57 41.40
MOX  121.72 328 ePKP    57 42.00  11.4X
                ePP     59 05.00
                e       08 00.00
                eSP     09 00.00
                eSPP    10 15.00
                e       15 00.00
                eSS     16 00.00
                eSSSS   24 20.00
                eLR     38 00.00
VBY  122.28 321 e(PKP)57 31.20  -0.6
                e       57 43.40
LJU  122.47 322 e(PKP)57 32.50   0.3
                e       57 43.50
                e       58 02.50
CEY  122.68 322 ePKP    57 49.50  16.9X
                i       58 06.80
VOY  122.87 322 e(PKP)57 33.10   0.0

                e       57 47.20
                i       58 02.30
SCH  124.29  23 ePKP    57 32.00  -3.5X
TKL  125.14  50 PKP     57 36.60  -1.1
BSF  125.93 328 ePKP    57 40.50   1.5
        0.7s    2.20nm
HAU  126.06 328 ePKP    57 40.50   1.3
        0.7s    4.40nm
GAC  126.14  36 ePKP    57 27.50 -11.8X
PRM  126.77  51 PKP     57 40.00  -0.9
BLA  127.05  47 PKP     57 41.00  -0.4
RSNY 127.35  36 PKP     57 45.00   3.3X
     Z  20s    3.95um             6.1Msz
LPG  127.36 325 ePKP    57 44.20   2.1
JSC  127.56  51 PKP     57 42.00  -0.4
LHS  127.83  50 PKP     57 42.50  -0.4
LOR  127.83 329 ePKP    57 45.10   2.5
        0.5s    1.00nm
CVL  128.13  45 PKP     57 42.20  -1.2
BNG  128.25 271 ePKPc   57 42.50  -1.8
        1.0s   45.00nm
                ic      57 45.00
                id      57 58.00
                id      59 55.40
UPA  134.17  83 ePKP    57 38.20 -17.3X
     Z  22s    1.11um             5.5Msz
ARE  136.29 121 ePKP    57 46.00 -13.8X
CNCB 139.07 124 PKPd    57 55.00 -10.3X
                i       58 07.00
LPB  139.11 123 PKP     57 56.00  -9.2X
                i       58 00.00
                LR      43 30.00
ZOBO 139.22 123 ePKP    57 54.00 -11.6X
                i       58 19.00
                LR      44 50.00
IFR  141.96 320 iPKP    58 12.00   2.4
SDV  142.97  83 ePKP    58 08.00  -3.9X
ITB7 143.18 148 e(PKP)58 06.70  -5.0X
ITB  143.42 147 e(PKP)58 06.90  -5.2X
ITB1 143.44 147 PKPd    58 08.00  -4.1X
TOV  143.75  81 ePKP    58 09.60  -3.4X
FISA 144.09  79 ePKP    58 11.00  -2.6
MGP  144.97  67 PKP     58 11.70  -3.2X
MORO 145.12  79 ePKP    58 14.00  -1.4
CEOS 145.23  83 ePKP    58 13.00  -2.6
GUAC 146.20  80 ePKP    58 13.50  -3.8X
CAR  146.51  80 ePKP    58 17.00  -0.7
OLLA 146.67  81 ePKP    58 17.00  -1.0
SHGH 146.82 272 ePKP    58 21.50   3.4X
LEGH 146.95 271 ePKP    58 20.50   2.2
KOGH 147.02 272 ePKP    58 18.50   0.0
KUK  147.15 272 ePKP    58 20.50   1.9
VAO  148.41 156 ePKP    58 20.80   0.3
                e       58 23.80
                e       58 36.90
CUM  149.21  79 ePKP    58 25.00   3.1X
BMA  149.74 160 ePKP    58 23.20   0.7
                e       58 27.40
                e       58 33.10
                e       58 37.00
ITA  149.85 159 ePKP    58 24.30   1.3
                e       58 27.80
                e       58 33.80
KIC  151.50 273 PKP     58 30.90   5.6X
        0.6s   25.50nm
TCE  151.55  78 ePKP    58 30.06   4.7X
SVB  151.59  73 ePKP    58 29.84   4.4X
SVV  151.61  73 ePKP    58 30.23   4.8X
SLB  151.67  72 ePKP    58 30.38   4.8X
TIC  151.77 273 PKP     58 31.24   5.5X
LIC  151.78 272 PKP     58 31.40   5.6X
        0.6s   30.00nm
TPP  151.89  79 ePKP    58 31.53   5.7X
TRN  151.89  78 ePKP    58 31.36   5.5X
TBH  152.24  79 ePKP    58 33.22   6.8X
ATB  159.13 115 PKPd    58 35.60   0.3
SOB1 163.28 153 ePKPd   58 40.20   0.6
                e       58 53.70
ITR  164.65 161 ePKP    58 39.60  -1.3
                e       58 54.50
                e       59 06.80
     S.D. = 1.0  on 213 of 259 obs.
-----------------------------------------
•  MAR 17, 1989  14h 29m 48.06± 1.30s
   5.786 S ± 8.8km  146.652 E ± 9.4km
   DEPTH = 57.7 ± 15.3 km
   4.0mb (  2 obs.)
```

17d 14h

EAST PAPUA NEW GUINEA REGION (207)

LAT	0.93	158	iPd	30 05.50	0.3
MNDI	3.00	263	eP	30 39.50	5.1X
PMG	3.63	172	iPd	30 43.00	-0.1
	0.7s	253.42nm			
			eS	31 29.00	
RAB	5.72	74	e(P)	31 12.00	-0.5
CTA	14.22	182	iPd	33 09.50	1.5
	0.8s	7.09nm		4.2mb	
QIS	16.20	204	eP	33 34.00	0.5
MTN	16.84	244	eP	33 42.00	0.5
			e	36 40.00	
WB5	18.41	219	eP	34 00.00	-0.9
WRA	18.48	219	Pc	34 00.30	-1.4
	0.7s	4.60nm		3.8mb	
KNA	20.15	239	eP	34 20.00	-0.3
RMQ	20.69	175	iPc	34 27.20	1.4
ASPA	21.60	213	eP	34 34.20	-0.9
			eS	38 34.90	
DZM	25.07	132	iPc	35 07.70	-1.2
WARB	27.87	221	eP	35 21.00	-13.5X
BWA	28.54	177	eP	35 44.80	4.3X
MEKA	33.88	229	eP	36 27.00	-0.5
SSE	44.02	328	eP	37 52.00	0.3
BJI	53.55	331	eP	39 05.00	-0.1
GKN	68.53	303	P	40 48.50	1.4
VAO	148.44	156	e(PKP)	49 30.00	3.0X
S.D. = 1.0		on 16 of 20 obs.			

MAR 17, 1989 16h 37m 17.65± 0.13s
35.673 N ± 2.6km 140.668 E ± 2.6km
DEPTH = 44.3km (3 depth phases)
5.4mb (57 obs.) 4.8Msz (4 obs.)
NEAR EAST COAST OF HONSHU, JAPAN(228)
Felt (III JMA) at Tokyo, Chiba and Choshi; (II JMA) at Mito, Yokohama and Toteyomo; (I JMA) at Onahomo, Moeboshi, Utsunomiya and Shirakawa. Also felt (I JMA) on Oshima.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 15S, 27C
Centroid Location:
Origin Time 16:37:21.9 0.6
Lat 35.55N 0.06 Lon 140 50E 0.06
Dep 29.2 4.4 Half-duration 2.0
Moment Tensor; Scale 10**17 Nm
Mrr= 1.15 0.06 Mtt= 0.29 0.07
Mff=-1.44 0.09 Mrt= 0.09 0.13
Mrf= 0.91 0.21 Mtf=-0.21 0.07
Principal Axes:

	Val=	Plg=	Azm=
T	1.44	73	274
N	0.31	1	7
P	-1.75	17	97

Best Double Couple:Mo=1.6*10**17
NP1:Strike=188 Dip=28 Slip= 92
NP2: 6 62 89

CHO	0.15	70	iP+	37 26.80	1.8
			S	37 30.90	
KAKJ	0.67	323	iPd	37 31.20	0.4
MIT	0.72	347	iPd	37 32.60	1.1
			iS	37 43.30	
TOK	0.74	271	iPd	37 34.20	2.4
			S	37 46.40	
YOK	0.86	254	iPd	37 36.80	3.4X
			iS	37 49.30	
TAT	0.95	224	iPd	37 37.30	2.6
			iS	37 48.50	
UTS	1.08	324	iPd	37 37.40	0.8
			iS	37 55.00	
ONA	1.28	9	iPd	37 40.80	1.4
			S	37 57.20	
OSH	1.39	230	iPd	37 42.20	1.2
			eS	38 03.00	
CHJJ	1.41	286	iPd	37 42.30	1.1
SHR	1.49	346	eP	37 00.00	-42.3X
MAE	1.49	300	eP	37 44.00	1.7
			eS	38 01.00	
NIIJ	2.06	320	P	37 51.90	1.4
IIDJ	2.25	266	iPd	37 55.80	2.5
MTMJ	2.49	292	iPd	37 58.70	2.0
YAMJ	2.55	349	P	37 59.10	1.7
OFUJ	3.49	13	P	38 10.70	-0.1
			eS	38 50.20	
TSRJ	3.82	269	eP	38 18.60	3.2X
WKYJ	4.41	252	P	38 25.60	1.7
AOMJ	4.88	357	P	38 31.40	1.0
TKSJ	5.70	255	P	38 43.20	1.2
YONJ	5.90	267	P	38 46.20	1.3
SHK	6.65	262	eP	38 56.80	1.5
MRRJ	6.75	3	P	38 54.30	-2.4
HOOJ	7.00	16	P	38 57.40	-2.8
			eS	40 14.60	
SHNJ	8.00	262	eP	39 17.50	3.3X
KUSJ	8.05	22	P	39 10.40	-4.4X
			S	40 34.90	
ASAJ	8.57	10	P	39 17.70	-4.3X
KUMJ	8.74	252	P	39 26.80	2.5
KAGJ	9.32	244	P	39 34.60	2.3
MDJ	12.30	320	eP	40 12.00	-0.8
Z	20s	3.50um			
N	13s	1.20um			
			epP	40 18.00	
			S	42 29.00	
CN2	14.23	309	Pc	40 37.00	-1.2
N	13s	1.20um			
E	21s	0.40um			
			S	43 21.00	
SNY	14.67	300	Pc	40 44.00	0.0
Z	26s	3.40um			
N	20s	2.50um			
E	24s	2.30um			
			sP	40 58.00	
			eS	43 23.00	
DL2	15.49	288	P	40 56.00	1.4
N	14s	0.90um			
			esP	41 10.00	
SSE	16.89	260	P	41 12.00	-0.4
	1.2s	38.00nm		4.4mb X	
Z	20s	2.00um			
E	14s	1.80um			
			pP	41 29.00	
			eS	44 24.00	
			esS	44 48.00	
NJ2	18.47	265	Pc	41 30.80	-1.1
N	11s	0.70um			
E	11s	0.70um			
			sP	41 48.00	
TIA	19.07	279	eP	41 36.10	-3.0X
Z	25s	2.40um			
E	13s	1.00um			
BJI	19.80	290	eP	41 43.00	-4.1X
Z	28s	2.00um			
N	10s	0.60um			
QZH	21.81	247	eP	42 04.80	-2.9
N	24s	2.70um			
GUMO	22.31	169	eP	42 13.40	0.6
	1.1s	197.88nm		5.5mb	
PJG	22.31	169	eP	42 13.40	0.6
GUA	22.37	169	eP	42 13.70	0.3
	1.0s	160.00nm		5.4mb	
WHN	22.60	264	eP	42 15.00	-0.5
Z	22s	3.32um		4.7Msz	
N	14s	0.97um			
E	16s	2.23um			
			S	46 13.00	
TIY	22.70	284	eP	42 13.50	-3.1X
E	15s	1.20um			
			pP	42 24.00	40km
			sP	42 36.00	
HHC	23.37	292	Pd	42 19.80	-3.3X
Z	32s	1.38um		4.2MszX	
N	11s	0.37um			
E	11s	0.46um			
			S	46 22.00	
BTO	24.54	291	P	42 30.00	-4.4X
N	15s	0.70um			
E	15s	0.80um			
			S	46 50.00	
			SS	47 48.00	
XAN	26.05	276	Pc	42 46.30	-2.3
BAG	26.24	228	eP	42 46.00	-4.6X
GZH	26.81	250	eP	42 49.20	-6.4X
LZH	29.73	282	eP	43 19.50	-2.6
	1.5s	0.15nm		2.5mb X	
Z	26s	2.00um		4.6MszX	
E	20s	1.00um			
			eS	48 13.00	
GYA	30.42	262	P	43 25.20	-3.0X
CD2	31.10	272	eP	43 31.40	-2.6
Z	22s	2.40um		4.8Msz	
N	15s	1.70um			
GTA	32.41	289	P	43 43.70	-1.9
Z	30s	1.10um		4.4MszX	
			sP	43 58.60	
			PcP	46 32.60	
KMI	34.18	263	Pd	43 58.00	-3.1X
AAI	40.86	199	eP	44 57.50	0.6
WMQ	40.93	298	iPc	44 57.00	-0.4
Z	24s	1.00um		4.6MszX	
N	14s	0.60um			
			pP	45 13.00	63kmX
			PP	46 33.50	
			eS	51 02.00	
LSA	41.75	276	Pd	45 05.70	1.0
SHL	42.80	270	iP	45 11.60	-1.5
			eS	51 27.00	
KHT	42.96	252	eP	45 13.50	-0.7
PMG	45.25	171	eP	45 32.00	-0.6
MKS	45.29	210	ePd	45 32.00	-0.9
SNG	46.33	242	eP	45 38.10	-3.1X
TTA	46.88	34	eP	45 45.70	0.6
IPM	47.85	239	ePd	45 52.00	-1.2
BRW	47.90	23	eP	45 53.90	1.0
KGM	48.15	234	eP	45 57.00	1.5
IMA	48.17	30	eP	45 55.70	0.5
	1.0s	12.50nm		4.9mb	
KDC	48.57	41	eP	45 58.00	-0.2
MTN	49.09	192	eP	46 02.00	-0.6
PMR	50.08	36	eP	46 09.60	-0.1
	1.0s	37.50nm		5.4mb	
KSH	50.43	295	P	46 13.50	0.5
FBA	50.57	32	ePc	46 13.90	0.4
TOA	51.44	35	eP	46 21.10	0.9
KNA	52.37	195	iPd	46 27.00	-0.5
NDI	53.35	282	iPd	46 34.00	-0.8
	1.2s	54.69nm		5.4mb	
WB5	55.57	187	iPc	46 50.00	-1.0
			i	47 03.50	
WRA	55.63	187	Pd	46 50.10	-1.3
	0.7s	19.30nm		5.2mb	
CTA	55.71	174	iPc	46 51.00	-1.0
	1.0s	15.00nm		5.0mb	
INK	55.87	27	ePc	46 52.20	-0.5
QIS	55.93	181	eP	46 52.00	-1.5
HYB	57.57	269	ePc	47 04.00	-1.5
	1.0s	85.00nm		5.8mb	
MBC	58.00	16	ePc	47 07.30	-0.4
	0.8s	23.00nm		5.3mb	
ASPA	59.36	187	eP	47 16.40	-1.3
	0.6s	25.00nm		5.5mb	
MBL	59.87	203	eP	47 20.10	-1.1
	0.4s	14.00nm		5.4mb	
GBA	60.51	266	Pd	47 25.40	-0.4
	1.0s	93.50nm		5.9mb	
POO	60.82	273	iPc	47 27.40	-0.6
ALE	61.50	3	ePc	47 31.30	-0.4
	1.2s	54.00nm		5.6mb	
RMQ	62.30	172	iPc	47 36.80	-0.7
KOD	62.37	263	eP	47 38.00	-0.7
DZM	62.40	153	iPc	47 39.00	0.6
NANU	62.62	206	iPc	47 39.40	-0.3
WARB	62.93	194	iPd	47 28.50	-13.3X
	0.6s	27.00nm			
MAIO	63.70	297	iPc	47 46.60	-0.4
			eS	57 10.00	
KEV	64.50	339	iP	47 51.00	-0.6
	0.9s	33.80nm		5.4mb	
YKA	65.29	30	eP	47 56.80	0.1
YKC	65.35	30	ePc	47 56.50	-0.6
	0.7s	17.00nm		5.2mb	
MEKA	65.38	202	iPd	47 56.90	-0.8
SOD	65.98	337	iP	48 01.00	-0.2
CMS	66.98	175	iPd	48 08.10	0.3
DAG	67.09	355	iPc	48 06.80	-1.2
	0.9s	28.57nm		5.3mb	
STK	67.20	179	iPd	48 09.20	0.0
KJF	67.48	334	iP	48 10.10	-0.6
	0.8s	80.70nm		5.8mb	
GMW	68.64	46	P	48 19.00	0.7
COOL	68.70	198	eP	48 17.00	-1.7
SUF	68.93	333	iP	48 19.00	-0.7
	0.4s	12.40nm		5.2mb	
RMW	69.26	46	P	48 23.00	0.8
PNT	69.57	43	eP	48 24.00	0.1
	0.6s	7.00nm		4.8mb	
LON	69.62	47	P	48 24.00	-0.3
BAL	69.67	202	eP	48 19.00	-5.6X

BWA 70.11 173 iPc 48 27.60 0.4
KLB 70.28 201 eP 48 27.00 -1.3
NUR 70.87 332 iP 48 30.50 -1.0
Z 21s 0.40um 4.7Msz
LR 22 50.00
CAN 71.05 173 eP 48 33.00 0.1
NWAO 71.69 201 eP 48 36.00 -0.7
WDC 72.37 53 ePc 48 41.70 0.8
LBFM 72.38 52 P 48 42.00 0.7
TOO 73.01 176 eP 48 45.30 0.8
0.9s 26.00nm 5.2mb
SES 73.59 39 ePc 48 47.90 0.0
ORV 73.59 53 ePc 48 48.50 0.4
UPP 73.91 334 iP 48 48.60 -0.9
i 49 01.00
SLY 73.94 302 iPd 48 50.00 -0.1
ARN 74.77 55 P 48 55.40 0.4
HFS 75.08 336 eP 48 55.40 -0.9
1.3s 105.50nm 5.6mb
Z 17s 0.24um 4.6MszX
LR 20 17.00
MSL 75.12 304 iPd 48 56.00 -0.9
CMB 75.15 54 ePc 48 58.00 0.8
FFC 75.18 32 iPc 48 56.30 -0.6
1.0s 61.00nm 5.5mb
NRA0 75.33 337 P 48 55.40 -2.3
PRS 75.44 56 ePc 48 59.80 1.0
NAO 75.49 337 P 48 57.30 -1.3
0.8s 36.60nm 5.4mb
LRM 75.54 44 ePc 49 00.30 0.8
LLA 75.57 55 eP 49 00.60 1.1
BHD 75.97 301 eP 49 01.00 -0.8
KVN 76.07 52 P 49 03.00 0.5
FRI 76.18 54 eP 49 03.60 0.7
KVT 77.02 311 P 49 08.50 0.9
EUR 77.17 51 iP 49 09.60 0.9
0.2s 30.70nm 6.0mb
TNP 77.19 52 P 49 09.50 0.7
0.9s 16.93nm 5.1mb
SYP 77.39 57 eP 49 13.00 3.1X
CLC 78.25 54 eP 49 15.00 0.5
TAU 78.44 175 eP 49 16.00 1.0
SBB 78.75 55 eP 49 18.00 0.7
BW06 79.05 45 P 49 19.00 0.0
CFR 79.05 318 eP 49 18.50 -0.1
VRI 79.37 319 ePd 49 20.50 0.2
RVR 79.46 56 eP 49 21.00 0.0
KRA 79.88 326 eP 49 23.10 0.1
0.9s 59.00nm 5.5mb
e 49 28.90
e 49 35.90
MLR 80.03 320 ePc 49 24.00 -0.1
KRP 80.04 153 eP 49 25.00 1.2
PLM 80.18 56 eP 49 26.00 0.8
TPC 80.28 55 eP 49 27.00 1.5
SPC 80.35 325 eP 49 26.20 0.4
CMP 80.66 320 ePd 49 40.00 12.7X
BAR 80.71 56 eP 49 28.00 0.2
KSP 80.94 328 iPc 49 28.30 -0.3
1.1s 48.00nm 5.4mb
i 49 42.30
ed 52 33.50
HRT 80.99 314 eP 49 30.00 0.9
CTT 81.50 315 eP 49 32.00 0.3
GLA 81.73 55 eP 49 34.00 0.9
BRG 81.91 329 iPc 49 33.90 0.3
1.2s 44.00nm 5.4mb
i 49 47.90
e 52 41.00
CLL 81.97 330 iPc 49 33.70 -0.2
1.4s 78.00nm 5.5mb
ipP 49 46.90 45km
SRO 82.23 325 iP 49 36.60 1.3
e 49 49.40
PRU 82.32 328 Pc 49 36.00 0.2
1.4s 32.00nm 5.2mb
e 49 49.50
ZST 82.52 326 eP 49 37.00 0.2
MOX 83.04 330 iPc 49 39.50 0.0
1.3s 36.00nm 5.3mb
epP 49 53.50 48km
LR 29 40.00
RDO 83.14 316 eP 49 41.00 0.8
WIT 83.22 334 eP 49 42.00 1.7
KHC 83.38 328 iPc 49 42.40 1.0
1.2s 32.00nm 5.3mb
i 49 55.50

GOL 83.44 45 P 49 43.00 0.9
ELL 83.45 311 iP 49 41.50 -0.6
EZN 83.58 315 eP 49 41.90 -0.5
MSZ 83.70 161 P 49 42.60 -0.1
WTS 83.83 333 eP 49 43.50 0.0
0.8s 12.00nm 5.0mb
e 49 56.50
e 50 04.00
IZM 83.98 314 eP 49 44.00 -0.6
PRK 83.99 315 eP 49 45.00 0.5
KSL 84.06 311 eP 49 44.20 -0.7
YER 84.19 312 iP 49 46.60 0.9
EKA 84.21 340 Pc 49 45.40 0.0
0.7s 7.00nm 4.9mb
VAY 84.66 318 iP 49 48.00 0.1
PTJ 84.73 325 eP 49 47.70 -0.6
ENN 85.15 333 eP 49 50.00 -0.1
1.0s 42.00nm 5.6mb
e 50 03.00
MEM 85.25 333 Pd 49 51.00 0.4
e 50 03.60
LJU 85.29 326 e(P) 49 50.50 -0.5
VBY 85.36 325 eP 49 51.30 0.0
RBL 85.43 326 Pd 49 51.00 -0.7
CEY 85.57 325 eP 49 52.00 -0.4
VOY 85.59 326 eP 49 51.50 -1.1
FVI 85.66 327 P 49 51.50 -1.2
OHR 85.76 319 iP 49 53.20 -0.3
1.1s 0.06nm 2.7mb X
i 50 07.20
KZN 85.80 318 eP 49 53.30 -0.4
TRI 85.89 326 iPd 49 53.20 -0.7
KAP 85.91 311 eP 49 54.70 0.5
ALQ 85.93 49 eP 49 55.00 0.4
1.0s 20.25nm 5.3mb
SNF 85.96 334 P 49 54.10 -0.1
e 50 08.20
WLF 85.97 332 P 49 54.60 0.4
DOU 86.19 333 P 49 55.00 -0.3
DMU 86.49 341 eP 49 57.30 0.5
CDF 86.55 331 eP 49 56.90 -0.4
0.9s 36.00nm 5.6mb
CTI 86.58 327 P 49 56.50 -1.0
SCH 86.83 15 eP 49 59.00 0.5
DLE 86.94 341 eP 49 59.60 0.6
DCN 87.09 341 eP 49 58.30 -1.3
BSF 87.21 331 eP 49 59.80 -0.7
0.8s 6.40nm 4.9mb
HAU 87.24 331 eP 50 00.00 -0.5
0.8s 16.10nm 5.3mb
ITM 87.90 316 eP 50 02.70 -1.2
ARV 87.96 325 P 50 03.60 -0.5
VAI 87.97 329 Pd 50 03.60 -0.4
PGD 88.23 326 P 50 06.30 0.7
BOB 88.55 328 P 50 07.00 0.0
LOR 88.81 332 eP 50 07.50 -0.6
1.2s 23.80nm 5.4mb
SDI 88.90 323 P 50 08.00 -0.7
MNS 88.93 324 P 50 08.00 -0.8
LBF 89.00 332 eP 50 08.50 -0.5
1.2s 13.00nm 5.1mb
FLN 89.10 335 eP 50 08.10 -1.3
SSF 89.11 332 eP 50 09.30 -0.2
1.2s 22.00nm 5.4mb
LPG 89.11 330 eP 50 09.60 -0.3
1.3s 28.80nm 5.4mb
LDF 89.12 335 eP 50 09.20 -0.3
MGR 89.21 321 P 50 09.00 -1.1
AVF 89.40 332 eP 50 10.70 -0.1
1.0s 34.80nm 5.6mb
GRR 89.55 335 eP 50 11.60 0.1
LPF 89.92 335 eP 50 13.40 0.2
1.0s 32.00nm 5.6mb
SBF 90.14 328 eP 50 13.30 -1.2
1.0s 32.00nm 5.6mb
MAF 90.17 332 eP 50 14.80 0.3
1.3s 57.70nm 5.7mb
TCF 90.25 333 eP 50 14.80 -0.1
1.2s 24.90nm 5.4mb
LSF 90.53 333 eP 50 16.10 -0.1
1.0s 40.00nm 5.7mb
MFF 90.84 334 eP 50 17.70 0.2
1.0s 41.60nm 5.8mb
LRG 90.93 329 eP 50 17.70 -0.3
1.0s 60.00nm 5.9mb
LMR 90.97 328 eP 50 17.50 -0.7
1.0s 40.00nm 5.8mb

RJF 91.34 333 eP 50 20.00 0.1
0.9s 26.20nm 5.6mb
CAF 91.45 332 eP 50 20.90 0.5
1.0s 28.00nm 5.6mb
LFF 91.94 333 eP 50 22.90 0.3
0.8s 16.10nm 5.5mb
LPO 91.99 332 eP 50 22.90 0.0
1.0s 17.60nm 5.4mb
GAC 92.67 24 eP 50 26.50 0.6
EPF 93.72 332 eP 50 30.10 -0.8
1.0s 16.00nm 5.4mb
BNG 112.77 294 ePKPc 56 09.00 17.3X
1.0s 10.00nm
id 56 40.10
BUL 119.08 265 iPKPc 56 03.10 -0.7
0.9s 4.62nm
i 57 22.80
i 57 40.90
SLR 122.03 260 iPKPd 56 09.00 -0.3
0.8s 11.19nm
SEK 123.71 257 ePKP 56 13.00 0.5
i 58 15.00
SWZ 125.05 260 ePKP 56 10.50 -4.6X
0.6s 10.00nm
SPA 125.49 180 iPKPd 56 14.70 0.0
0.9s 22.27nm
TIC 126.97 316 PKP 56 18.50 -0.5
KIC 127.04 315 PKP 56 18.62 -0.5
1.1s 17.50nm
LIC 127.31 315 PKP 56 19.18 -0.4
0.9s 10.50nm
ARE 145.58 65 iPKPd 56 54.50 1.0
ZOBO 147.89 60 PKPd 56 59.00 1.4
1.0s 147.50nm
Z 20s 0.20um 4.9Msz
LR 47 35.00
LPB 148.08 61 PKP 56 58.00 0.3
0.9s 117.65nm
i 57 15.00
CNCB 148.35 61 PKPc 57 00.20 1.9
i 57 04.00
ITR 153.20 358 ePKP 57 11.50 6.6X
e 57 27.20
SOB1 153.62 3 ePKP 57 06.50 1.0
e 57 13.90
e 57 26.20
S.D. = 1.0 on 224 of 247 obs.

% MAR 17, 1989 17h 10m 44.06± 1.08s
41.214 N ±11.1km 28.925 E ± 7.3km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

ISK 0.18 146 ePg 10 48.00 -0.1
CTT 0.38 260 iPg 10 51.70 -0.2
HRT 0.69 125 ePg 10 57.70 0.0
DMK 1.07 305 ePn 11 04.20 0.1
BNT 1.15 222 iPn 11 05.70 0.2
S.D. = 0.2 on 5 of 5 obs.

MAR 17, 1989 17h 26m 21.41± 0.42s
58.598 N ± 4.3km 155.690 W ± 3.2km
DEPTH = 150.0 ± 2.8 km
5.0mb (52 obs.)
ALASKA PENINSULA (12)
Felt (III) at Egigik.

PDB 1.42 32 iP 26 51.65 1.2
iS 27 13.47
KDC 1.90 115 iPc 26 54.10 -1.6
ILIM 2.04 42 iP 26 58.87 1.4
iS 27 26.36
CNPM 2.48 66 iP 27 02.95 0.2
SVW 2.52 1 iPd 27 05.50 2.2
RDT 2.59 39 iP 27 05.57 1.4
iS 27 36.93
NNL 2.68 55 eP 27 06.40 1.2
eS 27 39.27
NKA 3.12 44 eP 27 13.01 2.2
SPU 3.17 34 iP 27 13.06 1.5
iS 27 50.75
CRP 3.21 32 iP 27 14.16 1.9
iS 27 53.98
CGLM 3.29 33 iP 27 14.82 1.7
SLKM 3.38 53 eP 27 13.84 -0.4
SEW 3.53 62 eP 27 15.90 -0.3
eS 27 54.54

17d 17h

SKT	3.97	30	iP	27	23.82	1.8	SOD	54.33	359	iP	35	32.40	-1.2		0.7s	11.00nm		4.7mb					
PTE	4.07	53	iP	27	22.91	-0.3	KJF	57.50	358	iP	35	55.20	-1.1	ORX	75.26	12	P	37	48.05	-0.8			
PMS	4.07	47	iPc	27	23.30	0.0		0.5s	15.40nm			5.2mb		LPO	75.31	17	iPd	37	49.00	-0.1			
SDN	4.19	221	ePd	27	23.70	-1.1	HHC	57.58	296	eP	35	57.60	0.3		0.6s	72.10nm		5.6mb					
PWA	4.22	41	iPc	27	25.20	0.0	SUF	59.00	359	iP	36	05.80	-0.9	LSD	75.34	12	P	37	50.20	0.7			
TTA	4.35	358	iPd	27	29.10	2.1		0.4s	14.90nm			5.3mb		VOY	75.38	7	eP	37	48.90	-0.6			
MTU	4.35	68	iP	27	26.95	0.0	NAO	60.45	8	P	36	14.90	-1.8	RSP	75.65	12	P	37	51.54	0.4			
PWL	4.36	56	iP	27	26.52	-0.6		0.6s	6.40nm			4.7mb		8NI	75.69	13	Pd	37	52.40	1.1			
KNIM	4.42	63	iP	27	26.92	-1.0	NRA0	60.59	7	eP	36	16.00	-1.6	TRI	75.69	8	iPc	37	50.40	-0.7			
			eS	28	15.48		NUR	61.23	360	iP	36	21.10	-0.8	CEY	75.71	7	e(P)	37	50.00	-1.3			
PLRM	4.45	45	eP	27	27.37	-0.9	HFS	61.31	6	eP	36	20.60	-1.9	RRL	75.83	13	P	37	53.49	1.2			
PMR	4.45	45	iPc	27	27.30	-0.9		0.9s	23.30nm			5.1mb		VRI	75.88	358	ePd	37	52.00	-0.2			
			eS	28	12.00		UPP	61.77	4	iP	36	24.10	-1.4	8OB	76.27	11	Pd	37	55.10	0.6			
PME	4.51	45	eP	27	28.23	-0.8	GTA	64.08	303	eP	36	40.80	-0.3	PZZ	76.28	13	P	37	54.31	-0.3			
GHO	4.64	44	eP	27	30.04	-0.9	EKA	64.30	17	P	36	41.00	-1.1	DOI	76.29	12	P	37	54.40	-0.3			
SML	4.88	46	iP	27	33.17	-0.9		0.6s	5.20nm			4.6mb		CKI	76.48	12	P	37	55.50	-0.1			
MID	4.90	76	iPc	27	33.80	-0.5	WMO	65.29	315	P	36	49.00	0.2	STV	76.56	12	P	37	54.82	-1.3			
GLI	4.91	59	eP	27	33.02	-1.4	WTS	68.85	11	eP	37	11.00	0.2	ROB	76.57	12	P	37	55.02	-1.2			
HIN	5.02	65	iP	27	35.60	-0.3		0.8s	34.00nm			5.2mb		FIN	76.69	12	P	37	55.23	-1.6			
FID	5.14	61	eP	27	35.92	-1.6	CD2	69.33	295	eP	37	14.20	0.1	EPF	76.79	18	iPd	37	57.10	-0.3			
VZW	5.23	58	eP	27	37.64	-1.1	ENN	69.96	12	eP	37	17.50	-0.1		0.7s	11.00nm		4.7mb					
VLZ	5.36	58	eP	27	39.99	-0.3		1.0s	40.00nm			5.2mb		SBF	76.95	12	iPd	37	58.40	0.1			
CVA	5.42	65	iP	27	40.72	-0.4	SNF	70.02	13	P	37	17.80	-0.2		0.7s	67.00nm		5.5mb					
SGAM	5.66	66	iP	27	44.29	-0.2	CLL	70.06	8	iPd	37	17.40	-0.8	IMI	76.95	12	P	37	57.38	-0.9			
KLU	5.69	55	iP	27	44.26	-0.7		1.1s	29.00nm			5.0mb		FRF	77.15	13	eP	37	59.70	0.4			
TOA	5.89	49	iPc	27	47.30	-0.2	MEM	70.13	12	P	37	18.60	0.0		0.7s	22.90nm		5.0mb					
RAGM	5.89	68	iP	27	47.42	-0.1	DOU	70.47	13	Pc	37	20.60	-0.1	LRG	77.22	13	iPd	38	00.40	0.7			
GLB	6.60	59	eP	27	56.85	-0.3		0.8s	40.00nm			5.3mb			0.6s	25.20nm		5.1mb					
FBA	7.34	27	iPd	28	05.80	-1.3	BRG	70.56	7	iP	37	11.20	-10.0X	PGD	77.36	9	P	38	02.20	1.5			
IMA	7.56	6	iPd	28	11.50	1.4		0.8s	14.00nm					LMR	77.36	13	eP	38	01.10	0.7			
CTGM	7.62	66	iP	28	11.18	0.2	MOX	70.62	9	iPd	37	21.50	-0.2		0.6s	21.60nm		5.1mb					
YKU	8.28	77	ePc	28	20.00	0.5		0.9s	57.00nm			5.4mb		ASS	78.23	9	P	38	05.50	0.2			
BCPM	8.33	74	iP	28	20.20	-0.1	KSP	70.72	5	iPd	37	21.70	-0.5	CVF	78.38	12	iPd	38	06.30	0.2			
HYT	9.45	69	P	28	35.50	0.2		0.8s	20.00nm			5.0mb			0.7s	27.30nm		5.1mb					
DWY	9.52	48	P	28	36.40	0.4	WLF	71.08	12	Pc	37	24.60	0.3	MNS	78.92	9	P	38	09.00	0.0			
SIT	10.96	89	eP	28	52.70	-2.2	FLN	71.08	17	eP	37	23.70	-0.7	AZI	79.37	8	P	38	11.50	0.1			
BRW	12.77	358	iPd	29	18.80	0.5		0.7s	14.10nm			4.9mb		SDI	79.68	8	P	38	13.70	0.6			
ADK	13.70	250	iPc	29	30.50	0.2	LDF	71.30	17	eP	37	25.10	-0.6	SKO	79.77	2	iP	38	13.60	0.1			
SMY	17.92	264	ePc	30	21.00	-1.0		0.7s	9.70nm			4.7mb			1.1s	73.00nm		5.3mb					
	0.8s	219.20nm			5.5mb		GRR	71.39	17	eP	37	25.90	-0.3	GUN	79.86	308	Pd	38	15.70	1.0			
YKA	20.31	62	eP	30	47.80	0.9		0.6s	6.10nm			4.6mb		KVT	80.20	351	iP	38	17.20	1.3			
YKC	20.38	62	iPd	30	48.00	0.5	PRU	71.48	7	Pd	37	26.60	-0.2	KKN	80.21	308	Pd	38	17.60	1.2			
	0.3s	17.00nm			5.0mb			1.0s	17.40nm			4.8mb		GKN	80.29	309	Pd	38	17.80	1.1			
MBC	21.85	22	eP	31	01.00	-1.0	GYA	71.63	291	P	37	28.60	0.4	PKI	80.35	308	Pd	38	18.20	0.9			
	0.6s	12.00nm			4.5mb		KRA	71.65	3	eP	37	27.10	-0.6	DMN	80.44	308	Pd	38	19.10	1.4			
PNT	22.90	98	eP	31	18.00	5.5X		0.8s	39.00nm			5.2mb			0.7s	26.00nm		5.1mb					
EDM	24.01	84	iPd	31	24.90	1.7	LPF	71.70	18	eP	37	28.00	-0.1	OHR	80.61	3	eP	38	18.00	-0.1			
	0.5s	22.00nm			4.9mb			0.6s	11.50nm			4.8mb		MGR	81.36	7	P	38	21.80	-0.1			
SES	26.74	88	eP	31	50.00	1.6	KHC	72.27	7	iPd	37	32.00	0.5	AAPN	81.55	23	iP	38	25.00	1.9			
FFC	29.10	74	eP	32	10.00	0.5		1.0s	28.50nm			5.0mb		ASMO	81.57	22	iPd	38	24.50	1.3			
	0.6s	8.00nm			4.6mb		CDF	72.44	12	iPd	37	32.40	-0.1	ALOJ	81.74	23	iPd	38	26.00	1.9			
HPI	29.98	101	eP	32	19.00	1.3		0.6s	16.90nm			4.9mb		ACHM	81.80	22	iPd	38	26.40	2.0			
KVN	30.95	113	eP	32	27.00	0.9	SPC	72.52	3	eP	37	33.00	-0.2	ATEJ	81.95	23	iPd	38	26.70	1.5			
ALE	32.80	14	eP	32	39.00	-2.5	HAU	72.74	13	iPd	37	34.00	-0.2	APHE	81.98	22	iPd	38	27.20	1.8			
	0.6s	10.00nm			4.7mb			0.6s	48.60nm			5.4mb		GBA	96.11	309	Pd	39	32.30	-0.6			
MSU	34.29	106	eP	32	57.00	2.0	BSF	72.96	12	iPd	37	35.40	-0.2		0.7s	2.70nm		4.8mb					
RSSD	34.41	92	eP	32	57.40	1.4		0.6s	27.00nm			5.2mb		BUL	141.46	354	ePKP	45	30.00	-6.0X			
RSON	35.43	75	iPc	33	05.40	1.2	LOR	73.16	14	iPd	37	36.40	-0.3				ipP	45	38.30				
	0.5s	24.83nm			5.2mb			0.6s	22.50nm			5.1mb		SLR	147.04	353	iPKPd	45	47.50	2.3X			
GOL	36.87	98	eP	33	18.00	1.2	MFF	73.24	17	iPd	37	37.30	0.2		0.9s	29.41nm							
	1.0s	15.00nm			4.7mb			0.6s	28.80nm			5.2mb		SWZ	148.59	358	iPKPd	45	48.00	0.3X			
ALQ	39.95	104	eP	33	43.70	1.4	SSF	73.31	15	iPd	37	37.50	0.0		0.6s	53.33nm							
			e	34	23.00		ZST	73.40	5	iP	37	37.90	-0.1	SEK	149.65	354	iPKPd	45	54.00	4.7X			
			e	35	45.70		LBF	73.45	14	iPd	37	38.00	-0.4		0.3s	64.94nm							
DAG	42.19	14	iPd	33	58.00	-1.9		0.6s	14.70nm			4.9mb		FRS	151.15	358	iPKPd	45	57.80	6.6X			
	0.8s	14.18nm			4.6mb		AVF	73.56	15	iPd	37	38.70	-0.2		0.6s	60.00nm							
SCH	45.53	54	ePd	34	27.20	0.2	BGF	73.72	15	iPd	37	39.80	-0.1	TUH	154.46	10	ePKP	45	39.00	-16.8X			
	0.5s	40.00nm			5.3mb		SMF	73.77	15	iPd	37	40.00	-0.2		S.D. = 1.0	on 184 of 192 obs.							
ELC	47.10	87	eP	34	39.40	-0.2		0.7s	24.60nm			5.0mb											
GAC	47.92	69	eP	34	45.50	-0.3	LSF	73.83	16	iPd	37	40.00	-0.6										
CN2	48.63	289	Pc	34	51.00	-0.3	SRO	73.84	4	eP	37	40.90	0.4										
DHN	48.67	73	eP	34	51.90	0.3	TCF	73.89	16	iPd	37	40.60	-0.4										
PTN	48.98	69	eP	34	53.60	-0.4		0.6s	24.30nm			5.1mb											
RSNY	49.22	69	eP	34	55.70	-0.1	MAF	74.01	16	iPd	37	41.60	0.0										
CBM	50.53	62	eP	35	05.10	-0.7		0.7s	23.10nm			5.0mb											
BNH	50.78	67	eP	35	07.20	-0.5	KBA	74.30	8	iPd	37	43.80	0.3										
GBTN	50.95	84	eP	35	08.80	-0.3		0.5s	50.80nm			5.5mb											
TKL	51.19	83	eP	35	10.80	-0.1	FVI	74.74	8	Pd	37	45.40	-0.3										
NAV	51.46	80	eP	35	12.80	-0.2	RJF	74.76	16	eP	37	45.40	-0.5										
BLA	51.73	80	eP	35	14.80	-0.2		0.7s	24.20nm			5.0mb											
	0.8s	37.34nm			5.2mb		RBL	74.95	8	Pd	37	46.20	-0.9										
TBR	51.90	72	eP	35	16.00	-0.2	LFF	74.99	17	iPd	37	47.60	0.4										
KEV	51.93	359	eP	35	14.00	-2.0	VAI	75.11	11	Pd	37	48.00	0.2										
CVL	52.15	77	eP	35	18.00	-0.1	CTI	75.19	9	P	37	47.50	-1.0										
PRM	53.14	84	eP	35	24.80	-0.5	CAF	75.21	16	iPd	37	48.60	0.1										
JSC	53.56	83	eP	35	27.90	-0.5		0.7s	27.50nm			5.1mb											
LHS	53.64	82	eP	35	28.50	-0.5	LPG	75.26	13	iPd	37	49.80	0.7										

MAR 17, 1989 19h 33m 08.60± 0.42s
34.479 S ± 4.3km 178.394 W ± 3.3km
DEPTH = 59.2 ± 3.4 km
5.7mb (34 obs.)
SOUTH OF KERMADEC ISLANDS (179)
Ms 6.0 (BRK), Mo=1*10**18 Nm
(PPT).
FAULT PLANE SOLUTION: P-Waves
NP1:Strike= 39 Dip=55 Slip= 90
NP2: 219 35 90
Principal Axes:
T Plg=80 Azm=309
P 10 129
Comment: The focal mechonism is poorly controlled and corresponds to reverse faulting. The preferred foult plane is NP2.

MOMENT TENSOR SOLUTION
Dep 44 No. of sta: 11
Moment Tensor; Scale 10**18 Nm
Mrr= 2.04 Mtt=-0.69
Mff=-1.35 Mrt=-0.31
Mrf=-0.49 Mtf=-0.95
Principal axes:
T Val= 2.12 Plg=82 Azm=119
N -0.02 1 215
P -2.10 8 305
Best Double Couple:Mo=2.1*10**18
NP1:Strike= 36 Dip=37 Slip= 91
NP2: 214 53 89
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 15S, 37C
Centroid Location:
Origin Time 19:33:13.2 0.4
Lat 34.30S 0.03 Lon 178.31W 0.03
Dep 63.2 1.7 Half-duration 4.5
Moment Tensor; Scale 10**18 Nm
Mrr= 1.45 0.04 Mtt= 0.23 0.07
Mff=-1.68 0.05 Mrt=-0.24 0.05
Mrf= 0.07 0.05 Mtf=-1.16 0.06
Principal Axes:
T Val= 1.54 Plg=72 Azm=204
N 0.70 18 26
P -2.23 1 295
Best Double Couple:Mo=1.9*10**18
NP1:Strike= 8 Dip=47 Slip= 65
NP2: 223 48 115

HBZ	4.11	220	P	34	10.20	0.0
			S	34	56.00	
WIZ	4.70	228	P	34	29.80	11.2X
			S	35	07.60	
GBZ	5.30	249	P	34	29.30	2.3
KRP	5.99	233	P	34	37.80	1.1
			S	35	44.00	
CNZ	6.77	224	P	34	46.60	-1.0
NEZ	7.69	229	P	35	05.00	4.6X
			S	36	41.00	
COB	9.63	224	P	35	23.00	-4.0X
			S	37	05.50	
RTY	10.05	221	P	35	31.00	-1.8
			S	37	19.00	
KKZ	10.84	212	P	35	32.00	-11.5X
			S	37	11.00	
CMZ	11.45	215	P	35	51.00	-0.7
			S	37	51.00	
MSZ	14.64	222	P	36	30.00	-3.7X
			S	39	02.00	
SVA	16.54	349	iPd	36	56.20	-1.8
VUN	16.64	350	ePd	36	57.00	-2.4
			eS	37	38.00	
SGE	17.14	348	ePd	37	04.40	-1.3
			eS	37	50.00	
DZM	18.17	309	iPd	37	20.00	1.7
			iS	41	02.20	
PVC	20.47	321	iPc	37	44.50	0.7
RAR	21.07	56	P	37	48.50	-1.3
			S	41	28.00	
AFI	21.34	18	iPc	37	52.00	-0.7
			(S)	41	48.00	
RIV	25.16	263	eP	38	45.00	15.2X
			eS	43	00.00	
			e	45	12.00	
COO	25.31	271	iPd	38	35.50	4.2X
			e	38	38.00	
			e	39	13.00	
			e	46	04.00	
CNB	26.40	259	iPc	38	44.20	2.9
	1.2s	230.00nm			5.6mb	
			epP	39	00.50	70kmX
			e	46	07.30	
			LR	47	00.00	
CAN	26.69	259	eP	38	46.00	2.0
			i	39	02.90	
			i	42	30.00	
			e	46	09.00	
BWA	27.30	261	iPc	38	48.90	-0.6
TBI	27.56	74	iP	39	03.40	11.6X
	0.9s	60.00nm				
TOO	29.26	253	iPd	39	09.10	1.9
RMQ	29.31	277	iPc	39	08.80	1.1
			e	39	25.00	
			e	42	35.00	

CMS	30.06	266	eP	39	16.00	1.7
			e	42	36.00	
AFR	30.61	64	iP	39	18.20	-1.0
	0.8s	50.00nm			5.3mb	
PAE	30.68	64	iP	39	19.00	-0.8
	0.8s	40.00nm			5.2mb	
PPT	30.74	64	iP+	39	19.50	-0.9
	0.8s	65.00nm			5.4mb	
Z	18s	25.00um			5.9Msz	
TVO	30.85	65	iP	39	20.90	-0.5
	0.8s	45.00nm			5.3mb	
PPN	30.87	64	iP	39	20.60	-0.9
	0.8s	55.00nm			5.3mb	
HNR	31.87	316	eP	39	27.00	-3.2X
			eS	44	20.00	
STK	33.44	263	eP	39	45.00	1.1
			e	42	45.00	
PMO	33.61	62	iP	39	44.90	-0.5
	0.8s	35.00nm			5.3mb	
VAH	33.65	63	iP	39	44.90	-0.9
	0.8s	30.00nm			5.2mb	
TPT	33.83	63	iP	39	46.40	-0.9
	0.8s	35.00nm			5.3mb	
RUV	33.87	63	iP	39	46.80	-0.8
	0.8s	20.00nm			5.1mb	
CTA	34.34	285	iPc+	39	52.20	0.5
	1.3s	346.15nm			6.1mb	
			i	40	04.20	
			epP	40	23.00	141kmX
			iPP	41	18.00	
			i(PPP)	41	29.00	
			iPcP	42	32.00	
			iS	45	05.00	
			i	45	16.00	
			i(ScP)	46	08.50	
			e(SSS)	48	00.00	
			i	49	48.00	
			iScS	50	06.00	
ADE	35.06	257	iPc	39	59.00	1.2
	1.5s	500.00nm			6.2mb	
RKT	39.43	85	iP	40	33.70	-0.8
	1.2s	75.00nm			5.4mb	
QIS	39.47	279	iPc	40	34.70	-0.2
			e	40	50.00	
PMG	40.21	300	eP	40	41.50	0.5
RAB	40.67	311	eP	40	45.00	0.2
			iS	46	48.00	
LAT	42.24	303	eP	40	56.00	-1.7
SBA	43.96	184	P	41	14.00	3.1X
WRA	44.07	277	Pd	41	12.10	-0.5
	0.5s	43.90nm			5.5mb	
MNDI	44.95	300	e(P)	41	21.00	1.1
WARB	47.66	264	eP	41	26.10	-14.9X
COOL	50.36	256	iPd	42	01.00	-0.7
	0.5s	28.00nm			5.5mb	
MTN	50.41	283	eP	42	01.00	-1.2
			e	42	15.00	
			e	43	38.00	
KNA	50.76	278	eP	42	04.00	-0.8
			eS	42	19.00	
RKG	52.53	251	eP	42	16.00	-2.0
NWAO	52.74	252	iPd	42	18.50	-1.1
	0.5s	12.00nm			5.2mb	
KLB	52.81	254	iPd	42	19.10	-1.0
	0.5s	41.00nm			5.7mb	
MUN	53.89	253	iPd	42	27.30	-0.8
	0.6s	122.00nm			6.1mb	
BAL	54.01	255	eP	42	27.00	-1.9
MEKA	54.13	260	eP	42	28.10	-1.8
	0.6s	70.00nm			5.9mb	
MRWA	55.12	256	eP	42	36.00	-1.1
MBL	55.46	267	iPc	42	38.00	-1.7
	0.5s	24.00nm			5.5mb	
SPA	55.70	180	iPc	42	41.80	0.7
	1.0s	233.00nm			6.2mb	
AAI	58.17	289	eP	43	17.00	18.1X
NANU	58.36	263	eP	42	59.30	-0.8
HON	58.78	22	P	43	03.00	0.1
Z	21s	3.28um			5.4Msz	
GUA	59.13	317	e(P)	43	03.30	-2.1
	1.3s	138.46nm			5.9mb	
OPA	59.13	22	P	43	05.00	-0.3
GUMO	59.19	317	e(P)	43	02.50	-3.4X
	1.3s	130.72nm			5.9mb	
PJG	59.19	317	e(P)	43	02.30	-3.6X
MKS	64.19	282	ePd	43	40.00	0.5
DAV	67.11	297	eP	43	57.00	-1.2

MAW	68.39	201	iPc	44	06.00	0.5
	1.2s	360.00nm			6.2mb	
BKB2	68.58	284	eP	44	08.00	0.5
KKM	73.55	289	eP	44	36.50	-0.9
QCP	75.41	299	eP	44	31.50	-16.5X
BAG	76.95	300	eP+	44	54.00	-2.8
			eS	54	38.00	
KAKJ	80.24	327	P	45	13.60	-0.5
CHJJ	80.64	326	P	45	15.80	-0.5
IIDJ	80.68	325	P	45	16.40	-0.1
KGM	81.49	278	eP	45	21.00	-0.2
NIIJ	81.62	327	P	45	22.70	1.4
MTMJ	81.63	326	P	45	21.50	0.0
TSRJ	81.65	324	P	45	21.50	0.0
YAMJ	81.93	328	eP	45	23.10	0.2
OFUJ	82.00	330	eP	45	23.60	0.4
ANP	82.25	308	e(P)	45	16.00	-9.0X
SHK	82.52	321	iPc	45	25.70	-0.4
	1.3s	292.31nm			6.1mb	
AOMJ	83.78	330	eP	45	32.70	0.4
OZH	84.03	306	eP	45	32.00	-2.0
E	34s	4.00um				
			S	55	47.00	
HOOJ	84.16	332	eP	45	37.30	3.1X
KUSJ	84.24	334	eP	45	35.50	0.9
IPM	84.83	279	ePd	45	37.90	-0.4
	0.9s	47.40nm			5.6mb	
ASAJ	85.89	333	eP	45	44.50	1.7
ADK	86.01	1	P	45	42.50	-0.7
	1.2s	266.67nm			6.3mb	
GZH	86.44	301	P	45	46.30	0.3
QIZ	86.45	296	eP	45	44.50	-1.6
N	15s	0.70um				
			sP	46	05.00	
			S	56	08.00	
SSE	86.55	312	Pc	45	46.00	-0.3
	1.3s	0.05nm			2.5mb	X
Z	20s	1.40um			5.4Msz	
N	16s	0.90um				
			pP	46	03.00	60kmX
			sP	46	09.00	
			eSKS	56	10.00	
SNG	86.65	281	eP	45	46.20	-1.0
	1.4s	255.81nm			6.2mb	
SMY	87.09	355	P	45	48.00	-0.4
	1.2s	328.28nm			6.4mb	
Z	21s	6.25um			6.0Msz	
BLP	87.53	44	P	45	51.80	0.8
SYP	87.75	45	eP	45	53.00	0.7
BCH	88.15	44	P	45	55.70	1.5
PRS	88.24	43	eP	45	55.80	1.4
GCC	88.40	42	eP	45	56.30	1.2
BAR	88.44	48	eP	45	56.00	0.5
PRI	88.50	43	eP	45	57.30	1.5
PAS	88.54	46	eP	45	56.00	0.1
NJ2	88.65	311	Pc	45	57.40	1.0
	4.0s	1.10nm			3.5mb	X
Z	22s	1.90um			5.5Msz	
MWC	88.66	46	eP	45	56.00	-0.7
			e	49	24.00	
LLA	88.68	43	eP	45	57.50	0.9
PLM	88.78	47	eP	45	58.00	0.7
MHC	88.82	42	eP	45	58.50	1.2
BRK	88.86	41	eP	45	58.40	1.1
BKS	88.88	41	iPc	45	58.50	1.1
	1.4s	169.00nm			6.1mb	
Z	20s	6.00um			6.0Msz	
N	20s	4.30um				
E	20s	3.90um				
			e	46	09.50	
			e	47	01.00	
			eS	56	30.00	
			ePS	57	12.00	
			iPPS	58	04.00	
			ePSPS	02	52.00	
			eRScS	09	56.00	
			e	11	40.00	
			eLR	12	40.00	
ARN	88.88	42	P	45	57.00	-0.5
			pP	46	10.80	46kmX
RVR	88.91	47	eP	45	57.00	-0.7
SBB	89.13	46	eP	45	59.00	0.2
ISA	89.42	45	eP	46	01.00	0.9
TPC	89.79	47	eP	46	03.00	1.1
GLA	89.83	49	eP	46	03.00	0.9
CMB	90.01	42	iPc	46	03.50	0.7
CLC	90.04	45	eP	46	04.00	1.0

17d 19h

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          e       49 36.00
GSC    90.15  46 eP     46 04.00   0.4
NNT    90.46 285 eP     46 06.50   1.3
          e       17 28.00
ORV    90.49  40 ePc    46 05.40   0.5
WHN    90.54 307 P      46 06.00   0.7
  Z 24s   3.49um              5.7MszX
          pP      46 17.00  35kmX
WDC    90.69  39 ePc    46 06.50   0.7
DL2    91.72 317 Pc     46 11.00   0.5
  Z 28s   2.00um              5.4MszX
          esP     46 32.00
MDJ    91.79 326 Pc     46 12.00   1.3
  Z 24s   5.20um              5.9MszX
  N 20s   2.30um
          epP     46 29.00  59kmX
TNP    91.82  44 P      46 11.90   0.6
  1.2s   48.39nm              5.8mb
          pP      46 24.40  41kmX
KVN    91.99  43 P      46 12.50   0.4
TIA    92.50 313 Pc     46 15.30   1.1
  Z 25s   1.60um              5.4MszX
  N 21s   1.70um
  E 21s   1.50um
          sP      46 35.30
KHT    92.62 286 iPc    46 16.00   0.8
SNY    92.72 321 iPc    46 15.30   0.2
  Z 32s   3.80um              5.6MszX
  N 30s   2.60um
  E 30s   2.20um
CN2    93.18 323 Pc     46 17.30   0.1
  4.0s    0.70nm              3.4mb X
  Z 34s   6.80um              5.9MszX
  N 20s   1.80um
GYA    93.29 300 P      46 18.80   0.6
  Z 30s   1.68um              5.3MszX
          SKS     56 49.00
          S       57 22.00
EUR    93.49  43 iP     46 19.00   0.0
  1.0s   13.46nm              5.3mb
ARE    94.12 113 eP     46 20.00  -2.6
KMI    95.35 297 Pc     46 27.50  -0.4
          TT      46 49.00
          sP      47 12.00
          PP      50 40.00
          SKS     56 56.00
          iS      57 49.00
BJI    95.59 315 eP     46 29.00   0.7
  Z 26s   3.40um              5.7MszX
          esP     46 48.00
          eSKS    57 01.00
          eS      57 47.00
XAN    96.30 307 Pc     46 32.50   0.7
TIY    96.33 312 eP     46 33.30   1.4
  E 25s   4.10um
          sP      46 52.00
ALQ    96.36  52 ePc    46 32.70   0.4
  1.2s   17.58nm              5.5mb
  Z 20s   4.29um              5.9Msz
LPB    96.63 115 P      46 35.00   0.8
  2.0s  117.65nm              6.1mb
          LR      18 10.00
ZOBO   96.78 115 P      46 35.00  -0.1
          iSKS    57 16.00
          LR      18 20.00
CD2    97.96 302 eP     46 40.40   1.1
  Z 15s   1.80um              5.7MszX
          SKS     57 13.00
PNT    98.39  34 eP     46 42.00   1.3
PMR    98.64  14 P      46 41.50  -0.1
TTA    98.72  10 P      46 42.50   0.5
HHC    98.81 314 eP     46 49.20   6.2X
  E 23s   3.30um
BTO    99.59 313 P      46 47.00   0.4
  E 21s   1.60um
GOL    99.93  49 P      46 48.40   0.0
  Z 18s   2.90um              5.8Msz
GLD   100.05  49 Pdiff  46 49.00   0.1
  Z 19s   3.91um              5.9Msz
LZH   100.87 306 Pdiff  46 54.00   1.3
FBA   101.91  13 ePdiff46 56.50    0.2
IMA   102.03  10 Pdiff  46 58.00   1.0
SES   103.26  37 ePdiff47 10.00    7.2X
SHL   103.78 292 ePdiff47 12.50    6.6X
          e       59 30.00
EDM   103.93  34 ePdiff47 05.50   -0.2
GTA   105.36 307 ePdiff47 13.40    0.9

  Z 26s   2.00um              5.5MszX
          SKS     57 47.00
KOD   107.34 271 ePKP   51 34.50   3.7X
INK   107.79  16 ePKP   51 32.00   2.3
          pP      51 49.00
GBA   109.17 274 PKPd   51 33.40  -0.4
  0.7s    2.30nm
YKA   109.25  26 ePKP   51 33.80   1.2
KKN   110.00 290 Pdiff  47 35.30   1.8
HYB   110.23 278 ePKP   51 28.00  -7.9X
RSON  112.80  43 PKP    51 35.30  -4.4X
SLR   114.99 207 ePKP   51 44.80  -0.1
  1.0s   10.00nm
  Z 22s   6.89um              6.2Msz
          i       02 12.50
WMQ   115.44 307 PKP    51 44.90  -0.3
  Z 14s   1.40um              5.7MszX
  E 10s   0.50um
MBC   116.45  13 ePKPc  51 45.30  -0.7
  0.7s   19.00nm
NDI   116.71 288 ePKP   51 47.50  -0.4
NPA   119.08 222 iPKP   51 54.00   1.2
BUL   119.91 209 iPKPd  51 53.60  -0.8
          ipP     52 06.70
SOB1  120.78 129 ePKP   51 54.90  -1.2
          e       52 07.70
KSH   121.93 299 PKP    51 59.00   1.3
RSNY  122.38  55 PKP    51 55.80  -2.4
ITR   122.68 131 ePKP   51 58.00  -1.7
PTZ   123.90 215 iPKP   52 03.00   0.8
          i       52 14.30
          i       52 28.80
LSZ   124.43 212 iPKPc  52 04.00   0.8
          i       52 16.50
          i       53 47.30
BNH   124.62  56 PKP    52 02.00  -0.6
QUE   125.47 285 iPKPc  52 05.20   0.3
MIM   126.32  56 PKP    52 04.80  -1.1
KMZ   127.06 210 iPKPd  52 08.70   0.4
          i       52 21.90
ALE   127.32   9 ePKPc  52 05.80  -1.0
  1.3s   60.00nm
CBM   127.34  54 PKP    52 04.70  -3.1X
MAIO  133.38 290 iPKPc  52 19.20  -0.5
          e       55 47.00
          eS      04 17.00
KHI   133.44 287 ePKPc  52 20.00   0.0
GDH   134.01  24 ePKP   52 18.00  -1.7
          e       53 10.00
          i       55 50.00
          e       07 10.00
LWI   135.43 221 ePKPc  52 24.70   0.3
ARO   136.11 249 ePKP+  52 25.40   0.0
DAG   136.61   7 iPKPc  52 22.30  -2.2
  1.2s   53.13nm
  Z 21s   0.93um              5.5Msz
KEV   142.00 346 ePKP   52 31.00  -3.5X
          i       52 52.30
KER   142.71 283 ePKP   52 33.00  -4.0X
TRO   143.51 350 iPKP   52 33.90  -3.1X
SOD   144.03 344 iPKP   52 36.20  -1.8
TAB   144.03 289 iPKP+  52 37.00  -2.2
SLY   144.26 285 iPKPd  52 36.00  -3.4X
BHD   144.65 280 iPKPd  52 40.00  -0.1
BNG   146.22 212 iPKPc  52 42.50  -0.9
  0.9s  194.00nm
          id      53 06.70
KJF   146.23 340 ePKP   52 41.00  -0.8
  1.1s  307.10nm
          i       52 55.20
MSL   146.28 285 iPKP   52 43.00   0.2
AKU   146.61  15 iPKP   52 45.00   2.7
  1.1s  187.34nm
SUF   147.82 339 ePKP   52 43.00  -1.4
NUR   149.98 337 ePKP   52 48.00   0.2
  0.9s  341.30nm
          i       52 53.20
AKSR  150.60 257 iPKPc  52 56.50   6.6X
AKRL  150.86 257 ePKP   52 57.00   6.8X
RGS   150.90 352 iPKP   52 55.70   6.6X
AKUR  150.92 257 ePKP   52 55.00   4.7X
AGMR  150.94 256 iPKPc  52 51.50   1.1
LIC   151.22 166 PKP    52 51.62   0.5
  1.2s   77.00nm
LEGH  151.26 176 ePKP   52 57.00   5.8X
JARJ  151.31 275 PKP    52 51.10   0.3
MASJ  151.37 274 PKP    52 51.20   0.3

MKRJ  151.39 274 PKP    52 50.30  -0.7
KIC   151.41 167 PKP    52 51.86   0.5
KFNJ  151.44 274 PKP    52 51.70   0.8
BURJ  151.45 275 PKP    52 51.80   0.8
MBH   151.51 270 ePKP   52 50.00  -1.1
SHGH  151.55 177 ePKP   52 53.00   1.4
DSI   151.61 274 ePKP   52 51.00  -0.2
TIC   151.63 166 PKP    52 52.28   0.5
GLH   151.65 276 ePKP   52 53.00   1.8
KOGH  151.70 176 ePKP   52 53.00   1.1
KUK   151.79 176 ePKP   52 53.00   1.0
KVT   152.12 294 iPKP   52 51.90   0.2
UPP   152.52 342 iPKP   52 49.70  -1.9
          i       52 57.60
          i       53 08.20
NRA0  152.95 349 PKP    52 52.00  -0.2
NAO   152.97 350 PKP    52 50.60  -1.6
  0.9s   43.30nm
HFS   153.14 347 ePKP   52 51.30  -1.2
  1.7s   79.30nm
  Z 23s   1.40um              5.7MszX
          LR      48 21.00
LFK   153.85 281 ePKP   53 02.00   7.7X
BER   153.97 356 ePKP   53 03.50   9.9X
CSS   153.97 280 ePKP   53 03.50   9.0X
HLW   154.46 268 ePKP   52 47.00  -8.2X
BBTK  154.68 291 iPKPc  52 55.00  -0.4
BCK   156.39 286 ePKP   52 56.00  -1.7
IAS   156.74 311 ePKP   53 17.00  19.3X
ALT   156.76 290 ePKP   52 57.00  -1.2
ELL   156.91 284 ePKP   52 58.00  -0.5
HRT   156.95 294 ePKP   52 58.00  -0.3
PPE   157.08 309 ePKP   53 00.00   1.8
CFR   157.08 306 ePKP   52 58.00  -0.2
KSL   157.13 282 ePKP   53 02.00   3.4X
CLI   157.17 310 ePKP   52 58.50   0.2
KHL   157.24 288 ePKP   52 56.80  -2.0
TLB   157.34 304 ePKP   52 59.50   1.0
ISK   157.38 295 ePKP   52 58.00  -0.7
PTT   157.58 311 ePKP   53 03.00   4.2X
VRI   157.78 308 ePKPc  53 02.00   2.9X
CTT   157.84 295 ePKP   52 59.00  -0.3
ISR   158.17 307 ePKP   53 00.00   0.4
MLR   158.43 308 ePKPd  52 59.50  -0.5
EKA   158.89   8 PKP    53 01.00   1.0
  2.2s  167.70nm
JMB   158.93 300 iPKPd  53 00.00  -0.4
IZM   159.01 288 ePKP   53 00.00  -0.7
KAP   159.04 280 ePKP   53 01.00   0.2
CMP   159.11 308 ePKPc  53 04.00   3.4X
KRA   159.44 325 ePKP   53 00.00  -0.7
  1.3s   77.00nm
  Z 22s   2.80um              6.1Msz
  N 22s   3.50um
          e       54 04.60
          e       54 12.80
          e       57 20.00
          e       04 15.00
EZN   159.61 292 ePKP   52 59.00  -2.3
PVL   159.62 302 iPKPc  53 01.00  -0.2
DMU   159.68  15 ePKP   53 02.10   1.2
SPC   159.86 322 ePKP   53 01.70   0.2
KDZ   159.97 298 ePKP   53 01.00  -0.6
RDO   159.99 296 ePKP   53 00.70  -0.9
DCN   160.11  16 ePKP   53 01.50   0.2
  1.0s  139.00nm
DEV   160.20 311 iPKPc  53 01.00  -0.7
NPS   160.29 279 ePKP   53 02.20   0.0
DLE   160.33  15 ePKP   53 01.70   0.1
KSP   160.46 331 ePKPc  53 01.50  -0.3
          i       53 43.20
          i       53 58.50
ETA   160.95  15 ePKP   52 56.90  -5.3X
BZS   161.12 312 ePKPd  53 02.00  -0.6
CLL   161.26 337 ePKP   53 01.00  -1.6
  2.6s  145.00nm
          e       53 18.00
          i       53 47.80
VTS   161.29 302 iPKP   53 03.00  -0.1
TIM   161.30 313 iPKPc  53 03.00   0.2
BRG   161.31 335 iPKPc  53 03.00   0.3
  Z 22s   2.00um
  N 22s   2.00um
  E 22s   2.00um
          i       53 17.50
          i       53 47.90
WIT   161.32 350 ePKP   53 04.00   1.5
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		e	53 48.50			
		e	54 04.00			
		ePP	57 30.00			
ECP	161.40	16 ePKP	52 58.70	-3.9X		
VAM	161.46	279 ePKP	53 04.50	1.2		
PLG	161.70	295 ePKP	53 03.00	-0.4		
SRO	161.73	322 ePKP	53 03.40	0.3		
PRU	161.82	332 ePKPc	53 02.00	-1.2		
Z	23s	4.10um				
N	22s	2.60um				
E	23s	1.80um				
		e	53 49.60			
NEO	162.06	292 ePKP	53 04.00	0.2		
ZST	162.07	325 ePKP	53 03.50	0.0		
		e	57 38.00			
WTS	162.09	349 ePKP	53 03.50	0.2		
	1.0s	36.00nm				
		e	53 50.50			
VAY	162.12	299 iPKP	53 02.60	-1.2		
DBN	162.20	353 ePKP	53 04.00	0.6		
Z	20s	1.70um				
		ePP	57 35.00			
		eSPP	11 00.00			
		eSS	18 22.00			
MOX	162.27	339 ePKPc	53 03.00	-0.6		
	2.4s	160.00nm				
		i	53 52.00			
		i	54 07.00			
		ePP	57 32.00			
		eSKSP	08 00.00			
		ePPS	11 08.00			
		eSS	18 20.00			
VKA	162.39	326 ePKPc	53 03.50	-0.3		
	3.5s	692.00nm				
		i	53 51.30			
SOP	162.69	324 ePKP	53 02.60	-1.5		
SKO	162.74	302 iPKPc	53 04.00	-0.4		
Z	21s	2.24um				
N	21s	2.11um				
E	22s	2.09um				
		i	53 17.00			
		i	53 53.50			
		i	54 16.00			
		iPP	57 38.00			
		iPPP	01 30.00			
		iSKKS	04 22.00			
		iSKSP	08 18.00			
KHC	162.89	332 PKPc	53 04.20	-0.2		
	1.5s	44.00nm				
		e	53 18.50			
KZN	162.96	296 ePKP	53 04.20	-0.6		
ITM	163.30	285 ePKP	53 05.20	0.1		
ENN	163.42	350 ePKP	53 03.50	-1.2		
	3.0s	442.00nm				
		e	53 56.50			
		e	54 17.50			
		ePP	57 39.00			
OHR	163.46	299 ePKP	53 04.80	-0.4		
	1.7s	0.11nm				
KMR	163.52	329 iPKP+	53 04.80	-0.2		
		i	53 58.20			
		i	54 09.00			
		e	57 34.00			
MEM	163.56	350 PKP	53 05.20	0.3		
		ed	53 57.20			
UCC	163.57	354 PKP	53 01.00	-3.9X		
		e	53 58.40			
SNF	163.86	354 PKPc	53 05.50	0.3		
		ed	53 58.70			
PTJ	164.20	321 ePKP	53 05.40	-0.4		
DOU	164.24	353 PKPd+	53 06.30	0.7		
		ec	54 00.40			
		PP	57 45.00			
		PPS	11 30.00			
ZAG	164.25	320 ePKPc	53 05.50	-0.2		
WLF	164.46	349 PKP	53 05.70	-0.1		
		e	54 01.20			
		e	05 05.10			
KBA	164.61	328 ePKP	53 04.50	-1.8		
	1.2s	25.00nm				
		i	53 20.70			
		i	53 29.70			
		i	54 24.20			
		e	57 47.00			
		i	58 11.90			
LJU	164.83	323 e(PKP)	53 06.00	-0.3		
VBY	164.83	321 ePKP	53 06.20	-0.1		
RBL	165.00	326 PKP	53 06.20	-0.3		
CEY	165.10	323 ePKP	53 06.10	-0.4		
VOY	165.15	325 ePKP	53 06.30	-0.4		
FVI	165.23	328 PKP	53 05.00	-1.5		
TRI	165.45	324 i(PKP)	53 06.00	-0.7		
		i(pPKP	53 22.00			
		i(PKKP	54 05.10			
		i(PKKP	54 21.90			
		i(PP)	57 39.60			
		i(pPP)	57 53.90			
		e(PPP)	01 54.00			
		e	04 57.00			
		e	08 23.00			
		e(SPP)	11 00.00			
		e(SS)	17 52.00			
		e(SSS)	24 12.00			
CDF	165.45	345 ePKP	53 06.30	-0.5		
FLN	165.64	6 ePKP	53 06.80	0.0		
LDF	165.84	5 ePKP	53 06.90	-0.1		
GRR	165.98	7 ePKP	53 07.30	0.2		
HAU	166.03	347 ePKP	53 06.90	-0.3		
BSF	166.10	345 ePKP	53 07.10	-0.3		
CTI	166.15	330 PKP	53 05.50	-2.0		
LPF	166.32	8 ePKP	53 07.50	0.1		
LOR	167.11	353 ePKP	53 08.70	0.6		
TDS	167.15	298 PKPd	53 08.60	0.3		
SSF	167.35	354 ePKP	53 08.80	0.6		
RSM	167.37	322 PKP	53 09.30	1.0		
LBF	167.38	353 ePKP	53 08.60	0.3		
VAI	167.38	336 PKP	53 07.60	-0.6		
ARV	167.41	319 PKPd	53 08.70	0.3		
MGR	167.55	301 PKPd	53 08.30	-0.3		
AVF	167.63	354 ePKP	53 08.10	-0.3		
SMF	167.73	353 ePKP	53 08.50	0.0		
PGD	167.78	323 PKP	53 07.40	-1.5		
MFF	167.82	6 ePKP	53 08.90	0.3		
ORX	167.84	338 PKP	53 05.70	-3.1X		
ASS	167.84	318 PKP	53 07.60	-1.2		
BGF	167.90	356 ePKP	53 09.00	0.4		
SDI	167.98	310 PKP	53 09.40	0.5		
MME	168.02	327 PKP	53 23.80	14.7X		
AZI	168.06	312 PKP	53 08.30	-0.5		
FIR	168.08	324 ePKP	53 16.00	7.2X		
			e	58 10.00		
			e	05 10.00		
BDI	168.17	327 PKP	53 08.00	-1.0		
TCF	168.19	358 ePKP	53 09.20	0.3		
LSD	168.24	340 PKP	53 08.47	-0.8		
LSF	168.24	0 ePKP	53 09.10	0.2		
MAF	168.25	357 ePKP	53 09.10	0.2		
MNS	168.27	316 PKP	53 08.80	-0.2		
LPG	168.31	342 ePKP	53 09.80	0.5		
GEN	168.58	333 PKP	53 10.01	1.0		
RRL	168.84	341 PKP	53 09.19	-0.4		
FIN	169.03	334 PKP	53 10.83	1.4		
ROB	169.07	336 PKP	53 09.09	-0.4		
PZZ	169.13	339 PKP	53 09.19	-0.4		
RJF	169.19	0 ePKP	53 09.80	0.3		
STV	169.29	337 PKP	53 07.45	-2.2		
IMI	169.40	335 PKP	53 07.55	-2.2		
LFF	169.53	3 ePKP	53 10.40	0.8		
ERUA	169.54	38 e(PKP)	53 11.50	1.7		
CAF	169.56	358 ePKP	53 10.50	0.8		
SBF	169.60	336 ePKP	53 09.90	0.1		
LPO	169.80	2 ePKP	53 10.60	0.8		
FRF	170.12	338 ePKP	53 10.00	0.0		
CVF	170.12	327 ePKP	53 10.10	0.0		
ECRI	171.27	20 e(PKP)	53 12.00	1.3		
EPF	171.40	6 ePKP	53 11.80	1.1		
EPLA	171.72	45 e(PKP)	53 12.00	1.1		
GUD	172.34	35 e(PKP)	53 14.00	2.7		
AVE	172.41	96 ePKP	53 10.00	-1.4		
			i	53 13.00		
			i	53 24.50		
			i	54 33.50		
EVAL	172.56	63 e(PKP)	53 12.50	1.2		
TOL	172.97	38 ePKP	53 14.00	2.6		
			ePKKP	54 53.00		
			ePP	58 32.00		
			eSKKS	04 17.00		
			ePPS	12 28.00		
			eSS	19 36.00		
EHOR	173.53	57 e(PKP)	53 13.00	1.3		
EBR	173.61	8 ePKP	53 12.00	0.4		
			ePP	58 30.00		
EJIF	173.90	69 e(PKP)	53 13.70	1.8		
EPRU	173.91	64 e(PKP)	53 13.70	1.8		
EBAN	174.30	48 e(PKP)	53 13.50	1.5		
IFR	174.33	98 ePKP	53 10.00	-2.3		
			i	53 14.50		
			i	53 27.00		
AAPN	174.56	57 ePKP	53 13.00	0.8		
MAL	174.61	64 iPKPc	53 13.00	1.0		
			iPP	58 42.00		
			iPS	12 42.00		
ALOJ	174.67	59 iPKP	53 13.50	1.2		
EVIA	174.69	37 e(PKP)	53 14.50	2.3		
ASMO	174.80	55 iPKP	53 13.20	0.9		
ATEJ	174.82	60 iPKP	53 13.50	1.1		
APHE	175.04	59 iPKP	53 14.00	1.6		
EALH	175.83	35 e(PKP)	53 14.00	1.7		
S.D. = 1.1 on 331 of 379 obs.						

MAR 17, 1989 20h 18m 37.19± 1.19s
35.380 N ±10.8km 133.408 E ± 9.0km
DEPTH = 10.0km (geophysicist)
SOUTHERN HONSHU, JAPAN (232)
Felt (II JMA) at Yonago.

YONJ	0.20	167 iPd	18 41.70	0.2		
		iS	18 45.20			
SHK	1.04	216 iPc	18 56.10	-0.7		
	0.6s	400.00nm				
TKSJ	1.49	159 P	19 03.70	-0.3		
		S	19 23.50			
TSRJ	2.11	85 eP	19 12.90	0.0		
		S	19 43.10			
WKYJ	2.14	122 P	19 13.40	0.0		
SHNJ	2.27	237 P	19 49.10	33.8X		
KUMJ	3.56	218 eP	19 34.30	0.8		
		eS	20 19.00			
IIDJ	3.68	87 eP	19 35.90	0.5		
		eS	20 29.00			
MTMJ	3.76	70 eP	19 36.20	-0.4		
S.D. = 0.6 on 8 of 9 obs.						

? MAR 17, 1989 22h 17m 16.55± 1.20s
57.749 S ±26.6km 27.193 W ±13.2km
DEPTH = 33.0km (normal)
5.1mb (7 obs.)
SOUTH SANDWICH ISLANDS REGION (153)

BMA	37.11	333 eP	24 27.70	2.1		
		e	24 29.30			
VAO	37.54	329 eP	24 30.70	1.5		
ITA	37.55	333 eP	24 31.20	1.6		
BAO	44.84	331 eP	25 30.00	0.7		
FRS	45.53	75 iPc	25 36.40	1.9		
	0.4s	25.42nm		5.5mb		
SWZ	47.61	73 iPc	25 48.00	-3.2X		
	0.3s	93.51nm		6.3mb X		
SEK	47.87	76 iPc	25 55.00	1.7		
	0.9s	16.81nm		5.1mb		
SOB1	49.57	342 iPd	26 05.50	-0.7		
ITR	49.64	345 ePd	26 05.40	-1.3		
SLR	50.31	75 iPc	26 12.20	0.2		
	0.7s	10.27nm		4.9mb		
CNCB	50.84	306 Pc	26 16.00	-0.6		
LPB	51.14	306 P	26 12.00	-6.6X		
ZOBO	51.38	306 iPd	26 20.50	-0.2		
	0.8s	28.22nm		5.3mb		
BUL	55.10	71 iPd	26 47.10	-0.7		
	0.7s	9.59nm		4.9mb		
LSZ	59.00	68 iPd	27 18.80	3.4X		
	0.6s	1.00nm		4.1mb		
KMZ	59.41	65 iPd	27 18.70	0.5		
PTZ	61.45	70 iPd	27 32.50	0.4		
LIC	66.25	24 P	28 01.80	-1.5		
KIC	66.44	24 P	28 03.00	-1.5		
TIC	66.66	24 P	28 04.40	-1.5		
BNG	72.04	49 iPc	28 37.90	-1.2		
	0.3s	8.00nm		5.2mb		
YKA	137.42	317 ePKP	36 37.10	0.1		
MBC	145.53	335 ePKP	36 49.00	-1.9		
	0.4s	11.00nm				
INK	147.10	319 ePKP	36 54.00	0.4		
S.D. = 1.3 on 21 of 24 obs.						

• MAR 17, 1989 22h 39m 24.58± 1.04s
41.302 N ± 8.8km 19.951 E ±10.2km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
ML 2.7 (SKO).

17d 22h

TIR	0.08	305	iPgc	39	25.70	-1.3
PHP	0.53	43	iPgd	39	39.30	3.9X
OHR	0.67	106	iPg	39	34.00	-3.9X
			iSg	39	43.00	
KKS	0.85	24	ePg	39	40.50	-0.4
BCI	1.07	5	ePg	39	46.50	1.9
SKO	1.30	59	ePg	39	48.00	-0.7
SRN	1.42	178	ePn	39	51.10	0.7
VAY	1.97	89	ePn	39	58.00	-0.4

S.D. = 1.5 on 6 of 8 obs.

? MAR 17, 1989 23h 10m 10.53± 1.80s
47.505 N ±42.7km 152.404 E ±21.3km
DEPTH = 33.0km (normal)
4.3mb (2 obs.)
KURIL ISLANDS (221)

INK	41.28	33	eP	17	54.50	0.8
YKA	50.61	37	eP	19	08.80	1.1
KKN	54.94	274	P	19	41.00	0.2
DMN	55.18	274	P	19	42.80	0.3
GKN	55.24	275	P	19	43.00	0.1
LRM	61.12	53	eP	20	22.70	-1.2
BGMT	61.72	53	eP	20	22.60	-5.4X
HFS	67.58	339	eP	21	04.70	-0.7
	0.4s		1.60nm		4.5mb	
NAO	67.64	341	P	21	05.20	-0.5
	0.8s		1.70nm		4.2mb	

S.D. = 0.9 on 8 of 9 obs.

• MAR 18, 1989 01h 06m 17.85± 1.45s
20.832 S ±11.4km 68.082 W ±16.1km
DEPTH = 146.6 ± 11.4 km
CHILE-BOLIVIA BORDER REGION (124)

CNCB	4.00	1	iPd	07	19.90	0.6
LPB	4.28	360	P	07	23.00	0.2
	1.0s		340.00nm			
			(S)	07	53.00	
ZOBO	4.54	359	iPd	07	25.30	-1.2
Z	18s		0.24um			
			S	08	28.00	
			LR	09	25.00	
ARE	5.42	323	iP	07	28.10	-9.9X
			iS	08	24.50	
ITB1	13.19	109	e(P)	09	21.60	0.9
ITB	13.39	110	e(P)	09	21.50	-1.7
ITB7	13.50	111	e(P)	09	24.70	0.0
VBA	17.96	164	e(P)	10	21.10	1.5
VAO	19.71	100	eP	10	36.70	-1.5
BAO	19.76	78	eP	10	34.40	-4.4X
ITA	21.79	98	eP	10	58.80	-0.4
			e	11	02.10	
			e	11	07.00	
BMA	22.30	99	eP	11	05.00	1.1
ATB	23.29	44	Pc	11	15.60	2.1
SOB1	28.63	70	eP	12	03.30	0.5
ALQ	66.37	326	eP	17	17.50	24.3X
	0.9s		3.78nm			
GAC	66.55	354	eP	17	21.00	27.2X
LIC	67.46	74	Pc	17	00.04	-0.2
	0.6s		20.00nm		5.1mb	
TIC	67.65	73	Pc	17	01.22	-0.2
	0.9s		40.00nm		5.2mb	
KIC	67.77	74	P	17	02.18	0.0
	0.7s		55.00nm		5.5mb	
KUK	71.65	76	eP	17	26.00	0.2
FFC	80.65	341	eP	18	42.00	26.7X
	0.9s		9.00nm			
PNT	83.49	329	eP	18	57.00	26.9X
	0.8s		6.00nm			
BUL	88.94	111	eP	18	57.30	-0.3
YKA	90.82	340	eP	19	09.00	3.9X
GBA	146.34	97	PKPd	25	40.50	-1.7
	0.6s		6.50nm			
KHT	165.96	113	ePKP	26	37.50	30.8X

S.D. = 1.2 on 18 of 26 obs.

? MAR 18, 1989 01h 12m 58.66± 4.69s
41.072 N ±29.3km 19.887 E ±24.7km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
ML 2.4 (SKO).

TIR	0.27	357	iPgc	13	04.40	0.0
LACI	0.58	347	iPgd	13	10.00	-0.4
OHR	0.69	86	iPg	13	12.00	-0.4
			iSg	13	22.00	
PHP	0.74	34	ePg	13	11.80	-1.4
LSK	1.07	149	ePn	13	28.00	9.2X
KKS	1.08	21	ePg	13	20.00	1.1
BCI	1.30	6	ePg	13	27.10	4.4X
SKO	1.47	52	ePg	13	26.20	1.0
			i	13	29.00	
			iSg	13	42.50	

S.D. = 1.2 on 6 of 8 obs.

MAR 18, 1989 06h 49m 53.91± 1.39s
2.357 N ± 5.9km 126.607 E ± 7.6km
DEPTH = 85.6 ± 13.0 km
4.8mb (10 obs.)
MOLUCCA PASSAGE (266)

MNI	1.99	243	ePd	50	27.50	1.2
			eS	50	59.00	
JAY	14.90	109	ePd	53	22.50	1.1
MTN	15.76	164	eP	53	28.00	-4.2X
			e	53	36.00	
KNA	18.12	173	eP	53	59.50	-2.0
WB5	23.38	161	iPc	54	55.10	-0.7
			eS	59	07.20	
WRA	23.43	161	Pc	54	55.10	-1.2
	0.6s		25.40nm		4.8mb	
MBL	24.29	196	eP	55	05.00	0.3
QIS	26.10	151	eP	55	20.00	-1.5
ASPA	26.82	165	iPc	55	26.90	-1.3
	0.7s		15.00nm		4.6mb	
			iPcP	58	50.40	
NANU	27.02	203	eP	55	30.80	0.8
WARB	28.37	180	iPd	55	29.40	-12.7X
LOE	28.64	303	eP	55	44.00	-0.7
CTA	29.48	140	iPd	55	51.50	-0.7
	1.0s		11.00nm		4.5mb	
MEKA	29.84	195	iPd	55	55.70	0.4
	0.3s		8.00nm		4.9mb	
MRWA	33.00	197	eP	56	23.40	0.5
	0.3s		3.00nm		4.6mb	
COOL	33.46	189	eP	56	27.00	0.1
BAL	34.11	195	eP	56	33.00	0.5
KLB	34.79	193	eP	56	39.00	0.7
MUN	35.55	195	eP	56	45.00	0.3
XAN	35.58	334	P	56	42.50	-2.6
NWAO	36.20	193	eP	56	51.00	0.8
STK	36.90	159	iPd	56	55.70	-0.4
RKG	37.34	193	eP	57	05.50	5.7X
BJI	38.69	347	eP	57	11.00	0.0
ADE	38.83	164	iPc	57	12.50	0.2
SNY	39.39	356	eP	57	17.60	0.8
COO	40.67	146	eP	57	27.00	-0.5
BWA	41.94	153	eP	57	39.30	1.4
CAN	42.95	153	eP	57	46.00	-0.1
GUN	46.44	307	P	58	14.10	-0.4
PKI	46.67	307	P	58	15.40	-0.9
	0.4s		5.00nm		4.8mb	
KKN	46.87	307	P	58	17.00	-0.8
	0.5s		16.00nm		5.2mb	
DMN	46.93	306	P	58	18.40	0.1
GKN	47.47	307	P	58	21.70	-0.8
	0.6s		10.00nm		4.9mb	
KOD	49.41	281	eP	58	37.90	0.1
HYB	49.47	291	eP	58	37.50	-0.4
GBA	49.86	286	Pd	58	40.40	-0.3
	0.7s		8.20nm		4.9mb	
WMQ	53.7B	326	eP	59	02.20	-7.6X
MSZ	59.54	147	P	59	50.50	-0.1
AVY	80.25	250	eP	01	59.60	2.1
INK	91.48	21	eP	02	52.00	0.4
MBC	93.31	13	eP	03	01.00	1.1
DAG	98.61	352	iPd	03	23.70	-0.3
	0.4s		4.24nm		5.4mb	
YKA	100.79	24	ePdiff	03	36.80	2.8

S.D. = 1.1 on 40 of 44 obs.

• MAR 18, 1989 08h 39m 57.25± 1.21s
36.451 N ± 9.5km 70.838 E ± 8.7km
DEPTH = 157.3 ± 16.0 km
4.1mb (2 obs.)
HINDU KUSH REGION (718)

KSH	5.05	52	P	41	15.00	2.6
			S	42	13.00	
QUE	7.04	209	iPd	41	40.00	0.9
			eS	42	56.80	
MAIO	9.15	272	eP	42	06.00	-1.0
			eS	43	44.00	
NDI	9.43	143	iPc	42	11.20	0.6
			eS	43	49.00	
GKN	14.39	122	P	43	13.20	-1.7
WMQ	14.83	55	eP	43	19.10	-1.3
DMN	14.96	122	P	43	21.00	-1.2
KKN	14.96	121	P	43	20.60	-1.6
PKI	15.19	122	P	43	23.70	-1.4
GUN	15.31	120	P	43	26.60	0.0
HYB	20.15	158	eP	44	21.80	0.7
SHL	21.00	115	iP	44	32.50	2.8
			eS	48	18.80	
GBA	23.51	164	Pc	44	55.00	1.1
	0.7s		2.90nm		3.9mb	
BRG	42.55	308	e(P)	47	39.10	0.5
NAO	44.51	323	P	47	53.20	-1.0
	0.7s		6.20nm		4.3mb	
DAG	54.77	344	eP	49	11.00	-1.1
MBC	67.39	3	eP	50	37.00	0.1
YKA	81.30	3	eP	51	57.60	1.0

S.D. = 1.5 on 18 of 18 obs.

MAR 18, 1989 08h 40m 53.12± 0.44s
41.615 N ± 4.3km 19.679 E ± 3.8km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
ML 3.6 (SKO). MD 3.2 (TTG).
Felt (IV) at Ishulli and (III) at Lac.

LACI	0.03	48	iPgd	40	54.40	-0.7
TIR	0.30	152	iPgc	40	58.00	-1.4
SDA	0.42	341	iPgc	41	01.60	-0.1
PUK	0.46	20	iPgd	41	01.40	-1.0
ULC	0.47	317	ePg	41	01.50	-1.2
			eSg	41	10.00	
PHP	0.58	83	iPgc	41	03.80	-1.0
KKS	0.71	50	iPg	41	06.50	-0.7
BCI	0.80	21	iPgc	41	08.00	-0.7
TTG	0.87	339	ePg	41	08.50	-1.3
			iSg	41	22.50	
BDV	0.92	317	ePg	41	10.20	-0.5
			eSg	41	24.50	
BERA	0.93	167	ePg	41	09.00	-1.9
OHR	0.98	120	iPgd	41	10.60	-1.2
			iSg	41	26.00	
PVY	1.00	13	ePg	41	11.00	-1.2
			eSg	41	27.00	
HCY	1.21	314	ePg	41	16.00	0.4
			eSg	41	35.00	
IVA	1.27	7	ePg	41	15.80	-0.9
			eSg	41	36.00	
SKO	1.36	74	ePn	41	17.00	-1.2
			i	41	19.00	
			iSn	41	37.60	
BRY	1.54	327	ePn	41	21.50	0.8
			eSn	41	44.50	
PLE	1.73	353	ePn	41	24.00	0.6
			eSn	41	50.00	
LCI	1.83	226	P	41	24.40	-0.4
			eSn	42	00.50	
BRT	2.01	249	P	41	29.50	2.1
			eSn	42	04.10	
KZN	2.05	129	eP	41	30.00	1.8
			eS	41	57.50	
VAY	2.19	97	iPn	41	30.00	-0.1
KKB	2.56	83	iP	41	37.00	1.6
VTS	2.80	68	iP	41	40.00	1.0
MMB	3.04	89	eP	41	43.00	0.9
PLG	3.11	112	eP	41	43.70	0.6
MGR	3.46	246	P	41	46.70	-1.4
PGB	3.47	73	iPc	41	50.00	1.7
RZN	3.78	87	iP	41	53.00	0.2
PLD	3.78	81	eP	41	55.00	2.3
BZS	4.24	19	ePc	41	59.00	-0.1
KDZ	4.30	88	iP	42	01.00	0.9
GZR	4.40	30	ePd	42	05.00	3.5X
RDO	4.43	94	eP	42	01.00	-0.9
PVL	4.48	67	eP	42	01.00	-1.6
VBY	5.04	322	e(Pn)	42	14.00	3.5
			eSn	43	08.40	
			e	43	42.40	
PTJ	5.06	329	eP	42	14.80	3.9X
JMB	5.21	78	iP	42	13.00	0.0
CEY	5.61	319	e(Pn)	42	21.00	2.4
			e(Sn)	43	21.20	
MLR	5.98	47	ePc	42	24.50	0.6

```
VOY      6.08 318 ePn    42 23.20  -2.1
                  eSn    43 32.20
VRI      6.64  48 ePc    42 33.50   0.3
KHC      8.65 332 eP     43 05.00   3.8X
                  e      45 09.50
      S.D. = 1.4   on  40 of  43 obs.
-------------------------------------------
%  MAR  18, 1989  09h 05m 45.86± 0.91s
   39.284 N ± 8.1km   27.787 E ± 8.8km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                              (366)

DST      0.73  64 iPg    05 59.50  -0.7
                  eSg    06 11.00
IZM      0.98 205 ePn    06 04.70   0.3
KCT      1.06  24 iPn    06 06.60   0.8
BNT      1.08   5 iPn    06 06.10   0.0
EZN      1.25 296 ePn    06 08.70  -0.4
      S.D. = 0.8   on   5 of   5 obs.
-------------------------------------------
   MAR  18, 1989  09h 36m 35.81± 0.56s
   18.322 N ± 4.0km  145.247 E ± 4.2km
   DEPTH = 439.8 ±  6.6 km
   4.7mb ( 31 obs.)
 MARIANA ISLANDS                     (216)

GUMO     4.72 184 eP     37 57.60  -0.1
PJG      4.72 184 eP     37 57.70   0.0
GUA      4.77 184 eP     37 58.50   0.3
       0.3s   155.84nm
                  eS     39 01.90
MAT     19.18 343 iPd    40 29.70  -0.6
                  eS     43 42.00
JAY     21.18 193 ePd    40 49.00  -0.7
SSE     25.22 305 Pd     41 25.50  -0.9
       1.0s     22.00nm          4.6mb
                  pP     41 30.00  16kmX
                  e(S)   45 16.00
                  e      47 54.00
OZH     25.61 290 Pd     41 29.50  -0.5
NJ2     27.43 305 Pd     41 53.20   7.2X
PMG     27.62 176 eP     41 47.50  -0.3
SNY     29.84 326 eP     42 03.40  -3.6X
CN2     30.38 331 eP     42 12.00   0.4
TIA     30.53 311 eP     42 12.70  -0.4
WHN     30.54 299 eP     42 12.50  -0.7
QIZ     33.51 277 eP     42 39.90   1.4
                  eS     47 27.50
MTN     33.96 205 iPc    42 42.50   0.3
TIY     34.56 311 eP     42 48.10   0.8
    E  16s       0.80um
XAN     35.94 303 Pc     42 58.20  -0.6
GYA     36.47 290 P      43 04.20   0.8
                  PcP    45 16.40
BTO     37.50 314 eP     43 12.00   0.4
KNA     37.55 207 eP     43 13.00   1.0
CTA     38.18 178 iPc    43 17.20  -0.1
       0.8s     13.06nm          4.4mb
                  e      43 44.00
                  i      08 50.00
                  eS     12 23.00
QIS     39.03 188 iPc    43 24.80   0.6
W85     39.44 196 iPc    43 38.20  10.6X
                  eS     48 58.80
WRA     39.50 196 Pd     43 28.60   0.5
       0.5s     21.70nm          4.8mb
CD2     39.53 297 eP     43 29.00   0.7
LZH     40.50 304 iPd    43 38.00   1.7
       1.0s    192.00nm          5.5mb
LOE     41.36 276 eP     43 43.50   0.2
ASPA    43.18 195 iPc    43 57.60   0.0
       0.6s     34.00nm          4.9mb
                  eS     49 47.80
CHG     43.80 278 iPd    44 03.20   0.6
       0.9s     17.86nm          4.5mb
8DT     43.96 276 iP     44 05.20   1.3
       0.7s     51.50nm          5.0mb
NNT     44.15 269 iPc    44 06.90   1.5
GTA     44.44 308 iPd    44 08.20   0.6
                  PcP    45 42.00
RMQ     44.67 176 eP     44 08.00  -1.3
SNG     44.80 262 eP     44 12.50   1.9
ADK     44.87  33 P      44 10.50  -0.1
       0.6s     12.32nm          4.5mb
DZM     45.19 152 iPc    44 13.60   0.1
MBL     46.47 214 iPc    44 23.10  -0.2
       0.4s     12.00nm          4.7mb

WARB    47.79 203 iPc    44 20.50 -12.9X
       0.5s     37.00nm
SHL     49.75 288 iP     44 48.40  -0.1
                  eS     51 22.80
NANU    49.95 217 iPc    44 49.60  -0.1
COOL    54.13 206 eP     45 19.00  -1.1
WMQ     54.23 311 Pd     45 20.80   0.0
GUN     54.98 292 P      45 26.80   0.1
PKI     55.42 291 P      45 29.30  -0.4
       0.4s     17.00nm          4.7mb
KKN     55.52 291 P      45 30.10  -0.2
       0.6s     27.00nm          4.8mb
DMN     55.69 291 P      45 31.40  -0.1
       0.5s     36.00nm          5.0mb
BAL     55.86 210 eP     45 31.00  -1.2
GKN     56.07 292 P      45 34.00  -0.1
KLB     56.20 208 eP     45 33.00  -1.6
MUN     57.24 209 eP     45 41.00  -0.7
NWAO    57.57 208 eP     45 43.00  -1.0
TTA     59.78  27 P      45 58.30  -0.5
       0.7s     10.17nm          4.4mb
IMA     61.79  24 P      46 11.50  -0.6
       0.7s      5.45nm          4.2mb
PMR     62.49  29 P      46 15.00  -1.4
       0.7s     15.99nm          4.7mb
NDI     62.52 293 iPd    46 18.00   0.8
       0.8s     79.10nm          5.3mb
HYB     63.14 281 eP     46 20.00  -1.4
FBA     63.82  26 P      46 23.90  -1.1
       0.6s      6.77nm          4.4mb
GBA     65.05 277 Pc     46 32.90  -0.6
       0.9s     19.00nm          4.7mb
KOD     65.87 273 eP     46 39.00  -0.2
INK     69.89  23 ePd    47 01.70  -0.6
MBC     73.62  14 ePd    47 23.70  -0.3
       0.5s     52.00nm          5.4mb
MAIO    76.05 304 iPd    47 39.40   1.0
       0.9s     10.66nm          4.5mb
GMW     78.01  44 P      47 49.80   1.1
ALE     78.51   4 ePd    47 51.10   0.3
       0.7s     17.00nm          4.8mb
YKA     78.52  28 eP     47 51.20   0.1
YKC     78.58  28 iPd    47 51.20  -0.2
       0.5s     10.00nm          4.7mb
RMW     78.68  44 P      47 53.00   0.6
PNT     79.60  42 eP     47 58.00   0.9
WDC     79.95  51 e(P)   48 02.80   3.7X
ORV     81.00  51 eP     48 04.80   0.3
ARN     81.59  54 P      48 08.40   0.7
EDM     82.14  37 iPd    48 10.40   0.2
KEV     82.16 342 iP     48 09.60  -0.3
       0.7s     18.70nm          4.9mb
CMB     82.27  53 ePd    48 11.80   0.7
FRI     83.09  53 ePd    48 15.60   0.4
SOD     83.57 340 iP     48 16.40  -0.6
KVN     83.66  51 P      48 18.90   0.6
SES     84.49  39 ePd    48 22.30   0.3
DAG     84.62 356 iPd    48 21.10  -1.0
       0.7s     21.92nm          5.0mb
TNP     84.63  52 P      48 23.70   0.6
       0.6s      5.56nm          4.5mb
KJF     84.91 337 eP     48 20.00  -3.7X
EUR     85.09  50 iP     48 26.00   0.6
       0.2s     22.33nm          5.6mb
LRM     85.31  43 ePd    48 26.80   0.4
SUF     86.31 336 iP     48 29.00  -1.5
       0.5s      5.00nm          4.5mb
FFC     87.64  32 iPd    48 37.10   0.1
       1.0s     25.00nm          5.0mb
NUR     88.15 335 eP     48 37.00  -2.3
GLA     88.16  56 P      48 40.70   0.7
BW06    88.39  45 P      48 41.00  -0.1
GOL     92.55  47 P      49 00.00  -0.3
HFS     92.57 338 eP     48 57.40  -2.3
       0.4s      1.60nm          4.4mb
NAO     93.06 339 P      49 00.00  -2.0
       0.8s      3.60nm          4.5mb
ALQ     93.83  51 eP     49 06.00  -0.3
       1.4s      4.65nm          4.4mb
KIC    141.55 307 PKP    55 12.82  -5.4X
TIC    141.58 308 PKP    55 12.70  -5.6X
LIC    141.86 307 PKP    55 13.72  -5.1X
ROCH   144.40 121 iPKP   55 30.90   8.0X
ARE    144.93  93 iPKPd  55 25.60   1.3
ZOBO   148.10  92 PKP    55 30.30   0.5
       0.5s     55.84nm
                  i      55 34.70

LPB    148.16  92 PKP    55 31.80   2.1
       0.9s     33.61nm
CNCB   148.31  92 PKP    55 31.30   1.2
                  i      55 36.00
      S.D. = 0.9   on  90 of 100 obs.
-------------------------------------------
*  MAR  18, 1989  10h 03m 45.69± 1.00s
   2.257 S ±10.0km  134.000 E ±16.3km
   DEPTH =  33.0km  (normal)
   4.8mb (  4 obs.)
 WEST IRIAN REGION                   (196)

AAI      5.97 256 eP     05 15.00   0.9
MTN     10.90 195 eP     05 59.00 -23.5X
                  e      06 18.00
                  eS     08 15.00
KNA     14.37 201 eP     07 03.00  -5.8X
                  eS     09 36.00
WB5     17.52 179 ePKP   07 45.50  -3.7X
                  i      07 50.10
                  ePP    10 54.50
                  eSKP   11 21.00
                  ePPP   13 23.00
WRA     17.58 179 Pd     07 50.40   0.4
       0.7s     19.60nm          4.3mb
QIS     18.99 164 iPd    08 07.20  -0.1
                  e      11 41.00
GUMO    19.08  34 eP     08 15.00   6.7X
ASPA    21.28 180 iPd    08 31.40  -0.4
       1.1s    244.00nm          5.5mb
                  eS     12 20.00
CTA     21.39 147 iPd    08 37.00   4.2X
       1.4s     90.70nm          5.0mb
                  i      08 50.00
                  eS     12 33.00
                  i      12 57.40
                  i      14 30.00
BAG     22.80 325 eP     08 49.00   2.0
MBL     23.31 215 eP     08 52.50   0.7
WARB    24.82 196 iPc    08 53.90 -12.5X
NANU    27.00 220 eP     09 27.10   0.4
PPI     33.64 273 eP     10 25.00  -0.7
BJI     45.15 341 eP     12 02.00   1.0
    Z  16s       0.20um          4.1MszX
KKN     55.53 306 P      13 19.00  -1.6
KOD     57.62 284 eP     13 35.30  -0.5
GBA     58.25 287 Pc     13 37.90  -1.9
       1.4s      7.20nm          4.6mb
      S.D. = 1.2   on  12 of  18 obs.
-------------------------------------------
   MAR  18, 1989  10h 51m 59.58± 0.52s
   44.276 N ± 5.7km    7.474 E ± 4.1km
   DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                      (545)
      ML 2.4 (GEN).

STV      0.11 254 P      52 02.50   0.0
                  S      52 04.56
DOI      0.28 324 Pc     52 05.70   0.2
                  eSg    52 10.30
ROB      0.29  86 P      52 06.00   0.4
                  S      52 10.37
PZZ      0.35 311 P      52 06.92   0.0
                  S      52 12.12
IMI      0.47 141 P      52 09.11  -0.1
                  S      52 15.61
FIN      0.53  97 P      52 10.05  -0.3
                  S      52 17.28
CKI      0.60  75 P      52 11.80   0.2
                  eSg    52 21.60
RRL      0.81 323 P      52 15.57   0.1
                  S      52 25.47
RSP      0.89 350 P      52 16.04  -0.7
                  S      52 27.06
BNI      0.96 324 P      52 18.20   0.2
                  eSg    52 31.30
      S.D. = 0.3   on  10 of  10 obs.
-------------------------------------------
   MAR  18, 1989  11h 11m 12.49± 0.36s
   51.216 N ± 8.7km  178.135 W ± 3.5km
   DEPTH =  33.0km  (normal)
   4.8mb ( 17 obs.)
 ANDREANOF ISLANDS, ALEUTIAN IS. (  7)

ADK      1.13  53 iPd    11 33.40   1.4
SMY      5.03 291 eP     12 29.50   1.9
KDC     16.21  56 eP     14 59.50   0.5
```

18d 11h

TTA	16.69	37	eP	15	06.50	1.3
IMA	19.38	31	eP	15	37.30	-0.8
FBA	20.82	37	eP	15	52.70	-0.5
INK	27.36	35	eP	16	55.00	-0.9
MBC	33.60	22	eP	17	51.00	-0.2
YKA	35.04	46	eP	18	02.90	-0.8
LON	36.46	74	eP	18	17.00	1.1
PNT	36.60	69	eP	18	18.00	0.9
	0.7s	9.00nm			4.8mb	
EDM	38.53	61	eP	18	33.00	-0.2
SNY	40.21	280	eP	18	47.60	0.4
LRM	42.54	70	eP	19	06.90	0.3
KVN	42.91	82	eP	19	10.00	0.3
EUR	43.98	80	iP	19	19.00	0.7
	0.2s	5.02nm			5.0mb	
TNP	44.05	83	eP	19	19.00	0.1
	0.6s	2.31nm			4.2mb	
BJI	45.82	283	eP	19	32.50	-0.2
BW06	45.96	72	eP	19	34.20	0.1
	0.8s	11.16nm			4.8mb	
RSON	50.21	55	eP	20	05.00	-1.8
GOL	50.33	73	eP	20	08.30	0.1
ALQ	52.72	79	eP	20	25.50	-0.8
	1.0s	2.50nm			4.1mb	
WHN	53.08	274	eP	20	28.00	-0.7
XAN	54.10	281	Pc	20	35.00	-1.2
LZH	55.83	287	eP	20	49.50	0.6
	1.5s	44.00nm			5.3mb	
GTA	56.01	292	iPc	20	49.40	-0.8
PRM	67.59	63	eP	22	07.50	-0.3
JSC	68.07	62	eP	22	10.00	-0.7
HFS	68.60	354	eP	22	12.10	-1.5
	0.4s	1.10nm			4.3mb	
SHL	70.50	287	iP	22	26.00	0.0
GUN	72.30	293	Pc	22	37.40	0.4
KKN	72.74	293	Pc	22	39.90	0.5
PKI	72.83	293	Pc	22	40.20	0.1
GKN	72.95	293	Pc	22	40.80	0.2
DMN	72.98	293	Pc	22	41.30	0.4
	0.9s	67.00nm			5.6mb	
KHC	79.53	352	eP	23	16.60	-0.5
LDF	80.56	1	eP	23	21.80	-0.7
GRR	80.75	2	eP	23	23.10	-0.4
MLR	81.45	343	ePc	23	28.50	1.1
KBA	81.59	352	eP	23	28.00	-0.2
	0.8s	6.20nm			4.7mb	
LOR	81.88	359	eP	23	29.10	-0.4
SSF	82.09	359	eP	23	30.50	0.0
	0.8s	5.30nm			4.6mb	
SMF	82.51	359	eP	23	32.50	-0.2
	0.9s	8.10nm			4.8mb	
MFF	82.55	1	eP	23	33.00	0.1
TCF	82.88	360	eP	23	34.40	-0.3
LSF	82.92	0	eP	23	35.30	0.5
MAF	82.94	360	eP	23	35.70	0.7
LFF	84.22	1	eP	23	41.80	0.3
	0.7s	6.60nm			4.9mb	
CAF	84.24	360	eP	23	41.90	0.3
	0.7s	4.40nm			4.7mb	
LPO	84.48	0	eP	23	42.70	-0.1
	0.8s	9.10nm			5.0mb	
SBF	85.18	356	eP	23	46.30	-0.1
	0.9s	11.10nm			5.1mb	
FRF	85.51	357	eP	23	47.90	-0.1
LMR	85.75	357	eP	23	49.30	0.2
CVF	86.40	355	eP	23	52.30	-0.2
	0.8s	10.70nm			5.1mb	
GBA	88.32	290	Pd	24	01.50	-0.5
	0.6s	3.10nm			4.8mb	
SLR	147.54	312	ePKP	30	53.50	1.5X
	0.9s	12.60nm				
PRY	148.93	312	ePKP	30	58.20	4.0X
SEK	150.03	310	ePKP	31	01.50	5.6X
	0.4s	8.47nm				
SWZ	150.14	315	iPKPc	30	56.50	0.5
	0.3s	19.48nm				
S.D. = 0.7 on 56 of 59 obs.						

? MAR 18, 1989 11h 20m 37.49± 4.10s
25.018 N ±39.2km 113.192 W ±20.6km
DEPTH = 10.0km (geophysicist)
4.0mb (3 obs.)
OFF W. COAST OF BAJA CALIFORNIA (47)

GLA	8.13	350	eP	22	38.40	0.0
PLM	8.90	340	eP	22	48.00	-1.3
PEC	9.49	340	eP	22	57.00	-0.3
BLP	11.38	328	eP	23	22.00	-1.1
ALQ	11.48	29	e(P)	23	23.00	-1.7
TNP	13.47	346	eP	23	53.00	1.7X
	0.9s	2.28nm			4.2mb	
KVN	14.59	345	eP	24	07.00	0.9
EUR	14.61	351	eP	24	08.00	1.6
	1.0s	4.81nm			4.0mb	
GOL	16.05	22	eP	24	33.50	8.4X
BW06	17.97	9	eP	24	50.30	1.1
	0.9s	3.97nm			3.5mb	
RSON	29.84	25	eP	26	53.00	6.0X
YKA	37.48	359	eP	27	54.20	1.5
MBC	51.37	358	eP	29	43.00	-0.9
S.D. = 1.4 on 10 of 13 obs.						

MAR 18, 1989 11h 37m 58.45± 0.30s
45.901 N ± 6.6km 151.590 E ± 4.9km
DEPTH = 33.0km (normal)
4.7mb (23 obs.) 3.8Msz (1 obs.)
KURIL ISLANDS (221)

MAT	13.73	232	iPd	41	11.30	-1.7
	0.8s	23.88nm			5.1mb X	
MDJ	15.54	273	eP	41	40.50	3.9X
CN2	18.63	273	eP	42	15.00	-0.3
Z	18s	0.60um				
SNY	20.56	269	eP	42	36.20	-0.5
BJI	26.42	270	eP	43	36.00	2.3
Z	20s	0.30um			3.8Msz	
		eS		48	32.00	
TIA	27.55	262	eP	43	44.10	0.0
NJ2	28.74	253	Pc	43	55.80	1.0
TIY	30.07	268	eP	44	10.70	3.9X
Z	15s	0.50um			4.3MszX	
WHN	32.69	255	eP	44	29.00	-0.7
XAN	34.39	265	Pc	44	44.00	-0.5
IMA	35.11	35	P	44	50.20	-0.3
	0.6s	2.00nm			4.2mb	
LZH	36.86	272	eP	45	06.00	0.4
	1.5s	44.00nm			5.1mb	
FBA	37.48	38	P	45	10.10	-0.1
	0.6s	2.77nm			4.3mb	
GTA	38.06	279	eP	45	17.60	2.0
		PcP		47	31.00	
CD2	39.76	265	eP	45	30.00	0.3
GYA	40.50	257	P	45	36.20	0.3
INK	42.93	32	eP	45	56.00	0.8
KMI	44.05	259	Pc	46	05.00	-0.1
LSA	49.26	273	Pc	46	47.90	1.5
CHG	50.89	256	iPc	46	59.00	0.6
	1.1s	36.39nm			5.3mb	
YKA	52.23	36	eP	47	08.60	0.6
GUN	54.02	275	P	47	22.10	0.0
KKN	54.51	275	P	47	25.60	0.0
PKI	54.56	275	P	47	25.70	-0.3
DMN	54.74	275	P	47	27.60	0.3
	0.8s	51.00nm			5.6mb	
GKN	54.83	276	P	47	27.80	0.0
KJF	61.75	336	eP	48	14.00	-1.5
FFC	62.07	39	eP	48	18.00	0.2
	0.7s	4.00nm			4.7mb	
LRM	62.55	52	eP	48	21.20	-0.3
BGMT	63.14	52	eP	48	26.20	0.9
SUF	63.34	335	iP	48	24.80	-1.3
KVN	63.50	60	P	48	28.20	0.5
EUR	64.51	59	iP	48	35.00	0.6
	0.4s	1.38nm			4.4mb	
TNP	64.65	61	P	48	35.00	-0.3
	0.9s	2.44nm			4.3mb	
NUR	65.52	334	iP	48	38.60	-1.6
HYB	65.96	271	eP	48	43.00	-0.7
BW06	66.09	53	P	48	44.50	0.0
	0.9s	3.71nm			4.5mb	
WB5	67.31	198	eP	48	51.50	-0.5
WRA	67.38	198	Pc	48	51.50	-1.0
	0.8s	5.40nm			4.7mb	
HFS	68.88	339	eP	49	00.00	-1.4
	0.5s	3.60nm			4.7mb	
NAO	68.96	341	P	49	00.60	-1.3
	0.9s	3.20nm			4.4mb	
GBA	69.35	268	Pd	49	04.40	-0.5
	0.6s	4.00nm			4.7mb	
ASPA	71.08	197	iPc	49	15.70	0.5
	1.3s	12.00nm			4.8mb	
ALQ	73.18	57	eP	49	39.50	11.5X
	0.8s	1.68nm				
CLL	76.79	335	iP	49	47.60	-0.4
MLR	77.14	324	ePd	49	50.00	-0.3
PRU	77.48	333	eP	49	52.00	0.2
		eSg		07	08.00	
ZST	78.20	331	e(P)	49	56.40	0.6
KHC	78.53	333	iPd	49	58.30	0.6
	1.0s	8.50nm			4.7mb	
KBA	80.42	333	iPd	50	08.50	0.4
	0.8s	7.10nm			4.7mb	
CDF	81.03	337	eP	50	10.90	-0.3
	1.0s	8.00nm			4.7mb	
HAU	81.66	337	eP	50	14.20	-0.2
VAY	81.97	324	eP	50	16.30	0.2
FLN	82.62	342	eP	50	19.10	-0.2
LDF	82.70	342	eP	50	19.40	-0.4
LOR	82.99	339	eP	50	21.10	-0.2
	0.8s	5.90nm			4.7mb	
GRR	83.06	342	eP	50	21.60	0.0
	1.0s	17.60nm			5.1mb	
SSF	83.27	339	eP	50	22.80	0.0
AVF	83.56	339	eP	50	24.40	0.2
	1.0s	8.00nm			4.8mb	
SMF	83.57	338	eP	50	24.40	0.1
	0.9s	9.80nm			4.9mb	
LPG	83.84	336	eP	50	26.60	0.5
MAF	84.29	339	eP	50	28.70	0.7
	1.0s	14.00nm			5.1mb	
TCF	84.32	339	eP	50	28.50	0.4
LSF	84.52	340	eP	50	29.00	-0.1
	1.1s	17.00nm			5.1mb	
CAF	85.63	339	eP	50	34.90	0.2
LPO	86.07	339	eP	50	36.70	-0.2
S.D. = 0.8 on 63 of 66 obs.						

• MAR 18, 1989 12h 03m 33.13± 0.50s
24.909 N ± 8.5km 128.145 E ±10.0km
DEPTH = 33.0km (normal)
4.5mb (5 obs.)
RYUKYU ISLANDS REGION (239)

BJI	18.13	329	eP	07	43.00	-0.9
KMI	23.02	276	Pd	08	37.50	1.0
LZH	23.65	304	eP	08	42.00	-0.6
PKI	38.29	284	P	10	52.90	0.1
	0.5s	5.00nm			4.6mb	
KKN	38.38	284	P	10	53.80	0.4
	0.6s	7.00nm			4.7mb	
DMN	38.55	284	P	10	54.80	-0.1
GKN	38.92	284	P	10	58.20	0.3
WB5	44.93	172	eP	11	46.90	0.1
WRA	44.99	172	Pd	11	47.00	-0.3
	0.7s	3.20nm			4.3mb	
ASPA	48.61	173	iPd	12	15.00	-0.7
	0.7s	4.00nm			4.6mb	
WARB	50.81	182	iPc	12	20.30	-12.2X
INK	70.13	23	eP	14	45.00	1.1
MBC	71.12	14	eP	14	49.00	-0.8
YKA	79.75	25	eP	15	40.00	1.0
SLL	79.92	333	eP	15	39.40	-0.6
	0.5s	1.20nm			4.1mb	
S.D. = 0.8 on 14 of 15 obs.						

MAR 18, 1989 12h 04m 51.32± 0.38s
45.849 N ± 4.2km 12.777 E ± 3.3km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 3.2 (KBA). MD 3.0 (TRI).

VVI	0.28	299	Pd	04	57.40	0.2
			eSg	05	01.40	
TRI	0.70	101	ePg	05	04.70	-0.5
			iSg	05	14.50	
FVI	0.74	0	P	05	05.00	-0.9
			eSg	05	15.80	
VOY	0.80	76	ePg	05	06.50	-0.4
			eSg	05	17.30	
RBL	0.81	43	P	05	06.10	-1.0
			eSg	05	18.10	
CTI	0.81	285	P	05	07.40	0.3
			eSg	05	19.50	
CEY	1.16	95	ePg	05	13.30	0.3
			eSg	05	29.50	
LJU	1.24	80	iPg	05	14.60	0.2
			iSg	05	32.50	
KBA	1.29	17	iPnc	05	16.00	0.6
			iPgd	05	17.00	
			iSn	05	34.70	
			iSg	05	36.20	

VBY	1.77	100	ePn	05	23.60	1.4
			iSn	05	47.60	
SFI	2.04	199	P	05	26.10	0.1
			eSg	05	52.10	
PGD	2.11	201	P	05	26.70	-0.6
			eSg	05	51.20	
MDI	2.15	269	P	05	28.00	0.4
PTJ	2.22	88	ePn	05	47.10	18.3X
			eSg	05	55.80	
PII	2.66	218	P	05	34.50	-0.5
KHC	3.33	9	Pn	05	44.80	0.3
			Pg	05	54.10	
			Sg	06	39.50	

S.D. = 0.7 on 15 of 16 obs.

MAR 18, 1989 12h 25m 09.87± 0.59s
21.935 S ±11.2km 179.541 W ± 6.0km
DEPTH = 612.2 ± 8.5 km
5.1mb (17 obs.)
FIJI ISLANDS REGION (181)

VUN	4.33	334	eP	26	37.90	-1.1
			eS	27	56.50	
SGE	4.94	331	eP	26	44.30	0.7
DZM	13.00	267	iPc	27	59.00	0.6
COO	26.97	245	eP	30	08.00	1.4
	0.6s		41.00nm		5.2mb	
TBI	27.78	99	iP	30	13.80	0.2
	0.6s		20.00nm		4.9mb	
RMQ	29.23	255	iPd	30	26.80	0.7
			e	30	40.00	
CNB	30.24	237	iPc	30	36.80	2.2
	0.6s		55.00nm		5.4mb	
CAN	30.52	237	eP	30	37.50	0.5
BWA	30.73	239	eP	30	37.10	-1.6
PMO	30.75	83	iP	30	38.40	-0.6
	0.9s		30.00nm		4.9mb	
TPT	31.02	83	iP	30	40.70	-0.5
	0.9s		45.00nm		5.1mb	
RUV	31.17	83	iP	30	41.90	-0.6
	0.9s		55.00nm		5.2mb	
CTA	31.95	267	iPd	30	49.80	0.8
	0.6s		30.67nm		5.1mb	
			i(PcP)	33	21.00	
CMS	32.25	245	eP	30	52.00	0.5
TOO	33.90	235	iPd	31	05.90	0.7
	0.7s		26.00nm		5.0mb	
PMG	34.31	286	iPd	31	09.00	0.2
	0.8s		44.78nm		5.1mb	
TAU	34.60	225	eP	31	11.00	0.1
STK	35.88	246	iPd	31	22.60	1.0
	0.4s		19.00nm		5.1mb	
QIS	38.02	264	eP	31	39.00	-0.2
ASPA	42.81	258	iPd	32	17.40	0.0
	0.8s		62.00nm		5.2mb	
			iPcP	33	54.60	
			eS	37	57.00	
WB5	42.98	264	iPd	32	18.30	-0.5
WRA	43.00	264	Pd	32	17.60	-1.3
	0.5s		15.30nm		4.8mb	
MTN	47.76	272	eP	32	54.00	-1.3
	0.6s		76.00nm		5.4mb	
KNA	49.13	268	iPd	33	05.10	-0.3
	0.3s		38.00nm		5.4mb	
COOL	53.34	247	eP	33	35.00	-0.8
MBL	56.06	259	iPd	33	53.90	-0.8
	0.4s		36.00nm		5.0mb	
KLB	56.15	246	eP	33	54.00	-1.2
MEKA	56.17	252	iPc	33	54.60	-0.9
NWAO	56.45	244	eP	33	57.00	-0.2
RKG	56.52	243	eP	33	57.00	-0.7
MUN	57.42	245	eP	34	03.00	-0.8
MRWA	57.98	248	eP	34	07.00	-0.7
NANU	59.65	256	iPd	34	18.80	0.0
SPA	68.20	180	e(P)	35	12.70	0.5
	1.0s		22.50nm		4.6mb	
FRI	81.31	44	eP	36	25.80	1.1
CMB	81.49	43	eP	36	26.50	0.8
SNG	83.32	280	eP	36	37.20	2.0
ALQ	89.42	52	eP	37	04.50	0.5
	0.9s		2.52nm		4.1mb	
BUL	129.94	215	iPKPc	43	13.00	-0.3
			iSKP	45	41.00	
KJF	134.04	344	ePKP	43	19.00	-0.6
SUF	135.66	343	iPKP	43	23.50	0.8
	0.5s		1.70nm			
MFS	140.70	350	ePKP	43	25.10	-6.9X
	0.5s		1.30nm			
LWI	143.34	233	iPKPd	43	37.70	-0.5
DSI	147.49	295	iPKP	43	49.00	4.8X
PRNI	147.98	292	iPKPd	43	50.00	4.9X
MBH	148.15	291	iPKPd	43	51.00	5.7X
KSP	148.60	341	iPKP	43	50.80	5.4X
CLL	149.09	345	iPKP	43	51.90	5.8X
	0.8s		19.00nm			
BRG	149.25	343	iPKP	43	51.90	5.5X
	0.8s		18.00nm			
			i	43	59.00	
BCK	149.76	308	ePKP	44	07.00	19.3X
PRU	149.88	342	PKP	43	53.80	6.5X
MOX	150.04	346	ePKP	43	54.00	6.4X
KHC	150.93	342	PKPd	43	56.20	7.2X
BNG	155.30	228	ePKPd	44	05.50	9.4X
	0.3s		7.00nm			
			ic	44	25.60	

S.D. = 0.9 on 42 of 54 obs.

MAR 18, 1989 13h 37m 48.97± 0.49s
23.644 S ± 6.1km 178.896 E ± 4.4km
DEPTH = 536.4 ± 5.8 km
5.2mb (32 obs.)
SOUTH OF FIJI ISLANDS (171)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 16S, 35C
Centroid Location:
Origin Time 13:38: 0.7 0.6
Lat 23.54S 0.05 Lon 178.54E 0.05
Dep 577.3 2.0 Half-duration 2.5
Moment Tensor; Scale 10**17 Nm
Mrr=-1.43 0.07 Mtt= 1.03 0.12
Mff= 0.40 0.11 Mrt=-0.68 0.10
Mrf= 2.45 0.11 Mtf= 1.59 0.10
Principal Axes:

	Val=	Plg=	Azm=
T	2.73	20	307
N	0.87	34	202
P	-3.61	49	62

Best Double Couple:Mo=3.2*10**17
NP1:Strike= 79 Dip=39 Slip= -27
NP2: 191 73 -126

SVA	5.52	356	ePc	39	24.90	1.6
			eS	40	09.00	
VUN	5.62	356	ePc	39	25.30	1.0
			eS	40	03.90	
SGE	6.09	351	ePc	39	31.20	2.5
			eS	40	15.70	
DZM	11.59	275	iPc	40	28.20	4.2X
			iS	42	41.90	
AFI	13.10	44	iPc	40	37.50	-2.0
			eS	40	49.60	
			e	42	49.70	
KRP	14.52	191	P	40	56.00	2.5
WEL	17.93	190	P	41	27.00	0.1
			S	44	23.00	
			eS	55	46.00	
HNR	22.97	305	eP	42	13.00	-0.9
VSG	23.26	305	eP	42	16.00	-0.5
COO	24.97	248	eP	42	33.00	1.2
			e	42	35.00	
			e	48	38.00	
RMQ	27.42	258	eP	42	54.00	0.7
			e	42	55.00	
			e	43	10.00	
			e	48	44.00	
CNB	28.11	239	iPc	43	00.60	1.3
			e	48	47.40	
CAN	28.40	239	iPd	43	02.10	0.3
BWA	28.63	241	eP	43	01.40	-2.4
TBI	28.99	96	iP	43	09.40	2.4
	0.9s		45.00nm		5.1mb	
AFR	29.91	84	iP	43	14.80	-0.1
	0.9s		120.00nm		5.5mb	
PAE	30.05	85	iP	43	16.00	-0.1
	0.9s		60.00nm		5.2mb	
PPT	30.08	84	iP	43	16.40	0.0
	0.9s		80.00nm		5.3mb	
PPN	30.22	84	iP	43	17.60	0.0
	0.9s		45.00nm		5.1mb	
CMS	30.25	248	eP	43	18.00	0.2
TOO	31.74	236	eP	43	31.00	0.6
	0.7s		145.00nm		5.7mb	
TAU	32.38	226	iPd	43	37.40	1.8
PMO	32.43	81	iP	43	35.80	-0.4
	0.9s		55.00nm		5.2mb	
VAH	32.59	81	iP	43	36.70	-0.9
	0.9s		45.00nm		5.1mb	
TPT	32.69	81	iP	43	38.00	-0.4
	0.9s		110.00nm		5.5mb	
RUV	32.83	81	iP	43	39.10	-0.5
	0.9s		70.00nm		5.3mb	
PMG	33.46	290	iPd	43	45.00	0.1
	0.9s		302.52nm		5.9mb	
STK	33.88	248	iPd	43	49.40	1.0
			e	43	51.00	
LAT	34.98	294	eP	43	58.00	0.3
QIS	36.46	267	iPd	44	09.50	-0.3
			e	49	16.00	
ADE	36.59	243	eP	44	11.00	0.2
	0.9s		112.61nm		5.5mb	
MNDI	38.07	292	eP	44	24.00	0.6
ASPA	41.08	261	iPc	44	46.90	-0.5
	1.1s		195.00nm		5.5mb	
			eScP	49	32.90	
			eS	50	15.70	
WB5	41.40	266	iPc	44	49.30	-0.7
			eScP	49	35.00	
			eS	50	23.00	
WRA	41.41	266	Pc	44	48.70	-1.4
	0.7s		56.20nm		5.2mb	
MTN	46.43	275	eP	45	28.00	-1.2
			e	47	04.00	
			e	48	17.00	
			e	50	31.00	
WARB	47.20	256	iPd	45	20.30	-14.7X
KNA	47.65	270	eP	45	37.40	-1.1
	0.3s		40.00nm		5.4mb	
GUA	49.70	315	eP	45	53.80	0.1
	0.8s		107.46nm		5.4mb	
PJG	49.77	315	eP	45	52.70	-1.5
HON	50.03	29	P	45	55.70	-0.3
OPA	50.36	28	P	45	57.20	-1.2
COOL	51.36	249	eP	46	04.00	-1.9
KLB	54.15	247	eP	46	25.00	-0.8
MEKA	54.29	253	eP	46	25.00	-1.9
MBL	54.33	260	iPd	46	25.30	-1.9
	0.3s		18.00nm		4.9mb	
NWAO	54.42	246	eP	46	26.00	-1.7
RKG	54.47	244	eP	46	26.00	-2.0
SBA	54.57	183	Pd	46	30.90	2.8
BAL	55.19	248	eP	46	31.00	-2.1
MUN	55.40	247	eP	46	33.00	-1.6
MRWA	56.02	250	eP	46	37.00	-1.9
NANU	57.85	257	iPc	46	50.30	-1.2
PCI	61.46	283	iPd	47	08.00	-7.5X
SPA	66.50	180	ePd	47	46.90	0.0
	0.9s		31.82nm		4.9mb	
MAT	71.12	326	iPc	48	15.30	0.6
	1.0s		61.00nm		5.1mb	
ADK	75.30	3	P	48	36.80	-1.1
	0.9s		106.25nm		5.3mb	
MAW	77.63	201	eP	48	51.70	1.1
NJ2	79.73	312	Pc	49	03.30	1.1
			S	58	20.00	
MDJ	81.49	327	iPc	49	12.70	1.7
			S	58	40.00	
BLP	81.65	47	P	49	13.00	1.0
SYP	81.92	47	eP	49	14.00	0.4
SNG	82.22	281	eP	49	16.40	1.1
ARN	82.58	44	P	49	16.30	-0.4
SNY	82.82	322	eP	49	18.70	1.0
PAS	82.92	48	eP	49	18.00	-0.4
MWC	83.04	48	eP	49	19.00	-0.3
CN2	83.08	324	Pd	49	20.00	1.0
			pP	51	15.00	525kmX
			S	58	56.00	
BAR	83.14	50	eP	49	20.00	0.4
TIA	83.33	314	eP	49	20.20	-0.2
PLM	83.38	49	eP	49	21.00	0.0
RVR	83.38	49	eP	49	20.00	-0.7
SBB	83.46	48	eP	49	21.00	-0.2
PEC	83.47	49	P	49	21.00	-0.2
ISA	83.58	47	eP	49	22.00	0.2
CMB	83.71	44	P	49	22.00	-0.4
	0.7s		28.15nm		5.0mb	
CLC	84.25	47	eP	49	25.00	-0.1
TPC	84.36	49	eP	49	25.00	-0.6
GSC	84.50	48	eP	49	27.00	0.7
KDC	84.54	15	P	49	26.00	0.1
	0.9s		66.67nm		5.3mb	
GLA	84.64	51	eP	49	27.00	0.0

18d 13h

KVN	85.76	44	P	49	31.80	-0.7
TNP	85.78	45	P	49	32.40	-0.2
	0.8s	24.51nm			5.0mb	
BJI	86.15	317	eP	49	35.00	1.0
			eSKS	59	04.00	
			eS	59	24.00	
BMW	87.20	36	P	49	39.50	0.5
EUR	87.37	45	iP	49	39.20	-1.0
	0.2s	36.28nm			5.8mb	
SHW	87.56	37	P	49	42.00	1.2
XAN	87.79	309	P	49	42.50	0.5
GMW	88.11	35	P	49	43.40	0.2
LON	88.14	36	P	49	43.00	-0.4
KMI	88.25	298	eP	49	45.00	0.4
PGC	88.46	34	eP	49	45.00	0.3
TTA	88.55	11	P	49	44.40	-0.6
	1.0s	29.38nm			5.1mb	
RMW	88.58	36	P	49	45.20	-0.2
CHG	88.64	291	ePc	49	47.80	1.6
	0.7s	8.56nm			4.7mb	
PMR	88.75	15	P	49	44.70	-1.1
	0.9s	37.50nm			5.3mb	
MCW	88.80	34	P	49	46.60	0.3
MSU	89.35	47	P	49	50.00	0.6
HHC	89.53	316	Pc	49	52.00	2.0
CD2	90.10	304	eP	49	54.50	1.8
PNT	90.86	35	eP	49	56.00	0.2
	0.7s	36.00nm			5.5mb	
ALQ	91.60	52	eP	49	59.50	-0.3
	1.0s	10.00nm			4.8mb	
IMA	91.84	11	P	49	59.80	-0.3
	0.9s	9.64nm			4.8mb	
FBA	91.94	14	P	49	58.80	-1.6
	0.9s	11.46nm			4.9mb	
LZH	92.42	308	eP	50	05.50	2.0
	1.0s	31.00nm			5.3mb	
BGMT	92.90	41	eP	50	06.10	0.5
LRM	92.96	41	eP	50	05.80	0.0
BW06	93.22	44	P	50	06.00	-1.1
GOL	94.55	49	P	50	12.50	-0.8
SES	96.10	37	eP	50	19.00	-0.7
EDM	96.31	34	ePc	50	19.80	-0.7
GTA	96.75	310	P	50	24.70	1.7
INK	98.06	16	eP	50	27.00	-1.1
YKA	100.57	26	ePdiff	50	39.70	0.2X
MBC	106.46	13	ePKP	55	11.00	-2.0
FRB	120.91	29	ePKP	55	38.00	-2.8
DAG	126.11	5	ePKP	55	48.00	-2.6
BUL	127.72	216	ePKP	55	54.70	-0.8
	0.7s	3.42nm				
			eSKP	58	24.40	
SOB1	129.22	125	iPKPd	55	56.60	-1.8
			e	58	25.20	
KEV	130.95	347	ePKP	55	50.00	-10.0X
			eSKP	58	32.00	
LSZ	131.87	219	ePKP	56	04.00	0.5
			i	58	38.00	
SOD	132.99	346	ePKP	55	59.00	-4.9X
			iSKP	58	40.00	
KJF	135.25	343	ePKP	56	01.00	-7.3X
	0.7s	17.40nm				
			i	56	07.20	
			iSKP	58	47.50	
			iPKS	59	39.20	
SUF	136.85	342	ePKP	56	00.00	-11.4X
NUR	139.05	341	ePKP	56	07.00	-8.4X
	0.5s	12.50nm				
			i	56	16.20	
			iSKP	58	58.50	
UPP	141.50	345	iPKP	56	13.40	-6.4X
NRA0	141.91	350	PKP	56	14.40	-6.1X
NAO	141.93	351	PKP	56	15.60	-5.0X
	0.8s	21.60nm				
HFS	142.09	348	ePKP	56	15.50	-5.4X
	0.5s	50.40nm				
KVT	144.45	308	iPKP	56	28.10	2.6
DSI	146.84	292	e(PKP)	56	33.00	3.4X
BBTK	147.22	308	ePKP	56	30.50	0.3
PRNI	147.25	290	ePKP	56	33.50	3.1X
MBH	147.37	289	e(PKP)	56	32.00	1.5
CLI	147.71	322	ePKPc	56	34.50	3.8X
CFR	147.97	319	ePKPc	56	35.00	4.0X
EKA	148.31	2	PKP	56	34.00	2.7
	1.0s	33.20nm				
TLB	148.36	318	ePKPc	56	36.00	4.4X
KRA	148.93	333	ePKP	56	36.20	3.8X
	1.0s	74.00nm				

MLR	149.09	321	ePKP	56	33.50	0.5
SPC	149.47	332	e(PKP)	56	38.90	5.4X
			e	58	45.90	
DMU	149.47	7	ePKP	56	37.20	4.1X
	0.7s	66.00nm				
KSP	149.68	338	ePKP	56	35.50	2.0
	0.7s	105.00nm				
			i	56	38.90	
			i	56	47.70	
			e	58	48.50	
CMP	149.74	322	ePKPc	56	42.00	8.2X
DCN	149.98	7	ePKP	56	38.40	4.6X
	0.7s	64.00nm				
KHL	150.11	306	ePKP	56	34.00	-0.7
DLE	150.11	7	ePKP	56	39.30	5.3X
WIT	150.28	350	iPKPd	56	40.80	6.5X
CLL	150.31	342	ePKP	56	34.00	-0.4
	1.0s	130.00nm				
			i	56	39.90	
			pPKP	58	30.00	
BRG	150.42	341	ePKP	56	35.50	0.9
			i	56	40.40	
			e	56	47.40	
			e	56	49.50	
			epPKP	58	50.00	
PRU	151.00	339	PKP	56	41.50	6.0X
	0.6s	24.40nm				
			e	56	53.00	
			eSg	27	37.50	
WTS	151.05	350	iPKPd	56	41.90	6.4X
	0.8s	82.00nm				
MOX	151.29	343	ePKP	56	42.00	6.1X
	1.2s	46.00nm				
			e	56	54.00	
SRO	151.35	332	ePKP	56	42.80	6.7X
			e	58	57.50	
BZS	151.37	326	ePKPc	56	42.50	6.3X
ZST	151.55	334	ePKP	56	37.20	0.9
			i	56	40.20	
			e	56	55.40	
			e	58	51.90	
KHC	152.05	339	PKP	56	38.80	1.7
			i	56	45.00	
ENN	152.38	350	ePKP	56	44.50	7.1X
	1.0s	68.00nm				
			e	56	56.50	
MEM	152.52	350	PKP	56	44.80	7.2X
BNG	153.09	228	iPKPd	56	39.80	0.2
	1.1s	11.00nm				
			ic	56	49.00	
			ic	57	03.40	
			ic	59	01.30	
DOU	153.22	352	PKPc	56	46.50	7.9X
			e	57	01.40	
WLF	153.41	349	PKP	56	47.50	8.6X
			e	57	02.60	
SKO	153.80	320	ePKP	56	41.50	1.8
			e	56	49.00	
			i	57	06.00	
			i	58	54.50	
KBA	153.90	337	ePKP	56	40.00	0.1
	0.9s	5.90nm				
			i	56	49.50	
			i	57	05.80	
			e	27	46.00	
			i(Sg)	28	05.80	
			i	28	12.80	
OHR	154.71	319	ePKP	56	40.00	-1.0
			i	57	09.00	
LIC	162.27	167	PKPc	56	50.00	-0.3
KIC	162.46	168	PKPc	56	50.00	-0.5
TIC	162.68	167	PKPc	56	50.40	-0.3

S.D. = 1.2 on 134 of 168 obs.

MAR 18, 1989 14h 25m 59.70± 0.54s
47.921 N ± 4.2km 7.662 E ± 5.0km
DEPTH = 10.0km (geophysicist)
SWITZERLAND (544)
ML 3.3 (LDG).

FEL	0.24	101	Pg	26	05.39	0.5
MOF	0.36	259	Pg	26	08.20	1.0
BBS	0.47	193	Pg	26	09.79	0.6
CDF	0.56	332	Pg	26	11.88	0.8
BSF	0.59	262	Pg	26	12.72	1.0
			Sg	26	20.60	
STR	0.67	6	Pg	26	14.07	1.1

LOMF	0.80	225	Pg	26	16.23	0.9
			Sg	26	27.35	
HAU	0.89	276	Pn	26	17.20	0.5
			Pg	26	18.10	
			Sg	26	29.80	
GWF	1.06	359	Pn	26	19.15	-0.5
VITF	1.16	285	Pn	26	21.48	0.1
			Pg	26	23.13	
			Sg	26	38.32	
WLF	2.01	331	iPc	26	38.90	4.9X
			S	27	05.20	
VAI	2.19	159	P	26	36.00	-0.6
			eSn	27	09.30	
LPL	2.49	195	Pn	26	41.20	0.1
			Pg	26	48.60	
			Sg	27	20.40	
LOR	2.66	257	Pn	26	43.80	0.5
			Pg	26	51.00	
			Sg	27	24.00	
LBF	2.67	251	Pg	26	51.10	7.5X
			Sg	27	24.40	
SMF	2.90	245	Pn	26	45.20	-1.5
			Pg	26	55.40	
			Sg	27	31.60	
MEM	2.90	339	P	26	45.00	-1.7
SSF	2.95	255	Pn	26	46.80	-0.6
			Pg	26	56.20	
			Sg	27	33.00	
BNI	2.95	194	P	26	57.00	9.4X
DOU	2.97	318	P	26	47.80	0.1
			iS	27	33.20	
AVF	3.14	250	Pg	26	59.90	9.8X
			Sn	27	40.20	
BGF	3.55	249	Pn	26	54.00	-2.0
			Pg	27	07.60	
			Sn	27	53.80	
MAF	3.88	246	Pg	27	14.40	13.8X
			Sg	28	03.60	
KHC	4.11	71	Pg	27	17.00	13.0X
			Sg	28	08.80	

S.D. = 1.0 on 18 of 24 obs.

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* MAR 18, 1989 14h 34m 11.17± 1.59s
17.879 N ± 8.3km 146.611 E ±13.1km
DEPTH = 62.8 ± 14.1 km
4.5mb (9 obs.) 4.2Msz (2 obs.)
MARIANA ISLANDS (216)

PJG	4.59	202	eP	35	19.80	0.1
GUMO	4.59	202	eP	35	20.00	0.3
GUA	4.62	201	eP	35	19.80	-0.3
			eS	36	13.40	
MAT	20.02	340	iPd	38	40.80	-0.7
	0.7s	23.97nm			4.6mb	
			eS	42	30.00	
JAY	21.08	197	ePd	38	52.50	-0.1
SNY	30.94	325	Pd	40	23.00	-1.2
CN2	31.41	330	eP	40	31.50	3.2X
	Z 18s	0.60um			4.3Msz	
BJI	34.32	316	eP	40	53.00	-0.7
	Z 20s	0.30um			4.0Msz	
			eS	46	11.00	
GYA	37.84	290	P	41	26.20	2.4
QIS	38.81	191	eP	41	30.00	-1.7
WB5	39.40	198	eP	41	36.10	-0.6
			e	11	45.60	
WRA	39.47	198	P	41	37.00	-0.2
	0.5s	1.00nm			4.0mb	
ASPA	43.12	197	eP	42	06.80	-0.3
	0.7s	4.00nm			4.3mb	
SNG	46.02	263	eP	42	34.20	3.7X
WARB	47.91	204	iPd	42	32.40	-12.8X
WMQ	55.50	311	Pd	43	42.40	0.3
GUN	56.35	292	P	43	50.50	1.7
PKI	56.79	292	P	43	51.10	-0.9
KKN	56.89	292	P	43	53.00	0.5
GKN	57.44	292	P	43	56.80	0.5
	1.0s	42.00nm			5.5mb	
GBA	66.39	277	Pd	44	56.10	0.0
	0.6s	2.90nm			4.4mb	
INK	69.78	23	eP	45	13.00	-3.4X
YKA	78.30	28	eP	46	04.60	-1.1
ALE	78.87	4	eP	46	11.00	2.4
	0.5s	2.00nm			4.3mb	
PNT	79.06	42	eP	46	11.00	0.8
EDM	81.72	37	eP	46	25.50	1.3
KEV	82.97	342	eP	46	29.00	-1.4

```
SOD     84.42 340 eP     46 36.00   -1.7
DAG     85.14 357 iPd    46 40.20   -1.0
         1.3s     15.38nm          4.9mb
KJF     85.81 337 eP     46 44.00   -0.7
SUF     87.23 337 iP     46 50.60   -1.1
         0.3s      2.60nm          4.9mb
HFS     93.46 338 eP     47 17.40   -3.5X
         0.5s      1.00nm          4.5mb
ZOBO   146.78  93 PKPd   53 48.00    0.6
         0.9s      8.65nm
       Z  24s      0.05um          4.2MszX
                 LR     44 20.00
LPB    146.84  93 ePKP   53 48.00    0.7
CNCB   146.99  93 PKP    53 49.00    1.3
     S.D. = 1.2  on  30 of  35 obs.
-------------------------------------------
*  MAR  18, 1989  17h 08m 23.95± 0.67s
   73.723 N ±15.4km    8.713 E ±14.7km
   DEPTH =  10.0km  (geophysicist)
   4.9mb (  1 obs.)
 GREENLAND SEA                      (640)

TRO      5.22 137 eP     10 31.50   47.8X
                eS      10 38.80
KEV      6.97 116 eP     10 09.00    0.6
                e       11 18.00
DAG      7.59 306 eP     10 10.00   -7.1X
SOD      8.70 128 iP     10 31.40   -1.2
KJF     11.66 135 iP     11 12.80   -0.4
         0.6s     14.30nm          5.5mb X
                i       11 20.40
SUF     12.72 141 iP     11 27.50    0.2
HFS     13.78 169 eP     11 51.50   10.1X
         0.9s     13.40nm
NUR     14.55 147 eP     11 57.00    5.5X
       Z  21s      0.20um          4.0Msz
                 LR     17 00.00
YKA     38.94 322 eP     15 51.40    0.5
SES     49.64 313 eP     17 16.00   -1.0
KKN     59.80  94 P      18 31.70    0.1
DMN     59.92  95 P      18 32.80    0.4
BNG     69.47 170 ePc    19 35.00    0.9
         0.3s      3.00nm          4.9mb
CHG     72.15  84 eP     19 50.30   -0.1
     S.D. = 0.8  on  10 of  14 obs.
-------------------------------------------
*  MAR  18, 1989  18h 48m 11.11± 1.35s
   37.125 N ±12.5km   71.116 E ±20.0km
   DEPTH =  33.0km  (normal)
 AFGHANISTAN-USSR BORDER REGION     (717)

QUE      7.74 208 eP     50 04.50    0.0
                eS      51 28.80
MAIO     9.37 268 eP     50 27.00    0.0
         0.5s      5.10nm          5.0mb X
                eS      52 07.00
SUF     37.44 328 iP     55 23.30    0.6
HFS     42.63 321 eP     56 05.00   -0.7
         0.4s      1.30nm          4.0mb X
NAO     44.11 322 P      56 36.80   19.2X
         0.7s      2.60nm
YKA     80.62   3 eP     00 21.40    0.0
     S.D. = 0.6  on   5 of   6 obs.
-------------------------------------------
    MAR  18, 1989  21h 25m 51.48± 0.47s
    39.252 N ± 4.0km   23.612 E ± 5.5km
    DEPTH =  11.9 ±  3.2 km
 AEGEAN SEA                         (365)
      ML 3.1 (ATH).

NEO      0.31 280 iPgd   25 57.30   -0.7
PLG      1.13 354 iPbc   26 13.00    0.5
                eSb     26 28.70
ATH      1.28 176 ePb    26 14.50   -0.5
KZN      1.77 307 ePn    26 22.00   -0.1
PRK      2.06  89 ePb    26 31.00    4.6X
EZN      2.17  74 ePn    26 28.00    0.0
VAY      2.22 339 ePn    26 28.70    0.2
MMB      2.34   2 iPd    26 30.00   -0.3
ITM      2.46 213 ePb    26 33.00    1.0
RZN      2.57  19 iPc    26 34.00    0.2
KKB      2.64 351 iPc    26 35.00    0.3
KDZ      2.76  29 iPc    26 36.00   -0.4
OHR      2.84 312 ePn    26 41.00    3.4X
PGB      3.32   7 eP     26 44.00   -0.3
VTS      3.35 355 eP     26 45.00    0.2
PVL      4.17  18 eP     26 56.00   -0.2

     S.D. = 0.5  on  14 of  16 obs.
-------------------------------------------
    MAR  18, 1989  21h 27m 39.16± 0.25s
    39.237 N ± 3.3km   23.558 E ± 2.3km
    DEPTH =  10.0km  (geophysicist)
    4.3mb ( 21 obs.)
  AEGEAN SEA                        (365)
       ML 4.4 (ATH).

NEO      0.27 285 iPbd   27 43.50   -1.3
PLG      1.14 356 ePb    28 01.00    0.5
ATH      1.27 174 iPnc   28 02.70    0.0
KZN      1.74 308 iPnd   28 10.00    0.3
PRK      2.11  89 iPnd   28 15.00    0.1
VAY      2.21 340 iPn    28 17.30    0.8
EZN      2.22  74 ePn    28 16.10   -0.4
MMB      2.35   3 iPc    28 28.00    9.5X
ITM      2.42 213 ePn    28 21.00    1.6
RDO      2.44  38 ePn    28 18.50   -1.1
LSK      2.46 293 iPnd   28 21.80    1.8
VLS      2.55 246 ePn    28 23.00    1.7
RZN      2.60  19 iPc    28 22.00   -0.2
KKB      2.65 352 iP     28 23.00    0.3
KDZ      2.80  30 iPc    28 24.00   -0.8
OHR      2.82 312 iPn    28 26.20    1.0
SRN      2.82 284 iPnc   28 26.90    1.8
PLD      2.99  17 iPc    28 29.00    1.5
IZM      3.01 105 iPn    28 28.80    1.0
BERA     3.14 299 ePn    28 31.80    2.3
SKO      3.17 330 iPnc   28 30.80    0.7
       Z  11s     12.20um
       N  11s      8.20um
       E  11s     14.30um
                iPg     28 39.50
                i       28 47.10
                iSn     29 08.80
                iSg     29 21.20
                LQ      30 20.00
DIM      3.19  28 iP     28 30.00   -0.2
PGB      3.34   8 iP     28 42.00    9.5X
VLO      3.36 293 iPn    28 35.60    2.9
VTS      3.36 356 iP     28 33.00    0.1
EDC      3.50  70 iPn    28 35.60    0.9
TIR      3.52 308 ePn    28 37.20    2.2
BNT      3.54  70 iPn    28 34.40   -0.9
LACI     3.79 310 ePn    28 41.60    2.7
KCT      3.83  73 iPn    28 41.90    2.4
DST      3.94  83 iPn    28 41.60    0.5
PUK      3.95 316 ePn    28 42.50    1.4
JMB      3.96  34 eP     28 40.00   -1.2
DMK      4.11  50 iPn    28 43.10   -0.3
CTT      4.19  61 ePn    28 45.00    0.5
ULC      4.26 311 ePn    28 46.50    0.9
                eSn     29 32.00
YER      4.27 118 iPn    28 46.40    0.6
NPS      4.29 157 ePn    28 45.50   -0.5
PVY      4.32 322 ePn    28 47.50    1.1
                eSn     29 35.00
SZH      4.41  23 eP     28 47.00   -0.6
LCI      4.45 286 P      28 47.20   -1.0
                eSn     29 37.20
TTG      4.56 316 ePn    28 51.00    1.3
                eSn     29 40.00
IVA      4.57 324 ePn    28 51.70    1.8
                eSn     29 42.00
ISK      4.59  65 ePn    28 49.00   -1.3
YLV      4.67  72 iPn    28 51.90    0.5
BDV      4.71 312 ePn    28 52.50    0.6
                eSn     29 42.00
KHL      4.75  99 iPn    28 53.30    0.7
HRT      4.95  69 ePn    28 53.90   -1.4
HCY      5.00 312 ePn    28 56.20    0.2
                eSn     29 50.20
ALT      5.10  90 iPn    28 57.50    0.0
BRT      5.14 291 P      28 58.20    0.1
                eSn     29 54.10
GPA      5.31  76 ePn    28 59.40   -1.0
BUC1     5.43  19 eP     29 18.00   16.0X
DRA      5.46   5 iPd    29 02.00   -0.5
BUC      5.51  19 iP     29 25.00   21.8X
TDS      5.61 277 P      29 05.30    0.7
                eSn     30 05.70
PSN      5.64  37 iPd    29 03.00   -2.0
KSL      5.70 121 ePn    29 09.50    3.6X
CMP      6.13  10 ePd    29 12.00    0.1
MGR      6.24 281 P      29 14.20    0.7
                eSn     30 21.80

ISR      6.30  20 eP     29 14.00   -0.4
ATN      6.42 263 P      29 15.90   -0.2
                eSn     30 24.90
MLR      6.50  15 iPc    29 16.50   -0.7
HVAR     6.65 309 iPn    29 17.10   -2.2
TIM      6.72 346 eP     29 59.30   39.1X
CFR      6.85  28 eP     29 20.00   -2.1
BSS      6.90 286 P      29 23.00    0.3
VRI      7.03  18 iPc    29 25.50    0.9
MNO      7.06 262 P      29 25.50    0.2
MEU      7.12 255 P      29 23.50   -2.5
                eSn     30 38.90
DUI      7.35 292 P      29 29.70    0.5
CLI      7.80  19 eP     29 35.00   -0.4
SDI      7.83 291 Pd     29 35.70   -0.1
USI      8.10 270 P      29 37.10   -2.6
ZAG      8.63 322 e(Pg)  30 26.00   39.1X
PTJ      8.70 322 eP     29 46.10   -1.9
VBY      8.77 318 eP     29 48.80   -0.1
                eS      31 30.70
CEY      9.36 317 e(P)   29 55.00   -2.1
                eS      31 35.00
SRO      9.38 338 iP     30 05.50    8.3X
                e       30 15.50
                e       31 07.60
                e       33 20.00
LJU      9.51 319 e(P)   29 57.20   -1.9
                e(S)    31 53.20
TRI      9.70 315 ePn    29 58.70   -3.0X
                iSn     31 42.00
                e       32 44.00
VOY      9.83 317 eP     30 02.20   -1.5
                eS      31 42.30
ZST     10.10 335 e(P)   30 10.10    3.0X
RBL     10.27 318 P      30 09.70    0.0
FIR     10.28 300 eP     30 09.00   -0.7
FVI     10.79 316 P      30 15.50   -1.1
KBA     10.81 320 eP     30 15.00   -2.2
         0.8s     3.80nm          4.8mb
                e       31 10.00
                e       32 44.50
KRA     11.12 348 eP     30 23.40    2.3
CVF     11.60 291 eP     30 28.20    0.4
GLH     11.76 120 e(P)   30 29.00   -1.0
BURJ    12.14 122 P      30 35.00    0.0
KHC     12.20 327 iP     30 35.20   -0.6
         1.0s     7.00nm          4.9mb
JARJ    12.24 121 P      30 36.80    0.3
PRU     12.51 332 eP     30 21.00  -18.9X
       Z  11s     2.40um
       E  13s     2.50um
                e       30 43.00
KSP     12.68 339 eP     30 48.00    5.8X
PRNI    12.91 130 eP     30 44.00   -1.5
SBF     12.93 296 eP     30 45.80    0.1
MBH     13.27 132 e(P)   30 49.00   -1.1
FRF     13.41 294 eP     30 53.00    1.1
BRG     13.46 333 e(P)   31 03.50   11.0X
LPG     13.90 302 eP     30 58.20   -0.5
         0.7s    22.00nm          5.1mb
CLL     14.16 332 e(P)   31 04.00    2.3
HAU     15.21 311 eP     31 13.10   -2.4
         0.9s    11.10nm          4.2mb
MSL     15.74  94 ePd    31 26.00    3.5X
                eS      34 31.00
SMF     16.20 304 eP     31 26.20   -2.2
         0.8s    17.90nm          4.2mb
LBF     16.23 305 eP     31 26.90   -1.9
         0.7s    11.00nm          4.1mb
LOR     16.41 306 eP     31 30.20   -0.9
         0.7s     5.50nm          3.8mb
SSF     16.56 305 eP     31 32.20   -0.7
         0.7s     8.80nm          4.0mb
AVF     16.57 304 eP     31 31.90   -1.1
         0.8s    24.10nm          4.4mb
BGF     16.82 302 eP     31 35.30   -0.9
         1.1s    47.30nm          4.5mb
MAF     16.90 301 eP     31 37.70    0.5
         0.8s    16.10nm          4.2mb
SLY     17.80  95 ePd    31 51.50    3.1X
                eS      35 13.00
                e       38 49.00
BHD     17.81 103 ePd    31 55.00    6.4X
                e       35 17.50
                e       38 20.00
TAB     17.82  87 eP     31 55.00    6.1X
MFF     18.81 301 eP     32 00.30   -0.6
```

18d 21h

	0.8s	8.00nm		4.0mb	
LDF	19.39	307 eP	32 05.70	-2.2	
FLN	19.67	307 eP	32 09.10	-2.0	
	0.8s	16.10nm		4.4mb	
GRR	19.78	306 eP	32 10.30	-2.0	
	0.8s	14.50nm		4.3mb	
LPF	19.79	304 eP	32 10.30	-2.0	
TOL	21.27	281 eP	32 31.00	3.2X	
		eS	36 27.00		
NUR	21.31	1 eP	32 30.00	2.1	
Z	16s	1.70um		4.5MszX	
		LR	45 40.00		
ASMO	21.48	274 eP	32 31.50	1.4	
APHE	21.54	273 eP	32 34.40	3.7X	
AAPN	21.79	274 eP	32 34.20	1.0	
ATEJ	21.80	273 eP	32 34.50	1.2	
ALOJ	21.82	273 eP	32 35.20	1.7	
HFS	21.82	347 (P)	32 31.90	-1.3	
	0.4s	1.70nm		3.8mb	
Z	15s	0.63um		4.1MszX	
		LR	41 20.00		
SUF	23.57	3 eP	32 52.00	1.7	
	0.7s	4.80nm		4.2mb	
EKA	24.02	321 P	32 55.00	0.2	
	1.2s	48.30nm		5.0mb	
MAIO	28.44	84 eP	33 39.00	2.8	
		eS	38 32.00		
BNG	34.94	189 iPd	34 32.00	-1.3	
	0.2s	34.00nm		5.9mb X	
		ic	34 47.10		
TIC	41.42	226 P	35 26.66	-0.8	
	0.7s	3.50nm		4.2mb	
KIC	41.50	225 Pc	35 27.32	-0.8	
	0.7s	5.00nm		4.3mb	
LIC	41.77	226 Pc	35 29.68	-0.6	
	0.6s	7.50nm		4.6mb	
WMQ	47.17	63 P	36 16.20	2.6	
GKN	51.22	83 P	36 45.20	0.1	
DMN	51.78	83 P	36 48.80	-0.7	
	0.8s	17.00nm		5.0mb	
KKN	51.82	83 P	36 49.30	-0.4	
GUN	52.22	83 P	36 52.10	-0.9	
FRB	56.53	328 eP	37 23.00	-0.5	
GTA	57.23	64 eP	37 28.80	-0.3	
MBC	62.40	351 eP	38 05.00	1.1	
XAN	66.23	65 P	38 31.30	1.8	
CHG	67.20	84 eP	38 36.10	0.3	
CN2	71.42	48 eP	39 02.00	0.6	
YKA	73.18	341 eP	39 13.90	2.4	
S.D. = 1.3 on 127 of 146 obs.					

MAR 18, 1989 21h 36m 52.43± 0.49s
39.261 N ± 4.7km 23.628 E ± 5.6km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.5 (ATH).

NEO	0.32	278 iPgd	36 57.50	-1.5	
PLG	1.12	353 iPbc	37 13.50	0.1	
		eSb	37 29.00		
ATH	1.29	177 ePb	37 15.20	-1.1	
		eSb	37 31.50		
KZN	1.77	307 ePb	37 22.20	-1.2	
PRK	2.05	90 ePb	37 32.00	4.6X	
EZN	2.16	74 ePn	37 29.40	0.5	
VAY	2.21	339 iPn	37 29.60	-0.1	
MMB	2.33	2 iPc	37 32.00	0.6	
RDO	2.38	37 ePn	37 33.70	1.6	
ITM	2.47	213 ePb	37 35.50	2.1	
RZN	2.56	19 iPc	37 35.00	0.2	
VLS	2.61	246 ePb	37 36.50	1.1	
KDZ	2.75	29 iPc	37 36.00	-1.4	
OHR	2.85	311 iPn	37 42.00	3.2X	
IZM	2.97	106 ePn	37 41.00	0.5	
DIM	3.14	27 eP	38 00.00	17.2X	
SKO	3.18	329 ePn	37 45.50	2.1	
PGB	3.31	7 iP	37 45.00	-0.4	
EDC	3.44	70 ePn	37 57.60	10.5X	
DST	3.89	83 ePn	38 05.00	11.4X	
PVL	4.16	17 iPd	37 55.00	-2.2	
NPS	4.29	158 ePn	38 00.20	0.9	
YLV	4.61	72 eP	38 22.00	18.2X	
KAP	4.66	142 ePn	38 03.70	-0.8	
TDS	5.66	276 P	38 20.40	1.8	
MGR	6.29	281 P	38 26.30	-1.2	
		eSn	39 28.60		
MLR	6.46	15 eP	38 30.00	0.0	
DEV	6.64	356 iPc	39 18.00	45.6X	
VRI	6.99	18 ePd	38 38.00	0.7	
BNG	34.97	189 ePd	43 44.60	-2.2	
	0.4s	3.00nm		4.5mb	
S.D. = 1.4 on 23 of 30 obs.					

? MAR 18, 1989 22h 05m 00.11± 1.21s
39.226 N ± 8.6km 23.518 E ±15.6km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.1 (ATH).

NEO	0.24	289 iPgd	05 05.00	-0.3	
PLG	1.15	357 iPbc	05 20.70	-0.9	
		eSg	05 36.70		
ATH	1.26	173 ePb	05 23.50	0.0	
KZN	1.73	309 iPgc	05 33.20	2.8X	
VAY	2.21	341 ePn	05 38.60	1.2	
OHR	2.81	313 ePn	05 55.00	9.1X	
S.D. = 1.5 on 4 of 6 obs.					

MAR 18, 1989 22h 46m 39.71± 0.25s
50.644 N ± 6.5km 156.624 E ± 4.4km
DEPTH = 33.0km (normal)
4.7mb (22 obs.)
KURIL ISLANDS (221)

MDJ	19.13	262 iPd	51 03.20	0.7	
MAT	19.33	230 eP	51 07.00	2.0	
	0.8s	38.06nm		4.7mb	
IMA	29.30	39 P	52 40.60	-0.4	
	0.8s	3.45nm		4.1mb	
FBA	31.68	42 P	53 02.00	0.2	
	0.8s	10.34nm		4.7mb	
INK	37.12	35 eP	53 49.00	0.7	
MBC	40.13	22 eP	54 14.00	0.6	
GYA	44.85	257 P	54 53.00	0.4	
WMO	45.75	289 P	55 00.60	1.1	
YKA	46.43	40 eP	55 05.50	1.0	
YKC	46.49	40 eP	55 05.50	0.6	
	0.8s	10.00nm		4.8mb	
PNT	51.07	57 eP	55 41.00	0.4	
EDM	51.98	50 eP	55 47.00	-0.5	
WDC	54.77	67 eP	56 09.10	0.9	
CHG	55.28	257 eP	56 13.10	1.0	
ORV	56.04	67 eP	56 17.30	-0.1	
FFC	56.28	43 eP	56 19.00	0.0	
	0.9s	13.00nm		5.0mb	
GUN	56.98	275 P	56 24.10	-0.7	
KKN	57.45	275 P	56 27.40	-0.4	
	0.6s	11.00nm		5.1mb	
DMN	57.68	275 P	56 29.30	-0.3	
CMB	57.69	68 eP	56 29.70	0.5	
GKN	57.71	276 P	56 29.10	-0.5	
	0.4s	5.00nm		4.9mb	
KVN	58.35	66 P	56 34.80	0.8	
EUR	59.29	64 iP	56 40.20	-0.4	
	0.2s	33.49nm		6.1mb X	
TNP	59.52	66 P	56 42.10	-0.1	
FRB	60.59	21 eP	56 47.00	-1.8	
BW06	60.62	57 P	56 50.00	0.3	
	1.0s	21.25nm		5.2mb	
MSU	62.11	63 P	57 00.00	0.2	
RSSD	62.58	53 P	57 02.30	-0.5	
GOL	65.03	57 P	57 22.00	3.1X	
	0.8s	7.74nm		4.9mb	
ALQ	67.87	62 eP	57 37.00	0.0	
	0.8s	5.22nm		4.7mb	
HYB	69.20	272 ePd	57 44.50	-0.7	
GBA	72.76	270 Pd	58 05.40	-1.2	
	0.8s	3.10nm		4.4mb	
WB5	72.91	202 eP	58 06.80	-0.5	
WRA	72.98	202 Pd	58 06.20	-1.5	
	0.6s	1.90nm		4.3mb	
KHC	75.69	336 eP	58 23.00	-0.1	
ASPA	76.66	201 iPd	58 29.10	0.3	
	0.6s	5.00nm		4.7mb	
KBA	77.64	335 ePd	58 34.00	-0.2	
	0.8s	2.40nm		4.3mb	
FLN	79.04	345 eP	58 41.00	-0.6	
GRR	79.47	345 eP	58 43.70	-0.2	
	0.8s	10.70nm		4.9mb	
LOR	79.68	342 eP	58 44.50	-0.6	
LPF	79.84	345 eP	58 45.90	0.0	
SSF	79.95	342 eP	58 46.20	-0.3	
AVF	80.24	342 eP	58 47.80	-0.3	
	0.7s	4.80nm		4.6mb	
SMF	80.28	341 eP	58 48.00	-0.3	
BGF	80.56	342 eP	58 50.40	0.6	
	0.5s	2.10nm		4.4mb	
LPG	80.74	339 eP	58 51.50	0.3	
	0.6s	5.40nm		4.7mb	
MAF	80.94	342 eP	58 52.00	0.2	
	0.7s	4.40nm		4.6mb	
TCF	80.95	342 eP	58 51.90	0.0	
	0.5s	2.40nm		4.4mb	
MFF	81.08	344 eP	58 52.50	0.0	
LSF	81.11	343 eP	58 52.70	0.0	
	0.5s	2.90nm		4.5mb	
CAF	82.28	342 eP	58 59.60	0.7	
	0.5s	2.10nm		4.4mb	
LFF	82.52	343 eP	59 00.50	0.4	
LPO	82.69	343 eP	59 01.30	0.4	
LRG	82.77	339 eP	59 01.30	0.0	
LMR	82.85	339 eP	59 02.00	0.2	
ZOBO	130.47	63 (PKP)	05 47.00	-2.2	
		i	07 06.20		
LPB	130.69	63 ePKP	05 50.00	0.5	
CNCB	130.98	63 ePKP	05 50.00	-0.2	
		i	07 00.00		
S.D. = 0.7 on 57 of 58 obs.					

? MAR 18, 1989 23h 01m 44.41± 1.42s
25.941 N ±34.7km 142.447 E ±10.6km
DEPTH = 33.0km (normal)
4.8mb (7 obs.)
VOLCANO ISLANDS REGION (213)

LZH	34.40	297 eP	08 31.00	0.1	
GUN	50.09	286 P	10 39.40	0.5	
	0.9s	29.00nm		5.3mb	
PKI	50.57	285 P	10 41.60	-0.9	
KKN	50.63	286 P	10 42.90	0.1	
DMN	50.82	285 P	10 44.40	0.1	
GKN	51.15	286 P	10 46.80	0.1	
INK	63.98	24 eP	12 16.50	0.1	
MBC	66.94	15 eP	12 35.00	-0.3	
YKA	73.04	28 eP	13 12.90	0.3	
YKC	73.11	28 eP	13 12.50	-0.5	
	0.7s	5.00nm		4.6mb	
KEV	74.14	341 eP	13 24.00	5.1X	
SOD	75.56	339 iP	13 28.20	1.1	
		i	13 34.60		
KJF	76.92	336 eP	13 34.00	-0.8	
	0.7s	12.00nm		5.0mb	
		i	13 42.20		
SUF	78.33	335 iP	13 43.60	1.1	
	0.6s	4.70nm		4.7mb	
SES	80.18	39 eP	13 53.00	0.1	
NUR	80.19	334 eP	14 00.00	7.3X	
LRM	81.55	43 eP	14 00.60	0.1	
BGMT	82.09	43 eP	14 03.40	0.1	
FFC	82.59	32 eP	14 06.00	0.6	
	0.9s	13.00nm		5.0mb	
HFS	84.57	337 eP	14 14.70	-0.7	
	0.6s	2.30nm		4.5mb	
NAO	85.05	338 P	14 17.40	-0.4	
	0.9s	6.60nm		4.8mb	
FRB	87.34	13 eP	14 28.00	-0.9	
ZOBO	149.96	77 ePKP	21 07.00	-22.3X	
		i	21 33.20		
S.D. = 0.6 on 20 of 23 obs.					

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* MAR 18, 1989 23h 09m 22.85± 0.87s
39.233 N ± 7.1km 23.476 E ±15.3km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 2.9 (ATH).

NEO	0.21	291 iPnc	09 44.70	17.3X	
		eSn	10 00.50		
ATH	1.27	171 ePn	09 46.50	0.0	
KZN	1.70	310 ePn	09 52.50	-0.2	
MMB	2.36	5 iPd	10 02.00	-0.3	
RZN	2.63	21 iP	10 06.00	-0.2	
KKB	2.65	354 iP	10 07.00	0.7	
KDZ	2.83	31 iP	10 12.00	3.0X	
S.D. = 0.6 on 5 of 7 obs.					

? MAR 18, 1989 23h 59m 55.07± 1.22s
39.260 N ± 8.4km 23.541 E ±12.9km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.0 (ATH).

NEO	0.25	281	ePg	00 00.00	-0.4
PLG	1.12	356	ePb	00 15.70	-0.3
ATH	1.29	174	ePb	00 19.00	0.0
KZN	1.72	308	ePb	00 26.00	0.7

S.D. = 0.9 on 4 of 4 obs.

MAR 19, 1989 00h 19m 20.82± 0.46s
39.248 N ± 4.9km 23.564 E ± 3.8km
DEPTH = 10.0km (geophysicist)
3.5mb (4 obs.)
AEGEAN SEA (365)
ML 3.6 (ATH).

NEO	0.27	283	iPgd	19 26.50	0.0
PLG	1.13	355	iPg	19 42.10	0.1
ATH	1.28	175	ePb	19 44.00	-0.5
KZN	1.74	308	iPnd	19 51.00	-0.3
VAY	2.21	340	iPn	19 58.50	0.5
EZN	2.21	74	ePn	19 57.50	-0.6
MMB	2.34	3	iPc	20 00.00	0.0
RZN	2.59	19	iPc	20 04.00	0.4
KKB	2.64	352	iPc	20 04.00	-0.2
KDZ	2.79	30	iPc	20 05.00	-1.3
OHR	2.82	312	iPn	20 07.10	0.3
PLD	2.98	17	eP	20 10.00	1.0
IZM	3.01	105	iPn	20 10.40	0.9
SKO	3.17	330	iPn	20 12.00	0.4
			i	20 29.00	
DIM	3.18	28	eP	20 23.00	11.3X
PGB	3.33	8	iP	20 13.00	-1.0
VTS	3.35	356	iP	20 14.00	-0.4
EDC	3.49	70	ePn	20 24.60	8.4X
BNT	3.53	70	ePn	20 18.00	1.1
KCT	3.83	73	ePn	20 30.00	8.9X
JMB	3.95	34	eP	20 32.00	9.3X
PVL	4.18	18	iPc	20 24.00	-2.0
LCI	4.46	286	P	20 28.40	-1.5
			eSn	21 16.70	
BRT	5.14	290	P	20 39.10	-0.6
			eSn	21 38.00	
TDS	5.61	276	P	20 45.90	-0.4
			eSn	21 46.30	
BCK	5.80	106	eP	20 50.20	1.1
CMP	6.12	10	ePc	20 53.00	-0.4
MGR	6.24	281	Pc	20 54.90	-0.3
			eSn	22 03.20	
ISR	6.29	20	eP	21 00.00	4.1X
MLR	6.48	15	eP	20 58.00	-0.7
BSS	6.90	286	P	21 04.10	-0.3
VRI	7.02	18	ePc	21 06.50	0.4
MEU	7.13	255	P	21 04.20	-3.6X
			eSn	22 22.50	
BBTK	7.13	82	eP	21 38.00	30.1X
SDI	7.83	291	P	21 16.60	-0.9
			eSn	22 41.30	
KHC	12.19	327	P	22 15.30	-2.1
LPG	13.90	302	eP	22 48.30	8.0X
	0.6s		4.80nm		4.5mb X
SMF	16.20	304	eP	23 12.60	2.6
	0.7s		2.20nm		3.4mb
LBF	16.23	305	eP	23 12.70	2.3
	0.6s		2.70nm		3.6mb
SSF	16.56	305	eP	23 17.70	3.2X
	0.6s		1.80nm		3.4mb
AVF	16.56	304	eP	23 16.30	1.7
	0.7s		3.70nm		3.6mb
BGF	16.82	302	eP	23 18.40	0.6
MAF	16.90	301	eP	23 19.70	0.8
BNG	34.95	189	ePd	26 13.20	-1.9
	0.3s		3.00nm		4.6mb X
YKA	73.18	341	eP	30 54.20	1.1

S.D. = 1.1 on 36 of 45 obs.

MAR 19, 1989 00h 31m 54.38± 0.61s
38.103 N ± 5.3km 23.021 E ± 6.1km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 3.5 (ATH).

ATH	0.56	103	ePg	32 06.40	0.6
NEO	1.21	7	ePg	32 18.50	1.5
ITM	1.27	224	ePb	32 16.00	-1.9
VLS	1.92	273	ePn	32 28.50	1.1
PLG	2.29	8	ePn	32 32.70	-0.1
KZN	2.41	337	ePn	32 35.00	0.5
PRK	2.79	65	ePg	32 48.00	8.1X
EZN	3.10	55	ePn	32 43.50	-0.7
VAY	3.23	354	iPn	32 47.20	1.1
IZM	3.35	84	ePn	32 48.80	0.9
OHR	3.46	331	Pn	32 49.00	-0.4
NPS	3.52	143	ePn	32 50.30	0.1
MMB	3.52	9	eP	32 50.00	-0.3
RDO	3.61	32	ePn	32 50.50	-0.9
KKB	3.76	1	iP	32 54.00	0.3
RZN	3.81	19	iPd	32 55.00	0.5
KDZ	3.99	27	iPc	32 57.00	0.1
SKO	4.05	343	iPn	33 00.10	2.4
KAP	4.19	126	ePn	33 01.00	1.2
YER	4.29	101	eP	33 01.00	-0.2
PGB	4.53	11	eP	33 02.00	-2.6
JMB	5.14	31	eP	33 09.00	-4.2X
PVL	5.40	18	eP	33 15.00	-1.9
ELL	5.65	102	eP	33 25.00	4.5X
MLR	7.70	16	eP	33 48.00	-1.3

S.D. = 1.3 on 22 of 25 obs.

MAR 19, 1989 00h 33m 22.49± 0.55s
12.754 N ± 3.3km 143.459 E ± 4.0km
DEPTH = 113.3 ± 5.2 km
5.3mb (23 obs.)
SOUTH OF MARIANA ISLANDS (210)
Felt on Guam.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 12S, 22C
Centroid Location:
Origin Time 00:33:29.6 1.2
Lat 12.49N 0.11 Lon 143.26E 0.09
Dep 109.5 4.8 Half-duration 1.5
Moment Tensor; Scale 10**16 Nm
Mrr=-1.95 0.39 Mtt=-4.62 0.55
Mff= 6.57 0.58 Mrt= 3.92 0.43
Mrf=-0.68 0.40 Mtf=-1.97 0.52
Principal Axes:
T Val= 7.13 Plg=10 Azm= 77
N 0.40 54 334
P -7.53 34 174
Best Double Couple:Mo=7.3**10**16
NP1:Strike=210 Dip=59 Slip= -19
NP2: 310 74 -147

GUMO	1.60	59	iP	33 51.10	0.0
PJG	1.60	59	iPd	33 51.10	0.0
GUA	1.62	61	iP	33 51.40	0.1
			eS	34 11.20	
JAY	15.41	190	ePc	36 55.50	0.4
	1.0s		166.20nm		5.2mb
DAV	18.49	254	eP	37 38.30	5.7X
MNDI	18.79	179	eP	37 37.00	0.9
PMG	22.32	170	eP	38 11.00	-0.7
BAG	22.43	282	eP	38 14.10	1.1
PCI	27.08	242	ePd	39 18.00	21.5X
MTN	28.22	206	eP	39 06.00	-0.7
KNA	31.83	208	eP	39 38.50	-0.2
WHN	32.19	308	eP	39 40.50	-1.2
QIS	33.32	187	iPd	39 51.10	-0.5
WRA	33.71	196	Pd	39 54.20	-0.8
	0.5s		62.30nm		5.7mb
BJI	36.27	323	eP	40 16.50	0.0
GYA	37.10	297	P	40 25.00	1.2
TIY	37.19	317	Pd	40 25.40	1.0
	N 18s		1.00um		
ASPA	37.38	195	iPd	40 26.10	0.0
	0.6s		310.00nm		6.4mb X
			iPcP	42 43.20	
RMO	39.34	173	eP	40 41.00	-1.4
KMI	40.28	294	eP	40 51.50	1.1
BTO	40.35	320	eP	40 51.00	0.4
CD2	40.77	303	eP	40 54.60	0.4
MBL	40.92	215	eP	40 55.20	-0.1
	0.5s		41.00nm		5.5mb
DZM	41.31	147	iPd	40 59.10	0.5
WARB	42.02	203	iPd	40 51.80	-12.5X
LZH	42.49	310	eP	41 09.50	1.2
SNG	42.52	267	eP	41 09.90	1.3
KHT	43.57	278	eP	41 18.40	1.3
COO	43.84	169	eP	41 19.00	-0.1
STK	44.42	182	iPc	41 23.20	-0.4
	0.7s		47.00nm		5.4mb
NANU	44.51	218	iPc	41 25.10	0.6
PSI	45.17	261	eP	41 30.00	0.0
	0.7s		239.50nm		6.1mb
MEKA	46.02	212	eP	41 36.30	-0.2
BWA	47.15	174	iPd	41 45.30	0.0
ADE	47.67	185	iPd	41 49.90	0.6
	0.7s		83.56nm		5.6mb
CAN	48.10	174	iPd	41 52.70	0.1
CNB	48.13	174	iPd	41 53.60	0.7
	0.9s		56.00nm		5.4mb
COOL	48.40	206	eP	41 54.10	-0.9
	0.6s		35.00nm		5.4mb
MRWA	49.44	212	iPd	42 02.90	-0.1
	0.4s		11.00nm		5.1mb
SHL	50.07	293	iP	42 08.00	-0.2
TOO	50.09	178	iPd	42 09.00	1.1
	1.0s		118.00nm		5.8mb
BAL	50.21	210	iPd	42 08.30	-0.5
KLB	50.52	209	iPd	42 10.20	-0.9
LSA	51.16	298	eP	42 17.50	0.8
MUN	51.57	210	iPd	42 18.50	-0.7
	0.9s		45.00nm		5.4mb
NWAO	51.87	208	eP	42 20.80	-0.6
RKG	52.93	208	iPc	42 32.30	3.1X
TAU	55.50	177	iPc	42 48.00	0.2
GUN	55.59	295	P	42 49.00	-0.3
PKI	55.99	295	P	42 51.20	-0.9
KKN	56.12	295	P	42 52.10	-0.8
DMN	56.26	295	P	42 53.20	-0.8
GKN	56.70	295	P	42 56.20	-0.7
	0.6s		18.00nm		5.3mb
WMQ	56.72	314	eP	42 55.40	-1.4
KRP	58.70	151	P	43 10.60	0.2
	0.8s		64.00nm		5.7mb
MSZ	61.31	160	P	43 27.40	-0.8
	0.6s		60.00nm		5.8mb
HYB	62.59	283	eP	43 36.00	-1.3
GBA	64.10	279	Pc	43 46.10	-1.0
	0.6s		1.40nm		4.1mb X
PMR	68.17	28	P	44 09.80	-2.4
	0.8s		7.76nm		4.6mb
FBA	69.56	25	P	44 20.00	-0.7
	0.8s		6.90nm		4.5mb
INK	75.66	22	eP	44 55.00	-1.5
MAIO	77.75	305	eP	45 10.00	1.1
			e	45 40.00	
MBC	79.41	14	eP	45 15.00	-2.0
	0.5s		5.00nm		4.6mb
BMW	83.13	44	P	45 37.50	0.4
GMW	83.22	43	P	45 39.00	1.5
LON	84.03	44	P	45 41.80	0.1
ALE	84.14	3	eP	45 42.00	0.5
	0.6s		4.00nm		4.5mb
YKA	84.23	27	eP	45 41.70	-0.5
YKC	84.29	27	eP	45 41.50	-1.0
	0.6s		10.00nm		4.9mb
PNT	84.90	41	eP	45 46.00	0.1
	0.7s		13.00nm		4.9mb
ORV	85.82	51	P	45 55.50	4.8X
DPW	86.16	42	P	45 47.20	-5.1X
ARN	86.29	53	P	45 53.20	0.1
CMB	87.02	52	P	45 57.70	1.1
	1.0s		13.33nm		4.9mb
PHAM	87.53	54	P	45 59.60	0.5
EDM	87.63	36	iP	45 59.00	-0.2
BCH	87.94	55	P	46 01.80	0.6
KVN	88.50	50	P	46 04.00	0.1
TNP	89.43	51	P	46 08.20	-0.1
CLC	89.74	53	eP	46 09.00	-0.6
SBB	89.86	55	eP	46 10.00	-0.2
EUR	89.98	50	iP	46 11.10	0.2
	0.1s		22.09nm		6.2mb
RVR	90.40	55	eP	46 12.00	-0.6
GSC	90.50	54	eP	46 14.00	0.8
SUF	90.66	336	iP	46 12.40	-0.8
PLM	90.99	56	P	46 06.80	-8.8X
BAR	91.33	56	eP	46 17.00	0.1
TPC	91.43	55	eP	46 17.00	-0.4
GLA	92.71	55	eP	46 24.00	0.7
FFC	93.24	32	eP	46 25.00	-0.3
	0.8s		8.00nm		5.1mb
ALQ	98.64	51	eP	46 50.00	-0.5
KIC	143.13	299	PKP	52 41.74	-4.0X
LIC	143.45	299	PKP	52 42.78	-3.5X
ARE	146.01	101	e(PKP)	52 53.00	2.1
ZOBO	149.24	100	iPKPc	52 57.50	1.1
	0.7s		23.86nm		
			i	53 01.00	
LPB	149.26	101	PKP	52 58.30	2.1
CNCB	149.35	101	PKP	52 58.00	1.4

S.D. = 0.9 on 88 of 97 obs.

19d 01h

MAR 19, 1989 01h 03m 55.56± 0.63s
39.297 N ± 5.1km 23.535 E ± 7.6km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.2 (ATH).

NEO	0.24	272	iPgd	04 00.00	-0.7
PLG	1.08	356	iPgc	04 16.20	0.3
ATH	1.33	174	ePb	04 19.50	-0.6
KZN	1.69	307	ePb	04 25.30	-0.1
VAY	2.15	340	ePn	04 33.00	1.1
MMB	2.29	4	iPd	04 33.00	-1.1
RDO	2.40	39	ePn	04 35.50	0.0
ITM	2.46	211	ePn	04 37.50	1.1
RZN	2.55	20	eP	04 38.00	0.2
KKB	2.59	353	iPc	04 38.00	-0.2
KDZ	2.75	31	eP	04 30.00	-10.6X
OHR	2.77	312	ePn	04 46.00	5.1X

S.D. = 0.8 on 10 of 12 obs.

? MAR 19, 1989 01h 09m 51.86± 1.28s
39.306 N ± 7.8km 23.553 E ±14.5km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.0 (ATH).

NEO	0.26	270	iPgd	09 56.00	-1.3
PLG	1.07	356	iPgc	10 11.80	-0.2
ATH	1.34	174	ePb	10 15.20	-1.3
KZN	1.70	307	ePb	10 22.30	0.5
VAY	2.15	340	ePn	10 28.40	0.2
ITM	2.48	212	ePb	10 35.00	2.1
OHR	2.77	311	ePn	10 40.00	2.8X

S.D. = 1.6 on 6 of 7 obs.

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* MAR 19, 1989 01h 29m 35.69± 0.38s
38.015 S ± 9.8km 93.747 W ± 8.8km
DEPTH = 10.0km (geophysicist)
5.2mb (11 obs.) 4.6Msz (1 obs.)
WEST CHILE RISE (686)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 13S, 24C
Centroid Location:
Origin Time 01:29:41.6 0.5
Lat 37.95S 0.05 Lon 93.98W 0.07
Dep 15.0 FIX Half-duration 1.8
Moment Tensor; Scale 10**16 Nm
Mrr=-2.06 0.44 Mtt=-3.64 0.51
Mff= 5.70 0.61 Mrt= 0.00 0.00
Mrf= 0.00 0.00 Mtf= 9.53 0.46
Principal Axes:

T	Val= 11.64	Plg= 0	Azm=122
N	-2.06	90	180
P	-9.58	0	32

Best Double Couple:Mo=1.1*10**17
NP1:Strike=167 Dip=90 Slip= 180
NP2: 257 90 0

ZON	21.54	80	eP	34 27.00	-0.2
ARE	29.06	48	iPd	35 39.50	0.9
	1.2s	62.50nm		5.3mb	
CNCB	30.95	54	Pc	35 57.00	1.2
LPB	31.08	54	Pc	35 58.50	1.7
	1.2s	53.13nm		5.3mb	
		LR	44 28.00		
ZOBO	31.26	53	iPc	35 59.20	0.6
	1.2s	50.68nm		5.3mb	
Z	21s	1.43um		4.6Msz	
		S	50 44.00		
VAO	42.55	83	eP	37 33.70	0.4
BAO	45.95	74	eP	37 59.00	-1.9
ATB	51.29	58	Pc	38 41.20	-0.9
SPA	52.17	180	e(P)	38 47.90	-0.5
	1.0s	10.00nm		4.7mb	
SOB1	55.36	73	iPd	39 12.50	0.2
SGS	71.91	12	P	41 00.20	-0.6
PRM	72.51	10	P	41 04.10	-0.2
JSC	72.86	11	P	41 05.20	-1.2
LHS	73.12	11	P	41 07.00	-0.9
OLY	73.18	2	P	41 07.20	-1.0
GLA	73.38	342	P	41 12.00	2.5
ALQ	73.54	349	P	41 10.50	-0.1
	1.2s	26.04nm		5.2mb	
GBTN	73.84	8	P	41 10.00	-2.1
FVM	75.69	3	P	41 21.00	-1.6
	1.1s	18.29nm		5.1mb	
PRI	77.88	338	eP	41 35.70	0.6
GOL	78.07	351	P	41 36.40	0.2
	1.0s	17.50nm		5.1mb	
PRS	78.27	338	e(P)	41 37.70	0.6
TNP	78.75	341	P	41 40.60	0.6
CMB	79.56	339	eP	41 44.40	0.2
DAU	79.68	346	P	41 45.80	0.7
EUR	79.78	343	iP	41 45.40	-0.2
	1.0s	8.65nm		4.7mb	
KVN	79.89	341	P	41 46.20	0.1
BW06	81.69	348	P	41 55.40	-0.2
	1.2s	34.25nm		5.3mb	
RSSD	82.28	353	P	41 59.30	0.7
WDC	82.54	338	eP	41 59.80	0.1
BGMT	84.49	347	eP	42 10.90	1.0
GAC	84.94	13	eP	42 11.50	-0.2
LRM	85.14	347	eP	42 14.10	1.0
RSON	88.50	0	P	42 27.00	-2.0
	1.0s	23.75nm		5.4mb	
SES	89.34	349	eP	42 34.00	0.9
PNT	89.92	343	eP	42 36.00	0.1
EDM	92.44	348	eP	42 46.00	-1.4
FFC	92.64	355	iPd	42 46.70	-1.5
	1.4s	43.00nm		5.7mb	
DWY	107.94	341	PKP	47 50.00	-14.1X
BNG	110.23	101	ePdiff	43 53.00	-15.4X
	1.0s	5.00nm			
MOX	127.31	51	ePKP	48 40.00	-1.6
	1.6s	31.00nm			
CLL	128.34	50	ePKP	48 44.00	0.5
	1.7s	24.00nm			
		e	48 55.00		
BRG	128.80	51	ePKP	48 44.50	0.1
	1.8s	28.00nm			
		e	48 55.50		
OHR	130.51	65	e(PKP)	48 42.00	-6.1X
MSL	145.85	79	ePKPd	49 16.50	0.4
BHD	145.86	85	ePKPc	49 18.00	1.8
SNG	146.65	207	ePKP	49 17.80	-0.2
MDJ	147.09	296	ePKP	49 18.50	0.7
SLY	147.46	82	ePKPc	49 18.00	-0.7
TAB	148.72	77	ePKP	49 24.00	3.1X
CN2	150.02	294	PKP	49 25.20	2.8
SSE	150.54	267	ePKP	49 28.50	4.9X
	1.3s	43.00nm			
KOD	151.23	162	ePKP	49 26.00	0.5
KHT	154.41	209	iPKPd	49 12.90	-16.6X
GBA	154.45	160	PKPc	49 38.30	8.7X
	1.0s	4.60nm			
TIA	155.37	275	ePKP	49 29.00	-1.3
BJI	156.71	284	ePKP	49 30.00	-1.9
		e	50 00.00		
MAIO	158.63	86	iPKPd	49 35.80	1.3
LZH	165.82	268	e(PKP)	49 41.50	-0.1
GTA	169.31	282	ePKP	49 43.00	-0.9
PKI	169.56	176	PKP	49 45.00	0.3
WMQ	174.10	350	PKP	49 46.00	0.2

S.D. = 1.1 on 55 of 62 obs.

MAR 19, 1989 01h 36m 22.92± 0.87s
30.737 N ± 7.6km 50.108 E ± 7.1km
DEPTH = 48.8 ± 10.4 km
4.4mb (5 obs.)
IRAN (348)

SHI	2.36	117	eP	37 00.00	-0.1
KER	4.41	326	eP	37 31.00	1.9
DHR	4.42	180	eP	37 31.00	1.9
BEE	4.72	175	iPn	37 57.40	24.1X
			eSn	39 06.20	
BJA	4.75	175	ePn	37 57.50	23.8X
TEH	5.10	12	eP	37 38.00	-1.0
BHD	5.48	299	ePnc	38 05.00	20.9X
			eP*	38 11.00	
			eSn	38 47.00	
			iSg	39 03.00	
SLY	6.20	323	ePnc	38 17.00	22.8X
			iPg	38 53.00	
			iSn	39 46.00	
			iS*	40 04.50	
RYD	6.75	208	eP	38 00.00	-1.9
TAB	7.95	338	eP	38 49.00	30.2X
KHI	7.97	63	ePd	38 18.40	-0.7
MSL	8.09	316	ePnd	38 19.00	-1.5
			iSn	39 47.00	
			e	41 03.00	
MAIO	9.60	52	eP	38 42.00	0.6
			eS	40 25.00	
BBTK	16.80	307	eP	40 18.00	1.6
OHR	25.78	302	eP	41 52.00	1.0
KBA	32.58	311	e(P)	42 52.00	0.2
	1.0s	6.30nm		4.4mb	
KHC	33.08	314	P	42 56.50	0.5
LPG	36.69	306	eP	43 26.30	-0.9
	1.1s	7.30nm		4.5mb	
SHL	37.04	87	iP	43 29.50	-0.7
			eS	49 12.90	
HFS	38.09	331	eP	43 37.30	-1.0
	0.4s	1.20nm		4.2mb	
SMF	38.86	307	eP	43 44.00	-1.1
	0.8s	5.90nm		4.5mb	
SSF	39.14	308	eP	43 45.60	-1.8
	0.8s	3.20nm		4.2mb	
CHG	45.58	93	eP	44 40.20	0.0
ALE	62.55	352	eP	46 43.00	-0.5
MBC	73.07	357	eP	47 49.00	-0.2
FRB	74.23	336	eP	47 56.00	0.0
INK	81.22	1	eP	48 36.00	1.6
YKA	86.29	353	eP	49 02.40	2.0

S.D. = 1.3 on 23 of 28 obs.

MAR 19, 1989 01h 37m 07.79± 0.54s
39.269 N ± 5.1km 23.540 E ± 5.3km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.2 (ATH).

NEO	0.25	279	iPgd	37 13.00	-0.1
PLG	1.11	356	iPbc	37 29.10	0.5
ATH	1.30	174	ePb	37 31.00	-0.9
			eSb	37 47.00	
KZN	1.71	308	ePb	37 37.00	-0.9
PRK	2.12	90	ePb	37 47.50	3.8X
VAY	2.18	340	ePn	37 45.30	0.7
EZN	2.22	75	ePn	37 45.00	-0.2
RDO	2.42	39	ePb	37 47.50	-0.5
ITM	2.44	212	ePn	37 49.00	0.6
VLS	2.55	246	ePb	37 59.80	9.9X
RZN	2.58	20	iP	37 50.00	-0.4
KKB	2.62	353	iPc	37 51.00	0.2
KDZ	2.78	30	iPd	37 52.00	-1.1
OHR	2.79	312	ePn	37 53.50	0.1
IZM	3.03	105	ePn	37 58.00	1.2
SKO	3.14	330	ePn	38 02.00	3.8X
VTS	3.33	356	eP	38 01.00	-0.1
JMB	3.94	35	eP	38 05.00	-4.6X
PVL	4.17	18	iPd	38 11.00	-1.8
MGR	6.22	281	P	38 41.90	0.1
			eSn	39 47.00	
MLR	6.47	15	eP	38 48.00	2.5
KVT	9.74	75	eP	39 59.00	28.0X

S.D. = 1.1 on 17 of 22 obs.

MAR 19, 1989 01h 49m 14.47± 0.82s
39.267 N ± 6.6km 23.707 E ± 7.4km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.2 (ATH).

NEO	0.38	276	iPbd	49 24.50	2.3
PLG	1.12	350	iPnc	49 36.00	0.4
ATH	1.29	180	ePn	49 37.80	-0.6
			eSn	49 54.30	
KZN	1.82	305	ePn	49 45.00	-1.1
PRK	1.99	90	ePb	49 56.30	7.8X
VAY	2.23	337	ePn	49 52.20	0.2
MMB	2.32	0	iPc	49 53.00	-0.3
RDO	2.34	36	ePn	49 54.50	0.9
RZN	2.54	17	iPc	49 57.00	0.5
KKB	2.64	350	iPc	49 58.00	0.2
VLS	2.67	247	ePb	49 59.20	0.9
KDZ	2.71	28	iPc	49 59.00	0.1
OHR	2.89	311	ePn	50 01.50	0.1
SKO	3.21	328	ePn	50 04.00	-1.8
MGR	6.35	280	P	50 48.70	-1.7
			eSn	51 58.70	
MLR	6.44	14	eP	50 55.00	3.3X

S.D. = 1.2 on 14 of 16 obs.

MAR 19, 1989 01h 54m 44.21± 0.69s
39.249 N ± 5.5km 23.623 E ± 6.9km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.0 (ATH).

```
NEO      0.32 281 iPgd   54 50.00   -0.8
PLG      1.13 353 iPbc   55 05.70    0.3
ATH      1.28 177 ePb    55 08.00    0.1
KZN      1.78 307 ePn    55 15.50    0.3
PRK      2.06  89 ePb    55 28.00    8.8X
VAY      2.22 339 ePn    55 22.00    0.4
MMB      2.34   2 iPd    55 23.00   -0.3
RZN      2.58  19 eP     55 27.00    0.2
KKB      2.65 351 iPc    55 27.00   -0.7
KDZ      2.76  29 iP     55 29.00   -0.3
OHR      2.85 312 ePn    55 31.50    0.8
     S.D. = 0.6  on  10 of  11 obs.
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   MAR  19, 1989  02h 38m 52.07± 0.92s
    1.573 N ± 4.0km  126.656 E ± 6.3km
    DEPTH =  71.2 ±  8.6 km
    5.2mb ( 11 obs.)
 MOLUCCA PASSAGE                (266)
      CENTROID, MOMENT TENSOR   (HRV)
      Data Used: GDSN
      L.P.B.: 11S, 16C
      Centroid Location:
      Origin Time       02:38:58.0 1.4
      Lat  1.38N 0.11 Lon 126.07E 0.16
      Dep  70.0 FIX Half-duration  1.6
      Moment Tensor;   Scale 10**16 Nm
        Mrr= 0.13 0.82  Mtt= 3.24 0.85
        Mff=-3.36 1.43  Mrt=-4.22 0.93
        Mrf= 2.33 1.06  Mtf=-5.41 1.00
       Principal Axes:
        T  Val=  8.91  Plg=29  Azm=209
        N       -2.51      61       29
        P       -6.40       0      119
      Best Double Couple:Mo=7.7*10**16
       NP1:Strike=251 Dip=70 Slip= 159
       NP2:       348     70       21

MNI      1.82 266 iPd    39 20.40   -1.4
                  eS     39 49.00
AAI      5.45 164 ePd    40 12.20   -0.4
                  eS     41 08.50
DAV      5.58 349 eP     40 16.00    1.5
PCI      7.25 250 iPc    40 40.00    2.4
TSM      8.97 287 eP     41 02.00    0.8
KKM     11.32 293 eP     41 34.20    0.9
BAG     15.91 338 eP     42 34.50    1.2
TRT     16.75 236 iPc    42 46.00    2.4
KNA     17.34 173 eP     42 50.00   -1.0
        0.7s    97.00nm          5.1mb
WB5     22.62 161 eP     43 47.00   -1.0
                  eS     47 50.80
WRA     22.67 161 Pc     43 47.30   -1.2
        0.6s    81.90nm          5.3mb
PMG     23.15 118 e(P)   43 54.00    0.9
MBL     23.56 196 eP     43 56.00   -1.0
QIZ     23.92 318 Pc     43 59.60   -1.0
QZH     24.50 342 eP     44 05.00   -1.1
QIS     25.39 151 iPd    44 14.50   -0.1
        0.3s    20.00nm          5.1mb
ASPA    26.06 165 iPc    44 19.90   -0.9
        0.7s   140.00nm          5.6mb
                  eS     48 48.90
NANU    26.33 204 eP     44 23.50    0.3
SNG     26.54 283 eP     44 25.20    0.0
WARB    27.59 180 eP     44 22.30  -12.4X
PSI     27.73 273 ePd    44 36.50    0.4
NNT     28.83 294 eP     44 46.00    0.0
CTA     28.86 139 iPc    44 46.00   -0.2
        0.9s    10.50nm          4.5mb
                  i      44 53.00
                  i      45 34.50
MEKA    29.10 195 eP     44 48.00   -0.2
LOE     29.12 304 eP     44 41.00   -7.5X
KHT     30.66 297 eP     45 01.60   -0.6
WHN     31.09 339 eP     45 04.50   -1.2
NJ2     31.20 347 Pc     45 07.20    0.5
GYA     31.33 324 P      45 06.80   -1.3
MRWA    32.27 198 eP     45 16.00   -0.2
COOL    32.70 189 eP     45 18.80   -1.1
KMI     32.87 317 Pc     45 21.50   -0.2
BAL     33.37 196 eP     45 25.00   -0.7
KLB     34.05 194 eP     45 31.20   -0.3
        0.6s    25.00nm          5.3mb
MUN     34.81 196 iPc    45 37.90   -0.1
RMQ     35.12 144 iPc    45 38.70   -2.1
NWAO    35.45 194 eP     45 43.50    0.0
TIA     35.58 347 eP     45 43.50   -1.1

STK     36.16 158 eP     45 49.00   -0.5
XAN     36.31 335 iPc    45 49.50   -1.3
CD2     36.35 326 eP     45 49.70   -1.5
RKG     36.60 193 eP     45 59.00    5.9X
DL2     37.44 354 eP     46 01.40    1.3
TIY     38.27 342 Pd     46 07.00   -0.3
        Z  30s      0.90um          4.4MszX
BJI     39.46 347 eP     46 16.50   -0.5
COO     40.00 145 iPd    46 22.40    0.7
SNY     40.17 356 eP     46 23.50    0.7
LZH     40.33 331 eP     46 24.50    0.1
        1.0s    58.00nm          5.4mb
BWA     41.23 152 eP     46 33.00    1.3
HHC     41.41 343 eP     46 31.60   -1.6
CN2     42.06 359 eP     46 38.00   -0.3
CAN     42.24 152 eP     46 40.10    0.2
MDJ     42.94   3 eP     46 46.00    0.5
LSA     43.82 313 eP     46 53.80    0.3
GTA     44.91 330 eP     47 00.00   -1.6
GUN     46.95 308 P      47 18.20   -0.1
        0.7s    33.00nm          5.4mb
PKI     47.18 307 P      47 19.30   -0.7
KKN     47.37 307 P      47 20.80   -0.6
DMN     47.43 307 P      47 21.30   -0.7
GKN     47.98 307 P      47 25.40   -0.7
KOD     49.62 282 eP     47 38.50   -0.5
HYB     49.80 292 eP     47 39.00   -1.1
GBA     50.12 286 Pd     47 40.20   -2.2
        0.8s    9.90nm           4.9mb
WMQ     54.45 326 P      48 13.00   -1.5
KSH     59.49 316 eP     48 52.00    1.7
MAIO    70.76 308 eP     50 04.00    0.9
AVY     80.04 251 iPc    50 57.80    1.6
MAW     81.72 200 eP     51 05.80    2.0
PRNI    90.65 300 eP     51 50.00    1.5
MBH     90.77 300 eP     51 48.00   -1.0
INK     92.18  22 eP     51 55.00    0.3
                  pP     52 11.00   55kmX
MBC     94.06  13 eP     52 04.00    0.8
DAG     99.38 352 iPd    52 26.70   -0.7
        0.8s    4.48nm           5.1mb
SLL     99.93 333 eP     52 31.10    0.9
        0.5s    1.60nm           4.9mb
YKA    101.48  25 ePdiff 52 39.20    2.2
ALQ    118.51  48 ePKP   57 35.00    0.9
KIC    130.84 280 PKP    57 59.30    1.3
TIC    131.08 280 PKP    57 59.80    1.4
LIC    131.14 280 PKP    58 00.00    1.5
CNCB   159.10 137 PKP    58 48.30    3.6X
LPB    159.22 136 ePKP   58 47.00    2.4
ZOBO   159.38 136 PKP    58 48.00    3.0X
        1.0s    3.00nm
      S.D. = 1.1  on  77 of  82 obs.
-------------------------------------
   MAR  19, 1989  02h 46m 18.53± 0.61s
   39.246 N ± 5.3km   23.643 E ± 6.1km
   DEPTH =  10.0km  (geophysicist)
 AEGEAN SEA                     (365)
      ML 3.1 (ATH).

NEO      0.33 281 iPgd   46 24.30   -1.1
PLG      1.14 352 iPbc   46 40.20    0.4
ATH      1.27 177 ePb    46 42.00   -0.1
KZN      1.79 307 ePn    46 49.00   -0.8
PRK      2.04  89 ePb    46 59.00    5.7X
EZN      2.15  74 ePn    46 55.00    0.1
VAY      2.23 339 ePn    46 56.60    0.6
MMB      2.34   2 iPd    46 58.00    0.3
RDO      2.39  37 ePn    46 56.00   -2.3
ITM      2.47 214 ePb    47 00.50    1.1
RZN      2.57  18 iPc    47 02.00    0.9
KKB      2.65 351 iPc    47 02.00   -0.1
OHR      2.87 311 ePn    47 06.00    0.8
SKO      3.20 329 ePn    47 13.00    3.2X
VTS      3.36 355 eP     47 13.00    0.8
MGR      6.30 281 P      47 53.20   -0.6
                  eSn    49 06.90
MSL     15.68  94 ePgd   50 15.00   13.9X
                  iSg    50 25.00
      S.D. = 1.0  on  14 of  17 obs.
-------------------------------------
   MAR  19, 1989  03h 31m 54.41± 0.50s
   39.277 N ± 4.7km   23.616 E ± 6.1km
   DEPTH =  10.0km  (geophysicist)
 AEGEAN SEA                     (365)
      ML 3.3 (ATH).

NEO      0.31 276 iPgd   32 00.00   -0.8
PLG      1.10 353 iPbc   32 15.60    0.5
ATH      1.30 177 ePb    32 17.90   -0.6
KZN      1.75 306 ePb    32 24.50   -0.6
PRK      2.06  90 ePb    32 34.00    4.5X
EZN      2.17  74 ePn    32 31.00    0.0
VAY      2.19 339 ePn    32 31.70    0.3
ITM      2.48 213 ePn    32 35.60    0.1
RZN      2.55  19 iPc    32 37.00    0.3
VLS      2.61 246 ePg    32 44.30    7.0X
KKB      2.62 351 iP     32 38.00    0.5
OHR      2.83 311 ePn    32 42.20    1.6
PLD      2.94  16 eP     32 40.00   -2.0
IZM      2.98 106 ePn    32 44.00    1.4
SKO      3.16 329 ePn    32 49.00    3.9X
PGB      3.30   7 eP     32 57.00    9.9X
VTS      3.33 355 eP     32 49.00    1.3
EDC      3.44  71 ePn    32 59.00    9.9X
PVL      4.14  18 eP     32 57.00   -2.0
NPS      4.31 158 ePn    33 02.00    0.5
KAP      4.67 142 ePn    33 06.20   -0.5
      S.D. = 1.2  on  16 of  21 obs.
-------------------------------------
*  MAR  19, 1989  04h 41m 18.52± 1.20s
    34.430 N ±11.2km   25.890 E ± 9.3km
    DEPTH =  33.0km  (normal)
 CRETE                          (370)
      MD 3.6 (ATH).

NPS      0.86 345 iPnd   41 34.70    0.5
KAP      1.54  43 ePn    41 45.00    1.1
YER      3.33  35 iPn    42 08.60   -0.9
KSL      3.46  60 ePn    42 11.20   -0.2
ELL      4.01  54 ePn    42 19.10   -0.2
ITM      4.23 312 ePn    42 22.00   -0.3
DSI      8.47 107 eP     43 21.00   -0.8
                  eS     44 52.00
PRNI     8.71 115 eP     43 26.00    0.8
      S.D. = 0.8  on   8 of   8 obs.
-------------------------------------
   MAR  19, 1989  05h 12m 59.44± 0.75s
   39.230 N ± 6.9km   23.583 E ± 7.5km
   DEPTH =  10.0km  (geophysicist)
 AEGEAN SEA                     (365)
      ML 3.2 (ATH).

NEO      0.29 285 iPgd   13 05.00   -0.5
PLG      1.15 355 iPbc   13 21.20    0.3
ATH      1.26 175 ePb    13 23.20    0.4
KZN      1.76 308 ePb    13 30.20   -0.1
PRK      2.09  89 ePn    13 40.00    5.1X
EZN      2.20  73 ePn    13 36.00   -0.6
VAY      2.23 340 iPn    13 37.40    0.5
OHR      2.84 312 ePn    13 49.00    3.3X
SKO      3.19 330 ePn    13 53.60    3.1X
      S.D. = 0.6  on   6 of   9 obs.
-------------------------------------
   MAR  19, 1989  05h 36m 58.94± 0.14s
   39.254 N ± 2.3km   23.516 E ± 1.6km
   DEPTH =  10.0km  (geophysicist)
   5.2mb ( 56 obs.)  5.3Msz ( 10 obs.)
 AEGEAN SEA                     (365)
      ML 5.3 (ATH). Minor damage on
      Skiathos. Felt in central ond
      eastern Greece.
      CENTROID, MOMENT TENSOR   (HRV)
      Data Used: GDSN
      L.P.B.: 13S, 32C
      Centroid Location:
      Origin Time       05:37: 2.5 0.6
      Lat 38.61N 0.08 Lon  23.53E 0.05
      Dep  15.0 FIX Half-duration  2.0
      Moment Tensor;   Scale 10**17 Nm
        Mrr= 0.60 0.07  Mtt= 1.12 0.12
        Mff=-1.72 0.08  Mrt= 0.00 0.00
        Mrf= 0.00 0.00  Mtf=-0.27 0.06
       Principal Axes:
        T  Val=  1.14  Plg= 0  Azm=185
        N        0.60      90       180
        P       -1.75       0        95
      Best Double Couple:Mo=1.4*10**17
       NP1:Strike=230 Dip=90 Slip= 180
       NP2:       320     90        0

ATH      1.29 173 iPbc   37 23.00    0.2
KZN      1.71 309 ePn    37 30.00    1.0
PRK      2.14  89 iPnd   37 35.00   -0.1
```

19d 05h

VAY	2.19	341	iPnc	37	37.00	1.2	HVAR	6.61	309	iPn	38	38.20	-0.4				i	42	01.50				
EZN	2.25	74	iPn	37	36.00	-0.7	DEV	6.64	356	iPc	38	38.00	-0.9				i	42	16.30				
MMB	2.34	4	iPc	37	38.00	-0.1	TIM	6.70	346	eP	39	06.40	26.7X				i	42	24.60				
ITM	2.42	212	iPnc	37	40.50	1.3	BRD	6.78	22	eP	38	43.50	2.6				i	42	38.60				
LSK	2.42	293	iPnd	37	40.70	1.4				e	50	38.00		CTI	11.06	312	P	39	37.60	-2.6			
VLS	2.53	246	ePn	37	42.00	1.3	CFR	6.85	29	ePc	38	40.00	-1.8	KRA	11.10	348	eP	39	40.40	-0.2			
RZN	2.60	20	iPd	37	43.00	1.1				e	50	32.00			Z 11s		21.40um			5.7MszX			
KKB	2.63	353	iPc	37	13.00	-29.2X	BSS	6.86	286	P	38	41.60	-0.4		N 11s		20.40um						
OHR	2.79	313	iPn	37	45.40	0.9				eSn	40	00.00					e	39	44.10				
SRN	2.79	284	iPnd	37	48.50	4.1X	FOC	6.98	22	ePc	38	13.00	-30.7X				e	39	48.50				
KDZ	2.80	31	P	37	43.50	-1.1	VRI	7.02	19	iPc	38	44.50	0.2				e	42	03.00				
TPE	2.89	292	iPnc	37	52.90	7.0X	MNO	7.03	262	P	38	44.30	-0.4				e	42	27.00				
PLD	2.99	17	iPc	37	48.00	0.8				eSn	39	56.20		KMR	11.11	325	iP+	39	41.30	0.5			
IZM	3.05	105	iPn	37	48.40	0.3	MEU	7.10	255	P	38	43.20	-2.2				i	39	50.00				
BERA	3.10	299	iPnc	37	51.30	2.6				eSn	40	01.80					i	40	17.40				
SKO	3.14	330	iPn	37	50.00	0.6	BBTK	7.17	82	iPc	38	46.00	-0.5				i	41	41.10				
			iPg	38	00.10		DUI	7.31	292	P	38	48.70	0.2				i	42	21.20				
			i	38	25.50					eSn	40	05.30		HLW	11.37	143	ePnc	39	41.00	-3.4X			
			iSn	38	29.50		PPE	7.58	22	eP	38	54.00	1.9				S	41	38.00				
			i	38	32.00					e	50	18.50		SAL	11.50	308	P	39	44.90	-1.2			
			iSb	38	38.50		BIR	7.63	22	eP	38	54.00	1.2	CVF	11.57	291	P	39	47.50	0.4			
			iSg	38	41.50		SDI	7.79	291	P	38	55.40	0.3	GLH	11.80	120	eP	39	49.00	-1.2			
DIM	3.19	28	iP	37	50.00	0.0				eSn	40	23.20		MDI	12.09	307	P	39	50.90	-3.1X			
PGB	3.33	8	iP	37	30.00	-22.1X	CLI	7.80	20	eP	38	54.50	-0.6	KHC	12.17	327	iPc	39	55.00	-0.2			
VTS	3.34	356	iP	37	54.00	1.6	USI	8.07	269	P	38	56.60	-2.4		1.1s		62.50nm			5.8mb X			
TIR	3.49	308	iPnd	37	58.00	3.7X	AZI	8.14	293	P	39	00.90	1.0				e	42	12.00				
EDC	3.52	71	iPn	37	54.60	-0.2	PPCY	8.29	119	eP	39	00.50	-1.6	BURJ	12.17	121	P	39	53.90	-1.4			
KKS	3.68	321	iPn	37	59.00	2.0	CEI	8.46	355	eP	39	50.00	45.6X	SALJ	12.25	122	P	39	54.80	-1.6			
LACI	3.76	311	iPn	38	01.00	2.9X	IAS	8.47	19	eP	39	05.00	0.6	JARJ	12.28	121	P	39	55.00	-1.8			
KCT	3.86	74	iPn	37	58.20	-1.5	ZAG	8.60	322	iPnd	39	05.70	-0.5	OSS	12.28	312	ePd	39	55.90	-1.0			
JMB	3.96	35	iP	38	00.00	-1.0				iSg	41	33.00		DSI	12.34	125	eP	39	45.50	-12.0X			
DST	3.97	83	iPn	38	01.70	0.4	AOI	8.60	303	iPn	39	04.75	-1.6	MASJ	12.45	123	P	39	56.30	-2.8			
SDA	4.12	313	iPnc	38	07.00	3.8X				iSn	40	35.86		FIN	12.46	298	P	39	58.19	-0.9			
DMK	4.13	50	iPn	38	02.40	-0.9	SSO	8.61	301	e(Pn)	39	04.85	-1.6	PRU	12.48	332	P	40	00.00	0.7			
PVL	4.19	18	iPc	38	02.00	-2.2	PTJ	8.67	322	ePn	39	05.50	-1.9		1.7s		55.90nm			5.5mb X			
CTT	4.21	62	ePn	38	03.20	-1.4	VBY	8.74	318	iPn	39	07.40	-0.8		Z 11s		29.30um						
ULC	4.23	311	ePn	38	07.20	2.3				iSn	40	41.60			E 14s		32.50um						
			eSn	38	53.50		MNS	8.79	294	P	39	10.10	1.1				e	42	16.00				
PVY	4.28	322	ePn	38	07.20	1.5	LVI	8.84	265	P	39	09.90	0.2				e	52	33.50				
			iSn	38	53.30		BUD	8.85	340	eP	39	08.00	-1.7	VDL	12.58	310	eP+	40	01.00	0.2			
YER	4.31	118	iPn	38	06.00	-0.1	CSS	8.93	116	eP	39	09.00	-2.0	IMI	12.59	297	P	39	57.16	-3.7X			
SZH	4.40	24	iP	38	17.00	9.7X	ARV	9.01	301	P	39	09.80	-2.2	KSP	12.66	339	eP	40	03.20	1.6			
LCI	4.42	286	P	38	06.40	-1.1	ASS	9.03	298	P	39	11.30	-1.1				eS	42	28.00				
			eSn	38	56.40		CEY	9.33	317	eP	39	15.40	-1.0	VAI	12.71	306	P	40	01.10	-1.3			
TTG	4.53	316	ePn	38	10.50	1.5				eS	40	57.00		ROB	12.71	298	P	40	00.65	-1.9			
			eSn	38	58.50		SRO	9.35	338	iP	39	18.50	1.9	TMA	12.76	307	ePd	40	01.80	-1.4			
IVA	4.53	324	ePn	38	11.20	2.0				i	39	23.80		SBF	12.89	296	eP	40	04.40	-0.5			
			eSn	39	00.00					e(S)	41	10.60			1.0s		100.00nm			6.0mb X			
ISK	4.62	65	ePn	38	08.00	-2.4	FAM	9.39	114	e(P)	39	20.00	2.8	SAX	13.05	312	eP+	40	06.90	-0.3			
BDV	4.67	312	iPnd	38	12.50	1.3	LJU	9.47	319	eP	39	16.50	-1.9	LLS	13.05	310	ePd	40	06.00	-1.2			
			eSn	39	02.50					e	39	18.40		TOUF	13.06	297	P	40	05.00	-2.3			
YLV	4.69	72	iPn	38	10.70	-0.8				e(S)	41	05.00		STV	13.07	298	P	40	06.90	-0.5			
KAP	4.71	141	ePn	38	11.00	-0.7				e	43	30.00		WAR	13.10	353	eP	40	01.00	-6.6X			
KHL	4.78	99	ePn	38	12.50	-0.4	RSM	9.51	303	P	39	19.70	0.8		Z 10s		24.00um			5.9Msz			
HCY	4.97	312	ePn	38	16.00	0.7	TRI	9.67	315	ePn	39	19.10	-1.9				e	42	40.00				
			eSn	39	10.50					iSn	41	03.30					e	43	48.00				
HRT	4.97	70	ePn	38	13.70	-1.8				i	41	58.00		ORO	13.11	304	P	40	06.10	-1.8			
BRT	5.11	291	P	38	17.70	0.4	KVT	9.76	75	eP	39	22.10	-0.4	ORX	13.12	304	P	40	05.37	-2.6			
			eSn	39	12.20		VOY	9.80	317	eP	39	21.40	-1.6	MMK	13.30	306	eP+	40	13.50	3.0X			
PLE	5.12	324	ePn	38	19.00	1.4				eS	41	08.50		MBH	13.30	132	iPd	40	06.00	-4.3X			
			eSn	39	16.50		SOP	9.82	331	eP	39	22.10	-1.0	PZZ	13.30	299	P	40	10.18	-0.3			
ALT	5.13	90	iPn	38	17.80	0.1	MAO	9.89	293	P	39	24.80	0.7	FRF	13.37	294	eP	40	11.90	0.7			
BRY	5.23	316	ePn	38	20.20	1.0	SFI	9.90	302	P	39	24.60	0.3		1.3s		93.80nm			5.7mb X			
			eSn	39	18.00		PGD	9.97	301	P	39	24.70	-0.7	RSP	13.41	301	P	40	15.93	4.1X			
GPA	5.34	77	iPn	38	19.20	-1.4	ZST	10.07	335	iP	39	27.30	0.8	LMR	13.42	293	eP	40	13.70	1.8			
BUC1	5.42	19	ePc	38	20.00	-1.7				e(S)	41	17.20			1.1s		36.10nm			5.3mb X			
DRA	5.45	6	iPd	38	21.00	-1.1	SPC	10.21	348	iP	39	27.80	-0.8	BRG	13.43	333	iPc	40	12.10	0.2			
BUC	5.50	20	iPd	38	22.00	-0.9	RBL	10.24	318	P	39	28.00	-1.0		2.2s		100.00nm			5.4mb X			
GRI	5.54	268	P	38	23.50	0.0	FIR	10.24	300	ePn	39	28.00	-1.0				i	40	23.50				
TDS	5.57	276	P	38	24.40	0.5				i	40	12.00					eS	42	36.00				
			eSn	39	31.80					i(Sn)	40	30.00		LRG	13.55	294	eP	40	14.90	1.3			
ELL	5.63	114	iPn	38	26.10	1.2				i	41	22.00			1.0s		73.60nm			5.6mb X			
PSN	5.64	37	iPc	38	23.00	-1.9	VKA	10.40	332	ePc	39	33.00	1.9	LSD	13.59	302	P	40	11.62	-2.7			
KSL	5.74	121	ePn	38	26.70	0.5		2.0s		582.00nm			6.6mb X	RRL	13.65	300	P	40	21.26	6.2X			
SSR	5.76	347	iP	38	40.00	13.5X		Z 11s		24.60um				DIX	13.66	305	eP+	40	15.20	-0.1			
BCK	5.84	106	iP	38	28.30	0.6				iS	41	22.00		ZLA	13.72	312	ePd	40	16.10	0.3			
MGR	6.20	281	P	38	33.40	0.6				LR	44	17.00		BNI	13.76	300	P	40	16.00	-0.5			
			eSn	39	44.70					e	44	31.00		HQL	13.78	133	ePd	40	13.70	-2.9			
ISR	6.29	20	iPc	38	34.00	-0.1				e	00	15.00		SLE	13.81	313	eP+	40	16.00	-1.0			
			e	50	26.50		VVI	10.58	313	P	39	31.60	-2.0	LPG	13.86	302	eP	40	17.30	-0.7			
TLB	6.30	31	iPc	38	33.00	-1.1	PII	10.72	299	P	39	36.30	0.8	EMS	13.96	305	eP+	40	19.30	0.1			
			e	50	24.00		FVI	10.75	316	P	39	34.60	-1.3	CLL	14.13	332	eP	40	22.00	1.0			
MSI	6.31	263	P	38	33.70	-0.6	MME	10.77	301	P	39	35.40	-1.1		1.5s		73.00nm			5.2mb X			
			eSn	39	47.20		KBA	10.78	320	iPd	39	34.30	-2.2				i	40	31.00				
ATN	6.39	263	P	38	34.70	-0.8		1.0s		44.40nm			5.8mb				e(S)	43	07.00				
MLR	6.49	15	iPc	38	36.00	-0.9				i	40	01.90		MOX	14.15	328	eP	40	21.00	-0.3			
BZS	6.51	348	iPc	38	35.50	-1.6				i(SS)	41	35.20			1.5s		76.00nm			5.2mb			

Z 14s 18.80um
N 16s 27.80um
E 15s 25.00um

		i	40	24.00	
		ePP	40	28.00	
		eS	42	52.00	
		LQ	45	16.00	
		LR	46	35.00	
		eScS	53	02.00	
BBS	14.23	310 P	40	22.00	-0.5
LOMF	14.58	309 P	40	26.53	-0.6
AYN	14.62	131 ePd	40	25.50	-2.2
MOF	14.64	311 P	40	26.37	-1.6
BSF	14.83	311 P	40	28.33	-2.1
CDF	14.85	313 P	40	29.24	-1.4
GWF	14.97	316 P	40	31.76	-0.4
HAU	15.17	311 eP	40	32.40	-2.5
	0.8s	38.60nm			4.8mb
VITF	15.49	311 P	40	38.46	-0.4
MSL	15.78	94 ePc	40	45.50	2.8
		ePP	41	11.00	
		ePP	41	28.50	
		eS	43	52.00	
		eSS	44	21.00	
		ePcP	45	24.00	
		eLQ	46	18.00	
		eLR	47	03.00	
WLF	16.15	316 Pc	40	48.50	1.2
SMF	16.16	304 eP	40	45.70	-2.0
LBF	16.20	305 eP	40	46.30	-1.8
LOR	16.38	306 eP	40	48.90	-1.5
	1.3s	135.30nm			4.9mb
SSF	16.53	305 eP	40	50.50	-1.7
AVF	16.53	304 eP	40	51.50	-0.8
MEM	16.76	318 P	40	59.10	4.0X
BGF	16.78	302 eP	40	54.60	-0.9
MAF	16.87	301 eP	40	57.20	0.6
CAF	16.88	297 eP	40	57.90	1.1
ENN	16.90	319 eP	41	00.50	3.6X
	1.5s	334.00nm			5.2mb
		e	41	16.00	
		e	42	03.00	
ASW	17.09	150 iPd	40	56.00	-3.4X
		S	44	19.00	
TCF	17.12	301 eP	40	59.90	0.1
AKUR	17.21	150 iPd	41	00.00	-0.9
DOU	17.23	315 P	41	03.70	2.7
	0.7s	18.90nm			4.3mb
		e	41	45.00	
		S	44	18.00	
		e	45	06.30	
		PcP	45	47.30	
WTS	17.23	323 iPc	41	05.70	4.7X
	1.0s	72.00nm			4.8mb
		e	41	09.00	
RJF	17.34	298 eP	41	03.90	1.3
	1.2s	124.90nm			4.9mb
AKRL	17.39	151 iPd	41	02.00	-1.3
AGMR	17.44	151 iPd	41	04.00	0.1
LPO	17.45	295 eP	41	04.70	0.8
	1.3s	89.50nm			4.7mb
AKSR	17.53	150 iPd	41	03.50	-1.5
	1.0s	437.00nm			5.5mb
LSF	17.57	301 eP	41	06.00	0.7
SNF	17.62	316 P	41	08.50	2.6
EBR	17.69	282 eP	41	08.00	1.1
		eS	44	28.00	
UCC	17.73	317 P	41	09.00	1.7
		e	41	18.00	
		S	44	35.00	
LFF	17.81	296 eP	41	08.60	0.3
	1.2s	85.60nm			4.8mb
SLY	17.83	95 iPd	41	10.50	1.9
		iPP	41	24.00	
		iPPP	41	39.00	
		iSS	44	33.00	
		iLR	47	29.00	
BHD	17.84	103 ePd	41	11.00	2.2
		iPP	41	26.50	
		iPPP	41	41.00	
		iS	44	35.00	
		iLQ	47	43.50	
EPF	17.85	290 eP	41	07.60	-1.3
WIT	17.85	325 eP	41	23.00	14.3X
TAB	17.85	87 eP	41	13.50	4.4X
DBN	18.08	321 eP	41	16.00	4.4X
Z	19s	7.50um			5.9MszX

		eS	44	42.00	
MFF	18.78	301 eP	41	20.20	0.0
	1.0s	72.00nm			4.8mb
ECHE	18.91	279 eP	41	23.50	1.5
LDF	19.35	307 eP	41	26.00	-1.3
	1.4s	217.80nm			5.2mb
KER	19.49	97 eP	41	31.00	1.8
ETOR	19.63	283 e(P)	41	30.00	-0.6
FLN	19.63	307 eP	41	29.10	-1.4
	1.4s	273.50nm			5.4mb
GRR	19.75	305 eP	41	30.00	-1.7
	0.9s	81.80nm			5.0mb
LPF	19.75	304 eP	41	29.90	-1.8
	1.0s	88.00nm			5.0mb
ECRI	19.92	288 e(P)	41	32.40	-1.3
EVIA	20.23	277 eP	41	36.40	-0.6
UPP	20.96	352 iP	41	42.90	-1.3
	1.0s	100.00nm			5.1mb
TAF	21.14	266 eP	41	46.00	-0.4
GUD	21.23	283 eP	41	46.00	-1.3
TOL	21.23	280 ePc	41	48.00	0.8
		iS	45	39.00	
NUR	21.29	2 eP	41	47.00	-0.6
	0.8s	49.90nm			5.0mb
		eS	45	40.00	
EBAN	21.31	276 eP	41	46.70	-1.3
AFC	21.32	273 e(P)	41	50.20	1.9
CRT	21.38	273 iP	41	54.50	5.8X
ASMO	21.45	274 iP	41	49.50	0.0
APHE	21.50	272 iP	41	49.50	-0.6
ACHM	21.58	273 iP	41	51.50	0.7
AAPN	21.75	274 iP	41	52.90	0.3
ATEJ	21.77	273 iP	41	53.00	0.2
ALOJ	21.79	273 iP	41	53.70	0.7
HFS	21.80	347 eP	41	51.90	-0.8
	0.9s	25.00nm			4.6mb
Z	15s	8.05um			5.3MszX
		LR	50	17.00	
MAL	22.12	272 iPc	41	57.80	1.7
		iS	45	41.00	
TEH	22.35	90 eP	41	54.00	-4.6X
EHOR	22.51	275 e(P)	41	58.50	-1.5
EPRU	22.70	273 e(P)	42	00.40	-1.5
EPLA	22.76	282 e(P)	42	03.00	0.6
NRA0	22.77	345 P	42	02.90	0.6
LIJA	22.85	273 eP	42	07.50	4.0X
SRO	23.00	272 iP	41	58.50	-6.3X
NAO	23.00	344 P	42	04.30	-0.3
	1.3s	176.60nm			5.4mb
EJIF	23.02	272 e(P)	42	04.50	-0.5
ALJ	23.06	273 iP	42	05.50	0.0
OJEN	23.17	271 eP	42	09.00	2.5
MOMI	23.25	272 eP	42	07.00	-0.2
EMON	23.46	290 e(P)	42	09.50	0.2
CNIL	23.49	272 eP	42	09.50	-0.1
SUF	23.55	3 iP	42	10.70	0.8
	0.9s	53.10nm			5.1mb
IFR	23.71	265 iPc	42	13.00	1.1
		i	42	15.50	
EVAL	23.72	276 e(P)	42	11.00	-0.8
EKA	23.99	321 Pd	42	13.80	-0.4
	1.5s	460.30nm			5.8mb
RYD	24.27	120 ePd	42	20.00	2.7
ETA	24.44	313 eP	42	20.10	1.5
	1.2s	569.00nm			6.1mb
PTO	24.54	285 eP	42	20.80	1.2
		eS	46	32.00	
ECB	24.65	312 eP	42	22.50	1.9
	1.0s	100.00nm			5.4mb
DLE	24.85	314 eP	42	24.90	2.4
	1.1s	174.00nm			5.6mb
KJF	25.11	4 iP	42	24.20	-0.7
	0.9s	57.40nm			5.3mb
		eS	46	52.00	
DCN	25.28	314 eP	42	28.20	1.6
	1.4s	461.00nm			6.0mb
DMU	25.28	315 eP	42	28.40	1.7
AVE	25.56	266 eP	42	32.00	2.5
DHR	25.73	112 ePd	42	35.40	4.2X
BEE	26.18	112 eP	42	38.90	3.6X
SOD	28.22	3 iP	42	53.30	-0.2
MAIO	28.47	85 eP	42	57.00	0.7
		eS	47	52.00	
KHI	28.51	89 e(P)	42	57.00	0.3
KEV	30.62	2 eP	43	15.00	0.1
Z	18s	6.20um			5.3Msz
		eS	48	28.00	

		LR	56	10.00	
AAE	33.05	152 eP	43	37.80	0.7
BNG	34.95	189 iPc	43	51.90	-1.3
	0.2s	39.00nm			5.9mb
		id	44	19.10	
		ic	48	36.10	
		id	49	20.00	
AKU	35.52	332 iP	44	01.50	4.1X
	1.3s	184.62nm			5.8mb
QUE	36.54	91 eP	44	07.20	0.4
KUK	39.34	219 eP	44	31.50	1.3
KOGH	39.37	219 eP	44	30.50	0.1
SHGH	39.41	219 eP	44	31.00	0.3
LEGH	39.72	219 eP	44	32.50	-0.8
KSH	40.08	72 eP	44	35.50	-0.7
Z	12s	3.10um			5.4MszX
		S	50	50.00	
LWI	41.57	172 iPc	44	49.20	0.5
LIC	41.76	226 P	44	49.82	-0.2
DAG	41.79	347 iPd	44	50.10	0.5
	0.8s	14.93nm			4.8mb
Z	18s	1.17um			4.8Msz
NDI	45.19	87 iPc	45	18.50	0.7
		eS	52	03.00	
BOM	46.98	101 eP	45	31.50	-0.5
		eS	52	22.50	
WMQ	47.19	63 P	45	34.10	0.6
Z	18s	2.90um			5.3Msz
N	11s	2.80um			
E	10s	1.70um			
		PP	47	28.00	
		S	52	32.00	
GDH	49.40	333 iPc	45	40.90	-9.3X
	0.6s	13.33nm			5.1mb
		i	45	52.00	
		e	56	30.00	
		e	00	45.00	
ALE	50.80	350 eP	46	02.00	1.2
	0.8s	8.00nm			4.7mb
GKN	51.25	83 P	46	04.30	-0.8
DMN	51.81	83 P	46	08.80	-0.7
	0.7s	43.00nm			5.5mb
KKN	51.85	83 P	46	08.80	-1.0
	0.9s	36.00nm			5.3mb
PKI	52.06	83 P	46	10.20	-1.3
HYB	52.25	98 eP	46	10.00	-2.6
GUN	52.25	83 P	46	12.10	-0.9
KMZ	52.48	177 iPc	46	14.00	-0.3
STJ	53.94	306 eP	46	24.00	-0.6
LSZ	54.42	174 iPd	46	28.00	-0.6
LSA	55.41	78 P	46	36.10	-0.2
KOD	55.88	106 eP	46	40.50	0.9
FRB	56.50	328 eP	46	42.00	-1.0
GTA	57.25	63 eP	46	48.60	-0.4
	1.2s	0.10nm			2.7mb X
Z	18s	1.20um			5.0Msz
N	12s	1.00um			
		S	54	48.00	
		sS	54	51.80	
SHL	58.06	82 iP	46	53.50	-1.4
		iS	54	57.50	
SCH	59.23	318 eP	47	03.00	0.5
BUL	59.28	174 iPc	47	02.60	-0.6
	1.0s	8.50nm			4.8mb
LZH	61.63	65 eP	47	20.50	1.2
	1.5s	110.00nm			5.8mb
Z	24s	1.70um			5.1MszX
N	11s	0.60um			
E	13s	0.60um			
		eS	55	44.00	
AVY	62.15	154 iPc	47	21.70	-1.1
MBC	62.37	351 eP	47	24.00	0.5
BTO	63.60	58 P	47	34.00	1.7
Z	12s	1.00um			5.2MszX
E	12s	1.10um			
		S	56	11.00	
CD2	64.20	70 eP	47	36.00	-0.2
E	10s	0.50um			
		S	56	15.00	
HHC	64.49	57 eP	47	38.00	-0.1
Z	20s	26.50um			6.4MszX
N	13s	18.60um			
E	13s	12.70um			
		pP	47	46.00	26kmX
SLR	64.80	175 eP	47	40.70	0.6
	0.7s	13.70nm			5.3mb
Z	20s	4.26um			5.6Msz

19d 05h

KSR	64.86	177	iPd	47	40.50	0.0
	0.8s	9.38nm			5.0mb	
PRY	65.94	176	iPc	47	47.50	0.1
	0.9s	15.38nm			5.2mb	
SWZ	66.11	178	eP	47	40.50	-7.9X
	1.0s	15.00nm			5.1mb	
XAN	66.25	65	iPd	47	50.50	1.1
E	13s	1.30um				
		S		56	40.50	
KMI	66.57	76	eP	47	52.00	0.3
		S		56	44.00	
TIY	66.70	60	P	47	53.50	1.2
N	16s	1.60um				
		S		56	49.00	
CHG	67.23	84	eP	47	54.00	-1.8
	1.2s	67.58nm			5.7mb	
BJI	67.90	56	eP	48	01.50	1.8
Z	16s	1.80um			5.4MszX	
N	10s	1.00um				
E	10s	0.80um				
		eS		57	00.00	
GAC	68.62	312	eP	48	08.00	3.9X
FRS	68.67	178	e(P)	48	04.00	-0.3
	0.8s	11.19nm			5.1mb	
GYA	68.76	73	P	48	05.60	0.2
		S		57	06.00	
KHT	69.31	88	eP	48	09.50	0.7
NST	69.98	86	eP	48	15.00	2.2
LOE	70.20	83	eP	48	14.00	-0.1
TIA	70.66	59	eP	48	16.70	-0.1
N	13s	0.80um				
E	15s	1.40um				
		eS		57	31.00	
INK	71.38	351	eP	48	21.00	0.5
CN2	71.43	48	P	48	21.00	-0.3
Z	13s	2.50um			5.7MszX	
E	12s	1.30um				
		eS		57	40.00	
SNY	71.50	51	eP	48	21.60	-0.1
Z	20s	2.70um			5.5Msz	
N	15s	1.80um				
E	13s	1.30um				
		S		57	38.00	
NNT	71.51	89	iPd	48	24.00	1.9
WHN	72.01	65	eP	48	27.00	2.1
Z	20s	1.27um			5.2Msz	
N	12s	0.73um				
E	12s	0.73um				
		S		57	50.00	
TUH	72.30	184	eP	48	25.00	-1.3
YKC	73.14	341	eP	48	31.50	0.5
	0.8s	10.00nm			4.9mb	
YKA	73.16	341	eP	48	31.10	0.0
MDJ	73.29	46	eP	48	34.50	2.3
Z	15s	3.90um			5.8MszX	
N	14s	2.50um				
		S		58	00.00	
NJ2	74.25	61	Pc	48	39.20	1.2
N	14s	0.60um				
E	12s	0.70um				
		S		58	12.50	
ITR	74.59	245	eP	48	39.80	-0.4
IMA	74.99	359	P	48	43.00	1.2
	1.0s	22.50nm			5.2mb	
CVL	75.00	307	P	48	45.00	2.8
FFC	75.42	331	eP	48	44.00	-0.3
	1.1s	35.00nm			5.3mb	
SNG	75.51	93	eP	48	42.00	-3.5X
FBA	75.96	356	P	48	49.10	1.9
	1.0s	23.75nm			5.2mb	
SSE	76.41	61	eP	48	52.20	1.9
Z	16s	0.80um			5.1MszX	
E	15s	1.20um				
		eS		58	34.00	
SOB1	76.65	246	eP	48	53.00	1.1
		e		48	54.80	
PSI	77.01	97	ePc	48	54.50	0.6
TTA	78.16	360	P	49	01.40	1.9
	1.0s	23.00nm			5.2mb	
LHS	78.67	305	P	49	03.50	0.7
JSC	79.09	305	P	49	06.00	1.0
SGS	79.31	304	P	49	07.60	1.4
PMR	79.33	356	P	49	07.10	1.3
	1.0s	30.00nm			5.3mb	
TKL	79.76	308	P	49	11.50	2.8
PRM	79.91	306	P	49	11.00	1.5
GBTN	80.02	308	P	49	11.00	0.9
EDM	80.63	335	eP	49	13.00	-0.1
ATB	81.08	258	Pc	49	14.20	-1.7
FVM	82.11	313	P	49	21.20	0.2
	0.8s	15.91nm			5.2mb	
SES	82.21	333	eP	49	24.00	2.6
	1.3s	88.00nm			5.7mb	
OLY	84.45	312	P	49	36.10	3.1X
PNT	85.98	337	eP	49	44.00	3.5X
	1.1s	46.00nm			5.6mb	
BAO	86.07	246	eP	49	30.20	-11.2X
		e		49	42.30	
LRM	86.55	331	eP	49	44.20	0.5
DPW	86.81	335	P	49	46.00	1.3
MCW	87.51	338	P	49	49.00	1.0
BW06	87.93	327	P	49	50.50	0.1
	1.0s	16.25nm			5.3mb	
GLD	88.46	323	P	49	56.40	3.5X
	1.0s	40.00nm			5.7mb	
Z	20s	1.10um			5.3Msz	
GMW	88.51	338	P	49	54.20	1.4
GOL	88.57	323	P	49	56.20	2.6
	1.0s	30.00nm			5.5mb	
Z	20s	1.00um			5.2Msz	
LON	88.94	337	P	49	57.00	2.1
ALQ	92.89	321	eP	50	13.50	-0.1
	1.0s	5.75nm			5.0mb	
Z	19s	1.51um			5.5Msz	
EUR	93.31	330	iP	50	17.00	1.5
	0.5s	2.93nm			4.9mb	
KVN	94.50	331	P	50	22.00	1.1
ASPA	119.97	97	iPKPd	55	52.80	1.3
	1.1s	10.00nm				
CTA	127.58	86	iPKPc	56	05.50	-0.7
	1.3s	19.23nm				
		e		04	26.00	
SPA	129.06	180	e(PKP)	56	09.30	1.5
	1.0s	5.00nm				

S.D. = 1.3 on 334 of 377 obs.

MAR 19, 1989 05h 41m 43.25± 0.37s
39.264 N ± 5.3km 23.619 E ± 3.9km
DEPTH = 10.0km (geophysicist)
4.3mb (20 obs.)
AEGEAN SEA (365)
ML 3.6 (ATH).

ATH	1.29	177	ePb	42	06.80	-0.4
VAY	2.21	339	iPn	42	21.00	0.6
ITM	2.47	213	ePb	42	26.00	1.8
LSK	2.49	292	iPn	42	26.00	1.4
OHR	2.84	311	ePn	42	23.50	-6.0X
SRN	2.86	284	iPn	42	33.30	3.5X
TPE	2.96	291	iPnc	42	38.00	6.8X
IZM	2.97	106	ePn	42	33.00	1.6
SKO	3.17	329	ePn	42	34.00	-0.1
VLO	3.39	292	Pn	42	40.60	3.3X
TIR	3.54	307	iPn	42	40.70	1.3
DMK	4.06	50	ePn	42	46.00	-0.7
CTT	4.14	61	ePn	43	00.00	12.2X
YER	4.24	119	iPn	42	50.50	1.0
PVY	4.32	321	ePn	42	51.80	1.2
			eSn	43	39.00	
LCI	4.49	286	P	42	51.30	-1.6
			eSn	43	39.30	
TTG	4.57	315	ePn	42	56.50	2.5
			eSn	43	46.50	
YLV	4.61	72	ePn	42	54.00	-0.7
KAP	4.66	142	ePn	42	55.00	-0.4
KHL	4.71	100	iPn	42	57.00	0.9
BDV	4.73	311	ePn	42	57.20	0.9
			eSn	43	48.00	
HRT	4.90	70	ePn	42	59.00	0.3
BRT	5.18	290	P	43	02.70	0.1
			eSn	43	58.60	
GPA	5.26	77	eP	43	02.00	-1.8
BRY	5.28	315	ePn	43	05.00	0.8
			eSn	44	00.00	
TDS	5.65	276	P	43	11.10	1.8
			eSn	44	12.60	
MGR	6.28	281	P	43	18.50	0.3
			eSn	44	27.70	
ATN	6.47	263	P	43	19.70	-1.2
			eSn	44	30.50	
HVAR	6.67	308	iPn	43	22.20	-1.5
			iSn	44	32.20	
BSS	6.93	285	P	43	27.70	0.3
			eSn	44	40.30	
MEU	7.18	255	P	43	27.50	-3.4X
			eSn	44	45.40	
SDI	7.86	291	P	43	40.30	-0.1
			eSn	45	02.00	
MAO	9.96	292	P	44	10.50	1.1
KBA	10.82	320	i(P)	44	54.30	32.9X
	0.8s	11.40nm				
		e		51	25.00	
		i		52	26.00	
		e		00	17.00	
CVF	11.64	291	eP	44	33.50	1.1
	0.5s	4.90nm			5.1mb	
SBF	12.96	296	eP	44	51.50	1.4
	1.0s	29.60nm			5.4mb	X
LPG	13.93	302	eP	45	03.40	0.3
	0.7s	25.30nm			5.1mb	
HAU	15.23	311	eP	45	18.20	-1.7
	0.6s	3.60nm			3.9mb	
SMF	16.23	303	eP	45	31.80	-1.0
	0.8s	17.90nm			4.2mb	
LBF	16.26	305	eP	45	31.80	-1.4
	0.8s	12.00nm			4.1mb	
LOR	16.44	306	eP	45	33.80	-1.6
	0.6s	5.70nm			3.9mb	
SSF	16.59	305	eP	45	35.50	-1.8
	0.7s	11.00nm			4.1mb	
AVF	16.59	304	eP	45	37.30	-0.1
	0.7s	16.50nm			4.3mb	
BGF	16.85	302	eP	45	39.90	-0.7
	0.7s	15.80nm			4.3mb	
MAF	16.93	301	eP	45	43.40	1.7
	0.9s	19.60nm			4.2mb	
CAF	16.95	296	eP	45	43.70	1.7
RJF	17.41	297	eP	45	49.20	1.5
	0.9s	11.10nm			4.0mb	
LSF	17.63	300	eP	45	51.20	0.8
LFF	17.88	296	eP	45	53.70	0.2
MFF	18.84	301	eP	46	05.30	0.0
LDF	19.41	306	eP	46	10.60	-1.7
FLN	19.69	307	eP	46	13.10	-2.4
	0.8s	14.50nm			4.3mb	
GRR	19.81	305	eP	46	14.60	-2.0
	1.0s	25.60nm			4.5mb	
LPF	19.81	304	eP	46	14.20	-2.5
	0.8s	11.80nm			4.3mb	
NUR	21.28	1	eP	46	30.00	-1.7
ASMO	21.53	274	eP	46	35.50	0.9
APHE	21.58	272	eP	46	35.00	-0.2
ACHM	21.66	273	eP	46	35.50	-0.4
HFS	21.81	347	eP	46	36.00	-1.1
	1.5s	67.80nm			4.8mb	
AAPN	21.83	274	eP	46	38.20	0.5
ATEJ	21.85	273	eP	46	38.70	0.8
ALOJ	21.87	273	eP	46	35.50	-2.6
NAO	23.01	344	P	46	48.40	-0.6
	0.6s	5.40nm			4.3mb	
SUF	23.54	3	iP	46	54.80	0.7
	0.5s	4.30nm			4.3mb	
EKA	24.03	321	Pd	47	00.20	1.3
	1.0s	29.20nm			4.8mb	
KJF	25.09	4	iP	47	10.60	1.5
	0.6s	15.60nm			4.9mb	
SOD	28.21	2	eP	47	45.00	7.3X
TIC	41.47	226	P	49	30.60	-1.4
KIC	41.55	225	P	49	31.30	-1.3
LIC	41.82	226	P	49	33.70	-1.1
	0.7s	30.00nm			5.1mb	
YKA	73.17	341	eP	53	16.40	0.9
SES	82.24	333	eP	54	09.00	3.2X
LRM	86.58	331	eP	54	30.80	2.7

S.D. = 1.3 on 64 of 73 obs.

MAR 19, 1989 05h 48m 50.61± 0.33s
39.248 N ± 4.6km 23.535 E ± 3.5km
DEPTH = 10.0km (geophysicist)
4.2mb (14 obs.)
AEGEAN SEA (365)
ML 4.0 (ATH).

ATH	1.28	174	iPnc	49	15.00	0.6
KZN	1.72	308	ePn	49	21.50	0.6
PRK	2.12	89	ePn	49	26.50	-0.1
VAY	2.20	341	iPn	49	29.30	1.6
EZN	2.23	74	ePn	49	28.00	-0.2
ITM	2.42	212	ePn	49	32.60	1.7
VLS	2.54	246	ePn	49	35.50	2.9
OHR	2.80	312	ePn	49	35.50	-0.9

SRN	2.80	284	iPn	49 40.30	4.0X
TPE	2.91	292	iPnc	49 44.00	6.2X
IZM	3.03	105	iPn	49 39.90	0.3
SKO	3.15	330	iPn	49 41.80	0.6
VLO	3.34	293	ePn	49 46.10	2.2
PHP	3.39	317	iPnc	49 45.50	0.9
TIR	3.50	308	ePn	49 48.50	2.3
EDC	3.51	70	ePn	49 45.60	-0.7
KKS	3.69	321	ePn	49 50.00	1.1
PUK	3.93	316	ePn	49 54.70	2.4
DST	3.96	83	iPn	49 52.70	-0.1
DMK	4.12	50	ePn	49 54.00	-0.9
CTT	4.20	62	ePn	50 12.00	15.9X
ULC	4.24	311	ePn	49 59.00	2.3
			eSn	50 44.50	
YER	4.29	118	iPn	49 58.00	0.5
PVY	4.30	322	ePn	49 59.50	1.9
			eSn	50 44.00	
LCI	4.43	286	P	49 58.40	-1.0
TTG	4.54	316	ePn	50 02.00	1.1
			eSn	50 49.00	
IVA	4.55	324	ePn	50 02.50	1.4
			eSn	50 49.00	
YLV	4.68	72	ePn	50 04.00	1.0
BDV	4.69	312	ePn	50 03.50	0.4
			eSn	50 50.50	
KAP	4.69	141	ePn	50 03.00	-0.1
KHL	4.77	99	ePn	50 04.50	0.2
HRT	4.96	70	ePn	50 07.00	0.0
ALT	5.12	90	iPn	50 09.20	0.0
BRT	5.12	291	Pc	50 09.40	0.2
BRY	5.25	316	ePn	50 11.00	-0.1
			eSn	51 07.00	
GPA	5.32	77	ePn	50 08.00	-4.1X
ELL	5.62	114	ePn	50 08.00	-8.3X
MGR	6.22	281	P	51 08.90	44.2X
			eSn	52 19.20	
ATN	6.41	263	P	51 12.10	44.7X
MLR	6.49	15	iPd	50 28.00	-0.6
BZS	6.52	348	iPc	50 27.50	-1.4
HVAR	6.63	309	iPn	50 28.40	-2.1
DEV	6.65	356	ePc	50 30.00	-0.7
VRI	7.02	19	iPc	50 36.50	0.6
MEU	7.11	255	P	51 20.20	42.9X
BBTK	7.15	82	eP	51 10.00	32.1X
CLI	7.80	19	ePc	50 47.00	0.2
VBY	8.75	318	e(Pn)	51 02.70	2.6
LJU	9.49	319	e(P)	51 26.50	16.3X
			e(S)	53 06.00	
VOY	9.81	317	e(P)	51 13.70	-1.1
FIR	10.26	300	e(Pn)	51 25.00	4.1X
KHC	12.18	327	iPc	51 46.50	-0.5
			i	52 32.10	
DSI	12.32	125	eP	51 50.00	1.1
MBH	13.29	132	eP	52 01.00	-0.8
LPG	13.88	302	eP	52 09.30	-0.6
	0.7s	14.30nm			4.9mb
SMF	16.18	304	eP	52 37.50	-2.0
	0.7s	9.90nm			4.1mb
LBF	16.21	305	eP	52 37.70	-2.3
	0.8s	10.70nm			4.0mb
LOR	16.39	306	eP	52 40.30	-1.9
SSF	16.54	305	eP	52 42.40	-1.7
	0.7s	5.90nm			3.8mb
AVF	16.54	304	eP	52 43.30	-0.8
	0.7s	14.70nm			4.2mb
BGF	16.80	302	eP	52 46.40	-1.0
	0.9s	26.20nm			4.4mb
MAF	16.88	301	eP	52 48.70	0.3
	0.8s	15.30nm			4.2mb
RJF	17.36	298	eP	52 56.00	1.6
MFF	18.79	301	eP	53 11.70	-0.4
LDF	19.37	307	eP	53 17.30	-1.8
	0.7s	5.20nm			3.9mb
FLN	19.65	307	eP	53 20.20	-2.1
GRR	19.76	305	eP	53 21.10	-2.4
	0.7s	7.40nm			4.1mb
LPF	19.77	304	eP	53 21.40	-2.2
SLL	22.19	347	eP	53 45.30	-3.0X
	0.5s	1.70nm			3.8mb
NAO	23.01	344	P	53 57.10	0.8
	0.9s	2.60nm			3.8mb
SUF	23.56	3	iP	54 04.80	3.2X
EKA	24.00	321	P	54 06.00	0.0
	1.8s	63.00nm			4.9mb
BNG	34.95	189	iPc	55 43.20	-1.6
	0.3s	58.00nm			5.9mb X
			ic	56 28.50	
TIC	41.41	226	P	56 38.00	-0.9
KIC	41.49	225	P	56 38.70	-0.8
	0.8s	9.00nm			4.6mb
LIC	41.76	226	P	56 41.00	-0.7
	0.7s	15.00nm			4.8mb
KOD	55.86	106	eP	58 19.00	-12.1X
YKA	73.17	341	eP	00 23.30	0.4

S.D. = 1.4 on 64 of 78 obs.

MAR 19, 1989 05h 49m 35.49± 0.35s
39.308 N ± 5.4km 23.568 E ± 4.4km
DEPTH = 10.0km (geophysicist)
4.4mb (16 obs.)
AEGEAN SEA (365)
ML 4.1 (ATH).

ATH	1.34	175	ePn	50 00.00	-0.1
PRK	2.10	91	ePn	50 17.50	6.4X
ITM	2.49	212	ePn	50 19.20	2.5
SKO	3.12	329	iPn	50 38.50	13.0X
			iSn	51 19.00	
			iSg	51 32.50	
YER	4.30	119	iPn	50 42.50	0.0
KAP	4.72	141	ePn	50 47.80	-0.7
GBZT	4.75	70	ePn	51 06.60	17.8X
			eSg	52 16.40	
KHL	4.75	100	iPn	50 48.50	-0.5
ALT	5.09	91	ePn	50 53.70	0.0
GPA	5.28	77	ePn	50 55.00	-1.4
BUC	5.44	19	iP	51 20.00	21.5X
ELL	5.62	115	ePn	51 03.10	1.8
BCK	5.82	106	eP	51 04.00	0.1
HVAR	6.61	308	iPn	51 14.70	-0.4
CVF	11.58	291	eP	52 25.30	1.4
KSP	12.62	338	eP	52 39.00	1.3
SBF	12.90	296	eP	52 41.80	0.1
	0.8s	10.70nm			5.1mb
BRG	13.40	333	e(P)	52 47.00	-1.0
	1.0s	10.00nm			4.8mb
LPG	13.87	302	eP	52 54.10	-0.5
	0.7s	19.80nm			5.1mb
CLL	14.10	332	e(P)	53 08.00	10.8X
WLF	16.14	316	P	53 39.80	16.0X
SMF	16.17	303	eP	53 23.20	-1.1
	0.7s	6.60nm			3.9mb
LBF	16.20	305	eP	53 23.30	-1.4
	0.8s	7.20nm			3.9mb
LOR	16.38	305	eP	53 25.30	-1.6
SSF	16.53	304	eP	53 28.00	-0.8
	0.7s	7.70nm			3.9mb
AVF	16.53	303	eP	53 28.40	-0.5
	0.9s	22.90nm			4.3mb
BGF	16.79	302	eP	53 32.50	0.4
	0.7s	13.20nm			4.2mb
MAF	16.87	301	eP	53 33.40	0.2
	0.9s	16.30nm			4.2mb
DOU	17.22	315	P	53 51.90	14.4X
	0.9s	10.00nm			
RJF	17.35	297	eP	53 41.50	2.3
	0.7s	5.20nm			3.8mb
LSF	17.57	300	eP	53 43.50	1.5
MFF	18.78	301	eP	53 58.00	1.1
LDF	19.35	306	eP	54 02.90	-1.0
GRR	19.75	305	eP	54 07.90	-0.4
	1.0s	24.00nm			4.5mb
LPF	19.76	304	eP	54 07.80	-0.5
NUR	21.24	1	iP	54 24.50	1.0
SUF	23.49	3	eP	54 47.00	1.1
	0.9s	8.70nm			4.3mb
KJF	25.05	4	iP	55 01.20	0.3
	0.9s	16.90nm			4.7mb
SOD	28.17	3	eP	55 30.00	0.4
MAIO	28.43	85	eP	55 49.00	16.6X
TIC	41.47	226	P	57 22.90	-1.3
	0.7s	9.00nm			4.6mb
KIC	41.55	225	P	57 23.50	-1.4
	0.7s	13.00nm			4.8mb
LIC	41.82	226	P	57 26.00	-1.1
	0.7s	25.00nm			5.1mb

S.D. = 1.1 on 35 of 43 obs.

MAR 19, 1989 05h 57m 41.15± 0.27s
39.280 N ± 3.7km 23.521 E ± 2.6km
DEPTH = 10.0km (geophysicist)
4.1mb (13 obs.)
AEGEAN SEA (365)
ML 4.0 (ATH).

ATH	1.32	173	ePn	58 05.90	0.5
PRK	2.14	90	ePn	58 18.50	1.2
VAY	2.16	341	iPn	58 19.40	1.7
EZN	2.24	75	ePn	58 18.00	-0.7
LSK	2.41	292	iPnc	58 24.50	3.1X
ITM	2.44	211	ePn	58 23.50	1.8
VLS	2.54	245	ePn	58 24.80	1.7
OHR	2.77	312	iPn	58 27.50	1.0
SRN	2.79	284	iPn	58 30.80	4.2X
TPE	2.89	292	iPnc	58 35.00	7.0X
IZM	3.05	106	iPn	58 30.90	0.5
SKO	3.12	330	iPn	58 32.50	1.2
PHP	3.36	317	iPnd	58 36.10	1.4
TIR	3.47	308	ePn	58 38.50	2.2
EDC	3.51	71	ePn	58 36.60	-0.2
KKS	3.66	321	ePn	58 41.30	2.4
KCT	3.85	74	ePn	58 44.20	2.5
PUK	3.90	316	ePn	58 43.70	1.3
DST	3.97	84	iPn	58 43.70	0.3
SDA	4.10	313	ePn	58 48.70	3.5X
DMK	4.11	50	ePn	58 44.80	-0.5
CTT	4.20	62	ePn	58 49.00	2.4
YER	4.32	118	iPn	58 48.50	0.1
LCI	4.41	286	P	58 49.10	-0.6
			eSn	59 38.30	
YLV	4.68	72	iPn	58 52.70	-0.9
KAP	4.72	141	ePn	58 54.00	-0.1
KHL	4.79	100	iPn	58 55.50	0.4
HRT	4.96	70	ePn	58 56.00	-1.5
BRT	5.10	290	P	59 00.30	0.8
			eSn	59 59.80	
ALT	5.13	90	iPn	59 00.00	0.1
GPA	5.33	77	ePn	59 01.20	-1.5
TDS	5.57	276	P	59 07.10	1.0
ELL	5.64	115	eP	59 10.10	2.9X
MGR	6.20	280	Pc	59 16.20	1.2
			eSn	00 27.50	
ISR	6.27	20	ePd	59 16.50	0.6
TLB	6.28	31	ePc	59 15.00	-1.0
ATN	6.40	262	P	59 16.80	-1.0
MLR	6.46	15	iPc	59 19.00	0.3
HVAR	6.60	308	iPn	59 19.60	-1.0
			iSn	00 31.90	
DEV	6.61	356	ePc	59 20.00	-0.8
CFR	6.83	29	ePd	59 23.00	-0.7
BSS	6.86	285	Pc	59 25.50	1.3
			eSn	00 41.30	
VRI	7.00	19	iPc	59 26.00	-0.1
MNO	7.04	262	P	59 26.70	-0.3
MEU	7.11	255	P	59 25.30	-2.5
			eSn	00 43.50	
DUI	7.31	292	P	59 31.70	1.1
SDI	7.78	291	P	59 38.20	1.0
USI	8.08	269	P	59 39.30	-1.9
PTJ	8.65	322	eP	59 46.70	-2.6
ASS	9.02	298	P	59 57.80	3.4X
VOY	9.78	317	eP	00 03.90	-1.1
			eS	01 53.00	
FVI	10.74	316	P	00 16.40	-1.5
KHC	12.15	327	Pd	00 36.50	-0.6
	1.0s	6.50nm			4.9mb
			e	01 04.40	
PRNI	12.97	130	e(P)	00 47.00	-1.1
MBH	13.32	132	eP	00 53.00	0.3
LPG	13.85	302	eP	01 00.60	0.5
	0.7s	17.60nm			5.0mb
CLL	14.10	332	e(P)	01 06.00	3.0X
SMF	16.15	303	eP	01 29.60	-0.1
	0.6s	3.60nm			3.7mb
LBF	16.18	305	eP	01 29.30	-0.9
LOR	16.37	306	eP	01 31.70	-0.7
SSF	16.51	305	eP	01 33.50	-0.8
	0.8s	4.50nm			3.7mb
AVF	16.52	304	eP	01 34.00	-0.3
	0.7s	7.00nm			3.9mb
BGF	16.77	302	eP	01 38.30	0.7
	0.8s	9.40nm			4.0mb
MAF	16.86	301	eP	01 39.30	0.7
	0.9s	11.40nm			4.0mb
MFF	18.77	301	eP	02 03.40	1.1
LDF	19.34	306	eP	02 08.40	-1.0
FLN	19.62	307	eP	02 11.00	-1.6
GRR	19.73	305	eP	02 12.40	-1.4
	0.6s	6.10nm			4.1mb
LPF	19.74	304	eP	02 12.10	-1.8

19d 06h

NUR	21.26	2	eP	02 29.00	-0.5
HFS	21.77	347	eP	02 33.10	-1.6
	0.5s	3.40nm		4.0mb	
NAO	22.97	344	P	02 47.80	1.3
	0.5s	3.70nm		4.2mb	
SUF	23.52	3	iP	02 52.20	0.3
	0.7s	5.40nm		4.2mb	
EKA	23.97	321	Pc	02 56.40	0.2
	0.7s	12.80nm		4.6mb	
KJF	25.08	4	iP	03 06.40	-0.5
BNG	34.98	189	iPd	04 34.90	-0.7
	0.2s	32.00nm		5.8mb	X
		ic		04 36.70	
TIC	41.43	226	P	05 28.90	-0.6
KIC	41.51	225	P	05 29.70	-0.5
LIC	41.78	225	P	05 32.00	-0.4
	0.7s	4.50nm		4.3mb	
FRB	56.47	328	eP	07 25.00	-0.1
YKA	73.13	341	eP	09 13.70	0.5
	S.D. = 1.2	on	74 of	81 obs.	

MAR 19, 1989 06h 07m 45.13± 0.56s
39.307 N ± 6.5km 23.620 E ± 5.7km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.5 (ATH).

ATH	1.33	177	ePn	08 08.50	-1.2
EZN	2.15	75	ePn	08 20.00	-1.5
VAY	2.17	339	iPn	08 23.30	1.6
ITM	2.51	213	ePn	08 27.50	0.9
VLS	2.62	245	ePn	08 30.50	2.2
OHR	2.81	311	ePn	08 29.50	-1.5
IZM	2.99	107	ePn	08 35.00	1.6
SKO	3.14	329	ePn	08 35.00	-0.5
DMK	4.03	50	ePn	08 49.00	0.8
LCI	4.48	285	P	08 52.50	-2.1
KAP	4.70	142	ePn	08 56.20	-1.5
BRT	5.16	290	P	09 03.90	-0.4
TDS	5.65	276	P	09 13.30	2.2
MGR	6.27	280	Pd	09 20.00	0.0
MLR	6.42	15	ePd	09 22.50	0.4
BZS	6.48	347	ePc	09 27.00	4.2X
			e	31 17.50	
			e	37 09.00	
BSS	6.92	285	P	09 28.90	-0.2
VRI	6.95	18	ePd	09 41.50	12.1X
MEU	7.19	255	P	09 31.90	-1.0
SDI	7.85	291	P	09 41.40	-0.7
			eSn	11 08.80	
BNG	35.02	189	ePd	14 41.00	1.1
	0.3s	5.00nm		4.9mb	
		id		16 17.60	
	S.D. = 1.4	on	19 of	21 obs.	

MAR 19, 1989 06h 29m 40.84± 0.34s
39.268 N ± 4.0km 23.587 E ± 3.5km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.3 (ATH).

ATH	1.30	175	ePn	30 05.00	0.1
PRK	2.08	90	ePn	30 21.20	5.0X
VAY	2.19	340	iPn	30 19.00	1.2
MMB	2.32	3	iPc	30 20.00	0.3
ITM	2.46	213	ePn	30 23.00	1.3
RZN	2.57	19	iP	29 34.00	-49.3X
KKB	2.62	352	iP	30 23.00	-1.0
KDZ	2.76	30	iP	30 24.00	-1.9
OHR	2.82	312	iPn	30 28.20	1.4
PLD	2.96	16	iPc	30 30.00	1.3
IZM	3.00	106	ePn	30 29.90	0.6
SKO	3.16	330	iPn	30 32.30	0.8
VTS	3.33	355	iP	30 34.00	-0.2
EDC	3.47	71	ePn	30 36.00	0.1
DST	3.92	83	ePn	30 42.00	-0.4
JMB	3.92	34	eP	30 32.00	-10.3X
DMK	4.07	50	ePn	30 44.00	-0.5
PVL	4.16	18	iPc	30 42.00	-3.7X
YER	4.27	118	ePn	30 47.50	0.1
LCI	4.47	286	P	30 48.10	-2.0
YLV	4.63	72	ePn	30 53.00	0.4
KAP	4.68	141	ePn	30 53.00	-0.2
HRT	4.92	70	eP	31 03.00	6.4X
ALT	5.07	90	ePn	30 59.20	0.3
BRT	5.15	290	Pd	30 59.80	-0.1
TDS	5.62	276	P	31 07.20	0.7
MGR	6.26	281	Pc	31 15.20	-0.2
MLR	6.46	15	ePd	31 18.50	0.1
BSS	6.91	286	P	31 24.30	-0.3
			eSn	32 37.70	
MEU	7.15	255	P	31 24.90	-3.2X
			eSn	32 42.30	
SDI	7.84	291	P	31 37.20	-0.5
BNG	34.97	189	iPd	36 33.90	-1.4
	0.2s	12.00nm		5.4mb	
	S.D. = 0.9	on	26 of	32 obs.	

MAR 19, 1989 06h 35m 53.29± 0.34s
39.267 N ± 3.4km 23.574 E ± 3.9km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.6 (ATH).

ATH	1.30	175	ePb	36 17.30	0.0
KZN	1.73	307	ePn	36 23.70	0.0
PRK	2.09	90	ePn	36 28.90	0.1
VAY	2.19	340	iPn	36 31.00	0.8
EZN	2.20	74	ePn	36 30.00	-0.4
MMB	2.32	3	iPc	36 32.00	-0.2
RZN	2.57	19	iPc	36 36.00	0.2
VLS	2.58	246	ePn	36 36.40	0.7
OHR	2.81	312	iPn	36 40.00	0.8
PLD	2.96	16	eP	36 42.00	0.8
IZM	3.01	106	ePn	36 42.40	0.5
SKO	3.15	330	iPn	36 45.00	1.1
DIM	3.15	28	iP	36 43.00	-0.9
PGB	3.31	8	iPd	36 46.00	-0.2
VTS	3.33	355	iP	36 47.00	0.4
EDC	3.48	71	ePn	36 48.00	-0.5
KCT	3.81	74	ePn	36 58.00	4.6X
VAM	3.89	172	ePn	36 55.00	0.7
DST	3.93	83	ePn	37 01.00	6.0X
PVL	4.16	18	iPc	36 56.00	-2.2
NPS	4.32	157	ePn	37 00.60	0.1
LCI	4.46	286	P	37 01.10	-1.3
YLV	4.64	72	ePn	37 07.00	1.8
KAP	4.69	141	ePn	37 05.50	-0.3
MGR	6.25	281	P	37 27.60	-0.1
			eSn	38 40.20	
MLR	6.46	15	ePc	37 30.50	-0.4
VRI	7.00	18	ePd	37 38.50	0.3
BBTK	7.12	82	eP	38 09.00	28.8X
BNG	34.97	189	iPd	42 46.10	-1.6
	0.6s	6.00nm		4.6mb	
	S.D. = 0.9	on	26 of	29 obs.	

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* MAR 19, 1989 06h 43m 20.50± 0.95s
39.276 N ± 7.8km 23.787 E ±11.5km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.5 (ATH).

PLG	1.13	347	ePn	43 42.10	0.5
ATH	1.30	182	ePn	43 44.70	0.1
KZN	1.86	304	ePn	43 51.00	-1.8
PRK	1.93	90	ePn	43 59.50	5.8X
VAY	2.24	336	ePn	44 21.30	23.1X
RDO	2.30	35	ePn	43 59.50	0.5
MMB	2.31	359	iPd	43 59.00	-0.2
KKB	2.64	349	iP	44 03.00	-0.9
KDZ	2.68	27	iP	44 03.00	-1.4
PLD	2.91	14	eP	44 09.00	1.3
OHR	2.93	310	ePn	44 10.00	1.9
SKO	3.23	327	ePn	44 25.00	12.8X
PGB	3.28	5	eP	44 22.00	9.0X
VTS	3.34	353	eP	44 14.00	0.0
	S.D. = 1.3	on	10 of	14 obs.	

MAR 19, 1989 07h 25m 30.97± 0.69s
39.257 N ± 4.8km 23.822 E ±10.8km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.1 (ATH).

PLG	1.15	346	iPnc	25 52.70	0.2
ATH	1.29	184	ePn	25 54.90	0.1
PRK	1.90	90	ePb	26 10.90	7.2X
VAY	2.27	335	ePn	26 09.00	-0.1
RDO	2.30	34	ePn	26 09.70	0.2
MMB	2.33	358	iPc	26 10.00	0.0
ITM	2.56	216	ePn	26 12.90	-0.2
KKB	2.67	348	iP	26 14.00	-0.7
OHR	2.96	310	ePn	26 19.50	0.5
	S.D. = 0.4	on	8 of	9 obs.	

% MAR 19, 1989 07h 34m 37.63± 0.83s
39.254 N ± 8.2km 23.388 E ±10.6km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 2.9 (ATH).

PLG	1.12	2	iPbc	34 58.20	-0.4
ATH	1.31	169	ePb	35 01.60	-0.2
KZN	1.63	311	ePb	35 07.70	1.2
VAY	2.16	343	ePn	35 14.50	0.4
PRK	2.24	89	ePn	35 15.50	0.2
OHR	2.72	314	ePn	35 21.00	-1.2
	S.D. = 1.0	on	6 of	6 obs.	

MAR 19, 1989 07h 41m 50.12± 0.40s
39.258 N ± 4.0km 23.648 E ± 4.5km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 4.0 (ATH).

PLG	1.13	352	ePb	42 12.90	1.7
ATH	1.29	178	ePn	42 13.10	-0.8
KZN	1.79	306	ePn	42 21.00	-0.3
PRK	2.04	90	ePn	42 24.90	0.1
EZN	2.15	74	ePn	42 26.60	0.2
VAY	2.22	339	iPn	42 28.40	0.9
MMB	2.33	1	iPc	42 29.00	-0.1
RDO	2.38	37	ePn	42 29.00	-0.7
ITM	2.48	214	ePn	42 31.20	0.0
RZN	2.56	18	eP	42 33.00	0.5
VLS	2.62	247	ePn	42 35.80	2.5
KKB	2.64	351	iP	42 34.00	0.5
KDZ	2.74	29	iP	42 34.00	-1.0
OHR	2.86	311	iPn	42 36.70	0.0
IZM	2.95	106	iPn	42 38.20	0.3
PLD	2.95	15	iPc	42 39.00	1.1
DIM	3.14	27	iP	42 40.00	-0.4
SKO	3.19	329	iPn	42 39.50	-1.8
PGB	3.31	7	eP	42 45.00	1.9
VTS	3.35	354	iP	42 48.00	4.3X
EDC	3.42	70	ePn	42 51.60	7.0X
VAM	3.87	173	ePn	42 51.10	0.2
DST	3.87	83	ePn	42 59.00	8.0X
JMB	3.90	34	eP	42 30.00	-21.4X
DMK	4.04	49	ePn	42 52.70	-0.7
PVL	4.15	17	iPc	42 53.00	-1.9
NPS	4.29	158	ePn	42 58.40	1.5
LCI	4.52	286	P	42 56.60	-3.5X
YLV	4.59	72	eP	43 03.00	1.7
KAP	4.64	142	ePn	43 01.00	-1.0
TDS	5.67	276	P	43 18.50	2.0
MGR	6.30	281	P	43 24.70	-0.7
MLR	6.46	15	ePd	43 27.50	-0.1
BZS	6.53	347	eP	43 26.50	-2.0.
BSS	6.96	286	P	43 33.90	-0.7
VRI	6.99	18	ePc	43 35.50	0.6
SDI	7.88	291	P	43 46.30	-1.3
			eSn	45 12.70	
LPG	13.95	302	eP	45 15.00	4.7X
	0.7s	5.50nm		4.5mb	
AVF	16.61	304	eP	45 47.80	3.3X
	0.8s	5.30nm		3.7mb	
BGF	16.87	302	eP	45 51.20	3.5X
	0.7s	5.50nm		3.8mb	
BNG	34.97	189	ePd	48 42.20	-2.3
	0.3s	3.00nm		4.6mb	
	S.D. = 1.3	on	33 of	41 obs.	

MAR 19, 1989 07h 47m 27.58± 0.67s
39.254 N ± 5.8km 23.658 E ± 8.0km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.0 (ATH).

PLG	1.13	352	iPgc	47 48.50	-0.3
ATH	1.28	178	ePb	47 50.90	-0.4
KZN	1.79	306	ePb	47 57.50	-1.4
PRK	2.03	89	ePb	48 07.20	5.0X
EZN	2.14	74	ePn	48 05.00	1.2
VAY	2.23	338	ePn	48 05.00	0.0
RDO	2.38	37	ePn	48 06.50	-0.7
ITM	2.48	214	ePn	48 08.80	0.1
RZN	2.56	18	eP	48 10.00	0.0
VLS	2.63	247	ePg	48 16.50	5.7X
OHR	2.87	311	ePn	48 15.10	0.8

SKO	3.20	329	ePn	48 20.10	1.3
VTS	3.35	354	eP	48 22.00	0.8
PVL	4.16	17	eP	48 30.00	-2.4
MLR	6.46	14	ePc	49 06.00	0.9

S.D. = 1.2 on 13 of 15 obs.

MAR 19, 1989 07h 59m 55.71± 1.33s
1.698 N ± 8.8km 127.160 E ±11.9km
DEPTH = 116.3 ± 11.3 km
5.2mb (8 obs.)
HALMAHERA (267)

MNI	2.33	264	iPd	00 32.70	-1.1
			eS	00 59.50	
AAI	5.45	169	eP	01 16.40	0.5
			e(S)	02 15.00	
TSM	9.42	286	ePc	02 11.80	1.9
	0.8s	321.00nm		6.2mb	
KKM	11.74	292	eP	02 41.60	0.8
MTN	14.98	165	eP	03 21.00	-1.6
KNA	17.41	175	eP	03 52.00	-0.8
	0.6s	70.00nm		5.1mb	
WB5	22.58	162	iPc	04 47.10	0.0
WRA	22.63	162	Pd	04 46.80	-0.9
	0.5s	59.90nm		5.2mb	
MBL	23.82	197	iPd	04 59.90	0.7
QIS	25.26	152	eP	05 13.00	0.3
	0.3s	23.00nm		5.1mb	
ASPA	26.05	166	iPc	05 19.60	-0.5
	0.6s	43.00nm		5.2mb	
WARB	27.72	181	eP	05 22.00	-13.2X
MEKA	29.35	196	eP	05 49.80	0.0
CHG	32.46	303	eP	06 16.50	-0.7
MRWA	32.55	198	eP	06 18.10	0.3
COOL	32.90	190	eP	06 20.00	-0.9
BAL	33.63	196	eP	06 27.00	-0.2
KLB	34.29	194	eP	06 32.50	-0.3
	0.5s	19.00nm		5.2mb	
MUN	35.07	196	iPc	06 39.40	0.0
NWAO	35.69	194	eP	06 45.20	0.5
	0.6s	22.00nm		5.2mb	
BJI	39.45	347	(P)	07 16.00	0.0
BWA	41.11	153	eP	07 31.50	1.8
SHL	41.44	308	iP	07 32.60	-0.2
CAN	42.11	153	eP	07 39.00	1.0
TOO	42.60	158	iPd	07 43.50	1.5
GBA	50.57	286	Pc	08 43.60	-1.1
DAG	99.33	352	iPd	13 24.30	-1.1
	0.3s	3.90nm		5.5mb	

S.D. = 1.0 on 26 of 27 obs.

? MAR 19, 1989 08h 09m 50.02± 1.00s
39.112 N ±10.6km 23.264 E ±13.7km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 2.9 (ATH).

ATH	1.19	163	ePn	10 12.00	-0.2
PLG	1.27	6	ePn	10 10.60	-3.0X
KZN	1.66	316	ePb	10 20.00	0.7
VAY	2.27	347	ePn	10 27.30	-0.8
PRK	2.34	86	ePb	10 29.50	0.4
OHR	2.75	317	ePn	10 38.00	3.0X

S.D. = 1.1 on 4 of 6 obs.

? MAR 19, 1989 08h 10m 57.52± 0.88s
39.081 N ±10.3km 23.503 E ±11.1km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.1 (ATH).

ATH	1.12	171	ePb	11 18.50	0.0
PLG	1.29	358	ePb	11 16.10	-5.4X
KZN	1.81	313	ePg	11 28.70	-0.4
PRK	2.16	85	ePb	11 34.00	0.0
OHR	2.90	315	e(Pn)	11 45.00	0.4

S.D. = 0.5 on 4 of 5 obs.

MAR 19, 1989 08h 20m 22.29± 0.29s
39.285 N ± 3.6km 23.599 E ± 3.0km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.6 (ATH).

PLG	1.09	354	iPnc	20 44.10	1.2
ATH	1.31	176	iPnd	20 46.10	-0.5
KZN	1.74	307	ePn	20 53.00	0.2
PRK	2.07	90	ePn	20 58.00	0.4
EZN	2.18	75	ePn	20 59.10	0.1
RDO	2.38	38	ePn	21 01.50	-0.4
ITM	2.48	213	ePn	21 04.00	0.6
VLS	2.60	246	ePn	21 05.80	0.7
OHR	2.82	311	iPn	21 08.60	0.4
IZM	2.99	106	iPn	21 11.50	0.8
SKO	3.15	329	iPn	21 13.70	0.9
EDC	3.45	71	ePn	21 16.00	-1.2
BNT	3.50	71	ePn	21 17.60	-0.2
VAM	3.90	173	ePn	21 23.10	-0.4
DMK	4.06	50	ePn	21 25.70	0.0
YER	4.27	119	ePn	21 29.40	0.6
NPS	4.32	158	ePn	21 30.60	1.0
LCI	4.47	285	P	21 29.80	-1.8
			eSn	22 19.80	
YLV	4.62	72	ePn	21 34.00	0.1
KAP	4.69	142	ePn	21 34.50	-0.3
BRT	5.16	290	Pd	21 41.20	-0.2
TDS	5.63	276	P	21 49.70	1.6
			eSn	22 56.50	
MGR	6.26	280	Pc	21 56.90	-0.1
BZS	6.50	348	eP	21 59.00	-1.2
BSS	6.91	285	Pd	22 05.80	-0.3
			eSn	23 19.10	
BBTK	7.10	83	eP	22 44.00	35.1X
			e	24 16.50	
SDI	7.84	291	P	22 18.70	-0.4
			eSn	23 42.70	
BNG	34.99	189	iPd	27 15.30	-1.6
	0.2s	8.00nm		5.2mb	

S.D. = 0.9 on 27 of 28 obs.

MAR 19, 1989 08h 23m 54.38± 0.48s
39.264 N ± 4.9km 23.691 E ± 5.5km
DEPTH = 10.0km (geophysicist)
3.6mb (4 obs.)
AEGEAN SEA (365)
ML 4.1 (ATH).

PLG	1.12	350	iPnc	24 15.60	0.1
ATH	1.29	179	ePn	24 16.50	-1.8
KZN	1.81	306	ePn	24 24.50	-1.4
PRK	2.00	90	ePn	24 31.00	2.4
EZN	2.11	74	ePn	24 29.00	-1.2
VAY	2.23	338	iPn	24 31.40	-0.4
MMB	2.32	1	iPc	24 33.00	-0.3
RDO	2.35	36	ePn	24 33.00	-0.6
ITM	2.50	214	ePn	24 34.60	-1.2
KKB	2.64	350	eP	24 37.00	-0.8
VLS	2.66	247	ePn	24 38.70	0.7
KDZ	2.72	28	iP	24 37.00	-1.9
OHR	2.88	311	ePn	24 41.50	0.3
SKO	3.20	328	ePn	24 45.00	-0.7
EDC	3.39	70	ePn	24 51.00	2.6
VAM	3.87	174	ePn	24 56.50	1.3
DMK	4.02	49	ePn	24 57.00	-0.2
NPS	4.28	158	ePn	25 01.50	0.5
KAP	4.63	142	ePn	25 04.50	-1.5
LPG	13.97	302	eP	27 16.10	1.2
	0.7s	5.50nm		4.5mb	
SSF	16.63	304	eP	27 49.00	0.0
	0.7s	2.20nm		3.4mb	
AVF	16.64	303	eP	27 49.80	0.7
	0.7s	3.70nm		3.6mb	
MAF	16.98	301	eP	27 55.60	2.2
	0.7s	3.30nm		3.6mb	

S.D. = 1.4 on 23 of 23 obs.

MAR 19, 1989 08h 52m 34.21± 0.31s
39.302 N ± 3.5km 23.644 E ± 2.8km
DEPTH = 10.0km (geophysicist)
3.7mb (8 obs.)
AEGEAN SEA (365)
ML 4.1 (ATH).

PLG	1.08	352	iPnc	52 55.00	0.4
ATH	1.33	178	iPnd	52 57.50	-1.2
KZN	1.76	305	ePn	53 04.00	-1.0
PRK	2.04	91	ePn	53 09.40	0.4
EZN	2.14	75	ePn	53 10.10	-0.3
VAY	2.18	338	iPn	53 11.30	0.3
MMB	2.29	2	iPc	53 12.00	-0.6
RDO	2.34	38	ePn	53 12.90	-0.5
ITM	2.51	213	ePn	53 15.00	-0.8
RZN	2.52	19	iPc	53 15.00	-1.0
VLS	2.64	246	ePn	53 18.70	1.1
KDZ	2.71	29	iPc	53 18.00	-0.6
OHR	2.83	311	iPn	53 19.80	-0.6
SRN	2.87	283	iPn	53 23.20	2.3
PLD	2.91	16	iPc	53 22.00	0.6
IZM	2.97	107	iPn	53 22.80	0.6
TPE	2.97	291	iPnd	53 27.00	4.8X
DIM	3.10	27	iP	53 24.00	0.0
SKO	3.15	329	iPn	53 24.50	-0.3
	N 13s		1.61um		
	E 13s		1.92um		
			iSn	54 05.00	
BERA	3.16	297	ePn	53 26.60	1.6
PGB	3.27	7	iPc	53 25.00	-1.6
VTS	3.30	354	iP	53 27.00	-0.1
EDC	3.41	71	ePn	53 28.60	0.1
PHP	3.41	315	ePn	53 27.60	-0.9
BNT	3.46	71	ePn	53 29.10	-0.1
TIR	3.54	306	ePn	53 31.70	1.4
KKS	3.70	319	ePn	53 33.50	0.8
KCT	3.75	74	ePn	53 35.00	1.6
LACI	3.80	309	ePn	53 35.50	1.5
DST	3.87	84	ePn	53 35.00	-0.1
VAM	3.91	173	ePn	53 35.50	-0.1
PUK	3.95	315	ePn	53 37.50	1.3
DMK	4.02	50	ePn	53 37.00	-0.1
PVL	4.11	17	iPc	53 37.00	-1.4
YER	4.25	119	iPn	53 40.40	0.0
NPS	4.33	158	ePn	53 42.10	0.6
LCI	4.50	285	P	53 41.70	-2.3
ISK	4.51	65	ePn	54 02.00	18.0X
YLV	4.58	72	ePn	53 46.00	0.8
KHL	4.69	100	ePn	53 48.60	1.7
HRT	4.86	70	eP	54 05.00	15.8X
ALT	5.03	91	ePn	53 51.70	0.1
GPA	5.23	77	ePn	53 53.00	-1.3
DRA	5.39	5	ePd	53 55.00	-1.6
PSN	5.55	36	eP	54 00.00	1.2
ELL	5.56	115	ePn	54 01.00	1.8
TDS	5.66	276	P	54 02.10	1.6
			eSn	55 11.10	
CMP	6.05	9	ePd	54 06.00	0.1
GZR	6.12	354	ePd	54 10.50	3.6X
TLB	6.21	30	eP	54 08.00	-0.1
ISR	6.22	19	ePc	54 09.00	0.8
MGR	6.29	280	P	54 07.80	-1.5
			eSn	55 20.90	
MLR	6.42	15	ePc	54 10.50	-0.7
BZS	6.49	347	ePc	54 09.50	-2.5
DEV	6.60	355	ePc	54 40.00	26.4X
CFR	6.76	28	eP	54 15.00	-0.9
BSS	6.94	285	P	54 17.20	-1.3
VRI	6.95	18	ePc	54 19.50	1.0
			e	18 31.50	
BBTK	7.06	83	eP	54 40.00	19.7X
SDI	7.86	291	P	54 29.80	-1.6
KHC	12.18	327	iPc	55 29.90	-0.7
MBH	13.26	132	eP	55 49.00	3.9X
LPG	13.92	302	eP	55 56.10	2.0
	0.7s	4.40nm		4.4mb	
SMF	16.22	303	eP	56 23.60	-0.1
	0.8s	5.30nm		3.7mb	
LBF	16.25	305	eP	56 25.00	0.9
	1.0s	4.80nm		3.6mb	
SSF	16.58	304	eP	56 29.00	0.8
	0.7s	3.30nm		3.6mb	
AVF	16.59	303	eP	56 29.60	1.3
	0.8s	5.30nm		3.7mb	
BGF	16.84	302	eP	56 33.10	1.6
	0.7s	6.60nm		3.9mb	
MAF	16.93	301	eP	56 35.80	3.2X
	0.7s	3.70nm		3.6mb	
SLL	22.16	346	eP	57 31.50	-0.1
	0.5s	1.60nm		3.7mb	
BNG	35.01	189	iPd	59 26.50	-2.5
	0.4s	13.00nm		5.2mb X	
			ic	59 28.20	
LIC	41.86	226	P	00 23.50	-2.6

S.D. = 1.2 on 64 of 72 obs.

MAR 19, 1989 09h 16m 44.77± 0.43s
39.277 N ± 4.1km 23.625 E ± 3.5km
DEPTH = 8.6 ± 3.0 km
3.7mb (6 obs.)
AEGEAN SEA (365)
ML 4.2 (ATH).

NEO	0.31	276	iPgd	16 51.00	-0.2

19d 09h

PLG	1.10	353	iPgc	17 06.90	1.2
ATH	1.30	177	ePb	17 08.00	-1.0
KZN	1.76	306	iPbd	17 15.70	0.0
PRK	2.05	90	ePb	17 21.50	1.6
EZN	2.16	74	ePn	17 21.60	0.2
VAY	2.20	339	iPn	17 23.00	1.0
MMB	2.31	2	iPc	17 24.00	0.3
RDO	2.37	37	ePn	17 23.50	-1.0
ITM	2.48	213	ePn	17 25.80	-0.3
RZN	2.55	19	iPc	17 28.00	0.8
VLS	2.62	246	ePb	17 30.20	2.2
KKB	2.62	351	iP	17 28.00	0.0
KDZ	2.74	29	iPc	17 29.00	-0.7
OHR	2.84	311	ePn	17 31.00	-0.2
PLD	2.94	16	iPc	17 34.00	1.4
IZM	2.97	106	iPn	17 32.80	-0.3
DIM	3.13	27	iP	17 33.00	-2.2
SKO	3.16	329	ePn	17 35.50	-0.2
			i	17 44.00	
PGB	3.30	7	iPc	17 39.00	1.3
VTS	3.33	355	iP	17 39.00	0.8
EDC	3.43	71	ePn	17 39.00	-0.6
BNT	3.48	71	iPn	17 39.60	-0.6
KCT	3.77	74	ePn	17 50.00	5.5X
DST	3.89	84	ePn	17 48.70	2.6
VAM	3.89	173	ePn	17 48.60	2.5
JMB	3.90	34	eP	17 50.00	3.9X
DMK	4.05	50	ePn	17 47.00	-1.2
PVL	4.14	18	iPc	17 48.00	-1.5
YER	4.25	119	iPn	17 51.40	0.2
NPS	4.31	158	ePn	17 52.60	0.6
LCI	4.49	285	P	17 53.10	-1.5
YLV	4.60	72	ePn	17 56.60	0.3
KAP	4.67	142	ePn	17 55.80	-1.4
ALT	5.05	90	eP	18 01.00	-1.5
BRT	5.18	290	P	18 03.70	-0.7
			eSn	19 00.00	
TDS	5.65	276	P	18 13.80	2.7
CMP	6.08	9	ePd	18 52.00	35.0X
ISR	6.24	19	ePc	18 21.00	1.6
MGR	6.28	280	P	18 19.90	0.0
			eSn	19 25.20	
MLR	6.44	15	ePd	18 22.50	0.2
BZS	6.51	347	ePc	18 21.50	-1.5
BSS	6.93	285	P	18 28.60	-0.5
			eSn	19 41.90	
BBTK	7.08	83	eP	19 10.00	38.7X
			eS	19 35.00	
LPG	13.92	302	eP	20 04.10	-0.7
	0.7s		7.00nm		4.6mb
SSF	16.58	305	eP	20 36.90	-2.1
	0.7s		1.50nm		3.2mb
AVF	16.59	303	eP	20 38.20	-0.8
	0.7s		3.70nm		3.6mb
BGF	16.84	302	eP	20 41.60	-0.7
	0.7s		4.40nm		3.7mb
MAF	16.93	301	eP	20 44.30	0.9
	0.7s		4.40nm		3.7mb
EKA	24.03	321	P	22 02.00	1.4
	0.8s		3.80nm		4.0mb
BNG	34.99	189	ePd	23 37.00	-2.5
	0.2s		8.00nm		5.2mb X
	S.D. = 1.3		on 47 of	51 obs.	

MAR 19, 1989 09h 51m 33.19± 1.31s
39.186 N ±10.4km 23.711 E ± 7.9km
DEPTH = 10.6 ± 4.9 km
AEGEAN SEA (365)
ML 3.5 (ATH).

VAY	2.30	338	iPn	52 12.00	0.3
MMB	2.40	0	iPc	52 13.00	-0.1
LSK	2.59	293	ePn	52 15.70	-0.1
RZN	2.61	17	iPc	52 17.00	0.7
KKB	2.72	350	iP	52 17.00	-0.7
KDZ	2.78	27	iPc	52 18.00	-0.6
OHR	2.95	312	iPn	52 21.50	0.6
SRN	2.95	285	ePn	52 23.30	2.4
PLD	3.01	14	iPc	52 23.00	1.3
TPE	3.06	292	ePn	52 28.00	5.6X
BERA	3.26	299	ePn	52 27.60	2.3
SKO	3.28	329	iPn	52 25.40	-0.1
PGB	3.38	6	iPc	52 27.00	0.0
VTS	3.42	354	iP	52 28.00	0.3
PHP	3.53	316	ePn	52 35.10	6.0X
TIR	3.65	307	ePn	52 31.50	0.7
LACI	3.91	310	ePn	52 36.00	1.5
JMB	3.94	33	eP	52 40.00	5.2X
PUK	4.07	316	ePn	52 37.00	0.3
PVL	4.21	16	iPc	52 38.00	-0.7
SDA	4.27	313	ePn	52 38.20	-1.5
LCI	4.58	286	P	52 41.40	-2.6
			eSn	53 30.70	
BRT	5.27	291	Pd	52 52.70	-1.2
			eSn	53 47.00	
TDS	5.73	277	P	53 02.10	1.8
CMP	6.16	9	ePd	53 06.00	-0.3
MGR	6.36	281	Pc	53 08.40	-0.9
			eSn	54 17.70	
MLR	6.51	14	ePd	53 11.50	0.0
BZS	6.61	347	ePc	53 10.00	-2.7
BSS	7.02	286	P	53 17.80	-0.7
			eSn	54 33.90	
VRI	7.04	17	ePd	53 20.00	1.3
SDI	7.95	292	P	53 30.30	-1.3
			eSn	54 52.30	
BNG	34.91	189	ePd	58 26.70	-0.3
	0.2s		8.00nm		5.2mb
	S.D. = 1.3		on 29 of	32 obs.	

? MAR 19, 1989 10h 10m 34.28± 1.01s
39.283 N ± 9.4km 23.457 E ±13.6km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.0 (ATH).

PLG	1.09	360	iPbc	10 54.20	-0.6
ATH	1.32	171	ePb	10 58.00	-0.7
KZN	1.65	309	ePn	11 05.00	1.5
VAY	2.15	342	ePn	11 09.40	-1.2
PRK	2.19	90	ePb	11 12.10	0.9
OHR	2.73	313	ePn	11 27.00	7.9X
	S.D. = 1.6		on 5 of	6 obs.	

MAR 19, 1989 10h 16m 43.80± 0.40s
21.089 S ± 8.3km 68.424 W ± 7.4km
DEPTH = 118.2km (7 depth phases)
4.9mb (13 obs.)
CHILE-BOLIVIA BORDER REGION (124)

CNCB	4.28	6	iPc	17 52.20	3.7X
LPB	4.54	4	eP	17 53.00	1.0
			(S)	19 24.00	
ZOBO	4.80	3	eP	17 57.30	1.6
	Z 20s		0.26um		
			LR	19 44.00	
ARE	5.44	327	eP	18 00.00	-4.2X
			iS	18 59.00	
ITB1	13.41	108	e(P)	19 49.70	-0.9
ITB	13.61	108	e(P)	19 59.40	6.3X
ITB7	13.71	110	e(P)	19 59.10	4.6X
VAO	19.98	99	eP	21 08.30	-0.9
ITA	22.07	98	eP	21 31.20	0.8
			e	21 33.00	
BMA	22.57	99	eP	21 35.20	0.2
			e	21 41.50	
			e	21 44.20	
ATB	23.70	44	Pc	21 46.30	0.4
JSC	56.40	347	P	26 14.50	-0.6
BLA	59.08	349	P	26 31.00	-2.8
	0.6s		6.76nm		4.9mb
CVL	59.51	351	P	26 35.00	-1.7
OLY	60.37	338	P	26 41.00	-1.6
FVM	62.29	340	P	26 54.00	-1.5
	1.0s		40.00nm		5.3mb
			pP	27 24.00	123km
ALQ	66.40	326	eP	27 21.60	-0.9
	1.0s		5.00nm		4.4mb
			epP	27 50.80	118km
LIC	67.84	74	Pc	27 31.66	0.0
	0.6s		15.00nm		5.0mb
TIC	68.03	73	Pc	27 32.52	-0.3
	0.9s		25.00nm		5.1mb
KIC	68.15	74	Pc	27 33.70	0.1
	0.6s		36.00nm		5.4mb
SPA	69.04	180	ePd	27 39.00	0.5
	1.0s		16.00nm		4.8mb
GOL	69.62	330	P	27 42.20	-0.2
	1.0s		17.50nm		4.8mb
			pP	28 11.50	117km
KUK	72.02	76	eP	27 57.50	0.4
MSU	72.10	325	P	28 08.30	10.9X
RSSD	72.62	334	P	28 00.60	0.3
			pP	28 30.00	117km
DUG	73.67	326	P	28 07.20	0.9
	0.8s		5.56nm		4.4mb
BCH	74.38	318	P	28 11.00	0.5
TNP	74.59	322	P	28 12.80	1.0
			pP	28 43.00	119km
EUR	74.85	324	iP	28 14.00	0.6
	0.5s		3.86nm		4.5mb
RSON	75.02	344	P	28 13.30	-0.4
	1.0s		12.50nm		4.7mb
SCH	75.61	1	eP	28 17.00	0.0
KVN	75.75	322	P	28 19.00	0.6
			pP	28 48.50	116km
HPI	76.39	328	P	28 23.20	1.2
ARN	76.66	319	P	28 04.80	-18.6X
ORV	78.06	321	P	28 22.20	-8.8X
SES	80.50	334	eP	28 44.00	0.1
			pP	29 14.00	117km
FFC	80.79	341	eP	28 45.00	-0.3
	0.9s		13.00nm		4.7mb
PNT	83.54	329	eP	29 00.00	0.4
EDM	83.58	335	ePd	28 59.00	-0.8
FRB	84.55	360	eP	29 04.00	-0.2
YKC	90.90	340	ePd	29 35.00	0.2
	0.8s		13.00nm		5.2mb
YKA	90.95	340	eP	29 35.70	0.7
WRA	133.53	210	PKP	35 49.00	0.4
	0.6s		2.60nm		
WB5	133.58	210	ePKP	35 48.30	-0.3
GBA	146.63	97	PKPc	36 13.40	1.3
	0.9s		7.80nm		
HYB	148.64	91	ePKP	36 30.50	15.2X
	S.D. = 0.9		on 38 of	46 obs.	

& MAR 19, 1989 11h 09m 57.88s
59.780 N 153.286 W
DEPTH = 119.0km
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM	0.34	28	iP	10 14.64	-0.6
			iS	10 27.97	
PDB	0.46	271	iP	10 14.82	-0.9
			iS	10 28.04	
RDT	0.91	29	eP	10 18.55	-0.8
			eS	10 34.09	
NNL	1.04	74	iP	10 20.68	0.2
CNPM	1.07	103	eP	10 19.80	-1.1
			eS	10 37.38	
NKA	1.41	46	eP	10 25.57	1.1
SPU	1.53	23	eP	10 25.12	-0.9
			eS	10 47.56	
CRP	1.59	20	eP	10 26.16	-0.7
CGLM	1.66	22	iP	10 26.91	-0.7
SLKM	1.70	63	eP	10 27.24	-0.8
			eS	10 48.27	
SVW	1.77	320	eP	10 27.46	-1.4
KDC	2.08	168	eP	10 30.37	-2.3
			eS	10 55.53	
PMS	2.36	50	eP	10 35.16	-1.2
			eS	11 02.20	
SKT	2.37	20	eP	10 35.43	-1.1
PTE	2.38	61	eP	10 36.53	-0.1
PWA	2.52	40	eP	10 36.95	-1.4
KNIM	2.84	76	eP	10 40.38	-2.3
			eS	11 12.10	
GHO	2.93	45	eP	10 41.55	-2.4
VZW	3.58	66	eP	10 51.43	-1.2
KLU	4.01	61	iP	10 57.30	-1.2
			eS	11 39.42	
	20 obs. ossociated				

& MAR 19, 1989 11h 18m 24.80s
60.150 N 152.925 W
DEPTH = 113.8km
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM	0.07	194	iP	18 40.15	1.0
			iS	18 52.57	
RDT	0.50	31	eP	18 41.59	-0.8
PDB	0.73	241	iP	18 43.25	-0.8
			eS	18 57.85	
NNL	0.82	97	eP	18 44.92	0.0
			eS	18 59.75	
NKA	1.03	54	eP	18 47.71	0.9
CNPM	1.06	126	eP	18 46.57	-0.7
SPU	1.12	22	iP	18 47.02	-0.9

			iS	19 04.53		
CRP	1.18	18	iP	18 48.11	-0.6	
			eS	19 06.23		
CGLM	1.25	21	eP	18 48.51	-0.9	
SLKM	1.39	74	iP	18 49.87	-1.1	
SVW	1.64	307	eP	18 52.34	-1.6	
SEW	1.74	90	eP	18 53.46	-1.7	
SKT	1.96	20	eP	18 56.84	-1.1	
PMS	1.99	55	eP	18 57.05	-1.3	
PTE	2.06	68	eP	18 57.13	-2.0	
PWA	2.12	43	eP	18 59.80	-0.1	
PWL	2.38	71	eP	19 00.78	-2.6	
KDC	2.42	174	eP	19 00.96	-2.9	
GHO	2.54	48	eP	19 03.55	-2.0	
KNIM	2.60	83	iP	19 03.08	-3.1	
MTU	2.65	91	eP	19 05.02	-1.9	
SML	2.79	51	eP	19 06.31	-2.5	
GLI	2.97	73	eP	19 09.38	-1.9	
VZW	3.27	71	eP	19 13.26	-2.0	
KLU	3.69	66	eP	19 18.08	-2.9	
GLB	4.65	70	eP	19 32.27	-1.8	
	26 obs. associated					

MAR 19, 1989 11h 31m 28.44± 0.35s
39.281 N ± 4.3km 23.672 E ± 2.5km
DEPTH = 10.0km (geophysicist)
4.0mb (17 obs.)
AEGEAN SEA (365)
ML 3.7 (TTG), 4.1 (SKO).

EZN	2.12	74	ePn	32 05.60	1.2	
VAY	2.21	338	iPn	32 06.50	0.9	
MMB	2.31	1	iPc	32 07.00	-0.1	
LSK	2.52	291	iPnc	32 10.50	0.3	
RZN	2.53	18	iP	32 11.00	0.6	
KKB	2.62	350	iPc	32 12.00	0.4	
KDZ	2.72	29	iPc	32 12.00	-0.9	
OHR	2.86	311	iPn	32 15.10	0.1	
SRN	2.90	283	iPnd	32 17.80	2.3	
PLD	2.93	15	iPc	32 17.00	1.1	
IZM	2.94	106	iPn	32 16.60	0.5	
TPE	3.00	291	ePn	32 22.00	5.2X	
DIM	3.11	27	iP	32 19.00	0.6	
SKO	3.18	328	iPn	32 19.50	0.1	
N	16s		2.33um			
E	14s		2.72um			
			iPb	32 26.00		
			iSn	32 59.00		
			iSb	33 09.00		
BERA	3.19	298	ePn	32 20.70	1.1	
PGB	3.29	6	iPc	32 21.00	0.0	
EDC	3.40	70	ePn	32 22.70	0.1	
VLO	3.43	292	ePn	32 23.70	0.8	
BNT	3.44	70	iPn	32 23.00	-0.2	
PHP	3.44	315	iPnc	32 23.60	0.5	
TIR	3.57	307	ePn	32 26.50	1.6	
KKS	3.73	319	ePn	32 29.00	1.7	
KCT	3.74	74	ePn	32 30.00	2.5	
LACI	3.83	309	ePn	32 30.00	1.3	
DST	3.85	84	ePn	32 28.70	-0.4	
JMB	3.87	34	iP	32 28.00	-1.3	
PUK	3.98	315	ePn	32 31.60	0.8	
DMK	4.02	49	iPn	32 30.70	-0.6	
YER	4.22	119	iPn	32 34.30	0.1	
ULC	4.30	310	ePn	32 36.50	1.1	
			eSn	33 18.00		
SZH	4.33	22	eP	32 35.00	-0.8	
PVY	4.34	321	ePn	32 37.00	1.0	
			eSn	33 19.00		
LCI	4.53	285	P	32 35.50	-3.1X	
			eSn	33 25.50		
YLV	4.57	72	iPn	32 39.00	-0.2	
IVA	4.58	323	ePn	32 41.50	2.1	
			eSn	33 27.50		
TTG	4.59	315	ePn	32 40.20	0.7	
			eSn	33 25.50		
KHL	4.67	100	ePn	32 41.60	0.9	
BDV	4.74	311	ePn	32 42.00	0.3	
			eSn	33 30.00		
HRT	4.85	70	ePn	32 41.00	-2.3	
ALT	5.01	91	ePn	32 46.10	0.6	
HCY	5.04	311	ePn	32 46.20	0.4	
			eSn	33 36.00		
BRT	5.21	290	Pc	32 47.10	-1.2	
GPA	5.21	77	ePn	32 48.00	-0.3	
BRY	5.30	315	ePn	32 50.20	0.5	
			eSn	33 45.10		
BUC1	5.36	18	eP	33 12.00	21.7X	
DRA	5.41	4	ePd	32 51.00	-0.1	
ELL	5.54	115	eP	32 55.10	2.1	
PSN	5.55	36	iPd	32 52.00	-1.1	
TDS	5.69	276	P	32 54.60	-0.4	
			eSn	33 53.90		
CMP	6.07	9	iPc	32 39.00	-21.3X	
GZR	6.14	354	ePd	33 03.00	1.5	
TLB	6.22	30	ePd	33 01.50	-0.9	
ISR	6.23	19	ePc	33 02.50	-0.1	
MGR	6.32	280	P	33 02.80	-1.1	
			eSn	34 13.10		
MLR	6.43	14	iPc	33 05.00	-0.6	
BZS	6.51	347	iPc	33 05.00	-1.6	
DEV	6.62	355	ePd	33 06.00	-2.2	
HVAR	6.69	308	iPn	33 06.00	-3.2X	
CFR	6.77	28	eP	33 11.00	0.8	
VRI	6.96	18	ePd	33 13.50	0.6	
BSS	6.97	285	Pd	33 11.60	-1.4	
			eSn	34 27.80		
BBTK	7.05	83	ePn	33 22.00	7.8X	
			iPg	33 47.00		
			iSg	35 18.50		
SDI	7.89	291	P	33 24.60	-1.4	
			eSn	34 51.10		
USI	8.19	269	P	33 26.40	-3.8X	
PTJ	8.72	322	e(P)	33 34.20	-3.4X	
VBY	8.80	318	ePn	33 38.80	0.3	
			eSn	35 11.70		
SRO	9.37	337	eP	33 45.80	-0.6	
CEY	9.39	316	e(P)	33 46.00	-0.8	
			e	33 51.50		
			eS	35 29.00		
LJU	9.53	318	e(P)	33 55.80	7.1X	
			e	34 04.00		
			eS	35 40.00		
TRI	9.73	315	e(Pn)	34 46.90	55.5X	
			i(Sn)	35 33.50		
VOY	9.86	316	eP	33 51.60	-1.8	
			eS	35 38.10		
ZST	10.10	334	eP	34 45.00	48.6X	
KBA	10.84	319	e(P)	34 05.00	-1.8	
			e	36 08.00		
KHC	12.21	327	iPc	34 25.50	0.2	
SBF	12.99	296	eP	34 36.30	0.6	
MBH	13.23	132	ePd	34 35.00	-3.9X	
FRF	13.47	294	eP	34 43.60	1.6	
LPG	13.95	302	eP	34 49.10	0.4	
	0.8s		13.40nm		4.8mb	
HAU	15.25	311	eP	35 03.70	-1.6	
SMF	16.25	303	eP	35 16.60	-1.7	
	0.8s		7.20nm		3.9mb	
LBF	16.28	305	eP	35 17.40	-1.3	
	0.7s		4.80nm		3.7mb	
LOR	16.46	305	eP	35 20.50	-0.4	
	1.0s		6.80nm		3.7mb	
SSF	16.61	304	eP	35 21.50	-1.3	
	0.7s		5.90nm		3.8mb	
AVF	16.62	303	eP	35 22.80	-0.1	
	0.8s		10.70nm		4.0mb	
BGF	16.87	302	eP	35 26.50	0.4	
	0.8s		14.70nm		4.2mb	
MAF	16.96	301	eP	35 29.00	1.8	
	0.8s		12.00nm		4.1mb	
TCF	17.21	301	eP	35 30.80	0.4	
	0.9s		10.40nm		4.0mb	
DOU	17.30	315	P	35 46.30	14.9X	
LSF	17.66	300	eP	35 36.90	1.0	
	0.9s		8.10nm		3.9mb	
MFF	18.87	301	eP	35 50.80	0.0	
	0.8s		5.30nm		3.8mb	
GRR	19.83	305	eP	36 00.40	-1.6	
	0.8s		18.80nm		4.5mb	
NUR	21.26	1	eP	36 16.00	-0.8	
Z	16s		0.40um		3.9MszX	
			LR	45 30.00		
HFS	21.80	346	eP	36 20.70	-1.5	
	0.4s		1.50nm		3.8mb	
NAO	23.00	344	P	36 34.50	0.4	
	0.6s		2.40nm		3.9mb	
SUF	23.52	3	iP	36 39.00	-0.1	
	0.7s		4.00nm		4.1mb	
EKA	24.05	321	Pd	36 44.40	0.2	
	0.6s		9.30nm		4.6mb	
KJF	25.07	4	eP	36 52.00	-2.1	
	0.7s		13.30nm		4.7mb	
BNG	35.00	189	iPd	38 20.50	-2.6	
	0.3s		10.00nm		5.2mb X	
			ic	38 22.10		
KIC	41.59	225	P	39 18.00	-0.1	
LIC	41.86	226	P	39 18.40	-1.9	
GKN	51.13	83	P	40 35.00	1.3	
YKA	73.17	341	eP	43 00.20	-0.5	
PNT	86.01	337	eP	44 12.00	1.9	
	S.D. = 1.2 on 90 of 103 obs.					

MAR 19, 1989 12h 12m 34.84± 0.84s
52.494 N ± 3.8km 154.649 E ± 2.2km
DEPTH = 356.8 ± 9.0 km
4.8mb (70 obs.)
NORTHWEST OF KURIL ISLANDS (220)

SMY	11.83	81	P	15 16.60	1.1	
	1.0s		466.67nm		5.9mb X	
ADK	17.54	81	P	16 16.00	-1.7	
	1.0s		48.00nm		4.8mb	
MDJ	18.30	254	iPc	16 25.40	0.1	
SNY	23.49	255	Pd	17 15.20	0.1	
SHK	23.85	230	iP	17 18.70	0.2	
	1.3s		315.38nm		5.5mb	
DL2	26.50	252	eP	17 42.00	-0.4	
TTA	27.64	48	P	17 52.40	-0.1	
	0.8s		62.07nm		5.0mb	
BRW	28.43	31	P	18 00.10	0.9	
IMA	28.70	42	P	18 01.70	-0.1	
	1.0s		75.00nm		5.0mb	
BJI	29.01	260	eP	18 04.00	-0.6	
			eScP	24 09.50		
			eScS	28 01.00		
KDC	30.02	59	P	18 11.70	-1.5	
	1.0s		160.00nm		5.3mb	
PMR	30.96	51	P	18 19.70	-1.7	
	1.0s		42.50nm		4.7mb	
FBA	31.17	44	P	18 23.70	0.5	
	1.0s		80.00nm		5.0mb	
HHC	31.31	266	P	18 24.00	-0.8	
			ScP	24 18.00		
BTO	32.41	267	P	18 34.00	-0.2	
			ScP	24 21.00		
SSE	32.41	242	Pc	18 35.20	1.1	
	1.0s		32.00nm		4.6mb	
TIY	32.74	260	Pd	18 37.40	0.4	
NJ2	32.96	246	Pc	18 38.40	-0.4	
INK	36.35	37	iPc	19 07.90	1.0	
	0.5s		42.00nm		5.0mb	
WHN	36.64	249	P	19 09.50	-0.2	
XAN	37.31	259	P	19 15.00	-0.4	
QZH	38.69	239	eP	19 27.00	0.4	
MBC	38.87	22	ePc	19 28.90	1.3	
	0.5s		12.00nm		4.4mb	
LZH	39.01	266	iPd	19 31.00	1.6	
	1.0s		173.00nm		5.3mb	
			i	19 50.00		
SIT	39.03	55	P	19 31.00	2.0	
	1.0s		80.00nm		4.9mb	
GTA	39.36	273	iPd	19 33.20	1.0	
	1.0s		0.10nm		2.0mb X	
			ScP	24 46.00		
			ScS	28 58.20		
CD2	42.61	260	eP	19 58.20	-0.4	
ALE	43.92	7	eP	20 09.50	1.2	
	0.6s		8.00nm		4.1mb	
WMQ	44.01	287	iPc	20 11.20	1.7	
			ScP	25 05.00		
GYA	44.15	253	P	20 10.40	-0.5	
			PcP	21 48.20		
YKA	45.80	40	eP	20 24.10	0.8	
YKC	45.86	40	iPc	20 24.40	0.6	
	0.6s		28.00nm		4.7mb	
KMI	47.47	256	Pd	20 36.00	-0.8	
QIZ	48.18	243	eP	20 43.20	1.2	
PGC	49.50	60	eP	20 52.00	0.2	
MCW	49.81	59	P	20 54.40	0.2	
GMW	50.53	60	P	21 00.00	0.4	
DAG	50.94	358	iPd	21 01.30	-0.9	
	0.4s		12.71nm		4.6mb	
BMW	50.96	62	P	21 03.00	0.1	
PNT	51.09	57	iPc	21 03.70	0.0	
	0.9s		41.00nm		4.8mb	
LSA	51.14	270	Pd	21 05.70	0.9	
LON	51.55	61	P	21 06.80	-0.4	
SHW	51.67	62	P	21 08.80	0.6	
EDM	51.73	50	iPc	21 08.20	-0.1	
	0.7s		102.00nm		5.3mb	

19d 12h

KEV	52.28	340	eP	21	11.00	-1.1	SCH	67.67	24	eP	22	55.00	-0.7	MAF	78.79	341	eP	24	00.10	0.5
	0.6s	11.70nm			4.4mb		HYB	67.93	270	ePd	22	55.80	-2.0		0.9s	14.70nm			4.8mb	
DPW	52.73	58	P	21	15.40	-0.5		1.0s	60.00nm			5.3mb		TCF	78.80	341	eP	23	59.90	0.2
VGB	52.89	61	P	21	17.00	0.0	ALO	68.07	61	iPc	22	58.50	-0.1		0.7s	4.80nm			4.4mb	
KSH	53.57	289	P	21	23.40	1.3		0.8s	14.93nm			4.8mb		MFF	78.95	343	eP	24	00.90	0.5
LOE	54.04	250	eP	21	24.00	-1.5				e	23	22.50			1.1s	16.60nm			4.8mb	
FHC	54.21	68	ePc	21	27.70	1.1	MTN	68.16	205	iPd	22	58.90	-0.1	LSF	78.97	341	eP	24	00.80	0.2
SOD	54.27	338	iP	21	26.30	-0.3	TRT	69.83	225	iPc	23	08.80	-0.4		0.7s	7.00nm			4.6mb	
CHG	54.55	254	iPd	21	29.00	-0.2		0.7s	56.10nm			5.4mb		MBL	79.36	213	eP	24	02.50	-0.3
	1.0s	68.25nm			5.0mb		POO	69.96	274	eP	23	08.00	-2.1		0.4s	5.00nm			4.7mb	
SES	54.65	51	iPc	21	29.50	-0.1	KRA	70.87	331	eP	23	14.70	-0.3	RJF	79.88	341	eP	24	06.90	1.6
	0.8s	70.00nm			5.1mb		EKA	70.98	347	P	23	15.00	-0.6	CAF	80.13	341	eP	24	07.70	1.0
LBFM	55.03	66	P	21	33.50	0.8		0.8s	9.80nm			4.6mb			0.7s	4.80nm			4.4mb	
WDC	55.18	67	iPc	21	33.70	0.2	KSP	71.20	334	eP	23	16.60	-0.3	LFF	80.38	342	eP	24	08.80	0.9
			ePcP	22	29.30					ec	25	52.80			0.5s	4.30nm			4.5mb	
GUN	55.64	272	Pd	21	37.10	-0.2	GBA	71.55	268	Pd	23	18.40	-1.0	PRM	80.50	45	P	24	09.00	0.3
FFC	55.77	43	iPc	21	37.50	0.1		0.9s	30.10nm			5.0mb		LPO	80.54	341	eP	24	09.50	0.7
	0.7s	86.00nm			5.3mb		CLL	71.64	336	eP	23	18.00	-1.4		0.4s	2.70nm			4.4mb	
MIN	55.86	67	e(P)	21	38.20	-0.2		1.0s	18.00nm			4.7mb		JSC	80.80	44	P	24	10.00	-0.3
KKN	56.09	273	Pd	21	40.40	0.1				i	23	49.70		LHS	80.82	44	P	24	10.60	0.2
PKI	56.17	272	Pd	21	40.60	-0.4	BRG	71.80	335	eP	23	20.50	0.1	SGS	82.05	44	P	24	17.60	0.8
DMN	56.33	273	Pd	21	42.20	0.2		2.0s	56.00nm			4.9mb		WARB	82.08	205	iPd	24	03.90	-12.9X
GKN	56.33	273	Pd	21	42.00	0.1	VRI	72.33	325	ePd	23	24.00	0.4		0.3s	2.00nm				
ORV	56.46	67	iPc	21	42.00	-0.4	PRU	72.45	334	eP	23	24.00	-0.2	EPF	82.30	341	eP	24	17.90	-0.1
			ePcP	22	33.80		CTA	72.64	188	iPc	23	25.00	-0.6		0.8s	8.50nm			4.6mb	
KJF	56.58	335	iP	21	42.60	-0.4		0.5s	7.75nm			4.7mb		HBF	82.33	44	P	24	19.00	0.8
	0.6s	11.70nm			4.5mb					e	31	07.00		MBH	82.71	310	iPd	24	21.00	0.9
LRM	57.04	56	iPc	21	46.70	-0.1	KVT	72.74	316	iP	23	26.70	0.6	PMO	83.44	125	iP	24	24.80	1.0
BRK	57.18	69	eP	21	47.30	-0.2	MLR	72.93	325	ePc	23	27.50	0.2		0.8s	25.00nm			5.1mb	
BKS	57.20	69	eP	21	47.60	0.0	GAC	73.15	34	iPc	23	27.70	-0.6	TPT	83.56	125	iP	24	25.50	1.1
	0.8s	43.00nm			4.9mb		SRO	73.36	331	eP	23	30.10	0.6		0.8s	30.00nm			5.2mb	
PCC	57.37	70	ePc	21	48.20	-0.6	ZST	73.37	332	i(P)	23	29.30	-0.2	RUV	83.85	125	iP	24	26.60	0.7
BGMT	57.66	57	iPc	21	51.30	0.3	KHC	73.49	335	iPd	23	31.00	0.7		0.8s	20.00nm			5.0mb	
MHC	57.91	69	eP	21	52.40	-0.2		1.0s	8.00nm			4.4mb		MEKA	84.86	212	eP	24	30.40	-0.3
GCC	57.92	70	eP	21	52.20	-0.3	FVM	73.66	48	P	23	31.00	-0.4	COOL	88.04	208	eP	24	37.00	-9.0X
ARN	57.96	69	P	21	53.00	0.1		0.8s	64.39nm			5.4mb			0.4s	19.00nm			5.4mb	
CMB	58.14	68	iPc	21	54.30	0.2	MEM	73.91	340	P	23	32.60	0.1	TIC	118.59	337	PKPc	30	41.90	-0.1
			ePcP	22	51.20		KOD	74.15	266	eP	23	34.20	-0.6	KIC	118.80	336	PKPc	30	42.20	-0.2
HPI	58.17	59	P	21	54.00	-0.6	WB5	74.20	200	iPd	23	34.20	-0.4	LIC	119.00	337	PKPc	30	42.70	-0.1
SUF	58.20	335	iP	21	53.30	-0.9				e	24	06.70		ZOBO	130.65	59	PKP	31	05.80	0.0
	0.3s	7.60nm			4.6mb		PTN	74.31	34	P	23	35.00	0.0	LPB	130.88	59	PKPc	31	06.50	0.5
SAO	58.42	70	eP	21	55.60	-0.4	SNF	74.35	341	P	23	35.20	0.1	SWZ	134.81	284	ePKP	31	09.00	-3.9X
PRS	58.77	70	iPc	21	58.30	-0.1	RSNY	74.49	34	P	23	33.20	-2.8		1.1s	31.65nm				
			ePcP	22	43.50			0.8s	12.91nm			4.7mb					i	34	05.00	
LLA	58.81	69	iPc	21	58.70	0.0	DHN	74.68	37	P	23	36.80	-0.3	SPA	142.31	180	e(PKP)	31	19.10	-6.2X
FRI	59.25	68	iPc	22	01.40	-0.2	DOU	74.69	341	Pc	23	37.10	0.1		0.8s	8.33nm				
			ePcP	22	54.20		WLF	74.77	339	P	23	39.40	2.0	CER	142.86	283	iPKPd	31	31.00	3.8X
FRB	59.30	21	eP	22	00.00	-1.6	ELC	74.78	48	P	23	37.60	-0.1		0.4s	4.55nm				
PRI	59.30	70	eP	22	02.50	0.3	KBA	75.43	334	ePd	23	42.00	0.5	TUH	142.90	283	iPKPc	31	23.00	-4.2X
EUR	59.59	64	iP	22	04.80	0.6		0.8s	22.40nm			4.9mb			0.3s	77.92nm				
	0.4s	32.62nm			5.2mb					e	24	11.00		ITB1	144.55	50	ePKP	31	29.70	-0.5
PHAM	59.67	70	P	22	04.60	0.0				e	25	05.00		ITB	144.76	49	e(PKP)	31	29.00	-1.6
TNP	59.88	66	P	22	06.20	0.0	CDF	75.70	338	eP	23	42.40	-0.4	ITB7	145.05	50	ePKP	31	30.60	-0.5
NUR	60.45	334	iP	22	08.30	-1.1		0.8s	6.40nm			4.4mb		VAO	146.22	38	ePKP	31	35.00	1.8
BLP	60.58	71	P	22	10.80	0.2	HAU	76.29	339	eP	23	45.70	-0.3	ITA	146.46	34	ePKP	31	36.20	2.3
BW06	60.66	57	P	22	11.60	0.2		1.1s	14.60nm			4.6mb		BMA	146.94	33	ePKP	31	37.00	2.7
	1.0s	87.50nm			5.2mb		FLN	76.92	343	eP	23	49.00	-0.4		S.D. = 0.8		on 194 of 202 obs.			
DUG	60.79	61	P	22	02.80	-9.4X		0.9s	19.60nm			4.9mb		----------						
	1.0s	47.50nm			5.0mb		LDF	77.02	343	eP	23	49.40	-0.6		MAR 19, 1989 12h 40m 35.95± 0.92s					
ISA	60.90	69	eP	22	11.00	-1.8		1.1s	29.30nm			5.0mb			39.248 N ± 7.4km 23.689 E ± 8.9km					
ABL	61.05	70	P	22	14.20	0.2	GRR	77.35	344	eP	23	51.70	-0.1		DEPTH = 10.0km (geophysicist)					
CLC	61.28	68	eP	22	15.00	-0.3		0.9s	22.90nm			5.0mb			AEGEAN SEA					(365)
DAU	61.47	60	P	22	17.20	0.4	LOR	77.53	340	eP	23	52.40	-0.4		ML 3.0 (ATH).					
SBB	61.96	69	eP	22	19.00	-0.8		1.1s	17.00nm			4.8mb								
GSC	62.10	68	eP	22	21.00	0.2	SKO	77.58	326	eP	23	53.00	-0.1	NEO	0.37	279	iPgd	40	42.00	-1.5
PAS	62.15	70	eP	22	20.00	-1.0	LPF	77.73	344	eP	23	54.00	0.2	PLG	1.14	351	iPbc	40	57.80	0.5
MWC	62.17	69	eP	22	21.00	-0.3		1.1s	29.30nm			5.0mb		ATH	1.27	179	ePb	41	00.00	0.4
MSU	62.35	62	P	22	23.20	0.7	VAY	77.77	325	eP	23	54.00	-0.1	KZN	1.82	306	ePb	41	06.80	-0.8
RSSD	62.45	53	P	22	23.00	-0.1	LBF	77.77	340	eP	23	53.60	-0.6	PRK	2.01	89	ePn	41	16.40	6.2X
RVR	62.72	69	eP	22	24.00	-0.7		0.8s	4.00nm			4.3mb		VAY	2.24	338	ePn	41	14.30	0.7
PEC	62.92	69	P	22	25.60	-0.4	SSF	77.80	340	eP	23	54.10	-0.1	MMB	2.34	1	iPc	41	15.00	-0.1
SNG	62.96	244	eP	22	26.10	-0.3		0.8s	5.90nm			4.5mb		RZN	2.56	17	iP	41	19.00	0.7
	0.6s	61.33nm			5.4mb		ASPA	77.97	199	iPd	23	56.00	0.6	KKB	2.66	350	iP	41	20.00	0.4
NRA0	63.33	341	P	22	27.40	-0.8		0.6s	20.00nm			5.1mb		KDZ	2.74	28	iP	41	20.00	-0.7
NAO	63.39	341	P	22	27.60	-1.0				i	24	27.60		OHR	2.89	311	ePn	41	25.00	2.1
	0.9s	14.80nm			4.6mb		AVF	78.09	340	eP	23	55.90	0.1	SKO	3.21	329	ePn	41	32.00	4.6X
TPC	63.40	68	eP	22	28.00	-1.1		0.8s	9.40nm			4.7mb		PVL	4.15	17	eP	41	39.00	-1.7
HFS	63.42	339	eP	22	27.60	-1.3	PRIN	78.10	36	P	23	56.00	0.1		S.D. = 1.2		on 11 of 13 obs.			
	0.3s	4.20nm			4.5mb		SMF	78.12	340	eP	23	56.10	0.1	----------						
PLM	63.48	69	eP	22	30.00	0.2		0.9s	9.80nm			4.6mb			MAR 19, 1989 13h 03m 35.95± 0.91s					
BAR	64.08	70	eP	22	33.00	-0.5	GBTN	78.35	45	P	23	39.80	-17.6X		39.203 N ± 9.0km 23.372 E ±11.0km					
GLA	64.86	68	eP	22	38.00	-0.5	NAV	78.40	42	P	23	57.20	-0.5		DEPTH = 10.0km (geophysicist)					
IPM	64.90	242	ePc	22	39.50	0.7	BGF	78.41	341	eP	23	57.50	-0.1		AEGEAN SEA					(365)
MAIO	65.04	297	eP	22	40.00	0.4	LPG	78.57	338	eP	23	59.50	0.7		ML 2.9 (ATH).					
GOL	65.06	57	P	22	40.40	0.4		1.1s	25.30nm			4.9mb								
	1.0s	30.00nm			5.0mb		BLA	78.64	42	P	23	59.00	0.0	NEO	0.15	312	iPgd	03	40.50	0.9
PSI	67.61	243	ePc	22	55.40	-0.3		0.8s	24.44nm			5.1mb		PLG	1.17	3	iPbc	03	56.50	-1.3

ATH	1.26	167	ePb	03 58.50	-0.8
KZN	1.65	312	ePb	04 05.50	0.3
VAY	2.20	344	ePn	04 12.70	-0.4
PRK	2.25	88	ePn	04 15.10	1.3
OHR	2.74	315	ePn	04 25.50	4.6X

S.D. = 1.3 on 6 of 7 obs.

MAR 19, 1989 13h 47m 54.08± 0.59s
39.280 N ± 5.7km 23.505 E ± 6.4km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.6 (ATH).

NEO	0.22	277	iPgd	47 58.80	-0.1
PLG	1.09	358	iPbc	48 15.00	0.4
ATH	1.32	173	ePb	48 17.10	-1.3
KZN	1.68	308	ePb	48 24.00	0.2
PRK	2.15	90	ePb	48 33.20	2.8
VAY	2.16	341	iPn	48 31.40	0.8
EZN	2.25	75	ePn	48 30.00	-1.8
RDO	2.43	39	ePn	48 34.00	-0.4
ITM	2.44	211	ePb	48 35.00	0.4
VLS	2.53	245	ePn	48 36.40	0.5
KKB	2.60	353	iP	48 37.00	0.1
OHR	2.76	312	ePn	48 43.00	3.7X
KDZ	2.78	31	iP	48 38.00	-1.5
IZM	3.06	106	ePn	48 46.00	2.5
SKO	3.11	330	ePn	48 47.50	3.4X
VTS	3.32	356	eP	48 47.00	-0.2
EDC	3.52	71	ePn	48 58.70	8.8X
BNT	3.57	71	ePn	48 58.00	7.4X
JMB	3.95	35	eP	49 12.00	16.0X
PVL	4.17	19	eP	48 56.00	-3.0X
KAP	4.73	141	ePn	49 05.50	-1.7
MLR	6.46	15	eP	49 30.00	-1.7
VRI	7.00	19	ePc	49 40.00	0.9

S.D. = 1.5 on 17 of 23 obs.

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* MAR 19, 1989 13h 55m 50.94± 1.26s
39.335 N ±13.7km 23.442 E ± 8.8km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 2.9 (ATH).

NEO	0.17	261	iPbd	55 54.50	-0.4
PLG	1.04	0	iPnc	56 10.00	-0.5
ATH	1.38	171	ePn	56 11.60	-4.5X
KZN	1.61	308	ePn	56 18.70	-0.9
PRK	2.20	91	ePn	56 28.10	0.1
OHR	2.69	312	ePn	56 36.80	1.7

S.D. = 1.4 on 5 of 6 obs.

MAR 19, 1989 14h 30m 14.62± 0.69s
39.281 N ± 6.1km 23.648 E ± 6.7km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.1 (ATH).

NEO	0.33	275	ePg	30 20.40	-1.1
PLG	1.10	352	iPgc	30 35.90	0.6
ATH	1.31	178	ePd	30 37.50	-1.3
KZN	1.77	306	ePb	30 45.90	0.3
PRK	2.04	90	ePb	30 51.30	2.0
VAY	2.20	338	ePn	30 52.00	0.3
MMB	2.31	1	iPc	30 53.00	-0.3
RDO	2.36	37	ePn	30 52.50	-1.5
RZN	2.54	18	iPc	30 57.00	0.3
KKB	2.62	351	iPc	30 57.00	-0.7
VLS	2.63	246	ePb	30 59.50	1.6
KDZ	2.72	29	iP	30 58.00	-1.2
PGB	3.29	7	eP	31 07.00	-0.3
VTS	3.32	354	eP	31 09.00	1.2

S.D. = 1.2 on 14 of 14 obs.

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* MAR 19, 1989 14h 53m 36.94± 0.99s
26.468 S ± 9.0km 27.374 E ±11.6km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
MG 3.5 (BUL).

KSR	0.74	324	iPd	53 52.80	1.1
			S	54 01.50	
SLR	1.09	48	iPd	53 58.40	0.3
			S	54 08.50	
SWZ	1.96	248	iPd	54 10.50	-0.9
			S	54 37.50	
FRS	3.74	209	iPd	54 38.60	2.1
			S	55 22.00	
BUL	6.40	11	iPnc	55 13.10	-1.2
			iSn	56 22.00	
			iS*	56 36.90	
			iSg	56 53.20	
CER	9.81	224	eP	56 06.00	4.2X
			S	58 08.00	
TUH	9.86	224	eP	56 00.80	-1.6
			S	58 03.00	
KMZ	13.03	353	iPn	56 41.60	-4.0X
			eSn	59 05.00	
			iSg	00 00.50	
KIC	45.10	312	P	01 56.20	0.0
TIC	45.50	312	P	01 59.60	0.3

S.D. = 1.4 on 8 of 10 obs.

& MAR 19, 1989 15h 01m 49.46s
57.370 N 142.939 W
DEPTH = 10.0km (geophysicist)
GULF OF ALASKA (15)
<AGS-P>.

MID	2.73	320	iP	02 28.59	-5.5
YKU	2.76	36	eP	02 29.83	-4.7
PNL	2.96	37	iP	02 31.89	-5.5
			eS	03 02.62	
HQN	2.99	44	iP	02 31.97	-5.7
			eS	03 03.69	
HMT	3.05	348	eP	02 33.48	-5.2
			eS	03 05.11	
PCA	3.07	26	iP	02 33.63	-5.3
			eS	03 05.53	
WAX	3.09	1	iP	02 33.93	-5.3
			eS	03 06.88	
BCPM	3.11	32	iP	02 34.28	-5.2
RAGM	3.16	344	eP	02 34.85	-5.3
SGAM	3.35	340	eP	02 37.85	-5.1
			eS	03 14.23	
CVA	3.50	337	eP	02 39.43	-5.6
			eS	03 17.48	
HIN	3.55	330	eP	02 40.45	-5.4
MTU	3.60	319	eP	02 40.35	-6.1
CTGM	3.70	12	iP	02 42.50	-5.5
KNIM	3.89	322	iP	02 44.00	-6.6
GLB	4.11	354	iP	02 47.75	-5.9
			eS	03 31.35	
VZW	4.14	335	iP	02 48.00	-6.1
SIT	4.15	91	eP	02 46.23	-8.0
KLU	4.41	341	eP	02 52.00	-6.0
HYT	4.46	37	P	02 54.00	-4.7

20 obs. ossocioted

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* MAR 19, 1989 15h 06m 33.10± 0.85s
39.193 N ± 8.5km 23.480 E ± 9.3km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 2.9 (ATH).

NEO	0.23	300	iPbd	06 38.70	0.7
PLG	1.18	359	iPnc	06 54.30	-0.8
ATH	1.23	171	ePn	06 55.50	-0.5
KZN	1.72	311	ePn	07 03.30	-0.1
PRK	2.17	88	ePn	07 10.50	0.8
OHR	2.81	314	e(Pn)	07 27.50	8.6X

S.D. = 1.0 on 5 of 6 obs.

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* MAR 19, 1989 15h 09m 13.61± 0.97s
45.261 N ±14.7km 147.813 E ±14.0km
DEPTH = 33.0km (normal)
4.8mb (10 obs.)
KURIL ISLANDS (221)

CN2	16.01	273	P	13 00.40	2.6
SNY	17.88	268	eP	13 23.00	1.7
DL2	20.40	261	eP	13 50.30	0.1
BJI	23.76	269	eP	14 23.50	-0.1
TIA	24.83	259	P	14 34.60	0.5
NJ2	26.02	250	Pc	14 46.00	0.7
TIY	27.39	267	eP	15 01.00	3.2X
BTO	27.89	274	eP	15 02.00	-0.4
WHN	29.97	252	P	15 21.00	0.0
XAN	31.69	263	P	15 35.00	-1.2
LZH	34.22	270	eP	15 58.00	-0.3
	1.5s		44.00nm		5.2mb
GTA	35.53	278	iPc	16 09.30	-0.2
CD2	37.05	263	eP	16 21.80	-0.4
GYA	37.77	254	P	16 27.60	-0.8
KMI	41.32	256	Pd	16 58.00	0.0
WMO	42.00	290	eP	17 03.50	0.3
CHG	48.17	253	ePc	17 52.30	-0.4
	0.9s		9.24nm		4.8mb
GUN	51.41	272	P	18 17.00	-0.9
	0.5s		17.00nm		5.3mb
KKN	51.91	273	P	18 20.80	-0.7
PKI	51.95	272	P	18 21.00	-0.9
DMN	52.14	273	P	18 22.50	-0.8
GKN	52.23	273	P	18 23.00	-0.8
	0.5s		18.00nm		5.3mb
YKA	54.29	35	eP	18 45.60	7.3X
SUF	62.78	334	eP	19 36.00	-1.5
HYB	63.30	268	eP	19 39.50	-2.1
WB5	65.97	194	eP	20 00.00	1.3
			e	20 48.00	
HFS	68.48	337	eP	20 12.80	-1.3
	0.3s		1.00nm		4.4mb
NAO	68.65	339	P	20 14.40	-0.8
	0.9s		3.70nm		4.5mb
KHC	77.87	331	P	21 09.60	0.4
KBA	79.71	330	ePd	21 20.00	0.5
	1.0s		5.60nm		4.5mb
SMF	83.13	336	eP	21 38.70	1.5
	0.9s		9.80nm		4.9mb
AVF	83.14	336	eP	21 38.70	1.5
	0.8s		4.50nm		4.6mb
LPG	83.29	334	eP	21 38.90	0.5
MAF	83.88	337	eP	21 42.70	1.7
	0.8s		8.50nm		5.0mb

S.D. = 1.1 on 32 of 34 obs.

? MAR 19, 1989 16h 32m 23.32± 1.04s
39.172 N ± 9.5km 23.401 E ±13.1km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 2.9 (ATH).

NEO	0.19	314	iPbd	32 28.60	1.0
PLG	1.20	2	iPnc	32 44.20	-1.5
ATH	1.22	168	ePn	32 45.40	-0.7
PRK	2.23	87	ePn	33 02.00	1.1
VAY	2.24	344	ePn	33 01.00	0.0

S.D. = 1.6 on 5 of 5 obs.

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* MAR 19, 1989 16h 35m 19.71± 1.89s
47.899 N ±21.2km 114.010 W ±10.4km
DEPTH = 5.0km (geophysicist)
MONTANA (456)
ML 3.0 (BUT).

HRY	1.90	128	iPnd	35 53.60	0.4
BUT	2.13	152	ePg	36 00.10	3.5X
			eSn	36 25.80	
			iSg	36 29.60	
LRM	2.34	152	ePn	36 00.00	0.3
DPW	2.82	271	eP	36 05.70	-0.7
BGMT	2.99	152	ePn	36 08.90	0.0
CCMT	3.09	165	ePn	36 10.50	0.3
MEMT	3.10	137	ePn	36 10.40	-0.1
LNOR	3.56	237	e(P)	36 18.00	1.1
HPI	4.24	171	e(P)	36 25.20	-1.4

S.D. = 0.9 on 8 of 9 obs.

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* MAR 19, 1989 18h 14m 55.82± 0.84s
39.281 N ± 7.6km 23.403 E ±10.3km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.1 (ATH).

NEO	0.14	281	iPgd	14 59.50	0.3
PLG	1.09	2	iPbc	15 15.40	-1.0
ATH	1.33	169	ePb	15 18.00	-2.3
KZN	1.62	310	ePn	15 24.50	-0.1
VAY	2.14	343	ePn	15 31.60	-0.4
PRK	2.23	90	ePb	15 34.90	1.6
ITM	2.40	209	ePb	15 37.40	1.6
OHR	2.71	313	iPn	15 42.80	2.6X
SKO	3.08	332	ePn	15 45.50	0.2

S.D. = 1.5 on 8 of 9 obs.

? MAR 19, 1989 18h 39m 14.24± 3.57s
15.585 S ±27.5km 173.644 W ±52.7km
DEPTH = 33.0km (normal)
5.4mb (10 obs.)
TONGA ISLANDS (173)

19d 18h

SGE	8.33	255	iPd	42	06.10	50.3X
DZM	19.91	248	iPd	43	49.90	3.7X
COO	34.88	239	iPd	46	04.70	-0.1
	0.6s	30.00nm			5.4mb	
RMO	36.61	246	iPd	46	18.60	-0.9
	0.7s	40.00nm			5.4mb	
		e		46	33.00	
CTA	38.37	257	iPd	46	35.00	0.7
	0.7s	89.04nm			5.7mb	
		e(S)		50	53.00	
CNB	38.45	232	iPc	46	35.80	0.9
	0.5s	78.00nm			5.8mb	
PMG	38.72	274	eP	46	44.50	7.2X
CAN	38.73	232	eP	46	37.00	-0.2
BWA	38.87	234	eP	46	37.40	-1.1
CMS	40.13	239	iPd	46	48.50	-0.4
TOO	42.17	231	eP	47	06.30	0.8
	0.8s	33.00nm			5.1mb	
TAU	43.02	223	eP	47	14.00	1.6
STK	43.74	240	iPd	47	18.60	0.2
	0.4s	15.00nm			5.1mb	
WB5	49.55	257	iPd	48	04.20	-0.1
WRA	49.57	257	Pd	48	03.50	-1.0
	0.5s	13.70nm			5.2mb	
ASPA	49.83	252	iPd	48	06.10	-0.4
	0.7s	178.00nm			6.2mb	
MTN	53.48	265	iPc	48	35.90	1.9
KNA	55.29	261	eP	48	48.00	0.8
COOL	61.07	243	iPd	49	26.30	-1.3
	0.4s	12.00nm			5.4mb	
MBL	62.99	254	iPd	49	40.70	0.2
	0.4s	12.00nm			5.4mb	
MEKA	63.60	248	eP	49	44.00	-0.5
KLB	63.94	242	iPd	49	46.20	-0.5
NWAO	64.32	241	eP	49	49.00	-0.2
BAL	64.90	243	eP	49	52.60	-0.3
MUN	65.24	242	eP	49	55.00	-0.1
S.D. = 0.9 on 22 of 25 obs.						

% MAR 19, 1989 18h 59m 53.66± 0.96s
39.242 N ± 7.7km 23.672 E ± 9.4km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 2.9 (ATH).

NEO	0.35	281	ePb	00	00.60	-0.4
PLG	1.14	351	iPnc	00	16.10	1.0
ATH	1.27	178	ePn	00	17.50	0.3
KZN	1.81	307	ePb	00	25.00	-0.2
PRK	2.02	89	ePn	00	34.00	5.9X
RDO	2.38	36	ePn	00	32.50	-0.8
S.D. = 1.0 on 5 of 6 obs.						

% MAR 19, 1989 19h 13m 05.92± 0.95s
39.311 N ± 7.8km 23.539 E ± 9.6km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 2.9 (ATH).

NEO	0.24	269	iPbd	13	11.30	0.2
PLG	1.06	356	iPnc	13	27.10	1.1
ATH	1.34	174	ePn	13	30.90	0.3
KZN	1.69	307	ePb	13	34.80	-0.8
PRK	2.12	91	ePn	13	47.10	5.2X
RDO	2.39	39	ePn	13	45.00	-0.7
S.D. = 1.1 on 5 of 6 obs.						

% MAR 19, 1989 19h 27m 06.41± 0.94s
39.223 N ± 9.6km 23.393 E ±10.7km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 2.9 (ATH).

NEO	0.16	303	iPgd	27	10.30	0.2
PLG	1.15	2	iPbc	27	26.40	-1.5
ATH	1.27	168	ePb	27	29.00	-1.0
KZN	1.65	311	ePb	27	35.50	-0.2
VAY	2.19	344	ePn	27	42.60	-0.7
PRK	2.24	88	ePn	27	45.50	1.5
OHR	2.74	314	ePn	27	53.00	1.7
S.D. = 1.5 on 7 of 7 obs.						

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* MAR 19, 1989 19h 30m 42.97± 1.29s
41.290 N ±11.7km 20.039 E ± 7.7km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
ML 2.4 (SKO).

TIR	0.14	293	iPgd	30	46.00	-0.3
LACI	0.43	324	iPgd	30	51.60	0.0
PHP	0.50	37	iPgd	30	52.20	-0.9
OHR	0.60	107	iPgd	30	53.90	-1.2
			iSg	31	03.20	
PUK	0.76	352	ePg	30	58.30	0.5
SKO	1.25	57	ePg	31	06.30	0.1
			i	31	08.00	
			iSg	31	24.00	
VAY	1.91	88	ePn	31	17.70	1.9
S.D. = 1.3 on 7 of 7 obs.						

? MAR 19, 1989 20h 03m 13.83± 2.09s
39.278 N ± 9.7km 22.874 E ±18.2km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 2.9 (ATH).

NEO	0.27	84	iPgd	03	19.30	-0.3
PLG	1.18	22	iPbc	03	35.80	-0.1
KZN	1.33	321	ePg	03	48.20	9.7X
ATH	1.46	153	ePb	03	40.10	-0.1
OHR	2.42	320	ePn	04	04.50	10.3X
PRK	2.64	90	ePb	03	57.60	0.4
S.D. = 0.5 on 4 of 6 obs.						

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* MAR 19, 1989 21h 58m 32.91± 0.87s
39.248 N ± 8.6km 23.424 E ± 9.2km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.1 (ATH).

NEO	0.17	291	ePg	58	32.00	-4.7X
PLG	1.12	1	ePg	58	53.90	-0.1
ATH	1.29	170	ePb	58	52.40	-4.5X
KZN	1.66	310	ePn	59	01.70	-0.5
VAY	2.17	343	ePn	59	05.30	-4.3X
PRK	2.21	89	ePb	59	11.00	0.8
EZN	2.32	75	ePn	59	07.00	-4.7X
ITM	2.38	210	ePb	59	11.90	-0.7
VLS	2.46	245	ePb	59	14.40	0.7
RDO	2.49	40	ePn	59	12.00	-2.1
OHR	2.74	314	ePn	59	22.00	4.2X
SKO	3.11	332	ePn	59	23.00	0.1
MGR	6.13	281	P	00	01.70	-4.1X
			eSn	01	18.50	
MLR	6.51	16	eP	00	13.00	1.8
S.D. = 1.4 on 8 of 14 obs.						

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* MAR 19, 1989 22h 03m 22.07± 0.71s
37.168 N ±11.8km 71.656 E ±10.0km
DEPTH = 33.0km (normal)
4.6mb (4 obs.)
AFGHANISTAN-USSR BORDER REGION (717)

QUE	7.99	211	eP	05	21.10	2.2
			eS	06	32.00	
NDI	9.66	150	eP	05	41.00	-0.9
	0.5s	10.56nm			5.3mb	
			eS	07	16.20	
MAIO	9.80	269	iPc	05	42.30	-1.6
	0.6s	7.01nm			5.1mb X	
			eS	07	23.00	
GKN	14.24	126	P	06	43.00	-0.6
	0.5s	20.00nm			5.0mb	
KKN	14.81	125	P	06	50.20	-0.8
DMN	14.82	126	P	06	51.90	0.7
PKI	15.04	126	P	06	53.80	-0.3
GUN	15.12	124	P	06	55.10	-0.1
HFS	42.87	321	eP	11	17.60	-0.9
	0.4s	1.20nm			4.0mb	
NAO	44.34	322	P	11	29.20	-1.3
	0.7s	2.40nm			4.1mb	
MBC	66.65	3	eP	14	12.00	1.1
YKA	80.56	3	eP	15	34.60	2.6
S.D. = 1.5 on 12 of 12 obs.						

& MAR 19, 1989 22h 16m 46.37s
12.143 N 86.937 W
DEPTH = 43.6km
NICARAGUA (75)
<HDC>. MD 4.6 (HDC).

RIN3	2.03	131	ePd	17	16.50	-2.4
			S	17	40.00	
JUD	2.39	145	iPd	17	22.70	-1.4
			S	17	50.50	
AR6	2.61	130	iPc	17	24.50	-2.7
JTS	2.68	133	ePd	17	25.40	-2.7
			S	17	56.00	
CAO	3.02	143	ePd	17	30.80	-2.1
			S	18	05.70	
EPA	3.14	133	iPc	17	31.80	-2.8
			S	18	07.60	
SRA	3.19	130	iPc	17	33.10	-2.3
HDC2	3.47	127	ePc	17	36.50	-2.9
SJS	3.58	127	iPd	17	38.80	-2.2
IRZ2	3.68	126	ePd	17	39.00	-3.7
ICR	3.73	125	iP	17	39.50	-3.9
LCR2	3.74	129	iPd	17	39.70	-3.6
OPS	3.87	134	ePd	17	42.40	-2.6
BUS	4.04	129	eP	17	44.00	-3.8
			S	18	32.00	
IDC	4.55	138	ePc	17	51.20	-3.4
15 obs. associated						

? MAR 19, 1989 22h 18m 15.65± 0.94s
39.142 N ± 9.8km 23.310 E ±12.7km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.0 (ATH).

NEO	0.18	338	iPgd	18	19.20	-0.5
ATH	1.21	165	ePb	18	38.00	-0.2
PLG	1.24	5	iPbc	18	35.50	-3.1X
KZN	1.66	315	ePb	18	45.50	0.5
VAY	2.25	346	ePn	19	02.00	8.6X
PRK	2.30	86	ePb	18	54.40	0.2
MLR	6.64	16	iPc	19	24.50	-31.2X
S.D. = 0.7 on 4 of 7 obs.						

% MAR 19, 1989 22h 45m 54.00± 0.77s
43.741 N ±19.0km 3.963 E ± 7.0km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
ML 2.6 (LDG).

LRG	1.77	98	Pg	46	24.40	-0.4
			Sg	46	48.80	
CAF	1.81	312	Pn	46	25.40	0.0
			Pg	46	29.90	
			Sg	46	55.80	
LMR	1.90	102	Pg	46	26.80	0.1
			Sg	46	50.60	
FRF	1.96	94	Pg	46	27.80	0.2
			Sg	46	54.40	
RJF	2.35	313	Pg	46	40.00	6.8X
			Sg	47	12.60	
EPF	2.73	256	Pg	46	38.80	0.0
			Sg	47	10.60	
LSF	3.05	326	Pg	46	53.80	10.7X
			Sg	47	37.80	
S.D. = 0.3 on 5 of 7 obs.						

? MAR 19, 1989 23h 09m 21.79± 0.94s
39.097 N ± 8.6km 23.526 E ±12.5km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 2.9 (ATH).

NEO	0.31	312	iPgd	09	24.50	-3.8X
ATH	1.13	172	ePb	09	43.00	0.0
KZN	1.81	312	ePg	09	53.00	-0.4
PRK	2.14	85	ePb	10	03.60	5.6X
VAY	2.34	342	ePn	09	56.50	-4.4X
RDO	2.56	36	ePn	10	04.00	0.0
OHR	2.90	315	ePn	10	09.30	0.4
S.D. = 0.5 on 4 of 7 obs.						

MAR 19, 1989 23h 42m 45.00± 0.60s
39.260 N ± 6.1km 23.479 E ± 5.3km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.3 (ATH).

NEO	0.20	283	iPgd	42	51.00	1.5
PLG	1.11	359	iPbc	43	06.50	0.6
ATH	1.30	172	ePb	43	07.70	-1.3
KZN	1.68	309	ePb	43	13.50	-1.1
PRK	2.17	89	ePb	43	24.10	2.5
VAY	2.17	342	iPn	43	23.20	1.5
EZN	2.27	75	ePn	43	22.00	-1.1
MMB	2.33	5	iPc	43	24.00	-0.1
ITM	2.41	211	ePn	43	26.00	0.9

RDO	2.46	39	ePn	43 24.00	-1.7	
VLS	2.51	245	ePb	43 30.10	3.7X	
RZN	2.60	21	iPc	43 27.00	-1.0	
KKB	2.62	354	iPc	43 28.00	-0.1	
OHR	2.76	313	iPn	43 31.30	1.1	
KDZ	2.81	31	iPd	43 29.00	-1.8	
IZM	3.08	105	ePn	43 36.00	1.4	
SKO	3.12	331	ePn	43 35.50	0.3	
BNT	3.59	71	ePn	43 41.00	-0.9	
LCI	4.39	286	P	43 52.20	-1.0	
MGR	6.17	281	P	44 16.70	-1.7	
MLR	6.49	16	ePc	44 25.50	2.5	
BZS	6.50	348	ePc	44 21.50	-1.5	
VRI	7.03	19	ePd	44 31.00	0.6	
SDI	7.76	291	P	44 41.00	0.2	
			eSn	46 04.70		

S.D. = 1.4 on 23 of 24 obs.

MAR 20, 1989 01h 06m 32.90± 0.12s
59.883 N ± 2.5km 153.692 W ± 1.8km
DEPTH = 126.5km (44 depth phases)
5.1mb (52 obs.)
SOUTHERN ALASKA (2)
mb 5.7 (BRK). Felt (IV) at Homer, Kodiak, Ninilchik and Soldotna; (III) at Anchorage, Eagle River, Palmer and Wasilla.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 16S, 34C
Centroid Locotion:
Origin Time 01:06:37.9 0.5
Lot 59.78N 0.05 Lon 154.01W 0.08
Dep 137.8 1.7 Half-durotion 1.9
Moment Tensor; Scale 10**17 Nm
Mrr= 0.73 0.05 Mtt=-1.32 0.09
Mff= 0.59 0.08 Mrt=-0.01 0.06
Mrf= 1.02 0.05 Mtf=-0.14 0.07
Principal Axes:

	Val=	Plg=	Azm=
T	1.68	47	267
N	-0.35	43	82
P	-1.34	2	175

Best Double Couple:Mo=1.5*10**17
NP1:Strike=300 Dip=57 Slip= 144
NP2: 51 61 39

PDB	0.27	250	iP	06 51.94	2.8	
ILIM	0.42	61	iP	06 52.50	1.1	
RDT	0.94	42	iP	06 57.05	1.7	
			eS	07 14.30		
NNL	1.22	81	iP	06 59.05	1.1	
CNPM	1.30	105	iP	06 58.04	-0.8	
			iS	07 16.93		
NKA	1.50	54	iP	07 03.97	2.9	
SPU	1.53	31	Pn	07 03.71	2.1	
			eS	07 25.51		
SVW	1.56	323	iPd	07 04.90	3.1X	
CRP	1.58	28	iP	07 04.80	2.5	
CGLM	1.65	29	iP	07 05.39	2.4	
SLKM	1.84	69	iP	07 05.02	-0.2	
			eS	07 28.90		
SEW	2.14	82	iP	07 07.99	-0.9	
			iS	07 34.06		
SUA	2.15	41	iP	07 10.00	0.9	
KDC	2.23	163	iPd	07 07.20	-2.8	
SKT	2.35	26	iP	07 13.84	2.2	
			eS	07 45.70		
PMS	2.46	54	iPc	07 13.70	0.7	
PTE	2.52	65	iP	07 13.59	-0.1	
PWA	2.58	45	iPd	07 15.40	0.9	
PLRM	2.82	51	iP	07 17.55	-0.1	
PMR	2.82	51	iPd	07 17.60	0.0	
PWL	2.84	67	iP	07 17.20	-0.7	
PME	2.88	51	iP	07 18.52	0.1	
GHO	3.01	49	iP	07 20.27	0.1	
MTU	3.04	85	iP	07 24.39	3.8X	
TTA	3.26	341	iPd	07 25.90	2.4	
SML	3.26	51	iP	07 23.30	-0.2	
HIN	3.63	79	iP	07 27.12	-1.4	
VZW	3.73	68	iP	07 28.47	-1.3	
MID	3.76	94	ePc	07 28.30	-1.8	
VLZ	3.85	68	eP	07 30.17	-1.1	
CVA	4.02	77	iP	07 32.15	-1.5	
KLU	4.15	64	iP	07 34.71	-0.8	
			eS	08 20.42		
SGAM	4.28	78	iP	07 35.64	-1.6	
TOA	4.29	55	ePd	07 37.60	0.3	
RAGM	4.54	80	iP	07 39.14	-1.6	
HMT	4.74	80	eP	07 41.68	-1.8	
GLB	5.11	68	iP	07 47.50	-0.9	
WAX	5.44	79	eP	07 51.16	-1.8	
FBA	5.73	26	iPd	07 56.60	-0.3	
SDN	5.84	222	ePd	07 56.30	-2.0	
IMA	6.21	0	iPd	08 05.80	2.2	
BCPM	7.07	83	iP	08 13.42	-1.7	
YKU	7.07	87	iPc	08 14.20	-0.9	
DWY	7.91	52	P	08 26.10	-0.3	
HYT	8.08	76	P	08 27.70	-1.2	
SIT	10.02	98	eP	08 51.10	-3.6X	
BRW	11.54	355	ePd	09 14.40	-0.2	
INK	12.14	38	eP	09 21.00	-1.5	
ADK	15.12	248	ePc	10 00.90	0.2	
YKA	18.82	65	eP	10 43.40	-1.5	
YKC	18.88	65	iPd	10 44.80	-0.8	
	0.8s		110.00nm		5.2mb	
			pP	11 08.00		
SMY	19.09	262	eP	10 46.80	-1.0	
	0.8s		459.77nm		5.9mb	
MBC	20.26	23	ePd	10 58.70	-1.0	
	0.8s		529.00nm		6.0mb	
PGC	20.73	109	ePc	11 15.80	11.2X	
PNT	22.13	103	eP	11 20.00	1.5	
	1.2s		214.00nm		5.4mb	
			pP	11 45.00	123km	
BMW	22.40	113	eP	11 23.00	1.8	
LON	22.86	111	eP	11 27.50	1.8	
EDM	22.91	89	iPd	11 27.30	1.3	
	1.3s		971.00nm		6.0mb	
			pP	11 51.00	113kmX	
SES	25.73	93	ePd	11 53.50	0.8	
	1.1s		283.00nm		5.7mb	
			pP	12 20.00	126km	
FHC	26.54	123	eP	12 01.80	1.6	
			epP	12 29.50	131km	
LBFM	27.00	119	eP	12 06.00	1.4	
			epP	12 33.50	129km	
WDC	27.34	121	iPd	12 08.60	1.2	
			ipP	12 36.20	130km	
			iPcP	15 55.70		
			iScP	18 50.80		
FFC	27.79	78	iPd	12 11.50	0.1	
	0.8s		29.00nm		5.0mb	
MIN	27.94	120	iPd	12 13.70	0.7	
			ipP	12 41.30	130km	
			ePcP	15 23.80		
			iScP	18 52.70		
LRM	28.06	101	ePd	12 14.50	0.3	
			e	12 39.10	113kmX	
ORV	28.64	121	iPd	12 19.00	-0.1	
			ipP	12 46.60	129km	
			iPcP	15 25.20		
			ipPcP	15 58.80		
			iScP	19 04.70		
BRK	29.72	124	ePd	12 29.40	0.7	
			epP	12 57.40	130km	
BKS	29.73	124	ePd	12 29.50	0.7	
	1.0s		122.00nm		5.6mb	
			e	12 34.40		
			ipP	12 57.70	131km	
			e	13 00.50		
			ePcP	15 28.90		
			epPcP	16 00.20		
			esS	18 00.00		
			iSg	18 28.00		
			eScP	18 58.00		
			e	19 00.00		
CMB	30.39	121	iPd	12 35.30	0.7	
			ipP	13 03.20	129km	
			iPcP	15 30.40		
			ipPcP	16 03.20		
			iScP	19 00.70		
MHC	30.43	123	iPd	12 35.80	0.6	
			ipP	13 03.30	127km	
ARN	30.47	123	eP	12 36.00	0.6	
KVN	30.56	117	eP	12 37.00	0.7	
			epP	13 04.70	128km	
SAO	31.01	124	eP	12 40.00	0.0	
EUR	31.18	114	iP	12 42.50	0.7	
	0.8s		19.91nm		4.9mb	
ALE	31.30	15	eP	12 41.00	-1.2	
	0.8s		21.00nm		4.9mb	
LLA	31.34	123	iPd	12 44.00	1.0	
			ipP	13 12.00	129km	
PRS	31.41	124	iPd	12 44.40	0.9	
			ipP	13 12.30	128km	
			iPcP	15 33.40		
			ipPcP	16 06.20		
FRI	31.55	121	iPd	12 45.60	0.8	
			ipP	13 13.60	129km	
			iPcP	15 33.40		
			ipPcP	16 07.00		
			iScP	19 04.20		
BW06	31.70	103	ePd	12 46.70	0.4	
	1.0s		62.50nm		5.3mb	
TNP	31.74	117	eP	12 47.40	0.7	
	1.0s		36.67nm		5.1mb	
PRI	31.86	123	iPd	12 49.10	1.4	
			ipP	13 17.20	129km	
			iPcP	15 35.30		
			ipPcP	16 08.70		
CLC	33.46	120	eP	13 02.00	0.6	
			e	13 28.00	117km	
RSON	34.13	78	eP	13 07.30	0.3	
	0.8s		36.97nm		5.2mb	
			epP	13 34.80	124km	
SBB	34.31	121	eP	13 09.00	0.2	
			e	13 35.00	116kmX	
MWC	34.61	122	eP	13 12.00	0.5	
			e	13 40.00	127km	
PAS	34.62	122	eP	13 12.00	0.6	
			e	13 39.00	122km	
RVR	35.10	121	eP	13 15.00	-0.4	
			e	13 42.00	118km	
PEC	35.28	121	eP	13 17.00	0.0	
TPC	35.58	119	eP	13 20.00	0.5	
			e	13 46.00	113kmX	
PLM	35.87	121	eP	13 22.00	-0.1	
			e	13 49.00	118km	
BAR	36.52	121	eP	13 28.00	0.6	
			e	13 55.00	118km	
GLA	37.01	119	eP	13 32.00	0.5	
			e	13 57.00	108kmX	
FRB	37.59	47	eP	13 36.00	0.1	
	0.9s		208.00nm		6.0mb	
OPA	38.28	186	eP	13 42.50	0.3	
HON	38.65	186	eP	13 45.50	0.3	
GDH	39.18	34	eP	13 53.00	3.8X	
			i	14 18.00	108kmX	
ALO	39.32	108	ePd	13 51.60	0.7	
	1.1s		28.16nm		5.0mb	
			epP	14 18.00	116kmX	
			e	15 57.50		
			e	16 30.00		
			e	19 23.50		
KUSJ	40.22	274	P	13 57.10	-0.9	
ASAJ	40.52	277	eP	14 01.50	1.1	
DAG	40.69	14	iPc	14 01.00	-0.4	
	1.1s		68.35nm		5.3mb	
HOOJ	41.46	274	eP	14 08.10	0.0	
MRRJ	42.54	276	P	14 16.80	-0.1	
SCH	43.95	56	ePd	14 28.20	-0.1	
	0.7s		46.00nm		5.3mb	
OFUJ	44.74	272	P	14 35.50	0.7	
FVM	44.89	90	eP	14 35.30	-0.7	
			epP	15 04.00	125km	
YAMJ	46.26	273	P	14 47.20	0.4	
GAC	46.51	71	eP	14 48.50	-0.1	
			pP	15 18.00	129km	
MDJ	46.59	287	Pc	14 48.80	-0.5	
DHN	47.33	76	eP	14 55.00	-0.2	
			epP	15 24.50	128km	
NIIJ	47.50	273	P	14 56.90	0.4	
KAKJ	47.71	271	P	14 58.10	-0.1	
RSNY	47.82	71	eP	15 00.00	1.1	
CHJJ	48.43	272	P	15 04.20	0.5	
MAT	48.44	273	iPc	15 04.00	0.2	
MTMJ	48.61	273	P	15 05.10	-0.1	
CBM	49.04	65	eP	15 07.90	-0.4	
			epP	15 38.20	131km	
CN2	49.19	289	iPc	15 09.40	0.0	
			eS	22 04.00		
IIDJ	49.42	272	P	15 11.70	0.3	
TSRJ	50.35	274	P	15 18.80	0.5	
KEV	50.65	360	eP	15 24.00	3.8X	
CVL	50.89	80	eP	15 22.50	0.0	
			epP	15 52.10	127km	
CBN	51.26	79	eP	15 26.00	0.8	
SNY	51.58	289	iPc	15 27.80	0.2	
WKYJ	51.58	273	P	15 28.30	0.5	
YONJ	51.89	276	P	15 30.10	0.1	
PRM	52.00	86	eP	15 30.30	-0.6	

20d 01h

			epP	16	00.00	127km				i	18	15.50	129km		NDI	82.36	317	iPc	18	41.50	0.0
JSC	52.40	85	eP	15	33.30	-0.5				e	18	35.90				0.6s	140.00nm			6.0mb	
			epP	16	02.50	124km		AVF	72.04	16	eP	17	43.40	-0.8	KHI	82.59	333	ePc	18	43.70	0.9
TKSJ	52.55	274	P	15	35.60	0.7			0.6s	10.80nm			4.8mb		PMG	83.40	239	eP	18	46.00	-0.9
SHK	52.80	276	iPc	15	36.30	-0.5		GYA	72.13	292	P	17	45.00	-0.2	BDT	83.62	293	iPc	18	48.40	0.4
	0.9s	581.51nm				6.5mb X		BGF	72.20	17	eP	17	44.40	-0.8		0.8s	62.20nm			5.5mb	
SHNJ	53.91	277	iP+	15	44.70	-0.2			0.6s	9.90nm			4.8mb		RKT	84.11	163	iP	18	50.00	-0.2
DL2	54.79	288	P	15	51.00	-0.3		SMF	72.25	16	eP	17	44.70	-0.8		0.8s	40.00nm			5.3mb	
KUMJ	55.32	276	iP+	15	55.10	-0.1			0.9s	15.30nm			4.8mb		KHT	85.96	293	eP	19	00.00	0.3
KJF	56.23	359	iP	16	01.20	-0.1		LSF	72.30	18	eP	17	45.00	-0.8	ADI	87.09	353	iPd	19	07.00	1.9
	0.8s	24.90nm				5.2mb			0.6s	8.10nm			4.7mb		NNT	87.33	290	eP	19	06.00	-0.4
			i	16	31.90	129km		TCF	72.37	17	eP	17	45.50	-0.7	JARJ	87.88	352	P	19	08.40	-0.5
KAGJ	56.38	275	eP	16	02.40	-0.4			0.7s	7.00nm			4.5mb		DZM	87.91	217	iPc	19	08.10	-0.9
BJI	56.47	293	Pc+	16	03.50	0.2		PSZ	72.43	5	eP	17	46.00	-0.6	BURJ	87.91	352	P	19	07.90	-1.2
HHC	57.93	297	iPc	16	14.10	0.4		SRO	72.47	6	eP	17	46.40	-0.3	KFNJ	88.27	352	P	19	09.30	-1.4
BTO	58.82	298	iPc	16	19.80	-0.1					i	18	19.10	132km	MASJ	88.40	352	P	19	10.30	-1.1
NAO	59.03	9	P	16	19.00	-2.0					i	18	40.00		DSI	88.58	352	eP	19	12.00	-0.2
	0.9s	6.40nm				4.6mb		MAF	72.48	17	eP	17	46.30	-0.6	MBH	90.40	353	e(P)	19	20.00	-0.7
TIA	59.09	290	Pc	16	20.70	-1.0			0.7s	5.50nm			4.4mb		SNG	91.61	287	eP	19	27.00	0.6
HFS	59.92	7	eP	16	25.30	-1.7		SOP	72.50	7	eP	17	46.40	-0.5		0.9s	67.23nm			5.8mb	
	0.9s	10.20nm				4.8mb		KSH	72.91	322	P	17	51.40	1.8	HYB	92.17	311	eP	19	27.80	-1.3
TIY	60.07	294	iPc	16	28.00	-0.4		FVI	73.31	10	P	17	51.40	-0.1		0.8s	46.20nm			5.8mb	
	1.0s	0.20nm				3.1mb X		LFF	73.45	19	eP	17	52.10	-0.3	CTA	93.34	235	iPc	19	34.20	0.1
N	15s	0.50um						RBL	73.52	9	P	17	52.30	-0.7		1.0s	111.50nm			6.1mb X	
			S	24	33.00			VAI	73.64	13	Pd	17	53.50	0.0	GBA	96.08	310	Pd	19	44.50	-2.5
UPP	60.40	5	eP	16	29.70	-0.6		CAF	73.67	18	eP	17	53.30	-0.5		0.7s	40.50nm			6.0mb	
			i	16	52.30	90kmX			0.7s	4.80nm			4.4mb		PSI	96.33	286	iPc	19	47.50	-0.5
SSE	61.28	283	Pd	16	36.40	-0.2		CTI	73.75	11	P	17	52.80	-1.5		0.6s	78.30nm			6.4mb X	
	1.3s	236.00nm				6.0mb		LPO	73.77	18	eP	17	53.70	-0.6	WB5	98.32	245	eP	19	55.30	-1.5
			e	25	44.00				1.0s	20.00nm			4.8mb		WRA	98.39	245	Pc	19	55.10	-2.0
NJ2	61.64	285	Pc	16	38.60	-0.4		VOY	73.96	9	e(P)	18	02.30	6.8X		1.0s	6.80nm			5.2mb	
GTA	64.21	304	iPc	16	55.90	-0.1		PTJ	74.24	7	eP	17	55.90	-1.2	KOD	99.14	309	eP	20	02.00	0.8
	1.0s	1.00nm				3.7mb X		VRI	74.61	360	ePc	18	01.00	1.9	BNG	115.59	9	iPKPd	24	59.60	-1.8X
XAN	64.70	294	iPc	16	58.50	-0.6		TPT	74.77	174	iP	18	00.10	-0.1		0.3s	10.00nm				
WHN	65.05	288	iPc	17	01.40	0.1			0.9s	45.00nm			5.2mb		KLB	116.06	252	ePKP	25	00.00	-1.7X
	1.0s	0.35nm				3.2mb X		PMO	74.77	174	iP	18	00.30	0.0	MUN	117.12	253	iPKPd	25	02.00	-1.7X
WMQ	65.10	316	iPc	17	02.20	0.6			0.9s	30.00nm			5.1mb		NWAO	117.41	251	iPKPd	25	02.70	-1.5X
	1.5s	0.10nm				2.5mb X		BZS	74.79	3	eP	18	00.00	-0.2	RKG	118.45	251	ePKP	25	05.00	-1.2X
		PcP	17	33.00				BOB	74.80	12	P	18	00.20	-0.1	SBA	139.60	192	ePKP	25	48.00	2.9X
		S	25	27.00				RUV	74.98	174	iP	18	01.40	-0.1				PP	29	08.80	
LZH	65.28	299	iPc	17	02.50	-0.4			0.9s	45.00nm			5.2mb		BUL	140.27	357	ePKP	25	41.40	-6.8X
	1.5s	166.00nm				5.7mb		MLR	74.99	0	eP	18	03.50	2.0	SLR	145.84	357	iPKPc	25	57.60	-0.1
WTS	67.37	13	eP	17	27.00	11.3X		VAH	75.02	174	iP	18	01.50	-0.2		0.8s	63.43nm				
	1.0s	25.00nm							0.9s	45.00nm			5.2mb					i	29	24.20	
			e	17	46.50	74kmX		GZR	75.05	3	ePd	18	07.00	5.3X	KSR	146.00	359	iPKPc	25	57.70	-0.3
QZH	67.64	281	eP	17	16.80	-1.0		KMI	75.09	294	Pc	18	02.00	-0.5		1.1s	60.81nm				
ENN	68.48	14	eP	17	22.50	-0.1		CMP	75.20	1	ePc	18	03.00	0.4	PRY	147.05	358	ePKP	25	59.00	-0.6
	1.0s	32.00nm				5.1mb		CFR	75.28	359	ePd	18	04.50	1.6		0.7s	27.50nm				
			e	17	53.00	123km		SBF	75.46	14	eP	18	03.80	-0.3				i	26	01.30	
CLL	68.64	9	eP	17	23.00	-0.6		BDI	75.61	12	P	18	05.50	0.5	SWZ	147.30	2	iPKPd	25	55.00	-5.0X
			i	17	54.10	126km		TLB	75.88	359	eP	18	07.50	1.2		1.0s	100.00nm				
MEM	68.64	14	P	17	25.20	1.6		PGD	75.91	11	P	18	07.60	0.8	SPA	149.71	180	e(PKP)	26	05.00	2.5X
			e	17	54.40	117km		FIR	75.96	11	eP	18	07.00	0.2		1.0s	185.00nm				
DOU	68.97	15	P	17	25.60	-0.1		LSA	76.16	306	P	18	10.00	1.2				i	26	40.80	
			e	17	56.30	124km		ASS	76.79	10	P	18	13.40	1.8	FRS	149.86	2	iPKPd	26	04.00	0.4
MOX	69.19	10	eP	17	26.00	-1.0		QIZ	76.93	285	eP	18	13.20	0.6		1.0s	160.00nm				
	1.0s	17.00nm				4.8mb		MNS	77.48	10	P	18	14.00	-1.3				i	26	10.00	
			ipP	17	58.00	130km		TOL	77.49	23	eP	18	17.00	1.6	TUH	152.99	13	ePKP	26	07.00	-1.1X
KSP	69.33	7	eP	17	27.20	-0.7		AZI	77.94	10	P	18	17.60	-0.1		1.0s	40.00nm				
	1.2s	51.00nm				5.2mb		SDI	78.25	10	Pd	18	19.00	-0.6	CER	153.07	13	ePKP	26	21.50	13.2X
			id	17	28.20	3kmX		DUI	78.35	9	P	18	20.60	0.5		0.8s	31.25nm				
			ic	17	59.20			SKO	78.43	4	iP	18	20.60	0.1		S.D. = 1.0 on 253 of 274 obs.					
CD2	69.68	297	iPc	17	30.00	-0.4					i	18	52.80	127km	----------						
PRU	70.07	8	eP	17	32.00	-0.4		KVT	79.08	353	iP	18	24.40	0.3	* MAR 20, 1989 01h 22m 12.28± 1.17s						
			e	18	03.00	125km		VAY	79.11	3	eP	18	24.00	-0.1	39.237 N ± 8.3km 23.528 E ±14.1km						
LPF	70.16	19	eP	17	32.50	-0.4		OHR	79.26	4	iP	18	23.80	-1.3	DEPTH = 10.0km (geophysicist)						
KRA	70.30	4	eP	17	33.00	-0.7			1.2s	0.08nm			2.4mb X		AEGEAN SEA					(365)	
			e	18	04.80	128km					i	18	56.90	131km	ML 2.9 (ATH).						
KHC	70.85	9	iPd	17	38.00	0.8		SLB	79.49	81	eP	18	27.86	1.2							
	1.0s	10.50nm				4.6mb		SVV	79.84	81	eP	18	28.36	-0.1	NEO	0.25	287	iPgd	22	16.70	-0.8
			i	18	09.00	125km					e	18	34.94	21kmX	PLG	1.14	357	iPbc	22	33.00	-0.6
CDF	70.96	13	eP	17	37.40	-0.5		SSV	79.84	81	eP	18	28.01	-0.6	ATH	1.27	173	ePb	22	35.80	-0.1
SPC	71.18	4	eP	17	39.00	-0.3		SVB	79.86	81	eP	18	34.94	6.4X	KZN	1.73	309	ePg	22	44.00	1.4
			i	18	10.90	129km		GUN	79.86	309	P	18	29.40	0.5	PRK	2.13	89	ePb	22	52.60	4.2X
HAU	71.25	14	eP	17	39.00	-0.5		MGR	79.94	8	Pd	18	27.80	-0.8	VAY	2.21	341	ePn	22	49.40	-0.1
	0.5s	4.90nm				4.6mb		JAY	80.18	247	ePc	18	28.50	-1.8	OHR	2.81	313	ePn	23	03.50	5.4X
BSF	71.47	14	eP	17	40.50	-0.5			1.0s	97.00nm			5.5mb		S.D. = 1.2 on 5 of 7 obs.						
LOR	71.65	16	eP	17	41.30	-0.6		KKN	80.20	310	P	18	31.20	0.7	----------						
	0.7s	10.30nm				4.7mb		GKN	80.26	310	P	18	31.40	0.7	* MAR 20, 1989 01h 39m 12.06± 2.92s						
MFF	71.69	19	eP	17	41.60	-0.5		MAIO	80.33	333	iPc	18	31.40	0.5	10.387 N ±19.4km 62.178 W ±16.3km						
	1.1s	19.50nm				4.8mb			1.0s	12.50nm			4.6mb		DEPTH = 10.0km (geophysicist)						
GZH	71.78	284	Pc	17	42.80	-0.2					eS	28	28.00		NEAR COAST OF VENEZUELA					(97)	
SSF	71.80	16	eP	17	42.30	-0.5		PKI	80.35	309	P	18	32.00	0.6	ML 4.6 (FDF). MD 4.1 (TRN).						
	0.7s	12.10nm				4.8mb		DMN	80.43	310	P	18	32.60	0.8							
LBF	71.94	16	eP	17	42.90	-0.8		BBTK	80.49	355	iPc	18	32.00	0.3	TCE	0.52	54	iPc	39	22.56	0.0
	0.7s	5.50nm				4.4mb		SGE	80.57	207	ePd	18	32.50	0.2	TPP	0.72	95	iP	39	25.98	-0.2
ZST	72.02	6	eP	17	43.40	-0.7		TAB	81.01	344	eP	18	35.00	0.5				eS	39	36.83	

```
TRN     0.81  71 iPd   39 26.70  -1.0
                 eS    39 40.70
TBH     1.10  85 iP    39 33.09   0.4
                 eS    39 53.33
PIG     1.52  60 eP    39 40.17   0.9
                 eS    40 03.82
FCV     2.90  18 eP    39 59.47   0.3
SVB     3.01  17 eP    40 00.53  -0.1
                 eS    40 43.70
SVV     3.06  18 eP    40 01.47   0.1
                 eS    40 44.13
SSV     3.08  18 eP    40 03.62   1.9
SLB     3.59  18 eP    40 08.58  -0.5
                 eS    40 50.81
BIM     4.24  15 eP    40 17.85  -0.4
MVM     4.33  17 eP    40 19.21  -0.2
FDF     4.43  13 eP    40 20.02  -1.0
                 S     41 09.00
DSC     4.86   9 eP    40 28.77   1.8
DSVT    4.88   9 eP    40 26.49  -0.7
DTMT    4.88   9 eP    40 26.62  -0.7
                 eS    41 26.58
DPMT    4.90   9 eP    40 26.98  -0.6
                 eS    41 26.62
ATB    16.82 143 Pc    43 01.10  -8.2X
     S.D. = 0.9  on  17 of  18 obs.
-----------------------------------------
   MAR  20, 1989  01h 55m 57.85± 0.92s
   39.210 N ± 7.5km   23.612 E ± 9.2km
   DEPTH =  10.0km  (geophysicist)
 AEGEAN SEA                      (365)
     ML 2.9 (ATH).

NEO     0.32 288 iPbd  56 03.90  -0.5
PLG     1.17 354 iPnc  56 19.60  -0.1
ATH     1.24 176 ePn   56 20.90   0.0
KZN     1.79 308 ePb   56 28.50  -0.6
PRK     2.07  88 ePn   56 37.00   4.0X
RDO     2.43  37 ePn   56 38.00  -0.2
OHR     2.87 312 ePn   56 46.00   1.4
     S.D. = 1.0  on   6 of   7 obs.
-----------------------------------------
   MAR  20, 1989  02h 34m 06.15± 0.93s
   39.236 N ± 7.7km   23.603 E ± 9.2km
   DEPTH =  10.0km  (geophysicist)
 AEGEAN SEA                      (365)
     ML 3.0 (ATH).

NEO     0.30 284 iPgd  34 11.50  -1.0
PLG     1.14 354 iPbc  34 27.20  -0.4
ATH     1.27 176 ePb   34 29.70   0.1
KZN     1.77 308 ePb   34 37.20   0.1
PRK     2.07  89 ePb   34 46.50   5.1X
VAY     2.23 340 ePn   34 33.60 -10.0X
RDO     2.42  37 ePn   34 46.00  -0.3
OHR     2.85 312 ePn   34 54.00   1.4
     S.D. = 1.0  on   6 of   8 obs.
-----------------------------------------
   MAR  20, 1989  02h 36m 50.33± 0.21s
   24.240 N ± 3.8km  125.174 E ± 3.4km
   DEPTH =  29.3km  ( 21 depth phases)
   5.3mb ( 34 obs.)  5.4Msz (  3 obs.)
 SOUTHWESTERN RYUKYU ISLANDS     (246)
      Felt (II JMA) on Miyako-jimo.
      CENTROID, MOMENT TENSOR    (HRV)
      Doto Used: GDSN
      L.P.B.: 11S, 21C
      Centroid Locotion:
      Origin Time        02:36:53.5 0.8
      Lat 23.96N 0.09 Lon 124.67E 0.14
      Dep  63.1 6.5 Holf-durotion  1.7
      Moment Tensor;   Scole 10**16 Nm
        Mrr= 5.88 1.01  Mtt=-4.57 1.24
        Mff=-1.31 1.97  Mrt= 4.44 0.97
        Mrf= 4.18 0.87  Mtf=-8.10 1.15
       Principol Axes:
        T  Val=  7.89  Plg=70  Azm=293
        N        5.26      8       48
        P      -13.15     18      140
      Best Double Couple:Mo=1.1*10**17
       NP1:Strike=244 Dip=28 Slip= 108
       NP2:         43    63       81

MYK     0.55  10 iPd   37 01.70   0.2
                 iS    37 09.70
TWC     3.05 278 iPc   37 38.00   0.3
                 eS    38 20.00

TWD     3.27 268 ePd   37 41.00   0.2
ANP     3.46 287 eP    37 48.20   4.6X
TWF1    3.66 257 iPd   37 45.00  -1.3
QZH     6.03 278 eP    38 18.80  -1.1
      Z  16s      8.30um
      N  12s      1.60um
      E  12s      7.10um
                   S    39 41.00
SSE     7.69 334 eP    38 42.30  -0.8
      Z  16s      9.80um
      N  12s      7.10um
      E  12s      6.30um
BAG     8.90 210 eP    39 01.40   1.2
NJ2     9.57 326 eP    39 09.00  -0.2
      N  13s      7.00um
      E  11s      4.70um
HKC    10.30 261 ePc   39 18.00  -1.2
                  (S)  41 22.00
QCP    10.30 203 eP    39 13.00  -6.3X
GZH    10.90 266 eP    39 27.50   0.0
      N  14s      5.20um
      E  16s     10.70um
                   eS   41 38.00
WHN    11.48 306 Pc    39 37.00   1.7
      Z  16s     13.20um
      N  12s      4.39um
      E  12s      6.10um
TIA    13.80 332 eP    40 09.80   3.5X
      Z  14s      7.50um
      N  14s      6.30um
      E  14s      4.50um
                   S    42 47.00
TSRJ   14.64  37 eP    40 08.00  -9.2X
DL2    14.93 349 eP    40 22.00   1.0
      Z  12s      3.40um
      N  11s      3.40um
      E  11s      2.40um
                   eS   43 10.00
QIZ    15.16 253 eP    40 30.50   6.3X
      Z  17s      4.30um
      N  21s      3.70um
      E  23s      3.90um
                   eS   43 25.00
IIDJ   15.72  42 eP    40 37.80   6.5X
MTMJ   16.41  39 P     40 43.80   3.6X
MAT    16.62  39 iPd   40 44.40   1.7
       1.0s    61.00nm          4.7mb
                   eS   43 56.00
CHJJ   16.75  42 P     40 46.80   2.4
GYA    16.88 281 P     40 49.00   2.8
      E  12s      7.10um
DAV    17.06 179 eP    41 02.10  13.7X
XAN    17.21 308 Pd    40 51.60   1.3
       6.0s    1.00nm          2.1mb X
      N  13s      3.30um
      E  14s      7.10um
TIY    17.29 324 iPc   40 53.00   1.8
      N  14s      6.50um
                   S    44 08.00
                   sS   44 21.00
BJI    17.48 336 eP    40 54.00   0.5
       4.0s    0.70nm          2.1mb X
      Z  16s      6.70um
      N  13s      4.40um
      E  13s      2.10um
                   eS   44 10.00
NIIJ   17.56  39 P     40 54.10  -0.4
KAKJ   17.59  44 P     40 54.60  -0.2
SNY    17.59 356 iPd   40 54.90   0.1
      Z  16s      6.40um
      N  11s      2.90um
                   isP  41 04.00
                   eS   44 08.00
CN2    19.51   1 P     41 14.40  -3.8X
      E  12s      2.00um
                   S    44 50.00
CD2    20.10 294 eP    41 23.00  -1.6
      Z  14s      4.60um          5.0MszX
      E  13s      3.90um
                   eS   45 16.00
HHC    20.11 329 Pc    41 23.20  -1.4
      Z  21s      5.60um          4.9Msz
      N  13s      4.88um
      E  13s      3.40um
                   pP   41 29.00  22km
                   S    45 10.50
KMI    20.40 277 eP    41 29.00   1.0
      E  12s      3.60um
                   sP   41 40.50
MDJ    20.64   9 eP    41 30.50   0.4
      Z  25s      2.40um          4.5MszX
      E  12s      1.80um
                   eS   45 20.00
BTO    20.68 326 iPc   41 30.00  -0.6
      N  14s      5.10um
      E  14s      4.20um
                   sP   41 44.50
TSM    21.05 200 eP    41 35.50   1.1
GUMO   21.40 116 eP    41 38.50   0.5
       1.2s   466.67nm          5.8mb
PJG    21.40 116 eP    41 39.40   1.4
GUA    21.47 116 eP    41 39.20   0.6
       1.0s   296.00nm          5.7mb
LZH    21.84 308 Pc    41 42.00  -0.5
       1.5s   176.00nm          5.3mb
      Z  16s      7.10um          5.2MszX
      N  12s      2.20um
      E  15s      4.20um
                   sP   41 56.00
                   eS   45 36.00
CHG    24.97 263 iPc   42 23.50  10.5X
       1.0s   19.75nm
                   eS   47 12.00
NST    25.00 255 eP    42 26.00  12.8X
BDT    25.42 259 eP    42 18.40   1.3
GTA    26.21 311 iPc   42 22.50  -2.0
       1.0s    0.10nm          2.4mb X
      Z  16s      3.60um          5.0MszX
      E  12s      3.30um
NNT    26.72 249 eP    42 14.00 -15.2X
SHL    30.18 280 iP    43 00.50  -0.1
                   eS   48 04.00
LSA    30.74 288 P     43 06.20   0.4
      E  14s      1.60um
PSI    33.19 234 ePc   43 26.20  -0.6
       0.6s   17.80nm          5.2mb
PPI    34.35 228 eP    43 37.50   0.6
GUN    35.38 285 P     43 46.20   0.2
PKI    35.82 284 P     43 49.40  -0.3
KKN    35.92 284 P     43 50.40   0.0
DMN    36.08 284 P     43 51.80  -0.1
WMQ    36.29 312 Pd    43 52.00  -1.2
      Z  16s      3.00um          5.2MszX
      N  12s      1.40um
      E  12s      1.20um
GKN    36.47 285 P     43 54.80  -0.2
NDI    42.94 287 eP    44 49.50   1.1
KSH    43.92 302 eP    44 59.00   2.6
      E  14s      3.50um
HYB    43.94 270 eP    44 56.50  -0.2
       1.4s   105.00nm          5.5mb
                   e    45 07.00  36km
WB5    44.76 168 eP    45 01.80  -1.3
WRA    44.82 168 Pd    45 02.00  -1.6
       0.7s   16.80nm          5.0mb
GBA    46.18 266 Pd    45 14.90   0.3
       1.0s   10.90nm          4.8mb
QIS    46.69 161 eP    45 17.00  -1.4
KOD    47.41 261 eP    45 25.80   1.1
ASPA   48.37 169 iPd   45 30.90  -0.7
       0.6s   18.00nm          5.3mb
                   epP  45 38.00  24km
CTA    48.61 153 iPc   45 33.00  -0.5
       1.4s   58.14nm          5.4mb
                   i    45 55.00  91kmX
WARB   50.15 178 eP    45 31.20 -14.0X
MAIO   57.02 299 iPc   46 36.20   0.1
                   eS   55 05.00
KHI    58.02 296 eP    46 43.70   0.5
BWA    62.38 158 eP    47 14.10   1.4
CAN    63.39 158 eP    47 20.00   0.6
BRW    63.43  21 P     47 17.00  -2.2
TTA    63.64  30 eP    47 20.90   0.1
IMA    64.53  27 ePc   47 26.10  -0.6
       1.0s   16.30nm          5.1mb
PMR    66.96  31 eP    47 41.10  -1.0
FBA    67.08  28 eP    47 42.20  -0.6
TOA    68.26  30 eP    47 49.60  -0.8
BHD    69.80 298 ePc   48 01.00   0.8
MSL    69.92 302 eP    48 00.50  -0.4
                   e    48 09.00  27km
KEV    70.27 339 eP    48 02.00  -0.4
                   e    48 12.00  32km
SOD    71.10 336 iP    48 06.40  -1.1
```

20d 02h

i 48 18.40 40kmX
KJF 71.63 333 iP 48 00.90 -9.8X
0.7s 26.70nm 5.4mb
i 48 20.60 74kmX
INK 71.79 23 eP 48 04.00 -7.6X
pP 48 23.00 71kmX
MBC 72.40 13 eP 48 13.00 -2.1
0.6s 9.00nm 5.0mb
SUF 72.76 332 iP 48 16.00 -1.4
0.6s 21.90nm 5.3mb
ALE 73.39 1 eP 48 20.00 -0.9
1.2s 34.00nm 5.2mb
KVT 73.87 308 eP 48 24.60 0.2
NUR 74.20 330 iP 48 24.90 -0.9
0.9s 27.00nm 5.3mb
i 48 35.80 36km
BBTK 76.65 308 eP 48 40.00 -0.4
DAG 76.86 352 iPd 48 38.80 -2.0
1.0s 28.00nm 5.2mb
JARJ 76.87 300 P 48 40.70 -1.0
BURJ 77.02 300 P 48 41.70 -0.8
SALJ 77.16 299 P 48 42.90 -0.4
KFNJ 77.22 299 P 48 42.50 -1.0
MASJ 77.23 299 P 48 42.90 -0.8
DSI 77.56 299 e(P) 48 45.00 -0.4
UPP 77.67 330 iP 48 44.40 -1.0
CFR 77.89 314 eP 48 47.00 0.0
TLB 78.20 314 ePc 48 49.00 0.4
PRNI 78.30 298 iPd 48 49.50 -0.1
VRI 78.56 315 ePd 48 51.50 0.8
MBH 78.60 298 eP 48 49.00 -2.2
ALT 78.85 308 iP 48 52.00 -0.5
MLR 79.21 315 ePd 48 54.00 -0.4
HFS 79.27 332 eP 48 53.00 -1.2
1.3s 72.20nm 5.5mb
Z 16s 1.30um 5.4MszX
LR 26 36.00
ELL 79.87 306 eP 48 56.60 -1.5
NRA0 79.88 333 P 48 56.00 -1.5
CMP 79.89 315 ePc 49 16.00 18.1X
NAO 80.12 333 P 48 57.20 -1.6
1.1s 44.60nm 5.4mb
KRA 80.94 321 eP 49 04.50 1.2
0.8s 28.00nm 5.3mb
e 49 13.00 27km
DEV 80.99 316 ePd 49 04.00 0.3
SPC 81.15 320 eP 49 06.80 2.1
e 49 15.50 28km
YKA 81.47 24 eP 49 05.90 0.0
YKC 81.53 24 eP 49 05.50 -0.7
1.0s 20.00nm 5.1mb
KSP 82.62 323 eP 49 12.00 -0.1
i 49 22.60 34km
e 52 27.00
SRO 82.93 319 eP 49 15.00 1.3
ZST 83.46 320 eP 49 17.10 0.7
i 49 27.10 32km
VKA 83.88 321 eP 49 19.50 0.9
0.9s 41.00nm 5.6mb
e 49 29.50 32km
BRG 83.89 324 iP 49 20.00 1.4
1.6s 36.00nm 5.3mb
i 49 27.50 24km
PRU 84.02 323 eP 49 20.00 0.7
e 49 29.00 28km
CLL 84.17 324 eP 49 21.00 1.0
1.9s 54.00nm 5.4mb
Z 18s 2.00um 5.5Msz
epP 49 29.00 25km
KHC 85.00 322 P 49 25.10 0.8
e 49 35.30 32km
MOX 85.27 324 eP 49 26.00 0.5
1.8s 42.00nm 5.4mb
Z 18s 2.40um 5.6Msz
e 49 35.00 28km
LQ 32 00.00
LR 32 15.00
PTJ 85.27 319 eP 49 25.80 0.1
GMW 86.09 39 P 49 29.70 0.0
KBA 86.21 321 eP 49 31.50 1.0
1.2s 8.80nm 4.9mb
i 49 41.90 33km
WIT 86.56 328 eP 49 34.50 2.7
e 49 42.50 25km
PNT 86.89 36 eP 49 34.00 0.4
WTS 86.98 327 eP 49 35.50 1.6
1.0s 17.00nm 5.2mb
e 49 44.50 28km
LON 87.08 39 P 49 35.00 0.4
EDM 87.73 31 eP 49 37.00 -0.6
ENN 88.16 326 eP 49 41.00 1.4
1.0s 10.00nm 5.1mb
e 49 50.50 30km
MEM 88.21 326 P 49 51.70 11.9X
WLF 88.71 325 P 49 54.70 12.5X
CDF 88.86 324 eP 49 43.10 -0.1
SES 90.64 32 eP 49 52.00 0.6
pP 50 03.00 35km
LSD 90.68 322 P 49 51.67 -0.3
FIN 90.80 320 P 49 48.18 -4.0X
LPG 90.88 322 eP 49 53.30 0.4
0.9s 18.00nm 5.4mb
ROB 90.95 320 P 49 51.15 -1.8
IMI 91.16 320 P 49 49.72 -4.2X
RRL 91.21 321 P 49 53.92 -0.4
SBF 91.46 320 eP 49 54.00 -1.3
0.8s 21.40nm 5.6mb
FFC 91.58 25 eP 49 55.00 -0.6
0.8s 18.00nm 5.5mb
FRB 91.65 6 eP 49 55.00 -0.6
FRF 92.10 320 eP 49 58.00 -0.2
LMR 92.31 320 eP 49 59.30 0.2
LRG 92.33 320 eP 49 59.60 0.4
0.7s 8.80nm 5.3mb
CMB 92.74 46 ePd 50 02.50 1.2
LRM 92.86 36 eP 50 02.10 0.1
KVN 93.64 44 P 50 06.00 0.4
TNP 94.77 45 P 50 11.50 0.7
0.8s 4.41nm 4.9mb
BW06 96.42 37 P 50 25.00 6.6X
1.0s 3.75nm 4.8mb
LPB 165.39 61 ePKP 57 04.00 9.9X
CNCB 165.64 61 ePKP 57 08.00 13.6X
S.D. = 1.1 on 131 of 154 obs.

? MAR 20, 1989 04h 03m 41.99± 4.25s
47.161 N ±17.7km 7.531 E ±32.5km
DEPTH = 10.0km (geophysicist)
SWITZERLAND (544)
ML 2.7 (LDG).

BSF 0.84 324 Pg 03 58.00 -0.2
Sg 04 14.60
HAU 1.16 317 Pg 04 03.60 -0.2
Sg 04 24.60
CDF 1.26 352 Pg 04 05.60 0.1
Sg 04 28.50
LPG 1.75 198 Pg 03 59.20 -13.6X
Sg 04 17.00
LBF 2.44 267 Pg 04 23.00 0.5
Sg 04 54.00
LOR 2.51 274 Pg 04 24.20 0.8
Sg 04 57.00
SMF 2.58 260 Pg 04 23.50 -1.0
Sg 04 56.80
S.D. = 0.8 on 6 of 7 obs.

MAR 20, 1989 04h 05m 12.30± 0.34s
39.558 N ± 3.8km 23.895 E ± 3.2km
DEPTH = 10.0km (geophysicist)
3.9mb (3 obs.)
AEGEAN SEA (365)
ML 3.9 (ATH).

NEO 0.58 244 ePn 05 24.50 0.5
PLG 0.88 337 iPnc 05 29.10 -0.2
ATH 1.59 185 ePn 05 40.60 0.1
KZN 1.80 295 ePn 05 43.30 -0.3
PRK 1.87 99 ePn 05 44.60 0.0
EZN 1.89 81 ePn 05 44.40 -0.5
RDO 2.02 38 iPnc 05 45.90 -0.9
VAY 2.03 331 iPn 05 46.70 -0.2
i 05 51.40
MMB 2.03 356 iPc 05 46.00 -1.0
RZN 2.22 16 iPc 05 50.00 0.2
KKB 2.39 345 iPd 05 52.00 -0.1
KDZ 2.39 29 iPc 05 51.00 -1.1
PLD 2.62 13 iPc 05 56.00 0.7
DIM 2.78 26 iP 05 57.00 -0.7
OHR 2.83 304 iPnd 05 58.60 0.2
ITM 2.83 214 ePn 05 59.00 0.5
IZM 2.87 113 ePn 06 00.00 1.0
VLS 2.93 243 ePn 06 01.40 1.7
PGB 3.00 4 iP 06 00.00 -0.7
SRN 3.02 277 iPn 06 03.90 2.9
SKO 3.05 323 iPn 06 01.40 0.0
iSn 06 36.60
iSb 06 44.00
VTS 3.07 351 iPd 06 03.00 1.1
TPE 3.08 285 iPnd 06 07.50 5.7X
EDC 3.15 74 ePn 06 04.70 1.8
BNT 3.19 74 iPn 06 03.60 0.1
PHP 3.38 310 iPnd 06 06.20 0.1
KCT 3.50 77 ePn 06 09.00 1.1
JMB 3.55 34 iP 06 10.00 1.5
TIR 3.55 301 ePn 06 11.00 2.4
KKS 3.65 315 ePn 06 11.10 1.2
DST 3.66 88 iPn 06 09.80 -0.4
DMK 3.71 51 ePn 06 11.00 0.2
LACI 3.80 304 ePn 06 14.00 1.8
CTT 3.81 64 ePn 06 16.00 3.7X
PVL 3.81 16 iPc 06 10.00 -2.3
PUK 3.92 311 ePn 06 14.50 0.7
SDA 4.14 308 ePn 06 18.80 1.9
VAM 4.15 177 ePn 06 17.00 -0.1
YER 4.21 124 ePn 06 16.00 -2.1
ISK 4.23 67 ePn 06 25.00 6.8X
NPS 4.50 162 ePn 06 23.00 0.9
KHL 4.56 104 ePn 06 26.00 3.0X
HRT 4.60 72 ePn 06 24.00 0.5
LCI 4.63 282 P 06 20.50 -3.4X
KAP 4.77 146 ePn 06 23.00 -3.0X
ALT 4.85 94 ePn 06 27.00 -0.1
GPA 4.99 80 eP 06 29.00 0.0
BUC1 5.04 18 eP 06 52.00 22.3X
DRA 5.12 3 eP 06 35.00 4.2X
PSN 5.23 37 eP 06 35.00 2.7
BRT 5.29 287 Pd 06 32.30 -1.0
CMP 5.77 8 ePd 06 41.00 1.0
TDS 5.84 273 P 06 42.20 1.2
GZR 5.89 352 ePd 06 55.00 13.3X
TLB 5.89 30 eP 06 40.00 -1.7
ISR 5.91 19 eP 06 47.00 5.0X
MLR 6.12 14 ePd 06 44.50 -0.5
BZS 6.28 345 ePc 06 46.00 -1.2
DEV 6.36 354 ePc 06 59.00 10.6X
MGR 6.44 278 P 06 49.50 -0.1
eSn 08 01.80
CFR 6.45 28 eP 06 50.00 0.5
e 08 40.00
VRI 6.64 17 ePc 06 52.50 0.2
HVAR 6.67 305 iPn 06 50.30 -2.4
BBTK 6.84 85 eP 07 08.50 13.2X
MEU 7.46 254 P 07 01.00 -2.9
eSn 08 21.80
SDI 7.96 289 P 07 09.90 -1.0
eSn 08 35.10
PTJ 8.62 320 eP 07 18.60 -1.4
VOY 9.79 315 eP 07 34.10 -2.1
eS 09 21.90
KBA 10.74 318 eP 07 47.00 -2.3
e 07 58.50
KHC 12.08 326 eP 08 09.60 2.3
e 08 21.30
HFS 21.57 346 (P) 10 01.70 -2.1
0.4s 0.90nm 3.5mb
NAO 22.79 343 P 10 18.00 2.1
0.9s 4.00nm 3.9mb
BNG 35.30 189 ePd 12 08.20 -1.3
0.6s 3.00nm 4.3mb
KIC 41.91 225 P 13 03.20 -1.4
LIC 42.18 226 P 13 05.60 -1.2
S.D. = 1.4 on 63 of 75 obs.

MAR 20, 1989 04h 53m 25.75± 0.36s
39.250 N ± 3.8km 23.640 E ± 3.6km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.9 (ATH).

NEO 0.33 280 iPgd 53 30.80 -1.8
PLG 1.13 352 iPnc 53 47.10 0.1
ATH 1.28 177 ePn 53 49.10 -0.3
KZN 1.79 307 ePb 53 55.80 -1.1
PRK 2.04 89 ePn 54 01.10 0.5
EZN 2.15 74 ePn 54 01.00 -1.2
VAY 2.22 339 iPn 54 03.50 0.3
MMB 2.34 2 iPc 54 04.00 -0.9
RDO 2.39 37 ePn 54 05.00 -0.5
ITM 2.47 214 ePn 54 06.00 -0.7
LSK 2.51 292 ePn 54 08.00 0.6

RZN	2.57	18	iP	54	08.00	-0.3
VLS	2.62	247	ePn	54	08.50	-0.3
KKB	2.65	351	iPc	54	09.00	-0.2
KDZ	2.75	29	iPd	54	10.00	-0.8
SRN	2.88	284	iPn	54	15.40	2.9
IZM	2.95	106	ePn	54	14.40	0.8
PLD	2.96	15	eP	54	15.00	1.3
DIM	3.15	27	eP	54	16.00	-0.2
BERA	3.19	298	ePn	54	18.00	1.2
SKO	3.19	329	iPn	54	16.00	-0.9
PGB	3.32	7	iP	54	18.00	-0.8
VTS	3.35	355	iPc	54	20.00	0.6
EDC	3.43	70	ePn	54	25.00	4.6X
PHP	3.45	316	ePn	54	23.20	2.7
TIR	3.57	307	ePn	54	24.70	2.5
KKS	3.74	320	ePn	54	28.50	3.8X
KCT	3.77	73	ePn	54	33.00	7.8X
LACI	3.83	310	ePn	54	28.50	2.5
VAM	3.86	173	ePn	54	27.10	0.6
DST	3.88	83	ePn	54	27.80	1.0
PUK	3.99	316	ePn	54	31.50	3.3X
DMK	4.05	49	ePn	54	30.00	0.8
CTT	4.13	61	ePn	54	49.00	18.8X
PVL	4.16	17	iPd	54	29.00	-1.7
SDA	4.19	313	ePn	54	35.50	4.4X
YER	4.22	119	ePn	54	31.00	-0.6
NPS	4.28	158	ePn	54	34.40	2.0
LCI	4.51	286	P	54	33.90	-1.7
			eSn	55	26.20	
ISK	4.53	65	ePn	54	50.00	14.1X
YLV	4.60	72	ePn	54	41.00	4.0X
KAP	4.64	142	ePn	54	37.20	-0.4
HRT	4.89	69	eP	55	01.00	19.9X
ALT	5.03	90	ePn	54	43.00	-0.2
BRT	5.20	290	P	54	44.40	-1.0
			eSn	55	39.40	
BUC1	5.40	19	ePc	55	36.00	47.8X
TDS	5.67	276	P	54	51.10	-1.0
CMP	6.10	9	ePc	54	59.00	0.9
TLB	6.26	30	e(P)	55	06.00	5.7X
ISR	6.27	19	eP	55	19.00	18.5X
MGR	6.30	281	P	55	00.60	-0.4
			eSn	56	06.30	
MLR	6.47	15	ePc	55	03.50	0.1
BZS	6.54	347	ePd	55	01.50	-2.7
DEV	6.65	356	eP	55	10.00	4.1X
VRI	7.00	18	ePc	55	11.00	0.3
BBTK	7.07	82	eP	55	42.00	30.0X
MEU	7.19	255	P	55	09.30	-4.2X
SDI	7.88	291	P	55	22.50	-0.7
			eSn	56	47.70	
EKA	24.05	321	P	58	42.00	0.4
	1.8s		66.40nm			4.9mb
BNG	34.96	189	ePd	00	18.10	-2.0
	0.4s		4.00nm			4.6mb

S.D. = 1.3 on 45 of 60 obs.

% MAR 20, 1989 05h 10m 17.55± 0.94s
39.157 N ±11.8km 23.391 E ±12.6km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 2.9 (ATH).

NEO	0.20	319	ePg	10	20.40	-1.5
ATH	1.21	168	ePb	10	39.80	-0.3
KZN	1.70	313	ePg	10	48.50	1.1
PRK	2.24	87	ePn	10	55.30	0.1
OHR	2.79	315	ePn	11	03.70	0.6

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

MAR 20, 1989 05h 57m 52.84± 0.59s
39.294 N ± 5.6km 23.638 E ± 6.1km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.4 (ATH).

NEO	0.32	272	ePg	57	56.50	-3.0X
ATH	1.32	177	ePb	58	16.00	-1.2
KZN	1.76	306	ePb	58	22.00	-1.6
EZN	2.14	75	ePn	58	30.00	0.9
VAY	2.18	338	iPg	58	30.00	0.3
MMB	2.29	2	iPd	58	30.00	-1.3
LSK	2.49	291	ePn	58	32.20	-2.0
ITM	2.50	213	ePn	58	33.60	-0.7
RZN	2.53	19	iP	58	35.00	0.2
KKB	2.60	351	iPc	58	35.00	-0.7
VLS	2.63	246	ePn	58	35.00	-1.1
KDZ	2.72	29	iPd	58	36.00	-1.3
OHR	2.83	311	iPn	58	38.60	-0.4
SRN	2.87	283	iPn	58	40.90	1.4
PLD	2.92	16	eP	58	50.00	9.8X
IZM	2.97	106	ePn	58	43.00	2.1
DIM	3.11	27	eP	58	46.00	3.2X
SKO	3.16	329	iPn	58	43.00	-0.5
BERA	3.16	298	ePn	58	43.90	0.3
PGB	3.28	7	eP	58	43.00	-2.3
VTS	3.31	354	iP	58	46.00	0.1
PHP	3.42	315	ePn	58	49.20	2.0
TIR	3.54	307	ePn	58	51.00	2.1
LACI	3.80	309	ePn	58	54.40	1.7
PUK	3.96	315	ePn	58	56.00	1.2
PVL	4.12	18	iPd	58	55.00	-2.2
SDA	4.16	312	ePn	59	02.00	4.3X
NPS	4.32	158	ePn	59	00.50	0.4
CMP	6.06	9	ePc	59	27.00	2.4
MLR	6.42	15	eP	59	30.00	0.1
VRI	6.96	18	ePd	59	22.00	-15.2X

S.D. = 1.5 on 26 of 31 obs.

& MAR 20, 1989 06h 52m 48.72s
37.482 N 118.623 W
DEPTH = 10.9km
CALIFORNIA-NEVADA BORDER REGION (40)
<REN>. MD 3.1 (REN).

PPK	0.57	95	iPc	52	59.50	-0.9
SVP	0.69	70	iPc	53	02.00	-0.6
LCH	0.82	107	eP	53	03.60	-0.9
MGM	0.90	92	eP	53	05.40	-0.6
TNP	1.26	61	eP	53	12.30	0.0
SGV	1.36	111	eP	53	13.70	-0.1
CMB	1.50	292	eP	53	15.50	-0.1
KVN	1.62	15	eP	53	17.50	0.0
LSM	2.02	111	eP	53	23.20	0.0
EUR	2.89	45	iP	53	42.00	6.3

10 obs. associated

MAR 20, 1989 07h 22m 47.14± 0.72s
35.892 N ± 8.1km 28.514 E ± 7.1km
DEPTH = 10.0km (geophysicist)
EASTERN MEDITERRANEAN SEA (371)
MD 3.4 (ATH).

KSL	0.90	75	ePb	23	08.00	3.7X
KAP	1.14	253	ePb	23	10.00	1.5
YER	1.25	352	iPn	23	09.00	-1.5
			iSg	23	24.00	
ELL	1.41	52	iPn	23	14.60	1.6
BCK	2.29	46	ePn	23	26.00	0.4
NPS	2.45	256	ePn	23	27.00	-0.8
IZM	2.69	339	ePn	23	37.00	5.7X
DSI	7.16	125	iP	24	34.30	-0.1
			eS	25	54.00	
PRNI	7.75	134	eP	24	42.00	-0.8
MBH	8.12	137	eP	24	47.50	-0.3

S.D. = 1.3 on 8 of 10 obs.

MAR 20, 1989 07h 27m 33.79± 1.35s
44.144 N ± 5.2km 6.732 E ±10.1km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.5 (GEN).

MVIF	0.39	129	Pg	27	41.97	0.1
TOUF	0.39	109	Pg	27	41.70	-0.2
			Sg	27	47.65	
STV	0.44	77	P	27	42.67	-0.1
			S	27	48.46	
PZZ	0.45	36	P	27	43.02	0.1
			S	27	49.38	
AURF	0.50	121	Pg	27	43.84	-0.1
AUTN	0.52	106	Pg	27	44.04	-0.4
REVF	0.61	131	Pg	27	46.41	0.3
			Sg	27	55.71	
RRL	0.78	3	P	27	48.74	-0.4
			S	27	59.63	
ROB	0.83	79	P	27	50.12	0.2
			S	28	01.08	
IMI	0.87	105	P	27	50.61	0.1
			S	28	02.34	
FIN	1.06	86	P	27	54.05	0.2
			S	28	07.66	
RSP	1.07	20	P	27	54.36	0.3
			S	28	08.28	

S.D. = 0.3 on 12 of 12 obs.

• MAR 20, 1989 07h 57m 34.08± 1.01s
39.261 N ± 8.9km 23.272 E ±13.7km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.1 (ATH).

NEO	0.06	321	ePg	57	37.20	0.8
PLG	1.12	7	ePb	57	54.00	-1.1
ATH	1.33	165	ePb	57	58.00	-0.7
KZN	1.56	313	ePg	58	06.00	4.1X
VAY	2.13	346	ePn	58	10.00	-0.1
PRK	2.33	89	ePb	58	14.00	1.0
OHR	2.65	315	ePn	58	29.50	11.9X

S.D. = 1.3 on 5 of 7 obs.

MAR 20, 1989 08h 10m 15.32± 0.65s
39.331 N ± 6.1km 23.551 E ± 7.7km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.3 (ATH).

NEO	0.26	265	ePg	10	19.00	-1.8
PLG	1.05	356	ePb	10	35.30	0.2
ATH	1.36	174	ePb	10	39.00	-1.3
KZN	1.68	306	ePb	10	43.50	-1.5
PRK	2.11	91	ePg	10	57.00	5.9X
VAY	2.12	340	ePn	10	52.00	0.7
EZN	2.20	76	ePn	10	54.00	1.6
MMB	2.26	3	eP	10	53.00	-0.3
RDO	2.37	39	ePn	10	54.30	-0.5
ITM	2.50	211	ePb	10	58.50	1.8
RZN	2.52	20	iP	10	57.00	-0.1
KKB	2.56	352	iP	10	57.00	-0.5
VLS	2.59	244	ePb	11	00.80	2.9
KDZ	2.72	31	iPd	10	59.00	-0.8
OHR	2.76	311	ePn	11	03.70	3.3X
PLD	2.91	17	eP	11	05.00	2.6
SKO	3.09	329	ePn	11	10.00	5.0X
DIM	3.11	28	eP	11	05.00	-0.2
PGB	3.25	8	eP	11	01.00	-6.4X
VTS	3.27	356	iP	11	08.00	0.3
PVL	4.11	19	eP	11	18.00	-1.4
NPS	4.38	157	ePn	11	21.70	-1.7
MLR	6.41	15	ePd	11	55.50	3.4X

S.D. = 1.5 on 18 of 23 obs.

• MAR 20, 1989 08h 49m 05.75± 2.60s
24.764 N ± 9.0km 124.975 E ± 8.3km
DEPTH = 83.3 ± 25.0 km
4.2mb (5 obs.)
SOUTHWESTERN RYUKYU ISLANDS (246)

MAT	16.33	41	iPd	52	51.40	0.1
	1.0s		14.00nm			4.1mb
BJI	16.93	336	eP	53	05.50	6.8X
CHG	24.86	261	eP	54	21.00	-1.1
GUN	35.08	284	P	55	53.40	0.1
PKI	35.52	283	P	55	57.00	0.0
KKN	35.62	284	P	55	58.00	0.3
	0.8s		18.00nm			5.1mb
DMN	35.79	283	P	55	59.50	0.4
GKN	36.17	284	P	56	02.60	0.4
WB5	45.31	168	eP	57	16.80	-0.3
WRA	45.36	168	P	57	18.00	0.5
	1.1s		7.00nm			4.4mb
ASPA	48.91	169	eP	57	38.30	-7.0X
KJF	71.08	333	iP	00	16.20	-0.3
MBC	71.93	13	eP	00	20.00	-1.4
SUF	72.22	331	iP	00	23.50	0.2
HFS	78.73	332	eP	01	00.70	0.5
	0.4s		1.00nm			4.1mb
NAO	79.58	333	P	01	04.60	-0.2
	0.6s		1.60nm			4.1mb
YKA	81.07	24	eP	01	13.40	0.7

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

MAR 20, 1989 09h 38m 24.32± 0.88s
39.273 N ± 7.8km 23.467 E ± 9.0km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.2 (ATH).

NEO	0.19	280	iPbd	38	29.30	0.7
PLG	1.10	359	iPnc	38	45.00	0.0
ATH	1.31	171	ePn	38	47.50	-1.1

20d 09h

KZN	1.67	309	ePb	38	54.00	0.3
VAY	2.16	342	ePn	39	14.30	13.5X
PRK	2.18	90	ePn	39	02.60	1.5
MMB	2.32	5	iPd	39	01.00	-2.2
RZN	2.59	21	iP	39	06.00	-1.2
OHR	2.75	313	ePn	39	13.70	4.4X
KDZ	2.80	31	iPc	39	06.00	-4.0X
VTS	3.32	357	eP	39	18.00	0.5
MLR	6.48	16	ePc	40	03.50	1.3

S.D. = 1.4 on 9 of 12 obs.

MAR 20, 1989 09h 55m 38.50± 0.56s
39.251 N ± 5.4km 23.657 E ± 6.1km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.5 (ATH).

NEO	0.34	279	iPgd	55	43.00	-2.6
PLG	1.13	352	ePg	55	58.90	-0.8
ATH	1.28	178	ePb	56	01.70	-0.5
KZN	1.80	307	ePb	56	08.90	-0.9
PRK	2.03	89	ePg	56	18.50	5.4X
EZN	2.14	74	ePn	56	14.00	-0.7
VAY	2.23	338	ePn	56	15.40	-0.6
RDO	2.38	37	ePn	56	18.00	-0.1
ITM	2.48	214	ePn	56	19.40	-0.1
LSK	2.52	292	ePn	56	18.90	-1.4
VLS	2.63	247	ePn	56	21.50	-0.2
OHR	2.87	311	ePn	56	27.20	2.0
SRN	2.90	284	iPn	56	26.40	0.9
TPE	3.00	292	ePn	56	29.50	2.6
BERA	3.20	298	ePn	56	30.00	0.3
SKO	3.20	329	ePn	56	30.00	0.2
VLO	3.43	292	ePn	56	37.30	4.3X
TIR	3.58	307	ePn	56	43.50	8.4X
VAM	3.86	173	ePn	56	41.50	2.3
NPS	4.28	158	ePn	56	44.00	-1.1
KAP	4.63	142	ePn	56	50.00	-0.2
MLR	6.46	14	eP	57	17.00	0.9

S.D. = 1.4 on 19 of 22 obs.

% MAR 20, 1989 10h 04m 48.87± 0.89s
39.284 N ± 7.9km 27.757 E ± 8.8km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.75	64	ePg	05	01.90	-1.6
IZM	0.97	204	iPn	05	06.50	-0.8
EDC	1.06	4	ePn	05	08.70	-0.2
KCT	1.07	25	iPn	05	09.90	0.9
EZN	1.23	297	ePn	05	12.00	0.2
KHL	1.68	124	ePn	05	20.00	1.5

S.D. = 1.5 on 6 of 6 obs.

MAR 20, 1989 10h 39m 12.62± 0.24s
39.273 N ± 2.8km 23.613 E ± 2.4km
DEPTH = 10.0km (geophysicist)
4.5mb (14 obs.)
AEGEAN SEA (365)
ML 4.4 (ATH).

NEO	0.30	277	iPbd	39	19.60	0.6
PLG	1.11	353	iPbc	39	35.20	1.8
ATH	1.30	176	iPnd	39	36.40	-0.3
KZN	1.75	307	iPnc	39	44.20	0.9
PRK	2.06	90	ePn	39	48.50	0.8
EZN	2.17	74	ePn	39	59.50	10.3X
VAY	2.20	339	iPnc	39	50.30	0.7
MMB	2.32	2	iPc	39	52.00	0.6
RDO	2.38	38	ePn	39	52.10	-0.2
ITM	2.48	213	ePn	39	54.70	1.1
LSK	2.48	292	iPnc	39	55.10	1.3
RZN	2.56	19	iP	39	51.00	-3.9X
VLS	2.61	246	ePn	39	56.60	1.1
KKB	2.62	351	iP	39	46.00	-9.7X
KDZ	2.74	30	iPc	39	57.00	-0.5
OHR	2.83	311	iPn	39	59.40	0.6
SRN	2.86	283	iPnc	40	02.40	3.4X
TPE	2.96	291	iPnd	40	07.80	7.3X
IZM	2.98	106	iPn	40	01.70	0.8
DIM	3.14	27	iPc	40	03.00	0.1
BERA	3.16	298	iPnd	40	05.90	2.7
SKO	3.16	329	iPnc	40	04.20	0.8
Z	10s		3.52um			
N	10s		3.41um			
E	11s		7.72um			
			iSn	40	42.00	
			iSb	40	50.00	
			iSg	40	54.00	
			LQ	41	47.00	
PGB	3.30	7	eP	40	06.00	0.6
VTS	3.33	355	iPgc	40	07.00	1.1
VLO	3.39	292	iPn	40	09.30	2.8
PHP	3.42	316	iPnc	40	07.80	0.8
EDC	3.45	71	ePn	40	06.70	-0.7
BNT	3.49	71	iPn	40	08.40	0.4
TIR	3.53	307	iPnc	40	11.00	2.4
KKS	3.71	320	iPn	40	12.90	1.7
KCT	3.78	74	iPn	40	11.90	-0.4
LACI	3.80	310	iPnd	40	14.00	1.6
VAM	3.89	173	ePn	40	13.00	-0.7
DST	3.90	84	ePn	40	13.00	-0.9
JMB	3.91	34	iP	40	13.00	-0.9
PUK	3.96	316	ePn	40	16.10	1.5
DMK	4.06	50	ePn	40	15.50	-0.5
CTT	4.14	62	ePn	40	17.00	-0.2
PVL	4.15	18	iPc	40	16.00	-1.3
SDA	4.16	313	ePn	40	20.50	3.0X
YER	4.25	119	iPn	40	19.30	0.3
ULC	4.27	310	ePn	40	20.30	1.1
			eSn	41	01.20	
NPS	4.31	158	ePn	40	18.60	-1.1
PVY	4.31	321	ePn	40	21.50	1.6
			eSn	41	03.50	
LCI	4.49	285	P	40	20.80	-1.3
			eSn	41	10.60	
ISK	4.54	65	ePn	40	21.00	-1.9
IVA	4.56	323	ePn	40	24.70	1.4
			eSn	41	09.00	
TTG	4.56	315	ePn	40	24.70	1.5
			eSn	41	10.50	
YLV	4.61	72	iPn	40	23.90	-0.2
KAP	4.67	142	ePn	40	24.00	-0.9
KHL	4.71	100	iPn	40	27.00	1.4
BDV	4.72	311	ePn	40	26.30	0.8
			eSn	41	14.00	
HRT	4.90	70	ePn	40	26.00	-2.1
HCY	5.01	311	ePn	40	30.20	0.6
			eSn	41	20.00	
PLE	5.15	323	ePn	40	32.80	1.1
			eSn	41	25.20	
BRT	5.17	290	P	40	32.30	0.4
			eSn	41	28.90	
GPA	5.26	77	iPn	40	33.40	0.2
BRY	5.27	315	ePn	40	34.20	0.7
			eSn	41	30.00	
BUC1	5.38	19	ePd	40	56.00	21.2X
DRA	5.42	5	iPc	40	35.00	-0.4
ELL	5.57	115	iPn	40	40.10	2.4
PSN	5.58	36	eP	40	37.00	-0.7
KSL	5.69	122	ePn	40	41.60	2.4
BCK	5.77	106	eP	40	41.20	0.7
CMP	6.08	10	iPc	40	46.00	1.3
TLB	6.25	30	ePc	40	46.50	-0.6
ISR	6.25	19	ePc	40	47.00	-0.2
MGR	6.27	280	P	40	47.90	0.4
			eSn	41	56.30	
MLR	6.45	15	iPc	40	50.50	0.5
ATN	6.47	263	P	40	49.30	-1.0
			eSn	42	00.90	
BZS	6.51	348	iPc	40	49.50	-1.2
DEV	6.63	356	iPd	40	52.00	-0.4
HVAR	6.66	308	iPn	40	50.70	-2.2
			iSn	42	03.30	
TIM	6.70	345	iPd	41	26.20	32.8X
BRD	6.74	21	ePc	41	01.50	7.5X
CFR	6.80	28	eP	40	54.00	-0.8
BSS	6.93	285	P	40	57.00	0.4
			eSn	42	13.60	
VRI	6.98	18	iPc	40	58.50	1.1
BBTK	7.09	83	eP	40	48.00	-11.1X
MEU	7.17	255	P	40	56.80	-3.4X
			eSn	42	15.10	
CLI	7.75	19	ePc	41	08.50	0.3
SDI	7.85	291	P	41	09.80	0.1
PTT	7.92	14	eP	41	12.00	1.5
USI	8.15	269	P	41	11.40	-2.3
PTJ	8.70	322	eP	41	19.60	-1.9
VBY	8.77	318	ePn	41	21.40	-1.0
			eSn	42	54.80	
SRO	9.36	337	eP	41	36.00	5.6X
CEY	9.36	317	eP	41	30.00	-0.6
			eS	43	10.00	
LJU	9.51	318	eP	41	31.50	-1.0
			eS	43	17.50	
KVT	9.69	75	eP	41	41.60	6.5X
TRI	9.70	315	ePn	41	24.80	-10.4X
			iSn	43	16.40	
			i	44	24.50	
VOY	9.84	316	eP	41	35.40	-1.8
			eS	43	21.80	
ZST	10.08	334	e(P)	41	39.80	-0.6
			i	41	47.80	
KBA	10.81	320	e(P)	41	48.50	-2.1
	1.1s		17.50nm			5.3mb X
			i	41	50.80	
			i	42	03.20	
			i(S)	43	45.00	
			i	44	09.20	
KHC	12.19	327	iP	42	08.50	-0.7
	1.0s		10.50nm			5.1mb X
DSI	12.29	125	e(P)	42	10.00	-0.5
PRU	12.50	332	eP	42	12.50	-0.7
			e	42	43.00	
KSP	12.66	338	eP	42	17.00	1.5
PRNI	12.91	130	e(P)	42	15.00	-3.8X
MBH	13.26	132	e(P)	42	20.00	-3.5X
BRG	13.45	333	e(P)	42	35.70	9.9X
LPG	13.92	302	eP	42	31.90	-0.5
CLL	14.14	332	eP	42	37.00	2.0
			i	42	52.00	
MOX	14.17	327	e(P)	42	40.00	4.7X
CDF	14.89	313	eP	42	42.20	-2.7
HAU	15.22	311	eP	42	46.90	-2.2
SMF	16.22	303	eP	43	00.10	-1.9
	1.3s		46.90nm			4.5mb
LBF	16.25	305	eP	43	00.80	-1.6
	0.9s		13.10nm			4.1mb
LOR	16.43	306	eP	43	03.10	-1.6
SSF	16.58	305	eP	43	05.50	-1.1
	1.1s		19.50nm			4.1mb
AVF	16.58	304	eP	43	05.50	-1.1
	1.2s		44.60nm			4.5mb
MEM	16.80	318	P	43	19.10	9.8X
BGF	16.84	302	eP	43	09.80	0.0
	1.3s		54.10nm			4.5mb
MAF	16.92	301	eP	43	12.60	1.7
	1.2s		35.70nm			4.4mb
AKUR	17.19	150	eP	43	13.50	-0.9
AKRL	17.37	151	eP	43	21.50	4.8X
AGMR	17.42	152	eP	43	17.00	-0.3
AKSR	17.51	150	eP	43	21.00	2.5
AWAL	17.58	152	eP	43	21.00	1.7
SLY	17.76	95	ePc	43	25.00	3.6X
BHD	17.77	103	ePd	43	28.50	6.9X
TAB	17.78	87	eP	43	30.00	8.2X
MFF	18.83	301	eP	43	35.30	0.7
LDF	19.40	306	eP	43	40.70	-0.9
FLN	19.68	307	eP	43	43.10	-1.6
GRR	19.80	305	eP	43	44.70	-1.2
	0.9s		20.90nm			4.4mb
LPF	19.80	304	eP	43	44.60	-1.3
UPP	20.95	352	iP	43	55.90	-1.9
NUR	21.27	1	eP	44	00.00	-1.0
Z	23s		0.50um			3.8MszX
			LR	53	00.00	
ASMO	21.52	274	eP	44	05.10	1.1
HFS	21.80	347	eP	44	05.30	-1.1
	0.5s		2.50nm			3.9mb
Z	15s		0.31um			3.8MszX
			LR	53	00.00	
AAPN	21.83	274	eP	44	04.00	-3.0X
ATEJ	21.84	273	eP	44	07.50	0.3
ALOJ	21.86	273	eP	44	10.50	3.1X
SUF	23.53	3	iP	44	24.20	0.8
	0.8s		10.50nm			4.4mb
EKA	24.02	321	P	44	29.00	0.8
	1.5s		84.10nm			5.1mb
KJF	25.08	4	iP	44	38.00	-0.4
	0.7s		12.00nm			4.7mb
SOD	28.20	2	eP	45	07.00	0.0
MAIO	28.40	85	eP	45	13.00	3.8X
BNG	34.98	189	iPd	46	05.20	-1.9
	0.5s		18.00nm			5.2mb
			ic	46	12.90	
TIC	41.47	226	Pc	47	00.14	-1.2
	0.9s		B.00nm			4.4mb
KIC	41.55	225	Pc	47	00.86	-1.1
	1.1s		19.00nm			4.7mb
LIC	41.82	226	Pc	47	03.16	-1.1
FRB	56.52	328	eP	48	56.00	-0.9

CHG	67.15	84	eP	50 09.50	0.5
YKA	73.16	341	eP	50 45.70	0.8
ITR	74.67	245	eP	50 43.80	-10.5X

S.D. = 1.3 on 120 of 147 obs.

MAR 20, 1989 10h 41m 11.35± 0.34s
2.349 N ± 6.6km 84.538 W ± 5.5km
DEPTH = 10.0km (geophysicist)
5.2mb (25 obs.) 5.1Msz (1 obs.)
OFF COAST OF CENTRAL AMERICA (76)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 15S, 28C
Centroid Lacotion:
Origin Time 10:41:12.7 0.9
Lat 1.79N 0.09 Lon 84.82W 0.09
Dep 15.0 FIX Half-durotion 1.8
Moment Tensor; Scale 10**17 Nm
Mrr=-1.07 0.08 Mtt= 0.59 0.07
Mff= 0.47 0.13 Mrt= 0.76 0.29
Mrf= 0.07 0.21 Mtf= 0.02 0.07
Principal Axes:

	Val=	Plg=	Azm=
T	0.90	21	354
N	0.47	1	84
P	-1.36	69	175

Best Double Couple:Mo=1.1*10**17
NP1:Strike= 83 Dip=24 Slip= -91
NP2: 264 66 -89

PSO	7.30	99	eP	43 01.00	0.0
UPA	8.26	37	iPc+	43 16.60	2.5
	1.1s	151.90nm		6.2mb	
Z	20s	16.13um			
BOG	10.69	78	eP	43 52.00	4.0X
			eS	46 09.00	
TPX	14.62	329	eP	44 49.20	9.0X
TOV	16.41	63	eP	45 08.00	4.5X
CEOS	17.43	67	eP	45 18.00	1.6
FISA	17.49	59	eP	45 18.00	0.8
GUAC	18.84	65	eP	45 15.00	-18.9X
CAR	19.27	64	iP	45 38.00	-1.3
LLAV	19.37	65	eP	45 40.00	-0.4
CRX	22.51	320	(P)	46 18.00	4.9X
ARE	22.70	146	eP	46 17.00	2.0
LPB	24.81	140	Pc	46 37.00	1.4
	1.0s	70.00nm		5.3mb	
Z	17s	4.76um		5.1MszX	
			S	51 05.00	
			LR	56 25.00	
CNCB	25.09	140	Pc	46 38.20	-0.3
PRM	31.64	3	P	47 36.80	0.0
JSC	31.91	5	P	47 39.00	-0.3
ATB	32.78	100	Pc	47 44.80	-2.3
BLA	34.90	6	P	48 05.50	0.3
	1.4s	75.27nm		5.4mb	
CVL	35.90	8	P	48 13.30	-0.3
ALO	38.30	330	eP	48 34.70	0.5
	1.5s	63.19nm		5.1mb	
PRIN	38.88	12	P	48 39.00	0.4
DHN	40.70	7	P	48 53.50	-0.2
GLD	41.70	336	P	49 03.00	0.8
	1.4s	81.08nm		5.3mb	
GOL	41.72	336	P	49 03.00	0.5
	1.4s	78.33nm		5.2mb	
BAR	42.65	319	eP	49 18.00	8.1X
PTN	42.89	10	P	49 11.30	-0.3
RSNY	42.94	11	P	49 11.00	-1.1
	1.0s	15.00nm		4.7mb	
TPC	43.15	321	eP	49 15.00	1.0
PLM	43.20	319	eP	49 15.00	0.4
GAC	43.90	9	eP	49 20.50	0.7
RVR	43.93	320	eP	49 21.00	0.8
SBB	44.66	320	eP	49 26.00	-0.2
CLC	45.22	321	eP	49 31.00	0.3
ISA	45.68	321	eP	49 35.00	0.7
ITA	45.99	124	eP	49 36.40	-0.9
BW06	46.04	334	P	49 36.80	-0.5
	1.5s	37.19nm		5.2mb	
TNP	46.47	324	P	49 41.50	0.7
	1.3s	17.01nm		4.9mb	
CBM	46.65	15	P	49 41.70	0.0
EUR	46.72	326	iP	49 43.20	0.5
	1.0s	11.15nm		4.9mb	
FRI	47.28	321	ePc	49 56.50	9.6X
KVN	47.63	324	P	49 49.30	-0.6
LLA	47.84	320	ePc	49 51.80	0.4
PRS	47.95	319	ePc	49 53.00	0.8
CMB	48.35	322	ePc	49 53.10	-2.3
RSON	48.95	352	P	49 59.00	-0.7
	1.5s	136.41nm		5.8mb	
LRM	49.72	335	eP	50 05.70	-0.3
ORV	49.98	323	ePc	49 48.20	-19.6X
SES	52.87	339	eP	50 29.00	-0.6
FFC	54.12	348	ePc	50 38.30	-0.2
	1.6s	78.00nm		5.5mb	
PNT	55.54	333	ePc	50 50.00	0.9
EDM	56.02	340	ePd	50 51.00	-1.5
YKA	64.05	345	eP	51 46.50	-0.9
INK	73.64	343	eP	52 46.00	-0.6
PMR	76.07	334	eP	53 00.80	0.2
Z	18s	0.80um		5.1Msz	
MBC	76.36	352	eP	53 02.00	0.0
	0.9s	25.00nm		5.3mb	
FBA	76.78	337	ePc	53 04.40	-0.2
SVW	78.88	332	eP	53 15.80	-0.5
TIC	79.32	84	P	53 18.44	-1.1
	1.0s	22.00nm		5.1mb	
LIC	79.33	84	Pc	53 18.32	-1.2
	1.1s	45.00nm		5.4mb	
IMA	79.50	337	ePc	53 19.80	0.1
	1.5s	22.60nm		4.9mb	
TTA	79.55	334	P	53 17.50	-2.4
	1.5s	33.78nm		5.1mb	
KIC	79.61	84	P	53 20.02	-1.1
	1.1s	50.00nm		5.4mb	
ALE	80.68	3	eP	53 26.00	0.5
	0.5s	4.00nm		4.7mb	
DAG	82.29	12	eP	53 33.00	-1.0
EKA	83.17	35	P	53 39.00	0.1
	3.2s	705.00nm		6.3mb X	
EPF	84.66	47	eP	53 46.90	0.1
	1.2s	22.00nm		5.3mb	
LFF	85.00	45	eP	53 48.40	0.0
LPO	85.32	46	eP	53 49.90	-0.1
LSF	85.59	44	eP	53 51.00	-0.4
CAF	85.94	45	eP	53 53.00	-0.2
TCF	86.06	44	eP	53 53.30	-0.4
	1.2s	17.80nm		5.1mb	
MAF	86.31	44	eP	53 54.70	-0.2
	1.3s	32.40nm		5.4mb	
BGF	86.51	44	eP	53 55.60	-0.3
	1.1s	29.30nm		5.4mb	
SMF	87.19	44	eP	53 58.60	-0.6
LOR	87.20	43	eP	53 58.50	-0.7
	1.2s	14.80nm		5.1mb	
DOU	87.66	40	P	54 08.30	7.0X
SPA	92.33	180	e(P)	54 30.60	7.5X
	1.0s	11.50nm		5.2mb	
BRG	93.55	39	e(P)	54 30.10	1.3
KHC	93.55	41	P	54 29.50	0.6
WMQ	133.51	8	PKP	00 29.00	-1.1
WB5	138.20	242	ePKP	00 38.00	-1.6
GTA	138.25	355	ePKP	00 36.40	-2.9
NJ2	139.22	329	PKPc	00 42.40	1.4
CD2	145.99	347	ePKP	00 52.50	-0.4
GKN	148.08	18	PKP	00 58.90	2.4
KKN	148.47	17	PKP	00 58.70	1.5
GUN	148.53	16	PKP	00 59.80	2.3
DMN	148.59	18	PKP	01 00.10	2.6
PKI	148.72	17	PKP	00 59.80	2.0
GYA	149.38	340	PKP	00 58.60	0.0
KMI	151.79	346	PKPc	01 02.00	-0.4
SHL	152.03	7	ePKP	01 07.50	4.9X
HYB	154.23	40	ePKP	01 04.50	-1.2
CHG	158.69	351	ePKP	01 11.20	-0.1

S.D. = 1.1 on 83 of 94 obs.

MAR 20, 1989 10h 59m 06.06± 0.56s
58.729 N ± 5.0km 152.995 W ± 4.6km
DEPTH = 83.7 ± 10.3 km
KODIAK ISLAND REGION (13)

KDC	1.02	165	iPd	59 25.90	0.1
CNPM	1.21	48	iP	59 29.03	0.8
			eS	59 46.71	
PDB	1.23	330	iP	59 27.33	-1.1
			iS	59 43.43	
ILIM	1.36	1	iP	59 29.53	-0.6
			eS	59 46.58	
NNL	1.58	33	eP	59 34.56	1.6
RDT	1.88	9	iP	59 36.89	-0.1
NKA	2.21	23	eP	59 44.09	2.7
SLKM	2.27	37	eP	59 42.63	0.3
			eS	00 10.71	
SEW	2.28	51	eP	59 42.26	-0.1
SPU	2.51	10	iP	59 46.00	0.4
CRP	2.58	9	eP	59 47.31	0.6
CGLM	2.63	10	eP	59 47.83	0.5
SVW	2.73	332	iPd	59 47.60	-1.0
PTE	2.94	41	eP	59 51.28	-0.1
MTU	3.01	63	iP	59 53.03	0.5
PMS	3.06	33	iPd	59 53.70	0.5
KNIM	3.13	57	iP	59 53.71	-0.4
PWL	3.18	46	eP	59 54.61	-0.2
			eS	00 28.84	
PWA	3.32	27	iPd	59 57.50	0.8
SKT	3.34	12	eP	59 57.23	0.1
PLRM	3.46	32	eP	59 58.40	-0.3
PMR	3.46	32	eP	59 58.50	-0.2
PME	3.52	33	eP	59 59.56	0.1
GHO	3.67	32	eP	00 01.61	0.0
GLI	3.68	52	eP	00 00.26	-1.5
HIN	3.70	60	eP	00 02.12	0.0
SML	3.86	35	eP	00 04.20	-0.1
FID	3.87	56	eP	00 02.93	-1.5
VZW	4.00	51	iP	00 05.41	-0.8
CVA	4.10	61	eP	00 07.07	-0.6
VLZ	4.13	51	eP	00 07.83	-0.1
SGAM	4.34	62	eP	00 10.63	-0.3
TTA	4.47	342	eP	00 11.90	-0.9
KLU	4.50	49	iP	00 12.97	-0.3
RAGM	4.55	65	eP	00 13.85	-0.1
HMT	4.73	66	eP	00 16.45	0.0
TOA	4.78	42	eP	00 18.30	1.1
SDN	5.32	234	eP	00 25.10	0.5
GLB	5.34	55	eP	00 23.85	-1.1
WAX	5.43	67	eP	00 25.85	-0.4
FBA	6.66	19	eP	00 42.70	-0.5
YKA	19.01	62	eP	03 24.80	1.3

S.D. = 0.8 on 42 of 42 obs.

MAR 20, 1989 11h 03m 18.42± 0.80s
39.241 N ± 7.8km 23.433 E ± 8.7km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 2.9 (ATH).

NEO	0.18	292	iPgd	03 23.10	0.7
PLG	1.13	0	iPbc	03 38.90	-0.7
			eSg	03 54.00	
ATH	1.29	170	ePb	03 41.50	-0.7
KZN	1.67	310	ePb	03 48.00	0.2
VAY	2.18	343	ePn	03 54.70	-0.5
PRK	2.20	89	ePn	03 56.50	0.9
OHR	2.75	314	ePn	04 14.00	10.6X

S.D. = 1.0 on 6 of 7 obs.

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* MAR 20, 1989 11h 48m 51.80± 4.12s
45.124 N ± 9.8km 6.409 E ±29.8km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.3 (GEN).

BNI	0.20	111	Pc	48 56.30	0.0
			eSg	48 58.20	
RRL	0.34	127	P	48 58.98	0.1
			S	49 03.35	
RSP	0.60	87	P	49 03.90	-0.1
			S	49 11.66	
LSD	0.62	57	P	49 04.62	0.1
			S	49 12.81	
PZZ	0.79	141	P	49 07.16	-0.1
			S	49 17.29	
STV	1.10	143	P	49 12.49	0.0
			S	49 25.91	

S.D. = 0.1 on 6 of 6 obs.

% MAR 20, 1989 11h 53m 52.14± 1.08s
39.230 N ± 7.2km 23.642 E ±12.2km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.0 (ATH).

NEO	0.33	283	iPbd	53 58.80	-0.3
PLG	1.15	353	iPnc	54 14.00	0.3
			eSn	54 29.80	
ATH	1.26	177	ePn	54 15.50	0.0
KZN	1.80	307	ePn	54 23.50	0.0
VAY	2.24	339	ePn	54 29.00	-0.8
OHR	2.88	312	ePn	54 39.70	0.8

S.D. = 0.7 on 6 of 6 obs.

? MAR 20, 1989 12h 08m 47.32± 8.15s
42.821 N ±18.6km 145.937 E ±70.0km
DEPTH = 33.0km (normal)
HOKKAIDO, JAPAN REGION (224)
Felt (I JMA) at Nemuro.

KUSJ	0.94	288	iPd	09 03.30	-0.9
			S	09 10.00	
HOOJ	2.01	258	P	09 20.60	1.1
			eS	09 40.80	
ASAJ	2.73	300	P	09 30.50	0.8
MRRJ	3.61	265	P	09 42.00	-0.3
MAT	8.65	226	eP	10 53.00	-0.1
			eS	12 17.00	

S.D. = 1.2 on 5 of 5 obs.

MAR 20, 1989 13h 41m 54.52± 0.31s
39.283 N ± 3.2km 23.560 E ± 3.3km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.6 (ATH).

NEO	0.26	275	iPgd	41 59.20	-0.9
PLG	1.09	355	ePg	42 15.80	0.7
ATH	1.31	175	ePb	42 18.00	-0.8
KZN	1.72	307	ePb	42 24.50	-0.2
PRK	2.11	90	ePn	42 31.00	0.8
VAY	2.17	340	iPn	42 31.50	0.3
EZN	2.21	75	ePn	42 31.00	-0.7
MMB	2.31	3	iPc	42 32.00	-1.2
RDO	2.40	39	ePn	42 35.50	1.1
ITM	2.46	212	ePn	42 35.40	0.0
RZN	2.56	20	iPc	42 37.00	0.1
VLS	2.57	246	ePn	42 37.50	0.6
KDZ	2.76	30	iPd	42 39.00	-0.6
OHR	2.79	312	iPn	42 41.30	1.2
SRN	2.81	283	iPnc	42 39.90	-0.4
TPE	2.92	291	ePn	42 46.60	4.8X
PLD	2.95	17	eP	42 42.00	-0.2
			e	03 36.00	
IZM	3.02	106	ePn	42 43.80	0.5
BERA	3.11	298	ePn	42 46.00	1.5
SKO	3.13	330	iPn	42 44.80	0.0
Z	11s		1.07um		
E	11s		2.15um		
			iPg	42 56.50	
			iSn	43 25.50	
			iSg	43 38.50	
			LQ	44 19.00	
DIM	3.15	28	eP	42 45.00	0.0
PGB	3.30	8	iPg	42 47.00	-0.2
VTS	3.32	356	iPc	42 48.00	0.4
PHP	3.38	316	ePn	42 48.30	-0.1
EDC	3.48	71	ePn	42 51.00	1.2
TIR	3.50	307	ePn	42 51.80	1.8
KKS	3.68	320	ePn	42 54.00	1.4
LACI	3.76	310	ePn	42 49.80	-4.0X
VAM	3.90	172	ePn	42 55.90	0.1
BCI	4.06	320	ePn	42 57.90	-0.1
SDA	4.12	313	ePn	43 02.50	3.7X
PVL	4.15	18	iPc	43 58.00	58.7X
YER	4.29	118	eP	43 00.00	-1.4
NPS	4.33	157	ePn	43 03.50	1.5
KAP	4.71	141	ePn	43 06.00	-1.3
KHL	4.76	100	eP	43 10.00	1.9
GBZT	4.76	70	iPgc	43 57.40	49.4X
			iSg	43 58.70	
DRA	5.42	5	eP	43 16.00	-1.2
PSN	5.60	37	eP	43 48.00	28.2X
MGR	6.23	280	P	43 28.20	-0.5
			eSn	44 37.40	
ISR	6.26	20	ePc	43 30.00	0.9
TLB	6.26	31	eP	43 27.00	-2.1
MLR	6.45	15	ePd	43 31.50	-0.5
BZS	6.49	348	ePc	43 30.50	-1.9
DEV	6.61	356	ePc	43 30.00	-4.1X
CFR	6.81	29	eP	43 58.00	21.2X
VRI	6.98	18	ePc	43 40.00	0.7
VOY	9.80	317	eP	44 17.30	-1.3
			eS	46 04.20	
KHC	12.16	327	eP	44 55.50	4.8X
BNG	34.99	189	ePc	48 48.00	-1.1
	0.5s		4.00nm		4.5mb

S.D. = 1.0 on 41 of 50 obs.

MAR 20, 1989 14h 02m 55.80± 0.52s
39.274 N ± 4.8km 23.661 E ± 6.1km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.3 (ATH).

NEO	0.34	276	iPgd	03 00.50	-2.4
PLG	1.11	351	iPbc	03 16.50	-0.2
ATH	1.30	178	ePb	03 19.00	-0.9
KZN	1.78	306	ePb	03 25.50	-1.4
PRK	2.03	90	ePb	03 36.00	5.6X
EZN	2.13	74	ePn	03 33.00	1.1
VAY	2.21	338	iPn	03 32.50	-0.5
MMB	2.31	1	iPd	03 34.00	-0.6
ITM	2.50	214	ePn	03 36.50	-0.6
LSK	2.52	291	ePn	03 36.80	-0.7
RZN	2.54	18	iPc	03 38.00	0.1
KKB	2.63	351	iP	03 38.00	-1.0
VLS	2.64	246	ePg	03 44.00	4.8X
KDZ	2.72	29	iPd	03 39.00	-1.4
OHR	2.86	311	ePn	03 31.20	-11.1X
SRN	2.89	283	ePn	03 44.10	1.4
TPE	2.99	291	ePn	03 47.00	2.9
DIM	3.12	27	eP	03 47.00	1.1
SKO	3.18	329	ePn	03 47.00	0.2
PGB	3.29	7	iP	03 48.00	-0.5
VTS	3.33	354	iP	03 50.00	0.9
PHP	3.44	315	ePn	03 55.30	4.8X
TIR	3.56	307	ePn	03 58.50	6.2X
VAM	3.88	173	ePn	03 57.00	0.2
PUK	3.98	315	ePn	04 01.00	2.8
PVL	4.14	17	eP	03 59.00	-1.3
SDA	4.19	312	ePn	04 04.40	3.3X
NPS	4.30	158	ePn	04 04.10	1.4
KAP	4.65	142	ePg	04 07.00	-0.7

S.D. = 1.4 on 23 of 29 obs.

? MAR 20, 1989 14h 24m 22.69± 1.04s
39.309 N ± 7.8km 23.404 E ±14.3km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)

NEO	0.14	269	iPgd	24 26.00	0.0
PLG	1.06	2	ePg	24 42.70	0.0
ATH	1.36	170	ePb	24 47.60	0.0
KZN	1.60	309	ePg	24 55.30	4.1X
VAY	2.11	343	ePn	24 58.50	0.1
OHR	2.69	313	ePn	25 17.00	10.2X

S.D. = 0.1 on 4 of 6 obs.

MAR 20, 1989 15h 15m 24.77± 1.18s
2.229 N ± 6.4km 126.659 E ± 7.3km
DEPTH = 92.7 ± 12.1 km
5.0mb (9 obs.)
MOLUCCA PASSAGE (266)

MNI	1.98	247	iPc	15 57.50	0.2
			eS	16 31.00	
AAI	6.07	165	eP	16 55.00	1.3
KKM	11.08	290	ePc	18 03.80	1.8
JAY	14.81	108	ePc	18 53.00	2.2
MTN	15.62	164	eP	18 59.00	-2.0
GUMO	21.25	57	eP	20 03.80	-1.4
GUA	21.26	57	eP	20 04.30	-1.0
WB5	23.24	161	eP	20 23.20	-1.5
			eS	24 28.00	
WRA	23.29	161	Pc	20 24.50	-0.7
	0.4s		13.10nm		4.7mb
QIZ	23.45	317	eP	20 27.00	0.3
MBL	24.19	196	eP	20 33.70	-0.1
QIS	25.96	151	eP	20 49.00	-1.5
ASPA	26.69	165	eP	20 56.00	-1.1
			e	21 23.90	
			eS	25 25.00	
WARB	28.25	180	eP	20 57.80	-13.4X
LOE	28.76	303	eP	21 15.00	-0.9
MEKA	29.73	195	eP	21 24.00	-0.5
	0.3s		4.00nm		4.6mb
KMI	32.40	317	Pd	21 49.00	0.8
COOL	33.34	189	eP	21 50.00	-6.1X
	0.4s		17.00nm		5.2mb
XAN	35.72	334	P	22 14.60	-1.8
MAT	35.77	16	eP	22 16.00	-0.7
CD2	35.82	325	eP	22 15.30	-1.9
STK	36.77	159	iPd	22 25.70	0.6
TIY	37.65	341	eP	22 32.40	-0.2
Z	30s		0.60um		4.2MszX
			pP	22 57.00	107kmX
BJI	38.82	347	eP	22 42.00	-0.2
LZH	39.76	331	eP	22 49.50	-0.8
HHC	40.79	342	eP	22 59.40	0.8
BWA	41.80	153	eP	23 08.00	1.1
MDJ	42.29	3	eP	23 10.70	0.0
CAN	42.81	153	eP	23 15.80	0.7
LSA	43.38	313	P	23 21.00	0.6
GTA	44.35	330	eP	23 26.80	-0.8
GUN	46.56	307	P	23 44.80	-0.8
PKI	46.79	307	P	23 46.60	-0.8
	0.6s		18.00nm		5.1mb
KKN	46.98	307	P	23 48.20	-0.6
DMN	47.05	306	P	23 48.80	-0.6
	0.8s		33.00nm		5.2mb
GKN	47.59	307	P	23 52.80	-0.7
	0.8s		36.00nm		5.3mb
HYB	49.57	291	eP	24 08.00	-0.7
GBA	49.94	286	Pc	24 09.60	-1.9
	0.5s		4.30nm		4.7mb
WMQ	53.91	326	P	24 41.00	0.1
MAIO	70.36	308	eP	26 32.00	1.1
AVY	80.26	250	iPd	27 29.70	2.1
BRW	83.61	18	eP	27 47.20	3.5X
IMA	83.78	24	eP	27 46.40	1.6
	0.6s		2.40nm		4.3mb
PMR	85.29	29	eP	27 53.30	1.1
PRNI	90.32	300	iPd	28 19.50	2.4
MBH	90.45	300	e(P)	28 19.00	1.4
KJF	91.91	334	eP	28 27.00	3.4X
SUF	92.85	333	eP	28 32.00	4.0X
MBC	93.42	13	eP	28 31.00	0.6
SLL	99.35	333	(P)	29 00.30	2.6
	0.8s		7.60nm		5.4mb

S.D. = 1.3 on 45 of 50 obs.

MAR 20, 1989 16h 42m 08.20± 0.73s
63.929 N ± 6.6km 148.812 W ± 9.7km
DEPTH = 33.0km (normal)
CENTRAL ALASKA (1)
ML 3.0 (PMR).

FBA	1.07	24	iPc	42 26.70	-0.2
TOA	2.19	145	iPc	42 43.60	0.5
PMR	2.35	184	eP	42 44.40	-0.9
PMS	2.72	188	eP	42 50.70	0.2
IMA	2.98	318	eP	42 54.40	0.0
TTA	3.39	256	eP	43 00.30	0.2

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

MAR 20, 1989 18h 19m 57.21± 0.56s
5.014 S ± 3.9km 130.319 E ± 6.0km
DEPTH = 104.1 ± 5.5 km
5.0mb (15 obs.)
BANDA SEA (280)

MTN	7.82	174	iPc	21 49.90	-0.1
KUPT	8.39	232	eP	22 22.50	24.8X
	0.7s		207.30nm		
MNI	8.43	319	ePc	21 59.30	1.0
KNA	10.78	188	iPd	22 28.30	-1.6
	0.3s		146.00nm		6.3mb X
			eS	24 21.00	
WB5	15.29	165	eP	23 25.10	-3.6X
			eS	26 05.00	
WRA	15.35	166	Pc	23 25.40	-4.0X
	0.4s		23.80nm		4.8mb
PMG	17.26	106	e(P)	23 53.00	-0.2
KKM	17.86	308	eP	24 02.00	1.3
QIS	17.89	151	eP	24 00.00	-1.0
			eS	27 06.00	
ASPA	18.86	170	iPc	24 11.90	-0.2
	0.8s		248.00nm		5.6mb
			eS	27 29.70	
MBL	19.00	211	iPc	24 13.30	-0.3
WARB	21.34	189	iPd	24 25.20	-12.3X
CTA	21.56	135	iP	24 40.80	1.1
	0.8s		31.72nm		4.7mb
			i	25 10.50	
			eS	28 31.00	
			e(PcP)	28 53.00	
NANU	22.56	218	eP	24 50.80	1.3
MEKA	24.25	206	eP	25 06.00	0.1
	0.4s		6.00nm		4.4mb
COOL	27.14	197	eP	25 32.50	-0.1
RMQ	27.68	142	eP	25 36.00	-1.5
			e	26 12.00	
BAL	28.50	205	eP	25 45.00	0.2

STK	28.74	160	eP	25	47.00	0.1
			e	31	27.00	
KLB	28.95	203	iPd	25	49.00	0.2
MUN	29.91	205	eP	25	56.00	-1.3
NWAO	30.34	202	eP	26	00.50	-0.6
ADE	30.80	166	iPc	26	06.10	0.9
RKG	31.44	201	eP	26	16.00	5.2X
COO	32.55	144	eP	26	21.00	0.5
BWA	33.73	152	iPc	26	32.20	1.4
CAN	34.74	153	iPc	26	39.70	0.3
TOO	35.24	159	eP	26	45.40	1.8
LOE	35.96	309	iPc	26	49.50	-0.3
KHT	37.09	302	eP	26	59.80	0.4
BDT	38.03	306	eP	27	08.00	0.9
	0.7s		6.00nm			4.6mb
GYA	38.78	325	P	27	14.40	0.9
			PcP	29	23.60	
CHG	38.94	308	iPc	27	15.30	0.5
	0.9s		35.71nm			5.2mb
KMI	40.20	319	Pd	27	26.50	1.1
MAT	41.99	10	eP	27	38.00	-1.7
	1.0s		12.00nm			4.7mb
XAN	43.79	334	Pc	27	53.50	-0.9
CD2	43.82	326	eP	27	53.50	-1.1
TIY	45.65	340	eP	28	09.00	-0.2
BJI	46.68	345	eP	28	17.00	-0.2
LZH	47.82	331	eP	28	26.50	0.1
	1.5s		44.00nm			5.1mb
CN2	48.79	355	eP	28	33.00	-0.5
LSA	51.01	315	P	28	51.80	0.6
GTA	52.41	330	iPc	29	01.00	-0.2
			PcP	30	10.80	
GUN	53.91	310	Pc	29	12.20	-0.5
PKI	54.10	309	Pc	29	13.60	-0.5
	0.8s		22.00nm			5.2mb
KKN	54.31	309	Pc	29	14.80	-0.7
	0.8s		45.00nm			5.5mb
DMN	54.35	309	Pc	29	15.20	-0.7
	0.9s		64.00nm			5.6mb
KOD	54.77	286	ePc	29	18.50	-0.7
	0.7s		41.10nm			5.6mb
GKN	54.91	309	Pc	29	19.20	-0.6
GBA	55.65	290	Pc	29	23.30	-1.8
	0.6s		5.50nm			4.8mb
HYB	55.75	295	ePc	29	24.20	-1.6
	1.0s		25.00nm			5.2mb
			e	29	46.00	
WMQ	61.92	326	Pc	30	08.10	-0.1
KSH	66.75	317	P	30	41.50	1.8
MAIO	77.69	309	iPc	31	45.30	1.0
	0.9s		8.10nm			4.5mb
AVY	81.39	252	iPd	32	05.30	0.7
TAB	88.34	308	eP	32	40.00	1.1
YKA	105.84	26	ePKP	38	10.30	0.5
LPG	116.69	319	ePKP	38	30.90	-0.5
	0.5s		2.10nm			
LOR	117.82	322	ePKP	38	33.00	-0.1
SSF	118.13	322	ePKP	38	33.40	-0.3
	0.5s		3.20nm			
BGF	118.76	321	ePKP	38	34.70	-0.2
	0.5s		3.60nm			
TCF	119.27	321	ePKP	38	35.70	-0.2
MFF	120.57	322	ePKP	38	38.10	-0.2
	0.5s		5.80nm			
CNCB	151.76	141	ePKP	39	37.00	0.9
			i	39	44.00	
LPB	151.89	140	PKP	39	36.70	0.6
			i	39	44.50	
S.D. = 0.9 on 60 of 65 obs.						

? MAR 20, 1989 18h 25m 26.09±11.70s
9.716 N ±77.5km 62.100 W ±37.2km
DEPTH = 10.0km (geophysicist)
NEAR COAST OF VENEZUELA (97)

TPP	0.87	47	eP	25	44.34	1.5
			eS	26	02.14	
TCE	1.03	19	eP	25	45.66	0.1
			eS	26	02.41	
TRN	1.15	36	eP	25	46.91	-0.7
			eS	26	03.73	
TBH	1.27	53	eP	25	48.87	-0.8
			eS	26	07.85	
GRW	2.47	10	eP	26	07.09	0.0
S.D. = 1.3 on 5 of 5 obs.						

? MAR 20, 1989 23h 35m 52.31± 0.95s
39.396 N ± 8.3km 23.319 E ±12.1km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.0 (ATH).

NEO	0.12	220	ePg	35	55.00	-0.3
PLG	0.98	6	iPgc	36	11.10	0.1
			eSg	36	27.00	
ATH	1.46	168	ePg	36	19.00	0.4
KZN	1.50	308	ePg	36	23.50	4.2X
PRK	2.30	93	ePn	36	30.50	-0.3
S.D. = 0.6 on 4 of 5 obs.						

% MAR 21, 1989 00h 11m 00.73± 2.11s
39.916 N ±15.6km 29.224 E ±22.4km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.55	236	iPg	11	12.00	0.0
			eSg	11	20.00	
YLV	0.66	10	iPg	11	14.20	0.3
HRT	0.97	20	ePn	11	19.00	-0.1
ISK	1.15	354	ePn	11	22.00	-0.3
CTT	1.37	334	ePn	11	26.00	0.2
S.D. = 0.3 on 5 of 5 obs.						

& MAR 21, 1989 00h 14m 33.14s
60.084 N 152.874 W
DEPTH = 105.9km
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM	0.04	265	iP	14	47.43	1.0
			eS	14	59.22	
RDT	0.54	25	iP	14	49.48	-0.7
			eS	15	01.94	
PDB	0.73	246	iP	14	50.76	-0.8
			eS	15	04.92	
NNL	0.79	92	eP	14	52.42	0.2
CNPM	1.00	123	iP	14	53.56	-0.8
			eS	15	09.88	
SPU	1.17	20	iP	14	55.35	-0.9
			eS	15	13.28	
CRP	1.24	16	eP	14	56.57	-0.6
CGLM	1.30	19	iP	14	57.07	-0.7
			eS	15	16.42	
SLKM	1.39	71	iP	14	57.66	-1.1
SVW	1.70	308	eP	15	01.10	-1.6
SEW	1.72	88	iP	15	01.16	-1.6
			eS	15	23.22	
PMS	2.00	53	eP	15	05.52	-1.0
			eS	15	29.95	
SKT	2.01	18	eP	15	05.42	-1.2
PTE	2.06	66	iP	15	05.95	-1.2
PWA	2.15	42	eP	15	08.21	-0.1
PWL	2.38	69	iP	15	10.39	-1.1
KNIM	2.58	82	eP	15	11.19	-2.9
MTU	2.62	90	iP	15	13.05	-1.6
			eS	15	43.47	
SML	2.81	50	eP	15	14.94	-2.3
GLI	2.97	72	eP	15	16.87	-2.5
FID	3.24	75	eP	15	20.73	-2.3
21 obs. associated						

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* MAR 21, 1989 00h 34m 14.83± 1.03s
5.500 S ± 8.8km 146.914 E ±16.2km
DEPTH = 183.5 ± 9.5 km
5.0mb (7 obs.)
EAST PAPUA NEW GUINEA REGION (207)

LAT	1.15	176	iPc	34	45.00	0.7
			eS	35	04.00	
PMG	3.89	177	iPd	35	14.00	-1.2
	0.6s		28.00nm			
			eS	35	59.00	
CTA	14.51	182	iPc	37	33.00	0.0
	1.0s		15.50nm			4.4mb
QIS	16.57	205	iPc	37	58.80	0.6
	0.8s		52.00nm			5.0mb
MTN	17.20	244	iPc	38	06.20	0.5
	0.4s		71.00nm			5.4mb
WB5	18.80	219	iPd	38	23.00	0.1
			eS	41	46.00	
WRA	18.86	219	Pd	38	23.00	-0.5
	0.6s		52.80nm			5.2mb
RMQ	20.95	175	eP	38	44.00	-0.6
ASPA	21.98	213	iPd	38	56.50	1.7
	0.3s		138.00nm			5.9mb
			eS	42	50.20	
WARB	28.25	221	eP	39	39.50	-13.5X
MBL	30.52	237	eP	40	13.00	0.0
FORR	30.80	213	eP	40	14.40	-0.9
	0.4s		8.00nm			4.8mb
COOL	34.98	221	eP	40	51.00	-0.4
KLB	37.67	223	eP	41	13.00	-1.0
			e	41	20.60	
NJ2	45.92	326	Pc	42	21.00	0.1
XAN	53.24	320	P	43	16.10	-0.6
GTA	62.30	320	P	44	19.80	-0.1
SPA	84.54	180	e(P)	46	29.90	1.7
	1.0s		5.00nm			4.2mb
S.D. = 0.9 on 17 of 18 obs.						

MAR 21, 1989 00h 57m 04.80± 0.87s
23.903 N ± 9.4km 68.525 E ±11.0km
DEPTH = 33.0km (normal)
4.1mb (2 obs.)
INDIA-PAKISTAN BORDER REG. (712)

BOM	6.39	140	ePn	58	13.00	-26.1X
			eSn	59	10.30	
QUE	6.42	348	eP	58	40.00	0.4
			eS	00	25.60	
POO	7.29	136	eP	58	51.50	-0.3
			iS	00	31.80	
NDI	9.14	57	ePn	59	16.00	-1.4
	1.0s		20.00nm			5.3mb X
			eS	00	48.00	
HYB	11.39	123	eP	59	48.00	-0.3
			eS	02	09.00	
GBA	13.26	139	P	00	13.00	-0.4
MAIO	14.61	330	eP	00	30.00	-1.0
GKN	15.06	71	P	00	37.60	0.6
DMN	15.39	73	P	00	36.40	-5.0X
KKN	15.57	72	P	00	38.20	-5.6X
PKI	15.65	73	P	00	39.40	-5.4X
GUN	16.12	72	P	00	46.00	-4.9X
SHL	21.28	81	iP	01	51.60	0.7
			eS	05	50.50	
CHTO	28.75	94	eP	03	02.50	0.9
	1.2s		3.82nm			4.0mb
NAO	53.78	329	P	06	26.80	0.8
	0.8s		2.30nm			4.2mb
S.D. = 0.9 on 10 of 15 obs.						

& MAR 21, 1989 01h 02m 56.20s
32.540 N 115.260 W
DEPTH = 6.0km (geophysicist)
CALIFORNIA-MEXICO BORDER REGION (45)
<PAS-P>. ML 3.3 (PAS).

GLA	0.63	35	ePd	03	07.50	-1.3
IKP	0.72	279	ePc	03	09.50	-1.2
2 obs. associated						

? MAR 21, 1989 01h 05m 39.37± 1.03s
39.292 N ± 7.4km 23.428 E ±12.1km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 2.9 (ATH).

NEO	0.16	275	iPgd	05	43.00	-0.1
PLG	1.08	1	iPbc	05	59.50	-0.2
			eSb	06	15.00	
ATH	1.34	170	ePb	06	04.00	0.0
KZN	1.63	309	ePg	06	12.10	3.8X
VAY	2.13	342	ePn	06	15.70	0.3
PRK	2.21	90	ePg	06	23.50	6.9X
OHR	2.71	313	ePn	06	21.00	-2.8X
S.D. = 0.4 on 4 of 7 obs.						

? MAR 21, 1989 01h 25m 20.65± 1.07s
39.220 N ± 7.8km 23.498 E ±14.2km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.0 (ATH).

NEO	0.23	292	ePg	25	25.50	-0.1
PLG	1.15	358	ePb	25	41.90	-0.3
ATH	1.26	172	ePb	25	44.00	0.0
KZN	1.72	310	ePg	25	54.10	3.3X
PRK	2.15	88	ePb	26	04.00	6.9X
VAY	2.22	342	ePn	25	58.40	0.5
OHR	2.80	313	ePn	26	10.30	3.9X

21d 01h

S.D. = 0.6 on 4 of 7 obs.

MAR 21, 1989 01h 37m 04.49± 0.41s
36.880 N ± 3.4km 116.818 W ± 3.3km
DEPTH = 5.0km (geophysicist)
CALIFORNIA-NEVADA BORDER REGION (40)
MD 2.8 (REN).

SGV	0.20	301	iPc	37 08.90	0.3
FMT	0.24	173	iP	37 09.60	0.2
YMT5	0.29	86	iP	37 10.70	0.3
YMT3	0.34	106	iP	37 11.30	0.0
TMBR	0.38	66	eP	37 12.20	0.1
SDH	0.45	121	eP	37 13.50	0.0
LSM	0.46	108	eP	37 13.60	-0.1
PANV	0.53	205	eP	37 15.20	0.0
OSM	0.91	183	eP	37 22.20	-0.2
TNP	1.24	345	eP	37 28.00	-0.2
KVN	2.39	335	eP	37 45.00	-0.2
EUR	2.68	14	iP	37 53.20	3.9X

S.D. = 0.2 on 11 of 12 obs.

MAR 21, 1989 02h 00m 51.87± 0.49s
36.924 N ± 3.7km 134.453 E ± 3.4km
DEPTH = 397.2 ± 5.2 km
4.7mb (27 obs.)
SEA OF JAPAN (660)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 8S, 13C
Centroid Location:
Origin Time 02:00:49.1 1.9
Lat 36.31N 0.16 Lon 134.80E 0.18
Dep 384.4 9.3 Half-duration 1.5
Moment Tensor; Scale 10**16 Nm
Mrr= 2.47 0.49 Mtt= 0.69 1.00
Mff=-3.16 0.77 Mrf= 2.94 0.93
Mrf=-4.57 0.96 Mtf= 0.44 0.73
Principal Axes:
T Val= 6.10 Plg=55 Azm= 43
N 0.12 13 153
P -6.23 31 251
Best Double Couple:Mo=6.2*10**16
NP1:Strike= 18 Dip=18 Slip= 137
NP2: 150 78 76

SHK	2.79	212	iPc	01 53.60	0.0
	1.5s	9222.22nm			
MDJ	8.52	336	eP	02 53.50	0.0
Z	14s	0.90um			
			S	04 26.00	
CN2	9.71	318	Pd	03 07.60	0.2
SNY	9.74	304	iPc	03 09.20	1.5
			iS	05 00.00	
DL2	10.33	285	iPd	03 15.50	0.9
			S	05 12.00	
SSE	12.44	246	Pc	03 39.10	-0.1
	0.9s	379.00nm		5.8mb X	
Z	12s	0.50um		4.8MszX	
			eS	05 56.00	
NJ2	13.75	254	Pd	03 53.60	0.4
			S	06 13.00	
TIA	13.95	272	Pd	03 54.70	-0.7
			S	06 25.00	
BJI	14.65	288	Pd-	04 02.00	-0.8
			eS	06 39.00	
			esS	06 48.00	
TIY	17.53	279	iPd	04 31.80	-0.8
Z	12s	0.84um			
E	10s	0.49um			
			S	07 36.50	
WHN	17.88	255	P	04 36.00	0.1
	0.7s	0.10nm		2.3mb X	
QZH	18.07	233	Pc	04 37.80	-0.1
HHC	18.23	289	P	04 38.90	-0.7
BTO	19.39	288	iPc	04 50.20	-0.7
XAN	20.97	270	Pd	05 05.60	-0.6
LZH	24.57	277	eP	05 39.00	-0.6
	2.0s	192.00nm		5.2mb	
GYA	25.76	254	P	05 49.40	-0.9
CD2	26.10	266	iPd	05 52.20	-1.1
GTA	27.25	286	P	06 02.60	-0.9
QIZ	27.98	237	eP	06 11.00	1.1
WMQ	35.89	296	P	07 18.20	0.7
CHG	35.94	250	ePd	07 18.50	0.5
	0.9s	38.45nm		4.7mb	
CHTO	35.94	250	iP	07 19.00	1.0
	0.9s	29.84nm		4.6mb	
			e	08 18.50	
PCT	36.80	242	eP	07 26.00	0.9
ADK	37.23	50	e(P)	07 27.20	-1.2
SHL	37.83	265	iP	07 33.90	0.1
			iS	12 51.00	
NNT	39.41	241	eP	07 47.50	0.9
GUN	41.60	272	P	08 05.60	0.8
PKI	42.12	272	P	08 09.20	0.2
KKN	42.13	272	P	08 09.80	0.9
DMN	42.35	272	P	08 11.40	0.7
GKN	42.56	273	P	08 12.80	0.6
SNG	42.72	235	eP	08 08.60	-4.7X
IPM	44.43	232	ePd	08 27.90	1.0
PSI	47.20	232	iPd	08 48.00	-0.4
	0.7s	25.80nm		4.7mb	
KHKI	48.39	205	ePc	08 57.10	-0.3
			e	10 40.50	
TTA	48.69	35	ePc	08 59.40	0.1
BRW	48.73	24	eP	08 59.40	0.1
SVW	48.97	37	ePc	09 01.80	0.4
MTN	49.60	184	eP	09 06.00	-0.5
IMA	49.62	31	ePc	09 06.00	-0.3
	0.8s	19.70nm		4.5mb	
KDC	50.94	41	eP	09 15.00	-1.0
PMR	52.02	36	ePc	09 22.80	-1.2
	0.7s	25.70nm		4.7mb	
FBA	52.16	32	ePc	09 24.70	-0.2
HYB	52.64	264	eP	09 29.00	-0.1
KNA	52.66	187	eP	09 28.00	-1.1
	0.7s	41.00nm		4.9mb	
TOA	53.32	35	ePc	09 33.60	0.1
GBA	55.67	261	Pd	09 50.40	-0.3
	0.8s	21.90nm		4.5mb	
WB5	56.50	180	iPd	09 55.80	-0.5
WRA	56.56	180	Pc	09 55.60	-1.1
	0.6s	7.20nm		4.2mb	
INK	56.99	26	iPc	09 58.00	-1.3
MBC	58.18	16	ePc	10 06.20	-1.1
	0.7s	34.00nm		4.9mb	
MBL	59.39	196	iPc	10 15.50	-0.6
	0.7s	30.00nm		4.8mb	
ASPA	60.27	181	eP	10 21.50	-0.5
	0.9s	10.00nm		4.3mb	
ALE	60.51	2	eP	10 23.00	0.0
	0.7s	16.00nm		4.6mb	
KEV	61.50	338	eP	10 29.00	-0.7
SOD	62.83	336	iP	10 37.90	-0.5
KJF	64.10	332	iP	10 46.00	-0.5
	0.5s	9.80nm		4.7mb	
SUF	65.49	331	iP	10 54.70	-0.7
	0.5s	5.00nm		4.5mb	
YKA	66.62	28	eP	11 02.20	-0.3
YKC	66.68	28	eP	11 02.00	-0.8
	0.8s	18.00nm		4.9mb	
NUR	67.33	330	iP	11 06.20	-0.6
FORR	67.68	186	iPc	11 08.50	-0.7
	0.4s	13.00nm		5.0mb	
GMW	71.33	44	P	11 31.50	0.3
HFS	71.78	333	eP	11 32.70	-0.8
	0.5s	6.40nm		4.5mb	
NAO	72.30	335	P	11 25.60	-10.9X
	0.6s	4.20nm			
LON	72.33	45	P	11 36.70	-0.3
KVT	72.36	308	iP	11 37.90	0.6
FHC	74.49	51	iPc	11 50.80	1.3
LBFM	75.45	49	P	11 55.60	0.5
WDC	75.51	50	iPc	11 55.60	0.5
SES	75.71	37	ePc	11 55.60	-0.5
	0.5s	31.00nm		5.3mb	
MIN	76.22	50	iPc	11 59.10	-0.1
FFC	76.69	30	iPc	12 01.00	-0.3
	0.7s	26.00nm		5.1mb	
ORV	76.76	50	iPc	12 01.80	-0.2
BRK	77.30	52	ePc	12 05.30	0.4
BKS	77.31	52	eP	12 05.70	0.7
	0.6s	20.00nm		5.0mb	
PCC	77.44	53	iPc	12 02.70	-3.0X
MHC	78.01	52	ePc	12 09.30	0.3
LRM	78.01	41	eP	12 09.60	0.6
FRB	78.01	10	ePc	12 08.20	-0.1
	0.6s	28.00nm		5.2mb	
CMB	78.37	51	P	12 11.50	0.6
	0.7s	15.02nm		4.8mb	
PRS	78.79	53	ePc	12 13.50	0.4
LLA	78.89	53	ePc	12 14.10	0.5
HPI	79.05	43	P	12 15.20	0.6
KVN	79.15	49	P	12 15.50	0.4
			pP	13 43.00	385kmX
PRI	79.36	53	ePc	12 15.10	-1.1
FRI	79.44	52	ePc	12 16.70	0.3
TNP	80.30	49	P	12 22.00	0.8
	0.6s	16.82nm		5.0mb	
			pP	13 51.00	392kmX
EKA	81.22	337	P	12 26.00	0.7
	0.6s	2.80nm		4.2mb	
BW06	81.59	42	P	12 28.10	0.2
	0.7s	9.32nm		4.6mb	
RSON	82.89	28	P	12 33.20	-0.7
PEC	83.01	53	P	12 35.00	0.1
MSU	83.02	47	P	12 36.50	1.4
PLM	83.54	53	P	12 38.00	0.2
GLA	85.03	52	P	12 45.60	0.6
GOL	86.00	42	P	12 50.00	0.1
ALQ	88.80	46	eP	13 03.80	0.6
	1.0s	5.00nm		4.3mb	
TIC	122.43	310	PKP	19 02.10	-0.3
KIC	122.48	310	PKP	19 02.20	-0.3
LIC	122.77	310	PKP	19 02.60	-0.4
ATB	145.97	12	PKPc	19 47.30	1.4
LPB	151.53	50	PKP	19 58.00	3.0X
			i	20 03.00	
CNCB	151.81	51	PKP	19 58.00	2.4
			i	20 04.00	

S.D. = 0.7 on 100 of 104 obs.

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* MAR 21, 1989 02h 19m 19.12± 1.13s
39.230 N ± 8.7km 23.248 E ±16.5km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.0 (ATH).

NEO	0.08	346	ePg	19 20.50	-1.1
PLG	1.15	8	iPbc	19 40.30	-0.4
			eSb	19 55.70	
ATH	1.31	164	ePb	19 43.20	-0.1
KZN	1.57	314	ePg	19 53.10	6.0X
VAY	2.15	346	ePn	19 56.50	1.0
PRK	2.35	89	ePn	19 58.50	0.2
OHR	2.66	316	ePn	20 09.00	6.2X

S.D. = 1.1 on 5 of 7 obs.

? MAR 21, 1989 02h 28m 41.18± 1.03s
39.303 N ± 7.4km 23.416 E ±14.6km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 2.9 (ATH).

NEO	0.15	272	ePg	28 44.60	-0.1
PLG	1.07	1	ePg	29 01.00	-0.3
			eSg	29 16.50	
ATH	1.35	170	ePb	29 06.00	0.0
KZN	1.62	309	ePg	29 13.50	3.6X
VAY	2.12	342	ePn	29 17.50	0.5

S.D. = 0.6 on 4 of 5 obs.

? MAR 21, 1989 03h 34m 46.24± 2.34s
39.269 N ±10.2km 22.746 E ±19.8km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 2.9 (ATH).

NEO	0.37	84	ePg	34 53.50	-0.4
PLG	1.23	26	ePb	35 09.00	-0.1
			eSb	35 24.90	
KZN	1.28	324	ePg	35 21.50	11.5X
ATH	1.50	149	ePb	35 13.00	-0.2
VAY	2.05	356	ePn	35 30.00	8.8X
OHR	2.37	322	ePn	35 33.80	8.0X
PRK	2.74	89	ePb	35 31.70	0.7

S.D. = 0.8 on 4 of 7 obs.

? MAR 21, 1989 04h 06m 11.69± 2.33s
55.025 N ±21.3km 164.693 E ±39.4km
DEPTH = 33.0km (normal)
4.6mb (5 obs.)
KOMANDORSKY ISLANDS REGION (4)

TTA	21.43	52	P	10 58.70	0.0
	1.0s	8.13nm		4.1mb	
IMA	22.77	44	eP	11 12.50	0.4
PMR	24.67	56	eP	11 30.20	-0.1
FBA	25.13	48	eP	11 33.90	-0.7
TOA	26.01	54	eP	11 42.70	-0.3

YKA	39.89	46	eP	13	44.50	1.0
FFC	49.72	49	eP	15	02.00	-0.1
	0.7s		6.00nm			4.7mb
BGMT	51.23	64	eP	15	14.20	0.1
KVN	52.25	74	P	15	22.00	0.2
TNP	53.42	74	P	15	30.30	-0.2
	0.8s		3.92nm			4.5mb
BW06	54.22	65	P	15	36.00	-0.4
	1.0s		10.47nm			4.8mb
MSU	55.87	70	P	15	49.00	0.6
RSON	56.01	48	P	15	48.70	-0.3
GOL	58.62	65	P	16	08.50	0.6
ALQ	61.60	69	eP	16	28.00	-0.3
	1.0s		5.25nm			4.6mb
FVM	67.41	56	P	17	05.30	-0.4
ELC	68.53	55	P	17	12.50	-0.2
S.D. = 0.5 on 17 of 17 obs.						

MAR 21, 1989 04h 26m 01.53± 0.93s
2.281 N ± 7.1km 118.493 E ± 7.1km
DEPTH = 32.3 ± 7.0 km
4.5mb (3 obs.)
CELEBES SEA (262)

TSM	1.97	348	iP	26	34.30	1.0
			S	26	56.50	
KKM	4.37	329	ePd	27	06.50	-1.1
MNI	6.40	97	e(P)	27	36.00	0.0
QIZ	18.68	334	eP	30	19.80	0.4
PSI	19.55	272	eP	30	29.50	-0.2
MTN	19.58	140	eP	30	29.00	-1.0
NNT	21.21	300	eP	30	46.50	-0.5
CHG	25.23	312	eP	31	26.10	-0.2
	1.0s		12.00nm			4.4mb
WB5	26.98	145	eP	31	43.00	0.5
WRA	27.01	146	Pc	31	42.60	-0.2
	1.1s		19.50nm			4.6mb
ASPA	29.84	151	eP	32	08.80	0.5
CD2	31.70	335	iPd	32	23.40	-1.2
SHL	34.53	314	iP	32	49.20	-0.2
BJI	37.64	357	eP	33	15.00	-0.3
GUN	40.25	312	P	33	37.80	0.1
PKI	40.41	312	P	33	39.20	0.2
KKN	40.63	312	P	33	41.60	1.0
GTA	40.68	338	P	33	41.00	0.2
GKN	41.22	312	P	33	45.40	0.0
GBA	42.11	288	Pc	33	52.70	0.1
	1.0s		8.00nm			4.4mb
MDJ	43.29	12	eP	34	01.50	-0.4
KVT	82.81	311	iP	38	24.90	0.7
S.D. = 0.6 on 22 of 22 obs.						

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* MAR 21, 1989 04h 50m 15.67± 1.21s
39.249 N ± 8.8km 23.494 E ±13.9km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 2.9 (ATH).

NEO	0.22	285	ePg	50	19.60	-0.8
PLG	1.12	358	ePb	50	36.20	-0.6
			eSb	50	52.00	
ATH	1.29	172	ePb	50	39.50	0.0
KZN	1.70	309	ePn	50	45.50	0.0
PRK	2.16	89	ePb	51	00.50	8.4X
OHR	2.78	313	ePn	51	02.50	1.4
S.D. = 1.2 on 5 of 6 obs.						

% MAR 21, 1989 05h 16m 57.64± 1.70s
43.143 N ± 9.7km 0.145 E ±15.7km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 3.8 (LDG). Felt (V) at Luz-St. Souveur.

EPF	0.18	128	Pg	17	01.80	0.1
			Sg	17	04.00	
LPO	1.71	26	Pn	17	28.00	0.3
			Pg	17	31.80	
			Sg	17	56.40	
LFF	1.85	13	Pn	17	30.60	1.0
			Pg	17	35.20	
			Sg	18	00.80	
CAF	2.26	37	Pn	17	36.00	0.4
			Pg	17	42.40	
			Sg	18	12.90	
RJF	2.38	24	Pn	17	38.20	1.0
			Pg	17	44.20	
			Sg	18	17.00	
LSF	3.26	17	Pg	18	00.80	11.0X
			Sg	18	44.70	
MFF	3.47	357	Pn	17	53.00	0.3
			Pg	18	04.20	
			Sg	18	50.00	
TCF	3.47	24	Pn	17	52.20	-0.6
			Pg	18	04.80	
			Sg	18	51.20	
MAF	3.53	28	Pn	17	53.60	0.0
			Pg	18	06.00	
			Sg	18	53.70	
BGF	3.92	28	Pn	17	58.80	-0.3
			Pg	18	12.80	
			Sg	19	06.00	
AVF	4.30	31	Pn	18	03.40	-1.1
			Pg	18	20.80	
			Sg	19	16.20	
SMF	4.38	36	Pn	18	05.90	0.2
			Sg	19	19.20	
HYF	4.49	22	Pg	18	25.60	18.4X
			Sg	19	22.40	
SSF	4.58	30	Pn	18	08.00	-0.6
			Pg	18	26.00	
			Sg	19	26.00	
LBF	4.70	34	Pg	18	28.40	18.1X
			Sg	19	29.80	
LOR	4.89	31	Pg	18	30.40	17.5X
			Sg	19	36.20	
LPF	4.96	351	Pn	18	13.20	-0.6
			Sg	19	37.00	
S.D. = 0.7 on 13 of 17 obs.						

MAR 21, 1989 05h 29m 36.65± 0.22s
54.607 N ± 3.9km 90.517 E ± 5.8km
DEPTH = 33.0km (normal)
4.6mb (11 obs.)
CENTRAL USSR (326)

GTA	16.45	154	Pd	33	27.00	0.5
HHC	19.64	126	eP	34	04.10	-1.3
LZH	20.69	148	eP	34	15.00	-1.4
	1.5s		0.11nm			2.0mb X
BJI	22.51	120	eP	34	34.50	0.0
TIY	22.56	130	eP	34	36.00	0.9
XAN	24.28	140	P	34	52.00	0.3
CD2	25.51	153	P	35	04.10	0.5
GUN	26.89	189	P	35	16.00	-0.6
GKN	26.93	192	P	35	17.40	0.7
KKN	27.07	190	P	35	17.80	-0.3
DMN	27.26	191	P	35	20.40	0.5
PKI	27.27	190	P	35	20.00	-0.1
MAIO	28.10	242	eP	35	28.00	0.8
			eS	43	52.00	
KEV	31.48	323	eP	35	41.00	-15.9X
KJF	32.04	313	eP	35	47.00	-14.8X
SUF	33.09	310	eP	36	10.00	-1.0
	0.8s		5.00nm			4.5mb
NUR	34.46	307	eP	36	23.00	0.2
HFS	39.60	310	eP	37	05.20	-0.9
	0.5s		2.00nm			4.1mb
NAO	40.53	312	P	37	13.00	-0.8
	0.6s		3.00nm			4.2mb
DAG	41.65	341	eP	37	22.30	-0.4
BRG	44.37	298	e(P)	37	45.60	0.4
	1.1s		21.00nm			4.9mb
CLL	44.59	299	iP	37	47.10	0.1
	1.7s		30.00nm			4.9mb
MBC	48.01	9	eP	38	14.00	0.3
	0.9s		14.00nm			5.0mb
IMA	50.26	29	P	38	31.00	-0.2
	0.6s		1.69nm			4.2mb
INK	53.16	19	eP	38	53.00	0.1
YKA	61.59	13	eP	39	52.30	-0.2
YKC	61.62	13	eP	39	52.00	-0.7
FFC	70.55	8	eP	40	49.00	-0.7
	0.8s		8.00nm			4.8mb
SES	73.82	14	eP	41	09.00	-0.2
RSON	74.85	3	P	41	14.40	-0.7
	0.5s		2.39nm			4.4mb
LRM	78.06	16	eP	41	18.10	-15.4X
BGMT	78.70	16	eP	41	37.60	0.6
WB5	83.11	139	eP	42	00.00	-0.2
WRA	83.16	139	Pd	41	59.10	-1.3
	1.0s		3.10nm			4.4mb
KVN	83.53	22	P	42	03.50	1.0
TNP	84.65	22	P	42	09.00	0.8
GOL	85.08	12	P	42	10.70	0.4
FVM	87.78	1	P	42	23.60	0.4
ELC	88.48	360	P	42	27.50	0.9
ALQ	89.62	14	eP	42	33.80	1.4
	1.2s		13.28nm			5.1mb
S.D. = 0.7 on 37 of 40 obs.						

MAR 21, 1989 06h 15m 55.82± 0.44s
40.678 N ± 3.3km 29.881 E ± 4.2km
DEPTH = 11.7 ± 2.2 km
TURKEY (366)
Felt at Kocaeli.

HRT	0.22	312	ePg	16	00.50	-0.2
GBZT	0.35	289	iPgd	16	05.70	2.6X
			iSg	16	11.20	
YLV	0.40	254	iPg	16	04.50	0.3
ISK	0.73	302	iPg	16	10.00	-0.1
			eSg	16	21.00	
CTT	1.20	294	ePg	16	18.50	0.5
KCT	1.24	250	iPg	16	19.50	0.8
DST	1.44	222	iPn	16	22.00	0.2
BNT	1.53	258	iPn	16	24.00	1.0
EDC	1.57	259	iPn	16	23.70	0.1
ALT	1.63	174	iPn	16	25.10	0.6
DMK	1.97	306	iPn	16	30.00	0.7
BBTK	2.36	110	ePn	16	35.50	0.4
			iPg	16	40.00	
			iSg	17	12.00	
KHL	2.37	187	iPn	16	34.50	-0.7
EZN	2.85	254	ePn	16	42.10	0.2
IZM	3.05	222	iPn	16	43.90	-0.9
BCK	3.26	170	ePn	16	44.00	-3.9X
KDZ	3.51	288	iP	16	52.00	0.7
YER	3.75	200	ePn	17	06.20	11.4X
ELL	3.92	180	ePn	16	58.00	0.7
RZN	4.03	286	iPd	16	59.00	0.2
PVL	4.24	308	iPd	17	02.00	0.4
PGB	4.67	295	iPc	17	07.00	-0.9
CFR	4.68	345	eP	17	08.00	0.1
KVT	4.69	83	ePn	17	25.10	16.9X
MMB	4.74	283	eP	17	08.00	-0.8
KKB	5.26	285	eP	17	16.00	-0.2
VTS	5.35	293	iP	17	17.00	-0.6
VAY	5.57	279	ePn	17	21.00	0.5
MLR	5.61	330	ePc	17	22.00	0.8
VRI	5.68	337	ePc	17	21.50	-0.5
CMP	5.80	324	ePc	17	51.00	27.2X
SKO	6.49	284	e(Pn)	17	55.00	21.5X
BZS	7.80	312	eP	17	55.50	3.7X
S.D. = 0.6 on 26 of 33 obs.						

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* MAR 21, 1989 06h 41m 44.42± 1.02s
6.713 N ± 9.2km 76.456 W ±23.0km
DEPTH = 33.0km (normal)
NORTHERN COLOMBIA (99)

HOBC	2.36	172	ePc	42	21.45	-0.4
CLMC	2.82	182	iPc	42	28.60	0.4
HOOC	3.23	183	iPc	42	33.80	-0.4
DIAC	3.41	176	eP	42	37.25	0.5
PURC	4.36	179	eP	42	53.50	2.9X
LPB	24.53	160	P	47	07.00	4.1X
CNCB	24.83	160	P	47	09.00	3.1X
SOB1	38.81	114	eP	49	08.30	0.0
YKA	62.26	341	eP	52	05.20	0.0
GBA	147.15	52	PKPc	01	28.20	3.7X
	0.7s		2.00nm			
S.D. = 0.5 on 6 of 10 obs.						

% MAR 21, 1989 09h 18m 53.35± 0.79s
39.303 N ± 6.9km 27.670 E ± 7.8km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.80	68	ePg	19	08.00	-0.9
IZM	0.96	200	ePn	19	11.00	-0.6
EDC	1.05	8	ePn	19	12.70	-0.5
KCT	1.08	29	iPn	19	14.40	0.7
EZN	1.16	297	ePn	19	15.40	0.3
KHL	1.75	123	ePn	19	25.00	1.0
S.D. = 1.0 on 6 of 6 obs.						

% MAR 21, 1989 09h 20m 23.04± 0.95s
39.117 N ± 8.2km 27.598 E ± 9.7km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

21d 09h

IZM 0.76 200 ePg 20 38.30 0.3
eSg 20 50.30
DST 0.94 58 ePn 20 40.00 -0.9
EZN 1.21 306 ePn 20 45.00 -0.6
EDC 1.25 9 ePn 20 46.70 0.5
KCT 1.27 27 iPn 20 47.40 0.7
S.D. = 1.0 on 5 of 5 obs.

? MAR 21, 1989 10h 18m 31.67± 1.10s
39.152 N ± 8.2km 27.632 E ±13.0km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM 0.81 201 ePg 18 47.30 0.0
eSg 18 58.30
EDC 1.21 8 ePn 18 53.70 -0.4
EZN 1.22 304 ePn 18 54.40 0.1
KCT 1.23 27 iPn 18 54.90 0.4
S.D. = 0.6 on 4 of 4 obs.

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* MAR 21, 1989 10h 23m 02.57± 0.54s
52.113 N ±15.0km 170.994 W ± 5.9km
DEPTH = 33.0km (normol)
4.3mb (5 obs.)
FOX ISLANDS, ALEUTIAN ISLANDS (9)

ADK 3.52 269 eP 23 56.00 -0.3
IMA 16.48 25 eP 26 57.50 4.8X
INK 24.11 34 eP 28 16.00 0.3
MBC 31.14 21 eP 29 20.00 0.3
YKA 31.16 48 eP 29 20.90 0.8
KVN 38.41 88 eP 30 22.50 -0.1
EUR 39.46 86 iP 30 31.50 0.1
0.3s 2.69nm 4.5mb
TNP 39.55 89 eP 30 32.50 0.3
0.7s 1.02nm 3.7mb
FFC 39.71 58 eP 30 33.00 0.0
0.9s 11.00nm 4.6mb
BW06 41.43 78 eP 30 46.00 -1.6
0 6s 1.74nm 4.0mb
RSON 45.98 59 eP 31 23.00 -1.0
ALQ 48.19 84 e(P) 31 43.00 1.2
FRB 49.76 35 eP 31 53.00 -0.2
GTA 59.70 296 eP 33 04.80 -1.3
CD2 63.49 287 eP 33 31.80 0.2
GYA 65.01 281 P 33 41.60 0.0
HFS 68.04 357 eP 33 59.50 -0.7
0.3s 1.00nm 4.4mb
GUN 75.96 297 P 34 49.20 1.0
GKN 76.56 298 P 34 52.60 1.2
BUL 144.62 327 iPKPc 42 37.20 -0.2
S.D. = 0.8 on 19 of 20 obs.

% MAR 21, 1989 11h 23m 06.18± 0.77s
38.025 N ± 7.4km 29.187 E ± 7.7km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

KHL 0.40 42 iPg 23 13.50 -0.9
YER 1.14 219 iPn 23 26.50 -1.1
BCK 1.25 116 ePn 23 29.20 -0.2
ELL 1.40 156 ePn 23 33.00 1.2
IZM 1.56 284 ePn 23 34.20 0.1
DST 1.64 345 ePn 23 36.00 0.8
S.D. = 1.2 on 6 of 6 obs.

MAR 21, 1989 11h 40m 30.77± 0.65s
44.667 N ± 5.5km 11.256 E ± 6.0km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)

MME 0.62 220 P 40 43.30 -0.1
eSg 40 54.40
BDI 0.77 218 Pc 40 45.60 -0.2
eSg 40 57.90
PGD 0.86 157 P 40 47.40 0.0
eSg 41 01.40
SFI 0.86 150 Pc 40 47.00 -0.3
eSg 41 01.40
PII 1.08 209 P 40 51.00 -0.1
eSg 41 06.60
RSM 1.13 130 P 40 52.70 0.7
BOB 1.29 275 P 40 54.50 -0.3
eSn 41 13.40
CTI 1.41 11 P 40 55.50 -1.1
eSn 41 14.50
MDI 1.56 316 P 40 59.80 1.3
eSn 41 19.00
TRI 2.06 59 eP 41 00.60 -5.2X
i 41 24.40
i 41 35.30
i 41 39.00
S.D. = 0.8 on 9 of 10 obs.

& MAR 21, 1989 12h 04m 51.50s
33.990 N 119.110 W
DEPTH = 3.0km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 3.8 (PAS). Felt (IV)
ot Newbury Pork.

PAS 0.79 78 ePc 05 05.70 -1.7
CIS 0.83 134 iPc 05 06.60 -1.4
ABL 0.86 354 iPd 05 07.40 -1.5
SYP 0.90 307 iPd 05 07.40 -2.0
MWC 0.90 75 ePc 05 07.80 -1.8
SCI 1.11 155 eP 05 11.30 -1.7
BLP 1.21 298 iPd 05 12.00 -2.7
SBB 1.27 56 ePd 05 13.80 -2.0
BCH 1.44 326 eP 05 16.00 -2.6
RVR 1.44 89 iPc 05 15.60 -2.9
PEC 1.62 93 iPc 05 18.20 -2.9
ISA 1.75 17 iPd 05 21.70 -1.3
PLM 1.98 108 ePc 05 23.00 -3.4
PHAM 2.12 330 eP 05 25.50 -2.9
CLC 2.21 34 iPc 05 27.50 -2.1
PKEM 2.22 339 eP 05 27.70 -2.1
BAR 2.42 122 ePc 05 28.70 -4.0
TPC 2.54 87 ePc 05 31.90 -2.5
SAO 3.36 326 eP 05 41.80 -4.2
eS 06 25.00
GLA 3.70 103 eP 05 48.00 -2.8
ARN 3.89 330 eP 05 49.40 -4.1
CMB 4.17 346 eP 05 55.40 -2.0
TNP 4.36 20 eP 05 59.20 -1.2
KVN 5.12 9 eP 06 09.80 -1.3
EUR 6.03 24 iP 06 23.80 -0.2
0.2s 8.93nm 5.2mb X
FRB 42.85 30 eP 12 51.00 -1.1
26 obs. associated

MAR 21, 1989 12h 47m 12.97± 1.59s
43.381 N ±10.0km 5.425 E ± 9.2km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
MD 3.0 (STR).

GELF 0.00 38 Pg 47 15.09 0.2
TREF 0.24 353 Pg 47 17.39 -0.8
PUYF 0.25 53 Pg 47 17.56 -0.8
PRAF 0.46 336 Pg 47 22.60 0.2
VILF 0.52 24 Pg 47 22.90 -0.5
TAVF 0.52 63 Pg 47 23.07 -0.4
GANF 0.71 29 Pg 47 26.78 -0.2
MVIF 1.36 67 Pn 47 38.48 0.5
Sg 47 57.40
TOUF 1.47 64 Pn 47 40.37 0.7
Sg 48 00.48
AURF 1.47 69 Pn 47 40.04 0.4
AUTN 1.58 66 Pn 47 41.80 0.5
Sg 48 03.40
SAOF 1.66 68 Pn 47 41.97 -0.3
DOI 1.73 49 P 47 44.20 0.9
eSg 48 08.50
BNI 1.90 28 P 47 48.90 3.1X
eSg 48 12.80
CKI 2.31 62 P 47 52.60 0.9
eSn 48 24.00
CVF 2.66 107 Pn 47 55.06 -1.5
S.D. = 0.8 on 15 of 16 obs.

? MAR 21, 1989 13h 45m 23.25± 2.11s
55.395 N ±26.8km 159.345 W ±16.2km
DEPTH = 33.0km (normol)
ALASKA PENINSULA (12)
ML 3.3 (PMR).

SDN 0.66 266 iPd 45 36.00 -0.1
KDC 4.46 55 eP 46 30.00 -0.3
SVW 6.06 17 eP 46 54.20 1.3
TTA 7.75 11 eP 47 15.20 -1.4
PMS 7.80 37 eP 47 17.40 0.1
TOA 9.58 40 eP 47 45.20 3.3X
S.D. = 1.4 on 5 of 6 obs.

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* MAR 21, 1989 14h 01m 04.63± 1.20s
34.516 N ±10.9km 25.048 E ± 9.4km
DEPTH = 10.0km (geophysicist)
CRETE (370)
MD 4.0 (ATH).

NPS 0.88 32 ePg 01 20.00 -1.5
VAM 1.13 322 ePg 01 24.70 -1.1
KAP 2.03 59 ePn 01 42.80 3.6X
ITM 3.67 317 ePn 02 04.00 1.3
YER 3.71 44 iPn 02 04.80 1.6
KSL 4.04 65 ePn 02 09.00 1.2
ELL 4.54 59 eP 02 15.70 0.6
KHL 5.24 42 eP 02 24.00 -1.0
DSI 9.16 106 eP 03 19.00 -0.7
PRNI 9.38 114 eP 03 23.00 0.2
MBH 9.58 117 eP 03 25.00 -0.6
S.D. = 1.3 on 10 of 11 obs.

? MAR 21, 1989 14h 38m 06.31± 4.23s
41.665 N ±70.2km 13.890 E ±25.4km
DEPTH = 10.0km (geophysicist)
SOUTHERN ITALY (390)

SDI 0.07 306 Pc 38 08.20 -0.5
eSg 38 12.10
DUI 0.43 90 P 38 15.00 0.0
eSg 38 22.50
AZI 0.47 314 P 38 15.40 -0.4
eSg 38 23.60
MNS 1.15 309 P 38 28.50 0.6
S.D. = 0.9 on 4 of 4 obs.

MAR 21, 1989 15h 02m 24.56± 0.59s
39.172 N ± 7.0km 110.862 W ± 5.4km
DEPTH = 5.0km (geophysicist)
UTAH (478)
ML 2.9 (NEIS).

MSU 1.22 238 iPc 02 47.10 -0.8
DAU 1.28 346 eP 02 48.50 -0.4
DUG 1.82 305 eP 02 57.50 0.6
RW1 2.57 110 eP 03 07.90 0.1
RW4 2.74 111 eP 03 10.50 0.2
BW06 3.74 15 eP 03 24.00 -0.3
EUR 3.97 276 eP 03 28.50 0.8
KVN 5.63 271 eP 03 51.00 -0.2
S.D. = 0.6 on 8 of 8 obs.

% MAR 21, 1989 15h 09m 10.50± 0.93s
46.565 N ± 8.4km 23.506 E ± 9.3km
DEPTH = 5.0km (geophysicist)
ROMANIA (358)

CJR1 0.20 9 iPc 09 14.50 -0.2
DEV 0.80 212 ePc 09 25.00 -1.5
BZS 1.62 235 ePd 09 41.00 1.2
CMP 1.68 140 ePc 09 42.00 1.3
MLR 2.01 121 ePc 09 45.00 -0.6
VRI 2.34 106 ePc 09 50.00 -0.3
S.D. = 1.4 on 6 of 6 obs.

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* MAR 21, 1989 15h 29m 42.54± 1.08s
24.202 N ± 7.4km 120.802 E ±14.5km
DEPTH = 33.0km (normol)
TAIWAN (244)

TWD 0.73 99 iPc 29 55.10 -1.3
TWF1 0.96 152 ePc 29 59.10 -0.6
eS 30 10.80
TWK 0.97 197 iPc 30 00.30 0.4
TWC 1.04 67 ePc 30 01.00 0.2
eS 30 15.00
TWZ 1.14 38 eP 30 03.60 1.4
ANP 1.17 33 ePd 30 03.80 1.0
0.8s 1552.24nm
eS 30 22.00
TWG 1.40 170 ePc 30 06.60 0.7
SSE 6.88 3 ePn 31 21.80 -1.8
eLg 33 21.80
Lg 33 37.00
S.D. = 1.3 on 8 of 8 obs.

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* MAR 21, 1989 15h 57m 20.79± 1.57s
37.760 N ±23.0km 71.743 E ± 7.3km
DEPTH = 33.0km (normol)

4.5mb (2 obs.)
AFGHANISTAN-USSR BORDER REGION (717)

QUE	8.53	209	eP	59 25.20	0.0
			eS	00 54.00	
MAIO	9.90	265	eP	59 44.00	0.0
			eS	01 26.00	
GKN	14.55	128	P	00 46.40	0.1
	0.4s	9.00nm		4.6mb	
KKN	15.10	127	P	00 53.00	-0.6
	0.4s	9.00nm		4.4mb	
DMN	15.12	128	P	00 54.40	0.6
PKI	15.33	128	P	00 56.80	0.1
GUN	15.40	126	P	00 57.40	-0.2
S.D. = 0.4		on	7 of	7 obs.	

? MAR 21, 1989 16h 28m 07.61± 1.61s
39.201 N ± 9.6km 23.035 E ±16.1km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.0 (ATH).

NEO	0.18	54	ePb	28 12.60	0.9
			eSb	28 15.90	
ATH	1.34	156	ePb	28 32.70	0.5
			eSn	28 47.70	
VAY	2.15	351	ePn	28 43.70	-0.2
PRK	2.51	88	ePn	28 48.00	-1.1
OHR	2.57	319	ePn	29 01.20	11.3X
S.D. = 1.6		on	4 of	5 obs.	

• MAR 21, 1989 16h 42m 49.65± 2.14s
4.510 N ±10.8km 127.658 E ±17.1km
DEPTH = 143.4 ± 18.8 km
4.7mb (4 obs.)
TALAUD ISLANDS (263)

MNI	4.15	223	ePc	43 52.00	-0.5
			eS	44 43.00	
MTN	17.58	169	eP	46 48.00	0.6
KNA	20.16	177	eP	47 15.00	0.2
	0.5s	12.00nm		4.6mb	
LAT	22.27	120	eP	47 20.00	-15.7X
WB5	25.12	165	eP	48 02.80	-0.1
			i	48 07.20	
ASPA	28.66	168	eP	48 34.80	-0.3
WARB	30.53	182	iPc	48 38.00	-13.5X
	0.2s	1.00nm			
CD2	34.58	322	P	49 26.40	-0.3
FORR	35.16	179	eP	49 31.70	0.2
	0.4s	8.00nm		4.8mb	
BJI	36.86	345	eP	49 45.50	-0.2
SHL	40.17	305	iP	50 14.09	0.4
GTA	42.92	328	iPd	50 36.70	0.9
GUN	46.03	305	P	51 01.40	0.3
PKI	46.29	304	P	51 03.80	0.7
KKN	46.47	305	P	51 04.40	-0.1
DMN	46.55	304	P	51 05.40	0.3
GKN	47.08	305	P	51 08.80	-0.4
GBA	50.32	284	Pd	51 33.50	-0.5
	0.9s	8.00nm		4.5mb	
WMQ	52.63	324	P	51 51.40	0.3
MAIO	69.78	307	eP	53 47.00	0.4
SLL	97.80	333	eP	56 07.70	-1.8
	0.6s	1.70nm		4.7mb	
S.D. = 0.7		on	19 of	21 obs.	

MAR 21, 1989 17h 53m 02.25± 0.67s
24.218 N ± 5.7km 120.823 E ± 7.1km
DEPTH = 10.0km (geophysicist)
TAIWAN (244)

TWD	0.72	101	iPc	53 16.10	-0.3
TWF1	0.96	153	iPc	53 20.10	-0.5
TWK	1.00	198	iPc	53 21.60	0.4
			eS	53 35.00	
TWC	1.01	67	iPc	53 21.70	0.3
			eS	53 36.00	
ANP	1.15	33	ePd	53 25.00	1.2
	0.8s	955.22nm			
			eS	53 43.20	
TWG	1.41	171	iPd	53 28.00	0.1
OZH	2.16	290	ePn	53 39.00	0.3
			Sn	54 04.00	
SSE	6.86	3	ePn	54 43.80	-1.5
WHN	8.53	319	eP	55 04.00	-4.7X
CD2	16.53	298	iPd	57 00.00	4.2X
S.D. = 0.9		on	8 of	10 obs.	

? MAR 21, 1989 17h 59m 44.03± 0.66s
17.514 S ±28.2km 176.118 E ±11.8km
DEPTH = 33.0km (normal)
4.8mb (3 obs.)
FIJI ISLANDS REGION (181)

SGE	1.72	93	ePd	00 10.90	-1.4
SVA	2.31	105	iPd	00 20.60	0.1
			eS	00 52.70	
WB5	39.55	260	eP	07 12.30	-1.6
SPA	72.60	180	ePd	11 10.50	0.6
	1.0s	10.00nm		4.8mb	
BJI	79.91	318	eP	11 50.00	-1.2
CHTO	83.99	292	eP	12 12.50	-0.3
	1.1s	3.83nm		4.5mb	
LZH	86.56	309	eP	12 25.50	-0.1
	2.0s	55.00nm		5.4mb	
ZST	144.92	335	ePKP	19 18.70	-0.7
			e	19 23.90	
KHC	145.43	340	iPKPc	19 20.40	0.1
			i	19 26.50	
WLF	146.92	348	PKP	19 25.00	2.4
CDF	147.86	346	ePKP	19 26.30	2.0
LOR	149.65	350	ePKP	19 31.70	4.7X
LBF	149.90	349	ePKP	19 32.30	4.8X
SSF	149.91	350	ePKP	19 32.60	5.2X
	0.9s	11.40nm			
S.D. = 1.4		on	11 of	14 obs.	

MAR 21, 1989 18h 39m 27.38± 0.40s
38.933 N ± 3.5km 29.272 E ± 5.9km
DEPTH = 4.6 ± 2.7 km
TURKEY (366)
MD 3.8 (ATH).

KHL	0.64	162	iPg	39 40.00	-0.2
DST	0.84	324	iPg	39 44.10	0.0
			iSg	39 56.10	
GPA	1.57	30	iPn	39 59.40	3.3X
YLV	1.63	3	iPn	39 57.20	0.2
IZM	1.66	252	iPn	39 57.80	0.4
BNT	1.76	324	iPn	39 58.70	-0.1
EDC	1.78	323	iPn	39 58.80	-0.3
BCK	1.80	144	iPn	39 59.40	0.0
GBZT	1.86	4	ePn	40 02.50	2.3X
			ePg	40 04.50	
			iSg	40 29.80	
HRT	1.91	9	ePn	40 00.20	-0.8
YER	1.96	204	ePn	40 01.70	0.0
ISK	2.14	356	ePn	40 04.00	-0.2
ELL	2.24	167	iPn	40 06.70	0.9
CTT	2.30	344	ePn	40 06.50	-0.1
PRK	2.36	279	ePn	40 08.00	0.6
EZN	2.45	292	ePn	40 07.80	-0.9
KSL	2.82	175	ePn	40 14.00	0.0
BBTK	2.85	70	eP	40 26.00	11.4X
			iS	41 03.50	
DMK	3.11	339	ePn	40 18.00	0.0
KAP	3.77	207	ePn	40 26.50	-1.0
KDZ	4.01	314	eP	40 07.00	-23.8X
JMB	4.08	331	eP	40 34.00	2.2X
DIM	4.22	319	eP	40 35.00	1.2
PLD	4.71	314	eP	40 40.00	-0.8
MMB	5.00	304	iPc	40 44.00	-1.0
PVL	5.21	326	eP	40 47.00	-0.9
PGB	5.30	315	eP	40 45.00	-4.2X
VTS	5.88	310	iP	40 59.00	1.6
MLR	7.00	340	ePc	41 14.50	1.3
S.D. = 0.8		on	23 of	29 obs.	

? MAR 21, 1989 18h 44m 16.01± 1.02s
37.746 N ± 8.0km 15.052 E ± 8.4km
DEPTH = 10.0km (geophysicist)
SICILY (398)

MNO	0.34	303	P	44 22.70	-0.4
			eSg	44 29.10	
ATN	0.53	38	P	44 26.70	0.0
			eSg	44 35.80	
MEU	0.65	189	Pd	44 29.00	-0.1
			eSg	44 39.30	
GIB	0.85	287	P	44 32.80	0.4
			eSn	44 45.70	
S.D. = 0.5		on	4 of	4 obs.	

? MAR 21, 1989 18h 52m 04.76± 1.01s
37.758 N ± 8.1km 15.059 E ± 9.0km
DEPTH = 10.0km (geophysicist)
SICILY (398)

MNO	0.34	301	P	52 11.40	-0.4
			eSg	52 16.60	
ATN	0.51	38	P	52 15.30	0.1
			eSg	52 24.10	
MEU	0.66	189	Pd	52 17.70	-0.3
			eSg	52 28.20	
FAI	1.20	247	P	52 27.70	0.6
S.D. = 0.8		on	4 of	4 obs.	

? MAR 21, 1989 19h 36m 51.64± 1.04s
37.758 N ± 8.4km 15.062 E ± 9.2km
DEPTH = 10.0km (geophysicist)
SICILY (398)

MNO	0.34	301	P	36 58.20	-0.5
			eSg	37 04.70	
ATN	0.51	38	Pd	37 02.20	0.2
			eSg	37 12.20	
MEU	0.66	189	P	37 04.50	-0.4
			eSg	37 14.70	
FAI	1.20	247	P	37 14.80	0.8
S.D. = 1.0		on	4 of	4 obs.	

MAR 21, 1989 19h 50m 07.93± 0.63s
39.291 N ± 5.5km 23.528 E ± 5.1km
DEPTH = 5.5 ± 3.7 km
AEGEAN SEA (365)
ML 3.3 (ATH).

NEO	0.24	274	ePg	50 12.80	0.0
PLG	1.08	357	ePb	50 29.20	0.5
			eSb	50 44.40	
ATH	1.32	174	ePb	50 31.50	-1.3
KZN	1.69	307	ePg	50 39.00	0.7
PRK	2.13	90	ePn	50 49.50	4.9X
			eSn	51 20.00	
VAY	2.16	340	ePn	50 45.00	0.1
EZN	2.23	75	ePn	50 45.00	-1.0
MMB	2.30	4	iPc	50 46.00	-1.1
KKB	2.60	353	eP	50 51.00	-0.2
KDZ	2.76	31	iPd	50 52.00	-1.6
OHR	2.77	312	ePn	50 56.60	2.8X
PLD	2.95	17	eP	50 57.00	0.8
IZM	3.05	106	iPn	51 00.00	2.3
SKO	3.11	330	ePn	50 58.00	-0.5
DIM	3.15	28	eP	50 58.00	-1.0
PGB	3.29	8	eP	51 00.00	-1.2
VTS	3.31	356	iP	51 02.00	0.5
BNT	3.55	71	ePn	51 05.00	0.3
PVL	4.15	19	iPd	51 10.00	-3.2X
CMP	6.08	10	ePd	51 41.00	0.5
MGR	6.21	280	P	51 42.50	0.1
			eSn	52 54.00	
MLR	6.45	15	ePc	51 45.50	-0.4
S.D. = 1.0		on	19 of	22 obs.	

? MAR 21, 1989 21h 04m 55.91± 9.06s
43.359 N ±17.9km 5.551 E ±74.4km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
MD 2.5 (STR).

MVIF	1.28	65	Pn	05 19.84	0.1
			Sg	05 38.94	
AURF	1.39	67	Pn	05 21.26	-0.2
TOUF	1.39	61	Pn	05 21.95	0.4
			Sg	05 41.21	
AUTN	1.50	64	Pn	05 22.99	-0.1
			Sg	05 46.00	
SAOF	1.58	66	Pn	05 23.97	-0.1
CVF	2.56	107	Pn	05 38.22	0.1
S.D. = 0.3		on	6 of	6 obs.	

? MAR 21, 1989 21h 05m 26.14± 5.15s
43.645 N ±30.0km 6.096 E ±27.1km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
MD 2.5 (STR).

MVIF	0.81	71	Pn	05 42.18	0.3
			Sg	06 01.49	
TOUF	0.91	66	Pn	05 44.27	0.5

21d 21h

			Sg	06 04.63		
AURF	0.92	74	Pn	05 43.82	-0.1	
			Sg	06 04.43		
REVF	0.93	84	Pn	05 44.04	0.2	
			Sg	06 03.94		
AUTN	1.03	70	Pn	05 45.48	-0.2	
			Sg	06 08.29		
SAOF	1.11	72	Pn	05 46.64	-0.4	
			Sg	06 10.07		
DOI	1.19	44	P	05 48.30	-0.1	
			eSg	06 12.70		
BNI	1.47	16	Pd	05 52.90	0.1	
			eSg	06 18.40		
CKI	1.76	63	P	05 56.50	-0.3	
			eSn	06 26.00		

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

? MAR 21, 1989 21h 28m 02.20± 2.97s
36.714 N ±22.9km 34.800 E ±22.1km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

CSS	2.12	215	eP	28 37.00	-1.1	
PPCY	2.70	228	eP	28 47.50	1.0	
BCK	3.45	284	ePn	28 57.00	-0.1	
HRI	3.52	167	iP	28 58.00	-0.2	
DSI	5.15	174	iP	29 21.60	0.4	

S.D. = 1.1 on 5 of 5 abs.

MAR 21, 1989 21h 30m 05.92± 0.37s
39.309 N ± 3.6km 23.551 E ± 3.6km
DEPTH = 10.7 ± 2.6 km
AEGEAN SEA (365)
ML 3.8 (ATH).

NEO	0.25	270	ePg	30 10.50	-0.9	
PLG	1.07	356	ePg	30 26.70	0.7	
ATH	1.34	174	ePb	30 29.20	-1.3	
			eSb	30 45.00		
KZN	1.70	307	ePb	30 35.70	0.0	
PRK	2.11	91	ePn	30 42.70	1.1	
VAY	2.15	340	iPn	30 42.70	0.6	
EZN	2.21	76	ePn	30 43.60	0.6	
MMB	2.28	3	iPc	30 44.00	-0.1	
RDO	2.38	39	ePn	30 45.60	0.1	
LSK	2.43	291	ePn	30 46.50	0.3	
KBN	2.48	303	ePn	30 47.00	0.1	
ITM	2.48	212	ePn	30 46.50	-0.4	
RZN	2.54	20	iPc	30 48.00	0.1	
VLS	2.58	245	ePb	30 50.00	1.7	
KKB	2.58	352	iPc	30 48.00	-0.3	
KDZ	2.74	31	iPd	30 50.00	-0.6	
OHR	2.77	311	iPn	30 52.40	1.3	
SRN	2.80	283	ePn	30 52.60	1.1	
PLD	2.93	17	eP	30 59.00	5.8X	
IZM	3.04	106	ePn	30 46.00	-8.8X	
BERA	3.10	298	ePn	30 57.10	1.5	
SKO	3.11	330	iPn	30 56.00	0.2	
DIM	3.13	28	eP	30 55.00	-1.0	
PGB	3.27	8	eP	30 57.00	-1.2	
VTS	3.29	356	iP	31 00.00	1.4	
PHP	3.36	316	ePn	31 03.40	4.1X	
TIR	3.48	307	ePn	31 04.50	3.5X	
BNT	3.52	71	ePn	30 59.00	-2.7X	
KKS	3.65	320	ePn	31 07.50	4.0X	
PUK	3.90	316	ePn	31 09.10	2.1	
JMB	3.90	35	eP	31 23.00	15.9X	
VAM	3.93	172	ePn	31 07.50	0.0	
DST	3.94	84	ePn	31 10.00	2.3	
BCI	4.04	320	ePn	31 17.30	8.3X	
SDA	4.10	313	ePn	31 16.10	6.3X	
PVL	4.13	18	iPd	31 08.00	-2.2	
YER	4.31	119	ePn	31 13.00	0.0	
NPS	4.36	157	ePn	31 14.50	0.9	
LCI	4.43	285	P	31 13.40	-1.2	
			eSn	32 01.10		
YLV	4.65	72	eP	31 22.00	4.2X	
KAP	4.73	141	ePn	31 17.50	-1.4	
BRT	5.11	290	P	31 24.10	-0.2	
			eSn	32 22.90		
CMP	6.06	10	ePd	31 41.00	3.4X	
MGR	6.22	280	P	31 39.40	-0.5	
			eSn	32 47.50		
MLR	6.43	15	ePc	31 42.50	-0.4	
BZS	6.46	348	ePc	31 42.00	-1.3	
VRI	6.96	19	ePc	31 51.00	0.7	
MEU	7.14	255	P	31 48.90	-4.0X	
			eSn	33 06.80		
SDI	7.79	291	P	32 01.30	-0.8	
USI	8.10	269	P	32 02.80	-3.5X	
KHC	12.14	327	P	33 01.20	-0.4	

S.D. = 1.1 on 38 of 51 abs.

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* MAR 21, 1989 22h 10m 23.62± 1.01s
39.222 N ± 7.5km 23.493 E ±12.8km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 2.8 (ATH).

NEO	0.23	292	ePg	10 28.20	-0.3	
			eSg	10 30.60		
PLG	1.15	358	ePb	10 44.70	-0.5	
			eSb	11 00.70		
ATH	1.26	172	ePb	10 47.00	0.0	
			eSb	11 05.20		
KZN	1.71	310	ePb	10 54.00	0.3	
VAY	2.21	342	ePn	11 01.40	0.5	
OHR	2.80	313	ePn	11 03.50	-5.8X	

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

? MAR 21, 1989 23h 23m 52.53± 1.63s
38.569 N ±13.7km 26.962 E ±22.7km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)

IZM	0.29	126	iPg	23 58.10	-0.5	
			eSg	24 03.10		
EZN	1.35	339	ePn	24 17.00	-0.3	
DST	1.66	51	ePn	24 25.10	3.3X	
YER	1.77	143	ePn	24 24.00	0.5	
BNT	1.93	22	ePn	24 26.10	0.3	

S.D. = 0.9 on 4 of 5 abs.

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* MAR 21, 1989 23h 50m 14.21± 0.93s
39.162 N ± 8.8km 23.361 E ±10.0km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 2.9 (ATH).

NEO	0.18	324	ePb	50 19.50	1.2	
PLG	1.21	3	ePn	50 35.00	-1.8	
			eSn	50 50.60		
ATH	1.22	167	ePn	50 36.20	-0.7	
KZN	1.68	314	ePb	50 44.20	0.4	
			eSn	51 04.00		
VAY	2.24	345	ePn	50 51.30	-0.6	
PRK	2.26	87	ePn	50 52.60	0.4	
EZN	2.39	73	ePn	50 55.00	1.0	
OHR	2.77	316	ePn	50 54.40	-5.0X	

S.D. = 1.3 on 7 of 8 obs.

? MAR 22, 1989 00h 02m 01.94± 2.75s
38.144 N ±15.0km 20.285 E ±22.8km
DEPTH = 10.0km (geophysicist)
GREECE (364)
MD 3.2 (ATH).

VLS	0.24	82	iPbc	02 07.20	0.1	
			eSb	02 14.70		
ITM	1.62	126	ePb	02 30.70	0.1	
			eSn	02 49.30		
KZN	2.45	28	ePn	02 44.50	1.9	
NEO	2.57	62	ePn	02 44.00	-0.4	
OHR	2.99	7	ePn	02 50.00	-0.3	
VAY	3.63	28	ePn	02 58.00	-1.3	

S.D. = 1.3 on 6 of 6 obs.

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* MAR 22, 1989 01h 24m 57.43± 1.64s
18.442 N ±26.1km 66.387 W ± 9.3km
DEPTH = 33.0km (normal)
PUERTO RICO REGION (90)

CSB	0.27	125	P	25 06.00	1.2	
			S	25 15.50		
APR	0.33	273	P	25 06.20	0.7	
			S	25 15.70		
SJG	0.40	146	iP	25 06.90	0.3	
LPR	0.51	105	P	25 07.00	-1.2	
			S	25 10.00		
MGP	0.80	237	P	25 11.20	-1.0	

S.D. = 1.5 on 5 of 5 obs.

MAR 22, 1989 01h 34m 53.22± 0.40s
40.943 N ± 7.7km 74.175 E ± 8.1km
DEPTH = 33.0km (normal)
4.7mb (10 obs.)
KIRGHIZ-XINJIANG BORDER REGION (320)
Felt (IV) at Kazarman and (III) at Boyetovo.

KSH	2.03	136	Pn	35 26.00	0.1	
WMQ	10.41	69	P	37 19.00	-4.3X	
Z	14s		0.90um			
QUE	12.23	211	eP	37 42.60	-5.6X	
			eS	39 59.10		
MAIO	12.38	253	eP	37 44.00	-6.0X	
			eS	39 58.00		
NDI	12.48	168	iPc	37 48.00	-3.3X	
GKN	15.51	143	P	38 27.00	-4.2X	
KKN	15.99	142	P	38 33.50	-3.9X	
DMN	16.06	143	P	38 34.90	-3.5X	
GUN	16.17	140	P	38 36.60	-3.4X	
PKI	16.23	142	P	38 37.40	-3.3X	
GTA	19.63	86	eP	39 20.80	-1.3	
N	10s		0.50um			
SHL	21.26	131	iP	39 40.50	1.5	
			eS	43 38.00		
LZH	23.66	92	eP	40 02.50	-0.1	
	2.0s		55.00nm		4.7mb	
HYB	23.75	170	eP	40 03.00	-0.4	
	1.0s		60.00nm		5.1mb	
			eS	44 15.00		
CD2	25.86	103	eP	40 24.20	0.7	
GBA	27.38	173	Pc	40 36.50	-1.0	
	1.0s		24.60nm		4.8mb	
GYA	30.45	108	P	41 04.60	-0.5	
MLR	35.02	294	ePc	41 45.50	0.8	
KJF	35.38	327	eP	41 47.00	-0.4	
SUF	35.63	324	iP	41 49.20	-0.3	
	0.6s		2.20nm		4.3mb	
HFS	41.24	319	eP	42 39.60	3.3X	
	0.8s		7.00nm		4.4mb	
NAO	42.64	320	P	42 46.80	-1.0	
	0.9s		3.40nm		4.1mb	
MBC	62.77	4	eP	45 17.00	0.0	
	0.9s		23.00nm		5.3mb	
INK	69.11	11	eP	45 57.00	-0.5	
FBA	69.50	18	eP	46 00.00	0.0	
	1.1s		6.88nm		4.6mb	
FRB	71.54	344	eP	46 15.00	2.6X	
BUL	74.04	224	iPd	46 28.00	0.2	
	0.8s		3.73nm		4.4mb	
YKA	76.67	4	eP	46 43.50	1.5	
FFC	84.65	358	eP	47 25.00	0.6	
	1.1s		14.00nm		5.1mb	

S.D. = 0.8 on 18 of 29 obs.

% MAR 22, 1989 01h 35m 09.89± 1.19s
40.670 N ±11.5km 29.913 E ±11.9km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

HRT	0.24	309	ePg	35 15.10	0.1	
GBZT	0.37	289	ePg	35 16.30	-1.3	
			iSg	35 22.00		
GPA	0.49	141	iPg	35 19.30	-0.5	
ISK	0.76	302	ePg	35 24.10	-0.6	
CTT	1.22	293	ePn	35 32.60	0.0	
DST	1.45	223	ePn	35 36.80	0.6	
EDC	1.60	259	iPn	35 38.50	0.3	
DMK	1.99	306	iPn	35 45.40	1.4	

S.D. = 1.0 on 8 of 8 obs.

? MAR 22, 1989 02h 40m 31.38± 1.31s
16.518 N ±29.2km 95.518 W ±17.5km
DEPTH = 33.0km (normal)
3.5mb (1 obs.)
OAXACA, MEXICO (60)

OXX	1.28	296	iPd	40 51.80	-1.5	
			iS	41 11.50		
SCX	2.77	85	eP	41 35.30	20.9X	
			iS	42 14.50		
TPX	3.52	117	(P)	41 25.00	-0.2	
IIT	3.64	314	eP	41 29.70	2.6X	
			iS	42 15.50		
III	4.20	297	iP	41 36.60	1.7	
			iS	42 32.30		
UNM	4.47	309	(P)	41 56.00	17.1X	
			iS	42 48.50		
IIC	4.80	313	(P)	41 49.50	5.9X	

		iS	42 43.50		
CRX	4.89	307 (P)	41 55.50	10.6X	
		iS	42 35.50		
ALQ	20.80	334 eP	45 11.30	-1.3	
	1.0s	2.25nm		3.5mb	
YKA	47.84	348 eP	49 08.70	1.0	
MBC	61.03	354 eP	50 44.00	0.3	
S.D. = 1.6	on	6 of 11 obs.			

MAR 22, 1989 02h 43m 35.60± 0.77s
35.767 N ± 8.8km 29.299 E ± 6.2km
DEPTH = 33.0km (normal)
EASTERN MEDITERRANEAN SEA (371)

KSL	0.42	33 eP	43 44.50	-0.5	
YER	1.59	329 ePn	44 02.50	0.6	
KAP	1.74	264 eP	44 03.70	-0.3	
		eS	44 27.00		
BCK	1.98	31 ePn	44 07.50	-0.1	
KHL	2.56	4 ePn	44 16.20	0.5	
NPS	3.05	262 eP	44 22.50	-0.1	
CSS	3.39	103 eP	44 28.00	0.5	
BBTK	4.91	33 ePn	44 48.50	-0.5	
		ePg	44 54.00		
		iSg	45 18.50		
S.D. = 0.6	on	8 of 8 obs.			

MAR 22, 1989 03h 22m 27.70± 1.37s
3.389 N ± 7.0km 128.154 E ±11.3km
DEPTH = 94.9 ± 13.5 km
4.5mb (5 obs.)
NORTH OF HALMAHERA (264)

MNI	3.83	240 ePc	23 26.00	0.4	
		eS	24 23.00		
DAV	4.48	325 eP	23 34.00	-0.6	
BAG	14.93	331 eP	25 59.00	3.8X	
MTN	16.40	170 eP	26 14.00	0.4	
KNA	19.02	178 eP	26 44.00	-1.0	
	0.4s	8.00nm		4.4mb	
GUMO	19.37	57 eP	26 50.50	1.8	
WB5	23.92	165 eP	27 34.00	0.0	
WRA	23.97	166 Pd	27 34.70	0.2	
	0.5s	3.30nm		4.0mb	
QIS	26.32	155 eP	27 55.00	-1.5	
ASPA	27.47	169 eP	28 06.60	-0.4	
LOE	29.42	300 eP	28 25.00	0.4	
CHG	32.42	300 eP	28 52.00	1.1	
CHTO	32.42	300 eP	28 52.00	1.1	
	1.1s	5.89nm		4.3mb	
FORR	34.05	180 eP	29 03.50	-1.2	
XAN	35.37	332 P	29 14.60	-1.5	
STK	37.33	161 eP	29 33.00	0.5	
BJI	38.06	345 eP	29 37.00	-1.6	
LZH	39.53	328 eP	29 50.50	-0.6	
	2.0s	55.00nm		5.1mb	
SHL	41.22	306 eP	30 06.70	1.5	
BWA	42.17	155 eP	30 13.70	1.0	
GTA	44.13	328 Pc	30 28.20	-0.4	
GBA	51.08	285 P	31 35.00	12.2X	
	0.2s	0.90nm			
WMQ	53.82	324 P	31 42.50	-0.5	
Z 16s	0.30um			4.4MszX	
MAIO	70.85	307 eP	33 37.00	0.5	
HFS	98.98	333 eP	35 56.90	-1.7	
	0.6s	2.30nm		5.0mb	
KIC	131.98	282 PKP	41 35.10	2.3X	
TIC	132.20	282 PKP	41 35.60	2.4X	
LIC	132.29	281 PKP	41 35.00	1.6	
S.D. = 1.2	on	24 of 28 obs.			

% MAR 22, 1989 03h 30m 33.15± 1.40s
44.221 N ± 7.0km 6.183 E ±17.1km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.2 (LDG).

FRF	0.74	153 Pg	30 47.80	0.1	
		Sg	30 57.00		
LRG	0.78	170 Pg	30 48.10	-0.2	
		Sg	30 58.80		
LMR	0.92	165 Pg	30 50.80	0.1	
		Sg	31 04.00		
SBF	0.97	111 Pg	30 51.60	-0.1	
		Sg	31 05.90		
LPL	1.35	17 Pg	30 58.20	0.0	
S.D. = 0.2	on	5 of 5 obs.			

% MAR 22, 1989 03h 31m 01.98± 1.55s
44.235 N ± 7.1km 6.104 E ±18.4km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.5 (LDG).

FRF	0.78	150 Pg	31 16.80	-0.4	
		Sg	31 26.80		
LRG	0.80	167 Pg	31 17.60	0.1	
		Sg	31 28.40		
LMR	0.95	162 Pg	31 20.20	0.2	
		Sg	31 33.50		
SBF	1.03	111 Pg	31 21.60	0.1	
		Sg	31 35.40		
LPL	1.36	19 Pg	31 27.10	0.0	
S.D. = 0.3	on	5 of 5 obs.			

& MAR 22, 1989 04h 52m 56.35s
11.235 N 85.884 W
DEPTH = 153.2km (geophysicist)
NICARAGUA (75)
<HDC>.

RIN3	0.66	132 iPc	53 19.20	-0.1	
		S	53 37.40		
JUD	1.12	163 iPc	53 23.20	0.4	
		S	53 44.10		
JTS	1.31	136 iPc	53 24.30	-0.3	
		S	53 46.80		
CAO	1.71	153 iPc	53 28.80	0.1	
		S	53 54.00		
HDC2	2.10	125 ePc	53 34.20	0.8	
QPS	2.51	136 ePd	53 38.80	0.6	
CDM	2.67	129 ePd	53 41.60	0.9	
7 obs. associated					

MAR 22, 1989 05h 26m 36.52± 2.79s
63.141 N ± 8.2km 150.944 W ± 8.4km
DEPTH = 143.4 ± 58.1 km
CENTRAL ALASKA (1)

PWA	1.58	161 iPc	27 07.00	0.3	
PMR	1.77	151 iPc	27 08.50	-0.4	
PMS	2.01	161 iPc	27 11.70	-0.1	
FBA	2.25	37 iPd	27 14.60	0.0	
TTA	2.32	267 iPc	27 15.70	0.1	
TOA	2.44	113 iPc	27 17.30	0.2	
SVW	3.00	229 eP	27 24.20	0.0	
IMA	3.17	339 ePc	27 26.40	-0.1	
S.D. = 0.3	on	8 of 8 obs.			

• MAR 22, 1989 07h 46m 59.33± 0.76s
52.811 N ±19.8km 162.249 E ± 8.6km
DEPTH = 33.0km (normal)
4.5mb (7 obs.)
OFF EAST COAST OF KAMCHATKA (219)

FBA	27.71	45 eP	52 47.00	1.0	
MBC	36.79	23 eP	54 05.00	-0.1	
YKA	42.48	43 eP	54 52.80	0.4	
KVN	54.30	71 eP	56 24.50	-0.1	
TNP	55.47	71 eP	56 33.00	-0.2	
	1.0s	2.50nm		4.2mb	
BW06	56.51	62 eP	56 40.00	-0.7	
	1.0s	3.00nm		4.3mb	
SUF	59.75	338 iP	57 02.60	-0.1	
	0.5s	6.30nm		5.0mb	
GUN	60.22	278 P	57 06.50	-0.3	
KKN	60.67	278 P	57 09.80	0.1	
	0.6s	11.00nm		5.2mb	
PKI	60.75	278 P	57 10.20	-0.2	
GKN	60.90	279 P	57 12.20	1.0	
DMN	60.91	278 P	57 11.40	0.0	
NAO	64.43	345 P	57 27.90	-6.1X	
	0.9s	3.60nm		4.5mb	
HFS	64.61	343 eP	57 33.90	-1.3	
	0.5s	1.50nm		4.3mb	
KBA	77.01	339 e(P)	58 51.00	0.7	
	0.8s	6.20nm		4.7mb	
S.D. = 0.7	on	14 of 15 obs.			

? MAR 22, 1989 08h 08m 40.71± 7.68s
8.274 S ±74.5km 124.006 E ±21.2km
DEPTH = 161.6 ± 28.9 km
4.0mb (1 obs.)
TIMOR (289)

KUPT	1.91	192 ePd	09 37.50	21.7X	
		eS	09 53.50		
MTN	8.35	124 eP	10 40.00	0.2	
		eS	12 09.00		
MBL	13.43	197 eP	11 47.00	0.9	
		eS	14 10.00		
WB5	15.29	140 eP	12 08.30	-1.2	
		eS	14 50.00		
WRA	15.32	140 P	12 10.00	0.2	
	0.5s	3.60nm		4.0mb	
NANU	16.38	209 eP	12 22.00	-0.8	
		eS	15 17.00		
WARB	17.99	172 eP	12 26.00	-15.8X	
		eS	15 45.00		
ASPA	18.01	149 iPc	12 42.30	0.3	
		eS	15 58.90		
QIS	19.40	131 eP	12 57.00	0.3	
FORR	22.78	171 eP	13 30.00	-0.1	
S.D. = 0.9	on	8 of 10 obs.			

? MAR 22, 1989 08h 46m 51.87± 1.01s
37.745 N ± 7.8km 15.058 E ± 8.3km
DEPTH = 10.0km (geophysicist)
SICILY (398)

MNO	0.34	303 Pd	46 58.90	-0.1	
		eSg	47 04.30		
ATN	0.52	38 P	47 02.50	0.0	
		eSg	47 11.70		
MEU	0.65	189 Pd	47 04.90	0.0	
		eSg	47 15.10		
GIB	0.85	287 P	47 08.50	0.1	
S.D. = 0.2	on	4 of 4 obs.			

? MAR 22, 1989 10h 23m 17.24± 6.38s
9.897 S ±64.0km 127.307 E ±18.0km
DEPTH = 191.2 ± 39.5 km
4.1mb (1 obs.)
TIMOR SEA (290)

MTN	4.76	128 eP	24 29.00	0.0	
		eS	25 22.00		
KNA	5.99	166 eP	24 45.00	0.0	
0.2s	8.00nm			4.6mb X	
		eS	25 51.00		
WB5	12.04	146 eP	26 04.00	0.0	
		eS	28 14.00		
WRA	12.08	147 Pd	26 04.40	0.0	
0.7s	5.30nm			4.1mb	
MBL	13.31	212 eP	26 20.00	0.0	
		eS	28 40.00		
ASPA	15.07	156 iPc	26 45.60	3.6X	
		eS	29 27.20		
QIS	15.90	133 eP	27 00.00	7.8X	
		eS	29 47.00		
S.D. = 0.1	on	5 of 7 obs.			

MAR 22, 1989 11h 59m 32.19± 0.83s
42.897 N ± 5.8km 12.840 E ± 8.2km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)
MD 2.6 (SSO).

ASS	0.22	323 P	59 37.20	0.3	
		eSg	59 41.90		
CIO	0.37	37 iPgc	59 39.72	-0.1	
		iSg	59 46.16		
MNS	0.53	193 Pd	59 42.00	-0.8	
		eSg	59 49.80		
ALP	0.55	102 iPgc	59 43.00	-0.5	
		iSg	59 51.81		
SSO	0.58	47 e(Pg)	59 44.67	0.7	
		eSg	59 55.20		
AOI	0.86	40 e(Pg)	59 47.89	-0.8	
		i(Sg)	00 02.75		
SDI	1.39	148 P	59 59.10	1.4	
		eSn	00 19.90		
TRI	2.89	13 eP	01 09.40	50.4X	
S.D. = 1.0	on	7 of 8 obs.			

? MAR 22, 1989 11h 59m 51.01± 0.66s
15.265 S ±21.4km 172.886 W ±31.1km
DEPTH = 10.0km (geophysicist)
4.6mb (8 obs.)
SAMOA ISLANDS REGION (169)

AFI	1.72	39 iPd	00 20.00	-1.3	

22d 12h

		e(S)	00 38.60		
WB5	50.33	257 eP	08 45.20	-5.2X	
WRA	50.36	257 P	08 46.00	-4.6X	
	0.8s	1.70nm		4.1mb	
ASPA	50.63	252 iPc	08 47.20	-5.4X	
	0.8s	7.00nm		4.7mb	
KVN	74.38	41 eP	11 32.00	0.8	
TNP	74.40	43 eP	11 32.00	0.6	
	1.0s	3.75nm		4.4mb	
SPA	74.83	180 e(P)	11 32.40	-1.0	
	1.1s	10.12nm		4.8mb	
ALQ	80.33	50 eP	12 04.70	0.3	
	1.0s	3.25nm		4.3mb	
LRM	81.60	38 eP	12 11.50	0.6	
BW06	81.84	42 eP	12 12.00	-0.2	
	1.1s	4.46nm		4.5mb	
FBA	82.17	11 iP	12 12.20	-0.9	
	1.0s	21.00nm		5.2mb	
GOL	83.20	46 iP	12 20.20	0.9	
	1.0s	14.00nm		5.1mb	
SES	84.81	35 eP	12 27.00	0.1	
YKA	89.78	23 eP	12 50.90	0.3	
KHC	145.81	352 iPKPd	19 31.00	-0.6	
	1.0s	8.50nm			
ZST	146.14	348 ePKP	19 32.40	0.3	
		e	19 51.50		

S.D. = 0.8 on 13 of 16 obs.

MAR 22, 1989 12h 40m 51.29± 0.21s
23.423 N ± 4.6km 45.005 W ± 3.3km
DEPTH = 10.0km (geophysicist)
5.1mb (34 obs.) 5.3Msz (6 obs.)
NORTH ATLANTIC RIDGE (403)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 14S, 27C
Centroid Location:
Origin Time 12:40:59.3 0.4
Lat 23.13N 0.06 Lon 44.62W 0.07
Dep 15.0 FIX Half-duration 1.9
Moment Tensor; Scale 10**17 Nm
Mrr=-1.35 0.05 Mtt=-0.06 0.09
Mff= 1.40 0.08 Mrt= 0.48 0.20
Mrf= 0.04 0.33 Mtf= 0.04 0.05
Principal Axes:
T Val= 1.40 Plg= 1 Azm=272
N 0.10 18 2
P -1.50 72 178
Best Double Couple:Mo=1.4*10**17
NP1:Strike=344 Dip=47 Slip=-116
NP2: 199 49 -65

FDF	17.52	243 eP	44 59.80	2.4	
CAR	24.54	242 eP	46 12.00	-0.5	
TOV	27.29	244 eP	46 40.30	2.2	
ATB	27.47	196 Pc	46 38.80	-0.8	
SDV	28.47	244 eP	46 50.10	1.1	
CBM	29.91	327 P	47 01.00	-0.4	
GAC	33.20	320 eP	47 32.00	1.8	
UPA	36.01	252 eP	47 41.00	-13.7X	
Z	20s	1.03um		4.6Msz	
		i	47 57.00		
		i	49 19.00		
MAL	37.28	60 ePc	48 14.60	9.5X	
		iS	53 58.00		
BAO	38.93	185 eP	48 17.50	-1.8	
FVM	41.26	301 P	48 39.50	1.2	
	1.0s	25.00nm		4.9mb	
OLY	41.86	298 P	48 43.90	0.7	
TIC	41.88	107 P	48 42.58	-1.0	
	1.4s	73.00nm		5.2mb	
LIC	42.07	108 P	48 44.30	-0.8	
	1.6s	176.00nm		5.5mb	
KIC	42.25	107 P	48 45.82	-0.8	
	1.5s	141.00nm		5.5mb	
LPF	42.54	44 eP	48 48.30	-0.3	
	0.8s	17.10nm		4.8mb	
MFF	42.67	46 eP	48 49.40	-0.3	
GRR	42.78	43 eP	48 50.30	-0.3	
FLN	43.14	43 eP	48 53.00	-0.5	
	0.8s	18.80nm		4.9mb	
FRB	43.24	345 eP	48 54.00	0.0	
LDF	43.31	43 eP	48 54.10	-0.8	
	0.9s	16.30nm		4.8mb	
LSF	43.69	47 eP	48 57.50	-0.5	
TCF	44.15	47 eP	49 01.30	-0.5	
AVF	45.04	47 eP	49 08.00	-0.9	
	1.2s	39.80nm		5.2mb	
SSF	45.21	46 eP	49 09.60	-0.7	
	0.7s	20.20nm		5.2mb	
SMF	45.34	47 eP	49 10.60	-0.7	
ZOBO	45.46	212 P	49 12.80	-0.4	
	1.2s	13.51nm		4.8mb	
Z	24s	1.47um		4.8MszX	
		S	56 04.00		
		LR	03 50.00		
LBF	45.51	46 eP	49 11.80	-0.9	
ITA	45.52	180 eP	49 12.70	-0.6	
LPB	45.68	212 Pd	49 15.00	0.3	
	1.5s	111.11nm		5.6mb	
Z	23s	1.52um		4.9MszX	
		S	56 02.00		
		LR	02 35.00		
BMA	45.85	179 eP	49 15.70	0.2	
CNCB	45.86	211 P	49 16.00	-0.3	
KUK	46.19	105 eP	49 17.00	-1.4	
KOGH	46.35	105 eP	49 20.00	0.3	
RSON	46.37	319 P	49 19.50	0.1	
	1.0s	12.00nm		4.9mb	
Z	20s	3.39um		5.3Msz	
LEGH	46.60	105 eP	49 18.50	-3.1X	
LPG	47.09	49 eP	49 25.80	0.3	
HAU	47.30	46 eP	49 25.60	-1.2	
	0.9s	11.10nm		5.0mb	
BSF	47.56	46 eP	49 27.80	-1.2	
WLF	47.56	43 P	49 30.60	1.8	
MEM	47.71	42 P	49 32.20	2.3	
CDF	48.00	45 eP	49 31.30	-1.1	
	1.1s	19.50nm		5.1mb	
MOX	51.20	43 eP	49 57.00	0.2	
	1.4s	23.00nm		4.9mb	
Z	20s	2.20um		5.2Msz	
E	20s	1.00um			
		eLR	04 30.00		
		LQ	08 40.00		
KBA	51.83	48 eP	50 02.00	0.1	
	1.5s	26.80nm		5.0mb	
RSSD	52.07	308 P	50 03.50	-0.3	
CLL	52.18	42 iPd	50 05.30	1.1	
		e	50 15.00		
KHC	52.23	45 iPd	50 05.90	1.3	
	1.2s	8.50nm		4.6mb	
FFC	52.24	322 iPd	50 03.80	-0.8	
	1.2s	59.00nm		5.4mb	
BRG	52.70	43 eP	50 07.40	-0.7	
	1.4s	26.00nm		5.0mb	
		e	50 20.00		
GLD	52.88	303 P	50 11.00	1.2	
	0.7s	120.00nm		5.9mb	
Z	20s	4.50um		5.5Msz	
PRU	52.96	44 Pd	50 11.30	1.3	
	2.5s	130.70nm		5.4mb	
		e	50 22.00		
		S	57 44.00		
GOL	53.00	303 P	50 11.00	0.2	
	0.7s	13.11nm		5.0mb	
Z	21s	3.24um		5.3Msz	
NAO	53.32	30 P	50 12.00	-0.5	
	1.3s	23.10nm		5.0mb	
ALQ	54.13	297 eP	50 18.50	-0.6	
	1.7s	41.35nm		5.2mb	
Z	20s	2.45um		5.3Msz	
KSP	54.17	43 eP	50 20.50	1.6	
ZST	54.46	47 eP	50 22.20	1.1	
		e	00 47.00		
HFS	54.48	32 eP	50 20.30	-0.7	
	0.7s	5.60nm		4.7mb	
BW06	56.08	307 P	50 32.50	-0.7	
	1.0s	60.00nm		5.6mb	
SPC	56.59	46 eP	50 37.60	0.8	
SES	57.15	316 eP	50 40.00	-0.5	
SKO	57.51	54 eP	50 44.50	1.3	
		iS	58 42.00		
		i	58 58.00		
LRM	58.07	310 eP	50 47.00	-0.3	
MSU	58.35	302 P	50 50.00	0.6	
DEV	58.39	49 ePd	50 50.00	0.8	
HPI	58.62	308 P	50 51.40	0.1	
DUG	58.68	304 P	50 51.80	0.3	
	1.0s	20.00nm		5.2mb	
ALE	59.54	357 eP	50 55.00	-1.7	
	1.2s	44.00nm		5.5mb	
YKC	60.02	330 ePd	50 58.50	-1.7	
	1.3s	35.00nm		5.3mb	
YKA	60.08	330 eP	50 59.90	-0.8	
MLR	60.54	50 ePc	51 05.50	1.3	
VRI	61.05	49 ePd	51 08.50	0.9	
EUR	61.17	303 iP	51 08.80	0.0	
	0.4s	7.69nm		5.2mb	
GLA	61.27	296 eP	51 09.00	-0.3	
TPC	62.08	297 eP	51 15.00	0.2	
TNP	62.34	302 P	51 16.50	-0.2	
	1.0s	6.25nm		4.8mb	
PNT	62.72	315 eP	51 19.00	0.3	
	1.1s	29.00nm		5.4mb	
BAR	62.87	296 eP	51 20.00	0.0	
KVN	62.87	303 P	51 19.50	-0.6	
PLM	62.89	297 eP	51 20.00	-0.3	
CLC	63.02	300 eP	51 20.00	-1.0	
PEC	63.03	297 P	51 20.60	-0.4	
RVR	63.19	297 eP	51 21.00	-1.0	
SBB	63.42	298 eP	51 24.00	0.4	
MWC	63.70	298 eP	51 25.00	-0.6	
MBC	63.70	345 eP	51 25.00	0.2	
	0.8s	21.00nm		5.4mb	
ISA	63.75	299 eP	51 26.00	0.2	
FRI	64.48	301 e(P)	51 30.30	-0.2	
CMB	64.81	302 ePd	51 32.60	-0.1	
MIN	65.32	305 ePd	51 35.10	-0.9	
LBFM	65.35	306 P	51 35.40	-0.9	
ORV	65.38	304 eP	51 36.00	-0.3	
PRI	65.40	300 e(P)	51 37.70	1.1	
LLA	65.53	301 eP	51 37.10	-0.2	
WDC	65.98	305 eP	51 38.00	-2.0	
INK	67.93	336 iPc	51 50.80	-1.1	
DSI	70.31	63 e(P)	52 09.00	1.8	
PRNI	70.33	65 e(P)	52 08.00	0.5	
FBA	74.29	334 ePd	52 30.00	-0.2	
BRW	74.67	342 ePc	52 33.50	1.2	
IMA	76.06	337 P	52 40.80	0.3	
	1.2s	21.21nm		5.1mb	
PMR	76.12	331 eP	52 41.00	0.3	
BUL	83.79	115 eP	53 24.50	1.8	
MAIO	87.30	52 eP	53 41.00	1.1	
		eS	04 20.00		

S.D. = 1.0 on 100 of 103 obs.

MAR 22, 1989 13h 35m 50.50± 0.79s
41.272 N ± 6.4km 20.051 E ± 6.4km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
ML 2.2 (SKO).

TIR	0.16	298 iPgc	35 53.50	-0.6	
LACI	0.44	325 ePg	36 00.10	0.5	
PHP	0.51	35 ePg	36 00.90	0.1	
BERA	0.57	188 ePg	36 02.60	0.5	
OHR	0.59	106 iPg	36 01.40	-1.0	
		iSg	36 11.50		
PUK	0.78	351 ePg	36 09.00	3.4X	
KKS	0.85	18 ePg	36 06.00	-0.8	
SKO	1.25	56 ePg	36 15.00	1.2	
		iSg	36 31.00		

S.D. = 1.0 on 7 of 8 obs.

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* MAR 22, 1989 13h 44m 54.39± 0.99s
27.407 N ±12.9km 53.285 E ± 7.1km
DEPTH = 76.2 ± 12.6 km
3.8mb (1 obs.)
SOUTHERN IRAN (353)

BRF	2.76	242 ePn	45 37.60	0.4	
BJA	2.78	240 ePn	45 37.90	0.4	
BEE	2.83	241 ePn	45 38.70	0.5	
		eSn	46 14.10		
MAIO	10.32	29 eP	47 21.00	-0.8	
QUE	12.30	74 eP	47 47.80	-0.6	
DSI	16.13	289 ePd	48 37.00	-0.8	
PRNI	16.29	285 iPd	48 40.00	0.2	
GBA	26.40	117 Pd	50 24.70	-0.8	
	0.7s	2.30nm		3.8mb	
GKN	27.73	81 P	50 39.00	1.2	
DMN	28.19	82 P	50 41.20	-0.9	
KKN	28.32	82 P	50 44.30	1.1	
KIC	58.78	260 P	54 47.00	-0.3	
TIC	58.89	261 P	54 45.60	-2.4	
MBC	76.50	358 eP	56 38.00	0.9	
YKA	89.89	354 eP	57 47.80	1.9	

S.D. = 1.2 on 15 of 15 obs.

? MAR 22, 1989 14h 00m 13.56±14.73s

8.273 S ±130.km 128.549 E ±22.7km
DEPTH = 146.7 ± 48.6 km
TIMOR SEA (290)

MTN	5.20	151	iPc	01	30.90	0.4
			e	01	41.00	
			eS	02	14.00	
			e	02	32.00	
KNA	7.43	178	eP	02	01.00	0.4
	0.3s	40.00nm			5.4mb	
			eS	03	26.00	
WB5	12.84	155	eP	03	11.00	-0.9
			eS	05	32.00	
MBL	15.33	212	eP	03	43.00	-0.4
			eS	06	28.00	
ASPA	16.14	162	iPc	03	57.10	3.5X
			eS	06	50.60	
WARB	17.90	186	iPd	04	06.50	-8.3X
FORR	22.47	181	eP	05	01.70	0.6

S.D. = 1.3 on 5 of 7 obs.

% MAR 22, 1989 16h 08m 22.73± 0.91s
37.036 N ±10.6km 3.805 W ± 7.6km
DEPTH = 10.0km (geophysicist)
SPAIN (377)
MG 2.8 (MDD).

AFC	0.30	44	iPgd	08	28.50	-0.6
			eSg	08	32.00	
MAL	0.58	238	ePn	08	32.00	-2.4
			iSg	08	40.00	
EBAN	1.13	1	iPg	08	43.50	-0.3
			eSg	08	58.40	
EPRU	1.14	267	ePg	08	45.80	1.6
ENIJ	1.27	92	ePn	08	47.00	0.6
EHOR	1.39	305	ePn	08	47.80	-0.3
			eSn	09	06.50	
EJIF	1.46	247	ePn	08	50.20	1.1
EVIA	1.90	32	ePn	08	55.80	0.2
			eSn	09	18.50	

S.D. = 1.5 on 8 of 8 obs.

? MAR 22, 1989 16h 08m 25.46± 1.42s
17.113 S ±36.4km 175.198 W ±26.9km
DEPTH = 252.9 ± 11.9 km
4.6mb (6 obs.)
TONGA ISLANDS (173)

AFI	4.58	46	iPd	09	37.00	0.1
			eS	10	30.50	
COO	32.82	240	iPc	14	38.10	0.7
	0.5s	13.00nm			4.8mb	
CTA	36.60	259	iPc	15	04.00	-5.4X
	1.5s	36.11nm			4.7mb	
			e	18	04.00	
			e	18	21.00	
			e	19	09.50	
WB5	47.77	258	eP	16	39.00	-0.5
ASPA	47.96	253	iPd	16	40.80	-0.1
	0.6s	109.00nm			5.4mb	
WARB	54.43	250	iPd	17	14.20	-15.0X
MBL	61.14	255	eP	18	15.10	-0.7
KVN	77.23	42	P	19	53.00	-0.5
TNP	77.26	43	P	19	53.50	-0.2
	0.5s	1.03nm			3.8mb	
PMR	81.14	12	P	20	15.00	1.4
TTA	81.19	9	P	20	14.20	0.3
FBA	84.40	11	P	20	29.80	-0.3
	0.6s	8.00nm			4.7mb	
IMA	84.50	9	P	20	30.00	-0.7
	0.7s	2.18nm			4.1mb	
BW06	84.69	42	P	20	31.50	-0.9
KSP	145.11	347	iPKPd	27	34.80	0.8
CLL	145.26	351	iPKP	27	34.90	0.6
KHC	147.28	349	ePKP	27	40.80	3.1X
LPF	148.79	8	ePKP	27	44.20	4.2X
	0.9s	16.30nm				
LOR	149.92	1	ePKP	27	47.20	5.4X
SSF	150.12	2	ePKP	27	47.80	5.7X
	0.8s	6.70nm				
LBF	150.21	1	ePKP	27	47.80	5.5X
MAF	150.92	3	ePKP	27	49.50	6.1X
	0.8s	8.00nm				

S.D. = 0.8 on 14 of 22 obs.

MAR 22, 1989 16h 38m 55.63± 1.49s
9.768 S ± 3.7km 154.236 E ± 4.4km
DEPTH = 28.9 ± 11.1 km
5.0mb (15 obs.)
DENTRECASTEAUX ISLANDS REGION (194)

PAA	3.66	20	eP	39	51.00	-0.8
VSG	5.43	85	eP	40	17.00	0.2
HNR	5.64	87	eP	40	20.00	0.2
			eS	41	24.00	
RAB	5.91	340	e(P)	40	21.50	-2.0
			eS	41	24.00	
PMG	6.99	272	eP	40	40.00	1.2
			eS	40	48.00	
CTA	12.83	216	iPc	42	10.80	11.9X
	0.8s	29.10nm				
	Z 18s	1.37um				
			i	42	17.00	
			i	42	31.50	
			e(S)	44	26.00	
			e	52	50.00	
DZM	16.94	138	iPc	42	52.80	0.4
RMQ	17.42	197	iPd	42	57.50	-0.8
QIS	17.72	231	eP	43	03.00	1.0
COO	20.82	186	eP	43	35.00	-2.5
WB5	21.65	240	eP	43	46.30	0.3
WRA	21.70	240	Pd	43	45.80	-0.7
	0.8s	19.30nm			4.6mb	
MTN	22.86	260	eP	43	59.00	1.1
CMS	22.98	199	eP	43	59.00	0.1
ASPA	23.83	232	iPc	44	07.90	0.5
	1.1s	71.00nm			5.1mb	
			e	44	30.70	
STK	24.93	206	eP	44	09.00	-8.9X
GUA	24.94	338	eP	44	19.00	1.0
	0.8s	35.82nm			5.0mb	
GUMO	25.00	338	eP	44	19.00	0.4
	1.4s	184.62nm			5.5mb	
PJG	25.00	338	eP	44	20.00	1.4
BWA	25.11	191	eP	44	19.70	0.1
KNA	25.53	254	eP	44	24.00	0.4
	1.0s	71.00nm			5.2mb	
CNB	25.82	189	eP	44	27.00	0.8
CAN	25.88	190	eP	44	27.50	0.7
WARB	30.80	234	eP	44	56.40	-14.9X
FORR	32.11	225	iPd	45	21.60	-1.1
	0.5s	16.00nm			5.2mb	
TAU	33.56	189	iPc	45	36.50	1.3
KRP	33.96	149	eP	45	38.20	-0.5
MBL	34.96	247	eP	45	46.50	-1.0
MSZ	36.73	164	P	46	03.00	0.8
COOL	37.24	231	eP	46	06.00	-0.7
MEKA	37.66	239	eP	46	10.00	-0.2
	1.0s	23.00nm			5.0mb	
KLB	40.16	232	eP	46	30.00	-1.0
NJ2	53.60	322	Pc	48	17.80	1.3
WHN	55.44	318	eP	48	30.00	0.0
DL2	57.15	330	eP	48	43.20	1.0
LOE	58.48	297	eP	48	52.50	0.6
CN2	59.39	336	eP	48	56.50	-1.2
KHT	60.31	293	iPd	49	05.10	0.6
BJI	60.80	327	eP	49	06.00	-1.4
KMI	60.98	306	Pc	49	10.00	0.7
XAN	61.20	318	P	49	09.00	-1.4
CHG	61.47	298	iPc	49	12.00	-0.4
	0.9s	21.64nm			5.3mb	
CD2	63.06	312	eP	49	25.00	2.1
BTO	64.62	324	eP	49	32.50	-0.5
LZH	65.78	317	eP	49	39.50	-1.1
	2.0s	0.05nm			2.3mb X	
SHL	70.08	302	iP	50	07.50	-0.2
GTA	70.26	318	eP	50	08.40	-0.1
GUN	75.92	302	P	50	42.40	0.1
PKI	76.21	302	P	50	43.50	-0.4
KKN	76.38	302	P	50	44.70	0.0
	0.9s	31.00nm			5.3mb	
DMN	76.47	301	P	50	45.50	0.2
GKN	76.99	302	P	50	57.90	9.9X
KOD	78.91	282	eP	51	00.00	1.0
HYB	79.48	290	eP	51	01.00	-0.7
GBA	79.66	286	Pc	51	02.10	-0.5
	0.6s	2.30nm			4.4mb	
SPA	80.30	180	e(P)	51	05.30	0.0
	1.0s	19.50nm			5.1mb	
WMQ	80.34	318	P	51	06.60	0.7
TTA	81.87	21	P	51	13.30	-0.1
	1.0s	6.00nm			4.6mb	
NDI	83.45	300	eP	51	21.00	-1.3
PMR	83.61	24	P	51	22.70	0.4
	0.8s	6.55nm			4.8mb	
IMA	84.65	19	P	51	28.40	0.7
	0.6s	1.66nm			4.4mb	
FBA	85.96	21	P	51	33.70	-0.3
	0.8s	11.72nm			5.2mb	
QUE	92.52	300	eP	52	05.30	-0.7
INK	92.56	21	eP	52	06.00	0.9
KVN	94.27	51	P	52	15.00	1.1
CNCB	130.60	122	(PKP)	58	06.00	-1.1
LPB	130.64	122	(PKP)	58	06.00	-1.0
ZOBO	130.74	121	(PKP)	58	08.00	0.6
AAPN	146.33	328	ePKP	58	35.00	0.4
APHE	146.37	327	ePKP	58	33.00	-1.7
BAO	146.51	139	ePKP	58	36.00	0.6
ATEJ	146.57	327	ePKP	58	35.50	0.5
ATB	150.62	115	PKPd	58	47.60	5.8X

S.D. = 0.9 on 68 of 73 obs.

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* MAR 22, 1989 16h 57m 42.30± 1.09s
27.221 N ± 8.1km 128.039 E ±11.7km
DEPTH = 98.8 ± 10.0 km
4.4mb (5 obs.)
RYUKYU ISLANDS (238)
Felt (I JMA) at Naha.

NAH	1.05	198	P	58	02.60	-0.8
			iS	58	18.40	
SSE	7.13	304	eP	59	25.00	-0.6
			e	00	56.00	
NJ2	9.33	303	Pc	59	55.50	-0.1
BJI	16.14	325	eP	01	26.00	1.5
CN2	16.68	353	P	01	32.60	1.4
			pP	01	48.00	
XAN	17.79	297	P	01	45.40	0.4
GTA	26.42	305	P	03	11.40	-0.2
PKI	37.71	281	P	04	50.60	0.2
KKN	37.79	281	P	04	51.00	0.1
GKN	38.32	282	P	04	55.20	0.0
WB5	47.22	172	eP	06	07.90	0.8
WRA	47.28	172	Pc	06	08.00	0.4
	0.6s	3.20nm			4.3mb	
ASPA	50.90	173	eP	06	36.40	1.0
	1.4s	10.00nm			4.7mb	
MBC	68.91	14	eP	08	36.00	-1.9
YKA	77.70	25	eP	09	30.00	0.7
HFS	77.87	332	eP	09	28.90	-1.3
	0.6s	1.90nm			4.1mb	
NAO	78.63	334	P	09	33.10	-1.3
	0.6s	2.90nm			4.3mb	
FFC	87.78	26	eP	10	21.00	-0.3
	0.6s	9.00nm			5.0mb	

S.D. = 1.0 on 18 of 18 obs.

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* MAR 22, 1989 17h 07m 39.30± 1.93s
39.208 N ±10.8km 22.598 E ±16.5km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 3.0 (ATH).

NEO	0.50	78	ePg	07	48.00	-1.4
KZN	1.27	330	ePg	08	17.60	14.7X
PLG	1.34	29	ePb	08	04.30	0.4
			eSb	08	20.00	
ATH	1.51	144	ePb	08	06.50	0.1
			eSb	08	24.00	
ITM	2.09	195	ePg	08	21.50	6.6X
VAY	2.11	359	ePn	08	14.00	-1.1
OHR	2.35	325	ePn	08	31.50	12.9X
PRK	2.85	88	ePb	08	26.00	0.3
RDO	2.97	48	ePb	08	29.00	1.7

S.D. = 1.4 on 6 of 9 obs.

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* MAR 22, 1989 17h 30m 11.71± 1.06s
4.299 S ±14.1km 139.631 E ±12.5km
DEPTH = 33.0km (normal)
5.0mb (3 obs.)
WEST IRIAN (201)

LAT	7.70	108	e(P)	32	05.00	0.6
PMG	9.03	125	eP	32	19.00	-3.8X
MTN	11.94	224	eP	33	03.00	0.3
			e	35	27.00	
KNA	15.61	222	eP	33	53.00	2.0
	0.6s	23.00nm			4.5mb	
QIS	16.16	180	eP	33	57.00	-1.1
			e	34	03.00	
			e	37	29.00	

22d 17h

		e	39 17.00			
WB5	16.31	198 eP	33 59.90	-0.2		
		eS	37 07.80			
WRA	16.38	198 Pc	33 59.20	-1.7		
	0.5s	3.00nm		3.7mb X		
ASPA	20.03	195 iPd	34 44.90	0.0		
	0.9s	80.00nm		5.1mb		
		eS	38 37.80			
MBL	25.51	227 eP	35 40.00	1.0		
KKN	61.29	305 P	40 16.00	-10.9X		
QUE	77.30	302 eP	42 03.70	-1.6		
SPA	85.73	180 e(P)	42 44.80	-3.9X		
	0.9s	14.09nm		5.2mb		
KIC	144.47	275 PKP	49 46.50	-1.0		
CNCB	145.58	128 ePKP	49 43.00	-7.0X		
		i	49 52.30			
ZOBO	145.78	127 PKP	49 52.00	1.7		
	Z 24s	0.15um		4.7MszX		
	S.D. = 1.4	on 11 of 15 obs.				

MAR 22, 1989 17h 44m 52.97± 0.39s
39.303 N ± 3.6km 23.584 E ± 4.0km
DEPTH = 6.7 ± 2.8 km
AEGEAN SEA (365)
ML 3.3 (ATH).

NEO	0.28	271 iPgd	44 58.20	-0.5		
PLG	1.08	354 iPbc	45 14.40	0.9		
		eSb	45 30.00			
ATH	1.33	175 iPbd	45 16.80	-1.1		
KZN	1.72	306 ePb	45 23.20	-0.4		
PRK	2.09	91 ePn	45 30.00	1.2		
VAY	2.16	339 iPn	45 30.30	0.4		
EZN	2.18	75 ePn	45 30.90	0.7		
MMB	2.29	3 iPc	45 31.00	-0.8		
RDO	2.37	38 ePn	45 33.00	0.1		
LSK	2.45	291 ePn	45 34.60	0.4		
ITM	2.49	212 ePn	45 34.50	-0.1		
KBN	2.50	303 ePn	45 35.70	0.9		
RZN	2.53	20 iPc	45 35.00	-0.4		
KKB	2.59	352 iPc	45 36.00	0.0		
VLS	2.60	245 ePb	45 38.50	2.4		
KDZ	2.73	30 iPc	45 37.00	-1.0		
OHR	2.80	311 iPn	45 40.20	1.2		
PLD	2.93	17 eP	45 42.00	1.2		
TPE	2.93	291 ePn	45 46.50	5.7X		
IZM	3.01	106 ePn	45 42.00	0.0		
SKO	3.13	329 ePn	45 44.00	0.4		
PGB	3.27	8 iPd	45 45.00	-0.8		
VTS	3.30	355 iP	45 46.00	-0.2		
PHP	3.38	316 ePn	45 53.90	6.7X		
EDC	3.46	71 ePn	45 58.00	9.7X		
TIR	3.50	307 ePn	45 53.00	4.1X		
JMB	3.89	35 eP	45 11.00	-43.5X		
VAM	3.92	173 ePn	45 55.00	0.1		
PVL	4.13	18 eP	45 54.00	-3.8X		
MGR	6.25	280 P	46 27.00	-0.8		
		eSn	47 38.10			
MLR	6.43	15 ePc	46 30.50	0.0		
VRI	6.96	18 iPd	46 39.00	1.2		
	S.D. = 0.9	on 26 of 32 obs.				

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* MAR 22, 1989 17h 58m 18.13± 1.26s
14.316 S ±15.6km 166.620 E ±14.5km
DEPTH = 229.1 ± 11.0 km
4.1mb (4 obs.)
VANUATU ISLANDS (186)

PVC	3.77	155 iP	59 19.00	0.2		
		iS	59 46.50			
DZM	7.71	181 iPc	59 53.90	-14.7X		
		iS	01 17.30			
HNR	8.14	306 eP	00 14.00	0.0		
		eS	01 52.00			
VSG	8.43	306 eP	00 18.00	0.1		
		eS	02 00.00			
WB5	31.29	255 eP	04 18.10	-0.8		
WRA	31.32	255 Pc	04 18.00	-1.2		
	0.7s	3.90nm		4.2mb		
FORR	38.96	238 eP	05 23.60	-0.1		
	0.5s	18.00nm		4.9mb		
CHTO	74.34	294 eP	09 35.20	2.5		
	1.0s	2.50nm		3.9mb		
FBA	86.15	18 eP	10 32.00	-2.1		
	0.8s	2.41nm		4.1mb		
KJF	122.73	340 ePKP	16 46.00	-1.5		
SUF	124.23	339 iPKP	16 49.70	-0.8		
	0.6s	2.50nm				
NAO	130.35	345 PKP	17 01.70	-0.6		
	0.7s	1.50nm				
HAU	142.64	338 ePKP	17 24.00	-1.5		
ORX	143.95	334 PKP	17 25.91	-2.0		
FLN	144.04	345 ePKP	17 26.10	-1.7		
LDF	144.11	345 ePKP	17 26.20	-1.7		
LOR	144.14	340 ePKP	17 26.50	-1.6		
LBF	144.34	339 ePKP	17 27.10	-1.4		
LSD	144.43	335 PKP	17 29.20	0.3		
SSF	144.43	340 ePKP	17 27.60	-0.9		
GRR	144.48	346 ePKP	17 27.20	-1.4		
LPG	144.57	335 ePKP	17 28.70	-0.5		
RSP	144.64	334 PKP	17 28.79	-0.3		
SMF	144.69	339 ePKP	17 28.30	-0.7		
AVF	144.72	340 ePKP	17 28.20	-0.8		
LPF	144.86	346 ePKP	17 28.50	-0.7		
FIN	144.98	333 PKP	17 28.89	-0.7		
RRL	145.02	335 PKP	17 30.43	0.5		
ROB	145.06	333 PKP	17 29.50	-0.3		
BGF	145.09	340 ePKP	17 29.50	-0.2		
PZZ	145.23	334 PKP	17 29.71	-0.5		
STV	145.34	333 PKP	17 29.91	-0.4		
PLDF	145.35	339 PKP	17 30.89	0.7		
IMI	145.36	333 PKP	17 30.32	0.0		
AGO	145.44	340 PKP	17 31.08	0.8		
MAF	145.48	340 ePKP	17 30.80	0.4		
SBF	145.59	333 ePKP	17 30.90	0.2		
PYM	145.75	339 PKP	17 32.11	1.2		
LSF	145.79	341 ePKP	17 31.30	0.4		
MFF	145.95	344 ePKP	17 31.90	0.8		
LBL	146.12	339 PKP	17 33.94	2.6		
FRF	146.18	333 ePKP	17 32.60	1.0		
LRG	146.39	334 ePKP	17 33.60	1.7		
LMR	146.42	333 ePKP	17 33.50	1.5		
RJF	146.64	341 ePKP	17 34.20	1.9		
CAF	146.79	340 ePKP	17 34.90	2.3		
LFF	147.21	341 ePKP	17 35.60	2.4		
LPO	147.30	341 ePKP	17 35.80	2.5		
EPF	149.05	340 ePKP	17 40.90	4.7X		
	S.D. = 1.3	on 47 of 49 obs.				

MAR 22, 1989 18h 10m 53.66± 0.48s
20.748 S ± 6.7km 178.689 W ± 4.4km
DEPTH = 570.8 ± 5.8 km
5.1mb (35 obs.)
FIJI ISLANDS REGION (181)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 12S, 18C
Centroid Location:
Origin Time 18:11: 1.7 0.7
Lat 20.58S 0.10 Lon 179.18W 0.08
Dep 589.0 4.7 Half-duration 2.1
Moment Tensor; Scale 10**17 Nm
Mrr=-1.20 0.10 Mtt= 0.95 0.20
Mff= 0.25 0.17 Mrt=-0.27 0.16
Mrf=-1.30 0.17 Mtf=-0.78 0.16
Principal Axes:

	Val=	Plg=	Azm=
T	1.57	14	42
N	0.52	31	141
P	-2.10	56	292

Best Double Couple:Mo=1.8**17
NP1:Strike= 98 Dip=41 Slip=-141
NP2: 337 65 -56

AFI	9.47	45 iPc	13 06.60	-0.8		
		e	14 50.00			
DZM	13.91	262 iPc	13 53.70	2.0		
		iS	16 25.10			
KRP	17.83	195 Pc	14 31.50	1.9		
	0.4s	167.00nm		6.0mb		
WEL	21.21	194 Pc	15 00.80	-0.1		
	1.0s	464.00nm		6.1mb		
HNR	23.46	295 eP	15 23.00	1.6		
VSG	23.75	296 eP	15 23.00	-1.1		
MSZ	26.31	202 P	15 45.30	-1.0		
AFR	27.48	88 iP	15 57.70	0.9		
	0.8s	70.00nm		5.3mb		
TVO	27.93	89 iP	16 00.80	0.0		
	0.8s	60.00nm		5.3mb		
COO	28.19	244 eP	16 04.00	1.0		
		e	18 58.00			
PMO	29.83	84 iP	16 17.00	0.0		
	0.8s	30.00nm		5.0mb		
VAH	30.01	85 iP	16 18.30	-0.3		
	0.8s	30.00nm		5.0mb		
TPT	30.09	84 iP	16 19.40	0.1		
	0.8s	45.00nm		5.2mb		
RUV	30.26	85 iP	16 20.60	-0.1		
	0.8s	50.00nm		5.2mb		
RMO	30.32	253 eP	16 22.00	0.8		
CAN	31.84	236 eP	16 35.00	1.0		
		e	18 12.00			
BWA	32.02	238 eP	16 34.70	-0.9		
		e	18 11.80			
CTA	32.82	265 iPd-	16 43.00	0.6		
	0.8s	97.01nm		5.5mb		
	Z 18s	0.52um		4.3Msz		
		i	16 56.00			
		e(pP)	18 58.00			
		iPcP	19 10.00			
		iS	21 19.00			
		iScP	22 01.00			
CMS	33.47	244 eP	16 49.00	1.3		
PMG	34.77	284 iPd	16 59.00	0.3		
TOO	35.23	234 eP	17 03.00	0.7		
LAT	36.05	288 eP	17 10.50	1.3		
STK	37.10	244 iPd	17 19.20	1.5		
QIS	38.95	263 iPd	17 32.60	-0.2		
ADE	39.94	240 eP	17 41.20	0.4		
WB5	43.91	263 iPd	18 11.70	-0.6		
		eS	24 00.00			
WRA	43.93	262 Pc	18 09.80	-2.6		
	1.0s	53.60nm		5.0mb		
MTN	48.52	271 eP	18 46.00	-1.5		
FORR	48.57	247 eP	18 47.00	-0.6		
	0.4s	78.00nm		5.6mb		
GUMO	49.47	311 eP	18 53.00	-1.4		
	0.9s	248.93nm		5.7mb		
KNA	49.98	267 iPd	18 57.30	-0.9		
	0.4s	51.00nm		5.4mb		
WARB	50.14	253 iPd	18 44.10	-15.2X		
COOL	54.54	246 iPd	19 29.30	-1.5		
MBL	57.08	258 iPd	19 46.10	-2.3		
MEKA	57.30	251 iPd	19 48.40	-1.5		
	0.4s	14.00nm		4.6mb		
KLB	57.36	245 eP	19 48.30	-1.9		
	0.3s	17.00nm		4.8mb		
NWAO	57.68	244 eP	19 52.00	-0.4		
	0.6s	22.00nm		4.6mb		
RKG	57.77	242 eP	19 52.40	-0.6		
BAL	58.37	246 eP	19 55.70	-1.4		
	0.4s	16.00nm		4.7mb		
MUN	58.64	245 eP	19 58.20	-0.7		
MRWA	59.16	248 eP	20 01.00	-1.3		
MNI	59.47	285 ePc	20 03.50	-1.0		
NANU	60.71	255 iPd	20 12.20	-0.4		
TRT	67.41	270 iPd	20 54.30	-0.7		
	0.5s	44.90nm		5.3mb		
KKM	69.20	285 ePc	21 06.70	0.8		
SPA	69.38	180 e(P)	21 07.10	0.9		
	0.7s	4.69nm		4.1mb		
ADK	72.34	1 P	21 20.80	-2.4		
	0.8s	82.76nm		5.3mb		
QZH	76.01	304 Pc	21 44.50	0.2		
SSE	77.35	310 P	21 50.20	-1.3		
	1.0s	20.00nm		4.5mb		
KSI	78.18	271 e(P)	21 55.50	-0.8		
	0.9s	7.50nm		4.1mb X		
		e	22 23.00			
PRS	78.44	44 eP	21 58.10	0.9		
GCC	78.46	43 eP	21 58.00	0.8		
ARN	78.94	43 P	22 00.30	0.5		
KGM	79.50	276 ePc	22 04.30	1.1		
NJ2	79.54	310 Pd	22 03.50	0.5		
BAR	79.57	49 eP	22 04.00	0.8		
RVR	79.79	48 eP	22 04.00	-0.3		
PLM	79.80	49 eP	22 05.00	0.4		
SBB	79.86	47 eP	22 04.00	-0.7		
FRI	79.91	44 eP	22 05.00	0.2		
ISA	79.97	46 eP	22 06.00	0.7		
CMB	80.08	43 ePd	22 06.20	0.4		
WDC	80.28	40 ePd	22 07.50	0.8		
ORV	80.29	41 ePd	22 07.30	0.6		
MDJ	80.35	325 iPd	22 07.50	0.6		
CLC	80.65	46 eP	22 09.00	0.2		
TPC	80.77	48 eP	22 09.00	-0.4		
GLA	81.08	50 eP	22 12.00	1.0		
KDC	81.20	14 P	22 10.00	-0.9		
	0.9s	40.00nm		4.9mb		
DL2	81.47	317 eP	22 08.40	-4.4X		
SNY	81.98	320 Pd	22 15.20	-0.1		
WHN	82.07	307 P	22 16.50	0.5		

CN2	82.10	323	Pd	22	16.00	0.2
KVN	82.13	43	P	22	16.50	0.1
TNP	82.16	44	P	22	16.70	0.1
	0.8s	16.18nm			4.6mb	
IPM	82.56	278	ePd	22	19.30	0.5
	0.9s	48.60nm			5.0mb	
TIA	82.97	313	Pd	22	20.40	0.0
BMW	83.56	35	P	22	23.70	0.5
SNG	83.89	280	eP	22	27.00	1.6
	0.7s	76.71nm			5.4mb	
LON	84.49	35	P	22	27.00	-0.7
TTA	85.30	10	P	22	30.00	-1.3
	1.2s	37.12nm			4.9mb	
PMR	85.41	14	P	22	30.50	-1.2
	1.0s	27.50nm			4.9mb	
BJI	85.62	316	eP	22	33.00	-0.2
MSU	85.74	46	P	22	34.70	0.5
NNT	86.70	285	iPd	22	40.50	1.6
LOE	86.74	290	eP	22	40.00	1.0
TIY	86.96	312	eP	22	40.40	0.6
PNT	87.22	34	eP	22	41.00	0.3
	0.8s	33.00nm			5.1mb	
XAN	87.77	308	P	22	44.00	0.4
HPI	87.82	41	P	22	44.00	0.0
ALQ	88.06	52	ePd	22	45.00	-0.2
	1.0s	9.50nm			4.6mb	
			epP	24	53.00	591kmX
KHT	88.54	286	iPc	22	49.20	1.8
IMA	88.60	10	P	22	46.00	-0.9
	0.8s	13.79nm			4.9mb	
F8A	88.62	13	P	22	44.80	-2.0
	0.8s	60.34nm			5.5mb	
KMI	88.89	297	Pd	22	50.50	1.3
			pP	23	03.50	43kmX
HHC	89.07	315	eP	22	50.00	0.5
BDT	89.09	289	iPc	22	51.10	1.2
	0.9s	80.50nm			5.7mb	
BW06	89.59	43	P	22	51.40	-0.7
	0.8s	20.09nm			5.1mb	
CHG	89.72	290	iPd	22	54.00	1.1
	0.9s	48.74nm			5.4mb	
BTO	89.98	314	eP	22	55.00	1.2
CD2	90.38	303	P	22	56.60	0.9
GOL	90.96	48	P	22	58.00	-0.5
LZH	92.41	308	eP	23	06.00	0.9
	1.5s	66.00nm			5.5mb	
INK	94.68	15	iPc	23	13.10	-1.4
GTA	96.63	310	eP	23	24.00	-0.1
YKA	97.01	25	eP	23	24.90	-0.2
SHL	98.20	294	iP	23	31.70	0.0
			eS	27	37.50	
DMN	104.60	294	Pdiff	24	01.10	0.8
GKN	105.11	295	PKP	28	11.60	-1.9
FRB	117.31	28	ePKP	28	34.00	-1.3
AVY	119.82	232	ePKP	28	38.60	-3.2X
OUE	120.70	293	ePKP	28	42.30	-0.9
MAIO	127.31	300	iPKPc	28	54.70	-0.9
			e	31	02.00	
SOD	130.70	347	iPKP	28	47.20	-13.7X
			i	29	03.90	
BUL	131.37	215	iPKPd	29	02.70	-1.1
	0.9s	1.01nm				
			iPP	31	35.30	
KJF	133.12	345	ePKP	28	59.00	-6.6X
	0.7s	18.70nm				
			i	29	04.00	
PTZ	134.39	223	iPKPd	29	09.00	-0.6
			i	31	51.70	
SUF	134.74	344	ePKP	28	58.00	-10.7X
LSZ	135.52	219	iPKPc	29	11.50	-0.3
			i	31	55.00	
IKZ	136.49	228	iPKP	29	28.00	14.3X
			i	29	40.00	
NUR	136.99	343	ePKP	29	03.00	-10.1X
	0.7s	20.00nm				
			e	29	11.00	
KMZ	138.33	217	iPKP	29	11.00	-6.0X
			i	29	19.80	
			i	31	58.00	
NAI	138.94	242	iPKPd	29	21.00	2.7X
	1.0s	10.00nm				
NAO	139.40	353	PKP	29	07.30	-10.2X
	0.9s	11.50nm				
HFS	139.68	350	ePKP	29	08.40	-9.6X
	0.4s	12.50nm				
KVT	144.29	312	iPKP	29	26.00	-0.6
EKA	145.30	4	PKPc	29	27.80	0.0
	1.0s	55.50nm				
IAS	146.10	327	ePKP	29	30.00	0.7
DMU	146.31	9	iPKPd	29	30.60	1.1
	0.6s	89.00nm				
DCN	146.80	9	iPKPd	29	31.90	1.7
	0.6s	136.00nm				
PTT	146.87	328	ePKP	29	33.00	2.4X
DLE	146.96	9	ePKP	29	32.20	1.7
	0.8s	81.00nm				
HRI	147.04	299	iPKPd	29	34.60	3.1X
BBTK	147.09	312	ePKP	29	29.50	-1.8
CFR	147.10	324	ePKPd	29	33.50	2.5X
KRA	147.24	338	iPKPd	29	33.30	2.2
	0.9s	64.00nm				
			i	29	37.30	
TLB	147.53	323	ePKPd	29	34.50	2.8X
DSI	147.70	297	iPKPd	29	36.00	3.6X
WIT	147.73	354	ePKP	29	35.50	3.8X
KSP	147.73	342	ePKP	29	31.00	-0.9
	0.9s	98.00nm				
			id	29	35.10	
			ic	29	40.00	
			e	30	57.50	
SPC	147.85	336	iPKP	29	35.80	3.4X
MLR	148.08	326	iPKPd	29	35.50	2.7X
CLL	148.15	346	iPKP	29	31.40	-1.1
	1.4s	20.00nm				
			i	29	35.80	
			pPKP	31	53.70	
BRG	148.33	345	iPKP	29	31.60	-1.2
	1.2s	20.00nm				
			i	29	35.90	
			i	29	41.40	
			epPKP	31	55.00	
MBH	148.43	293	iPKPd	29	37.80	4.2X
CSS	148.50	304	ePKP	29	37.00	3.4X
WTS	148.52	353	iPKPd	29	36.60	3.6X
	1.0s	183.00nm				
GPA	148.54	315	iPKP	29	36.60	3.1X
HRT	148.69	316	ePKP	29	36.00	2.3
CMP	148.70	327	ePKPc	29	37.00	3.4X
ISK	148.96	317	ePKP	29	36.00	2.0
PRU	148.99	343	PKP	29	32.00	-1.8
			PKKP	29	38.00	
PSZ	149.02	335	ePKP	29	38.00	3.9X
MOX	149.08	347	ePKP	29	33.00	-1.0
	1.3s	78.00nm				
			i	29	38.50	
			i	29	45.00	
			e	30	18.00	
ALT	149.27	313	iPKP	29	38.00	3.2X
DEV	149.31	330	iPKPd	29	39.80	5.4X
CTT	149.31	318	ePKP	29	38.00	3.4X
DMK	149.35	319	ePKP	29	38.80	4.1X
BCK	149.65	310	ePKP	29	38.50	3.2X
JMB	149.67	321	ePKP	29	40.00	4.9X
SRO	149.70	337	iPKP	29	40.20	5.3X
			i	29	48.10	
ZST	149.80	339	iPKP	29	40.30	5.2X
			e	32	01.80	
ENN	149.82	354	ePKP	29	40.50	5.5X
	0.9s	69.00nm				
			i	29	47.50	
KCT	149.84	316	iPKP	29	39.00	3.5X
PVL	149.91	324	iPKPd	29	40.00	4.6X
UCC	149.92	356	ePKP	29	40.70	5.5X
MEM	149.97	354	PKP	29	35.70	0.5
			ed	29	40.20	
DST	150.00	315	ePKP	29	39.80	4.0X
VKA	150.00	340	ePKP	29	40.00	4.6X
	1.0s	48.50nm				
			ic	29	41.10	
KHL	150.02	312	ePKP	29	38.90	3.0X
KHC	150.03	344	iPKPc	29	34.50	-1.0
			i	29	40.80	
			i	29	49.50	
SNF	150.21	356	ePKP	29	41.00	5.4X
ELL	150.44	309	iPKP	29	41.20	4.6X
AKSR	150.53	282	iPKPc	29	43.00	6.1X
DOU	150.60	356	PKP	29	38.30	2.1
			i	29	41.70	
			i	29	50.90	
AKUR	150.76	282	iPKPc	29	42.50	5.3X
KDZ	150.86	321	iPKPc	29	43.00	6.1X
WLF	150.89	354	iPKP	29	42.70	6.1X
			e	29	52.40	
AGMR	150.97	281	iPKPd	29	44.00	6.4X
PGB	151.00	324	iPKPd	29	43.00	5.8X
RDO	151.10	320	ePKP	29	42.60	5.4X
RZN	151.24	322	iPKPd	29	43.00	5.3X
EZN	151.38	317	ePKP	29	42.90	5.2X
IZM	151.53	314	ePKP	29	43.40	5.3X
PRK	151.74	316	ePKP	29	44.30	6.1X
MMB	151.87	323	iPKPc	29	44.00	5.6X
KBA	151.97	342	ePKP	29	43.50	4.9X
	0.7s	12.20nm				
			id	29	44.00	
CDF	151.99	352	ePKP	29	44.10	5.6X
FLN	152.01	3	ePKP	29	43.80	5.5X
KKB	152.05	324	iPKPd	29	45.00	6.3X
PTJ	152.18	338	ePKP	29	42.70	3.9X
LDF	152.19	2	ePKP	29	44.30	5.7X
GRR	152.37	3	ePKP	29	44.80	6.0X
RBL	152.48	341	PKP	29	44.50	5.3X
HAU	152.50	353	ePKP	29	45.20	6.1X
LJU	152.54	340	e(PKP)	29	40.20	1.0
			i	29	46.00	
FVI	152.57	343	PKP	29	45.30	6.1X
BSF	152.62	352	ePKP	29	45.30	5.9X
VAY	152.70	323	ePKP	29	46.50	7.0X
			i	30	00.30	
LPF	152.72	3	ePKP	29	45.60	6.3X
VOY	152.75	341	ePKP	29	38.40	-1.2
			i	29	46.20	
VBY	152.77	338	e(PKP)	29	41.90	2.4
			i	29	47.10	
PLG	152.82	321	ePKP	29	46.00	6.2X
CEY	152.84	340	e(PKP)	29	40.80	1.1
			i	29	46.50	
SKO	152.87	326	ePKP	29	40.00	0.2
			i	29	46.50	
CTI	153.38	344	PKP	29	48.00	7.5X
LOR	153.46	356	ePKP	29	47.40	7.0X
SSF	153.69	357	ePKP	29	48.10	7.4X
LBF	153.74	356	ePKP	29	48.00	7.2X
OHR	153.82	325	ePKP	29	38.20	-2.9X
	1.2s	0.08nm				
			i	29	48.90	
KZN	153.83	323	ePKP	29	48.50	7.3X
MFF	154.18	2	ePKP	29	48.70	7.3X
VAI	154.21	348	PKP	29	40.00	-1.4
BGF	154.23	358	ePKP	29	48.90	7.5X
LSF	154.56	360	ePKP	29	49.60	7.7X
MAF	154.57	358	ePKP	29	49.90	8.0X
LPG	154.91	351	ePKP	29	51.30	8.5X
BNI	155.36	351	PKP	29	43.00	-0.2
TOL	160.38	12	ePKP	29	53.00	4.0X
LIC	164.31	156	PKP	29	52.80	-0.8
	1.1s	27.50nm				
KIC	164.54	157	PKP	29	53.02	-0.8
	1.0s	22.00nm				
TIC	164.70	155	PKP	29	53.14	-0.8
	0.9s	16.50nm				

S.D. = 1.1 on 141 of 222 obs.

? MAR 22, 1989 19h 11m 08.19± 1.90s
53.411 N ±33.7km 160.406 E ±14.9km
DEPTH = 33.0km (normal)
4.4mb (6 obs.)
NEAR EAST COAST OF KAMCHATKA (218)

FBA	28.07	45	eP	16	58.50	0.4
	1.0s	5.00nm			4.2mb	
MBC	36.68	23	eP	18	13.00	0.0
YKA	42.80	43	eP	19	04.10	0.2
KVN	55.14	70	P	20	40.20	0.5
TNP	56.31	70	P	20	48.40	0.3
	0.8s	2.45nm			4.3mb	
KJF	57.14	337	eP	20	54.00	0.6
BW06	57.20	61	P	20	54.40	0.0
	0.7s	3.29nm			4.5mb	
SUF	58.78	337	iP	21	05.50	0.7
	0.4s	4.40nm			4.9mb	
RSON	58.96	45	P	21	05.30	-1.0
NUR	61.06	337	eP	21	10.00	-10.5X
NAO	63.56	344	P	21	36.40	-0.8
	0.6s	1.30nm			4.2mb	
HFS	63.71	342	eP	21	37.80	-0.3
	0.5s	1.80nm			4.4mb	
ELC	71.52	52	P	22	26.80	-0.6

S.D. = 0.6 on 12 of 13 obs.

• MAR 22, 1989 19h 14m 28.80± 0.99s
8.261 S ±17.0km 116.290 E ±13.1km

22d 19h

DEPTH = 167.7 ± 15.6 km
4.4mb (2 obs.)
SUMBAWA ISLAND REGION (285)

KHKI	0.68	261	ePc	14 53.10	-0.2
			eS	15 11.50	
			e	19 12.00	
TRT	3.66	278	iPc	15 26.00	0.2
			iS	16 07.20	
MBL	13.27	165	eP	17 32.00	0.1
			eS	19 47.00	
NANU	14.24	183	eP	17 45.00	0.9
			eS	20 09.00	
MTN	15.28	109	eP	17 57.00	-0.2
			eS	20 38.00	
MEKA	18.38	174	eP	18 32.00	-1.6
			eS	21 48.00	
WARB	20.36	152	eP	18 40.00	-14.0X
			eS	22 26.00	
WB5	20.97	125	eP	19 00.30	0.2
			eS	22 42.00	
WRA	20.98	126	Pd	18 59.80	-0.4
	0.3s		1.30nm		3.9mb
ASPA	22.79	134	iPc	19 18.90	1.0
	0.3s		14.00nm		4.9mb
COOL	22.96	169	eP	19 45.00	25.6X
			eS	23 34.00	
KLB	23.25	177	eP	19 47.00	24.7X
			eS	23 44.00	

S.D. = 1.0 on 9 of 12 obs.

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* MAR 22, 1989 19h 22m 03.00± 2.27s
43.016 N ±14.2km 145.346 E ± 9.2km
DEPTH = 70.9 ± 18.1 km
4.3mb (9 obs.)
HOKKAIDO, JAPAN REGION (224)

MDJ	11.50	283	eP	24 47.00	0.7
CN2	14.49	280	eP	25 25.00	-0.6
BJI	21.99	272	eP	26 51.00	-1.3
TIA	22.71	262	eP	26 59.10	-0.3
BTO	26.33	277	eP	27 34.60	0.7
WHN	27.61	253	eP	27 46.50	1.0
XAN	29.68	265	P	28 03.50	-0.7
GTA	34.12	280	eP	28 43.10	0.1
CD2	35.02	264	P	28 50.60	-0.1
TTA	38.83	39	P	29 22.80	0.5
BRW	39.73	25	P	29 28.60	-0.9
IMA	40.02	34	P	29 32.00	-0.2
	0.7s		5.81nm		4.6mb
WMQ	41.14	292	P	29 42.40	0.8
FBA	42.46	36	P	29 51.90	-0.2
	0.7s		5.81nm		4.5mb
CHTO	45.81	253	eP	30 20.00	0.5
	0.9s		2.34nm		4.1mb
GUN	49.74	273	P	30 50.60	0.1
DMN	50.47	273	P	30 56.10	0.1
GKN	50.60	274	P	30 56.80	0.0
NDI	55.62	279	eP	31 33.50	-0.3
YKA	57.14	33	eP	31 45.90	1.8
SOD	60.63	337	iP	32 08.00	-0.2
HYB	61.44	268	eP	32 13.50	-0.9
KJF	62.46	334	eP	32 22.00	1.5
SUF	64.00	333	iP	32 30.30	-0.4
	0.5s		2.50nm		4.4mb
GBA	64.72	265	Pd	32 35.50	-0.4
	0.5s		1.30nm		4.1mb
NUR	66.08	332	iP	32 43.20	-0.8
KVN	68.82	56	P	33 02.00	0.1
HFS	69.85	337	eP	33 06.70	-0.8
	0.5s		4.20nm		4.6mb
NAO	70.09	338	P	33 08.00	-1.0
	0.8s		5.30nm		4.5mb
FRB	70.24	15	eP	33 08.50	-1.3
BW06	71.38	49	P	33 17.00	-0.4
	0.5s		1.12nm		4.0mb
KSP	76.54	330	eP	33 46.80	0.0
PRU	77.89	330	eP	33 55.20	1.0
KHC	78.95	330	iP	34 01.00	0.9
KBA	80.75	329	eP	34 11.00	1.1
	0.7s		2.00nm		4.2mb

S.D. = 0.8 on 35 of 35 obs.

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* MAR 22, 1989 19h 34m 38.14± 0.70s
40.382 N ±10.3km 63.285 E ± 8.9km
DEPTH = 33.0km (normal)
3.8mb (1 obs.)

UZBEK SSR (339)

MAIO	5.05	217	iPnc	35 54.20	0.6
	0.4s		13.67nm		4.7mb X
			eSn	36 51.00	
KHI	7.24	212	ePc	36 24.00	-0.6
GKN	21.49	118	P	39 24.90	-1.3
KKN	22.06	118	P	39 32.20	0.2
DMN	22.06	119	P	39 38.40	6.4X
PKI	22.29	118	P	39 35.80	1.4
GUN	22.39	117	P	39 35.00	-0.4
	0.7s		24.00nm		4.8mb X
SUF	31.42	328	iP	40 58.30	0.3
NAO	37.75	321	P	41 52.00	-0.3
	0.7s		1.00nm		3.8mb

S.D. = 1.0 on 8 of 9 obs.

& MAR 22, 1989 21h 16m 33.00s
60.658 N 151.644 W
DEPTH = 69.3km
KENAI PENINSULA, ALASKA (14)
<AGS-P>.

CNPM	1.15	170	eP	16 52.55	-1.2
			eS	17 07.81	
PMS	1.17	59	eP	16 53.29	-0.7
			eS	17 08.15	
SEW	1.22	116	eP	16 54.02	-0.6
PDB	1.54	237	eP	16 57.59	-1.3
			eS	17 16.87	
KNIM	1.96	97	eP	17 01.44	-3.2
			eS	17 25.20	
SML	1.97	53	eP	17 03.31	-1.6
			eS	17 26.82	

6 obs. associated

MAR 22, 1989 22h 57m 02.21± 0.70s
39.338 N ± 6.0km 23.476 E ± 9.8km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.2 (ATH).

NEO	0.20	261	ePg	57 06.00	-0.6
PLG	1.04	359	iPgc	57 23.00	1.2
ATH	1.38	172	ePb	57 27.30	-0.1
KZN	1.63	307	ePb	57 22.50	-8.6X
VAY	2.10	341	ePn	57 36.40	-1.4
PRK	2.17	92	ePn	57 47.50	8.6X
MMB	2.26	5	iPc	57 40.00	-0.2
RDO	2.40	40	ePb	57 48.80	6.7X
ITM	2.48	210	ePb	57 44.00	0.8
RZN	2.53	22	iPc	57 45.00	0.8
KKB	2.54	353	eP	57 45.00	0.8
OHR	2.71	312	ePn	57 49.80	3.2X
KDZ	2.74	32	iPc	57 46.00	-1.1
PGB	3.25	9	eP	57 55.00	0.7
VTS	3.26	357	eP	57 55.00	0.5
PVL	4.12	19	eP	58 05.00	-1.5

S.D. = 1.1 on 12 of 16 obs.

? MAR 22, 1989 23h 43m 07.67± 5.17s
6.115 S ±43.7km 129.834 E ±43.0km
DEPTH = 33.0km (normal)
4.2mb (2 obs.)
BANDA SEA (280)

MTN	6.81	169	iPd	44 53.20	5.3X
			eS	45 59.00	
KNA	9.63	186	eP	45 28.00	0.9
	0.3s		18.00nm		5.8mb X
			eS	47 03.00	
WB5	14.38	163	eP	46 30.00	-0.9
			eS	48 55.20	
WRA	14.43	163	Pc	46 30.10	-1.5
	0.2s		0.80nm		3.9mb
QIS	17.21	147	eP	47 09.00	1.8
			eS	50 08.00	
ASPA	17.89	168	iPc	47 16.10	0.4
	0.7s		29.00nm		4.5mb
			eS	50 22.70	
BWA	33.00	151	eP	49 42.10	0.1
CAN	34.00	151	eP	49 50.10	-0.6

S.D. = 1.4 on 7 of 8 obs.

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* MAR 23, 1989 02h 57m 54.14± 0.74s
2.265 S ±15.2km 126.292 E ±21.7km
DEPTH = 33.0km (normal)

4.5mb (5 obs.)
CERAM SEA (270)

AAI	2.37	127	eP	58 32.30	0.8
			eS	59 00.50	
MNI	3.96	338	ePd	58 54.30	0.2
			eS	59 43.00	
PCI	6.59	282	ePc	59 47.50	16.2X
	1.0s		4.50nm		
MTN	11.55	156	eP	00 40.00	0.1
			eS	02 47.00	
WB5	19.20	156	iPc	02 14.80	-3.5X
			e	02 34.20	
			eS	05 45.00	
WRA	19.25	156	Pd	02 14.10	-4.8X
	0.5s		3.40nm		3.9mb
QIS	22.35	145	eP	02 45.00	-5.8X
ASPA	22.52	162	eP	02 51.60	-0.9
	0.8s		29.00nm		4.8mb
			e	03 05.40	
WARB	23.78	179	iPc	02 55.50	-9.3X
CTA	26.34	134	iP	03 36.00	6.8X
	1.0s		11.50nm		4.4mb
FORR	28.48	177	eP	03 50.10	1.7
	0.5s		33.00nm		5.3mb
CHQ	34.09	309	eP	04 38.00	-0.1
CHTO	34.09	309	eP	04 38.00	-0.1
	1.0s		4.50nm		4.4mb
BWA	38.07	150	eP	05 09.80	-1.8
MAIO	72.85	309	eP	09 33.00	11.0X

S.D. = 1.2 on 8 of 15 obs.

MAR 23, 1989 03h 07m 17.43± 0.83s
37.111 N ± 6.8km 27.627 E ± 7.4km
DEPTH = 9.2 ± 5.8 km
TURKEY (366)
MD 3.5 (ATH).

YER	0.52	87	iPg	07 27.60	-0.4
			iSg	07 35.60	
IZM	1.32	347	iPn	07 42.00	0.1
KAP	1.60	193	ePb	07 44.00	-1.9
KSL	1.86	122	ePb	07 52.80	3.1X
ELL	1.86	101	iPn	07 52.80	2.9X
KHL	1.93	51	iPn	07 52.10	1.3
PRK	2.38	334	ePn	07 57.20	0.0
BCK	2.39	81	iPn	08 00.50	3.1X
NPS	2.46	222	ePb	08 00.00	1.6
DST	2.61	17	iPn	08 02.90	2.4X
EZN	2.90	340	ePn	08 03.60	-0.9
EDC	3.24	3	iPn	08 08.60	-0.7
HRT	4.03	23	ePn	08 20.00	-0.6
RDO	4.34	339	ePn	08 24.80	-0.3
BBTK	4.86	54	eP	08 33.00	0.4

S.D. = 1.2 on 11 of 15 obs.

MAR 23, 1989 03h 10m 44.72± 1.47s
2.398 N ± 4.6km 128.253 E ± 8.3km
DEPTH = 95.4 ± 13.8 km
5.1mb (15 obs.)
HALMAHERA (267)

MNI	3.54	255	ePd	11 38.40	-0.2
			eS	12 26.30	
PCI	9.03	249	ePd	12 04.60	-49.6X
TSM	10.32	280	eP	13 13.50	1.9
KKM	12.54	287	ePd	13 41.80	0.7
	0.5s		26.40nm		5.2mb
JAY	13.37	111	ePc	14 01.00	9.1X
MTN	15.41	169	eP	14 17.00	-1.2
KHKI	16.53	230	ePc	14 35.10	2.9X
			e	18 10.00	
KNA	18.04	178	eP	14 50.50	-0.2
	0.6s		62.00nm		5.0mb
WB5	22.94	165	iPc	15 42.10	0.6
WRA	22.99	165	Pd	15 42.00	0.0
	0.6s		30.50nm		4.8mb
MBL	24.82	199	eP	16 00.00	0.4
	0.5s		6.00nm		4.3mb
QIS	25.38	155	iPc	16 05.10	0.2
			e	16 07.00	
ASPA	26.48	168	iPc	16 14.90	-0.1
	0.5s		28.00nm		5.0mb
			e	19 38.50	
			e	19 49.30	
NANU	27.74	206	eP	16 26.50	0.2
WARB	28.46	183	eP	16 18.60	-14.2X

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CTA     28.49 142 iPc    16 33.60    0.5
MEKA    30.33 197 eP     16 48.50   -1.0
        0.3s     6.00nm              4.8mb
NJ2     30.80 344 P      16 53.20   -0.3
WHN     30.94 336 eP     16 54.50   -0.2
CHG     33.01 302 ePc    17 13.10    0.1
        0.8s    10.45nm              4.7mb
FORR    33.06 180 eP     17 12.20   -1.0
        0.4s    22.00nm              5.3mb
KMI     33.39 315 eP     17 19.00    2.5
MRWA    33.56 200 iPd    17 17.00   -0.6
COOL    33.78 191 eP     17 18.00   -1.5
BAL     34.62 198 eP     17 26.00   -0.7
MAT     35.20  14 iPd    17 27.90   -3.7X
        0.9s    17.65nm              5.0mb
KLB     35.24 196 eP     17 31.00   -1.0
MUN     36.05 198 iPc    17 38.10   -0.7
XAN     36.29 332 P      17 39.50   -1.3
STK     36.37 161 eP     17 41.00   -0.4
CD2     36.61 323 P      17 43.20   -0.4
NWAO    36.65 196 eP     17 43.50   -0.3
TIY     38.03 339 Pd     17 54.50   -1.0
ADE     38.44 166 iPc    18 00.30    1.4
BJI     39.04 345 eP     18 02.00   -1.7
LZH     40.42 329 eP     18 16.00    0.7
        1.5s    82.00nm              5.3mb
                  pP     18 30.00   54kmX
HHC     41.14 341 eP     18 20.00   -1.2
BWA     41.24 154 eP     18 23.90    1.9
                  e      18 32.10
MDJ     42.06   1 eP     18 27.00   -1.5
CAN     42.25 154 eP     18 31.50    1.2
                  e      18 41.90
GTA     45.02 329 iPc    18 52.40   -0.2
HYB     51.00 290 iPc    19 39.80    0.5
        1.0s   100.00nm              5.8mb
KOD     51.02 281 eP     19 40.50    0.7
GBA     51.43 285 Pc     19 42.60    0.1
        0.6s    13.10nm              5.1mb
WMQ     54.68 325 P      20 06.00   -0.3
NDI     55.12 304 iPc    20 08.00   -1.6
        0.8s    22.39nm              5.2mb
SMY     62.86  29 eP     21 14.90   12.4X
MAIO    71.52 307 eP     21 58.00    0.4
SVW     81.22  28 eP     22 51.90    0.7
TTA     81.40  27 eP     22 52.20    0.0
KDC     82.24  32 eP     22 56.20   -0.3
BRW     82.95  18 ePc    23 01.00    1.0
IMA     82.98  24 ePc    23 01.20    0.8
        0.6s    17.60nm              5.2mb
PMR     84.38  28 ePc    23 06.80   -0.5
        0.7s    25.20nm              5.3mb
TOA     85.82  28 eP     23 15.80    1.2
INK     90.84  22 eP     23 37.00   -1.3
MBC     92.91  13 eP     23 48.00    0.3
YKA    100.07  25 ePdiff 24 20.70    0.2
UPA    150.09  67 ePKP   30 26.50    5.0X
CNCB   158.55 133 PKP     30 36.50    2.8X
LPB    158.64 132 PKP     30 36.80    3.2X
ZOBO   158.79 132 PKP     30 36.00    2.1
      S.D. = 1.0  on  53 of  62 obs.
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*  MAR  23, 1989  03h 59m 17.03± 1.22s
   39.056 N ±10.2km   22.482 E ±15.6km
   DEPTH =  10.0km  (geophysicist)
 GREECE                              (364)
      ML 3.0 (ATH).

NEO      0.63  66 ePn    59 29.20   -0.5
KZN      1.36 337 ePb    59 54.00   11.9X
ATH      1.45 138 ePb    59 48.50    5.2X
PLG      1.51  29 ePn    59 45.00    0.8
ITM      1.92 193 ePn    59 50.00   -0.1
VAY      2.26   2 ePn    00 01.00    6.0X
OHR      2.42 328 ePn    00 13.30   15.9X
MMB      2.70  20 iPd    00 02.00    0.7
KKB      2.84   9 iPd    00 07.00    3.7X
PRK      2.95  85 ePn    00 05.50    0.7
RZN      3.13  32 eP     00 06.00   -1.5
RDO      3.14  47 ePn    00 11.50    4.1X
KDZ      3.43  40 iP     00 07.00   -4.6X
      S.D. = 1.2  on   6 of  13 obs.
-------------------------------------------
*  MAR  23, 1989  04h 50m 24.97± 1.36s
   11.148 S ±16.1km  123.737 E ± 8.6km
   DEPTH =  33.0km  (normal)
   4.8mb (  6 obs.)

 SOUTH OF TIMOR                      (293)

KNA      6.70 134 eP     52 05.00    1.4
         0.3s   152.00nm              6.3mb X
                  eS     53 16.00
MTN      7.43 104 eP     52 15.00    1.2
                  eS     53 35.00
KHKI     8.48 288 ePd    52 28.00   -0.5
                  eS     53 58.90
                  e      55 57.00
MBL     10.64 200 eP     52 56.00   -2.2
         0.3s    10.00nm              5.5mb
                  eS     54 47.00
WB5     13.42 132 eP     53 33.90   -1.8
                  eS     55 53.00
WRA     13.44 132 Pd     53 34.10   -1.8
         0.6s    14.00nm              5.1mb
NANU    13.80 214 eP     53 40.00   -0.6
         0.2s     6.00nm              5.0mb
                  eS     56 01.00
WARB    15.21 170 eP     53 43.00  -16.0X
                  eS     56 24.00
ASPA    15.77 143 eP     54 05.70   -0.7
         0.6s    35.00nm              4.7mb
                  eS     56 51.10
MEKA    16.15 197 eP     54 12.00    0.8
         0.4s    11.00nm              4.3mb
                  eS     56 58.00
QIS     17.89 123 eP     54 33.00   -0.1
                  eS     57 36.00
MRWA    19.38 201 eP     54 53.00    1.9
                  eS     58 12.70
COOL    19.79 187 eP     54 56.50    1.0
FORR    20.02 169 eP     54 59.00    1.1
KLB     21.08 194 eP     55 16.00    7.1X
MUN     21.86 197 eP     55 26.50    9.7X
NWAO    22.49 194 eP     55 32.50    9.6X
CTA     23.41 115 iP     55 35.50    3.4X
         1.3s    12.50nm              4.3mb
                  i      55 48.50
                  i      58 52.00
CNCB   149.90 157 iPKP   10 18.70    8.7X
CCH    150.02 161 PKP    10 19.50    9.6X
LPB    150.11 157 PKP    10 19.00    8.9X
ZOBO   150.34 156 PKP    10 19.00    8.3X
      S.D. = 1.5  on  13 of  22 obs.
-------------------------------------------
&  MAR  23, 1989  05h 23m 48.28s
   59.886 N          152.859 W
   DEPTH =  93.0km
 SOUTHERN ALASKA                     (  2)
      <AGS-P>.

PDB      0.68 262 iP     24 04.36   -0.7
                  iS     24 16.63
NNL      0.80  78 iP     24 06.70    0.4
CNPM     0.90 113 iP     24 06.52   -0.9
                  eS     24 20.49
SEW      1.73  81 eP     24 16.20   -1.3
                  eS     24 37.75
SVW      1.84 313 iP     24 17.81   -1.2
PMS      2.12  49 iP     24 22.15   -0.7
                  iS     24 46.78
KDC      2.15 175 eP     24 21.61   -1.5
                  eS     24 45.71
KNIM     2.61  78 iP     24 26.48   -2.8
MTU      2.62  86 eP     24 28.16   -1.4
                  eS     24 57.75
SML      2.94  47 iP     24 32.13   -1.7
                  eS     25 05.72
FID      3.29  72 eP     24 36.65   -2.0
                  eS     25 10.76
KLU      3.77  62 eP     24 42.85   -2.5
        12 obs. associated
-------------------------------------------
   MAR  23, 1989  05h 33m 46.62± 0.94s
   23.832 N ± 4.8km  122.593 E ± 7.1km
   DEPTH =  34.2 ±  7.8 km
   4.9mb ( 10 obs.)
 TAIWAN REGION                       (243)

TWD      0.95 285 iPc    34 02.50   -1.0
                  eS     34 13.40
TWC      1.03 319 iPc    34 04.80    0.0
                  eS     34 18.20
TWF1     1.28 248 ePc    34 07.30   -1.1
TWZ      1.56 324 ePd    34 14.40    1.9
                  eS     34 34.90
ANP      1.67 324 ePc    34 15.20    1.2
         0.8s  1432.84nm
                  eS     34 48.00
TWQ      1.67 286 ePc    34 14.90    0.9
QZH      3.81 288 Pc     34 43.50   -0.9
      N  13s      3.00um
                  S      35 24.00
SSE      7.34 351 Pc     35 32.00   -2.2
      Z  20s      0.03um
      N  12s      1.77um
                  pP     35 37.70
BAG      7.62 195 eP     35 37.10   -1.2
NJ2      8.83 339 Pc     35 53.00   -1.9
      Z  14s      2.40um
      N  11s      1.30um
      E  12s      0.80um
                  S      37 31.00
WHN      9.92 314 eP     36 08.50   -1.5
      Z  16s      2.40um
                  S      38 03.00
GYA     14.66 284 P      37 14.40    0.8
DL2     15.05 357 eP     37 20.00    1.6
      Z  14s      0.90um
XAN     15.69 313 P      37 32.00    5.2X
TIY     16.34 330 eP     37 37.80    2.7
      N  13s      1.30um
                  eS     40 30.00
BJI     17.04 343 eP     37 46.00    2.1
      Z  12s      1.00um
KMI     18.12 278 eP     38 01.50    3.9X
      Z  12s      1.70um
      E  12s      1.10um
                  eS     41 20.00
CD2     18.14 297 P      37 57.50   -0.2
      Z  16s      1.10um
                  eS     41 21.00
HHC     19.33 334 Pd     38 12.80    0.8
      Z  16s      1.40um
      N  12s      1.00um
      E  12s      0.50um
BTO     19.78 331 eP     38 17.00    0.1
      N  14s      1.40um
      E  14s      1.20um
                  PP     38 32.00
CN2     20.06   6 P      38 18.20   -1.5
      Z  15s      1.50um              4.5MszX
      N  14s      0.70um
                  sP     38 29.00
LZH     20.28 311 eP     38 22.00   -0.3
         2.0s    82.00nm              4.7mb
      Z  16s      1.30um              4.4MszX
LOE     20.54 256 eP     38 25.50    0.6
MDJ     21.51  14 eP     38 32.00   -2.6
      Z  15s      1.70um              4.6MszX
                  S      42 32.00
CHTO    22.58 262 eP     38 46.10    0.7
         1.0s     9.50nm              4.2mb
GTA     24.75 314 eP     39 06.80    0.3
      Z  14s      0.80um              4.4MszX
      E  10s      0.50um
GUN     33.20 285 P      40 23.10    0.1
PKI     33.63 284 P      40 26.20   -0.5
KKN     33.74 285 P      40 26.90   -0.5
DMN     33.90 284 P      40 27.70   -1.2
GKN     34.30 285 P      40 31.70   -0.5
WMQ     34.83 314 Pd     40 36.80    0.3
      Z  12s      0.40um              4.4MszX
WB5     44.94 164 eP     42 00.00   -0.2
WRA     44.99 164 P      42 01.00    0.3
QIS     47.13 158 eP     42 18.00    0.4
ASPA    48.47 166 eP     42 28.60    0.5
CTA     49.37 150 iPc    42 36.50    1.5
MAIO    55.14 299 eP     43 19.00    0.7
KEV     69.78 338 eP     44 54.00   -1.1
KJF     70.90 333 iP     45 01.80   -0.2
         0.6s    13.00nm              5.2mb
                  i      45 21.60
SUF     71.99 331 iP     45 07.80   -0.7
INK     73.07  22 eP     45 14.00   -0.8
MBC     73.32  13 eP     45 15.00   -1.2
HFS     78.50 331 eP     45 45.50   -0.1
         0.5s     2.20nm              4.4mb
NAO     79.40 332 P      45 49.60   -1.0
         0.7s     3.50nm              4.5mb
KSP     81.50 322 eP     46 02.80    0.9
                  e      46 14.00
```

23d 05h

SKO 82.21 312 eP 46 14.50 8.8X
YKA 82.79 23 eP 46 09.30 1.0
YKC 82.85 23 eP 46 09.00 0.4
1.0s 14.00nm 5.0mb
CLL 83.10 323 e(P) 46 22.00 11.8X
KHC 83.86 321 P 46 14.70 0.6
LPG 89.72 321 eP 46 43.50 0.3
0.7s 5.50nm 4.9mb
LOR 90.32 323 eP 46 45.20 -0.3
0.8s 4.00nm 4.8mb
LBF 90.43 323 eP 46 46.00 -0.1
SSF 90.64 323 eP 46 47.10 0.1
SMF 90.70 323 eP 46 47.50 0.2
1.0s 14.00nm 5.3mb
FRB 92.28 5 eP 46 54.00 -0.1
FFC 92.93 24 eP 46 57.50 0.1
0.9s 18.00nm 5.5mb
S.D. = 1.1 on 54 of 58 obs.

MAR 23, 1989 07h 10m 20.74± 1.09s
22.190 N ± 6.8km 121.278 E ± 7.0km
DEPTH = 26.2 ± 7.8 km
4.6mb (8 obs.)
TAIWAN REGION (243)

TWG 0.66 343 ePc 10 30.80 -2.7
TWK 1.30 326 ePc 10 43.10 -0.2
TWO 2.11 349 ePc 10 54.90 -0.2
ANP 2.99 4 eP 11 09.40 1.9
QZH 3.69 319 Pnd 11 15.50 -1.8
N 11s 1.80um
Sn 11 53.50
GZH 7.38 278 eP 12 08.50 -1.1
SSE 8.87 359 ePn 12 32.20 2.0
Lg 14 50.00
NJ2 10.06 348 Pd 12 43.30 -3.2X
E 12s 0.60um
S 14 34.00
WHN 10.38 325 eP 12 51.00 0.0
Z 16s 1.80um
N 13s 1.40um
E 11s 1.10um
QIZ 11.16 256 eP 13 04.00 2.3
Z 12s 1.60um
N 15s 1.30um
E 15s 1.20um
eS 15 12.40
GYA 13.98 291 P 13 40.60 1.0
XAN 16.05 320 P 14 04.20 -2.1
N 11s 0.70um
E 12s 0.80um
TIY 17.25 336 eP 14 26.20 4.7X
N 13s 1.70um
E 11s 1.20um
eS 17 26.00
CD2 17.90 303 eP 14 33.00 3.3X
Z 14s 1.00um
eS 17 40.00
BJI 18.32 347 eP 14 35.00 0.4
Z 16s 0.80um
eS 18 00.00
IIDJ 19.65 44 eP 14 51.90 1.3
MTMJ 20.28 41 eP 14 57.30 0.0
HHC 20.34 338 eP 14 57.80 0.0
N 13s 0.70um
MAT 20.50 42 eP 15 00.00 0.5
1.4s 72.09nm 4.9mb
LZH 20.54 316 eP 15 00.00 0.0
2.0s 82.00nm 4.8mb
Z 14s 1.00um 4.3MszX
E 13s 0.60um
BTO 20.68 335 eP 15 02.00 0.6
N 13s 1.40um
E 13s 1.10um
eS 18 40.50
CHJJ 20.70 44 eP 15 03.00 1.5
CHG 21.18 265 eP 15 08.20 1.6
CHTO 21.18 265 eP 15 08.00 1.4
1.0s 5.50nm 3.9mb
GTA 25.09 318 eP 15 49.00 4.1X
KKN 33.02 287 PKP 16 58.00 1.6
WB5 43.72 162 eP 18 24.50 -1.1
WRA 43.78 162 Pc 18 24.60 -1.5
0.6s 2.40nm 4.2mb
NANU 44.83 188 eP 18 35.50 1.0
QIS 46.10 156 eP 18 44.00 -0.6
ASPA 47.21 164 eP 18 53.10 -0.3
0.4s 11.00nm 5.2mb
WARB 48.37 174 iPd 18 48.10 -14.3X
MEKA 48.59 183 eP 19 04.00 -0.1
0.6s 7.00nm 4.9mb
KJF 71.79 333 eP 21 48.00 5.4X
SUF 72.84 331 eP 21 48.00 -0.8
INK 75.04 22 eP 22 01.00 -0.4
HFS 79.34 331 eP 22 24.30 -1.2
0.4s 1.00nm 4.2mb
Z 16s 0.22um 4.6MszX
LR 57 13.00
NAO 80.29 332 P 22 29.40 -1.2
0.9s 4.50nm 4.5mb
YKA 84.77 23 eP 22 57.10 3.5X
KIC 120.03 292 PKP 29 10.60 -0.9
LIC 120.34 292 PKP 29 11.00 -1.1
S.D. = 1.3 on 34 of 41 obs.

MAR 23, 1989 07h 38m 47.55± 0.25s
6.960 S ± 6.0km 72.318 E ± 5.2km
DEPTH = 10.0km (geophysicist)
5.1mb (24 obs.)
CHAGOS ARCHIPELAGO REGION (426)
Felt (III) on Diego Gorcia.
CENTROID, MOMENT TENSOR (HRV)
Dato Used: GDSN
L.P.B.: 10S, 14C
Centroid Location:
Origin Time 07:38:54.3 1.4
Lat 7.58S 0.19 Lon 72.11E 0.16
Dep 15.0 FIX Half-durotion 1.5
Moment Tensor; Scole 10**16 Nm
Mrr=-0.48 0.40 Mtt= 1.39 0.59
Mff=-0.90 0.66 Mrt= 6.59 0.94
Mrf= 1.12 1.35 Mtf= 1.74 0.39
Principal Axes:
T Val= 7.60 Plg=40 Azm=342
N -1.38 11 82
P -6.22 48 185
Best Double Couple:Mo=6.9*10**16
NP1:Strike= 13 Dip=12 Slip=-159
NP2: 263 86 -79
KOD 17.83 17 eP 43 00.00 2.1
GBA 21.05 14 Pc 43 32.80 -1.4
0.8s 7.00nm 4.1mb X
HYB 24.99 14 iPc 44 13.90 0.8
1.0s 40.00nm 5.1mb
AVY 26.70 241 iPd 44 29.60 0.3
SNG 31.53 64 eP 45 12.00 -0.3
KHT 33.85 50 eP 45 33.50 1.0
NAI 35.85 277 eP 45 47.50 -2.5
DMN 36.52 19 P 45 56.70 1.2
1.0s 76.00nm 5.5mb
PKI 36.59 20 P 45 57.00 0.8
0.8s 32.00nm 5.2mb
CHG 36.68 45 ePd 45 57.00 0.4
1.2s 21.48nm 4.8mb
GKN 36.74 18 P 45 58.20 1.0
KKN 36.75 19 P 45 58.30 0.9
GUN 37.06 20 P 46 01.40 1.2
QUE 37.29 352 eP 46 03.10 1.2
LOE 37.83 50 eP 46 06.60 0.3
PTZ 40.87 256 iPc 46 32.40 0.6
LSZ 44.01 255 iPd 46 58.70 1.2
i 47 05.70
BUL 44.32 248 iPc 47 00.60 0.7
0.9s 16.81nm 4.9mb
ipP 47 08.00 25kmX
MAIO 44.68 345 eP 46 59.00 -3.6X
SLR 45.92 241 eP 47 13.00 0.3
KMZ 46.14 258 iPc 47 15.20 0.7
GYA 47.05 44 P 47 21.40 -0.1
MEKA 48.04 120 iPc 47 30.10 0.8
CD2 48.21 37 eP 47 30.00 -0.5
LZH 52.06 32 eP 48 00.00 0.0
1.5s 44.00nm 5.2mb
WMQ 52.43 14 P 48 20.50 18.0X
Z 14s 0.30um 4.5MszX
eS 55 32.00
GTA 52.69 27 iPd 48 04.00 -0.7
XAN 53.51 38 P 48 09.20 -1.4
WHN 54.88 45 eP 48 19.50 -1.2
TIA 60.08 41 Pd 48 56.00 -1.4
ASPA 61.24 113 ePd 49 04.00 -1.5
0.8s 24.00nm 5.4mb
WRA 61.38 109 Pd 49 06.20 -0.4
0.8s 24.50nm 5.4mb
WB5 61.41 109 iPd 49 06.20 -0.5
BJI 61.81 37 eP 49 08.00 -1.0
QIS 66.35 109 iPd 49 38.90 -0.2
VRI 66.47 327 ePd 49 39.00 -0.4
MLR 66.66 326 ePc 49 40.50 -0.3
TOO 72.46 127 eP 50 17.00 0.5
CTA 72.59 109 iPd 50 17.50 0.0
0.9s 37.82nm 5.5mb
e 50 32.00
MDJ 72.60 39 eP 50 17.00 -0.1
BWA 74.64 124 eP 50 31.20 1.9
RMQ 74.81 115 eP 50 30.00 -0.3
CAN 75.15 125 eP 50 33.10 0.9
MAT 75.21 49 eP 50 33.00 0.5
1.3s 34.62nm 5.2mb
BRG 76.31 326 e(P) 50 39.00 0.7
CLL 77.04 326 eP 50 42.00 -0.4
1.3s 17.00nm 5.0mb
KIC 78.01 278 Pc 50 48.60 0.1
1.0s 28.00nm 5.3mb
LIC 78.27 278 Pc 50 50.20 0.3
1.0s 26.00nm 5.3mb
LPG 78.27 319 eP 50 48.90 -0.8
TIC 78.33 278 Pc 50 50.50 0.2
0.8s 15.00nm 5.1mb
CDF 79.09 322 eP 50 52.50 -1.4
0.9s 7.80nm 4.7mb
BSF 79.15 321 eP 50 53.50 -0.8
LBF 80.61 320 eP 51 01.80 -0.2
0.9s 7.20nm 4.7mb
LOR 80.79 320 eP 51 02.60 -0.3
0.9s 8.10nm 4.7mb
SSF 80.94 320 eP 51 03.70 0.0
0.9s 20.30nm 5.1mb
HFS 81.11 334 eP 51 00.90 -3.4X
0.4s 1.30nm 4.3mb
BGF 81.19 319 eP 51 05.40 0.4
0.9s 23.50nm 5.2mb
RJF 81.66 318 eP 51 08.10 0.6
0.9s 9.80nm 4.9mb
LPO 81.68 317 eP 51 08.40 0.8
0.9s 16.30nm 5.1mb
LFF 82.06 317 eP 51 10.50 0.9
0.9s 24.20nm 5.3mb
SPA 83.09 180 e(P) 51 16.30 1.6
1.0s 9.00nm 4.9mb
YKA 124.35 4 ePKP 57 47.90 -0.1
RSSD 142.85 356 ePKP 58 20.50 -3.1X
WDC 143.98 19 ePKP 58 20.50 -4.8X
PRM 144.29 323 PKP 58 24.50 -1.6
BW06 144.29 2 ePKP 58 24.00 -2.1
MIN 144.50 18 ePKP 58 24.10 -2.3
RSCP 145.02 328 ePKP 58 26.00 -1.3
1.0s 12.00nm
ORV 145.25 19 PKP 58 44.00 16.5X
ORV 145.25 19 ePKP 58 26.70 -0.8
FVM 145.38 336 PKP 58 27.10 -0.7
KVN 146.70 15 PKP 58 30.00 -0.2
EUR 146.77 12 iPKP 58 31.70 1.3
0.5s 19.82nm
CMB 146.99 19 ePKPc 58 32.30 1.8
GLD 147.28 356 PKP 58 29.50 -1.6
GOL 147.34 357 PKP 58 31.50 0.2
TNP 147.84 14 PKP 58 31.80 -0.3
0.9s 5.86nm
OLY 147.93 335 PKP 58 34.90 2.9X
FRI 148.16 18 ePKP 58 35.50 3.2X
PRS 148.20 21 e(PKP)58 36.60 4.2X
ISA 149.77 18 ePKP 58 38.00 3.0X
CLC 149.88 16 ePKP 58 40.00 4.9X
GSC 150.57 15 ePKP 58 42.00 5.8X
MWC 151.23 18 ePKP 58 43.00 5.6X
RVR 151.64 17 ePKP 58 44.00 6.2X
TPC 151.90 15 ePKP 58 45.00 6.8X
UPA 152.05 276 iPKPc 58 46.30 7.4X
1.1s 58.23nm
ALQ 152.13 358 ePKP 58 38.00 -0.7
e 58 45.70
PLM 152.39 17 ePKP 58 46.00 6.9X
BAR 153.08 17 ePKP 58 48.00 8.1X
GLA 153.20 13 ePKP 58 42.00 1.9
S.D. = 1.0 on 73 of 91 obs.

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* MAR 23, 1989 08h 45m 14.41± 1.89s
34.688 N ±13.0km 25.897 E ±14.8km
DEPTH = 10.0km (geophysicist)

CRETE (370)
MD 4.0 (ATH).

NPS	0.62	338	iPnd	45	26.90	0.0
			eSn	45	35.20	
KAP	1.36	50	ePn	45	43.50	4.2X
YER	3.12	38	iPn	46	05.30	0.8
ELL	3.86	57	ePn	46	16.00	0.8
IZM	3.86	16	ePn	46	15.00	-0.2
KHL	4.66	38	iP	46	26.20	-0.3
BCK	4.70	53	ePn	46	26.00	-1.1
DSI	8.54	109	eP	48	18.00	57.0X
			eS	49	52.00	
PRNI	8.82	117	eP	48	23.00	58.1X
MBH	9.05	120	eP	47	28.00	0.0

S.D. = 0.8 on 7 of 10 obs.

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* MAR 23, 1989 09h 00m 58.47± 1.41s
39.198 N ±10.4km 22.709 E ±11.9km
DEPTH = 10.0km (geophysicist)

GREECE (364)
ML 3.2 (ATH).

NEO	0.41	75	ePg	01	06.10	-0.8
PLG	1.30	26	ePb	01	22.40	-0.2
KZN	1.32	327	ePb	01	22.10	-0.8
ATH	1.46	147	ePb	01	25.00	0.2
VAY	2.12	357	ePn	01	38.60	4.2X
OHR	2.41	323	ePn	01	54.20	15.6X
SKO	2.93	341	ePn	01	59.00	13.0X
MLR	6.73	20	ePc	02	41.50	1.7

S.D. = 1.5 on 5 of 8 obs.

MAR 23, 1989 09h 30m 41.09± 0.33s
43.479 N ± 1.7km 127.133 W ± 3.5km
DEPTH = 10.0km (geophysicist)
4.6mb (15 obs.)

OFF COAST OF OREGON (30)

GROR	3.11	52	eP	31	30.88	-0.3
KMOR	3.38	49	eP	31	34.42	-0.6
			eS	32	17.41	
FHC	3.55	138	eP	31	37.20	-0.3
NLO	3.70	44	eP	31	39.79	0.2
GT2	3.87	63	eP	31	42.87	0.9
BMW	4.08	41	eP	31	44.52	-0.4
RVW	4.11	48	eP	31	45.38	0.1
			eS	32	36.28	
ONR	4.15	34	eP	31	45.68	-0.1
			eS	32	34.76	
VLMM	4.18	59	eP	31	46.97	0.5
			eS	32	38.02	
TDH	4.24	63	eP	31	47.71	0.4
LVP	4.24	51	eP	31	47.74	0.4
VBEM	4.29	66	eP	31	48.01	0.0
MTMW	4.33	52	eP	31	48.90	0.3
			eS	32	41.71	
FL2	4.35	50	eP	31	49.36	0.5
			eS	32	42.55	
VLL	4.38	61	eP	31	49.90	0.7
SHW	4.41	50	eP	31	50.55	0.8
CZM	4.42	46	eP	31	49.60	-0.1
ERK	4.42	49	eP	31	50.04	0.1
LBFM	4.43	117	eP	31	49.50	-0.5
HSR	4.43	51	eP	31	50.99	0.9
			eS	32	45.44	
JLK	4.43	51	eP	31	50.56	0.6
STD	4.45	50	eP	31	50.63	0.4
			eS	32	44.83	
YEL	4.45	50	eP	31	51.00	0.7
VFP	4.46	64	eP	31	50.45	0.0
CDFW	4.48	52	eP	31	51.02	0.5
OBH	4.48	30	eP	31	50.26	-0.3
			eS	32	43.32	
WDC	4.48	129	eP	31	51.10	0.5
APW	4.49	43	eP	31	50.43	-0.3
CPW	4.49	38	eP	31	50.34	-0.4
			eS	32	42.39	
APM	4.50	58	eP	31	51.42	0.5
TDL	4.52	49	eP	31	51.57	0.3
			eS	32	46.38	
GMO	4.56	76	eP	31	51.07	-0.8
KOSW	4.60	48	eP	31	52.71	0.3
CROR	4.66	69	eP	31	52.60	-0.7
SMW	4.68	33	eP	31	52.86	-0.6
			eS	32	47.94	
LMW	4.68	45	eP	31	53.63	0.1
CWZ	4.72	49	eP	31	54.48	0.5
			eS	32	52.73	
OOW	4.73	25	eP	31	54.42	0.2
VIPM	4.81	75	eP	31	54.69	-0.8
MEW	4.88	39	eP	31	57.03	0.8
GHW	4.95	42	eP	31	57.38	0.2
			eS	32	55.88	
OSD	4.96	28	eP	31	57.48	-0.1
VGB	4.98	64	eP	31	57.54	-0.2
GLK	4.98	50	eP	31	58.44	0.6
			eS	32	57.96	
OTR	5.00	22	eP	31	58.06	0.1
RVC	5.03	45	eP	31	58.73	0.3
			eS	32	58.85	
OBC	5.03	24	eP	31	58.67	0.2
HDW	5.06	33	eP	31	58.35	-0.5
GMW	5.09	35	eP	31	58.59	-0.6
WPW	5.10	49	eP	31	59.90	0.5
			eS	33	00.35	
GL2	5.13	59	eP	32	00.04	0.1
FMW	5.18	46	eP	32	01.00	0.4
MIN	5.18	125	eP	32	02.80	2.2
NAC	5.52	52	eP	32	05.89	0.5
YAKW	5.58	55	eP	32	06.40	0.2
JBO	5.58	67	eP	32	05.66	-0.6
BLH	5.64	38	eP	32	06.44	-0.5
HTW	5.73	39	eP	32	07.84	-0.5
			eS	33	14.54	
MXC	5.75	55	eP	32	08.71	0.1
ORV	5.76	131	eP	32	08.80	0.1
PGC	5.77	25	eP	32	08.00	-0.7
PATW	5.78	63	eP	32	08.62	-0.3
BRVW	5.89	57	eP	32	10.60	0.1
JCW	5.95	36	eP	32	10.96	-0.4
NWRM	5.96	146	eP	32	10.00	-1.4
PRW	5.96	60	eP	32	11.07	-0.4
MDW	6.09	56	eP	32	13.16	-0.1
RSW	6.09	59	eP	32	13.20	-0.3
BVW	6.11	54	eP	32	13.67	0.0
VTG	6.13	53	eP	32	13.93	0.1
GBL	6.27	58	eP	32	15.83	0.0
WAH2	6.28	56	eP	32	16.02	0.0
BRK	6.71	145	eP	32	20.00	-2.1
BKS	6.72	145	eP	32	20.60	-1.6
	0.7s		69.00nm			5.8mb X
Z	20s		1.80um			4.4MszX
N	20s		1.80um			
E	20s		1.40um			
			eLR	33	40.00	
DHW2	6.84	46	eP	32	23.10	-0.9
SAW	6.87	49	eP	32	23.79	-0.6
ODS	7.04	54	eP	32	26.12	-0.5
ARN	7.46	143	eP	32	31.50	-1.2
CMB	7.47	134	ePd	32	34.20	1.5
DPW	7.64	52	eP	32	34.37	-0.8
PNT	7.81	39	iPc	32	37.00	-0.5
KVN	8.11	120	eP	32	41.20	-0.7
LLA	8.33	143	e(P)	32	44.70	-0.1
PRS	8.40	146	eP	32	43.50	-2.2
FRI	8.61	136	eP	32	49.20	0.6
TNP	9.25	122	eP	32	57.50	-0.2
	0.7s		3.74nm			4.9mb
EUR	9.28	112	iP	33	00.00	1.9
	1.2s		8.08nm			5.0mb
ISA	10.27	137	eP	33	12.00	0.4
CLC	10.61	133	eP	33	17.00	0.8
LRM	10.72	72	eP	33	16.50	-1.4
BGMT	10.95	76	eP	33	20.20	-0.9
SBB	11.37	137	eP	33	21.00	-5.6X
			e	33	27.00	
GSC	11.42	132	eP	33	29.00	1.7
MWC	11.63	140	eP	33	30.00	-0.3
RVR	12.15	138	eP	33	37.00	0.0
TPC	12.73	134	eP	33	46.00	1.1
PLM	12.91	138	eP	33	48.00	0.5
SES	12.98	52	ePc	33	46.50	-1.6
BAR	13.56	139	eP	33	56.00	0.2
			e	34	07.00	
GLA	14.19	133	eP	34	05.00	0.8
RSSD	16.68	80	eP	34	39.40	2.8X
GOL	16.70	96	eP	34	35.50	-1.4
	0.9s		39.77nm			4.5mb
ALQ	18.11	111	ePc	34	55.00	0.5
	1.0s		17.50nm			4.2mb
FFC	19.83	47	ePc	35	13.70	-0.9
	0.8s		56.00nm			4.9mb
YKA	20.41	17	eP	35	20.30	-0.4
YKC	20.43	17	eP	35	20.00	-0.8
	0.8s		10.00nm			4.2mb
PMR	22.34	332	eP	35	40.60	0.4
	1.1s		25.00nm			4.6mb
RSON	23.74	60	eP	35	54.00	0.0
	0.9s		15.55nm			4.6mb
FBA	24.40	339	eP	36	00.40	0.1
	0.9s		8.33nm			4.4mb
INK	25.12	354	eP	36	07.00	-0.1
TTA	25.67	329	eP	36	12.00	-0.5
	1.0s		19.25nm			4.7mb
IMA	26.92	336	eP	36	23.20	-0.8
	1.0s		7.63nm			4.3mb
MBC	33.03	3	eP	37	18.00	-0.1
	0.7s		13.00nm			5.0mb
JSC	36.48	89	eP	37	48.00	-0.1
FRB	38.48	38	eP	38	05.00	0.5
ALE	43.91	10	eP	38	49.00	0.1
	0.7s		7.00nm			4.6mb
GDH	44.45	29	eP	38	54.00	0.6
DAG	52.09	16	eP	39	54.00	1.2
NAO	70.56	20	P	41	59.80	2.0
	1.1s		6.60nm			4.7mb
HFS	71.87	19	eP	42	06.60	0.9
	0.5s		1.10nm			4.2mb

S.D. = 0.8 on 118 of 120 obs.

MAR 23, 1989 09h 31m 24.17± 0.60s
33.788 N ± 3.1km 141.395 E ± 3.1km
DEPTH = 49.3 ± 4.9 km
5.6mb (67 obs.) 4.9Msz (8 obs.)

OFF EAST COAST OF HONSHU, JAPAN (229)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.8.: 9S, 16C
Centroid Location:
Origin Time 09:31:23.0 0.5
Lat 33.99N 0.09 Lon 141.19E 0.09
Dep 20.3 5.8 Half-durotion 1.8
Moment Tensor; Scale 10**16 Nm
Mrr=-6.11 0.69 Mtt= 5.95 0.64
Mff= 0.16 0.74 Mrt=-6.17 2.10
Mrf= 3.12 1.48 Mtf=-2.28 0.70
Principal Axes:

	Val=	Plg=	Azm=
T	9.72	23	201
N	-0.56	4	293
P	-9.16	66	33

Best Double Couple:Mo=9.4*10**16
NP1:Strike=282 Dip=22 Slip=-102
NP2: 115 69 -85

KAKJ	2.61	338	P	32	03.60	-1.1
			eS	32	32.90	
CHJJ	3.00	319	eP	32	09.50	-0.8
			eS	32	46.70	
IIDJ	3.33	301	iP+	32	15.80	0.7
			eS	32	56.60	
MAT	3.79	317	iPc	32	20.80	-0.8
			iS	33	04.20	
NIIJ	3.96	331	iP+	32	22.50	-1.4
			eS	33	09.50	
MTMJ	4.05	315	iP+	32	25.20	-0.1
			eS	33	13.00	
YAMJ	4.51	346	P	32	29.40	-2.3
TSRJ	4.79	293	eP	32	36.50	0.9
WKYJ	4.84	277	P	32	36.90	0.5
OFUJ	5.29	2	P	32	37.80	-4.8X
			S	33	32.50	
TKSJ	6.11	274	P	32	55.80	1.6
YONJ	6.70	284	P	33	02.90	0.5
AOMJ	6.81	353	eP	33	00.90	-3.0X
SHK	7.26	278	eP	33	11.00	0.6
SHNJ	8.55	275	P	33	29.40	1.3
MRRJ	8.63	358	eP	33	24.30	-4.8X
			eS	34	56.00	
HOOJ	8.71	9	P	33	24.10	-6.2X
			S	34	54.90	
KUMJ	8.95	265	eP	33	34.50	0.9
KAGJ	9.25	257	P	33	40.10	2.4
KUSJ	9.65	15	P	33	35.00	-8.2X
			eS	35	14.90	
ASAJ	10.36	5	eP	33	46.20	-6.7X
			eS	35	36.70	
MDJ	14.15	323	eP	34	40.00	-3.4X
Z	16s		0.40um			
N	16s		3.50um			
			S	37	12.00	

23d 09h

CN2		15.93	314	eP	35	06.60	0.2	PKI	48.06	278	P	40	00.20	-0.9	SUF		70.88	334	iP	42	37.10	-0.4
	E	12s		1.38um				KKN	48.08	279	P	40	00.40	-0.8			0.6s		27.00nm			5.4mb
				pP	35	10.60		SVW	48.12	36	ePd	40	01.40	0.6	NUR		72.81	332	iP	42	48.50	-0.5
				eS	38	07.00		TTA	48.12	33	ePd	40	00.70	-0.1		Z	19s		1.10um			5.2Msz
SNY		16.19	305	Pd	35	13.20	3.5X	DMN	48.29	279	P	40	02.10	-0.7					LR	19	00.00	
	Z	17s		3.10um					0.8s		41.00nm			5.5mb	WDC		73.04	52	eP	42	51.10	0.3
	N	11s		0.90um				GKN	48.53	279	P	40	04.00	-0.6	LBFM		73.08	51	P	42	51.40	0.1
	E	12s		1.20um				KHKI	48.55	215	ePc	40	03.00	-1.5	TAB		73.63	305	eP	42	55.00	0.5
DL2		16.72	293	eP	35	18.00	1.6				e	42	47.00		MIN		73.78	52	eP	42	54.90	-0.4
	Z	18s		2.10um				BRW	49.41	22	ePd	40	11.10	0.6	ORV		74.25	53	eP	42	57.50	-0.3
	N	16s		3.20um				IMA	49.51	29	ePd	40	11.50	0.0	BKS		74.61	55	iPc	43	00.70	0.7
				eS	38	20.00			1.3s		47.60nm			5.4mb			0.8s		69.00nm			5.6mb
SSE		17.27	267	eP	35	25.00	1.7	KDC	49.60	40	ePd	40	11.30	-0.9		Z	20s		0.50um			4.8Msz
	Z	20s		1.40um			4.5MszX	PSI	50.25	241	ePc	40	16.00	-1.6		E	20s		0.70um			
	N	13s		2.90um				KNA	50.71	196	iPd	40	10.80	-10.2X	SES		74.66	39	eP	43	00.00	-0.1
				pP	35	34.00			0.9s		107.00nm				KER		74.97	301	ePc	43	02.50	0.3
				sP	35	45.00		PMR	51.26	35	ePd	40	23.50	-1.2	ARN		75.36	55	P	43	03.70	-0.6
				esS	38	44.00			0.8s		50.40nm			5.6mb	SLY		75.46	303	iPc	43	05.00	0.2
NJ2		19.00	271	Pc	35	45.50	0.9	KSH	51.79	296	eP	40	30.50	1.3	CMB		75.78	54	ePd	43	07.10	0.4
	N	12s		1.00um				FBA	51.87	31	P	40	28.50	-0.8	UPP		75.86	334	iPc	43	06.60	0.0
	E	19s		1.40um					0.8s		22.41nm			5.2mb			1.0s		100.00nm			5.7mb
TIA		20.02	284	eP	35	53.70	-1.8	TOA	52.65	34	ePd	40	35.30	0.0	PRS		76.01	56	eP	43	08.20	0.2
	Z	22s		4.40um			4.8Msz	CTA	53.77	174	iP	40	43.40	-0.4	LLA		76.15	55	eP	43	09.00	0.2
	N	15s		1.40um					1.2s		26.56nm			5.1mb	FFC		76.45	32	iPd	43	09.70	-0.3
	E	20s		5.40um							i	40	47.20				1.2s		80.00nm			5.6mb
PJG		20.36	170	eP	36	00.60	1.4				i	40	51.00		LRM		76.49	44	iPd	43	11.30	0.5
GUA		20.41	170	eP	36	00.20	0.4				e	43	33.00		MSL		76.67	305	iPc	43	12.00	0.3
		1.2s	1137.50nm				6.1mb				e(S)	48	16.00		GDH		76.68	5	iPd	43	11.90	0.9
BJI		21.07	295	eP	36	07.00	0.7	WB5	53.79	188	iPd	40	42.60	-1.3			0.9s		30.25nm			5.3mb
	Z	24s		1.30um			4.2MszX				e	40	57.00		KVN		76.76	52	P	43	12.60	0.2
	N	15s		1.10um							eS	48	12.00		FRI		76.79	54	eP	43	12.70	0.4
				eS	40	03.00		WRA	53.85	188	Pd	40	42.70	-1.7	PHAM		76.94	56	P	43	12.80	-0.4
WHN		23.10	269	eP	36	26.00	-0.5		1.2s		62.60nm			5.5mb	HFS		77.04	336	eP	43	13.20	0.0
	Z	16s		3.20um			4.9MszX	OIS	54.07	182	eP	40	45.00	-1.0			1.3s		93.20nm			5.7mb
	N	12s		1.00um				NDI	54.34	283	eP	40	47.00	-1.1		Z	19s		0.83um			5.1Msz
	E	14s		2.30um					1.2s		93.75nm			5.7mb					LR	15	54.00	
				S	40	32.00		INK	57.29	26	eP	41	08.00	-0.8	BGMT		77.06	44	iPd	43	14.40	0.4
TIY		23.78	288	iPd	36	35.00	1.8		0.5s		13.00nm			5.2mb	NRA0		77.30	337	eP	43	19.40	4.7X
	Z	16s		3.58um			4.9MszX	ASPA	57.58	188	eP	41	10.10	-1.2	NAO		77.46	338	P	43	15.20	-0.4
	N	15s		1.80um					0.6s		44.00nm			5.7mb			1.0s		56.90nm			5.6mb
				eS	40	43.00					e	41	24.70		BHD		77.46	302	ePc	43	16.00	0.0
HHC		24.67	295	P	36	42.80	1.0	HYB	58.16	270	eP	41	15.00	-0.6	BCH		77.50	56	P	43	17.00	0.6
	Z	22s		1.30um			4.4Msz	MBL	58.38	204	eP	41	16.00	-0.9	TNP		77.86	52	P	43	19.00	0.5
	E	12s		1.00um					0.7s		58.00nm			5.8mb			1.2s		30.91nm			5.2mb
				S	40	50.00		MBC	59.64	16	ePd	41	24.40	-0.7	EUR		77.90	51	iP	43	19.00	0.3
BAG		25.50	232	eP	36	42.00	-7.8X		1.0s		45.00nm			5.6mb			0.8s		26.25nm			5.3mb
BTO		25.81	294	eP	36	52.00	-0.5				pP	41	40.00	58kmX	SYP		77.93	57	eP	43	20.00	1.2
	Z	15s		1.50um			4.6MszX	RMQ	60.35	172	eP	41	29.00	-1.4	KRP		78.09	153	Pc	43	21.00	1.8
	N	15s		1.70um				DZM	60.46	153	iPc	41	32.00	0.7	ISA		78.35	55	eP	43	21.00	0.0
	E	15s		0.90um				GBA	61.00	267	Pd	41	34.20	-0.9	KVT		78.71	312	iP	43	24.40	1.5
				S	41	18.50			0.7s		14.10nm			5.2mb	CLC		78.86	54	eP	43	23.00	-0.8
XAN		26.89	280	P	37	01.50	-0.9	NANU	61.21	207	eP	41	36.00	-0.3	SBB		79.33	55	eP	43	27.00	0.6
	N	14s		1.80um				WARB	61.27	195	eP	41	22.50	-14.2X	PAS		79.38	56	eP	43	27.00	0.4
	E	15s		2.90um				BRS	61.79	169	P	41	40.50	0.3	MWC		79.42	56	eP	43	27.00	0.0
LZH		30.75	285	eP	37	35.50	-1.6				i	41	46.70		GSC		79.68	54	eP	43	29.00	0.7
		1.0s	403.00nm				6.1mb				i	41	56.20		FRB		79.93	13	eP	43	29.00	0.1
	Z	16s		2.50um			5.0MszX	QUE	61.95	289	eP	41	40.80	-0.8			0.7s		41.00nm			5.5mb
	E	15s		1.50um				KOD	62.74	264	eP	41	47.00	-0.2	RVR		80.02	56	eP	43	29.00	-1.0
				pP	37	40.50	17kmX	ALE	63.34	3	ePd	41	49.20	-0.7	PEC		80.22	56	P	43	31.00	-0.2
GYA		30.81	266	P	37	35.20	-2.5		1.1s		49.00nm			5.5mb	PLM		80.73	56	eP	43	34.00	0.0
	Z	16s		2.00um			4.9MszX	MEKA	63.87	203	eP	41	53.00	-0.9	TPC		80.87	55	eP	43	34.00	-0.6
				S	42	33.00			0.9s		34.00nm			5.4mb	BAR		81.24	57	eP	43	36.00	-0.5
CD2		31.81	275	P	37	43.50	-2.9X	MAIO	65.10	298	eP	42	02.00	0.0	BBTK		81.47	312	eP	43	39.00	1.3
	Z	18s		1.80um			4.8Msz				eS	50	46.00		MSZ		81.73	161	P	43	39.00	0.5
	E	18s		1.20um				STK	65.32	180	eP	42	03.00	-0.1	KRA		81.77	326	eP	43	39.50	0.6
GTA		33.63	292	Pc	38	01.80	-0.4	FORR	65.50	193	eP	42	04.00	-0.3			1.0s		56.00nm			5.5mb
	Z	18s		1.30um			4.7Msz		0.5s		119.00nm			6.2mb					i	43	42.70	
	E	13s		1.00um				KEV	66.47	340	iP	42	10.20	0.0	SPC		82.24	325	iP	43	42.30	0.7
KMI		34.59	266	eP	38	09.00	-1.7	YKA	66.63	29	eP	42	10.70	-0.6	RSSD		82.26	41	P	43	41.70	-0.2
	Z	18s		5.40um			5.3Msz	KHI	66.65	296	eP	42	12.50	0.4	GLA		82.31	55	eP	43	42.00	-0.1
	N	14s		1.20um				YKC	66.69	29	ePd	42	10.50	-1.2	RSON		82.75	32	P	43	43.20	-0.8
	E	14s		2.10um					1.0s		38.00nm			5.4mb			1.2s		66.21nm			5.5mb
				sP	38	35.50		SOD	67.95	338	iP	42	19.60	0.0	KSP		82.85	328	iP	43	45.60	1.1
				eS	43	18.00		BAL	68.16	203	eP	42	21.00	-0.3			1.3s		66.00nm			5.5mb
PCI		40.02	215	ePc	38	55.30	-0.8	BWA	68.17	174	eP	42	22.10	0.8					e	47	02.00	
		1.0s		9.50nm			4.6mb	ADE	68.44	182	e(P)	42	28.00	5.1X	DEV		83.19	322	ePc	43	48.00	1.7
CHTO		40.58	259	iP	38	59.50	-1.2	PGC	68.61	45	eP	42	24.00	0.1	HRI		83.46	306	iPc	43	49.50	1.4
		1.0s		15.00nm			4.7mb	KLB	68.74	202	eP	42	24.50	-0.4	LFK		83.73	308	iP	43	50.40	1.1
WMQ		42.37	300	P	39	15.90	0.7	DAG	69.01	355	iPd	42	24.60	-1.4	BRG		83.83	330	iPd	43	49.60	0.1
	Z	16s		0.73um			4.7MszX		1.1s		40.51nm			5.3mb			1.1s		44.00nm			5.4mb
	N	12s		0.67um				CAN	69.12	173	eP	42	28.00	0.9					i	44	05.00	
				S	45	36.00		KJF	69.43	335	iP	42	28.80	0.1	CLL		83.90	330	iPd	43	50.50	0.7
MKS		43.99	212	iPd	39	27.30	-1.2		0.8s		70.40nm			5.7mb			1.3s		98.00nm			5.7mb
SDN		45.12	43	eP	39	35.80	-1.3	NWAO	70.15	201	iPc	42	33.60	0.2					e	44	09.00	
SNG		46.02	244	eP	39	43.50	-1.2		0.7s		33.00nm			5.4mb	BUD		84.01	325	ePd	43	50.90	0.5
IPM		47.44	241	ePc	39	54.90	-1.1	PNT	70.52	43	ePd	42	35.00	-0.7	BZS		84.03	322	eP	43	51.00	0.4
GUN		47.54	279	P	39	56.70	-0.4		1.1s		58.00nm			5.4mb	PRU		84.24	329	ePd	43	52.00	0.4

	1.0s	41.90nm		5.5mb	
		e	44 07.00		
BCK	84.27	312 eP	43 51.50	-0.6	
GOL	84.34	45 P	43 53.60	1.0	
	1.1s	55.13nm		5.5mb	
GLD	84.39	45 P	43 54.20	1.4	
	1.2s	91.92nm		5.7mb	
ZST	84.41	326 eP	43 53.80	1.4	
JVI	84.51	305 iPc	43 54.80	1.6	
VKA	84.72	327 ePd	43 54.00	0.0	
	1.0s	74.60nm		5.7mb	
MOX	84.97	331 iPd	43 55.50	0.3	
	1.4s	65.00nm		5.6mb	
		e	44 11.00		
		e	44 15.00		
SOP	85.03	326 iPd	43 57.20	1.6	
ELL	85.14	311 iP	43 56.80	0.3	
KHC	85.30	329 iPd	43 58.40	1.5	
	1.1s	34.30nm		5.4mb	
MBH	86.12	303 iPc	44 02.10	0.8	
EKA	86.18	341 Pc	44 02.20	1.0	
	1.1s	55.10nm		5.7mb	
PTJ	86.62	325 e(P)	44 03.70	0.1	
ALQ	86.69	50 eP	44 04.30	0.0	
	1.0s	15.50nm		5.2mb	
LJU	87.18	326 e(P)	44 06.40	0.2	
MEM	87.20	333 Pc	44 06.70	0.6	
VBY	87.24	325 e(P)	44 06.00	-0.5	
RBL	87.33	327 P	44 06.00	-1.0	
CEY	87.46	326 e(P)	44 07.50	-0.1	
VOY	87.49	326 eP	44 06.50	-1.3	
FVI	87.57	327 P	44 08.00	0.0	
OHR	87.58	319 eP	44 07.50	-0.8	
WLF	87.91	333 Pc	44 10.60	1.0	
SNF	87.91	334 Pc	44 10.30	0.7	
DOU	88.14	334 iPc	44 11.20	0.5	
CDF	88.48	331 eP	44 12.50	0.0	
	1.3s	31.70nm		5.4mb	
SCH	88.48	16 eP	44 13.00	0.7	
CTI	88.49	328 P	44 12.00	-0.6	
BSF	89.14	331 eP	44 15.30	-0.4	
HAU	89.18	332 eP	44 15.20	-0.6	
SAL	89.33	328 P	44 16.00	-0.5	
VAI	89.89	329 P	44 18.50	-0.6	
SFI	90.03	326 P	44 20.50	0.8	
ASS	90.30	325 P	44 21.50	0.4	
ORX	90.41	329 P	44 20.99	-0.7	
BOB	90.46	328 P	44 21.50	-0.4	
DUI	90.48	323 P	44 22.00	0.0	
LOR	90.75	333 eP	44 22.80	-0.3	
	1.3s	36.10nm		5.6mb	
MNS	90.81	325 P	44 23.00	-0.5	
LSD	90.90	330 P	44 24.17	0.1	
LBF	90.94	332 eP	44 23.60	-0.4	
	1.3s	28.80nm		5.5mb	
TDS	91.00	321 P	44 24.30	0.0	
LPG	91.04	330 eP	44 24.60	-0.2	
SSF	91.06	333 eP	44 24.30	-0.2	
	1.3s	32.40nm		5.6mb	
FLN	91.06	336 eP	44 24.20	-0.2	
LDF	91.08	336 eP	44 24.20	-0.4	
	1.1s	43.90nm		5.8mb	
RSP	91.10	329 P	44 23.97	-0.9	
SMF	91.27	332 eP	44 25.10	-0.4	
	1.4s	49.60nm		5.7mb	
AVF	91.34	333 eP	44 25.50	-0.3	
	0.9s	32.70nm		5.8mb	
FIN	91.45	328 P	44 25.50	-0.9	
RRL	91.49	330 P	44 26.73	-0.1	
GRR	91.51	336 eP	44 26.40	-0.1	
	1.0s	53.60nm		5.9mb	
ROB	91.53	329 P	44 25.40	-1.4	
PZZ	91.69	329 P	44 26.22	-1.4	
BGF	91.73	333 eP	44 27.60	0.0	
STV	91.80	329 P	44 26.22	-1.8	
IMI	91.82	328 P	44 27.45	-0.7	
LPF	91.88	336 eP	44 28.30	0.1	
	1.2s	83.30nm		6.0mb	
PLDF	91.92	332 P	44 28.83	0.3	
AGO	92.04	332 P	44 29.63	0.6	
SBF	92.06	329 eP	44 28.50	-0.7	
	0.7s	24.20nm		5.7mb	
MAF	92.11	333 eP	44 29.60	0.2	
	1.1s	39.00nm		5.7mb	
TCF	92.19	333 eP	44 29.80	0.0	
	0.9s	19.60nm		5.5mb	
PYM	92.34	332 P	44 30.74	0.2	
LSF	92.48	333 eP	44 31.00	-0.1	
FRF	92.64	329 eP	44 30.80	-1.0	
	1.1s	29.30nm		5.6mb	
LBL	92.68	332 P	44 32.60	0.7	
MFF	92.79	335 eP	44 32.60	0.1	
	1.2s	55.90nm		5.9mb	
LRG	92.85	329 eP	44 32.20	-0.6	
	1.3s	86.60nm		6.0mb	
LMR	92.89	329 eP	44 32.30	-0.6	
	0.9s	26.20nm		5.7mb	
RJF	93.28	333 eP	44 35.00	0.2	
	1.1s	43.90nm		5.8mb	
CAF	93.39	332 eP	44 35.80	0.5	
	1.1s	27.80nm		5.6mb	
FVM	93.87	39 eP	44 37.80	0.2	
	1.0s	12.00nm		5.3mb	
LFF	93.89	333 eP	44 38.00	0.5	
	0.9s	19.60nm		5.5mb	
LPO	93.93	333 eP	44 38.20	0.4	
OLY	95.18	41 P	44 43.40	-0.2	
BUL	119.50	264 iPKPd	50 10.70	0.2	
	0.6s	3.67nm			
TIC	128.72	315 PKP	50 27.80	-0.5	
KIC	128.79	315 PKP	50 28.00	-0.4	
LIC	129.07	315 PKP	50 28.70	-0.2	
AIA	144.90	162 ePKP	50 56.60	0.2	
ATB	147.10	26 PKPc	51 03.90	2.3	
ZOBO	148.23	64 PKP	51 00.40	-3.7X	
		LR	42 52.00		
LPB	148.41	64 PKP	51 05.50	1.4	
		i	51 09.00		
		eLR	42 50.00		
CNCB	148.67	65 PKPd	51 06.40	1.7	
		i	51 10.30		
CCH	150.40	63 PKP	51 14.00	7.0	
ITR	155.09	360 ePKP	51 22.10	8.7X	
		e	51 37.30		
BAO	160.04	27 ePKP	51 14.50	-4.9X	
	S.D. = 1.0	on 237 of 254 obs.			

? MAR 23, 1989 09h 47m 51.08± 8.90s
43.106 N ±44.8km 127.878 W ±55.6km
DEPTH = 10.0km (geophysicist)
OFF COAST OF OREGON (30)

RVW	4.76	49 eP	49 04.37	-0.2	
VLMM	4.84	58 eP	49 06.02	0.2	
TDH	4.89	61 eP	49 06.94	0.4	
LVP	4.90	51 eP	49 06.60	-0.1	
VBEM	4.94	65 eP	49 07.10	-0.1	
MTMW	4.99	52 eP	49 07.77	-0.1	
FL2	5.01	50 eP	49 08.36	0.2	
CZM	5.07	47 eP	49 08.66	-0.3	
SHW	5.07	51 eP	49 09.40	0.3	
ERK	5.08	49 eP	49 09.32	0.2	
JLK	5.09	51 eP	49 09.32	0.0	
STD	5.11	50 eP	49 09.66	0.1	
APW	5.14	45 eP	49 09.37	-0.5	
CDFW	5.14	52 eP	49 09.84	-0.1	
TDL	5.18	49 eP	49 10.53	0.0	
KOSW	5.26	48 eP	49 11.72	0.1	
OOW	5.31	28 eP	49 12.47	0.1	
LMW	5.33	46 eP	49 12.52	-0.2	
CWZ	5.37	49 eP	49 13.35	0.1	
VIPM	5.44	73 eP	49 14.14	-0.2	
GLK	5.64	50 eP	49 17.33	0.2	
RVC	5.68	45 eP	49 17.88	0.3	
WPW	5.75	49 eP	49 18.87	0.2	
GL2	5.79	58 eP	49 18.99	-0.2	
FMW	5.83	47 eP	49 19.53	-0.3	
GSM	5.94	44 eP	49 21.07	-0.2	
S.D. = 0.2	on 26 of 26 obs.				

? MAR 23, 1989 10h 02m 37.02± 9.19s
43.570 N ±48.6km 127.407 W ±55.1km
DEPTH = 10.0km (geophysicist)
OFF COAST OF OREGON (30)
CL 3.1 (SEA).

KMOR	3.48	52 eP	03 31.67	-0.7	
		eS	04 15.14		
NLO	3.78	47 eP	03 36.56	-0.1	
GT2	4.01	65 Pd	03 39.58	-0.3	
PGO	4.02	60 eP	03 40.40	0.5	
BMW	4.15	44 eP	03 41.09	-0.7	
ONR	4.19	37 eP	03 42.80	0.5	
RVW	4.20	51 eP	03 42.40	-0.1	
VLMM	4.31	61 eP	03 44.05	-0.2	
LVP	4.35	53 eP	03 44.58	-0.1	
TDH	4.38	65 eP	03 44.99	-0.2	
VBEM	4.43	68 eP	03 45.92	-0.1	
MTMW	4.44	55 eP	03 45.94	-0.1	
FL2	4.45	52 eP	03 46.36	0.2	
CZM	4.50	49 eP	03 46.75	-0.1	
OBH	4.51	32 eP	03 46.80	-0.1	
VLL	4.51	63 eP	03 47.26	0.2	
SHW	4.51	53 eP	03 47.67	0.6	
ERK	4.52	51 eP	03 47.03	-0.1	
HSR	4.53	53 eP	03 48.08	0.6	
JLK	4.54	54 eP	03 47.42	0.0	
CPW	4.55	40 eP	03 47.22	-0.3	
		eS	04 41.13		
STD	4.55	52 eP	03 47.62	0.1	
YEL	4.55	53 eP	03 48.30	0.6	
APW	4.57	46 eP	03 47.57	-0.1	
CDFW	4.58	54 eP	03 47.78	-0.2	
TDL	4.62	51 eP	03 48.53	0.0	
KOSW	4.69	50 eP	03 49.72	0.1	
OOW	4.74	27 eP	03 50.30	0.1	
		eS	04 45.04		
LMW	4.76	48 eP	03 50.50	-0.2	
CWZ	4.81	51 eP	03 51.47	0.2	
S.D. = 0.3	on 30 of 30 obs.				

% MAR 23, 1989 11h 54m 56.16± 0.77s
39.300 N ± 6.8km 27.712 E ± 7.6km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.77	66 iPg	55 10.90	-0.4	
IZM	0.97	201 ePn	55 14.00	-0.6	
		iSg	55 28.40		
EDC	1.05	6 ePn	55 15.00	-1.0	
KCT	1.07	27 iPn	55 17.00	0.7	
EZN	1.19	297 ePn	55 19.00	0.6	
KHL	1.72	124 ePn	55 27.00	0.6	
S.D. = 0.9	on 6 of 6 obs.				

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* MAR 23, 1989 12h 38m 51.11± 1.26s
41.012 N ±11.0km 78.068 E ± 7.7km
DEPTH = 28.4 ± 10.6 km
4.5mb (7 obs.)
KIRGHIZ-XINJIANG BORDER REGION (320)

KSH	2.23	226 Pn	39 27.50	0.5	
		Sn	39 59.00		
WMQ	7.66	65 Pn	40 44.20	0.6	
		Sn	42 10.00		
NDI	12.32	184 iPc	41 41.70	-5.8X	
	0.6s	23.33nm		5.5mb X	
		eS	43 51.00		
GKN	14.05	155 P	42 05.40	-5.2X	
	0.4s	19.00nm		5.2mb X	
KKN	14.46	154 P	42 10.60	-5.4X	
	0.6s	24.00nm		4.9mb X	
GUN	14.56	151 P	42 13.20	-4.2X	
	0.4s	13.00nm		4.8mb X	
DMN	14.57	154 P	42 12.70	-4.8X	
	0.4s	17.00nm		4.9mb X	
PKI	14.71	153 P	42 13.50	-5.8X	
	0.5s	21.00nm		4.8mb X	
MAIO	15.25	258 eP	42 24.00	-2.1	
GTA	16.69	88 eP	42 42.00	-2.6	
XAN	25.35	96 P	44 17.50	0.3	
TIY	26.67	86 Pd	44 30.20	0.7	
GBA	27.31	181 Pd	44 35.70	0.4	
	0.5s	1.90nm		4.0mb	
GYA	27.71	113 eP	44 39.00	-0.1	
CHG	28.44	135 eP	44 48.90	3.3X	
CHTO	28.44	135 eP	44 46.00	0.4	
	0.8s	1.83nm		3.8mb	
NAO	44.49	320 P	47 02.60	1.3	
	1.0s	6.30nm		4.4mb	
MBC	62.49	5 eP	49 13.00	-0.7	
	0.6s	12.00nm		5.2mb	
FRB	72.27	345 eP	50 15.00	-0.2	
YKA	76.34	6 eP	50 38.80	0.1	
YKC	76.37	6 ePc	50 38.50	-0.4	
	0.7s	7.00nm		4.8mb	
WRA	80.00	127 Pd	50 58.20	-1.2	
	0.7s	1.40nm		4.1mb	
FFC	84.64	0 eP	51 23.00	0.1	
	0.6s	8.00nm		5.1mb	
S.D. = 1.1	on 16 of 23 obs.				

% MAR 23, 1989 12h 59m 58.02± 0.91s
39.120 N ± 7.8km 27.574 E ± 9.3km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	0.76	199	ePg	00	12.70	-0.2
			eSg	00	24.20	
DST	0.95	59	iPn	00	16.90	0.7
EZN	1.20	307	ePn	00	20.70	0.4
EDC	1.25	10	ePn	00	21.00	-0.2
KCT	1.28	28	iPn	00	21.00	-0.8

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

? MAR 23, 1989 13h 23m 32.97± 2.00s
4.966 S ±10.3km 142.307 E ±36.7km
DEPTH = 33.0km (normol)
4.8mb (6 obs.)
PAPUA NEW GUINEA (202)

MTN	13.53	234	eP	26	46.00	0.9
			eS	29	19.00	
QIS	15.72	189	eP	27	16.00	2.3
WB5	16.72	207	eP	27	25.80	-0.6
WRA	16.79	207	Pc	27	26.60	-0.7
	0.8s		15.10nm			4.2mb
ASPA	20.28	203	eP	28	06.60	-2.2
	0.7s		10.00nm			4.3mb
KAKJ	41.00	357	P	31	26.50	11.9X
GUN	63.41	304	PKP	34	02.30	-0.1
	0.6s		6.00nm			4.9mb
PKI	63.68	304	PKP	34	05.40	1.2
KKN	63.86	304	PKP	34	04.90	-0.3
	0.6s		7.00nm			4.9mb
DMN	63.94	304	PKP	34	05.60	-0.2
	0.6s		7.00nm			4.9mb
GKN	64.47	304	PKP	34	08.80	-0.3
	0.5s		8.00nm			5.1mb

S.D. = 1.4 on 10 of 11 obs.

? MAR 23, 1989 13h 32m 45.74± 8.00s
5.520 N ±50.7km 0.372 W ±24.2km
DEPTH = 10.0km (geophysicist)
NORTHWEST AFRICA (550)
MG 2.0 (KUK).

WEGH	0.09	32	Pg	32	48.30	0.0
LEGH	0.23	56	Pg	32	50.60	0.0
	0.2s		18.00nm			
			Sg	32	52.80	
SHGH	0.52	39	Pg	32	56.30	0.0
			Sg	33	06.50	
KOGH	0.58	13	Pg	32	57.50	0.1
KUK	0.66	0	Pg	32	58.90	-0.1

S.D. = 0.1 on 5 of 5 obs.

? MAR 23, 1989 15h 49m 44.76± 1.89s
44.364 N ±18.7km 8.299 E ± 7.8km
DEPTH = 5.0km (geophysicist)
NORTHERN ITALY (545)

CKI	0.06	347	Pc	49	46.30	-0.1
			eSg	49	48.80	
DOI	0.77	281	P	50	00.00	-0.2
			eSg	50	11.50	
BOB	0.91	63	P	50	02.80	0.0
			eSg	50	16.50	
BNI	1.35	301	P	50	10.50	0.3
			eSg	50	28.50	

S.D. = 0.4 on 4 of 4 obs.

MAR 23, 1989 17h 37m 42.75± 0.45s
37.871 N ± 4.8km 4.593 W ± 4.8km
DEPTH = 10.0km (geophysicist)
SPAIN (377)
MG 3.6 (MDD). Felt (III) in the Santo Cruz oreo.

EHOR	0.52	264	iPgd	37	51.70	-1.6
			eSg	37	58.50	
EBAN	0.70	65	iPg	37	57.00	0.4
			eSg	38	07.00	
AFC	1.04	126	iPgd	38	01.40	-1.0
			eSg	38	15.60	
EPRU	1.04	210	iPgc	38	00.90	-1.4
			eSg	38	14.00	
MAL	1.15	173	iPnd	38	05.00	0.8
			iSg	38	15.30	
LIJA	1.17	214	iP	38	03.00	-1.7
ALJ	1.44	214	iP	38	11.00	2.0
GIBL	1.50	227	iP	38	10.00	0.2
EJIF	1.58	207	ePg	38	11.00	0.1
			eSg	38	31.00	
SRQ	1.73	201	iP	38	14.00	1.0
EVAL	1.73	261	iPg	38	13.50	0.5
			iSg	38	35.00	
MOMI	1.79	211	iP	38	15.00	1.1
EVIA	1.81	64	iPnc	38	13.90	-0.5
			eSn	38	37.50	
CNIL	1.90	218	eP	38	19.00	3.5X
OJEN	1.92	203	eP	38	19.00	3.1X
PLAT	1.98	208	eP	38	21.00	4.3X
TOL	2.05	12	iPg	38	24.00	6.3X
			iSg	38	51.50	
ENIJ	2.09	115	ePn	38	18.00	-0.3
			eSn	38	44.00	
EPLA	2.48	333	ePn	38	24.00	0.2
			eSn	38	54.50	
GUD	2.79	7	ePn	38	28.50	0.1
			eSn	39	02.30	
ECHE	3.31	58	ePn	38	35.00	-0.7
			eSn	39	15.40	
ETOR	3.54	33	ePn	38	39.80	0.8
			eSn	39	21.20	
PTO	4.50	318	ePn	39	42.50	50.0X
			eSn	40	04.00	

S.D. = 1.1 on 18 of 23 obs.

MAR 23, 1989 17h 50m 03.47± 1.10s
5.383 S ± 5.3km 80.523 W ± 8.5km
DEPTH = 70.6 ± 9.7 km
4.9mb (14 obs.)
NEAR COAST OF NORTHERN PERU (109)

NNA	7.50	151	P	51	05.30	-47.3X
			S	53	23.50	
HUA	8.37	142	P	52	04.40	-0.5
			S	54	30.20	
SALC	9.14	25	eP	52	16.00	0.8
PT06	9.35	154	P	52	13.50	-4.5X
			S	53	52.00	
ANCC	9.56	23	eP	52	20.75	-0.1
HOBC	10.62	24	eP	52	38.10	2.8X
ARE	14.13	142	eP	53	23.00	1.1
UPA	14.30	4	eP	53	26.60	2.7X
ZOBO	16.28	133	P	53	49.30	-0.4
			eLR	59	48.00	
LPB	16.46	133	P	53	55.00	3.0X
	1.0s		76.00nm			4.8mb
	Z 22s		0.37um			4.4Msz
			eLR	59	20.00	
CNCB	16.73	134	P	53	55.00	-0.4
CCH	18.44	131	eP	54	16.00	-0.3
SLA	24.05	145	ePd	55	14.50	1.1
ATB	28.29	87	Pd	55	51.70	-0.8
VAO	36.80	122	e(P)	57	14.00	7.4X
RSCP	41.04	354	P	57	45.50	3.9X
ITR	41.90	97	ePd	57	47.90	-1.0
			e	58	04.70	
BLA	42.37	0	P	57	52.10	-0.4
	1.0s		10.00nm			4.6mb
FVM	44.12	349	P	58	06.50	-0.1
	1.0s		18.00nm			4.8mb
ALQ	46.96	331	eP	58	30.00	0.5
	0.9s		20.59nm			5.1mb
GOL	50.38	335	P	58	55.00	-0.8
	1.0s		23.50nm			5.2mb
GAC	51.06	5	eP	59	01.00	0.5
RSSD	53.64	339	P	59	20.20	0.1
BW06	54.70	334	P	59	27.00	-1.0
TNP	55.06	325	P	59	31.50	0.9
	0.8s		4.71nm			4.6mb
EUR	55.34	327	iP	59	33.00	0.3
	0.2s		15.63nm			5.7mb
KVN	56.22	325	P	59	39.00	0.0
RSON	57.16	350	P	59	44.20	-1.0
	1.0s		5.00nm			4.6mb
LRM	58.38	334	eP	59	54.10	0.0
SCH	61.07	9	eP	00	11.00	-1.1
SES	61.49	338	eP	00	15.00	-0.1
FFC	62.51	346	eP	00	21.00	-0.7
	0.7s		7.00nm			4.9mb
PNT	64.20	333	eP	00	34.00	1.0
YKA	72.52	344	eP	01	24.20	-0.2
LIC	76.24	82	Pd	01	47.06	0.4
	1.0s		11.50nm			4.8mb
TIC	76.30	82	Pd	01	47.46	0.4
	0.9s		18.50nm			5.0mb
KIC	76.54	82	Pd	01	48.96	0.6
	0.8s		17.00nm			5.0mb
KUK	80.83	83	eP	02	12.50	0.7
INK	82.17	343	eP	02	18.00	0.4
EKA	87.25	34	P	02	44.00	0.7
	1.0s		21.10nm			5.2mb
DAG	88.98	12	iPd	02	51.00	-0.2
	1.0s		18.00nm			5.3mb
WRA	137.47	233	PKPd	09	20.90	-1.0
	0.8s		4.80nm			
WB5	137.49	233	ePKP	09	20.80	-1.1
TIY	145.72	342	ePKP	09	36.00	0.0
GTA	146.12	360	iPKPd	09	37.10	0.4
SSE	147.29	324	PKP	09	40.00	1.4
	1.0s		23.00nm			
LZH	149.18	353	ePKP	09	46.00	4.3X
XAN	150.17	344	PKP	09	48.00	4.9X
WHN	151.32	333	ePKP	09	52.00	7.2X

S.D. = 0.7 on 39 of 49 obs.

% MAR 23, 1989 17h 54m 01.82± 0.84s
44.104 N ± 7.0km 11.909 E ± 7.0km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)

SFI	0.19	193	Pd	54	06.30	0.3
			eSg	54	11.00	
PGD	0.27	211	Pc	54	07.40	-0.1
			eSg	54	12.90	
RSM	0.43	114	P	54	10.40	-0.2
			eSg	54	19.00	
BDI	0.95	268	P	54	19.70	-0.2
			eSg	54	34.20	
CTI	1.95	355	P	54	35.60	0.2

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

MAR 23, 1989 18h 53m 03.38± 0.59s
15.390 S ± 8.7km 178.954 W ± 8.3km
DEPTH = 436.3 ± 6.6 km
4.5mb (9 obs.)
FIJI ISLANDS REGION (181)

SVA	3.67	222	iPc	54	15.20	-0.2
SGE	3.71	233	iPc	54	16.00	0.1
KRP	22.97	191	P	57	34.00	0.3
BRS	28.83	241	eP	58	27.00	0.8
MSZ	31.24	198	eP	58	47.00	0.2
RMQ	32.03	245	eP	58	53.00	-0.8
CTA	33.43	257	iPc	59	06.50	0.9
	1.0s		12.50nm			4.3mb
WB5	44.60	257	eP	00	36.20	-0.7
WRA	44.63	257	Pd	00	36.50	-0.5
ASPA	45.02	252	iPd	00	40.30	0.2
	0.6s		56.00nm			5.1mb
FORR	50.62	243	iPc	01	22.40	-0.1
	0.5s		39.00nm			5.0mb
SPA	74.71	180	e(P)	03	58.10	-0.3
	0.8s		20.00nm			4.8mb
KDC	76.09	14	P	04	06.00	0.3
CMB	76.39	44	P	04	08.00	0.1
	0.8s		5.33nm			4.3mb
PLM	76.49	50	P	04	08.50	-0.3
KVN	78.44	44	P	04	19.30	0.0
TTA	80.10	10	P	04	27.50	0.2
	0.8s		4.83nm			4.2mb
IMA	83.39	10	P	04	44.80	0.7
	0.6s		1.85nm			4.0mb
FBA	83.48	13	P	04	43.90	-0.5
	0.7s		15.99nm			4.9mb
ALQ	84.95	52	P	04	52.50	-0.1
BW06	85.90	44	P	04	56.90	-0.2
	0.6s		2.18nm			4.1mb

S.D. = 0.5 on 21 of 21 obs.

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* MAR 23, 1989 18h 57m 46.50± 0.72s
27.725 N ±13.2km 56.899 E ± 6.3km
DEPTH = 33.0km (normol)
4.5mb (9 obs.)
SOUTHERN IRAN (353)

KHI	6.57	13	eP	59	22.00	-1.5
MAIO	8.83	14	eP	59	56.00	1.1
			eS	01	48.00	

QUE	9.14	72	eP	00 01.50	2.2
			eS	01 44.80	
PRNI	19.33	283	eP	02 16.00	4.1X
HYB	22.44	113	eP	02 49.00	5.0X
BBTK	23.34	307	eP	02 56.00	3.2X
GKN	24.51	83	P	03 03.80	-0.5
DMN	24.96	84	P	03 09.20	0.4
KKN	25.10	83	P	03 09.40	-0.6
	0.5s	6.00nm			4.4mb
PKI	25.24	84	P	03 10.60	-0.8
GUN	25.61	83	P	03 14.20	-0.8
	0.6s	8.00nm			4.5mb
KHC	39.42	315	P	05 15.50	0.6
			e	05 25.50	
LPG	43.24	308	eP	05 46.50	-0.2
	0.7s	4.80nm			4.4mb
SLL	43.94	331	eP	05 50.10	-1.6
	0.4s	0.80nm			3.9mb
SMF	45.37	309	eP	06 03.50	0.0
	0.9s	11.40nm			4.8mb
LOR	45.42	310	eP	06 03.50	-0.4
SSF	45.64	310	eP	06 05.70	0.1
	0.7s	4.80nm			4.5mb
BGF	46.05	309	eP	06 08.80	0.0
	0.7s	5.50nm			4.6mb
CAF	46.50	307	eP	06 13.00	0.6
	0.8s	7.20nm			4.7mb
RJF	46.90	307	eP	06 16.40	0.8
LFF	47.44	307	eP	06 20.30	0.5
	0.7s	6.60nm			4.8mb
S.D. = 1.0 on 18 of 21 obs.					

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* MAR 23, 1989 20h 35m 41.62± 0.86s
5.290 N ±12.9km 77.383 W ±21.1km
DEPTH = 33.0km (normal)
NEAR WEST COAST OF COLOMBIA (102)

HOBC	1.55	127	iPd	36 07.00	-0.4
CLMC	1.62	150	eP	36 08.90	0.5
ANCC	1.84	164	iPd	36 11.45	0.0
HOQC	1.96	158	eP	36 12.60	-0.8
DIAC	2.31	149	eP	36 19.15	0.8
SALC	2.40	163	eP	36 19.50	-0.1
UPA	4.24	330	eP	36 45.60	0.0
			i(S)	37 23.10	
S.D. = 0.7 on 7 of 7 obs.					

MAR 23, 1989 21h 22m 38.27± 0.33s
28.858 S ± 6.0km 67.326 W ± 6.1km
DEPTH = 134.3km (8 depth phases)
4.9mb (10 obs.)
LA RIOJA PROVINCE, ARGENTINA (138)

CYA	1.41	73	iPd	23 07.50	1.5
ZON	2.92	203	iPc	23 23.10	-1.6
VBA	10.20	155	eP	25 00.50	-1.9
CCH	11.47	6	eP	25 19.00	-0.4
CNCB	12.01	357	P	25 25.50	-1.2
LPB	12.29	357	ePd	25 30.00	-0.2
	0.9s	53.78nm			5.1mb
			S	28 28.00	
			LR	30 20.00	
ITB1	12.30	73	Pd	25 30.30	0.5
ITB7	12.30	75	e(P)	25 30.10	0.1
ITB	12.39	74	eP	25 30.10	-1.0
ZOBO	12.55	356	P	25 32.50	-1.3
Z	20s	0.64um			
			S	28 24.00	
			LR	30 32.00	
ARE	12.92	342	eP	25 36.00	-2.3
VAO	19.21	77	eP	26 52.90	-1.4
ITA	21.38	78	ePc	27 15.80	-0.8
			e	27 22.10	23kmX
			e	27 42.20	
BMA	21.73	79	eP	27 19.50	-0.3
			e	27 46.10	134km
SPA	61.31	180	iPc	32 41.80	0.2
	1.0s	66.00nm			5.6mb
			e	33 13.00	129km
CVL	67.30	350	P	33 19.00	-1.3
ELC	68.93	341	P	33 29.30	-1.1
LIC	69.29	70	P	33 32.48	-0.6
	0.9s	30.00nm			5.1mb
TIC	69.53	70	P	33 34.08	-0.5
KIC	69.60	70	P	33 34.48	-0.5
FVM	69.92	341	P	33 35.00	-1.5
KUK	73.14	73	eP	33 56.00	-0.2
ALQ	73.43	327	eP	33 58.00	0.4
	0.9s	7.98nm			4.5mb
			epP	34 32.00	137km
GLA	76.29	320	P	34 14.80	1.0
GOL	76.85	331	P	34 17.70	0.6
PLM	77.66	319	P	34 23.00	1.4
MSU	79.04	326	P	34 30.00	0.9
			pP	35 04.40	137km
RSSD	80.02	334	P	34 34.70	0.5
BW06	81.18	330	P	34 40.70	0.4
	0.9s	14.83nm			4.7mb
			pP	35 15.00	136km
TNP	81.31	322	P	34 41.90	0.8
	0.9s	8.14nm			4.5mb
PRY	81.33	116	iPd	34 42.00	0.5
	0.7s	7.50nm			4.6mb
EUR	81.69	324	iP	34 44.00	0.9
	0.2s	11.16nm			5.3mb
KVN	82.49	323	P	34 47.70	0.5
			pP	35 22.00	135km
TIO	82.49	49	iP	34 49.50	2.2
SLR	82.53	115	eP	34 49.00	1.3
IMW	82.68	330	P	34 48.80	0.7
RSON	82.72	344	P	34 47.70	-0.1
			pP	35 21.00	131km
LRM	84.86	330	eP	35 00.40	1.4
			e	35 34.80	135km
BUL	85.46	110	iPd	35 03.90	1.4
	0.8s	7.84nm			4.6mb
IFR	85.53	48	iP	35 05.00	2.4
FFC	88.42	341	eP	35 16.00	0.2
	1.0s	17.00nm			5.0mb
LON	89.90	326	P	35 22.70	-0.3
EDM	91.00	334	ePd	35 27.20	-0.7
YKA	98.57	340	eP	36 03.10	1.0
ASPA	123.92	204	ePKP	41 20.00	-2.4
	0.6s	16.00nm			
WRA	127.17	206	PKPc	41 28.20	-0.5
	0.6s	10.70nm			
WB5	127.21	206	ePKP	41 27.80	-1.0
GBA	143.98	107	PKPd	41 56.90	-3.0X
	0.8s	8.80nm			
MKS	145.50	192	iPKPc	42 02.50	-0.1
HYB	146.74	102	ePKPc	42 05.50	1.0
	1.0s	50.00nm			
PPI	148.57	156	ePKP	42 11.60	4.0X
PSI	150.87	151	ePKPc	42 17.50	6.5X
MAT	157.23	296	(PKP)	42 33.00	13.8X
CHTO	163.96	126	ePKP	42 28.00	1.3
S.D. = 1.2 on 50 of 54 obs.					

% MAR 23, 1989 22h 53m 36.11± 0.77s
43.883 N ±16.1km 11.924 E ± 5.6km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)

SFI	0.06	306	Pc	53 38.00	-0.4
			eSg	53 40.20	
PGD	0.15	267	Pd	53 39.50	-0.2
			eSg	53 42.90	
RSM	0.38	83	P	53 44.40	0.4
			eSg	53 48.30	
ARV	0.83	117	P	53 51.80	-0.4
			eSn	54 03.40	
PII	1.03	261	P	53 56.00	0.5
S.D. = 0.6 on 5 of 5 obs.					

MAR 23, 1989 23h 09m 50.81± 1.37s
10.331 N ± 6.8km 93.794 E ± 7.5km
DEPTH = 74.1 ± 13.2 km
4.6mb (8 obs.)
ANDAMAN ISLANDS REGION (703)

KHT	6.44	46	iPc	11 23.00	-2.1
			e	15 50.00	
PSI	9.14	146	ePc	12 03.00	0.8
CHG	9.79	30	eP	12 13.40	2.2
CHTO	9.79	30	eP	12 11.80	0.6
	1.5s	33.78nm			5.1mb X
KOD	16.07	271	eP	13 34.80	0.8
GBA	16.33	283	P	13 42.00	5.1X
	0.8s	4.70nm			3.7mb
HYB	16.38	297	eP	13 41.50	3.8X
			eS	16 40.00	
KMI	16.99	29	Pc	13 49.50	4.1X
PKI	18.88	336	P	14 07.40	-1.1
	0.6s	16.00nm			4.4mb
GUN	19.01	338	P	14 08.80	-1.1
KKN	19.13	336	P	14 10.00	-1.1
LSA	19.43	353	P	14 13.00	-1.6
GKN	19.57	335	P	14 14.80	-1.0
	0.6s	24.00nm			4.7mb
GYA	20.13	35	P	14 21.60	0.1
CD2	22.47	23	P	14 45.40	0.5
NDI	23.98	322	eP	15 00.00	0.5
LZH	27.21	18	eP	15 30.00	0.2
XAN	27.37	28	Pc	15 30.40	-0.7
WHN	27.75	41	eP	15 40.20	5.7X
GTA	29.45	10	eP	15 49.60	-0.3
QUE	31.86	312	eP	16 12.70	1.4
BTO	33.39	23	eP	16 24.00	-0.4
WMQ	33.78	352	Pc	16 28.40	0.7
BJI	35.64	30	eP	16 45.00	1.6
Z	20s	0.30um			4.1Msz
			e	16 52.00	
MAIO	40.39	315	eP	17 31.00	7.7X
SNY	40.83	35	Pc	17 28.20	1.5
CN2	43.17	34	Pd	17 46.80	1.0
WB5	49.97	127	eP	18 39.10	-0.6
WRA	49.98	127	Pc	18 37.50	-2.3
	0.5s	2.40nm			4.5mb
ASPA	51.76	131	eP	18 52.80	-0.5
	1.1s	10.00nm			4.8mb
QIS	54.51	124	iPd	19 13.20	-0.4
CTA	59.82	120	iPc	19 51.90	0.7
	1.3s	38.46nm			5.4mb
			i(PcP)	19 58.00	
			e(S)	29 48.00	
VRI	66.71	316	ePc	20 36.50	0.3
MLR	67.19	315	ePc	20 40.00	0.6
VAY	69.16	310	eP	20 49.80	-1.7
LPG	80.66	315	eP	21 57.70	0.2
	1.1s	9.70nm			4.6mb
LBF	82.41	316	eP	22 14.00	7.7X
LOR	82.46	317	eP	22 14.10	7.6X
	1.0s	12.00nm			4.8mb
SSF	82.72	316	eP	22 14.60	6.7X
ATB	145.57	279	PKPd	29 24.20	1.1
S.D. = 1.2 on 32 of 40 obs.					

? MAR 24, 1989 00h 08m 24.67± 6.94s
17.146 N ±36.3km 62.274 W ±39.6km
DEPTH = 10.0km (geophysicist)
LEEWARD ISLANDS (92)
ML 2.9 (FDF).

MGH	0.43	173	ePc	08 33.27	-0.1
			S	08 37.20	
SEG	1.04	135	eP	08 44.54	0.2
			S	08 55.90	
PAG	1.25	153	eP	08 47.72	-0.2
			S	09 01.70	
SFG	1.36	131	eP	08 49.70	0.1
DEG	1.43	125	ePd	08 50.21	-0.5
			S	09 08.20	
MGG	1.53	143	eP	08 52.42	0.4
			S	09 11.30	
BBL	1.79	155	eP	08 55.90	0.1
S.D. = 0.3 on 7 of 7 obs.					

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* MAR 24, 1989 00h 14m 52.72± 2.44s
3.251 S ±12.2km 130.553 E ±15.4km
DEPTH = 40.0 ± 21.3 km
4.4mb (3 obs.)
CERAM (272)

AAI	2.39	260	ePd	15 31.50	1.1
			eS	16 11.50	
MTN	9.55	177	eP	17 10.00	-0.8
			eS	18 55.00	
PCI	10.96	282	eP	17 29.50	-0.6
WB5	16.94	168	eP	18 46.20	-2.4
			e	18 51.40	
			eS	21 53.20	
WRA	17.00	168	Pc	18 51.30	2.0
	1.1s	15.50nm			4.0mb
QIS	19.33	154	eP	19 19.00	1.2
			e	19 26.00	
ASPA	20.55	171	iPc	19 31.00	0.3
	0.8s	111.00nm			5.3mb
			eS	23 16.80	
MBL	20.63	210	eP	19 30.00	-1.5
	0.4s	5.00nm			4.2mb
WARB	23.11	189	eP	19 43.40	-12.8X

24d 00h

NANU	24.10	216	eP	20	06.00	0.2
PPI	30.26	275	eP	21	03.50	1.0
PSI	32.16	280	ePd	21	18.50	-0.7
GYA	37.50	323	P	22	06.00	1.2
CHG	38.06	306	eP	22	10.40	0.9
TIY	44.09	339	eP	22	57.60	-1.3
GTA	51.01	329	eP	23	51.20	-1.8
HYB	55.24	294	eP	24	23.00	-1.7
GBA	55.29	289	P	24	24.00	-0.9
WMQ	60.60	326	P	25	03.40	1.5
MAIO	76.78	308	eP	26	43.00	0.7
AVY	82.17	251	eP	27	13.20	1.5
MBC	97.86	13	eP	28	25.00	0.1

S.D. = 1.4 on 21 of 22 obs.

? MAR 24, 1989 00h 23m 28.31± 4.69s
23.518 S ±23.6km 178.781 E ±26.4km
DEPTH = 602.4 ± 53.2 km
4.5mb (7 obs.)
SOUTH OF FIJI ISLANDS (171)

BRS	23.78	255	P	27	58.00	0.5
			e(PcP)	30	07.00	
COO	24.92	248	iPd	28	08.60	1.0
RMQ	27.34	258	eP	28	29.00	0.3
CAN	28.37	239	eP	28	38.00	0.4
BWA	28.60	241	eP	28	37.80	-1.8
CTA	30.36	270	iPc	28	54.60	0.0
	0.5s	13.38nm			4.8mb	
STK	33.83	247	eP	29	24.50	0.8
ASPA	41.00	260	ePd	30	21.90	-0.2
WB5	41.31	266	iPd	30	24.00	-0.5
			eS	35	56.80	
WRA	41.31	266	Pd	30	23.60	-1.0
	0.3s	2.90nm			4.3mb	
FORR	45.36	249	eP	30	55.10	-0.8
	0.4s	25.00nm			5.1mb	
WARB	47.13	255	iPc	30	54.20	-15.3X
	0.2s	2.00nm				
NANU	57.77	257	iPd	32	25.20	-0.3
	0.3s	5.00nm			4.2mb	
SPA	66.62	180	e(P)	33	22.20	0.4
	1.0s	19.00nm			4.5mb	
CHTO	88.50	291	iP	35	21.00	1.9
	1.0s	5.00nm			4.3mb	
PNT	90.82	35	eP	35	29.00	-0.1
	0.4s	3.00nm			4.7mb	
KJF	135.10	343	ePKP	41	40.00	-0.9
SUF	136.70	342	ePKP	41	38.00	-6.0X
NUR	138.89	341	ePKP	41	48.00	0.0
NAO	141.79	350	PKP	41	47.90	-5.3X
	0.7s	5.20nm				
HFS	141.95	348	ePKP	41	47.50	-6.0X
	0.4s	4.20nm				
	Z 15s	0.17um			4.9MszX	
			LR	24	39.00	
VRI	148.26	322	ePKPc	42	08.50	4.1X
KRA	148.77	333	ePKP	42	09.50	4.5X
MLR	148.92	322	ePKPd	42	10.00	4.4X
KSP	149.52	338	iPKPd	42	11.80	5.7X
	0.7s	34.00nm				
			e	42	17.00	
CLL	150.16	342	iPKPd	42	13.30	6.3X
	1.0s	44.00nm				
BRG	150.26	340	iPKPd	42	13.60	6.4X
	0.8s	32.00nm				
			e	42	23.00	
PRU	150.84	339	PKP	42	14.50	6.4X
MOX	151.14	343	ePKP	42	15.00	6.4X
BZS	151.21	326	ePKP	42	15.50	6.7X

S.D. = 1.0 on 17 of 30 obs.

? MAR 24, 1989 00h 57m 20.57± 3.87s
35.076 S ±17.6km 179.276 W ±26.4km
DEPTH = 66.0 ± 26.2 km
4.9mb (3 obs.)
EAST OF NORTH ISLAND, N.Z. (688)

KRP	5.05	234	P	58	35.50	-0.1
DZM	18.00	312	iPd	01	27.90	0.0
BRS	25.04	280	P	02	41.70	1.6
			i	02	50.20	
RMQ	28.67	279	eP	03	13.00	-0.3
CTA	33.81	287	iPd	03	58.00	-0.5
	1.0s	18.00nm			4.9mb	
			i	04	05.50	
ASPA	42.02	273	eP	05	07.40	0.2
	0.9s	23.00nm			5.0mb	
WRA	43.43	278	Pc	05	17.80	-0.8
	0.6s	7.40nm			4.7mb	
WB5	43.44	278	iPc	05	18.20	-0.5
MSL	145.73	285	iPKPd	16	53.50	0.5
KJF	146.53	339	iPKP	16	53.20	-0.2
	0.8s	19.10nm				
			i	17	05.40	
SUF	148.11	338	iPKP	16	58.80	2.8X
	0.6s	6.10nm				
NUR	150.24	336	ePKP	17	05.00	5.7X
	0.9s	27.00nm				
			i	17	11.40	
LIC	150.80	168	PKP	17	09.40	7.8X
PRNI	150.87	270	ePKP	17	08.00	6.7X
KIC	150.98	169	PKP	17	09.60	7.7X
NAO	153.42	349	PKP	17	12.00	8.0X
	1.1s	8.90nm				
HFS	153.55	345	ePKP	17	10.40	6.3X
	0.4s	0.60nm				

S.D. = 0.8 on 10 of 17 obs.

% MAR 24, 1989 01h 04m 23.81± 1.29s
46.290 N ± 8.5km 0.579 W ±14.2km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.7 (LDG).

MFF	0.43	44	Pg	04	32.80	0.2
			Sg	04	41.20	
LSF	1.46	91	Pg	04	51.20	0.9
			Sg	05	12.30	
LFF	1.64	145	Pg	04	51.80	-0.9
			Sg	05	14.60	
RJF	1.77	123	Pg	04	55.60	1.0
			Sg	05	20.00	
LPF	1.77	350	Pg	04	53.60	-1.1
			Sg	05	17.20	
TCF	1.93	89	Pn	04	55.00	-2.1
			Pg	05	00.60	
			Sg	05	26.60	
LPO	2.03	142	Pg	04	59.20	0.7
			Sg	05	26.00	
GRR	2.11	355	Pg	04	59.20	-0.3
			Sg	05	27.60	
MAF	2.18	91	Pg	05	04.80	4.1X
			Sg	05	34.60	
CAF	2.30	125	Pg	05	06.60	4.2X
			Sg	05	38.00	
BGF	2.38	82	Pg	05	09.40	5.9X
			Sg	05	42.50	
FLN	2.47	1	Pg	05	06.40	1.6
			Sg	05	40.40	
EPF	3.32	168	Pg	05	21.30	4.3X
			Sg	06	04.80	

S.D. = 1.4 on 9 of 13 obs.

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* MAR 24, 1989 03h 29m 54.30± 1.86s
44.892 N ± 6.0km 6.644 E ±17.0km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.1 (GEN).

RRL	0.10	74	P	29	57.36	0.1
			S	29	59.52	
BNI	0.16	8	P	29	58.50	0.4
			eSg	30	01.50	
PZZ	0.51	140	P	30	04.65	0.1
			S	30	11.72	
RSP	0.51	59	P	30	04.85	0.3
			S	30	12.54	
LSD	0.67	32	P	30	07.11	-0.7
			S	30	16.75	
STV	0.81	143	P	30	09.98	-0.1
			S	30	20.75	

S.D. = 0.5 on 6 of 6 obs.

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* MAR 24, 1989 03h 50m 53.14± 1.03s
5.054 N ±11.5km 82.695 W ±16.9km
DEPTH = 10.0km (geophysicist)
4.3mb (1 obs.) 3.7Msz (1 obs.)
SOUTH OF PANAMA (83)

BUS	4.60	347	iP	52	04.00	-0.7
OCR	4.60	342	iPc	52	03.10	-1.2
LCR2	4.83	345	iPc	52	07.30	-0.6
			S	52	53.50	
UPA	5.01	39	iPc	52	11.00	0.9
	0.8s	104.48nm			5.5mb	X
			iS	53	05.70	
			LR	53	37.00	
ICR	5.02	347	iPc	52	10.80	0.1
SJS	5.04	345	iPc	52	10.90	0.2
			S	53	09.00	
SRA	5.29	341	iPc	52	13.20	-1.1
			S	53	16.00	
ZOBO	25.63	146	P	56	24.00	-1.3
	Z 20s	0.22um			3.7Msz	
			LR	04	20.00	
ALQ	36.97	327	eP	58	07.00	2.2
	1.2s	6.64nm			4.3mb	
PNT	54.03	331	eP	00	21.00	1.2
EDM	54.18	338	eP	00	21.00	0.1
YKA	61.96	344	eP	01	15.60	0.3
INK	71.63	342	eP	02	20.00	3.5X

S.D. = 1.2 on 12 of 13 obs.

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* MAR 24, 1989 04h 26m 43.45± 0.72s
0.039 N ±12.3km 123.997 E ± 9.6km
DEPTH = 129.2 ± 14.5 km
4.8mb (4 obs.)
MINAHASSA PENINSULA (265)

MNI	1.63	31	ePd	27	13.00	-0.3
			eS	27	37.50	
PCI	4.26	257	eP	27	47.00	-0.6
			eS	28	16.80	
AAI	5.59	131	eP	28	05.80	0.2
KKM	9.79	308	ePc	29	03.20	0.7
	0.3s	30.30nm			5.5mb	
MTN	14.63	151	eP	30	04.70	-0.6
KNA	16.38	164	eP	30	29.00	1.7
	0.7s	31.00nm			4.7mb	
WB5	22.25	153	eP	31	30.10	-0.5
WRA	22.30	154	Pc	31	30.20	-0.8
	0.4s	6.30nm			4.4mb	
ASPA	25.45	158	eP	32	01.80	0.7
	0.6s	26.00nm			4.9mb	
QIS	25.54	144	iPd	32	02.30	0.4
			e	32	04.00	
FORR	30.96	173	iPc	32	49.40	-1.0

S.D. = 1.0 on 11 of 11 obs.

? MAR 24, 1989 06h 34m 50.12± 8.58s
1.660 S ±96.8km 138.168 E ±37.8km
DEPTH = 10.0km (geophysicist)
3.7mb (2 obs.)
NEAR N. COAST OF WEST IRIAN (197)

JAY	2.67	109	ePd	35	32.50	-1.5
MTN	13.12	212	eP	37	58.00	-1.2
			eS	40	14.80	
WB5	18.49	191	eP	39	05.20	-3.0X
			eS	42	17.20	
WRA	18.55	191	Pc	39	08.20	-0.8
	0.5s	1.70nm			3.5mb	
CTA	19.95	157	iPd	39	26.10	0.7
	0.8s	6.34nm			4.0mb	
			i	40	12.00	
			e(S)	45	14.00	
			ePcS	45	34.00	
RMQ	26.70	159	eP	40	32.00	0.5
WARB	26.78	203	eP	40	20.70	-11.6X
BWA	33.97	165	eP	41	37.80	1.7
CAN	34.97	164	eP	41	45.30	0.7

S.D. = 1.5 on 7 of 9 obs.

% MAR 24, 1989 07h 46m 58.44± 0.77s
40.002 N ± 8.9km 27.194 E ± 6.9km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

EDC	0.62	56	ePg	47	10.60	-0.3
			eSg	47	19.60	
EZN	0.69	256	ePg	47	12.10	0.0
KCT	0.92	74	iPg	47	16.80	0.7
			iSg	47	27.80	
DST	1.17	109	ePn	47	20.00	-0.4
CTT	1.48	39	ePn	47	25.00	-0.1
IZM	1.60	178	ePn	47	27.00	0.1

S.D. = 0.5 on 6 of 6 obs.

? MAR 24, 1989 08h 15m 57.38± 0.97s
5.870 S ±17.0km 127.769 E ±15.5km

DEPTH = 423.3 ± 13.0 km
5.1mb (5 obs.)
BANDA SEA (280)

AAI	2.21	11	ePd	16 56.70	-0.5
MTN	7.68	155	iPc	17 50.20	0.1
	0.4s	54.00nm		5.1mb	
		eS		19 13.40	
KNA	9.87	174	iPc	18 14.90	-0.1
	0.3s	43.00nm		5.3mb	
WB5	15.33	156	iPc	19 13.90	-0.6
		eS		21 53.00	
WRA	15.38	156	Pc	19 14.30	-0.6
	0.3s	30.00nm		5.2mb	
MBL	17.03	206	iPc	19 31.60	-0.1
	0.3s	5.00nm		4.4mb	
QIS	18.58	143	iPc	19 48.10	1.0
ASPA	18.65	162	iPc	19 51.10	3.3X
	0.3s	167.00nm		6.0mb X	
		eS		22 58.10	
WARB	20.23	183	eP	19 50.40	-12.7X
NANU	20.37	214	eP	20 05.00	0.6
FORR	24.85	179	eP	20 45.00	-0.7
	0.5s	24.00nm		4.9mb	
STK	28.93	155	iPc	21 22.20	0.3
YKA	107.71	26	ePKP	33 37.20	1.0

S.D. = 0.8 on 11 of 13 obs.

MAR 24, 1989 09h 49m 31.33± 0.44s
58.887 S ± 6.2km 148.783 E ± 9.1km
DEPTH = 10.0km (geophysicist)
5.3mb (8 obs.) 5.6Msz (6 obs.)
WEST OF MACQUARIE ISLAND (701)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 13S, 30C
Centroid Location:
Origin Time 09:49:44.8 0.3
Lat 58.52S 0.05 Lon 147.99E 0.07
Dep 15.0 FIX Half-duration 3.5
Moment Tensor; Scale 10**17 Nm
Mrr= 0.80 0.25 Mtt= 3.75 0.32
Mff=-4.55 0.18 Mrt=-3.10 0.55
Mrf= 0.30 0.68 Mtf=-7.01 0.26
Principol Axes:

	Val=	Plg=	Azm=
T	8.78	20	208
N	-0.05	68	52
P	-8.73	8	301

Best Double Couple:Mo=8.8*10**17
NP1:Strike=346 Dip=70 Slip= 9
NP2: 253 82 160

DRV	8.77	203	eP	51 39.20	-1.8
TAU	16.02	356	eP	53 19.00	0.9
MSZ	18.41	48	P	53 47.00	-1.0
SBA	19.98	169	Pc	54 04.90	-1.2
TOO	21.44	353	eP	54 22.00	0.5
			e	54 28.00	
CAN	23.58	0	eP	54 43.10	0.5
			e	55 39.20	
WEL	24.00	54	Pc	54 47.00	0.3
Z	20s	48.23um		6.0Msz	
N	20s	34.04um			
E	20s	34.04um			
		S		57 52.00	
BWA	24.47	359	eP	54 50.10	-1.2
ADE	24.84	340	iPc	54 56.70	1.8
	1.0s	86.00nm		5.4mb	
STK	27.44	347	eP	55 20.00	1.0
FORR	31.36	324	eP	55 53.70	-0.3
RMQ	32.38	360	eP	56 02.00	-1.0
NWAO	33.44	307	eP	56 20.00	7.9X
Z	20s	7.30um		5.4Msz	
N	20s	8.50um			
E	20s	8.50um			
COOL	33.70	314	eP	56 13.50	-0.9
KLB	34.38	309	eP	56 19.50	-0.8
MUN	34.69	306	eP	56 22.00	-0.9
BAL	35.68	308	eP	56 31.00	-0.4
MAW	36.53	220	eP	56 39.00	0.9
ASPA	36.75	337	ePd	56 39.50	-1.0
	1.2s	47.00nm		5.2mb	
		e		56 46.90	
		eS		59 00.70	
MEKA	38.52	314	eP	56 54.50	-0.8
	1.0s	70.00nm		5.3mb	
CTA	38.80	356	iPc-	56 57.30	-0.4
	1.5s	170.83nm		5.5mb	
Z	18s	10.65um		5.7Msz	
		ipP	57	09.00	43kmX
		esP	57	22.00	
		e(PP)	58	30.00	
		iS	02	59.00	
		iSS	05	28.00	
QIS	38.86	346	eP	56 57.00	-1.2
DZM	38.90	27	iPd	56 57.10	-1.5
WRA	40.28	339	Pc	57 10.00	0.0
	1.3s	74.00nm		5.2mb	
WB5	40.34	339	eP	57 09.00	-1.5
MBL	43.05	319	eP	57 42.00	9.4X
	0.9s	98.00nm		5.5mb	
NANU	43.33	312	eP	57 35.00	0.1
KNA	45.54	332	eP	57 52.00	-0.7
	1.0s	38.00nm		5.3mb	
PMG	49.38	358	eP	58 24.00	1.2
TRT	58.04	316	ePd	59 27.00	0.5
SLR	82.45	232	iPd	02 02.50	7.4X
Z	18s	4.12um		5.8Msz	
QIZ	83.97	323	eP	02 08.00	5.4X
N	24s	3.40um			
		S	12	33.00	
KHT	83.98	312	eP	02 02.00	-0.7
BUL	87.29	234	eP	02 26.40	7.0X
CHG	87.52	314	iPd	02 21.00	0.8
	1.0s	15.00nm		5.2mb	
		eS	12	56.00	
PTZ	91.32	239	iPd	02 40.50	2.0
LSZ	91.79	236	eP	02 23.00	-17.7X
		e	02	42.00	
GYA	91.92	323	P	02 41.60	0.8
Z	22s	1.20um		5.3Msz	
		SKS	13	17.00	
KMI	91.95	319	eP	02 42.00	0.9
Z	26s	4.60um		5.8MszX	
		pP	03	22.00	157kmX
		iS	13	50.00	
		sS	15	00.00	
MAT	95.48	351	(P)	03 10.00	13.2X
		eS	14	19.00	
CD2	96.97	322	eP	03 04.40	0.7
Z	26s	1.90um		5.5MszX	
		SKS	13	42.00	
		eS	14	34.00	
XAN	98.35	327	P	03 11.70	1.9
ALQ	126.58	82	e(PKP)	08 38.00	2.1
Z	22s	1.26um		5.5Msz	
PNT	130.97	60	ePKP	08 46.00	2.4X
SES	135.67	64	ePKP	08 52.00	-0.5
FFC	142.69	65	ePKP	09 01.00	-4.1X
	1.2s	12.00nm			
ISR	143.11	274	ePKP	09 03.00	-3.2X
VRI	143.51	275	ePKPd	09 04.00	-2.8X
MLR	143.66	274	ePKPc	09 04.00	-3.2X
CLI	143.68	277	ePKP	09 06.00	-1.1X
CMP	143.98	273	ePKPc	09 04.00	-3.6X
BZS	145.99	271	ePKP	09 11.50	0.5
MBC	146.49	26	ePKP	09 11.00	0.1X
	1.0s	42.00nm			
TIO	147.65	221	iPKP	09 28.00	13.7X
BUD	148.56	271	ePKP	09 19.00	4.0X
SPC	149.01	275	e(PKP)	09 19.00	3.0X
PTJ	149.12	266	ePKP	09 16.60	0.5
SRO	149.15	271	ePKP	09 22.00	6.1X
IFR	149.24	226	iPKP	09 23.00	6.2X
TAF	149.33	231	ePKP	09 22.00	5.3X
KRA	149.69	276	ePKP	09 21.20	4.5X
			e	09 32.00	
SOP	149.97	269	ePKP	09 23.00	5.8X
ZST	150.02	271	e(PKP)	09 28.00	10.8X
GAC	150.49	97	ePKP	09 24.00	6.0X
			pP	09 34.50	
KBA	151.25	266	e(PKP)	09 25.00	5.6X
	1.2s	15.60nm			
			e	09 31.00	
			i	09 35.70	
			i	09 45.10	
APHE	151.69	231	ePKP	09 28.00	7.7X
ALOJ	152.00	231	ePKP	09 29.00	8.2X
KSP	152.04	274	ePKPc	09 37.30	17.1X
ASMO	152.06	232	ePKP	09 29.20	8.4X
AAPN	152.17	231	ePKP	09 29.00	8.0X
KJF	152.34	306	ePKP	09 27.00	6.8X
	0.9s	15.20nm			
KHC	152.43	269	ePKP	09 37.00	16.1X
NUR	152.48	298	ePKP	09 30.00	9.5X
SUF	152.56	303	ePKP	09 28.00	7.5X
SOD	153.50	313	ePKP	09 25.00	3.3X
FRB	161.64	59	ePKP	09 28.00	-3.5X

S.D. = 1.1 on 39 of 76 obs.

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* MAR 24, 1989 09h 49m 36.48± 0.91s
6.748 N ± 8.5km 76.472 W ±17.3km
DEPTH = 13.5 ± 5.2 km
4.0mb (2 obs.)
NORTHERN COLOMBIA (99)

HOBC	2.40	172	iPc	50 15.10	-1.0
CLMC	2.85	182	iPc	50 22.15	-0.4
ANCC	3.24	187	iPc	50 27.00	-0.9
HOQC	3.26	183	iPc	50 27.50	-1.0
DIAC	3.44	175	iPc	50 30.90	-0.1
SALC	3.76	183	eP	50 35.35	-0.1
UPA	3.76	306	ePc	50 31.80	-3.5X
	0.5s	35.21nm			
		i		50 38.70	
		iS		51 14.70	
PURC	4.40	179	eP	50 46.40	1.5
ZOBO	24.32	160	P	54 57.60	2.1
LPB	24.57	160	eP	55 01.00	3.2X
CNCB	24.87	160	P	55 02.00	1.1
ATB	26.18	112	Pd	55 11.40	-1.2
ALQ	39.35	320	eP	57 07.60	0.1
	1.0s	2.50nm		3.9mb	
GOL	41.83	326	P	57 28.00	0.1
BW06	46.24	326	P	58 02.00	-1.4
RSON	46.25	345	P	58 04.00	0.9
TNP	48.28	316	P	58 20.70	1.1
	0.6s	1.23nm		4.1mb	
KVN	49.36	317	P	58 28.20	0.4
YKA	62.22	341	eP	59 58.50	-1.3

S.D. = 1.2 on 17 of 19 obs.

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* MAR 24, 1989 09h 56m 33.25± 1.29s
3.076 N ±12.9km 84.242 W ±13.8km
DEPTH = 10.0km (geophysicist)
4.0mb (1 obs.)
OFF COAST OF CENTRAL AMERICA (76)

ANCC	7.38	86	eP	58 22.90	-0.8
UPA	7.51	38	ePc	58 28.00	2.6
	1.0s	28.00nm		5.4mb X	
HOQC	7.61	87	eP	58 26.10	-1.0
DIAC	8.04	88	eP	58 32.60	-0.4
HOBC	8.19	81	eP	58 34.50	-0.6
ZOBO	24.97	141	P	02 00.00	0.8
			LR	36 28.00	
LPB	25.18	141	P	02 01.90	0.9
Z	23s	1.52um		4.4MszX	
			LR	35 50.00	
CNCB	25.46	141	eP	02 04.00	0.2
CCH	27.06	139	(P)	02 05.00	-13.3X
ALQ	37.83	330	eP	03 50.50	-1.6
	1.0s	3.00nm		4.0mb	

S.D. = 1.5 on 9 of 10 obs.

% MAR 24, 1989 10h 11m 51.37± 1.44s
18.128 N ±12.5km 67.140 W ±14.3km
DEPTH = 33.0km (normol)
MONA PASSAGE (89)

MGP	0.13	158	P	11 57.20	-0.1
MCP	0.29	5	P	11 59.20	0.2
APR	0.51	50	P	12 01.70	-0.4
SJG	0.94	91	iP	12 08.20	-0.1
CSB	0.95	80	P	12 08.80	0.4

S.D. = 0.4 on 5 of 5 obs.

? MAR 24, 1989 10h 51m 55.94± 4.81s
43.126 N ±17.3km 5.457 E ±37.3km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
MD 2.6 (STR).

CALN	1.22	59	Pg	52 18.64	-0.1
MVIF	1.45	57	Pn	52 22.49	0.1
			Sg	52 41.08	
AURF	1.56	60	Pn	52 23.92	0.1
TOUF	1.58	55	Pn	52 24.40	0.2
AUTN	1.68	58	Pn	52 25.79	0.1
			Sg	52 47.91	
FOUF	1.70	34	P	52 25.65	-0.1

24d 10h

			(Sg)	52 44.01		
SAOF	1.75	60	Pn	52 26.18	-0.4	
CVF	2.57	101	Pn	52 38.33	0.0	
S.D. = 0.2		on	8 of	8 obs.		

MAR 24, 1989 11h 26m 46.08± 0.69s
37.075 N ±10.6km 103.257 W ± 6.7km
DEPTH = 5.0km (geophysicist)
COLORADO (479)
mbLg 2.7 (TUL).

GLD	3.09	331	eP	27 36.60	0.1	
GOL	3.10	328	eP	27 35.80	-1.1	
ALQ	3.36	232	eP	27 39.80	-0.6	
RW1	3.79	290	eP	27 48.00	1.4	
SIO	5.76	101	P	28 14.20	-0.1	
TUL	6.12	99	P	28 20.70	1.3X	
LNO	6.13	99	P	28 19.50	0.1	
RLO	6.68	95	P	28 27.60	0.2	
RSSD	7.06	355	eP	28 31.50	-1.3X	
BW06	7.47	322	eP	28 41.00	2.4X	
S.D. = 0.9		on	7 of	10 obs.		

& MAR 24, 1989 11h 41m 04.64s
60.224 N 153.180 W
DEPTH = 141.9km
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM	0.18	143	iP	41 23.50	0.9	
			iS	41 38.41		
RDT	0.52	47	iP	41 24.87	-0.6	
PDB	0.67	230	iP	41 25.45	-0.9	
			iS	41 41.29		
NNL	0.96	100	iP	41 28.67	0.1	
NKA	1.09	61	iP	41 30.62	0.9	
SPU	1.11	29	iP	41 29.34	-0.6	
CNPM	1.21	125	iP	41 29.99	-0.9	
CGLM	1.23	27	eP	41 30.76	-0.5	
SVW	1.49	307	eP	41 32.83	-1.1	
SLKM	1.50	78	eP	41 32.54	-1.4	
SEW	1.87	92	iP	41 36.87	-1.2	
SKT	1.94	24	eP	41 38.37	-0.6	
PMS	2.05	58	eP	41 38.59	-1.8	
PTE	2.15	71	iP	41 39.45	-2.0	
PWA	2.16	47	eP	41 41.39	-0.1	
PWL	2.48	73	eP	41 43.11	-2.5	
KDC	2.51	172	eP	41 46.58	0.7	
			eS	42 12.56		
KNIM	2.71	85	iP	41 45.62	-3.0	
MTU	2.78	92	eP	41 47.85	-1.5	
SML	2.85	54	eP	41 47.91	-2.4	
GLI	3.08	75	eP	41 51.43	-1.8	
FID	3.36	78	iP	41 54.83	-2.1	
VZW	3.37	73	eP	41 54.86	-2.3	
KLU	3.77	67	eP	41 59.54	-2.9	
GLB	4.75	71	eP	42 13.60	-1.8	
FBA	5.31	26	eP	42 20.83	-2.1	
26 obs. associated						

* MAR 24, 1989 12h 10m 55.87± 1.31s
20.402 N ±11.2km 99.356 E ±21.0km
DEPTH = 10.0km (geophysicist)
BURMA (296)

CHG	1.63	194	ePn	11 25.20	0.5	
			ePg	12 10.00		
CHTO	1.63	194	ePn	11 25.00	0.3	
			iPg	11 32.50		
			iSg	12 09.20		
BDT	3.16	186	ePn	11 45.60	-1.0	
			ePg	12 02.00		
			eSg	12 37.70		
LOE	3.73	143	eP	11 55.00	0.2	
KMI	5.64	33	ePg	12 22.00	0.0	
			Sg	13 31.00		
S.D. = 0.8		on	5 of	5 obs.		

* MAR 24, 1989 15h 25m 30.01± 1.07s
64.084 N ±14.0km 86.789 W ±10.0km
DEPTH = 10.0km (geophysicist)
NORTHWEST TERRITORIES, CANADA (679)

BLC	4.04	277	iP	26 34.00	0.8	
			eS	27 16.00		
IGL	5.67	18	eP	26 57.00	0.8	
			eSn	27 57.00		
			eLg	28 31.00		
FRB	8.04	84	eP	27 30.00	0.4	
RES	11.01	349	(P)	28 00.00	-10.4X	
			eSn	30 04.00		
			Lg	31 15.00		
FFC	12.12	226	eP	28 20.00	-5.5X	
	0.6s		31.00nm		5.8mb X	
YKA	12.57	275	eP	28 26.30	-5.1X	
SCH	13.71	123	eP	28 46.00	-0.6	
RSON	13.76	199	eP	28 43.00	-4.2X	
			eS	31 05.50		
MBC	16.10	332	eP	29 16.00	-1.5	
S.D. = 1.4		on	5 of	9 obs.		

MAR 24, 1989 15h 31m 29.91± 0.53s
11.329 N ± 5.2km 86.404 W ± 4.7km
DEPTH = 67.5 ± 5.3 km
5.2mb (24 obs.)
NEAR COAST OF NICARAGUA (74)
MD 5.3 (SJR), 4.8 (HDC). Felt (IV) at Penos Blancas; (III) at Cuajiniquil de La Cruz; (II) in the Central Valley and felt slightly at San Jose, Costa Rico.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 12S, 25C
Centroid Location:
Origin Time 15:31:37.1 0.6
Lat 11.27N FIX; Lon 86.46W FIX
Dep 48.3 7.0 Half-duration 1.7
Moment Tensor; Scale 10**16 Nm
Mrr= 5.69 0.76 Mtt=-8.75 0.94
Mff= 3.06 1.46 Mrt=-1.70 1.08
Mrf=-3.81 0.95 Mtf= 3.86 0.73
Principal Axes:

	Val=	Plg=	Azm=
T	9.17	50	109
N	0.76	40	284
P	-9.92	2	16

Best Double Couple: Mo=9.5*10**16
NP1: Strike=139 Dip=55 Slip= 141
NP2: 254 59 42

RIN3	1.14	118	iPd	31 50.20	-0.3	
			S	32 07.90		
JUD	1.43	144	iPd	31 51.10	-3.3X	
JTS	1.76	126	ePc	31 58.20	-0.6	
			S	32 22.80		
VACR	1.90	116	iPc	32 02.10	1.4	
CAO	2.06	142	ePc	32 00.50	-2.5	
POA2	2.41	118	iPc	32 09.80	1.8	
IRZ2	2.81	119	ePd	32 15.00	1.2	
OPS	2.94	130	eP	32 14.40	-0.9	
CDM	3.14	124	iPd	32 18.90	0.5	
IDC	3.60	136	ePd	32 23.30	-1.2	
TIG	3.81	126	ePd	32 28.10	0.5	
CTCR	4.33	124	P	32 35.00	0.1	
PBC	4.40	131	eP	32 34.40	-1.4	
TPX	6.72	303	(P)	33 00.00	-8.2X	
			iS	34 36.50		
UPA	7.15	108	ePc+	33 14.60	0.4	
	0.7s		34.25nm		5.1mb	
			i	33 24.50		
			i(S)	34 28.00		
GCM	9.28	31	eP	33 46.30	2.9X	
OXX	11.52	301	iPc	34 13.70	-0.4	
IIT	13.80	305	eP	34 44.80	0.7	
ACX	14.16	294	iP	34 48.80	0.1	
III	14.44	301	iPc	34 52.80	0.4	
IIC	14.95	306	iP	34 59.30	0.1	
SDV	15.72	97	eP	35 11.90	3.0X	
TOV	16.40	94	eP	35 19.30	1.9	
FISA	16.74	89	eP	35 11.00	-10.7X	
CAR	19.14	91	eP	35 49.00	-1.9	
MCP	19.92	67	P	35 57.00	-2.0	
CUM	21.85	90	eP	36 19.00	0.5	
SGS	22.42	13	P	36 26.00	2.0	
PRM	22.95	9	P	36 30.80	1.6	
JSC	23.32	11	P	36 35.00	2.2	
PWLA	23.59	357	P	36 36.30	0.9	
LHS	23.60	12	P	36 37.00	1.5	
GBTN	24.31	4	P	36 43.80	1.4	
TKL	24.34	5	P	36 44.00	1.3	
OLY	24.50	350	P	36 43.60	-0.6	
BBL	24.59	77	eP	36 45.00	-0.3	
SVB	24.65	83	eP	36 46.47	0.7	
SVV	24.68	83	eP	36 48.43	2.3	
SLB	24.87	82	eP	36 48.53	0.5	
DEG	25.09	76	eP	36 47.00	-3.1X	
ELC	25.97	355	P	36 57.60	-0.3	
BLA	26.33	11	P	37 02.00	0.7	
	1.2s		67.16nm		5.1mb	
FVM	26.79	353	P	37 08.00	2.6X	
CVL	27.48	14	P	37 12.00	0.3	
CBN	27.96	15	iP	37 17.00	1.0	
ALQ	29.75	325	eP	37 31.50	-1.0	
	1.0s		22.50nm		4.8mb	
Z	22s		0.93um		4.4Msz	
ARE	31.31	152	eP	37 50.00	3.6X	
DHN	32.18	11	P	37 53.50	0.0	
ZOBO	32.85	146	P	38 00.00	-0.1	
Z	18s		1.86um		4.8Msz	
			LR	49 00.00		
GOL	32.89	332	P	37 59.00	-0.9	
LPB	33.08	146	P	38 03.00	1.0	
	1.0s		36.00nm		5.2mb	
Z	19s		2.78um		5.0Msz	
			e	38 10.00		
			LR	49 20.00		
CNCB	33.37	147	P	38 05.00	0.3	
			i	38 12.70		
GLA	33.87	314	eP	38 08.00	-0.3	
			e	40 46.00		
PTN	34.55	14	P	38 13.80	-0.1	
RSNY	34.64	15	P	38 14.00	-0.7	
	1.0s		63.33nm		5.5mb	
BAR	34.99	312	eP	38 19.00	1.1	
			e	40 50.00		
TPC	35.29	315	eP	38 21.00	0.5	
			e	40 51.00		
PLM	35.47	313	eP	38 23.00	0.8	
			e	40 51.00		
MSU	35.52	324	P	38 22.40	-0.2	
RVR	36.17	314	eP	38 29.00	1.2	
			e	40 53.00		
GSC	36.47	316	eP	38 33.00	2.6	
			e	40 55.00		
MWC	36.77	313	eP	38 34.00	0.9	
PAS	36.81	313	eP	38 34.00	0.8	
SBB	36.85	314	eP	38 33.00	-0.6	
			e	40 55.00		
MIM	36.92	21	P	38 34.80	0.9	
BW06	37.25	331	P	38 35.00	-2.0	
CLC	37.29	316	eP	38 37.00	-0.3	
			e	40 56.00		
SYP	38.30	313	eP	38 48.00	2.1	
			e	41 00.00		
TNP	38.32	319	P	38 46.60	0.5	
	0.9s		6.51nm		4.5mb	
EUR	38.39	322	iP	38 47.20	0.5	
	0.8s		7.37nm		4.7mb	
CBM	38.71	20	P	38 49.70	0.8	
FRI	39.36	316	ePd	38 54.30	-0.1	
KVN	39.44	320	P	38 55.70	0.3	
RSON	39.87	353	P	38 56.50	-2.0	
	0.8s		45.77nm		5.4mb	
CMB	40.36	317	iPd	39 03.80	1.0	
LRM	40.91	332	eP	39 07.30	-0.1	
			e	41 09.00		
ORV	41.91	318	iPd	39 17.00	1.6	
WDC	43.13	319	ePd	39 23.50	-1.9	
SES	43.90	337	ePc	39 31.00	-0.5	
FFC	45.01	347	iPc	39 39.20	-1.1	
	0.5s		33.00nm		5.4mb	
SCH	46.06	16	ePc	39 47.40	-1.3	
	0.4s		17.00nm		5.3mb	
LON	46.26	327	P	39 49.50	-0.9	
BAO	46.52	124	eP	39 52.70	-0.1	
PNT	46.80	331	ePc	39 54.00	-0.5	
	1.1s		72.00nm		5.5mb	
EDM	47.03	338	iPc	39 55.00	-1.3	
	0.8s		105.00nm		5.8mb	
GMW	47.28	327	P	39 56.70	-1.6	
ITB1	47.48	139	e(P)	40 00.50	0.3	
ITB	47.70	139	e(P)	40 00.60	-1.3	
PGC	48.30	328	eP	40 05.00	-1.2	
VAO	51.53	132	eP	40 29.90	-1.4	
ITA	52.85	129	eP	40 41.00	-0.5	
			e	40 46.10		
FRB	53.84	10	eP	40 45.00	-2.8	
YKC	54.91	345	ePc	40 53.50	-2.2	
	0.9s		38.00nm		5.4mb	
YKA	54.96	344	eP	40 54.70	-1.4	

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INK    64.58 342 ePc    42 00.50  -1.4
       0.9s    47.00nm          5.4mb
MBC    67.27 352 eP     42 17.00  -2.0
       0.7s    26.00nm          5.3mb
PMR    67.27 333 P      42 17.30  -1.9
       0.8s    12.07nm          4.9mb
KDC    67.80 328 P      42 21.40  -1.1
       0.7s    22.09nm          5.2mb
FBA    67.86 336 P      42 21.00  -1.9
       0.7s    15.99nm          5.1mb
IMA    70.56 336 P      42 37.90  -1.7
       1.0s    10.00nm          4.7mb
TTA    70.74 333 P      42 38.40  -2.3
       0.8s    24.14nm          5.2mb
ALE    71.87   3 eP     42 46.00  -1.1
       0.5s     5.00nm          4.7mb
DAG    73.99  13 eP     42 57.00  -2.5
ALOJ   77.16  54 eP     43 29.50  11.1X
ATEJ   77.24  55 eP     43 21.50   2.6X
ACHM   77.37  54 eP     43 20.00   0.5
ASMO   77.42  54 eP     43 20.00   0.2
APHE   77.50  54 eP     43 19.70  -0.6
TIC    80.31  85 P      43 34.10  -1.7
LIC    80.37  86 P      43 34.60  -1.5
       0.9s     8.00nm          4.6mb
KIC    80.63  85 P      43 36.00  -1.5
ADK    81.36 321 P      43 41.00   0.5
       0.8s   137.93nm          5.9mb
NAO    83.71  29 P      43 53.00   0.5
       0.9s     6.60nm          4.6mb
KUK    84.93  85 eP     43 59.00  -0.5
CLL    87.06  38 eP     44 13.00   3.7X
              e          44 44.00
KHC    87.97  40 eP     44 28.00  14.2X
BUL   117.16 107 iPKPc   50 10.70   0.7
       0.8s     3.73nm
BJI   124.76 339 ePKP    50 24.50   0.7
WMQ   124.85   5 PKP     50 24.60   0.6
HHC   125.49 343 PKPd    50 25.30  -0.1
BTO   126.15 345 ePKP    50 28.00   1.3
TIA   127.77 336 ePKP    50 29.00  -0.8
TIY   128.12 341 ePKP    50 30.50   0.0
    Z  30s     0.90um          5.3MszX
CTA   128.74 253 iPKPd   50 33.00   0.9
       0.9s     8.40nm
                 i        50 43.00
                 i        53 52.50
GTA   129.19 354 iPKPc   50 33.00   0.4
SSE   130.19 329 PKPc    50 35.00   0.5
       1.0s    37.00nm
NJ2   130.55 332 PKPd    50 35.60   0.5
QUE   131.40  31 ePKP    50 38.20   1.1
LZH   131.86 349 ePKP    50 38.50   0.7
       1.5s    44.00nm
XAN   132.59 343 PKP     50 39.80   0.7
WHN   133.83 335 ePKP    50 42.00   0.6
CD2   136.89 347 ePKP    50 48.20   0.9
ASPA  139.79 247 ePKP    50 48.80  -4.0X
       0.9s    13.00nm
WB5   139.91 253 ePKP    50 45.00  -8.1X
WB5   139.91 253 iPKP    50 53.90   0.8
WRA   139.93 253 PKPc    50 53.90   0.8
       0.8s    10.30nm
KMI   142.69 346 ePKP    50 58.00  -0.2
                 pP       51 06.60
MTN   143.29 264 ePKP    50 57.00  -2.1
KNA   145.55 259 ePKP    51 04.00   1.1
       0.6s    31.00nm
QIZ   145.85 332 iPKPc   51 05.00   1.6
HYB   147.80  28 ePKPd   51 07.20   0.6
COOL  147.92 228 ePKP    51 13.00   6.5X
NWAO  149.46 222 ePKP    51 14.00   5.2X
CHG   149.59 350 ePKPc   51 10.40   1.0
       1.0s    26.00nm
KLB   149.92 224 ePKP    51 15.00   5.5X
LOE   150.34 344 ePKP    51 12.00   1.5
GBA   150.50  33 PKPd    51 09.80  -0.9
       0.9s    20.20nm
MUN   150.73 222 iPKPc   51 17.00   6.3X
TSM   151.16 301 ePKP    51 20.50   8.7X
BAL   151.24 225 ePKP    51 18.00   6.5X
PCI   151.96 290 ePKP    51 21.80   8.8X
MEKA  152.02 234 ePKP    51 20.00   7.2X
       0.7s     5.00nm
KOD   153.24  37 ePKP    51 17.00   1.8
KHT   153.59 349 iPKPc   51 17.00   1.8
SNG   160.33 339 ePKP    51 25.80   2.2X
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PSI   165.09 339 ePKPd 51 29.40   1.2
      S.D. = 1.2  on 133 of 156 obs.
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%  MAR  24, 1989  16h 23m 42.10± 1.11s
   11.049 N ± 5.4km   61.784 W ±20.5km
   DEPTH =  33.0km  (normal)
 WINDWARD ISLANDS                ( 95)
      MD 3.5 (TRN).

TCE     0.35 175 iP     23 50.71   0.2
                eS      23 58.51
TRN     0.55 137 eP     23 53.93   0.6
                eS      24 03.65
TPP     0.80 156 eP     23 56.58  -0.3
                eS      24 07.04
TBH     0.90 128 eP     23 57.92  -0.5
                eS      24 13.47
GRW     1.11   6 eP     24 01.02  -0.4
                eS      24 19.39
SVB     2.27  13 eP     24 17.47  -0.6
                eS      24 46.77
SVV     2.32  14 eP     24 18.06  -0.8
                eS      24 46.85
SSV     2.34  14 eP     24 20.36   1.3
                eS      24 47.24
SLB     2.85  15 eP     24 26.94   0.6
                eS      24 59.08
      S.D. = 0.8  on   9 of   9 obs.
-------------------------------------
?  MAR  24, 1989  17h 22m 49.59± 7.56s
   43.290 N ±18.2km    5.312 E ±61.3km
   DEPTH =  10.0km  (geophysicist)
 NEAR SOUTH COAST OF FRANCE      (379)
      MD 2.6 (STR).

CALN    1.24  68 Pg     23 12.69   0.0
MVIF    1.47  65 Pn     23 16.25   0.0
                Sg      23 35.29
TOUF    1.58  62 Pn     23 17.93   0.0
                Sg      23 38.30
AURF    1.58  67 Pn     23 17.83   0.0
                Sg      23 38.56
AUTN    1.69  65 Pn     23 19.52   0.0
                Sg      23 41.49
SAOF    1.77  66 Pn     23 20.38  -0.1
CVF     2.71 104 Pn     23 34.01   0.0
      S.D. = 0.1  on   7 of   7 obs.
-------------------------------------
   MAR  24, 1989  18h 22m 23.81± 0.55s
   39.295 N ± 5.1km   23.552 E ± 5.7km
   DEPTH =   6.3 ±  3.7 km
 AEGEAN SEA                      (365)
      ML 3.5 (ATH).

NEO     0.25 273 ePg    22 28.50  -0.5
PLG     1.08 356 ePb    22 45.50   1.0
ATH     1.33 174 ePb    22 47.50  -1.1
                eSb     23 05.00
KZN     1.70 307 ePb    22 53.60  -0.6
PRK     2.11  90 ePn    23 02.00   1.9
VAY     2.16 340 iPn    23 01.40   0.7
EZN     2.21  75 ePn    23 03.70   2.2X
MMB     2.30   3 iPc    23 02.00  -0.8
RDO     2.39  39 ePn    23 04.00  -0.1
ITM     2.47 212 ePn    23 05.00  -0.2
KBN     2.49 303 ePn    23 06.00   0.6
RZN     2.55  20 eP     23 05.00  -1.5
KKB     2.59 352 iPc    23 07.00   0.0
KDZ     2.75  31 iPc    23 07.00  -2.2
OHR     2.78 312 iPn    23 10.90   1.2
SRN     2.81 283 ePn    23 13.00   3.0X
TPE     2.91 291 ePn    23 17.00   5.6X
PLD     2.94  17 eP     23 12.00   0.1
IZM     3.03 106 ePn    23 14.00   0.8
BERA    3.10 298 ePn    23 16.90   2.8X
SKO     3.12 330 ePn    23 17.00   2.6X
DIM     3.14  28 eP     23 27.00  12.4X
PGB     3.29   8 eP     23 16.00  -0.8
VTS     3.30 356 iP     23 18.00   0.8
PHP     3.37 316 ePn    23 24.40   6.5X
EDC     3.48  71 ePn    23 37.00  17.4X
TIR     3.48 307 ePn    23 26.50   6.9X
PUK     3.91 316 ePn    23 30.90   5.3X
JMB     3.91  35 eP     23 35.00   9.3X
DST     3.94  84 ePn    23 38.00  11.8X
BCI     4.05 320 ePn    23 35.00   7.4X
PVL     4.14  18 eP     23 27.00  -1.9
```

```
DRA     5.41   5 eP     24 04.00  17.2X
CMP     6.07  10 ePc    23 53.00  -3.2X
MLR     6.44  15 ePc    24 02.00   0.4
BZS     6.48 348 eP     24 01.50  -0.4
VRI     6.98  19 ePd    24 10.00   1.1
      S.D. = 1.1  on  22 of  37 obs.
-------------------------------------
   MAR  24, 1989  22h 03m 22.27± 0.68s
   16.677 N ± 5.9km   61.927 W ± 6.4km
   DEPTH =  10.0km  (geophysicist)
 LEEWARD ISLANDS                 ( 92)
      ML 2.5 (FDF).

MGH     0.28 279 eP     03 28.15   0.0
                S       03 32.10
ANG     0.48  11 eP     03 32.19   0.1
                eS      03 39.32
SEG     0.49 124 eP     03 32.81   0.6
                S       03 38.70
PAG     0.69 160 eP     03 35.66  -0.2
                S       03 45.30
DEG     0.91 113 eP     03 39.00  -0.7
                S       03 51.50
MGG     0.96 142 eP     03 40.49   0.0
BBL     1.23 159 eP     03 45.30   0.2
      S.D. = 0.5  on   7 of   7 obs.
-------------------------------------
&  MAR  24, 1989  22h 25m 25.60s
   33.180 N          115.600 W
   DEPTH =   1.0km
 SOUTHERN CALIFORNIA             ( 43)
      <PAS-P>. ML 3.3 (PAS).

HAY     0.53 357 ePd    25 36.10   0.0
      1 obs. ossocioted
-------------------------------------
&  MAR  24, 1989  22h 28m 10.00s
   33.180 N          115.590 W
   DEPTH =   1.0km
 SOUTHERN CALIFORNIA             ( 43)
      <PAS-P>. ML 3.2 (PAS).

HAY     0.53 356 iPd    28 20.50  -0.1
      1 obs. ossocioted
-------------------------------------
&  MAR  24, 1989  23h 16m 48.00s
   33.030 N          115.580 W
   DEPTH =   6.0km  (geophysicist)
 SOUTHERN CALIFORNIA             ( 43)
      <PAS-P>. ML 4.0 (PAS). Felt ot
      Niland.

GLA     0.63  88 iPd    17 01.70   1.0
PLM     1.12 287 iPc    17 08.90  -0.6
PEC     1.58 303 eP     17 14.50  -2.1
NOP     3.13 351 eP     17 37.40  -1.4
ABL     3.53 302 eP     17 43.80  -0.9
SPRG    3.66 357 eP     17 43.80  -2.7
TMO     4.05 339 eP     17 48.40  -3.8
BLP     4.29 292 eP     17 54.20  -1.1
BCH     4.31 301 eP     17 55.50  -0.2
DLM     4.62   8 eP     18 01.00   0.9
TNP     5.21 346 eP     18 15.00   6.4
KVN     6.35 342 eP     18 26.00   1.4
EUR     6.45 357 iP     18 27.00   0.9
ALQ     7.81  73 eP     18 35.00 -10.2
      14 obs. ossocioted
-------------------------------------
*  MAR  24, 1989  23h 23m 01.15± 1.41s
    4.156 S ±17.1km  130.384 E ±14.9km
   DEPTH =  33.0km  (normal)
 BANDA SEA                       (280)

AAI     2.23 282 eP     23 36.50  -0.1
MTN     8.67 175 eP     25 09.00   1.7
                eS      26 52.20
WB5    16.10 166 eP     26 45.00  -1.8
ASPA   19.69 170 eP     27 30.70  -0.1
       0.5s    44.00nm          5.0mb X
RAB    21.73  91 eP     27 52.00   0.3
                iS      28 24.00
MAT    41.14  10 eP     30 57.00  13.1X
      S.D. = 1.8  on   5 of   6 obs.
-------------------------------------
&  MAR  24, 1989  23h 46m 00.56s
   60.707 N          150.213 W
   DEPTH =  41.5km
```

24d 23h

KENAI PENINSULA, ALASKA (14)
<AGS-P>.

SLKM	0.20	181	iP	46 07.79	-0.3
NKA	0.51	275	eP	46 12.25	0.8
PTE	0.60	74	iP	46 12.00	-0.7
			iS	46 21.05	
PMS	0.63	30	iP	46 12.33	-0.8
SUA	0.80	341	iP	46 14.63	-1.0
			eS	46 26.00	
NNL	0.86	219	iP	46 16.61	0.3
			iS	46 29.12	
PWL	0.93	80	iP	46 16.73	-0.7
			eS	46 29.83	
PWA	0.96	10	eP	46 17.00	-0.7
SPU	1.02	299	iP	46 17.74	-0.9
			eS	46 31.28	
PLRM	1.03	30	iP	46 17.93	-0.8
			iS	46 31.75	
PMR	1.03	30	eP	46 17.92	-0.8
PME	1.09	31	eP	46 18.90	-0.6
RDT	1.09	264	iP	46 18.97	-0.7
			iS	46 33.77	
CRP	1.10	302	eP	46 19.30	-0.6
			iS	46 34.13	
GHO	1.24	30	iP	46 21.16	-0.6
KNIM	1.28	105	iP	46 20.55	-1.7
SKT	1.43	334	eP	46 24.00	-0.4
			eS	46 42.34	
SML	1.43	39	eP	46 23.77	-0.7
MTU	1.46	118	eP	46 23.70	-1.2
ILIM	1.50	246	iP	46 24.96	-0.5
GLI	1.54	82	eP	46 24.23	-1.7
VZW	1.82	77	eP	46 28.93	-1.1
FID	1.84	87	eP	46 27.78	-2.4

23 obs. associated

? MAR 24, 1989 23h 46m 35.44± 2.18s
15.048 N ± 9.0km 98.347 E ±29.5km
DEPTH = 33.0km (normal)
SOUTH BURMA (298)

KHT	0.35	138	iPn	46 44.20	0.3
			iSg	46 51.70	
NNT	2.79	151	ePg	47 18.50	-0.2
			eSg	47 48.50	
CHG	3.79	9	eP	47 44.50	11.6X
CHTO	3.79	9	ePn	47 33.00	0.1
			ePg	47 47.00	
			eSg	48 35.00	
LOE	4.01	54	eP	47 36.00	-0.1

S.D. = 0.4 on 4 of 5 obs.

? MAR 25, 1989 00h 03m 40.46± 5.61s
7.333 S ±35.7km 150.554 E ±44.9km
DEPTH = 90.3 ± 29.8 km
4.2mb (2 obs.)
NEW BRITAIN REGION (192)

LAT	3.59	281	eP	04 35.00	0.0
PMG	3.95	238	eP	04 40.00	0.1
RMQ	19.13	185	eP	07 59.00	-0.2
WB5	20.05	230	eP	08 08.10	-0.8
WRA	20.11	230	Pc	08 08.90	-0.6
	1.0s		7.80nm		4.0mb
ASPA	22.79	223	eP	08 37.80	1.6
	0.9s		20.00nm		4.5mb

S.D. = 1.3 on 6 of 6 obs.

MAR 25, 1989 00h 56m 59.55± 0.88s
13.524 S ±10.2km 33.653 E ±15.7km
DEPTH = 10.0km (geophysicist)
4.7mb (4 obs.)
MALAWI (577)

SONG	2.23	202	ePn	57 39.50	2.3
			i	57 45.00	
PTZ	2.36	252	iPn	57 46.20	7.1X
IKZ	3.48	343	iPnc	58 22.00	27.1X
MTD	3.80	211	iPn	58 00.80	1.2
			iSn	58 44.80	
			iSg	59 06.40	
LSZ	5.57	251	iPnd	58 30.00	5.3X
			iSn	59 35.00	
NPA	5.65	107	iPnc	58 11.40	-14.2X
			eSn	59 04.00	
			eSg	59 29.50	
KMZ	7.61	270	iPnc	58 57.90	4.6X
			iSn	00 29.00	
			iSg	01 09.00	
BUL	8.16	216	iPn	59 00.50	-0.5
			iSn	00 30.00	
			iSg	01 21.00	
SLR	13.16	202	iPd	00 07.50	-1.8
	0.8s		22.39nm		5.3mb X
			S	02 27.50	
PRY	14.54	203	eP	00 23.20	-4.2X
			(S)	02 55.50	
KIM	17.25	207	iPc	01 00.90	-1.4
HVD	18.59	203	iPc	01 26.00	7.0X
KIC	42.94	295	Pd	05 00.72	0.1
	0.6s		6.50nm		4.5mb
LIC	43.13	295	P	05 02.10	0.0
TIC	43.31	295	Pd	05 03.70	0.0
	0.6s		8.50nm		4.7mb
GBA	51.06	60	Pd	05 53.20	-11.3X
	0.5s		1.90nm		
CHG	71.90	65	eP	08 25.90	0.5
CHTO	71.90	65	eP	08 25.00	-0.4
	0.8s		5.49nm		4.7mb
SUF	76.22	356	iP	08 45.50	-4.0X
	0.6s		3.70nm		4.7mb

S.D. = 1.3 on 10 of 19 obs.

• MAR 25, 1989 01h 15m 01.25± 1.72s
29.752 S ±11.2km 70.852 W ±17.2km
DEPTH = 95.3 ± 11.2 km
CENTRAL CHILE (136)

ZON	2.59	134	eP	15 42.00	-0.2
CYA	4.61	75	ePc	16 10.00	0.0
			S	17 10.50	
VBA	11.08	141	e(P)	17 33.70	-4.5X
CNCB	13.15	12	eP	18 05.00	-1.0
			i	18 07.50	
			(S)	20 31.00	
ARE	13.24	357	eP	18 08.00	1.0
LPB	13.40	11	eP	18 04.00	-5.1X
			eLR	22 40.00	
ZOBO	13.65	11	P	18 07.00	-5.6X
Z	20s		0.15um		4.4MszX
			LR	22 52.00	
VAO	22.41	78	eP	19 52.40	-0.4
ITA	24.58	79	eP	20 15.20	1.1
BMA	24.92	80	e(P)	20 18.00	1.0
BAO	25.27	61	eP	20 19.50	-0.9
SPA	60.41	180	e(P)	25 13.10	10.4X
	1.0s		5.00nm		
LIC	72.49	72	P	26 19.50	-0.2
KIC	72.80	72	P	26 21.20	-0.4
	0.9s		25.00nm		5.1mb
GBA	146.58	112	PKPc	34 32.00	-0.1
	0.9s		2.90nm		
HYB	149.49	107	ePKP	34 40.00	3.3X

S.D. = 0.9 on 11 of 16 obs.

• MAR 25, 1989 03h 37m 35.60± 0.87s
6.614 N ± 8.3km 76.590 W ±13.1km
DEPTH = 13.9 ± 4.9 km
3.5Msz (1 obs.)
NORTHERN COLOMBIA (99)

HOBC	2.29	169	iPd	38 11.50	-2.1
CLMC	2.72	179	eP	38 18.50	-1.3
ANCC	3.09	185	ePc	38 24.35	-0.5
HOQC	3.13	181	iPd	38 24.00	-1.6
BOG	3.20	128	eP	38 32.00	5.3X
			eS	39 22.00	
DIAC	3.32	173	iPd	38 27.50	-0.9
BMG	3.52	82	eP	38 31.00	-0.1
UPA	3.75	309	iPc	38 33.50	-0.7
	0.7s		27.40nm		
			i(S)	39 23.60	
PURC	4.27	177	eP	38 43.20	1.1
PSO	5.44	188	eP	39 03.00	4.4X
ZOBO	24.23	160	P	42 53.00	-0.8
Z	20s		0.15um		3.5Msz
			LR	52 28.00	
LPB	24.48	160	eP	42 56.00	-0.1
CNCB	24.78	160	P	42 59.00	-0.1
SOB1	38.89	113	e(P)	44 58.00	-4.8X

S.D. = 1.0 on 11 of 14 obs.

& MAR 25, 1989 04h 06m 30.20s
59.840 N 153.370 W
DEPTH = 128.5km
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM	0.32	40	iP	06 47.71	0.8
PDB	0.42	263	iP	06 47.89	-1.0
RDT	0.88	33	iP	06 51.47	-0.8
NNL	1.06	78	iP	06 54.02	0.1
CNPM	1.13	105	iP	06 53.55	-1.0
NKA	1.40	49	iP	06 58.10	0.8
SPU	1.50	25	iP	06 57.65	-0.9
CRP	1.55	22	iP	06 58.78	-0.6
			iS	07 21.81	
CGLM	1.62	24	iP	06 59.19	-0.8
SVW	1.69	320	eP	06 59.26	-1.6
			eS	07 21.21	
SLKM	1.71	66	iP	06 59.89	-1.2
			iS	07 22.50	
SEW	1.99	81	iP	07 03.20	-1.1
			iS	07 27.31	
KDC	2.15	167	iP	07 03.81	-2.5
			eS	07 29.95	
SKT	2.33	22	iP	07 07.43	-1.3
PMS	2.35	52	iP	07 07.67	-1.3
PTE	2.39	63	eP	07 07.39	-2.0
PWA	2.50	42	eP	07 09.82	-1.0
PWL	2.70	66	iP	07 11.36	-2.2
PLRM	2.73	48	eP	07 11.48	-2.3
PME	2.79	48	eP	07 12.54	-2.0
KNIM	2.87	77	iP	07 13.25	-2.4
MTU	2.88	85	eP	07 14.83	-1.0
			eS	07 47.92	
GHO	2.92	46	eP	07 14.04	-2.3
			eS	07 47.65	
SML	3.16	49	iP	07 16.97	-2.6
GLI	3.29	69	eP	07 18.37	-2.8
TTA	3.35	339	eP	07 19.83	-2.3
HIN	3.48	78	iP	07 22.21	-1.6
FID	3.55	72	eP	07 21.38	-3.3
VZW	3.59	67	eP	07 22.86	-2.4
VLZ	3.72	67	eP	07 25.35	-1.5
CVA	3.87	76	eP	07 27.16	-1.8
KLU	4.02	62	iP	07 28.44	-2.7
SGAM	4.13	77	eP	07 30.34	-2.2
TOA	4.18	54	eP	07 30.98	-2.2
RAGM	4.39	79	eP	07 34.48	-1.5
GLB	4.97	67	eP	07 41.90	-2.0
FBA	5.70	25	eP	07 50.41	-3.3
CTGM	6.07	74	eP	07 56.90	-2.1

38 obs. associated

MAR 25, 1989 05h 08m 59.50± 0.44s
44.281 N ± 3.8km 11.998 E ± 4.3km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.5 (KBA).

SFI	0.38	196	Pd	09 06.40	-0.8
			eSg	09 11.60	
PGD	0.45	206	Pc	09 07.40	-1.4
			eSg	09 14.00	
RSM	0.48	137	P	09 09.70	0.4
			eSg	09 18.30	
FIR	0.73	227	ePg	09 14.00	0.1
			eSg	09 23.00	
MME	0.94	265	P	09 19.10	1.5
			eSg	09 33.00	
BDI	1.03	258	P	09 19.80	0.8
			eSg	09 34.40	
ARV	1.04	139	P	09 19.80	0.7
			eSg	09 34.70	
PII	1.20	243	P	09 21.60	-0.3
			eSg	09 37.60	
ASS	1.30	158	P	09 23.80	0.2
			eSg	09 41.40	
CTI	1.78	352	P	09 30.30	-0.4
			eSn	09 53.50	
BOB	1.89	286	P	09 32.90	0.8
			eSn	09 54.10	
TRI	1.90	41	P	09 32.50	0.3
FVI	2.38	13	P	09 39.00	-0.1
			eSn	10 07.30	
RBL	2.43	27	P	09 39.40	-0.5
			eSn	10 09.40	
VAI	2.78	306	P	09 43.50	-1.4
KBA	2.95	18	e(Pg)	09 56.00	8.6X

		iSn	10 23.30		
		iSg	10 38.80		
S.D. = 0.9		on	15 of 16 obs.		

MAR 25, 1989 05h 17m 14.83± 1.00s
44.245 N ± 7.3km 11.925 E ± 8.5km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)

SFI	0.33	189	Pd	17 21.40	-0.2
			eSg	17 26.40	
PGD	0.40	202	Pc	17 22.50	-0.5
			eSn	17 27.60	
BDI	0.97	260	P	17 34.70	1.3
			eSg	17 46.30	
ARV	1.05	135	P	17 35.20	0.6
			eSg	17 48.00	
PII	1.14	243	P	17 35.50	-0.6
			eSg	17 51.30	
CTI	1.81	354	P	17 45.90	-0.5
			eSn	18 07.10	
TRI	1.96	41	iPd	17 51.00	2.6X
			i	18 10.40	
			i	18 22.30	
S.D. = 1.0			on 6 of 7 obs.		

? MAR 25, 1989 05h 40m 06.10± 3.86s
18.130 N ±15.3km 67.320 W ±32.9km
DEPTH = 33.0km (normol)
MONA PASSAGE (89)

MGP	0.25	119	P	40 13.30	0.1
MCP	0.35	35	P	40 14.20	-0.3
APR	0.65	60	P	40 19.20	0.4
SJG	1.11	91	iP	40 25.00	-0.4
			S	40 27.00	
CSB	1.12	82	P	40 25.50	0.0
			S	40 25.80	
LPR	1.39	82	P	40 29.40	0.0
			S	40 29.50	
S.D. = 0.4			on 6 of 6 obs.		

? MAR 25, 1989 05h 50m 22.06± 4.19s
4.906 S ±32.3km 133.865 E ±37.2km
DEPTH = 33.0km (normol)
3.4mb (1 obs.)
WEST IRIAN REGION (196)

AAI	5.78	282	eP	51 47.80	0.0
MTN	8.34	199	eP	52 24.00	0.3
			eS	53 57.20	
KNA	11.88	205	eP	53 12.00	-0.2
	0.4s		25.00nm	5.7mb	X
			eS	55 21.00	
WB5	14.89	178	eP	53 50.50	-1.6
			eS	56 29.90	
WRA	14.96	178	P	53 53.00	0.1
	0.2s		0.40nm	3.4mb	
ASPA	18.65	180	eP	54 41.00	1.4
S.D. = 1.3			on 6 of 6 obs.		

% MAR 25, 1989 06h 10m 15.58± 0.86s
44.036 N ± 7.8km 11.848 E ± 8.0km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)

SFI	0.11	178	P	10 19.00	0.5
			eSg	10 21.20	
PGD	0.18	210	P	10 19.60	-0.2
			eSg	10 23.50	
ARV	0.96	124	P	10 33.50	-0.3
			eSg	10 47.00	
PII	1.01	252	P	10 34.50	-0.1
FVI	2.64	14	P	10 59.00	0.1
S.D. = 0.5			on 5 of 5 obs.		

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* MAR 25, 1989 08h 10m 54.87± 1.49s
24.891 S ± 8.8km 177.099 W ±10.1km
DEPTH = 112.5 ± 13.0 km
4.8mb (10 obs.)
SOUTH OF FIJI ISLANDS (171)

RAO	4.40	189	eP	12 00.30	-0.4
			S	13 03.00	
SVA	7.91	328	eP	12 49.20	0.5
VUN	8.00	328	ePd	12 49.90	0.0
			eS	13 43.00	
DZM	15.36	277	iPd	14 32.00	5.2X
RAR	16.36	81	P	14 34.00	-5.2X
			S	17 20.00	
MSZ	23.18	208	eP	15 52.00	-0.2
RMQ	30.76	260	eP	17 03.00	1.3
			e	17 04.00	
CAN	30.98	242	eP	17 06.80	3.2X
BWA	31.31	244	eP	17 05.80	-0.7
CTA	34.13	271	iPd	17 31.50	0.5
	0.8s		7.46nm	4.6mb	
			i	17 33.20	
			i	17 56.30	
TOO	34.17	239	iPd	17 33.10	1.8
PMG	37.32	288	eP	17 58.00	0.0
ASPA	44.49	261	ePd	18 57.00	0.1
	0.8s		27.00nm	5.1mb	
WB5	44.97	266	eP	18 59.90	-0.8
WRA	44.98	266	Pc	18 59.70	-1.0
	0.5s		31.00nm	5.3mb	
FORR	48.41	250	eP	19 26.00	-1.5
MTN	50.16	274	eP	19 41.70	0.6
WARB	50.43	256	eP	19 37.60	-5.5X
KNA	51.30	269	eP	19 49.00	-0.7
	0.4s		13.00nm	5.2mb	
SBA	53.57	184	Pd	20 08.70	3.0X
MBL	57.71	260	eP	20 36.00	-0.3
	0.5s		7.00nm	4.9mb	
NANU	61.14	257	eP	20 58.50	-1.3
SPA	65.26	180	ePc	21 27.10	0.7
	1.0s		12.00nm	4.8mb	
MAW	77.73	200	eP	22 42.00	1.6
BCH	80.51	44	P	22 39.40	-16.6X
PLM	81.47	47	P	23 00.90	-0.3
FHC	81.87	38	P	23 04.70	1.8
	0.6s		38.46nm	5.4mb	
TNP	84.11	43	P	23 12.40	-2.2
	0.7s		1.19nm	3.9mb	
KVN	84.17	42	P	23 14.50	-0.4
ALQ	89.50	51	eP	23 40.20	-0.7
	1.0s		3.75nm	4.4mb	
PNT	89.83	33	eP	23 44.00	2.2
BW06	91.59	43	P	23 49.00	-1.4
	0.8s		1.79nm	4.4mb	
KJF	137.49	344	ePKP	30 08.00	1.6
	0.5s		9.80nm		
			i	30 15.80	
SUF	139.11	344	iPKP	30 11.60	2.2
NUR	141.36	343	ePKP	30 14.00	0.5
NAO	143.67	353	PKP	30 15.60	-1.9
	0.6s		1.60nm		
EKA	149.26		7 PKP	30 42.00	15.2X
	1.9s		87.60nm		
DMU	150.11		12 ePKP	30 43.00	14.9X
HRI	150.21	294	ePKP	30 35.00	5.9X
PRNI	151.11	288	iPKPd	30 37.00	6.6X
MBH	151.23	287	iPKPd	30 38.00	7.5X
KRA	151.61	337	ePKP	30 36.90	6.4X
			e	30 43.90	
KSP	152.11	342	ePKPc	30 38.40	7.2X
	0.6s		47.00nm		
			i	30 46.10	
MLR	152.30	324	ePKPc	30 39.00	7.2X
CLL	152.50	346	ePKP	30 39.00	7.3X
			i	30 47.30	
BRG	152.70	345	iPKPd	30 47.10	15.1X
	0.6s		34.00nm		
KHC	154.40	344	PKP	30 32.50	-2.0
			e	30 51.50	
S.D. = 1.3			on 31 of 47 obs.		

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* MAR 25, 1989 08h 44m 12.99± 1.84s
41.205 N ±16.0km 20.061 E ±10.4km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
ML 2.2 (SKO).

TIR	0.20	314	iPgc	44 17.30	-0.2
LACI	0.51	329	iPgc	44 23.00	-0.2
PHP	0.56	30	ePg	44 24.00	-0.3
OHR	0.56	99	ePg	44 24.50	0.0
			iSg	44 34.30	
PUK	0.85	351	ePg	44 29.90	0.6
S.D. = 0.5			on 5 of 5 obs.		

% MAR 25, 1989 12h 07m 59.38± 0.86s
39.135 N ± 7.4km 27.610 E ± 8.8km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	0.78	200	ePg	08 14.60	-0.1
			eSg	08 25.60	
DST	0.92	59	iPn	08 17.10	0.1
EZN	1.21	305	ePn	08 22.10	0.2
EDC	1.23	9	iPn	08 21.70	-0.5
KCT	1.25	27	iPn	08 22.90	0.2
S.D. = 0.4			on 5 of 5 obs.		

? MAR 25, 1989 12h 27m 38.54± 0.89s
16.233 N ±17.0km 61.405 W ±10.5km
DEPTH = 33.0km (normol)
LEEWARD ISLANDS (92)
ML 1.7 (FDF).

SEG	0.19	330	ePc	27 45.06	0.0
SFG	0.20	84	ePd	27 45.10	0.0
PAG	0.33	233	eP	27 46.80	0.0
			S	27 51.10	
DEG	0.34	76	ePd	27 46.91	0.0
			S	27 52.50	
S.D. = 0.0			on 4 of 4 obs.		

MAR 25, 1989 12h 46m 39.04± 0.64s
51.669 N ± 5.4km 16.133 E ± 5.1km
DEPTH = 10.0km (geophysicist)
5.3mb (1 obs.)
POLAND (548)
ML 3.8 (KBA), 4.1 (VKA).

KSP	0.83	173	iP	46 54.60	-0.5
	0.3s		202.00nm		
			iS	47 02.10	
BRG	1.59	241	iPn	47 07.50	0.3
			iPg	47 09.50	
			iSg	47 29.50	
PRU	1.96	212	Pnd	47 12.50	-0.2
			Pg	47 14.30	
			Sn	47 31.20	
			Sg	47 38.50	
CLL	1.99	261	iPnd	47 13.90	0.8
			iPg	47 17.00	
			iSg	47 43.40	
KRA	2.90	122	eP	47 34.70	8.6X
			eS	48 11.70	
KHC	3.02	214	Pn	47 27.60	-0.2
			Pg	47 34.00	
			Sn	48 03.50	
			Sg	48 12.50	
MOX	3.02	252	ePn	47 28.00	0.2
			iPg	47 36.00	
			iSn	47 59.00	
			iSg	48 15.00	
VKA	3.41	178	iPnd	47 33.90	0.6
	0.5s		135.00nm		
			iPgd	47 42.20	
			i	48 04.70	
			iSg	48 25.80	
ZST	3.53	169	i(Pn)	47 36.60	1.6
			i	47 44.50	
			i	48 05.00	
			i(Sn)	48 21.00	
			i(Sb)	48 28.00	
			i	48 31.00	
			i(Sg)	48 35.00	
SPC	3.62	132	ePn	47 36.80	0.4
			i	47 49.20	
			i	48 39.10	
SOP	4.00	176	eP	47 42.00	0.3
PSZ	4.47	146	eP	47 48.60	0.1
KBA	4.94	203	iPnc	47 54.70	-0.5
	0.5s		16.00nm		
			i	49 16.20	
RBL	5.50	199	P	48 02.10	-0.9
FVI	5.54	205	P	48 02.50	-0.9
			eSn	49 20.30	
PTJ	5.77	181	e(P)	48 05.90	-1.0
CTI	6.35	209	P	48 15.20	0.1
MEM	6.46	265	Pc	48 16.00	-0.5
WLF	6.65	256	Pn	48 19.50	0.3
DOU	7.47	262	Pn	48 31.20	0.6
	0.3s		6.90nm	5.3mb	
HFS	8.60	352	eP	48 45.60	-0.7
	0.4s		1.00nm	4.5mb	X
S.D. = 0.7			on 20 of 21 obs.		

25d 14h

MAR 25, 1989 14h 15m 41.32± 0.90s
39.341 N ± 7.1km 23.586 E ±10.7km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.0 (ATH).

NEO	0.28	263	ePg	15	45.20	-2.1
PLG	1.04	354	ePg	16	01.70	0.8
			eSg	16	16.80	
ATH	1.37	176	ePb	16	05.70	-0.7
KZN	1.70	305	ePb	16	12.50	1.3
VAY	2.13	339	ePn	16	16.60	-0.7
MMB	2.25	3	ePc	16	19.00	-0.2
RZN	2.50	20	eP	16	23.00	0.2
ITM	2.52	212	ePb	16	25.00	2.0
KKB	2.55	352	eP	16	23.00	-0.4
KDZ	2.70	31	eP	16	24.00	-1.5
OHR	2.77	311	ePn	16	36.30	9.7X
VTS	3.26	355	eP	16	35.00	1.4

S.D. = 1.4 on 11 of 12 obs.

& MAR 25, 1989 14h 50m 10.32s
60.682 N 151.607 W
DEPTH = 62.6km
KENAI PENINSULA, ALASKA (14)
<AGS-P>.

NKA	0.19	71	iP	50	21.69	1.6
RDT	0.41	255	iP	50	21.17	-0.7
			iS	50	30.51	
SPU	0.55	337	iP	50	22.68	-0.6
			iS	50	32.90	
CRP	0.65	336	iP	50	24.28	-0.2
CGLM	0.66	343	eP	50	24.17	-0.4
			eS	50	35.69	
NNL	0.66	166	iP	50	24.78	0.3
SLKM	0.71	104	iP	50	24.22	-0.8
			iS	50	35.65	
ILIM	0.90	229	iP	50	26.70	-0.8
			iS	50	40.01	
PMS	1.15	60	iP	50	30.25	-0.5
CNPM	1.17	171	eP	50	29.96	-1.1
SEW	1.22	118	eP	50	30.64	-1.0
PTE	1.28	81	iP	50	31.56	-0.9
PWA	1.28	40	eP	50	32.30	-0.2
SKT	1.30	2	iP	50	32.25	-0.6
PLRM	1.51	52	eP	50	34.46	-1.1
			eS	50	53.54	
PME	1.57	52	eP	50	35.37	-1.0
PDB	1.57	236	iP	50	34.76	-1.7
			iS	50	54.12	
PWL	1.62	82	iP	50	35.57	-1.5
GHO	1.70	49	iP	50	37.13	-1.2
KNIM	1.94	98	iP	50	38.65	-3.0
			iS	51	01.92	
SML	1.94	53	iP	50	40.22	-1.5
SVW	2.01	284	eP	50	40.19	-2.4
MTU	2.09	108	eP	50	41.08	-2.6
			iS	51	06.42	
GLI	2.22	83	eP	50	42.09	-3.4
			iS	51	08.18	
VZW	2.50	79	eP	50	46.72	-2.8
FID	2.52	86	eP	50	45.88	-3.8
			iS	51	15.31	
HIN	2.54	94	eP	50	46.57	-3.4
VLZ	2.62	78	eP	50	48.33	-2.7
KLU	2.88	71	iP	50	52.24	-2.6
TOA	2.98	59	eP	50	54.82	-1.4
			eS	51	30.83	
TTA	3.08	319	eP	50	55.74	-1.9
SGAM	3.16	90	eP	51	01.56	2.8
GLB	3.87	75	eP	51	05.42	-3.2
FBA	4.58	21	eP	51	16.93	-1.7

34 obs. associated

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* MAR 25, 1989 15h 47m 27.00± 0.79s
38.451 N ± 7.9km 21.855 E ± 8.2km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 3.2 (ATH).

VLS	1.03	255	eP	47	47.00	0.5
ITM	1.27	177	eP	47	50.00	-0.6
NEO	1.37	51	eP	47	52.30	0.2
ATH	1.54	107	eP	47	55.00	0.5
KZN	1.85	358	eP	47	58.60	-0.5
OHR	2.78	343	ePn	48	16.50	4.1X

S.D. = 0.8 on 5 of 6 obs.

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* MAR 25, 1989 15h 59m 05.27± 2.03s
14.524 S ±11.3km 33.069 E ±23.0km
DEPTH = 10.0km (geophysicist)
MOZAMBIQUE (581)
MG 3.3 (LSZ).

PTZ	1.70	279	iPn	59	35.50	0.3
			iS	00	12.50	
			iSg	00	25.00	
MTD	2.66	212	iPn	59	50.50	1.4
			iSn	00	36.40	
IKZ	4.35	355	iPn	00	13.00	-0.1
			iSn	01	11.00	
LSZ	4.78	260	iPn	00	19.00	-0.2
			iSn	01	28.50	
			iSg	02	04.50	
BUL	7.02	217	iPn	00	49.30	-1.5
			iSn	02	18.50	
			iSg	03	09.80	
KMZ	7.10	278	ePn	00	56.00	4.0X
			eSn	02	19.00	

S.D. = 1.5 on 5 of 6 obs.

MAR 25, 1989 16h 31m 42.92± 0.39s
6.762 N ± 4.0km 73.105 W ± 3.8km
DEPTH = 161.6 ± 4.5 km
4.9mb (17 obs.)
NORTHERN COLOMBIA (99)

BMG	0.31	5	eP	32	07.00	0.5
FUQ	1.43	206	eP	32	12.50	-0.9
BOG	2.33	204	iP	32	26.00	2.6X
			iS	32	57.00	
HOBC	3.85	232	iPd	32	42.00	-0.3
CLMC	4.48	230	iPd	32	50.60	0.0
DIAC	4.62	222	iPd	32	53.00	0.5
HOQC	4.80	227	iPd	32	54.10	-0.9
ANCC	4.94	229	iPd	32	56.15	-0.5
SALC	5.19	224	ePd	33	00.00	-0.1
PURC	5.48	216	eP	33	05.30	1.1
UPA	6.74	290	iPnd	33	17.60	-3.0
	0.7s		86.30nm			5.2mb
			iSn	34	29.00	
PSO	6.95	217	eP	33	25.00	1.2
CUM	9.57	67	eP	33	58.00	-0.1
TCE	11.88	70	eP	34	30.21	1.8
TPP	12.05	72	eP	34	33.30	2.7X
TRN	12.19	71	eP	34	32.58	0.2
			e	35	26.42	
SVB	13.34	60	eP	34	50.85	3.7X
SVV	13.39	60	eP	34	52.01	4.2X
SLB	13.78	58	eP	34	53.60	0.7
ATB	23.11	115	iPc	36	36.60	1.0
ZOBO	23.41	168	P	36	39.30	0.2
	0.8s		25.40nm			4.8mb
			S	39	40.00	
			LR	41	32.00	
LPB	23.67	168	Pc	36	42.30	0.8
	1.0s		90.00nm			5.3mb
CNCB	23.96	168	iPc	36	45.20	0.8
JSC	28.40	346	P	37	24.70	0.5
LHS	28.48	347	P	37	25.30	0.3
PRM	28.50	344	P	37	26.20	1.0
GBTN	30.52	342	P	37	43.70	0.7
RSCP	30.90	340	P	37	46.80	0.4
OLY	33.21	332	P	38	06.10	-0.2
BAO	33.38	132	eP	38	07.50	-0.7
ELC	33.74	337	P	38	10.60	-0.3
FVM	34.83	336	P	38	20.40	0.2
SOB1	35.81	116	eP	38	28.50	-0.2
RSNY	37.66	358	P	38	44.60	0.7
ITR	37.85	114	eP	38	45.00	-0.9
GAC	38.85	357	eP	38	55.00	1.3
VAO	39.10	140	eP	38	55.50	-0.7
ITA	40.15	137	eP	39	05.10	0.0
CBM	40.25	5	P	39	06.50	1.2
ALQ	41.56	317	eP	39	17.00	0.5
	1.0s		7.00nm			4.2mb
			e	39	51.00	
GLD	43.70	324	P	39	34.80	1.1
	1.0s		50.00nm			5.1mb
GOL	43.75	323	P	39	34.90	0.6
GLA	46.68	310	P	39	58.40	1.1
			pP	40	34.20	160kmX
RSON	47.18	342	P	40	00.10	-0.8
DAU	47.79	320	P	40	06.90	0.8
BW06	48.14	324	P	40	08.40	-0.3
	1.0s		28.75nm			4.9mb
SCH	48.19	5	eP	40	08.00	-0.6
PLM	48.36	309	P	40	11.60	1.1
			pP	40	45.00	147kmX
DUG	48.67	319	P	40	13.30	0.6
EUR	50.40	317	iP	40	26.00	0.0
	0.2s		25.12nm			5.6mb
TNP	50.61	315	P	40	27.80	0.1
	0.7s		8.15nm			4.5mb
HPI	50.78	323	P	40	29.30	0.4
BGMT	51.05	325	iPd	40	31.10	0.2
			e	41	08.00	
BCH	51.53	310	P	40	35.20	0.7
LRM	51.63	326	eP	40	35.20	-0.1
			e	41	11.80	
KVN	51.67	315	P	40	35.50	-0.1
			pP	41	11.80	159kmX
PHAM	52.01	311	P	40	38.20	0.2
LLA	52.71	311	eP	40	42.90	-0.2
CMB	52.86	313	e(P)	40	44.10	-0.1
FFC	53.15	340	iPd	40	44.80	-1.2
	0.5s		13.00nm			5.0mb
SES	53.76	331	iPd	40	50.30	-0.3
			pP	41	26.00	155kmX
ORV	54.27	315	eP	40	54.80	0.3
LBFM	55.27	316	P	41	01.50	-0.5
WDC	55.41	315	eP	41	01.10	-1.6
DPW	56.05	325	P	41	06.90	-0.3
VGB	56.40	321	P	41	10.00	0.2
FRB	56.97	2	eP	41	11.00	-2.3
PNT	57.61	326	eP	41	18.00	-0.1
	0.6s		12.00nm			5.0mb
LON	57.62	322	P	41	17.80	-0.5
BMW	58.36	321	P	41	22.80	-0.7
GMW	58.58	323	P	41	23.70	-1.2
YKC	63.27	340	iPd	41	55.00	-1.1
	0.7s		18.00nm			5.1mb
TIC	67.56	86	P	42	21.96	-2.5
LIC	67.59	86	Pc	42	22.40	-2.2
	0.6s		20.50nm			5.1mb
KIC	67.86	86	Pc	42	24.28	-2.1
	0.7s		24.50nm			5.1mb
INK	73.09	340	eP	42	56.00	-0.7
			pP	43	35.00	160kmX
ALE	75.87	1	eP	43	12.00	-0.5
	0.6s		7.00nm			4.6mb
PMR	77.44	332	P	43	21.80	0.3
	0.8s		11.21nm			4.6mb
IMA	80.03	336	P	43	36.00	0.4
	0.9s		5.21nm			4.3mb
NAO	81.18	30	P	43	41.30	-0.2
	0.7s		4.10nm			4.3mb
HFS	82.59	30	eP	43	46.20	-2.6X
	0.6s		1.10nm			3.8mb X
GTA	133.60	8	ePKP	50	43.00	0.7
GBA	144.43	55	PKPd	50	59.90	-2.5X
	0.8s		3.50nm			
OIS	145.48	243	iPKPd	51	03.80	-0.3
GYA	146.98	0	PKP	51	07.60	1.1
ASPA	149.09	234	ePKP	51	13.70	3.8X
	0.6s		14.00nm			
			e	53	52.20	
WRA	150.32	241	PKPd	51	13.50	1.7
	0.4s		4.30nm			
WB5	150.32	241	ePKP	51	13.70	1.9
CHG	153.40	17	ePKP	51	24.00	7.7X
CHTO	153.40	17	ePKP	51	24.00	7.8X
	0.8s		2.38nm			

S.D. = 1.0 on 81 of 90 obs.

? MAR 25, 1989 16h 55m 03.43± 4.78s
17.522 S ±36.0km 178.815 W ±79.4km
DEPTH = 597.0 ± 14.1 km
4.6mb (8 obs.)
FIJI ISLANDS REGION (181)

VUN	2.64	259	eP	56	20.80	0.0
CTA	33.13	260	e(P)	00	53.00	-0.3
CAN	33.63	232	eP	00	57.30	-0.2
BWA	33.73	234	eP	01	02.00	3.7X
PMG	34.02	279	eP	01	04.00	3.2X
STK	38.48	241	eP	01	38.00	0.8
WB5	44.30	259	iPd	02	23.20	-0.2
WRA	44.32	259	Pc	02	23.80	0.2
	0.4s		3.50nm			4.2mb

ASPA 44.53 254 iPd 02 25.50 0.3
0.6s 78.00nm 5.4mb
MTN 48.43 268 iPc 02 55.30 0.5
0.2s 17.00nm 5.2mb
FORR 49.79 244 iPd 03 03.90 -0.7
0.5s 24.00nm 5.0mb
e 05 24.00
KNA 50.13 264 eP 03 07.00 -0.3
0.4s 11.00nm 4.7mb
WARB 51.05 250 eP 03 09.00 -5.0X
0.4s 6.00nm 4.4mb
MBL 57.70 256 iPd 04 00.10 -0.5
0.4s 7.00nm 4.2mb
NANU 61.46 253 iPd 04 25.90 0.5
0.3s 5.00nm 4.3mb
KBA 148.86 344 ePdiff11 19.00 -4.8X
1.3s 5.00nm
S.D. = 0.5 on 12 of 16 obs.

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* MAR 25, 1989 16h 57m 03.29± 0.37s
29.744 S ±11.1km 177.796 W ± 7.8km
DEPTH = 54.2km (5 depth phases)
5.0mb (10 obs.)
KERMADEC ISLANDS (178)
Felt (IV) on Raoul Island.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 11S, 18C
Centroid Location:
Origin Time 16:57: 1.9 1.5
Lat 30.42S 0.11 Lon 177.34W 0.14
Dep 42.7 7.9 Half-duration 1.5
Moment Tensor; Scale 10**16 Nm
Mrr= 3.89 0.40 Mtt= 0.85 0.73
Mff=-4.74 0.54 Mrt= 0.22 0.68
Mrf= 3.50 0.99 Mtf=-2.04 0.44
Principal Axes:
T Val= 5.19 Plg=68 Azm=251
N 1.34 11 12
P -6.53 18 106
Best Double Couple:Mo=5.9*10**16
NP1:Strike=214 Dip=29 Slip= 115
NP2: 6 64 77

RAO 0.50 348 iP 57 13.90 -1.0
KRP 9.86 212 P 59 35.00 9.9X
DZM 16.10 295 iPc 00 55.10 7.5X
BRS 25.92 268 iP 02 34.20 2.0
i 02 51.20
ipP 02 56.20 100kmX
i 04 13.20
iPcP 06 10.40
e(S) 06 46.00
COO 26.19 261 eP 02 36.00 1.4
CAN 28.46 250 eP 02 55.70 0.5
BWA 28.92 252 iPd 02 58.30 -1.1
RMQ 29.62 268 eP 03 06.00 0.3
0.6s 43.00nm 5.3mb
CMS 31.27 257 eP 03 21.00 0.8
TOO 31.39 246 iPc 03 22.10 0.9
CTA 33.87 278 iPd 03 42.30 -0.7
1.0s 9.00nm 4.6mb
i 03 43.80 5kmX
i 04 13.50
STK 34.81 256 eP 03 51.60 0.7
QIS 39.45 273 eP 04 30.00 0.0
ASPA 43.33 266 eP 05 00.40 -1.4
0.8s 23.00nm 5.0mb
WRA 44.25 271 Pc 05 07.50 -1.8
0.7s 10.90nm 4.7mb
WB5 44.25 271 eP 05 08.00 -1.4
SBA 48.70 184 e(P) 05 44.80 1.2
MTN 50.06 278 eP 05 53.20 -1.6
0.7s 16.00nm 5.2mb
SPA 60.42 180 ePd 07 07.80 -1.6
1.0s 14.50nm 5.1mb
MAW 72.98 200 eP 08 27.00 -1.5
PLM 85.21 47 P 09 36.00 0.6
FRI 85.85 43 eP 09 37.80 -0.4
e 09 53.40 54km
CMB 86.16 42 eP 09 39.50 -0.3
e 09 55.10 54km
GLA 86.33 49 P 09 42.60 1.8
pP 09 51.50 28kmX
ORV 86.56 40 eP 09 41.50 -0.2
e 09 56.80 53km
WDC 86.69 39 eP 09 42.20 -0.1
e 09 57.70 54km
TNP 88.05 43 P 09 49.10 -0.1
0.8s 3.68nm 4.7mb
pP 09 59.20 32kmX
KVN 88.17 42 P 09 49.30 -0.4
pP 09 59.00 30kmX
EUR 89.70 43 iP 09 55.50 -1.5
0.5s 3.99nm 5.0mb
CN2 89.73 323 eP 09 56.00 -0.7
BMW 90.48 34 P 10 00.50 0.3
LON 91.37 35 P 10 04.10 -0.2
BJI 92.58 315 eP 10 10.50 0.6
ALQ 93.03 51 eP 10 11.70 -0.7
1.0s 10.00nm 5.2mb
i 10 27.80 56km
TIY 93.56 312 eP 10 17.00 2.4
BW06 95.55 43 P 10 22.80 -1.0
1.2s 4.28nm 4.8mb
BUL 124.26 210 iPKPc 15 56.90 -1.4
FRB 124.72 31 ePKP 15 58.00 0.4
MAIO 132.11 294 ePKP 16 13.00 0.2
KJF 141.94 342 ePKP 16 24.00 -6.0X
SUF 143.55 342 iPKP 16 28.30 -4.5X
0.4s 5.50nm
MSL 145.25 292 iPKPd 16 35.50 -1.1
NUR 145.76 340 iPKP 16 35.30 -1.3
0.9s 79.40nm
RGS 146.29 353 ePKP 16 38.00 0.6
UPP 148.13 345 iPKP 16 41.50 1.1
NRA0 148.38 351 PKP 16 43.00 2.1
NAO 148.39 352 PKP 16 42.90 2.0
1.3s 43.20nm
HFS 148.64 349 ePKP 16 42.90 1.6
0.4s 5.30nm
S.D. = 1.2 on 44 of 48 obs.

MAR 25, 1989 17h 25m 54.17± 0.36s
14.609 S ± 9.2km 66.408 E ± 7.4km
DEPTH = 10.0km (geophysicist)
4.8mb (13 obs.)
MID-INDIAN RISE (429)

GBA 30.08 22 P 32 08.00 1.9
0.9s 2.70nm 4.1mb
PTZ 33.95 266 iPc 32 40.00 -0.1
HYB 34.00 21 eP 32 40.00 -0.5
BUL 36.43 256 eP 33 03.50 2.1
1.0s 6.50nm 4.4mb
LSZ 36.90 264 iPd 33 05.80 0.5
KMZ 39.34 267 iPd 33 26.30 0.4
CHTO 46.15 45 eP 34 21.60 0.7
1.0s 2.50nm 4.2mb
MAIO 51.05 353 eP 35 00.00 1.2
KSH 54.52 9 eP 35 24.50 -0.1
WMO 61.32 17 P 36 13.20 0.9
GTA 62.12 29 Pc 36 17.20 -0.7
XAN 63.07 39 P 36 22.80 -1.3
ASPA 63.91 109 ePd 36 28.80 -1.1
0.8s 8.00nm 5.0mb
WRA 64.71 105 Pc 36 34.90 -0.3
1.0s 6.00nm 4.7mb
WB5 64.75 105 eP 36 34.90 -0.5
TIY 67.64 38 Pd 36 53.00 -0.6
BTO 68.21 34 eP 36 56.80 -0.3
HHC 69.23 35 P 37 04.80 1.3
BJI 71.37 38 eP 37 16.50 0.2
KIC 73.54 281 P 37 28.94 -0.8
0.9s 24.00nm 5.3mb
LIC 73.77 281 Pd 37 30.30 -0.7
0.8s 25.00nm 5.3mb
TIC 73.89 281 P 37 31.02 -0.7
0.8s 15.00nm 5.1mb
BWA 75.39 122 eP 37 42.20 2.0
SPA 75.48 180 e(P) 37 38.80 -1.5
1.0s 6.50nm 4.6mb
CAN 75.74 123 eP 37 42.90 0.7
CTA 75.76 107 iPc 37 43.00 0.5
1.0s 10.00nm 4.8mb
KHC 78.74 328 eP 37 57.00 -1.4
CN2 79.18 39 eP 38 00.00 -0.9
NUR 81.98 341 eP 38 15.00 -0.3
SUF 83.22 343 iP 38 21.70 0.0
0.7s 5.00nm 4.8mb
KJF 83.96 344 iP 38 25.00 -0.4
0.6s 13.00nm 5.3mb
HFS 85.61 336 eP 38 32.10 -1.7
0.6s 1.90nm 4.5mb
SOD 86.74 346 eP 38 40.00 0.8
PNT 145.04 7 ePKP 45 32.00 -1.4
RMW 146.54 10 PKP 45 32.50 -3.6X
DPW 146.62 6 PKP 45 38.00 1.9
LON 147.23 10 PKP 45 37.60 0.4
HPI 150.99 359 PKP 45 50.20 6.8X
BW06 151.72 354 PKP 45 50.30 5.9X
GOL 153.98 345 PKP 46 06.80 19.0X
S.D. = 1.1 on 36 of 40 obs.

MAR 25, 1989 17h 48m 26.36± 0.70s
43.270 N ± 5.4km 19.413 E ± 6.3km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
MD 2.6 (TTG).

PLE 0.06 347 iPgc 48 28.50 -0.2
iSg 48 30.20
IVA 0.53 138 ePg 48 36.70 -0.5
eSg 48 44.80
NKY 0.55 214 iPgd 48 37.20 -0.3
iSg 48 47.10
BRY 0.74 240 iPgc 48 40.50 -0.4
eSg 48 53.50
PVY 0.79 148 ePg 48 41.10 -0.7
eSg 48 52.30
TTG 0.85 188 ePg 48 41.80 -0.9
eSg 48 55.50
BCI 1.02 152 iPg 48 45.30 -0.4
HCY 1.06 220 ePg 48 47.40 1.0
eSg 49 06.00
BDV 1.08 204 ePg 48 47.40 0.8
eSg 49 06.50
SDA 1.26 177 ePn 48 52.50 2.8X
PUK 1.28 164 ePn 48 51.00 1.0
KKS 1.40 148 ePn 48 54.00 2.1
LACI 1.65 172 ePn 48 54.00 -1.4
HVAR 2.17 269 iPn 49 07.00 4.0X
iSn 49 36.00
OHR 2.39 154 ePn 49 11.20 5.0X
BZS 2.83 33 ePc 49 12.50 0.1
S.D. = 1.0 on 13 of 16 obs.

? MAR 25, 1989 18h 07m 27.42± 3.63s
2.705 S ±28.3km 138.275 E ±30.5km
DEPTH = 33.0km (normal)
4.0mb (2 obs.)
WEST IRIAN (201)

MTN 12.31 215 eP 10 23.00 -0.3
e 12 37.30
KNA 15.99 215 eP 11 13.00 1.4
WB5 17.49 192 eP 11 30.10 -0.5
eS 14 35.00
WRA 17.56 192 Pc 11 30.00 -1.4
0.4s 1.30nm 3.4mb
QIS 17.79 176 eP 11 35.00 0.7
eS 14 34.00
PCI 18.52 275 ePc 11 43.00 -0.2
ASPA 21.26 191 eP 12 13.70 0.4
eS 16 06.90
WARB 25.88 205 eP 12 54.50 -3.6X
0.4s 6.00nm 4.5mb
CNCB 147.63 128 PKP 27 16.50 7.5X
LPB 147.69 127 PKP 27 16.00 7.1X
ZOBO 147.81 127 PKP 27 17.00 7.7X
S.D. = 1.1 on 7 of 11 obs.

MAR 25, 1989 21h 59m 46.61± 0.69s
39.280 N ± 5.3km 23.675 E ± 7.6km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 2.9 (ATH).

NEO 0.35 275 ePg 59 53.00 -0.9
PLG 1.11 351 ePb 00 08.00 0.6
ATH 1.31 179 ePb 00 09.60 -1.2
KZN 1.79 306 ePb 00 17.00 -0.8
PRK 2.02 90 ePg 00 26.50 5.5X
VAY 2.21 338 ePn 00 23.60 -0.2
MMB 2.31 1 iPc 00 25.00 -0.3
RDO 2.35 37 ePn 00 26.00 0.2
ITM 2.51 214 ePb 00 30.00 1.9
RZN 2.53 18 iPd 00 28.00 -0.6
KKB 2.62 350 eP 00 30.00 0.3
KDZ 2.71 29 eP 00 42.00 10.9X
OHR 2.86 311 ePn 00 34.00 0.8

25d 22h

VTS	3.33	354	eP	00 40.00	0.1
PVL	4.13	17	eP	00 32.00	-19.0X
S.D. = 0.9 on 12 of 15 obs.					

• MAR 25, 1989 23h 18m 19.41± 0.81s
35.966 N ± 9.5km 80.769 E ±13.2km
DEPTH = 33.0km (normal)
3.8mb (3 obs.)
KASHMIR-TIBET BORDER REGION (304)

NDI	7.86	203	ePn	20 15.00	0.7
	0.5s	17.61nm		5.4mb	X
MAIO	17.19	277	eP	22 19.00	0.3
HYB	18.58	187	eP	22 36.00	0.1
GBA	22.47	189	Pd	23 15.70	-1.4
	1.0s	2.50nm		3.6mb	
CHTO	23.43	132	eP	23 27.00	0.5
	1.0s	2.75nm		3.7mb	
NAO	49.75	323	P	27 09.80	-0.5
	0.7s	1.70nm		4.2mb	
MBC	67.33	5	eP	29 13.00	0.4
S.D. = 0.9 on 7 of 7 obs.					

MAR 25, 1989 23h 19m 30.47± 0.39s
39.072 N ± 3.9km 22.405 E ± 3.1km
DEPTH = 26.8 ± 3.0 km
3.8mb (2 obs.)
GREECE (364)
ML 3.4 (ATH). Felt at Lomia.

NEO	0.68	70	ePn	19 43.50	-0.2
KZN	1.33	339	iPbc	19 54.00	0.6
ATH	1.50	136	ePn	19 56.70	0.8
PLG	1.53	31	ePn	19 56.80	0.5
VLS	1.68	238	ePn	19 58.50	0.0
LSK	1.76	308	iPnd	20 00.70	1.0
ITM	1.93	191	ePn	20 02.50	0.4
TPE	2.21	304	ePn	20 11.50	5.4X
VAY	2.25	3	iPn	20 07.00	0.4
OHR	2.38	329	iPnd	20 09.40	0.9
BERA	2.49	312	ePn	20 12.90	2.8X
VLO	2.64	303	ePn	20 15.80	3.6X
MMB	2.71	21	iPc	20 13.00	-0.2
KKB	2.84	10	eP	20 15.00	0.0
SKO	2.99	346	iPn	20 17.20	0.1
			i	20 21.60	
TIR	2.99	320	ePn	20 19.00	1.9
PRK	3.01	85	ePn	20 18.00	0.6
PHP	3.01	331	ePn	20 17.10	-0.3
RZN	3.15	33	eP	20 20.00	0.3
RDO	3.17	48	ePn	20 19.70	0.0
KKS	3.36	334	ePn	20 23.00	0.6
KDZ	3.45	41	iP	20 23.00	-0.8
PUK	3.53	328	ePn	20 25.20	0.4
VTS	3.57	10	iP	20 26.00	0.5
LCI	3.66	292	P	20 25.00	-1.6
SDA	3.68	324	ePn	20 27.30	0.4
PGB	3.72	20	eP	20 28.00	0.4
BCI	3.74	332	ePn	20 27.70	0.0
PVY	3.97	333	ePn	20 31.70	0.5
			eSn	21 19.50	
TTG	4.12	326	ePn	20 33.20	0.1
			eSn	21 21.00	
BDV	4.21	321	ePn	20 34.70	0.3
			eSn	21 23.50	
IVA	4.24	334	ePn	20 35.40	0.4
			eSn	21 26.00	
BRT	4.38	296	P	20 37.20	0.2
			eSn	21 28.00	
PVL	4.69	27	eP	20 40.00	-1.3
TDS	4.74	279	P	20 43.00	1.0
BRY	4.81	324	ePn	20 43.20	0.1
			eSn	21 38.50	
MGR	5.40	284	Pd	20 50.40	-0.9
			eSn	21 50.40	
BSS	6.09	289	P	21 00.40	-0.6
			eSn	22 07.60	
CMP	6.49	17	ePd	21 15.00	8.3X
BZS	6.57	355	eP	21 07.50	-0.2
MLR	6.93	21	ePc	21 13.50	0.6
PTJ	8.32	327	eP	21 28.50	-3.8X
VBY	8.33	323	eP	21 40.20	7.9X
			eSn	23 00.70	
CEY	8.90	321	e(P)	21 37.70	-2.5
			e	21 43.60	
			eS	23 15.20	
VOY	9.37	321	eP	21 43.60	-3.2X
			eS	23 26.70	
KHC	11.88	331	P	22 24.50	3.5X
HFS	21.79	348	eP	24 17.00	-4.9X
	0.4s	0.70nm		3.4mb	
EKA	23.59	322	P	24 40.00	0.4
	0.7s	5.70nm		4.2mb	
S.D. = 0.8 on 39 of 48 obs.					

? MAR 25, 1989 23h 39m 37.94± 1.81s
14.351 S ±11.3km 32.870 E ±18.1km
DEPTH = 10.0km (geophysicist)
MOZAMBIQUE (581)
MG 3.3 (LSZ).

PTZ	1.49	274	iPn	40 06.00	1.2
			iSn	40 43.00	
			iSg	40 56.90	
MTD	2.72	207	iPn	40 22.60	0.1
			iSn	41 07.30	
IKZ	4.16	357	iPn	40 43.00	0.0
			iPg	40 53.50	
			iSn	41 10.00	
LSZ	4.62	258	iPn	40 49.00	-0.6
			iSn	41 59.00	
			iSg	42 35.00	
KMZ	6.89	277	ePn	41 21.00	-0.7
			eSn	42 48.00	
			eSg	43 38.00	
S.D. = 1.0 on 5 of 5 obs.					

? MAR 25, 1989 23h 51m 44.15± 9.56s
43.538 N ±64.1km 7.788 E ±15.8km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
ML 2.3 (GEN).

IMI	0.38	11	P	51 52.02	0.1
			S	51 56.36	
FIN	0.74	24	P	51 58.65	0.0
			S	52 07.20	
ROB	0.76	4	P	51 58.89	-0.1
			S	52 07.81	
STV	0.78	335	P	51 59.21	-0.2
			S	52 08.74	
PZZ	1.09	333	P	52 04.91	0.2
			S	52 17.97	
S.D. = 0.3 on 5 of 5 obs.					

? MAR 26, 1989 00h 33m 34.41± 5.53s
17.123 S ±17.5km 35.196 E ±51.3km
DEPTH = 10.0km (geophysicist)
MOZAMBIQUE (581)
MG 4.0 (LSZ).

MTD	3.47	275	iPn	34 30.40	0.7
			iSn	35 06.90	
PTZ	4.69	307	iPn	34 47.50	0.5
			iSn	35 34.00	
			iSg	36 55.00	
BUL	6.93	243	iPn	35 18.90	0.3
			iSn	36 29.50	
			iSg	37 06.40	
LSZ	6.98	284	iPn	35 18.00	-1.3
			iSn	36 31.00	
			iSg	37 24.00	
IKZ	7.34	340	iPnc	35 49.00	24.6X
KMZ	9.74	291	iPn	35 55.00	-2.8X
			iSn	37 35.00	
			iSg	38 37.80	
SLR	10.72	216	iPc	36 12.50	1.4
			S	37 55.50	
PRY	12.10	215	eP	36 28.50	-1.5
			S	38 31.00	
S.D. = 1.5 on 6 of 8 obs.					

MAR 26, 1989 00h 51m 47.77± 0.84s
43.649 N ± 5.0km 7.566 E ± 6.5km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
ML 2.1 (LDG).

SBF	0.23	336	Pg	51 53.00	0.2
			Sg	51 58.40	
AURF	0.29	324	Pg	51 54.49	0.5
SAOF	0.34	359	Pg	51 53.67	-1.1
AUTN	0.36	344	Pg	51 54.84	-0.4
MVIF	0.39	310	Pg	51 56.73	0.9
			Sg	52 04.12	
TOUF	0.43	328	Pg	51 56.73	0.1
CALN	0.50	282	Pg	51 58.91	0.9
			Sg	52 08.08	
FRF	0.67	263	Pg	52 00.80	-0.3
			Sg	52 11.60	
LMR	0.83	248	Pg	52 02.80	-1.0
			Sg	52 14.80	
LRG	0.90	258	Pg	52 04.50	-0.5
			Sg	52 18.00	
CVF	1.44	138	Pn	52 14.69	0.7
S.D. = 0.8 on 11 of 11 obs.					

• MAR 26, 1989 00h 53m 51.56± 0.79s
20.746 S ± 9.9km 178.641 W ± 9.9km
DEPTH = 582.6 ± 8.5 km
4.6mb (10 obs.)
FIJI ISLANDS REGION (181)

SVA	3.79	313	eP	55 14.60	-0.1
VUN	3.86	314	eP	55 15.30	0.0
DZM	13.95	262	iPc	56 50.50	0.7
KRP	17.85	195	P	57 27.50	0.3
BRS	26.89	250	iP	58 49.40	0.5
CAN	31.88	236	eP	59 32.70	1.1
CTA	32.87	265	iP	59 40.40	0.4
PMG	34.82	284	eP	59 57.00	0.7
ASPA	43.88	257	eP	01 07.90	-1.3
	0.6s	30.00nm		5.0mb	
			eS	06 57.70	
WB5	43.96	263	eP	01 08.90	-0.9
WRA	43.97	262	Pd	01 08.20	-1.7
	0.4s	7.80nm		4.6mb	
FORR	48.61	247	iPd	01 44.00	-1.0
	0.4s	34.00nm		5.2mb	
WARB	50.18	253	eP	01 50.70	-6.0X
	0.3s	6.00nm		4.6mb	
MBL	57.12	258	eP	02 44.00	-1.8
	0.4s	16.00nm		4.6mb	
SBA	57.59	184	eP	02 49.40	1.3
NANU	60.75	255	iPd	03 09.40	-0.5
	0.4s	9.00nm		4.5mb	
SPA	69.38	180	e(P)	04 02.90	-0.3
	1.0s	20.50nm		4.6mb	
MAT	70.05	324	eP	04 06.00	-1.3
NJ2	79.57	310	Pd	05 01.80	1.7
MDJ	80.38	325	eP	05 04.00	0.0
KVN	82.10	43	P	05 12.70	-0.4
TNP	82.12	44	P	05 13.30	0.0
CN2	82.13	323	P	05 13.70	0.8
TIY	87.00	312	eP	05 38.00	1.2
ALQ	88.02	51	eP	05 41.20	-0.7
	1.0s	2.25nm		4.0mb	
IMW	89.23	42	P	05 47.70	0.4
BW06	89.56	43	P	05 48.00	-0.8
	0.6s	2.76nm		4.4mb	
CHG	89.76	290	eP	05 51.20	1.3
CHTO	89.76	290	eP	05 50.90	1.0
	1.0s	7.00nm		4.5mb	
SUF	134.75	344	ePKP	12 05.00	-0.5
HFS	139.68	350	ePKP	12 03.90	-10.8X
	0.4s	1.60nm			
CLL	148.16	346	ePKP	12 33.00	3.7X
BRG	148.34	345	e(PKP)	12 38.50	8.9X
	1.6s	22.00nm			
S.D. = 1.0 on 29 of 33 obs.					

& MAR 26, 1989 01h 18m 06.14s
60.115 N 152.810 W
DEPTH = 96.5km
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM	0.08	245	iP	18 19.41	1.1
			iS	18 30.09	
RDT	0.50	23	iP	18 21.22	-0.7
			iS	18 33.44	
NNL	0.76	95	eP	18 24.18	0.1
PDB	0.77	245	iP	18 23.34	-0.8
			iS	18 36.58	
CNPM	0.99	126	iP	18 25.62	-0.9
NKA	1.00	50	iP	18 27.60	1.0
SPU	1.13	19	iP	18 27.28	-0.9
CRP	1.20	15	eP	18 28.37	-0.7
			eS	18 45.63	
CGLM	1.26	18	iP	18 29.00	-0.7
SLKM	1.35	72	eP	18 29.59	-1.1

			eS	18	48.05	
SEW	1.68	89	iP	18	33.36	-1.5
SVW	1.71	307	iP	18	33.64	-1.7
PMS	1.96	53	iP	18	37.86	-0.7
SKT	1.97	18	eP	18	37.55	-1.2
PTE	2.02	67	eP	18	37.67	-1.6
PWA	2.10	42	eP	18	39.62	-0.8
PLRM	2.33	49	eP	18	41.67	-1.8
PWL	2.34	69	iP	18	41.16	-2.5
			iS	19	08.31	
KDC	2.38	176	iP	18	41.24	-2.9
PME	2.39	49	eP	18	42.38	-1.9
GHO	2.52	47	eP	18	44.10	-2.1
			eS	19	13.03	
KNIM	2.54	83	iP	18	43.16	-3.2
MTU	2.59	91	iP	18	45.02	-2.0
			eS	19	14.77	
SML	2.77	50	iP	18	47.30	-2.2
GLI	2.93	72	eP	18	47.53	-4.1
			eS	19	20.65	
HIN	3.16	82	eP	18	51.25	-3.5
FID	3.20	76	iP	18	51.31	-4.1
TTA	3.21	333	eP	18	53.42	-2.2
VZW	3.23	70	eP	18	52.62	-3.2
VLZ	3.35	69	eP	18	54.31	-3.0
CVA	3.54	80	eP	18	57.71	-2.2
KLU	3.65	65	iP	18	58.56	-3.0
TOA	3.79	55	eP	19	01.27	-2.2
			eS	19	45.51	
SGAM	3.80	81	eP	19	01.12	-2.5
RAGM	4.06	83	eP	19	04.77	-2.5
GLB	4.61	69	eP	19	11.20	-3.6
FBA	5.33	24	eP	19	22.50	-2.3
CTGM	5.73	76	eP	19	28.05	-2.3

38 obs. associated

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* MAR 26, 1989 01h 31m 45.93± 0.86s
39.273 N ± 7.1km 23.566 E ±11.3km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 2.9 (ATH).

PLG	1.10	355	ePb	32	06.30	-0.4
			eSb	32	22.30	
ATH	1.30	175	ePb	32	10.00	0.0
KZN	1.73	307	ePb	32	15.30	-0.9
			eSb	32	38.00	
PRK	2.10	90	ePb	32	27.70	6.1X
VAY	2.18	340	ePn	32	23.00	0.2
RDO	2.40	38	ePn	32	26.00	0.1
OHR	2.80	312	ePn	32	32.70	1.0

S.D. = 0.8 on 6 of 7 obs.

? MAR 26, 1989 02h 17m 17.51± 6.45s
24.179 S ±64.0km 177.203 W ±34.1km
DEPTH = 220.0 ± 50.8 km
4.3mb (6 obs.)
SOUTH OF FIJI ISLANDS (171)

DZM	15.19	275	iPc	20	43.10	0.5
BRS	27.19	257	iP	22	43.60	0.8
CTA	34.03	270	iPd	23	42.00	-0.8
	1.3s		25.00nm			4.7mb
			i	24	08.20	
			e	24	48.00	
ASPA	44.51	260	eP	25	10.20	1.1
WB5	44.93	266	eP	25	11.00	-1.4
WRA	44.93	265	Pc	25	11.00	-1.4
	0.4s		1.80nm			3.8mb
TNP	83.66	43	eP	29	21.50	-1.3
	1.0s		2.75nm			4.0mb
KVN	83.71	42	eP	29	23.00	0.0
ALQ	89.13	51	eP	29	49.00	-0.5
	1.0s		4.75nm			4.4mb
PNT	89.29	34	eP	29	51.00	1.4
BW06	91.14	43	eP	29	58.10	-0.5
FBA	91.66	12	eP	30	00.30	0.1
	1.0s		6.50nm			4.6mb
CHTO	92.17	290	eP	30	04.00	0.5
	1.0s		2.75nm			4.2mb
HFS	143.27	351	ePKP	36	22.60	-3.8X
	0.5s		1.30nm			
DSI	150.35	292	iPKP	36	47.00	8.3X
BBTK	150.35	309	ePKP	36	46.00	7.3X
PRNI	150.79	289	iPKPd	36	47.00	7.5X
KRA	150.92	337	ePKP	36	46.40	7.4X
			e	36	54.40	
MBH	150.93	288	iPKPd	36	48.00	8.4X
KSP	151.40	342	iPKP	36	48.00	8.3X
			i	36	56.90	
			id	37	14.50	
CLL	151.79	346	iPKP	36	48.10	7.9X
	1.2s		20.00nm			
BRG	151.99	345	iPKP	36	48.90	8.3X
	1.1s		18.00nm			
PRU	152.66	343	ePKP	36	50.50	9.0X
KHC	153.69	344	PKP	36	44.50	1.4

S.D. = 1.1 on 14 of 24 obs.

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* MAR 26, 1989 02h 52m 45.17± 1.77s
41.226 N ±13.6km 20.033 E ± 9.1km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
ML 2.3 (SKO).

TIR	0.17	314	ePg	52	49.00	-0.1
PHP	0.55	33	ePg	52	55.60	-0.8
OHR	0.59	101	iPg	52	56.70	-0.4
			iSg	53	06.20	
PUK	0.82	353	ePg	53	00.80	-0.3
KKS	0.89	18	ePg	53	02.60	0.3
SKO	1.29	54	ePn	53	10.00	0.9
			eSn	53	28.50	
VAY	1.91	86	e(Pn)	53	21.00	2.9X

S.D. = 0.8 on 6 of 7 obs.

MAR 26, 1989 02h 55m 47.71± 0.24s
19.294 N ± 3.2km 121.111 E ± 4.8km
DEPTH = 33.7km (9 depth phases)
5.2mb (20 obs.) 5.1Msz (7 obs.)
PHILIPPINE ISLANDS REGION (248)
CENTROID, MOMENT TENSOR (HRV)
Doto Used: GDSN
L.P.B.: 10S, 19C
Centroid Location:
Origin Time 02:55:49.8 0.5
Lat 19.35N 0.08 Lon 121.57E 0.10
Dep 15.0 FIX Half-duration 2.2
Moment Tensor; Scale 10**17 Nm
Mrr= 1.61 0.17 Mtt=-0.63 0.13
Mff=-0.99 0.26 Mrt=-1.19 0.41
Mrf=-1.71 0.39 Mtf=-1.06 0.13
Principal Axes:
T Val= 2.59 Plg=65 Azm=120
N 0.26 3 217
P -2.85 25 309
Best Double Couple:Mo=2.7*10**17
NP1:Strike= 46 Dip=20 Slip= 99
NP2: 216 70 87

BAG	2.91	190	eP	56	33.10	0.1
			eS	57	07.00	
TWF1	4.04	2	eP	56	49.00	0.2
QCP	4.63	180	eP	56	59.90	2.7X
TWD	4.78	5	eP	56	59.50	0.2
TWQ	4.96	357	eP	57	01.70	-0.2
TWC	5.33	7	eP	57	07.80	0.7
ANP	5.87	4	eP	57	14.00	-0.8
QZH	6.09	338	ePn	57	15.50	-2.2
	N 12s		6.30um			
	E 12s		5.10um			
			Sn	58	21.20	
MCO	7.61	293	iP	57	36.10	-3.0X
			eS	58	56.00	
GZH	8.17	299	P	57	42.20	-4.7X
	Z 16s		16.40um			
	N 14s		14.90um			
	E 15s		12.20um			
QIZ	10.65	270	eP	58	17.00	-4.2X
	Z 14s		9.10um			
	E 14s		9.80um			
SSE	11.75	0	eP	58	32.00	-4.0X
	Z 24s		6.00um			
	E 10s		2.50um			
			i	58	45.50	
			eS	00	32.00	
			i	01	20.00	
WHN	12.76	333	iPd	58	50.00	0.5
	5.0s		1.00nm			3.2mb X
	Z 18s		13.50um			5.1MszX
	N 16s		8.20um			
	E 12s		3.40um			
			sP	59	02.00	
NJ2	12.87	351	Pc	58	49.50	-1.4
	Z 18s		6.40um			
	N 16s		2.90um			
	E 15s		4.60um			
			sP	59	03.00	
DAV	12.89	160	eP	58	53.00	1.7
KKM	14.01	201	eP	59	09.00	2.8X
GYA	15.10	301	P	59	19.00	-1.4
	Z 14s		5.10um			
	N 12s		3.40um			
	E 12s		5.80um			
			sP	59	26.00	
TSM	15.27	192	eP	59	25.00	2.4
KUMJ	15.81	32	eP	59	31.10	1.7
TIA	17.21	349	Pd	59	48.20	1.0
	Z 16s		5.80um			
	N 16s		5.10um			
			eS	03	00.00	
KMI	17.97	292	Pd-	59	57.00	0.1
	5.0s		1.50nm			2.4mb X
	Z 25s		10.70um			5.7Msz
	N 14s		6.30um			
	E 14s		7.60um			
			pP	00	06.00	
			sP	00	12.00	
			S	03	24.00	
			sS	03	36.00	
MNI	18.11	168	eP	00	00.00	1.5
XAN	18.26	326	Pd	00	00.50	0.3
	N 15s		6.20um			
	E 14s		2.80um			
			S	03	25.50	
CD2	19.48	310	iPd	00	14.70	-0.3
	Z 16s		6.70um			
	E 13s		6.10um			
			S	03	54.00	
DL2	19.55	1	eP	00	14.00	-1.5
	Z 23s		2.20um			
	N 15s		3.00um			
	E 15s		3.20um			
			S	03	48.00	
TIY	19.85	339	iPd	00	19.60	0.7
	Z 18s		8.76um			
	N 16s		7.40um			
			pP	00	29.50	41km
			sP	00	34.00	
			PP	00	42.00	
			S	04	00.00	
			sS	04	11.50	
PCI	20.11	184	iPd	00	23.50	1.8
TSRJ	20.84	36	P	00	29.50	0.5
CHG	20.96	272	iPd	00	30.50	0.1
	1.1s		81.65nm			5.0mb
			eS	04	26.00	
BDT	21.09	268	eP	00	31.20	-0.5
BJI	21.11	349	iP	00	31.50	-0.2
	Z 18s		5.00um			4.9Msz
	N 15s		3.30um			
			eS	04	25.00	
NNT	21.60	255	iPd	00	38.00	1.2
IIDJ	21.91	39	P	00	40.60	0.7
LZH	22.60	321	iPd	00	48.50	1.6
	6.0s		1.48nm			2.6mb X
	Z 16s		6.15um			5.1MszX
	N 15s		3.05um			
	E 16s		3.20um			
			eS	04	54.00	
MTMJ	22.62	37	P	00	47.30	0.4
MAT	22.82	38	eP	00	48.00	-0.8
	2.3s		427.27nm			5.5mb
	Z 20s		1.06um			4.3Msz
CHJJ	22.94	40	P	00	50.10	0.0
HHC	22.99	341	Pd	00	52.00	1.4
	Z 18s		9.50um			5.3Msz
	N 15s		6.10um			
	E 16s		2.80um			
			sP	01	04.00	
BTO	23.27	338	iPd	00	55.00	1.7
	N 18s		4.90um			
	E 16s		3.80um			
			pP	01	01.00	22kmX
			S	05	06.00	
			sS	05	15.00	
SNG	23.27	242	eP	00	54.40	1.0
			eS	05	04.90	
			e	08	16.40	
SNG	23.27	242	eP	00	41.50	-11.9X
GUMO	23.47	100	eP	00	52.00	-3.3X

26d 03h

MKS		24.41	184	ePd	01	04.80	0.4
IPM		24.45	236	ePc	01	04.90	0.0
MDJ		26.22	14	eP	01	23.20	1.9
	Z	22s		7.30um			5.2Msz
	E	16s		4.60um			
GTA		27.20	322	iPd	01	30.60	0.2
	Z	16s		3.00um			5.0MszX
	E	13s		1.80um			
				S	06	04.00	
PSI		27.26	235	ePc	01	30.50	-0.5
SHL		27.69	288	iP	01	35.00	-0.1
				iS	06	16.00	
KHKI		28.01	192	ePc	01	38.20	0.4
				e	04	53.00	
PPI		28.26	228	eP	01	49.40	9.4X
BSI		28.64	245	ePd	01	43.50	0.0
LSA		29.09	297	P	01	48.80	0.8
	E	12s		0.87um			
				S	06	37.50	
GUN		33.31	292	P	02	25.20	0.1
PKI		33.68	291	P	02	27.70	-0.6
KKN		33.82	291	P	02	29.20	-0.2
		1.1s		53.00nm			5.4mb
DMN		33.96	291	P	02	30.20	-0.4
GKN		34.41	292	P	02	33.80	-0.6
		1.3s		101.00nm			5.6mb
WMQ		37.13	319	P	02	58.20	1.1
		4.0s		0.60nm			2.8mb X
	N	14s		2.70um			
	E	14s		3.10um			
				PP	04	23.40	
				S	08	47.00	
HYB		40.36	274	eP	03	24.00	-0.3
				e	03	37.00	49kmX
				eS	09	32.00	
NDI		40.99	292	eP	03	28.50	-0.8
				eS	05	12.00	
WB5		41.04	161	eP	03	25.20	-4.5X
				eS	09	30.80	
WRA		41.10	161	Pd	03	26.30	-3.9X
		0.6s		5.50nm			4.5mb
NANU		41.96	188	eP	03	35.70	-1.4
GBA		42.18	269	Pd	03	38.40	-0.8
		0.9s		10.30nm			4.6mb
KOD		43.05	264	eP	03	47.00	0.3
QIS		43.55	154	eP	03	46.00	-4.2X
KSH		43.63	307	eP	03	53.50	2.6
	Z	16s		4.00um			5.4MszX
	E	14s		4.00um			
				pP	04	04.00	36km
ASPA		44.48	163	eP	03	54.80	-3.0X
		0.3s		25.00nm			5.5mb
POO		44.61	277	eP	03	46.00	-13.0X
WARB		45.52	173	eP	03	59.00	-7.0X
		0.5s		19.00nm			5.3mb
MEKA		45.70	183	iPc	04	05.00	-2.4
		0.6s		21.00nm			5.2mb
CTA		46.25	146	iPc+	04	09.40	-2.4
		1.6s		58.33nm			5.3mb
	Z	19s		0.95um			4.8Msz
				eS	10	52.00	
				eSS	14	18.00	
FORR		50.31	172	eP	04	39.00	-4.1X
RKG		53.21	184	eP	05	07.00	2.0
STK		54.54	159	eP	05	12.00	-2.8
BRS		55.63	146	iP	05	20.40	-2.5
				i(pP)	05	29.60	30km
				i(sP)	05	40.20	
				iPP	06	18.60	
MAIO		56.20	301	iPd	05	27.40	0.3
				eS	13	06.00	
BWA		59.41	154	eP	05	48.80	-0.6
CAN		60.42	154	eP	05	55.10	-1.2
TAB		66.59	304	eP	06	37.00	-0.2
KEV		73.48	339	eP	07	17.00	-1.4
SOD		74.08	336	iP	07	21.70	-0.2
				i	07	33.30	39km
KJF		74.29	333	eP	07	22.00	-1.1
		0.7s		16.00nm			5.1mb
				i	07	33.80	40km
SUF		75.29	332	eP	07	28.00	-0.9
NUR		76.54	330	eP	07	39.00	3.0X
	Z	18s		2.50um			5.6Msz
				e	07	49.00	32km
				LR	44	20.00	
MSZ		76.63	148	P	07	36.20	-0.5
		0.4s		23.00nm			5.5mb

DSI		76.64	299	e(P)	07	35.00	-2.2
BBTK		76.67	308	eP	07	36.30	-1.1
BBTK		76.67	308	eP	07	40.00	2.6
PRNI		77.27	298	eP	07	41.00	0.3
MBH		77.51	297	iPd	07	42.00	0.0
MBC		78.03	12	ePc	07	43.30	-0.7
		0.7s		10.00nm			5.0mb
ALE		78.36	0	eP	07	46.00	0.3
		0.8s		6.00nm			4.7mb
MLR		80.00	315	ePc	07	55.50	0.0
UPP		80.07	330	iP	08	03.00	7.7X
HFS		81.79	331	eP	08	02.80	-1.5
		0.4s		1.30nm			4.3mb
KRA		82.35	320	eP	08	07.60	0.1
				e	08	14.60	22kmX
NAO		82.77	332	P	08	07.60	-1.9
		0.9s		6.10nm			4.7mb
VAY		83.66	311	eP	08	13.40	-1.0
KSP		84.21	322	iPc	08	17.70	0.7
				ec	08	27.00	29km
SKO		84.23	312	eP	08	17.20	-0.1
OHR		84.99	312	eP	08	15.00	-6.2X
NAI		85.04	267	iPd	08	25.00	2.9X
BRG		85.56	323	eP	08	24.00	0.3
		1.4s		24.00nm			5.2mb
				e	08	33.00	28km
PRU		85.58	322	eP	08	24.00	0.1
	Z	18s		1.10um			5.3Msz
	E	18s		1.00um			
				e	08	33.00	28km
CLL		85.90	323	e(P)	08	25.00	-0.5
				e	09	01.00	142kmX
PTJ		86.41	318	eP	08	28.20	0.0
KHC		86.52	321	P	08	29.00	0.4
YKA		87.49	23	eP	08	33.60	0.6
YKC		87.54	23	iPc	08	33.50	0.3
		0.8s		18.00nm			5.4mb
LPG		92.32	320	eP	08	56.60	0.2
		1.1s		9.70nm			5.1mb
PNT		93.09	35	eP	09	00.00	0.6
		1.1s		17.00nm			5.4mb
EDM		93.88	29	ePc	09	03.40	0.4
ZOBO		170.70	73	PKP	15	56.00	1.4
	Z	24s		0.14um			
				eLR	43	36.00	
LPB		170.81	74	ePKP	15	54.00	-0.5
		1.1s		20.25nm			
	Z	25s		0.40um			
				LR	15	40.00	
CNCB		171.01	75	PKP	15	56.10	1.3
		S.D. = 1.1		on 96 of 116 obs.			

MAR 26, 1989 04h 01m 30.60± 1.65s
44.672 N ± 9.2km 146.732 E ± 5.9km
DEPTH = 126.6 ± 15.9 km
4.7mb (14 obs.)

KURIL ISLANDS (221)

MAT		10.38	221	eP	03	55.00	-2.3
				eS	05	44.00	
MDJ		12.21	276	eP	04	22.00	0.7
CN2		15.28	274	eP	05	02.00	1.4
BJI		22.98	269	eP	06	24.50	0.0
SSE		24.17	245	P	06	37.40	1.2
		1.0s		24.00nm			4.6mb
TIY		26.59	267	eP	06	59.20	0.6
BTO		27.16	274	eP	07	05.00	1.2
WHN		29.06	252	P	07	21.00	0.2
GTA		34.86	278	eP	08	11.60	0.3
TTA		36.91	40	P	08	28.20	-0.1
		0.8s		14.66nm			4.9mb
IMA		38.09	35	P	08	38.20	0.0
		0.6s		12.01nm			4.9mb
PMR		40.17	42	P	08	55.30	0.1
FBA		40.53	37	P	08	58.30	0.1
		0.9s		18.75nm			4.8mb
CHG		47.26	253	iPd	09	53.20	0.4
		1.0s		21.25nm			4.8mb
SHL		47.80	266	iP	09	57.00	-0.1
GUN		50.67	272	P	10	19.20	-0.1
KKN		51.17	273	P	10	23.60	0.7
PKI		51.21	272	P	10	23.00	-0.3
DMN		51.40	272	P	10	24.80	0.1
GKN		51.50	273	P	10	25.30	0.0
		0.5s		12.00nm			5.0mb
YKA		55.20	34	eP	10	51.90	0.0
RMW		59.85	52	P	11	19.30	-5.5X

PNT		60.00	49	eP	11	25.00	-0.7
		0.6s		6.00nm			4.8mb
KJF		61.41	334	eP	11	35.00	0.0
SUF		62.96	334	iP	11	43.50	-1.8
WDC		63.44	58	eP	11	49.20	0.4
SES		63.79	44	ePc	11	50.80	-0.2
MIN		64.15	58	eP	11	53.50	-0.1
ORV		64.70	59	eP	11	56.80	-0.2
NUR		65.08	332	iP	11	57.80	-1.2
WB5		65.22	193	eP	11	59.60	-0.7
WRA		65.29	193	Pd	12	00.00	-0.8
		0.6s		0.90nm			3.9mb
GBA		65.86	265	Pc	12	03.70	-0.9
		0.8s		4.80nm			4.5mb
LRM		65.97	49	ePc	12	05.70	0.4
CMB		66.32	59	eP	12	07.80	0.4
BGMT		66.57	49	ePc	12	09.50	0.4
HPI		66.98	51	P	12	12.60	0.8
KVN		67.07	57	P	12	13.00	0.7
IMW		68.04	50	P	12	19.50	1.1
EUR		68.06	56	iP	12	19.20	0.6
TNP		68.22	58	P	12	19.80	0.3
		0.6s		4.78nm			4.5mb
FRB		68.38	16	eP	12	17.00	-2.8
HFS		68.72	337	eP	12	18.40	-3.6X
		0.4s		1.00nm			4.0mb
NAO		68.92	339	P	12	20.60	-2.6
		0.9s		1.50nm			3.8mb
DUG		69.44	54	P	12	27.80	1.0
BW06		69.54	50	P	12	27.90	0.4
		0.7s		11.33nm			4.8mb
RSON		71.41	36	P	12	37.40	-1.0
PLM		71.53	61	P	12	38.30	-1.4
GLA		73.00	60	P	12	48.70	0.6
GOL		73.94	50	P	12	54.60	0.8
ALQ		76.71	54	eP	13	10.00	0.6
		0.9s		3.57nm			4.1mb
GAC		82.56	28	ePd	13	40.00	-0.2
BAO		148.49	28	e(PKP)	21	02.00	1.7
		S.D. = 1.0		on 51 of 53 obs.			

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* MAR 26, 1989 04h 42m 42.94± 1.28s
16.259 N ±11.2km 96.854 W ±12.1km
DEPTH = 76.2 ± 8.9 km
4.6mb (18 obs.)

OAXACA, MEXICO (60)

OXX		0.83	9	ePd	42	58.82	-1.3
				iS	43	20.44	
IISM		2.76	350	ePc	43	25.39	-0.4
				eS	43	58.50	
ACX		2.94	282	(P)	43	44.80	16.4X
				iS	44	03.50	
IIT		3.08	333	eP	43	33.30	2.8
				eS	44	24.84	
UNM		3.78	324	(P)	43	48.00	7.8X
IIC		4.17	327	eP	43	56.31	10.4X
				iS	44	34.00	
TPX		4.63	106	(P)	43	47.00	-4.9X
ALQ		20.50	337	ePc	47	17.00	-0.3
		1.0s		15.75nm			4.3mb
GLA		23.31	319	P	47	45.00	0.0
GOL		24.51	344	P	47	57.30	0.5
GLD		24.52	344	P	47	58.10	1.3
		1.2s		35.35nm			4.7mb
TNP		28.18	324	P	48	30.00	-0.4
EUR		28.53	328	iP	48	33.60	-0.1
		0.2s		16.47nm			5.3mb
BW06		28.58	340	P	48	34.00	0.0
		0.9s		3.97nm			4.0mb
KVN		29.35	325	P	48	40.20	-0.8
BGMT		31.58	339	eP	49	01.50	0.9
LRM		32.24	339	eP	49	06.20	-0.2
RSNY		33.92	29	P	49	20.40	-0.3
GAC		34.38	27	eP	49	25.00	0.4
RSON		34.61	4	P	49	26.30	-0.2
		0.8s		2.64nm			4.2mb
SES		35.92	344	eP	49	35.00	-2.7
LON		36.79	331	P	49	44.40	-0.6
PNT		37.81	336	eP	49	54.00	0.4
		0.8s		8.00nm			4.7mb
FFC		38.59	355	eP	50	00.00	0.0
		1.0s		27.00nm			5.1mb
ZOBO		42.99	137	P	50	36.00	-1.2
	Z	22s		0.53um			4.4Msz
				LR	07	40.00	
LPB		43.20	138	P	50	39.50	0.8

Z 20s 0.71um 4.6Msz
LR 07 30.00
CNCB 43.48 138 eP 50 41.00 -0.1
i 51 16.50
SCH 44.93 24 eP 50 52.00 0.2
YKA 47.84 349 eP 51 14.40 -0.2
FRB 51.29 16 eP 51 41.00 0.0
FBA 59.35 337 P 52 37.90 -1.2
0.8s 5.17nm 4.7mb
MBC 61.15 354 eP 52 51.00 -0.2
0.7s 9.00nm 5.0mb
EKA 78.87 36 P 54 40.00 0.8
2.0s 91.80nm 5.4mb
GRR 81.92 42 eP 54 56.40 0.9
0.8s 8.00nm 4.7mb
NAO 84.29 28 P 55 08.50 1.1
0.9s 3.50nm 4.4mb
TCF 84.52 43 eP 55 09.50 0.6
0.8s 5.30nm 4.6mb
MAF 84.77 43 eP 55 10.70 0.6
0.8s 4.00nm 4.5mb
BGF 84.85 43 eP 55 10.90 0.4
0.9s 8.10nm 4.7mb
LOR 85.29 42 eP 55 13.20 0.5
0.7s 4.40nm 4.6mb
LBF 85.46 42 eP 55 13.90 0.3
HFS 85.86 28 ePKP 55 13.40 -1.8
0.5s 0.90nm 4.1mb
KJF 89.33 21 eP 55 30.00 -1.9
SUF 89.66 23 iP 55 32.90 -0.6
0.7s 3.70nm 4.7mb
HYB 146.23 8 ePKP 02 15.00 -1.0
GBA 149.80 11 PKPc 02 24.40 2.9
0.8s 4.20nm
SNG 151.00 322 ePKP 02 14.00 -9.4X
S.D. = 1.1 on 41 of 46 obs.

MAR 26, 1989 05h 06m 01.82± 0.69s
39.295 N ± 5.9km 23.621 E ± 8.0km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.0 (ATH).

NEO 0.31 272 iPgd 06 06.40 -1.9
eSg 06 10.50
PLG 1.09 353 iPgc 06 22.60 0.3
eSn 06 38.50
ATH 1.32 177 ePg 06 26.20 0.0
KZN 1.75 306 ePg 06 35.00 2.6X
VAY 2.18 339 ePn 06 40.00 1.4
MMB 2.29 2 iPd 06 40.00 -0.3
RDO 2.36 38 ePn 06 41.00 -0.2
ITM 2.50 213 ePn 06 44.00 0.8
RZN 2.53 19 iP 06 44.00 0.2
KDZ 2.72 30 iP 06 46.00 -0.4
OHR 2.82 311 ePn 06 49.00 1.2
SKO 3.15 329 ePn 06 55.00 2.7X
VTS 3.31 355 eP 06 57.00 2.2X
PVL 4.13 18 eP 07 05.00 -1.2
S.D. = 1.1 on 11 of 14 obs.

& MAR 26, 1989 05h 33m 29.40s
33.710 N 116.730 W
DEPTH = 19.0km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 2.8 (PAS). Felt at
Idyllwild.

PLM 0.37 197 iPd 33 36.90 -0.5
RVR 0.61 298 iPc 33 40.30 -0.9
eS 33 48.70
TPC 0.69 55 iPc 33 42.20 -0.5
eS 33 51.30
CPE 0.88 201 iPd 33 44.60 -1.3
HAY 0.91 90 eP 33 45.40 -1.0
BAR 1.03 177 iPd 33 47.40 -1.0
6 obs. associated

? MAR 26, 1989 06h 15m 48.53± 0.92s
2.667 N ±39.6km 123.752 E ±51.8km
DEPTH = 344.7 ± 12.8 km
3.9mb (3 obs.)
CELEBES SEA (262)

MNI 1.63 138 eP 16 37.20 0.0
MTN 17.07 155 eP 19 28.20 0.4
WB5 24.71 155 eP 20 40.90 -0.6
WRA 24.76 156 Pc 20 42.00 0.1
0.3s 1.20nm 3.7mb
GUN 44.00 309 P 23 25.40 0.2
0.6s 26.00nm 4.6mb
PKI 44.21 308 P 23 26.70 -0.1
KKN 44.41 308 P 23 28.30 0.0
DMN 44.47 308 P 23 28.90 0.1
GKN 45.02 308 P 23 32.80 -0.2
GBA 47.03 286 Pd 23 48.50 0.0
0.6s 2.60nm 3.6mb
S.D. = 0.3 on 10 of 10 obs.

MAR 26, 1989 06h 39m 49.15± 0.24s
14.765 S ± 5.3km 73.963 W ± 4.5km
DEPTH = 108.0km (8 depth phases)
5.4mb (33 obs.)
PERU (116)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 12S, 20C
Centroid Location:
Origin Time 06:39:55.2 0.5
Lat 14.38S 0.07 Lon 74.30W 0.09
Dep 101.8 4.0 Half-duration 1.8
Moment Tensor; Scale 10**17 Nm
Mrr=-0.28 0.06 Mtt=-0.98 0.08
Mff= 1.26 0.11 Mrt=-0.51 0.05
Mrf= 0.29 0.04 Mtf=-0.07 0.09
Principal Axes:
T Val= 1.32 Plg=11 Azm=266
N -0.07 59 156
P -1.25 28 2
Best Double Couple:Mo=1.3*10**17
NP1:Strike= 40 Dip=62 Slip= -13
NP2: 136 79 -151

ARE 2.92 126 eP 40 35.00 0.0
eS 41 03.00
ZOBO 5.82 106 iPc 41 15.50 0.4
Z 20s 2.28um
S 42 04.00
LR 42 56.00
LPB 5.92 108 iPc 41 17.00 0.8
Z 17s 8.84um
S 42 21.00
LR 42 50.00
CNCB 6.11 110 iPc 41 20.00 1.0
S 44 01.00
CYA 15.58 152 ePc 43 22.70 -1.3
PSO 16.20 348 eP 43 30.50 -1.7
FUQ 20.10 1 eP 44 17.50 0.4
ITB1 20.86 121 eP 44 23.40 -0.9
ITB 21.07 121 e(P) 44 33.00 6.6X
ITB7 21.24 122 eP 44 26.20 -1.9
BMG 21.71 2 eP 44 34.00 1.1
SDV 23.73 8 iPd 44 52.50 -0.2
1.1s 409.00nm 5.8mb
UPA 24.23 346 iPd- 44 58.60 1.3
1.2s 406.25nm 5.7mb
i 50 04.00
ATB 24.28 64 Pd 44 57.30 -0.4
CEOS 24.29 14 iPd 44 58.50 0.5
TOV 24.74 10 eP 45 02.20 0.0
BAO 25.07 95 eP 45 02.50 -2.9X
PLAV 25.30 15 eP 45 09.00 1.4
OLLA 25.63 16 eP 45 11.00 0.5
CAR 26.06 16 eP 45 12.00 -2.4
FISA 26.26 10 eP 45 15.00 -1.3
VAO 26.79 112 eP 45 20.90 -0.2
ITA 28.71 110 eP 45 39.40 0.7
BMA 29.27 110 eP 45 43.10 -0.3
GCM 34.62 348 P 46 30.45 0.6
AIA 50.86 175 eP 48 41.90 1.4
CBN 52.78 357 iPc 48 55.00 -0.2
ALQ 58.27 329 P 49 38.30 3.3X
ALQ 58.27 329 iPd 49 34.10 -0.9
0.9s 35.71nm 5.4mb
e 50 00.00 106km
RSNY 59.03 360 P 49 39.40 -0.4
1.0s 18.33nm 5.1mb
GAC 60.20 359 ePd 49 47.20 -0.5
GLA 61.51 321 eP 49 56.00 -1.0
GLD 61.56 333 P 49 56.80 -0.6
1.3s 93.10nm 5.6mb
GOL 61.58 333 P 49 56.80 -0.9
1.4s 153.39nm 5.8mb
BAR 62.39 320 eP 50 03.00 0.2
PLM 62.96 320 eP 50 07.00 0.2
TPC 62.98 321 eP 50 07.00 0.3
PEC 63.51 320 P 50 10.00 -0.2
RVR 63.71 320 eP 50 11.00 -0.5
e 50 37.00 104km
MSU 63.94 327 P 50 13.40 0.2
GSC 64.25 322 eP 50 15.00 -0.1
SBB 64.45 321 eP 50 16.00 -0.4
e 50 42.00 104km
DAU 64.91 329 P 50 19.50 0.0
CLC 65.07 322 eP 50 20.00 -0.3
e 50 49.00 118km
ABL 65.42 320 P 50 23.10 0.3
ISA 65.49 321 eP 50 23.00 0.0
e 50 50.00 108km
BW06 65.93 332 P 50 24.50 -1.4
1.2s 13.27nm 4.7mb
BLP 65.97 319 P 50 26.00 0.0
TNP 66.39 324 P 50 29.30 0.4
EUR 66.68 326 iP 50 31.00 0.2
0.3s 46.15nm 5.9mb
PHAM 66.79 320 P 50 30.40 -0.9
FRI 67.12 322 eP 50 32.20 -1.1
PRI 67.15 320 eP 50 33.70 0.0
IMW 67.44 332 P 50 34.70 -0.8
KVN 67.56 324 P 50 36.00 -0.3
RSON 67.59 347 P 50 34.50 -1.5
0.8s 51.06nm 5.5mb
LLA 67.63 320 ePd 50 36.70 0.2
PRS 67.71 320 ePd 50 37.50 0.5
CMB 68.21 322 ePd 50 40.10 -0.1
HPI 68.30 330 P 50 41.00 0.1
ARN 68.46 321 P 50 42.00 0.3
MHC 68.52 321 ePd 50 42.90 0.7
GCC 68.54 320 eP 50 42.50 0.4
BGMT 68.97 332 ePd 50 44.80 -0.1
BKS 69.22 321 iP 50 46.90 0.6
0.8s 95.00nm 5.7mb
BRK 69.24 321 eP 50 47.00 0.6
SCH 69.57 4 eP 50 47.00 -1.1
LRM 69.60 332 eP 50 48.80 0.0
ORV 69.86 323 ePd 50 51.00 0.8
NWRM 69.99 321 P 50 51.70 0.8
MIN 70.44 323 eP 50 52.90 -1.0
WDC 71.13 323 iPd 50 56.60 -1.3
LBFM 71.25 324 P 50 59.20 0.4
LIC 71.43 78 P 50 58.54 -1.6
TIC 71.57 78 P 50 59.42 -1.5
1.1s 14.00nm 4.7mb
KIC 71.75 78 Pd 51 00.78 -1.2
0.6s 19.00nm 5.1mb
FHC 72.12 322 eP 51 04.60 0.8
SES 72.58 336 ePd 51 06.30 0.0
1.0s 108.00nm 5.6mb
FFC 73.19 343 iPd 51 09.10 -0.6
1.3s 67.00nm 5.3mb
VGB 73.42 328 P 51 11.90 0.6
LON 74.78 328 P 51 19.40 0.3
RMW 75.25 329 P 51 27.10 5.2X
SPA 75.33 180 e(P) 51 48.70 26.5X
1.0s 13.50nm
PNT 75.46 331 eP 51 24.00 1.1
EDM 75.69 337 iPd 51 23.40 -0.8
0.7s 130.00nm 5.9mb
pP 51 51.00 107km
GMW 75.81 328 P 51 25.10 0.2
KUK 75.84 80 eP 51 24.50 -1.3
KOGH 75.93 80 eP 51 24.00 -2.3
MCW 76.58 329 P 51 30.00 0.8
PGC 76.87 329 eP 51 32.00 1.3
FRB 78.38 2 eP 51 38.00 -0.7
AVE 79.39 51 iP 51 46.00 1.0
i 52 14.00 109km
IFR 81.22 52 iPd 51 56.50 1.7
MAL 83.06 49 iPc 52 06.50 2.5X
YKC 83.26 342 iPd 52 04.50 0.0
0.8s 48.00nm 5.5mb
YKA 83.31 342 eP 52 05.00 0.2
ATEJ 83.43 49 iPd 52 07.20 1.0
ALOJ 83.44 49 iPd 52 07.70 1.5
AAPN 83.51 49 iPd 52 08.20 1.7
ACHM 83.64 49 iPc 52 08.50 1.4
APHE 83.69 49 iPd 52 09.00 1.6
TAF 83.80 52 iPc 52 10.00 2.1
ASMO 83.81 49 iPd 52 09.10 1.1
TOL 84.61 47 iPd 52 09.50 -2.3
1.0s 160.00nm 5.9mb

26d 06h

EPF	88.87	45 eP	52 32.60	0.1	
	1.2s	26.70nm		5.2mb	
LFF	89.83	43 eP	52 36.90	0.0	
	1.0s	29.60nm		5.4mb	
LPF	89.83	40 eP	52 36.30	-0.5	
	1.2s	29.70nm		5.3mb	
MFF	89.86	41 eP	52 36.70	-0.3	
	0.6s	7.90nm		5.0mb	
GRR	90.08	40 eP	52 37.60	-0.3	
	0.7s	7.40nm		4.9mb	
FLN	90.45	39 eP	52 39.60	0.0	
	1.1s	26.30nm		5.3mb	
RJF	90.47	43 eP	52 39.70	-0.2	
	1.1s	19.50nm		5.2mb	
LDF	90.61	40 eP	52 40.10	-0.3	
	1.1s	21.40nm		5.2mb	
CAF	90.70	44 eP	52 40.90	-0.1	
	0.7s	9.20nm		5.1mb	
LSF	90.81	42 eP	52 41.20	-0.2	
	0.7s	5.90nm		4.9mb	
TCF	91.27	42 eP	52 43.10	-0.4	
MAF	91.48	42 eP	52 44.20	-0.3	
	0.9s	10.40nm		5.1mb	
BGF	91.77	42 eP	52 45.60	-0.2	
	1.0s	14.80nm		5.2mb	
AVF	92.18	42 eP	52 47.30	-0.3	
SMF	92.45	42 eP	52 48.70	-0.2	
	1.2s	19.00nm		5.3mb	
SNF	93.96	39 P	52 56.40	0.7	
DOU	94.02	39 P	52 56.40	0.4	
		e	53 25.10	108km	
LPG	94.03	44 eP	52 57.40	0.8	
	1.1s	21.90nm		5.5mb	
MBC	94.78	350 eP	52 59.00	0.0	
WLF	94.85	40 P	53 00.70	0.9	
CDF	95.20	41 eP	53 01.50	-0.2	
FBA	96.55	336 P	53 06.90	-0.4	
	1.1s	25.00nm		5.6mb	
CLL	99.50	39 eP	53 23.00	2.1	
	1.8s	23.00nm		5.5mb	
BRG	100.00	40 eP	53 34.00	10.8X	
	1.2s	15.00nm			
		e	53 54.00	72kmX	
SOD	107.60	24 iPKP	58 23.70	19.4X	
KSH	143.95	41 ePKP	59 13.00	-0.9	
MAT	144.06	313 ePKP	59 11.00	-3.0X	
	1.2s	46.88nm			
MDJ	144.15	331 ePKP	59 09.60	-4.3X	
CN2	146.65	334 PKP	59 17.00	-1.1	
WMQ	147.08	25 PKP	59 20.00	1.1	
POO	148.96	79 ePKP	59 36.50	14.0X	
SNY	149.05	334 PKPd	59 26.00	4.1X	
NDI	149.96	58 iPKPd	59 30.00	6.3X	
	1.2s	171.88nm			
KOD	151.76	96 ePKP	59 34.00	6.8X	
GBA	152.25	89 PKPd	59 27.60	0.2	
	1.0s	6.50nm			
HYB	153.47	81 ePKP	59 37.00	7.8X	
GTA	154.85	11 ePKP	59 31.80	1.3	
TIA	156.45	337 ePKP	59 32.90	0.2	
GUN	157.16	52 PKP	59 45.00	10.7X	
SHL	162.93	49 iPKP	59 41.30	1.1	
	S.D. = 0.9	on 128 of 144 obs.			

MAR 26, 1989 06h 43m 03.33± 0.74s
39.316 N ± 5.6km 23.541 E ± 9.5km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.0 (ATH).

NEO	0.25	268 iPgd	43 07.60	-1.0	
		eSg	43 11.00		
PLG	1.06	356 iPbc	43 23.90	0.6	
		eSn	43 39.70		
ATH	1.35	174 ePb	43 27.60	-0.5	
KZN	1.68	307 ePb	43 32.90	-0.1	
VAY	2.14	340 ePn	43 40.40	0.9	
MMB	2.28	4 iPd	43 41.00	-0.6	
ITM	2.48	211 ePb	43 45.70	1.2	
RZN	2.53	20 iP	43 46.00	0.7	
KKB	2.57	352 iP	43 45.00	-0.7	
VTS	3.28	356 eP	43 57.00	1.0	
PVL	4.12	19 eP	44 06.00	-1.7	
	S.D. = 1.1	on 11 of 11 abs.			

MAR 26, 1989 06h 47m 44.99± 0.51s
35.699 N ± 4.7km 140.176 E ± 6.1km
DEPTH = 81.1 ± 3.6 km
4.8mb (10 obs.)
NEAR EAST COAST OF HONSHU, JAPAN(228)
Felt (II JMA) on Oshima and at Tokyo and Yokohama; (I JMA) at Ajiro and Utsunomiya.

TOK	0.34	268 iPd	47 58.00	0.2	
		iS	48 07.20		
YOK	0.50	239 iPd	47 59.80	0.8	
		iS	48 10.00		
KAKJ	0.51	360 iP+	47 57.90	-1.1	
		S	48 06.60		
UTS	0.88	344 iPd	48 11.70	8.8X	
CHJJ	1.02	290 iPd	48 04.20	-0.4	
AJI	1.10	234 iPd	48 05.00	-0.5	
		iS	48 19.20		
MAT	1.80	298 iPd	48 14.80	0.0	
		eS	48 34.00		
NIIJ	1.81	329 iPd	48 14.50	-0.3	
IIDJ	1.86	264 iPd	48 16.20	0.6	
		S	48 38.80		
MTMJ	2.11	295 iPd	48 19.50	0.4	
YAMJ	2.47	357 eP	48 24.80	0.9	
TSRJ	3.42	269 P	48 37.80	0.8	
OFUJ	3.58	19 P	48 38.60	-0.6	
		eS	49 18.30		
WKYJ	4.04	250 P	48 45.70	-0.1	
TKSJ	5.32	253 P	49 03.50	-0.1	
YONJ	5.50	267 eP	49 05.60	-0.6	
MDJ	12.03	321 eP	50 36.50	1.6	
CN2	13.91	310 eP	51 03.50	3.9X	
TIA	18.67	278 eP	51 56.70	-2.5	
GUN	46.30	276 P	56 04.90	0.1	
PKI	46.82	276 P	56 08.80	0.0	
KKN	46.83	276 P	56 09.10	0.3	
GKN	47.27	277 P	56 12.40	0.2	
	0.6s	10.00nm		4.9mb	
MTN	49.03	192 iPd	56 25.70	0.1	
	0.3s	10.00nm		5.3mb	
WB5	55.55	187 eP	57 13.90	-0.2	
WRA	55.61	187 Pc	57 14.00	-0.6	
	0.3s	1.70nm		4.6mb	
ASPA	59.34	187 eP	57 42.10	1.3	
		eS	58 53.40		
MBL	59.74	202 iPd	57 43.70	0.1	
	0.5s	7.00nm		5.0mb	
GBA	60.11	265 Pc	57 45.90	-0.4	
	0.7s	7.00nm		4.9mb	
WARB	62.86	194 eP	58 00.50	-4.0X	
FORR	67.16	191 eP	58 32.00	-0.1	
	0.5s	33.00nm		5.5mb	
KJF	67.28	334 iP	58 33.20	0.6	
	0.6s	15.60nm		5.1mb	
SUF	68.72	333 iP	58 41.70	0.2	
	0.5s	3.00nm		4.5mb	
NUR	70.65	332 iP	58 53.30	0.0	
HFS	74.89	335 eP	59 17.20	-1.0	
	0.6s	1.20nm		4.0mb	
NAO	75.31	337 P	59 20.90	0.2	
	0.7s	2.60nm		4.2mb	
	S.D. = 0.8	on 33 of 36 obs.			

? MAR 26, 1989 07h 08m 31.35± 2.63s
35.511 N ±29.2km 23.524 E ±20.9km
DEPTH = 10.0km (geophysicist)
CRETE (370)
ML 3.5 (ATH).

NPS	1.72	98 ePn	09 02.10	0.5	
ITM	2.11	323 ePn	09 07.00	-0.1	
ATH	2.46	4 ePn	09 12.30	0.2	
KAP	2.98	88 ePn	09 18.90	-0.6	
	S.D. = 0.8	on 4 of 4 obs.			

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* MAR 26, 1989 07h 12m 55.90± 1.00s
42.499 N ± 9.0km 143.314 E ±11.1km
DEPTH = 92.5 ± 16.1 km
HOKKAIDO, JAPAN REGION (224)

HOOJ	0.12	190 iPd	13 08.30	-0.3	
		S	13 16.00		
KUSJ	1.19	59 iP+	13 18.80	0.5	
		S	13 34.50		
MRRJ	1.66	268 P	13 24.10	-0.1	
		S	13 43.80		
ASAJ	1.69	343 P	13 24.20	-0.4	
		eS	13 45.10		
AOMJ	2.94	230 P	13 42.20	0.8	
		S	14 16.10		
OFUJ	3.64	201 P	13 51.40	0.4	
		eS	14 31.80		
NIIJ	6.21	214 eP	14 26.90	0.2	
KAKJ	6.74	202 eP	14 32.60	-1.3	
		S	15 44.30		
MAT	7.14	215 eP	14 40.00	0.5	
		(S)	15 36.00		
CHJJ	7.26	209 eP	14 40.00	-1.1	
		eS	15 59.60		
MTMJ	7.28	218 eP	14 42.30	0.8	
	S.D. = 0.9	on 11 of 11 obs.			

% MAR 26, 1989 07h 33m 21.75± 3.07s
44.298 N ±14.2km 6.666 E ±20.4km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.1 (GEN).

PZZ	0.37	56 P	33 29.64	0.1	
		S	33 34.21		
STV	0.48	96 P	33 31.14	-0.3	
		S	33 36.87		
RRL	0.63	8 P	33 34.46	-0.1	
		S	33 43.33		
ROB	0.87	90 P	33 38.51	0.1	
		S	33 48.58		
IMI	0.96	113 P	33 40.27	0.2	
		S	33 51.20		
	S.D. = 0.3	on 5 of 5 obs.			

% MAR 26, 1989 07h 38m 33.56± 0.83s
39.238 N ± 7.0km 27.706 E ± 8.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.80	62 iPg	38 49.10	-0.1	
		eSg	39 00.10		
IZM	0.91	203 ePn	38 50.90	-0.1	
EDC	1.11	6 iPn	38 53.70	-0.8	
KCT	1.13	26 iPn	38 55.30	0.6	
BNT	1.13	8 iPn	38 54.80	0.1	
EZN	1.22	299 ePn	38 56.40	0.2	
	S.D. = 0.6	on 6 of 6 obs.			

% MAR 26, 1989 08h 12m 53.51± 0.90s
39.134 N ± 7.3km 27.566 E ± 9.3km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	0.77	198 ePg	13 08.40	-0.2	
		eSg	13 19.90		
DST	0.95	60 iPg	13 12.10	0.5	
		eSg	13 26.10		
EZN	1.18	306 ePn	13 16.00	0.4	
EDC	1.23	11 iPn	13 15.70	-0.7	
BNT	1.25	12 iPn	13 16.80	0.0	
	S.D. = 0.7	on 5 of 5 obs.			

MAR 26, 1989 09h 11m 02.06± 0.69s
39.289 N ± 6.3km 23.539 E ± 6.9km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.1 (ATH).

NEO	0.25	274 iPbd	11 07.30	0.0	
		eSb	11 12.80		
PLG	1.09	356 iPbc	11 22.60	0.1	
		eSn	11 38.00		
ATH	1.32	174 ePn	11 25.00	-1.5	
KZN	1.70	307 iPnc	11 31.60	-0.4	
VAY	2.16	340 ePn	11 38.70	0.1	
RDO	2.40	39 ePn	11 40.40	-1.6	
ITM	2.46	212 ePb	11 44.10	1.2	
OHR	2.78	312 ePn	11 48.20	0.7	
SKO	3.12	330 ePn	11 51.60	-0.6	
Z	15s	0.34um			
N	15s	0.40um			
E	15s	0.34um			
		LR	49 21.00		
BNT	3.54	71 ePn	12 00.00	1.8	
MGR	6.21	280 P	12 36.00	0.0	
		eSn	13 44.20		
	S.D. = 1.2	on 11 of 11 obs.			

MAR 26, 1989 09h 29m 08.26± 0.41s
73.150 N ± 6.5km 5.402 E ± 9.0km
DEPTH = 10.0km (geophysicist)
4.6mb (17 obs.)
GREENLAND SEA (640)

TRO	5.58	123	iP	30 29.00	-4.2X
			eS	31 16.30	
			eSg	31 25.50	
LOF	5.72	148	iP	30 31.20	-4.0X
			eS	31 23.00	
			iSg	31 28.90	
KEV	7.65	106	eP	30 56.00	-6.3X
SOD	9.17	119	eP	31 19.00	-4.4X
KJF	12.00	127	iP	31 57.90	-4.1X
	0.7s	42.70nm		5.8mb	X
NRA0	12.69	166	P	32 04.60	-6.7X
SUF	12.94	133	eP	32 10.00	-4.6X
	0.6s	5.10nm		4.9mb	
HFS	13.46	162	eP	32 16.40	-5.0X
	0.4s	2.60nm		4.6mb	
NUR	14.65	140	eP	32 33.00	-4.1X
Z	20s	2.10um			
			e	32 49.00	
			LR	37 50.00	
ALE	15.69	333	eP	32 47.00	-3.5X
	0.7s	13.00nm		4.3mb	
GDH	18.67	288	eP	33 30.00	2.2
			e	38 35.00	
WTS	21.24	178	e(P)	34 01.50	5.3X
	0.8s	4.00nm		3.9mb	
			e	34 12.50	
CLL	22.17	167	eP	34 04.00	-1.5
	2.3s	70.00nm		4.7mb	
			e	34 13.00	
ENN	22.47	179	eP	34 09.50	1.1
	0.8s	14.00nm		4.5mb	
			e	34 17.00	
MEM	22.62	179	P	34 11.30	1.3
BRG	22.66	166	eP	34 09.50	-0.9
	1.8s	38.00nm		4.6mb	
			e	34 18.50	
SNF	22.73	182	P	34 10.30	-0.7
MOX	22.75	170	eP	34 12.00	0.7
	1.6s	43.00nm		4.7mb	
			e	34 19.00	
			LR	43 30.00	
KSP	22.88	162	eP	34 10.50	-2.1
DOU	23.14	181	P	34 05.60	-9.5X
			e	34 13.80	
WLF	23.57	179	eP	34 19.70	0.5
PRU	23.59	165	eP	34 20.50	1.1
	1.5s	22.30nm		4.5mb	
Z	15s	1.00um		4.4MszX	
N	16s	0.80um			
KRA	24.04	157	eP	34 15.00	-8.7X
			e	34 24.40	
KHC	24.37	167	P	34 29.20	2.1X
HAU	25.23	179	eP	34 34.70	-0.6
	1.0s	12.00nm		4.5mb	
ZST	25.58	162	iP	34 40.00	1.4
LOR	25.98	182	eP	34 42.50	0.2
	0.7s	4.40nm		4.3mb	
LBF	26.26	182	eP	34 45.30	0.4
SMF	26.60	182	eP	34 48.50	0.5
	1.2s	19.00nm		4.7mb	
BGF	26.70	184	eP	34 48.90	-0.1
LSF	27.04	186	eP	34 50.40	-1.7
MAF	27.05	184	eP	34 51.80	-0.3
YKA	38.79	320	eP	36 37.20	3.2X
FFC	43.23	306	eP	37 11.00	0.4
	1.2s	19.00nm		4.7mb	
RSON	44.71	297	P	37 21.40	-1.3
EDM	47.16	314	eP	37 41.00	-1.1
SES	49.32	311	eP	37 59.00	0.1
LRM	53.95	310	eP	38 32.60	-1.5
IMW	55.44	308	P	38 45.50	0.5
BW06	56.18	307	P	38 50.00	-0.3
	1.1s	13.39nm		4.9mb	
GLD	57.99	302	P	39 04.70	1.6
	1.0s	10.50nm		4.8mb	
GOL	58.08	302	P	39 02.90	-0.9
	1.0s	7.50nm		4.7mb	
GKN	60.34	91	P	39 19.40	0.0
KKN	60.72	91	P	39 22.60	0.4
GUN	60.79	90	P	39 23.30	0.6
PKI	60.97	91	P	39 24.30	0.4
ALQ	62.86	301	eP	39 36.00	-0.4
	1.0s	3.25nm		4.5mb	

S.D. = 1.1 on 32 of 47 obs.

? MAR 26, 1989 10h 59m 34.26± 4.34s
72.191 N ±40.5km 7.473 E ±19.5km
DEPTH = 10.0km (geophysicist)
4.2mb (2 obs.)
NORWEGIAN SEA (642)

TRO	4.55	119	iP	00 44.30	-0.4
			eS	01 28.80	
			iSg	01 41.60	
LOF	4.57	150	eP	00 46.90	1.9
			eS	01 38.10	
KJF	10.93	127	eP	02 13.00	-0.5
	0.7s	18.70nm		5.6mb	X
NRA0	11.62	170	iPc	02 22.70	-0.2
SUF	11.83	134	iP	02 25.90	0.2
HFS	12.36	165	eP	02 31.10	-1.8
	0.4s	1.10nm		4.5mb	X
CLL	21.10	170	e(P)	04 27.00	6.2X
BRG	21.59	169	e(P)	04 26.00	0.3
	1.6s	17.00nm		4.2mb	
MOX	21.70	173	eP	04 26.00	-0.9
	1.5s	17.00nm		4.2mb	
PRU	22.51	168	eP	04 35.00	0.1
KHC	23.31	170	P	04 44.00	1.3

S.D. = 1.2 on 10 of 11 obs.

% MAR 26, 1989 11h 21m 03.08± 0.95s
40.614 N ±10.3km 29.897 E ± 8.9km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

HRT	0.27	320	ePg	21 08.50	-0.3
YLV	0.40	263	iPg	21 11.20	-0.1
GPA	0.45	136	iPg	21 12.20	-0.1
CTT	1.23	296	ePn	21 25.50	-0.5
BNT	1.53	261	iPn	21 30.70	0.2
DMK	2.01	307	ePn	21 38.30	0.8

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

? MAR 26, 1989 13h 07m 49.15± 1.17s
43.795 N ±10.4km 10.904 E ± 7.3km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)

PII	0.29	255	Pc	07 55.20	0.1
			eSg	07 59.30	
BDI	0.35	320	P	07 56.00	-0.3
			eSg	08 01.40	
MME	0.42	340	P	07 58.20	0.3
			eSg	08 04.00	
PGD	0.60	82	P	08 01.30	0.0
			eSg	08 10.20	

S.D. = 0.5 on 4 of 4 obs.

MAR 26, 1989 13h 15m 01.26± 0.59s
35.187 N ± 8.5km 136.522 E ± 5.7km
DEPTH = 10.0km (geophysicist)
SOUTHERN HONSHU, JAPAN (232)

TSRJ	0.56	309	iP+	15 12.50	-0.1
			S	15 20.00	
IIDJ	1.17	75	P	15 22.30	-0.9
			S	15 37.60	
WKYJ	1.23	219	P	15 24.30	0.1
			S	15 41.70	
MTMJ	1.74	36	P	15 31.90	0.1
			S	15 55.10	
MAT	1.92	45	iPc	15 34.20	-0.2
			iS	15 59.50	
CHJJ	2.19	66	P	15 39.30	1.1
TKSJ	2.37	240	eP	15 40.60	-0.2
			S	16 10.60	
YONJ	2.51	271	eP	15 42.80	0.1
			S	16 15.20	

S.D. = 0.6 on 8 of 8 obs.

& MAR 26, 1989 13h 22m 39.00s
32.950 N 115.810 W
DEPTH = 4.0km
CALIFORNIA-MEXICO BORDER REGION (45)
<PAS-P>. ML 3.1 (PAS).

IKP	0.39	220	iPc	22 46.60	-0.3
HAY	0.77	11	eP	22 53.40	-1.0
BAR	0.77	250	iPc	22 53.30	-1.2
GLA	0.83	83	iPd	22 53.90	-1.7
PLM	0.97	295	ePc	22 56.80	-1.3
CPE	1.09	267	iPc	22 58.80	-1.2

6 obs. ossocioted

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* MAR 26, 1989 13h 25m 36.32± 1.24s
5.039 S ± 8.7km 37.649 W ±27.6km
DEPTH = 10.0km (geophysicist)
4.4mb (5 obs.)
BRAZIL (528)
Minor domoge (VII) in the
eostern part of Ceora Stote.

ITR	3.78	192	eP	26 36.70	0.8
SOB1	5.25	218	eP	26 55.20	-1.6
			eS	27 49.90	
BAO	14.63	223	eP	28 57.30	-8.2X
ITA	18.54	201	eP	29 53.50	-1.8
VAO	20.00	206	e(P)	30 13.60	1.5
ZOBO	31.91	247	P	32 06.00	0.9
Z	16s	0.40um		4.2MszX	
			LR	42 48.00	
CNCB	31.94	246	eP	32 06.00	0.6
LPB	31.96	247	P	32 06.00	0.6
			Lg	42 21.00	
			eLR	42 35.00	
RSON	73.44	327	P	37 08.80	-1.8
	0.9s	4.20nm		4.5mb	
ALQ	75.75	308	eP	37 24.10	-0.5
	0.9s	2.10nm		4.2mb	
GOL	76.36	313	P	37 28.00	0.0
FFC	79.67	328	eP	37 45.50	0.0
	1.0s	9.00nm		4.7mb	
BW06	80.29	315	P	37 48.30	-1.1
	1.3s	8.20nm		4.6mb	
IMW	81.56	316	P	37 56.70	0.5
TNP	84.91	309	P	38 14.10	0.8
	0.9s	1.30nm		4.2mb	
KVN	85.76	310	P	38 17.60	0.1
YKA	88.45	333	eP	38 30.80	1.0

S.D. = 1.1 on 16 of 17 obs.

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* MAR 26, 1989 14h 03m 12.26± 1.61s
16.303 N ±18.1km 98.608 W ±12.0km
DEPTH = 33.0km (normal)
4.7mb (9 obs.)
NEAR COAST OF GUERRERO, MEXICO (58)

ACX	1.32	295	eP	03 33.50	-1.1
			iS	03 41.50	
OXX	1.96	67	ePc	03 48.44	4.3X
			eS	04 14.60	
III	2.22	338	iP	03 46.69	-1.0
			iS	04 33.00	
IIT	2.72	6	eP	03 54.30	-0.5
			eS	04 30.50	
IISM	2.92	24	eP	03 57.70	0.3
			iS	04 29.50	
UNM	3.06	350	iP	04 02.50	2.8X
			iS	04 58.00	
CRX	3.25	342	eP	04 03.30	0.9
			iS	04 52.00	
IIC	3.50	350	eP	04 06.00	0.0
			iS	04 33.80	
ALQ	19.85	341	ePd	07 42.00	-1.6
	0.7s	9.76nm		4.2mb	
GOL	24.05	347	P	08 25.80	0.1
	0.6s	16.56nm		4.7mb	
GLD	24.06	347	P	08 27.60	1.9
	1.0s	26.00nm		4.7mb	
MSU	25.13	334	P	08 38.60	2.5X
DAU	26.42	338	P	08 48.10	0.0
DUG	26.82	335	P	08 53.20	1.6
BW06	28.00	343	P	09 01.10	-1.3
KVN	28.37	327	P	09 07.20	1.5
IMW	29.43	342	P	09 17.00	1.6
BGMT	30.97	341	eP	09 30.40	1.5
LRM	31.63	341	eP	09 35.20	0.5
RSON	34.70	5	P	09 59.30	-1.6
	0.5s	1.62nm		4.2mb	
GAC	35.13	29	eP	10 04.50	-0.2
FFC	38.43	357	eP	10 32.00	-0.4
	0.7s	23.00nm		5.1mb	
EDM	38.62	346	eP	10 33.50	-0.6
SCH	45.59	25	eP	11 31.00	0.1

26d 14h

YKC	47.46	350	eP	11	44.00	-1.5
	0.7s		5.00nm			4.6mb
YKA	47.49	350	eP	11	45.60	-0.2
MBC	60.94	354	eP	13	24.00	0.1
LSF	85.21	43	eP	15	56.80	10.0X
TCF	85.64	43	eP	15	59.10	10.1X
	0.8s		5.30nm			
MAF	85.90	43	eP	16	00.20	10.0X
	0.8s		4.00nm			4.7mb
BGF	85.97	43	eP	16	00.50	9.9X
	0.8s		5.30nm			4.8mb
SSF	86.23	42	eP	16	01.80	10.0X
LOR	86.38	42	eP	16	02.50	9.9X
	0.8s		5.30nm			4.8mb
LBF	86.56	42	eP	16	03.30	9.8X
HAU	87.69	40	eP	16	09.30	10.4X
HYB	146.38	5	ePKP	23	01.50	10.5X
	S.D. = 1.1		on	24	of	36 obs.

? MAR 26, 1989 15h 03m 56.43± 0.79s
35.910 N ±25.2km 80.516 E ±43.5km
DEPTH = 33.0km (normal)
4.0mb (2 obs.)
KASHMIR-TIBET BORDER REGION (304)

GKN	8.62	155	P	06	07.80	5.7X
KKN	9.05	152	P	06	07.40	-0.6
GUN	9.18	149	P	06	10.60	0.6
	0.5s		13.00nm			5.4mb X
HFS	48.28	322	eP	12	35.70	-0.3
	0.6s		0.60nm			3.8mb
NAO	49.67	323	P	12	47.10	0.4
	0.7s		1.40nm			4.1mb
MBC	67.40	5	eP	14	50.00	-0.1
	S.D. = 0.7		on	5	of	6 obs.

& MAR 26, 1989 16h 29m 41.67s
58.463 N 142.720 W
DEPTH = 10.0km (geophysicist)
GULF OF ALASKA (15)
<AGS-P>.

YKU	1.89	53	iP	30	09.92	-4.4
PCA	2.07	37	iP	30	11.87	-5.1
PNL	2.10	53	iP	30	11.97	-5.4
MID	2.11	299	eP	30	12.16	-5.3
			eS	30	34.64	
RAGM	2.17	333	iP	30	13.59	-4.8
BCPM	2.18	45	iP	30	13.12	-5.4
HQN	2.22	62	iP	30	13.57	-5.6
			eS	30	39.11	
SGAM	2.41	329	iP	30	16.95	-4.8
CVA	2.60	325	eP	30	18.67	-5.7
			eS	30	48.48	
CTGM	2.61	15	eP	30	19.70	-5.0
HIN	2.74	317	iP	30	21.33	-5.1
MTU	2.96	303	iP	30	23.81	-5.7
			iS	30	57.50	
FID	2.99	322	eP	30	24.66	-5.2
GLB	3.04	350	iP	30	25.16	-5.5
KNIM	3.19	309	iP	30	26.62	-6.1
VLZ	3.24	327	eP	30	27.42	-6.1
VZW	3.25	325	eP	30	27.55	-6.1
GLI	3.29	319	iP	30	27.83	-6.4
KLU	3.44	333	iP	30	30.82	-5.6
HYT	3.55	46	P	30	32.80	-5.3
PWL	3.73	313	iP	30	34.40	-6.1
SEW	3.82	298	eP	30	35.15	-6.7
TOA	4.04	336	iP	30	39.91	-5.0
SLKM	4.34	301	eP	30	42.79	-6.4
			eS	31	29.50	
SML	4.37	322	eP	30	43.65	-6.0
PMS	4.44	312	iP	30	45.35	-5.2
			iS	31	33.87	
KDC	5.23	266	eP	30	56.40	-5.3
RDT	5.37	297	eP	30	57.87	-5.9
			eS	31	56.08	
SPU	5.44	304	eP	30	58.34	-6.5
ILIM	5.50	292	eP	31	00.53	-5.1
			eS	31	59.18	
DWY	5.83	14	P	31	04.80	-5.4
YKA	14.37	62	eP	33	10.50	3.6
	32 obs. associated					

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* MAR 26, 1989 16h 56m 19.48± 0.79s
28.836 N ± 7.7km 105.014 E ±11.6km
DEPTH = 33.0km (normal)
SICHUAN PROVINCE, CHINA (307)
ML 4.1 (BJI).

CD2	2.34	332	Pn	56	58.20	1.8
			Sn	57	28.80	
GYA	2.78	148	Pn	57	03.60	0.8
			Pg	57	09.60	
			Sg	57	48.40	
KMI	4.22	209	ePn	57	23.50	0.2
			Pg	57	34.50	
			Sg	58	27.00	
XAN	6.17	32	Pn	57	51.00	0.3
			Pg	58	10.00	
			Sn	58	59.80	
			Sg	59	36.00	
LZH	7.30	353	e(P)	58	05.00	-1.6
			(Lg)	00	07.00	
WHN	8.30	76	eP	58	21.00	0.6
			eS	59	50.50	
GTA	11.39	339	eP	59	02.80	-0.2
KKN	17.41	271	P	00	18.10	-3.6X
WB5	56.12	146	eP	05	56.40	-1.7
	S.D. = 1.4		on	8	of	9 obs.

& MAR 26, 1989 17h 13m 45.35s
61.466 N 152.006 W
DEPTH = 98.6km
SOUTHERN ALASKA (2)
<AGS-P>.

CGLM	0.16	180	iP	13	58.88	1.0
CRP	0.21	200	iP	13	59.09	0.9
SPU	0.29	185	iP	13	59.14	-0.9
			iS	14	10.64	
SKT	0.56	24	iP	14	01.01	-0.7
NKA	0.82	152	iP	14	05.11	1.2
RDT	0.92	192	iP	14	04.41	-0.7
PWA	1.04	79	iP	14	06.10	-0.2
PMS	1.20	100	iP	14	07.88	-0.4
SLKM	1.30	137	iP	14	08.53	-0.9
			iS	14	27.25	
PLRM	1.38	83	iP	14	09.12	-1.3
PME	1.43	82	iP	14	09.79	-1.3
			iS	14	28.75	
ILIM	1.47	199	iP	14	10.77	-0.8
NNL	1.47	166	eP	14	11.88	0.3
GHO	1.50	77	iP	14	10.79	-1.3
			iS	14	31.16	
PTE	1.57	111	iP	14	11.50	-1.2
			iS	14	32.07	
SVW	1.78	260	iP	14	14.33	-1.2
			iS	14	36.46	
SML	1.79	77	iP	14	13.96	-1.7
SEW	1.86	136	eP	14	14.99	-1.4
PWL	1.88	107	iP	14	15.08	-1.7
			iS	14	38.91	
CNPM	1.98	169	iP	14	17.03	-1.2
PDB	2.00	214	iP	14	17.82	-0.5
KNIM	2.37	116	iP	14	20.03	-3.3
TTA	2.38	310	iP	14	21.95	-1.6
GLI	2.45	102	iP	14	21.36	-3.0
MTU	2.60	123	eP	14	24.02	-2.4
VZW	2.67	96	iP	14	24.70	-2.6
VLZ	2.76	94	eP	14	25.35	-3.2
FID	2.78	103	iP	14	25.52	-3.3
TOA	2.84	74	eP	14	28.82	-1.0
HIN	2.89	109	eP	14	27.36	-3.0
KLU	2.92	87	iP	14	28.19	-2.6
CVA	3.18	104	eP	14	33.16	-1.1
SGAM	3.45	103	eP	14	34.50	-3.5
			eS	15	14.53	
RAGM	3.74	104	eP	14	38.83	-3.2
FBA	3.94	27	eP	14	42.99	-1.7
HYT	7.05	89	P	15	25.30	-2.4
YKA	17.45	70	eP	17	42.20	-1.2
	37 obs. associated					

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* MAR 26, 1989 17h 24m 32.95± 1.36s
17.525 N ±12.8km 62.207 W ± 8.9km
DEPTH = 33.0km (normal)
LEEWARD ISLANDS (92)
ML 3.0 (FDF).

CPB	0.38	72	eP	24	42.47	0.7
			eS	24	46.91	
ANG	0.51	136	eP	24	43.47	-0.3
			eS	24	46.76	
SKI	0.54	250	eP	24	43.49	-0.7
			eS	24	50.33	
BPA	0.58	145	eP	24	44.50	-0.3
SKDB	0.59	258	eP	24	51.80	7.0X
			eS	25	02.05	
MGH	0.80	181	eP	24	49.66	1.9
			S	25	00.50	
PAG	1.57	161	eP	24	59.25	0.3
			S	25	17.00	
DEG	1.63	137	eP	24	58.49	-1.3
			S	25	14.20	
MGG	1.81	152	eP	25	01.95	-0.4
	S.D. = 1.1		on	8	of	9 obs.

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* MAR 26, 1989 17h 38m 18.95± 1.25s
39.223 N ± 8.7km 23.575 E ±14.8km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 2.9 (ATH).

NEO	0.29	287	iPgd	38	24.10	-0.8
			eSg	38	26.40	
PLG	1.15	355	ePb	38	40.20	-0.3
			eSb	38	55.60	
ATH	1.25	175	ePb	38	42.20	0.0
KZN	1.76	308	ePg	38	53.60	3.8X
VAY	2.23	340	ePn	38	56.00	-0.5
OHR	2.84	312	ePn	39	07.00	1.7
	S.D. = 1.4		on	5	of	6 obs.

& MAR 26, 1989 18h 03m 36.20s
38.780 N 122.750 W
DEPTH = 5.0km
NORTHERN CALIFORNIA (36)
<BRK>. ML 4.0 (BRK). Felt (IV) at Cobb.

ZSP	0.92	155	ePc	03	53.50	-0.7
			iS	04	09.60	
BRK	0.98	157	eP	03	54.30	-1.0
			i	03	55.30	
			iS	04	09.20	
BKS	0.99	156	iPd	03	54.50	-0.9
			i	03	55.38	
			eS	04	09.50	
ORV	1.24	51	ePc	03	57.60	-2.2
			i	04	04.90	
PCC	1.31	167	eP	03	58.90	-2.0
LTCM	1.51	19	eP	04	02.70	-1.2
MHC	1.68	148	ePc	04	04.93	-1.6
ARN	1.72	146	eP	04	05.30	-1.7
MIN	1.80	29	eP	04	07.30	-0.9
GCC	1.85	161	eP	04	06.50	-2.3
CMB	2.00	111	iPc	04	10.30	-0.8
FHC	2.23	335	eP	04	16.00	1.6
SAO	2.26	152	ePc	04	12.30	-2.5
LLA	2.59	146	e(P)	04	17.40	-2.1
LBFM	2.65	14	eP	04	21.30	0.8
PRS	2.68	155	ePc	04	18.40	-2.4
FRI	3.00	126	eP	04	24.80	-0.4
KVN	3.64	84	eP	04	32.80	-1.7
TNP	4.40	97	eP	04	44.00	-1.4
ISA	4.62	131	eP	04	53.00	4.7
CLC	5.06	124	eP	05	02.00	7.4
			e	06	37.00	
EUR	5.32	80	iP	04	56.80	-1.7
	0.2s		11.16nm			5.2mb X
	22 obs. associated					

& MAR 26, 1989 18h 10m 47.90s
38.835 N 122.780 W
DEPTH = 3.0km
NORTHERN CALIFORNIA (36)
<BRK>. ML 3.3 (BRK).

NWRM	0.39	193	eP	10	55.50	-0.1
ZSP	0.98	155	eP	11	06.30	-0.8
			eS	11	21.50	
BRK	1.04	157	iPd	11	07.90	-0.3
			eS	11	22.10	
BKS	1.05	156	ePc	11	07.30	-1.0
			iS	11	23.00	
ORV	1.23	54	ePc	11	10.50	-0.9
			e	11	16.50	
PCC	1.37	167	eP	11	10.70	-3.1
MHC	1.74	149	e(P)d	11	17.50	-1.8
MIN	1.76	31	e(P)	11	18.80	-0.8

ARN	1.78	146	eP	11 17.50	-2.3
GCC	1.91	161	e(P)	11 19.00	-2.6
CMB	2.04	112	ePc	11 22.30	-1.3
SAO	2.32	152	e(P)	11 25.00	-2.6
LLA	2.65	146	e(P)	11 29.90	-2.4
KVN	3.66	85	eP	11 45.00	-1.8

14 obs. associoted

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* MAR 26, 1989 18h 42m 46.69± 1.25s
4.225 N ±12.6km 127.163 E ±22.0km
DEPTH = 33.0km (normol)
4.2mb (3 obs.)
TALAUD ISLANDS (263)

MNI	3.61	220	eP	43 41.80	0.1
MTN	17.41	167	eP	46 47.30	-1.5
WB5	24.98	164	iPd	48 10.30	1.3
MBL	26.23	196	eP	48 21.00	0.4
	0.6s		4.00nm		4.2mb
ASPA	28.49	167	eP	48 47.60	6.4X
CHG	31.14	300	eP	49 06.00	1.1
CHTO	31.14	300	eP	49 03.00	-1.9
	0.8s		1.46nm		3.8mb
SHL	39.94	306	iP	50 20.40	0.4
GUN	45.79	305	P	51 08.00	0.3
GKN	46.84	305	P	51 15.60	-0.2
GBA	49.91	284	Pd	51 35.70	-3.9X
	0.7s		5.40nm		4.7mb

S.D. = 1.2 on 9 of 11 obs.

? MAR 26, 1989 19h 37m 28.21± 1.32s
10.096 N ±24.6km 127.870 E ±24.3km
DEPTH = 33.0km (normol)
4.6mb (3 obs.)
PHILIPPINE ISLANDS REGION (248)

MTN	23.02	172	eP	42 32.30	0.8
WB5	30.47	168	eP	43 40.80	0.4
ASPA	34.07	170	eP	44 11.60	-0.3
WARB	36.08	182	eP	44 23.00	-5.9X
VSG	37.06	120	eP	44 34.00	-3.4X
HNR	37.35	120	eP	44 39.00	-0.8
FORR	40.71	180	eP	45 07.00	-0.4
	0.4s		11.00nm		4.9mb
MRWA	40.73	196	eP	45 03.50	-4.2X
PKI	43.52	300	P	45 33.00	1.9
BRS	44.40	148	iP	45 38.20	0.4
BWA	48.38	157	eP	46 15.00	5.9X
GBA	49.42	279	Pc	46 15.20	-2.1
	0.6s		1.20nm		4.1mb
SLL	92.94	333	ePKP	50 45.10	5.9X
	0.5s		1.50nm		4.7mb

S.D. = 1.4 on 8 of 13 obs.

? MAR 26, 1989 21h 30m 16.21± 2.13s
44.217 N ±16.0km 11.950 E ± 8.6km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)

SFI	0.30	194	P	30 22.70	0.2
			eSg	30 30.80	
PGD	0.38	206	P	30 23.90	-0.2
			eSg	30 30.40	
RSM	0.46	128	P	30 25.60	0.0
			eSg	30 33.10	
BDI	0.99	261	P	30 35.00	0.0

S.D. = 0.2 on 4 of 4 obs.

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* MAR 26, 1989 21h 42m 52.28± 1.00s
37.110 N ± 8.9km 27.951 E ±10.3km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YER	0.27	85	iPg	42 56.70	-1.2
IZM	1.40	337	ePn	43 18.70	0.9
ELL	1.61	102	iPn	43 22.90	2.0X
KSL	1.64	126	eP	43 22.60	1.3
			eS	43 46.10	
KAP	1.68	202	eP	43 21.10	-0.7
			eS	43 42.70	
KHL	1.74	45	iPn	43 23.70	0.9
BCK	2.13	80	ePn	43 30.70	2.2X
DST	2.55	12	ePn	43 37.20	2.8X
EZN	3.00	335	ePn	43 49.00	8.4X
BNT	3.24	360	ePn	43 43.00	-1.2

S.D. = 1.5 on 6 of 10 obs.

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* MAR 26, 1989 21h 45m 12.86± 1.17s
6.105 S ±11.5km 151.068 E ±10.7km
DEPTH = 51.4 ± 13.5 km
4.7mb (3 obs.)
NEW BRITAIN REGION (192)

RAB	2.20	30	iPc	45 48.60	1.0
	0.4s		813.56nm		
			iS	46 28.50	
PAA	4.40	93	eP	46 18.00	-0.9
PMG	5.08	230	eP	46 28.00	-0.4
	1.1s		91.14nm		4.9mb X
RMQ	20.39	186	eP	49 48.00	-0.1
MTN	20.76	250	eP	49 50.50	-1.5
BRS	21.23	176	iP	49 57.20	0.5
WB5	21.23	228	eP	49 46.00	-10.8X
KNA	23.88	245	eP	50 24.00	1.2
	0.7s		18.00nm		4.7mb
ASPA	24.03	222	eP	50 25.00	0.7
	0.8s		20.00nm		4.7mb
SPA	83.94	180	e(P)	57 39.80	1.2
	1.0s		5.50nm		4.5mb
HFS	117.24	338	ePKP	03 52.70	-1.1
	0.4s		0.70nm		
NAO	117.82	339	PKP	03 54.40	-0.5
	0.7s		1.20nm		

S.D. = 1.2 on 11 of 12 obs.

? MAR 26, 1989 21h 49m 08.62± 4.11s
28.891 N ±38.6km 111.943 W ±11.6km
DEPTH = 10.0km (geophysicist)
GULF OF CALIFORNIA (49)

GLA	4.83	330	eP	50 22.00	-1.2
PLM	6.13	318	eP	50 43.00	1.4
TPC	6.27	327	eP	50 49.00	5.5X
ALQ	7.62	36	eP	51 03.00	0.4
NOP	8.04	335	eP	51 09.30	0.9
JON	8.30	336	eP	51 11.80	-0.2
SDH	8.57	336	eP	51 16.20	0.5
LSM	8.63	336	eP	51 15.50	-1.1
PANV	8.65	331	eP	51 17.00	0.0
YMT2	8.75	335	eP	51 19.00	0.8
YMT6	8.78	336	eP	51 17.00	-1.7
YMT4	8.79	336	eP	51 19.00	0.2
PRN	8.88	344	eP	51 19.00	-1.1
TNP	10.17	336	e(P)	51 36.00	-1.9
FRI	10.38	323	eP	51 44.20	3.7X
EUR	11.08	344	eP	51 51.00	0.7
KVN	11.35	335	eP	51 56.50	2.5
CMB	11.52	325	ePc	52 02.60	6.4X
GOL	12.07	25	e(P)	52 04.00	0.2
ORV	13.24	326	e(P)	52 29.30	10.1X
MIN	13.91	328	e(P)	52 35.60	7.4X
BW06	13.99	7	eP	52 29.40	0.1
	0.8s		8.21nm		4.6mb
WDC	14.54	326	ePc	52 40.60	4.3X
IMW	15.00	3	eP	52 49.50	6.9X
BGMT	16.31	360	eP	53 06.10	6.6X
LON	19.43	339	eP	53 38.00	0.0
SES	21.49	2	eP	54 02.00	2.5X
EDM	24.33	358	ePc	54 28.50	1.1
MBC	47.56	358	eP	57 44.00	-1.7

S.D. = 1.2 on 20 of 29 obs.

MAR 26, 1989 22h 35m 01.38± 0.25s
52.209 N ± 6.4km 157.630 E ± 4.7km
DEPTH = 112.6km (4 depth phases)
4.4mb (25 obs.)
KAMCHATKA (217)

KUSJ	12.59	229	eP	37 54.90	-2.5
ASAJ	12.85	237	eP	38 04.00	3.2X
MRRJ	14.86	235	eP	38 25.80	-0.9
NIIJ	19.89	229	P	39 26.70	0.8
MDJ	20.01	259	eP	39 26.00	-1.1
KAKJ	20.23	225	P	39 29.80	0.5
MAT	20.83	229	iPd	39 36.70	1.3
	0.7s		44.52nm		4.9mb
CHJJ	20.88	227	P	39 37.60	1.7
MTMJ	20.98	230	P	39 38.40	1.3
IIDJ	21.84	228	P	39 47.90	2.4X
TSRJ	22.69	231	P	39 56.10	2.3X
CN2	22.96	261	eP	39 56.00	-0.3
FBA	30.11	44	iP	41 01.00	-0.8
	1.2s		16.67nm		4.6mb
INK	35.48	37	eP	41 48.00	-0.2
MBC	38.44	22	eP	42 13.00	0.1
GTA	41.21	276	eP	42 36.70	0.4
YKA	44.82	41	eP	43 05.80	0.7
GYA	45.84	256	P	43 13.60	-0.1
WMQ	45.84	289	P	43 14.00	0.5
WDC	53.59	69	ePc	44 12.90	0.3
MIN	54.28	68	eP	44 17.70	-0.2
FFC	54.71	44	iPd	44 20.60	0.0
	0.7s		10.00nm		4.9mb
ORV	54.87	69	ePc	44 21.40	-0.6
LRM	55.66	58	eP	44 27.80	-0.1
CHG	56.25	257	eP	44 33.00	0.9
CHTO	56.25	257	eP	44 32.80	0.7
	1.1s		3.24nm		4.2mb
BGMT	56.27	58	eP	44 32.30	0.0
CMB	56.54	70	eP	44 34.10	0.1
PRS	57.13	72	eP	44 36.70	-1.5
KVN	57.15	67	iP	44 38.10	-0.4
			epP	45 05.50	113km
GUN	57.48	275	P	44 40.00	-1.1
KKN	57.94	275	P	44 43.50	-0.6
	0.5s		12.00nm		5.2mb
PKI	58.01	275	P	44 43.80	-1.0
EUR	58.06	66	iP	44 44.20	-0.7
	0.9s		4.14nm		4.4mb
			ipP	45 12.00	115km
DMN	58.17	275	P	44 44.90	-1.0
GKN	58.18	276	P	44 44.90	-0.8
TNP	58.32	68	iP	44 46.10	-0.6
	1.0s		10.50nm		4.8mb
			epP	45 14.00	115km
BW06	59.26	59	iP	44 54.00	0.8
	0.9s		12.71nm		5.0mb
			epP	45 20.50	108km
GOL	63.66	59	eP	45 23.00	0.2
	1.0s		5.00nm		4.4mb
NAO	64.23	343	P	45 23.60	-2.2
	0.8s		1.60nm		4.0mb
HFS	64.31	341	eP	45 23.30	-3.0X
	0.5s		0.60nm		3.8mb
ALQ	66.59	63	eP	45 42.10	0.6
EKA	71.65	349	Pc	46 11.40	-0.5
	0.4s		3.80nm		4.6mb
GBA	73.37	271	Pd	46 21.90	-0.7
	0.6s		1.60nm		4.0mb
FLN	77.69	345	eP	46 46.20	-0.3
LDF	77.80	345	eP	46 47.10	0.0
GRR	78.11	346	eP	46 48.90	0.1
	0.5s		2.90nm		4.3mb
LOR	78.39	342	eP	46 50.10	-0.3
	0.5s		2.90nm		4.3mb
LPF	78.49	346	eP	46 51.00	0.1
LBF	78.64	342	eP	46 51.50	-0.3
SSF	78.65	342	eP	46 51.90	0.0
AVF	78.94	342	eP	46 53.50	0.1
	0.5s		1.70nm		4.1mb
BGF	79.26	343	eP	46 55.70	0.5
	0.5s		2.90nm		4.3mb
LPG	79.50	340	eP	46 57.50	0.7
MAF	79.64	343	eP	46 57.70	0.5
	0.5s		5.80nm		4.6mb
TCF	79.64	343	eP	46 57.60	0.4
	0.7s		3.30nm		4.2mb
MFF	79.74	345	eP	46 58.20	0.5
	0.4s		2.20nm		4.3mb
LSF	79.80	343	eP	46 58.50	0.5
	0.5s		2.40nm		4.3mb
CKI	80.18	338	P	47 18.10	18.0X
RJF	80.71	343	eP	47 03.50	0.6
CAF	80.98	343	eP	47 05.30	1.0
	0.5s		2.10nm		4.2mb
LFF	81.20	344	eP	47 06.30	0.9
	0.6s		4.30nm		4.4mb
LPO	81.37	343	eP	47 07.20	0.9
	0.5s		4.90nm		4.6mb
EPF	83.13	343	eP	47 16.60	1.1
	0.6s		2.10nm		4.2mb

S.D. = 0.8 on 59 of 64 obs.

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* MAR 26, 1989 22h 41m 40.88± 2.45s
7.357 S ±14.4km 127.772 E ±11.0km
DEPTH = 137.3 ± 27.8 km
4.5mb (4 obs.)
BANDA SEA (280)

MTN	6.38	149	iPd	43 14.50	0.8
			eS	44 06.00	

26d 22h

KNA	8.40	173	iPc	43 40.00	-1.0	
	0.3s	37.00nm			5.5mb	X
			eS	45 07.00		
MBL	15.72	208	eP	45 17.00	0.9	
	0.3s	4.00nm			4.2mb	
			eS	47 58.00		
ASPA	17.25	161	eP	45 34.90	-0.1	
	0.5s	30.00nm			4.9mb	
			eS	48 36.20		
QIS	17.42	140	eP	45 36.00	-1.0	
			eS	48 38.00		
WARB	18.75	183	eP	45 46.00	-6.0X	
			i	45 53.50		
			eS	49 04.00		
NANU	19.17	217	eP	45 56.00	-0.3	
			eS	49 30.00		
CTA	21.93	127	iPd	46 25.00	0.8	
	1.0s	5.00nm			3.9mb	
			i	46 44.00		
			e(S)	49 18.00		
			i(PcP)	50 45.00		
GUN	53.54	313	P	50 50.00	-0.2	
	0.7s	12.00nm			4.9mb	
PKI	53.70	312	P	50 51.30	0.0	
KKN	53.92	312	P	50 53.00	0.2	
DMN	53.94	312	P	50 53.20	0.2	
GKN	54.51	312	P	50 56.60	-0.4	
S.D. = 0.7 on 12 of 13 obs.						

% MAR 26, 1989 22h 46m 46.99± 0.68s
44.141 N ± 6.1km 10.638 E ± 5.8km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)

MME	0.07	40	Pd	46 49.90	0.3	
			eSg	46 52.20		
BDI	0.08	201	Pd	46 50.20	0.6	
			eSg	46 53.00		
PII	0.43	191	P	46 55.60	-0.1	
			eSg	47 02.00		
FIR	0.58	129	eP	46 58.00	-0.6	
			e	47 08.00		
PGD	0.83	108	P	47 03.00	-0.1	
			eSg	47 15.90		
SFI	0.90	104	P	47 04.50	0.3	
			eSg	47 16.40		
BOB	1.06	307	P	47 06.60	-0.4	
			eSg	47 22.30		
S.D. = 0.5 on 7 of 7 obs.						

• MAR 26, 1989 23h 58m 55.67± 0.60s
5.557 N ± 9.0km 77.593 W ±17.5km
DEPTH = 10.0km (geophysicist)
4.8mb (2 obs.)
NEAR WEST COAST OF COLOMBIA (102)

HOBC	1.88	129	iPd	59 27.45	-0.8	
CLMC	1.96	148	iPd	59 29.55	0.2	
ANCC	2.15	160	iPd	59 31.75	-0.4	
HOOC	2.28	155	iPd	59 33.20	-1.1	
DIAC	2.65	148	eP	59 39.20	-0.1	
SALC	2.72	161	eP	59 40.00	-0.4	
PURC	3.44	159	eP	59 51.80	0.9	
UPA	3.91	331	ePd	59 55.70	-1.4	
			iS	00 45.00		
ZDBO	23.62	157	P	04 09.80	1.3	
Z	24s	0.09um			3.1MszX	
			LR	12 48.00		
BGMT	49.60	328	eP	07 51.40	2.0X	
YKA	62.98	342	eP	09 25.50	0.8	
LIC	72.13	85	P	10 23.20	0.2	
	0.7s	7.00nm			4.9mb	
KIC	72.41	85	P	10 24.90	0.2	
	0.8s	5.50nm			4.7mb	
MBC	74.27	350	eP	10 35.00	0.6	
GBA	148.74	52	PKPd	18 46.60	4.7X	
	0.7s	2.80nm				
S.D. = 0.9 on 13 of 15 obs.						

• MAR 27, 1989 00h 35m 09.48± 0.65s
5.533 N ±12.8km 77.509 W ±22.8km
DEPTH = 10.0km (geophysicist)
NEAR WEST COAST OF COLOMBIA (102)

HOBC	1.80	130	iPd	35 40.65	-0.3	
CLMC	1.89	150	iPd	35 42.50	0.2	
ANCC	2.10	162	iPd	35 45.10	-0.1	
HOOC	2.23	157	eP	35 46.40	-0.9	
DIAC	2.58	150	eP	35 52.60	0.4	
SALC	2.67	162	eP	35 53.15	-0.3	
UPA	3.97	330	eP	36 11.70	0.0	
			eS	36 58.40		
ZOBO	23.57	157	P	40 23.00	1.2	
Z	20s	0.12um			3.3Msz	
			LR	41 46.00		
LPB	23.82	157	P	40 31.00	6.9X	
YKA	63.03	342	eP	45 38.60	-0.2	
GBA	148.69	52	PKP	55 01.00	5.3X	
	0.6s	1.70nm				
S.D. = 0.7 on 9 of 11 obs.						

MAR 27, 1989 01h 36m 18.34± 1.51s
20.894 S ±11.0km 178.056 W ± 6.3km
DEPTH = 520.1 ± 20.3 km
4.9mb (17 obs.)
FIJI ISLANDS REGION (181)

DZM	14.48	263	iPd	39 24.00	0.9	
			iS	41 59.10		
KRP	17.86	197	P	39 58.50	2.3	
PMO	29.25	83	iP	41 39.20	-0.4	
	0.8s	15.00nm			4.6mb	
VAH	29.44	84	iP	41 40.20	-1.0	
	0.8s	25.00nm			4.8mb	
TPT	29.52	84	iP	41 41.50	-0.3	
	0.8s	35.00nm			5.0mb	
RUV	29.68	84	iP	41 42.70	-0.6	
	0.8s	40.00nm			5.0mb	
RMO	30.84	253	iPd	41 53.60	0.4	
CAN	32.25	236	eP	42 05.50	0.5	
BWA	32.45	238	eP	42 05.30	-1.4	
CTA	33.40	265	iPc	42 15.20	0.4	
	0.5s	317.25nm			6.1mb	X
			i	42 23.00		
PMG	35.38	284	eP	42 32.00	0.6	
	0.9s	92.44nm			5.4mb	
STK	37.58	245	eP	42 50.00	0.7	
QIS	39.52	263	eP	43 05.00	-0.2	
ASPA	44.38	257	iPd	43 43.00	-0.9	
	0.4s	60.00nm			5.5mb	
			eS	49 39.10		
WB5	44.48	263	iPd	43 44.20	-0.5	
FORR	49.05	247	eP	44 18.50	-0.9	
	0.4s	19.00nm			4.9mb	
MTN	49.12	271	iPd	44 18.20	-1.9	
	0.7s	82.00nm			5.3mb	
			eS	48 41.70		
GUA	49.95	310	eP	44 26.80	0.7	
	0.8s	143.28nm			5.5mb	
GUMO	50.01	310	eP	44 26.70	0.1	
	0.7s	109.28nm			5.4mb	
PJG	50.01	310	eP	44 27.00	0.4	
KNA	50.56	266	iPd	44 30.50	-0.2	
	0.4s	17.00nm			4.8mb	
WARB	50.66	253	iPd	44 25.80	-5.6X	
	0.3s	4.00nm			4.3mb	
COOL	55.02	246	eP	45 02.00	-0.6	
MBL	57.62	258	eP	45 20.00	-0.6	
	0.4s	32.00nm			5.0mb	
MEKA	57.82	251	eP	45 21.00	-0.9	
	0.4s	5.00nm			4.2mb	
KLB	57.84	245	eP	45 21.00	-1.0	
BAL	58.85	246	eP	45 38.00	9.1X	
MUN	59.11	245	eP	45 30.00	-0.6	
MRWA	59.65	248	eP	45 34.00	-0.2	
NANU	61.24	255	iPd	45 44.80	0.1	
	0.4s	14.00nm			4.8mb	
SPA	69.23	180	e(P)	46 35.10	0.9	
	0.8s	16.67nm			4.7mb	
TTA	85.34	10	eP	48 01.60	0.9	
PMR	85.41	13	eP	48 00.80	-0.1	
FBA	88.63	12	eP	48 15.70	-0.4	
IMA	88.64	10	eP	48 16.70	0.4	
CHTO	90.33	290	iP	48 26.90	2.0	
	0.8s	5.12nm			4.5mb	
KJF	133.42	345	ePKP	54 25.00	-10.9X	
SUF	135.04	344	ePKP	54 38.00	-1.0	
NAO	139.62	353	PKP	54 39.20	-8.3X	
	0.7s	1.60nm				
HFS	139.92	351	ePKP	54 39.60	-8.5X	
	0.4s	1.80nm				
EKA	145.40	5	PKP	55 00.00	2.3	
	1.1s	12.80nm				
KRA	147.60	338	ePKP	54 50.90	-10.5X	
WIT	147.93	355	ePKP	55 07.50	5.7X	
KSP	148.05	343	iPKP	55 06.70	4.6X	
			e	57 09.80		
CLL	148.43	347	iPKPd	55 07.60	5.0X	
	0.9s	19.00nm				
BRG	148.63	345	ePKP	55 08.00	5.0X	
	1.2s	15.00nm				
			e	55 15.00		
WTS	148.73	354	ePKP	55 08.50	5.5X	
	0.9s	11.00nm				
PRU	149.30	344	PKP	55 09.50	5.5X	
	0.8s	11.10nm				
MOX	149.34	348	e(PKP)	55 10.00	5.9X	
ENN	150.02	355	ePKP	55 11.50	6.5X	
	0.9s	5.00nm				
MEM	150.17	355	PKP	55 11.60	6.3X	
KHC	150.33	344	iPKPd	55 12.20	6.5X	
			e	55 21.20		
DOU	150.78	357	PKP	55 13.30	7.1X	
WLF	151.10	354	PKP	55 14.40	7.7X	
S.D. = 1.0 on 36 of 54 obs.						

• MAR 27, 1989 02h 22m 31.29± 1.10s
7.993 S ±18.4km 117.060 E ±10.3km
DEPTH = 218.9 ± 12.6 km
4.2mb (3 obs.)
BALI SEA (278)

KHKI	1.48	256	ePc	23 05.40	-1.4	
			eS	23 33.60		
			e	26 37.30		
DNP	1.95	249	eP	23 35.00	23.9X	
WSI	3.61	118	ePd	23 30.50	1.0	
			e	25 52.50		
TRT	4.39	273	ePc	23 40.10	1.0	
			eS	24 12.00		
MBL	13.36	169	eP	25 33.00	-0.8	
	0.2s	3.00nm			4.3mb	
			eS	27 50.00		
NANU	14.56	186	eP	25 50.00	1.4	
			e	25 58.00		
			eS	28 20.00		
MTN	14.65	110	eP	25 50.00	0.2	
			eS	28 19.70		
MEKA	18.57	176	eP	26 34.00	-0.4	
	0.4s	4.00nm			4.3mb	
			eS	29 53.00		
WARB	20.26	154	eP	26 46.50	-4.9X	
WB5	20.51	127	iPc	26 53.00	-1.0	
WRA	20.53	127	Pd	26 53.10	-1.0	
	0.4s	1.40nm			3.8mb	
ASPA	22.44	136	iPd	27 13.20	0.4	
BRS	38.90	124	iP	29 38.10	0.6	
YKA	114.05	24	ePKP	41 03.60	18.1X	
S.D. = 1.1 on 11 of 14 obs.						

MAR 27, 1989 02h 44m 02.35± 0.97s
40.651 N ± 8.4km 29.901 E ± 8.6km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

HRT	0.25	314	ePg	44 07.70	0.1	
YLV	0.41	258	iPg	44 10.70	-0.1	
GPA	0.48	139	iPg	44 11.80	-0.3	
ISK	0.76	303	ePg	44 16.70	-0.5	
			eSg	44 27.20		
CTT	1.22	294	iPn	44 24.70	-0.4	
DST	1.43	223	iPn	44 29.20	0.8	
EDC	1.58	260	iPn	44 29.80	-0.7	
DMK	2.00	307	ePn	44 37.50	1.0	
BBTK	2.33	109	eP	44 47.00	5.5X	
S.D. = 0.7 on 8 of 9 obs.						

& MAR 27, 1989 03h 08m 42.37s
58.118 N 149.651 W
DEPTH = 10.0km (geophysicist)
GULF OF ALASKA (15)
<AGS-P>. ML 3.6 (PMR).

KDC	1.56	257	ePc	09 08.10	-2.0	
CNPM	1.64	330	iP	09 09.45	-1.8	
SEW	1.99	3	iP	09 14.24	-2.2	
			eS	09 35.11		
NNL	2.11	337	iP	09 16.68	-1.5	
			eS	09 43.56		
MTU	2.14	28	iP	09 16.97	-1.6	
			eS	09 41.24		

MID	2.17	51	eP	09	17.10	-1.9
SLKM	2.42	353	iP	09	20.18	-2.4
			eS	09	47.17	
KNIM	2.44	23	iP	09	20.75	-2.2
			eS	09	48.45	
ILIM	2.61	320	iP	09	22.70	-2.6
			eS	09	53.29	
NKA	2.76	344	eP	09	26.52	-0.8
PTE	2.77	6	iP	09	25.60	-2.0
HIN	2.80	34	iP	09	26.24	-1.8
PWL	2.83	13	iP	09	26.34	-2.1
			eS	09	57.33	
RDT	2.84	331	eP	09	25.99	-2.6
			eS	09	57.02	
PDB	2.89	307	iP	09	26.76	-2.5
GLI	3.06	24	iP	09	29.17	-2.5
			eS	10	04.86	
FID	3.10	30	iP	09	29.94	-2.2
			eS	10	03.75	
PMS	3.14	1	ePc	09	30.60	-2.2
CVA	3.15	38	iP	09	31.39	-1.5
			eS	10	06.08	
SGAM	3.30	42	iP	09	33.74	-1.4
SPU	3.31	339	iP	09	32.30	-2.9
VZW	3.34	27	iP	09	33.69	-2.1
CRP	3.40	339	eP	09	34.01	-2.7
			eS	10	12.27	
CGLM	3.42	341	eP	09	34.14	-2.7
RAGM	3.42	46	iP	09	35.25	-1.6
VLZ	3.46	28	iP	09	35.81	-1.5
			eS	10	13.57	
PLRM	3.50	4	eP	09	35.70	-2.1
PMR	3.50	4	ePc	09	35.20	-2.6
PME	3.54	5	eP	09	36.74	-1.7
GHO	3.68	5	eP	09	38.53	-2.1
SML	3.76	10	iP	09	39.55	-2.2
KLU	3.87	28	iP	09	41.41	-1.9
SVW	4.26	317	eP	09	44.90	-3.9
TOA	4.36	22	eP	09	48.90	-1.3
GLB	4.45	39	iP	09	49.38	-2.1
CTGM	5.10	52	iP	09	58.00	-2.8
			eS	10	54.87	
BCPM	5.49	66	iP	10	04.11	-2.0
YKA	17.75	61	eP	12	50.30	-0.5
MBC	21.16	20	eP	13	30.00	0.7

39 obs. associated

MAR 27, 1989 04h 51m 20.55± 0.91s
34.897 N ± 8.7km 26.852 E ± 7.5km
DEPTH = 10.0km (geophysicist)
CRETE (370)
MD 3.9 (ATH).

KAP	0.70	22	iPgc	51	34.50	0.1
			eSg	51	43.80	
NPS	1.08	290	iPbc	51	41.00	0.1
			eSb	51	58.30	
YER	2.52	27	iPn	52	01.30	-0.9
KSL	2.54	61	ePb	52	03.00	0.6
ELL	3.09	52	ePn	52	11.00	0.6
DSI	7.88	113	eP	53	17.00	-0.8
			eS	54	43.00	
PRNI	8.23	121	eP	53	50.00	27.1X
MBH	8.50	125	eP	53	27.00	0.5
			e(S)	55	57.00	

S.D. = 0.8 on 7 of 8 obs.

MAR 27, 1989 05h 19m 40.96± 0.58s
17.870 S ±11.3km 178.780 W ± 8.5km
DEPTH = 570.7 ± 6.9 km
4.8mb (18 obs.)
FIJI ISLANDS REGION (181)

VUN	2.63	267	ePc	20	56.60	0.5
SVA	2.64	264	eP	20	56.00	-0.1
DZM	14.50	251	iPc	22	44.40	-0.4
BRS	27.86	245	Pd	24	48.00	0.6
			i	24	50.20	
			e	25	00.00	
			e(PP)	26	30.00	
MSZ	28.96	200	P	24	55.20	-1.4
RMQ	31.19	248	iPd	25	16.30	0.4
	0.6s		48.00nm			5.3mb
			e	25	30.00	
CTA	33.10	260	iPc	25	32.20	0.2
	0.6s		82.33nm			5.5mb
CAN	33.45	232	iPd	25	35.50	0.7
BWA	33.55	234	eP	25	34.30	-1.4
PMG	34.11	280	eP	25	42.20	1.7
	0.9s		67.23nm			5.3mb
CMS	34.74	240	iPd	25	46.30	0.7
STK	38.34	241	iPd	26	16.50	1.4
	0.5s		32.00nm			5.2mb
QIS	39.31	259	eP	26	22.00	-1.1
ADE	41.36	237	eP	26	40.20	0.8
	0.6s		42.67nm			5.2mb
WB5	44.27	260	iPd	27	01.80	-0.6
WRA	44.29	260	Pd	27	01.70	-0.8
	0.7s		17.90nm			4.7mb
ASPA	44.46	254	iPd	27	04.10	0.3
	0.7s		312.00nm			5.9mb X
MTN	48.45	269	eP	27	33.70	-0.6
FORR	49.67	244	iPd	27	42.10	-0.9
	0.5s		83.00nm			5.5mb
WARB	50.96	251	iPd	27	47.40	-5.3X
	0.5s		19.00nm			4.8mb
COOL	55.65	244	eP	28	29.00	3.1X
MBL	57.65	256	iPd	28	38.90	-0.7
	0.4s		12.00nm			4.5mb
MEKA	58.19	249	iPd	28	42.50	-0.8
	0.6s		8.00nm			4.2mb
NANU	61.40	254	iPd	29	04.70	0.3
SPA	72.24	180	e(P)	30	10.80	0.6
	0.8s		12.08nm			4.5mb
PRS	76.45	44	ePc	30	34.30	0.4
PCC	76.45	43	ePc	30	33.70	-0.1
SAO	76.64	44	ePc	30	35.00	0.1
PRI	76.81	45	ePc	30	36.40	0.4
MHC	76.84	43	ePc	30	36.40	0.2
FRI	77.93	45	ePc	30	41.80	0.0
CMB	78.06	43	iPc	30	42.50	0.0
WDC	78.14	40	e(P)	30	42.90	0.0
ORV	78.20	42	eP	30	43.10	-0.1
MIN	78.59	41	eP	30	44.90	-0.5
GLA	79.30	50	eP	30	50.00	0.8
KVN	80.11	44	iP	30	53.10	-0.3
TNP	80.18	45	iP	30	54.00	0.2
	0.9s		7.42nm			4.1mb
EUR	81.74	44	iP	31	01.80	0.0
	0.1s		19.93nm			5.6mb
PMR	82.65	14	eP	31	04.20	-1.3
	1.0s		10.00nm			4.3mb
PNT	84.90	34	eP	31	17.00	0.0
	0.8s		14.00nm			4.6mb
FBA	85.85	13	eP	31	19.70	-1.5
	0.8s		7.59nm			4.5mb
ALQ	86.35	52	eP	31	24.00	-0.5
	0.9s		2.31nm			3.9mb
BGMT	87.14	41	ePc	31	28.40	0.4
LRM	87.17	40	eP	31	27.90	-0.3
BW06	87.57	44	iP	31	30.00	-0.2
	1.0s		8.75nm			4.5mb
GOL	89.10	48	eP	31	37.10	-0.2
SES	90.20	36	iPc	31	42.00	0.2
INK	91.94	15	eP	31	48.00	-1.4
YKA	94.44	25	eP	32	01.50	0.6
CLL	145.35	347	ePKP	38	12.00	-3.4X
BRG	145.54	346	ePKP	38	17.50	1.8
	1.0s		12.00nm			
PRU	146.22	344	ePKP	38	19.00	2.2
			e	38	21.00	
KHC	147.25	345	PKP	38	22.10	3.5X
CDF	149.14	352	ePKP	38	26.70	5.1X
FLN	149.16	2	ePKP	38	25.90	4.4X
LDF	149.34	2	ePKP	38	26.10	4.3X
	0.4s		2.20nm			
GRR	149.51	3	ePKP	38	27.30	5.3X
	0.4s		2.20nm			
HAU	149.65	353	ePKP	38	27.80	5.5X
LPF	149.86	3	ePKP	38	28.10	5.6X
	0.4s		3.80nm			
BGF	151.36	358	ePKP	38	31.70	6.8X
	0.7s		3.30nm			
MAF	151.71	358	ePKP	38	32.80	7.4X

S.D. = 0.8 on 50 of 62 obs.

? MAR 27, 1989 06h 08m 34.60± 7.62s
38.854 N ±25.2km 16.564 E ±82.5km
DEPTH = 10.0km (geophysicist)
SOUTHERN ITALY (390)

TDS	0.82	348	P	08	50.50	0.0
			eSg	09	05.00	
MSI	1.02	231	P	08	53.10	-0.8
ATN	1.11	232	P	08	55.40	0.0
			eSn	09	11.40	
MGR	1.50	329	P	09	01.30	-0.3
			eSn	09	21.90	
MNO	1.73	238	P	09	06.10	1.0
BSS	2.36	326	P	09	14.10	0.1

S.D. = 0.8 on 6 of 6 obs.

? MAR 27, 1989 06h 14m 41.65± 4.77s
6.090 N ±21.6km 126.649 E ±28.5km
DEPTH = 68.7 ± 39.3 km
4.6mb (7 obs.)
MINDANAO, PHILIPPINE ISLANDS (259)

MNI	4.96	201	eP	15	55.20	-0.1
KNA	21.80	175	iPc	19	30.50	0.9
	0.5s		17.00nm			4.7mb
WB5	26.90	164	eP	20	19.00	0.7
			i	20	22.90	
QIS	29.38	155	eP	20	42.00	1.3
ASPA	30.41	167	iPc	20	49.70	-0.1
	0.5s		3.00nm			4.3mb
MEKA	33.45	193	eP	21	15.00	-1.3
	0.4s		9.00nm			5.0mb
FORR	36.76	178	eP	21	45.00	0.7
	0.4s		8.00nm			5.0mb
BRS	41.79	144	P	22	23.60	-2.6
			i	22	29.40	
BWA	45.24	154	eP	22	58.00	3.9X
CAN	46.25	155	eP	23	05.30	3.3X
GBA	48.99	283	Pc	23	23.20	-0.4
	0.8s		4.50nm			4.5mb
SUF	89.42	333	iP	27	32.70	0.7
SLL	95.94	333	ePKP	28	01.90	-0.2
	0.5s		1.00nm			4.6mb
NAO	96.91	334	P	28	06.60	0.2
	0.7s		0.80nm			4.4mb

S.D. = 1.3 on 12 of 14 obs.

& MAR 27, 1989 07h 37m 11.30s
37.277 N 121.633 W
DEPTH = 1.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 1.6 (BRK). Felt at San Jose.

MHC	0.06	354	iPd	37	12.70	0.0
			iS	37	14.80	
ARN	0.11	48	iPd	37	13.50	0.0
GCC	0.38	230	eP	37	18.70	-0.2
			iS	37	24.60	
SAO	0.53	164	iPd	37	22.10	0.2
PCC	0.64	291	ePc	37	23.80	-0.2
BKS	0.77	322	eP	37	27.00	0.4
BRK	0.78	320	e(P)	37	26.60	-0.2
LLA	0.86	140	ePd	37	27.70	-0.8
PRS	0.97	167	ePc	37	29.30	-1.2
CMB	1.25	52	e(P)	37	35.80	0.5
			iS	37	51.30	

10 obs. associated

MAR 27, 1989 09h 05m 14.49± 0.80s
9.768 S ± 7.1km 119.926 E ± 8.9km
DEPTH = 77.3 ± 8.8 km
4.7mb (10 obs.)
SUMBA ISLAND REGION (287)
Felt (III) at Waingapu.

WSI	0.38	75	iPc	05	27.50	0.4
			iS	06	13.50	
			e	13	56.00	
KUG	3.63	97	eP	06	32.20	22.7X
			eS	07	06.00	
			e	11	35.00	
KHKI	4.49	288	ePd	06	21.20	-0.3
			e(S)	07	10.10	
			e	10	57.00	
MKS	4.54	354	iPc	06	24.30	2.0
			i(S)	07	13.00	
			e	10	16.00	
DNP	4.78	283	eP	06	29.00	3.4X
KNA	10.47	125	eP	07	41.00	-3.0X
	0.3s		23.00nm			5.6mb X
			eS	09	30.00	
MBL	11.33	180	eP	07	51.00	-4.5X
	0.3s		26.00nm			5.6mb X
			eS	09	45.00	

27d 09h

MTN	11.41	107	eP	07	53.00	-3.5X
	0.2s	256.00nm			6.8mb	X
			eS	09	51.00	
NANU	13.40	198	eP	08	18.00	-4.8X
			eS	10	35.00	
MEKA	16.81	184	eP	09	05.00	-1.4
	0.4s	16.00nm			4.6mb	
			eS	11	55.00	
WB5	17.19	127	eP	09	08.70	-2.5
			eS	12	06.00	
WRA	17.20	128	Pc	09	08.90	-2.5
	0.5s	18.80nm			4.6mb	
WARB	17.52	160	eP	09	09.00	-6.3X
	0.4s	12.00nm			4.5mb	
			iS	12	11.70	
ASPA	19.21	138	iPd	09	34.00	-1.3
			eS	12	54.50	
MRWA	19.70	190	eP	09	42.00	1.7
	0.3s	4.00nm			4.2mb	
			eS	13	00.00	
BAL	20.95	188	eP	09	53.00	-0.1
			eS	13	30.00	
COOL	21.04	177	eP	09	53.00	-1.1
			eS	13	35.00	
QIS	21.79	122	eP	10	02.00	0.4
			e	13	55.00	
KLB	21.81	185	eP	10	03.00	1.3
			eS	13	46.00	
FORR	22.31	161	eP	10	07.30	0.6
	0.5s	14.00nm			4.6mb	
MUN	22.37	188	eP	10	17.00	9.8X
			eS	14	03.00	
NWAO	23.18	186	eP	10	16.00	0.9
			eS	14	23.00	
PSI	24.31	300	iPd	10	26.40	0.2
RKG	24.33	186	eP	10	33.00	6.7X
CTA	27.39	115	iPd	10	55.60	0.8
	0.9s	67.23nm			5.2mb	
			i	10	58.50	
			i	11	12.50	
			i(pP)	11	26.50	147kmX
			iPcP	13	04.50	
			e(S)	16	26.00	
			e(ScP)	16	53.00	
STK	29.78	141	eP	11	16.00	-0.1
BDT	33.88	322	iPc	11	52.10	0.1
	0.7s	39.10nm			5.4mb	
CHG	35.14	324	eP	12	02.70	-0.1
	1.0s	10.50nm			4.7mb	
CHTO	35.14	324	iP	12	03.80	1.0
	0.9s	9.59nm			4.7mb	
BRS	35.57	124	iP	12	08.20	1.7
			i	12	10.70	
			e	12	22.00	
			i(pP)	12	38.20	133kmX
			e	14	28.00	
BWA	35.81	138	eP	12	12.70	4.3X
CAN	36.73	138	eP	12	17.80	1.7
SHL	44.49	323	eP	13	19.90	-0.4
GUN	49.89	320	P	14	02.00	-0.7
PKI	49.96	319	P	14	02.00	-1.2
DMN	50.18	319	P	14	03.60	-1.2
KKN	50.19	319	P	14	04.00	-0.8
GKN	50.75	319	P	14	08.20	-0.8
MSZ	53.93	139	P	14	33.00	0.7
MAIO	72.93	313	eP	16	37.00	-0.6
SPA	80.30	180	e(P)	17	20.00	1.7
	0.5s	9.26nm			5.0mb	
LPB	152.69	163	PKPc	25	09.00	11.2X
ZOBO	152.93	163	PKP	25	09.00	10.6X

S.D. = 1.3 on 31 of 43 obs.

MAR 27, 1989 10h 59m 00.89± 0.56s
71.456 N ± 9.3km 64.293 W ± 7.1km
DEPTH = 10.0km (geophysicist)
4.2mb (4 obs.)
BAFFIN BAY (681)

GDH	4.25	116	iPc	00	06.10	-1.0
	0.3s	148.05nm				
			i	00	51.00	
IGL	6.24	259	eP	00	30.00	-5.1X
			eS	01	35.50	
FRB	7.91	194	eP	00	52.00	-6.6X
RES	9.41	304	eP	01	19.50	0.2
			eS	03	00.40	
ALE	11.12	1	eP	01	41.50	-1.2
DAG	13.20	46	iPc	02	08.00	-2.5X
	0.6s	23.33nm			5.5mb	X
BLC	13.75	255	eP	02	10.00	-7.9X
			eS	04	35.00	
MBC	15.48	313	eP	02	35.30	-5.0X
SCH	16.74	185	eP	02	47.00	-9.7X
FCC	17.58	239	eP	03	00.00	-7.1X
JAQ	18.42	202	eP	03	10.90	-6.6X
YKC	20.90	270	eP	03	44.80	-0.5
	0.5s	8.00nm			4.3mb	
YKA	20.94	270	eP	03	45.30	-0.3
FFC	23.28	244	eP	04	09.00	0.0
RSON	24.56	228	eP	04	21.00	-0.5
	0.8s	3.21nm			4.0mb	
			eS	08	45.00	
GAC	26.38	198	eP	04	38.00	-0.6
NAO	29.99	71	P	05	12.10	1.0
	0.6s	2.40nm			4.2mb	
HFS	31.40	70	eP	05	24.60	1.0
	0.4s	1.50nm			4.3mb	
BGMT	34.67	247	eP	05	54.20	1.8
			e	06	01.00	

S.D. = 1.0 on 11 of 19 obs.

& MAR 27, 1989 11h 06m 06.22s
60.665 N 151.639 W
DEPTH = 61.6km
KENAI PENINSULA, ALASKA (14)
<AGS-P>.

NKA	0.21	68	iP	06	17.71	1.7
			eS	06	28.40	
RDT	0.39	257	iP	06	16.99	-0.4
			eS	06	26.39	
SPU	0.56	339	iP	06	18.61	-0.5
NNL	0.65	165	iP	06	20.58	0.5
			eS	06	30.81	
CRP	0.65	338	iP	06	20.23	-0.1
CGLM	0.67	345	iP	06	19.98	-0.4
			eS	06	30.56	
SLKM	0.72	102	iP	06	20.16	-0.8
ILIM	0.88	229	iP	06	22.43	-0.5
			eS	06	35.16	
SUA	0.91	28	iP	06	23.14	-0.3
CNPM	1.16	170	iP	06	25.98	-0.7
			eS	06	41.94	
SEW	1.22	116	iP	06	26.82	-0.6
			eS	06	44.47	
PTE	1.30	80	iP	06	27.74	-0.7
			eS	06	46.52	
SKT	1.32	2	iP	06	27.82	-1.0
			eS	06	46.40	
PLRM	1.53	52	iP	06	30.56	-1.1
			eS	06	50.19	
PMR	1.53	52	eP	06	30.40	-1.3
PDB	1.55	236	iP	06	30.43	-1.5
			eS	06	48.79	
PME	1.59	51	eP	06	31.61	-0.9
PWL	1.63	82	iP	06	32.21	-0.9
GHO	1.72	49	eP	06	33.88	-0.5
KNIM	1.96	98	iP	06	34.71	-2.9
SML	1.97	53	iP	06	36.38	-1.4
SVW	2.00	285	eP	06	35.80	-2.4
MTU	2.10	107	iP	06	37.55	-2.0
			eS	07	01.25	
GLI	2.24	83	iP	06	40.14	-1.4
			eS	07	06.78	
VZW	2.52	79	eP	06	43.19	-2.3
FID	2.54	86	eP	06	43.05	-2.7
			eS	07	12.36	
VLZ	2.64	77	iP	06	44.50	-2.6
KLU	2.90	71	iP	06	48.57	-2.4
KDC	2.96	189	eP	06	48.80	-2.9
TOA	3.00	59	eP	06	51.00	-1.4
TTA	3.08	319	eP	06	51.70	-1.8
SGAM	3.18	90	eP	07	01.38	6.5
FBA	4.60	21	eP	07	12.40	-2.4
CTGM	5.05	82	eP	07	23.82	2.5
IMA	5.50	351	eP	07	25.10	-2.5

35 obs. ossociated

MAR 27, 1989 14h 46m 28.94± 0.49s
45.888 N ± 3.8km 2.931 E ± 4.0km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.6 (LDG).

PYM	0.15	159	Pg	46	32.50	0.0
			Sg	46	34.83	
AGO	0.22	40	Pg	46	33.42	-0.2
			Sg	46	36.33	
MAF	0.42	323	Pg	46	37.20	-0.3
			Sg	46	42.70	
PLDF	0.49	80	Pg	46	38.56	-0.3
			Sg	46	44.98	
TCF	0.64	309	Pg	46	41.60	-0.2
			Sg	46	49.90	
BGF	0.67	355	Pg	46	41.60	-0.7
			Sg	46	50.20	
LBL	0.69	161	Pg	46	42.52	-0.1
AVF	0.95	18	Pg	46	47.00	0.0
			Sg	46	59.00	
SMF	0.99	40	Pg	46	47.80	0.1
			Sg	47	00.40	
LSF	1.04	291	Pg	46	49.10	0.5
			Sg	47	02.20	
SSF	1.24	19	Pg	46	52.50	0.5
			Sg	47	08.20	
LBF	1.31	33	Pg	46	53.80	0.5
			Sg	47	10.40	
LOR	1.52	25	Pg	46	58.30	2.1X
			Sg	47	16.80	

S.D. = 0.4 on 12 of 13 obs.

& MAR 27, 1989 14h 58m 25.95s
61.206 N 152.002 W
DEPTH = 97.9km
SOUTHERN ALASKA (2)
<AGS-P>.

SPU	0.04	226	iP	58	39.29	1.1
CRP	0.10	310	iP	58	39.52	1.1
CGLM	0.10	359	eP	58	39.55	1.2
NKA	0.60	141	iP	58	43.92	1.5
RDT	0.66	197	iP	58	42.48	-0.7
			eS	58	55.70	
SKT	0.81	16	eP	58	43.85	-0.7
SLKM	1.12	128	iP	58	47.30	-0.6
NNL	1.22	163	eP	58	49.73	0.7
ILIM	1.22	203	iP	58	48.10	-1.1
			eS	59	05.81	
PLRM	1.43	73	eP	58	50.17	-1.5
PTE	1.49	102	iP	58	51.01	-1.3
			eS	59	10.47	
GHO	1.58	68	eP	58	52.58	-1.0
SEW	1.67	130	eP	58	53.68	-1.0
			eS	59	15.67	
CNPM	1.73	167	eP	58	54.37	-1.1
			eS	59	16.58	
PDB	1.79	218	iP	58	55.13	-1.0
PWL	1.82	99	iP	58	54.70	-1.9
			eS	59	18.40	
SML	1.86	69	eP	58	55.31	-1.8
KNIM	2.26	110	iP	58	59.32	-3.1
GLI	2.41	96	eP	59	01.08	-3.3
			eS	59	30.56	
MTU	2.47	118	eP	59	03.97	-1.3
			eS	59	32.33	
TTA	2.56	314	eP	59	03.88	-2.6
VZW	2.65	91	iP	59	05.06	-2.6
			eS	59	36.88	
FID	2.73	97	eP	59	05.44	-3.3
			eS	59	37.60	
VLZ	2.75	89	eP	59	06.46	-2.5
			eS	59	39.00	
KLU	2.94	82	eP	59	09.25	-2.5
			eS	59	43.77	
FBA	4.17	25	eP	59	25.92	-2.6

26 obs. associated

MAR 27, 1989 15h 24m 01.29± 0.78s
39.197 N ± 7.1km 23.460 E ± 8.7km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.4 (ATH).

NEO	0.21	301	iPgd	24	06.50	0.6
PLG	1.18	359	iPbc	24	22.10	-1.2
ATH	1.24	171	ePb	24	22.60	-1.7
KZN	1.71	311	ePb	24	31.30	-0.1
PRK	2.18	88	ePb	24	39.90	1.7
VAY	2.23	342	ePn	24	37.60	-1.2
ITM	2.35	211	ePn	24	41.20	0.7
OHR	2.80	314	ePn	24	47.80	0.9

SKO 3.17 332 ePn 24 44.00 -8.1X
MGR 6.17 281 P 25 34.90 0.2
eSn 26 49.90
S.D. = 1.3 on 9 of 10 obs.

MAR 27, 1989 15h 45m 44.58± 0.95s
12.147 N ± 3.3km 144.161 E ± 4.3km
DEPTH = 33.2 ± 8.5 km
5.3mb (40 obs.) 4.9Msz (9 obs.)
SOUTH OF MARIANA ISLANDS (210)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 12S, 22C
Centroid Locotion:
Origin Time 15:45:47.4 0.9
Lot 12.20N 0.10 Lon 144.10E 0.08
Dep 37.0 FIX Half-durotion 1.7
Moment Tensor; Scole 10**16 Nm
Mrr= 2.02 0.37 Mtt= 7.72 0.55
Mff=-9.74 0.57 Mrt=-2.11 1.15
Mrf= 1.05 1.01 Mtf= 0.96 0.51
Principal Axes:
T Val= 8.44 Plg=18 Azm=178
N 1.48 71 340
P -9.91 6 86
Best Double Couple:Mo=9.2*10**16
NP1:Strike=221 Dip=73 Slip= 171
NP2: 313 81 17

GUA 1.56 28 ePc+ 46 10.50 0.1
eS 46 31.50
GUMO 1.59 26 eP 46 10.80 0.1
PJG 1.59 26 ePc 46 10.70 0.0
RAB 18.08 153 eP 49 55.00 0.0
1.0s 280.00nm 5.4mb
eS 53 12.00
LAT 18.89 171 e(P) 50 06.00 1.1
DAV 19.00 256 eP 50 08.60 2.4
1.1s 334.18nm 5.5mb
PMG 21.62 172 eP 50 30.00 -4.0X
MNI 21.91 242 ePc 50 38.00 1.1
AAI 22.35 226 ePd 50 42.60 1.4
0.6s 43.10nm 5.1mb
KAGJ 22.57 329 eP 50 43.40 0.1
BAG 23.24 283 eP 50 51.00 0.8
eS 55 02.00
KUMJ 23.70 331 eP 50 54.20 -0.1
IIDJ 23.91 347 P 50 59.30 2.9
CHJJ 24.25 350 P 50 58.80 -0.9
SHK 24.61 337 eP 51 04.00 0.8
MAT 24.87 349 eP 51 05.00 -0.7
0.7s 23 29nm 4.9mb
Z 20s 2.48um 4.7Msz
eS 55 06.00
MTMJ 25.00 348 P 51 06.30 -0.7
ANP 25.01 304 e(P) 51 20.00 12.8X
NIIJ 25.41 350 P 51 09.90 -0.8
VSG 26.28 143 eP 51 20.00 1.0
HNR 26.57 143 eP 51 23.00 1.4
OFUJ 26.91 356 eP 51 23.70 -0.9
PCI 27.41 243 eP 51 30.00 0.6
MTN 27.99 208 eP 51 32.00 -2.6
SSE 28.38 315 Pc 51 39.00 1.0
1.1s 29.00nm 4.9mb
Z 18s 0.90um 4.4Msz
N 14s 0.90um
E 12s 1.10um
eS 56 02.00
esS 56 32.00
MKS 30.01 236 e(P) 51 53.60 0.9
NJ2 30.56 314 Pd 51 56.50 -0.9
PP 53 02.50
KNA 31.63 209 eP 52 07.00 0.1
1.0s 55.00nm 5.4mb
CTA 32.10 176 iPc 52 09.30 -1.7
1.0s 77.50nm 5.6mb
Z 21s 568.10um 7.2MszX
i 52 11.50
ipP 52 22.20 50kmX
isP 52 34.00
eS 57 22.00
e(PcS) 58 32.00
QIS 32.81 188 eP 52 16.00 -1.2
e 52 29.00
WHN 33.10 308 Pd 52 19.70 0.0
Z 24s 1.80um 4.7MszX
N 12s 1.30um
eS 57 42.00
WB5 33.25 197 iPd 52 20.00 -1.1
i 52 37.90
eS 55 36.30
WRA 33.32 197 Pc 52 19.10 -2.6
0.8s 26.70nm 5.2mb
DL2 33.33 327 eP 52 21.50 -0.1
QIZ 33.71 286 eP 52 26.60 1.4
Z 16s 2.20um 5.0MszX
E 16s 1.60um
eS 57 50.00
SS 59 51.00
TIA 34.17 319 eP 52 28.00 -0.9
N 13s 1.20um
SNY 34.60 332 eP 52 32.80 0.3
Z 19s 1.30um 4.7Msz
N 33s 2.30um
E 30s 2.20um
eS 57 53.00
MDJ 34.69 342 eP 52 32.00 -1.2
Z 15s 1.74um 4.9MszX
N 14s 1.10um
ePP 53 45.00
S 58 00.00
CN2 35.43 336 eP 52 38.00 -1.6
Z 14s 2.30um 5.1MszX
E 12s 1.10um
pP 52 44.00 20kmX
ASPA 36.98 196 iPd 52 52.40 -0.5
0.7s 90.00nm 5.7mb
BJI 37.16 323 eP 52 53.00 -1.2
Z 16s 0.90um 4.7MszX
N 10s 0.60um
eS 58 40.00
GYA 37.99 298 P 53 02.80 1.3
Z 18s 1.60um 4.9Msz
N 12s 1.00um
TIY 38.09 317 iPd 53 02.50 0.3
N 11s 1.20um
E 12s 0.90um
sP 53 16.50
RMO 38.66 173 eP 53 05.00 -1.9
e 53 18.00
XAN 38.76 310 Pc 53 07.20 -0.7
S 59 05.50
BRS 40.18 168 iP 53 19.00 -0.6
i 53 32.20
i 53 38.00
i(pP) 53 51.00 144kmX
i(sP) 54 09.70
eS 57 46.00
eScP 59 51.00
i 05 40.00
DZM 40.43 147 iPc 53 22.00 0.3
pP 53 35.60 52kmX
HHC 40.43 321 eP 53 21.40 -0.2
Z 30s 1.60um 4.7MszX
N 13s 0.70um
E 15s 1.10um
MBL 40.83 216 eP 53 25.00 0.1
1.0s 74.00nm 5.4mb
KMI 41.15 294 Pc 53 29.50 1.6X
Z 20s 2.10um 5.0Msz
pP 53 54.00 105kmX
eS 57 43.00
BTO 41.25 320 eP 53 28.00 -0.4
N 16s 1.10um
E 14s 1.00um
epP 53 42.50 56kmX
CD2 41.68 303 Pc 53 32.00 0.1
KGM 41.70 259 ePc 53 34.60 2.4
WARB 41.74 204 iPd 53 28.20 -4.2X
0.4s 15.00nm 5.1mb
e 53 41.00
IPM 43.29 264 ePc 53 47.20 2.0
LZH 43.40 310 eP 53 46.50 0.4
1.5s 242.00nm 5.7mb
Z 20s 1.10um 4.8Msz
N 15s 0.90um
E 11s 0.20um
i 54 10.50
e(S) 00 16.00
STK 43.85 183 eP 53 48.00 -1.4
CHTO 43.98 285 eP 53 51.40 0.6
1.0s 10.50nm 4.6mb
NANU 44.47 219 iPd 53 55.40 0.8
0.6s 49.00nm 5.5mb
FORR 45.45 200 iPd 54 03.00 0.7
0.5s 13.00nm 5.1mb
MEKA 45.88 213 eP 54 06.00 0.2
1.0s 28.00nm 5.1mb
BWA 46.49 175 eP 54 08.40 -2.1
e 54 22.00
SMY 47.06 24 P 54 14.00 -0.7
0.6s 49.26nm 5.7mb
ADE 47.14 186 iPc 54 15.70 0.0
1.0s 50.00nm 5.5mb
CAN 47.43 175 eP 54 17.10 -0.9
e 54 30.40
GTA 47.63 313 iPc 54 19.40 -0.3
Z 16s 1.20um 5.0MszX
N 12s 0.80um
COOL 48.16 207 eP 54 24.00 0.2
TOO 49.47 179 eP 54 34.00 0.3
e 54 47.00
BAL 50.04 211 eP 54 39.00 0.8
KLB 50.32 210 eP 54 40.00 -0.3
ADK 50.65 30 P 54 40.00 -2.5
0.7s 29.07nm 5.4mb
SHL 50.94 293 eP 54 45.40 0.0
eS 02 04.00
MUN 51.40 211 eP 54 49.00 0.5
NWAO 51.67 209 eP 54 50.00 -0.5
LSA 52.05 298 P 54 55.00 0.9
eS 02 16.00
RKG 52.72 208 eP 55 01.50 3.1X
TAU 54.86 177 eP 55 08.00 -6.0X
GUN 56.47 295 P 55 26.20 -0.2
PKI 56.87 295 P 55 29.40 0.2
KKN 56.99 295 P 55 29.80 -0.2
DMN 57.14 295 P 55 30.40 -0.7
GKN 57.57 295 P 55 33.60 -0.4
WMQ 57.64 314 P 55 34.00 -0.1
Z 20s 1.40um 5.1Msz
N 12s 0.60um
E 12s 0.60um
S 03 32.50
KRP 57.84 151 P 55 34.70 -0.6
MSZ 60.52 161 P 55 52.00 -1.7
HYB 63.40 283 ePc 56 13.30 -0.3
1.0s 70.00nm 5.7mb
i 56 26.20
i 56 38.00
eS 04 48.00
NDI 64.13 296 iPd 56 17.50 -0.8
KSH 65.56 308 eP 56 28.50 1.0
N 13s 0.80um
KDC 65.69 32 P 56 25.50 -2.2
1.2s 34.85nm 5.3mb
TTA 65.75 26 eP 56 26.70 -1.5
POO 67.75 285 iPc 56 41.20 -0.4
1.2s 40.63nm 5.4mb
IMA 67.84 23 eP 56 40.20 -1.3
1.1s 10.90nm 4.9mb
PMR 68.38 28 ePd 56 42.50 -2.2
0.8s 22.30nm 5.3mb
FBA 69.82 25 eP 56 51.40 -2.1
TOA 69.86 28 eP 56 53.60 -0.3
PMO 72.48 110 iP 57 15.00 4.7X
0.8s 10.00nm 4.9mb
RUV 73.00 110 eP 57 18.00 4.6X
0.8s 10.00nm 4.9mb
QUE 73.02 298 iPc 57 13.50 -0.2
eS 06 40.00
INK 75.96 22 eP 57 28.50 -1.1
0.9s 35.00nm 5.4mb
pP 57 42.00 47kmX
MAIO 78.66 305 iPd 57 46.90 1.6
1.1s 20.61nm 5.1mb
eS 07 44.00
MBC 79.83 14 eP 57 50.00 -0.8
0.7s 52.00nm 5.6mb
BMW 83.09 44 P 58 10.00 1.5
GMW 83.19 43 P 58 10.00 1.1
HTW 83.82 43 P 58 11.00 -1.2
LON 84.00 44 P 58 10.00 -3.1X
YKA 84.45 27 eP 58 15.50 0.6
YKC 84.51 27 eP 58 15.00 -0.2
0.7s 15.00nm 5.3mb
WDC 84.69 50 ePc 58 18.40 1.8
e 58 45.40
ALE 84.70 3 eP 58 16.00 0.1
1.0s 57.00nm 5.7mb
MIN 85.43 50 ePc 58 21.50 1.0

27d 15h

ORV	85.68	51	eP	58	22.60	1.0
MHC	86.03	53	eP	58	25.60	2.1
ARN	86.11	53	P	58	24.00	0.2
PRS	86.46	54	ePc	58	27.50	2.0
			e	58	54.20	
LLA	86.73	53	e(P)	58	31.50	4.6X
CMB	86.85	52	ePc	58	29.10	1.6
			e	58	55.80	
PRI	87.06	54	eP	58	31.20	2.6X
FRI	87.61	53	ePc	58	32.70	1.7
KEV	87.67	342	eP	58	31.00	0.3
EDM	87.71	36	ePd	58	32.00	0.7
	1.1s	58.00nm			5.8mb	
TAB	88.67	309	eP	58	38.00	1.7
ISA	88.90	54	eP	58	39.00	1.6
SOD	88.98	340	iP	58	36.90	-0.1
PAS	89.51	55	eP	58	44.00	3.8X
CLC	89.55	54	eP	58	42.00	1.6
MWC	89.58	55	eP	58	40.00	-0.8
SBB	89.65	55	eP	58	42.00	1.1
EUR	89.85	50	iP	58	43.00	1.0
SES	89.96	38	eP	58	43.00	1.0
KJF	90.15	337	eP	58	41.00	-1.5
	0.9s	16.90nm			5.3mb	
RVR	90.19	55	eP	58	43.00	-0.3
GSC	90.31	54	eP	58	46.00	2.0
LRM	90.51	43	eP	58	45.90	1.0
BGMT	90.97	43	eP	58	47.60	0.6
BAR	91.09	56	eP	58	49.00	1.4
TPC	91.22	55	eP	58	50.00	1.8
SUF	91.49	336	iP	58	47.10	-1.7
	0.7s	13.70nm			5.5mb	
IMW	92.14	44	P	58	54.00	1.5
GLA	92.49	56	eP	58	55.00	1.0
NUR	93.25	334	eP	58	55.00	-1.9
	0.7s	10.70nm			5.4mb	
Z	19s	0.70um			5.1Msz	
		LR		47	20.00	
FFC	93.39	32	eP	58	58.00	0.3
	1.3s	27.00nm			5.5mb	
BW06	93.46	45	P	58	59.00	0.4
	1.3s	11.27nm			5.1mb	
HFS	97.85	337	ePKP	59	15.50	-2.4
	0.4s	1.50nm			4.9mb	
Z	16s	0.28um			4.8MszX	
		LR		44	17.00	
NAO	98.43	339	P	59	18.80	-1.7
	0.9s	3.30nm			4.9mb	
ALQ	98.48	52	eP	59	22.00	0.5
	1.0s	3.75nm			4.9mb	
Z	20s	0.53um			5.0Msz	
FRB	100.29	14	ePdiff	59	19.00	-9.7X
KRA	101.22	327	ePdiff	59	32.20	-1.0
		e		59	46.70	
SPC	101.55	326	ePdiff	59	33.00	-1.9X
SKO	104.77	320	ePdiff	59	48.00	-1.2
KBA	106.51	327	ePKP	03	46.50	-21.5X
		e		04	02.00	
KOGH	140.24	295	ePKP	05	16.00	3.1X
KIC	144.02	299	PKP	05	17.54	-1.9
	1.0s	63.00nm				
TIC	144.12	300	PKP	05	17.74	-1.9
	1.0s	59.00nm				
LIC	144.34	299	PKP	05	18.58	-1.4
	0.9s	102.00nm				
ARE	145.22	101	iPKPc	05	23.40	1.6
TRN	145.98	49	ePKP	05	23.00	0.3
CYA	147.69	125	ePKPc	05	29.00	3.8X
ZOBO	148.46	101	PKP	05	30.00	2.6X
	1.0s	20.00nm				
		LR		54	36.00	
LPB	148.46	102	ePKPc	05	32.50	5.3X
	0.8s	40.30nm				
CCH	150.26	104	ePKP	05	38.00	8.2X
ITR	175.78	37	e(PKP)	06	05.00	12.1X
S.D. = 1.2 on 140 of 161 obs.						

% MAR 27, 1989 16h 50m 04.16± 0.94s
47.349 N ± 8.0km 6.465 E ±12.7km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.9 (LDG).

BSF	0.53	24	Pg	50	14.90	-0.1
HAU	0.66	353	Pg	50	18.40	1.0
			Sg	50	28.80	
CDF	1.20	27	Pn	50	25.70	-0.8
			Pg	50	26.60	
			Sg	50	41.20	
LBF	1.74	259	Pn	50	34.00	-0.6
			Pg	50	39.20	
			Sg	51	02.40	
LOR	1.78	268	Pg	50	39.80	4.7X
			Sg	51	04.00	
LPL	1.84	174	Pg	50	36.70	0.4
SMF	1.93	250	Pg	50	42.90	5.6X
			Sg	51	08.00	
SSF	2.04	263	Pg	50	45.20	6.3X
			Sg	51	12.40	
AVF	2.20	256	Pg	50	47.80	6.6X
			Sg	51	16.60	
WLF	2.33	355	eP	51	22.20	39.2X
BGF	2.60	254	Pg	50	55.20	8.2X
			Sg	51	30.60	
MAF	2.91	249	Pg	51	00.80	9.5X
S.D. = 1.1 on 5 of 12 obs.						

? MAR 27, 1989 18h 16m 41.33±11.86s
45.570 N ±55.2km 16.045 E ±71.3km
DEPTH = 5.0km (geophysicist)
YUGOSLAVIA (383)
ML 1.7 (ZAG).

ZAG	0.25	350	e(Pg)	16	46.20	-0.2
			iSg	16	52.00	
PTJ	0.34	350	iPgd	16	47.30	-0.8
			eSg	16	53.20	
VBY	0.56	264	iPgc	16	51.10	-1.4
			iSg	17	00.40	
CEY	1.15	279	e(Pg)	17	03.40	0.1
			eSg	17	20.80	
LJU	1.16	295	ePg	17	03.50	0.0
			eSg	17	21.20	
VOY	1.57	288	ePn	17	09.90	-0.2
			eSn	17	33.40	
TRI	1.61	276	eP	17	33.70	23.3X
RBL	1.93	298	P	17	17.30	2.0
			eSn	17	43.40	
KBA	2.40	310	eP	17	28.00	5.9X
	0.5s	1.50nm				
			e(Sg)	18	00.00	
S.D. = 1.3 on 7 of 9 obs.						

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* MAR 27, 1989 18h 20m 10.48± 1.03s
18.014 N ±14.3km 121.089 E ±15.9km
DEPTH = 33.0km (normal)
4.1mb (3 obs.)
LUZON, PHILIPPINE ISLANDS (249)

QIZ	10.72	277	P	22	44.40	-0.4
			S	24	38.70	
GYA	15.77	305	P	23	53.20	1.3
CD2	20.30	312	eP	24	46.00	-0.5
TIY	21.04	341	eP	24	54.00	0.0
BJI	22.36	350	eP	25	07.00	-0.1
HHC	24.19	342	eP	25	26.60	1.5
WB5	39.85	160	eP	27	46.80	4.0X
WRA	39.90	160	Pc	27	51.70	8.5X
	0.6s	0.80nm			3.7mb	
ASPA	43.27	163	eP	28	11.70	0.9
HFS	82.89	331	eP	32	31.70	-1.3
	0.5s	1.10nm			4.2mb	
NAO	83.89	332	PKP	32	36.60	-1.5
	0.9s	1.50nm			4.2mb	
S.D. = 1.2 on 9 of 11 obs.						

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* MAR 27, 1989 19h 43m 28.88± 0.65s
2.371 N ±10.9km 84.497 W ±16.5km
DEPTH = 33.0km (normal)
4.9mb (2 obs.) 4.2Msz (1 obs.)
OFF COAST OF CENTRAL AMERICA (76)

UPA	8.22	37	iPc	45	30.00	1.2
	1.3s	153.85nm			6.0mb	X
Z	18s	2.75um				
			iLR	47	42.00	
ZOBO	24.59	139	P	48	48.40	0.3
Z	20s	0.79um			4.2Msz	
			LR	57	28.00	
LPB	24.80	140	Pc	48	51.70	1.7
	1.0s	100.00nm			5.4mb	
CNCB	25.08	140	Pc	48	53.00	0.2
CCH	26.70	138	eP	49	06.00	-1.5
ALQ	38.31	330	eP	50	48.70	0.2
	1.0s	6.75nm			4.4mb	
ITA	45.97	125	e(P)	51	50.00	-1.4
SES	52.87	339	eP	52	44.00	0.2
FRB	62.35	8	eP	53	48.00	-2.2
YKA	64.04	345	eP	54	00.80	-0.6
INK	73.64	343	eP	55	01.00	0.4
WB5	138.25	242	ePKP	02	54.10	0.6
WRA	138.25	242	PKPd	02	54.40	0.9
	0.6s	2.00nm				
GKN	148.04	18	PKP	03	13.60	3.3X
	0.6s	8.00nm				
KKN	148.44	17	PKP	03	16.80	5.7X
	0.8s	10.00nm				
GUN	148.50	16	PKP	03	14.80	3.5X
DMN	148.56	18	PKP	03	17.00	5.7X
PKI	148.68	17	PKP	03	16.80	5.2X
S.D. = 1.2 on 13 of 18 obs.						

& MAR 27, 1989 20h 17m 22.28s
45.816 N 120.262 W
DEPTH = 12.2km
WASHINGTON-OREGON BORDER REGION (28)
<SEA>. CL 3.1 (SEA).

PATW	0.36	79	iPd	17	30.09	0.4
GL2	0.42	290	eP	17	31.02	0.1
JBO	0.46	140	eP	17	31.29	-0.5
VGB	0.47	230	eP	17	31.84	-0.1
VTHM	0.67	198	eP	17	34.98	-0.4
BRVW	0.70	16	eP	17	35.77	-0.1
YAKW	0.73	345	eP	17	36.26	-0.2
RSW	0.74	39	eP	17	36.49	-0.2
MXC	0.76	358	eP	17	36.97	0.0
MDW	0.87	23	eP	17	38.63	-0.2
WIW	0.92	47	eP	17	39.36	-0.2
GULW	0.94	277	eP	17	40.63	0.6
GBL	0.96	35	eP	17	40.27	-0.1
NAC	1.00	337	eP	17	40.47	-0.6
WG2	1.00	77	eP	17	40.54	-0.6
BVW	1.03	15	eP	17	41.30	-0.3
VLL	1.05	251	eP	17	42.57	0.5
ETP	1.06	52	eP	17	41.17	-0.8
WAH2	1.06	27	eP	17	42.48	0.5
EBG	1.11	349	eP	17	42.36	-0.7
CRF	1.18	31	eP	17	44.21	0.2
TBM	1.37	350	eP	17	46.84	-0.4
LNOR	1.38	87	eP	17	46.05	-1.3
TWW	1.39	343	eP	17	47.24	-0.2
WRD	1.39	33	eP	17	46.30	-1.1
FMW	1.48	319	eP	17	48.63	-0.3
EPH	1.61	16	eP	17	50.15	-0.4
27 obs. associated						

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* MAR 27, 1989 20h 46m 38.36± 1.70s
16.205 N ± 9.7km 60.806 W ±14.6km
DEPTH = 33.0km (normal)
LEEWARD ISLANDS (92)
ML 3.0 (FDF).

DEG	0.27	294	iPc	46	46.09	0.3
			S	46	50.50	
SFG	0.38	277	eP	46	47.43	0.3
MGG	0.57	240	iPd	46	49.85	-0.1
			S	46	58.60	
PAG	0.86	258	eP	46	54.04	0.0
			S	47	05.10	
BBL	0.94	224	eP	46	54.67	-0.5
			S	47	07.80	
DPMT	1.09	211	eP	46	57.83	0.4
			eS	47	13.78	
DTMT	1.10	209	eP	46	57.37	-0.2
			eS	47	13.78	
DSVT	1.11	209	eP	46	58.34	0.7
			eS	47	14.27	
CRM	1.45	184	iPc	47	02.34	-0.1
			S	47	20.50	
MGH	1.45	291	eP	47	02.03	-0.5
FDF	1.50	193	iPd	47	02.78	-0.5
			S	47	21.10	
MVM	1.64	183	iPc	47	05.44	0.1
			S	47	26.20	
BIM	1.70	189	eP	47	06.24	0.1
			S	47	27.50	
SKI	2.17	301	eP	47	01.02	-11.BX
			eS	47	18.59	
S.D. = 0.4 on 13 of 14 obs.						

MAR 27, 1989 21h 21m 25.19± 0.80s
38.816 N ± 7.0km 20.607 E ± 7.3km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 3.5 (ATH).

VLS	0.64	181	ePg	21 37.10	-0.9
SRN	1.16	336	ePn	21 46.40	-0.5
LSK	1.33	360	ePn	21 49.00	-0.8
KZN	1.74	31	ePn	21 56.90	1.2
KBN	1.81	5	ePn	22 00.00	3.4X
ITM	1.94	147	ePg	22 02.00	3.5X
NEO	2.10	76	ePn	22 02.60	1.8
OHR	2.30	4	ePn	22 04.10	0.3
LCI	2.55	307	P	22 08.70	1.5
			eSn	22 45.60	
ATH	2.58	108	ePg	22 14.50	6.8X
TIR	2.59	348	ePn	22 10.50	2.7X
PLG	2.69	54	ePn	22 08.60	-0.7
PHP	2.87	358	ePn	22 15.50	3.7X
VAY	2.92	30	ePn	22 11.50	-1.0
SKO	3.22	11	ePn	22 19.00	2.3X
			i	22 24.00	
PUK	3.27	351	ePn	22 14.70	-2.7X
SDA	3.31	346	ePn	22 18.50	0.5
BRT	3.33	309	P	22 18.80	0.4
			eSn	23 16.20	
BCI	3.57	354	ePn	22 20.00	-1.7
RDO	4.45	57	ePn	22 34.00	-0.2

S.D. = 1.2 on 13 of 20 obs.

? MAR 27, 1989 21h 21m 58.35± 4.51s
44.228 N ±16.4km 9.197 E ±31.6km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)

GEN	0.27	315	P	22 03.80	-0.2
			S	22 09.60	
FIN	0.71	269	P	22 12.70	0.3
			S	22 24.10	
ROB	0.96	274	P	22 16.10	-0.5
			S	22 31.50	
IMI	0.99	252	P	22 17.10	-0.2
			S	22 30.90	
ORX	1.65	329	P	22 26.90	-0.6
			S	22 47.30	
RSP	1.66	304	P	22 28.20	0.4
RRL	1.86	293	P	22 34.00	3.3X
LSD	1.90	311	P	22 32.20	0.8

S.D. = 0.6 on 7 of 8 obs.

? MAR 27, 1989 21h 34m 30.45±12.06s
46.552 N ±31.0km 5.324 E ±81.9km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.4 (LDG).

LBF	1.02	296	Pg	34 50.00	0.2
			Sg	35 02.00	
SMF	1.03	276	Pg	34 49.70	-0.2
			Sg	35 01.80	
LOR	1.23	306	Pg	34 53.00	-0.4
			Sg	35 08.40	
SSF	1.35	293	Pg	34 55.80	0.5
			Sg	35 11.00	
AVF	1.38	281	Pg	34 55.40	-0.3
			Sg	35 12.40	

S.D. = 0.5 on 5 of 5 obs.

MAR 27, 1989 21h 53m 59.89± 0.50s
44.797 N ± 4.2km 9.036 E ± 4.2km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)

BOB	0.29	96	Pc	54 05.90	-0.2
			eSg	54 10.50	
CKI	0.66	236	P	54 12.90	-0.1
			eSg	54 22.60	
FIN	0.83	226	P	54 16.20	0.2
			S	54 28.40	
ROB	0.97	239	P	54 18.60	0.2
VAI	1.09	350	P	54 20.70	0.4
			eSn	54 35.00	
MDI	1.09	26	P	54 20.50	0.2
			eSn	54 35.10	
ORO	1.11	318	P	54 20.60	-0.3
			eSg	54 34.80	
ORX	1.12	319	P	54 20.90	-0.1
			S	54 35.20	
IMI	1.21	223	P	54 21.90	-0.6
			S	54 36.80	
DOI	1.31	258	P	54 25.00	0.8
			eSn	54 43.00	
RSP	1.31	286	P	54 23.20	-1.0
STV	1.34	246	P	54 24.90	0.2
PZZ	1.41	259	P	54 26.00	0.3

S.D. = 0.5 on 13 of 13 obs.

MAR 27, 1989 22h 21m 56.88± 0.27s
44.261 N ± 3.2km 9.334 E ± 2.3km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 3.1 (LDG). MD 2.9 (STR).

BOB	0.51	9	Pc	22 05.80	-1.5
			eSg	22 13.80	
CKI	0.77	283	P	22 11.90	-0.1
			eSg	22 25.00	
BDI	0.93	102	Pd	22 14.60	-0.1
			eSg	22 28.70	
MME	0.98	93	Pc	22 15.80	0.1
			eSg	22 30.40	
PII	1.01	122	P	22 16.60	0.6
			eSg	22 32.30	
SAOF	1.31	259	Pn	22 21.48	0.4
			Sg	22 38.43	
AUTN	1.40	260	Pn	22 22.73	0.1
			Sg	22 42.75	
SBF	1.43	254	Pn	22 22.80	-0.1
			Sn	22 41.60	
STV	1.44	270	P	22 22.80	-0.3
AURF	1.49	256	Pn	22 22.95	-0.9
REVF	1.51	251	Pn	22 23.73	-0.3
DOI	1.52	280	P	22 23.90	-0.3
TOUF	1.52	261	Pn	22 24.07	-0.3
MDI	1.54	10	Pd	22 24.60	0.2
			eSn	22 45.70	
SAL	1.59	32	P	22 25.70	0.6
			eSn	22 45.80	
MVIF	1.61	258	Pn	22 26.13	0.5
PZZ	1.62	279	P	22 25.40	-0.3
VAI	1.65	346	Pc	22 26.50	0.5
			eSn	22 46.30	
ORO	1.67	325	P	22 27.00	0.6
			eSn	22 47.80	
CVF	1.73	191	Pn	22 26.34	-0.8
			Sg	22 47.99	
PGD	1.76	102	P	22 29.20	1.4
CALN	1.84	255	Pn	22 28.93	0.1
BNI	2.06	294	P	22 33.30	1.3
			eSn	22 59.00	
FRF	2.06	251	Pn	22 31.90	-0.1
			Sn	22 55.50	
LPL	2.23	305	Pn	22 36.80	2.1
LMR	2.25	247	Pn	22 33.60	-1.0
			Sn	22 59.60	
LRG	2.30	250	Pn	22 35.60	0.2
CTI	2.42	42	P	22 36.50	-0.8
			eSn	23 04.70	
FVI	3.37	45	P	22 50.00	-0.5
			eSn	23 28.40	
TRI	3.46	64	eP	23 28.90	37.0X
			i	23 46.70	
VOY	3.68	60	e(Pn)	22 54.70	-0.4
			eSn	23 36.40	
KBA	3.98	44	ePnc	22 59.50	0.1
			i	23 44.30	
			iSg	24 02.10	
BSF	3.99	335	Pn	22 59.40	0.0
			Sn	23 45.20	
HAU	4.28	332	Pn	23 03.40	-0.2
			Sn	23 50.40	
CDF	4.39	342	Pn	23 04.40	-0.8
VBY	4.39	71	eP	23 56.60	51.5X

S.D. = 0.7 on 34 of 36 obs.

? MAR 27, 1989 23h 33m 16.56± 2.71s
7.543 S ±22.3km 129.388 E ±34.8km
DEPTH = 190.9 ± 30.5 km
4.0mb (1 obs.)
BANDA SEA (280)

MTN	5.54	162	eP	34 39.00	0.5
			eS	35 40.00	
KNA	8.18	184	eP	35 13.00	-0.2
	0.3s		21.00nm		4.9mb X
			eS	36 42.00	
WB5	13.18	159	eP	36 16.90	-0.8
			eS	38 38.50	
WRA	13.23	159	Pc	36 17.50	-0.9
	0.5s		3.00nm		4.0mb
ASPA	16.61	165	eP	37 01.80	1.7
			eS	39 54.70	
WARB	18.72	188	eP	37 23.00	-0.2
			eS	40 46.00	
FORR	23.22	183	eP	38 13.40	5.7X
GUN	54.85	312	P	42 29.90	0.0
GKN	55.83	311	P	42 36.70	0.0

S.D. = 1.1 on 8 of 9 obs.

MAR 27, 1989 23h 44m 04.16± 0.62s
39.247 N ± 4.8km 23.596 E ± 6.4km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.1 (ATH).

NEO	0.30	282	iPgd	44 10.10	-0.2
PLG	1.13	354	iPbc	44 25.90	0.5
ATH	1.28	176	ePb	44 27.10	-0.7
KZN	1.76	308	iPbc	44 35.00	0.0
PRK	2.08	89	ePb	44 44.00	4.5X
VAY	2.22	340	ePn	44 41.30	-0.2
RDO	2.41	37	ePn	44 43.70	-0.5
ITM	2.45	213	ePn	44 46.00	1.2
VLS	2.58	247	ePg	44 53.20	6.5X
OHR	2.84	312	ePn	44 50.50	0.1
SKO	3.18	330	ePn	44 54.50	-0.6
EDC	3.47	70	ePn	45 07.00	7.8X
BNT	3.51	70	ePn	45 07.00	7.1X
MGR	6.27	281	P	45 38.60	-0.3
			eSn	46 48.20	
MLR	6.48	15	ePc	45 45.00	3.0X
VRI	7.01	18	ePd	45 50.00	0.7

S.D. = 0.7 on 11 of 16 obs.

• MAR 28, 1989 01h 00m 07.11± 0.95s
38.765 N ± 7.1km 20.622 E ±20.3km
DEPTH = 10.0km (geophysicist)
GREECE (364)
MD 2.6 (ATH).

VLS	0.59	182	ePg	00 19.00	0.0
SRN	1.21	337	ePg	00 29.40	-0.3
LSK	1.38	359	ePn	00 33.60	1.1
TPE	1.60	343	ePn	00 38.50	3.0X
KZN	1.78	30	ePb	00 38.00	-0.2
KBN	1.86	5	ePn	00 43.50	4.2X
ITM	1.89	147	ePg	00 44.00	4.3X
NEO	2.10	74	ePb	00 59.10	16.4X
OHR	2.35	3	ePn	00 45.70	-0.7
PLG	2.71	53	ePb	01 15.00	23.5X
			eSb	01 31.00	

S.D. = 0.9 on 5 of 10 obs.

• MAR 28, 1989 01h 36m 09.90± 1.28s
41.856 N ± 8.3km 22.972 E ±13.0km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
ML 3.5 (SKO).

VAY	0.61	210	iPg	36 21.00	-1.3
			iSg	36 28.40	
SKO	1.15	276	iPg	36 31.50	0.1
			iSg	36 46.40	
PLG	1.52	166	ePb	36 37.90	0.7
KZN	1.79	211	ePb	36 41.00	-0.2
OHR	1.79	246	ePn	36 42.30	1.1
RDO	2.05	109	ePn	36 49.50	4.7X
BZS	3.89	346	ePc	37 10.50	-0.4

S.D. = 1.1 on 6 of 7 obs.

MAR 28, 1989 03h 48m 29.23± 0.51s
44.241 N ± 5.0km 9.362 E ± 4.1km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.6 (LDG).

GEN	0.36	300	P	48 36.10	-0.5
			S	48 41.20	
BOB	0.53	7	Pc	48 37.80	-2.2
			eSg	48 44.90	

28d 03h

CKI	0.80	284	P	48 46.00	1.3
FIN	0.83	268	P	48 44.80	-0.5
			S	48 55.90	
BDI	0.91	101	P	48 47.80	1.2
			eSg	48 59.80	
MME	0.96	92	P	48 47.90	0.2
			eSg	49 02.70	
ROB	1.07	273	P	48 49.20	-0.3
IMI	1.11	253	P	48 49.80	-0.3
			S	49 03.10	
SBF	1.44	255	Pn	48 55.20	-0.2
			Sn	49 13.00	
STV	1.46	271	P	48 56.00	0.2
DOI	1.54	281	P	48 58.40	1.6
			eSg	49 20.00	
MDI	1.56	9	P	48 57.10	0.2
PZZ	1.64	280	P	48 59.50	1.1
VAI	1.68	346	P	48 58.70	0.0
			eSg	49 19.50	
ORO	1.70	325	P	48 58.80	-0.3
			eSg	49 19.80	
ORX	1.70	325	P	48 59.20	0.0
			S	49 19.20	
CVF	1.71	192	Pn	48 58.50	-0.8
			Sn	49 19.60	
RSP	1.76	302	P	49 01.00	1.0
FRF	2.08	252	Pn	49 03.20	-1.3
			Sn	49 27.20	
LMR	2.26	247	Pn	49 05.90	-1.2
			Sn	49 32.20	
LPL	2.26	305	Pn	49 08.80	1.3
HAU	4.31	332	Pn	49 36.10	-0.2
			Sn	50 23.60	

S.D. = 1.0 on 22 of 22 obs.

& MAR 28, 1989 03h 55m 15.65s
60.161 N 139.250 W
DEPTH = 0.1km
SOUTHEASTERN ALASKA (19)
<AGS-P>.

BCPM	0.28	223	eP	55 21.39	0.1
PNL	0.50	189	iP	55 25.90	0.3
			eS	55 32.85	
PCA	0.51	263	iP	55 25.59	-0.2
			eS	55 33.99	
YKU	0.66	202	eP	55 29.52	0.8
HQN	0.74	165	iP	55 30.56	0.2
			iS	55 40.93	
HYT	1.09	52	P	55 38.30	1.1
CTGM	1.31	309	iP	55 38.98	-1.9
			eS	55 57.50	
GLB	2.58	302	eP	55 59.27	-0.1
SGAM	2.68	279	iP	56 04.48	-0.6
			eS	56 39.70	
KLU	3.53	295	iP	56 12.76	-0.2
			eS	56 54.85	
FID	3.63	282	eP	56 15.73	1.5
VZW	3.71	287	eP	56 16.78	1.3
SIT	3.73	145	iP	56 16.23	0.6
TOA	3.88	303	iP	56 18.31	0.3
DWY	3.91	359	P	56 19.00	0.7
INK	8.55	14	eP	57 27.00	3.5

16 obs. assaciated

? MAR 28, 1989 04h 02m 10.02± 18.97s
38.902 N ±32.2km 25.945 E ±153.km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)

LCI	6.33	286	P	03 43.70	-2.0
GRI	7.43	272	P	04 01.39	0.2
TDS	7.49	279	P	04 02.00	0.0
SOI	7.80	267	P	04 06.17	-0.1
GMB	7.94	268	P	04 09.64	1.3
MGR	8.13	282	P	04 10.96	0.1
ATN	8.25	268	P	04 12.84	0.2
SGO	8.36	285	P	04 13.68	-0.4
LPI	8.62	271	P	04 19.50	1.7
BSS	8.77	286	P	04 20.05	0.2
MEU	8.88	262	P	04 20.47	-0.9
MNO	8.88	267	P	04 22.12	0.5
PZI	8.91	261	P	04 19.78	-2.0
DUI	9.20	291	P	04 26.04	0.2
RFI	9.47	288	P	04 29.89	0.4
SDI	9.68	291	P	04 32.68	0.3
FAI	9.81	264	P	04 35.90	1.8
USI	9.97	273	P	04 34.54	-1.8
ARV	10.82	299	P	04 46.63	-1.3
ASS	10.87	297	P	04 50.59	1.9

S.D. = 1.2 on 20 of 20 obs.

? MAR 28, 1989 04h 13m 05.04± 1.34s
14.981 S ±78.8km 173.418 W ±46.2km
DEPTH = 10.0km (geophysicist)
4.8mb (3 obs.)
SAMOA ISLANDS REGION (169)

AFI	1.91	56	iPc	13 36.30	-1.8
			eS	13 55.90	
DZM	20.34	247	iPc	17 46.00	1.5
WB5	49.90	257	eP	21 59.60	-1.5
ASPA	50.23	252	eP	22 01.80	-1.8
	0.8s		17.00nm	5.1mb	
PNT	79.67	32	eP	25 15.00	0.7
	0.9s		12.00nm	4.9mb	
ALQ	80.54	50	eP	25 20.00	0.5
	0.9s		2.94nm	4.3mb	
BGMT	81.64	39	eP	25 26.20	1.1
LRM	81.70	38	eP	25 26.40	1.0
KMZ	145.92	215	iPKPd	32 47.20	0.3

S.D. = 1.5 on 9 of 9 obs.

? MAR 28, 1989 04h 31m 48.27± 1.42s
46.350 N ±23.8km 1.827 E ± 7.6km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.0 (LDG).

LSF	0.23	244	Pg	31 53.20	0.0
			Sg	31 56.20	
TCF	0.27	103	Pg	31 54.00	0.0
			Sg	31 57.20	
MAF	0.53	104	Pg	31 59.00	0.0
			Sg	32 05.00	
BGF	0.73	73	Pg	32 02.70	0.0
			Sg	32 12.00	

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

% MAR 28, 1989 05h 27m 57.74± 0.89s
43.816 N ± 9.1km 10.884 E ± 5.6km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)

PII	0.28	250	P	28 03.60	0.0
			eSg	28 07.80	
BDI	0.32	320	P	28 04.30	-0.1
			eSg	28 09.70	
MME	0.40	341	P	28 06.10	0.1
			eSg	28 12.30	
PGD	0.61	84	P	28 09.80	-0.3
			eSg	28 17.30	
SFI	0.71	81	P	28 12.00	0.3
			eSg	28 21.50	

S.D. = 0.4 on 5 of 5 obs.

% MAR 28, 1989 05h 29m 31.88± 0.75s
43.817 N ± 8.3km 10.894 E ± 4.8km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)
MD 2.8 (FIR).

FIR	0.27	98	iPgc	29 37.50	0.0
			iSg	29 42.50	
PII	0.28	250	P	29 37.90	0.1
			eSg	29 42.30	
BDI	0.33	319	P	29 38.40	-0.3
			eSg	29 44.60	
MME	0.40	340	P	29 40.40	0.2
			eSg	29 46.80	
PGD	0.60	84	Pd	29 43.90	-0.3
			eSg	29 51.90	
SFI	0.70	81	P	29 45.90	0.2
			eSg	29 55.80	

S.D. = 0.3 on 6 of 6 obs.

& MAR 28, 1989 05h 32m 04.99s
61.658 N 152.000 W
DEPTH = 101.3km
SOUTHERN ALASKA (2)
<AGS-P>.

SKT	0.39	34	iP	32 20.00	-0.5
			eS	32 32.92	
SPU	0.48	183	iP	32 20.19	-0.9
			S	32 32.68	
NKA	0.99	158	eP	32 26.55	0.9
RED	1.30	197	iP	32 28.45	-0.9
PME	1.42	90	iP	32 29.02	-1.6
			S	32 49.74	
SLKM	1.44	142	eP	32 30.45	-0.6
			S	32 49.49	
SEW	2.00	140	eP	32 36.60	-1.4
			S	33 01.25	

7 obs. assaciated

% MAR 28, 1989 06h 18m 56.17± 1.77s
39.147 N ± 8.1km 27.037 E ±22.0km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	0.77	167	iPg	19 11.20	0.0
			iSg	19 24.20	
DST	1.32	69	iPn	19 20.30	-0.2
EDC	1.36	28	ePn	19 21.00	-0.1
BNT	1.39	29	iPn	19 21.20	-0.3
KCT	1.50	42	iPn	19 23.70	0.6

S.D. = 0.5 on 5 of 5 obs.

% MAR 28, 1989 07h 01m 34.46± 1.30s
45.495 N ± 6.1km 0.059 W ±11.8km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 3.3 (LDG).

LFF	0.79	134	Pg	01 49.50	-0.4
			Sg	02 02.40	
MFF	1.11	357	Pg	01 56.00	0.7
			Sg	02 10.40	
RJF	1.13	99	Pg	01 56.00	0.4
			Sg	02 10.60	
LPO	1.20	132	Pn	01 56.80	0.0
			Pg	01 58.20	
			Sg	02 15.60	
LSF	1.34	55	Pg	02 00.80	1.6
			Sg	02 18.00	
CAF	1.61	110	Pg	02 05.00	2.0
			Sg	02 26.60	
TCF	1.77	63	Pg	02 08.40	3.0X
			Sg	02 31.00	
MAF	1.97	67	Pn	02 08.40	0.1
BGF	2.29	61	Pn	02 12.60	-0.2
			Pg	02 18.40	
			Sg	02 48.00	
EPF	2.48	173	Pn	02 15.00	-0.6
			Pg	02 20.80	
			Sg	02 53.00	
LPF	2.63	345	Pg	02 24.00	6.4X
			Sg	02 56.00	
AVF	2.70	60	Pn	02 18.00	-0.7
			Pg	02 26.00	
			Sg	02 59.90	
SSF	2.93	56	Pn	02 20.40	-1.5
			Pg	02 30.00	
			Sn	02 54.40	
			Sg	03 08.00	
GRR	2.95	350	Pg	02 29.60	7.5X
			Sg	03 06.80	
SMF	2.95	66	Pn	02 21.50	-0.7
			Pg	02 31.00	
			Sg	03 08.00	
LDF	3.10	359	Pg	02 32.00	7.7X
			Sg	03 12.20	
LBF	3.17	61	Pn	02 24.60	-0.8
			Pg	02 34.70	
			Sn	03 00.10	
			Sg	03 16.00	
LOR	3.24	55	Pg	02 35.20	8.8X
			Sg	03 17.60	
FLN	3.28	355	Pg	02 36.00	9.1X
			Sg	03 17.20	

S.D. = 1.1 on 13 of 19 obs.

? MAR 28, 1989 07h 48m 39.84± 1.07s
41.088 N ± 8.5km 28.494 E ±11.0km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

KCT	0.84	187	iPg	48 56.20	0.1
			eSg	49 08.70	
YLV	0.85	128	iPn	48 56.20	0.0

BNT	0.85	211	iPg	48 56.20	-0.1
DMK	0.92	323	ePn	48 57.40	0.0
S.D. = 0.1			on	4 of 4 obs.	

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* MAR 28, 1989 09h 55m 27.74± 1.08s
22.618 S ±15.5km 172.178 E ±12.9km
DEPTH = 33.0km (normal)
4.9mb (9 obs.) 4.2Msz (2 obs.)
LOYALTY ISLANDS REGION (189)

DZM	5.34	275	iPc	56 47.40	0.1
			iS	57 48.50	
KRP	15.53	170	P	59 07.00	1.2
BRS	18.21	251	iPc	59 42.00	2.2
			i	59 54.00	
			i	00 12.00	
			i	07 57.40	
COO	19.78	242	eP	59 58.00	-0.2
RMQ	21.64	255	eP	00 18.00	0.7
CNB	23.57	232	iPc	00 37.80	1.5
CAN	23.84	233	eP	00 39.40	0.5
BWA	23.90	235	eP	00 37.80	-1.7
CTA	24.27	271	iPc	00 44.20	1.1
	1.8s	134.09nm		5.2mb	
			i(PP)	01 07.50	
			i(PPP)	01 13.50	
			i	01 35.00	
			e	02 14.00	
			eS	04 28.00	
			e(SS)	05 10.00	
			e(SSS)	05 20.00	
CMS	25.03	244	eP	00 51.00	0.7
ASPA	35.14	261	iPc	02 20.10	-0.5
	1.2s	46.00nm		5.3mb	
WB5	35.28	267	eP	02 20.30	-1.5
WRA	35.30	267	Pd	02 20.20	-1.7
	0.8s	6.70nm		4.6mb	
FORR	40.00	249	eP	03 00.80	-0.4
WARB	41.46	256	eP	03 07.80	-5.5X
GUMO	44.84	321	eP	03 47.00	6.2X
Z	21s	0.22um		4.1Msz	
MBL	48.39	261	eP	04 09.00	0.2
	0.4s	2.00nm		4.5mb	
KLB	48.84	247	iPc	04 11.60	-0.6
	1.0s	22.00nm		5.1mb	
NWAO	49.22	245	eP	04 13.00	-2.0
	0.7s	8.00nm		4.9mb	
Z	20s	0.30um		4.3Msz	
BAL	49.81	248	eP	04 19.00	-0.7
NANU	52.02	258	eP	04 36.00	-0.5
SBA	55.35	181	eP	05 09.80	9.5X
SPA	67.52	180	e(P)	06 21.10	-1.6
	1.0s	15.00nm		5.0mb	
CHTO	82.54	294	eP	07 51.50	2.5
	1.0s	6.50nm		4.6mb	
EUR	91.11	47	iP	08 31.20	0.5
	1.0s	7.31nm		5.0mb	
KSP	146.14	332	ePKP	15 09.00	4.0X
BRG	147.09	334	ePKP	15 03.50	-3.0X
KHC	148.58	333	ePKP	15 16.10	7.1X
SKO	148.86	315	ePKP	15 14.00	4.4X
OHR	149.69	314	ePKP	15 19.20	8.2X
KBA	150.23	330	e(PKP)	15 21.00	9.3X
	0.7s	1.60nm			
			i	15 43.00	
S.D. = 1.3			on	22 of 31 obs.	

? MAR 28, 1989 11h 46m 01.77±11.02s
7.926 S ±95.7km 128.431 E ±22.3km
DEPTH = 145.0 ± 51.8 km
4.1mb (4 obs.)
BANDA SEA (280)

MTN	5.56	152	eP	47 24.00	0.4
			eS	48 27.00	
KNA	7.78	178	eP	47 53.00	-0.5
	0.3s	18.00nm		5.1mb X	
			eS	49 20.00	
WB5	13.20	155	eP	49 03.80	-1.1
			eS	51 26.00	
WRA	13.25	155	Pd	49 10.20	4.7X
	0.2s	0.70nm		3.7mb	
MBL	15.56	211	eP	49 35.00	0.4
	0.3s	3.00nm		4.1mb	
			eS	52 15.00	
ASPA	16.51	162	eP	49 47.40	1.0
	0.5s	5.00nm		4.1mb	
			eS	52 42.50	
WARB	18.24	185	eP	50 01.40	-5.4X
NANU	19.13	219	eP	50 15.80	-0.3
	0.4s	5.00nm		4.2mb	
S.D. = 1.2			on	6 of 8 obs.	

MAR 28, 1989 11h 54m 01.55± 0.40s
40.196 N ± 4.0km 28.961 E ± 3.6km
DEPTH = 8.6 ± 4.4 km
TURKEY (366)
Felt at Burso.

KCT	0.47	277	iPg	54 11.50	0.5
YLV	0.49	40	iPg	54 11.50	0.1
DST	0.64	204	iPg	54 14.30	-0.2
			eSg	54 22.30	
GBZT	0.70	32	ePg	54 15.00	-0.4
			iSg	54 25.00	
BNT	0.81	282	iPg	54 17.00	-0.4
HRT	0.83	41	ePg	54 17.30	-0.4
EDC	0.85	281	iPg	54 16.80	-1.3
			iSg	54 29.80	
ISK	0.87	5	ePg	54 18.00	-0.4
CTT	1.03	337	ePn	54 22.00	0.8
GPA	1.04	84	iPn	54 20.80	-0.5
ALT	1.44	142	iPn	54 28.70	0.7
DMK	1.86	331	ePn	54 34.80	0.9
KHL	1.92	167	iPn	54 35.20	0.3
EZN	2.06	260	ePn	54 37.00	0.3
IZM	2.23	217	ePn	54 38.80	-0.5
BBTK	2.94	96	eP	54 58.50	9.1X
			eS	55 40.00	
YER	3.10	190	ePn	55 00.40	8.7X
S.D. = 0.7			on	15 of 17 obs.	

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* MAR 28, 1989 12h 11m 33.50± 0.47s
3.025 S ± 9.2km 130.473 E ±14.4km
DEPTH = 33.0km (normal)
4.9mb (3 obs.)
CERAM (272)

MTN	9.78	176	eP	13 53.00	-2.0
			e	15 39.00	
WB5	17.18	168	eP	15 27.20	-5.6X
			eS	18 46.50	
WRA	17.24	168	Pc	15 34.40	0.9
	0.3s	1.20nm		3.5mb X	
PMG	17.75	112	eP	15 40.00	0.2
QIS	19.57	154	eP	16 03.00	1.2
ASPA	20.79	171	iPd	16 13.40	-1.1
	0.9s	52.00nm		4.9mb	
			eS	19 57.80	
PJG	21.83	41	eP	16 14.70	-10.3X
CTA	22.91	139	iP	16 37.00	1.3
			i	16 44.00	
BWA	35.43	154	eP	18 32.20	3.5X
CAN	36.44	154	eP	18 41.00	3.8X
WHN	36.76	336	P	18 41.00	1.1
			pP	18 46.50	19kmX
GYA	37.27	323	P	18 44.80	0.4
CHTO	37.86	306	eP	18 50.50	1.2
	1.1s	15.02nm		4.8mb	
MAT	40.02	10	(P)	19 05.00	-2.1
XAN	42.09	333	P	19 24.00	-0.2
TIY	43.85	339	eP	19 38.40	-0.1
BJI	44.82	344	eP	19 46.00	-0.2
LZH	46.18	330	eP	19 58.50	1.2
	1.5s	26.00nm		5.0mb	
GTA	50.77	329	eP	20 33.00	0.2
GUN	52.78	309	P	20 48.80	0.4
KKN	53.19	308	P	20 51.60	0.3
DMN	53.24	308	P	20 51.60	-0.1
GKN	53.79	308	P	20 55.90	0.3
WMQ	60.37	326	eP	21 39.00	-2.9
CNCB	153.16	138	ePKP	31 34.00	10.6X
LPB	153.27	137	(PKP)	31 40.00	16.6X
ZOBO	153.44	137	ePKP	31 35.00	11.2X
S.D. = 1.3			on	20 of 27 obs.	

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* MAR 28, 1989 13h 10m 44.19± 3.84s
44.781 N ±27.9km 7.705 E ±11.9km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.3 (GEN).

ROB	0.50	166	P	10 55.14	0.8
			S	11 02.01	
PZZ	0.51	238	P	10 54.81	0.2
			S	11 01.50	
STV	0.60	207	P	10 55.80	-0.6
			S	11 03.03	
FIN	0.68	148	P	10 57.49	-0.1
			S	11 06.26	
FOUF	0.71	249	P	10 58.24	0.2
			e	11 06.82	
IMI	0.88	171	P	11 00.77	-0.4
			S	11 10.72	
S.D. = 0.6			on	6 of 6 obs.	

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* MAR 28, 1989 13h 11m 51.27± 1.31s
43.247 N ±17.0km 12.480 E ±10.1km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)

CIO	0.49	96	iPg	12 01.12	-0.1
			iSg	12 08.66	
CRE	0.54	315	P	12 02.00	-0.3
			eSg	12 11.00	
PGD	0.84	319	P	12 07.80	0.3
			eSg	12 22.10	
AOI	0.87	69	e(Pg)	12 08.08	0.0
			e(Sg)	12 22.15	
ALP	0.93	120	e(Pg)	12 09.14	0.0
			i(Sg)	12 24.86	
S.D. = 0.3			on	5 of 5 obs.	

? MAR 28, 1989 13h 19m 28.64±15.82s
43.634 N ±53.0km 148.244 E ±122.km
DEPTH = 33.0km (normal)
KURIL ISLANDS REGION (222)

KUSJ	2.63	259	P	20 07.50	-2.2
			S	20 30.50	
HOOJ	3.84	253	P	20 27.80	0.9
			eS	21 04.80	
ASAJ	4.08	279	P	20 30.60	0.3
MRRJ	5.39	260	eP	20 49.80	1.0
			eS	21 42.90	
OFUJ	6.72	230	eP	21 08.60	1.1
			eS	22 13.90	
CHJJ	10.38	226	P	21 57.70	-0.6
			S	23 41.80	
MTMJ	10.65	232	P	22 01.50	-0.5
S.D. = 1.5			on	7 of 7 obs.	

MAR 28, 1989 13h 29m 14.44± 0.18s
34.234 N ± 2.5km 24.729 E ± 1.8km
DEPTH = 57.2km (6 depth phases)
5.4mb (55 obs.)
CRETE (370)
MD 5.1 (ATH).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 15S, 23C
Centroid Locotion:
Origin Time 13:29:14.0 0.5
Lat 34.06N FIX;Lon 24.68E FIX
Dep 55.9 4.3 Half-duration 2.4
Moment Tensor; Scale 10**17 Nm
Mrr= 1.10 0.07 Mtt=-2.10 0.12
Mff= 0.99 0.10 Mrt=-0.30 0.11
Mrf= 0.89 0.10 Mtf= 0.79 0.10
Principal Axes:
T Val= 1.96 Plg=44 Azm=277
N 0.40 44 114
P -2.36 9 16
Best Double Couple:Mo=2.2*10**17
NP1:Strike= 67 Dip=53 Slip= 29
NP2: 318 67 139

VAM	1.25	340	ePn	29 36.90	1.0
NPS	1.26	35	ePn	29 38.00	1.9
KAP	2.40	56	ePn	29 54.00	2.0
ITM	3.72	323	ePn	30 11.20	0.5
ATH	3.82	348	ePn	30 13.60	1.5
YER	4.09	44	iPn	30 16.30	0.3
KSL	4.40	63	ePn	30 20.00	-0.2
IZM	4.63	25	eP	30 24.70	1.2
ELL	4.91	58	iP	30 27.00	-0.7
PRK	5.15	13	ePn	30 30.00	-0.9
VLS	5.17	321	ePn	30 30.50	-0.6
NEO	5.20	347	ePn	30 32.00	0.4
KHL	5.62	42	iP	30 37.20	-0.4
EZN	5.73	12	eP	30 38.90	0.1

28d 13h

BCK	5.75	54	eP	30 38.80	-0.4
DST	6.20	29	iP	30 47.30	1.7
PLG	6.21	351	ePn	30 45.60	-0.1
PPCY	6.32	82	eP	30 44.00	-3.1X
ALT	6.47	40	eP	30 47.10	-2.3
KZN	6.50	340	ePn	30 51.00	1.2
EDC	6.59	21	iP	30 50.80	-0.2
BNT	6.62	22	iP	30 51.00	-0.3
KCT	6.66	25	iP	30 53.00	1.0
LSK	6.76	332	ePn	30 51.50	-1.9
SRN	6.78	328	iPnc	30 52.70	-0.9
RDO	6.93	5	ePn	30 56.00	0.3
KBN	7.10	335	ePn	30 59.90	1.9
HLW	7.11	126	ePn	30 51.00	-7.2X
			ePb	31 04.30	
TPE	7.12	330	iPnc	31 00.60	2.2
CSS	7.13	82	eP	30 54.50	-4.0X
			eSn	32 12.50	
VAY	7.28	347	iPn	31 00.50	0.0
			i	31 15.00	
LFK	7.32	79	ePn	30 59.60	-1.6
YLV	7.32	29	eP	31 03.00	1.8
MMB	7.39	354	iPd	31 02.00	-0.1
KDZ	7.42	4	eP	31 02.00	-0.6
RZN	7.44	360	iP	32 00.00	57.0X
BERA	7.49	331	iPnc	31 02.40	-1.1
CTT	7.50	22	eP	30 56.00	-7.6X
GPA	7.50	35	iP	31 05.90	2.2
OHR	7.54	337	iPn	31 03.80	-0.4
GBZT	7.54	28	iPd	31 05.00	0.8
ISK	7.63	25	eP	31 00.00	-5.5X
HRT	7.66	29	eP	31 07.00	1.2
FAM	7.68	82	e(P)	31 05.00	-1.2
KKB	7.73	351	iPd	31 07.00	0.2
DIM	7.83	4	iPd	31 09.00	0.9
PLD	7.86	360	eP	31 09.00	0.5
DMK	7.94	17	eP	31 10.00	0.3
TIR	8.07	333	eP	31 08.30	-3.2X
GRI	8.10	307	P	31 08.80	-3.2X
LCI	8.14	320	P	31 08.60	-3.8X
			eSn	32 38.60	
SKO	8.15	342	iPnd	31 12.70	0.1
Z	13s	38.59um			
N	10s	26.37um			
			i	31 24.20	
			iSn	32 43.00	
			LR	35 06.00	
GMB	8.17	301	P	31 10.00	-3.0X
PHP	8.17	337	eP	31 10.00	-2.9X
PGB	8.31	357	iPd	31 15.00	0.1
JMB	8.35	9	iPd	31 16.00	0.7X
LACI	8.38	333	iPd	31 12.60	-3.2X
MSI	8.40	301	P	31 13.40	-2.7X
VTS	8.43	352	iPd	31 17.00	0.4
ATN	8.45	300	Pc	31 13.40	-3.4X
PZI	8.46	292	P	31 11.72	-5.3X
MEU	8.47	293	P	31 13.00	-4.1X
BBTK	8.52	47	eP	31 17.00	-0.8
			i	31 24.00	
KKS	8.53	338	eP	31 17.00	-0.8
TDS	8.62	311	P	31 16.20	-2.9X
			eSn	32 51.10	
CRI	8.76	97	eP	31 14.20	-6.8X
DOR	8.80	105	eP	31 14.30	-7.4X
			eS	32 45.90	
ULC	8.84	332	ePn	31 20.40	-1.7
			eSn	32 58.00	
ZNT	8.86	100	iPc	31 14.90	-7.5X
			eS	32 49.00	
BCI	8.91	337	eP	31 21.80	-1.2
MNO	8.92	297	P	31 18.90	-4.5X
BRT	8.92	320	P	31 20.00	-3.3X
			eSn	32 57.10	
PVL	8.98	3	iPd	31 24.00	0.0
TTG	9.24	334	ePn	31 23.60	-3.9X
			eSn	33 06.00	
BDV	9.28	332	ePn	31 24.60	-3.5X
			eSn	33 07.00	
MGR	9.39	312	P	31 26.40	-3.3X
IVA	9.42	338	ePn	31 28.40	-1.7
			eSn	33 13.00	
GIB	9.43	296	P	31 27.10	-3.3X
BURJ	9.46	99	Pc	31 26.00	-4.7X
FAI	9.48	292	P	31 28.30	-2.6X
KFNJ	9.49	101	Pd	31 24.90	-6.1X
PRNI	9.52	111	iPc	31 23.90	-7.5X
HCY	9.55	331	ePn	31 27.50	-4.3X

			eSn	33 13.00	
MASJ	9.56	102	Pd	31 26.10	-6.0X
MCT	9.61	294	P	31 31.20	-1.7
NKY	9.67	334	ePn	31 30.20	-3.3X
			eSn	33 17.40	
MBH	9.70	115	eP	31 26.20	-7.7X
PSN	9.81	15	eP	31 35.00	-0.4
BRY	9.91	333	ePn	31 35.00	-1.9
			eSn	33 22.60	
PLE	9.99	337	ePn	31 36.00	-1.9
			eSn	33 24.00	
HQL	10.08	117	ePc	31 31.60	-7.5X
BUC1	10.15	5	ePc	31 44.00	4.0X
BUC	10.22	6	eP	31 45.00	4.1X
DRA	10.44	358	eP	31 45.00	1.1
TLB	10.65	13	eP	31 45.50	-1.3
ISR	10.98	7	eP	31 50.00	-1.3
DUI	10.98	315	P	31 49.00	-2.4
AYN	11.00	116	eP	31 44.50	-7.1X
HVAR	11.02	327	iPn	31 48.80	-3.0X
RFI	11.04	313	P	31 50.00	-2.1
CFR	11.25	13	eP	31 52.50	-2.4
KVT	11.27	49	eP	31 51.00	-4.3X
MLR	11.28	4	eP	31 55.00	-0.5
SDI	11.39	314	P	31 53.10	-3.7X
BRD	11.41	8	eP	32 02.50	5.4X
BZS	11.62	349	ePc	31 57.50	-2.3
DEV	11.72	354	iPd	32 01.00	-0.2
VRI	11.72	7	ePc	32 02.00	0.7
AZI	11.78	314	P	32 01.40	-0.7
PPE	12.17	10	eP	32 16.00	8.8X
ALP	12.20	318	eP	32 06.13	-1.7
ASW	12.37	143	eP	32 01.00	-9.0X
			S	34 32.00	
CLI	12.45	8	eP	32 16.50	5.5X
AKUR	12.47	144	iPd	32 01.50	-9.8X
AKUR	12.47	144	eP	32 07.00	-4.3X
AKRL	12.64	144	iPd	32 05.00	-8.4X
AGMR	12.66	145	eP	32 05.00	-8.7X
AOI	12.70	320	eP	32 11.35	-3.0X
CIO	12.71	318	e(P)	32 13.41	-1.1
PTT	12.75	5	eP	32 18.00	3.1X
AKSR	12.81	143	eP	32 07.00	-8.7X
	1.0s	187.00nm			5.9mb X
AWAL	12.81	146	iPd	32 07.00	-8.8X
ARV	13.02	319	P	32 17.00	-1.5X
ZAG	13.36	333	eP	32 21.50	-1.3X
CGL	13.38	297	P	32 20.94	-2.4X
VBY	13.39	330	eP	32 20.30	-3.0X
MAO	13.42	311	P	32 21.90	-1.8
PTJ	13.44	333	eP	32 19.30	-4.7X
RSM	13.57	319	P	32 24.42	-1.2
SFI	13.90	318	P	32 29.70	-0.2
BUD	13.92	344	eP	32 34.00	3.8X
CEY	13.93	329	eP	32 27.50	-2.9X
			eS	34 59.80	
PGD	13.94	317	P	32 31.30	0.6
LJU	14.12	330	eP	32 29.50	-3.4X
			eS	35 04.50	
FIR	14.14	316	eP	32 34.00	0.9
			eS	35 14.00	
PSZ	14.15	347	iP	32 32.50	-0.8
TRI	14.20	327	iPnc	32 30.50	-3.3X
			iSn	35 03.10	
			i	36 50.00	
VOY	14.39	328	eP	32 33.30	-3.2X
SRO	14.40	342	eP	32 44.70	8.3X
PII	14.53	315	P	32 38.20	-0.1
BDI	14.70	316	P	32 39.00	-1.4
MME	14.72	317	P	32 40.80	-0.1
RBL	14.85	329	P	32 41.80	-0.6
CVF	14.94	308	eP	32 42.10	-1.6
CVF	14.94	308	P	32 48.90	5.2X
ZST	15.07	340	eP	32 48.00	2.8X
			i	32 51.00	
MSL	15.19	77	iPc	32 48.50	1.6
			ePP	33 02.50	
			ePPP	33 12.00	
			eS	35 47.00	
			eSS	36 03.00	
			e	36 30.00	
FVI	15.31	327	P	32 47.80	-0.5
VKA	15.36	338	e(P)	32 47.00	-2.0
	2.3s	1219.00nm			5.7mb X
			i	32 53.30	
			eS	35 56.00	
			iSS	36 15.20	

			e	36 57.50	
			LR	40 18.00	
CTI	15.44	324	P	32 49.00	-1.1
KBA	15.44	330	i(P)	32 55.30	5.1X
	1.0s	69.00nm			4.8mb X
			i	32 58.50	
SAL	15.71	321	P	32 53.80	0.4
FIN	16.19	313	P	32 59.61	0.0
KRA	16.20	349	ePd	32 59.20	-0.4
Z	18s	5.90um			
N	18s	6.80um			
			e	33 07.60	
			e	33 26.00	
			eS	36 11.00	
IMI	16.23	311	P	32 59.92	-0.2
MDI	16.26	320	P	32 59.40	-0.9
CKI	16.27	314	P	32 59.00	-1.5
BHD	16.38	88	iPd	33 01.00	-0.9
			iPP	33 12.00	
			iS	36 12.00	
			iSS	36 31.00	
ROB	16.44	313	P	33 03.30	0.5
SAOF	16.48	311	P	33 02.70	-0.5
SBF	16.49	311	eP	33 05.00	1.6
AUTN	16.56	311	P	33 06.02	1.6
AURF	16.57	311	P	33 05.15	0.7
TOUF	16.68	311	P	33 07.82	1.9
MVIF	16.69	311	P	33 06.47	0.6
STV	16.75	312	P	33 07.40	0.7
CALN	16.78	310	P	33 05.22	-1.9
LMR	16.83	308	eP	33 08.80	1.2
	1.5s	275.70nm			5.2mb
FRF	16.85	309	eP	33 09.00	1.2
DOI	16.94	312	P	33 08.40	-0.5
LRG	16.99	308	eP	33 10.90	1.4
	1.3s	361.00nm			5.4mb
PZZ	17.02	312	P	33 08.84	-1.3
KHC	17.03	334	iPc	33 09.50	-0.5
			i	33 13.00	
			S	36 28.00	
SLY	17.09	80	ePd	33 10.00	-0.8
			iPP	33 28.50	
			iPPP	33 36.50	
			iS	36 22.00	
			iSS	36 38.00	
			eLQ	40 37.00	
			eLR	40 42.00	
ORX	17.12	317	P	33 08.12	-3.2X
FOUF	17.23	312	P	33 12.65	0.1
RSP	17.27	314	P	33 12.53	-0.7
RRL	17.43	313	P	33 14.48	-0.8
PRU	17.44	338	P	33 15.50	0.5
	1.6s	327.50nm			5.2mb
Z	10s	10.20um			
N	11s	8.00um			
E	10s	6.20um			
			S	36 37.00	
			e	03 00.00	
			eSg	03 45.00	
LSD	17.50	315	P	33 14.99	-1.2
BNI	17.57	313	P	33 17.80	0.9
KSP	17.70	342	eP	33 18.00	-0.3
	1.4s	288.00nm			5.2mb
			ic	33 19.80	
			ic	34 26.30	
			eS	36 46.00	
LPG	17.76	315	eP	33 19.10	-0.3
	1.2s	111.50nm			4.9mb
TAB	17.85	71	iP+	33 20.00	-0.4
WAR	18.20	353	eP	33 24.00	-0.3
			e	33 48.00	
			e	36 45.00	
			e	37 00.00	
BRG	18.39	338	iPd	33 26.60	-0.2
	2.0s	420.00nm			5.3mb
			eS	36 55.00	
			e	37 13.00	
KER	18.49	83	ePc	33 26.50	-1.7
BBS	18.50	321	P	33 27.93	-0.2
FEL	18.51	322	P	33 28.09	-0.3
LOMF	18.79	320	P	33 30.88	-0.9
MOF	18.94	321	P	33 32.93	-0.6
MOX	18.99	334	ePc+	33 33.50	-0.5
	2.3s	831.00nm			5.6mb
Z	16s	9.20um			
N	16s	5.30um			
E	16s	6.60um			

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e(PP) 33 54.00
e 34 35.00
iS 37 10.00
eS 37 15.00
eLQ 38 30.00
iLR 39 00.00
e 40 30.00
e 43 00.00
CLL 19.07 337 iPc 33 33.40 -1.5
1.6s 505.00nm 5.5mb
eS 37 11.00
STR 19.11 324 P 33 35.99 0.7
BSF 19.11 321 P 33 34.85 -0.6
CDF 19.23 323 P 33 36.49 -0.3
GWF 19.44 324 P 33 39.47 0.5
HAU 19.45 321 eP 33 38.70 -0.4
1.2s 297.50nm 5.4mb
VITF 19.77 321 P 33 43.01 0.6
SMF 20.09 314 eP 33 43.70 -2.0
LBF 20.18 315 eP 33 45.30 -1.5
EBR 20.28 296 eP 33 48.00 0.3
e 37 48.00
LOR 20.40 316 eP 33 47.90 -1.1
1.3s 225.60nm 5.3mb
CAF 20.41 308 eP 33 47.90 -1.2
AVF 20.45 314 eP 33 48.30 -1.2
SSF 20.50 315 eP 33 49.40 -0.6
WLF 20.62 324 P 33 51.70 0.6
BGF 20.64 313 eP 33 50.60 -0.8
MAF 20.65 312 eP 33 50.70 -0.9
LPO 20.89 307 eP 33 53.10 -0.9
TCF 20.90 312 eP 33 53.70 -0.4
RJF 20.92 309 eP 33 53.00 -1.2
EPF 20.92 302 eP 33 51.80 -2.6
1.0s 75.00nm 5.0mb
ECHE 21.20 292 iPc 33 57.30 0.1
RYD 21.24 111 iPc 33 56.80 -0.9
IR7 21.24 79 iP- 33 58.00 0.2
IR5 21.26 80 iP 33 58.20 0.3
LFF 21.28 307 eP 33 57.20 -0.7
LSF 21.31 311 eP 33 58.40 0.2
MEM 21.32 326 P 33 59.70 1.5
e 34 13.70 61km
IR1 21.33 79 iP- 33 59.40 0.7
ENN 21.47 326 iPc 34 01.60 1.9
1.2s 476.00nm 5.7mb
i 34 10.00 30kmX
IR2 21.48 79 iP- 34 00.50 0.3
IR4 21.52 80 iP- 34 01.00 0.5
DOU 21.66 323 Pc+ 34 02.30 0.6
Z 12s 5.30um 5.2MszX
S 38 04.00
TEH 21.87 78 eP 34 08.00 3.9X
WTS 21.95 329 iP 34 06.70 2.3
1.0s 142.00nm 5.3mb
i 34 18.00 45kmX
ENIJ 22.05 285 iPc 34 05.00 -0.7
SNF 22.08 324 Pc 34 06.70 0.9
ETOR 22.19 295 iPc 34 07.20 0.1
UCC 22.23 324 Pc 34 10.30 3.0X
KMSA 22.29 123 ePd 34 07.90 -0.3
EVIA 22.31 289 iPc 34 08.20 -0.2
TAF 22.35 279 iPd 34 09.00 0.3
MFF 22.50 311 eP 34 10.30 0.2
WIT 22.61 331 eP 34 13.50 2.5X
e 34 28.00 62km
ABHA 22.63 130 iPc 34 10.90 -0.9
DBN 22.73 328 iP+ 34 15.00 2.9X
Z 16s 6.70um 5.2MszX
eS 38 31.00
COP 23.08 342 iPd 34 16.30 0.8
1.3s 369.23nm 5.7mb
i 34 31.00 63km
AFC 23.11 286 iP 34 16.90 0.7
CRT 23.15 285 iPd 34 18.70 2.1
APHE 23.23 285 iPc 34 19.20 1.8
ASMO 23.27 286 iPd 34 18.00 0.3
DHR 23.28 103 iPc 34 19.20 1.4
EBAN 23.30 288 iPc 34 18.30 0.4
LDF 23.38 315 eP 34 18.70 0.1
ATEJ 23.50 285 iPc 34 20.50 0.5
ALOJ 23.56 285 iPd 34 21.00 0.4
AAPN 23.57 286 iPd 34 20.50 -0.1
TOL 23.59 292 iPc 34 20.50 -0.2
1.2s 656.25nm 6.0mb
iPP 34 50.00
eS 38 23.00

LPF 23.67 313 eP 34 21.70 0.4
FLN 23.67 315 eP 34 21.50 0.1
1.2s 464.90nm 5.8mb
GRR 23.72 314 eP 34 22.00 0.2
GUD 23.74 294 iPc 34 23.50 1.2
MAL 23.82 284 iPd 34 24.60 1.7
iS 38 40.00
EHOR 24.46 287 eP 34 28.00 -1.1
EPRU 24.47 285 eP 34 28.90 -0.4
LIJA 24.62 285 iP 34 30.50 -0.2
SRO 24.62 283 iP 34 32.00 1.3
EJIF 24.69 284 iPc 34 31.20 -0.1
IFR 24.76 277 iPc 34 33.00 0.7
OJEN 24.77 283 iP 34 34.00 1.8
ALJ 24.78 284 iP 34 33.00 0.7
MOMI 24.90 284 iP 34 33.50 0.2
GIBL 25.05 285 iP 34 35.50 0.7
EPLA 25.16 292 eP 34 35.50 -0.3
CNIL 25.16 284 iP 34 37.50 1.7
UPP 26.06 352 iP 34 43.30 -0.5
ERUA 26.18 298 eP 34 45.80 0.5
NUR 26.29 360 eP 34 45.00 -1.0
0.7s 45.40nm 5.1mb
Z 22s 6.20um 5.1Msz
i 34 49.00 14kmX
eS 39 16.00
LR 46 20.00
AVE 26.68 277 iP 34 50.00 0.1
i 35 11.00 94kmX
HFS 26.90 348 eP 34 50.80 -0.8
0.6s 50.10nm 5.3mb
Z 16s 3.03um 5.0MszX
LR 43 50.00
TIO 27.10 272 iP 34 53.00 -0.9
i 35 15.40 101kmX
NRA0 27.86 346 P 34 59.60 -0.7
NAO 28.09 346 P 35 02.40 0.0
0.7s 24.50nm 4.9mb
AAE 28.21 150 eP 35 03.80 -0.4
MAIO 28.37 76 iPd 35 05.20 -0.1
eS 40 24.00
SUF 28.52 1 iP 35 06.10 -0.1
0.7s 15.40nm 4.7mb
EKA 28.60 326 Pd 35 07.10 0.1
1.3s 223.20nm 5.6mb
DLE 29.19 320 eP 35 12.20 -0.2
1.4s 172.00nm 5.5mb
DCN 29.61 320 eP 35 16.20 0.1
1.3s 319.00nm 5.9mb
DMU 29.68 321 eP 35 17.30 0.6
KJF 30.05 3 eP 35 19.00 -0.9
eS 40 16.00
SOD 33.20 1 iP 35 47.80 0.4
KEV 35.60 1 eP 36 08.00 0.1
0.6s 22.20nm 5.3mb
eS 41 44.00
QUE 35.77 85 P 36 09.60 -0.5
S 41 45.60
KUK 36.30 225 eP 36 11.00 -3.4X
KOGH 36.31 225 eP 36 11.00 -3.5X
e 41 56.00
SHGH 36.32 225 eP 36 11.00 -3.5X
e 41 50.00
LWI 36.48 173 iP+ 36 13.10 -3.0X
NAI 37.10 160 iPd 36 24.00 2.7X
1.0s 15.00nm 4.9mb
KIC 38.87 231 Pc 36 32.36 -3.7X
0.9s 213.50nm 6.0mb
LIC 39.16 231 Pc 36 34.78 -3.6X
0.9s 22.50nm 5.0mb
AKU 40.42 334 iP 36 51.30 3.1X
1.1s 81.01nm 5.5mb
KSH 40.90 67 P 36 54.00 1.4
N 11s 1.10um
sP 37 07.00
eS 43 05.00
NDI 44.71 82 iPd 37 24.50 0.8
1.0s 170.00nm 5.8mb
BOM 45.23 97 iP 37 28.00 0.1
eS 43 47.50
POO 46.26 97 iPd 37 36.50 0.4
KMZ 47.43 179 iPd 37 42.50 -2.9
i 39 55.50
PTZ 48.62 171 iPd 37 51.00 -3.5X
i 37 59.80 29kmX
i 38 15.00
WMQ 48.78 59 iPd 37 57.00 1.4

3.0s 60.00nm 5.1mb
Z 22s 2.20um 5.1Msz
PP 39 54.00
S 45 02.00
LSZ 49.34 176 iP 37 57.00 -3.1X
i 38 20.00 95kmX
i 39 22.00
HYB 50.69 95 ePc 38 08.50 -1.9
1.0s 86.00nm 5.7mb
e 38 23.00 55km
eS 45 24.00
GKN 51.03 80 P 38 11.90 -1.2
DMN 51.57 80 P 38 16.20 -1.1
KKN 51.64 80 P 38 16.50 -1.3
PKI 51.83 80 P 38 17.80 -1.6
GUN 52.08 79 P 38 20.00 -1.3
BUL 54.20 175 iPd 38 33.20 -3.3X
0.7s 13.70nm 5.1mb
ipP 39 03.80 130kmX
GDH 54.32 335 iPd 38 37.20 0.5
1.1s 108.86nm 5.8mb
e 46 25.00
LSA 55.64 75 P 38 45.50 -2.0
sP 39 01.00
eS 46 31.50
ALE 55.90 351 eP 38 48.00 -0.1
1.0s 21.00nm 5.1mb
AVY 57.22 154 eP 38 55.50 -2.9
SHL 57.94 79 iP 39 02.10 -1.4
eS 46 58.70
GTA 58.72 61 P 39 08.00 -0.6
Z 20s 1.10um 5.0Msz
N 13s 0.50um
S 47 15.00
SLR 59.73 176 eP 39 13.50 -2.2
1.0s 30.00nm 5.4mb
Z 18s 9.28um 6.0Msz
KSR 59.80 178 iPd 39 13.40 -2.8X
0.8s 12.50nm 5.1mb
BFS 60.83 178 iPd 39 19.00 -4.1X
FRB 61.28 330 eP 39 26.00 0.3
1.2s 154.00nm 6.0mb
LZH 62.93 63 eP 39 37.50 0.2
2.0s 137.00nm 5.7mb
Z 20s 1.10um 5.0Msz
e(S) 48 08.00
POF 63.43 185 iPc 39 39.00 -1.2
1.0s 40.00nm 5.4mb
SCH 63.64 320 ePc 39 41.40 -0.1
1.0s 62.00nm 5.6mb
CD2 65.05 69 Pc 39 50.20 -0.9
Z 20s 1.80um 5.3Msz
S 48 33.00
BTO 65.49 57 P 39 54.00 0.1
N 14s 0.30um
E 14s 0.60um
sP 40 09.00
S 48 40.00
eSS 52 53.00
HHC 66.45 56 P 40 00.00 0.0
Z 22s 2.40um 5.4Msz
N 10s 0.20um
pP 40 15.00 54km
S 48 51.50
CHTO 66.86 82 iPd 40 02.00 -0.8
1.1s 23.56nm 5.1mb
KMI 66.89 75 Pd 40 03.00 -0.2
Z 25s 1.30um 5.0MszX
eS 48 54.00
MBC 67.47 351 eP 40 06.00 0.2
0.7s 10.00nm 4.9mb
XAN 67.57 63 Pd 40 07.50 0.4
S 49 03.00
TIY 68.44 58 Pc 40 13.00 0.5
Z 26s 1.42um 5.1MszX
E 14s 0.60um
pP 40 27.00 49km
S 49 16.00
ScS 50 10.00
GYA 69.37 72 P 40 18.40 0.0
Z 30s 0.76um 4.8MszX
S 49 25.00
BJI 69.95 55 eP 40 22.50 0.9
Z 24s 1.10um 5.0MszX
eS 49 34.00
BNH 70.73 311 P 40 27.40 1.1
TIA 72.46 58 Pd 40 37.70 0.9

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	N	30s	1.30um			
GAC		72.75	314 ePd	40	40.30	2.0
RSNY		72.77	312 P	40	40.00	1.5
		1.3s	53.76nm			5.3mb
WHN		73.27	64 P	40	42.00	0.4
	Z	24s	1.40um			5.2MszX
			pP	40	54.00	40kmX
			S	50	08.00	
ITR		73.43	247 eP	40	41.20	-1.5
SNY		73.93	50 eP	40	45.50	0.3
	N	36s	2.50um			
	E	34s	1.60um			
			S	50	19.00	
CN2		74.06	48 Pc	40	46.50	0.6
		4.0s	0.30nm			2.6mb X
	Z	18s	1.50um			5.3Msz
	E	14s	0.60um			
			pP	40	56.00	31kmX
			eS	50	15.00	
DL2		74.18	54 eP	40	48.00	1.3
BRW		74.75	0 ePc	40	50.20	0.8
PRIN		75.09	309 P	40	53.70	1.8
SOB1		75.61	248 eP	40	54.50	-0.8
QIZ		75.63	77 eP	40	55.00	-0.3
			sP	41	09.00	
			sS	50	48.50	
NJ2		75.81	61 Pd	40	56.80	0.6
	Z	24s	0.70um			4.9MszX
			S	50	38.00	
DHN		75.94	312 P	40	58.20	1.4
MDJ		76.10	45 eP	40	58.00	0.4
	Z	30s	1.10um			5.0MszX
	N	12s	0.50um			
			eS	50	42.00	
			eSS	55	35.00	
INK		76.48	352 eP	41	00.00	0.7
YKC		78.20	342 eP	41	09.50	0.6
		1.0s	23.00nm			5.1mb
YKA		78.22	342 eP	41	10.40	1.4
CVL		78.83	308 P	41	13.60	0.8
RSON		79.45	325 P	41	16.00	0.1
		0.9s	25.21nm			5.1mb
IMA		80.01	359 ePc	41	20.10	1.3
		1.8s	125.00nm			5.5mb
FFC		80.28	332 eP	41	21.00	0.7
		1.1s	83.00nm			5.6mb
BLA		80.54	309 P	41	22.80	0.7
		0.8s	10.18nm			4.8mb
FBA		81.02	357 ePc	41	25.70	1.7
ATB		81.09	260 Pd	41	25.40	0.2
JSC		82.82	307 P	41	34.70	0.8
TTA		83.17	0 eP	41	37.50	2.2
TKL		83.63	309 P	41	39.00	0.9
TOA		83.72	356 eP	41	40.60	2.5X
PMR		84.38	357 ePc	41	43.40	2.1
		1.3s	61.30nm			5.5mb
RSCP		84.83	310 P	41	45.00	0.9
		1.3s	64.52nm			5.6mb
SVW		85.00	0 eP	41	47.10	2.6X
BAO		85.00	247 eP	41	46.00	0.7
EDM		85.60	336 iPc	41	48.70	1.0
		1.1s	117.00nm			5.9mb
ELC		86.02	313 P	41	50.00	0.0
MAT		86.21	48 eP	41	52.00	1.0
		1.2s	48.44nm			5.6mb
	Z	20s	1.06um			5.2Msz
			eS	52	23.00	
FVM		86.28	314 P	41	52.00	0.7
BMA		86.51	240 eP	41	53.50	1.0
ITA		86.70	240 ePc	41	54.40	0.6
SES		87.12	333 ePd	41	57.60	2.4
		1.5s	133.00nm			5.9mb
KDC		88.34	359 eP	42	02.90	2.1
PNT		90.98	338 ePc	42	15.00	1.6
LRM		91.41	332 eP	42	17.60	1.8
IMW		92.38	330 P	42	22.40	2.1
BW06		92.69	328 P	42	22.00	0.3
		1.0s	13.75nm			5.3mb
ALO		97.41	321 eP	42	44.00	0.7
		1.2s	4.69nm			4.9mb
	Z	18s	0.86um			5.3Msz
WB5		116.83	97 ePKP	47	53.50	-1.0
			e	49	05.50	
WRA		116.84	97 PKPd	47	53.50	-1.0
		1.1s	4.70nm			
ASPA		118.23	101 ePKP	47	56.40	-0.7
		1.0s	7.00nm			
QIS		121.47	95 ePKP	48	03.00	-0.3
SPA		124.05	180 iPKPd	48	06.70	-0.4
		1.0s	40.00nm			
	Z	20s	3.56um			6.0Msz
CTA		126.75	91 iPKPd	48	14.00	0.4
		1.0s	14.50nm			

S.D. = 1.1 on 297 of 385 obs.

MAR 28, 1989 14h 30m 26.58± 0.55s
58.536 N ±13.9km 0.232 E ±11.8km
DEPTH = 0.0km (geophysicist)
NORTH SEA (534)
ML 3.2 (BGS), 2.8 (BER).
Probable explosion.

EDU		2.65	223 iPnc	31	11.70	0.3
KMY		2.69	73 iP	31	12.90	1.0
ELO		2.97	227 ePnc	31	15.90	0.0
			eSn	31	45.50	
ESY		3.05	212 iPnc	31	16.70	-0.2
EBH		3.06	223 iPnc	31	17.30	0.2
BER		3.20	52 iP	31	19.10	0.1
EDI		3.21	217 ePn	31	19.20	0.0
			eSn	31	49.80	
EBL		3.29	214 ePnc	31	20.00	-0.5
EAU		3.36	218 ePn	31	21.60	0.1
EAB		3.42	228 ePn	31	22.30	0.1
			eSn	31	56.50	
BLS1		3.52	73 iP	31	24.80	1.0
ODD1		3.57	65 iPd	31	24.90	0.6
EKA		3.71	211 P	31	32.00	5.6X
		0.4s	6.70nm			4.2mb
HYA		4.00	46 iP	31	30.60	0.2
MOL		5.42	39 iPc	31	50.30	-0.3
NRA0		6.14	64 iPd	32	00.50	-0.3
			iS	33	07.00	
			iSg	33	25.80	
HFS		7.07	71 eP	32	11.60	-2.2
		0.4s	2.40nm			4.8mb X

S.D. = 0.8 on 16 of 17 obs.

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* MAR 28, 1989 14h 55m 27.12± 0.61s
37.121 N ± 9.7km 69.485 E ± 8.1km
DEPTH = 33.0km (normal)
4.1mb (2 obs.)
AFGHANISTAN-USSR BORDER REGION (717)

KSH		5.62	64 eP	56	50.00	-0.6
QUE		7.23	198 P	57	14.90	1.5
			S	58	37.90	
MAIO		8.07	267 ePn	57	24.00	-1.0
			eSn	58	54.00	
WMO		15.38	59 P	59	05.00	1.7
GKN		15.66	121 P	59	01.40	-5.7X
HYB		21.19	155 eP	00	11.00	-1.2
SHL		22.27	115 iP	00	23.00	0.0
GTA		23.87	75 P	00	37.40	-1.1
HFS		41.83	322 eP	03	15.40	0.3
		0.5s	1.90nm			4.1mb
NAO		43.32	322 P	03	27.30	0.1
		0.8s	2.70nm			4.0mb
MBC		66.77	2 eP	06	17.00	0.2

S.D. = 1.2 on 10 of 11 obs.

? MAR 28, 1989 15h 08m 08.49± 2.09s
11.148 N ± 6.9km 61.851 W ±42.5km
DEPTH = 33.0km (normal)
WINDWARD ISLANDS (95)
MD 3.5 (TRN).

TCE		0.46	168 eP	08	18.59	0.1
			eS	08	30.57	
TRN		0.66	138 eP	08	21.53	0.1
			iS	08	36.31	
TPP		0.91	154 eP	08	24.74	-0.2
			eS	08	43.30	
GRW		1.02	10 eP	08	22.00	-4.6X
			eS	08	36.12	
SVB		2.19	15 eP	08	44.19	0.9
			eS	09	14.06	
SVV		2.24	16 eP	08	44.55	0.5
			eS	09	14.91	
SLB		2.78	16 eP	08	50.31	-1.4
			eS	09	23.56	

S.D. = 1.0 on 6 of 7 obs.

? MAR 28, 1989 15h 33m 00.33± 1.82s
60.613 N ± 7.8km 6.121 E ±23.9km
DEPTH = 0.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.8 (BER). Probable explosion.

HYA		0.56	3 eP	33	10.90	-0.5
			eS	33	20.60	
ODD1		0.75	160 eP	33	15.20	0.0
			eS	33	25.10	
MOL		2.08	19 iP	33	37.60	0.7
			eS	33	58.10	
			eSg	34	06.40	
NRA0		2.67	85 iPc	33	45.20	-0.2
			iPg	33	48.60	
			iS	34	22.30	

S.D. = 0.9 on 4 of 4 obs.

% MAR 28, 1989 16h 02m 14.31± 0.81s
60.627 N ± 5.2km 6.228 E ±13.0km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 2.0 (BER).

HYA		0.54	358 iP	02	24.60	-0.6
			eS	02	30.80	
ODD1		0.74	164 iP	02	28.30	-0.6
			eS	02	36.70	
BLS1		1.28	166 iP	02	38.00	-0.1
			iS	02	54.20	
KMY		1.50	200 iP	02	41.80	0.5
			eS	03	01.70	
MOL		2.05	17 iP	02	49.80	0.6
			eS	03	15.80	
NRA0		2.62	85 iPc	02	57.50	0.2
			iPg	03	00.10	
			iS	03	34.20	

S.D. = 0.7 on 6 of 6 obs.

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* MAR 28, 1989 16h 47m 30.72± 2.38s
1.951 S ± 8.8km 128.931 E ±11.8km
DEPTH = 53.1 ± 24.1 km
5.3mb (6 obs.)
HALMAHERA (267)

MKS		9.98	251 iPc	49	56.00	1.7
MTN		11.04	169 eP	50	08.00	-0.7
			eS	52	06.00	
KNA		13.71	181 eP	50	43.50	-0.7
WB5		18.59	164 eP	51	44.20	-2.0
			eS	55	03.20	
WRA		18.65	164 Pc	51	46.80	0.0
		0.7s	17.80nm			4.4mb
MBL		21.05	204 iPc	52	11.40	-1.2
		0.3s	2.00nm			3.9mb X
QIS		21.23	151 eP	52	16.00	1.6
		0.8s	240.00nm			5.6mb
			e	56	07.00	
ASPA		22.12	168 iPc	52	24.70	1.4
		0.8s	102.00nm			5.3mb X
			eS	56	23.70	
WARB		24.19	185 eP	52	40.70	-2.8X
NANU		24.27	211 eP	52	44.50	0.3
CTA		24.73	138 iPc	52	53.00	4.3X
			i	53	03.00	
			e	53	18.50	
			e	54	39.00	
			i	59	04.50	
FORR		28.75	181 eP	53	26.90	1.5
WHN		35.18	338 P	54	23.20	1.5
GYA		35.50	324 P	54	25.00	0.4
CHTO		35.99	306 eP	54	29.00	0.3
BWA		37.07	153 eP	54	42.90	5.2X
CAN		38.08	153 eP	54	50.10	4.0X
MAT		39.26	12 eP	54	56.00	0.1
XAN		40.45	334 P	55	05.50	-0.3
TIY		42.32	340 Pd	55	21.70	0.5
BJI		43.39	346 eP	55	30.00	0.3
SHL		45.09	310 iP	55	44.00	0.1
GTA		49.08	330 eP	56	13.00	-1.9
GUN		50.91	309 P	56	29.10	-0.2
		0.8s	41.00nm			5.5mb
PKI		51.12	308 P	56	30.10	-0.8
KKN		51.32	308 P	56	32.00	-0.3
		0.6s	15.00nm			5.2mb
DMN		51.37	308 P	56	32.30	-0.4
		0.8s	24.00nm			5.3mb

GKN 51.92 308 P 56 36.40 -0.4
0.8s 28.00nm 5.3mb
HYB 53.24 293 eP 56 45.00 -1.6
MAIO 74.71 308 eP 59 08.00 0.9
S.D. = 1.1 on 26 of 30 obs.

MAR 28, 1989 17h 05m 10.52± 0.33s
29.768 S ±10.0km 177.812 W ± 6.7km
DEPTH = 53.0km (6 depth phases)
5.2mb (18 obs.)
KERMADEC ISLANDS (178)
Felt (IV) on Raoul Island.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 12S, 23C
Centroid Location:
Origin Time 17:05:16.0 1.5
Lat 30.13S 0.11 Lon 177.67W 0.12
Dep 57.3 6.0 Half-duration 1.5
Moment Tensor; Scale 10**16 Nm
Mrr= 4.15 0.37 Mtt= 0.86 0.69
Mff=-5.01 0.47 Mrt= 0.64 0.48
Mrf= 1.56 0.61 Mtf=-2.60 0.43
Principal Axes:
T Val= 4.42 Plg=81 Azm=291
N 1.85 0 201
P -6.27 9 111
Best Double Couple:Mo=5.3*10**16
NP1:Strike=201 Dip=36 Slip= 90
NP2: 21 54 90

RAO 0.52 350 iP 05 22.00 -0.3
KRP 9.83 212 P 06 52.80 -39.2X
BRS 25.91 268 iPc 10 42.50 3.1X
i 10 45.60 11kmX
i 10 52.00
i 11 40.00
i 13 18.00
COO 26.17 261 eP 10 46.00 4.2X
CAN 28.44 250 iPd 11 04.70 2.3
e 14 14.20
BWA 28.90 252 iPd 11 06.70 0.1
RMQ 29.61 268 iPd 11 14.90 1.9
0.6s 71.00nm 5.5mb
CMS 31.25 258 eP 11 29.00 1.6
TOO 31.37 246 iPc 11 30.40 2.0
e 14 24.00
CTA 33.86 278 iPc 11 51.60 1.3
0.6s 72.00nm 5.8mb
Z 18s 0.48um 4.3Msz
i 12 06.00 57km
i 12 11.00
STK 34.79 256 iPc 11 59.70 1.6
QIS 39.43 273 eP 12 38.00 0.7
ASPA 43.31 266 eP 13 08.80 -0.3
0.7s 37.00nm 5.2mb
WRA 44.24 271 Pc 13 15.60 -1.0
0.7s 18.30nm 5.0mb
WB5 44.24 271 eP 13 16.20 -0.4
FORR 46.32 254 eP 13 32.00 -0.9
0.5s 33.00nm 5.5mb
SBA 48.68 184 e(P) 13 52.50 1.7
WARB 48.79 260 eP 13 46.50 -5.9X
0.5s 8.00nm 5.0mb
MTN 50.05 278 eP 14 02.00 -0.1
e 15 20.00 383kmX
KNA 50.79 274 eP 14 07.30 -0.4
COOL 52.11 252 iPd 14 15.60 -2.0
0.5s 7.00nm 4.9mb
KLB 54.71 251 eP 14 34.00 -2.7
MEKA 55.56 257 eP 14 41.00 -2.0
MBL 56.37 263 eP 14 46.00 -2.9
0.6s 10.00nm 5.0mb
NANU 59.54 260 eP 15 09.30 -1.7
SPA 60.40 180 e(P) 15 15.50 -1.1
1.0s 24.00nm 5.3mb
i 15 24.00 28kmX
CHJJ 77.04 325 P 17 00.00 0.5
IIDJ 77.13 324 P 16 58.10 -2.0
MAT 77.82 325 eP 17 03.00 -0.8
1.4s 53.49nm 5.4mb
MTMJ 78.05 325 P 17 05.80 0.6
ADK 81.30 1 P 17 20.00 -2.0
0.8s 44.83nm 5.5mb
SSE 83.82 311 (P) 17 40.00 4.5X
SYP 84.06 45 eP 17 53.00 16.1X
BCH 84.44 44 P 17 39.50 0.7

PRS 84.45 43 eP 17 39.30 0.7
GCC 84.56 42 eP 17 39.50 0.3
PRI 84.74 43 eP 17 40.90 0.7
MHC 84.98 42 eP 17 42.10 0.7
ARN 85.05 42 P 17 42.30 0.6
PLM 85.23 47 eP 17 43.00 0.1
e 17 58.00 52km
RVR 85.32 46 eP 17 43.00 -0.1
SBB 85.49 46 eP 17 44.00 0.0
FRI 85.88 43 eP 17 45.60 -0.1
NJ2 85.96 310 Pd 17 47.40 1.2
CMB 86.18 42 eP 17 47.40 0.1
TPC 86.24 47 eP 17 48.00 0.3
e 18 03.00 52km
CLC 86.37 45 eP 17 49.00 0.7
e 18 04.00 52km
GSC 86.53 46 eP 17 49.00 -0.1
e 18 05.00 56km
ORV 86.59 40 eP 17 49.00 -0.2
WDC 86.72 39 eP 17 50.00 0.2
TNP 88.08 43 P 17 57.00 0.3
0.5s 6.92nm 5.1mb
KVN 88.19 42 P 17 56.50 -0.7
MDJ 88.20 325 eP 17 58.00 1.2
SNY 89.41 320 eP 18 03.70 1.1
TIA 89.66 313 eP 18 05.10 1.2
EUR 89.73 43 iP 18 04.60 0.1
0.2s 14.51nm 5.9mb
CN2 89.74 323 P 18 04.00 -0.1
MSU 91.43 46 P 18 13.00 0.6
BJI 92.59 315 eP 18 16.00 -1.3
ALQ 93.05 51 ePc 18 19.50 -0.4
1.0s 7.50nm 5.1mb
epP 18 34.20 50km
CHTO 93.52 290 eP 18 23.00 0.9
1.0s 1.50nm 4.4mb
TIY 93.57 312 eP 18 23.90 1.9
TTA 94.01 10 P 18 22.40 -1.1
1.0s 6.25nm 5.0mb
BW06 95.57 43 P 18 30.00 -1.3
1.0s 4.38nm 4.9mb
FBA 97.22 12 P 18 38.00 0.1
0.9s 9.17nm 5.3mb
KKN 108.77 292 PKP 23 35.00 -1.0
BUL 124.23 210 iPKPc 24 04.90 -0.7
1.0s 5.00nm
QUE 124.62 288 PKP 24 06.10 0.0
FRB 124.75 31 ePKP 24 04.00 -1.0
MAIO 132.11 294 ePKP 24 20.00 -0.2
KEV 137.54 347 ePKP 24 33.00 3.7X
KJF 141.95 342 ePKP 24 29.00 -8.4X
SUF 143.56 342 iPKP 24 36.70 -3.5X
0.6s 22.60nm
NUR 145.78 340 iPKP 24 43.00 -1.0
1.0s 200.00nm
UPP 148.15 345 iPKP 24 49.60 1.8
i 24 53.10
NAO 148.41 352 PKP 24 51.40 3.1X
0.8s 28.90nm
HFS 148.66 349 ePKP 24 49.00 0.3
0.5s 6.00nm
DSI 151.45 282 ePKP 25 00.50 6.7X
PRNI 151.65 279 ePKP 25 01.00 6.8X
MBH 151.67 278 e(PKP) 24 54.00 -0.2
BBTK 153.07 300 ePKP 25 03.50 7.4X
KIC 155.82 163 PKP 25 06.20 5.8X
KSP 156.44 337 ePKP 25 10.50 10.4X
1.1s 29.00nm
id 25 29.40
BRG 157.15 341 ePKP 25 15.50 14.5X
1.6s 19.00nm
i 25 32.10
KHC 158.80 339 ePKP 25 02.50 -0.5
i 25 40.00
S.D. = 1.2 on 69 of 85 obs.

% MAR 28, 1989 17h 44m 25.64± 0.78s
40.108 N ± 5.6km 29.364 E ± 7.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YLV 0.46 1 iPg 44 34.90 -0.1
HRT 0.75 18 ePg 44 40.00 -0.3
DST 0.76 229 ePg 44 39.40 -1.1
eSg 44 49.40
KCT 0.78 281 iPg 44 41.90 1.0
iSg 44 54.40

BNT 1.13 283 iPn 44 46.90 0.0
ALT 1.20 151 ePn 44 48.60 0.5
CTT 1.26 326 ePn 44 49.00 0.0
S.D. = 0.8 on 7 of 7 obs.

MAR 28, 1989 17h 51m 48.53± 0.75s
39.264 N ± 6.2km 23.677 E ± 7.1km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.1 (ATH).

NEO 0.35 277 ePg 51 54.00 -1.9
PLG 1.12 351 ePb 52 09.70 0.1
eSb 52 25.20
ATH 1.29 179 ePb 52 11.50 -0.9
KZN 1.80 306 ePb 52 18.50 -1.4
PRK 2.01 90 ePb 52 27.50 4.6X
VAY 2.22 338 ePn 52 26.30 0.4
MMB 2.32 1 iPc 52 26.00 -1.4
RDO 2.36 37 ePn 52 29.00 1.1
ITM 2.50 214 ePb 52 31.00 1.2
LSK 2.53 291 ePn 52 29.90 -0.5
RZN 2.55 18 iP 52 31.00 0.3
KBN 2.59 303 ePn 52 32.00 0.9
KKB 2.64 350 iP 52 31.00 -0.9
KDZ 2.73 29 eP 52 33.00 -0.2
OHR 2.87 311 ePn 52 37.20 1.9
SRN 2.91 283 ePn 52 37.20 1.5
PLD 2.94 15 eP 53 28.00 51.9X
DIM 3.12 26 eP 52 55.00 16.4X
SKO 3.20 329 ePn 52 47.00 7.2X
BERA 3.20 298 ePn 52 42.40 2.5X
PGB 3.30 6 iP 52 51.00 9.6X
VTS 3.34 354 eP 52 43.00 1.0
LACI 3.84 309 e(Pn) 53 05.00 16.0X
PVL 4.14 17 iPd 52 52.00 -1.1
S.D. = 1.2 on 17 of 24 obs.

& MAR 28, 1989 18h 12m 54.20s
36.230 N 120.840 W
DEPTH = 5.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 2.8 (BRK).

PRI 0.17 122 iPd 12 58.10 0.4
LLA 0.39 348 iPd 13 02.00 -0.1
PRS 0.44 283 iPc 13 02.60 -0.4
PHAM 0.53 138 eP 13 04.40 -0.5
PKEM 0.62 106 eP 13 07.10 0.6
SAO 0.72 318 iPc 13 07.10 -1.6
e 13 09.70
eS 13 21.10
FRI 1.19 50 iPd 13 15.30 -1.5
eS 13 31.30
BCH 1.21 149 eP 13 16.10 -1.2
GCC 1.23 311 eP 13 15.80 -1.7
ARN 1.25 334 eP 13 16.30 -1.6
MHC 1.28 330 eP 13 17.10 -1.4
eS 13 39.55
PCC 1.77 316 eP 13 23.60 -2.1
CMB 1.84 11 eP 13 25.10 -1.6
iS 13 49.10
BKS 1.99 326 iPd 13 26.90 -1.9
BRK 2.00 326 eP 13 27.20 -1.7
KVN 3.56 37 eP 13 55.50 4.1
16 obs. associated

% MAR 28, 1989 18h 21m 22.93± 0.99s
30.916 S ± 8.3km 117.144 E ±11.8km
DEPTH = 10.0km (geophysicist)
WESTERN AUSTRALIA (590)

BAL 0.49 309 iPd 21 32.40 -0.4
iS 21 38.50
KLB 0.86 142 iPd 21 39.40 0.0
iS 21 50.50
MUN 1.33 217 iPc 21 47.70 0.3
iS 22 04.30
MRWA 1.96 329 eP 21 57.00 0.4
eS 22 22.50
NWAO 2.01 178 eP 21 57.00 -0.2
eS 22 24.50
S.D. = 0.5 on 5 of 5 obs.

MAR 28, 1989 18h 30m 33.67± 0.61s
35.548 N ± 7.6km 27.386 E ± 5.6km
DEPTH = 22.4 ± 6.7 km

28d 18h

DODECANESE ISLANDS (369)
MD 3.8 (ATH).

KAP	0.17	271	ePg	30 38.50	-0.2
NPS	1.48	259	ePb	31 00.30	1.2
YER	1.74	24	iPn	31 01.60	-1.3
KSL	1.87	72	ePn	31 06.00	1.2
ELL	2.37	59	iPn	31 13.50	1.5
VAM	2.60	268	ePn	31 16.00	0.7
IZM	2.85	358	ePn	31 15.00	-3.7X
BCK	3.21	53	ePn	31 25.80	1.9
KHL	3.26	31	iPn	31 24.30	-0.3
PRK	3.80	347	ePn	31 32.00	-0.1
PPCY	4.11	98	eP	31 37.50	0.8
ALT	4.12	31	ePn	31 39.00	2.1X
DST	4.17	13	ePn	31 35.40	-2.1
ITM	4.70	292	ePn	31 45.80	0.8
CSS	4.90	95	eP	31 47.50	-0.3
NEO	5.00	320	ePn	31 47.70	-1.6
BBTK	6.04	43	eP	32 05.50	1.4
BURJ	7.72	113	P	32 26.20	-1.3
DSI	7.76	118	eP	32 27.00	-1.1
PRNI	8.23	127	ePc	32 39.00	4.3X
MBH	8.55	130	iP	32 38.00	-1.0
			eS	34 09.00	

S.D. = 1.4 on 18 of 21 obs.

& MAR 28, 1989 20h 21m 29.36s
60.307 N 152.002 W
DEPTH = 74.8km
4.2mb (1 obs.)
SOUTHERN ALASKA (2)
<AGS-P>.

RDT	0.33	323	iP	21 41.07	-0.5
			eS	21 49.97	
NNL	0.44	127	iP	21 42.82	0.5
ILIM	0.53	245	iP	21 42.32	-0.8
NKA	0.58	40	iP	21 45.00	1.5
			eS	21 54.82	
CNPM	0.87	153	iP	21 46.15	-0.7
			eS	21 58.98	
SPU	0.88	358	iP	21 46.49	-0.5
			eS	22 00.35	
SLKM	0.91	76	iP	21 46.40	-0.9
			eS	22 00.52	
CRP	0.97	356	iP	21 47.92	-0.2
			eS	22 01.36	
PDB	1.22	246	iP	21 49.79	-1.3
			eS	22 05.82	
SEW	1.29	98	iP	21 50.72	-1.3
			eS	22 08.17	
PMS	1.52	51	iPd	21 54.60	-0.6
SKT	1.69	8	iP	21 56.81	-0.7
PWA	1.70	37	iPd	21 57.10	-0.5
PWL	1.89	71	eP	21 56.62	-3.6
PLRM	1.90	46	iP	21 59.02	-1.3
			eS	22 21.41	
PMR	1.90	46	iPd	21 59.10	-1.2
SVW	1.95	296	iPc	21 59.20	-1.9
PME	1.96	46	iP	22 00.05	-1.1
			eS	22 22.76	
GHO	2.10	44	iP	22 01.92	-1.2
KNIM	2.12	87	iP	22 00.69	-2.7
MTU	2.20	96	eP	22 02.77	-1.7
GLI	2.49	75	eP	22 05.08	-3.4
KDC	2.58	186	iPd	22 07.20	-2.4
HIN	2.74	86	eP	22 09.09	-2.8
			eS	22 39.83	
FID	2.77	78	iP	22 08.82	-3.5
			eS	22 38.70	
VZW	2.78	72	iP	22 10.03	-2.6
VLZ	2.91	71	iP	22 11.83	-2.4
			eS	22 44.64	
MID	2.99	105	eP	22 12.90	-2.4
KLU	3.20	66	iP	22 16.10	-2.3
			eS	22 52.80	
TTA	3.25	326	ePc	22 17.30	-1.9
TOA	3.35	55	iPd	22 19.00	-1.5
SGAM	3.38	84	eP	22 18.26	-2.5
RAGM	3.64	86	eP	22 22.92	-1.6
GLB	4.16	71	iP	22 28.70	-3.2
FBA	5.00	21	iPc	22 41.00	-2.5
CTGM	5.29	78	iP	22 46.15	-1.6
IMA	5.83	353	iPc	22 53.10	-2.2
DWY	6.98	52	P	23 08.10	-2.8
HYT	7.17	80	P	23 10.80	-2.9
INK	11.29	37	eP	24 07.00	-2.7
YKA	17.87	67	eP	25 32.20	-1.8
MBC	19.54	23	eP	25 49.00	-4.0
	0.4s		5.00nm		4.2mb

42 obs. associated

? MAR 28, 1989 20h 27m 20.40± 2.68s
26.434 N ±44.4km 72.332 E ±13.7km
DEPTH = 33.0km (normal)
NORTHERN INDIA (308)

NDI	4.88	62	ePn	28 33.50	0.1
			eSn	29 21.00	
QUE	6.04	309	P	28 50.00	0.0
GKN	11.06	79	P	29 59.20	-0.4
DMN	11.45	81	P	30 05.70	0.8
	0.4s		9.00nm		5.3mb
KKN	11.61	80	P	30 07.10	0.0
PKI	11.72	82	P	30 08.90	0.3
GUN	12.15	80	P	30 13.80	-0.7

S.D. = 0.6 on 7 of 7 obs.

MAR 28, 1989 20h 40m 38.55± 2.23s
33.742 N ± 9.9km 65.105 E ± 6.3km
DEPTH = 23.4 ± 17.4 km
4.6mb (15 obs.)
AFGHANISTAN (709)

QUE	3.87	156	iPd	41 40.00	1.8
MAIO	5.26	301	ePn	41 58.00	0.1
	0.8s		73.21nm		5.3mb
			e	42 16.00	
			eSn	43 26.00	
KHI	5.39	276	eP	41 59.80	0.1
GKN	17.71	104	P	44 45.40	0.0
DMN	18.25	104	P	44 51.90	-0.3
	0.6s		19.00nm		4.4mb
KKN	18.31	103	P	44 51.50	-1.5
PKI	18.51	104	P	44 53.90	-1.5
HYB	20.25	140	eP	45 15.00	-0.1
GBA	22.97	148	Pc	45 43.20	0.8
	0.6s		2.90nm		4.0mb
CHTO	33.61	108	eP	47 19.50	0.1
	0.9s		21.31nm		5.1mb
BZS	35.10	303	eP	47 33.00	1.1
KBA	40.88	305	eP	48 22.00	1.5
	1.0s		3.20nm		4.0mb
HFS	42.37	325	eP	48 32.60	0.3
	0.4s		1.40nm		4.0mb
NAO	43.92	325	P	48 44.70	-0.1
	0.9s		4.00nm		4.2mb
LPG	45.53	303	eP	48 58.00	-0.4
	0.6s		2.70nm		4.4mb
LBF	47.28	305	eP	49 11.90	0.0
	0.8s		4.00nm		4.5mb
LOR	47.33	306	eP	49 11.80	-0.4
SMF	47.41	305	eP	49 12.70	-0.2
	0.9s		11.40nm		4.9mb
SSF	47.59	305	eP	49 13.50	-0.8
AVF	47.73	305	eP	49 14.90	-0.4
MAF	48.34	304	eP	49 19.40	-0.7
TCF	48.58	305	eP	49 21.40	-0.6
CAF	48.89	303	eP	49 23.80	-0.6
	0.9s		5.50nm		4.6mb
LSF	49.05	305	eP	49 25.40	-0.2
EKA	50.95	317	P	49 41.00	1.1
	1.4s		12.10nm		4.6mb
KIC	69.74	264	P	51 47.40	-1.7
	0.8s		17.00nm		5.2mb
LIC	70.06	264	P	51 49.40	-1.5
MBC	70.25	1	eP	51 52.00	0.9
INK	77.31	7	eP	52 33.00	0.7
YKA	84.10	360	eP	53 10.00	1.7
WB5	84.79	118	eP	53 12.00	-0.5
WRA	84.81	118	P	53 14.00	1.4
	0.9s		3.60nm		4.6mb
ASPA	86.81	121	iPc	53 22.30	-0.1
	0.9s		8.00nm		4.9mb

S.D. = 1.0 on 33 of 33 obs.

MAR 28, 1989 20h 46m 50.96± 0.83s
40.611 N ± 6.9km 20.857 E ± 7.7km
DEPTH = 10.0km (geophysicist)
GREECE-ALBANIA BORDER REGION (392)
MD 3.2 (ATH). ML 2.8 (SKO).

LSK	0.50	203	ePn	47 01.70	0.6
OHR	0.50	355	iPg	46 58.90	-2.2
			iSg	47 05.10	
BERA	0.70	278	ePg	47 02.70	-2.0
TPE	0.72	244	ePn	47 10.00	4.9X
KZN	0.76	113	iPbc	47 05.50	-0.4
			eSb	47 17.30	
TIR	1.05	315	ePn	47 10.50	-0.2
PHP	1.12	344	ePn	47 12.00	0.1
LACI	1.34	320	ePn	47 17.10	1.5
SKO	1.43	18	iPn	47 17.00	0.1
			iSn	47 33.30	
VAY	1.48	61	ePn	47 17.40	-0.2
KKS	1.50	347	ePn	47 18.50	0.6
BCI	1.85	342	ePn	47 25.20	2.2
PLG	1.99	96	ePn	47 20.00	-5.0X
NEO	2.24	125	ePg	47 35.00	6.4X

S.D. = 1.5 on 11 of 14 obs.

• MAR 28, 1989 21h 17m 46.35± 0.92s
40.669 N ± 8.4km 20.858 E ±11.3km
DEPTH = 10.0km (geophysicist)
GREECE-ALBANIA BORDER REGION (392)
ML 2.5 (SKO).

OHR	0.44	354	iPgc	17 54.40	-1.0
			iSg	18 01.30	
LSK	0.55	201	ePg	17 57.20	-0.5
SKO	1.37	18	iPn	18 12.50	1.0
			iSn	18 28.50	
VAY	1.45	63	ePn	18 12.50	-0.1
MGR	4.08	264	P	18 50.80	0.6
			eSn	19 37.70	

S.D. = 1.1 on 5 of 5 obs.

? MAR 28, 1989 21h 59m 04.03± 7.74s
24.404 N ±45.7km 123.501 E ±59.8km
DEPTH = 26.7 ± 12.8 km
SOUTHWESTERN RYUKYU ISLANDS (246)

TWC	1.52	278	iPd	59 28.70	-1.0
			eS	59 42.30	
TWD	1.77	260	eP	59 33.00	-0.3
TWZ	1.88	292	eP	59 35.30	0.4
			eS	59 53.90	
ANP	1.96	294	eP	59 41.00	4.8X
TWQ	2.43	268	ePc	59 43.80	0.9
SSE	6.97	343	eP	00 47.00	0.0

S.D. = 1.4 on 5 of 6 obs.

• MAR 28, 1989 22h 37m 29.45± 0.84s
7.122 S ±11.1km 72.313 E ±16.1km
DEPTH = 10.0km (geophysicist)
4.8mb (6 obs.)
CHAGOS ARCHIPELAGO REGION (426)
Felt (IV) on Diego Garcia.

GBA	21.21	14	Pc	42 18.50	0.8
	0.9s		5.60nm		3.9mb
HYB	25.15	14	ePc	42 55.50	-1.0
DMN	36.68	19	P	44 39.00	0.3
	0.8s		15.00nm		4.8mb
PKI	36.74	20	P	44 39.20	-0.2
	0.6s		8.00nm		4.7mb
GKN	36.89	18	Pd	44 40.60	0.2
	0.6s		22.00nm		5.1mb
KKN	36.90	19	P	44 40.70	0.1
	0.7s		20.00nm		5.0mb
SHL	37.66	30	iP	44 46.60	-0.3
WRA	61.34	109	Pd	47 48.20	0.0
	0.7s		2.40nm		4.5mb
WB5	61.36	109	eP	47 48.30	0.0
KIC	78.03	278	P	49 30.50	0.0

S.D. = 0.5 on 10 of 10 obs.

% MAR 28, 1989 22h 40m 30.38± 0.79s
39.523 N ± 7.8km 29.015 E ± 8.3km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.31	285	iPg	40 36.40	-0.5
			iSg	40 42.40	
KCT	0.88	325	iPg	40 48.20	0.8
ALT	0.97	118	ePg	40 49.00	0.1
			iSg	41 00.50	
YLV	1.08	15	iPn	40 50.20	-0.5
KHL	1.26	162	iPn	40 53.90	0.0

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

% MAR 28, 1989 23h 53m 02.61± 0.96s
33.380 S ± 9.9km 70.721 W ±16.5km
DEPTH = 33.0km (normal)
CHILE-ARGENTINA BORDER REGION (127)

SAN	0.09	146	iPc	53 10.00	1.6
			iS	53 19.50	
PEL	0.24	7	iPc	53 10.70	1.0
			iS	53 19.50	
TACH	0.33	214	iPd	53 11.00	0.2
FCH	0.36	82	iP	53 11.60	0.1
			iS	53 22.50	
CHCH	0.56	174	iPc	53 12.70	-1.4
			iS	53 24.50	
JACH	0.70	9	iPd	53 14.70	-1.5
			iS	53 27.50	

S.D. = 1.6 on 6 of 6 obs.

MAR 29, 1989 00h 14m 53.84± 0.43s
27.150 N ± 3.2km 140.436 E ± 3.7km
DEPTH = 283.6 ± 4.1 km
5.0mb (47 obs.)
BONIN ISLANDS REGION (212)
Felt (II JMA) on Chichi-shima.

CBI	1.56	92	iPd	15 33.30	-2.8
			iS	16 01.80	
WKYJ	8.19	331	P	16 52.80	2.4
IIDJ	8.58	346	P	16 55.10	-0.1
			eS	18 28.70	
TKSJ	8.76	323	eP	16 59.60	2.2
CHJJ	8.96	352	P	16 57.80	-2.1
			S	18 32.60	
KAKJ	9.03	359	eP	16 57.80	-3.0X
TSRJ	9.19	337	P	17 04.70	1.9
KAGJ	9.26	298	eP	17 07.00	3.2X
MAT	9.55	349	eP	17 06.00	-1.4
	1.2s	26.56nm			4.2mb
MTMJ	9.67	347	P	17 08.00	-1.0
KUMJ	9.92	305	P	17 15.20	3.2X
SHK	9.93	320	eP	17 14.10	2.0
YONJ	9.99	325	eP	17 14.60	1.7
NIIJ	10.13	353	P	17 12.20	-2.4
SHNJ	10.62	313	eP	17 23.10	2.4
YAMJ	11.00	358	P	17 23.40	-2.0
			S	19 20.50	
OFUJ	11.94	5	P	17 35.70	-1.3
			S	19 40.20	
AOMJ	13.38	360	eP	17 57.00	2.5X
			eS	20 16.10	
GUMO	14.11	162	eP	18 04.50	0.9
	0.8s	190.34nm			5.5mb
PJG	14.11	162	eP	18 04.80	1.2
GUA	14.17	162	eP	18 05.00	0.7
MRRJ	15.25	2	P	18 16.10	-0.9
			S	21 01.30	
HOOJ	15.38	8	eP	18 19.20	0.7
			iS	21 01.80	
KUSJ	16.29	11	P	18 28.10	-0.2
			S	21 24.10	
ASAJ	17.03	5	eP	18 36.60	0.4
			S	21 39.60	
SSE	17.27	288	Pc	18 39.00	0.2
	1.0s	24.00nm			4.6mb
			i	20 47.60	
			i	21 04.80	
			sS	21 42.00	
NJ2	19.38	290	Pc	19 01.00	0.7
			sP	20 14.50	
			S	22 25.00	
MDJ	19.49	336	eP	19 01.00	-0.2
			epP	19 04.50	13kmX
DL2	19.61	311	eP	19 02.00	-0.5
	3.0s	0.50nm			2.4mb X
			sP	20 20.00	
			eS	22 27.00	
QZH	19.75	269	Pc	19 06.50	2.5
			S	22 32.50	
SNY	20.13	321	Pc	19 08.00	0.4
CN2	20.56	328	Pd	19 11.00	-0.8
	5.0s	0.60nm			2.2mb X
			S	22 40.00	
			PcP	23 10.00	
TIA	21.76	300	Pd	19 24.10	0.6
	3.0s	1.30nm			2.8mb X
WHN	23.08	285	eP	19 36.00	-0.2
			S	23 32.00	
BJI	23.86	309	eP	19 43.00	-0.4
	6.0s	0.40nm			2.1mb X
			ePP	21 04.00	
			eS	25 10.00	
BJI	23.86	309	eP	19 43.00	-0.4
	6.0s	0.40nm			2.1mb X
TIY	25.79	301	eP	20 01.00	-0.1
N	10s	0.20um			
			S	24 13.50	
XAN	27.91	292	Pd	20 19.80	-0.4
BTO	28.44	306	P	20 24.00	-0.9
GYA	30.10	276	P	20 39.40	-0.2
			PcP	23 34.60	
CD2	32.20	286	iPd	20 57.30	-0.4
			S	25 47.00	
KMI	33.82	275	Pc	21 14.00	2.1
GTA	35.81	300	Pd	21 28.00	-0.3
			PP	23 02.00	
			PcP	23 50.00	
			S	26 43.40	
			ScP	27 08.60	
			ScS	31 12.00	
CHTO	38.95	267	iP	21 55.30	0.8
	0.9s	23.44nm			4.6mb
ADK	40.46	41	eP	22 07.70	1.3
	0.8s	53.70nm			4.9mb
MTN	40.77	194	eP	22 09.00	-0.3
SHL	43.32	279	iP	22 30.50	0.3
			eS	27 38.30	
WMQ	45.28	306	iPc	22 45.60	0.2
WB5	47.12	188	iPc	22 59.10	-0.7
			ePP	24 56.10	
			ePcP	27 51.30	
			eS	29 27.50	
WRA	47.18	188	Pc	22 59.60	-0.7
	0.5s	26.90nm			4.8mb
CTA	47.29	173	iPc	23 01.00	-0.1
	1.2s	150.00nm			5.2mb
			i	23 58.00	
			i	24 12.00	
			e(S)	29 43.50	
QIS	47.43	181	eP	23 01.00	-1.1
	0.8s	55.00nm			4.9mb
GUN	48.04	284	Pd	23 08.20	0.9
PKI	48.52	284	Pd	23 11.20	0.2
KKN	48.58	284	Pd	23 12.00	0.7
DMN	48.77	284	Pd	23 13.30	0.5
GKN	49.09	285	Pd	23 15.60	0.5
SDN	50.64	39	eP	23 25.60	-0.6
ASPA	50.91	188	iPc	23 27.60	-1.0
	0.4s	16.00nm			4.8mb
			e	24 24.70	
MBL	52.00	205	eP	23 36.00	-0.7
	0.4s	6.00nm			4.4mb
RMQ	53.93	171	eP	23 50.00	-0.7
SVW	54.07	33	ePd	23 52.30	0.9
TTA	54.19	30	ePd	23 52.70	0.4
KSH	54.21	301	eP	23 54.20	1.3
WARB	54.66	195	iPd	23 50.60	-5.4X
NANU	54.98	208	eP	23 58.00	-0.3
DZM	55.02	150	iPc	23 58.70	0.0
NDI	55.29	287	iPc	24 00.00	-0.6
	0.5s	112.68nm			5.6mb
KDC	55.30	37	ePd	23 59.90	-0.3
BRS	55.51	167	iPd	24 02.00	-0.1
IMA	55.74	27	ePd	24 03.80	0.3
	1.3s	58.70nm			4.9mb
BRW	55.88	20	ePd	24 04.50	0.3
PMR	57.23	32	eP	24 12.80	-0.9
	0.9s	58.10nm			5.1mb
HYB	57.59	274	eP	24 16.50	-0.4
	1.0s	40.00nm			4.9mb
FBA	58.03	29	eP	24 18.80	-0.5
TOA	58.65	32	eP	24 24.10	0.5
STK	58.71	179	eP	24 23.00	-1.2
FORR	58.87	192	eP	24 24.30	-1.0
	0.4s	72.00nm			5.6mb
GBA	60.04	271	Pd	24 31.00	-2.7
	0.7s	21.50nm			4.8mb
POO	61.36	277	eP	24 42.00	-0.5
KOD	61.40	267	eP	24 43.00	-0.1
BWA	61.70	173	eP	24 44.40	0.0
CAN	62.66	172	eP	24 50.90	0.3
QUE	63.49	292	iP	24 55.80	-0.7
INK	63.63	24	eP	24 56.00	-0.6
MBC	66.24	15	ePd	25 12.70	-0.5
	0.9s	47.00nm			5.2mb
MAIO	67.61	300	eP	25 23.00	0.6
ALE	70.00	3	eP	25 36.00	-0.1
	0.7s	16.00nm			4.9mb
KEV	72.41	340	iP	25 50.50	0.0
	0.5s	42.10nm			5.4mb
YKA	72.83	28	eP	25 53.20	0.2
YKC	72.89	28	iPd	25 53.30	-0.1
	0.7s	58.00nm			5.4mb
SOD	73.78	338	iP	25 57.70	-0.8
KJF	75.08	335	iP	26 05.50	-0.4
	0.6s	56.10nm			5.5mb
DAG	75.53	355	iPc	26 08.00	-0.3
	1.7s	53.85nm			5.0mb
PNT	75.97	42	iPc	26 12.90	1.7
SUF	76.47	334	iP	26 13.10	-0.5
	0.7s	90.70nm			5.6mb
EDM	77.70	36	eP	26 20.50	-0.2
WDC	77.81	51	eP	26 22.80	1.3
NUR	78.31	333	iP	26 22.80	-0.9
	0.6s	78.20nm			5.6mb
MIN	78.56	51	eP	26 26.80	1.1
ORV	78.97	51	eP	26 28.80	1.0
BKS	79.19	53	iPc	26 30.80	1.8
	0.9s	80.00nm			5.5mb
MHC	79.85	53	eP	26 33.80	1.2
SES	80.35	38	ePd	26 35.50	0.6
CMB	80.43	52	eP	26 37.00	1.4
PRS	80.49	54	eP	26 37.30	1.4
LLA	80.67	54	eP	26 38.20	1.4
FRI	81.38	53	eP	26 41.70	1.3
UPP	81.48	335	iPd	26 39.00	-1.4
LRM	81.89	42	eP	26 44.40	1.1
FFC	82.51	31	iPd	26 46.10	0.2
	0.9s	43.00nm			5.2mb
HFS	82.75	336	eP	26 46.00	-1.0
	0.6s	44.60nm			5.4mb
EUR	82.80	49	iP	26 49.20	1.2
	0.2s	36.28nm			5.8mb
NAO	83.26	338	P	26 48.30	-1.3
	0.7s	42.40nm			5.4mb
VRI	85.74	320	ePd	27 03.50	1.3
MLR	86.40	320	ePc	27 06.50	0.9
FRB	86.57	12	eP	27 05.00	-0.9
KRA	86.82	326	eP	27 06.90	-0.4
	1.0s	37.00nm			5.2mb
JMB	87.78	317	iP	27 13.00	0.9
KSP	88.06	328	iP	27 12.70	-0.6
SRO	89.09	325	iP	27 18.70	0.5
BRG	89.12	329	iPc	27 13.50	-4.7X
	1.3s	29.00nm			5.0mb
CLL	89.23	330	iP	27 18.10	-0.7
RZN	89.36	318	iPc	27 20.00	0.2
ZST	89.44	326	eP	27 20.00	0.2
PRU	89.46	328	eP	27 19.10	-0.7
VTS	89.71	319	iPc	27 22.00	0.6
VKA	89.79	326	ePc	27 20.50	-0.9
MMB	90.02	318	iPc	27 23.00	0.4
KKB	90.23	318	iPc	27 24.00	0.4
MOX	90.32	330	eP	27 23.00	-0.8
			e	30 59.00	
KHC	90.51	328	iPc	27 24.50	-0.3
			e	31 06.00	
VAY	90.87	318	eP	27 26.00	-0.5
SKO	91.13	319	iP	27 27.50	-0.2
WTS	91.34	333	eP	27 28.00	-0.4
	0.8s	13.00nm			4.9mb
			e	27 37.00	
ALQ	91.63	49	eP	27 32.00	1.6
	0.9s	16.39nm			5.0mb
OHR	92.04	319	eP	27 30.50	-1.5
KBA	92.06	327	ePc	27 31.00	-1.1
	0.8s	4.80nm			4.5mb
EKA	92.14	340	P	27 32.00	-0.1
	1.0s	10.70nm			4.8mb
ENN	92.64	333	eP	27 34.50	0.0
	0.9s	11.00nm			4.9mb
WLF	93.40	332	Pc	27 38.40	0.5
SNF	93.50	334	P	27 37.80	-0.6
DOU	93.70	333	P	27 36.30	-3.1X
CDF	93.88	331	eP	27 39.80	-0.6
	0.8s	13.40nm			5.1mb
BSF	94.53	331	eP	27 42.60	-0.8
	0.8s	5.30nm			4.7mb
HAU	94.59	331	eP	27 42.60	-1.0
	0.8s	5.30nm			4.7mb
ORX	95.66	329	P	27 47.25	-1.4

29d 00h

LSD	96.17	329	P	27	51.05	0.0
LOR	96.22	332	eP	27	50.80	-0.2
	0.8s		4.50nm			4.8mb
LPG	96.33	329	eP	27	51.00	-0.8
	0.6s		9.90nm			5.2mb
LBF	96.40	332	eP	27	51.20	-0.6
	1.0s		4.00nm			4.6mb
SSF	96.53	332	eP	27	52.20	-0.2
	1.0s		4.80nm			4.7mb
ROB	96.72	328	P	27	51.77	-1.5
SMF	96.72	332	eP	27	52.30	-0.9
	1.0s		6.00nm			4.8mb
RRL	96.75	329	P	27	52.59	-1.1
AVF	96.81	332	eP	27	53.30	-0.3
	0.8s		9.40nm			5.1mb
BGF	97.21	332	eP	27	56.10	0.7
	0.8s		4.50nm			4.8mb
MAF	97.59	332	eP	27	57.70	0.5
	0.8s		4.50nm			4.8mb
BUL	117.81	260	ePKP	33	08.80	0.1
TIC	132.60	310	PKP	33	37.20	0.2
KIC	132.62	310	PKP	33	37.40	0.3
LIC	132.91	310	PKP	33	38.00	0.4
ZOBO	151.41	74	ePKP	34	13.00	2.8X
			i	34	17.00	
LPB	151.55	74	ePKP	34	07.00	-3.2X
CNCB	151.77	75	ePKP	34	12.00	1.3
			eS	35	30.00	
S.D. = 1.0 on 156 of 165 obs.						

? MAR 29, 1989 00h 43m 20.85± 1.22s
39.215 N ± 8.5km 23.579 E ±13.8km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 2.8 (ATH).

NEO	0.29	289	ePb	43	27.30	0.3
PLG	1.16	355	ePb	43	42.80	0.2
			eSn	43	54.20	
ATH	1.25	175	ePb	43	44.00	0.0
			eSn	43	57.80	
KZN	1.77	309	ePn	43	51.20	-0.6
S.D. = 0.7 on 4 of 4 obs.						

MAR 29, 1989 00h 49m 20.83± 0.66s
44.724 N ± 5.1km 111.074 W ± 8.5km
DEPTH = 5.0km (geophysicist)
HEBGEN LAKE REGION (458)
ML 3.3 (BUT).

IMW	0.83	173	iP	49	36.70	-0.9
MEMT	0.88	5	ePc	49	38.00	-0.4
LCCM	1.25	333	iPc	49	44.60	0.0
CCMT	1.29	279	eP	49	45.70	0.3
RRI2	1.37	187	e(P)	49	53.50	6.6X
LRM	1.47	319	ePc	49	48.40	0.2
BUT	1.66	321	ePg	49	54.40	3.5X
			eSn	50	12.50	
			eSg	50	14.10	
HPI	1.77	236	eP	49	52.50	-0.1
HRY	2.06	345	ePn	49	56.60	0.0
BW06	2.23	150	eP	50	00.30	1.0
S.D. = 0.7 on 8 of 10 obs.						

• MAR 29, 1989 01h 10m 31.91± 0.78s
5.854 S ± 8.2km 128.712 E ±11.0km
DEPTH = 306.3 ± 9.6 km
4.4mb (8 obs.)
BANDA SEA (280)

AAI	2.21	346	ePc	11	22.10	0.8
			eS	11	50.90	
MTN	7.35	161	iPd	12	17.70	-0.6
			eS	13	35.00	
KNA	9.83	180	iPd	12	48.40	-0.5
	0.2s		39.00nm			5.2mb X
			eS	14	36.00	
WB5	14.99	159	iPc	13	50.00	-1.4
			eS	16	22.00	
WRA	15.04	159	Pc	13	50.10	-1.9
	0.3s		12.00nm			4.7mb
MBL	17.48	209	eP	14	18.00	0.2
	0.4s		4.00nm			4.2mb
QIS	18.04	145	iPc	14	23.10	-0.4
	0.2s		29.00nm			5.3mb
			e	14	27.00	
			eS	17	30.00	
ASPA	18.40	165	iPc	14	27.50	0.3
			eS	17	39.50	
PMG	18.61	102	eP	14	29.00	-0.3
WARB	20.31	185	eP	14	42.50	-3.6X
	0.3s		4.00nm			4.2mb
NANU	20.93	216	eP	14	53.80	1.7
CTA	22.15	131	iPc	15	05.50	1.5
	0.9s		32.77nm			4.7mb
			i	15	20.50	
			i	15	56.00	
			i	16	19.00	
			e	19	50.00	
			e	21	07.50	
FORR	24.87	181	iPd	15	28.90	-0.2
	0.5s		10.00nm			4.5mb
BRS	31.34	136	iPd	16	26.00	-0.6
BWA	33.77	150	eP	16	49.60	2.2
CAN	34.77	150	eP	16	57.00	1.2
CHTO	38.23	311	iP	17	25.50	0.7
	1.0s		11.25nm			4.2mb
GUN	53.24	311	Pd	19	21.90	-0.4
PKI	53.41	311	Pd	19	22.80	-0.8
	0.5s		7.00nm			4.3mb
KKN	53.62	311	Pd	19	24.60	-0.4
DMN	53.66	311	Pd	19	24.90	-0.4
GKN	54.22	311	Pd	19	28.30	-0.9
PPD	152.29	180	e(PKP)	29	54.00	7.6X
S.D. = 1.1 on 21 of 23 obs.						

? MAR 29, 1989 02h 14m 01.66± 3.36s
43.012 N ±26.6km 11.778 E ±66.3km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)

CRE	0.63	12	P	14	14.00	-0.4
			eSg	14	22.50	
MAO	0.75	218	P	14	16.40	0.0
			eSg	14	29.00	
PGD	0.86	357	P	14	17.90	-0.5
			eSg	14	29.10	
SFI	0.91	3	P	14	19.90	0.9
			eSg	14	31.40	
S.D. = 1.1 on 4 of 4 obs.						

• MAR 29, 1989 03h 31m 28.65± 0.99s
5.638 S ±10.2km 129.610 E ±12.3km
DEPTH = 168.0 ± 12.3 km
4.9mb (4 obs.)
BANDA SEA (280)

AAI	2.40	324	iPd	32	09.90	0.0
			eS	32	36.10	
MTN	7.32	168	iPd	33	15.70	1.7
			eS	34	35.00	
KNA	10.08	185	eP	33	51.00	0.5
	0.3s		37.00nm			5.4mb X
			eS	35	40.00	
WB5	14.89	162	eP	34	51.00	-1.2
			eS	37	32.00	
WRA	14.95	162	Pd	34	51.40	-1.4
	0.5s		7.50nm			4.3mb
QIS	17.72	148	iPd	35	25.40	-1.1
			e	35	27.00	
			eS	38	37.00	
PMG	17.79	103	eP	35	26.00	-1.1
MBL	18.11	211	iPd	35	30.10	-0.5
	0.4s		24.00nm			4.9mb
			iS	36	21.50	
ASPA	18.40	167	iPd	35	33.90	0.2
			eS	38	52.90	
WARB	20.63	188	iPd	35	52.50	-4.0X
	0.4s		24.00nm			5.0mb
CTA	21.64	133	iP	36	07.50	1.0
			i	36	18.00	
			e(S)	39	11.00	
			e	40	16.00	
NANU	21.64	218	eP	36	06.00	-0.4
			eS	37	13.00	
FORR	25.12	183	eP	36	38.70	-0.9
	0.4s		14.00nm			4.9mb
ADE	30.37	165	eP	37	27.20	0.3
BWA	33.52	151	eP	37	56.20	1.9
CAN	34.53	151	iPc	38	03.20	0.4
CNCB	151.72	142	ePKP	51	03.00	3.4X
LPB	151.86	142	(PKP)	51	00.00	0.4
ZOBO	152.04	141	(PKP)	51	06.00	5.9X
S.D. = 1.1 on 16 of 19 obs.						

MAR 29, 1989 03h 44m 15.37± 0.68s
16.987 N ± 6.7km 62.283 W ± 7.2km
DEPTH = 10.0km (geophysicist)
LEEWARD ISLANDS (92)
ML 3.0 (FDF).

MGH	0.27	166	ePc	44	21.55	0.4
			S	44	25.00	
ANG	0.46	69	eP	44	24.91	0.1
			eS	44	31.66	
SKI	0.56	308	eP	44	26.14	-0.5
			eS	44	33.50	
SKDB	0.65	309	eP	44	28.82	0.5
			eS	44	36.11	
PAG	1.11	149	eP	44	35.90	-0.4
			S	44	50.80	
BBL	1.65	152	eP	44	44.40	-0.1
S.D. = 0.5 on 6 of 6 obs.						

MAR 29, 1989 04h 06m 12.32± 0.22s
18.350 S ± 5.5km 72.279 W ± 4.5km
DEPTH = 41.8km (6 depth phases)
5.3mb (22 obs.)
OFF COAST OF NORTHERN CHILE (121)
Felt.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 13S, 24C
Centroid Locotion:
Origin Time 04:06:10.8 0.3
Lat 18.28S 0.08 Lon 73.15W 0.05
Dep 53.8 3.9 Half-duration 1.9
Moment Tensor; Scale 10**17 Nm
Mrr=-1.17 0.06 Mtt=-0.14 0.09
Mff= 1.31 0.08 Mrt= 0.11 0.08
Mrf=-0.50 0.08 Mtf=-0.53 0.10
Principal Axes:

T	Val= 1.58	Plg=10	Azm= 72
N	-0.31	3	163
P	-1.27	79	267

Best Double Couple:Mo=1.4*10**17
NP1:Strike=159 Dip=35 Slip= -95
NP2: 345 56 -87

ARE	2.02	22	iPc	06	45.20	0.3
			e(S)	07	00.00	
CNCB	4.38	70	Pc	07	20.90	2.2
LPB	4.38	66	Pc	07	21.50	2.9X
	1.1s		2582.28nm			
			LR	15	24.00	
ZOBO	4.48	63	iPc	07	22.20	2.1
CCH	5.92	82	P	07	41.50	1.3
	0.7s		3.00nm			3.9mb X
PEL	14.80	175	iP	09	37.00	-3.6X
ITB1	17.78	114	e(P)	10	17.40	-1.0
PPD	20.01	104	eP	10	42.70	-1.8
			e	10	44.30	6kmX
			e	10	54.90	
PSO	20.04	345	eP	10	45.00	-0.3
VBA	21.60	157	e(P)	10	58.00	-2.6
BOG	22.89	355	eP	11	29.00	15.0X
			iS	15	32.00	
BAO	23.38	87	eP	11	17.00	-1.4
FUQ	23.71	356	eP	11	23.00	1.1
VAO	24.12	105	eP	11	24.50	-1.0
			e	11	34.40	36km
			e	11	55.50	
ITA	26.15	103	ePc	11	45.50	0.5
			e	11	56.10	40km
BMA	26.67	104	eP	11	55.10	5.6X
			e	12	02.90	27kmX
SDV	27.11	4	eP	11	51.20	-2.5
CAR	29.15	11	eP	12	12.00	0.0
OXX	42.64	324	iPd	14	09.00	2.1
III	45.23	322	iPc	14	34.30	6.5X
CRX	46.17	323	iPc	14	37.90	2.6
IIC	46.21	324	iPc	14	37.00	1.3
AIA	47.17	175	e(P)	14	43.00	0.7
HBF	51.58	351	P	15	16.40	-0.1
PRM	53.02	350	P	15	26.00	-1.3
JSC	53.03	351	P	15	25.80	-1.6
TKL	54.81	349	P	15	38.80	-1.6
BLA	55.79	352	P	15	46.80	-0.8
ELC	57.60	344	P	15	58.60	-1.7
FVM	58.57	343	P	16	06.10	-1.1
			pP	16	18.40	43km

ALO	62.15	329	eP	16	30.40	-1.6
	0.9s	37.82nm			5.5mb	
GAC	63.81	358	eP	16	42.50	0.1
CBM	65.08	3	P	16	51.10	0.5
GLD	65.47	333	P	16	53.30	-0.2
	1.3s	74.71nm			5.6mb	
GOL	65.49	332	P	16	53.10	-0.7
PLM	66.74	320	eP	17	01.00	-0.8
TPC	66.77	321	eP	17	02.00	0.2
RVR	67.49	320	eP	17	06.00	-0.3
MSU	67.81	327	P	17	08.40	-0.1
GSC	68.05	322	eP	17	10.00	0.1
MWC	68.06	320	eP	17	10.00	-0.1
PAS	68.07	320	eP	17	10.00	0.0
SBB	68.23	321	eP	17	10.00	-1.0
JON	68.44	323	P	17	12.20	-0.1
OSM	68.55	322	P	17	12.30	-0.6
NPN	68.65	325	P	17	14.30	0.6
SDH	68.72	323	P	17	13.60	-0.4
LSM	68.75	323	P	17	14.40	0.2
DAU	68.79	329	P	17	15.10	0.4
MTI	68.85	325	P	17	15.50	0.6
YMT3	68.86	323	P	17	14.60	-0.3
CLC	68.87	322	eP	17	15.00	0.1
YMT6	68.90	323	P	17	15.00	-0.2
YMT5	68.96	323	P	17	14.90	-0.7
FMT	68.96	323	P	17	15.10	-0.4
TMBR	69.02	323	P	17	15.20	-0.8
MCA	69.26	323	P	17	16.70	-0.5
ISA	69.28	321	eP	17	18.00	0.5
SGV	69.35	323	P	17	18.40	0.4
DUG	69.40	328	P	17	18.60	0.4
	1.2s	54.62nm			5.4mb	
BLP	69.72	319	P	17	20.00	-0.1
BW06	69.84	332	P	17	20.10	-0.8
	1.4s	44.38nm			5.3mb	
		pP		17	33.80	48km
LCH	69.88	323	P	17	20.50	-0.7
MGM	69.93	323	P	17	21.20	-0.4
BCH	69.94	320	P	17	21.80	0.3
PPK	70.16	323	P	17	22.30	-0.7
TNP	70.22	324	P	17	22.80	-0.6
SVP	70.30	323	P	17	24.00	0.1
EUR	70.53	325	iP	17	25.50	0.3
	0.5s	13.03nm			5.2mb	
PHAM	70.56	320	P	17	26.00	0.8
LIC	70.64	76	P	17	24.72	-1.4
TIC	70.81	76	P	17	25.84	-1.3
	1.1s	35.00nm			5.3mb	
FRI	70.91	321	eP	17	26.30	-1.0
PRI	70.92	320	eP	17	28.10	0.6
KIC	70.96	76	P	17	27.00	-1.0
	1.1s	35.00nm			5.3mb	
RRI2	71.10	331	P	17	35.90	7.2X
IMW	71.34	332	P	17	30.00	-0.1
		pP		17	42.80	44km
KVN	71.39	324	P	17	29.80	-0.6
LLA	71.40	320	eP	17	30.90	0.6
PRS	71.48	320	eP	17	31.20	0.5
RUV	71.51	260	iP	17	31.40	0.1
	0.9s	10.00nm			4.8mb	
VAH	71.73	260	iP	17	32.50	-0.1
	0.9s	15.00nm			5.0mb	
SPA	71.77	180	e(P)	17	30.90	-1.3
	1.0s	55.50nm			5.5mb	
TPT	71.78	260	iP	17	33.10	0.2
	0.9s	10.00nm			4.8mb	
CMB	72.01	322	eP	17	34.20	0.3
PMO	72.03	260	iP	17	34.50	0.1
	0.9s	10.00nm			4.8mb	
HPI	72.20	330	P	17	35.20	0.0
ARN	72.24	321	P	17	35.80	0.5
MHC	72.30	321	eP	17	36.60	0.8
GCC	72.31	320	eP	17	36.30	0.6
PAE	72.94	257	eP	17	40.00	0.3
	0.9s	20.00nm			5.1mb	
BKS	73.01	321	iPd	17	40.30	0.6
	0.9s	69.00nm			5.6mb	
BRK	73.02	321	eP	17	40.40	0.6
SCH	73.02	3	eP	17	39.00	-0.5
LRM	73.51	332	eP	17	43.20	0.4
ORV	73.67	322	ePd	17	44.60	1.0
LEGH	74.93	79	eP	17	50.00	-1.4
KUK	74.95	78	eP	17	50.00	-1.5
WDC	74.95	323	eP	17	49.90	-1.0
KOGH	75.03	78	eP	17	51.50	-0.5
SHGH	75.16	79	eP	17	52.00	-0.7
SES	76.49	336	eP	17	59.00	-0.6
			pP	18	11.00	40km
FFC	77.07	343	eP	18	02.00	-0.6
	1.0s	20.00nm			5.1mb	
PNT	79.36	331	eP	18	17.00	1.7
	0.7s	15.00nm			5.1mb	
EDM	79.60	336	eP	18	15.00	-1.6
	1.1s	146.00nm			5.9mb	
PGC	80.75	328	eP	18	24.00	1.3
FRB	81.88	2	eP	18	47.00	18.8X
POF	83.08	119	iPc	18	30.00	-5.3X
	3.0s	500.00nm			6.1mb	
MAL	84.19	48	iPd	18	44.00	3.3X
TOL	85.92	46	eP	18	50.00	0.7
YKC	87.15	342	ePc	18	54.20	-0.6
	0.6s	43.00nm			5.9mb	
YKA	87.20	342	eP	18	54.70	-0.3
BFS	89.59	118	eP	19	06.50	-1.0
KSR	90.04	117	iPc	19	09.80	0.1
	1.0s	10.00nm			5.1mb	
SLR	91.25	118	iPc	19	16.20	1.0
LPO	91.52	43	eP	19	31.70	16.0X
	1.2s	11.90nm				
CAF	92.19	43	eP	19	32.50	13.7X
	0.8s	3.20nm				
MAF	93.03	42	eP	19	33.10	10.5X
	1.2s	8.90nm				
KMZ	93.33	105	iP	19	26.70	1.8
BUL	93.53	112	eP	19	27.10	1.4
SMF	94.00	42	eP	19	36.00	8.9X
	1.2s	14.80nm			5.3mb	
LSZ	94.85	108	eP	19	37.00	5.1X
LPG	95.47	44	eP	19	31.70	-2.6
	1.2s	8.90nm			5.1mb	
INK	96.93	341	eP	19	39.00	-1.0
PTZ	98.07	108	ePn	19	48.00	1.6
MBC	98.57	350	eP	19	47.00	-0.2
FBA	100.47	335	Pdiff	19	55.30	-0.8
	1.1s	125.00nm			6.4mb X	
CTA	126.26	227	iPKPc	25	12.80	-0.1
	1.2s	20.31nm				
ASPA	131.04	212	iPKPd	25	21.10	-0.8
	1.2s	28.00nm				
			eS	28	44.10	
WRA	133.84	216	PKPc	25	25.30	-2.0
	1.1s	5.90nm				
WB5	133.88	216	ePKP	25	13.10	-14.3X
			i	25	26.90	
MAIO	134.07	57	ePKP	25	29.00	1.6
GUMO	144.02	268	ePKP	25	43.40	-2.5
	1.1s	164.90nm				
KSH	145.43	46	PKP	25	50.00	2.2
KAKJ	146.33	308	PKP	25	50.20	1.0
NIIJ	146.76	311	PKP	25	51.80	1.9
CHJJ	147.27	309	PKP	25	54.40	3.6X
POO	147.89	84	iPKPc	25	56.70	4.4X
MTMJ	147.91	311	PKP	25	55.70	3.8X
MDJ	148.05	330	ePKP	25	52.50	0.8
IIDJ	148.30	309	PKP	25	56.60	4.1X
WMQ	149.52	29	PKP	25	55.00	0.8
KOD	149.63	101	ePKP	25	57.00	1.6
NDI	150.28	64	iPKPc	25	57.00	1.3
GBA	150.53	95	PKPd	25	57.00	0.7
	0.8s	14.80nm				
CN2	150.56	333	ePKP	25	56.00	0.4
HY8	152.24	87	ePKPc	26	00.00	1.1
	1.0s	60.00nm				
SNY	152.97	333	ePKP	25	57.40	-1.8
BJI	157.18	343	ePKP	26	06.50	1.6
TIY	160.27	349	ePKP	26	10.00	1.4
TIA	160.36	337	ePKP	26	10.10	1.5
LZH	162.00	10	ePKP	26	12.50	2.0
	1.5s	44.00nm				
XAN	164.34	356	PKP	26	14.00	1.3
CD2	166.99	15	ePKP	26	15.00	0.1
CHTO	171.66	85	ePKP	26	18.20	0.4
	1.3s	11.03nm				
GYA	171.87	7	PKP	26	19.40	1.5
QIZ	177.88	289	ePKP	26	22.00	2.4X

S.D. = 1.1 on 137 of 157 obs.

& MAR 29, 1989 07h 11m 57.70s
40.903 N 121.128 W
DEPTH = 29.0km
NORTHERN CALIFORNIA (36)
<BRK>. ML 3.0 (BRK).

MIN	0.67	213	iPc	12	10.00	-0.9
			eS	12	19.50	
LTCM	1.03	228	eP	12	16.20	0.0
WDC	1.12	254	iPc	12	17.20	-0.3
			eS	12	32.10	
ORV	1.38	192	eP	12	21.90	0.8
			eS	12	39.30	
FHC	2.17	268	e(P)	12	35.50	2.9
			eS	13	12.00	
CMB	2.92	168	eP	12	50.30	7.0
			eS	13	41.00	
KVN	2.97	128	eP	12	45.30	1.2
TNP	4.13	132	eP	13	04.00	3.3
EUR	4.20	108	iP	13	03.20	1.6
	9 obs. associoted					

MAR 29, 1989 08h 15m 32.23± 0.23s
42.315 N ± 2.8km 20.006 E ± 2.3km
DEPTH = 10.0km (geophysicist)
3.8mb (1 obs.)
YUGOSLAVIA (383)
MD 3.7 (TTG). ML 3.5 (SKO). Felt (V) at Nikoj ond Fierze ond (IV) ot Bojrom Curri, Fush-Arrez and Miliskoj, Albonio.

PVY	0.28	355	iPgd	15	37.40	-0.8
			iSg	15	42.50	
PUK	0.29	197	iPgc	15	37.20	-1.0
KKS	0.39	128	iPg	15	40.00	-0.1
SDA	0.48	232	iPgc	15	40.40	-1.6
IVA	0.56	352	ePg	15	42.80	-0.9
			eSg	15	51.50	
TTG	0.56	282	iPgd	15	42.10	-1.5
			eSg	15	51.30	
ULC	0.66	238	iPgd	15	45.00	-0.4
			iSg	15	55.40	
PHP	0.71	152	iPgd	15	45.10	-1.0
LACI	0.71	198	iPgd	15	45.80	-0.5
8DV	0.87	268	ePg	15	48.20	-0.8
			eSg	16	02.50	
NKY	0.90	304	ePg	15	48.30	-1.2
			eSg	16	02.70	
TIR	0.97	186	iPgc	15	51.70	1.0
PLE	1.11	336	ePg	15	52.70	-0.4
			eSg	16	10.00	
SKO	1.12	107	iPg	15	51.50	-1.7
SKO	1.12	107	iPn	15	52.50	-0.7
			iSg	16	08.60	
			iSn	16	11.00	
HCY	1.12	277	ePg	15	52.70	-0.6
			eSg	16	10.00	
BRY	1.23	299	ePg	15	54.00	-1.2
			eSg	16	14.00	
OHR	1.34	153	iPnc	15	56.90	-0.1
BERA	1.61	182	iPnc	16	02.50	1.7
VLO	1.88	192	iPnd	16	07.80	3.1X
TPE	2.02	180	iPnd	16	12.00	5.3X
VAY	2.16	117	iPn	16	09.00	0.3
			i	16	10.70	
			i	16	11.40	
			eSn	16	35.00	
LSK	2.21	168	iPnc	16	12.50	2.9X
KKB	2.33	100	iP	16	12.00	0.7
VTS	2.39	82	iP	16	13.00	0.9
KZN	2.41	146	eP	16	13.00	0.6
SRN	2.43	180	ePn	16	15.10	2.5
LCI	2.51	219	P	16	10.00	-3.7X
BRT	2.55	237	P	16	14.30	0.1
HVAR	2.76	289	iPnc	16	18.80	1.5
			iSn	16	53.20	
			iSg	17	02.90	
MMB	2.87	103	iPd	16	20.00	1.1
PGB	3.09	84	iP	16	23.00	1.0
PLG	3.24	126	eP	16	25.00	0.9
PLD	3.50	92	eP	16	39.00	11.3X
BZS	3.50	19	iPc	16	27.00	-0.7
RZN	3.57	99	iP	16	29.00	0.1
GZR	3.67	32	ePd	16	40.00	9.7X
NEO	3.87	140	eP	16	31.60	-1.5
MGR	4.00	239	P	16	35.00	0.1
			eSn	17	19.30	
PVL	4.02	75	iPc	16	34.00	-1.2
KDZ	4.09	98	eP	16	36.00	-0.1
DIM	4.12	92	eP	16	49.00	12.5X
DEV	4.13	29	ePc	16	43.00	6.3X
VLS	4.16	174	eP	16	36.60	-0.5

29d 08h

DUI	4.19	263	P	16	38.10	0.5
BSS	4.19	250	P	16	37.80	0.2
			eSn	17	26.10	
RDO	4.30	104	eP	16	39.00	-0.2
PTJ	4.62	322	e(P)	16	50.40	6.6X
SDI	4.65	265	P	16	44.70	0.5
			eSn	17	40.00	
VBY	4.68	315	ePn	16	46.20	1.6
			ePb	16	56.00	
			iSn	17	41.90	
			iSb	17	57.30	
			iSg	18	06.50	
CMP	4.69	49	ePd	16	57.00	12.3X
ALP	4.77	278	ePn	16	45.74	-0.3
			e(Sn)	17	43.40	
AOI	4.86	287	ePn	16	46.48	-0.7
			eSn	17	46.11	
AZI	4.90	268	P	16	48.80	1.2
			eSn	17	45.30	
CIO	5.13	282	ePn	16	50.84	-0.1
			eSn	17	50.89	
ATH	5.19	146	eP	16	49.00	-2.7X
CEY	5.28	312	ePn	16	55.30	2.2
			eSn	17	59.00	
MLR	5.34	51	ePc	16	54.50	0.5
ITM	5.34	163	eP	16	54.00	0.1
LJU	5.42	315	ePn	16	57.10	2.1
			eSn	17	59.20	
MNS	5.43	273	P	16	55.10	-0.1
			eSn	17	57.60	
ISR	5.51	57	eP	17	04.00	7.6X
TRI	5.64	309	iPnc	16	58.10	0.1
			iSn	18	04.50	
			i	18	40.10	
VOY	5.75	312	iPn	17	00.80	1.0
			eSn	18	10.50	
VRI	6.00	51	ePd	17	01.50	-1.7
PSN	6.15	74	eP	18	00.00	54.7X
SFI	6.18	288	P	17	07.00	1.3
RBL	6.19	314	P	17	07.90	2.0
CFR	6.56	61	eP	17	17.00	5.9X
FVI	6.71	312	P	17	14.20	1.1
KBA	6.72	317	iP	17	17.00	3.5X
MME	7.05	289	P	17	18.40	0.2
			eSn	18	37.20	
CTI	7.07	305	P	17	17.90	-0.5
			eSn	18	37.60	
BOB	8.05	291	P	17	32.90	0.8
KHC	8.16	329	P	17	34.10	0.6
			e	19	07.50	
CVF	8.24	275	eP	17	33.30	-1.4
	0.7s		8.80nm			5.1mb X
FRF	9.88	282	eP	17	55.70	-1.6
	0.6s		6.10nm			5.2mb X
LPG	10.08	293	eP	17	59.80	-0.6
	0.5s		6.50nm			5.3mb X
LBF	12.33	298	eP	18	28.90	-1.8
	0.6s		2.70nm			4.7mb X
LOR	12.49	299	eP	18	29.90	-2.9X
	0.6s		2.70nm			4.7mb X
EKA	19.93	319	P	20	06.00	-0.8
	1.0s		4.80nm			3.8mb
	S.D. = 1.1		on 65 of 81 obs.			

? MAR 29, 1989 08h 44m 07.26± 1.54s
18.163 N ±12.4km 67.145 W ±16.6km
DEPTH = 33.0km (normal)
MONA PASSAGE (89)

MGP	0.16	161	P	44	13.50	0.0
MCP	0.26	7	P	44	14.50	0.0
CSB	0.95	82	P	44	24.60	0.3
LPR	1.22	83	P	44	27.80	-0.3
	S.D. = 0.5		on 4 of 4 obs.			

& MAR 29, 1989 09h 29m 49.50s
34.910 N 118.990 W
DEPTH = 14.0km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 3.8 (PAS), 4.1 (BRK). Felt (V) at Lebec; (IV) at Frozier Park; (III) at Mettler and Taft.

ABL	0.20	253	iP	29	53.80	-0.6
SYP	0.90	245	iPc	30	06.90	0.4
BCH	0.94	287	iP	30	06.00	-1.1
SBB	0.98	103	iPc	30	07.70	-0.2
PAS	1.02	138	eP	30	08.30	-0.1
MWC	1.03	131	eP	30	08.40	-0.3
BLP	1.21	254	iPc	30	11.00	-0.7
CLC	1.45	51	eP	30	14.30	-1.1
PKEM	1.47	322	eP	30	14.40	-1.1
PHAM	1.48	309	eP	30	13.70	-1.9
CIS	1.58	162	iPd	30	16.10	-1.0
PEC	1.82	123	eP	30	19.80	-0.9
PRI	1.84	312	eP	30	19.20	-1.8
QSM	2.03	58	eP	30	21.70	-1.9
PANV	2.14	45	eP	30	24.00	-1.4
FRI	2.16	345	iPd	30	23.90	-1.6
MCA	2.22	38	eP	30	25.30	-1.1
GWY	2.28	55	eP	30	25.40	-2.0
TMO	2.29	34	eP	30	26.70	-0.9
LLA	2.33	318	eP	30	26.20	-1.8
PLM	2.35	131	iPc	30	27.60	-0.8
PRS	2.40	307	iPc	30	26.30	-2.7
FMT	2.49	46	eP	30	28.70	-1.6
AMR	2.53	53	eP	30	28.90	-1.9
TPC	2.56	107	ePc	30	29.50	-1.8
LCH	2.56	25	eP	30	30.50	-0.9
SGV	2.61	37	eP	30	31.00	-1.1
NOP	2.61	61	eP	30	30.00	-2.1
PPK	2.66	19	eP	30	32.00	-0.9
SAO	2.72	314	eP	30	31.20	-2.4
			eS	31	06.30	
YMT2	2.76	47	eP	30	33.30	-0.9
GMN	2.77	30	eP	30	33.40	-1.0
SDH	2.77	50	eP	30	33.30	-1.0
YMT1	2.78	45	eP	30	33.70	-0.8
JON	2.80	56	eP	30	33.20	-1.6
YMT3	2.81	47	eP	30	33.70	-1.2
YMT4	2.83	46	eP	30	34.20	-0.9
YMT5	2.86	45	eP	30	34.50	-1.1
YMT6	2.86	46	eP	30	34.50	-1.1
LSM	2.87	50	eP	30	34.30	-1.4
CDH1	2.91	47	eP	30	35.40	-1.0
SVP	2.96	19	eP	30	36.60	-0.5
TMBR	2.99	44	eP	30	36.70	-0.8
LOP	3.00	49	eP	30	36.60	-1.0
BMTN	3.04	38	eP	30	37.50	-0.8
MZP	3.07	25	eP	30	37.50	-1.2
SPRG	3.14	55	eP	30	37.80	-1.7
ARN	3.19	321	eP	30	38.20	-2.0
GCC	3.23	312	eP	30	37.80	-2.9
MHC	3.24	319	ePd	30	39.05	-2.0
			eS	31	17.15	
CMB	3.32	341	eP	30	41.20	-0.8
GLR	3.32	46	eP	30	41.60	-0.6
TNP	3.47	24	eP	30	44.00	-0.4
KRNA	3.52	36	eP	30	44.00	-1.1
MNA	3.58	11	eP	30	44.20	-1.6
PCC	3.77	314	eP	30	45.30	-3.1
BKS	3.95	319	iPd	30	48.93	-2.0
			eS	31	33.60	
PRN	4.05	51	eP	30	51.20	-1.2
KVN	4.19	10	eP	30	53.50	-1.1
SRG	4.34	46	eP	30	55.50	-1.1
EUR	5.16	27	iP	31	07.80	-0.6
ALQ	10.29	86	e(P)	32	23.00	3.1
	62 obs. associated					

MAR 29, 1989 09h 58m 30.45± 1.09s
4.792 S ± 6.3km 152.559 E ± 6.3km
DEPTH = 81.5 ± 11.4 km
5.2mb (12 obs.)
NEW BRITAIN REGION (192)

RAB	0.71	327	iPd	58	13.60	-33.0X
	0.4s	3525.42nm				
			iS	58	50.00	
PAA	3.28	117	iPd	59	21.00	0.3
			eS	59	58.00	
LAT	5.83	251	e(P)	00	01.00	4.8X
PMG	7.06	229	eP	00	13.00	-0.1
VSG	8.37	122	eP	00	30.00	-1.2
HNR	8.66	123	eP	00	44.00	8.9X
CTA	16.40	201	iPc	02	18.50	1.5
			i	02	31.50	
			i	02	42.00	
			i	03	13.00	
GUA	19.73	337	eP	02	56.70	0.4
	0.9s	389.92nm				5.7mb
GUMO	19.79	337	eP	02	57.50	0.5
	1.0s	320.00nm				5.6mb
PJG	19.79	337	eP	02	57.30	0.3
QIS	20.10	218	eP	03	00.00	-0.2
DZM	21.82	143	iPc	03	17.90	0.4
MTN	22.62	248	eP	03	24.00	-1.4
WB5	23.21	228	iPc	03	31.30	0.2
			eS	07	42.50	
WRA	23.27	228	Pc	03	31.50	-0.2
	0.4s	7.70nm				4.5mb
KNA	25.78	243	eP	03	57.00	1.4
ASPA	26.00	222	iPc	03	57.10	-0.5
			e	04	10.20	
MNI	28.38	282	ePc	04	19.50	0.2
WARB	32.67	227	eP	04	51.00	-6.0X
FORR	34.66	219	iPd	05	13.00	-1.2
	0.4s	24.00nm				5.5mb
MBL	35.68	240	iPc	05	22.30	-0.6
	0.4s	10.00nm				5.1mb
MEKA	39.07	233	eP	05	51.00	-0.3
NANU	39.91	240	eP	05	57.50	-0.8
MSZ	41.94	164	P	06	28.00	13.4X
SSE	46.59	322	eP	06	46.00	-6.1X
			i	06	54.00	
CHTO	57.77	296	eP	08	15.10	-0.7
	1.0s	6.25nm				4.7mb
GUN	71.91	301	P	09	47.80	0.2
PKI	72.22	301	P	09	50.10	0.6
	0.7s	16.00nm				5.0mb
KKN	72.39	301	P	09	51.10	0.8
	0.7s	30.00nm				5.3mb
DMN	72.49	301	P	09	51.20	0.2
	0.7s	43.00nm				5.5mb
GKN	72.99	301	P	09	53.70	-0.1
	0.8s	28.00nm				5.2mb
GBA	76.74	285	Pd	10	14.60	-0.5
	0.6s	1.80nm				4.2mb X
SPA	85.24	180	e(P)	11	02.00	2.8
	1.0s	10.00nm				4.8mb
INK	88.53	21	ePc	11	13.30	-1.6
MBC	94.16	14	eP	11	40.00	-0.8
YKA	95.53	28	eP	11	47.90	0.6
YKC	95.59	28	eP	11	48.00	0.4
	0.6s	5.00nm				5.2mb
SLL	116.49	339	ePKP	17	05.30	-0.9
	0.4s	1.40nm				
ITA	148.15	149	ePKP	18	13.20	6.9X
BAO	151.26	135	ePKP	18	17.60	6.7X
KUK	153.02	274	ePKP	18	21.50	8.2X
	S.D. = 1.0		on 32 of 41 obs.			

% MAR 29, 1989 11h 52m 13.96± 0.96s
60.571 N ± 5.2km 4.962 E ±11.6km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.8 (BER).

BER	0.26	135	eP	52	19.10	-0.4
			iSg	52	22.90	
SUE	0.50	349	eP	52	23.80	-0.2
			eS	52	32.30	
HYA	0.85	45	iPc	52	30.10	-0.2
			eS	52	42.20	
ODD1	1.06	128	iP	52	33.90	-0.1
			eS	52	47.80	
KMY	1.37	174	iP	52	39.00	-0.1
			eS	52	56.80	
BLS1	1.51	141	iP	52	41.70	0.5
			iS	53	01.20	
MOL	2.36	31	iP	52	53.70	0.4
			iS	53	23.20	
	S.D. = 0.4		on 7 of 7 obs.			

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* MAR 29, 1989 13h 00m 58.67± 1.25s
25.356 S ± 7.4km 70.109 W ± 8.9km
DEPTH = 56.8 ± 11.0 km
4.4mb (7 obs.)
NEAR COAST OF NORTHERN CHILE (122)

ZON	6.29	169	eP	02	31.00	-0.1
CNCB	8.73	14	P	03	08.00	2.5X
CCH	8.75	26	eP	03	04.00	-1.5
LPB	8.98	12	P	03	21.00	12.3X
	1.0s	100.00nm				
ZOBO	9.23	12	P	03	13.60	1.3
			LR	06	36.00	
PPD	17.53	83	eP	05	02.80	2.1X
			e	05	21.40	
VAO	21.24	89	eP	05	41.40	-0.7

ITA	23.41	88	eP	06	05.30	1.5
			e	06	24.20	
BMA	23.84	89	ePc	06	08.20	0.5
SPA	64.79	180	e(P)	11	45.00	11.5X
	1.0s		5.00nm			
FVM	65.83	342	eP	11	40.00	-0.1
	0.9s		6.78nm		4.6mb	
ALQ	69.15	329	eP	12	01.00	-0.3
	0.9s		2.73nm		4.2mb	
LIC	70.54	73	P	12	09.48	-0.5
TIC	70.75	73	P	12	10.80	-0.5
	0.8s		8.00nm		4.7mb	
KIC	70.86	73	P	12	11.60	-0.3
	0.6s		8.00nm		4.8mb	
GOL	72.60	332	eP	12	22.00	-0.1
	1.0s		5.00nm		4.4mb	
KUK	74.58	75	eP	12	34.00	0.2
BW06	76.92	331	eP	12	47.00	0.2
TNP	77.03	324	eP	12	48.50	1.0
	1.0s		2.00nm		4.1mb	
EUR	77.41	325	eP	12	49.10	-0.5
	1.0s		2.12nm		4.1mb	
KVN	78.21	324	eP	12	54.00	0.1
BNG	90.66	85	ePd	14	12.10	15.2X
	0.9s		9.00nm			
			id	14	17.40	
INK	104.17	340	ePdiff	14	39.00	-17.9X
GBA	147.34	105	PKPd	20	35.40	-0.2
	0.8s		2.70nm			

S.D. = 0.8 on 18 of 24 obs.

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* MAR 29, 1989 13h 24m 43.35± 1.47s
17.271 N ± 7.9km 121.358 E ±10.3km
DEPTH = 52.2 ± 13.4 km
4.9mb (4 obs.)
LUZON, PHILIPPINE ISLANDS (249)

BAG	1.13	221	iPc	25	03.00	-0.3
OCP	2.63	186	iPc	25	14.00	-10.3X
OIZ	11.09	281	eP	27	22.80	0.8
WHN	14.68	335	eP	28	09.50	0.1
GYA	16.41	306	P	28	35.40	3.6X
XAN	20.08	329	eP	29	14.50	-0.8
CD2	21.00	314	P	29	24.70	0.0
CHTO	21.37	278	eP	29	29.30	0.8
	1.0s		2.25nm		3.5mb	X
TIY	21.82	341	Pc	29	34.10	1.1
E	34s		2.80um			
BJI	23.13	350	eP	29	44.00	-1.7
LZH	24.34	324	eP	30	07.50	9.8X
	1.5s		44.00nm		4.8mb	
HHC	24.97	342	eP	30	04.60	1.0
BTO	25.23	339	eP	30	09.60	3.6X
GUN	34.31	294	P	31	27.50	0.0
	0.8s		30.00nm		5.3mb	
PKI	34.67	294	P	31	29.90	-0.6
KKN	34.81	294	P	31	31.30	-0.3
DMN	34.94	294	P	31	32.40	-0.3
GKN	35.41	294	P	31	36.10	-0.5
	0.7s		16.00nm		5.1mb	
WB5	39.07	160	eP	32	07.20	0.0
GBA	42.43	271	Pc	32	35.00	0.1
	0.6s		6.40nm		4.5mb	
INK	79.56	21	eP	36	46.00	0.1
MBC	79.94	12	eP	36	47.00	-0.9
YKA	89.25	23	eP	37	36.30	1.5

S.D. = 0.9 on 19 of 23 obs.

? MAR 29, 1989 13h 54m 19.39± 3.93s
39.660 N ±14.3km 23.632 E ±40.6km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
MD 3.3 (ATH).

NEO	0.47	222	ePn	54	29.00	0.0
			eSn	54	38.00	
PLG	0.73	349	ePn	54	33.10	-0.6
			eSn	54	47.00	
KZN	1.57	295	ePn	54	47.20	-0.2
VAY	1.85	334	ePn	54	52.20	0.9

S.D. = 1.1 on 4 of 4 obs.

? MAR 29, 1989 14h 07m 53.87± 4.66s
62.459 N ±38.4km 6.367 E ±19.0km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 2.0 (BER).

HYA	1.30	184	iPc	08	17.80	-0.1
			eS	08	34.00	
			iSg	08	35.60	
SUE	1.60	209	eP	08	22.20	0.0
			eS	08	40.80	
			eSg	08	45.20	
ODD1	2.56	177	eP	08	36.30	0.2
			eS	09	06.40	
			eSg	09	12.60	
NRA0	3.02	123	iPc	08	42.50	0.0
			iPg	08	46.30	
			iS	09	18.20	
			iSg	09	25.50	

S.D. = 0.2 on 4 of 4 obs.

& MAR 29, 1989 15h 15m 00.22s
58.500 N 142.687 W
DEPTH = 10.0km (geophysicist)
GULF OF ALASKA (15)
<AGS-P>.

YKU	1.86	54	eP	15	27.98	-4.3
PCA	2.03	37	iP	15	29.83	-5.1
PNL	2.06	54	iP	15	30.03	-5.3
MID	2.11	298	eP	15	30.71	-5.2
BCPM	2.14	46	eP	15	31.36	-5.1
RAGM	2.15	333	iP	15	31.55	-5.1
HQN	2.19	63	iP	15	31.63	-5.6
			eS	15	54.95	
SGAM	2.38	328	iP	15	35.15	-4.8
CTGM	2.57	15	iP	15	37.92	-4.7
CVA	2.58	324	eP	15	36.91	-5.7
HIN	2.72	316	iP	15	39.47	-5.3
MTU	2.96	302	eP	15	41.92	-6.1
			eS	16	15.74	
FID	2.97	321	eP	15	42.79	-5.4
			eS	16	16.30	
GLB	3.01	350	iP	15	43.25	-5.5
KNIM	3.18	308	iP	15	44.88	-6.3
VLZ	3.22	327	eP	15	45.58	-6.1
VZW	3.23	324	iP	15	45.82	-6.1
GLI	3.27	319	iP	15	46.00	-6.5
			eS	16	22.54	
KLU	3.41	333	iP	15	49.04	-5.6
HYT	3.51	46	P	15	51.00	-5.1
SEW	3.82	298	eP	15	53.89	-6.4
TOA	4.01	336	iP	15	58.04	-5.0
SLKM	4.34	301	iP	16	00.86	-6.8
			eS	16	48.80	
PMS	4.42	311	eP	16	03.45	-5.5
PME	4.47	317	eP	16	04.20	-5.2
PLRM	4.48	317	eP	16	03.67	-5.9
GHO	4.53	319	eP	16	04.62	-5.8
CNPM	4.54	287	eP	16	04.91	-5.6
KDC	5.25	266	eP	16	14.36	-6.2
RDT	5.37	297	eP	16	15.87	-6.4
SPU	5.43	304	eP	16	16.04	-7.2
CGLM	5.47	305	eP	16	18.26	-5.5
ILIM	5.50	291	eP	16	19.07	-5.1
CRP	5.52	304	eP	16	16.24	-8.3
			eS	17	19.63	
SKT	5.62	312	eP	16	19.03	-6.8
DWY	5.79	14	P	16	22.00	-6.2

36 obs. associated

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* MAR 29, 1989 15h 56m 18.00± 1.22s
15.005 N ±19.1km 94.782 W ±11.4km
DEPTH = 67.5 ± 9.8 km
NEAR COAST OF OAXACA, MEXICO (66)

TPX	2.44	92	iPc	56	56.00	-0.3
SBG	2.64	87	eP	56	58.50	-0.9
KKG	2.65	90	eP	56	58.00	-1.4
SCX	2.69	50	iP	56	25.00	-34.8X
OXX	2.78	318	iPc	57	00.50	-0.8
			iS	57	41.50	
SOG	3.10	94	eP	57	05.20	-0.7
SOG2	3.12	95	eP	57	05.00	-1.0
FUG	3.85	98	eP	57	17.00	0.7
REC	4.16	97	eP	57	22.50	1.8
IXG	4.27	101	eP	57	23.00	0.8
SLP	4.36	93	eP	57	25.00	1.6
			S	58	21.00	
IISM	4.67	328	eP	57	28.50	0.8
CMG2	4.84	93	eP	57	30.50	0.2
YUP	4.89	99	ePd	57	31.60	0.7
MRL	4.92	89	ePd	57	30.10	-1.2
			S	58	29.00	
ACX	5.22	291	iPd	58	20.00	44.6X
IIT	5.23	320	(P)	58	01.50	25.8X
III	5.60	307	iPd	57	41.00	0.1
IIC	6.38	319	(P)	58	24.00	32.2X
CRX	6.41	314	iP	58	31.00	38.8X
LRM	34.13	338	eP	02	59.40	0.7
ZOBO	40.73	139	(P)	03	54.00	-0.6
Z	24s		0.15um			3.8MszX
			LR	18	54.00	
YKA	49.46	348	eP	05	03.30	0.2
SOB1	58.57	111	e(P)	06	26.00	15.5X
INK	58.73	344	eP	06	10.00	-0.8
MBC	62.60	354	eP	06	37.00	0.0

S.D. = 1.0 on 20 of 26 obs.

& MAR 29, 1989 16h 54m 11.44s
60.172 N 153.276 W
DEPTH = 137.3km
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM	0.18	120	iP	54	29.77	0.9
			eS	54	44.22	
RDT	0.59	47	iP	54	31.50	-0.7
PDB	0.60	230	iP	54	31.09	-1.1
			eS	54	46.23	
NNL	1.00	97	iP	54	35.17	-0.1
			eS	54	52.53	
NKA	1.16	60	iP	54	37.54	0.8
SPU	1.18	30	iP	54	36.29	-0.8
			eS	54	56.93	
CNPM	1.22	121	iP	54	36.62	-0.8
CRP	1.23	26	iP	54	37.25	-0.4
CGLM	1.30	28	iP	54	37.58	-0.8
SVW	1.49	310	iPc	54	38.80	-1.5
SLKM	1.56	76	iP	54	39.63	-1.4
SEW	1.92	90	iP	54	43.78	-1.4
			eS	55	08.81	
SKT	2.00	24	iP	54	45.27	-1.0
PMS	2.12	58	iP	54	47.10	-0.6
PTE	2.21	70	iP	54	46.42	-2.4
PWA	2.23	47	iP	54	45.80	-3.2
KDC	2.47	170	iPd	54	49.10	-2.9
PLRM	2.48	53	eP	54	49.45	-2.7
PMR	2.48	53	iP	54	49.30	-2.8
PME	2.54	53	eP	54	50.63	-2.3
GHO	2.66	51	iP	54	52.12	-2.5
KNIM	2.77	84	iP	54	52.82	-3.1
MTU	2.82	91	iP	54	55.05	-1.6
			eS	55	29.97	
TTA	3.06	336	ePd	54	57.80	-2.0
GLI	3.14	74	eP	54	58.13	-2.6
			eS	55	35.34	
HIN	3.38	83	eP	55	02.25	-1.7
FID	3.42	77	eP	55	00.66	-3.7
VZW	3.43	72	iP	55	01.71	-2.9
VLZ	3.55	71	eP	55	03.62	-2.5
CVA	3.76	81	iP	55	07.18	-1.7
KLU	3.84	67	iP	55	07.24	-2.8
TOA	3.95	58	eP	55	09.40	-2.1
SGAM	4.02	82	iP	55	10.65	-1.8
RAGM	4.29	83	iP	55	14.14	-1.9
GLB	4.81	71	iP	55	20.48	-2.5
FBA	5.38	26	ePd	55	28.10	-2.5
CTGM	5.94	77	iP	55	37.06	-1.4
DWY	7.56	53	P	55	58.00	-2.2
HYT	7.82	78	P	56	00.70	-3.0
YKA	18.51	66	eP	58	17.20	-2.1
MBC	19.92	23	eP	58	30.00	-3.8
	0.5s		13.00nm		4.6mb	

41 obs. associated

? MAR 29, 1989 17h 58m 27.70± 4.70s
36.207 N ±19.2km 8.920 W ±48.5km
DEPTH = 10.0km (geophysicist)
WEST OF GIBRALTAR (384)

EVAL	2.22	51	eP	59	11.20	6.1X
			eS	59	37.50	
AVE	3.16	156	e(Pn)	59	19.00	0.6
			iSn	59	58.00	
EHOR	3.35	60	eP	59	22.00	0.8
			eS	00	13.60	
IFR	4.11	130	iPn	59	32.00	-0.1
			iSn	00	18.00	
EBAN	4.54	63	eP	59	37.20	-0.9

29d 17h

		eS	00 26.00		
TIO	5.45	165 iPn	59 50.50	-0.5	
		iSn	00 50.00		
S.D. = 1.0 on 5 of 6 obs.					

* MAR 29, 1989 19h 10m 54.50± 0.69s
5.541 S ± 7.8km 154.494 E ± 9.6km
DEPTH = 160.6 ± 6.6 km
4.7mb (6 obs.)
SOLOMON ISLANDS (193)

PAA	1.25	127 iPd	11 22.00	-0.8	
		eS	11 43.00		
RAB	2.68	300 iPc	11 39.30	0.5	
	0.5s	225.35nm			
		iS	12 20.00		
HNR	6.65	126 eP	12 54.00	23.1X	
PMG	8.23	242 eP	12 52.50	0.5	
CTA	16.53	208 iPc	14 39.80	1.2	
	0.9s	29.41nm	4.6mb		
QIS	20.78	223 eP	15 24.00	-0.5	
WB5	24.22	232 eP	15 57.50	-0.4	
WRA	24.27	232 Pd	15 57.90	-0.5	
	0.3s	0.90nm	3.8mb		
WARB	33.60	229 eP	17 15.00	-6.6X	
TIA	54.31	323 eP	20 05.50	-1.0	
CHTO	59.83	295 iP	20 45.10	-0.4	
	1.0s	5.50nm	4.4mb		
CD2	60.50	310 eP	20 49.40	-0.6	
HHC	60.63	324 eP	20 51.40	0.6	
GTA	67.35	317 iPd	21 34.80	0.3	
SHL	68.14	300 iP	21 39.50	-0.2	
GUN	73.95	301 P	22 14.60	0.0	
	0.6s	16.00nm	4.9mb		
PKI	74.26	301 P	22 16.10	-0.3	
KKN	74.43	301 P	22 17.20	-0.1	
	0.5s	11.00nm	4.8mb		
DMN	74.53	300 P	22 18.00	0.1	
	0.6s	17.00nm	5.0mb		
GKN	75.03	301 P	22 20.30	-0.3	
YKA	95.29	28 eP	24 02.80	1.9	
UPA	126.33	83 iPdiff	26 43.20	22.8X	
	0.6s	16.00nm			
S.D. = 0.8 on 19 of 22 obs.					

MAR 29, 1989 19h 51m 45.04± 0.90s
33.925 N ± 6.6km 24.755 E ± 4.8km
DEPTH = 52.1 ± 8.7 km
4.1mb (25 obs.)
MEDITERRANEAN SEA (400)

NPS	1.51	28 eP	52 11.60	1.5	
VAM	1.55	343 eP	52 10.30	-0.3	
KAP	2.57	50 eP	52 26.50	1.5	
ITM	3.98	325 eP	52 46.40	1.3	
YER	4.31	41 iP	52 49.10	-0.6	
ELL	5.07	55 eP	52 59.50	-1.0	
VLS	5.42	323 eP	53 06.50	1.2	
BCK	5.91	52 eP	53 05.00	-7.3X	
KZN	6.80	340 eP	53 23.50	-1.2	
LCI	8.39	322 P	53 42.40	-4.2X	
MEU	8.61	294 P	53 46.20	-3.7X	
ATN	8.63	302 P	53 46.90	-3.1X	
TDS	8.85	313 P	53 50.10	-2.9X	
		eSn	55 28.50		
DSI	9.25	102 e(P)	53 52.00	-6.5X	
		eS	55 32.00		
PRNI	9.39	110 eP	53 56.00	-4.5X	
MBH	9.55	113 eP	54 01.00	-1.7	
MGR	9.62	313 P	53 59.70	-3.8X	
SGO	10.02	314 P	54 06.90	-2.2	
ZST	15.37	340 eP	55 24.00	4.1X	
KHC	17.31	335 iPc	55 46.50	2.0	
	1.2s	15.80nm	4.0mb		
PRU	17.73	338 ePd	55 49.50	-0.1	
	1.2s	14.90nm	4.0mb		
KSP	18.00	342 eP	55 52.20	-0.8	
BRG	18.69	338 e(P)	56 00.00	-1.3	
	0.8s	10.00nm	4.1mb		
MOX	19.28	334 e(P)	56 09.00	0.8	
CLL	19.36	337 iPd	56 07.90	-1.2	
	1.2s	21.00nm	4.3mb		
HAU	19.70	321 eP	56 13.00	0.2	
	0.8s	5.30nm	3.9mb		
LBF	20.42	316 eP	56 19.50	-0.8	
	0.8s	5.90nm	4.0mb		
CAF	20.62	309 eP	56 23.10	0.8	
	0.6s	2.70nm	3.8mb		
LOR	20.64	316 eP	56 22.20	-0.3	
	0.6s	3.00nm	3.8mb		
SSF	20.73	316 eP	56 23.30	-0.1	
	0.6s	1.80nm	3.6mb		
BGF	20.87	314 eP	56 24.60	-0.2	
	0.8s	9.40nm	4.2mb		
WLF	20.88	324 P	56 28.10	3.3X	
LPO	21.09	308 eP	56 27.10	0.0	
	0.7s	4.40nm	3.9mb		
TCF	21.12	312 eP	56 27.70	0.3	
	0.8s	5.30nm	3.9mb		
RJF	21.13	309 eP	56 27.50	0.0	
	0.8s	8.00nm	4.1mb		
LSF	21.53	312 eP	56 31.50	0.0	
	0.8s	5.30nm	4.0mb		
DOU	21.92	324 P	56 35.60	0.3	
	0.7s	16.70nm	4.6mb		
LDF	23.62	316 eP	56 51.90	0.0	
	0.6s	4.30nm	4.1mb		
LPF	23.90	314 eP	56 55.60	1.0	
	1.0s	16.00nm	4.5mb		
FLN	23.91	316 eP	56 55.50	0.8	
	0.8s	13.40nm	4.5mb		
GRR	23.95	315 eP	56 55.10	-0.1	
	0.8s	10.70nm	4.4mb		
HFS	27.21	348 eP	57 23.60	-1.9	
	0.4s	1.20nm	3.9mb		
NAO	28.39	346 P	57 35.30	-0.9	
	0.5s	1.00nm	3.7mb		
BNG	29.90	192 ePc	57 49.50	-0.7	
	0.7s	6.00nm	4.4mb		
		id	02 05.50		
		ic	03 13.40		
TIC	38.67	232 Pd	59 05.70	0.3	
	0.8s	12.00nm	4.8mb		
KIC	38.70	232 Pd	59 06.06	0.4	
	0.8s	22.00nm	5.1mb		
LIC	38.98	232 Pd	59 08.52	0.4	
	0.9s	25.00nm	5.1mb		
GKN	51.07	79 P	00 45.30	0.8	
DMN	51.60	80 P	00 49.20	0.5	
KKN	51.68	79 P	00 49.80	0.6	
PKI	51.87	80 P	00 51.00	0.2	
GUN	52.12	79 P	00 53.10	0.4	
S.D. = 1.0 on 42 of 52 obs.					

MAR 29, 1989 21h 32m 54.86± 0.13s
36.397 N ± 3.5km 70.521 E ± 2.4km
DEPTH = 211.5km (16 depth phases)
4.7mb (60 obs.)
HINDU KUSH REGION (718)

KSH	5.29	53 P	34 13.00	-0.9	
		S	35 10.00		
MAIO	8.90	273 iPnc	34 59.00	-1.7	
	0.6s	9.82nm	4.2mb		
		eSn	36 24.00		
NDI	9.54	142 iPd	35 07.50	-1.4	
	0.4s	203.39nm	5.7mb X		
		eS	36 46.00		
KHI	9.97	260 eP	35 15.70	1.1	
GKN	14.58	121 P	36 11.50	-1.2	
DMN	15.15	121 P	36 18.50	-1.3	
KKN	15.16	120 P	36 18.40	-1.5	
PKI	15.38	121 P	36 21.00	-1.8	
GUN	15.50	119 P	36 22.80	-1.5	
BOM	17.55	173 iPd	36 48.00	0.4	
		eS	40 06.50		
POO	18.04	170 iPd	36 54.50	1.7	
		iS	40 22.00		
LSA	18.52	105 Pc	36 59.60	1.3	
		iS	40 15.70		
TAB	19.33	282 e(P)	37 14.00	7.8X	
HYB	20.20	157 eP	37 15.80	0.9	
	1.0s	100.00nm	5.3mb		
		eS	40 51.00		
SLY	20.25	275 ePd	37 18.00	2.8X	
SHL	21.21	115 iP	37 26.00	1.0	
		eS	41 09.50		
GTA	23.26	74 iPc	37 45.80	1.0	
	1.0s	0.10nm	2.4mb X		
GBA	23.53	163 Pd	37 49.10	1.9	
	0.8s	16.90nm	4.7mb		
RYD	23.59	247 iPc	37 49.00	1.2	
KOD	26.80	165 eP	38 19.00	1.4	
		eS	42 40.00		
LZH	26.81	81 eP	38 17.50	0.1	
	2.0s	55.00nm	4.9mb		
KMSA	27.79	242 ePc	38 26.40	0.1	
CD2	28.12	91 eP	38 29.40	0.3	
KMI	29.75	103 Pc	38 43.50	-0.3	
CHTO	30.51	117 eP	38 50.40	0.1	
	1.0s	6.25nm	4.3mb		
BTO	31.01	70 iPd	38 55.20	0.6	
XAN	31.32	83 P	38 57.00	-0.3	
HHC	32.16	69 eP	39 05.20	0.6	
GYA	32.23	98 P	39 05.20	-0.2	
		PcP	41 47.80		
ELL	32.45	283 iP	39 07.50	0.4	
TIY	33.28	75 Pd	39 14.40	0.2	
VRI	33.95	300 eP	39 21.00	1.2	
MLR	34.50	299 ePc	39 26.50	1.9	
BJI	35.75	70 eP	39 35.50	0.5	
		ePcP	41 57.50		
		eScP	45 25.00		
DEV	36.62	300 ePd	39 45.00	2.8X	
WHN	36.78	86 eP	39 44.00	0.2	
TIA	37.27	76 eP	39 48.80	1.0	
BZS	37.53	300 ePd	39 51.00	1.1	
NUR	37.69	324 iP	39 51.30	0.3	
	0.7s	66.70nm	5.4mb		
		i	40 58.00	338kmX	
KJF	37.79	331 iP	39 52.00	0.2	
	0.8s	33.70nm	5.0mb		
		i	40 58.40	336kmX	
SUF	37.81	328 iP	39 52.20	0.3	
	0.7s	64.10nm	5.3mb		
SKO	38.03	294 eP	39 54.00	-0.1	
		i	40 38.50	211km	
SPC	38.36	306 iP	39 58.80	1.8	
QIZ	38.56	106 eP	40 01.00	2.3	
KRA	38.56	307 iPd	39 59.10	0.7	
	0.5s	41.00nm	5.3mb		
		e	40 42.40	204km	
SOD	39.67	335 iP	40 07.50	0.3	
SRO	39.68	303 i(P)	40 09.50	2.0	
		i	40 55.00	215km	
NJ2	39.87	82 Pd	40 10.00	0.7	
		PcP	42 10.20		
KEV	40.76	338 iP	40 16.80	0.7	
	0.7s	41.40nm	5.0mb		
KSP	40.90	308 iPd	40 18.20	0.6	
		e	41 01.00	200kmX	
UPP	40.92	322 iPd	40 17.30	-0.2	
		i	41 24.60	336kmX	
PTJ	41.45	301 eP	40 21.90	-0.3	
CN2	42.00	62 eP	40 26.50	-0.1	
		PcP	42 17.00		
PRU	42.05	307 P	40 28.00	1.1	
	1.2s	16.50nm	4.4mb		
SSE	42.07	82 Pc	40 28.00	0.7	
	0.6s	14.00nm	4.6mb		
TDS	42.27	291 P	40 30.00	1.1	
IPM	42.28	131 ePd	40 30.50	1.3	
	0.8s	26.10nm	4.8mb		
BRG	42.38	308 iP	40 30.60	1.0	
	1.1s	30.00nm	4.7mb		
		e	41 14.80	206km	
PSI	42.56	135 ePd	40 31.00	-0.4	
		e	44 45.00		
KHC	42.73	306 iPd	40 33.40	0.8	
		e	41 17.50	205km	
MGR	42.74	292 P	40 33.20	0.5	
SGO	42.83	293 P	40 34.30	0.9	
HFS	42.91	322 eP	40 33.50	-0.3	
	0.7s	63.80nm	5.2mb		
CLL	42.96	309 iPd	40 34.60	0.3	
	1.1s	20.00nm	4.5mb		
		e	43 13.00		
RBL	43.03	302 P	40 36.00	1.0	
KBA	43.10	303 eP	40 35.50	-0.2	
	1.0s	4.60nm	3.9mb		
		e(pP)	41 20.00	207km	
FVI	43.55	302 P	40 40.00	0.9	
MOX	43.87	308 eP	40 42.00	0.3	
	1.2s	23.00nm	4.5mb		
		e	41 28.00	214km	
NRA0	44.04	323 P	40 41.60	-1.3	
ASS	44.23	297 P	40 46.30	1.6	
MNS	44.36	296 P	40 45.50	-0.2	
NAO	44.40	323 P	40 45.20	-0.5	
	0.8s	59.10nm	5.1mb		
CTI	44.40	302 P	40 46.50	0.4	

CRE 44.63 298 P 40 49.80 1.9
PGD 44.74 299 P 40 50.50 1.7
BOB 46.16 300 P 41 00.00 0.0
VAI 46.41 302 P 41 01.00 -0.8
WTS 46.74 310 eP 41 04.50 0.2
0.9s 17.00nm 4.5mb
CDF 46.96 306 eP 41 06.50 0.3
0.6s 2.50nm 3.8mb
ORX 47.00 302 P 41 04.25 -2.3
ROB 47.37 300 P 41 09.58 0.3
BSF 47.38 305 eP 41 09.10 -0.3
0.8s 18.80nm 4.5mb
MEM 47.43 309 P 41 09.80 0.2
IMI 47.44 299 P 41 09.27 -0.6
ENN 47.46 309 eP 41 09.50 -0.3
0.8s 9.00nm 4.2mb
WLF 47.48 307 P 41 10.70 0.7
e 41 57.50 215km
LSD 47.60 302 P 41 11.22 -0.2
HAU 47.64 305 eP 41 11.00 -0.3
0.6s 7.90nm 4.3mb
SAOF 47.66 300 P 41 11.37 -0.2
AUTN 47.74 300 P 41 12.19 -0.3
STV 47.76 300 P 41 11.84 -0.5
AURF 47.84 299 P 41 12.80 -0.2
PZZ 47.85 300 P 41 11.43 -1.7
TOUF 47.87 300 P 41 13.30 0.0
LPG 47.87 302 eP 41 13.50 0.0
0.7s 11.40nm 4.4mb
MVIF 47.96 300 P 41 13.90 -0.1
RRL 47.98 301 P 41 13.07 -1.2
FOUF 48.07 300 P 41 14.17 -0.4
FRF 48.40 299 eP 41 16.50 -0.7
0.8s 10.70nm 4.3mb
DOU 48.40 308 P 41 17.80 0.7
e 42 05.10 216km
UCC 48.43 309 P 41 15.20 -2.1
SNF 48.53 309 P 41 19.10 1.0
e 42 06.20 215km
LBF 49.42 304 eP 41 24.60 -0.4
0.9s 6.50nm 4.1mb
SMF 49.59 304 eP 41 25.80 -0.5
0.8s 26.00nm 4.8mb
SSF 49.72 304 eP 41 26.90 -0.3
0.8s 4.50nm 4.0mb
AVF 49.88 304 eP 41 27.80 -0.6
0.8s 24.70nm 4.8mb
BGF 50.28 304 eP 41 31.00 -0.5
0.8s 9.40nm 4.3mb
TCF 50.77 304 eP 41 35.30 0.0
0.9s 22.90nm 4.7mb
CAF 51.23 302 eP 41 38.90 0.2
0.6s 8.10nm 4.4mb
LSF 51.24 304 eP 41 38.30 -0.4
0.8s 12.00nm 4.5mb
RJF 51.50 303 eP 41 40.80 0.1
0.8s 8.00nm 4.3mb
LDF 51.73 307 eP 41 41.40 -1.0
1.0s 17.60nm 4.6mb
LPO 51.89 302 eP 41 43.40 -0.2
0.6s 3.60nm 4.1mb
FLN 51.92 307 eP 41 42.80 -1.0
0.6s 7.20nm 4.4mb
EKA 52.09 316 Pd 41 44.20 -0.7
1.1s 24.00nm 4.7mb
LFF 52.13 302 eP 41 45.20 -0.1
0.6s 10.80nm 4.6mb
GRR 52.26 307 eP 41 45.20 -1.0
0.6s 7.90nm 4.5mb
MFF 52.26 305 eP 41 45.40 -0.9
1.0s 13.60nm 4.5mb
EPF 52.97 300 eP 41 50.40 -1.2
0.7s 4.80nm 4.2mb
TOL 57.15 298 eP 42 21.50 -0.1
BNG 57.25 249 iPc 42 20.30 -2.3
0.9s 38.00nm 5.1mb
id 43 09.50 218km
id 43 33.20
APHE 58.03 295 eP 42 26.50 -1.4
AAPN 58.20 295 eP 42 27.20 -1.9
ATEJ 58.28 295 eP 42 28.50 -1.2
ALE 59.10 354 eP 42 34.00 -0.6
0.4s 3.00nm 4.4mb
PTZ 62.49 224 iPd 42 59.00 0.9
i 43 02.80 12kmX
i 43 47.50
KMZ 65.07 229 iPd 43 16.00 1.1
i 44 06.00 215km
LSZ 65.11 226 iP 43 15.60 0.5
i 44 06.00 217km
MBC 67.46 3 ePc 43 28.70 -0.4
0.9s 71.00nm 5.4mb
pP 44 17.00 205km
BRW 67.50 15 ePc 43 28.90 -0.5
BUL 68.78 222 iPd 43 38.20 0.1
0.8s 30.22nm 5.1mb
KOGH 70.94 263 eP 43 50.50 -0.8
KUK 70.98 264 eP 43 51.00 -0.5
IMA 72.34 17 ePc 43 58.20 -0.7
1.3s 67.40nm 5.2mb
SLR 73.52 219 eP 44 06.50 0.3
MBL 73.80 133 iPc 44 08.70 0.9
0.5s 7.00nm 4.6mb
INK 74.07 9 ePc 44 08.60 0.0
0.5s 69.00nm 5.6mb
TTA 74.25 20 eP 44 09.80 -0.2
KSR 74.34 220 iPd 44 11.50 0.5
0.6s 7.14nm 4.6mb
KIC 74.39 266 Pc 44 10.30 -1.1
0.6s 48.00nm 5.4mb
TIC 74.45 267 Pc 44 10.42 -1.3
0.4s 26.00nm 5.3mb
FBA 74.67 16 eP 44 11.80 -0.4
LIC 74.70 266 Pc 44 12.10 -1.1
FRB 75.05 342 eP 44 14.00 -0.3
MTN 75.19 118 iPd 44 15.40 -0.4
BFS 75.24 220 iPd 44 15.40 -0.7
KNA 75.55 122 iPd 44 17.70 -0.1
SVW 75.82 21 eP 44 19.70 0.9
PMR 77.19 18 eP 44 25.60 -0.6
1.0s 43.30nm 5.1mb
MEKA 77.29 137 eP 44 27.00 -0.3
TOA 77.46 17 ePc 44 28.50 0.6
KDC 79.50 22 eP 44 38.60 -0.2
YKA 81.37 2 eP 44 49.40 0.9
YKC 81.39 2 ePd 44 49.20 0.6
0.5s 15.00nm 5.0mb
pP 45 40.40 211km
WB5 82.24 122 eP 44 52.90 -0.9
WRA 82.27 122 Pd 44 53.20 -0.7
0.8s 22.70nm 5.0mb
ASPA 84.51 125 iPc 45 04.30 -0.9
0.9s 47.00nm 5.2mb
FORR 85.95 133 eP 45 12.00 -0.1
0.4s 15.00nm 5.2mb
OIS 86.35 119 eP 45 13.00 -1.2
FFC 89.02 356 iPc 45 27.00 0.4
0.8s 18.00nm 5.1mb
EDM 90.69 2 ePc 45 34.50 0.1
CTA 90.85 114 iPc 45 34.50 -0.9
0.9s 29.41nm 5.3mb
i 46 17.50 171kmX
i 46 29.00
RSON 92.01 350 P 45 40.00 -0.5
SES 93.57 1 ePd 45 48.40 0.7
pP 46 40.00 209km
GMW 95.59 9 P 45 58.40 1.4
DPW 95.75 6 P 45 58.00 0.2
LON 96.49 8 P 46 01.00 -0.2
BMW 96.58 10 P 46 01.80 0.2
SPA 126.21 180 e(PKP)51 31.80 -0.9
1.0s 25.00nm
ZOBO 138.26 288 ePKP 51 57.00 -0.6
LPB 138.40 287 (PKP) 51 58.00 0.4
CNCB 138.47 287 PKP 51 58.00 0.1
S.D. = 0.9 on 169 of 172 obs.

MAR 29, 1989 21h 34m 31.60± 0.45s
39.324 N ± 3.8km 29.020 E ± 5.0km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST 0.41 313 iPg 34 39.50 -0.6
iSg 34 44.50
KCT 1.06 331 iPn 34 51.40 -0.1
KHL 1.07 158 iPg 34 51.20 -0.7
iSg 35 05.20
YLV 1.27 12 iPn 34 54.90 -0.3
BNT 1.33 321 iPn 34 55.90 -0.3
EDC 1.36 319 iPn 34 55.90 -0.6
GPA 1.38 45 iPn 34 57.10 0.1
GBZT 1.50 12 ePn 34 59.00 0.5
iSg 35 19.50
HRT 1.58 18 iPn 34 58.90 -0.8
IZM 1.65 237 ePn 35 01.00 0.2
ISK 1.74 1 ePn 35 02.70 0.7
CTT 1.88 346 iPn 35 03.90 -0.1
PRK 2.13 269 ePn 35 10.50 2.8X
eSn 35 42.00
EZN 2.14 284 ePn 35 07.30 -0.5
BCK 2.23 146 ePn 35 04.00 -5.2X
YER 2.26 195 ePn 35 13.00 3.3X
ELL 2.67 164 ePn 35 16.00 0.5
DMK 2.67 339 ePn 35 16.00 0.5
BBTK 2.94 79 eP 35 27.50 8.2X
eS 36 07.50
RDO 3.23 305 ePn 35 24.80 1.5
BHD 13.78 111 eP 38 07.00 17.8X
S.D. = 0.7 on 16 of 21 obs.

MAR 29, 1989 22h 04m 45.91± 0.36s
44.625 N ± 2.8km 7.032 E ± 4.4km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.1 (LDG), 2.0 (GEN).

PZZ 0.13 157 P 04 49.16 0.0
S 04 51.05
DOI 0.20 128 Pc 04 50.30 0.0
eSg 04 53.70
FOUF 0.20 242 P 04 49.70 -0.6
(Sg) 04 51.64
RRL 0.34 329 P 04 53.00 -0.1
S 04 58.16
STV 0.43 151 P 04 54.41 -0.4
S 04 59.98
RSP 0.55 17 P 04 57.28 0.1
S 05 04.08
ROB 0.69 119 P 04 59.03 -0.5
S 05 07.24
SBF 0.82 159 Pg 05 02.30 0.5
Sg 05 12.30
LPG 0.89 347 Pg 05 03.40 0.1
Sg 05 15.00
LPL 0.92 347 Pg 05 03.60 0.0
Sg 05 15.20
FRF 1.10 195 Pg 05 07.00 0.4
Sg 05 20.20
LRG 1.27 203 Pg 05 09.60 0.2
Sg 05 25.20
LMR 1.34 196 Pg 05 10.80 0.1
Sg 05 27.40
S.D. = 0.4 on 13 of 13 obs.

& MAR 29, 1989 22h 56m 59.89s
57.379 N 142.901 W
DEPTH = 10.0km (geophysicist)
GULF OF ALASKA (15)
<AGS-P>.

MID 2.74 320 eP 57 40.23 -4.4
BCPM 3.09 32 eP 57 44.15 -5.5
RAGM 3.15 344 eP 57 45.22 -5.3
SGAM 3.35 340 eP 57 48.05 -5.3
eS 58 26.54
MTU 3.60 319 eP 57 51.36 -5.6
CTGM 3.69 12 eP 57 53.00 -5.3
FID 3.85 333 eP 57 55.89 -4.6
KNIM 3.89 322 eP 57 54.42 -6.6
GLB 4.10 354 eP 57 58.30 -5.7
SIT 4.13 91 eP 57 55.00 -9.3
VZW 4.14 335 iP 57 58.09 -6.5
SEW 4.37 311 eP 58 01.11 -6.7
KLU 4.41 341 eP 58 02.39 -6.0
eS 58 51.47
HYT 4.44 37 P 58 04.00 -4.9
CNPM 4.88 300 eP 58 09.81 -5.2
SLKM 4.92 313 eP 58 09.83 -5.8
PMS 5.16 321 eP 58 14.20 -4.9
KDC 5.18 278 eP 58 14.28 -4.9
PLRM 5.28 326 eP 58 17.37 -3.3
GHO 5.36 328 eP 58 17.39 -4.6
RDT 5.87 307 eP 58 23.16 -5.8
ILIM 5.90 302 eP 58 23.20 -6.2
SPU 6.04 313 eP 58 25.54 -5.9
SKT 6.35 320 eP 58 30.19 -5.6
INK 11.75 17 eP 59 51.00 0.6
YKA 15.00 58 eP 00 35.60 2.3
MBC 20.77 16 eP 01 39.00 -3.9
FFC 22.76 79 eP 02 00.00 -3.1
1.0s 17.00nm 4.5mb

29d 23h

KHC	72.09	16	eP	08	22.00	-3.7
	29 obs. associated					

• MAR 29, 1989 23h 22m 28.60± 3.13s
10.405 N ±20.6km 62.545 W ±19.0km
DEPTH = 10.0km (geophysicist)
NEAR COAST OF VENEZUELA (97)
MD 3.9 (TRN).

TCE	0.83	70	eP	22	45.08	0.4
			eS	22	57.85	
TPP	1.08	95	eP	22	49.63	0.7
			eS	23	03.58	
TRN	1.15	78	eP	22	49.36	-0.7
			eS	23	03.23	
TBH	1.46	87	eP	22	54.35	-0.6
			eS	23	17.04	
GRW	1.95	26	eP	23	03.11	1.0
			eS	23	28.83	
FCV	3.02	25	eP	23	17.31	0.0
			eS	23	57.21	
SVB	3.12	24	eP	23	19.05	0.3
			eS	24	04.16	
SVV	3.17	24	eP	23	19.42	-0.1
SLB	3.70	23	eP	23	26.85	-0.3
SLW	3.92	23	eP	23	29.97	-0.2
DSC	4.91	13	eP	23	44.33	0.1
			eS	24	41.25	
DSVT	4.93	13	eP	23	44.31	-0.2
			eS	24	40.67	
DTMT	4.94	13	eP	23	44.43	-0.2
			eS	24	41.18	
DPMT	4.95	13	eP	23	44.41	-0.4
BBL	5.19	11	eP	23	48.30	0.1
MGG	5.61	12	eP	23	54.02	-0.1
PAG	5.65	8	eP	23	54.70	-0.1
			S	24	56.00	
DEG	6.05	14	eP	23	59.00	-1.3
SEG	6.05	10	eP	24	01.80	1.6
MGH	6.28	3	eP	24	03.80	0.1
S.D. = 0.7 on 20 of 20 obs.						

• MAR 30, 1989 00h 36m 13.54± 3.04s
42.407 N ±22.7km 19.917 E ±11.3km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)

BCI	0.12	110	iPgd	36	16.00	-0.5
PUK	0.36	183	iPg	36	19.80	-1.2
KKS	0.49	132	ePg	36	23.60	0.0
SDA	0.50	219	iPgc	36	23.30	-0.4
LACI	0.79	191	ePg	36	30.00	1.2
PHP	0.82	151	ePg	36	32.10	2.7X
SKO	1.21	111	ePn	36	36.00	-0.1
			iSn	36	53.00	
OHR	1.45	153	ePn	36	40.80	0.9
S.D. = 1.0 on 7 of 8 obs.						

• MAR 30, 1989 01h 39m 45.65± 0.62s
29.562 N ± 8.5km 142.758 E ±12.4km
DEPTH = 33.0km (normal)
4.9mb (6 obs.)
SOUTH OF HONSHU, JAPAN (211)

MAT	7.94	332	eP	41	40.00	-1.6
	0.5s	12.68nm			5.3mb	
			eS	43	06.00	
CHTO	41.16	265	eP	47	28.50	-0.2
	1.0s	3.75nm			4.1mb	
GUN	49.47	283	P	48	36.10	0.8
	0.7s	34.00nm			5.5mb	
WB5	49.81	190	eP	48	36.70	-0.8
WRA	49.88	190	P	48	38.00	0.0
	0.7s	4.50nm			4.6mb	
PKI	49.97	283	P	48	39.30	0.2
KKN	50.01	283	P	48	39.80	0.5
DMN	50.21	283	P	48	41.20	0.3
GKN	50.50	283	P	48	43.50	0.6
FORR	61.68	194	eP	50	02.00	-0.7
	0.4s	11.00nm			5.3mb	
MBC	63.39	15	eP	50	14.00	0.4
YKA	69.74	29	eP	50	54.70	0.7
HFS	81.36	337	eP	52	00.00	-0.1
	0.5s	0.70nm			3.9mb	
S.D. = 0.8 on 13 of 13 obs.						

• MAR 30, 1989 03h 03m 48.96± 2.60s
23.811 N ±12.4km 121.852 E ±23.2km
DEPTH = 21.9 ± 13.4 km
TAIWAN (244)

TWD	0.36	319	iPd	03	56.20	-0.4
			eS	04	00.10	
TWF1	0.68	228	ePc	04	01.50	-0.6
TWC	0.79	360	ePc	04	05.30	1.3
			eS	04	17.90	
TWQ	1.04	297	eP	04	08.50	0.4
			eS	04	21.90	
TWZ	1.30	349	eP	04	14.10	2.2X
TWK	1.36	247	ePc	04	13.30	0.5
ANP	1.40	347	eP	04	11.50	-1.9
GUN	32.55	285	P	10	22.00	0.8
S.D. = 1.5 on 7 of 8 obs.						

MAR 30, 1989 03h 07m 23.09± 0.23s
16.197 N ± 4.2km 93.061 W ± 3.9km
DEPTH = 162.2 ± 3.0 km
4.8mb (14 obs.)
CHIAPAS, MEXICO (61)

SCX	0.67	37	iPd	07	47.00	0.1
			eS	08	01.26	
SBG	1.44	137	iPd	07	53.40	-0.3
TPX	1.50	149	iPc	07	54.25	0.4
			eS	08	16.97	
KKG	1.57	141	iPc	07	54.00	-0.7
OC2	1.83	152	iPd	07	57.00	-0.4
SOG	2.00	135	iPd	07	59.75	0.0
SOG2	2.06	135	iPc	07	59.90	-0.3
JAT	2.32	143	iPc	08	03.80	0.7
ITG	2.66	126	iPd	08	08.00	0.4
FUG	2.76	129	iPc	08	08.50	-0.1
BVA	2.79	123	iPd	08	09.80	0.7
MMG	2.83	125	iPd	08	10.25	0.7
GCG	2.92	123	iPc	08	11.00	0.4
			S	08	40.00	
REC	3.01	125	iPc	08	12.20	0.4
SLP	3.04	118	iPc	08	12.60	0.4
IXG	3.22	128	iPd	08	13.70	-0.7
MRL	3.44	109	iPd	08	17.40	0.2
OXX	3.62	285	iPd	08	18.00	-1.6
			iS	08	48.00	
YUP	3.72	122	iPd	08	20.50	-0.4
IISM	4.96	305	iPc	08	34.00	-3.0X
			iS	09	17.00	
IIT	5.74	300	iPc	08	47.00	-0.6
ACX	6.55	277	iPd	08	54.50	-3.7X
UNM	6.61	299	(P)	08	55.00	-4.3X
IIC	6.88	302	iPd	09	01.50	-1.5
CRX	7.07	298	iPd	09	05.25	-0.2
GCM	11.55	73	eP	10	04.55	0.4
OLY	19.28	4	P	11	36.50	-1.1
HBF	20.23	32	P	11	48.70	1.4
RSCP	20.45	18	P	11	48.90	-0.6
	0.9s	52.94nm			5.0mb	
JSC	20.90	28	P	11	47.60	-6.4X
GBTN	20.94	21	P	11	54.20	-0.2
TKL	21.08	21	P	11	57.00	1.2
LHS	21.27	29	P	11	59.40	1.7
ELC	21.28	8	P	11	57.70	0.0
FVM	21.83	6	P	12	02.80	-0.3
ALQ	22.19	330	iPd	12	07.90	1.0
	1.9s	250.00nm			5.3mb	
			ipP	12	51.60	
GOL	25.76	338	P	12	40.60	-0.2
			pP	13	11.00	147kmX
TPC	27.30	315	eP	12	55.00	0.5
PLM	27.44	313	eP	12	57.00	1.1
MSU	27.86	327	P	13	00.20	0.5
PEC	27.94	314	P	13	00.60	0.3
			pP	13	31.60	148kmX
RVR	28.15	314	eP	13	02.00	-0.1
GSC	28.50	316	eP	13	06.00	0.7
MWC	28.75	313	eP	13	08.00	0.3
SBB	28.84	314	eP	13	09.00	0.6
DAU	28.84	330	P	13	09.00	0.4
CLC	29.32	316	eP	13	13.00	0.4
DUG	29.44	328	P	13	14.60	0.9
ISA	29.82	315	eP	13	18.00	1.0
BW06	30.02	335	P	13	18.00	-0.9
	0.9s	7.81nm			4.4mb	
			pP	13	48.00	141kmX
TNP	30.45	320	P	13	23.20	0.5
	0.8s	8.58nm			4.5mb	
			pP	13	53.30	141kmX
EUR	30.63	324	iP	13	25.00	0.7
	0.2s	27.91nm			5.6mb	
PHAM	31.23	314	P	13	30.80	1.5
			pP	14	01.40	143kmX
FRI	31.39	316	ePd	13	30.30	-0.3
IMW	31.51	335	P	13	31.90	-0.1
PRI	31.57	314	eP	13	32.80	0.4
KVN	31.60	321	P	13	33.00	0.3
			pP	14	03.60	143kmX
LLA	32.01	315	ePd	13	35.90	-0.2
			e	14	07.30	
PRS	32.16	314	eP	13	37.10	-0.3
HPI	32.28	332	P	13	39.00	0.3
CMB	32.42	317	ePd	13	39.90	0.2
			e	14	10.40	
ARN	32.80	315	P	13	44.00	1.0
			pP	14	14.40	140kmX
MHC	32.87	315	ePd	13	44.20	0.5
LRM	33.70	335	ePd	13	51.20	0.3
			e	14	22.10	
ORV	34.00	319	eP	13	54.40	1.1
MIN	34.53	320	ePd	13	58.00	0.1
RSON	34.58	359	P	13	56.00	-2.0
			pP	14	28.10	149kmX
WDC	35.24	319	ePd	14	02.20	-1.6
			e	14	32.60	
LBFM	35.29	321	P	14	04.60	0.2
FHC	36.28	319	ePd	14	13.40	0.9
SES	37.07	341	ePd	14	19.20	0.2
			pP	14	50.00	137kmX
DPW	37.76	332	P	14	25.10	0.2
			pP	14	56.20	140kmX
LON	38.69	328	P	14	33.20	0.5
			pP	15	04.00	138kmX
ARE	38.80	146	eP	14	37.00	2.9X
FFC	39.07	352	eP	14	35.00	-0.5
	0.8s	8.00nm			4.5mb	
BMW	39.25	327	P	14	37.20	0.0
PNT	39.46	333	ePd	14	40.00	1.1
	0.9s	35.00nm			5.1mb	
GMW	39.72	328	P	14	40.40	-0.6
EDM	40.24	341	eP	14	44.50	-0.7
MCW	40.51	330	P	14	47.70	0.2
			pP	15	18.40	137kmX
ZOBO	40.57	141	iPc	14	50.00	1.0
Z	24s	0.05um			3.3MszX	
			LR	25	08.00	
LPB	40.79	142	P	14	51.00	0.4
	1.0s	60.00nm			5.2mb	
CNCB	41.08	142	Pc	14	54.40	1.3
			S	16	54.00	
CCH	42.63	140	iPc	15	07.50	2.0
	0.9s	0.40nm			3.0mb X	
ATB	44.77	112	Pc	15	19.80	-2.6X
YKC	48.62	347	ePd	15	50.70	-1.2
	0.7s	5.00nm			4.3mb	
YKA	48.67	347	eP	15	51.90	-0.3
SLA	48.76	146	ePc	15	54.40	0.8
FRB	50.43	14	eP	16	04.00	-1.6
ITB1	55.41	136	eP	16	41.10	-1.8
ITB	55.63	136	e(P)	16	42.50	-2.0
PPD	55.82	132	eP	16	44.80	-1.2
SOB1	57.47	112	eP	16	55.55	-2.1
			e	17	25.00	
ITR	59.49	111	eP	17	09.20	-2.5X
VAO	59.59	130	ePd	17	11.40	-0.8
			e	17	45.70	
PMR	60.00	333	P	17	14.30	-0.1
	0.8s	9.48nm			4.7mb	
FBA	60.83	336	P	17	19.20	-0.9
	1.0s	16.25nm			4.9mb	
			pP	17	51.90	136kmX
ITA	60.92	128	iPc	17	21.60	0.0
BMA	61.52	128	eP	17	25.20	-0.1
MBC	61.62	353	eP	17	24.00	-1.2
	0.6s	7.00nm			4.7mb	
			pP	17	58.00	142kmX
TTA	63.49	333	P	17	36.40	-1.4
	1.0s	17.50nm			4.9mb	
			pP	18	09.80	139kmX
DAG	70.75	14	eP	18	22.00	-1.0
NAO	82.61	29	P	19	28.60	-0.5
	0.8s	2.10nm			4.0mb	
BUL	124.68	104	iPKPc	26	05.90	0.1
GKN	136.01	3	PKP	26	27.60	0.4
KKN	136.25	2	PKP	26	28.00	0.2

DMN 136.42 2 PKP 26 28.10 -0.1
PKI 136.47 2 PKP 26 28.00 -0.4
S.D. = 0.9 on 101 of 108 obs.

% MAR 30, 1989 03h 20m 14.98± 1.91s
45.508 N ±12.6km 3.605 E ±13.1km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.6 (LDG).

MAF 1.02 315 Pg 20 34.20 0.0
Sg 20 48.00
SMF 1.15 8 Pg 20 35.40 -1.1
Sg 20 49.80
BGF 1.18 334 Pg 20 36.80 -0.1
Sg 20 52.80
CAF 1.23 242 Pn 20 37.20 -0.8
Pg 20 38.00
Sg 20 54.00
TCF 1.25 309 Pn 20 37.20 -1.0
Pg 20 38.50
Sg 20 55.00
AVF 1.29 352 Pg 20 38.20 -0.7
Sg 20 54.80
LBF 1.50 10 Pg 20 42.20 0.2
Sg 21 01.00
SSF 1.56 358 Pg 20 43.60 0.9
Sg 21 03.20
LSF 1.63 298 Pg 20 45.80 2.0
Sg 21 02.00
LOR 1.77 6 Pg 20 46.40 0.6
Sg 21 08.80
LPO 1.90 245 Pg 20 50.60 2.9X
Sg 21 14.80
S.D. = 1.1 on 10 of 11 obs.

MAR 30, 1989 03h 36m 42.95± 1.03s
5.060 N ± 3.6km 127.188 E ± 6.6km
DEPTH = 91.4 ± 9.6 km
5.4mb (12 obs.)
PHILIPPINE ISLANDS REGION (248)

DAV 2.57 322 iPd- 37 24.10 0.6
0.9s 813.45nm
iS 37 55.00
KKM 10.97 276 eP 39 19.00 0.3
OCP 11.26 328 eP 39 26.00 3.6X
MKS 12.79 217 ePd 39 42.60 -0.1
e 41 36.00
BAG 13.01 331 eP 39 46.50 0.8
eS 42 21.00
MTN 18.22 168 iPd 40 49.90 -1.5
e 44 12.00
GUMO 19.38 63 eP 41 08.40 4.1X
KNA 20.73 176 eP 41 18.10 -0.2
OZH 21.42 338 eP 41 24.50 -0.6
KGM 24.01 264 ePc 41 52.30 1.8
WB5 25.77 164 iPc 42 06.50 -0.5
eS 46 27.00
WRA 25.82 164 Pc 42 06.20 -1.3
0.5s 125.70nm 5.7mb
SSE 26.51 348 eP 42 16.00 2.4
Z 19s 0.50um 4.1Msz
pP 42 48.00 154kmX
sP 43 08.50
S 46 44.00
sS 47 44.00
MBL 27.04 195 eP 42 19.20 0.6
NJ2 27.96 345 eP 42 27.40 0.6
WHN 28.09 336 eP 42 29.00 1.0
QIS 28.23 155 eP 42 28.00 -1.4
e 42 30.00
PSI 28.29 266 ePc 42 29.30 -0.7
GYA 28.94 319 P 42 34.40 -1.5
ASPA 29.29 167 iPd 42 38.10 -0.9
0.5s 26.00nm 5.1mb
NANU 29.73 202 iPc 42 42.70 -0.1
CHTO 30.76 299 iP 42 51.00 -1.0
0.8s 3.11nm 4.1mb X
WARB 31.06 181 eP 42 49.30 -5.2X
CTA 31.24 144 iPc 42 57.50 1.4
1.3s 52.88nm 5.1mb
iPP 43 15.50
i 43 33.00
eS 45 58.00
TIA 32.35 345 eP 43 05.30 -0.4
MEKA 32.58 194 eP 43 07.00 -0.8
MAT 32.92 16 eP 43 31.00 20.3X
0.8s 10.45nm
XAN 33.45 332 Pd 43 14.50 -0.8
CD2 33.86 322 eP 43 18.20 -0.7
TIY 35.18 339 eP 43 30.50 0.4
FORR 35.72 179 iPc 43 34.00 -0.5
0.4s 32.00nm 5.6mb
MRWA 35.74 197 eP 43 25.30 -9.5X
COOL 36.20 189 eP 43 39.00 0.3
BJI 36.21 346 eP 43 37.50 -1.1
BAL 36.86 195 eP 43 44.00 -0.2
KLB 37.54 193 eP 43 50.00 0.1
LZH 37.61 328 eP 43 51.50 0.9
1.0s 58.00nm 5.5mb
Z 22s 1.80um 4.8Msz
BTO 38.60 339 eP 43 58.10 -0.8
STK 39.22 160 eP 44 03.00 -0.9
0.7s 47.00nm 5.5mb
MDJ 39.45 3 eP 44 05.50 -0.2
BRS 40.64 144 Pd 44 14.80 -1.0
e 44 49.00
ADE 41.27 166 iPc 44 22.20 1.4
0.6s 72.00nm 5.7mb
GTA 42.21 328 eP 44 29.00 0.4
BWA 44.09 155 eP 44 45.30 1.5
CAN 45.10 155 eP 44 53.10 1.2
CNB 45.25 154 iPc 44 54.60 1.5
GUN 45.33 305 P 44 53.80 -0.4
PKI 45.59 304 P 44 55.40 -0.8
TOO 45.71 160 eP 44 58.00 1.4
KKN 45.78 304 P 44 57.00 -0.6
0.8s 37.00nm 5.3mb
DMN 45.85 304 P 44 57.60 -0.6
1.0s 55.00nm 5.4mb
GKN 46.39 304 P 45 01.60 -0.7
KOD 49.51 279 eP 45 26.00 -0.9
NDI 52.79 302 eP 45 46.00 -5.1X
MAIO 69.08 307 eP 47 42.00 0.6
eS 56 42.00
SVW 79.41 29 eP 48 40.50 0.2
TTA 79.51 27 eP 48 40.80 -0.1
BRW 80.78 18 eP 48 47.70 0.3
IMA 80.99 24 eP 48 48.50 -0.3
0.8s 7.40nm 4.6mb
AVY 81.70 250 iPd 48 53.90 0.5
FBA 83.33 25 eP 48 59.50 -1.2
TOA 83.99 28 eP 49 04.10 -0.1
INK 88.77 22 eP 49 26.00 -1.3
DSI 88.92 301 eP 49 30.00 1.2
PRNI 89.36 300 eP 49 37.00 6.0X
SOD 89.42 338 eP 49 37.00 6.5X
MBH 89.52 300 iPc 49 32.50 0.8
KJF 89.60 334 eP 49 33.00 1.7
MBC 90.56 13 eP 49 35.00 -0.6
SUF 90.58 333 iP 49 35.50 -0.4
SLL 97.10 333 eP 50 04.30 -1.5
0.5s 3.50nm 5.1mb
YKA 98.11 24 eP 50 10.30 0.0
BRG 100.44 324 e(Pdif 50 21.50 0.4
1.0s 12.00nm 5.5mb
KHC 101.30 322 ePdiff 50 43.00 17.9X
KIC 130.69 283 PKP 55 47.00 1.0
TIC 130.90 283 PKP 55 47.30 0.9
LIC 131.00 283 PKP 55 47.80 1.2
S.D. = 1.0 on 68 of 77 obs.

MAR 30, 1989 03h 40m 59.50± 0.40s
26.649 S ± 7.0km 26.774 E ± 6.6km
DEPTH = 5.0km (geophysicist)
4.8mb (20 obs.)
REPUBLIC OF SOUTH AFRICA (584)

BFS 0.25 178 iPd 40 59.50 -5.1X
PRY 0.68 114 iPd 41 11.30 -1.9
KSR 0.79 8 iPc 41 17.00 1.6
S 41 30.50
SLR 1.63 56 iPd 41 32.00 2.9
S 41 55.20
HVD 4.10 196 eP 42 09.60 5.3X
0.5s 154.93nm
S 42 46.00
POF 6.62 244 eP 42 08.00 -31.8X
S 43 23.00
BUL 6.69 15 iPnc 42 41.50 0.4
iSn 43 56.30
iSg 44 30.00
LSZ 11.39 7 ePn 43 45.00 -1.1
iSn 45 51.00
iSb 46 03.00
iSg 46 18.00
PTZ 13.06 20 iPn 44 08.00 -0.5
iSn 46 27.00
iSb 47 47.00
iSg 48 08.00
KMZ 13.16 356 iPn 44 07.00 -2.9
iSn 46 30.00
iSg 48 22.00
NPA 16.37 48 eP 44 47.60 -4.1X
e 49 33.00
AVY 20.78 73 iPc 45 44.50 0.2
BNG 31.91 344 iPd 47 26.00 -2.3
0.5s 15.00nm 5.2mb
id 47 45.00
ic 48 25.10
KOGH 41.76 317 eP 48 52.00 0.4
KUK 41.92 317 eP 48 52.00 -0.9
KIC 44.83 313 P 49 15.66 -0.9
1.1s 21.50nm 5.0mb
LIC 44.92 312 P 49 16.24 -1.0
TIC 45.22 312 P 49 18.92 -0.8
1.0s 30.00nm 5.2mb
SPA 63.51 180 e(P) 51 29.50 -3.4X
1.0s 14.50nm 5.1mb
OHR 67.64 355 eP 52 01.00 1.5
1.2s 0.06nm 2.7mb X
KBA 74.38 351 eP 52 40.50 0.4
1.3s 3.80nm 4.3mb
CAF 74.72 342 eP 52 42.40 0.4
1.0s 8.80nm 4.7mb
LFF 75.10 341 eP 52 44.50 0.4
0.8s 5.30nm 4.6mb
RJF 75.22 342 eP 52 45.00 0.2
0.8s 5.30nm 4.6mb
MAF 75.78 343 eP 52 48.60 0.6
1.0s 12.00nm 4.9mb
SMF 75.85 344 eP 52 48.40 0.0
1.0s 12.80nm 5.0mb
BGF 76.02 343 eP 52 49.80 0.5
1.0s 6.00nm 4.7mb
AVF 76.10 344 eP 52 49.90 0.1
1.0s 12.00nm 5.0mb
LBF 76.13 344 eP 52 50.10 0.1
0.8s 3.20nm 4.5mb
SSF 76.32 344 eP 52 51.30 0.3
1.0s 4.00nm 4.5mb
KHC 76.35 351 iP 52 51.90 0.7
LOR 76.42 344 eP 52 51.50 -0.1
0.8s 4.00nm 4.6mb
MFF 76.87 341 eP 52 54.50 0.4
0.8s 14.50nm 5.1mb
GKN 77.73 50 P 52 58.60 -0.8
DMN 77.80 51 P 52 59.20 -0.8
PKI 77.99 51 P 53 00.30 -0.8
0.9s 11.00nm 5.0mb
KKN 78.03 51 P 53 00.60 -0.6
LPF 78.43 341 eP 53 02.90 0.3
GUN 78.52 51 P 53 03.40 -0.7
LDF 78.68 342 eP 53 03.70 -0.3
GRR 78.70 342 eP 53 04.30 0.2
1.0s 9.60nm 4.8mb
CHTO 83.31 65 eP 53 28.50 -0.6
1.1s 5.89nm 4.7mb
CCH 84.90 253 ePKP 53 38.00 0.5
CNCB 86.72 253 P 53 46.90 0.0
LPB 86.95 253 P 53 47.70 -0.2
1.0s 40.00nm 5.6mb
ZOBO 87.09 253 PKP 53 47.60 -1.1
LR 53 36.00
BW06 141.12 306 PKP 00 23.50 -9.7X
MSU 143.72 299 PKP 00 35.20 -2.6X
PMR 144.96 357 PKP 00 38.00 -0.8
DPW 145.42 317 PKP 00 39.60 -0.5
PNT 145.60 320 ePKPc 00 41.00 0.7
1.1s 38.00nm
EUR 146.49 302 iPKP 00 44.00 1.6
0.3s 19.23nm
TPC 147.21 292 ePKP 00 46.00 2.5
TNP 147.71 300 PKP 00 47.80 3.4X
GSC 147.75 294 ePKP 00 48.00 3.6X
LON 148.11 317 PKP 00 44.10 -0.4
KVN 148.20 302 PKP 00 48.30 3.2X
GMW 148.31 319 PKP 00 48.40 3.6X
RVR 148.32 292 ePKP 00 48.00 2.8
CLC 148.34 296 ePKP 00 48.00 2.8X

30d 04h

SBB	148.64	293	ePKP	00	49.00	3.2X
ISA	149.06	295	ePKP	00	51.00	4.6X
FRI	149.85	298	ePKPc	00	53.10	5.7X
CMB	150.17	301	ePKPc	00	53.80	5.8X
MIN	150.48	306	ePKPc	00	53.90	5.4X
ORV	150.63	304	ePKPc	00	54.50	6.0X
LLA	150.89	298	ePKPc	00	56.10	7.0X
WDC	151.08	307	ePKP	00	54.60	5.4X

S.D. = 1.2 on 48 of 68 obs.

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* MAR 30, 1989 04h 58m 48.78± 2.44s
38.807 N ±12.3km 26.296 E ±24.0km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
MD 3.2 (ATH).

PRK	0.44	358	ePb	58	58.00	0.3
			eSb	59	10.50	
IZM	0.86	118	iPg	59	04.10	-1.3
			eSg	59	17.60	
EZN	1.02	1	ePn	59	07.70	-0.3
EDC	1.96	38	ePn	59	21.00	-1.4
DST	1.98	66	ePn	59	24.50	1.8
BNT	1.99	39	ePn	59	23.00	0.1
KCT	2.15	47	ePn	59	29.00	3.9X
YER	2.29	136	ePn	59	28.00	0.7
KHL	2.58	100	ePn	59	37.00	5.7X

S.D. = 1.4 on 7 of 9 obs.

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* MAR 30, 1989 05h 44m 56.30± 2.00s
6.783 S ± 9.3km 129.478 E ± 8.5km
DEPTH = 146.4 ± 21.4 km
4.5mb (8 obs.)
BANDA SEA (280)

KNA	8.94	184	iPd	47	03.50	0.1
	0.3s		131.00nm			6.1mb X
			eS	48	34.00	
WB5	13.86	160	eP	48	04.20	-3.5X
			eS	50	29.00	
WRA	13.91	161	Pd	48	03.40	-5.0X
	0.7s		9.50nm			4.2mb
QIS	16.85	145	eP	48	44.00	-0.9
			eS	51	37.00	
MBL	17.07	212	eP	48	48.00	0.4
	0.5s		13.00nm			4.5mb
			eS	51	46.00	
ASPA	17.32	166	eP	48	50.10	-0.6
	0.9s		128.00nm			5.2mb
			eS	51	47.60	
PMG	17.69	100	eP	48	56.00	0.9
WARB	19.48	188	iPc	49	09.70	-4.6X
	0.4s		12.00nm			4.6mb
			eS	52	46.00	
NANU	20.66	219	eP	49	27.00	0.8
			eS	53	17.00	
CTA	20.97	131	iP	49	24.00	-5.4X
			i	50	01.30	
			e	50	41.50	
			i	51	51.00	
			i	52	03.00	
			iS	53	56.00	
FORR	23.98	183	iPc	49	58.50	0.0
STK	27.41	157	eP	50	29.00	-1.1
BWA	32.59	150	eP	51	17.10	1.2
CAN	33.60	150	eP	51	24.80	0.2
CHTO	39.41	311	iP	52	14.50	0.9
	1.0s		8.00nm			4.4mb
GUN	54.42	311	P	54	10.80	-0.3
PKI	54.59	311	P	54	11.70	-0.6
	0.5s		3.00nm			4.4mb
KKN	54.80	311	P	54	13.60	-0.1
	0.6s		6.00nm			4.6mb
DMN	54.84	311	P	54	13.70	-0.3
GKN	55.40	311	P	54	17.60	-0.3
	0.5s		8.00nm			4.9mb
CNCB	150.89	144	PKP	04	35.00	6.4X
LPB	151.03	143	(PKP)	04	24.00	-4.7X
ZOBO	151.22	143	(PKP)	04	35.00	5.9X

S.D. = 0.8 on 16 of 23 obs.

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* MAR 30, 1989 06h 44m 42.76± 1.29s
40.680 N ±11.6km 29.887 E ± 9.3km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

HRT	0.22	310	iPg	44	47.40	-0.1
GBZT	0.35	288	ePg	44	50.20	0.2
			iSg	44	56.00	
YLV	0.41	254	iPg	44	50.50	-0.6
			iSg	44	56.50	
GPA	0.51	140	ePg	44	53.00	0.0
KCT	1.24	250	iPn	45	06.50	0.6

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

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* MAR 30, 1989 07h 30m 50.99± 0.72s
53.729 S ± 9.5km 140.462 E ±21.8km
DEPTH = 10.0km (geophysicist)
4.8mb (4 obs.) 4.3Msz (1 obs.)
WEST OF MACQUARIE ISLAND (701)

TOO	16.53	14	eP	34	44.00	-0.3
			e	34	48.00	
ADE	18.80	356	eP	35	12.80	0.2
CAN	19.36	21	eP	35	20.00	0.6
BWA	20.10	19	eP	35	28.50	1.0
STK	21.85	3	eP	35	46.00	0.7
FORR	24.55	334	eP	36	12.70	0.9
	0.4s		9.00nm			4.8mb
WARB	29.37	334	eP	36	49.70	-6.5X
ASPA	30.43	348	eP	37	04.70	-0.9
	0.8s		23.00nm			5.1mb
QIS	33.12	359	eP	37	28.00	-1.2
WB5	34.11	350	eP	37	37.00	-0.8
SPA	36.46	180	e(P)	37	58.00	0.4
	1.0s		14.00nm			4.7mb
	Z 20s		0.50um			4.3Msz
MTN	41.45	346	iPc	38	39.60	0.3
CHTO	80.58	320	eP	43	04.30	-0.6
	1.0s		3.00nm			4.3mb
YKA	141.58	46	ePKP	50	20.60	-2.1
MBC	143.71	23	ePKP	50	23.00	-3.0X
FFC	144.55	62	ePKP	50	28.00	-0.1
	1.1s		20.00nm			
TRI	145.35	279	iPKPc	50	31.50	1.8
KBA	146.33	281	ePKP	50	35.00	3.4X
	1.2s		9.40nm			
KSP	146.47	288	ePKP	50	35.00	3.6X
KHC	147.22	284	PKPc	50	38.40	5.7X
			e	50	48.20	
BRG	147.81	287	ePKP	50	40.00	6.5X
	1.4s		12.00nm			
CLL	148.54	287	e(PKP)	50	43.00	8.3X
MOX	149.04	285	e(PKP)	50	48.00	12.5X

S.D. = 1.1 on 15 of 23 obs.

% MAR 30, 1989 08h 20m 39.50± 0.97s
18.189 N ± 6.5km 67.062 W ± 8.0km
DEPTH = 10.0km (geophysicist)
MONA PASSAGE (89)
Felt at Moyaguez, Cabo Rojo and Aguado, Puerto Rico.

MGP	0.18	188	P	20	43.80	0.2
MCP	0.23	348	P	20	44.20	-0.3
APR	0.41	50	P	20	48.70	0.8
CSB	0.87	83	P	20	56.00	-0.2
			S	21	11.00	
SJG	0.87	95	iP	20	56.00	-0.3
			S	21	11.00	
LPR	1.14	84	P	21	00.60	-0.3

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

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* MAR 30, 1989 08h 36m 32.62± 0.99s
23.037 S ±12.0km 66.595 W ±15.2km
DEPTH = 291.1 ± 11.5 km
JUJUY PROVINCE, ARGENTINA (128)

CYA	5.43	173	iPd	37	55.00	-0.5
CCH	5.64	4	iPd	37	57.50	-0.8
	0.7s		24.00nm			4.2mb
CNCB	6.33	348	iPd	38	07.20	0.3
			S	39	21.00	
LPB	6.62	347	iPd	38	11.00	0.7
	1.0s		290.00nm			5.2mb X
			S	39	26.10	
ZOBO	6.88	348	iPd	38	13.00	-0.7
			S	39	32.00	
			LR	39	40.00	
ARE	8.00	324	eP	38	27.00	-0.2
			iS	38	53.70	
ITB1	11.29	101	Pd	39	09.70	2.0
ITB	11.47	101	e(P)	39	10.00	0.1
ITB7	11.54	103	e(P)	39	12.10	1.3
PPD	14.16	89	ePd	39	38.50	-4.2X
			e	39	41.40	
			e	39	43.40	
			e	39	55.80	
VAO	18.07	94	eP	40	22.90	-2.6
			e	40	25.90	
ITA	20.21	92	eP	40	45.50	-1.7
			e	40	46.80	
			e	40	49.10	
ATB	24.06	37	Pc	41	22.00	-1.7
BIM	37.71	9	eP	43	23.42	1.0
FDF	37.91	9	eP	43	25.22	1.1
LIC	66.79	72	P	46	56.70	1.2
KIC	67.10	72	P	46	57.30	-0.2
KUK	70.88	74	eP	47	21.00	0.5

S.D. = 1.4 on 17 of 18 obs.

? MAR 30, 1989 09h 41m 03.08± 0.80s
15.281 S ±31.7km 173.526 W ±19.4km
DEPTH = 33.0km (normal)
4.7mb (8 obs.)
TONGA ISLANDS (173)

AFI	2.17	51	eP	41	31.00	-6.7X
			eS	41	46.00	
WB5	49.73	257	eP	49	54.00	-0.5
ASPA	50.03	252	iPc	49	56.70	-0.2
	0.9s		22.00nm			5.2mb
KVN	74.80	42	P	52	42.10	-0.2
TNP	74.83	43	P	52	42.00	-0.5
	1.0s		6.25nm			4.6mb
MSU	78.43	45	P	53	02.80	0.2
PMR	79.03	12	P	53	05.30	0.3
TTA	79.15	8	P	53	06.00	0.2
	0.9s		3.13nm			4.3mb
DPW	79.86	34	P	53	09.70	-0.3
PNT	79.98	32	ePc	53	10.00	-0.5
	0.9s		10.00nm			4.8mb
HPI	80.50	40	P	53	14.20	0.4
ALQ	80.82	50	eP	53	15.20	-0.3
	1.0s		5.00nm			4.5mb
IMW	81.94	40	P	53	21.60	0.3
LRM	82.00	38	eP	53	21.50	0.0
BW06	82.26	42	P	53	22.10	-0.8
	1.2s		11.56nm			4.8mb
FBA	82.30	11	P	53	22.00	-0.3
	0.8s		7.76nm			4.8mb
GOL	83.66	46	P	53	29.80	-0.4
GLD	83.79	46	P	53	30.80	0.1
	1.1s		26.52nm			5.3mb
SES	85.17	35	eP	53	38.00	0.7
KHC	145.74	352	iPKPc	00	41.80	1.9
	1.0s		7.80nm			

S.D. = 0.6 on 19 of 20 obs.

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* MAR 30, 1989 09h 44m 54.33± 0.77s
7.579 S ± 8.0km 75.596 W ±15.0km
DEPTH = 33.0km (normal)
NORTHERN PERU (111)

HUA	4.44	177	P	46	03.50	1.9
			S	47	35.90	
NNA	4.55	196	P	46	04.00	1.2
			S	46	55.40	
PT10	4.67	197	P	46	04.00	-0.4
			S	47	57.20	
PT06	6.25	187	P	46	25.00	-1.8
			S	47	16.50	
ZOBO	11.31	140	P	47	36.00	-1.4
	Z 20s		0.12um			
			LR	52	20.00	
LPB	11.53	141	(P)	47	40.00	-0.1
CNCB	11.81	142	P	47	44.00	-0.1
YKA	76.02	342	eP	56	38.30	-1.5
CNIL	78.33	51	eP	56	52.00	-1.1
MOMI	78.57	51	eP	56	56.50	2.0
OJEN	78.64	51	eP	56	55.50	0.6
ALJ	78.77	50	eP	56	56.50	0.8
SRQ	78.81	51	iP	56	50.00	-5.8X
LIJA	78.98	50	eP	57	03.50	6.7X
MBC	87.47	350	eP	57	39.00	-0.3

S.D. = 1.4 on 13 of 15 obs.

MAR 30, 1989 09h 50m 05.50± 0.50s
44.609 N ± 4.2km 7.037 E ± 5.4km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)

ML 2.3 (GEN), 2.3 (LDG).

PZZ	0.11	156	P	50	09.08	0.5
			S	50	11.16	
FOUF	0.20	246	P	50	09.60	-0.3
			Sg	50	11.79	
RRL	0.36	330	P	50	12.91	-0.1
			S	50	17.92	
STV	0.42	150	P	50	14.36	0.3
			S	50	19.77	
RSP	0.56	16	P	50	17.10	0.1
			S	50	23.97	
ROB	0.67	117	P	50	18.42	-0.5
			S	50	27.25	
LSD	0.85	6	P	50	22.33	0.2
			S	50	33.10	
IMI	0.93	138	P	50	23.23	-0.1
			S	50	35.35	
FIN	0.93	115	P	50	23.09	-0.2
			S	50	35.15	

S.D. = 0.4 on 9 of 9 obs.

% MAR 30, 1989 10h 06m 37.47± 0.89s
39.178 N ± 7.6km 27.538 E ± 9.0km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	0.81	196	iPg	06	53.10	-0.1
			eSg	07	04.10	
DST	0.95	63	iPn	06	55.50	0.0
EZN	1.14	305	ePn	06	59.00	0.2
EDC	1.19	12	ePn	06	58.90	-0.8
KCT	1.24	30	ePn	07	01.30	0.7

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

? MAR 30, 1989 10h 23m 41.46± 6.13s
3.268 S ±66.5km 141.101 E ±18.0km
DEPTH = 133.2 ± 35.2 km
4.3mb (2 obs.)
PAPUA NEW GUINEA (202)

MNDI	3.84	138	eP	24	41.00	0.9
PMG	8.57	136	eP	25	43.00	-0.9
MTN	13.70	225	eP	26	50.00	-1.4
QIS	17.25	185	eP	27	35.00	-0.7
KNA	17.36	224	eP	27	38.00	1.0
WRA	17.84	201	Pc	27	43.90	1.0
	0.5s		4.20nm			4.0mb
ASPA	21.44	198	eP	28	23.00	2.7X
	0.8s		18.00nm			4.5mb
WARB	26.68	210	eP	29	10.00	0.1
CNCB	145.03	126	PKP	43	17.00	10.8X
LPB	145.08	125	PKP	43	19.00	12.9X
ZOBO	145.19	125	PKP	43	17.00	10.5X

S.D. = 1.4 on 7 of 11 obs.

MAR 30, 1989 10h 32m 16.67± 0.57s
58.404 N ± 4.1km 153.937 W ± 4.6km
DEPTH = 86.7 ± 4.0 km
4.7mb (24 obs.)
KODIAK ISLAND REGION (13)

KDC	1.01	130	iP	32	35.10	-1.4
PDB	1.39	355	iP	32	42.69	1.4
ILIM	1.75	16	iP	32	47.66	1.6
			eS	33	09.94	
CNPM	1.80	50	iP	32	47.89	1.3
			eS	33	09.55	
NNL	2.13	38	iP	32	53.22	2.1
			eS	33	19.21	
RDT	2.31	19	iP	32	54.88	1.3
			eS	33	24.10	
NKA	2.72	29	iP	33	01.79	2.7
SLKM	2.84	40	iP	33	01.05	0.3
SVW	2.84	343	iPd	33	01.80	0.9
SEW	2.87	52	iP	33	00.93	-0.2
			eS	33	33.33	
SPU	2.94	18	iP	33	03.42	1.2
CRP	3.01	17	iP	33	04.76	1.5
CGLM	3.07	18	iP	33	05.30	1.3
			eS	33	41.40	
MTU	3.60	61	iP	33	11.31	0.0
PMS	3.61	36	iP	33	11.82	0.5
KNIM	3.72	56	eP	33	12.23	-0.7
PWL	3.76	47	eP	33	14.65	1.1
SKT	3.78	17	iP	33	14.48	0.7
PWA	3.84	30	iP	33	14.75	0.2
PLRM	4.01	35	iP	33	16.58	-0.3
PMR	4.01	35	iPd	33	16.20	-0.7
PME	4.06	35	iP	33	17.54	-0.2
MID	4.07	72	iP	33	17.04	-0.7
GHO	4.21	34	eP	33	19.28	-0.5
			eS	34	05.95	
GLI	4.27	52	iP	33	19.14	-1.4
HIN	4.29	59	eP	33	20.66	-0.3
FID	4.46	55	iP	33	21.91	-1.4
VZW	4.59	51	iP	33	24.07	-1.0
TTA	4.65	348	ePd	33	26.20	0.2
CVA	4.70	59	iP	33	26.05	-0.4
VLZ	4.72	51	iP	33	26.18	-0.6
SDN	4.73	232	ePd	33	24.00	-2.9
SGAM	4.93	61	iP	33	29.29	-0.4
RAGM	5.13	63	iP	33	31.97	-0.7
TOA	5.36	43	iPd	33	35.50	-0.3
GLB	5.93	55	iP	33	42.71	-1.0
CTGM	6.88	63	iP	33	56.22	-0.6
FBA	7.14	22	ePd	33	58.20	-2.1
BCPM	7.51	72	eP	34	03.99	-1.4
IMA	7.69	1	ePd	34	07.60	-0.4
HYT	8.67	67	P	34	20.80	-0.6
DWY	8.99	45	P	34	24.80	-0.8
SIT	10.04	90	eP	34	35.20	-4.7X
8RW	13.01	356	eP	35	16.40	-2.6
INK	13.42	34	iPd	35	23.10	-1.4
	0.6s		97.00nm			5.5mb
YKA	19.60	61	eP	36	39.20	-0.9
YKC	19.66	61	ePc	36	40.00	-0.7
	0.6s		15.00nm			4.5mb
PGC	20.41	105	eP	36	49.00	0.5
GMW	21.47	107	eP	37	00.50	1.3
MBC	21.69	22	eP	37	00.00	-1.1
	0.4s		15.00nm			4.7mb
PNT	21.97	99	ePc	37	05.00	0.9
BMW	21.98	109	eP	37	05.50	1.1
LON	22.50	107	eP	37	11.00	1.5
EDM	23.11	85	iPc	37	16.50	1.2
	0.7s		54.00nm			5.0mb
DPW	23.60	101	eP	37	21.00	0.9
VGB	23.87	108	eP	37	24.00	1.2
SES	25.83	89	eP	37	41.00	-0.2
WDC	26.72	118	ePc	37	50.60	1.2
MIN	27.35	117	ePc	37	55.80	0.6
LRM	27.93	98	eP	38	00.70	0.2
ORV	28.02	118	ePc	38	01.00	-0.1
FFC	28.27	75	eP	38	03.50	0.3
	0.8s		9.00nm			4.5mb
HPI	29.04	102	eP	38	10.80	0.2
CMB	29.76	118	ePc	38	17.30	0.5
IMW	30.03	100	eP	38	20.00	0.6
KVN	30.03	114	ePc	38	19.80	0.5
PRS	30.71	122	ePc	38	25.60	0.6
EUR	30.72	111	iP	38	26.20	0.7
	0.2s		39.08nm			5.8mb X
FRI	30.92	119	ePc	38	27.40	0.5
PRI	31.18	121	ePc	38	27.40	-2.0
TNP	31.22	114	eP	38	30.10	0.3
	0.7s		5.00nm			4.4mb
BW06	31.53	100	iPc	38	32.90	0.4
	0.7s		15.72nm			4.9mb
DUG	31.75	107	eP	38	34.80	0.4
DAU	32.38	105	eP	38	40.20	0.2
MSU	33.35	108	eP	38	49.20	0.8
RSON	34.59	76	eP	38	58.20	-0.4
	0.6s		15.50nm			5.1mb
PEC	34.65	119	eP	38	59.10	-0.2
PLM	35.23	119	ePc	39	05.00	0.5
GOL	35.93	100	eP	39	11.00	0.6
FRB	38.71	45	eP	39	34.00	0.9
ALQ	39.01	106	eP	39	36.70	0.5
	0.7s		2.40nm			4.2mb
DAG	42.16	14	eP	40	00.00	-1.3
FVM	45.04	88	eP	40	24.00	-1.0
ELC	46.19	88	eP	40	33.30	-0.8
PWLA	48.55	89	eP	40	52.50	-0.1
GBTN	50.06	85	eP	41	03.40	-0.7
TKL	50.29	85	eP	41	05.00	-0.9
NAV	50.59	81	eP	41	07.50	-0.7
BLA	50.86	81	eP	41	09.70	-0.6
	0.7s		22.01nm			5.3mb
CVL	51.29	79	eP	41	13.00	-0.5
PRM	52.24	85	eP	41	19.50	-1.2
JSC	52.67	84	eP	41	22.70	-1.1
HFS	61.40	7	eP	42	23.00	-2.2
	0.4s		2.60nm			4.7mb
FLN	70.99	18	eP	43	25.70	-0.5
	0.8s		5.30nm			4.5mb
LDF	71.21	18	eP	43	27.00	-0.5
GRR	71.29	19	eP	43	27.70	-0.3
KHC	72.34	9	eP	43	34.90	0.6
LOR	73.11	16	iPd	43	39.00	0.2
	0.6s		2.70nm			4.3mb
MFF	73.14	19	eP	43	39.20	0.3
	0.5s		5.80nm			4.7mb
SSF	73.26	16	iPd	43	40.10	0.5
	0.6s		3.90nm			4.5mb
AVF	73.50	16	iPd	43	41.10	0.1
	0.4s		5.70nm			4.8mb
BGF	73.65	16	iPd	43	41.90	0.0
	0.5s		9.00nm			4.9mb
SMF	73.71	16	iPd	43	42.20	-0.1
	0.8s		6.70nm			4.6mb
LSF	73.75	17	iPd	43	42.80	0.3
	0.5s		8.70nm			4.9mb
MAF	73.94	17	iPd	43	43.60	0.0
	0.6s		3.60nm			4.4mb
KBA	74.36	9	iP	43	46.70	0.5
	0.5s		5.60nm			4.7mb
RJF	74.67	18	eP	43	48.40	0.5
LFF	74.90	18	iPd	43	49.60	0.5
	0.5s		15.10nm			5.1mb
CAF	75.13	17	iPd	43	50.90	0.4
	0.6s		7.90nm			4.8mb
LPO	75.22	18	iPd	43	51.30	0.3
	0.4s		11.40nm			5.1mb
GUN	80.70	309	P	44	23.00	1.3

S.D. = 1.0 on 110 of 111 obs.

? MAR 30, 1989 10h 45m 21.95± 3.57s
22.719 S ±44.7km 66.612 W ±25.4km
DEPTH = 286.7 ± 30.0 km
4.0mb (2 obs.)
JUJUY PROVINCE, ARGENTINA (128)

CCH	5.33	5	P	46	43.00	-0.7
	0.3s		2.00nm			3.5mb
CNCB	6.02	347	P	46	52.80	0.5
			S	48	02.00	
LPB	6.31	347	Pc	46	56.80	1.0
	1.0s		60.00nm			4.5mb
			S	48	07.00	
ZOBO	6.57	347	Pc	46	58.40	-0.7
ARE	7.74	323	eP	47	13.00	-0.2
			iS	48	36.00	
PPD	14.17	90	ePc	48	33.00	0.7
VAO	18.11	95	eP	49	14.70	-0.9
ITA	20.24	93	eP	49	40.10	3.0X
KIC	67.02	72	P	55	47.10	0.3

S.D. = 1.0 on 8 of 9 obs.

MAR 30, 1989 12h 46m 25.67± 0.78s
19.904 S ±10.0km 133.645 E ± 7.1km
DEPTH = 5.0km (geophysicist)
5.3mb (2 obs.)
NORTHERN TERRITORY, AUSTRALIA (591)

WB5	0.68	88	iPd	46	39.30	0.0
ASPA	3.75	176	iPc	47	31.30	5.8X
	0.7s		168.00nm			
			eS	48	15.70	
QIS	5.63	98	eP	47	52.00	-0.2
			eS	48	53.00	
			e	49	17.00	
KNA	6.22	311	eP	48	01.00	0.6
			iS	49	11.40	
MTN	7.42	341	eP	48	17.00	-0.3
			eS	49	39.00	
			e	50	25.00	
WARB	8.98	225	eP	48	37.00	-2.0
	0.3s		3.00nm			5.2mb
			eS	50	15.00	
FORR	11.99	204	iPd	49	22.00	1.8
	0.4s		9.00nm			5.4mb
MBL	13.00	262	eP	49	34.00	0.1
			eS	51	50.00	

S.D. = 1.4 on 7 of 8 obs.

& MAR 30, 1989 13h 33m 17.01s
58.310 N 137.388 W
DEPTH = 10.0km (geophysicist)
SOUTHEASTERN ALASKA (19)
<AGS-P>.

30d 13h

SIT 1.68 138 eP 33 45.88 -0.6
eS 34 10.94
YKU 1.74 317 eP 33 46.78 -0.6
eS 34 13.48
BCPM 2.01 326 eP 33 51.62 0.2
HYT 2.52 359 P 33 56.00 -2.8
CTGM 3.33 325 eP 34 08.71 -1.6
RAGM 4.27 302 eP 34 22.18 -1.4
GLB 4.51 317 eP 34 28.33 1.4
7 obs. ossocioted

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* MAR 30, 1989 13h 38m 37.08± 2.99s
19.349 N ±32.5km 65.400 W ± 6.4km
DEPTH = 33.0km (normal)
PUERTO RICO REGION (90)

LPR 1.13 203 iP 38 56.60 0.0
CSB 1.27 214 iP 38 58.80 0.1
S 39 18.00
SJG 1.42 210 iP 39 01.00 0.1
APR 1.54 235 iP 39 02.60 0.1
MCP 1.87 241 iP 39 07.00 -0.3
MGP 2.08 230 iP 39 10.50 0.1
MGH 4.00 130 eP 39 39.00 1.3
PAG 4.84 132 eP 39 49.80 0.2
BBL 5.34 135 eP 39 55.00 -1.6
S.D. = 0.9 on 9 of 9 obs.

MAR 30, 1989 14h 08m 30.87± 0.65s
43.722 N ± 9.5km 17.191 E ± 9.2km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
ML 2.9 (TTG).

HVAR 0.77 225 iPg 08 44.30 -1.5
iSg 08 58.80
BRY 1.28 129 ePg 08 53.90 -0.9
eSg 09 15.00
HCY 1.59 143 ePg 09 00.00 0.8
eSn 09 24.50
NKY 1.60 124 ePg 09 00.00 0.6
eSg 09 25.20
PLE 1.65 103 ePg 08 58.00 -2.1
eSg 09 21.00
BDV 1.87 140 ePn 09 04.50 1.3
eSn 09 32.50
TTG 1.99 130 ePn 09 06.20 1.3
eSn 09 35.00
VBY 2.25 323 e(Pn) 09 04.80 -4.0X
PTJ 2.35 338 ePn 09 08.40 -1.8
eSn 09 34.60
CEY 2.82 317 e(Pn) 09 17.20 0.4
eSn 09 51.00
LJU 2.99 322 eP 09 19.50 0.3
e(Sn) 09 56.20
TRI 3.15 310 eP 09 24.00 2.6X
i 09 58.30
i 10 08.60
VOY 3.29 316 e(Pn) 09 25.40 1.8
eSn 10 05.00
OHR 3.73 133 ePn 09 29.70 -0.1
S.D. = 1.4 on 12 of 14 obs.

MAR 30, 1989 14h 12m 12.93± 0.15s
41.835 N ± 3.5km 143.659 E ± 2.8km
DEPTH = 22.9km (6 depth phases)
5.4mb (62 obs.) 5.0Msz (11 obs.)
HOKKAIDO, JAPAN REGION (224)

MAT 6.77 220 iPd 13 53.20 -0.2
1.0s 415.00nm 6.4mb X
(S) 15 25.00
MDJ 10.64 290 eP 14 47.50 0.5
Z 18s 9.30um
E 18s 6.30um
epP 14 50.50
S 16 45.00
SHK 11.30 233 eP 14 55.80 -0.2
CN2 13.51 284 Pc 15 25.00 -0.6
Z 15s 8.30um
E 14s 5.00um
epP 15 32.00
S 17 55.00
SNY 14.97 277 Pc 15 43.80 -0.9
Z 20s 2.70um
N 12s 2.00um
E 14s 2.10um
S 18 33.00
DL2 17.04 267 eP 16 12.00 0.8
Z 16s 0.90um
N 11s 0.90um
E 12s 0.70um
pP 16 22.00
eS 19 20.00
BJI 20.81 274 eP 16 52.00 -3.1X
Z 15s 3.80um 4.9MszX
E 14s 2.50um
eS 20 36.00
SSE 20.95 246 Pc 16 56.20 -0.3
1.5s 64.00nm 4.8mb
Z 20s 1.20um 4.3Msz
N 16s 2.80um
S 20 40.00
sS 20 52.00
TIA 21.32 263 P 16 59.00 -1.3
Z 22s 0.90um 4.1Msz
N 12s 0.70um
E 12s 0.60um
S 20 42.70
NJ2 22.03 252 Pc 17 03.60 -3.8X
Z 14s 2.00um 4.7MszX
N 13s 1.50um
S 21 00.00
TIY 24.28 271 eP 17 28.00 -1.5
Z 16s 2.60um 4.8MszX
N 17s 1.90um
E 17s 2.30um
S 21 45.00
sS 21 56.00
ANP 24.72 235 eP 17 29.30 -4.6X
BTO 25.25 279 eP 17 37.00 -1.8
Z 19s 3.10um 4.8Msz
N 14s 1.60um
E 19s 3.00um
sS 22 15.50
WHN 26.08 254 P 17 46.50 0.0
Z 20s 1.90um 4.6Msz
N 14s 1.60um
E 14s 1.00um
sP 18 01.50
PP 18 23.00
S 22 14.00
QZH 26.72 239 eP 17 52.00 -0.4
Z 16s 1.70um 4.7MszX
N 15s 1.30um
S 22 28.00
GUMO 28.16 178 eP 18 05.00 -0.6
XAN 28.34 266 eP 18 10.00 2.9
E 15s 1.10um
LZH 31.28 273 P 18 34.50 1.0
1.5s 110.00nm 5.5mb
Z 16s 1.40um 4.7MszX
N 13s 0.60um
E 15s 0.80um
eS 23 28.00
GZH 31.45 243 eP 18 39.60 4.8X
N 12s 2.20um
E 14s 1.80um
eS 23 44.20
GTA 33.10 281 iPc 18 49.80 0.5
1.2s 0.10nm 2.6mb X
Z 16s 1.80um 4.9MszX
N 13s 1.10um
S 24 03.50
ScP 25 15.70
ScS 29 10.00
CD2 33.66 264 eP 18 53.00 -1.1
Z 15s 1.00um 4.7MszX
N 13s 1.10um
S 24 10.00
GYA 33.95 255 P 18 55.60 -1.2
N 14s 1.10um
S 24 17.00
ScS 29 18.00
QIZ 36.61 242 eP 19 27.00 7.7X
N 17s 1.50um
E 16s 1.20um
eS 25 03.00
KMI 37.59 257 Pd 19 27.50 -0.2
N 16s 1.60um
sP 20 09.00
S 25 14.00
DAV 38.14 210 eP 19 33.00 0.9
WMQ 40.43 292 P 19 51.00 0.0
Z 17s 4.40um 5.4MszX
E 15s 3.60um
S 25 58.00
TTA 40.53 38 eP 19 52.00 0.4
SVW 40.68 41 eP 19 54.00 1.2
BRW 41.33 25 eP 19 57.00 -0.9
IMA 41.70 33 eP 20 01.10 -0.1
0.9s 19.00nm 4.8mb
KDC 42.48 45 eP 20 07.20 -0.3
LSA 43.67 271 eP 20 19.60 1.4
S 26 40.50
PMR 43.78 40 P 20 17.70 -0.3
1.0s 45.00nm 5.2mb
FBA 44.14 35 ePc 20 21.50 0.5
CHTO 44.27 253 iP 20 23.00 0.4
1.0s 32.50nm 5.1mb
TOA 45.12 39 ePc 20 29.90 0.9
GUN 48.55 273 P 20 57.20 0.5
KKN 49.06 273 P 21 01.00 0.5
PKI 49.08 273 P 21 01.00 0.2
DMN 49.29 273 P 21 02.70 0.4
INK 49.34 29 eP 21 01.00 -0.8
0.4s 74.00nm 6.1mb
GKN 49.42 274 P 21 03.50 0.3
KSH 50.19 291 eP 21 09.00 0.1
Z 16s 3.60um 5.5MszX
E 14s 2.00um
MBC 51.43 18 eP 21 17.00 -0.7
IPM 53.08 238 ePd 21 30.90 0.1
KGM 53.67 233 ePd 21 37.10 2.0
NDI 54.57 279 iPd 21 41.00 -0.6
0.8s 5.97nm 4.7mb
eS 29 17.00
ALE 55.21 4 eP 21 44.00 -1.7
0.7s 8.00nm 4.9mb
MTN 55.62 195 eP 21 48.00 -1.2
PSI 55.85 238 ePc 21 50.80 -0.2
1.0s 7.00nm 4.6mb
e 24 35.00
YKA 58.81 32 eP 22 10.90 -0.5
YKC 58.87 32 ePc 22 11.00 -0.8
0.5s 5.00nm 4.9mb
KEV 59.59 339 iP 22 14.20 -2.5
0.6s 20.90nm 5.4mb
HYB 60.13 267 eP 22 20.00 -1.1
0.8s 34.60nm 5.5mb
e 22 28.50 28km
SOD 61.23 337 iP 22 26.10 -1.8
OUE 61.24 286 iPd 22 27.90 -0.8
eS 24 43.80
WB5 62.00 190 eP 22 30.10 -3.5X
WRA 62.07 190 Pc 22 32.80 -1.2
0.8s 17.00nm 5.2mb
QIS 62.19 184 eP 22 33.00 -1.8
POO 62.96 271 eP 22 40.00 -0.2
KJF 62.97 334 iP 22 38.20 -1.4
0.8s 41.10nm 5.6mb
MAIO 63.06 296 eP 22 40.00 -0.7
eS 31 12.00
HTW 63.22 49 P 22 37.40 -4.1X
GBA 63.37 264 Pc 22 42.60 -0.2
0.8s 15.60nm 5.2mb
PNT 63.56 47 iP 22 44.00 0.2
0.9s 21.00nm 5.3mb
LON 63.78 50 P 22 45.80 0.5
SUF 64.49 333 iP 22 48.20 -1.3
0.6s 34.40nm 5.7mb
EDM 64.54 40 ePc 22 49.30 -0.8
KOD 65.53 262 eP 22 57.00 -0.3
ASPA 65.79 190 iPd 22 57.60 -0.7
1.1s 22.00nm 5.2mb
MBL 66.45 204 eP 23 01.50 -1.0
NUR 66.54 332 iP 23 01.30 -1.4
0.6s 43.00nm 5.8mb
Z 22s 2.90um 5.4Msz
LR 54 20.00
WDC 66.87 56 ePc 23 05.40 0.2
SES 67.40 42 ePc 23 07.80 -0.6
MIN 67.58 55 ePc 23 09.80 -0.1
ORV 68.12 56 ePc 23 12.80 -0.3
RMO 68.14 175 iPd 23 13.40 0.3
BRK 68.65 58 eP 23 16.40 0.1
BKS 68.66 58 eP 23 17.40 1.0
1.4s 77.00nm 5.6mb
FFC 68.75 35 iPc 23 16.30 -0.4
0.9s 26.00nm 5.4mb
NANU 69.16 208 eP 23 19.00 -0.5

BRS 69.39 171 eP 23 22.80 1.9
UPP 69.40 334 iPc 23 19.20 -1.3
WARB 69.48 196 eP 23 16.00 -5.4X
LRM 69.54 46 ePc 23 22.20 0.2
CMB 69.73 57 ePc 23 23.20 0.2
PRS 70.14 59 ePc 23 25.70 0.2
LLA 70.24 58 e(P) 23 26.70 0.5
HFS 70.43 336 eP 23 25.60 -1.2
0.8s 35.20nm 5.5mb
Z 17s 0.58um 4.9MszX
LR 52 35.00
KVN 70.52 55 P 23 28.40 0.4
HPI 70.52 48 P 23 28.80 0.7
TAB 70.57 304 eP 23 29.00 0.7
NRA0 70.58 337 P 23 26.00 -1.8
NAO 70.71 338 P 23 27.30 -1.3
1.2s 53.50nm 5.5mb
FRI 70.79 57 ePc 23 30.70 1.3
EUR 71.54 53 iP 23 34.90 0.7
0.2s 21.77nm 5.9mb
IMW 71.60 47 P 23 35.50 0.9
TNP 71.66 55 P 23 35.00 0.0
0.8s 17.16nm 5.2mb
FRB 71.70 14 eP 23 33.00 -1.4
ISA 72.40 58 eP 23 39.00 -0.2
SLY 72.62 302 ePd 23 40.00 -0.4
CLC 72.85 57 eP 23 42.00 0.1
BW06 73.10 47 P 23 43.60 0.2
1.0s 18.75nm 5.1mb
SBB 73.43 58 eP 23 45.00 -0.2
MWC 73.57 59 eP 23 44.00 -2.2
MSL 73.60 304 eP 23 46.50 0.4
GSC 73.68 57 eP 23 47.00 0.3
FORR 73.73 194 eP 23 47.50 0.8
0.4s 9.00nm 5.2mb
RVR 74.16 59 eP 23 49.00 -0.4
PEC 74.36 59 P 23 50.00 -0.6
MSU 74.42 52 P 23 52.30 1.2
PLM 74.89 59 P 23 53.70 -0.2
TPC 74.92 58 eP 23 53.00 -0.9
RSON 75.02 34 P 23 53.00 -1.0
1.0s 10.00nm 4.8mb
CLI 75.42 320 ePc 23 56.50 0.0
CFR 75.98 319 ePc 24 00.00 0.4
BWA 76.01 176 eP 24 01.20 1.4
KRA 76.08 326 eP 23 59.80 -0.3
1.4s 134.00nm 5.8mb
Z 18s 0.90um 5.1Msz
N 18s 1.30um
e 24 00.30 2kmX
e 24 05.80
VRI 76.18 320 ePd 24 02.00 1.2
TLB 76.47 318 ePc 24 02.50 0.2
SPC 76.62 326 eP 24 04.20 0.8
ISR 76.80 320 ePc 24 05.00 0.7
MLR 76.83 320 ePd 24 05.50 0.9
KSP 76.92 329 iPc 24 04.70 -0.1
1.4s 79.00nm 5.6mb
e 26 56.00
CAN 76.94 176 eP 24 13.00 8.1X
BBTK 77.36 313 eP 24 08.50 0.9
e 26 24.00 663kmX
CMP 77.43 321 ePc 24 11.00 3.3X
GOL 77.50 48 P 24 09.20 0.7
PSZ 77.74 325 eP 24 04.80 -4.7X
CLL 77.78 331 iPc 24 09.00 -0.5
1.5s 69.00nm 5.5mb
Z 21s 1.50um 5.3Msz
BRG 77.79 330 iPc 24 09.50 0.0
1.5s 36.00nm 5.2mb
i 24 15.00 18km
PRU 78.28 329 Pc 24 12.00 -0.3
1.5s 46.90nm 5.3mb
Z 18s 2.10um 5.5Msz
N 18s 1.60um
E 17s 1.20um
e 24 17.80 19km
SRO 78.49 326 iP 24 14.60 1.1
DMK 78.61 317 eP 24 14.00 -0.3
WIT 78.68 335 eP 24 16.00 1.7
ZST 78.70 327 eP 24 15.10 0.5
Z 15s 2.50um 5.7MszX
JMB 78.74 318 eP 24 15.00 0.1
BZS 78.75 323 eP 24 14.50 -0.4
MOX 78.83 331 eP 24 15.00 -0.3
1.5s 56.00nm 5.4mb
Z 18s 1.20um 5.3Msz

N 19s 1.00um
E 17s 1.10um
LQ 58 30.00
LR 03 00.00
EKA 79.17 341 P 24 17.00 0.0
1.4s 43.00nm 5.3mb
WTS 79.33 335 eP 24 18.00 0.1
1.0s 34.00nm 5.3mb
e 24 25.00 22km
e 24 36.00
KHC 79.34 329 iPc 24 18.80 0.7
1.2s 25.50nm 5.1mb
DIM 79.57 318 eP 24 20.00 0.6
PGB 79.87 319 eP 24 21.00 -0.2
PLD 79.94 319 eP 24 22.00 0.6
KMR 80.00 328 iP+ 24 22.00 0.3
ALQ 80.21 52 eP 24 24.00 0.7
1.0s 14.25nm 4.9mb
RZN 80.25 318 iPc 24 24.00 0.7
ENN 80.67 334 eP 24 24.50 -0.6
1.2s 35.00nm 5.3mb
e 24 32.50 25km
MEM 80.78 334 P 24 25.30 -0.4
MMB 80.81 319 iPc 24 27.00 0.9
KKB 80.92 319 iPc 24 27.00 0.3
PTJ 81.00 326 eP 24 25.10 -2.0
KBA 81.11 328 eP 24 28.00 0.2
ELL 81.14 312 eP 24 28.10 0.1
DMU 81.35 343 eP 24 29.00 0.3
SNF 81.41 335 P 24 29.20 0.2
RBL 81.54 328 Pc 24 29.20 -0.7
VAY 81.58 319 iP 24 30.60 0.5
DSI 81.60 305 e(P) 24 31.00 0.7
SKO 81.63 320 iPc 24 31.20 0.9
1.5s 90.00nm 5.6mb
Z 19s 0.71um 5.0Msz
E 18s 0.87um
i 24 39.50 26km
LR 05 02.00
DOU 81.68 335 P 24 32.40 2.0
FVI 81.72 328 P 24 31.50 0.8
DLE 81.83 342 eP 24 31.00 -0.2
DCN 81.94 343 eP 24 32.00 0.2
BCI 81.97 321 eP 24 31.80 -0.3
TRI 82.06 327 iP 24 31.70 -0.8
CDF 82.24 332 eP 24 33.70 0.2
1.1s 19.50nm 5.1mb
SDA 82.51 322 eP 24 34.60 -0.3
OHR 82.60 320 iP 24 35.60 0.1
1.3s 0.07nm 2.6mb X
CTI 82.62 329 P 24 34.90 -0.7
PRNI 82.69 304 eP 24 32.00 -4.1X
LACI 82.70 321 eP 24 36.00 0.1
TIR 82.86 321 eP 24 36.50 -0.2
HAU 82.91 333 eP 24 36.70 -0.2
0.8s 8.00nm 4.9mb
M8H 83.16 304 iPc 24 39.00 0.5
LSK 83.44 320 eP 24 40.60 0.7
VAI 83.87 330 Pc 24 41.80 0.0
RSM 84.05 327 Pc 24 43.80 1.1
SFI 84.30 327 P 24 45.50 1.5
ORX 84.36 330 P 24 43.84 -0.6
LOR 84.38 334 eP 24 44.60 0.2
1.0s 26.80nm 5.4mb
PGD 84.39 327 P 24 45.80 1.1
FLN 84.41 337 eP 24 44.60 0.1
1.0s 13.60nm 5.1mb
LDF 84.45 337 eP 24 44.50 -0.2
0.8s 9.10nm 5.1mb
CRE 84.50 327 P 24 45.60 0.4
MME 84.53 328 P 24 46.70 1.2
BOB 84.54 329 P 24 45.50 0.2
LBF 84.59 334 eP 24 45.70 0.2
1.2s 26.70nm 5.3mb
ASS 84.67 326 P 24 46.50 0.5
SSF 84.68 334 eP 24 46.30 0.4
0.8s 4.50nm 4.8mb
LSD 84.81 331 P 24 47.84 0.9
GRR 84.85 337 eP 24 47.00 0.3
1.0s 21.60nm 5.3mb
LPG 84.92 331 eP 24 48.00 0.5
1.0s 24.00nm 5.4mb
SMF 84.94 333 eP 24 47.30 0.1
1.2s 47.60nm 5.6mb
AVF 84.97 334 eP 24 47.60 0.3
1.2s 59.50nm 5.7mb
LPF 85.23 337 eP 24 49.50 0.9

1.2s 35.70nm 5.5mb
MNS 85.23 326 P 24 47.70 -1.1
CKI 85.27 330 P 24 48.50 -0.4
SDI 85.30 325 P 24 48.70 -0.5
BGF 85.34 334 eP 24 49.60 0.4
RRL 85.41 331 P 24 50.09 0.2
FIN 85.48 330 P 24 48.45 -1.6
ROB 85.54 330 P 24 49.58 -0.7
PZZ 85.65 330 P 24 46.91 -4.0X
MAF 85.73 334 eP 24 52.00 0.8
1.2s 62.40nm 5.7mb
STV 85.79 330 P 24 49.48 -2.1
TCF 85.79 334 eP 24 52.10 0.6
1.0s 16.80nm 5.2mb
MGR 85.81 323 P 24 51.00 -0.6
IMI 85.86 330 P 24 51.02 -0.9
LSF 86.04 335 eP 24 53.40 0.7
1.2s 50.50nm 5.6mb
MFF 86.25 336 eP 24 54.50 0.8
0.8s 21.40nm 5.4mb
FVM 86.51 40 P 24 54.00 -1.2
LRG 86.82 330 eP 24 56.80 0.3
1.0s 28.00nm 5.4mb
LMR 86.87 330 eP 24 57.00 0.2
1.2s 55.90nm 5.7mb
RJF 86.88 334 eP 24 57.70 0.8
1.2s 29.70nm 5.4mb
CAF 87.04 334 eP 24 59.00 1.3
1.2s 56.50nm 5.7mb
CBM 87.22 21 P 25 07.70 9.3X
SOI 87.24 321 Pc 24 58.60 -0.1
LFF 87.46 335 eP 25 00.70 1.1
1.2s 61.80nm 5.8mb
LPO 87.54 334 eP 25 01.20 1.2
1.2s 49.90nm 5.7mb
TOL 93.54 336 eP 25 30.00 1.8
ZOBO 142.67 57 ePKP 31 29.00 -17.9X
Z 21s 0.25um 4.9Msz
LR 21 08.00
LPB 142.88 57 ePKP 31 46.00 -1.1
CNCB 143.16 57 PKP 31 46.00 -1.8
S.D. = 0.9 on 210 of 225 obs.

MAR 30, 1989 16h 36m 24.58± 0.27s
41.081 N ± 5.5km 43.915 E ± 3.7km
DEPTH = 10.0km (geophysicist)
4.6mb (18 obs.)
TURKEY-USSR BORDER REGION (367)
Some damage and 270 cattle
killed in the Spitok area, USSR.

TAB 3.54 147 eP 37 23.00 2.2
MSL 4.73 188 ePnc 37 37.00 -0.7
i 37 48.50
iSn 38 09.00
i 38 16.80
i 38 43.50
i 39 05.00
SLY 5.61 167 ePnc 37 51.00 0.9
iP* 38 09.00
iSn 38 35.50
i 39 25.50
BHD 7.80 177 ePn 38 19.00 -1.8
iP* 38 38.00
iPg 39 02.00
iSn 39 53.00
iS* 40 22.00
iSg 40 52.00
BBTK 8.59 265 eP 38 33.00 1.0
DSI 11.72 219 e(P) 39 13.00 -1.7
ELL 11.74 253 iP 39 17.60 2.5
TLB 12.17 292 ePc 39 02.50 -18.4X
CFR 12.22 295 eP 39 20.00 -1.5X
PRNI 12.92 217 e(P) 39 25.00 -6.0X
MAIO 13.07 106 eP 39 32.00 -1.0
eS 41 52.00
CLI 13.19 300 eP 39 46.50 12.0X
VRI 13.37 297 eP 39 41.00 4.2X
MBH 13.47 216 e(P) 39 30.00 -8.1X
MLR 13.81 295 eP 39 46.00 3.2X
CMP 14.39 293 ePd 39 59.00 8.7X
VAY 16.07 278 eP 40 15.40 3.3X
BZS 16.83 293 eP 40 26.50 4.9X
SKO 16.85 280 eP 40 23.50 1.5
OHR 17.42 278 eP 40 30.00 0.8
PSZ 18.40 300 eP 40 41.20 -0.2
SPC 18.51 304 eP 40 42.30 -0.5

30d 16h

KRA	18.97	306	eP	40 55.30	7.1X
			e	40 56.20	
			e	41 13.20	
SRO	19.42	299	eP	40 57.30	3.5X
ZST	20.29	300	eP	41 04.70	1.6
			e	41 06.40	
HVAR	20.45	285	iP	41 02.00	-2.7
PTJ	20.79	293	eP	41 07.00	-1.4
TDS	21.03	275	P	41 09.50	-1.3
KSP	21.43	306	ePc	41 17.00	2.3
MGR	21.52	277	P	41 14.40	-1.3
QUE	21.59	113	eP	41 20.20	3.6X
SOI	21.65	271	P	41 14.60	-2.4
DUI	22.07	281	P	41 22.00	0.7
PRU	22.30	303	P	41 26.70	3.3X
TRI	22.32	292	iPc	41 23.70	0.1
RBL	22.48	294	P	41 26.00	0.7
SDI	22.54	282	P	41 20.60	-5.3X
KBA	22.67	296	e(P)	41 28.00	0.6
	1.2s	15.60nm		4.4mb	
KHC	22.76	301	eP	41 20.00	-8.0X
			e	41 31.40	
NUR	22.78	335	iP	41 28.80	0.7
	0.9s	18.60nm		4.6mb	
Z	16s	0.70um		4.2MszX	
			i	41 40.00	
			LR	50 50.00	
BRG	22.87	305	eP	41 34.50	5.5X
	1.0s	18.00nm		4.5mb	
ARV	22.98	286	P	41 30.00	-0.2
FVI	23.03	294	P	41 30.50	-0.1
ASS	23.22	285	P	41 32.60	0.0
MNS	23.28	284	P	41 32.00	-1.2
RSM	23.30	288	P	41 34.20	1.0
RMP	23.35	282	P	41 24.20	-9.6X
CLL	23.55	306	eP	41 36.00	0.4
	1.3s	24.00nm		4.6mb	
CTI	23.80	293	P	41 37.50	-0.8
PGD	23.83	288	P	41 38.80	0.2
SUF	24.12	340	eP	41 41.00	0.0
KSH	24.45	83	eP	41 43.50	-1.2
MME	24.54	288	P	41 46.00	0.4
BDI	24.62	288	P	41 45.50	-0.7
PII	24.71	287	P	41 46.00	-0.9
UPP	24.88	328	iP	41 47.40	-1.0
			i	41 50.70	
KJF	25.00	343	eP	41 49.00	-0.6
	1.1s	67.20nm		5.2mb	
MDI	25.16	292	P	41 50.50	-0.7
BOB	25.39	290	P	41 52.00	-1.5
VAI	25.81	293	P	41 58.30	1.0
HFS	26.66	326	eP	42 04.70	-0.4
	1.0s	37.20nm		5.0mb	
Z	15s	0.17um		3.7MszX	
			LR	53 09.00	
LPG	27.25	292	eP	42 12.70	1.8
	0.8s	5.30nm		4.3mb	
SOD	28.00	346	eP	42 18.00	0.8
NAO	28.24	326	P	42 19.20	-0.2
	1.0s	6.40nm		4.4mb	
SMF	29.19	295	eP	42 29.70	1.6
	0.8s	4.50nm		4.3mb	
AVF	29.52	295	eP	42 31.20	0.2
	1.0s	8.00nm		4.5mb	
WMQ	32.14	70	P	42 53.00	-1.3
GRR	32.25	298	eP	42 55.10	0.0
	0.8s	6.40nm		4.6mb	
GKN	35.67	98	P	43 25.80	0.7
DMN	36.24	99	P	43 30.90	1.0
KKN	36.27	98	P	43 30.80	0.6
PKI	36.48	98	P	43 32.80	0.7
GUN	36.65	98	P	43 34.60	1.0
HYB	37.95	118	eP	43 44.50	0.4
IFR	39.31	275	iP	43 50.00	-5.6X
GTA	42.08	73	eP	44 16.00	-2.2
TIO	42.10	273	eP	44 00.00	-18.5X
LZH	46.31	76	eP	44 53.50	1.1X
	1.0s	38.00nm		5.4mb	
CD2	48.62	82	eP	45 08.70	-1.7
BTO	48.89	68	eP	45 14.40	2.0
KMI	50.87	89	eP	45 37.50	9.6X
CHTO	51.66	98	eP	45 33.90	0.1
	1.0s	5.50nm		4.4mb	
TIY	51.81	70	eP	45 34.90	0.2
GYA	53.10	85	P	45 44.60	0.0
TIC	55.35	246	P	45 56.18	-4.9X
	1.0s	14.00nm		4.9mb	

KIC	55.36	245	P	45 56.04	-5.1X
LIC	55.66	245	P	45 58.56	-4.7X
WHN	56.67	77	P	46 11.50	1.1
NJ2	59.17	73	Pc	46 28.60	0.7
SSE	61.36	72	e(P)	46 19.50	-23.4X
			sP	46 43.50	
FRB	62.75	332	eP	46 52.00	0.3
INK	70.92	359	eP	47 43.00	-0.3
IMA	72.32	7	P	47 50.20	-1.8
	1.0s	8.75nm		4.8mb	
IMA	72.32	7	eP	47 54.00	2.0
FBA	73.96	5	eP	48 00.30	-1.0
TTA	75.11	9	P	48 06.30	-1.9
	0.9s	5.21nm		4.6mb	
YKA	75.34	350	eP	48 12.80	3.5X
PMR	77.13	6	P	48 17.40	-2.0
	0.9s	6.25nm		4.7mb	
RSON	81.23	334	P	48 43.00	1.2
	1.0s	5.00nm		4.5mb	
BW06	93.15	341	P	49 42.20	1.8
S.D. = 1.2 on 73 of 100 obs.					

? MAR 30, 1989 16h 55m 06.53±11.86s
7.819 S ±104.km 129.568 E ±31.4km
DEPTH = 167.7 ± 42.4 km
4.2mb (1 obs.)
BANDA SEA (280)

MTN	5.23	163	iPc	56 24.10	0.1
	0.5s	180.00nm		5.5mb	X
			eS	57 28.00	
KNA	7.92	186	eP	56 59.00	-0.8
	0.3s	27.00nm		5.3mb	X
			eS	58 27.00	
MBL	16.26	214	eP	58 48.00	1.1
ASPA	16.30	166	eP	58 48.00	0.6
			eS	01 46.30	
WARB	18.48	188	eP	59 12.00	-0.4
NANU	19.93	221	eP	59 26.80	-0.6
	0.3s	3.00nm		4.2mb	
S.D. = 1.2 on 6 of 6 obs.					

? MAR 30, 1989 17h 24m 55.03± 2.54s
39.013 N ± 8.4km 27.000 E ±34.3km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	0.65	161	iPg	25 08.00	0.0
			eSg	25 17.00	
DST	1.39	64	iPn	25 20.60	0.0
EDC	1.49	26	ePn	25 21.00	-0.8
BNT	1.52	28	iPn	25 23.20	1.0
KCT	1.62	40	iPn	25 23.50	-0.2
S.D. = 0.9 on 5 of 5 obs.					

? MAR 30, 1989 18h 22m 55.13± 1.22s
39.697 N ±15.1km 15.569 E ±34.5km
DEPTH = 292.8 ± 12.9 km
3.5mb (1 obs.)
SOUTHERN ITALY (390)

MGR	0.44	359	Pd	23 32.60	-0.2
TDS	0.59	93	P	23 34.10	0.9
SGO	0.88	347	Pc	23 34.20	0.0
ATN	1.54	183	Pc	23 37.80	-0.3
SOI	1.67	167	P	23 39.00	0.0
			eSn	24 11.50	
BRT	1.72	46	P	23 38.90	-0.5
HFS	20.49	357	eP	27 11.70	0.1
	0.4s	1.00nm		3.5mb	
S.D. = 0.6 on 7 of 7 obs.					

MAR 30, 1989 18h 59m 00.78± 0.65s
39.259 N ± 5.4km 23.559 E ± 6.9km
DEPTH = 10.0 ± 4.2 km
AEGEAN SEA (365)
ML 3.1 (ATH).

NEO	0.26	280	ePg	59 06.50	0.1
PLG	1.12	356	ePb	59 22.10	0.4
			eSg	59 37.00	
ATH	1.29	174	ePb	59 24.10	-0.6
KZN	1.73	308	ePb	59 31.50	0.4
PRK	2.11	90	ePb	59 40.80	4.3X
VAY	2.19	340	ePn	59 38.40	0.6
MMB	2.33	3	iPc	59 39.00	-0.8
RDO	2.42	38	ePn	59 42.50	1.5

ITM	2.44	212	ePb	59 42.00	0.7
RZN	2.58	20	iPc	59 43.00	-0.5
KDZ	2.78	30	iP	59 45.00	-1.1
OHR	2.81	312	ePn	59 49.00	2.4X
SKO	3.15	330	ePn	59 50.00	-1.4
VTS	3.34	356	eP	59 55.00	0.8
MGR	6.23	281	P	00 34.70	-0.4
			eSn	01 44.00	
S.D. = 1.0 on 13 of 15 obs.					

? MAR 30, 1989 19h 42m 34.83±10.35s
18.632 N ±42.4km 67.918 W ±73.4km
DEPTH = 25.8 ± 11.4 km
MONA PASSAGE (89)

MCP	0.79	105	iP	42 49.90	0.0
MGP	1.00	128	iP	42 53.10	-0.1
APR	1.14	99	iP	42 55.10	0.0
			S	43 01.50	
CSB	1.71	101	iP	43 03.10	-0.2
			S	43 14.00	
SJG	1.76	107	iP	43 04.50	0.4
			S	43 13.50	
LPR	1.97	99	iP	43 07.20	0.0
S.D. = 0.4 on 6 of 6 obs.					

MAR 30, 1989 20h 10m 06.43± 1.59s
16.112 N ± 8.7km 119.713 E ± 8.9km
DEPTH = 34.9 ± 16.0 km
5.0mb (6 obs.)
LUZON, PHILIPPINE ISLANDS (249)

BAG	0.88	70	iPKP+	10 23.00	0.4
QCP	1.97	138	eP	10 52.10	14.0X
QIZ	9.85	289	eP	12 27.00	-1.8
			eS	14 12.80	
CD2	20.72	318	eP	14 47.20	0.6
TIY	22.46	345	eP	15 04.00	0.0
Z	13s	0.96um		4.4MszX	
N	11s	0.80um			
BJI	24.04	353	(P)	15 19.00	-0.2
LZH	24.40	328	eP	15 24.00	1.0
	1.2s	48.00nm		4.9mb	
HHC	25.64	346	eP	15 35.60	0.9
GTA	29.00	327	Pc	16 05.40	0.1
GUN	33.38	296	Pc	16 45.20	0.9
	0.8s	45.00nm		5.4mb	
PKI	33.71	296	Pc	16 47.50	0.3
	0.6s	11.00nm		5.0mb	
KKN	33.87	296	P	16 48.80	0.4
DMN	33.98	296	Pc	16 49.80	0.4
GKN	34.47	296	Pc	16 53.70	0.2
	0.7s	16.00nm		5.1mb	
MBL	37.04	180	eP	17 15.30	0.3
WB5	38.56	158	eP	17 26.00	-1.8
WRA	38.61	158	Pd	17 30.40	2.2
	1.0s	7.70nm		4.5mb	
ASPA	41.90	160	eP	17 55.20	-0.1
WARB	42.58	171	eP	17 56.00	-4.9X
INK	81.20	21	eP	22 19.00	-0.8
MBC	81.40	12	eP	22 19.00	-1.7
SLL	83.96	331	eP	22 32.90	-1.3
	0.7s	7.20nm		4.9mb	
Z	17s	0.14um		4.4MszX	
			LR	01 14.00	
S.D. = 1.1 on 20 of 22 obs.					

* MAR 30, 1989 20h 38m 35.48± 1.14s
22.491 N ± 8.7km 121.914 E ± 9.1km
DEPTH = 21.4 ± 6.3 km
4.6mb (5 obs.)
TAIWAN REGION (243)

TWF1	1.03	327	iPd	38 53.20	-1.3
TWK	1.52	301	iPc	39 02.80	1.1
TWC	2.11	358	iPc	39 10.20	0.1
TWZ	2.61	353	ePc	39 17.70	0.4
ANP	2.70	352	eP	39 19.50	0.8
QZH	3.90	309	iPnd	39 34.80	-0.7
			Sn	40 14.40	
GZH	7.93	276	eP	40 31.90	-0.5
SSE	8.59	356	ePn	40 41.10	-0.5
			Lg	43 03.00	
NJ2	9.90	345	Pc	41 05.60	6.0X
Z	14s	0.40um		4.1Msz	
N	11s	0.30um			
E	11s	0.30um			

		S	42 42.00			
WHN	10.49	321 eP	41 06.00	-1.7		
GYA	14.44	289 P	42 01.00	0.3		
CD2	18.24	301 eP	42 50.20	1.1		
MAT	19.89	42 (P)	43 12.00	3.6X		
	0.9s	9.24nm		4.1mb		
HHC	20.28	337 eP	43 13.00	0.4		
BTO	20.67	334 eP	43 17.50	0.9		
Z	12s	0.60um		4.2MszX		
N	12s	0.60um				
E	12s	0.30um				
LZH	20.74	315 e(P)	43 18.00	0.6		
CN2	21.45	7 P	43 24.60	0.2		
GTA	25.26	317 eP	44 03.70	1.8		
WB5	43.83	163 eP	46 44.20	2.3		
WARB	48.60	174 iPc	47 16.90	-2.7		
	0.4s	7.00nm		5.0mb		
KJF	71.80	333 eP	49 58.00	0.0		
SUF	72.86	331 eP	50 04.00	-0.3		
	0.4s	2.10nm		4.5mb		
INK	74.54	22 eP	50 14.00	0.0		
MBC	74.76	13 eP	50 15.00	-0.2		
HFS	79.36	331 eP	50 40.50	-0.5		
	0.7s	6.20nm		4.7mb		
NAO	80.30	332 P	50 45.40	-0.7		
	0.6s	2.80nm		4.5mb		
S.D. = 1.2 on 24 of 26 obs.						

MAR 30, 1989 20h 39m 29.31± 0.11s
19.589 S ± 4.5km 175.848 W ± 2.9km
DEPTH = 230.0km (37 depth phoses)
5.8mb (33 obs.)
TONGA ISLANDS (173)
mb 5.6 (BRK).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 14S, 36C
Centroid Location:
Origin Time 20:39:37.1 0.3
Lat 19.67S 0.03 Lon 175.84W 0.03
Dep 232.9 1.2 Half-duration 3.8
Moment Tensor; Scale 10**18 Nm
Mrr= 0.06 0.02 Mtt= 0.42 0.03
Mff=-0.48 0.03 Mrt=-0.33 0.02
Mrf=-1.03 0.02 Mtf= 0.38 0.02
Principal Axes:
T Val= 1.18 Plg=40 Azm=136
N 0.10 28 19
P -1.28 37 265
Best Double Couple:Mo=1.2*10**18
NP1:Strike=294 Dip=28 Slip= 4
NP2: 200 88 118

SVA	5.59	284 iPd	40 56.00	3.5X		
VUN	5.61	285 iPd	40 56.80	4.0X		
AFI	6.86	35 iPc	41 00.00	-8.8X		
		S	42 15.60			
RAO	9.80	191 iP	41 39.80	-6.7X		
		eS	43 35.90			
PVC	15.12	274 iPd	42 56.50	3.4X		
RAR	15.16	99 P	42 52.00	-1.5		
		S	45 29.00			
DZM	16.74	258 iPc	43 13.30	0.9		
		iS	46 19.20			
		ScP	51 00.20			
KRP	19.75	201 iPd	43 44.80	1.4		
	0.3s	189.00nm		6.1mb		
		S	47 17.00			
WEL	23.06	198 P	44 16.00	0.3		
		S	48 07.00			
		iPcP	48 16.00			
		ScP	51 15.50			
		ScS	55 01.00			
AFR	24.79	90 iP	44 30.80	-1.2		
TBI	24.83	103 iP	44 32.40	0.1		
	0.8s	125.00nm		5.5mb		
		ipP	45 11.40	199kmX		
PAE	24.96	90 iP	44 32.50	-1.0		
		ipP	45 15.40	222km		
PPT	24.98	90 iP	44 32.70	-1.0		
	1.1s	620.00nm		6.1mb		
Z	20s	7.00um		5.2Msz		
		ipP	45 15.50	221km		
PPN	25.12	90 iP	44 33.80	-1.2		
		ipP	45 16.80	222km		
VSG	25.77	290 eP	44 40.00	-1.0		
PMO	27.06	85 iP	44 51.00	-1.6		
	1.1s	370.00nm		6.0mb		
VAH	27.25	85 iP	44 52.30	-2.0		
	1.1s	220.00nm		5.7mb		
TPT	27.32	85 iP	44 53.30	-1.7		
	1.1s	445.00nm		6.0mb		
RUV	27.50	85 iP	44 54.70	-1.8		
	1.1s	515.00nm		6.1mb		
MSZ	28.43	205 P	45 03.50	-1.1		
		S	49 38.00			
BRS	29.75	249 iPc	45 17.00	0.5		
		e	46 08.00	259kmX		
		iS	49 20.50			
		iScP	51 24.00			
		i	51 36.50			
		i	55 09.00			
		iScS	55 36.00			
PAA	30.83	292 eP	45 25.00	-1.1		
COO	31.10	243 iPd	45 29.10	0.8		
RMO	33.21	251 iPd	45 47.20	0.5		
	0.7s	313.00nm		6.1mb		
		e	45 55.00	27kmX		
		e	47 12.00			
		e	51 50.00			
CNB	34.41	236 iPc	45 57.00	0.2		
		e	46 49.00	257kmX		
CAN	34.69	236 iPd	45 59.00	-0.2		
		e	46 51.00	258kmX		
		eScP	51 55.80			
RAB	34.73	292 iPd	45 57.00	-2.7		
		eS	54 16.00			
BWA	34.90	238 iPd	45 58.60	-2.3		
		iScP	51 55.40			
CTA	35.60	263 iPd-	46 07.30	0.4		
Z	22s	1.85um		4.8Msz		
		i	46 28.00			
		i	46 38.00			
		ipP	46 54.00	221km		
		esP	47 22.00			
		ePP	47 34.00			
		iS	51 20.00			
		i	51 25.00			
		iScP	51 58.00			
PMG	37.14	280 iPd	46 19.70	-0.2		
	0.8s	895.52nm		6.4mb		
TOO	38.06	234 iPd	46 27.60	0.2		
RKT	38.14	103 iP	46 28.00	-0.1		
	1.2s	990.00nm		6.3mb		
LAT	38.29	285 iPd	46 30.10	0.6		
TAU	38.69	225 Pd	46 32.20	-0.2		
		eS	52 12.00			
STK	40.01	244 iPd	46 44.10	0.7		
		e	52 15.00			
QIS	41.75	261 iPd	46 57.50	-0.3		
		e	52 21.00			
ADE	42.83	239 iPd	47 05.80	-0.6		
	1.2s	109.38nm		5.2mb		
ASPA	46.70	256 iPd	47 36.60	-0.7		
		e	48 23.00	214kmX		
		e	49 30.00			
		e	52 41.90			
		eS	54 06.70			
WB5	46.72	261 iPd	47 36.70	-0.7		
		iScP	52 42.20			
		iS	54 06.80			
		e	57 27.00			
WRA	46.73	261 Pd	47 36.00	-1.5		
	0.8s	211.40nm		5.6mb		
GUA	50.75	307 eP	48 06.80	-1.5		
	0.7s	421.92nm		6.0mb		
GUMO	50.82	307 eP	48 06.50	-2.2		
	0.8s	351.39nm		5.9mb		
PJG	50.82	307 eP	48 06.50	-2.2		
MTN	51.19	269 iPd	48 10.40	-1.2		
KNA	52.73	265 iPd	48 21.90	-1.0		
	0.4s	203.00nm		6.0mb		
WARB	53.03	252 iPd	48 18.30	-6.8X		
	0.4s	74.00nm		5.5mb		
SBA	58.92	184 Pc	49 09.10	3.0X		
MBL	59.94	256 iPd	49 12.30	-1.5		
	0.5s	135.00nm		5.9mb		
MEKA	60.20	250 iPd	49 14.00	-1.6		
	0.5s	43.00nm		5.4mb		
KLB	60.27	244 iPd	49 14.60	-1.4		
NWAO	60.58	243 iPd	49 17.10	-1.0		
RKG	60.67	241 iPd	49 17.80	-0.9		
BAL	61.27	245 iPd	49 21.30	-1.5		
MUN	61.54	244 iPd	49 23.20	-1.3		
MRWA	62.06	247 eP	49 17.00	-11.0X		
DAV	63.45	289 ePd-	49 36.00	-1.2		
NANU	63.59	254 iPd	49 37.20	-0.8		
MKS	64.43	274 ePd	49 43.40	-0.2		
		e	54 39.00			
SPA	70.53	180 iPc	50 22.10	1.2		
MAT	70.71	322 iPd	50 21.20	-1.0		
	1.1s	303.80nm		5.9mb		
		eS	59 13.00			
OCP	70.76	294 eP	50 29.40	6.6X		
ADK	71.17	359 P	50 23.00	-1.5		
	0.7s	40.70nm		5.3mb		
KKM	71.50	284 ePd	50 27.00	-0.4		
	1.0s	110.80nm		5.5mb		
BAG	71.99	295 eP	50 29.00	-1.3		
		eS	59 30.00			
BLP	75.34	45 P	50 49.00	-0.1		
ANP	75.43	304 eP	50 49.50	-0.4		
SYP	75.60	45 eP	50 50.00	-0.7		
		e	51 14.00	92kmX		
		e	51 45.00			
SDN	75.77	9 eP	50 49.70	-1.3		
PRS	75.77	43 iPc	50 51.90	0.4		
		ePcP	51 14.80			
		epP	51 47.10	233km		
GCC	75.80	42 eP	50 51.60	0.0		
		epP	51 46.90	233km		
PCC	75.86	41 eP	50 51.80	-0.1		
		ePcP	51 14.50			
		epP	51 47.10	233km		
BCH	75.92	44 P	50 53.10	0.6		
		pP	51 47.50	229km		
SAO	75.99	42 eP	50 52.70	0.0		
PRI	76.11	43 ePc	50 53.90	0.4		
		epP	51 49.30	234km		
BRK	76.16	41 eP	50 53.60	0.0		
		epP	51 49.60	236km		
BKS	76.18	41 iPc	50 54.00	0.3		
	0.7s	83.00nm		5.6mb		
		e	51 04.80			
		ePcP	51 15.50			
		ipP	51 49.60	235km		
		esP	52 20.00			
		iS	00 20.00			
		i	00 54.00			
		isS	01 57.00			
		iSS	05 20.00			
LLA	76.22	43 iPc	50 54.20	0.2		
		ePcP	51 17.00			
		epP	51 49.60	234km		
MHC	76.22	42 iPc	50 54.40	0.3		
		ePcP	51 17.20			
		epP	51 49.60	233km		
ARN	76.29	42 P	50 54.80	0.4		
PAS	76.59	46 eP	50 55.00	-1.1		
		e	51 18.00	87kmX		
MWC	76.71	46 eP	50 57.00	0.0		
		e	51 19.00	83kmX		
BAR	76.80	48 eP	50 58.00	0.7		
FHC	76.99	38 eP	50 58.50	0.3		
PLM	77.04	47 eP	50 59.00	0.2		
		e	51 54.00	231km		
RVR	77.05	47 eP	50 58.00	-0.6		
		e	51 46.00	199kmX		
SBB	77.14	46 eP	50 59.00	-0.1		
		e	51 22.00	87kmX		
		e	51 53.00			
PEC	77.14	47 P	50 58.90	-0.2		
FRI	77.24	43 ePc	50 59.50	0.0		
		ePcP	51 22.20			
		epP	51 54.60	231km		
ISA	77.26	45 eP	51 00.00	0.2		
		e	51 55.00	231km		
CMB	77.43	42 iPc	51 00.70	0.0		
		ePcP	51 22.10			
		epP	51 56.30	234km		
QZH	77.62	302 iPd	51 02.00	0.1		
	3.0s	1.50nm		3.2mb X		
		pP	51 57.00	230km		
		sP	52 22.00			
		PP	53 58.00			
		iS	00 34.00			
		ScS	00 58.00			
ORV	77.67	40 ePc	51 01.70	-0.2		
		epP	51 57.40	234km		
WDC	77.69	39 iPc	51 02.10	0.1		
		epP	51 57.40	232km		

30d 20h

CLC	77.93	45	eP	51	03.00	-0.5			0.8s	29.80nm		5.2mb		SOD	130.12	349	ePKP	58	06.00	-6.6X
			e	51	58.00	230km		IMW	86.63	41	P	51	48.80	0.5				e	58	12.00	
TPC	78.02	47	eP	51	03.00	-1.0		BJI	86.68	315	Pd-	51	49.00	0.9		KJF	132.68	346	iPKP	58	15.80	-1.8
			e	51	58.00	230km			3.0s		1.60nm			3.3mb X			0.7s		24.00nm			
MIN	78.10	39	eP	51	03.40	-1.0					pP	52	43.00	221km					e	18	06.00	
			epP	51	59.60	236km					sP	53	08.00						e	19	40.00	
GSC	78.17	46	eP	51	04.00	-0.9					eSKS	01	51.00			BUL	133.81	213	iPKPc	58	21.00	-0.3
GLA	78.30	49	eP	51	05.00	-0.6					eS	02	10.00						iPP	01	30.20	
LBFM	78.56	38	P	51	07.20	0.2		LRM	86.73	39	eP	51	48.60	0.0		SUF	134.32	346	ePKP	58	11.00	-9.7X
SSE	78.68	309	Pc	51	07.20	-0.3					e	52	46.70	240km		NUR	136.60	345	ePKP	58	15.00	-10.1X
	4.0s		0.90nm			2.9mb X		BW06	86.93	42	P	51	49.50	-0.1			0.7s		22.70nm			
	N 18s		1.30um						0.5s		15.18nm			5.1mb					i	58	25.00	
			pP	52	00.00	220kmX		FBA	86.93	12	ePc	51	48.00	-0.9		PTZ	137.03	221	iPKP	58	23.00	-4.4X
			sP	52	24.00			IMA	87.03	9	eP	51	49.30	-0.1					i	01	11.40	
			S	00	44.00				1.7s		89.00nm			5.3mb					i	01	40.10	
			ScS	01	04.00			GYA	87.97	299	iPd	51	55.00	0.2		LSZ	138.05	216	ePKP	58	28.00	-1.4
MNA	79.08	43	eP	51	10.20	0.4			4.0s		1.20nm			3.1mb X					i	58	32.00	
KDC	79.47	12	ePc	51	10.70	-0.4					pP	52	52.50	236km					i	01	15.00	
KVN	79.48	42	P	51	12.00	0.1					sP	53	19.00						i	01	53.20	
TNP	79.48	43	P	51	12.20	0.2					PP	55	22.00			NAO	138.54	355	PKP	58	18.50	-10.2X
NJ2	80.88	309	iPd	51	20.00	0.9		TIY	88.19	311	iPd	51	56.50	0.9			1.0s		10.80nm			
	4.0s		1.20nm			3.0mb X			4.0s		1.30nm			3.1mb X		UPP	138.63	350	iPKP	58	21.90	-7.0X
			pP	52	16.80	236km					pP	52	52.50	229km		HFS	138.93	353	ePKP	58	17.00	-12.4X
			sP	52	38.00						sP	53	20.00				0.4s		4.20nm			
			S	01	09.00						SKS	02	03.00			TAB	139.13	306	ePKP	58	21.00	-9.7X
			sS	02	50.00						sS	03	49.50			SLY	140.35	302	ePKPd	58	24.00	-8.8X
MDJ	80.96	324	iPd	51	20.60	1.3		XAN	89.20	307	iPd	52	01.00	0.6					e	01	39.00	
	3.0s		1.20nm			3.1mb X			4.0s		1.60nm			3.3mb X					i	02	10.00	
			epP	52	14.00	221km					pP	52	56.00	224km		KMZ	140.83	215	iPKP	58	29.50	-4.9X
			esP	52	38.00			SES	89.95	35	ePc	52	03.30	-0.2					i	01	44.70	
			S	01	10.00				1.3s		221.00nm			5.9mb		BHD	141.72	299	iPKPd	58	30.00	-5.3X
			SKS	01	14.00						pP	53	00.00	232km					iSKP	01	54.00	
			sS	02	42.00			HHC	90.18	314	iPd	52	06.00	1.2					iPKS	02	13.00	
AIA	81.01	157	iP	51	20.50	1.2			4.0s		4.40nm			3.7mb X					iSKS	08	10.00	
GZH	81.06	298	iPd	51	20.80	0.5					pP	53	01.50	226km		NAI	141.84	241	iPKPd	58	35.00	-1.4
	5.0s		1.00nm			2.8mb X					SKS	02	16.00			MSL	142.01	304	ePKPd	58	31.00	-4.8X
			eS	01	17.00			EDM	90.26	32	iPc	52	04.50	-0.3					i	01	40.50	
EUR	81.08	43	iP	51	20.50	0.1		KMI	90.75	296	iPd	52	09.50	1.6					i	01	54.00	
SHW	81.44	34	P	51	22.60	0.6			3.0s		1.10nm			3.3mb X					eSKS	08	12.00	
VGB	81.80	36	P	51	23.80	0.0					pP	53	07.00	235km		KMSA	142.14	278	iPKPc	58	31.70	-4.8X
LON	82.02	34	P	51	24.40	-0.5					sP	53	32.00			ELO	142.71	7	ePKP	58	32.00	-4.3X
GMW	82.03	33	P	51	25.10	0.3					iSKS	02	19.00			EDU	142.71	7	ePKP	58	32.00	-4.3X
KGM	82.04	275	ePd	51	26.30	0.7		BTO	91.13	313	P	52	01.50	-7.7X			0.5s		19.00nm			
SVW	82.05	10	eP	51	24.00	-0.7					PP	55	48.00			EAB	142.91	8	ePKP	58	32.50	-4.1X
QIZ	82.34	293	P	51	27.20	0.2					SKS	02	20.00			EBH	142.95	7	ePKP	58	32.40	-4.3X
			eS	01	19.00						S	02	50.00				0.4s		23.00nm			
			sS	02	58.00			CHTO	91.85	289	iPd	52	14.00	1.2		OASM	143.24	288	iPKPd	58	35.70	-2.5
PGC	82.41	32	eP	51	27.00	0.3			1.2s		114.58nm			5.8mb		EAU	143.35	7	ePKP	58	33.10	-4.3X
	0.7s		57.00nm			5.4mb					e	53	16.00	255kmX		EKA	143.89	7	PKPd	58	35.70	-2.6
DL2	82.48	316	Pd	51	28.00	0.7		CD2	92.01	302	P	52	14.20	0.8			1.1s		42.30nm			
	4.0s		1.50nm			3.1mb X		INK	92.88	15	iPc	52	16.00	-0.5		DMU	144.71	11	iPKPc	58	38.70	-1.1
			eS	01	26.50			LZH	93.83	307	iPd	52	23.00	1.2			0.6s		74.00nm			
HTW	82.72	33	P	51	26.00	-2.4X			4.0s		565.00nm			6.0mb X		AAE	144.93	258	iPKP	58	43.00	1.3
SNY	82.83	319	iPd	51	29.00	0.0		Z	34s		1.10um			5.1MszX		DCN	145.17	12	iPKPc	58	40.20	-0.3
	4.0s		1.90nm			3.2mb X					PP	56	09.00				0.8s		137.00nm			
			pP	52	24.00	227km					SKS	02	33.00			DLE	145.36	11	iPKPc	58	40.90	0.0
			sP	52	49.00						eS	03	15.00				0.9s		288.00nm			
			iS	01	28.00			YKA	94.85	24	eP	52	25.80	0.2		VAL	145.80	16	iPKP	58	42.30	0.7
			sS	03	00.00			FFC	96.86	34	eP	52	34.00	-0.9					e	59	40.00	
CN2	82.83	321	iPd	51	29.80	0.8			2.0s		108.00nm			5.8mb		ETA	145.99	11	iPKPc	58	43.00	1.1
	4.5s		2.10nm			3.2mb X		GTA	97.97	309	iPd	52	40.80	0.4			0.8s		212.00nm			
			pP	52	22.00	215kmX			1.4s		0.10nm			3.0mb X		ECB	146.19	12	iPKPc	58	43.50	1.2
			sP	52	43.00			ZOBO	100.54	111	Pdiff	52	54.50	1.3X			0.9s		304.00nm			
			iS	01	27.00			Z	20s		0.29um			4.8Msz		ECP	146.45	12	ePKP	58	42.70	0.0
MAW	83.09	199	eP	51	31.80	1.8					S	57	10.00				0.8s		167.00nm			
WHN	83.55	305	iPd	51	34.00	1.1					LR	03	24.00			WIT	146.78	357	ePKP	58	45.00	1.8
	4.0s		1.30nm			3.0mb X		MBC	101.48	12	ePdiff	52	55.00	-0.3X		CLI	147.09	330	ePKPd	58	47.50	3.5X
			S	01	34.00			PKI	106.30	294	Pdiff	53	18.40	0.1X		KRA	147.10	341	ePKP	58	33.60	-10.2X
PMR	83.68	12	P	51	32.10	-0.8		PKI	106.30	294	PKP	57	39.80	11.0X					e	58	46.10	
	0.5s		13.43nm			5.0mb			0.6s		16.00nm								i	58	55.50	
			pP	52	27.50	229km		KKN	106.46	294	Pdiff	53	19.20	0.4X		PPE	147.18	329	ePKPc	58	48.50	4.4X
TTA	83.72	9	eP	51	33.40	0.2		KKN	106.46	294	PKP	57	36.40	7.4X		PTT	147.22	331	ePKP	58	46.00	1.9
TIA	84.17	312	P	51	36.40	0.5			0.7s		37.00nm					KSP	147.36	346	ePKPd	58	44.70	0.5
	4.0s		1.00nm			3.0mb X		DMN	106.57	294	Pdiff	53	19.90	0.5X			1.0s		95.00nm			
			epP	52	31.00	225km		DMN	106.57	294	PKP	57	37.20	8.0X					id	58	47.70	
			S	01	38.40			GKN	107.07	294	PKP	57	29.00	-1.0					id	58	57.50	
			esS	03	16.00				0.4s		11.00nm								ic	59	45.60	
DAU	84.63	44	P	51	38.80	0.3		WMQ	107.86	311	Pdiff	53	25.00	0.5X					ic	02	06.00	
PNT	84.78	33	iPc	51	39.00	0.3					SKS	03	44.00			LWI	147.50	231	iPKPc	58	49.90	4.1X
	0.8s		88.00nm			5.6mb		HYB	109.95	282	ePKP	57	34.00	-1.5		DBN	147.54	359	ePKP	58	50.00	5.6X
IPM	85.06	277	ePd	51	41.40	0.5		ALE	112.32	7	ePKP	57	37.00	-1.2		CLL	147.59	350	iPKP	58	44.90	0.4
	0.8s		427.20nm			6.3mb			0.8s		8.00nm						1.2s		155.00nm			
HPI	85.21	40	P	51	41.80	0.5		KSH	116.01	305	ePKP	57	43.00	-3.7X					i	58	48.30	
ALQ	85.26	50	iPc	51	42.60	0.9		BAO	117.92	121	ePKP	57	48.00	-2.9X					pPKP	59	44.90	
	0.9s		85.50nm			5.5mb		AVY	122.63	231	ePKP	58	01.50	1.6		WTS	147.59	357	ePKP	58	45.00	0.5
			epP	52	37.20	224km		MAIO	129.02	301	ePKP	58	12.00	0.3		CFR	147.65	327	ePKPd	58	48.50	3.7X
PSI	86.40	274	ePd	51	47.60	0.2		KHI	129.82	298	ePKPc	58	13.30	-0.1		BRG	147.83	348	iPKP	58	45.00	0.0

			i	58	48.50		KHL	151.15	316	iPKP	58	56.60	6.0X				e	59	26.00				
			i	58	58.60		DIM	151.20	326	ePKP	58	57.00	6.6X	SDI	156.47	342	PKP	58	57.30	-0.5
			epPKP	59	45.00		LPF	151.32	7	ePKP	58	50.60	0.3	MGR	157.30	337	PKP	58	57.20	-1.6
			e	59	51.00		VITF	151.40	357	PKP	58	51.70	1.3	TDS	157.41	335	PKP	58	59.00	0.1
			e	01	59.00		KDZ	151.54	325	iPKPd	58	58.00	7.1X	GUD	157.84	17	ePKP	59	01.20	1.6
			e	21	04.00		KBA	151.57	347	ePKPd	58	50.00	-1.0	TOL	158.58	17	iPKP	59	01.00	0.7
VRI	147.86	330	ePKPd	58	49.00	3.8X		0.7s		51.60nm				EVIA	160.16	16	e(PKP)	59	03.80	1.7
BMR	147.87	335	ePKPd	58	39.00	-6.1X				id	58	56.60		EBAN	160.25	19	e(PKP)	59	03.20	1.1
BRD	147.96	329	ePKPd	58	47.50	2.2X				i	59	10.50		LIJA	160.83	24	ePKP	59	05.50	2.7X
BBTK	148.21	316	iPKPd	58	46.00	-0.1				ipPKP	59	58.50		AAPN	160.92	21	ePKP	59	03.00	0.1
MOX	148.45	351	iPKP	58	50.00	4.0X				e(PP)	02	28.00		ALJ	160.95	25	ePKP	59	05.50	2.5X
	2.0s		196.00nm							i	02	36.50		ALOJ	161.11	21	ePKP	59	03.70	0.5
			epPKP	59	45.00					e	02	51.00		AFC	161.16	19	e(PKP)	59	03.80	0.6
			e	59	53.00					e	16	44.50		EJIF	161.20	25	e(PKP)	59	06.20	3.1X
			esPKP	00	10.00		PLD	151.59	327	ePKP	58	58.00	7.0X	MOMI	161.21	25	ePKP	59	06.00	2.9X
			ePP	02	20.00		HAU	151.60	357	ePKP	58	51.00	0.2	ATEJ	161.32	21	ePKP	59	03.50	0.1
			epPP	03	29.00		FEL	151.61	355	PKP	58	52.11	1.1	PLAT	161.37	26	ePKP	59	07.00	3.7X
			esPP	15	30.00		MOF	151.70	356	PKP	58	52.07	1.0	APHE	161.39	20	ePKP	59	03.00	-0.4
			eSS	21	10.00		ELL	151.71	313	ePKP	58	58.10	6.6X	AVE	162.88	35	iPKPd	59	06.50	1.6
			esSS	22	40.00		BSF	151.75	356	PKP	58	52.21	1.0				i	59	56.30	
MOX	148.45	351	ePKPd	58	46.00	0.0	RDO	151.82	324	ePKP	58	58.10	6.8X	TAF	163.76	20	iPKPd	59	08.00	2.2X
	1.8s		62.00nm				PTJ	152.01	342	ePKP	58	51.80	0.2				i	59	56.00	
MLR	148.51	330	ePKPc	58	47.00	0.6	BBS	152.06	355	PKP	58	53.23	1.7	IFR	163.85	29	iPKPc	59	08.00	1.9
PRU	148.56	347	ePKPc	58	46.10	0.0	ZAG	152.08	342	ePKP	58	53.50	2.0				i	00	01.00	
			i	58	50.80		RBL	152.12	346	PKP	58	52.00	0.3	LIC	163.99	145	PKPd	59	06.34	-0.2
PSN	148.66	325	iPKPd	58	53.00	6.5X	FVI	152.15	347	PKP	58	51.30	-0.3	KIC	164.26	145	PKPd	59	06.58	-0.2
HRI	148.74	302	iPKPd	58	52.50	5.4X	LOMF	152.22	356	PKP	58	53.46	1.6		1.1s		89.00nm			
ENN	148.86	358	ePKP	58	47.00	0.4	LOR	152.39	0	ePKP	58	52.60	0.6	TIC	164.35	144	PKPd	59	06.68	-0.1
UCC	148.86	360	PKPc+	58	51.20	4.6X	IZM	152.56	318	ePKP	58	59.30	6.7X		1.2s		131.00nm			
			e	59	51.00		SSF	152.59	1	ePKP	58	53.00	0.7	TIO	164.72	40	iPKPd	59	08.70	1.8
PSZ	148.98	339	ePKP	58	47.60	0.6	YER	152.62	315	ePKP	59	00.00	7.3X				i	00	04.90	
MEM	149.01	358	PKP	58	46.80	0.0	PRK	152.65	320	ePKP	59	08.70	16.1X	LEGH	165.52	163	ePKP	59	08.00	0.2
			e	58	51.30		LBF	152.68	0	ePKP	58	53.00	0.6				e	00	07.00	
CMP	149.10	331	ePKPd	58	53.00	5.8X	TRI	152.77	345	iPKPc	58	52.40	-0.1	SHGH	165.82	163	ePKP	59	08.00	0.0
SNF	149.15	360	PKP	58	48.30	1.3				i	59	00.00					e	00	10.00	
			e	58	52.30					i	59	10.00		KOGH	165.91	162	ePKP	59	08.50	0.3
			e	59	07.30					i	59	58.50					e	00	10.00	
WAJH	149.48	288	iPKPd	58	54.10	5.8X				e	04	12.00		KUK	165.97	161	ePKP	59	08.50	0.3
FAM	149.50	306	ePKP	58	53.00	5.0X				e	12	30.00					e	00	11.00	
DSI	149.52	299	ePKP	58	49.00	0.8	MFF	152.83	6	ePKP	58	52.80	0.2		S.D. = 0.9		on 257 of 362 obs.			
GPA	149.54	318	iPKP	58	53.20	5.2X	AVF	152.86	1	ePKP	58	52.60	0.0	---						
DEV	149.56	334	iPKPd	58	49.00	1.2	CTI	152.90	348	PKP	58	52.70	-0.2	*	MAR 30, 1989		20h 54m 11.99± 2.31s			
DOU	149.56	359	PKP	58	48.50	0.8	SMF	153.01	0	ePKP	58	53.00	0.1		36.563 N ±18.2km			70.882 E ±16.3km		
			i	58	53.00		BGF	153.08	2	ePKP	58	53.30	0.3		DEPTH = 169.5 ± 27.9 km					
			e	59	54.70		VAY	153.25	328	ePKP	58	52.60	-0.7		4.2mb (2 obs.)					
KHC	149.57	348	iPKPd	58	48.50	0.7				i	59	11.60			HINDU KUSH REGION					(718)
			i	58	53.50		AWAL	153.30	283	ePKP	59	02.00	8.1X							
SRO	149.58	341	ePKP	58	53.90	6.1X	SKO	153.30	330	iPKP	58	53.00	-0.4	QUE	7.16	208	iPc	55	55.40	0.1
			i	59	50.90					i	59	14.80					eS	57	13.30	
ZST	149.59	343	ePKP	58	48.20	0.4	LSF	153.32	4	ePKP	58	53.50	0.2	MAIO	9.18	272	eP	56	22.00	0.0
			i	58	53.80		TCF	153.32	3	ePKP	58	53.80	0.5	NDI	9.50	144	iPd	56	26.00	0.0
			i	59	51.90		PLG	153.49	326	ePKP	59	01.20	7.4X		0.5s		45.77nm			5.2mb X
AYN	149.60	294	iPKPd	58	54.10	5.7X	VAI	153.52	353	PKP	58	52.90	-0.6				eS	58	03.50	
HRT	149.63	320	iPKP	58	52.10	4.0X	SAL	153.52	350	PKP	59	01.50	8.0X	HYB	20.24	158	eP	58	09.00	-26.8X
VKA	149.74	344	ePKPd	58	47.00	-1.0	AGO	153.59	2	PKP	58	54.00	0.3				eS	04	52.00	
	3.0s		336.00nm				PLDF	153.69	1	PKP	58	54.12	0.2	GBA	23.61	164	Pd	59	08.40	-0.2
			id	58	54.00		ORX	153.84	354	PKP	59	02.19	8.0X		0.6s		5.30nm			4.3mb
			ipPKP	59	52.30		PYM	153.89	2	PKP	58	54.76	0.6	NAO	44.44	323	P	02	06.90	-0.3
LFK	149.75	307	ePKP	58	53.00	4.5X	LPG	154.07	356	ePKP	58	55.30	0.6		0.7s		5.30nm			4.2mb
GBZT	149.78	320	iPKPd	58	52.80	4.5X	LSD	154.08	355	PKP	59	04.04	9.3X	MBC	67.28	3	eP	04	49.00	-0.6
ISK	149.85	321	iPKP	58	52.60	4.2X	RJF	154.26	4	ePKP	58	55.30	0.7	YKA	81.19	3	eP	06	10.40	1.0
WLF	149.95	357	PKP	58	49.30	1.1	OHR	154.27	330	ePKP	58	55.00	0.2		S.D. = 0.7		on 7 of 8 obs.			
			ec	58	54.30			1.4s		0.07nm				---						
			e	59	52.70		HVAR	154.31	339	iPKP	59	03.20	8.5X		MAR 30, 1989		21h 13m 27.32± 0.83s			
YLV	149.96	320	iPKP	58	53.60	4.9X	EMON	154.34	20	iPKPd	59	03.80	9.0X		35.363 N ± 8.3km			22.728 E ± 4.7km		
CSS	150.02	307	ePKP	58	54.00	5.1X	RSP	154.38	355	PKP	59	03.01	8.1X		DEPTH = 63.1 ± 8.7 km					
DMK	150.13	323	ePKP	58	54.60	5.8X	LBL	154.42	1	PKP	58	55.46	0.7		MEDITERRANEAN SEA					(400)
CTT	150.17	321	iPKP	58	53.60	4.7X	STS	154.42	22	e(PKP)	59	04.00	9.1X		MD 3.8 (ATH).					
BZS	150.30	335	ePKPd	58	49.00	0.1	BOB	154.51	351	PKP	58	52.90	-2.1							
HQL	150.34	295	iPKPd	58	56.00	6.5X	BNI	154.52	356	PKP	59	03.20	8.1X	VAM	1.20	87	ePn	13	49.00	0.6
MBH	150.38	296	ePKPd	58	49.50	0.0	LFF	154.56	6	ePKP	58	55.60	0.6	ITM	1.93	341	ePb	14	02.90	4.5X
KMR	150.47	346	iPKP+	58	55.70	6.6X	RRL	154.65	356	PKP	59	05.47	10.0X	NPS	2.36	92	ePn	14	05.60	1.1
			i	59	07.60		CAF	154.68	3	ePKP	58	55.90	0.7	ATH	2.72	17	ePn	14	12.00	2.5
			ipPKP	59	54.20		LPO	154.86	5	ePKP	58	56.10	0.7	VLS	3.29	329	ePn	14	18.70	1.1
			i	00	16.40		SFI	154.90	347	PKP	58	56.00	0.6	KAP	3.64	86	ePn	14	21.70	-0.7
			ePP	02	30.00		GEN	154.92	352	PKP	59	03.90	8.5X	NEO	3.96	6	ePn	14	28.30	1.4
GWF	150.55	355	PKP	58	49.85	0.6	PGD	154.97	347	PKP	58	55.90	0.1	YER	4.83	67	ePn	14	39.00	-0.2
FLN	150.66	6	ePKP	58	49.60	0.2	ARV	155.04	345	PKP	58	56.20	0.5	KZN	4.99	352	ePn	14	42.10	0.5
KCT	150.77	320	iPKP	58	55.10	5.3X				e	59	22.00		PLG	5.03	6	ePn	14	41.90	-0.2
PPCY	150.80	307	ePKP	58	56.00	6.0X	CRE	155.15	346	PKP	58	55.50	-0.5	KSL	5.63	80	ePn	14	48.90	-1.5
LDF	150.86	6	ePKP	58	49.80	0.1	FIR	155.16	348	ePKP	58	55.00	-0.8	OHR	5.94	346	ePn	14	54.30	-0.4
BCK	150.88	313	iPKP	58	54.40	4.2X	ROB	155.17	354	PKP	59	04.76	8.8X	VAY	5.95	359	ePn	14	53.50	-1.4
BNT	150.97	321	iPKP	58	56.20	6.1X	FIN	155.22	353	PKP	59	06.19	10.2X	ELL	5.98	75	iPn	14	54.10	-1.3
GRR	150.99	7	ePKP	58	50.20	0.3	ASS	155.52	345	PKP	58	56.00	-0.5	SOI	6.00	299	P	14	55.10	-0.5
DST	150.99	319	iPKP	58	56.60	6.4X				e	59	23.00					eSn	15	59.80	
EDC	151.01	321	iPKP	58	56.00	5.8X	IMI	155.55	353	PKP	59	05.68	9.2X	RDO	6.18	20	ePn	14	58.00	-0.1
CDF	151.14	356	PKP	58	50.99	0.8	MNS	156.16	344	PKP	58	57.50	0.2	KKB	6.50	2	eP	15	01.00	-1.5

30d 21h

RZN	6.50	13	ePd	15 03.00	0.2
MEU	6.54	288	P	15 03.30	0.2
			eSn	16 14.10	
KDZ	6.62	18	iPd	15 04.00	-0.2
TDS	6.65	312	P	15 04.80	0.2
SKO	6.68	352	ePn	15 02.00	-3.0X
			i	16 15.00	
BRT	7.02	323	P	15 08.70	-1.0
MGR	7.41	312	P	15 14.60	-0.6
SGO	7.82	314	P	15 21.20	0.4
			eSn	16 46.10	
KHC	15.32	337	eP	17 08.00	7.0X
GKN	52.45	80	PKP	22 36.40	0.3
DMN	53.00	80	PKP	22 40.60	0.4
KKN	53.06	80	PKP	22 40.90	0.3
PKI	53.26	80	PKP	22 42.60	0.4
GUN	53.49	79	PKP	22 44.10	0.2
ASPA	120.04	99	ePdiff	28 41.50	5.2X

S.D. = 1.0 on 28 of 32 obs.

% MAR 30, 1989 21h 51m 19.65± 2.62s
37.644 N ±18.2km 17.482 E ±17.8km
DEPTH = 10.0km (geophysicist)
IONIAN SEA (399)

SOI	1.21	291	Pd	51 42.60	0.5
			eSg	51 55.70	
ATN	1.68	289	P	51 49.50	0.3
			eSg	52 06.80	
MEU	2.10	256	P	51 55.10	-0.3
			eSg	52 17.70	
TDS	2.20	336	P	51 56.80	0.0
MNO	2.23	278	P	51 57.40	0.1
			eSg	52 21.40	
LCI	2.71	8	P	52 05.00	1.0
MGR	2.91	329	P	52 06.10	-0.7
			eSn	52 36.70	
BRT	3.24	356	P	52 10.70	-0.8

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

MAR 30, 1989 22h 03m 43.33± 0.36s
41.852 N ± 3.4km 19.743 E ± 3.4km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
MD 2.6 (TTG).

LACI	0.22	187	iPgc	03 48.00	0.0
PUK	0.22	30	iPg	03 49.10	1.0
ULC	0.38	287	iPgd	03 51.30	0.1
			iSg	03 58.50	
TIR	0.51	170	iPgc	03 54.50	0.8
KKS	0.55	66	iPg	03 54.20	-0.2
PHP	0.55	107	iPgc	03 53.30	-1.1
BCI	0.57	25	iPgd	03 54.30	-0.5
TTG	0.68	328	ePg	03 56.20	-0.6
			eSg	04 08.50	
PVY	0.76	13	iPgd	03 57.80	-0.5
			eSg	04 10.50	
BDV	0.81	303	ePg	04 00.00	1.0
			eSg	04 14.00	
IVA	1.03	6	ePg	04 02.50	-0.3
			eSg	04 19.00	
OHR	1.08	133	ePg	04 03.30	-0.5
			eSg	04 19.50	
HCY	1.10	303	iPgd	04 04.40	0.4
			iSg	04 20.50	
NKY	1.11	330	ePg	04 04.00	-0.2
			eSg	04 22.20	
SKO	1.27	84	iPn	04 07.50	0.6
			iSn	04 25.50	
BRY	1.37	320	ePg	04 09.40	0.8
			eSg	04 30.00	
KBN	1.47	146	ePn	04 11.30	1.5
PLE	1.50	350	ePg	04 11.00	0.6
			eSg	04 33.50	
TPE	1.57	172	ePn	04 16.00	4.7X
LSK	1.82	159	ePn	04 18.30	3.3X
LCI	2.03	222	P	04 14.30	-3.7X
			eSn	04 18.70	
BRT	2.15	244	P	04 21.20	1.6
			eSg	04 46.00	
VAY	2.19	103	ePn	04 20.00	-0.2
SGO	3.59	250	P	04 37.80	-2.3
MGR	3.60	243	P	04 38.80	-1.6
BZS	4.00	19	ePc	04 45.50	-0.4

S.D. = 1.0 on 23 of 26 obs.

? MAR 30, 1989 22h 48m 37.82± 5.26s
45.139 N ±46.9km 3.134 E ±46.4km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.1 (LDG).

CAF	0.79	255	Pg	48 53.20	0.0
			Sg	49 04.50	
BGF	1.43	352	Pg	49 03.20	-0.7
			Sg	49 21.40	
SMF	1.59	18	Pg	49 05.20	-0.8
			Sg	49 26.00	
SSF	1.94	8	Pg	49 12.60	1.4
			Sg	49 36.00	

S.D. = 1.8 on 4 of 4 obs.

% MAR 30, 1989 23h 20m 18.71± 0.68s
39.331 N ± 5.6km 28.994 E ± 6.8km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.39	314	iPg	20 26.60	-0.2
			iSg	20 32.60	
KCT	1.04	332	iPn	20 38.10	-0.3
KHL	1.09	157	iPn	20 38.20	-1.0
YLV	1.27	13	iPn	20 42.10	-0.2
BNT	1.32	321	iPn	20 42.60	-0.4
EDC	1.34	320	iPn	20 43.00	-0.3
GPA	1.39	46	ePn	20 44.80	0.6
HRT	1.58	19	iPn	20 47.40	0.6
IZM	1.64	236	ePn	20 49.00	1.3
EZN	2.12	284	ePn	20 48.00	-6.6X

S.D. = 0.8 on 9 of 10 obs.

MAR 31, 1989 00h 44m 13.84± 0.69s
31.869 N ± 3.9km 37.535 E ± 3.7km
DEPTH = 27.9 ± 5.9 km
4.6mb (14 obs.)
JORDAN - SYRIA REGION (374)
Felt in Jordon and in the Jordan-Soudi Arabia-Israel border region.

GLH	1.80	298	iP	44 43.60	0.2
ZNT	2.16	280	iP	44 48.30	-0.3
PRNI	2.65	236	iP	44 55.90	0.2
MBH	3.10	228	iP	45 01.80	-0.2
AYN	3.27	204	ePc	45 04.50	0.1
HQL	3.36	220	iPc	45 05.70	0.0
SRFA	3.56	215	iPc	45 08.70	0.1
BADA	3.99	214	ePc	45 13.80	-0.8
FAM	4.30	318	eP	45 25.00	6.1X
CSS	4.68	312	eP	45 22.50	-1.9
			eSn	46 27.00	
LFK	4.77	317	ePn	45 31.00	5.3X
PPCY	5.28	306	ePn	45 32.00	-0.9
			eSn	46 46.00	
HLW	5.69	251	ePn	45 44.00	5.3X
			S	46 26.00	
WAJH	5.74	189	iPc	45 37.80	-1.5
BHD	5.95	75	iPnd	45 42.00	-0.3
			iPg	46 04.00	
			iSn	46 43.00	
			iSg	47 13.00	
MSL	6.47	44	iPnc	45 47.50	-2.2
			iPg	46 13.00	
			iSn	46 48.00	
			i	47 02.00	
			iS*	47 09.00	
			iSg	47 20.00	
SLY	7.61	59	ePnd	46 02.00	-3.6X
			e	46 19.00	
OASM	7.79	136	ePc	46 08.00	-0.3
KSL	7.85	305	ePb	46 14.50	5.6X
ELL	7.97	310	eP	46 16.00	5.2X
BCK	7.99	316	eP	46 12.50	1.5
ASW	8.78	209	eP	46 23.00	1.1
			S	48 32.00	
BBTK	8.85	335	ePn	46 24.00	1.0
			ePg	46 38.00	
BBTK	8.85	335	eP	46 28.00	5.0X
AKSR	9.12	207	eP	46 31.50	4.9X
KHL	9.19	317	eP	46 26.70	-1.0
AKRL	9.23	209	eP	46 32.00	4.0X
YER	9.27	307	eP	46 32.20	3.5X
KAP	9.38	296	ePb	46 33.20	3.0X
AGMR	9.40	209	eP	46 31.00	0.5

TAB	9.50	47	eP	46 26.00	-6.0X
NPS	10.51	292	ePn	46 48.80	3.1X
DST	10.58	319	eP	46 50.00	3.3X
IZM	10.63	311	eP	46 44.00	-3.5X
RYD	10.70	129	iPc	46 48.50	0.1
VAM	11.66	291	ePb	47 11.20	9.8X
EZN	12.06	314	eP	47 09.00	2.2
TEH	12.15	68	eP	47 04.00	-4.1X
KMSA	13.04	150	eP	47 19.30	-0.7
ITM	13.91	297	ePb	47 34.10	2.8
KZN	15.26	308	ePb	47 54.00	5.0X
VAY	15.26	312	eP	47 54.50	5.6X
LSK	15.98	306	eP	48 01.20	2.8X
SRN	16.29	304	eP	48 04.80	2.7
OHR	16.29	309	eP	48 03.00	0.7
	1.2s		0.07nm		1.7mb X
VRI	16.30	332	eP	48 02.00	-0.2
MLR	16.31	330	eP	48 04.00	1.5
SKO	16.33	313	iP	48 04.00	1.4
TPE	16.45	306	eP	48 06.80	2.6
PHP	16.81	310	eP	48 09.30	0.6
LACI	17.27	309	ePn	48 16.50	2.1
SDA	17.59	310	eP	48 17.60	-0.8
KHI	17.85	77	e(P)	48 21.00	-0.9
DEV	18.00	325	iPc	48 22.00	-1.5
BZS	18.46	323	eP	48 29.00	-0.2
MAIO	18.71	70	iPc+	48 33.00	0.6
	1.0s		15.00nm		4.1mb
			eS	52 08.00	
PSZ	20.90	325	eP	48 55.00	-1.4
SRO	21.62	323	eP	49 03.30	-0.2
PTJ	21.78	316	eP	49 04.70	-0.6
VBY	21.99	315	eP	49 07.00	-0.3
KRA	22.41	329	eP	49 10.10	-1.3
			e	49 17.10	
ZST	22.49	322	eP	49 12.10	-0.1
CEY	22.61	314	e(P)	49 14.60	1.1
LJU	22.70	315	e(P)	49 14.00	-0.3
TRI	23.00	314	iPc	49 18.10	0.9
VOY	23.08	315	eP	49 17.50	-0.7
KBA	23.94	316	eP	49 26.50	0.0
	1.3s		18.80nm		4.5mb
KSP	24.62	327	eP	49 33.00	0.1
KHC	24.92	321	Pc	49 36.30	0.5
	1.2s		20.00nm		4.6mb
PRU	24.92	323	iPd	49 36.00	0.2
	1.2s		39.60nm		4.9mb
QUE	25.23	86	iPc	49 39.80	0.6
BRG	25.77	324	eP	49 43.70	-0.1
	1.2s		36.00nm		4.9mb
			e	49 59.00	
			e	50 15.00	
CLL	26.51	324	eP	49 49.00	-1.6
	1.1s		10.00nm		4.4mb
			e	50 12.00	
MOX	26.83	322	eP	49 54.00	0.5
	1.3s		34.00nm		4.8mb
			e	49 57.00	
LPG	27.43	309	eP	49 59.30	-0.1
	0.8s		6.70nm		4.4mb
NUR	29.89	347	eP	50 07.00	-14.0X
Z	17s		0.20um		3.8MszX
			e	50 22.00	
			LR	05 10.00	
SSF	30.06	310	eP	50 21.60	-1.1
	0.8s		3.20nm		4.2mb
SUF	31.72	350	iP	50 35.40	-1.7
KSH	31.95	65	eP	50 40.90	1.3
HFS	32.39	338	eP	50 40.90	-2.1
	0.8s		7.20nm		4.6mb
Z	17s		0.20um		3.9MszX
			LR	04 10.00	
LDF	32.85	312	eP	50 45.70	-1.4
FLN	33.12	312	eP	50 46.90	-2.6X
GRR	33.26	311	eP	50 48.90	-1.8
NAO	33.85	337	P	50 53.90	-1.8
	0.9s		5.50nm		4.5mb
SOD	36.12	353	iP	51 15.60	0.6
HYB	39.72	101	eP	51 47.00	1.3
GKN	40.75	83	Pc	51 56.00	1.7
WMQ	40.79	58	iPc	51 55.00	0.6
DMN	41.27	83	Pc	52 00.50	1.8
KKN	41.36	83	Pc	52 01.10	1.7
PKI	41.54	83	Pc	52 02.50	1.5
GUN	41.83	82	Pc	52 05.10	1.7
KIC	46.88	246	P	52 43.20	-0.5
GTA	50.29	63	iPc	53 10.60	0.5

LZH	54.19	66	eP	53 39.00	-0.3
CHG	56.35	88	eP	53 54.10	-0.9
	1.1s	12.97nm		4.9mb	
CHTO	56.35	88	eP	53 53.40	-1.6
	1.0s	9.50nm		4.8mb	
BTO	57.62	59	eP	54 04.00	0.3
HHC	58.67	59	Pd	54 12.00	0.9
GYA	59.70	76	P	54 17.00	-1.5
TIY	60.27	62	eP	54 22.50	0.4
NJ2	67.26	66	Pc	55 07.80	-0.2
FRB	68.55	333	eP	55 14.00	-1.6
MBC	71.17	354	eP	55 31.00	-0.4
IMA	82.00	5	P	56 31.00	-1.3
	0.6s	1.23nm		4.1mb	
S.D. = 1.2 on 83 of 105 obs.					

? MAR 31, 1989 01h 02m 45.55± 4.02s
31.882 N ±13.6km 37.234 E ±30.2km
DEPTH = 10.0km (geophysicist)
JORDAN - SYRIA REGION (374)
Felt in the Jordan-Soudi Arobio border orea.

BURJ	1.29	285	Pd	03 09.20	-0.3
MASJ	1.30	264	Pd	03 09.80	0.1
KFNJ	1.32	270	Pc	03 10.00	0.0
GLH	1.57	302	iP	03 13.50	0.1
ZNT	1.90	281	iP	03 18.50	0.2
			eS	03 50.00	
PRNI	2.46	232	iP	03 26.20	-0.1
S.D. = 0.2 on 6 of 6 obs.					

% MAR 31, 1989 02h 05m 16.70± 1.58s
45.305 N ± 7.9km 0.957 W ±13.8km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 3.1 (LDG).

LFF	1.26	106	Pn	05 40.40	0.4
			Pg	05 41.30	
			Sg	05 57.00	
MFF	1.42	23	Pn	05 44.00	1.5
			Pg	05 45.00	
			Sg	06 04.30	
LPO	1.64	111	Pg	05 47.40	1.7
			Sg	06 08.80	
RJF	1.75	89	Pg	05 49.00	1.8
			Sg	06 11.20	
LSF	1.98	61	Pn	05 51.40	0.8
			Pg	05 54.40	
			Sn	06 14.80	
			Sg	06 20.00	
CAF	2.17	99	Pn	05 53.00	-0.4
			Pg	05 58.80	
			Sg	06 24.60	
TCF	2.42	65	Pn	05 57.00	0.0
			Sn	06 24.60	
			Sg	06 33.20	
EPF	2.46	157	Pn	05 56.50	-1.0
			Pg	06 04.20	
			Sg	06 34.00	
LPF	2.73	359	Pg	06 09.00	7.7X
			Sn	06 34.80	
			Sg	06 45.20	
BGF	2.93	63	Pn	06 03.80	-0.4
			Pg	06 12.60	
			Sn	06 36.40	
			Sg	06 50.60	
GRR	3.09	1	Pn	06 06.40	0.1
			Pg	06 16.20	
			Sg	06 56.40	
LDF	3.34	10	Pg	06 21.20	11.2X
			Sn	06 48.40	
			Sg	07 04.00	
AVF	3.35	62	Pn	06 09.20	-0.9
			Sn	06 47.60	
			Sg	07 02.00	
FLN	3.47	5	Pn	06 23.60	11.8X
			Sn	06 52.00	
			Sg	07 08.00	
SSF	3.56	59	Pn	06 12.80	-0.4
			Pg	06 24.20	
			Sn	06 52.00	
			Sg	07 09.80	
SMF	3.60	66	Pn	06 12.20	-1.6
			Sg	07 10.40	
LBF	3.82	62	Pn	06 16.40	-0.5
			Pg	06 29.50	
			Sn	06 58.20	
			Sg	07 17.00	
LOR	3.87	58	Pn	06 16.60	-1.0
			Pg	06 30.40	
			Sn	06 59.40	
			Sg	07 19.00	
S.D. = 1.1 on 15 of 18 obs.					

MAR 31, 1989 02h 15m 27.99± 0.76s
44.226 N ± 6.7km 11.950 E ± 5.0km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
MD 2.6 (FIR).

SFI	0.31	193	Pd	15 34.50	0.0
			eSg	15 39.40	
PGD	0.39	205	Pc	15 35.50	-0.5
			eSg	15 40.80	
RSM	0.47	129	P	15 38.70	1.2
CRE	0.60	180	P	15 38.50	-1.6
			eSg	15 47.00	
FIR	0.67	228	ePg	15 41.00	-0.3
			eSg	15 52.00	
MME	0.90	268	P	15 47.20	1.8
BDI	0.99	261	P	15 47.70	0.9
			eSg	16 02.00	
ARV	1.02	135	P	15 47.20	-0.1
			eSg	16 03.60	
PII	1.15	244	P	15 48.70	-0.7
			eSg	16 04.30	
ASS	1.26	156	P	15 51.60	0.1
			eSg	16 08.40	
CIO	1.35	140	e(Pg)	15 53.31	0.5
			e(Sg)	16 13.85	
AOI	1.37	119	e(Pg)	15 53.32	0.1
			e(Sg)	16 13.44	
CTI	1.83	353	P	15 58.40	-1.5
			eSg	16 20.00	
TRI	1.96	40	iPd	16 04.10	2.5X
			i	16 23.70	
			i	16 32.50	
KBA	3.02	18	eP	16 25.00	8.2X
	0.6s	3.70nm			
			e	16 29.00	
			i	16 31.20	
			e(Sn)	16 50.50	
			i	16 52.80	
			i	17 07.20	
			i	17 16.20	
KHC	5.03	12	eP	17 05.50	20.2X
S.D. = 1.1 on 13 of 16 obs.					

MAR 31, 1989 02h 58m 44.03± 1.32s
39.657 N ± 5.7km 9.360 W ±13.8km
DEPTH = 10.0km (geophysicist)
PORTUGAL (376)
MG 3.5 (MDD).

EZAM	2.54	11	ePn	59 26.00	0.1
			eSn	59 56.00	
EPLA	2.56	80	ePn	59 27.20	0.9
			eSn	59 57.50	
EVAL	2.91	134	ePn	59 30.50	-0.8
			eSn	00 04.00	
ERUA	3.21	31	ePn	59 35.30	-0.1
			eSn	00 12.00	
STS	3.28	10	ePn	59 37.00	0.5
			eSn	00 13.80	
EHOR	3.70	118	ePn	59 41.80	-0.7
			eSn	00 23.40	
GIBL	3.90	135	eP	59 50.00	4.7X
EMON	4.07	21	iPnc	59 47.10	-0.6
			eSn	00 32.70	
TOL	4.10	85	e(Pn)	59 49.00	0.9
			eSn	00 36.00	
			iSg	00 58.00	
GUD	4.11	74	iPnd	59 48.10	-0.3
			eSn	00 35.00	
LIJA	4.15	130	eP	59 50.00	1.1
CNIL	4.19	140	eP	59 49.50	0.1
ALJ	4.20	134	eP	59 50.00	0.4
EBAN	4.60	107	ePn	59 54.20	-1.0
			iSn	00 45.50	
EPF	8.04	62	Pn	00 43.20	-0.5
			Sn	02 11.60	
LFF	9.16	52	Pn	00 57.20	-1.9X
LPO	9.30	54	Pn	00 59.00	-2.1X
MFF	9.67	41	Pn	01 03.60	-2.5X
RJF	9.81	51	Pn	01 05.80	-2.4X
CAF	9.96	54	Pn	01 07.80	-2.5X
LSF	10.34	47	Pn	01 12.80	-2.7X
TCF	10.75	48	Pn	01 18.00	-3.1X
BGF	11.27	48	Pn	01 25.30	-2.8X
SSF	11.93	47	Pn	01 34.30	-2.7X
DOU	14.36	39	P	02 07.30	-1.9X
S.D. = 0.7 on 14 of 25 obs.					

? MAR 31, 1989 03h 23m 15.65± 7.08s
46.276 N ±45.4km 15.194 E ±28.6km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
MD 1.9 (TRI).

LJU	0.51	243	ePg	23 26.00	-0.1
			iSg	23 31.50	
CEY	0.76	225	e(Pg)	23 30.60	0.1
			eSg	23 39.00	
VBY	0.77	177	ePg	23 30.70	0.0
			eSg	23 45.20	
VOY	0.94	255	ePg	23 33.60	0.0
			eSg	23 45.10	
TRI	1.15	241	e(Pg)	23 40.30	3.2X
			iSg	23 52.00	
KBA	1.50	303	iPgd	23 49.30	6.5X
			iSg	24 06.30	
S.D. = 0.1 on 4 of 6 obs.					

* MAR 31, 1989 03h 33m 12.07± 0.74s
31.270 N ± 9.6km 66.873 E ± 8.4km
DEPTH = 10.0km (geophysicist)
4.2mb (4 obs.)
AFGHANISTAN (709)

QUE	1.08	176	iPd-	33 32.20	-0.3
			eS	33 46.00	
KHI	7.50	295	eP	34 59.00	-5.4X
MAIO	7.93	311	eP	35 11.00	0.8
			eS	37 22.00	
NDI	9.33	103	iPc	35 30.50	0.9
	0.4s	42.37nm		6.2mb X	
GKN	15.79	97	P	36 56.00	-0.2
DMN	16.30	98	P	37 03.40	0.6
KKN	16.39	98	P	37 03.60	-0.4
PKI	16.56	98	P	37 06.50	0.2
	0.8s	28.00nm		4.4mb	
GUN	16.87	97	P	37 10.20	0.0
HYB	17.40	140	eP	37 18.50	1.9
GBA	20.09	149	Pc	37 47.90	-0.7
	1.6s	26.40nm		4.3mb	
CHG	31.47	106	eP	39 34.00	-2.2
HFS	45.25	326	eP	41 35.20	4.1X
	0.4s	0.80nm		4.0mb	
NAO	46.79	326	P	41 42.80	-0.5
	0.9s	1.60nm		4.1mb	
S.D. = 1.1 on 12 of 14 obs.					

MAR 31, 1989 04h 00m 04.50± 0.71s
30.956 S ± 5.7km 116.924 E ± 8.2km
DEPTH = 10.0km (geophysicist)
WESTERN AUSTRALIA (590)

BAL	0.40	332	iPd	00 12.20	-0.4
			iS	00 16.70	
WA4	0.44	36	eP	00 14.00	0.6
			iS	00 20.50	
KLB	0.96	132	iPd	00 24.20	1.5
			iS	00 37.60	
MUN	1.19	211	iPd	00 26.40	-0.3
			iS	00 41.00	
MRWA	1.91	335	iPd	00 38.00	0.6
			iS	01 01.50	
NWAO	1.98	172	iPd	00 38.30	-0.2
			iS	01 06.20	
RKG	3.11	179	eP	01 07.00	12.6X
			eS	01 51.00	
COOL	3.63	90	eP	01 00.00	-1.9
			eS	01 43.20	
MEKA	4.55	18	eP	01 15.00	0.0
			eS	02 05.00	
FORR	9.60	92	eP	02 20.00	-5.7X
			eS	04 03.00	
WARB	9.78	63	eP	02 18.00	-10.2X
	0.3s	4.00nm			

31d 04h

```
                    iS    04 02.50
WB5    19.20  59 eP    04 26.50  -4.7X
     S.D. = 1.2  on   8 of  12 obs.
-----------------------------------------
&  MAR 31, 1989  04h 06m 58.43s
   60.162 N          152.782 W
   DEPTH = 110.0km  (geophysicist)
 SOUTHERN ALASKA                  (  2)
      <AGS-P>.

ILIM    0.12 227 iP    07 13.35   1.0
                 eS    07 25.71
RED     0.26   1 iP    07 13.68   0.9
                 S     07 26.57
RDT     0.45  24 iP    07 14.65  -0.7
                 eS    07 28.35
OPT     0.56 204 iP    07 15.31  -0.7
                 S     07 28.28
PDB     0.80 243 iP    07 17.00  -0.9
NKA     0.96  52 eP    07 20.40   0.9
                 S     07 35.77
CNPM    1.01 129 eP    07 19.37  -0.7
                 S     07 35.97
SPU     1.08  19 eP    07 20.06  -0.8
                 S     07 37.59
CRP     1.15  15 eP    07 21.13  -0.6
SLKM    1.32  74 eP    07 22.59  -0.9
      10 obs. associated
-----------------------------------------
*  MAR  31, 1989  05h 45m 58.11± 1.60s
    5.584 N ±13.0km   77.483 W ±20.4km
   DEPTH =  26.6 ±  8.8 km
   4.8mb (  2 obs.)  3.8Msz (  1 obs.)
 NEAR WEST COAST OF COLOMBIA      (102)

HOBC    1.82 132 eP    46 26.70  -1.5
CLMC    1.92 151 eP    46 29.50  -0.3
ANCC    2.15 163 eP    46 30.80  -2.1
DIAC    2.61 151 eP    46 40.50   0.8
PURC    3.43 161 eP    46 53.00   1.4
BOG     3.54 106 eP    47 02.00   9.0X
                 eS    47 48.00
PSO     4.37 178 eP    47 15.50  10.8X
ARE    22.69 165 eP    51 02.00   2.6
ZOBO   23.61 157 P     51 07.00  -1.6
     Z  20s      0.32um          3.8Msz
                 LR    59 16.00
LPB    23.85 157 P     51 05.50  -5.3X
                 LR    01 08.00
CCH    25.42 154 eP    51 25.00  -0.7
YKA    62.99 342 eP    56 24.90   0.2
TIC    72.00  85 P     57 22.04  -0.1
       0.9s      7.50nm          4.7mb
LIC    72.02  85 P     57 22.38   0.1
KIC    72.29  85 P     57 24.06   0.1
       0.9s     11.50nm          4.9mb
SHGH   76.99  85 eP    57 52.00   1.1
ASPA  144.85 236 iPKPc 05 33.80  -1.5
WB5   145.93 242 ePKP  05 37.20   0.0
WRA   145.93 242 PKPc  05 37.20   0.0
       0.8s      3.50nm
GBA   148.64  52 PKPc  05 46.00   4.4X
       0.8s      6.00nm
     S.D. = 1.4  on  16 of  20 obs.
-----------------------------------------
?  MAR  31, 1989  06h 33m 04.34± 5.26s
   43.297 N ±18.5km    5.399 E ±40.8km
   DEPTH =  10.0km  (geophysicist)
 NEAR SOUTH COAST OF FRANCE       (379)
      MD 2.5 (STR).

CALN    1.18  67 Pg    33 26.45   0.1
MVIF    1.41  64 Pn    33 29.87  -0.3
                 Sg    33 49.12
TOUF    1.52  61 Pn    33 31.54  -0.3
                 Sg    33 51.80
FOUF    1.59  39 P     33 32.55   0.1
                (Sg)   33 52.67
AUTN    1.63  64 Pn    33 33.80   0.4
                 Sg    33 55.92
CVF     2.65 105 Pn    33 47.92   0.0
     S.D. = 0.3  on   6 of   6 obs.
-----------------------------------------
   MAR  31, 1989  06h 50m 39.12± 0.49s
    1.721 S ± 8.9km   12.783 W ± 8.0km
   DEPTH =  10.0km  (geophysicist)
   5.0mb ( 34 obs.)  4.8Msz (  2 obs.)
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```
NORTH OF ASCENSION ISLAND          (407)
     CENTROID, MOMENT TENSOR       (HRV)
     Data Used: GDSN
     L.P.B.: 11S, 19C
     Centroid Location:
     Origin Time        06:50:50.8 2.0
     Lat  0.94S 0.19 Lon  12.63W 0.09
     Dep  15.0 FIX Half-duration  1.5
     Moment Tensor;   Scale 10**16 Nm
       Mrr=-4.41 0.39  Mtt= 0.94 0.56
       Mff= 3.47 0.72  Mrt= 0.00 0.00
       Mrf= 0.00 0.00  Mtf=-0.30 0.37
      Principal Axes:
       T  Val=  3.51  Plg= 0  Azm=263
       N        0.91       0       173
       P       -4.41      90       180
     Best Double Couple:Mo=4.0*10**16
      NP1:Strike=353 Dip=45 Slip= -90
      NP2:       173     45      -90
     i hope this works too, best rega

LIC    11.06  44 P     53 18.10  -2.3
                 S     55 16.78
KIC    11.35  45 P     53 22.32  -2.2
                 S     55 22.56
                 TT    01 57.00
TIC    11.36  43 P     53 21.94  -2.7
LEGH   14.56  60 eP    54 06.00  -1.2
KUK    14.68  58 eP    54 07.50  -1.2
                 e     56 37.00
KOGH   14.73  58 eP    54 08.50  -1.0
SHGH   14.82  59 eP    54 10.00  -0.6
                 e     55 46.50
TIO    32.89   9 iP    57 16.00   0.2
AVE    35.20   8 e(P)  57 37.00   1.5
IFR    35.78  11 iPd   57 42.50   1.8
BAO    37.36 246 eP    57 52.40  -1.7
TAF    37.62  14 iP    57 58.00   2.0
BUL    44.38 117 iPd   58 53.80   1.8
EPF    46.09  13 eP    59 06.00   0.8
       1.0s     14.00nm          4.9mb
SOI    47.72  31 P     59 20.70   2.7
LPO    47.85  13 eP    59 19.30   0.3
       0.8s      5.30nm          4.7mb
LFF    47.99  13 eP    59 20.60   0.5
       1.0s     13.60nm          5.0mb
CAF    48.29  14 eP    59 22.80   0.3
       1.0s     18.80nm          5.1mb
RJF    48.51  13 eP    59 24.40   0.2
       1.0s     12.00nm          4.9mb
IMI    49.06  20 P     59 28.68   0.2
MGR    49.06  29 P     59 23.00  -5.4X
TDS    49.07  30 P     59 29.00   0.5
STV    49.17  19 P     59 30.63   1.3
PZZ    49.33  19 P     59 31.97   1.4
MFF    49.39  11 eP    59 30.90   0.0
       1.0s     12.00nm          4.9mb
LSF    49.41  13 eP    59 31.70   0.6
FIN    49.43  20 P     59 31.97   0.7
SDI    49.50  26 P     59 33.00   1.2
MNS    49.56  25 P     59 33.50   1.2
RRL    49.60  18 P     59 33.40   0.6
TCF    49.60  14 eP    59 33.40   0.8
       1.1s     26.80nm          5.2mb
BNI    49.68  18 P     59 35.50   2.2
BGF    50.01  14 eP    59 36.20   0.5
       1.0s     14.80nm          4.9mb
LPG    50.11  18 eP    59 37.90   1.1
       1.0s     28.80nm          5.2mb
ASS    50.12  24 P     59 47.50  10.9X
BDI    50.15  22 P     59 37.50   0.6
LSD    50.20  18 P     59 38.32   0.9
SMF    50.34  15 eP    59 38.20   0.0
       1.0s     12.80nm          4.8mb
BOB    50.34  20 P     59 40.20   1.9
AVF    50.35  14 eP    59 38.60   0.4
       1.0s     12.00nm          4.8mb
PGD    50.42  23 P     59 38.50  -0.5
LPF    50.60  10 eP    59 39.90  -0.2
       0.9s     11.10nm          4.8mb
SSF    50.64  14 eP    59 41.00   0.5
       1.2s     23.80nm          5.0mb
LBF    50.69  15 eP    59 41.10   0.2
       1.0s     16.80nm          4.9mb
LOR    50.92  15 eP    59 42.50  -0.1
       1.0s     14.80nm          4.9mb
GRR    50.97  10 eP    59 42.80  -0.1
       1.0s     32.00nm          5.2mb
VAI    51.08  19 P     59 43.50  -0.2
LDF    51.31  11 eP    59 45.20  -0.3
       1.0s     13.60nm          4.8mb
MDI    51.32  20 P     59 44.00  -1.5
FLN    51.40  10 eP    59 46.00  -0.2
       0.8s      8.00nm          4.7mb
BSF    52.23  17 eP    59 52.10  -0.5
       1.2s     17.80nm          4.9mb
CTI    52.24  21 P     59 52.70   0.0
HAU    52.26  16 eP    59 52.40  -0.4
       1.0s     24.00nm          5.1mb
TRI    52.75  23 iPd   59 56.50   0.1
CDF    52.89  17 eP    59 56.90  -0.7
       0.7s      6.60nm          4.7mb
FVI    53.11  22 P     59 59.30   0.3
RBL    53.28  23 P     00 01.10   0.7
KBA    53.73  22 iPd   00 03.50  -0.3
       2.3s     54.80nm          5.2mb
                 e     12 06.00
                 e     12 12.00
DOU    53.73  14 P     00 03.30  -0.2
PTJ    53.80  25 eP    00 02.60  -1.6
MEM    54.55  15 P     00 09.80   0.3
CCH    54.66 250 eP    00 10.00  -1.3
ENN    54.68  14 iPc   00 11.00   0.5
       1.0s     28.00nm          5.2mb
                 e     00 17.50
MBH    55.21  51 e(P)  00 15.00   0.3
KHC    55.54  21 P     00 15.90  -1.0
       1.0s      9.00nm          4.8mb
                 i     00 22.90
PRNI   55.55  51 eP    00 19.00   1.7
WTS    56.03  14 eP    00 20.50   0.3
                 e     00 27.00
ZST    56.10  24 iP    00 20.60  -0.3
                 e     02 35.10
BZS    56.11  29 eP    00 21.50   0.6
MOX    56.18  18 iP    00 21.00  -0.4
       1.5s     34.00nm          5.2mb
                 e     00 27.50
                 e     00 33.00
                 LR    25 40.00
ZOBO   56.34 252 P     00 21.00  -2.8
                 LR    17 40.00
LPB    56.36 251 P     00 19.00  -4.7X
     Z  20s      0.71um          4.8Msz
                 LR    17 10.00
PRU    56.60  21 Pd    00 23.40  -1.1
                 e     00 30.20
CLL    57.20  19 iP    00 27.90  -0.8
       1.6s     23.00nm          5.0mb
EKA    57.41   7 Pc    00 29.10  -1.0
       1.2s     18.80nm          5.0mb
KSP    57.94  21 eP    00 32.80  -1.1
                 e     00 40.00
MLR    58.18  31 ePd   00 36.00   0.2
SPC    58.18  25 eP    00 25.80 -10.0X
KRA    58.72  24 eP    00 39.20  -0.1
       0.6s     25.00nm          5.5mb
     Z  18s      0.80um          4.9Msz
     N  22s      1.00um
                 e     00 46.50
                 e     00 50.00
NAO    64.99  13 P     01 20.10  -1.2
       1.0s     20.20nm          5.3mb
HFS    65.04  14 eP    01 20.20  -1.4
       1.3s     59.60nm          5.6mb
     Z  17s      0.15um          4.3MszX
                 LR    28 45.00
NUR    68.48  19 eP    01 42.00  -1.4
SUF    70.62  18 iP    01 56.10  -0.4
       0.7s     10.00nm          5.1mb
SOD    74.26  15 iP    02 17.70  -0.2
FRB    77.09 338 eP    02 33.00  -1.0
DAG    78.47 359 iPd   02 41.00  -0.3
       0.7s     10.27nm          5.0mb
SPA    88.29 180 e(P)  03 34.10   2.1
       1.0s     16.00nm          5.3mb
FFC    90.93 325 eP    03 42.00  -2.4
       1.4s     27.00nm          5.4mb
QIS   145.04 131 iPKPd 10 19.20  -0.1
RMQ   146.77 149 ePKP  10 24.00   2.0
                 e     10 37.00
CTA   150.13 138 iPKPd 10 33.40   6.0X
       1.0s     15.00nm
                 i     10 39.60
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S.D. = 1.2 on 86 of 91 obs.

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* MAR 31, 1989 07h 02m 39.38± 0.76s
1.592 S ±12.7km 12.590 W ±11.5km
DEPTH = 10.0km (geophysicist)
4.8mb (17 obs.) 5.0Msz (1 obs.)
NORTH OF ASCENSION ISLAND (407)

LIC	10.83	44	P	05 17.02	-0.6
KIC	11.13	45	P	05 21.14	-0.5
			S	07 23.00	
TIC	11.14	43	P	05 20.90	-0.9
KUK	14.44	58	eP	06 06.00	0.0
KOGH	14.50	58	eP	06 08.00	1.3
SHGH	14.59	59	eP	06 04.00	-3.8X
ITR	26.68	254	eP	08 14.60	-6.1X
TIO	32.73	8	iP	09 16.00	1.3
IFR	35.62	11	iPd	09 42.00	2.4
TAF	37.45	14	eP	10 07.00	12.1X
LPO	47.68	13	eP	11 18.30	0.3
	1.0s		8.00nm	4.8mb	
CAF	48.12	14	eP	11 21.50	0.1
	1.0s		12.00nm	4.9mb	
RJF	48.35	13	eP	11 23.10	0.0
	1.0s		8.00nm	4.7mb	
LSF	49.24	13	eP	11 30.70	0.7
	0.8s		10.70nm	4.9mb	
TCF	49.43	13	eP	11 32.40	0.9
	0.8s		5.30nm	4.6mb	
LPG	49.93	18	eP	11 36.90	1.2
	0.8s		11.20nm	4.9mb	
SSF	50.47	14	eP	11 40.10	0.7
	0.8s		5.30nm	4.5mb	
LBF	50.52	15	eP	11 40.20	0.4
	1.2s		13.00nm	4.8mb	
LOR	50.75	14	eP	11 41.80	0.2
	1.0s		6.00nm	4.5mb	
GRR	50.81	10	eP	11 42.00	0.0
	0.8s		8.00nm	4.7mb	
BSF	52.05	16	eP	11 51.00	-0.5
HAU	52.08	16	eP	11 51.50	-0.2
	1.0s		12.00nm	4.8mb	
TRI	52.56	23	iPd	11 55.50	0.3
CDF	52.71	17	eP	11 56.00	-0.5
	0.6s		3.60nm	4.5mb	
VOY	52.88	23	eP	11 58.30	0.6
VBY	52.99	24	eP	12 01.60	3.1X
CCH	54.88	250	(P)	12 07.00	-6.2X
KHC	55.35	21	eP	12 10.20	-5.6X
			e	13 37.50	
ZST	55.91	24	eP	12 19.10	-0.6
			e	13 40.90	
MOX	56.00	18	eP	12 19.50	-0.9
			e	13 40.00	
			LR	37 30.00	
PRU	56.42	21	eP	12 13.50	-9.9X
			e	12 22.70	
ZOBO	56.56	252	(P)	12 16.00	-9.7X
Z	22s		1.21um	5.0Msz	
			LR	32 38.00	
EKA	57.26	6	P	12 28.00	-1.3
	1.1s		7.80nm	4.7mb	
SPC	57.98	25	eP	12 35.50	0.8
KRA	58.52	24	eP	12 38.00	-0.2
NAO	64.82	12	P	13 19.00	-1.5
	1.0s		8.80nm	4.9mb	
HFS	64.87	14	eP	13 18.70	-2.0
	0.9s		14.40nm	5.2mb	
NUR	68.30	19	eP	13 41.00	-1.5
SUF	70.44	18	iP	13 55.50	-0.1
	0.6s		8.40nm	5.0mb	
SOD	74.08	15	iP	14 16.60	-0.6
MAIO	76.58	52	eP	14 33.00	0.8
SPA	88.42	180	e(P)	15 34.20	1.3
	1.0s		9.00nm	5.0mb	
QIS	144.98	130	ePKP	22 18.00	-1.5
			e	23 39.00	

S.D. = 1.0 on 35 of 43 obs.

? MAR 31, 1989 07h 03m 48.32± 3.83s
2.990 S ±82.3km 13.886 W ±68.9km
DEPTH = 10.0km (geophysicist)
4.7mb (11 obs.)
NORTH OF ASCENSION ISLAND (407)

ITR	25.06	256	eP	09 14.40	-0.1
LSF	50.89	14	eP	12 52.00	0.4
	1.0s		14.00nm	4.9mb	
TCF	51.09	14	eP	12 53.50	0.4
	1.0s		10.00nm	4.7mb	
LPG	51.65	18	eP	12 58.50	0.8
	1.0s		14.80nm	4.9mb	
SSF	52.14	15	eP	13 01.20	0.2
	0.8s		4.00nm	4.4mb	
LBF	52.19	15	eP	13 01.60	0.1
	0.9s		7.20nm	4.6mb	
GRR	52.42	11	eP	13 03.10	0.1
	0.8s		10.70nm	4.8mb	
HAU	53.78	17	eP	13 12.40	-0.8
	0.8s		5.30nm	4.6mb	
TRI	54.35	24	iPd	13 16.40	-0.9
CDF	54.42	17	eP	13 17.20	-0.8
	0.6s		3.60nm	4.6mb	
CLL	58.75	19	e(P)	14 00.00	11.3X
NAO	66.46	13	P	14 40.40	0.5
	1.1s		12.10nm	5.0mb	
HFS	66.54	15	eP	14 38.30	-2.1
	0.5s		2.10nm	4.6mb	
NUR	70.03	19	eP	15 01.00	-1.1
SUF	72.16	18	eP	15 16.00	1.1
	0.6s		8.40nm	5.0mb	
SOD	75.76	15	eP	15 38.00	2.3
SPA	87.03	180	e(P)	16 53.80	18.6X
	1.0s		5.50nm		

S.D. = 1.1 on 15 of 17 obs.

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* MAR 31, 1989 07h 43m 31.12± 1.18s
1.227 S ±30.6km 12.760 W ±17.2km
DEPTH = 10.0km (geophysicist)
4.5mb (2 obs.)
NORTH OF ASCENSION ISLAND (407)

LIC	10.69	46	P	46 07.66	0.2
TIC	10.99	45	P	46 11.58	0.0
KIC	10.99	47	P	46 11.36	-0.2
			S	48 13.00	
KUK	14.40	59	eP	46 57.00	-0.1
KOGH	14.45	60	eP	46 58.00	0.1
ITR	26.62	253	eP	49 11.90	0.0
TRI	52.29	23	iPd	52 49.70	4.7X
NAO	64.51	13	P	54 10.20	0.1
	1.0s		3.10nm	4.5mb	
SUF	70.15	18	iP	54 45.50	-0.1
	0.5s		2.80nm	4.6mb	
SOD	73.78	15	eP	55 11.00	3.9X

S.D. = 0.2 on 8 of 10 obs.

% MAR 31, 1989 08h 05m 44.60± 0.83s
39.115 N ± 6.9km 27.682 E ± 8.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	0.79	205	ePg	06 00.00	0.0
			eSg	06 13.50	
DST	0.88	56	ePn	06 01.60	0.0
EDC	1.24	6	ePn	06 08.00	0.4
KCT	1.25	24	iPn	06 07.40	-0.4
BNT	1.25	8	iPn	06 07.90	0.0
EZN	1.27	304	ePn	06 08.00	-0.1

S.D. = 0.3 on 6 of 6 obs.

MAR 31, 1989 08h 07m 16.55± 1.02s
14.962 N ± 4.3km 60.570 W ±14.7km
DEPTH = 51.3 ± 10.7 km
WINDWARD ISLANDS (95)
MD 3.4 (TRN).

CRM	0.39	238	eP	07 27.60	0.8
			S	07 35.00	
MVM	0.51	218	iPc	07 28.64	0.5
			S	07 37.60	
FDF	0.61	248	iPc	07 29.40	0.1
			S	07 39.10	
BIM	0.66	228	iPc	07 30.17	0.2
			S	07 40.20	
DTMT	0.80	290	eP	07 31.71	-0.1
DSC	0.81	288	eP	07 31.87	0.0
			eS	07 43.20	
DSVT	0.82	289	eP	07 31.74	-0.2
			eS	07 42.89	
DPMT	0.84	291	eP	07 31.95	-0.4
			eS	07 42.87	
SLW	1.00	201	eP	07 34.24	-0.3
BBL	1.04	303	eP	07 35.12	0.1
			S	07 48.80	
SLB	1.22	202	eP	07 37.42	-0.2
DEG	1.42	341	eP	07 39.86	-0.6
			S	07 57.40	
PAG	1.51	315	eP	07 41.30	-0.3
			S	07 59.40	
SEG	1.69	328	eP	07 44.52	0.4
SSV	1.73	200	eP	07 45.31	0.5
			eS	08 07.81	
SVV	1.75	201	eP	07 44.44	-0.6
			eS	08 04.82	
SVB	1.81	202	eP	07 45.89	0.1
			eS	08 07.99	
FCV	1.91	200	eP	07 46.37	-0.9
			eS	08 08.80	
YKA	60.61	334	eP	17 24.80	0.7

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

MAR 31, 1989 08h 28m 16.24± 0.31s
36.997 N ± 6.3km 69.554 E ± 4.8km
DEPTH = 33.0km (normal)
4.7mb (15 obs.)
HINDU KUSH REGION (718)

KSH	5.62	62	P	29 40.50	0.7
QUE	7.13	198	iPc	30 03.10	2.0
			eS	31 31.00	
MAIO	8.12	268	iPnd	30 12.50	-2.3
	0.6s		8.42nm	5.0mb X	
			eSn	31 42.00	
KHI	9.33	255	ePd	30 30.80	-0.9
NDI	10.50	140	eP	30 47.00	-0.5
	0.4s		25.42nm	5.8mb X	
WMQ	15.39	58	P	31 54.00	1.4
Z	12s		1.00um		
GKN	15.55	121	P	31 50.10	-4.7X
DMN	16.12	121	P	31 57.50	-4.7X
KKN	16.13	120	P	31 56.80	-5.5X
PKI	16.35	121	P	32 00.20	-5.1X
GUN	16.47	119	P	32 01.60	-5.2X
HYB	21.06	155	eP	33 00.00	0.1
GTA	23.85	75	P	33 26.40	-1.1
Z	12s		1.00um	4.5MszX	
GBA	24.34	161	Pd	33 33.50	1.3
	0.6s		3.10nm	4.0mb	
LZH	27.48	81	e(P)	34 06.50	5.0X
CHTO	31.48	117	eP	34 37.00	-0.2
	1.0s		2.50nm	4.0mb	
BTO	31.55	71	eP	34 38.90	1.2
Z	13s		1.00um	4.7MszX	
N	13s		0.30um		
E	13s		0.50um		
GYA	33.08	98	P	34 49.00	-2.2
MLR	33.53	299	ePc	34 57.50	2.6
TIY	33.88	76	eP	34 59.10	1.1
E	11s		0.30um		
LOE	34.40	116	eP	35 02.00	-0.5
SUF	36.89	328	eP	35 23.00	-0.1
SPC	37.38	305	eP	35 28.90	1.2
SOD	38.80	335	eP	35 38.00	-1.1
PRU	41.07	306	eP	36 00.00	1.9
KHC	41.75	305	eP	36 04.30	0.5
HFS	41.96	322	eP	36 04.00	-1.2
	0.5s		3.50nm	4.3mb	
CLL	41.97	308	eP	36 06.00	0.5
CN2	42.41	63	eP	36 16.00	6.8X
NAO	43.45	322	P	36 16.70	-0.7
	0.8s		8.20nm	4.5mb	
BSF	46.40	304	eP	36 41.70	0.4
	0.8s		8.00nm	4.7mb	
LPG	46.90	301	eP	36 46.10	0.6
SMF	48.61	303	eP	36 58.90	0.4
	0.8s		8.50nm	4.8mb	
AVF	48.90	303	eP	37 01.00	0.2
	0.8s		10.70nm	4.9mb	
TCF	49.79	303	eP	37 08.40	0.8
	0.8s		8.00nm	4.8mb	
LSF	50.26	303	eP	37 11.30	0.1
	0.8s		7.20nm	4.7mb	
LDF	50.75	306	eP	37 14.70	-0.2
FLN	50.94	307	eP	37 16.10	-0.2
	0.8s		5.30nm	4.6mb	
EKA	51.12	316	P	37 17.00	-0.6
	0.8s		5.40nm	4.6mb	
GRR	51.28	306	eP	37 18.70	-0.1
	1.0s		12.00nm	4.8mb	
MFF	51.28	304	eP	37 18.80	-0.1

31d 08h

	1.0s	12.00nm			4.8mb
DAG	53.95	343 iPc	37	37.40	-1.0
	0.7s	7.53nm			4.8mb
MBC	66.89	2 eP	39	06.00	-0.7
	0.6s	5.00nm			4.8mb
INK	73.60	9 eP	39	47.00	-0.4
KIC	73.66	266 P	39	48.20	-0.5
TIC	73.71	266 P	39	48.70	-0.3
LIC	73.97	266 P	39	50.10	-0.4
YKA	80.80	2 eP	40	28.10	0.6
WB5	83.22	121 eP	40	38.60	-2.2
S.D. = 1.1 on 42 of 49 obs.					

? MAR 31, 1989 09h 22m 00.99± 0.81s
1.288 S ±21.2km 13.638 W ±29.1km
DEPTH = 10.0km (geophysicist)
4.8mb (3 obs.)
NORTH OF ASCENSION ISLAND (407)

BAO	36.76	245 e(P)	29	11.00	0.1
TRI	52.70	24 eP	31	17.70	-0.2
ZST	56.06	24 eP	31	42.80	0.4
NAO	64.76	13 P	32	41.90	0.3
	1.1s	7.90nm			4.8mb
HFS	64.84	15 eP	32	41.20	-1.0
	0.9s	7.40nm			4.9mb
SUF	70.48	18 eP	33	18.00	0.5
SPA	88.72	180 e(P)	34	55.90	-0.1
	1.0s	4.50nm			4.7mb
S.D. = 0.6 on 7 of 7 obs.					

MAR 31, 1989 09h 31m 56.01± 0.61s
24.115 S ± 4.8km 66.672 W ± 5.5km
DEPTH = 197.7 ± 5.8 km
4.6mb (9 obs.)
SALTA PROVINCE, ARGENTINA (129)

CYA	4.38	170 ePc	33	04.00	0.9
CCH	6.72	4 iPc	33	34.00	0.4
	0.6s	4.00nm			3.8mb X
LPB	7.66	350 Pc	33	46.80	0.5
	0.8s	298.51nm			5.6mb X
		(S)	35	12.00	
ZOBO	7.92	350 iPc	33	48.60	-1.3
Z	20s	0.41um			
		(S)	35	26.00	
		LR	49	16.00	
ARE	8.85	328 eP	33	56.00	-5.6X
		eS	35	31.00	
ITB1	11.21	95 e(P)	34	40.90	9.1X
ITB	11.37	96 e(P)	34	50.60	16.6X
ITB7	11.41	98 eP	34	42.60	8.1X
V8A	14.46	165 e(P)d	35	11.00	-1.8
		S	35	15.20	
VAO	18.10	90 iPc	35	56.00	0.3
		e	35	57.30	
		e	35	59.80	
BAO	19.47	68 eP	36	10.50	0.5
ITA	20.26	90 iPd	36	19.70	1.6
		e	36	26.20	24kmX
BMA	20.71	91 iPc	36	23.20	0.9
ATB	24.97	36 e(P)	37	02.50	-0.5
ITR	31.00	65 eP	37	55.60	-1.5
SPA	66.03	180 e(P)	42	23.50	0.2
	1.0s	9.00nm			4.5mb
LIC	67.19	72 P	42	30.30	-0.8
TIC	67.40	71 P	42	32.00	-0.4
KIC	67.50	72 P	42	32.40	-0.7
	0.6s	9.50nm			4.7mb
ALQ	69.81	326 eP	42	46.80	-0.2
	1.0s	14.25nm			4.7mb
GOL	73.04	330 P	43	06.00	-0.2
	1.0s	12.50nm			4.6mb
GLA	73.06	319 eP	43	06.00	-0.2
BAR	73.92	318 eP	43	11.00	-0.2
PLM	74.49	318 eP	43	15.00	0.3
TPC	74.52	319 eP	43	15.00	0.4
PEC	75.04	318 P	43	18.00	0.4
RVR	75.24	318 eP	43	18.00	-0.7
SBB	75.99	319 eP	43	22.00	-0.9
CLC	76.62	320 eP	43	26.00	-0.4
ISA	77.04	319 eP	43	29.00	0.3
BW06	77.41	329 P	43	30.60	-0.2
	1.1s	8.18nm			4.4mb
TNP	77.96	321 P	43	34.50	0.6
	0.8s	4.41nm			4.2mb
EUR	78.24	323 iP	43	35.90	0.5
	0.2s	8.93nm			5.1mb
IMW	78.91	329 P	43	39.80	0.7
KVN	79.12	322 P	43	40.70	0.5
BGMT	80.44	329 eP	43	47.70	0.6
LRM	81.07	330 eP	43	50.80	0.4
SES	83.92	333 eP	44	05.00	0.4
FFC	84.17	340 eP	44	05.50	-0.2
	0.9s	11.00nm			4.6mb
BUL	86.56	110 iPd	44	30.00	11.5X
PNT	86.96	328 eP	44	20.00	0.5
	0.8s	6.00nm			4.5mb
EDM	87.00	334 ePd	44	18.50	-1.2
YKA	94.33	340 eP	44	53.90	0.4
ASPA	128.48	204 ePKP	50	41.20	-0.1
	0.7s	8.00nm			
WRA	131.66	207 PKPc	50	47.60	0.2
	0.7s	1.20nm			
WB5	131.70	207 ePKP	50	47.70	0.2
GBA	144.56	101 PKPd	51	10.90	-0.1
	0.5s	2.10nm			
GKN	153.96	75 PKP	51	42.00	16.6X
S.D. = 0.7 on 42 of 48 obs.					

? MAR 31, 1989 09h 52m 02.44± 0.99s
37.757 N ± 8.3km 29.301 E ± 9.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

KHL	0.59	17 ePg	52	14.30	-0.2
		iSg	52	24.80	
YER	1.02	233 ePn	52	22.00	0.2
BCK	1.06	106 ePn	52	23.00	0.5
ELL	1.12	154 ePn	52	23.00	-0.5
S.D. = 0.7 on 4 of 4 obs.					

MAR 31, 1989 10h 40m 16.90± 0.29s
52.733 N ± 7.6km 34.954 W ± 3.1km
DEPTH = 10.0km (geophysicist)
4.6mb (34 obs.) 4.0Msz (2 obs.)
NORTH ATLANTIC OCEAN (402)

DCN	16.62	77 eP	44	12.70	1.5
	1.0s	139.00nm			5.0mb
DMU	16.76	75 eP	44	15.30	2.3
DLE	17.06	77 eP	44	15.60	-1.2
ECB	17.10	80 eP	44	21.00	3.8X
ETA	17.37	79 eP	44	21.00	0.4
ECP	17.39	80 eP	44	23.00	2.2
GDH	18.71	339 ePc	44	31.00	-6.1X
	1.0s	18.00nm			4.2mb
EKA	18.77	69 P	44	38.00	0.1
	1.2s	31.30nm			4.4mb
FRB	20.56	316 eP	44	57.00	-0.8
GRR	21.96	88 eP	45	11.80	-0.4
	0.8s	10.70nm			4.3mb
LPF	22.00	89 eP	45	12.20	-0.4
	1.2s	20.20nm			4.4mb
FLN	22.04	87 eP	45	13.40	0.4
	0.8s	14.50nm			4.5mb
LDF	22.32	87 eP	45	15.50	-0.4
	1.2s	23.80nm			4.5mb
MFF	23.18	91 eP	45	24.10	-0.2
	0.8s	5.30nm			4.1mb
SNF	24.26	79 P	45	35.80	1.1
LSF	24.37	91 eP	45	36.00	0.1
	0.8s	8.00nm			4.4mb
DOU	24.59	80 P	45	38.00	0.0
TCF	24.77	90 eP	45	39.50	-0.2
	0.6s	4.50nm			4.3mb
DAG	24.90	9 iPc	45	40.40	-0.3
	0.7s	8.90nm			4.6mb
WIT	24.93	73 e(P)	45	44.50	3.3X
BGF	25.03	89 eP	45	41.90	-0.3
	0.6s	6.30nm			4.5mb
ENN	25.15	78 eP	45	43.00	-0.2
	1.0s	16.00nm			4.7mb
SSF	25.19	87 eP	45	43.10	-0.6
	0.8s	4.50nm			4.2mb
AVF	25.22	88 eP	45	43.50	-0.5
	0.8s	6.70nm			4.4mb
MEM	25.25	78 P	45	47.20	3.0
WTS	25.26	75 eP	45	45.00	0.7
	1.0s	65.00nm			5.3mb
		e	45	51.00	
LOR	25.31	87 eP	45	44.10	-0.8
	0.6s	7.50nm			4.6mb
LBF	25.51	87 eP	45	45.90	-0.9
	1.0s	12.80nm			4.6mb
SMF	25.59	88 eP	45	46.60	-0.9
	0.8s	8.00nm			4.5mb
NAO	25.87	54 P	45	48.30	-1.6
	1.1s	12.10nm			4.5mb
HAU	26.49	84 eP	45	55.10	-0.8
	0.6s	9.00nm			4.6mb
SLL	27.11	54 eP	46	00.50	-0.9
	0.5s	1.10nm			3.8mb
Z	18s	0.26um			3.8Msz
		LR	53	54.00	
MOX	28.56	75 eP	46	14.50	-0.1
		e	46	20.00	
		e	46	25.00	
CLL	29.12	73 iP	46	18.60	-1.0
	1.2s	18.00nm			4.7mb
KHC	30.34	77 P	46	30.50	0.0
KSP	31.21	73 eP	46	37.70	-0.5
TRI	32.06	83 iPd	46	26.40	-19.2X
SOD	32.44	39 eP	46	47.00	-1.7
NUR	32.64	52 eP	46	50.00	-0.5
Z	22s	0.60um			4.2Msz
		LR	58	00.00	
ZST	32.84	77 eP	46	52.40	0.0
		e	46	59.50	
SUF	32.87	48 iP	46	51.90	-0.6
	0.8s	11.50nm			4.9mb
KRA	33.66	72 eP	46	58.70	-0.8
	0.8s	24.00nm			5.2mb
Z	16s	1.10um			4.7MszX
		e	46	59.10	
SRO	33.74	77 eP	47	02.60	2.4
SPC	34.23	73 eP	47	04.80	0.1
MBC	38.28	337 eP	47	39.00	0.6
FFC	38.34	301 eP	47	39.00	-0.2
	1.2s	28.00nm			4.9mb
YKA	41.08	316 eP	48	01.90	0.2
EDM	44.94	304 ePc	48	33.50	0.1
SES	45.29	299 eP	48	37.00	0.8
INK	45.31	329 ePd	48	34.20	-1.8
GLD	48.40	284 P	49	02.40	1.4
	1.8s	64.10nm			5.4mb
LRM	48.74	295 eP	49	04.40	0.8
BGMT	48.87	294 eP	49	06.40	1.8
BW06	49.00	290 P	49	04.80	-0.8
	1.7s	34.09nm			5.1mb
PNT	50.41	302 eP	49	16.00	-0.1
FBA	51.88	330 eP	49	26.80	-0.2
TIC	52.07	141 P	49	28.00	-0.9
ALQ	52.33	280 eP	49	31.00	0.0
	1.2s	6.64nm			4.4mb
KIC	52.43	141 P	49	30.50	-1.2
LIC	52.45	141 P	49	30.80	-1.0
IMA	52.73	333 eP	49	33.20	-0.3
	1.7s	46.30nm			5.1mb
DSI	53.97	84 eP	49	44.00	1.2
PRNI	54.60	85 e(P)	49	46.00	-1.6
PMR	54.68	328 eP	49	47.50	-0.3
	1.0s	10.00nm			4.8mb
EUR	54.81	291 iP	49	49.40	0.0
	0.8s	2.95nm			4.4mb
MBH	54.94	86 eP	49	50.00	-0.1
TTA	55.78	332 eP	49	54.50	-1.3
KVN	56.32	292 P	49	59.80	-0.4
TNP	56.48	290 P	50	01.60	0.2
	1.5s	27.78nm			5.1mb
MNA	56.77	291 P	50	03.70	0.3
MIN	57.38	295 eP	50	07.60	-0.1
CMB	58.31	292 eP	50	14.00	-0.1
FRI	58.66	291 eP	50	16.70	0.3
MAIO	64.54	63 iPd	50	56.80	0.6
		eS	00	01.00	
ZOBO	74.46	213 P	51	58.00	0.4
		LR	18	10.00	
GTA	80.20	34 P	52	27.60	-1.2
BTO	82.22	26 eP	52	40.50	1.2
CN2	82.37	14 P	52	39.40	-0.5
GKN	83.96	51 P	52	49.60	1.0
KKN	84.44	50 P	52	52.30	1.2
DMN	84.51	50 P	52	50.90	-0.6
GUN	84.62	50 P	52	53.40	1.3
PKI	84.69	50 P	52	53.60	1.1
GBA	92.27	64 Pc	53	27.90	-0.5
	0.8s	3.40nm			4.8mb
WB5	146.18	18 iPKPd	59	58.20	0.4
WRA	146.23	18 PKPc	59	58.60	0.7
	0.8s	10.10nm			

```
ASPA   149.76  21 iPKPd 00 07.30   3.9X
         0.9s    17.00nm
BRS    154.04 344 iPKPc 00 21.50  12.0X
                   i     01 43.00
       S.D. = 1.0  on  82 of  88 obs.
-------------------------------------
%  MAR 31, 1989  11h 09m 34.95± 0.95s
   60.653 N ± 6.7km     6.336 E ±14.8km
   DEPTH =  10.0km  (geophysicist)
 SOUTHERN NORWAY                (535)
      MD 1.8 (BER).

HYA      0.52 352 iPd   09 45.60   0.1
                  eS    09 55.10
ODD1     0.76 169 iP    09 49.40  -0.4
                  eS    09 57.60
SUE      0.87 298 iPc   09 51.40  -0.3
                  eS    10 03.00
                  iSg   10 06.60
BLS1     1.29 169 iPc   09 59.00   0.1
                  iS    10 15.70
KMY      1.55 201 eP    10 03.00   0.5
                  eS    10 22.20
       S.D. = 0.5  on   5 of   5 obs.
-------------------------------------
   MAR 31, 1989  12h 26m 34.02± 0.74s
   42.480 N ± 6.8km    24.189 E ± 9.8km
   DEPTH =  33.0km  (normol)
 BULGARIA                       (359)

RDO      1.67 142 ePn   27 01.30  -0.1
PLG      2.18 195 ePn   27 08.60  -0.1
DMK      2.73 103 eP    27 16.60   0.1
KZN      2.83 221 ePn   27 18.10   0.1
ISR      3.16  32 eP    27 32.00   9.4X
MLR      3.27  22 ePd   27 24.00  -0.2
VRI      3.85  27 ePc   27 32.50   0.2
CFR      3.94  45 eP    27 42.00   8.4X
       S.D. = 0.2  on   6 of   8 obs.
-------------------------------------
&  MAR 31, 1989  14h 28m 49.34s
   62.178 N          150.736 W
   DEPTH =  66.9km
 CENTRAL ALASKA                 (  1)
      <AGS-P>.

SKT      0.42 242 iP    29 00.74  -0.6
PWA      0.67 142 iP    29 03.33  -0.5
GHO      0.95 115 iP    29 06.81  -0.6
                  iS    29 21.62
PLRM     0.96 127 iP    29 06.33  -1.1
                  iS    29 21.94
PME      0.98 124 iP    29 06.71  -0.9
                  iS    29 21.73
CGLM     1.06 215 iP    29 08.11  -0.7
PMS      1.09 149 iP    29 08.29  -0.9
CRP      1.14 217 iP    29 09.29  -0.6
SPU      1.18 213 iP    29 09.53  -0.8
                  iS    29 25.32
NKA      1.46 190 eP    29 16.92   2.9
SLKM     1.69 171 eP    29 16.77  -0.5
RDT      1.80 207 iP    29 17.85  -1.0
TOA      2.14  90 iP    29 22.69  -0.9
NNL      2.16 187 eP    29 25.68   1.9
SEW      2.17 163 eP    29 23.92   0.0
GLI      2.18 125 iP    29 21.67  -2.3
VZW      2.29 117 eP    29 23.91  -1.7
KNIM     2.34 140 iP    29 22.78  -3.4
VLZ      2.35 115 eP    29 24.17  -2.1
ILIM     2.37 208 eP    29 25.20  -1.4
                  eS    29 56.11
KLU      2.39 105 iP    29 24.65  -2.3
FID      2.50 123 iP    29 25.75  -2.7
TTA      2.56 289 iP    29 27.41  -1.9
SVW      2.57 247 iP    29 27.76  -1.7
MTU      2.66 144 eP    29 27.76  -3.0
CNPM     2.67 185 eP    29 31.08   0.2
HIN      2.72 129 eP    29 28.97  -2.5
CVA      2.91 122 eP    29 33.51  -0.6
PDB      2.93 217 eP    29 32.60  -1.9
FBA      3.03  24 eP    29 33.90  -2.0
SGAM     3.15 120 eP    29 36.86  -0.7
GLB      3.37 100 eP    29 37.89  -2.8
RAGM     3.43 119 eP    29 41.30  -0.3
CTGM     4.66 101 eP    29 56.01  -2.9
      34 obs. associated
-------------------------------------
?  MAR 31, 1989  14h 44m 04.89± 5.28s
   33.350 S ±43.2km   69.094 W ±38.9km
   DEPTH = 158.1 ± 15.9 km
 CHILE-ARGENTINA BORDER REGION  (127)

ZON      1.83  11 eP    44 39.00  -0.1
CYA      5.65  31 e(P)  45 28.00   0.1
VBA      7.45 131 ePc   45 36.20 -15.9X
LPB     16.77   3 P     47 53.00   0.7
ZOBO    17.03   3 P     47 55.00  -0.6
PPD     19.34  59 eP    48 19.90  -0.4
                  e     48 22.90
VAO     22.02  68 eP    48 47.60   0.4
ITA     24.12  69 eP    49 07.60  -0.1
       S.D. = 0.6  on   7 of   8 obs.
-------------------------------------
?  MAR 31, 1989  15h 12m 53.30± 1.04s
   37.263 N ± 8.9km     2.352 W ±12.0km
   DEPTH =  10.0km  (geophysicist)
 SPAIN                          (377)
      MG 2.7 (MDD).

ENIJ     0.31 160 iPg   12 59.80   0.0
                  eSg   13 04.00
AFC      0.95 270 ePg   13 11.40  -0.1
EVIA     1.38 355 ePn   13 18.50  -0.1
                  eSn   13 36.70
EBAN     1.45 309 ePn   13 19.80   0.2
                  eSn   13 38.80
       S.D. = 0.3  on   4 of   4 obs.
-------------------------------------
   MAR 31, 1989  15h 38m 03.78± 1.22s
   72.754 N ±19.7km     4.359 E ±22.5km
   DEPTH =  10.0km  (geophysicist)
   4.4mb (  3 obs.)
 NORWEGIAN SEA                  (642)

TRO      5.65 117 iP    39 29.80   0.1
                  eS    40 12.90
DAG      7.26 314 eP    39 56.00   3.8X
KEV      7.86 101 eP    40 33.00  32.3X
SOD      9.27 114 eP    40 19.00  -1.3
SUF     12.91 130 iP    41 10.70   1.0
         0.6s      4.40nm          4.8mb X
HFS     13.18 159 eP    41 16.70   3.3X
         0.3s      2.10nm          4.7mb
NUR     14.56 137 iP    41 32.50   1.1
      Z  19s      0.70um
                  LR    46 50.00
ALE     15.91 334 eP    41 49.00   0.2
         0.7s      9.00nm          4.0mb
KSP     22.61 160 eP    43 04.30  -1.1
                  e     43 13.60
PRU     23.29 163 eP    43 19.70   7.7X
                  e     43 26.40
KRA     23.80 155 eP    43 30.20  13.2X
KHC     24.06 165 eP    43 12.20  -7.4X
SPC     24.69 155 eP    43 39.80  13.9X
ZST     25.31 160 eP    43 45.00  13.5X
BW06    56.16 306 eP    47 49.70   4.0X
         1.2s      5.48nm          4.5mb
       S.D. = 1.3  on   6 of  15 obs.
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?  MAR 31, 1989  15h 51m 33.69± 3.86s
   16.153 N ±20.4km   61.896 W ±22.4km
   DEPTH = 185.6 ± 35.9 km
 LEEWARD ISLANDS                (  92)

PAG      0.24 120 ePd   51 59.32  -0.3
                  S     52 20.60
MGH      0.64 332 eP    52 00.03   0.0
BBL      0.74 147 eP    52 00.94   0.3
DEG      0.82  79 eP    52 01.21   0.1
FDF      1.58 153 iPc   52 07.26   0.0
                  S     52 32.20
CRM      1.68 146 iPc   52 08.18   0.0
                  S     52 33.90
BIM      1.81 154 iPc   52 09.71   0.2
                  S     52 38.40
MVM      1.86 149 iPc   52 09.98  -0.1
SLW      2.31 156 eP    52 14.58  -0.4
                  eS    52 47.60
SLB      2.46 160 eP    52 16.57  -0.1
                  eS    52 52.40
SVV      2.89 167 eP    52 21.96   0.2
SVB      2.93 168 eP    52 22.43   0.2
       S.D. = 0.3  on  12 of  12 obs.
-------------------------------------
   MAR 31, 1989  15h 53m 55.36± 0.49s
   73.541 N ± 7.6km     7.377 E ±10.7km
   DEPTH =  10.0km  (geophysicist)
   4.4mb ( 14 obs.)
 GREENLAND SEA                  (640)

TRO      5.36 131 iP    55 17.80   0.6
                  eS    56 05.80
KEV      7.24 112 eP    55 56.00  12.4X
SOD      8.89 124 eP    56 07.00   0.3
SUF     12.82 138 eP    56 59.00  -1.2
HFS     13.68 167 eP    57 03.90  -7.6X
         0.4s      1.90nm          4.4mb
NUR     14.62 144 eP    57 20.00  -3.7X
      Z  19s      1.70um
                  LR    02 30.00
ALE     15.60 333 eP    57 36.00  -0.4
         0.7s      7.00nm          4.0mb
EKA     18.78 199 Pd    58 10.80  -5.6X
         1.5s     26.70nm          4.2mb
WTS     21.63 181 eP    58 48.50   1.3
ENN     22.87 182 eP    58 59.00  -0.5
         1.0s     17.00nm          4.5mb
MEM     23.02 182 P     59 01.30   0.3
MOX     23.05 173 e(P)  58 58.00  -3.3X
         1.8s     58.00nm          4.8mb
                  eLR   04 30.00
KSP     23.10 165 eP    59 01.50  -0.3
SNF     23.15 185 P     59 02.90   0.6
DOU     23.56 184 P     59 05.40  -0.8
PRU     23.84 169 eP    59 06.50  -2.5
      Z  17s      0.70um          4.2MszX
      N  14s      0.80um
                  e     59 14.50
KRA     24.19 160 eP    59 13.30   1.0
KHC     24.65 170 P     59 16.40  -0.4
SPC     25.08 160 eP    59 27.70   6.5X
FLN     25.11 192 eP    59 22.40   1.2
         1.0s      9.60nm          4.4mb
LDF     25.25 192 eP    59 23.80   1.2
         1.0s      9.60nm          4.4mb
GRR     25.50 193 eP    59 23.60  -1.3
         1.0s      8.00nm          4.4mb
ZST     25.79 165 eP    59 29.40   1.8
SRO     26.27 163 eP    59 37.00   5.0X
                  i     02 07.20
LBF     26.69 185 eP    59 34.50  -1.5
         0.8s      2.60nm          4.0mb
TCF     27.44 188 eP    59 39.70  -3.1X
         0.8s      4.00nm          4.2mb
MAF     27.49 187 eP    59 39.70  -3.6X
         0.8s      4.00nm          4.2mb
INK     36.14 337 eP    01 03.00   4.2X
FFC     43.45 307 eP    02 02.00   2.5X
         1.2s     14.00nm          4.6mb
RSON    45.03 298 P     02 09.00  -3.3X
LRM     54.13 312 eP    03 22.10  -0.3
IMW     55.63 310 P     03 33.50   0.0
BW06    56.39 308 eP    03 38.90   0.0
         1.4s     14.79nm          4.8mb
GLD     58.26 303 P     03 52.00  -0.1
MSU     61.05 309 P     04 12.00   0.6
KVN     61.80 314 eP    04 17.10   0.7
ALQ     63.14 303 eP    04 25.10  -0.2
         1.0s      4.25nm          4.6mb
       S.D. = 1.0  on  25 of  37 obs.
-------------------------------------
?  MAR 31, 1989  18h 00m 31.56± 2.83s
   44.326 N ±21.7km  110.527 W ±13.1km
   DEPTH =   5.0km  (geophysicist)
 YELLOWSTONE NATIONAL PARK, WYO. (459)
      ML 3.0 (NEIS). Felt (IV) at Lake
      Ranger Station, (III) at Bridge
      Boy ond (II) at East Entronce.

IMW      0.52 215 eP    00 42.20   0.2
RRI2     1.12 211 eP    00 53.00  -0.2
BW06     1.70 155 iPc   01 02.30   0.0
HPI      1.95 253 eP    01 06.00   0.0
       S.D. = 0.3  on   4 of   4 obs.
-------------------------------------
&  MAR 31, 1989  18h 05m 17.08s
   18.838 N          155.263 W
   DEPTH =  28.0km
   4.0mb (  1 obs.)
 HAWAII                         (613)
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31d 18h

<HVO-P>. MD 4.1 (HVO). Felt at Pahala.

TRH	0.63	335	iPc	05 28.09	-1.8
HUL	0.64	25	iPc	05 27.89	-1.8
DAH	0.64	324	iPc	05 28.01	-2.0
MLH	0.67	350	iPc	05 28.50	-1.8
MVH	0.69	16	iPc	05 28.59	-1.9
SWH	0.69	332	iPc	05 28.56	-2.4
PKL	0.70	28	iPc	05 28.60	-2.0
WIH	0.70	334	iPc	05 28.79	-2.2
KUH	0.72	307	iPc	05 29.11	-1.9
PLL	0.72	345	iPc	05 29.13	-2.1
MWH	0.72	334	iPc	05 29.07	-2.0
POH	0.73	32	iPc	05 29.31	-1.8
WOB	0.76	337	eP	05 29.64	-2.5
KPO	0.77	31	iPc	05 29.76	-2.1
HBH	0.77	26	iPc	05 29.73	-2.1
HMH	0.79	345	iPc	05 30.43	-2.1
KIH	0.82	325	iPc	05 30.82	-2.0
HPU	0.96	349	iPc	05 32.56	-2.4
HUH	1.00	327	iPc	05 33.53	-2.0
KKU	1.05	356	iPc	05 34.23	-1.9
WKH	1.08	340	iPc	05 34.15	-2.4
KVN	37.90	50	eP	12 36.60	2.7
BW06	45.24	48	eP	13 35.20	1.1
	0.9s	1.91nm		4.0mb	
YKA	51.84	23	eP	14 26.30	1.7
	24 obs. associated				

% MAR 31, 1989 19h 24m 48.63± 1.36s
45.457 N ± 6.4km 0.361 W ±12.4km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.6 (LDG).

LFF	0.93	123	Pg	25 06.60	0.1
			Sg	25 22.00	
MFF	1.15	7	Pg	25 10.50	0.3
			Sg	25 29.50	
RJF	1.33	96	Pg	25 14.40	1.2
			Sg	25 36.40	
LPO	1.34	125	Pg	25 13.00	-0.4
			Sg	25 34.40	
CAF	1.80	106	Pg	25 23.30	3.4X
			Sg	25 49.30	
TCF	1.98	64	Pn	25 22.20	-0.4
			Sn	25 50.00	
			Sg	25 58.50	
MAF	2.18	68	Pn	25 24.80	-0.7
			Sg	26 05.50	
EPF	2.48	168	Pg	25 29.60	-0.1
			Sg	25 59.80	
BGF	2.49	63	Pn	25 29.80	-0.1
			Pg	25 38.00	
			Sg	26 14.80	
	S.D. = 0.7		on	8 of 9 obs.	

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* MAR 31, 1989 21h 08m 13.18± 2.71s
0.208 S ±16.0km 123.698 E ±20.3km
DEPTH = 141.5 ± 31.1 km
4.2mb (4 obs.)
MINAHASSA PENINSULA (265)

KKM	9.71	310	eP	10 31.20	0.4
MBL	21.16	190	iPd	12 48.50	0.0
	0.4s	8.00nm		4.5mb	
WB5	22.17	152	eP	12 57.90	-0.6
WRA	22.21	153	Pd	12 58.60	-0.3
	0.4s	2.60nm		4.0mb	
NANU	23.60	199	eP	13 12.50	0.2
ASPA	25.34	158	iPd	13 27.90	-0.8
	0.4s	8.00nm		4.6mb	
QIS	25.52	143	iPc	13 29.30	-1.0
CHG	30.79	309	eP	14 17.50	-0.2
CHTO	30.79	309	eP	14 17.20	-0.5
	1.0s	2.50nm		3.9mb	
			epP	14 47.80	143kmX
BWA	41.16	148	iPc	15 47.10	2.0
CAN	42.15	149	iPc	15 54.10	0.8
	S.D. = 1.0		on	11 of 11 obs.	

% MAR 31, 1989 21h 42m 46.61± 0.81s
47.892 N ±10.4km 6.491 E ± 6.9km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.1 (LDG).

HAU	0.15	320	Pg	42 49.60	-0.5
			Sg	42 52.50	
BSF	0.21	106	Pg	42 50.80	-0.5
			Sg	42 54.60	
CDF	0.74	45	Pg	43 01.80	0.6
			Sg	43 13.20	
LOR	1.89	252	Pg	43 18.80	-0.4
			Sg	43 41.60	
SMF	2.19	236	Pg	43 24.40	0.8
			Sg	43 50.40	
	S.D. = 0.9		on	5 of 5 obs.	

---

* MAR 31, 1989 22h 06m 14.96± 0.64s
35.731 N ±13.2km 46.238 E ± 5.8km
DEPTH = 10.0km (geophysicist)
IRAN-IRAQ BORDER REGION (346)

SLY	0.62	258	iPgd	06 26.00	-1.3
KER	1.55	152	ePc	06 29.50	-13.2X
TAB	2.33	2	eP	07 00.00	5.9X
MSL	2.59	285	ePnc	07 02.50	4.9X
			e	07 05.50	
BHD	2.89	212	ePn	07 03.00	1.2
			iSn	07 31.00	
			iSg	07 37.00	
			iLR	07 42.00	
IR7	3.56	89	eP	07 12.60	1.1
IR5	3.58	97	eP	07 10.00	-1.8
IR1	3.64	94	eP	07 13.40	0.7
IR2	3.79	90	eP	07 15.20	0.4
IR4	3.84	96	eP	07 14.50	-1.0
SPC	23.28	313	eP	11 24.70	1.0
ZST	24.83	309	eP	11 37.80	-0.6
KHC	27.34	309	eP	12 02.20	0.4
	S.D. = 1.3		on	10 of 13 obs.	

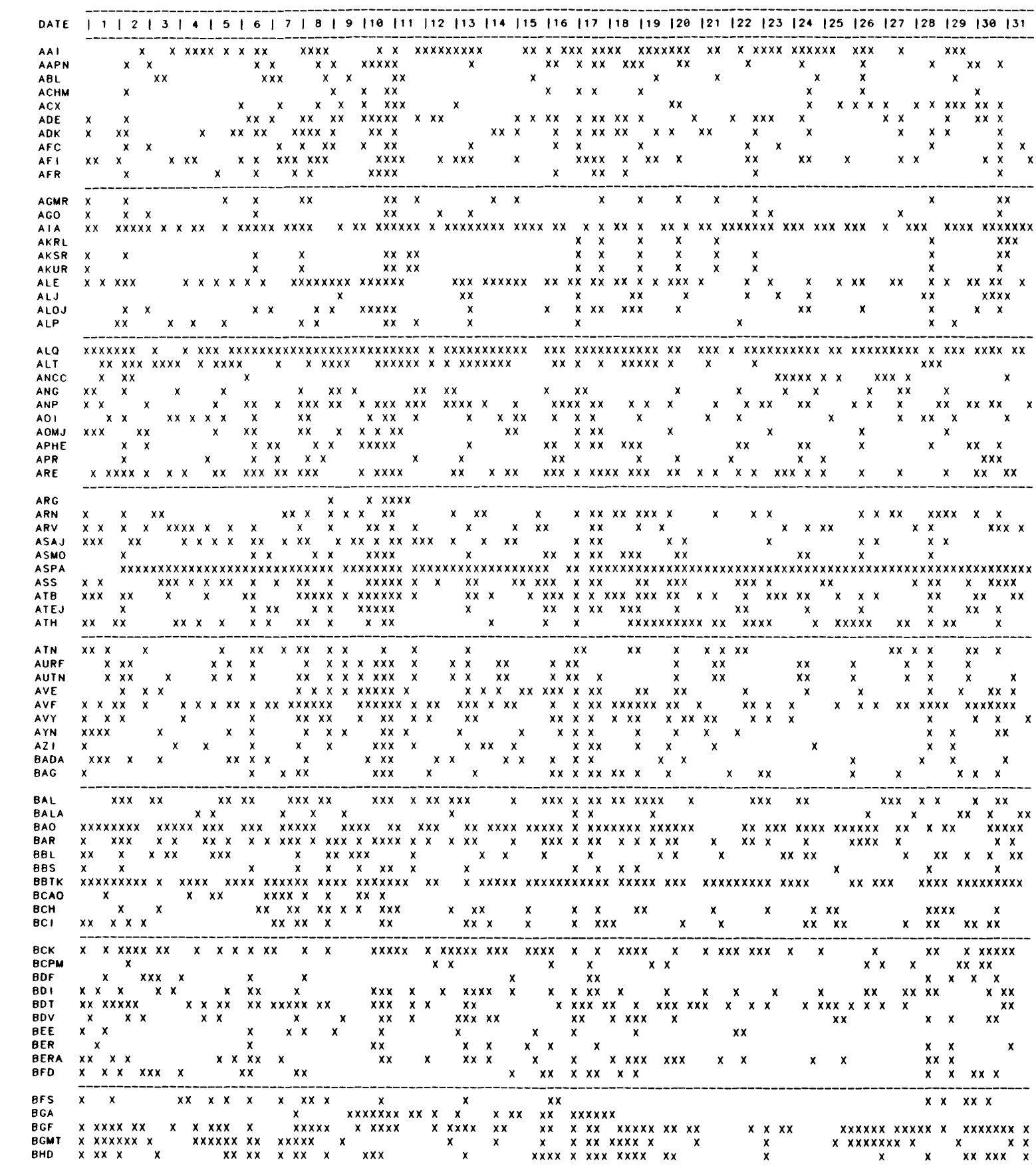
& MAR 31, 1989 23h 46m 53.57s
58.647 N 155.239 W
DEPTH = 147.7km
ALASKA PENINSULA (12)
<AGS-P>.

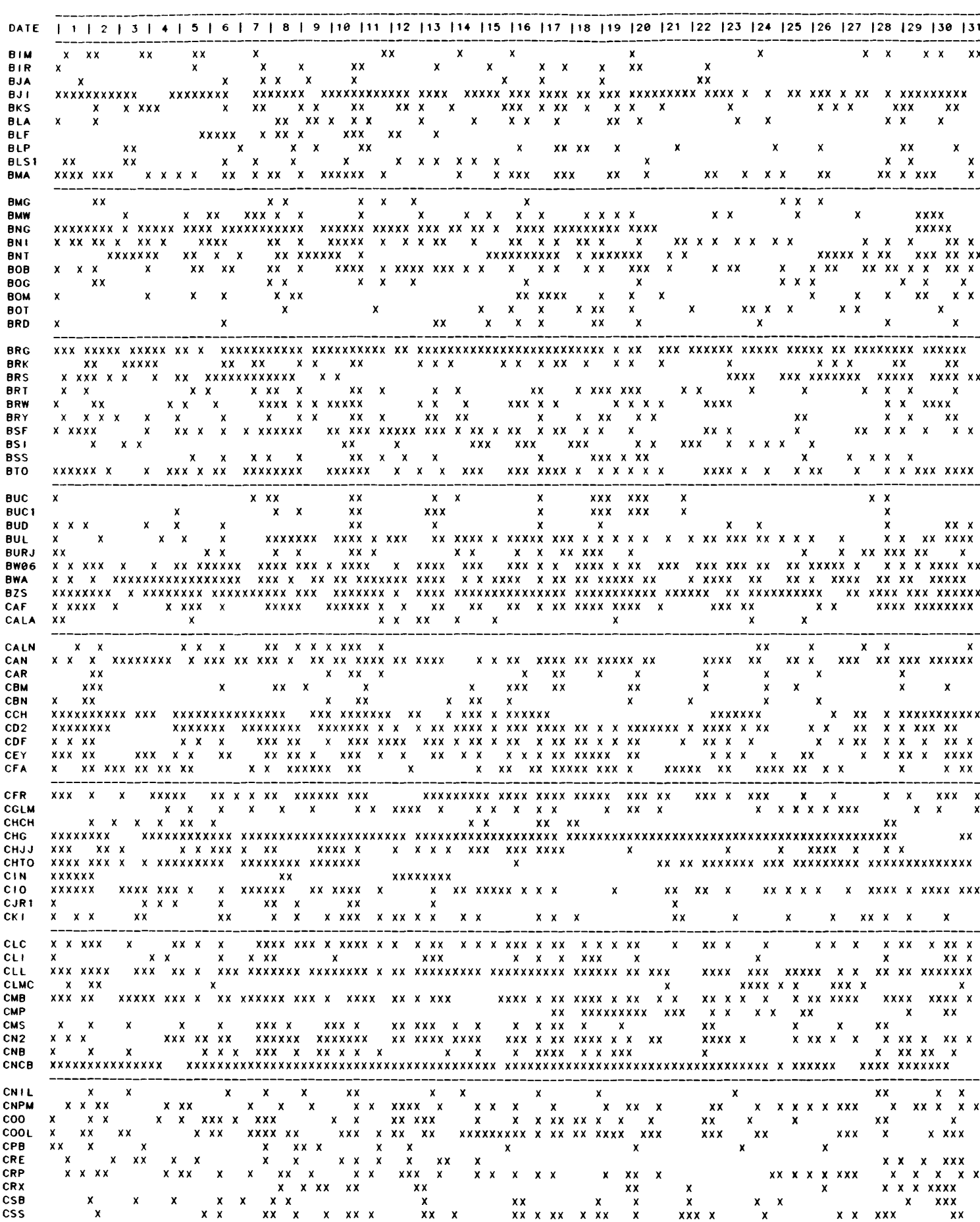
PDB	1.26	25	eP	47 19.70	-1.1
			eS	47 40.17	
KDC	1.71	121	iP	47 24.29	-1.3
			iS	47 49.51	
ILIM	1.85	38	iP	47 26.49	-0.8
			iS	47 52.45	
CNPM	2.25	65	eP	47 31.19	-0.7
			iS	47 59.10	
RDT	2.41	35	eP	47 33.09	-0.9
			eS	48 02.80	
SVW	2.48	356	iP	47 33.42	-1.4
			eS	48 02.64	
SPU	3.01	31	iP	47 40.32	-1.2
CRP	3.05	29	eP	47 41.41	-0.8
			eS	48 13.47	
SLKM	3.16	52	iP	47 42.98	-0.5
SEW	3.30	61	eP	47 44.52	-0.7
			eS	48 20.80	
SKT	3.82	27	eP	47 51.03	-1.0
PMS	3.87	45	eP	47 50.82	-1.9
			eS	48 32.85	
PWA	4.03	39	eP	47 53.74	-1.1
MTU	4.11	68	eP	47 54.82	-1.1
KNIM	4.19	63	iP	47 55.32	-1.6
PLRM	4.25	43	eP	47 55.68	-2.0
TTA	4.31	355	eP	47 56.88	-1.8
GHO	4.44	42	eP	47 57.69	-2.7
GLI	4.69	58	eP	48 00.91	-2.7
HIN	4.78	65	iP	48 04.44	-0.4
FID	4.91	61	eP	48 04.12	-2.5
VZW	5.00	57	iP	48 06.42	-1.4
SGAM	5.43	66	eP	48 12.18	-1.3
KLU	5.47	55	eP	48 11.61	-2.5
TOA	5.68	49	eP	48 14.61	-2.3
GLB	6.37	59	eP	48 24.27	-2.0
FBA	7.19	26	eP	48 33.17	-4.1
	27 obs. associated				

STATION DATA REPORT FOR MARCH, 1989

1304 stations reported 57535 reoding arrival groups

X = data received for this 6-hour time period

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BJA
BJI
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BLF
BLP
BLS1
BMA
BMG
BMW
BNG
BNI
BNT
BOB
BOG
BOM
BOT
BRD
BRG
BRK
BRS
BRT
BRW
BRY
BSF
BSI
BSS
BTO
BUC
BUC1
BUD
BUL
BURJ
BW06
BWA
BZS
CAF
CALA
CALN
CAN
CAR
CBM
CBN
CCH
CD2
CDF
CEY
CFA
CFR
CGLM
CHCH
CHG
CHJJ
CHTO
CIN
CIO
CJR1
CKI
CLC
CLI
CLL
CLMC
CMB
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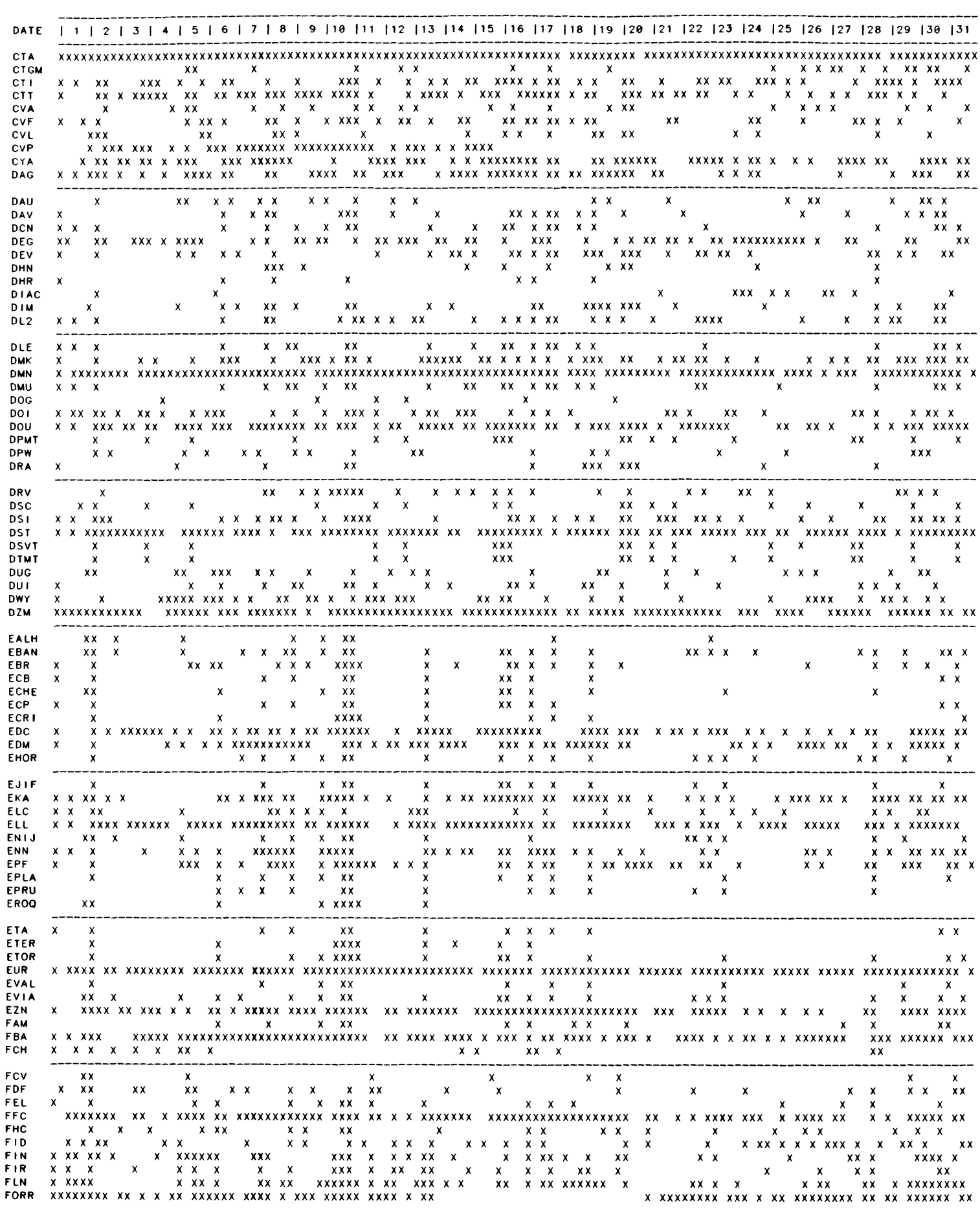
CPB
CRE
CRP
CRX
CSB
CSS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CTA
CTGM
CTI
CTT
CVA
CVF
CVL
CVP
CYA
DAG
DAU
DAV
DCN
DEG
DEV
DHN
DHR
DIAC
DIM
DL2
DLE
DMK
DMN
DMU
DOG
DOI
DOU
DPMT
DPW
DRA
DRV
DSC
DSI
DST
DSVT
DTMT
DUG
DUI
DWY
DZM
EALH
EBAN
EBR
ECB
ECHE
ECP
ECRI
EDC
EDM
EHOR
EJIF
EKA
ELC
ELL
ENIJ
ENN
EPF
EPLA
EPRU
EROQ
ETA
ETER
ETOR
EUR
EVAL
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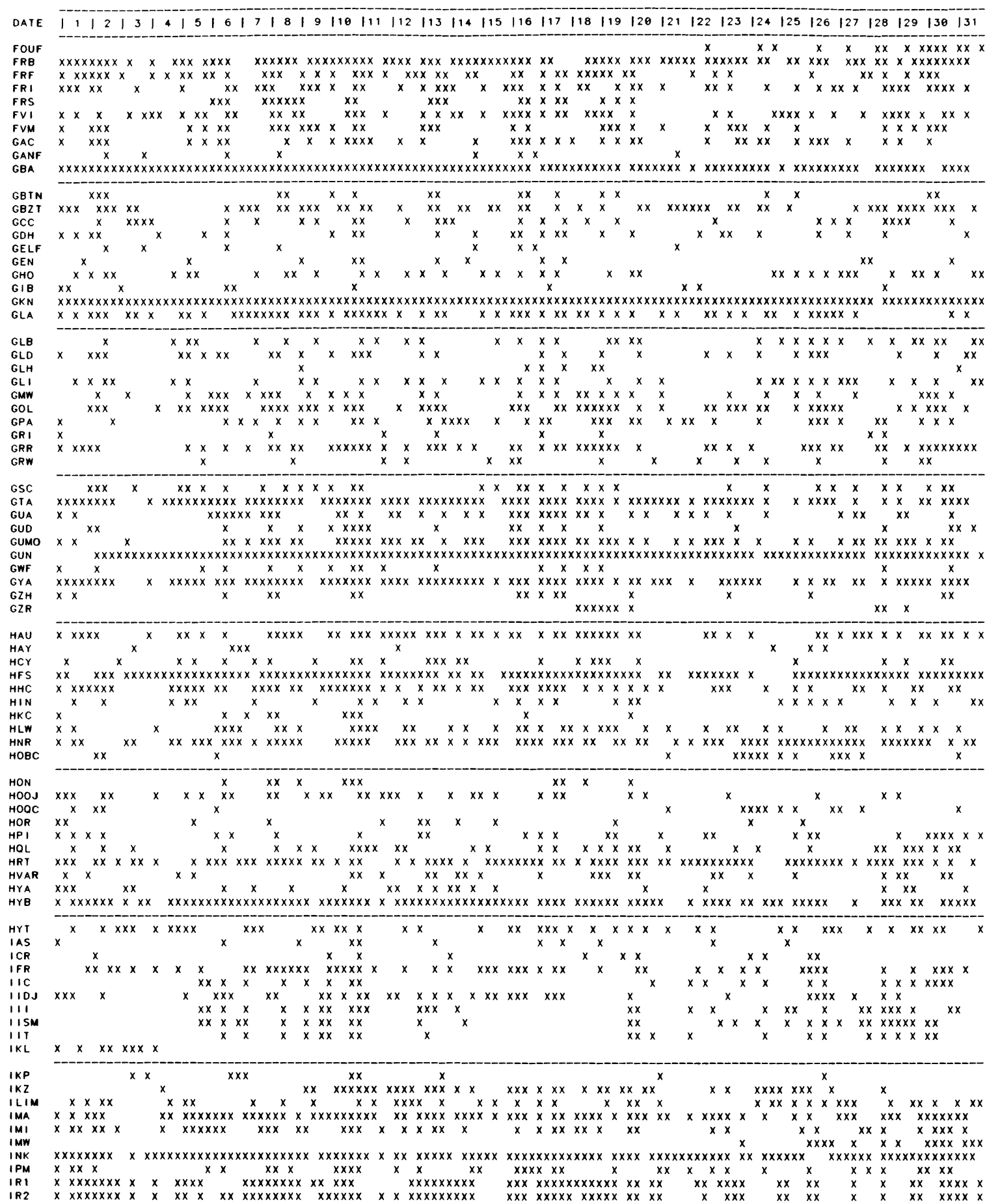
DATE
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
FOUF
FRB
FRF
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FRS
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FVM
GAC
GANF
GBA
GBTN
GBZT
GCC
GDH
GELF
GEN
GHO
GIB
GKN
GLA
GLB
GLD
GLH
GLI
GMW
GOL
GPA
GRI
GRR
GRW
GSC
GTA
GUA
GUD
GUMO
GUN
GWF
GYA
GZH
GZR
HAU
HAY
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HFS
HHC
HIN
HKC
HLW
HNR
HOBC
HON
HOOJ
HOQC
HOR
HPI
HQL
HRT
HVAR
HYA
HYB
HYT
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ICR
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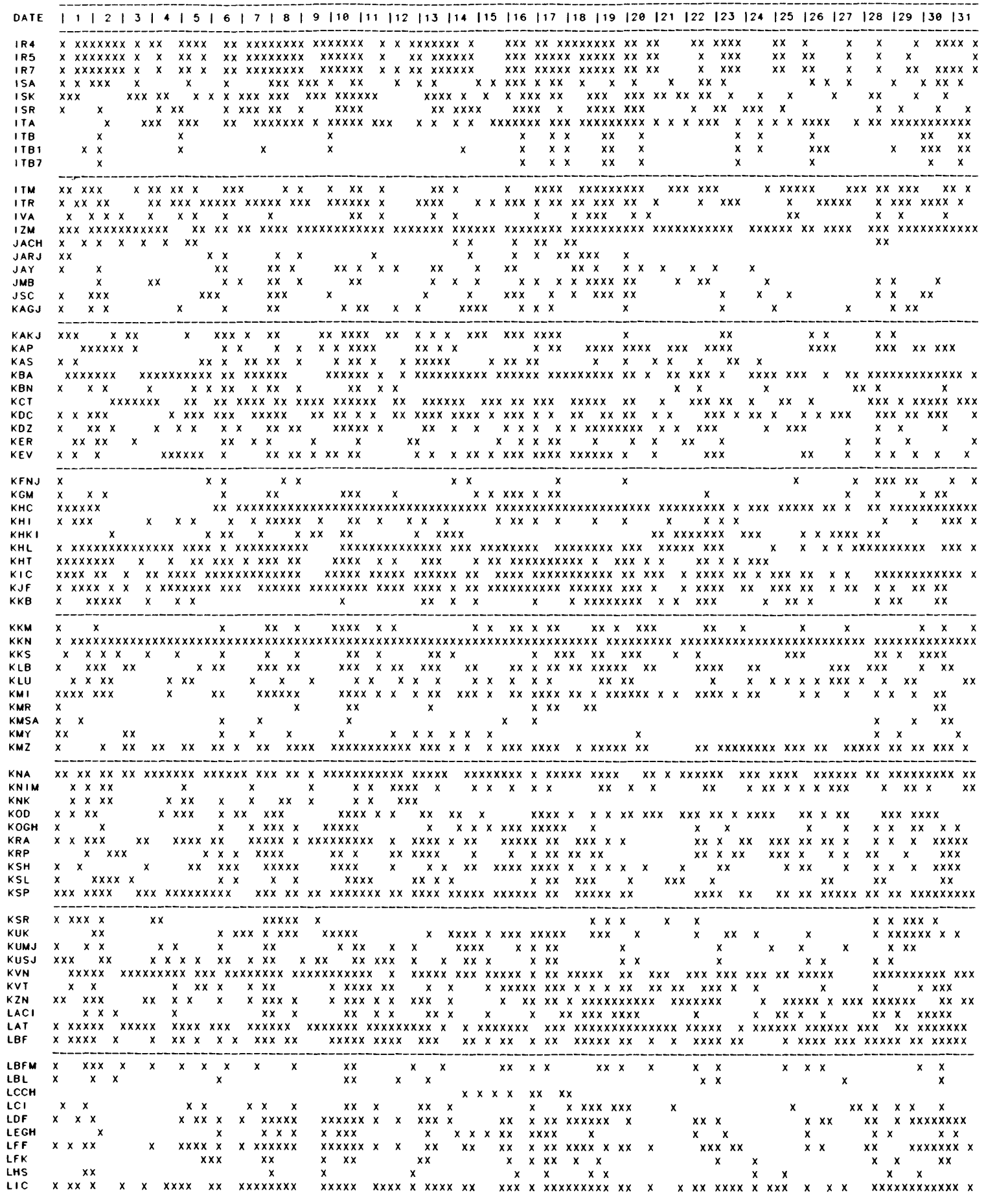
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IR4
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ISA
ISK
ISR
ITA
ITB
ITB1
ITB7
ITM
ITR
IVA
IZM
JACH
JARJ
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KUSJ
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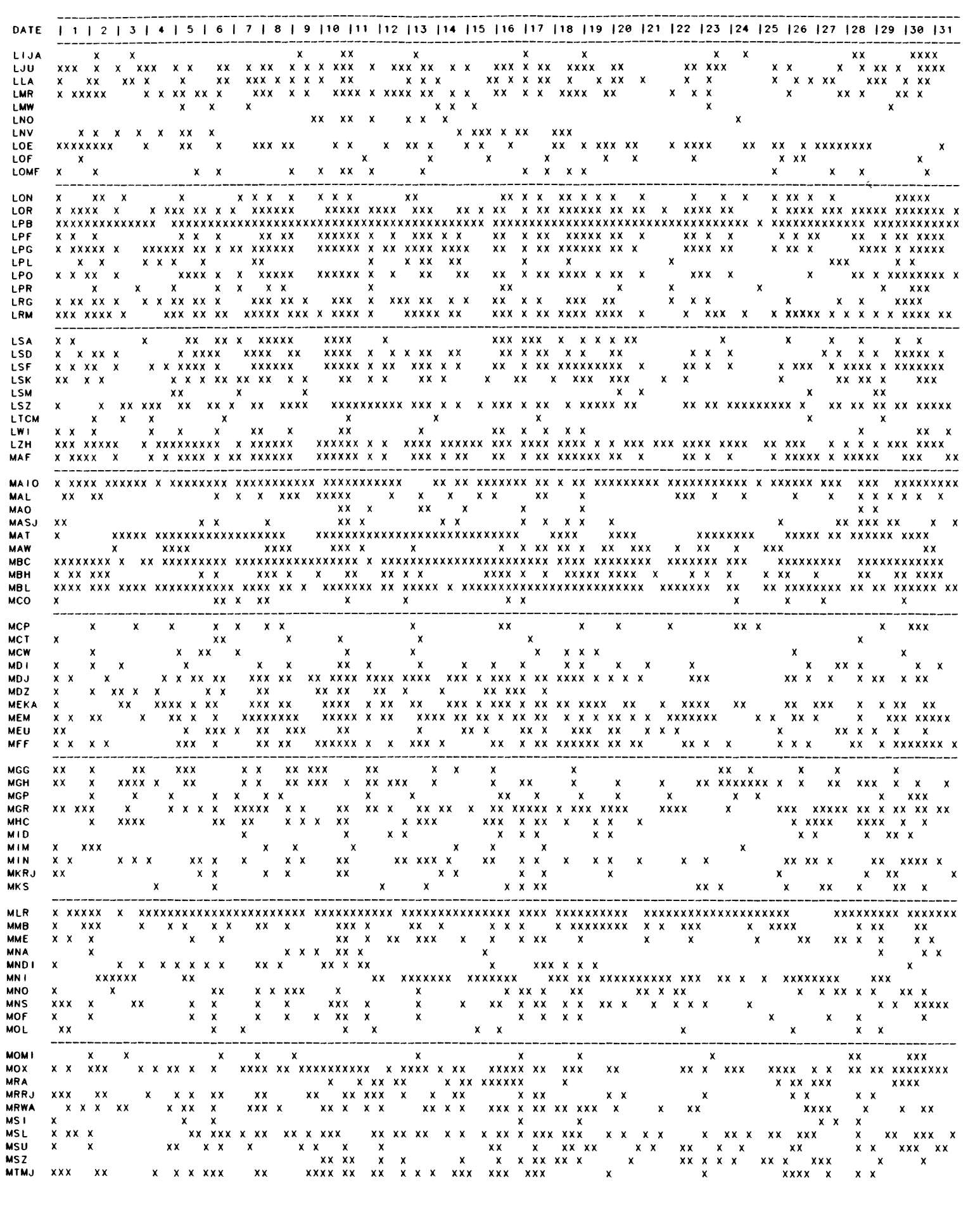
DATE
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
LIJA
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LLA
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LTCM
LWI
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MAF
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MAL
MAO
MASJ
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MKS
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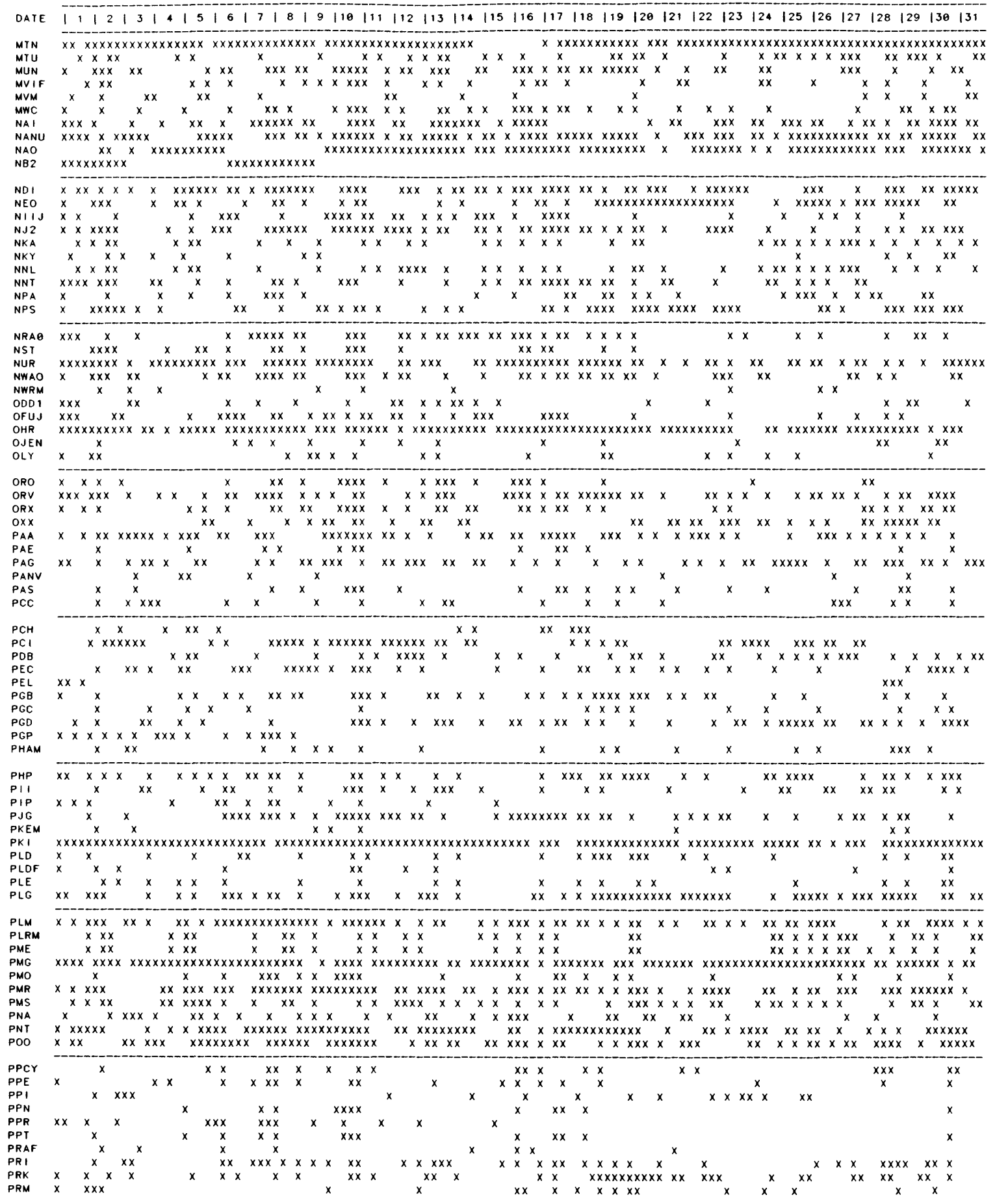
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NANU
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NEO
NIIJ
NJ2
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NKY
NNL
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NPS
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ORX
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PAS
PCC
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PDB
PEC
PEL
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PGC
PGD
PGP
PHAM
PHP
PII
PIP
PJG
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PKI
PLD
PLDF
PLE
PLG
PLM
PLRM
PME
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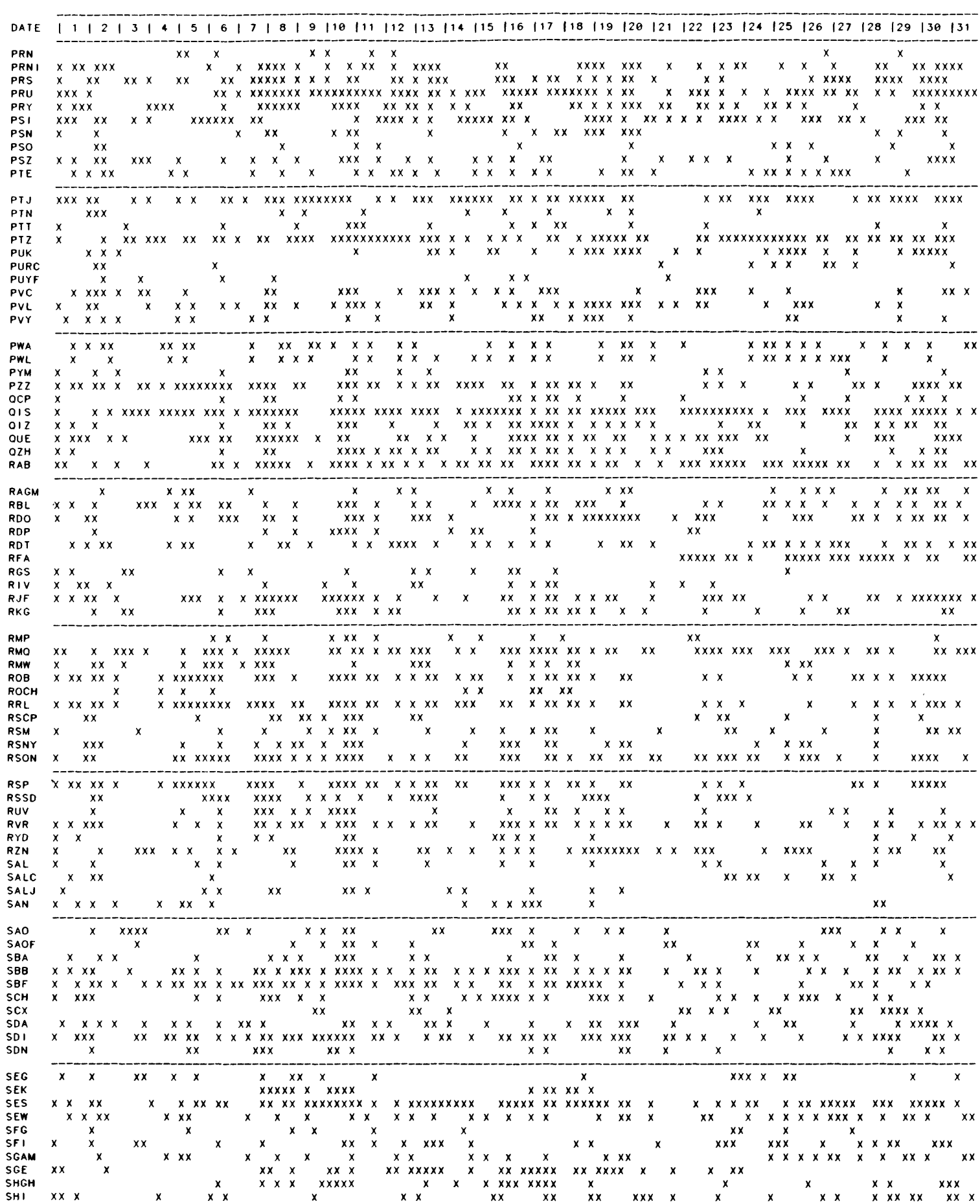
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PUYF
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PVL
PVY
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PYM
PZZ
QCP
QIS
QIZ
QUE
QZH
RAB
RAGM
RBL
RDO
RDP
RDT
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RIV
RJF
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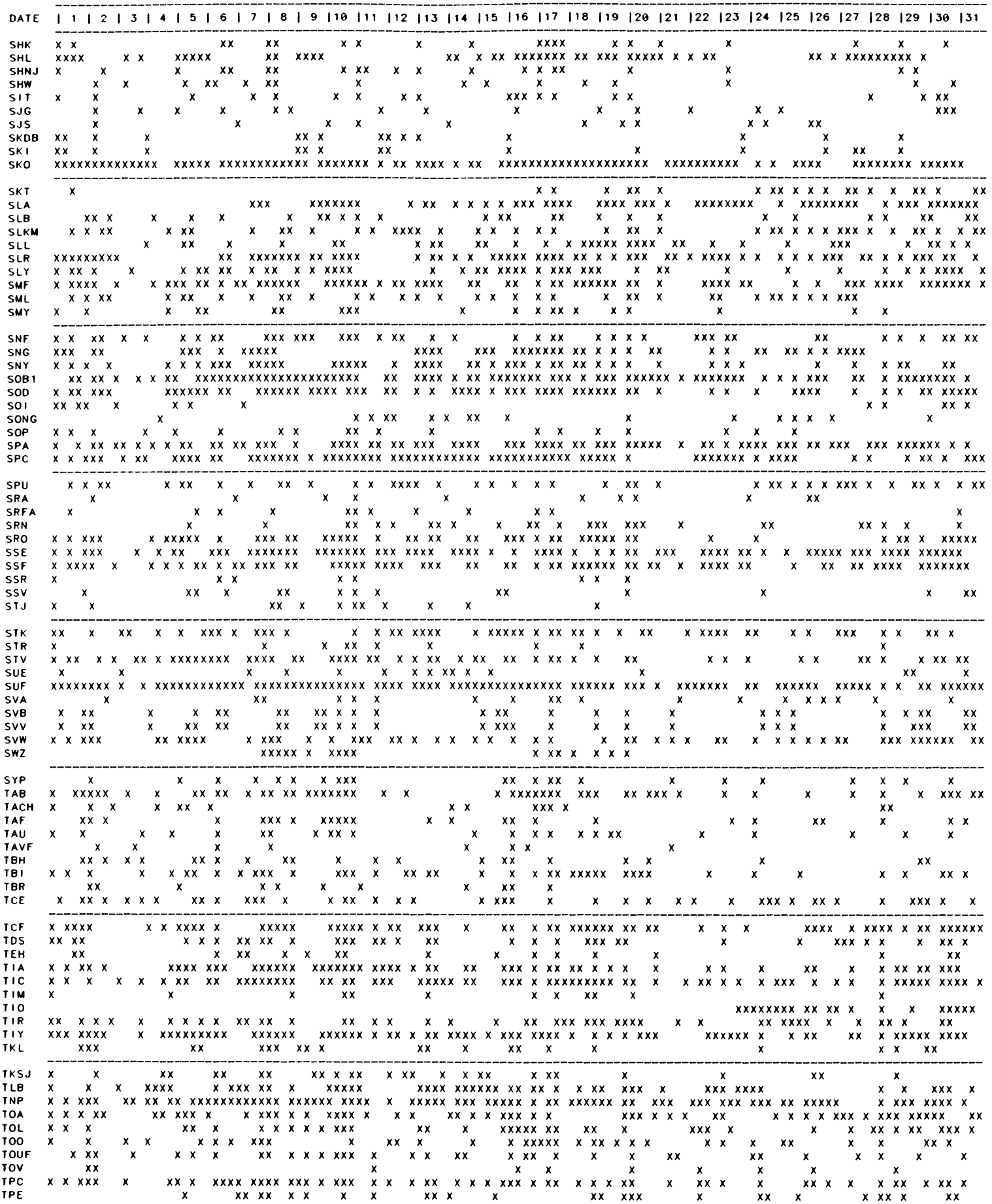
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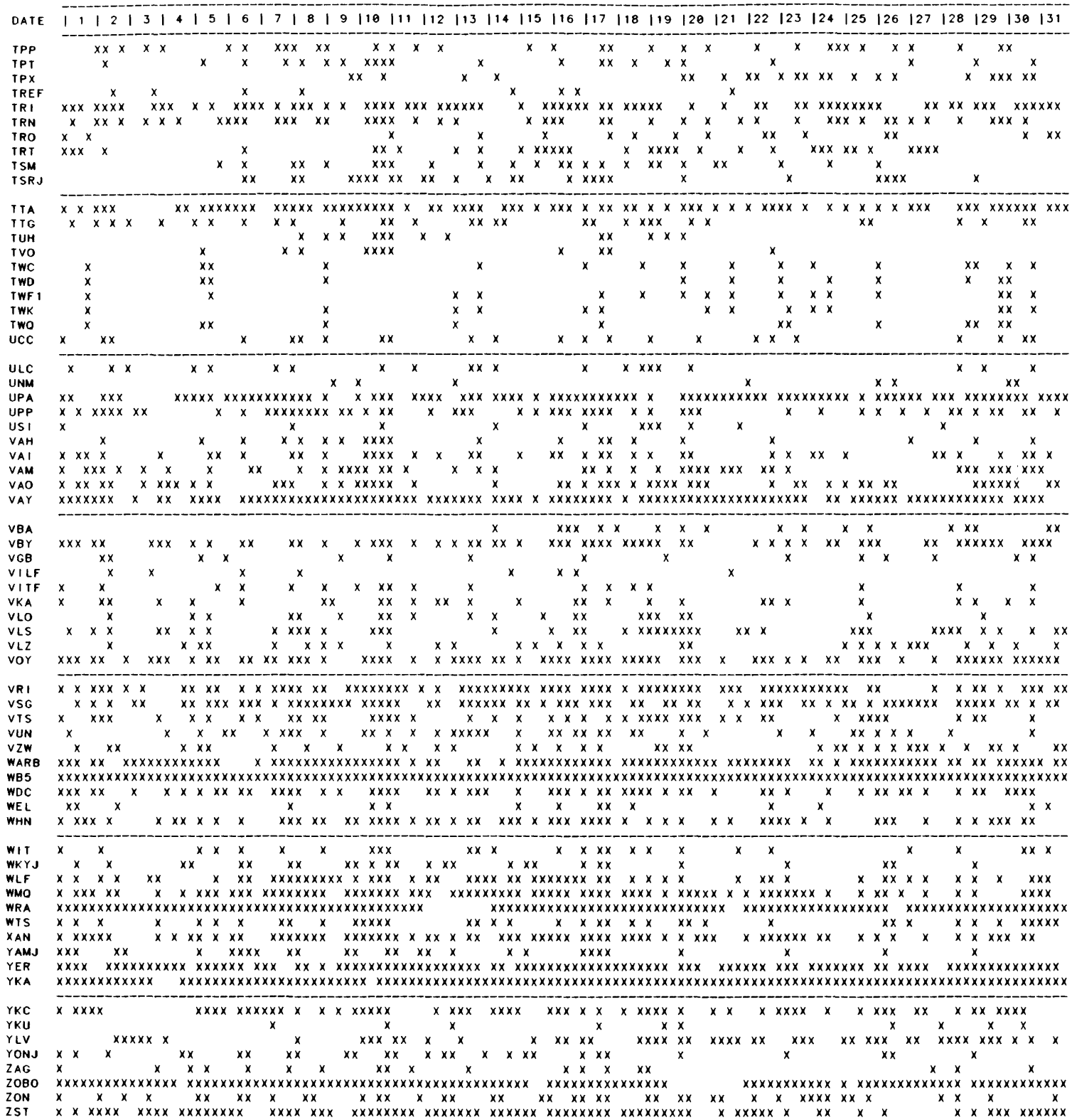

The following stations each reported less than 10 readings:

AAE	ABHA	ACR	ACU	ADH	ADI	AGRW	AJI	AKU	AMR	ANMO	ANT	ANTO	API	APKW	APM	APO	APW
AQU	AR6	ARO	ARUT	ASK	ASW	ATZ	AUC	AWAL	BGB	BGG	BKB2	BLC	BLE	BLH	BLN	BLO	BLS
BLS3	BLT	BMR	BMTN	BNH	BNS	BPA	BPI	BRF	BRVW	BRZ	BTG	BUS	BUT	BVA	BVD	BVW	BWD
CAO	CBI	CCMT	CCU	CDFW	CDH1	CDM	CEI	CEOS	CER	CFTV	CGL	CHO	CHP8	CHPM	CIPM	CIS	CLE
CLK	CMG2	CMW	CMZ	CNZ	COB	COL	COP	CPE	CPW	CPX	CRF	CRI	CRM	CROR	CRT	CTAO	CTCR
CTFE	CTS	CUM	CUPM	CVT	CVVD	CWZ	CZM	DAH	DBN	DGBT	DHW2	DIX	DLA	DLM	DNP	DNZ	DOR
DUN	DVD	DWU	EAB	EAU	EBG	EBH	EBL	EDI	EDU	ELF	ELO	EMEL	EMM	EMN	EMON	EMS	EPA
EPH	EPR	ERC	ERK	ERUA	ESD	ESEL	ESK	ESY	ETP	EZAM	FAI	FCC	FISA	FL2	FLAG	FMT	FMW
FOC	FUG	FUQ	FUR	GBL	GBZ	GCAZ	GCG	GCM	GGC	GHW	GIBL	GL2	GLK	GLR	GMB	GMN	GMO
GMR	GMTN	GNZ	GRF	GRFO	GRG	GROR	GSM	GSQ	GT2	GUAC	GULW	GUM	GVN	GWY	HAT	HBF	HBH

HBZ	HCR	HDC2	HDW	HIA	HMH	HMT	HNB	HOO	HPU	HQN	HRI	HRV	HRY	HSR	HTW	HUA	HUH
HUL	HVD	HYF	IDC	IGL	INY	IRZ2	ISN	ITG	ITU	IXG	JAQ	JAT	JBO	JCR	JCW	JLK	JON
JTS	JUD	JVI	KAN	KIH	KIM	KKG	KKU	KKZ	KLI	KLL	KLM	KMG	KMJ	KMOR	KNT	KOE	KOSW
KPO	KRI	KRNA	KSI	KUG	KUH	KUPT	LAC	LCCM	LCH	LCR2	LDN	LHG	LIO	LIS	LIT	LLAV	LLS
LNOR	LOP	LPI	LVI	LVP	MAE	MAJO	MAZ	MBW	MCA	MCQ	MCY	MDN	MDW	MEMT	MEW	MGB	MGM
MIT	MIY	MKT	MLH	MLS	MMG	MMK	MML	MNQ	MOO	MOPM	MORO	MRL	MRW	MRX	MTD	MTI	MTMW
MUD	MVH	MWH	MXC	MYK	MYT	MZP	MZX	NA2	NAB	NAC	NAH	NAV	NBO	NC2	NED	NEM	NEZ
NGO	NGZ	NLO	NLW	NNA	NOH	NOP	NPN	NSS	NZJ	OBC	OBH	OBI	OC2	ODS	OFK	OFU	OHW
OIT	OLLA	OMZ	ONA	ONR	OOW	OPA	OPT	OSD	OSH	OSP	OSS	OTR	PAIG	PATW	PBC	PBJ	PCA
PCT	PCY	PDA	PFB	PFH	PGO	PGW	PIG	PKL	PLAT	PLAV	PLL	PNJ	PNL	PNP	POA2	POF	POH
PPD	PPK	PRIN	PRW	PSG	PT06	PT10	PTCR	PTO	PTS	PUE	PWLA	PZI	QASM	QCR	QCS	QPS	QSM
QUTJ	RAO	RAR	RDJ	REC	RED	RES	REVF	REY	RFI	RIN3	RKT	RLO	RMN	RPW	RRI2	RSW	RTY
RVC	RVW	RW1	RW4	SAP	SAV	SAW	SAX	SBG	SCI	SDH	SDV	SFF	SGO	SGS	SGV	SHO	SHR
SHRG	SIO	SJI	SLE	SLP	SLW	SMW	SNB	SNZO	SOG	SOG2	SOH	SOSW	SPRG	SPW	SRG	SRP	SRQ
SRS	SSO	SSP	STB	STD	STG	STS	STW	SUA	SUR	SVP	SWH	SZH	TAT	TBM	TBT	TDH	TDL
THE	TIG	TMA	TMBR	TMO	TOK	TRH	TRR	TSI	TUL	TWG	TWM1	TWW	TWZ	URA	UTS	UWA	UZD
VACR	VAL	VBEM	VDB	VDL	VFP	VGZ	VHO	VIE	VIPM	VLL	VLMM	VTG	VTHM	VVI	WA4	WAH2	WAJH
WAR	WAX	WEGH	WET	WG2	WIH	WIW	WIZ	WKA	WKH	WKY	WMZ	WOB	WPW	WRD	WRN	WSI	WTV
YAK	YAKW	YEL	YMT1	YMT2	YMT3	YMT4	YMT5	YMT6	YOK	YON	YRH	YSS	YUP	ZLA	ZNT	ZSP	